Planning Commission
March 25, 2024
7:00PM
City Hall, 6090 Woodson Street

Agenda

I. Call to Order
II. Approval of Minutes from [HYPERLINK]
III. New Business
   1. *Case #24-03 Mission Hill Acres Lot Split*
   2. *Case #24-04 Nelson Wastewater Treatment Facility Final Development Plan*
   3. *Case #24-05 Nelson Wastewater Treatment Facility Final Plat*
IV. Old Business
V. Planning Commission Comments
VI. Staff Updates
   1. *Rock Creek Corridor City Council Work Session; Next Steps*
   2. *April 9th Bike and Pedestrian Network Open House, 6-8PM at Powell Community Center*
   3. *April 29th Planning Commission Tentative Agenda*
   4. *May Planning Commission Cancelled*
   5. *Update on Mohawk Park Phase II*
   6. *Azura Credit Union, 6751 Johnson Drive, Ribbon Cutting on April 21st*

Questions concerning this meeting may be addressed to the staff contact, Karie Kneller, City Planner, at (913) 676-8366 or kkneller@missionks.org

AT A GLANCE

Applicant:
Scott Confer, Phelps Engineering, Inc.

Location:
5537 Woodson Road

Property ID:
KP27500000 0241A

Current Zoning:
R-1

Proposed Zoning:
N/A

Current Land Use:
Single-family Residential

Proposed Land Use:
N/A

No Public Hearing Required

Legal Notice:
N/A

Case Number:
24-03

Project Name:
Mission Hill Acres Lot Split

Project Summary:
Applicant is requesting a lot split approval for a lot currently addressed 5537 Woodson Road on which two single-family structures with a shared driveway currently exist.

Staff Contact:
Karie Kneller, City Planner

Property Background and Information

The subject property is located at 5537 Woodson Road, on the corner of 56th Street and Woodson Road. The property is platted as one lot, Lot 241 in the Mission Hill Acres subdivision, and two single-family structures, built in 1954, currently exist with a shared driveway between the two homes. The structure to the south is addressed 5541 Woodson Road, and the structure to the north is addressed 5537 Woodson Road. The lot is 120 linear feet along Woodson Street frontage and the back yard property line, and 134.34 linear feet along 56th Street frontage and the internal property line is 145.62 linear feet. A 30-foot by 12-foot area at the southeast corner of the property is set back to the west to accommodate an adjacent property's circle driveway. Sanitary sewer, electrical, and gas utilities serve both structures. Both homes are one-story with a 1,320 square-foot floor area.

The northernmost structure is setback from the Woodson Street right-of-way by 47 feet. The internal side yard setback is 5 feet. Backyard setback is 66 feet, with a detached garage approximately 300 square feet that is set back by 11 feet from the back property line.

The southernmost structure is setback from the Woodson Street right-of-way by 46 feet. The external side yard setback is 7 feet. Backyard setback is alternatively 66 feet and 54 feet, with a detached garage approximately 300 square feet that is set back by 11 feet from the back property line. The shared drive continues toward the rear lot and detached garage for both homes.

Project Proposal

The property owner, Centennial Real Estate Services LLC, would like to sell one of the properties and requests a lot split prior to the sale. An easement agreement between the two properties for the shared driveway is pending. The easement will be recorded prior to recording the lot split, which will be noted on the survey prior to recording with the County.

Two new lots, Lot 241A (north) and Lot 241B (south) are proposed, with 60-foot lot widths respectively. No changes to lot depths or dedications are proposed with the lot split proposal. Existing structures are expected to remain. Exterior side yard setbacks will remain unchanged, and the interior side yard setbacks between the two properties will be 11 feet for the northernmost property and 9 feet for southernmost property. Detached garages are expected to remain, with four-foot internal side yard setback for both structures. The lot area for Lot 241A is 8,712± square feet, and the lot area for Lot 241B is 8,414± square feet.

Plan Review and Analysis

Mission Municipal Code:

Section 410.010 (D-J) "R-1" Single-Family Residential District regulates setbacks for residential structures under the following stipulations:

(D) Front Yards - 30 feet

(E) Side Yards - Minimum five feet

(F) Rear Yards - Minimum 20 feet

(G) Lot Area - Minimum 6,600 square feet

(H) Floor Area and Lot Size - Maximum 35% of total lot area for all structures, including accessory.

(I) Minimum Lot Size - Width not less than 70 linear feet, unless (1) a lot was platted prior to October 8, 2003, and which has a width of 60 feet and depth of 110 feet, and (2) any lot may be split to a minimum width of 60 feet and depth of 110 feet if it complements the overall character of the adjacent neighborhood.

(J) Parking Regulations - Two off-street parking spaces shall be provided for each single-family dwelling, at least on of which shall be in a garage or a carport.

Section 420.010 (B)(d)(3) addresses detached garage setbacks, which stipulates they shall not be closer than three feet to any interior property line.

Analysis: The lot split as proposed meets the minimum code stipulations set forth in Sections 410.010 (D-J) and Section 420.010 (B)(d)(3). Other nearby properties on the block and within the neighborhood consistently have 60 or 62.5-foot lot widths, which is consistent in this context.

Regulation governing lot splits is addressed in Section 455.090 of the municipal code, which states that all lot splits must have Planning Commission and City Council approval. New lots so created must conform to current zoning width and depth requirements. Applications for lot splits must be accompanied by a survey showing the new lots to be created along with a legal description of each new lot.

Recommendation

Staff recommends that the Planning Commission approve the proposed lot split with the condition that the shared driveway easement is recorded prior to the recording of the lot split survey; the book number of the recorded easement shall be noted on the lot split survey.

Planning Commision Action

The Planning Commission will consider this case at its March 25, 2024 meeting.

City Council Action

The City Council will consider this case at its April 17, 2024 meeting.

Community Development Department
6090 Woodson Street
Mission, KS 66202
913-676-8360

Development Application

Permit #_____

Applicant Name:	SCOTT CONFER Company: PHELPS ENGINEERING, INC.
Address:	1270 N. WINCESTER
City/State/Zip:	OLATHE, KS 66061
Telephone:	913-393-1155
Email:	sconfer@phelpsengineering.com
Property Owner Name:	Chris Gripe Company: CENTENNIAL REAL ESTATE
Address:	11087 Hauser St SERVICES, LLC
City/State/Zip:	Lenexa KS 66210
Telephone:	913-927-4147
Email:	Chris@cmckc.com
Firm Preparing Application:	(SAME AS ABOVE) Company: PHELPS
Address:	
City/State/Zip:	
Telephone:	
Email:	

*All correspondence on this application should be sent to (check one)_____Applicant_____Owner____Firm

Application Type

Rezoning ☐ Plat ☐ Site Plan ☐ SUP ☐ Lot Split ☒ Other (Specify):

Description of Request

Please provide a brief description of the request:

SPLIT LOT 241, MISSIONHILL ACRES

Project Details

General Location or Address of Property: 5537 / 5541 WOODSON ROAD

Present zoning of property: R-1

Present use of property: RESIDENTIAL

Agreement to Pay Expenses

Applicant intends to file an application with the Community Development Department of the City of Mission, Kansas (City). As a result of the filing of said application, City may incur certain expenses, such as but not limited to publication costs, consulting fee, attorney fee, and court reporter fees. Applicant hereby agrees to be responsible for and to reimburse City for all cost incurred by City as a result of said application. Said costs shall be paid within ten (10) days of the receipt of any bill submitted by City to Applicant. It is understood that no requests granted by City or any of its commissions will be effective until all costs have been paid. Costs will be owed whether or not Applicant obtains the relief requested in the application.

Affidavit of Ownership and/or Authorization of Agent

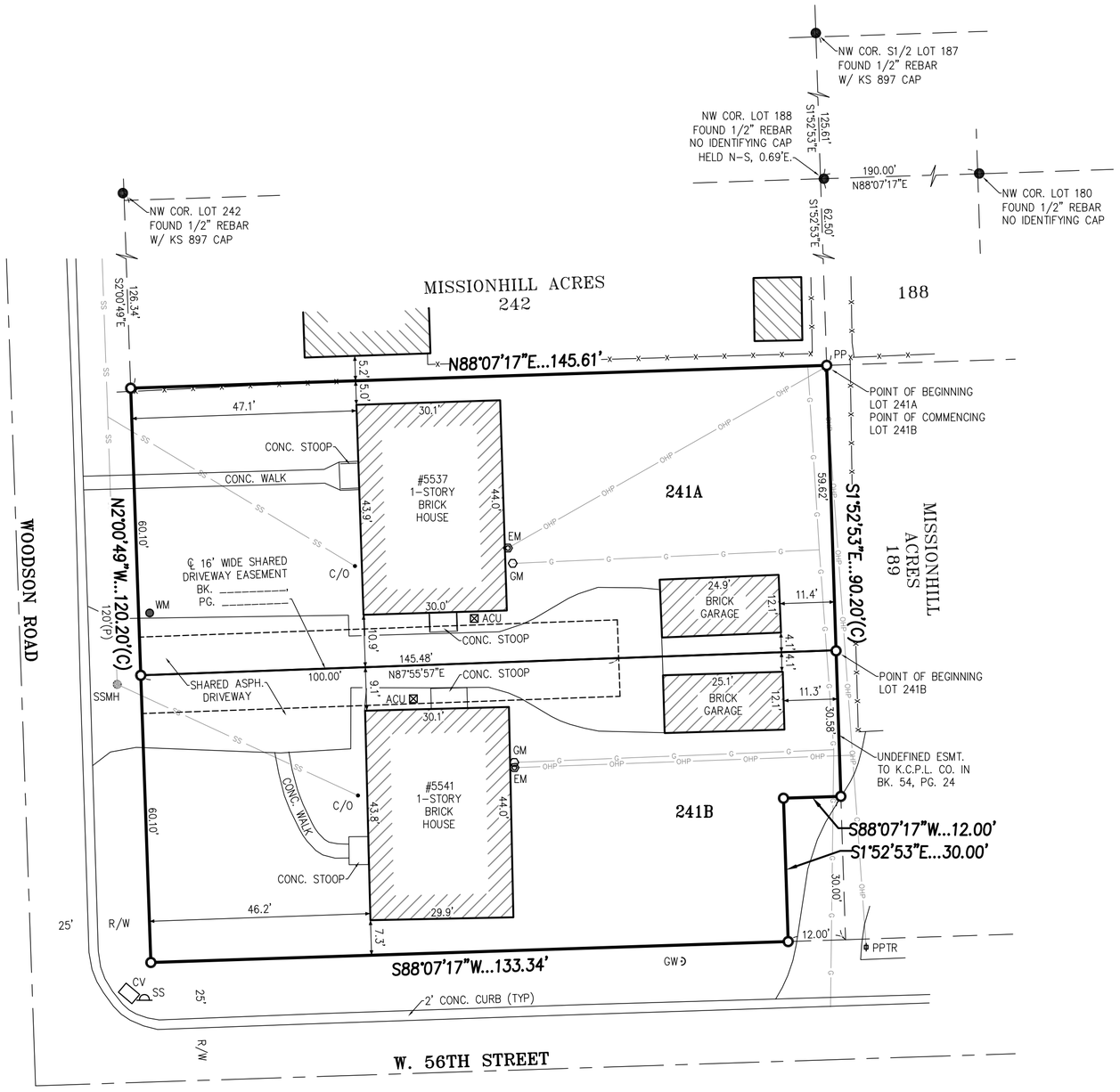
I, Chris Gripe certify that I am the owner or contract purchaser of the subject property. I give my permission for the undersigned to act as my agent on behalf of the application hereby being submitted.

X _____ Date 1/22/24
Signature (Owner)

X _____ Date 1-22-24
Signature (Owner's Agent)

FOR OFFICE USE ONLY

File Fee: $	Meeting Date
Total:	PC CC
Receipt #	Date Notices Sent
Notes:	Date Published
	Decision



OWNER: CENTENNIAL REAL ESTATE SERVICES, LLC, a Kansas limited liability company By: _____
CHRIS GRIPE, MEMBER

STATE OF)
) SS
COUNTY OF)

BE IT REMEMBERED that on this _____ day of _____ , 2024 , before me, the undersigned, a Notary Public in and for said County and State, came Chris Gripe, Member of Centennial Real Estate Services, LLC, who is personally known to me to be such person who executed the within instrument on behalf of said company, and such person duly acknowledged the execution of the same to be the free act and deed of the same.

IN WITNESS WHEREOF, I have hereunto set my hand and affixed my official seal the day and year last above written.

Notary Public: _____ My Appointment Expires: _____

Print Name: _____

APPROVED BY THE PLANNING COMMISSION OF THE CITY OF MISSION, JOHNSON COUNTY, KANSAS, THIS ___ DAY OF _____ , 2024.

_____ _____
MIKE LEE, PLANNING COMMISSION CHAIR KIMBERLY STEFFENS, SECRETARY

APPROVED BY THE GOVERNING BODY OF THE CITY OF MISSION, JOHNSON COUNTY, KANSAS, THIS ___ DAY OF _____ , 2024.

_____ _____
SOLANA FLORA, MAYOR ROBYN FULKS, CITY CLERK

PARENT DESCRIPTION:

ALL OF LOT 241, IN MISSIONHILL ACRES, A SUBDIVISION IN THE CITY OF MISSION, JOHNSON COUNTY, KANSAS, ACCORDING TO THE RECORDED PLAT THEREOF, EXCEPT THE EAST 12 FEET OF THE SOUTH 30 FEET THEREOF, DESCRIBED AS THE SOUTHEAST PART OF LOT NO. 241, MISSION HILLS ACRES, A SUBDIVISION, BEGINNING AT THE SOUTHEAST CORNER AND RUNNING WEST A DISTANCE OF 12 FEET, THEN NORTH ALONG A LINE PARALLEL TO THE EAST PROPERTY LINE A DISTANCE OF 30 FEET, THEN EAST, RUNNING ALONG A LINE PARALLEL TO THE SOUTH PROPERTY LINE, TO THE EAST PROPERTY LINE, A DISTANCE OF 12 FEET, THEN ALONG THE EAST PROPERTY LINE TO THE SOUTHEAST CORNER OF SAID LOT, A DISTANCE OF 30 FEET.

DESCRIPTION - LOT 241A:

ALL THAT PART OF LOT 241, MISSIONHILL ACRES, A SUBDIVISION IN THE CITY OF MISSION, JOHNSON COUNTY, KANSAS, DESCRIBED BY PHELPS ENGINEERING, INC. CLS-82 PROJECT NO. 230927 JANUARY 4, 2024, TO WIT:

BEGINNING AT THE NORTHEAST CORNER OF SAID LOT 241; THENCE S 1°52'53" E, ALONG THE EAST LINE OF SAID LOT 241, A DISTANCE OF 59.62 FEET; THENCE S 87°55'57" W, A DISTANCE OF 145.48 FEET, TO A POINT ON THE WEST LINE OF SAID LOT 241; THENCE N 2°00'49" W, ALONG THE WEST LINE OF SAID LOT 241, A DISTANCE OF 60.10 FEET, TO THE NORTHWEST CORNER THEREOF; THENCE N 88°07'17" E, ALONG THE NORTH LINE OF SAID LOT 241, A DISTANCE OF 145.61 FEET, TO THE POINT OF BEGINNING.

DESCRIPTION - LOT 241B:

ALL THAT PART OF LOT 241, MISSIONHILL ACRES, A SUBDIVISION IN THE CITY OF MISSION, JOHNSON COUNTY, KANSAS, DESCRIBED BY PHELPS ENGINEERING, INC. CLS-82 PROJECT NO. 230927 JANUARY 4, 2024, TO WIT:

COMMENCING AT THE NORTHEAST CORNER OF SAID LOT 241; THENCE S 1°52'53" E, ALONG THE EAST LINE OF SAID LOT 241, A DISTANCE OF 59.62 FEET, TO THE POINT OF BEGINNING; THENCE CONTINUING S 1°52'53" E, ALONG THE EAST LINE OF SAID LOT 241, A DISTANCE OF 30.58 FEET, TO A POINT 30 FEET NORTH OF THE SOUTH LINE THEREOF; THENCE S 88°07'17" W, ALONG A LINE 30 FEET NORTH OF AND PARALLEL WITH THE SOUTH LINE OF SAID LOT 241, A DISTANCE OF 12.00 FEET; THENCE S 1°52'53" E, ALONG A LINE 12 FEET WEST OF AND PARALLEL WITH THE EAST LINE OF SAID LOT 241, A DISTANCE OF 30.00 FEET, TO A POINT ON THE SOUTH LINE THEREOF; THENCE S 88°07'17" W, ALONG THE SOUTH LINE OF SAID LOT 241, A DISTANCE OF 133.34 FEET, TO THE SOUTHWEST CORNER THEREOF; THENCE N 2°00'49" W, ALONG THE WEST LINE OF SAID LOT 241, A DISTANCE OF 60.10 FEET; THENCE N 87°55'57" E, A DISTANCE OF 145.48 FEET, TO THE POINT OF BEGINNING.

BEARING BASIS: STATE PLANE
COORDINATE SYSTEM, KANSAS NORTH
ZONE NAD83 #1501

LEGEND

- ● = FOUND SURVEY MONUMENT
- ○ = SET 1/2"x24" REBAR WITH "PHELPS CLS-82" PLASTIC CAP
- ACU ⊠ = AIR CONDITIONING UNIT
- CV □ = COMMUNICATION VAULT
- C/O ● = CLEAN OUT
- EM ◎ = ELECTRIC METER
- GM ○ = GAS METER
- GW ⊃ = GUY WIRE
- PPTR ⏀ = POWER POLE WITH TRANSFORMER(S)
- SS ⊥ = STREET SIGN
- SSMH ⊗ = SANITARY SEWER MANHOLE
- WM ● = WATER METER
- R/W = RIGHT-OF-WAY
- (P) = PLATTED
- (C) = CALCULATED
- G = GAS LINE
- OHP = OVERHEAD POWER LINE
- SS = SANITARY SEWER LINE

SURVEY NOTES:

1. NO TITLE INFORMATION WAS FURNISHED AND NO ADDITIONAL RESEARCH FOR EASEMENTS OR OTHER ENCUMBRANCES WAS PERFORMED BY P.E.I.
2. THE PARENT DESCRIPTION WAS TAKEN FROM THE KANSAS GENERAL WARRANTY DEED RECORDED IN BOOK 202401 AT PAGE 002689, IN THE OFFICE OF THE REGISTER OF DEEDS.

AREAS		
PARCEL	SQUARE FEET	ACRES
241A	8712±	0.2000±
241B	8414±	0.1932±
PARENT BNDY	17127±	0.3932±

I, SCOTT D. CONFER, HEREBY CERTIFY THAT I OR SOMEONE UNDER MY DIRECT SUPERVISION HAVE MADE A SURVEY OF THE ABOVE DESCRIBED TRACT OF LAND AND THE RESULTS OF SAID SURVEY ARE CORRECTLY REPRESENTED ON THIS PLAT.

BY: _____
SCOTT D. CONFER, KS. LS-1249

PHELPS ENGINEERING, INC
1270 N. Winchester
Olathe, Kansas 66061
(913) 393-1155
Fax (913) 393-1166
www.phelpsengineering.com

PLANNING
ENGINEERING
IMPLEMENTATION

SURVEY

LOT SPLIT
MISSIONHILL ACRES, PART OF LOT 241
CITY OF MISSION, JOHNSON COUNTY, KANSAS

PROJECT NO. 230927
DATE: 3-20-24
DRAWN: sdc
CERTIFICATE OF AUTHORIZATION
KANSAS
LAND SURVEYING – LS-82
ENGINEERING – E-391
CERTIFICATE OF AUTHORIZATION
MISSOURI
LAND SURVEYING-2007001128
ENGINEERING-2007005038

SHEET
1
OF 1

DRIVEWAY EASEMENT AGREEMENT OF ADJOINING PROPERTIES

This DRIVEWAY EASEMENT AGREEMENT ("Agreement") is entered into this _____ day of _____, 2024, by Centennial Management Company and ("Grantor") and Real Estate Services, LLC ("Grantee").

Recitals

A. Grantor is the owner of a fee simple estate legally described as:

Lot 241, MISSION ACRES, a subdivision in the City of Mission, Johnson County, Kansas,

B. Grantor desires to create an access for Parcel B that allows ingress and egress across a portion of the driveway on Parcel A that is described and depicted on **Exhibit 1.** (hereafter "**Easement Property**");

C. Grantor desires to enter into this Agreement to clarify the rights and duties in the Easement Property, for themself, it's heirs, successors, and assigns.

NOW THEREFORE, the Grantor agree as follows:

1. Grantor grants and conveys to itseld, it's successors and assigns, for the benefit of Grantor and their tenants, customers, employees, and invitees, a non-exclusive easement appurtenant to for vehicular and pedestrian ingress and egress to:

SHARED DRIVEWAY EASEMENT:
A tract of land 16 feet in width across a part of Lot 241, MISSIONHILL ACRES, a subdivision in the City of Mission, Johnson County, Kansas, prepared by Phelps Engineering, Inc. CLS-82 Project No. 230927 March 4, 2024, lying 8 feet on each side of the following described centerline:

Commencing at the Northwest corner of said Lot 241; thence S 2°00'49" E, along the West line of said Lot 241, a distance of 60.10 feet, to the Point of Beginning; thence N 87°55'57" E, a distance of 100.00 feet, to the point of terminus.

2. In connection with the grant of the easement, Grantor further agrees as follows:

a. Grantor will not allow a fence, wall, curb or similar barrier on the Easement Property that interferes with or restricts the full and complete use of the easement.

b. Grantor will grant and convey to its successors and assigns, or tenants, the right to enter upon the Easement Property for the purpose of maintaining the driveway.

c. During the term of this Agreement, Grantor will maintain the driveway on the Easement Property in good repair and will remove snow, ice and trash. The Grantor will contribute equally to the reasonable cost of maintaining the Easement Property.

d. This Agreement will become effective when the Grantor signs it. This Agreement will run with the land and will constitute a use for reciprocal benefits to and burdens upon Lot 241. This Agreement inures to the benefit of and is binding on the successors, successors-in-title, assigns, heirs, and tenants of Grantor and customers, employees, and invitees of the Grantor, and will remain in full force and effect and will be unaffected by any change in ownership of Lot 241 by any change of use, demolition, reconstruction, expansion, or other circumstances. The agreement and undertakings by Grantor will be enforceable by action for specific performance, it being agreed that an action for damages would not be an adequate remedy for a breach of the Agreement.

e. This Agreement is not intended to, and should not be construed to dedicate any easement to the general public, nor may this instrument be construed to restrict the use and development of Lot 241, except those portions overlapped by the Easement Property. Moreover, Grantor and Grantee have the right to build, expand, alter, modify, or demolish all or part of any buildings on Lot 241 or develop the parcel in any manner Grantor sees fit, except those portions overlapped by the Easement Property.

f. Upon the written request of any owner, the other owner, or owner of any portion thereof, shall execute and deliver, within ten days after receipt of such request, a certificate that 1) there are no known defaults to this Agreement or, if there are defaults, specifying the particulars of such defaults and the action required to remedy them and 2) that there are no setoffs or defenses to the enforcement of the terms of this Agreement, or if there are, specifying the particulars of such setoffs or defenses.

g. The Grantor shall pay the cost and expense of constructing, maintaining, repairing and improving any portion of a driveway located on the Easement if such portion of the driveway is used on a regular basis by tenants, customers, employees and invitees.

The Grantor shall pay the cost and expense of constructing, maintaining, repairing and improving the portion of any driveway located on the Easement if such driveway is used on a regular basis only by the Grantor or its tenants, customers, employees and invitees of Grantor.

The maintenance, repair and improvement (collectively, "Maintenance") obligations shall include, without limitation, paving, repairing and resurfacing a driveway, and shall include removing snow, ice and debris from a driveway.

Grantor agrees that Maintenance on a common driveway shall be promptly performed and completed in a manner and to a standard consistent with a first-class residential area.

With respect to any Maintenance on the common driveway, Grantor will make a good faith effort to agree on (a) the necessity for the requested Maintenance; (b) the manner and means by which such Maintenance shall be accomplished; and (c) the time within which such Maintenance shall be completed.

Notwithstanding the foregoing, either Grantor may perform Maintenance on the common driveway, without the agreement of the other party, in the event of (i) an emergency, or (ii) blockage or material impairment of the easement rights. The portion of the cost of such Maintenance owed to a performing party by the non-performing party shall be paid within 30 days of the receipt of an invoice for such Maintenance. If the cost is not paid within such time by the non-performing party, then the performing party shall be entitled to recover all costs of collection for such amount from the non-performing party, including reasonable attorneys' fees.

Also, notwithstanding the foregoing, if either Grantor, or any of their employees, contractors or other persons for whom they are responsible, should cause any damage to the common driveway (other than ordinary wear and tear), then party responsible for the damage shall pay the entire cost of the Maintenance for such damage.

h. Miscellaneous

i. This Grant shall be construed, interpreted, and enforced under the laws of the State of Kansas.

ii. All notices required or permitted under this Grant shall be in writing and deemed delivered to a party (i) upon hand delivery to such party; or (ii) upon deposit with a nationally recognized overnight delivery service; or (iii) upon deposit of such notice in the United States mail, postage prepaid, certified or registered mail, return receipt requested, and addressed to such party at its principal place of business.

iii. No determination by any court, governmental body or otherwise that any provision of this Grant is invalid or unenforceable in any instance shall affect the validity or unenforceability of any other such provision, or such provision in any circumstances not controlled by such determination.

This Agreement must be recorded in the public records of Johnson County, Kansas and will be prior in title to any mortgage which may hereafter be placed upon Lot 241.

IN WITNESS WHEREOF, the party hereto has executed this Agreement under seal.

GRANTOR:

By: _____

By: _____

ACKNOWLEDGMENT:

STATE OF KANSAS)
) ss.
JOHNSON COUNTY)

On this ____ day of _____, 2024, before me, a Notary Public in and for said State, personally appeared _____ and _____, to me known to be the person (or persons) described in and who executed the foregoing instrument, and acknowledged that he (or they) executed the same as his (or their) free act and deed.

In witness whereof, I have hereunto set my hand and affixed my official seal the day and year last above written.

_____

Notary Public

My commission expires:

AT A GLANCE

Applicant:
Johnson County Wastewater

Location:
5901 Foxridge Drive (former address, 4800 Nall Avenue)

Property ID:
KP175000000014A;KP175000000013; KP450000000049;KP450000000001; KP1 75000000009A,B,D,C;KP175000000010; KP175000000011;KD175000000005;KP17500000 0013; KP67500000 0002

Current Zoning:
R-1

Proposed Zoning:
N/A

Current Land Use:
Wastewater Treatment Facility

Proposed Land Use:
N/A

No Public Hearing Required

Legal Notice:
N/A

Case Number:
24-04

Project Name:
Nelson Wastewater Treatment Facility Final Development Plan

Project Summary:
The subject property is the site of an existing wastewater treatment facility that is currently undergoing reconstruction during a multi-phase process.

Staff Contact:
Karie Kneller, City Planner

Property Background and Informa tion

The subject property is the site of the Myron Nelson Wastewater Treatment Facility. Johnson County Unified Wastewater (JCW) holds jurisdiction over the site, serving a public purpose for wastewater treatment from two main tributary basins – Turkey Creek (west) and Mission Main (east). The service area is roughly bounded by 47th Street to the north, 95th Street to the south, Pflumm Road to the west, and State Line Road to the east. Metcalf Avenue divides the service area into the two basins, which contain all or part of the cities of Fairway, Merriam, Mission, Overland Park, Prairie Village, Roeland Park, and Shawnee.

The treatment facility has reached the end of its operational life, and many of the treatment processes are no longer compliant with current standards. This project is required to replace or update outdated systems and comply with new regulatory requirements for water quality. The improvements will also expand the treatment capacity of the facility to address wet weather events and future development of the area.

The subject property is located at approximately Nall Avenue and Foxridge Drive on approximately 52 acres abutting the northernmost border of Mission and Kansas City, KS and the easternmost border of Mission and Roeland Park. This is the site of the existing wastewater treatment facility built from the 1940s to 2009.

Adjacent properties are industrial uses to the north and just south of Interstate 35 in Wyandotte County, Nall Park to the east in Roeland Park, and single family uses to the south and west. The project site is served by gas, sewer, water, electric, and stormwater utilities.

Project Proposal

The project will consist of total reconstruction of the treatment facility. The facility will remain operational during this time, so JCW is planning to reconstruct the facility in phases. Reconstruction entails building new treatment components, bringing those components on-line, and then decommissioning and demolishing the existing infrastructure. New operational components such as an administration building and maintenance facility will be built on the site. Completion of redevelopment is not expected until 2029 or later.

Public Engagement:

The County held a public open house to introduce the project and gain feedback on October 6th, 2022. Several members of the public attended, and feedback was minimal. On February 22nd, 2024, the County held another open house that was open to the public to receive additional feedback.

Municipal Code:

The County is immune to the regulations and guidelines stipulated in the municipal code, but intends to comply with regulations and guidelines to the extent that they are not burdensome to the

Plan Review and Analysis

regulating authority of the County. County Wastewater intends to be responsive to suggestions and recommendations of the City and the public for the intended use on the subject property. On November 28, 2022, the Planning Commission recommended approval of the preliminary development plan for the wastewater treatment facility. On December 21, 2022, the City Council approved the plan on Planning Commission's recommendation. Section 440.190 (A)(2) of the Mission Municipal Code addresses consideration of final development plans, which states that final development plans which contain modifications or additions from the approved preliminary development plan, but are in substantial compliance with the preliminary plan, may be approved without a public hearing, provided that the Planning Commission determines that the landscaping and screening plan is adequate and that all other submission requirements have been satisfied. Substantial compliance with the preliminary plan is defined in Section 440.175(A)(5) by "significant changes." The criteria as defined are:

a. Increases in the density or intensity of residential uses of more than five percent (5%).

b. Increases in the total floor area of all non-residential buildings covered by the plan of more than ten percent (10%).

c. Increases of lot coverage of more than five percent (5%).

d. Increases in the height of any building of more than ten percent (10%).

e. Changes of architectural style which will make the project less compatible with surrounding uses.

f. Changes in ownership patterns or stages of construction that will lead to a different development concept.

g. Changes in ownership patterns or stages of construction that will impose substantially greater loads on streets and other public facilities.

h. Decreases of any peripheral setback of more than five percent (5%).

i. Decreases of areas devoted to open space of more than five percent (5%) or the substantial relocation of such areas.

j. Changes of traffic circulation patterns that will affect traffic outside of the project boundaries.

k. Modification or removal of conditions or stipulations to the preliminary development plan approval which are considered significant in the opinion of the Community Development Director or his designee.

Summary of Changes Between Preliminary Development Plan Approval and Final Development Plan:

- NEL07 Digester Control Building – In the PDP, a separate structure labeled as NEL10 TWAS Pump Station was situated adjacent to the Digester Control Building. This building included

tankage, TWAS pumps, chemical feed (ferric) tanks and pumps, and a restroom. There was also a small odor control unit (OC4) next to NEL10 TWAS Pump Station. These 3 structures have been consolidated into one (1) building, NEL07. The TWAS tankage has been made common to the structure. The TWAS pumps have been moved to the basement of NEL07 and chemical feed (tanks and pumps) and odor control have been relocated on top of the TWAS tank. In addition, a restroom has been added to NEL07.

- Primary Clarifiers (NELPC1&2) – The PDP included three (3) primary clarifiers. As the design progressed it was determined that the treatment efficiency would be better than originally anticipated, and the ability to enhance it with chemical addition could be provided. Therefore, it was determined the number of primary clarifiers could be reduced from three (3) to two (2) and still provide the required level of treatment. Note that the primary clarifier that was removed was nearest Nall, creating more buffer between Nall and the treatment facilities on the very northeast corner of the site.
- Digesters (NELDIG 1, 2 and 3) – At the time of the PDP, the Digesters were to be clad with brick masonry. When pricing was solicited, it was found that due to the prior impacts mentioned concerning the impacts of COVID on the construction market, the pricing for brick masonry was found to be several times higher than budgeted. As a result, alternative materials for cladding of the digesters were investigated. The recommended solution is Exterior Insulation and Finish Systems (EIFS). This approach was determined to save over $3M versus brick.
- Odor Control Facilities (NELOC1 and 2) – Odor Control 3 from the PDP submittal was removed and combined with Odor Control 2 (NELOC2), in that it was determined that this would provide a more efficient operation while providing the same level of treatment.
- Electrical Distribution Switchgear (NELSWGR1 &2) – The PDP included two primary distribution switchgear units that have been consolidated to one unit. SWGR2 shown in the FDP submittal is for low voltage secondary distribution on site.
- Site Planning – Since the PDP approval a sidewalk along Lamar Avenue has been added. Additional street trees along Lamar Avenue and Foxridge Drive have been incorporated into the landscaping plan. The berm along 49th Street has been increased in height and grass plantings have been added to aid in obstructing views while the trees on top of the berm mature. Finally, parking for NEL11 Line Maintenance Building has been revised.
- Site Planning – The two stormwater detention basins were consolidated into one.

Analysis: Staff does not consider the changes submitted with the final development plan "significant" as defined by criteria in the municipal code.

Recommendation

Staff recommends that the Planning Commission approve Case #24-04, Nelson Wastewater Treatment Facility Final Development Plan.

Planning Commision Action

This Preliminary Development Plan will be considered by the Planning Commission at their March 25, 2024 meeting.

City Council Action

No Action

January 19, 2024

Mr. Brian Scott, CPM
Assistant City Administrator
City of Mission, KS
6090 Woodson St.
Mission, KS 66202

RE: Nelson Wastewater Treatment Facility
4800 Nall Avenue, Mission, Kansas 66202
Application for Final Plat
Application for Final Development Plan

Dear Mr. Scott,

As indicated in our pre-application meeting on January 9, 2024, Johnson County Wastewater (JCW) is constructing a new Wastewater Treatment Facility at the Nelson Complex. The existing infrastructure will be decommissioned and demolished in phases. This project is necessary to meet future water quality standards as set forth by the Kansas Department of Health and Environment with the discharge limits and compliance schedule per National Pollution Discharge Permit M-KS45-OO01 and Consent Order 19-E-5 BOW.

The County recognizes the interests of the City in this matter, however, it is the County's position it is immune, and hereby asserts its immunity in this matter, from the City's codes and regulations. Therefore, JCW does not intend to formally make application for approval of this use.

Nevertheless, in the spirit of cooperation, the County intends to generally comply with the City's zoning and subdivision regulations, building codes, and other regulations, to the extent that the City's requirements are not deemed to be unnecessarily burdensome to the County's interests. The County will assist the City and is willing to informally submit any requested paperwork needed for your process, and to participate in an informal hearing process. Furthermore, JCW intends to remain responsive to the suggestions and recommendations the City and public may have regarding our intended use.

While we are not making a formal application for approval of the project, we are providing the following documents related to the City's regulations associated with this project.

- Application for:
  - Final Plat
  - Final Site Development Plan
- Checklist for Submittal of Final Development Plans
- Checklist for Final Plats
- Legal Description
- Project Narrative
- Final Plat and Site Development Plans (1 full size set)
  - Including Photometric Study Drawing
- Final Stormwater Drainage Study
- Traffic Impact Study
- Noise Study - Nelson WWTF Improvements Acoustical Analysis
  - Appendix A. Construction Noise Report

If you have any questions or if you cannot attend the meeting we can be contacted at (913) 715-8562.

Sincerely,

Patrick Denning

Patrick Denning
Assistant Chief Engineer — Existing Infrastructure

cc: Susan D. Pekarek, General Manager
Aaron Witt, Chief Engineer

(913) 715-8500 phone
(913) 715-8501 fax
TTY/TDD 1-800-766-3777

11811 S. Sunset Drive Suite 2500
Olathe, Kansas 66061-7061
www.jcw.org

Johnson County Wastewater
Nelson WWTF

Final Development Plan

January 19, 2024

Contents

1 Development Application

Community Development Department
6090 Woodson Street
Mission, KS 66202
913-676-8360

Development Application

Permit #_____

Applicant Name: Patrick Denning	Company: Johnson County Wastewater
Address: 4800 Nall	
City/State/Zip: Mission, KS 66202	
Telephone: 913-715-8562 (Office; 913-530-7582 (Mobile)	
Email: patrick.denning@jcw.org	
Property Owner Name: Same as Applicant	Company:
Address:	
City/State/Zip:	
Telephone:	
Email:	
Firm Preparing Application: HDR Engineering	Company: HDR Engineering
Address: 10450 Holmes Road, Suite 600	
City/State/Zip: Kansas City/ MO/ 64133	
Telephone: 816-347-1171	
Email: michael.kalis@hdrinc.com	

*All correspondence on this application should be sent to (check one)_____Applicant_____Owner__X__Firm

Application Type

Rezoning ☐ Plat ☒ Site Plan ☒ SUP ☐ Lot Split ☐ Other (Specify): _____

Description of Request

Please provide a brief description of the request:

Final Development Plan & Final Plat Wastewater Treatment Plant land use.

For additional project information, see attached Project Narrative.

Project Details

General Location or Address of Property: N of 49th St, S of Foxridge Dr, W of Nall Ave

Present zoning of property: R-1

Present use of property: Wastewater Treatment Facility

Agreement to Pay Expenses

Applicant intends to file an application with the Community Development Department of the City of Mission, Kansas (City). As a result of the filing of said application, City may incur certain expenses, such as but not limited to publication costs, consulting fee, attorney fee, and court reporter fees. Applicant hereby agrees to be responsible for and to reimburse City for all cost incurred by City as a result of said application. Said costs shall be paid within ten (10) days of the receipt of any bill submitted by City to Applicant. It is understood that no requests granted by City or any of its commissions will be effective until all costs have been paid. Costs will be owed whether or not Applicant obtains the relief requested in the application.

Affidavit of Ownership and/or Authorization of Agent

I,_____certify that I am the owner or contract purchaser of the subject property. I give my permission for the undersigned to act as my agent on behalf of the application hereby being submitted.

X Patrick Denning Digitally signed by Patrick Denning DN: E=pdenning@pw.org, CN=PW, OU=City, CN=Patrick Denning Reason: I am the author of this document Date: 2024.01.16 10:53:11 -06'00' Date 1/16/24

Signature (Owner)

X _____ Date _____

Signature (Owner's Agent)

**********FOR OFFICE USE ONLY**********

File Fee: $	**Meeting Date**
	PC CC
Total:	**Date Notices Sent**
Receipt #	
Notes:	**Date Published**
	Decision

2 Checklist for Submittal of Final Development Plans

Checklist for Submittal of Final Development Plans

The following is an outline of required drawings and information that must be submitted in support of a final development plan application. All applications must be preceded by a pre-application conference with the Development Review Committee staff. Applications will be heard by the Planning Commission in accordance with the Commission's 2022 Calendar.

- ☑ Application
- ❑ One copy of the complete set of plans. Drawings should generally be on 24 X 36 inch sheets of paper. Larger sheets of paper may be necessary for large projects.
- ☑ One digital set of plans in PDF format at a resolution of 300 dpi or greater.
- ☑ **Site plan** must include:
  - ☑ General site information and details:
    - ☑ north arrow
    - ☑ scale
    - ☑ all existing structures to remain and all proposed structures, including but not limited to, parking areas, sidewalks, and other paved surfaces
    - ☑ locations of all screen walls, decorative walls, retaining walls, pocket parks and any other site amenities
    - ☑ all existing and proposed public street right-of-way internal and immediately adjacent to the project with centerline locations
    - ☑ all existing drives, intersections and curb cuts to remain and all proposed new drives, intersections and curb cuts with dimensioned radii and curb return radii
    - ☑ all existing and proposed median breaks and turn lanes with dimensions and radii
    - ☑ all pertinent information for adjacent development such as the locations of public and private driveways, streets, sidewalks, medians, retaining walls, and easements

- ☑ the proposed location of any project identification signs and monument signs
- ☑ all public easements

☑ Site plans shall include a data table with the following information:

- ☑ land area for each zoning district
- ☑ total building floor area, site floor area ratio
- ☑ number of dwelling units, overall density of the development and the density of each zoning district
- ☑ required number of parking stalls and provided number of parking stalls for standard and ADA parking

☑ Site plans must indicate the following site dimensions:

- ☑ Building to building
- ☑ Building to property line
- ☑ Parking area to property line
- ☑ Overall site perimeter dimensions
- ☑ Widths of public streets and private access ways
- ☑ Internal parking area dimensions
- ☑ Sidewalk width
- ☑ Easement width

Civil drawings should include drainage and stormwater management information.

☑ Civil drawings shall include existing and proposed drainage pipe systems, ponds, lakes, stream corridors and Stormwater Treatment Facilities (STFs). The facilities shall be shown in the approximate size and shape and shall also be labeled by type of facility.

☑ A Stormwater Management Study is required to be submitted along with the drawings for all developments.

☑ Civil plans shall include the following existing and approved, but not built, infrastructure:

- ☑ streets
- ☑ culverts
- ❑ STFs
- ☑ detention ponds
- ☑ paved or earthen ditches
- ☑ storm sewer lines and inlets

☑ Civil plans shall include a slope analysis that graphically identifies the following slope ranges:
- 0% to 5% slope
- 6% to 10% slope
- 11% to 17% slope
- 18% slope and greater

☑ Civil plans shall include finish and existing grades for the site at a minimum two-foot contour interval.

Landscape plans shall include the entire site on a single sheet of paper, additional drawings may be submitted that are an enlarged scale or tiled drawings of the overall project on separate sheets.

☑ Landscape plans shall meet the requirements of City Code Section 415, Article III or Design Standards (pg 19), whichever is applicable.

☑ The landscape plan shall include a plant schedule that indicates the name, total number, and size of all plant materials.

☑ Landscape plans shall include all plant materials that are to be used for screening of buildings, mechanical equipment, loading areas, and any other features on the site.

❑ All plantings used in STFs.

☑ Landscape plans shall be sealed by a licensed landscape architect.

Photometric Plans shall include the locations, height and style of all parking lot and site lighting.

☑ A light fixture schedule shall be provided for sites that have multiple types of light fixtures.

☑ Photometric plans shall include a point by point grid indicating the footcandle power of the light fixtures onto the site per the Site Design Standards.

Architectural drawings shall be provided for each building type proposed in the development.

☑ Architectural drawings shall be submitted at an architect scale. A building floor plan, elevation drawing, and wall section shall each be submitted on single sheets of paper, additional drawings may be submitted that are at an enlarged scale or tiled drawings on separate sheets.

☑ Floor plans for each floor of each type of building shall be provided.

- ☑ Building elevations shall be drawn with patterns and symbols to indicate materials and textures. A description of the materials and colors shall be indicated in a materials schedule on the drawings.

- ☑ A rendered elevation shall be provided for each building type.

- ☑ A rendered or color materials chart, or a sample board of the building materials, shall be provided.

- ☑ Building elevations shall indicate the proposed sign envelope or the sign location for each building facade.

- ☑ The wall section shall include the parapet, mansard or other roof forms and shall indicate how all roof-top mechanical equipment is to be screened.

Optional: Private sign criteria may be submitted as a supplement to a final development plan application for review of all signage for new development.

3 Plats Checklist

CITY OF MISSION: PLATS CHECKLIST

Deadlines:

- Submission 28 days prior to Planning Commission meeting (third Monday of each Month)
- Mailed and published newspaper notice 20 days prior to Public Hearing

PRELIMINARY PLAT CHECKLIST (440.210)
Approval/denial by Planning Commission only (440.220)

Seven (7) copies of the preliminary plat shall be submitted in support of the application. The plat shall contain the following information:

___ North arrow and scale

___ Legal description

___ The proposed name of the subdivision and the names of adjacent subdivisions

___ The boundary lines of the tract with appropriate dimensions

___ The general pattern and sizes of proposed lots and tracts

___ The general location, width and alignment of existing and proposed streets, alleys, and sidewalks

___ All platted or existing streets and property lines or adjacent land within four hundred (400) feet

___ Topography of the area contained in the plat shown by two (2) foot or five (5) foot contour intervals

___ Approximate gradients of proposed streets within the plat

___ Description of any existing streets or roads which abut, touch upon, or extend through the subdivision. The description shall include types and widths of existing surfaces, right-of-way widths, and dimensions of any bridges or culverts

___ Location of the 100-year flood plain

___ The proposed use of land, whether for single-family, multi-family, commercial, industrial, parks, schools, etc.

___ Indication of the ground floor area classification for residential subdivisions

___ Name and address of landowner

___ Name and address of architect, landscape architect, planner, engineer, surveyor or other person involved in the preparation of the plat

___ Date of preparation of the plat

___ A written statement relating how liquid wastes are to be handled

___ Signature block for appropriate City Officials

___ Drainage calculations, computed areas and preliminary drainage plan consistent with the Master Plan

Required Supporting Material:

___ All studies as may reasonably be required by the Public Works Director pursuant to Section 440.040

___ Assurances of adequate public facilities (Ord. No. 1007 §16-203A.250, 1-24-01; Ord. No. 1091 §§1--3(App. A §**440.210**), 9-24-03)

FINAL PLAT CHECKLIST (440.250)
Approval/Denial of the Planning Commission and the City Council (440.260)

Two (2) prints, one (1) of which shall be original ink on vellum or 24# bond paper no larger than thirty-six (36) inches by thirty (30) inches of the final plat shall be submitted to the Planning Commission at least twenty-eight (28) days prior to the date of the meeting at which approval is asked. The plat shall be drawn to a scale of one (1) inch to one hundred (100) feet or one (1) inch to two hundred (200) feet or one (1) inch to fifty (50) feet. The applicant shall also provide one (1) reduction of the proposed plat, no larger than eleven (11) by seventeen (17) inches. Plat shall be on a single page only. The plat shall contain the following information:

✓ The name of the subdivision and adjacent subdivision, the names of streets which shall conform to the existing pattern with all east-west streets to be numbered and a system of lot and block numbers shown in an orderly sequence, including portions of adjoining plat, lot numbers and block numbers in light dashed lines

✓ The numerical order of plats (1st Plat, 2nd Plat, etc.) or lot identification (Lots 1-10, Lots 26-421 etc.) shall be placed below the name of the plat; state if replat or resurvey

✓ A boundary survey of third (3rd) order surveying accuracy (maximum closure error one (1) in five thousand (5,000)) which bearings and distances referenced to section or fractional section corners, or other base line shown on the plat and readily reproducible on the ground; such dimensions and bearings to coincide with adjoining plats unless justified

✓ The legal description shall match the drawing and a statement "shall be known as (name of plat)" indicated

✓ Calculation sheets containing the following data: The length and radii of all curved streets and lot lines, the bearings and length of all straight street and lot lines, and the area in square feet of each lot; show that interior dimensions have been reconciled with exterior dimensions

✓ The dimensions in feet and decimals setback lines along front and side streets, and the locations and dimension of all necessary easements

✓ Show a north arrow (facing up or to the left), the scale of the drawing, as well as a graphic scale and date of the drawing

- ✓ A vicinity map showing section, township, and range at a scale of two (2) inches equals one (1) mile.
- ✓ A statement dedicating all easements, streets, alleys, access control, and all other public areas not previously dedicated and undersigned by the owners; certification that all prior existing easement rights to any person, utility, or corporation have been absolved on the parcels to be dedicated to public use; the person, utility, or corporation shall retain whatever rights they would have as if located in a public street.
- ✓ Signature of owners, City Officials, notary, certification by a licensed engineer or registered land surveyor and dated; if owned by a corporation, the name, corporation, and title of the signatory officer; names shall be typed below all signature lines.
- ✓ The plat shall bear the following seals:
  - ✓ City
  - ✓ Notary
  - ✓ Licensed engineer or registered land surveyor
  - ✓ Seal, if a corporation
- ✓ The consent and agreement clause should stipulate in or on the instrument that special assessments on dedicated land become and remain a lien on the remainder of the land fronting on or abutting such dedicated roads and streets
- ✓ Submit, for the appraiser, the square footage of all areas other than building lots and dedicated streets; designate usage for all areas
- ✓ Documentation ensuring permanent responsibility for the maintenance of the fence/screening tracts or easements. (Ord. No. 1007 §16-203A.263, 1-24-01; Ord. No. 1091 §§1--3(App. A §**440.250**), 9-24-03; Ord. No. 1124 §15, 8-25-04)

4 Legal Description

DESCRIPTION:

A tract of land being all of Lots 1 through 53 inclusive, and all of 47th Street Terrace, 48th Street Terrace, Maple Avenue, Woodson Road, and Nall Avenue all in OAKWOOD subdivision, and all of Lots 2 through 10 inclusive, of WALNUT VIEW subdivision, and all of Lots 9 through 15 inclusive, and adjacent vacated Right-of-Way of 47th Street Terrace (platted as Horseshoe Avenue), and all of Woodson Road, all in JESSUP'S 2ND SUBDIVISION, all in the Northeast Quarter of Section 5, Township 12 South, Range 25 East of the Sixth Principal Meridian, in the City of Mission, Johnson County, Kansas, as prepared by Michael Dean Lay, LS 1612, on September 8, 2022, and all together being more particularly described as follows:

Beginning at the Northeast Corner of said Northeast Quarter; thence South 02°46'43" East, along the East line of said Northeast Quarter, a distance of 1314.29 feet (1314.32 Platted); thence South 88°11'03" West, departing said East line, along the South line of said OAKWOOD subdivision, a distance of 140.14 feet, to the Northeast corner of Lot 2, of said WALNUT VIEW subdivision; thence South 02°18'18" East, departing the South line of said OAKWOOD subdivision, along the East line of said Lot 2, a distance of 111.30 feet, to a point on the North Right-of-Way line of West 49th Street, as now established, said point also being the Southeast Corner of said Lot 2; thence South 88°02'14" West, departing said East line of Lot 2, along said North Right-of-Way line, a distance of 545.89 feet, to a point of curvature; thence Southwesterly, continuing along said North Right-of-Way line, and along said curve to the left, having a radius of 425.00 feet, and a central angle of 22°23'04", a distance of 166.04 feet, to the Southwest Corner of Lot 10, of said WALNUT VIEW subdivision; thence North 23°49'08" West, departing said North Right-of-Way line, along the Westerly line of said Lot 10, a distance of 156.53 feet, to the Northwest Corner of said Lot 10, said Corner being on the South line of said OAKWOOD subdivision; thence South 88°11'03" West, departing said Westerly line of Lot 10, along the South line of said OAKWOOD subdivision, a distance of 421.42 feet, to the Southwest Corner of said OAKWOOD subdivision, said Corner being on the East line of Lot 9, of said JESSUP'S 2ND SUBDIVISION; thence South 02°32'34" East, departing said South line of OAKWOOD subdivision, along said East line of Lot 9, a distance of 54.10 feet, to the Southeast Corner of said Lot 9; thence South 88°15'15" West, departing said East line of Lot 9, along the South Line of said Lot 9, a distance of 79.87 feet, to the Southwest Corner of said Lot 9; thence North 34°15'02" West, departing said South line of Lot 9, along the West line of said Lot 9, a distance of 220.20 feet; thence North 19°44'05" West, continuing along said West line of Lot 9, a distance of 200.40 feet; thence North 03°38'28" East, continuing along said West line of Lot 9, a distance of 187.36 feet, to the Northwest Corner of said Lot 9; thence North 89°01'32" East, along the North line of said Lot 9, a distance of 66.52 feet, to the Southwest Corner of Lot 10, of said JESSUP'S 2ND SUBDIVISION; thence North 04°31'37" East, departing said North line of Lot 9, along the West line of said Lot 10, a distance of 196.50 feet, to the Southwest Corner of Lot 11, of said JESSUPS'S 2ND SUBDIVISION; thence North 25°26'47" West, departing said West line of Lot 10, along the West line of said Lot 11, a distance of 132.50 feet, to the Southmost Corner of Lot 12, of said JESSUPS'S 2ND SUBDIVISION; thence North 46°55'08" West, departing the West line of said Lot 11, along the Southerly line of said Lot 12, a distance of 113.36 feet, to the Southeast Corner of Lot 15, of said JESSUPS'S 2ND SUBDIVISION; thence North 89°25'25" West, departing said Southerly line of Lot 12, along the Southerly line of said Lot 15, a distance of 80.23 feet; thence South 40°07'37" West, continuing along said Southerly

line of Lot 15, a distance of 102.52 feet, to the Southmost Corner of said Lot 15; thence North 37°04'45" West, departing said Southerly line of Lot 15, along the Westerly line of said Lot 15, and its extension, a distance of 144.51 feet, to a point on the centerline of vacated 47th Street Terrace (platted as Horseshoe Avenue), per Ordinance No. 656, recorded in Volume 2091, Page 21; thence South 50°51'55" West, along the centerline of said vacated 47th Street Terrace, a distance of 100.79 feet; thence South 48°33'05" West, continuing along the centerline of said vacated 47th Terrace, a distance of 125.61 feet, to a point on the East Right-of-Way line of Lamar Avenue, as now established; thence North 41°28'26" West, departing the centerline of said Vacated 47th Street Terrace, along said East Right-of-Way line, a distance of 0.34 feet; thence North 19°29'03" East, continuing along said East Right-of-Way line, a distance of 21.70 feet; thence North 02°06'59" West, continuing along said East Right-of-Way line, a distance of 28.99 feet, to a point on a non-tangent curve; thence Northerly, continuing along said East Right-of-Way line, and along said curve to the left, having a radius of 803.87 feet, a central angle of 20°49'19", and whose initial tangent bearing is North 17°31'51" East, a distance of 292.14 feet; thence North 03°17'28" West, continuing along said East Right-of-Way line, a distance of 5.01 feet, to a point on the West line of a tract of land, as described in a Kansas Warranty Deed, recorded in Book 570, Page 644, said point being on the Southerly Right-of-Way line of Interstate 35, as now established; thence North 32°33'12" East, departing said East Right-of-Way line, along the West line of said tract of land, a distance of 191.21 feet, to a point on the North line said Northeast Quarter, said point also being on the North line of said JESSUP'S 2ND SUBDIVISION; thence North 87°59'32" East, departing the West line of said tract of land, along the North line of said Northeast Quarter, and along the North line of said JESSUP'S 2ND SUBDIVISION, and along the North line of said OAKWOOD subdivision, a distance of 1,839.70 feet, to the Point of Beginning, containing 2,260,646.82 square feet, or 51.90 acres, more or less.

5 Project Narrative

1.0 Project Description

1.1 BACKGROUND

The Nelson Wastewater Treatment Facility (WWTF) was constructed in phases, beginning in the 1940s, to address the needs of the growing community. The Nelson WWTF is located in the northeastern corner of the City of Mission with Roeland Park to the east and Wyandotte County to the north. The Nelson WWTF serves two main tributary basins in northeast Johnson County – containing all or part of the cities of Fairway, Merriam, Mission, Overland Park, Prairie Village, Roeland Park, and Shawnee.

The Environmental Protection Agency (EPA) and the Kansas Department of Health and Environment (KDHE) are requiring stricter discharge limits for constituents such as ammonia, nitrogen, and phosphorus. The treatment technology currently in place at the Nelson WWTF is not capable of meeting these stricter water quality standards.

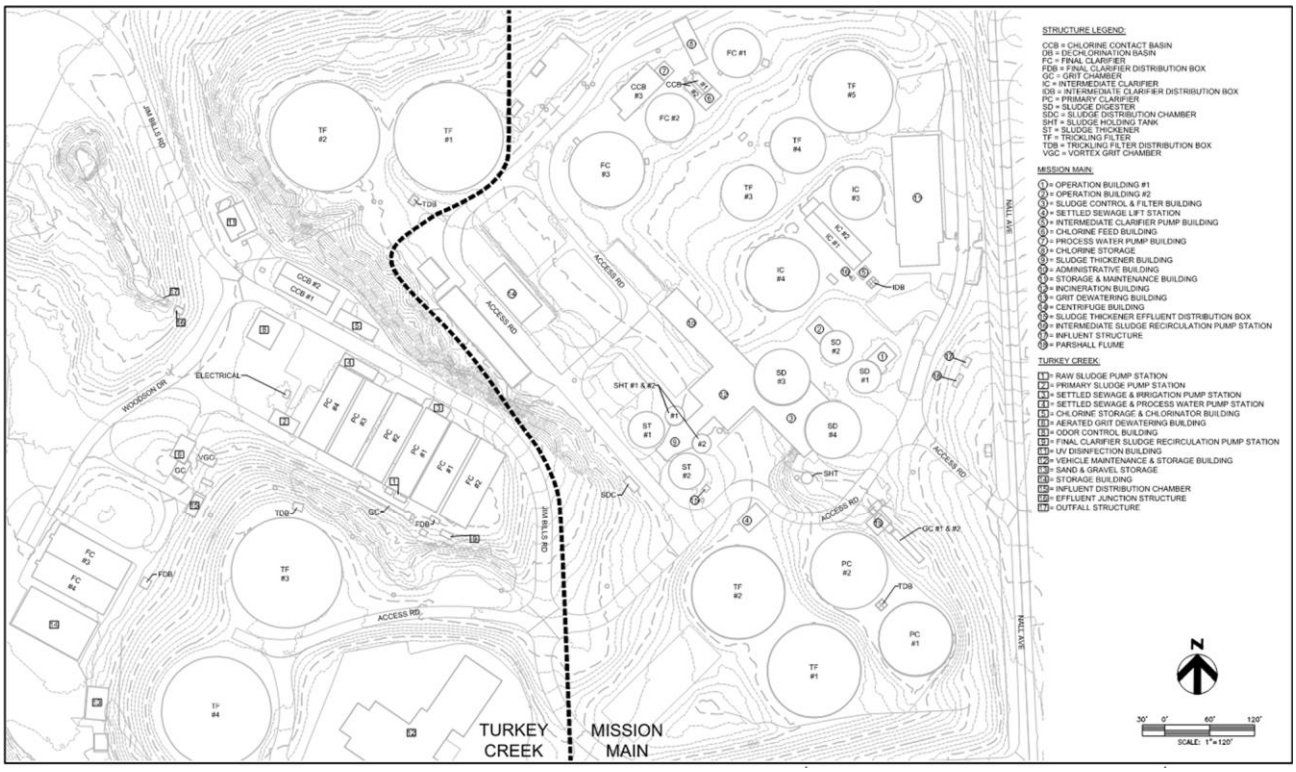
The collection system was also sized and constructed with materials and technologies that are now outdated. As a result, it can experience issues during wet weather events. In 2018, Johnson County Wastewater (JCW) commissioned engineering company HDR, in association with CH2M and WCS, to determine the optimum solution to these issues and develop a long-term capital improvement plan for the Nelson service area. The plan recommended a new Nelson WWTF to address the issues of the aging facility and regulatory obligations. Since that time, JCW has selected Black & Veatch and McCarthy Building Companies (the Construction Manager at Risk, (CMAR)) to design and construct the project. Implementing a new treatment scheme at the existing WWTF will be challenging as the existing space is limited and new facilities will have to be constructed while the existing facility remains in operation.

To summarize, the Nelson WWTF project drivers are as follows:

- **Aging Infrastructure** – Some of the facilities at the WWTF have been in service since the late 1940s. Many of the facilities are beyond their useful life and significant costs for repair and rehabilitation (R&R) would be required to maintain the current level of service.
- **Regulatory Compliance** – The Nelson WWTF discharge permit, Kansas Permit No. M-KS45-0001, effective 2/1/2020, calls for more stringent discharge limits than were required for the existing trickling filter facility, including ammonia plus the addition of an annual load limit for Total Phosphorus. The permit also establishes annual average concentration goals for Total Nitrogen (TN) and Total Phosphorus (TP). In addition, JCW is committed to a long-term plan to address the collection system wet weather issues, through their Integrated Plan and associated Consent Order with the Kansas Department of Health and Environment (KDHE).
- **Community Enhancement** – A project of this size provides the opportunity for community enhancement, including vegetative screening berms, modern odor control equipment, sustainable design, and site design to minimize off-site impacts of the facility as a whole.

1.2 LOCATION

The Myron K. Nelson Wastewater Treatment Facility site is located in Johnson County, Kansas in the City of Mission. The site is bordered by the City of Roeland Park to the east and Kansas City, Kansas (Wyandotte County) to the north. The west and south sides of the facility are bordered by residential neighborhoods in the City of Mission.



2.0 Facility Descriptions

2.1 GENERAL

The purpose of this section is to outline the functional and architectural criteria and requirements for each facility at the Nelson WWTF.

The architectural goals for this project include the following:

- Provide a functional and aesthetically pleasing Administration Building.
- Provide functional buildings for the treatment process while at the same time keeping with the theme of the facilities on-site that will remain (solids processing building and collections administration building).
- Develop an architectural scheme that blends the facility structures into a unified design.
- Provide a design which integrates the treatment process with the architectural requirements.
- The architectural design shall serve as a good neighbor to the current adjacent landowners. The design shall be such that to the extent possible the functions of the wastewater treatment facility disappear from the site and are out of view from normal observations. Views of the facility will be pleasant in keeping with the architectural theme. The facility will be aesthetically pleasing for views from all directions.

Based on the goals listed above, the general architectural theme of the Facility will include cladding of limestone and coral-colored brick veneer to match the two existing buildings that will remain. A picture of the Solids Processing Building (the most prominent building that will remain) and cut sheets of the brick veneer and other proposed construction materials are included in this submittal. The color has been selected to relate the buildings to the exposed limestone ledges on the sloping site, and also because it matches the existing Dewatering Building which will be retained as part of the upgraded facility.

2.2 DESIGN PROGRESSION SINCE THE PRELIMINARY DEVELOPMENT PLAN (PDP)

The design has evolved since the PDP was approved by the City. The changes are largely due to budgetary considerations and issues with material availability. In the aftermath of the COVID pandemic, the construction market experienced high, unpredictable inflation and excess lead times on certain material and equipment. Working with the CMAR, JCW was able to "value engineer" the project and utilize alternative materials to keep the project in budget and on schedule. The following is a list of significant changes since the PDP:

- NEL07 Digester Control Building – In the PDP, a separate structure labeled as NEL10 TWAS Pump Station was situated adjacent to the Digester Control Building. This building included tankage, TWAS pumps, chemical feed (ferric) tanks and pumps, and a restroom. There was also a small odor control unit (OC4) next to NEL10 TWAS Pump Station. These 3 structures have been consolidated into one (1) building, NEL07. The TWAS tankage has been made common to the structure. The TWAS pumps have been moved to the basement of NEL07 and chemical feed (tanks and pumps) and odor control have been relocated on top of the TWAS tank. In addition, a restroom has been added to NEL07.
- Primary Clarifiers (NELPC1&2) – The PDP included three (3) primary clarifiers. As the design progressed it was determined that the treatment efficiency would be better than originally anticipated, and the ability to enhance it with chemical addition could be provided. Therefore, it was determined the number of primary clarifiers could be reduced from three (3) to two (2) and still provide the required level of treatment. Note that the primary clarifier that was removed was nearest Nall, creating more buffer between Nall and the treatment facilities on the very northeast corner of the site.

- Digesters (NELDIG 1, 2 and 3) – At the time of the PDP, the Digesters were to be clad with brick masonry. When pricing was solicited, it was found that due to the prior impacts mentioned concerning the impacts of COVID on the construction market, the pricing for brick masonry was found to be several times higher than budgeted. As a result, alternative materials for cladding of the digesters were investigated. The recommended solution is Exterior Insulation and Finish Systems (EIFS). This approach was determined to save over $3M versus brick.
- Odor Control Facilities (NELOC1 and 2) – Odor Control 3 from the PDP submittal was removed and combined with Odor Control 2 (NELOC2), in that it was determined that this would provide a more efficient operation while providing the same level of treatment.
- Electrical Distribution Switchgear (NELSWGR1 &2) – The PDP included two primary distribution switchgear units that have been consolidated to one unit. SWGR2 shown in the FDP submittal is for low voltage secondary distribution on site.
- Site Planning – Since the PDP approval a sidewalk along Lamar Avenue has been added. Additional street trees along Lamar Avenue and Foxridge Drive have been incorporated into the landscaping plan. The berm along 49th Street has been increased in height and grass plantings have been added to aid in obstructing views while the trees on top of the berm mature. Finally, parking for NEL11 Line Maintenance Building has been revised.

2.3 BUILDING SYSTEMS

2.3.1 Buildings

Most buildings on the Nelson WWTF will consist of masonry veneer, insulated cavity, and load- bearing unit masonry wall construction. Smaller buildings will be load-bearing walls with steel beams or bar joist roof structure and metal roof deck. Larger buildings will have double tee, hollow-core or cast in place concrete roof structures.

2.3.2 Roofs

Roofs for all buildings will be light colored single-ply membrane roofing over a cover board, insulation, and structural decking. The membrane roofing will be rated for Very Severe Hail requirements of Factory Mutual; JCW's insurer. The structural decking will either be flat with tapered insulation sloped to drain or sloped to accommodate the roof drainage to one side of each building (excluding Administration Building). Exterior mounted scuppers and downspouts will control the rainwater drainage except at the Administration Building, which will have roof drains and internal piping.

2.3.3 Doors and Windows

All exterior windows will be flush aluminum. Exterior and interior doors will be hollow metal for the process buildings, except in the Headworks, where fiberglass reinforced plastic doors will be used in corrosive areas. Rolling doors will be insulated, anodized aluminum. The skylights on the process buildings will be translucent panels sandwiched on an aluminum frame with screening for hail protection. Exterior windows on the process buildings will be transparent glazing for natural lighting and views. Exterior doors and windows at the Administration Building will be aluminum and interior doors will be wood with steel frames. Exterior windows will be high UV reflective glazing throughout the wastewater facility to reduce heat gain to both process and non-process areas.

2.4 ADMINISTRATION BUILDING (NEL01)

The Nelson WWTF Administration building will serve as a location for Supervisory Control and Data Acquisition (SCADA), training, water quality testing laboratory, vehicle storage and other related administrative functions. In addition, the building will house staff responsible for the maintenance of the

pump stations and peak excess flow treatment facilities. The building will be sized to accommodate the existing WWTF and pump station staff as well as being able to accommodate future growth. The building will also serve as a centralized location for storage for treatment and pump station equipment necessary for maintaining the treatment and pumping station facilities.

The building is a single-story footprint approximately 23,650 square feet. It is located on the southeast side of the site and is central to both the upper and lower plateaus. Roughly 11,550sf of building area will be designated to office/admin and the remaining 12,100 sf for vehicle storage.

The building envelope will be construction of load bearing CMU backer wall with utility-sized field and accent brick veneer. Windows will be aluminum framed with Insulated glass and located in public area for natural daylighting throughout the building. Clerestory windows will be located over circulation paths and the vehicle storage bays. Glass OH doors in the vehicle storage bays will also be utilized to allow natural daylight and views.

Construction will be Type II-B and will have a group B and S-1 occupancy classification.

2.5 COLLECTIONS OPERATION AND MAINTENANCE BUILDINGS

2.5.1 Line Maintenance Building (NEL11)

The existing Line Maintenance staff is located in NEL 11 (See Legend on FDP-C-100 in enclosed drawing set) on the Nelson Complex. This building will remain as office/admin and vehicle storage and serve the same purpose. Modifications to the existing building include the relocation of the front entry, addition of office space, breakroom expansion and renovation, restroom/locker/shower renovations, and conference room renovations.

The front entry is being relocated to accommodate a bigger breakroom. The new breakroom will be divided by a movable partition to split the space for varies functions. A new outdoor patio will also be located adjacent to the break room. The existing covered patio will be enclosed and infilled with new office space. Existing offices will be combined into a large space for conference and open office functions. In addition, the circulation corridor will be updated by increasing its width and updating finishes. These renovations and additions will total approximately 6,000 sf. The exiting vehicle

storage and wash bay will remain with minor demolition of existing infrastructure and infill of the existing maintenance pit.

Modifications to the exterior include the relocation of the front entry and the infill of the existing cover patio. Existing windows will be replaced with new aluminum framed windows and insulated glass. The rest of the building envelope will remain with the option to enhance the look and performance of the façade with metal panel accents and sunshades over the windows.

Construction will be Type II-B and will have a group B and S-1 occupancy classification.

2.5.2 Line Repair Administration Building (NEL12A)

This is a new building which will replace and upgrade the office space in NEL 12B. The building is a single-story footprint with approximately 2,900 square feet. All spaces are designated as office/admin.

The building structure will be pre-engineered metal construction. The building envelope will be consistent with the campus aesthetic including utility brick veneer and utility brick accents. The roof will be low, mono-slope, single-ply membrane over rigid insulation and metal deck. Windows will be aluminum framed with Insulated glass and located in public area for natural daylighting.

Construction will be Type II-B and will have a group B occupancy classification.

2.5.3 Line Repair Shop Building (NEL12B)

The existing building, NEL 12B, is a pre-engineered metal building that is currently used for both office space and storage of equipment associated with JCW's sewer line repair crews. A new, separate, office building(NEL 12A) is planned adjacent to the existing metal building, which will remain for vehicle storage.

2.6 HEADWORKS BUILDING (NEL02)

The purpose of the headworks building is to remove large debris and grit from the wastewater prior to biological treatment. The Headworks building will consist of two levels within roughly three stories of height plus a mechanical sub-level. Spaces include a Dumpster room, Mechanical Room, Electrical Room, Grit Pump Room, Grit Removal Tank Space and Pump Spaces, Screen and Grit Removal Room, Intermediate Pump Station, and a stair tower. Additionally, open areas on the Upper Level will have process gates/control equipment, access panels and mechanical equipment.

The enclosed stair tower provides access to the rooms on all levels as well as the roof via ladder and roof hatch. Three large removable skylights on the roof are centered over three filtering screens for future removal and replacement by crane.

The main volume will be a brick veneer exterior in a coral color blend to match existing facility buildings which are scheduled to remain with CMU or Cast-in-place Concrete back-up walls, parapet walls and aluminum windows. Additionally, exposed cast-in-place concrete will be used on certain process basin areas of the structure.

Construction will be of Type II-B construction and will have a group F-1 occupancy classification.

2.7 BASIN BLOWER BUILDING (NEL03)

The purpose of the basin blower building is to provide air (oxygen) to facilitate the biological process. The Basin Blower Building will consist of above grade Blower and Electrical Rooms. The Blower Room will house the aeration blowers and compressed air mixing equipment. Sound attenuation materials will be affixed to the walls and roof structure of the room to reduce the interior equipment noise emissions. High windows with translucent glazing will allow for natural lighting in the Blower Room. The Basin Blower Building will be a single-story masonry building with a similar exterior appearance to the other new structures, of Type II-B construction and will have a group F-1 occupancy classification.

2.8 SLUDGE BUILDING (NEL04)

The sludge building houses various pumps required to move solids around the facility to facilitate the biological process. The Sludge Building will consist of a below grade Pump Room and above grade Electrical, Mechanical, Metering Pump, Storage Rooms, and an accessible unisex restroom. Two enclosed stairs will provide access to the lower level. The Sludge Building will be a single-story masonry building with a similar exterior appearance to the other new structures, of Type II-B construction and will have a group F-1 occupancy classification. Two pairs of two outdoor chemical storage tanks will be provided at this building for process control.

2.9 DIGESTER CONTROL BUILDING (NEL07)

The digester control building will house equipment to promote solids digestion in the three digester tanks. The Digester Control Building will consist of two levels, one at a grade and a basement. The basement will contain several sets of pumps associated with the digester process, including digester feed, recirculation, transfer, thickened waste activated sludge (TWAS) feed, and dewatering feed. The ground floor will contain digester heating equipment, including boilers, heat exchangers, hot water recirculation pumps, a gas control room, a chemical feed pump room, a unisex restroom, and an electrical room. The exterior design will follow the campus design and materials theme with brick exterior. The building will be a Type II-B construct and have a group F-1 occupancy classification.

Appended to the west side of the building will be concrete tankage designed to receive and store thickened waste activated sludge (TWAS) that will be generated at the Nelson facility, as well as brought in by tanker truck from other JCW facilities. The concrete walls will extend no more than 18 inches above grade. Exposed exterior walls will be concrete. Located on top of the tank will be two ferric chloride storage tanks and an odor control system consisting of a fan and carbon canister.

2.10 FILTER COMPLEX (NEL05)

The filtration process is the last treatment step prior to disinfection to remove small solids. It also aids in wet-weather treatment for flows above 45 million gallons per day. The Filter Complex will consist of two below grade Pump Rooms and two above grade buildings housing stairs and Electrical Rooms (Filter Pump Station 1/2 and Filter Pump Station 3/4). Each building will be surrounded by the disk filters, filter channels and concrete walking deck. Each building will house a stair tower providing access to the lower-level Pump Rooms. The Filter Complex buildings will be single-story masonry buildings with a similar exterior appearance to the other new structures, of Type II-B construction and will have a group U occupancy classification.

2.11 UV BUILDING (NEL06)

UV or "UltraViolet Light" is used to disinfect the wastewater prior to releasing it back into Turkey Creek. The UV Building will consist of above grade UV, Electrical, and Chemical Feed Rooms. The UV Room will house the process effluent water (PEW) pumps, UV banks, and channels. High windows with translucent glazing will allow for natural lighting in the UV Room. Roof skylights will be provided over the PEW pumps for pump removal. The UV Disinfection Building will be a single-story masonry building with a similar exterior appearance to the other new structures, of Type II-B construction and will have a group F-1 occupancy classification.

2.12 DEWATERING BUILDING (NEL08)

The dewatering building prepares the digested biolsolids for land application. The Dewatering Building is an existing structure that will be partially renovated with this project. The existing two-story concrete framed masonry structure will house dewatering, polymer, control, and mechanical rooms along with a truck loading bay and restroom. The building will have a group F-1 occupancy classification.

2.13 PLANT DRAIN PUMP STATION (NEL09)

The small below-grade pump station will replace an existing JCW pump station near Quick Trip along Lamar Avenue. The Plant Drain Pump Station will consist of a below grade wet well and valve vault with a slab-on-grade vault. It will be located at a low point next to the facility's main entrance off Foxridge Drive. Located adjacent to it will be above grade electrical cabinets and an odor control assembly consisting of a fiberglass reinforced plastic (FRP) carbon vessel and a ventilation fan. The facility will be screened by landscaping, or possibly an entrance monument.

2.14 CENTRATE BASIN (NELCB)

Centrate, the liquid produced from the solids dewatering process, will be held in the below-grade concrete centrate basin. Exposed exterior walls will be concrete. The deck of the structure will be suspended concrete slab. The centrate basin will have odor control.

2.15 DISSOLVED AIR FLOATATION BASINS (NELDAF1&2)

Waste activated sludge from the secondary treatment process will be thickened for further treatment in the two dissolved air floatation basins. The basins will be constructed of concrete and also have common wall concrete wetwells for pumping. Exposed exterior walls will be concrete. The basins will be covered by domed aluminum covers and have odor control.

2.16 PRIMARY CLARIFIERS (NELPC1&2)

Screened and de-gritted wastewater will flow from Headworks Building to the two (2) Primary Clarifiers (PC). The Primary Clarifiers will remove settleable solids and floating scum from the de-gritted wastewater. Primary Clarifiers will be constructed of concrete. Exposed exterior walls will be concrete. A flat aluminum basin cover with exterior truss supports will be provided over each clarifier to contain odors from the untreated wastewater.

Adjacent to the PC's will be a small concrete structure designed to split the incoming flow evenly between the two units.

2.17 BIOLOGICAL NUTRIENT REMOVAL (BNR) BASINS (NELBNR1, 2, AND 3)

Three (3) biological nutrient removal (BNR) basins will be provided for biochemical oxygen demand, ammonia, nitrogen, and phosphorus removal. The secondary treatment process will be designed to treat an Annual Average flow of 15 mgd. Hydraulic capacity of the process will be 45 mgd (3 times annual average flow). The balance of the WWTF flow will receive auxiliary wet weather treatment at the Filters.

BNR Basins will be constructed of concrete.

2.18 FINAL CLARIFIER SPLITTER STRUCTURE (NELFCSS)

Wastewater will flow by gravity from the BNR Basins to the Final Clarifier Splitter Structure (FCSB). The structure will distribute flow evenly between the three Final Clarifiers. Manually operated stop plates will be provided to isolate one of the Final Clarifiers. The splitter structure will be constructed of concrete.

2.19 FINAL CLARIFIERS (NELFC1,2 , AND 3)

The Final Clarifiers (FC) will remove settleable solids and floating scum from the BNR Basin biological treatment. Final sludge and scum will flow to the Final Sludge Pump Station. Effluent from the Secondary Clarifiers will flow to the downstream Filter Complex. Final Clarifiers will be constructed of concrete.

2.20 DIGESTERS (NELDIG1, 2, AND 3)

Digesters continue the biological treatment of solids produced in the wastewater treatment process, with the goal of reducing the volume of solids prior to land application. They also result in the production of methane, a portion of which is beneficially reused at the facility. The Digesters will be comprised of three identical above grade 75-foot diameter concrete tanks, two with fixed concrete covers and one with a floating steel cover. They will be approximately 50 feet in height. The concrete tank walls will be coated with a decorative spray-on insulating system (exterior insulation finishing system, or EIFS), with coloring consistent with the adjacent Digester Control Building.

2.21 DIGESTER GAS FLARE (NELGFS)

The Gas Flare is a steel silo-shaped structure, approximately 30 feet in height, that will burn off excess digester gas above and beyond what is required for digester heating. The flame will be fully enclosed in a shroud so it will not be visible from surrounding areas.

2.22 ODOR CONTROL FACILITIES (NELOC1&2)

There will be two (2) full stand-alone odor control facilities at different locations on the site. There will also be two (2) smaller odor control facilities that will be integral with the Plant Drain Pump Station (NEL09) and Digester Control Building (NEL07). Each will be comprised FRP vessels, ranging from 10-18 feet in height, containing activated carbon media, and forced ventilation fans. The fans will draw from the fully enclosed odor sources through ductwork, convey it through the carbon and out the top of the vessel. The ductwork will be above grade supported on piers, with sufficient headspace for personnel and vehicle clearance.

2.23 CHEMICAL FEED FACILITIES

Chemical feed facilities will be integrated into structures at the site without any dedicated chemical feed buildings provided. Chemical tanks will be located outdoors at the UV Building, Sludge Building, and Digester Control Building. Indoor chemical tanks for polymer will be provided at the Sludge Building and Dewatering Building.

2.24 ELECTRICAL SWITCHGEAR (NEL14-SWGR1 & NEL15-SWGR2)

Two prefabricated electrical enclosure buildings will be provided to house electrical distribution equipment.

2.25 PROVISIONS FOR FUTURE FACILITY ADDITIONS

- Wastewater treatment is continuously evolving, both in terms of regulations and technology. Therefore, it is prudent to plan for the likely addition of additional facilities in the future. In the enclosed drawings, space has been allocated on the site for the following future facilities: Gravity Thickener and Pump Station – A portion of the sludge settled in the primary clarifiers will be sent to the BNR Basins to provide a carbon source to support the biological phosphorus removal process. If influent wastewater characteristics or effluent requirements change, it may be beneficial to thicken and ferment the primary sludge to further enhance the biological process. Additionally, the capacity of the anaerobic digesters can be increased by thickening the primary sludge if needed in the future.
- Sidestream Treatment – When solids are dewatered via the centrifuge process the resulting liquid removed is high in ammonia. As designed, this will be returned to the oxygenated portion of BNR Basins where the ammonia will be removed through the aeration process. By adding the sidestream treatment, the ammonia rich stream can be treated by a special type of bacteria that does not require aeration horsepower. As electricity costs rise or the influent wastewater characteristics change, it is possible that adding sidestream treatment will become cost effective at the Nelson WWTF.
- Phosphorus Removal/Recovery – Technology exists for extracting the nutrient phosphorus from the wastewater solids and converting it to a commercially marketable soil amendment. However, this technology is not cost effective at present time, but may become so in the future.
- Fats, Oil and Grease (FOG) Receiving – JCW operates one FOG facility at their Douglas L. Smith Middle Basin WWTF. This facility receives FOG primarily from FOG waste haulers that remove the FOG from restaurant grease traps, but also industrial waste from surrounding industrial facilities. As demand for FOG receiving increases, JCW anticipates the need for a second facility to be added. The Nelson WWTF location would provide a convenient location for FOG waste haulers in the northern part of the county.
- Dewatering Building – The current design is reusing the existing Dewatering Building. It will reach the end of its useful life before the other, new facilities being constructed under this new project. Therefore, provisions are being made on the site for its future replacement.
- Filter Complex Expansion – JCW is currently in a phased process of eliminating wet weather treatment at remote sites in their collection system and conveying these flows to Nelson for treatment at the Filter Complex. It is believed that the current filter sizing is sufficient to accommodate flows in JCW's 25-year Integrated Plan, however space has been reserved on site for when additional capacity is needed.

Note that future facilities would go through a similar development plan process to this project once the future infrastructure improvement is needed.

3.0 Site Planning

Several factors have been considered when laying out the various facilities on site, including:

- Locating facilities to minimize impacts to existing plant operations during construction.
- Locating facilities to consolidate treatment facilities to the north side of the site and administration/storage facilities to the south side of the site to minimize nuisance impacts to neighbors;
- Providing convenient truck access to facilities requiring chemical delivery and trash/debris/biosolids pickup;
- Providing convenient facility access for staff;
- Minimizing tree removal and allowing space to plant additional trees as required to provide screening from surrounding vantage points.
- Locating facilities to minimize long runs of large, expensive pipe;

3.1 SITE LAYOUT

The existing Nelson WWTF site is divided into two halves based upon topography / rock outcroppings that generally run from North to South. The East half of the site includes the Mission Main WWTF as well as shared biosolids storage and processing facilities. The East half of the site is accessible from Nall Avenue and also sits at a higher elevation as compared to the West half. The West half of the site includes the Turkey Creek WWTF. This portion of the site sits at a lower elevation. The site is bounded by a power transmission easement on the North, Nall Park on the east, and residences on the South and West boundaries.

The proposed improvements consist of constructing the new liquid treatment processes on the existing Mission Main site, which as noted sits at a higher elevation than the Turkey Creek site. Secondary solids thickening facilities will also be constructed on this portion of the site and the existing solids Dewatering Building will be rehabilitated.

On the existing Turkey Creek site, it is proposed to construct new headworks, effluent filtration, and disinfection facilities.

The center of the site has been reserved for the construction of a new digester complex which will consist of three new digesters, and a Digester Control Building as well as off-site thickened waste activated sludge (TWAS) receiving / storage (the Nelson WWTP receives and processes TWAS from two of JCW's other WWTP's).

3.2 SITEWORK AND UTILITIES

3.2.1 Demolition

All major existing structures at the Nelson site will be demolished except for the solids dewatering building, collections building (NEL11), existing storage buildings (NEL12B), and a couple of smaller structures on the Turkey Creek site.

All structures demolished will be removed in their entirety when in conflict with proposed new construction. Where existing structures are located in an area without identified improvements, existing walls will be demolished in place to a minimum depth of 5 feet and backfilled to proposed finished grades.

Reconstruction is anticipated on Foxridge Drive from Lamar Avenue to just past the existing facility entrance. All impacts to public roads will require flowable fill to the base of the roadway pavement. Above the flowable fill a street patch with 8" minimum concrete will be required. JCW partnered with the City on the Foxridge Drive project, and accelerated the schedule so as not to conflict with the road reconstruction.

3.2.2 Facility Roadways

The horizontal alignment of the facility roadways generally follows the street design criteria per Kansas City Metropolitan Chapter of the American Public Works Association (APWA) Section 5200 for Residential Access. The horizontal alignment will be placed such that it minimizes any deviations from the design criteria. All curb returns will have a minimum radius of 25 ft. When semi-trailer and/or large truck traffic is anticipated, the curb return radius will be a minimum of 35 ft or as determined necessary using a design vehicle turning template.

The facility roadways will be constructed of a pavement section of 8-inch concrete pavement or 10-inch asphalt pavement (2-inch surface and 8-inch base) over a 6-inch aggregate base on a compacted subgrade of 95 percent standard proctor. All project asphalt will follow the City of Mission standards that adopt Overland Park Construction Specifications. All concrete pavements will be in conformance with the Kansas City Metro Material Board (KCMMMB) 4K Concrete most current edition of the specification. The concrete pavement section will be utilized in areas where truck traffic will idle, park, or perform frequent turning movements.

3.2.3 Storm Sewers

The site will be designed to meet the City of Mission stormwater rules and regulations. Per the rules and regulations all storm sewers will be designed to meet APWA Section 5600. The storm sewer collection will be a combination of open channel, piping and detention. The peak runoff from the site will be equal to or less than existing conditions. Storm sewer work will extend to 49th St. and include minor modifications at that location.

The site is elevated above the FEMA designate 100-yr floodplain limits for Turkey Creek as shown on FIRM 20091C0009G dated August 3, 2009. Although not shown on the FIRM the Foxridge culvert will have to take into account tailwater conditions from a Turkey Creek 100-yr and higher flood event.

3.2.4 Screening & Fencing

To the extent practicable, the existing trees along the north, south, and west ends of the site will remain to provide screening of the proposed site improvements. The proposed site screening along Foxridge Drive, Nall Avenue and 49th Street will meet all requirements from the City of Mission code. Along Nall Avenue and 49th Street, a landscaping berm will be incorporated to provide additional height for screening of the site. To offset the number of trees required by the City's ordinance, existing trees will be preserved where possible.

Perimeter fencing will be provided around the facility. Where practical the existing perimeter fence will be left in place. During construction temporary chain link fencing will be constructed. Upon

completion of the project, the fencing along Foxridge Drive, Nall Avenue, and the eastern half of 49th Street fence will be replaced with a 7-foot black metal picket fence. Cut sheets of this ornamental fence are included in this submittal. The remainder of the site perimeter will be 6-foot chain link with 3-strand barbed wire. Access gates will be sliding cantilever gates similar to the existing facility entrance gate. The gates will be located at the main entrance and the secondary access to Nall Avenue at the existing southern location and a new location on the north end of the site. Where paralleling right-of-way, the fence will be set back one foot from the right-of-way line.

3.2.5 Off-Site Traffic Improvements

Based on a full traffic operational analysis, off-site traffic improvements needed to efficiently handle area and construction site traffic for the Nelson WWTF Improvements project through the end of construction in 2029, and beyond, were determined. These improvements are anticipated to be completed in the first quarter of 2024, and are as follows:

- I-35/24th Street: Signalize both ramp intersections. Based on the traffic analysis, the addition of left-turn lanes on 24th Street at the I-35 ramp terminal intersections was determined to be unnecessary in the near term. These two signals should be interconnected and coordinated.
- Lamar Avenue / Foxridge Drive: Install a 5-section protected-permissive left-turn head for the southbound through/left lane and eastbound left-turn lane and reprogram the controller accordingly.

3.3 SECURITY FEATURES

Entrance gates shall be motorized sliding gates controlled by key cards. Security cameras will be used to monitor critical facility areas. Access to the Administration Building will be controlled by key cards. Access to process buildings will be controlled by a keying system with tiered access to certain spaces as required. Per recommendation of the Sheriff's Department, trees will be planted inside the fence, set back to provide 5 feet of clear space.

4.0 Preliminary Site Layout and Major Sequencing Constraints

Construction of the Nelson WWTF improvements will be sequenced in order to maintain existing facilities to provide adequate levels of treatment to maintain permit compliance as well as process existing peak flows conveyed to the site. Below is a general outline of major sequencing steps for the proposed site layout. For each phase noted below, there are certain relocations of existing piping, equipment, utilities, and electrical systems that will be needed to facilitate construction. Additionally, after commissioning of new unit processes as noted below, the existing applicable unit processes will be demolished to facilitate the next phase of construction.

- Step 1: Early out projects that include the construction of a replacement Foxridge Forcemain, new facility entrance and plant drain pump station, including various temporary piping improvements as well as Chemically Enhanced Primary Treatment (CEPT) that will facilitate subsequent stages of construction.
- Step 2: Construction of new effluent filtration and disinfection on the Turkey Creek site. Also, construction of new Administration Building, Remodel of existing Line Maintenance Building and construction of a new Centrate storage tank that will be used for temporary storage of hauled TWAS during construction.

- Step 3: After the implementation of CEPT and other temporary improvements, the demolition of portions of the Mission Main facilities will commence. This will allow for the construction of the Headworks, BNR, and the Sludge Pump Station.
- Step 4: Upon placing the new filters and disinfection in service, the remainder of the Mission Main upper plateau facilities can be demolished. This allows for the construction of the new Primary Clarifiers.
- Step 5: Final clarifiers and Blower Building are constructed on the upper site and preparation of the area where the construction of the Digestion Complex will take place on the lower site.
- Step 6: Modifications to the existing Dewatering Building and construction of the new Digestion Complex as well as Odor Control facilities.
- Step 7: Start up and commissioning of the new facilities and demolition of the remaining existing facilities.

5.0 Noise Control

5.1 PROJECT NOISE EMISSIONS

Sound levels from the upgraded facility will be at or below 50 dB(A), consistent with the City of Mission's noise ordinance.

The noise emissions associated with the facility will include outdoor and indoor equipment noise sources. The noise due to indoor noise sources will include the sound energy that is transmitted through the building walls and roof as well as the ventilation louvers. The primary noise sources are anticipated to include odor control fans, aeration and backwash blowers, centrifuges, and miscellaneous vehicular traffic. Secondary noise sources will include mixer motors, pumps, building ventilation equipment and components and other auxiliary equipment.

A Noise Study has been prepared, focusing on noise generation post construction and during construction. It is included with this submittal.

5.2 ARCHITECTURAL CONSIDERATIONS

To ensure that minimal equipment noise escapes through buildings, the walls and roofs will be designed to provide adequate sound isolation. Specifically, the wall and roof systems will be specified to meet a minimum Sound Transmission Classification (STC) rating. In addition, the sound isolation performance of the doors, windows, and ventilation louvers will be addressed to ensure these components do not compromise the acoustical integrity of the wall and roof systems.

5.3 EQUIPMENT CONSIDERATIONS

Equipment noise mitigation strategies will include specifying low noise equipment or providing acoustical treatments to the equipment. Acoustical treatments include noise barrier walls, acoustical enclosures, acoustical lagging, etc. Noise mitigation strategies may also need to be considered for the heating, ventilation, and air conditioning (HVAC) components that are located outdoors.

6.0 Fire Protection

Fire protection systems requirements for the project have been determined in accordance with local building and fire codes. The systems have been designed to meet minimum life safety

requirements as mentioned in the codes and applicable NFPA standards. Automatic sprinkler systems will be provided in all of the hazardous areas, inside buildings exceeding maximum fire area limits, throughout building stories not meeting exterior wall opening requirements every 50 linear feet, and due to building occupancy classification in accordance with Codes.

Automatic sprinkler system will consist of double detector check backflow preventer, alarm check valve, fire department connection, and piping. All project buildings will be protected by outdoor fire hydrants located within 400 ft of the perimeter of the building to provide fire flow during firefighting operations.

The Buildings' fire flow demands were determined based on the construction type and floor area of the building in accordance with the fire code. Total number of hydrants required for firefighting operations for each building will be based on fire flow requirement and level of fire protection systems provided inside the building. Adequate firewater supply for sprinkler and hydrant systems will be delivered through city potable water mains and a dedicated separate fire water distribution system within the plant property with sufficient pressure to meet NFPA requirements. The fire protection system will be designed according to the requirements of NFPA and the local jurisdiction.

7.0 Fire Alarm and Detection Systems

Fire alarm and detection systems will be provided in areas required by NFPA 820 and as needed to monitor sprinkler systems as required by IBC. All Fire Alarm Control Panel's (FACP's) shall be capable of supervisory service for emergency services notification as required by the IBC.

All fire protection and signaling panels will be networked back to the master panel, located within the Administration Building.

Buildings with combustible gas detectors and continuous ventilation will have dual light warning systems at building exterior entrances.

8.0 Lighting

The Nelson Facility operates 24/7 and will be lighted at night. Power supply for building interior and exterior fixtures will be 120-volt single phase. Battery powered emergency and exit discharge lighting will be provided in all buildings to allow safe exit in the event of a power failure. Power supply for fixtures mounted on yard structures will be 208-volt single phase. Roadway lighting will be provided to illuminate plant access roads and for general site lighting and will be 480-volt single phase. To reduce power use, all lighting fixtures specified will be LED type.

Exterior lighting design has taken into consideration recommendations of the International Dark Sky Association as well as those of the Johnson County Sheriff's Office pertaining to safety and Homeland Security considerations. A photometric study of exterior lighting is provided in the Drawings. Note that the study does not include lighting from exterior fixtures at buildings which will have minimal projection. Additionally, lighting at exterior process structures such as the BNR Basins is switched and is intended to be lit only as necessary for operations and maintenance. Therefore, the lighting from the BNR Basins is not depicted on the photometric study.

9.0 Lightning Protection

Lightning protection systems consisting of air terminals and a system of interconnecting conductors will be specified for each building and applicable structures constructed under this project. All roof mounted mechanical equipment such as fans, vents, ladders, and drains will be bonded to the system. Each lightning protection system will be bonded to the grounding electrode system at the specific building or structure. Each lighting protection system will be inspected and a UL Master Label Certificate of Inspection will be provided.

10.0 Sustainability and Water Quality

While a primary driver for the project is improved water quality, the project is also focused on implementation of sustainable solutions. Sustainability features of the design will include:

- use of premium efficiency motors and load-matching variable frequency drives where practical to minimize electricity consumption.
- reuse of treated wastewater for washdown and internal plant use.
- use of low energy consumption LED lighting.
- automated control of the aeration process based on dissolved oxygen and nitrate, to minimize electricity consumption.
- reuse of digester gas for digester heating in lieu of natural gas.
- the traffic signal improvements will greatly improve the flow of traffic, with a corresponding reduction of the time vehicles spend idling and exhausting into the atmosphere.

With respect to water quality, the project will greatly reduce the amount of organic material, ammonia, nitrogen, and phosphorus that are discharged to Turkey Creek, benefitting not only the local waterway, but carrying downstream to the Gulf of Mexico.

11.0 Normal Plant Operations Traffic

11.1 SITE PERSONNEL TRAFFIC

It is currently anticipated the day shift will consist of approximately 24-27 people, plus a visiting laboratory technician from the County's Sunset office building. The day shift typically runs from 7:30 a.m. to 3:30 p.m. Evening and Night shift traffic will consist of 3 operators, respectively. These are subject to change as the operational needs of the facility are better understood.

The collections and operations staff currently has 56 people and is anticipated to increase to 61 people in the near term. The staff has a staggered start to their schedule beginning at 7:00 a.m., 7:30 a.m. and 8:00 a.m., however, the start times are adjusted periodically.

11.2 SCREENINGS, GRIT, AND SLUDGE HAULING

Screenings and grit hauling will normally consist of four to five (4 to 5) 20 cubic yard roll-off dumpster containers per week during normal operation, Monday through Friday. During peak wet weather events, the number of 20-yard containers could be as high as 2 to 3 containers per day. Sludge hauling of dewatered sludge will normally consist of 5 to 6 semi-tractor trailer containers each day, Monday through Friday, between the hours of 7:00 a.m. and 5:00 p.m. During peak events, the number of trucks could be as high as 10 trucks per day.

11.3 CHEMICAL DELIVERIES

Chemical facilities are generally designed to provide between 14 and 30 days of storage between deliveries. Chemical deliveries will occur between Monday and Friday. The anticipated number of tanker truck sized deliveries are estimated to vary from 12 to 20 deliveries per month.

11.4 SITE ACCESS

All trucks will be directed to use the Foxridge entrance. Two points of access will be maintained from Nall Avenue. The south entrance will remain. The northern entrance will be shifted all the way to the northern termination of Nall.

12.0 Schedule

The anticipated project schedule, based on a Construction Manager at Risk delivery method, is shown in Figure 12-1.

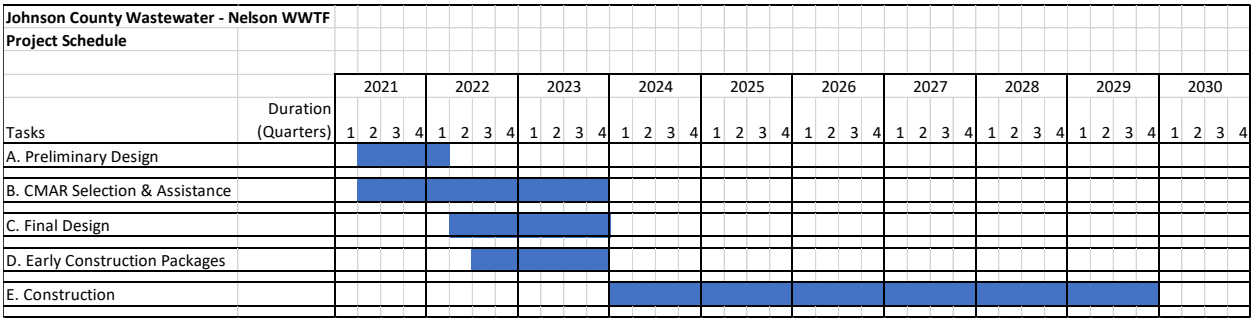


Figure 12-1 JCW Nelson WWTF Project Schedule


DELIVERIES

Coral Virtual Brick Sample

Textures

Rockface
Shadowtex
Velour
Vertex
Wiretex

Sizes

Closure
Kingsize
Modular
Norman
Roman
Utility

Contact Information

Phone:

(785)-243-1284

Fax:

(785)-243-1287

E-Mail:

info@cloudceramics.com

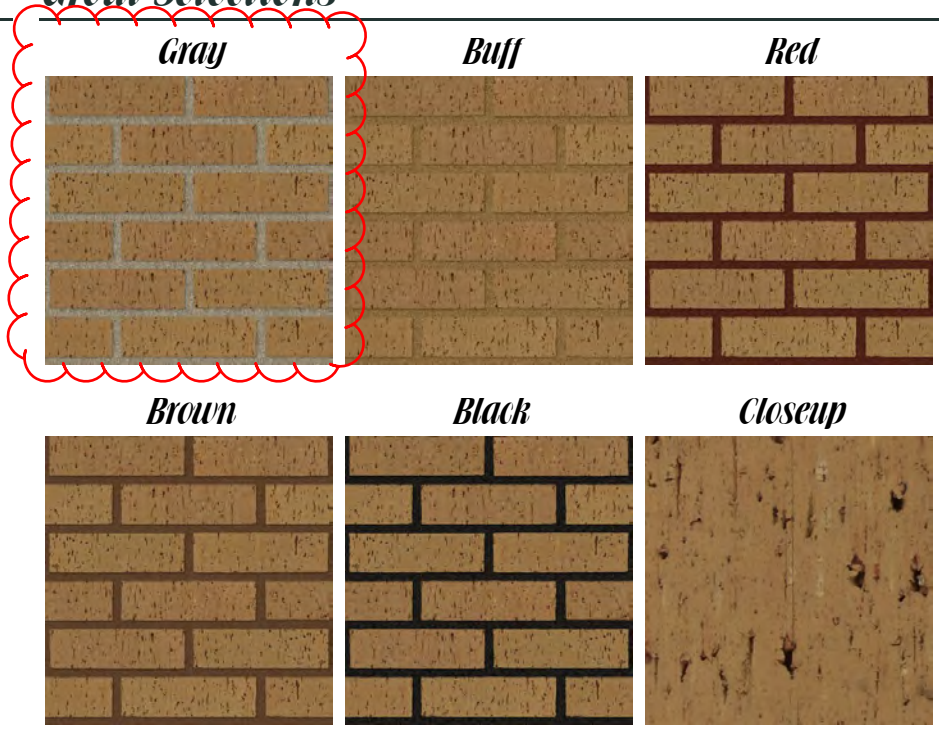
Mail:

Cloud Ceramics

P.O. Box 369

Concordia, KS 66901

Grout Selections



Colors shown are intended as a guide only and may vary. To ensure color accuracy call for a sample.

ACCREDITED
Testing Laboratory

CLEMSON
UNIVERSITY
THE BISHOP MATERIALS LABORATORY

AASHTO R18
ACCREDITED LABORATORY

TEST REPORT

100 Clemson Research Blvd.
Anderson, SC 29625
(864) 656-1094
Fax: (864) 656-1095
www.brickandtile.org

Results of Tests on Brick conducted in accordance with ASTM C67-14 Standard Method for Sampling and Testing Brick and Structural Clay Tile

02/08/2017

Name:	Cloud Ceramics 1716 Quail Road Concordia , KS 66901	Plant:	Cloud Ceramics	*Temperature: 60 - 90F
		Report Number:	7360-15992	*Humidity: 30% - 70%
Phone:	800-880-5986	Received Date:	01/25/2017	
Fax:		Sampled Date:	01/25/2017	
		Lot:		
		Product Code:		

Sample Description: **Light Ivory, French Grey, Coronado Grey, Dove Grey, Cloud Grey**

							Test Date
Absorption	**1**	**2**	**3**	**4**	**5**	**Average**	
24 Hour Submersion in Cold Water (%)	6.04	5.97	6.15	6.13	6.31	6.12	01/30/2017
5 Hour Submersion in Boiling Water (%)	7.94	7.95	8.07	8.01	8.03	8.00	
Saturation Coefficient (Ratio of 24H to 5H)	0.76	0.75	0.76	0.76	0.79	0.76	

Compressive Strength	**1**	**2**	**3**	**4**	**5**	**Average**	
psi	12,895	14,750	14,803	15,383	12,443	14,055	01/27/2017
MPa	88.9	101.7	102.1	106.1	85.8	96.9	
Efflorescence	**11**	**12**	**13**	**14**	**15**		
	Not Effloresced	Not Effloresced	Not Effloresced	Not Effloresced	Not Effloresced		02/06/2017
IRA (Oven Dried Method)	**6**	**7**	**8**	**9**	**10**	**Average**	
g/min/30 in.²	7.4	10.7	10.6	10.9	10.4	10.0	02/02/2017
Average % Void	25.2						02/02/2017

The brick represented by the test results shown here comply with the physical property requirements of the standards listed below:

ASTM C 216 - 16 Standard Specification for Facing Brick (Solid Masonry Units Made From Clay or Shale)
Grade: SW, MW

Michael Walker, Quality Manager

**The temperature and humidity of the Bishop Materials Laboratory is constantly kept between 60 -90F, and 30-70% RH*

The results shown above apply only to the samples tested, which are provided by the customer.

ALUCOBOND®
GIVING SHAPE TO GREAT IDEAS

Who We Are

As an industry leader, ALUCOBOND® brand aluminum composite material (ACM) has been a trusted architectural cladding for over 50 years. Sought after for its outstanding product attributes such as flatness, formability, durability, and ease of fabrication, ALUCOBOND products allow architects and fabricators to bring distinctive and exciting visions to life. ALUCOBOND PLUS, our fire retardant core, has been developed to meet today's fire performance requirements set by the International Building Code (IBC) while using ACM as the material of choice.

Made in the USA, ALUCOBOND is manufactured by 3A Composites USA. Our trend-forward palette represents an ongoing development of colors and finishes curated to foster creativity and ingenuity. See how ALUCOBOND has been *giving shape to great* ideas by leading the world in design innovation, and continually adapting to the needs of the growing architectural community.

Colors & Finishes

The Classic Collection

Color plays an integral role in the architectural environment; the timeless palette in our Classic Collection reflects your passion for what's possible. From classic neutrals to vibrant hues, this line offers a wide range of options to help you give shape to great ideas.

The Spectra Collection

To add a dynamic element of fascination and movement to any architectural facade, these transitional finishes celebrate the natural color shifts that occur in the world around us – from raw natural elements to the glowing luster and sheen found in modern alloys and luxury finishes.

The Anodized Collection

In addition to the strength and high-quality appearance that comes standard with our collections, this line uses the anodizing process to enhance the intrinsic clarity and beauty of aluminum while creating a harder, smoother, more durable surface.

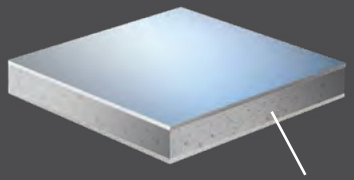
The Natural Collection

Biophilic design conceptualizes spaces in a way that acknowledges the human need to connect with nature. The finishes in the Natural Collection amplify the organic beauty and character of different elements & materials found in the world around us through three distinct series: the **Element Series**, the **Terra Series** and the **Woodgrain Series**.

Products

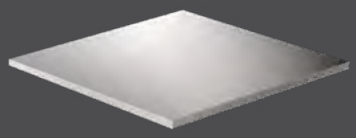
ALUCOBOND® PLUS

4mm ACM comprised of two sheets of smooth .020" aluminum thermobonded to a solid, fire retardant core. Developed exclusively to meet fire performance requirements while providing the benefits & versatility of ACM.



ALUCOBOND® AXCENT™

A solid .040" flat aluminum sheet that offers the perfect complement to ALUCOBOND PLUS. AXCENT is excellent for columns, parapet caps, canopies, soffits, and trim.



Scan or click QR code with mobile camera to order samples.

The Classic Collection (continued)

Legend

All finishes are **stocked** in ALUCOBOND PLUS and ALUCOBOND AXCENT, except those noted ◊ or Ω

◊ ALUCOBOND AXCENT Made to Order
Ω Not Available in ALUCOBOND AXCENT

Dusty Charcoal II
PVDF 2
Gloss 25-35

Focus Black II
PVDF 2
Gloss 25–35

TBL Black (Buick)
SMP
Gloss 70–80 Ω

Tri-Corn Black
SMP
Gloss 25–35 ◊

Black Metallic
PVDF/FEVE
Gloss 75-85

Tuscan Sun
PVDF 2
Gloss 25–35 ◊

Spire Blue II
PVDF/FEVE
Gloss 25–35 ◊

Azure Blue
PVDF 3
Gloss 25–35

Ultramarine Blue
PVDF 2
Gloss 25–35

Bowtie Blue II
SMP
Gloss 65–75 ◊

Image Blue
SMP
Gloss 25–35 ◊

Amazon Prime Blue
(Pantone 2995C) PVDF 3
Gloss 25–35

Just Purple
PVDF 3
Gloss 25 -35 ◊

Red Fire
PVDF 3
Gloss 25–35

Patriot Red
SMP
Gloss 45–55

Carb Red
SMP
Gloss 75–85 ◊

Botanical
PVDF 2
Gloss 25-35 ◊

Krispy Green
PVDF 2
Gloss 25-35 Ω

The Spectra Collection

Ocean
PVDF/FEVE
Gloss 70–80 ◊

Galaxy Blue
PVDF/FEVE
Gloss 70–80 ◊

White Gold
PVDF/FEVE
Gloss 70–80 ◊

Cupral
PVDF/FEVE
Gloss 70–80 ◊

Sakura
PVDF/FEVE
Gloss 70–80 ◊

The Anodized Collection*

*Natural variations in shade and color will occur with anodized finished metals. This variation is part of the natural beauty brought out by the anodizing process and often sought after for this aesthetic quality. Visual look of variation may also be effected by tint as well as size of panel.

Clear Anodized
Anodized
Gloss 15–25 Ω

Light Bronze Anodized
Anodized
Gloss 15–25 Ω

Medium Bronze Anodized Anodized
Gloss 15–25 Ω

Dark Bronze Anodized
Anodized
Gloss 15–25 Ω

Black Anodized
Anodized
Gloss 15–25 Ω

ALUCOBOND PLUS

Thickness of aluminum skin	0.020″ (nominal)
Product thickness	0.157″ (4mm nominal)
Weight	1.56 lb/ft²
Standard sheet dimension*	62″ x 196″
Maximum width/length**	62″/ 400″

* Exceptions to standard dimensions are referenced below
** Sheets will be fabricated to meet custom panel sizes within product range below.

ALUCOBOND PLUS				
Thickness	4mm			
Width	40″	49.2″	50″	62″
Length	196″	146″	196″	196″
Solids	⚬		⚬	•
Micas / Metallics	⚬		⚬	•
Color-Changing	⚬		⚬	•
Textured	⚬		⚬	•
Reflective		•		
Anodized				•[1]
Brushed			⚬	•
Prints			•	

• - Stocked ⚬ - On Request [1] - Anodized finishes are only availble in 60″W x 198″L

ALUCOBOND AXCENT

Product thickness	0.040″ (nominal)
Weight	0.56 lb/ft²
Standard width	48″
Standard length	120″

ALUCOBOND AXCENT	
Thickness	0.040″
Sheet Size	48″ x 120″
Solids	•*
Micas / Metallics	•*
Color-Changing	⚬
Textured	⚬

• - Stocked ⚬ - On Request
* - Most solid, mica & metallic finishes are stocked, however some are considered "made-to-order" & subject to 2000 sf minimum & lead times. Please reference the ALUCOBOND AXCENT color chart for more details.

PAINT FINISHES

ALUCOBOND PVDF finishes are coated in accordance with AAMA 2605 signifying the highest performance exterior finish standard in the industry. AAMA 2605 finishes have the best chalk, humidity, and color change performance. Backed by ALUCOBOND's 20-year warranty, SMP finishes meet AAMA 2604. ALUCOBOND has a 50 plus year history of performance and offers best-in-class Warranty coverage.

PVDF (Polyvinylidene Fluoride) finishes can be produced in either a 2-coat (primer + color coat) or 3-coat (primer + color coat + top coat). Known for its durability and strong performance characteristics PVDF is used to develop a high-quality solid, mica or metallic finish.

PVDF/FEVE finish consists of 2 coats of PVDF & a clear coat of FEVE. On our Spectra finishes, the FEVE coat provides a higher gloss level & depending on the viewing angle, different wave-lengths of light are reflected, resulting in an ever-changing color gradient with iridescent highlights.

SMP (Silicone Modified Polyester) Paint systems are a blend of polyester & silicon intermediates. SMP coatings deliver an excellent balance of exterior gloss, and color retention with resistance to stains, chalking, ultraviolet radiation, weather and humidity.

FEVE (Fluoropolymer Based) A transparent top coat is applied to the coil, protecting the surface from the elements & preserves the aesthetic of the bare finish. Various tints can be applied to broaden the color palette & add to the aesthetics of a project.

For warranty information please contact your local ALUCOBOND Sales Manager.

CUSTOM COLORS

If you require a custom color for your next project, our color technicians will strive to match your desired color. Exact matches are not always possible due to different inks & pigments used in various industries & application methods. Matching a color created by a spray method, particularly a metallic, may not match with a color created on a roll coated method.

To ensure that we identify your color correctly, we require either:
- A hand sample of at least 1″ x 1″, OR
- Pantone®, RAL, NCS or paint code reference

Please contact your local sales manager for assistance.

Send the color sample along with your name, company name, address, phone number & email, as well as the project name, project location, type of finish and gloss level to:

3A Composites USA
Attn: Color Lab
208 West Fifth Street
Benton, KY 42025

Design + Performance Versatility with Unmatched Fabrication Flexibility

Geisinger Professional Building
Jenkins Township, Pennsylvania
ARCHITECT
Mericle Commercial Real Estate Services
Wilkes-Barre, Pennsylvania
GLAZING CONTRACTOR
Sterling Glass, Inc., Scranton, Pennsylvania
PHOTOGRAPHER
© Perzel Photography Group

Trifab® VersaGlaze® is built on the proven and successful Trifab® platform – with all the versatility its name implies. There are enough framing system choices, fabrication methods, design options and performance levels to please the most discerning building owner, architect and installer. The 4.5" depth Trifab® VersaGlaze® Framing System family is available with non-thermal, thermal and ultra-thermal performance levels. The ultra-thermal Trifab® 451UT Framing System, is designed for the most demanding thermal performance and employs a dual Isolock® thermal break.

AESTHETICS

Trifab® VersaGlaze® Framing Systems offer designers a choice of front-, center-, back- or multi-plane glass applications. Structural silicone glazing (SSG) and weatherseal glazing options further expand designers' choices, allowing for a greater range of possibilities for specific project requirements and architectural styles. All systems have a 4-1/2" frame depth; Trifab® VersaGlaze® 450 has 1-3/4" sightlines, while Trifab® VersaGlaze® 451/451T and Trifab® 451UT have 2" sightlines.

With seamless incorporation of Kawneer entrances or windows, including GLASSvent® visually frameless ventilators, Trifab® framing can be used on almost any project. These framing systems can also be packaged with Kawneer curtain walls and overhead glazing, thereby providing a full range of proven, and tested, quality products for the owner, architect and installer from a single-source supplier.

ECONOMY

Trifab® VersaGlaze® 450/451/451T/451UT Framing Systems offer a variety of fabrication choices to suit your project:

- **Screw Spline** – for economical continuous runs utilizing two-piece vertical members that provide the option to pre-assemble units with controlled shop labor costs and smaller field crews for handling and installation. (available for all systems)
- **Shear Block** – for punched openings or continuous runs using tubular moldings with shear block clips that provide tight joints for transporting large pre-assembled multi-lite units. (available for 450/451/451T systems)
- **Stick** – for fast, easy field fabrication. Field measurements and material cuts can be done when metal is on the jobsite. (available for 450/451/451T systems)
- **Pre-glazed** – The combination of screw spline construction with pre-glazing in the shop accelerates installation and reduces field labor time while minimizing disruption to the surrounding area or existing tenants. Making it an exceptional choice for new or retrofit applications, particularly in urban areas or where space is limited. (available for 451/451T/451UT framing)

Brighton Landing
Cambridge, Massachusetts
ARCHITECT
ADD Inc., Cambridge, Massachusetts
GLAZING CONTRACTOR
Ipswich Bay Glass Company,Inc., Rowley, Massachusetts
PHOTOGRAPHER
© Gordon Schenck, Jr.

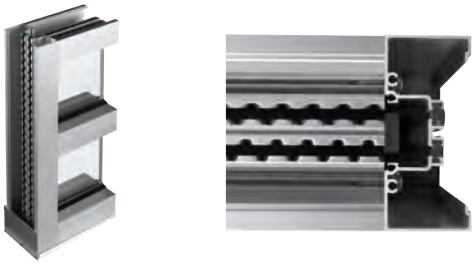
All systems can be flush glazed from either the inside or outside. The weatherseal option provides an alternative to SSG vertical mullions for Trifab® VersaGlaze® 450/451/451T. This ABS/ASA rigid polymer extrusion allows complete inside glazing and creates a flush glass appearance on the building exterior without the added labor of scaffolding or swing stages. Additionally, high-performance flashing options are engineered to eliminate perimeter sill fasteners and associated blind seals.

FOR THE FINISHING TOUCH

Architectural Class I anodized aluminum and painted finishes in fluoropolymer (AAMA 2605) and solvent-free powder coatings (AAMA 2604) offer a variety of color choices.

PERFORMANCE

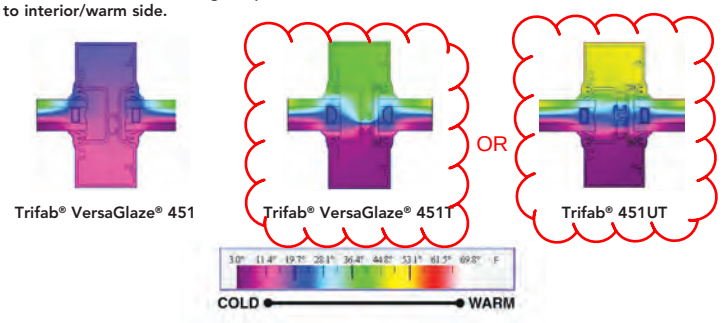
Kawneer's Isolock® thermal break technology creates a composite section, prevents dry shrinkage and is available on Trifab® VersaGlaze® 451T. For even greater thermal performance, a dual Isolock® thermal break is used on Trifab® 451UT.



Trifab® 451UT uses a dual Isolock® thermal break (right) and features a new high-performance sill design, which incorporates a screw-applied end dam (left), ensuring positive engagement and tight joints between the sill flashing and end dam.

U-factor, CRF values and STC ratings for Trifab® framing systems vary depending upon the glass plane application. Project-specific U-factors can be determined for each individual project. (See the Kawneer Architectural Manual or Kawneer.com for additional information.)

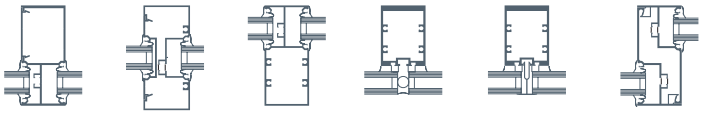
Thermal simulations showing temperature variations from exterior/cold side to interior/warm side.



Trifab® VersaGlaze® 451 | **Trifab® VersaGlaze® 451T** | **Trifab® 451UT**

PERFORMANCE TEST STANDARDS

Air Infiltration	ASTM E283
Water	AAMA 501, ASTM E331
Structural	ASTM E330
Thermal	AAMA 1503
Thermal Break	AAMA 505, AAMA TIR-A8
Acoustical	AAMA 1801, ASTM E1425



Front | **Center** | **Back** | **SSG** | **Weatherseal** | **Multi-Plane**

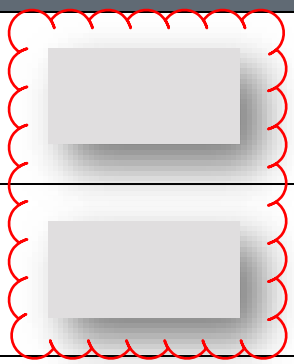
Kawneer Company, Inc.
Technology Park / Atlanta
555 Guthridge Court
Norcross, GA 30092
770.449.5555
kawneer.com

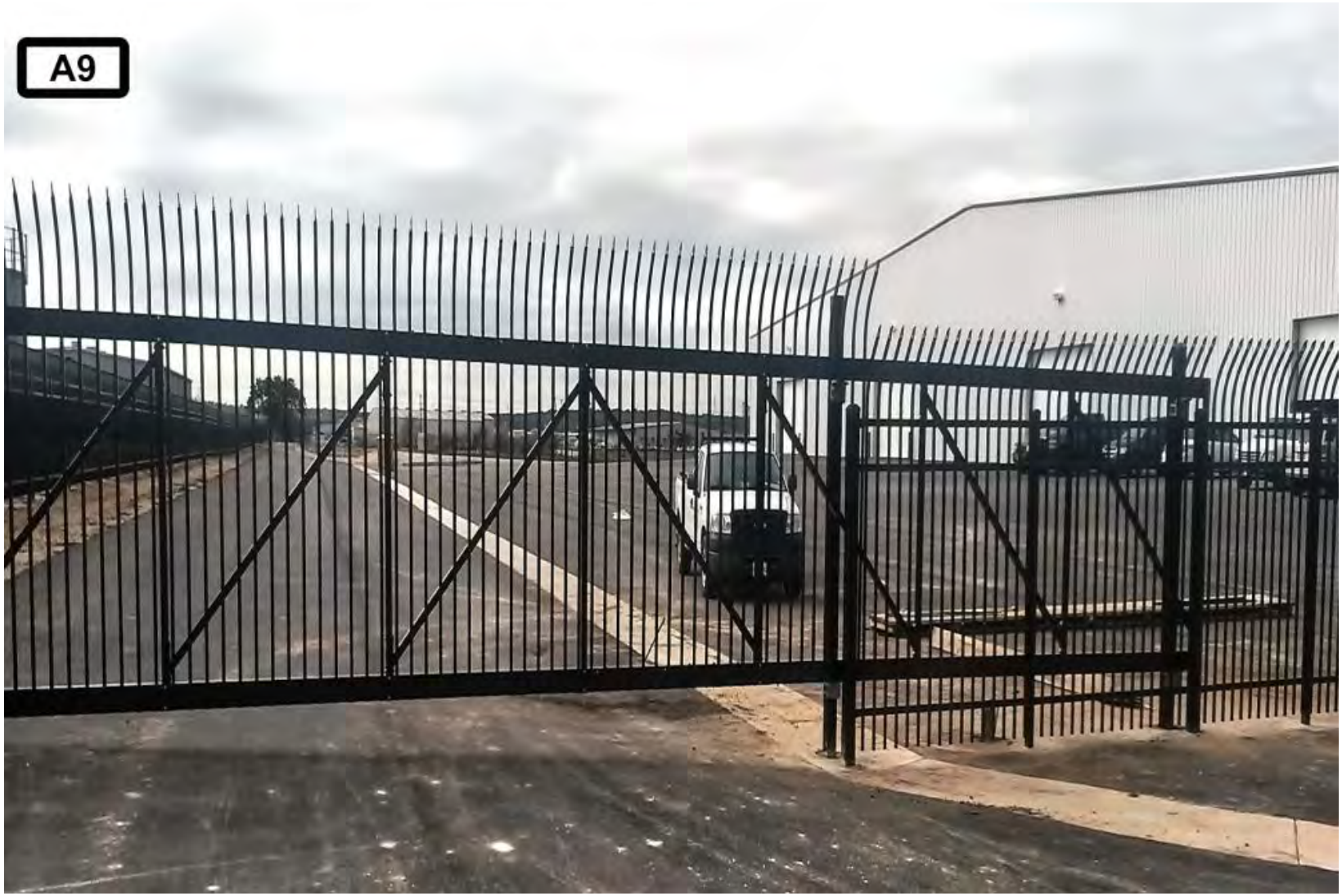
KAWNEER

Kawneer Anodized Finishes

Kawneer gives you a wide variety of anodized finishes with attractive alternatives. The benefit of a durable, anodized finish is married to the beauty of some very dynamic and exciting colors.

At the start of every design, there's a choice of how you want to finish. Contact your Kawneer sales rep for the information on these and other finishes available from Kawneer.

	KAWNEER FINISH NO.	COLOR	ALUMINUM ASSOCIATION SPECIFICATION	OTHER COMMENTS
	#14	CLEAR	AA-M10C21A41	Architectural Class I (.7 mils minimum)
	#17	CLEAR	AA-M10C21A31	Architectural Class II (.4 mils minimum)
	#18	CHAMPAGNE	AA-M10C21A44	Architectural Class I (.7 mils minimum)
	#26	LIGHT BRONZE	AA-M10C21A44	Architectural Class I (.7 mils minimum)
	#28	MEDIUM BRONZE	AA-M10C21A44	Architectural Class I (.7 mils minimum)
	#40	DARK BRONZE	AA-M10C21A44	Architectural Class I (.7 mils minimum)
	#29	BLACK	AA-M10C21A44	Architectural Class I (.7 mils minimum)


A9

LIGHT FIXTURE CUT SHEETS

D-Series Size 1
LED Area Luminaire

Catalog Number

Notes

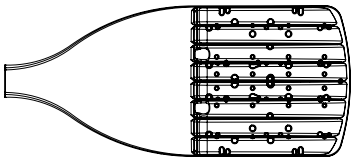
Type

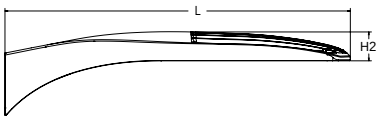
Hit the Tab key or mouse over the page to see all interactive elements.

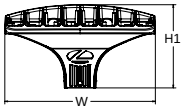
d-series

Specifications

EPA:	0.69 ft² (0.06 m²)
Length:	32.71" (83.1 cm)
Width:	14.26" (36.2 cm)
Height H1:	7.88" (20.0 cm)
Height H2:	2.73" (6.9 cm)
Weight:	34 lbs (15.4 kg)







Introduction

The modern styling of the D-Series features a highly refined aesthetic that blends seamlessly with its environment. The D-Series offers the benefits of the latest in LED technology into a high performance, high efficacy, long-life luminaire.

The photometric performance results in sites with excellent uniformity, greater pole spacing and lower power density. D-Series outstanding photometry aids in reducing the number of poles required in area lighting applications with typical energy savings of 65% and expected service life of over 100,000 hours.

Ordering Information

EXAMPLE: DSX1 LED P7 40K 70CRI T3M MVOLT SPA NLTAIR2 PIRHN DDBXD

DSX1 LED

Series	LEDs	Color temperature [2]	Color Rendering Index [2]	Distribution	Voltage	Mounting
DSX1 LED	**Forward optics** P1 P6 P2 P7 P3 P8 P4 P9 P5 **Rotated optics** P10 [1] P12 [1] P11 [1] P13 [1]	(this section 70CRI only) 30K 3000K 40K 4000K 50K 5000K (this section 80CRI only, extended lead times apply) 27K 2700K 30K 3000K 35K 3500K 40K 4000K 50K 5000K	70CRI 70CRI 70CRI 80CRI 80CRI 80CRI 80CRI 80CRI	AFR Automotive front row T1S Type I short T2M Type II medium T3M Type III medium T3LG Type III low glare [3] T4M Type IV medium T4LG Type IV low glare [3] TFTM Forward throw medium T5M Type V medium T5LG Type V low glare T5W Type V wide BLC3 Type III backlight control [3] BLC4 Type IV backlight control [3] LCCO Left corner cutoff [3] RCCO Right corner cutoff [3]	MVOLT (120V-277V) [4] HVOLT (347V-480V) [5,6] XVOLT (277V - 480V) [7,8] 120 [16, 26] 208 [16, 26] 240 [16, 26] 277 [16, 26] 347 [16, 26] 480 [16, 26]	**Shipped included** SPA Square pole mounting (#8 drilling) RPA Round pole mounting (#8 drilling) SPA5 Square pole mounting #5 drilling [9] RPA5 Round pole mounting #5 drilling [9] SPA8N Square narrow pole mounting #8 drilling WBA Wall bracket [10] MA Mast arm adapter (mounts on 2 3/8" OD horizontal tenon)

Control options

Shipped installed

NLTAIR2 PIRHN	nLight AIR gen 2 enabled with bi-level motion / ambient sensor, 8-40' mounting height, ambient sensor enabled at 2fc. [11, 12, 20, 21]
PIR	High/low, motion/ambient sensor, 8-40' mounting height, ambient sensor enabled at 2fc [13, 20, 21]
PER	NEMA twist-lock receptacle only (controls ordered separate) [14]
PER5	Five-pin receptacle only (controls ordered separate) [14, 21]
PER7	Seven-pin receptacle only (controls ordered separate) [14, 21]
FAO	Field adjustable output [15, 21]
BL30	Bi-level switched dimming, 30% [16, 21]
BL50	Bi-level switched dimming, 50% [16, 21]
DMG	0-10v dimming wires pulled outside fixture (for use with an external control, ordered separately) [17]
DS	Dual switching [18, 19, 21]

Other options

Shipped installed

SPD20KV	20KV surge protection
HS	Houseside shield (black finish standard) [22]
L90	Left rotated optics [1]
R90	Right rotated optics [1]
CCE	Coastal Construction [23]
HA	50°C ambient operation [24]
BAA	Buy America(n) Act Compliant
SF	Single fuse (120, 277, 347V) [26]
DF	Double fuse (208, 240, 480V) [26]

Shipped separately

EGSR	External Glare Shield (reversible, field install required, matches housing finish)
BSDB	Bird Spikes (field install required)

Finish *(required)*

DDBXD	Dark Bronze
DBLXD	Black
DNAXD	Natural Aluminum
DWHXD	White
DDBTXD	Textured dark bronze
DBLBXD	Textured black
DNATXD	Textured natural aluminum
DWHGXD	Textured white

Ordering Information

Accessories

Ordered and shipped separately.

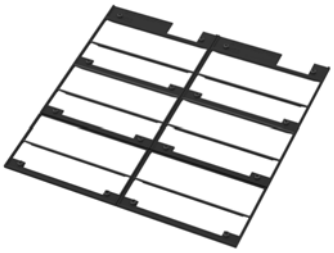
DLL127F 1.5 JU	Photocell - SSL twist-lock (120-277V) [25]
DLL347F 1.5 CUL JU	Photocell - SSL twist-lock (347V) [25]
DLL480F 1.5 CUL JU	Photocell - SSL twist-lock (480V) [25]
DSHORT SBK	Shorting cap [25]
DSX1HS P#	House-side shield (enter package number 1-13 in place of #)
DSXRPA (FINISH)	Round pole adapter (#8 drilling, specify finish)
DSXSPA5 (FINISH)	Square pole adapter #5 drilling (specify finish)
DSXRPA5 (FINISH)	Round pole adapter #5 drilling (specify finish)
DSX1EGSR (FINISH)	External glare shield (specify finish)
DSX1BSDB (FINISH)	Bird spike deterrent bracket (specify finish)

NOTES

1 Rotated optics available with packages P10, P11, P12 and P13. Must be combined with option L90 or R90.
2 30K, 40K, and 50K available in 70CRI and 80CRI. 27K and 35K only available with 80CRI. Contact Technical Support for other possible combinations.
3 T3LG, T4LG, BLC3, BLC4, LCCO, RCCO not available with option HS.
4 MVOLT driver operates on any line voltage from 120-277V (50/60 Hz).
5 HVOLT driver operates on any line voltage from 347-480V (50/60 Hz).
6 HVOLT not available with package P1 and P10 when combined with option NLTAIR2 PIRHN or option PIR.
7 XVOLT operates with any voltage between 277V and 480V (50/60 Hz).
8 XVOLT not available in packages P1 or P10. XVOLT not available with fusing (SF or DF).
9 SPA5 and RPA5 for use with #5 drilling only (Not for use with #8 drilling).
10 WBA cannot be combined with Type 5 distributions plus photocell (PER).
11 NLTAIR2 and PIRHN must be ordered together. For more information on nLight AIR2 visit this link
12 NLTAIR2 PIRHN not available with other controls including PIR, PER, PER5, PER7, FAO, BL30, BL50, DMG and DS. NLTAIR2 PIRHN not available with P1 and P10 using HVOLT. NLTAIR2 PIRHN not available with P1 and P10 using XVOLT.
13 PIR not available with NLTAIR2 PIRHN, PER, PER5, PER7, FAO BL30, BL50, DMG and DS. PIR not available with P1 and P10 using HVOLT. PIR not available with P1 and P10 using XVOLT.
14 PER/PER5/PER7 not available with NLTAIR2 PIRHN, PIR, BL30, BL50, FAO, DMG and DS. Photocell ordered and shipped as a separate line item from Acuity Brands Controls. See accessories. Shorting Cap included.
15 FAO not available with other dimming control options NLTAIR2 PIRHN, PIR, PER5, PER7, BL30, BL50, DMG and DS.
16 BL30 and BL50 are not available with NLTAIR2 PIRHN, PIR, PER, PER5, PER7, FAO, DMG and DS. BL30 or BL50 must specify 120, 277 or 347V. Consult tech support for 208, 240 or 480V.
17 DMG not available with NLTAIR2 PIRHN, PIR, PER, PER5, PER7, BL30, BL50, FAO and DS.
18 DS not available with NLTAIR2 PIRHN, PIR, PER, PER5, PER7, BL30, BL50, FAO and DMG.
19 DS requires (2) separately switched circuits. DS provides 50/50 fixture operation via (2) different sets of leads using (2) drivers. DS only available with packages P8, P9, P10, P11, P12 and P13.
20 Reference Motion Sensor Default Settings table on page 4 to see functionality.
21 Reference Controls Options table on page 4.
22 HS not available with T3LG, T4LG, BLC3, BLC4, LCCO and RCCO distribution. Also available as a separate accessory; see Accessories information.
23 CCE option not available with option BS and EGSR. Contact Technical Support for availability.
24 Option HA not available with performance packages P4, P5, P7, P8, P9 and P13.
25 Requires luminaire to be specified with PER, PER5 or PER7 option. See Controls Table on page 4.
26 Single fuse (SF) requires 120V, 277V, or 347V. Double fuse (DF) requires 208V, 240V or 480V. XVOLT not available with fusing (SF or DF).

Shield Accessories

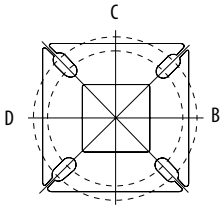
External Glare Shield (EGSR)

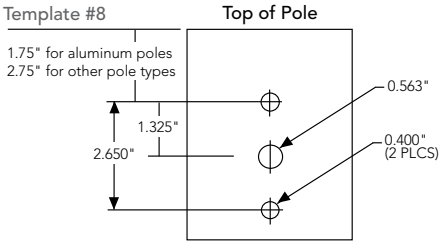


House Side Shield (HS)

Drilling

HANDHOLE ORIENTATION





Tenon Mounting Slipfitter

Tenon O.D.	Mounting	Single Unit	2 @ 180	2 @ 90	3 @ 90	3 @120	4 @ 90
2-3/8"	RPA	AS3-5 190	AS3-5 280	AS3-5 290	AS3-5 390	AS3-5 320	AS3-5 490
2-7/8"	RPA	AST25-190	AST25-280	AST25-290	AST25-390	AST25-320	AST25-490
4"	RPA	AST35-190	AST35-280	AST35-290	AST35-390	AST35-320	AST35-490

Mounting Option	Drilling Template	Single	2 @ 180	2 @ 90	3 @ 90	3 @ 120	4 @ 90
Head Location		Side B	Side B & D	Side B & C	Side B, C & D	Round Pole Only	Side A, B, C & D
Drill Nomenclature	#8	DM19AS	DM28AS	DM29AS	DM39AS	DM32AS	DM49AS
		Minimum Acceptable Outside Pole Dimension					
SPA	#8	3.5"	3.5"	3.5"	3.5"		3.5"
RPA	#8	3"	3"	3"	3"	3"	3"
SPA5	#5	3"	3"	3"	3"		3"
RPA5	#5	3"	3"	3"	3"	3"	3"
SPA8N	#8	3"	3"	3"	3"		3"

DSX1 Area Luminaire - EPA

*Includes luminaire and integral mounting arm. Other tenons, arms, brackets or other accessories are not included in this EPA data.

Fixture Quantity & Mounting Configuration	Single DM19	2 @ 180 DM28	2 @ 90 DM29	3 @ 90 DM39	3 @ 120 DM32	4 @ 90 DM49
Mounting Type						
DSX1 with SPA	0.69	1.38	1.23	1.54	---	1.58
DSX1 with SPA5, SPA8N	0.70	1.40	1.30	1.66	---	1.68
DSX1 with RPA, RPA5	0.70	1.40	1.30	1.66	1.60	1.68
DSX1 with MA	0.83	1.66	1.50	2.09	2.09	2.09

Photometric Diagrams

To see complete photometric reports or download .ies files for this product, visit Lithonia Lighting's homepage.

Isofootcandle plots for the DSX1 LED P9 40K 70CRI. Distances are in units of mounting height (25').

Performance Data

Lumen Ambient Temperature (LAT) Multipliers

Use these factors to determine relative lumen output for average ambient temperatures from 0-40°C (32-104°F).

Ambient		Lumen Multiplier
0°C	32°F	1.04
5°C	41°F	1.04
10°C	50°F	1.03
15°C	50°F	1.02
20°C	68°F	1.01
25°C	**77°C**	**1.00**
30°C	86°F	0.99
35°C	95°F	0.98
40°C	104°F	0.97

Projected LED Lumen Maintenance

Data references the extrapolated performance projections for the platforms noted in a **25°C ambient**, based on 10,000 hours of LED testing (tested per IESNA LM-80-08 and projected per IESNA TM-21-11).

To calculate LLF, use the lumen maintenance factor that corresponds to the desired number of operating hours below. For other lumen maintenance values, contact factory.

Operating Hours	Lumen Maintenance Factor
0	1.00
25,000	0.95
50,000	0.90
100,000	0.81

FAO Dimming Settings

FAO Position	% Wattage	% Lumen Output
8	100%	100%
7	93%	95%
6	80%	85%
5	66%	73%
4	54%	61%
3	41%	49%
2	29%	36%
1	15%	20%

*Note: Calculated values are based on original performance package data. When calculating new values for given FAO position, use maximum published values by package listed on specification sheet (input watts and lumens by optic type).

Electrical Load

	Performance Package	LED Count	Drive Current (mA)	Wattage	Current (A) 120V	208V	240V	277V	347V	480V
Forward Optics (Non-Rotated)	P1	30	530	51	0.42	0.24	0.21	0.18	0.15	0.11
	P2	30	700	68	0.56	0.33	0.28	0.24	0.20	0.14
	P3	30	1050	104	0.85	0.49	0.43	0.37	0.29	0.21
	P4	30	1250	125	1.03	0.60	0.52	0.45	0.36	0.26
	P5	30	1400	142	1.15	0.66	0.58	0.50	0.40	0.29
	P6	40	1250	167	1.38	0.79	0.69	0.60	0.48	0.34
	P7	40	1400	188	1.54	0.89	0.77	0.67	0.53	0.38
	P8	60	1100	216	1.80	1.04	0.90	0.78	0.62	0.45
	P9	60	1400	279	2.31	1.33	1.15	1.00	0.80	0.58
Rotated Optics (Requires L90 or R90)	P10	60	530	101	0.84	0.49	0.42	0.37	0.29	0.21
	P11	60	700	135	1.12	0.65	0.56	0.49	0.39	0.28
	P12	60	1050	206	1.72	0.99	0.86	0.74	0.59	0.43
	P13	60	1400	279	2.30	1.33	1.15	1.00	0.79	0.57

LED Color Temperature / Color Rendering Multipliers

	70 CRI		80CRI		90CRI	
	Lumen Multiplier	Availability	Lumen Multiplier	Availability	Lumen Multiplier	Availability
5000K	102%	Standard	92%	Extended lead-time	71%	(see note)
4000K	100%	Standard	92%	Extended lead-time	67%	(see note)
3500K	100%	(see note)	90%	Extended lead-time	63%	(see note)
3000K	96%	Standard	87%	Extended lead-time	61%	(see note)
2700K	94%	(see note)	85%	Extended lead-time	57%	(see note)

Note: Some LED types are available as per special request. Contact Technical Support for more information.

Motion Sensor Default Settings

Option	Unoccupied Dimmed Level	High Level (when occupied)	Phototcell Operation	Dwell Time	Ramp-up Time	Dimming Fade Rate
PIR	30%	100%	Enabled @ 2FC	7.5 min	3 sec	5 min
NLTAIR2 PIRHN	30%	100%	Enabled @ 2FC	7.5 min	3 sec	5 min

Controls Options

Nomenclature	Description	Functionality	Primary control device	Notes
FAO	Field adjustable output device installed inside the luminaire; wired to the driver dimming leads.	Allows the luminaire to be manually dimmed, effectively trimming the light output.	FAO device	Cannot be used with other controls options that need the 0-10V leads
DS (not available on DSX0)	Drivers wired independently for 50/50 luminaire operation	The luminaire is wired to two separate circuits, allowing for 50/50 operation.	Independently wired drivers	Requires two separately switched circuits. Consider nLight AIR as a more cost effective alternative.
PER5 or PER7	Twist-lock photocell receptacle	Compatible with standard twist-lock photocells for dusk to dawn operation, or advanced control nodes that provide 0-10V dimming signals.	Twist-lock photocells such as DLL Elite or advanced control nodes such as ROAM.	Pins 4 & 5 to dimming leads on driver, Pins 6 & 7 are capped inside luminaire. Cannot be used with other controls options that need the 0-10V leads.
PIR	Motion sensor with integral photocell. Sensor suitable for 8' to 40' mounting height.	Luminaires dim when no occupancy is detected.	Acuity Controls rSBG	Cannot be used with other controls options that need the 0-10V leads.
NLTAIR2 PIRHN	nLight AIR enabled luminaire for motion sensing, photocell and wireless communication.	Motion and ambient light sensing with group response. Scheduled dimming with motion sensor over-ride when wirelessly connected to the nLight Eclypse.	nLight Air rSBG	nLight AIR sensors can be programmed and commissioned from the ground using the CIAIRity Pro app. Cannot be used with other controls options that need the 0-10V leads.
BL30 or BL50	Integrated bi-level device that allows a second control circuit to switch all light engines to either 30% or 50% light output	BLC device provides input to 0-10V dimming leads on all drivers providing either 100% or dimmed (30% or 50%) control by a secondary circuit	BLC UVOLT1	BLC device is powered off the 0-10V dimming leads, thus can be used with any input voltage from 120 to 480V

Performance Data

Lumen Output

Lumen values are from photometric tests performed in accordance with IESNA LM-79-08. Data is considered to be representative of configurations shown within the tolerances described within LM-79. Contact factory for performance data on any configurations not shown here.

Forward Optics

Performance Package	System Watts	LED Count	Drive Current (mA)	Distribution Type	30K (3000K, 70 CRI)					40K (4000K, 70 CRI)					50K (5000K, 70 CRI)				
					Lumens	B	U	G	LPW	Lumens	B	U	G	LPW	Lumens	B	U	G	LPW
P1	51W	30	530	T1S	7,776	1	0	2	153	8,104	1	0	2	159	8,262	1	0	2	162
				T2M	7,203	1	0	3	142	7,507	2	0	3	147	7,653	2	0	3	150
				T3M	7,287	1	0	3	143	7,594	1	0	3	149	7,742	1	0	3	152
				T3LG	6,509	1	0	1	128	6,783	1	0	1	133	6,916	1	0	1	136
				T4M	7,395	1	0	3	145	7,707	1	0	3	151	7,857	1	0	3	154
				T4LG	6,726	1	0	1	132	7,010	1	0	1	138	7,146	1	0	1	140
				TFTM	7,446	1	0	3	146	7,760	1	0	3	152	7,912	1	0	3	155
				T5M	7,609	3	0	2	149	7,930	3	0	2	156	8,084	3	0	2	159
				T5W	7,732	3	0	2	152	8,058	4	0	2	158	8,215	4	0	2	161
				T5LG	7,631	3	0	1	150	7,953	3	0	1	156	8,108	3	0	1	159
				BLC3	5,300	0	0	2	104	5,524	0	0	2	109	5,631	0	0	2	111
				BLC4	5,474	0	0	3	108	5,705	0	0	3	112	5,816	0	0	3	114
				RCCO	5,348	0	0	2	105	5,573	0	0	2	109	5,682	0	0	2	112
				LCCO	5,348	0	0	2	105	5,573	0	0	2	109	5,682	0	0	2	112
				AFR	7,776	1	0	2	153	8,104	1	0	2	159	8,262	1	0	2	162
P2	68W	30	700	T1S	9,997	1	0	2	147	10,418	1	0	2	154	10,621	1	0	2	157
				T2M	9,260	2	0	3	137	9,651	2	0	3	142	9,839	2	0	3	145
				T3M	9,368	2	0	3	138	9,763	2	0	3	144	9,953	2	0	3	147
				T3LG	8,368	1	0	2	123	8,721	1	0	2	129	8,891	1	0	2	131
				T4M	9,507	2	0	3	140	9,909	2	0	3	146	10,102	2	0	3	149
				T4LG	8,647	1	0	2	128	9,012	1	0	2	133	9,187	1	0	2	136
				TFTM	9,573	2	0	3	141	9,977	2	0	3	147	10,172	2	0	3	150
				T5M	9,782	4	0	2	144	10,195	4	0	2	150	10,393	4	0	2	153
				T5W	9,940	4	0	2	147	10,360	4	0	2	153	10,562	4	0	2	156
				T5LG	9,810	3	0	1	145	10,224	3	0	1	151	10,423	3	0	1	154
				BLC3	6,814	0	0	2	101	7,101	0	0	2	105	7,240	0	0	2	107
				BLC4	7,038	0	0	3	104	7,334	0	0	3	108	7,477	0	0	3	110
				RCCO	6,875	1	0	2	101	7,165	1	0	2	106	7,305	1	0	2	108
				LCCO	6,875	1	0	2	101	7,165	1	0	2	106	7,305	1	0	2	108
				AFR	9,997	1	0	2	147	10,418	1	0	2	154	10,621	1	0	2	157
P3	102W	30	1050	T1S	14,093	2	0	2	138	14,687	2	0	2	144	14,973	2	0	2	147
				T2M	13,055	2	0	3	128	13,605	2	0	3	133	13,871	2	0	3	136
				T3M	13,206	2	0	4	129	13,763	2	0	4	135	14,031	2	0	4	137
				T3LG	11,797	2	0	2	115	12,294	2	0	2	120	12,534	2	0	2	123
				T4M	13,403	2	0	4	131	13,968	2	0	4	137	14,241	2	0	4	139
				T4LG	12,190	2	0	2	119	12,704	2	0	2	124	12,952	2	0	2	127
				TFTM	13,496	2	0	4	132	14,065	2	0	4	138	14,339	2	0	4	140
				T5M	13,790	4	0	2	135	14,371	4	0	2	141	14,652	4	0	2	143
				T5W	14,013	4	0	3	137	14,605	4	0	3	143	14,889	4	0	3	146
				T5LG	13,830	3	0	2	135	14,413	3	0	2	141	14,694	3	0	2	144
				BLC3	9,606	0	0	2	94	10,011	0	0	2	98	10,206	0	0	2	100
				BLC4	9,921	0	0	3	97	10,340	0	0	3	101	10,541	0	0	3	103
				RCCO	9,692	1	0	2	95	10,101	1	0	2	99	10,298	1	0	2	101
				LCCO	9,692	1	0	2	95	10,101	1	0	2	99	10,298	1	0	2	101
				AFR	14,093	2	0	2	138	14,687	2	0	2	144	14,973	2	0	2	147

Performance Data

Lumen Output

Lumen values are from photometric tests performed in accordance with IESNA LM-79-08. Data is considered to be representative of configurations shown within the tolerances described within LM-79.
Contact factory for performance data on any configurations not shown here.

Forward Optics

Performance Package	System Watts	LED Count	Drive Current (mA)	Distribution Type	30K (3000K, 70 CRI)					40K (4000K, 70 CRI)					50K (5000K, 70 CRI)				
					Lumens	B	U	G	LPW	Lumens	B	U	G	LPW	Lumens	B	U	G	LPW
P4	124W	30	1250	T1S	16,416	2	0	3	132	17,109	2	0	3	138	17,442	2	0	3	141
				T2M	15,207	3	0	4	123	15,849	3	0	4	128	16,158	3	0	4	130
				T3M	15,383	2	0	4	124	16,032	2	0	4	129	16,345	2	0	4	132
				T3LG	13,742	2	0	2	111	14,321	2	0	2	116	14,600	2	0	2	118
				T4M	15,613	2	0	4	126	16,272	2	0	4	131	16,589	2	0	4	134
				T4LG	14,200	2	0	2	115	14,799	2	0	2	119	15,087	2	0	2	122
				TFTM	15,721	2	0	4	127	16,384	2	0	4	132	16,703	2	0	4	135
				T5M	16,063	4	0	2	130	16,741	4	0	2	135	17,067	4	0	2	138
				T5W	16,324	5	0	3	132	17,013	5	0	3	137	17,344	5	0	3	140
				T5LG	16,110	3	0	2	130	16,790	4	0	2	135	17,117	4	0	2	138
				BLC3	11,190	0	0	3	90	11,662	0	0	3	94	11,889	0	0	3	96
				BLC4	11,557	0	0	3	93	12,044	0	0	3	97	12,279	0	0	4	99
				RCCO	11,291	1	0	3	91	11,767	1	0	3	95	11,996	1	0	3	97
				LCCO	11,291	1	0	3	91	11,767	1	0	3	95	11,996	1	0	3	97
				AFR	16,416	2	0	3	132	17,109	2	0	3	138	17,442	2	0	3	141
P5	138W	30	1400	T1S	18,052	2	0	3	131	18,814	2	0	3	136	19,180	2	0	3	139
				T2M	16,723	3	0	4	121	17,428	3	0	4	126	17,768	3	0	4	129
				T3M	16,917	3	0	4	122	17,630	3	0	4	128	17,974	3	0	4	130
				T3LG	15,111	2	0	2	109	15,749	2	0	2	114	16,055	2	0	2	116
				T4M	17,169	3	0	5	124	17,893	3	0	5	130	18,242	3	0	5	132
				T4LG	15,615	2	0	2	113	16,274	2	0	2	118	16,591	2	0	2	120
				TFTM	17,288	2	0	4	125	18,017	2	0	5	130	18,368	3	0	5	133
				T5M	17,664	5	0	3	128	18,410	5	0	3	133	18,768	5	0	3	136
				T5W	17,951	5	0	3	130	18,708	5	0	3	135	19,073	5	0	3	138
				T5LG	17,716	4	0	2	128	18,463	4	0	2	134	18,823	4	0	2	136
				BLC3	12,305	0	0	3	89	12,824	0	0	3	93	13,074	0	0	3	95
				BLC4	12,709	0	0	4	92	13,245	0	0	4	96	13,503	0	0	4	98
				RCCO	12,416	1	0	3	90	12,940	1	0	3	94	13,192	1	0	3	95
				LCCO	12,416	1	0	3	90	12,940	1	0	3	94	13,192	1	0	3	95
				AFR	18,052	2	0	3	131	18,814	2	0	3	136	19,180	2	0	3	139
P6	165W	40	1250	T1S	21,031	2	0	3	127	21,918	2	0	3	133	22,345	2	0	3	135
				T2M	19,482	3	0	4	118	20,303	3	0	4	123	20,699	3	0	4	125
				T3M	19,708	3	0	5	119	20,539	3	0	5	124	20,939	3	0	5	127
				T3LG	17,604	2	0	2	107	18,347	2	0	2	111	18,704	2	0	2	113
				T4M	20,001	3	0	5	121	20,845	3	0	5	126	21,251	3	0	5	129
				T4LG	18,191	2	0	2	110	18,959	2	0	2	115	19,328	2	0	2	117
				TFTM	20,140	3	0	5	122	20,989	3	0	5	127	21,398	3	0	5	129
				T5M	20,579	5	0	3	125	21,447	5	0	3	130	21,865	5	0	3	132
				T5W	20,912	5	0	3	127	21,795	5	0	3	132	22,219	5	0	3	134
				T5LG	20,638	4	0	2	125	21,509	4	0	2	130	21,928	4	0	2	133
				BLC3	14,335	0	0	3	87	14,940	0	0	3	90	15,231	0	0	3	92
				BLC4	14,805	0	0	4	90	15,430	0	0	4	93	15,731	0	0	4	95
				RCCO	14,464	1	0	3	88	15,074	1	0	3	91	15,368	1	0	3	93
				LCCO	14,464	1	0	3	88	15,074	1	0	3	91	15,368	1	0	3	93
				AFR	21,031	2	0	3	127	21,918	2	0	3	133	22,345	2	0	3	135

Performance Data

Lumen Output

Lumen values are from photometric tests performed in accordance with IESNA LM-79-08. Data is considered to be representative of configurations shown within the tolerances described within LM-79.
Contact factory for performance data on any configurations not shown here.

Forward Optics

Performance Package	System Watts	LED Count	Drive Current (mA)	Distribution Type	30K (3000K, 70 CRI)					40K (4000K, 70 CRI)					50K (5000K, 70 CRI)				
					Lumens	B	U	G	LPW	Lumens	B	U	G	LPW	Lumens	B	U	G	LPW
P7	184W	40	1400	T1S	22,741	2	0	3	123	23,700	2	0	3	129	24,162	3	0	3	131
				T2M	21,066	3	0	4	114	21,955	3	0	4	119	22,383	3	0	4	121
				T3M	21,311	3	0	5	116	22,210	3	0	5	120	22,642	3	0	5	123
				T3LG	19,036	2	0	2	103	19,839	2	0	3	108	20,226	2	0	3	110
				T4M	21,628	3	0	5	117	22,541	3	0	5	122	22,980	3	0	5	125
				T4LG	19,671	2	0	2	107	20,501	2	0	3	111	20,900	2	0	3	113
				TFTM	21,778	3	0	5	118	22,697	3	0	5	123	23,139	3	0	5	125
				T5M	22,252	5	0	3	121	23,191	5	0	3	126	23,643	5	0	3	128
				T5W	22,613	5	0	3	123	23,567	5	0	4	128	24,027	5	0	4	130
				T5LG	22,317	4	0	2	121	23,258	4	0	2	126	23,712	4	0	2	129
				BLC3	15,501	0	0	3	84	16,155	0	0	4	88	16,470	0	0	4	89
				BLC4	16,010	0	0	4	87	16,685	0	0	4	90	17,010	0	0	4	92
				RCCO	15,641	1	0	3	85	16,301	1	0	3	89	16,619	1	0	3	90
				LCCO	15,641	1	0	3	85	16,301	1	0	3	89	16,619	1	0	3	90
				AFR	22,741	2	0	3	123	23,700	2	0	3	129	24,162	3	0	3	131
P8	216W	60	1100	T1S	28,701	3	0	3	133	29,912	3	0	4	139	30,495	3	0	4	141
				T2M	26,587	3	0	5	123	27,709	3	0	5	128	28,249	3	0	5	131
				T3M	26,895	3	0	5	125	28,030	3	0	5	130	28,576	3	0	5	132
				T3LG	24,025	3	0	3	111	25,038	3	0	3	116	25,526	3	0	3	118
				T4M	27,296	3	0	5	127	28,448	3	0	5	132	29,002	3	0	5	134
				T4LG	24,826	3	0	3	115	25,873	3	0	3	120	26,378	3	0	3	122
				TFTM	27,485	3	0	5	127	28,645	3	0	5	133	29,203	3	0	5	135
				T5M	28,084	5	0	4	130	29,269	5	0	4	136	29,839	5	0	4	138
				T5W	28,539	5	0	4	132	29,743	5	0	4	138	30,323	5	0	4	141
				T5LG	28,165	4	0	2	131	29,354	4	0	2	136	29,926	4	0	2	139
				BLC3	19,563	0	0	4	91	20,388	0	0	4	94	20,786	0	0	4	96
				BLC4	20,205	0	0	5	94	21,057	0	0	5	98	21,468	0	0	5	99
				RCCO	19,740	1	0	4	91	20,572	1	0	4	95	20,973	1	0	4	97
				LCCO	19,740	1	0	4	91	20,572	1	0	4	95	20,973	1	0	4	97
				AFR	28,701	3	0	3	133	29,912	3	0	4	139	30,495	3	0	4	141
P9	277W	60	1400	T1S	34,819	3	0	4	126	36,288	3	0	4	131	36,996	3	0	4	134
				T2M	32,255	3	0	5	116	33,616	3	0	5	121	34,271	3	0	5	124
				T3M	32,629	3	0	5	118	34,006	3	0	5	123	34,668	3	0	5	125
				T3LG	29,146	3	0	3	105	30,376	3	0	4	110	30,968	3	0	4	112
				T4M	33,116	3	0	5	120	34,513	3	0	5	125	35,185	3	0	5	127
				T4LG	30,119	3	0	3	109	31,389	3	0	4	113	32,001	3	0	4	116
				TFTM	33,345	3	0	5	120	34,751	3	0	5	125	35,429	3	0	5	128
				T5M	34,071	5	0	4	123	35,509	5	0	4	128	36,201	5	0	4	131
				T5W	34,624	5	0	4	125	36,084	5	0	4	130	36,788	5	0	4	133
				T5LG	34,170	5	0	3	123	35,612	5	0	3	129	36,306	5	0	3	131
				BLC3	23,734	0	0	4	86	24,735	0	0	4	89	25,217	0	0	4	91
				BLC4	24,513	0	0	5	88	25,547	0	0	5	92	26,045	0	0	5	94
				RCCO	23,948	1	0	4	86	24,958	1	0	4	90	25,445	1	0	4	92
				LCCO	23,948	1	0	4	86	24,958	1	0	4	90	25,445	1	0	4	92
				AFR	34,819	3	0	4	126	36,288	3	0	4	131	36,996	3	0	4	134

Performance Data

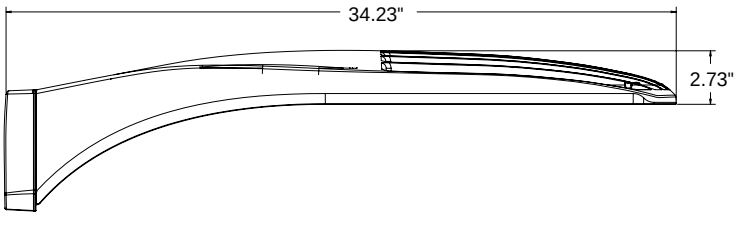
Lumen Output

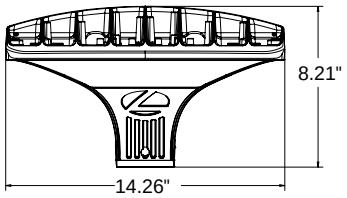
Lumen values are from photometric tests performed in accordance with IESNA LM-79-08. Data is considered to be representative of configurations shown within the tolerances described within LM-79. Contact factory for performance data on any configurations not shown here.

Rotated Optics

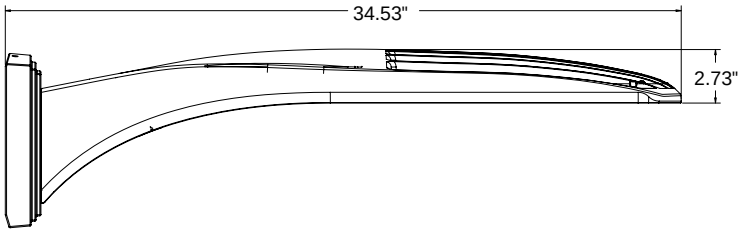
Performance Package	System Watts	LED Count	Drive Current (mA)	Distribution Type	30K (3000K, 70 CRI)					40K (4000K, 70 CRI)					50K (5000K, 70 CRI)				
					Lumens	B	U	G	LPW	Lumens	B	U	G	LPW	Lumens	B	U	G	LPW
P10	101W	60	530	T1S	15,164	3	0	3	150	15,803	3	0	3	156	16,112	3	0	3	159
				T2M	14,047	4	0	4	139	14,640	4	0	4	145	14,925	4	0	4	147
				T3M	14,208	4	0	4	140	14,807	4	0	4	146	15,096	4	0	4	149
				T3LG	12,693	3	0	3	125	13,229	3	0	3	131	13,487	3	0	3	133
				T4M	14,420	4	0	4	142	15,028	4	0	4	148	15,321	4	0	4	151
				T4LG	13,115	3	0	3	129	13,668	3	0	3	135	13,934	3	0	3	138
				TFTM	14,522	4	0	4	143	15,134	4	0	4	149	15,429	4	0	4	152
				T5M	14,836	4	0	2	146	15,462	4	0	2	153	15,763	4	0	2	156
				T5W	15,076	4	0	3	149	15,712	5	0	3	155	16,019	5	0	3	158
				T5LG	14,879	3	0	2	147	15,507	3	0	2	153	15,809	3	0	2	156
				BLC3	10,335	3	0	3	102	10,771	4	0	4	106	10,981	4	0	4	108
				BLC4	10,674	4	0	4	105	11,124	4	0	4	110	11,341	4	0	4	112
				RCCO	10,429	1	0	2	103	10,869	1	0	2	107	11,080	1	0	2	109
				LCCO	10,429	1	0	2	103	10,869	1	0	2	107	11,080	1	0	2	109
				AFR	15,164	3	0	3	150	15,803	3	0	3	156	16,112	3	0	3	159
P11	135W	60	700	T1S	19,437	4	0	4	144	20,257	4	0	4	150	20,651	4	0	4	153
				T2M	18,005	4	0	4	133	18,765	4	0	4	139	19,131	4	0	4	142
				T3M	18,211	4	0	4	135	18,980	4	0	4	141	19,350	4	0	4	143
				T3LG	16,270	3	0	3	121	16,957	3	0	3	126	17,287	4	0	4	128
				T4M	18,483	4	0	4	137	19,263	5	0	5	143	19,638	5	0	5	146
				T4LG	16,810	3	0	3	125	17,519	3	0	3	130	17,861	3	0	3	132
				TFTM	18,614	4	0	4	138	19,399	4	0	4	144	19,777	5	0	5	147
				T5M	19,017	5	0	3	141	19,819	5	0	3	147	20,205	5	0	3	150
				T5W	19,325	5	0	3	143	20,140	5	0	3	149	20,533	5	0	3	152
				T5LG	19,072	4	0	2	141	19,876	4	0	2	147	20,264	4	0	2	150
				BLC3	13,247	4	0	4	98	13,806	4	0	4	102	14,075	4	0	4	104
				BLC4	13,682	4	0	4	101	14,259	4	0	4	106	14,537	4	0	4	108
				RCCO	13,367	1	0	3	99	13,931	1	0	3	103	14,203	1	0	3	105
				LCCO	13,367	1	0	3	99	13,931	1	0	3	103	14,203	1	0	3	105
				AFR	19,437	4	0	4	144	20,257	4	0	4	150	20,651	4	0	4	153
P12	206W	60	1050	T1S	27,457	4	0	4	133	28,616	4	0	4	139	29,174	4	0	4	142
				T2M	25,436	5	0	5	124	26,509	5	0	5	129	27,025	5	0	5	131
				T3M	25,727	5	0	5	125	26,812	5	0	5	130	27,335	5	0	5	133
				T3LG	22,984	4	0	4	112	23,954	4	0	4	116	24,421	4	0	4	119
				T4M	26,110	5	0	5	127	27,212	5	0	5	132	27,742	5	0	5	135
				T4LG	23,747	4	0	4	115	24,749	4	0	4	120	25,231	4	0	4	123
				TFTM	26,295	5	0	5	128	27,404	5	0	5	133	27,938	5	0	5	136
				T5M	26,864	5	0	4	130	27,997	5	0	4	136	28,543	5	0	4	139
				T5W	27,299	5	0	4	133	28,451	5	0	4	138	29,006	5	0	4	141
				T5LG	26,942	4	0	2	131	28,078	4	0	2	136	28,626	4	0	2	139
				BLC3	18,714	4	0	4	91	19,504	4	0	4	95	19,884	4	0	4	97
				BLC4	19,327	5	0	5	94	20,143	5	0	5	98	20,535	5	0	5	100
				RCCO	18,883	1	0	4	92	19,680	1	0	4	96	20,064	1	0	4	97
				LCCO	18,883	1	0	4	92	19,680	1	0	4	96	20,064	1	0	4	97
				AFR	27,457	4	0	4	133	28,616	4	0	4	139	29,174	4	0	4	142
P13	276W	60	1400	T1S	34,436	5	0	5	125	35,889	5	0	5	130	36,588	5	0	5	133
				T2M	31,900	5	0	5	116	33,246	5	0	5	121	33,894	5	0	5	123
				T3M	32,265	5	0	5	117	33,626	5	0	5	122	34,282	5	0	5	124
				T3LG	28,826	4	0	4	105	30,042	4	0	4	109	30,628	4	0	4	111
				T4M	32,746	5	0	5	119	34,128	5	0	5	124	34,793	5	0	5	126
				T4LG	29,782	4	0	4	108	31,039	4	0	4	113	31,644	5	0	4	115
				TFTM	32,978	5	0	5	120	34,369	5	0	5	125	35,039	5	0	5	127
				T5M	33,692	5	0	4	122	35,113	5	0	4	127	35,797	5	0	4	130
				T5W	34,238	5	0	4	124	35,682	5	0	4	129	36,378	5	0	4	132
				T5LG	33,789	5	0	3	122	35,215	5	0	3	128	35,901	5	0	3	130
				BLC3	23,471	5	0	5	85	24,461	5	0	5	89	24,937	5	0	5	90
				BLC4	24,240	5	0	5	88	25,262	5	0	5	92	25,755	5	0	5	93
				RCCO	23,683	1	0	4	86	24,682	1	0	4	89	25,163	1	0	4	91
				LCCO	23,683	1	0	4	86	24,682	1	0	4	89	25,163	1	0	4	91
				AFR	34,436	5	0	5	125	35,889	5	0	5	130	36,588	5	0	5	133

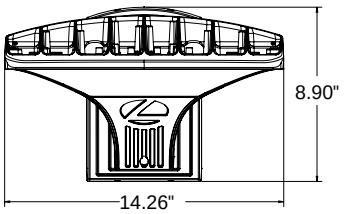
Dimensions



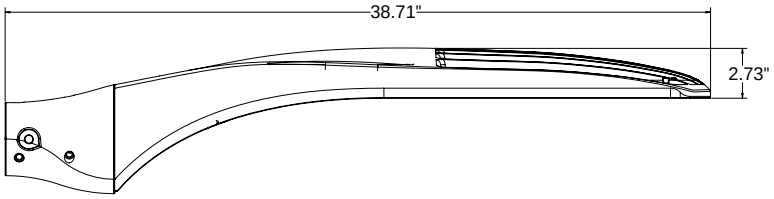


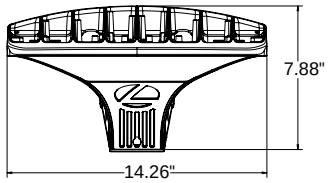
DSX1 with RPA, RPA5, SPA5, SPA8N mount
Weight: 36 lbs





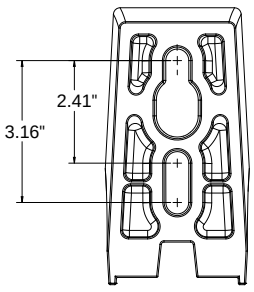
DSX1 with WBA mount
Weight: 38 lbs



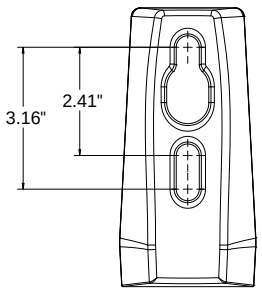


DSX1 with MA mount
Weight: 39 lbs

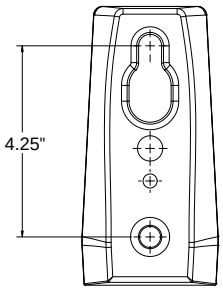
SPA (STANDARD ARM)



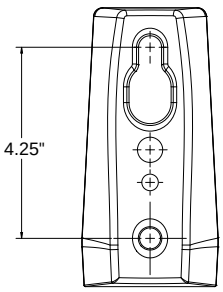
RPA



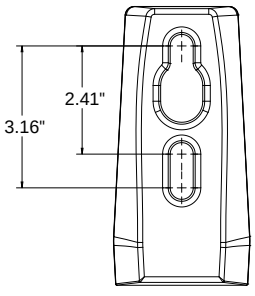
SPA5



RPA5



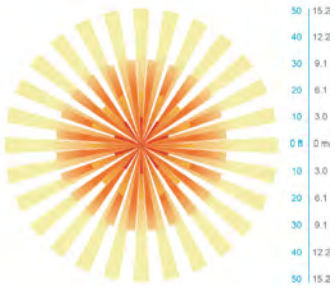
SPA8N



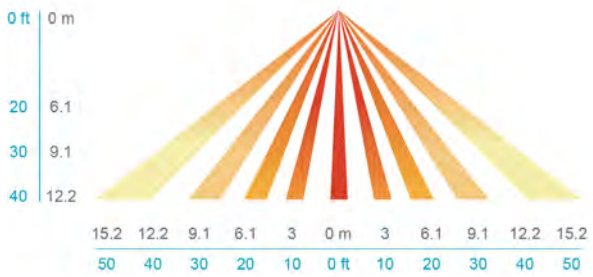
nLight Control - Sensor Coverage and Settings

nLight Sensor Coverage Pattern

NLTAIR2 PIRHN



Top



Side

FEATURES & SPECIFICATIONS

INTENDED USE
The sleek design of the D-Series Size 1 reflects the embedded high performance LED technology. It is ideal for many commercial and municipal applications, such as parking lots, plazas, campuses, and streetscapes.

CONSTRUCTION
Single-piece die-cast aluminum housing has integral heat sink fins to optimize thermal management through conductive and convective cooling. Modular design allows for ease of maintenance and future light engine upgrades. The LED drivers are mounted in direct contact with the casting to promote low operating temperature and long life. Housing driver compartment is completely sealed against moisture and environmental contaminants (IP66). Vibration rated per ANSI C136.31 for 3G for SPA and MA. 1.5G for mountings RPA, RPA5, SPA5 and SPA8N. Low EPA (0.69 ft^2) for optimized pole wind loading.

FINISH
Exterior parts are protected by a zinc-infused Super Durable TGIC thermoset powder coat finish that provides superior resistance to corrosion and weathering. A tightly controlled multi-stage process ensures a minimum 3 mils thickness for a finish that can withstand extreme climate changes without cracking or peeling. Available in both textured and non-textured finishes.

Coastal Construction (CCE)
Optional corrosion resistant construction is engineered with added corrosion protection in materials and/or pre-treatment of base material under super durable paint. Provides additional corrosion protection for applications near coastal areas. Finish is salt spray tested to over 5,000 hours per ASTM B117 with scribe rating of 10. Additional lead-times may apply.

OPTICS
Precision-molded proprietary silicone lenses are engineered for superior area lighting distribution, uniformity, and pole spacing. Light engines are available in standard 3000 K, 4000 K and 5000 K (70 CRI) configurations. 80CRI configurations are also available. The D-Series Size 1 has zero uplight and qualifies as a Nighttime Friendly™ product, meaning it is consistent with the LEED® and Green Globes™ criteria for eliminating wasteful uplight.

ELECTRICAL
Light engine configurations consist of high-efficacy LEDs mounted to metal-core circuit boards to maximize heat dissipation and promote long life (up to L81/100,000 hours at 25°C). Class 1 electronic drivers are designed to have a power factor >90%, THD <20%, and an expected life of 100,000 hours with <1% failure rate. Easily serviceable 10kV surge protection device meets a minimum Category C Low operation (per ANSI/IEEE C62.41.2).

STANDARD CONTROLS
The DSX1 LED area luminaire has a number of control options. DSX Size 1, comes standard with 0-10V dimming drivers. Dusk to dawn controls can be utilized via optional NEMA twist-lock photocell receptacles. Integrated motion sensor with on-board photocells feature field-adjustable programing and are suitable for mounting heights up to 40 feet. Control option BL features a bi-level device that allows a second control circuit to switch all light engines to either 30% or 50% light output.

nLIGHT AIR CONTROLS
The DSX1 LED area luminaire is also available with nLight® AIR for the ultimate in wireless control. This powerful controls platform provides out-of-the-box basic motion sensing and photocontrol functionality and is suitable for mounting heights up to 40 feet. Once commissioned using a smartphone and the easy-to-use CLAIRITY app, nLight AIR equipped luminaries can be grouped, resulting in motion sensor and photocell group response without the need for additional equipment. Scheduled dimming with motion sensor over-ride can be achieved when used with the nLight Eclypse. Additional information about nLight Air can be found here.

INSTALLATION
Integral mounting arm allows for fast mounting using Lithonia standard #8 drilling and accommodates pole drilling's from 2.41 to 3.12" on center. The standard "SPA" option for square poles and the "RPA" option for round poles use the #8 drilling. For #5 pole drillings, use SPA5 or RPA5. Additional mountings are available including a wall bracket (WBA) and mast arm (MA) option that allows luminaire attachment to a 2 3/8" horizontal mast arm.

LISTINGS
UL listed to meet U.S. and Canadian standards. UL Listed for wet locations. Light engines are IP66 rated; luminaire is IP66 rated. Rated for -40ºC minimum ambient.

DesignLights Consortium® (DLC) Premium qualified product and DLC qualified product. Not all versions of this product may be DLC Premium qualified or DLC qualified. Please check the DLC Qualified Products List at www.designlights.org/QPL to confirm which versions are qualified.

International Dark-Sky Association (IDA) Fixture Seal of Approval (FSA) is available for all products on this page utilizing 3000K color temperature only.

BUY AMERICAN ACT
Product with the BAA option is assembled in the USA and meets the Buy America(n) government procurement requirements under FAR, DFARS and DOT regulations. Please refer to www.acuitybrands.com/buy-american for additional information.

WARRANTY
5-year limited warranty. This is the only warranty provided and no other statements in this specification sheet create any warranty of any kind. All other express and implied warranties are disclaimed. Complete warranty terms located at: www.acuitybrands.com/support/warranty/terms-and-conditions

Note: Actual performance may differ as a result of end-user environment and application. All values are design or typical values, measured under laboratory conditions at 25 °C. Specifications subject to change without notice.

MRP LED
LED Area Luminaire

Catalog Number

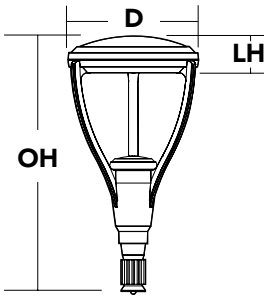
Notes

Type

Hit the Tab key or mouse over the page to see all interactive elements.

Specifications

EPA:	1.125 ft² *(0.105 m²)*
Luminaire Height:	6-3/8″ *(16.2 cm)*
Overall Height:	32″ *(81.3 cm)*
Diameter:	18″ *(45.7 cm)*
Weight (max):	37.5 lbs *(17 kg)*



A+ Capable Luminaire

This item is an A+ capable luminaire, which has been designed and tested to provide consistent color appearance and system-level interoperability.

- All configurations of this luminaire meet the Acuity Brands' specification for chromatic consistency
- This luminaire is A+ Certified when ordered with DTL® controls marked by a shaded background. DTL DLL equipped luminaires meet the A+ specification for luminaire to photocontrol interoperability1
- This luminaire is part of an A+ Certified solution for ROAM® control networks, providing out-of-the-box control compatibility with simple commissioning, when ordered with drivers and control options marked by a shaded background[1]

To learn more about A+, visit www.acuitybrands.com/aplus.

1. See ordering tree for details.
2. A+ Certified Solutions for ROAM require the order of one ROAM node per luminaire. Sold Separately: Link to Roam; Link to DTL DLL

A+ Capable options indicated by this color background.

Ordering Information

EXAMPLE: MRP LED 42C 700 40K SR5 MVOLT DDBXD

MRP LED

Series	LEDs	Drive current	Color temperature	Distribution	Voltage	Mounting
MRP LED	42C 42 LEDs (one engine)	350 350mA 530 530mA 700 700mA 1000 1000mA (1A)	30K 3000K 40K 4000K 50K 5000K	SR2 Type II SR3 Type III SR4 Type IV SR5 Type V	MVOLT[1] 277[2] 120[2] 347[2] 208[2] 480[2] 240[2]	**Shipped included** (blank) Fits 4″OD round pole **Shipped separately**[3] MRPT20 2-3/8″ tenon slipfitter MRPT25 2-7/8″ tenon slipfitter **Shipped separately**[3] MRPT30 3-1/2″tenon slipfitter MRPT35 4″tenon slipfitter MRPF3 3″OD round pole adapter MRPF5 5″OD round pole adapter[4]

Control options	Other options	Finish *(required)*
Shipped installed PER NEMA twist-lock receptacle only (control ordered separate) PER5 Five-wire receptacle only (control ordered separate)[5] PER7 Seven-wire receptacle only (control ordered separate)[5] DMG 0-10v dimming wires pulled outside fixture (for use with an external control, ordered separately)[6]	SF Single fuse (120, 277, 347V)[2] DF Double fuse (208, 240, 480V)[2]	DDBXD Dark bronze DBLXD Black DNAXD Natural aluminum DWHXD White DDBTXD Textured dark bronze DBLBXD Textured black DNATXD Textured natural aluminum DWHGXD Textured white

Ordering Information

Accessories

Ordered and shipped separately.

DLL127F 1.5 JU	Photocell - SSL twist-lock (120-277V) [7]
DLL347F 1.5 CUL JU	Photocell - SSL twist-lock (347V) [7]
DLL480F 1.5 CUL JU	Photocell - SSL twist-lock (480V) [7]
DSHORT SBK U	Shorting cap [7]
MRPT20 DDBXD U	2-3/8" tenon slipfitter (specify finish)
MRPT25 DDBXD U	2-7/8" tenon slipfitter (specify finish)
MRPT30 DDBXD U	3-1/2" tenon slipfitter (specify finish)
MRPT35 DDBXD U	4" tenon slipfitter (specify finish)
MRPF3 DDBXD U	3" OD round pole adapter (specify finish)
MRPF5 DDBXD U	5" OD round pole adapter (specify finish) [3]

For more control options, visit DTL and ROAM online.

NOTES

1 MVOLT driver operates on any line voltage from 120-277V (50/60 Hz).
2 Single fuse (SF) requires 120V, 277V or 347V. Double fuse (DF) requires 208V, 240V or 480V.
3 Also available as a separate accessory; see Accessories information at left.
4 Maximum pole wall thickness is 0.156".
5 If ROAM® node required, it must be ordered and shipped as a separate line item from Acuity Brands Controls.
6 DMG not available with PER, PER5 or PER7.
7 Requires luminaire to be specified with PER option. Ordered and shipped as a separate line item.

Performance Data

Lumen Output

Lumen values are from photometric tests performed in accordance with IESNA LM-79-08. Data is considered to be representative of the configurations shown, within the tolerances allowed by Lighting Facts. Contact factory for performance data on any configurations not shown here.

LEDs	Drive Current (mA)	System Watts	Dist. Type	30K					40K					50K				
				Lumens	B	U	G	LPW	Lumens	B	U	G	LPW	Lumens	B	U	G	LPW
42C (42 LEDs)	530	75W	SR2	5,456	1	2	1	73	6,605	1	2	1	88	6,671	1	2	1	89
			SR3	5,436	1	1	1	72	6,581	1	1	2	88	6,647	1	1	2	89
			SR4	5,399	1	1	1	72	6,537	1	1	2	87	6,602	1	1	2	88
			SR5	5,748	3	1	3	77	6,959	3	1	3	83	7,029	3	1	3	94
	700	100W	SR2	6,630	1	2	1	66	8,026	2	2	2	80	8,106	2	2	2	81
			SR3	6,605	1	1	2	66	7,997	1	2	2	80	8,077	1	2	2	81
			SR4	6,561	1	1	2	66	7,943	1	2	2	79	8,022	1	2	2	80
			SR5	6,985	3	1	3	70	8,456	3	2	3	85	8,541	3	2	3	85
	1000	151W	SR2	8,165	2	2	2	54	9,885	2	2	2	65	9,983	2	2	2	66
			SR3	8,135	1	2	2	54	9,848	2	2	2	65	9,947	2	2	2	66
			SR4	8,080	2	2	2	54	9,782	2	2	2	65	9,880	2	2	2	65
			SR5	8,602	3	2	3	57	10,414	4	2	4	70	10,518	4	2	4	70

PER Table

Control	PER (3 wire)	PER5 (5 wire)		PER7 (7 wire)		
			Wire 4/Wire5		Wire 4/Wire5	Wire 6/Wire7
Photocontrol Only (On/Off)	✓	⚠	Wired to dimming leads on driver	⚠	Wired to dimming leads on driver	Wires Capped inside fixture
ROAM	⊘	✓	Wired to dimming leads on driver	⚠	Wired to dimming leads on driver	Wires Capped inside fixture
ROAM with Motion (ROAM on/off only)	⊘	⚠	Wired to dimming leads on driver	⚠	Wired to dimming leads on driver	Wires Capped inside fixture
Futureproof*	⊘	⚠	Wired to dimming leads on driver	✓	Wired to dimming leads on driver	Wires Capped inside fixture
Futureproof* with Motion	⊘	⚠	Wired to dimming leads on driver	✓	Wired to dimming leads on driver	Wires Capped inside fixture

✓ Recommended
⊘ Will not work
⚠ Alternate

*Futureproof means: Ability to change controls in the future.

Lumen Ambient Temperature (LAT) Multipliers

Use these factors to determine relative lumen output for average ambient temperatures from 0-40°C (32-104°F).

Ambient		Lumen Multiplier
0°C	32°F	1.06
10°C	50°F	1.04
20°C	68°F	1.01
25°C	**77°F**	**1.00**
30°C	86°F	0.99
40°C	104°F	0.96

Projected LED Lumen Maintenance

Data references the extrapolated performance projections for the **MRP LED 42C 700** platform in a **25°C ambient**, based on 10,000 hours of LED testing (tested per IESNA LM-80-08 and projected per IESNA TM-21-11).

To calculate LLF, use the lumen maintenance factor that corresponds to the desired number of operating hours below. For other lumen maintenance values, contact factory.

Operating Hours	0	25,000	50,000	100,000
Lumen Maintenance Factor	1.0	0.96	0.92	0.85

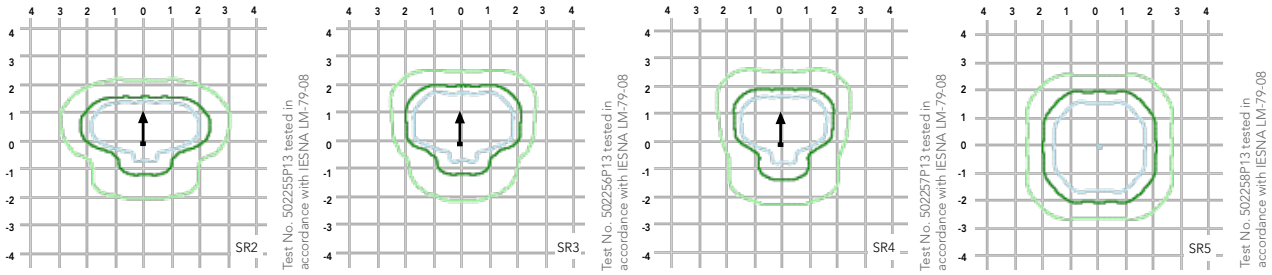
Photometric Diagrams

To see complete photometric reports or download .ies files for this product, visit Lithonia Lighting's MRP LED homepage.

Isofootcandle plots are considered to be representative of available optical distributions.

LEGEND

- 0.1 fc
- 0.5 fc
- 1.0 fc



FEATURES & SPECIFICATIONS

INTENDED USE
Streets, walkways, parking lots and surrounding areas.

CONSTRUCTION
Single-piece die-cast aluminum housing with nominal wall thickness of .012". Die-cast top access doorframe has impact-resistant, tempered glass lens (3/16" thick). Doorframe is fully gasketed with one-piece tubular silicone.

FINISH
Exterior parts are protected by a zinc-infused Super Durable TGIC thermoset powder coat finish that provides superior resistance to corrosion and weathering. A tightly controlled multi-stage process ensures a minimum 3 mils thickness for a finish that can withstand extreme climate changes without cracking or peeling. Standard Super Durable colors include dark bronze, black, natural aluminum and white. Available in textured and non-textured finishes.

OPTICS
Precision acrylic refractive optics for optimum light distribution through the flat glass lens. Light engines are available in standard 3000K (70 CRI) or optional 4000K (70 CRI) or 5000K (70 CRI) configurations.

ELECTRICAL
Light engine consists of 42 high-efficacy LEDs mounted to a metal-core circuit board and aluminum heat sink, ensuring optimal thermal management and long life. Class 1 electronic driver has a power factor >90%, THD <20%, and has an expected life of 100,000 hours with <1% failure rate. Easily-serviceable surge protection device meets a minimum Category C Low for operation (per ANSI/IEEE C62.41.2).

INSTALLATION
Standard post-top mounting configuration fits into a 4" OD open pole top (round pole only). Multiple options and accessories are available for other mounting needs.

LISTINGS
CSA certified to U.S. and Canadian standards. Luminaire is IP65 rated. Rated for -40°C minimum ambient. **U.S. Patent No. D556,357.**

BUY AMERICAN ACT
This product is assembled in the USA and meets the Buy America(n) government procurement requirements under FAR, DFARS and DOT regulations. Please refer to www.acuitybrands.com/resources/buy-american for additional information.

WARRANTY
5-year limited warranty. This is the only warranty provided and no other statements in this specification sheet create any warranty of any kind. All other express and implied warranties are disclaimed. Complete warranty terms located at:
www.acuitybrands.com/support/warranty/terms-and-conditions

Note: Actual performance may differ as a result of end-user environment and application. All values are design or typical values, measured under laboratory conditions at 25 °C. Specifications subject to change without notice.

Project		Catalog #		Type	
Prepared by		Notes		Date	

Downlight

Wall Wash

Portfolio

LDSQ6C | EU6C | 6LBSQ

6” Square, New Construction Downlight and Wall Wash
250-15,000 Lumens

Typical Applications

Office • Education • Healthcare • Hospitality • Retail • Code-Compliance Areas • Sports Venues

Interactive Menu

Product Certification

ENERGY STAR · Efficiency Standards T24 · RoHS COMPLIANT · UL CERTIFIED · wet location

Control Compatibility

WaveLinx LITE · WaveLinx PRO

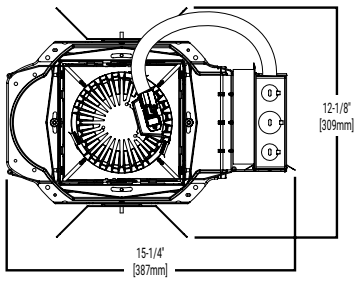
Product Features

powered by fifthlight technology · Showerlight · Chicago Plenum Rated

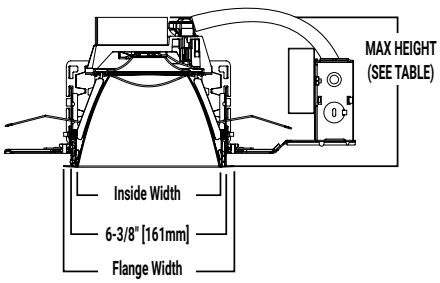
Top Product Features

- 250-15,000 lumens; Offered in 90, 97 and 98 CRI; ENERGY STAR® qualified
- Optional snap in driver for ease of replacement; Die-cast or anodized aluminum reflectors
- Standard 0-10V driver dims to 1%; Easy disconnect for LED engine replacement and installation
- 2400K, 2700K, 3000K, 3500K, 4000K, 5000K; D2W™ option from 3000K to 1850K
- W2N tunable white CCT range 2700K to 6500K or 2000K to 5000K

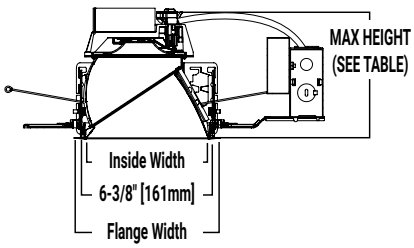
Dimensional and Mounting Details



DOWNLIGHT



WALL WASH



CLICK HERE dimension information

Single Line Order Information

Multi-line Ordering Information Option

SAMPLE ORDER NUMBER: **LDSQ6C109030D010SQ1LI**

Invoice will indicate separate fixture components (housing, trim, module) which will ship complete from a single CLS facility in separate cartons.
To receive separate components (housing, trim, module) shipment, click on the "Multi-Line Ordering Information Option" button to the right.

Housing	Lumen (1)				Color Control	CCT (20)	
LDSQ6C=LED Square Downlight 6" Nominal Aperture **LDSQ6CCP**=LED Square Downlight 6" Nominal Aperture, Chicago Plenum	**02** = 250 lumens, IC rated **05** = 500 lumens, IC rated **08** = 800 lumens, IC rated **10** = 1000 Lumens **10IC** = 1000 Lumens, IC rated **15** = 1500 Lumens **15IC** = 1500 Lumens, IC rated	**20** = 2000 Lumens **25** = 2500 lumens **30** = 3000 Lumens **35** = 3500 lumens **40** = 4000 Lumens **45** = 4500 Lumens (10) **50** = 5000 Lumens (10)	**55** = 5500 Lumens (10) **60** = 6000 Lumens (10) **65** = 6500 Lumens (10) **70** = 7000 Lumens (10) **75** = 7500 Lumens (10) **80** = 8000 Lumens (10) **90** = 9000 Lumens (10)	**100** = 10,000 Lumens (10) **110** = 11,000 Lumens (10) **120** = 12,000 Lumens (10) **130** = 13,000 Lumens (10) **150** = 15,000 Lumens (10)	**90**=90 CRI Minimum **97**=97 CRI Minimum	**90 CRI** **24**=2400K **27**=2700K **30**=3000K **35**=3500K **40**=4000K **50**=5000K	**97 CRI** **27**=2700K **30**=3000K

Driver	*Specify from Driver column. Information below for reference only.* Remote driver & plug in driver	Driver Options	Hanger Bars
D010=0-10V Dimming, 1% to 100%, 120V-277V, up to 7000 lumens (up to 3000 lumens for remote driver) **1D010**=0-10V Dimming, 1% to 100%, 120V, 7500 lumens & above (3500 to 7000 lumens for remote driver) **2D010**=0-10V Dimming, 1% to 100%, 277V, 7500 lumens & above (3500 to 7000 lumens for remote driver) **3D010**=0-10V Dimming, 1% to 100%, 347V dedicated drivers, 800-4000 lumens; 250, 500, 4500 & above use step down transformer (250 to 7000 lumens for remote driver)	250-7000	**Blank** = Integral driver **RC100** = Remote 100ft (3) (26) **RC75** = Remote 75ft (3) (26) **RC50** = Remote 50ft (3) (26) **RC25** = Remote 25ft (3) **RC15** = Remote 15ft (3) **RC5** = Remote 5ft (3) **RC2** = Remote 2ft (3) **PD** = Plug in Driver	**Blank** = Without hanger bars **B26** = C-channel Bar Hanger, 26" Long, Pair
D010TR=0-10V (120-277V) or Line Voltage (120V) dimming, 5-100%, 250- 4500 lumens (up to 3000 lumens for remote driver) **1D010TR**=0-10V or Line Voltage Dimming, 5% to 100%, 120V, 5000-9000 & 13,000 lumens (3500 to 4500 lumens for remote driver) **2D010TR**=0-10V Dimming, 5% to 100%, 277V, 5000-9000 & 13,000 lumens (3500 to 4500 lumens for remote driver) **3D010TR**=0-10V Dimming, 5% to 100%, 347V step down transformer, 250-9000 & 13,000 lumens (250 to 4500 lumens for remote driver)	250-4500		
DE010=0-10V Dimming, 0% to 100%, 120V-277V, 500-7000 lumens (up to 3000 lumens for remote driver) **1DE010**=0-10V Dimming, 0% to 100%, 120V, 7500 lumens & above (3500 to 7000 lumens for remote driver) **2DE010**=0-10V Dimming, 0% to 100%, 277V, 7500 lumens & above (3500 to 7000 lumens for remote driver) **3DE010**=0-10V Dimming, 0% to 100%, 347V step down transformer, 500-15,000 lumens (500 to 7000 lumens for remote driver)	500-7000		
D5LT=Fifth Light® (DALI T6) Logarithmic Dimming, 0% to 100%, 120V-277V, 500-7000 lumens (up to 3000 lumens for remote driver) **1D5LT**=Fifth Light® (DALI T6) Logarithmic Dimming, 0% to 100%, 120V, 7500 lumens & above (3500 to 7000 lumens for remote driver) **2D5LT**=Fifth Light® (DALI T6) Logarithmic Dimming, 0% to 100%, 277V, 7500 lumens & above (3500 to 7000 lumens for remote driver) **3D5LT**=Fifth Light® (DALI T6) Logarithmic Dimming, 0% to 100% 347V step down transformer, 500-15,000 lumens (500 to 7000 lumens for remote driver)	500-7000		
DMX=DMX/RDM Logarithmic Dimming, 0% to 100%, 120V-277V, 800-4500 lumens (up to 3000 lumens for remote driver) (14) **1DMX**= DMX/RDM Logarithmic Dimming, 0% to 100%, 120V, 5000-9000 & 13,000 lumens (3500 to 4500 lumens for remote driver) (14) **2DMX**=DMX/RDM Logarithmic Dimming, 0% to 100%, 277V, 5000-9000 & 13,000 lumens (3500 to 4500 lumens for remote driver) (14) **3DMX**=DMX/RDM Logarithmic Dimming, 0% to 100%, 347V step down transformer, 800-9000 & 13,000 lumens (800 to 4500 lumens for remote driver) (14)	800-4500		
DMXC5=DMX/RDM Logarithmic Dimming, 0% to 100%, 120V-277V, 800-4500 lumens, RJ45 Connection (up to 3000 lumens for remote driver) (14) **1DMXC5**=DMX/RDM Logarithmic Dimming, 0% to 100%, 120V, 5000-9000 & 13,000 lumens, RJ45 Connection (3500 to 4500 lumens for remote driver) (14) **2DMXC5**=DMX/RDM Logarithmic Dimming, 0% to 100%, 277V, 5000-9000 & 13,000 lumens, RJ45 Connection (3500 to 4500 lumens for remote driver) (14) **3DMXC5**=DMX/RDM Logarithmic Dimming, 0% to 100%, 347V step down transformer, 800-9000 & 13,000 lumens, RJ45 Connection (800 to 4500 lumens for remote driver) (14)	800-4500		
DLE=Lutron Ecosystem dimming 1% to 100%, 120V-277V, 800-3500 lumens (up to 3000 lumens for remote driver) **1DLE**=Lutron Ecosystem dimming 1% to 100%, 120V, 4000-7500 lumens (3500 lumens for remote driver) **2DLE**=Lutron Ecosystem dimming 1% to 100%, 277V, 4000-7500 lumens (3500 lumens for remote driver) **3DLE**=Lutron Ecosystem dimming 1% to 100%, 347V step down transformer, 800-7500 lumens (800-3500 lumens for remote driver)	800-3500		
DLV = Low voltage dimming driver (1-100%) for use with DLVP system 800-3000 lumens (3)	800-3000 (Remote driver only)		

Trim Distribution (5)	Trim Flange	Trim Finish	Options (3) (16) (24)
SQ=Medium beam, 50° cutoff **SQW**=Medium beam, 45° cut off **CSSQ**=Cast Shallow Square, Die Cast Aluminum (7) **Wall Wash** **SQLWW** = lensed wall wash	**0**=White Polymer Trim Ring (28) **1**=Self-flanged (11) **2**=White Painted Self-flanged **4**=Knife edge rimless use with die cast only (8) (18)	**LI**=Specular Clear (9) **H**=Semi-Specular Clear (9) **WMH**=Warm Haze (9) **WH**=Wheat (9) **GPH**=Graphite Haze (9) **B**=Specular Black (9) **MW**=Matte White (Antimicrobial) **MB**=Matte Black (8) **MMS**=Matte Metallic Silver (8)	**EMBOD**=Bodine® Emergency Module with Remote Test Switch (20) **EMBOD6ST**=Bodine® 6W Self Test Emergency Module with Remote Test Switch **EM7**=7W Emergency Module with Remote Test Switch **EM14**=14W Emergency Module with Remote Test Switch **EMBOD7ST**=Bodine® Self Test Emergency Module (20) **IEMBOD**=Bodine® Emergency Module with Integral Test Switch (6) (20) **IEMBOD6ST**=Bodine®6W Self Test Emergency Module with Integral Test Switch (6) **IEM7**=7W Emergency Module with Integral Test Switch (6) **IEM14**=14W Emergency Module with Integral Test Switch (6) **EMV7**=7W Low Voltage Emergency Module with Remote Test Switch (4) **EMV14**=14W Low Voltage Emergency Module with Remote Test Switch (4) **ETRD**=Emergency transfer device (25) **WPST** = Factory installed Wavelinx (includes control module, sensor, cable, tilemount and ceiling mount sensor) (13) (15) **WLST** = Factory installed WaveLinx LITE Sensor Kit (13) (14) **WPN** = WaveLinx PRO Wireless Node without sensor (27)

Continued on next page.

Single Line Order Information

Accessories (*Sold separately*) [23]

LGSKT6SQIP66=IP66 Gasket Kit

PRSQ6 = Rimless Plaster Ring [2]
RKPSQ6 = Knife Edge plaster Ring [19]

RPMSQ6MW = Rimless Millwork Ring, Matte White [2]
RPMSQ6MB = Rimless Millwork Ring, Matte Black [2]
RKMSQ6MW = Knife Edge Millwork Ring, Matte White [19]
RKMSQ6MB = Knife Edge Millwork Ring, Matte Black [19]

Bar Hangers
HB50=C-channel Bar Hanger, 50" Long, Pair
RMB22=Wood Joist Bar Hanger, 22" Long, Pair

Connected Lighting Systems [3] [13]
WPST = Field installed WaveLinx sensor Kit [14]
WLST = Field installed WaveLinx LITE Sensor Kit [15]

Transformers
H347=H347 for 90/97CRI 5500 lumens and below; 98CRI 4000 lumens and below; D2W 4500 lumens and below; W2N 4000 lumens and below
H347200=347 to 120V Step Down Transformer, 200VA

Notes:

1. Nominal Lumens will vary depending on selected color, CRI, driver and reflector finish. Reference Multiplier tables.

2. Order trim with polymer trim ring (Consult specification sheet for color ordering information and options).

3. Not available with Chicago Plenum.

4. ULus listed only

5. Beam angles are nominal with LI finish trims.

6. Available with SQ and SQW open anodized Aluminum trims. Required for use with all IEMBOD, IEMBOD6ST, IEM7, IEM14,IEMV7 and IEMV14 housings. Not offered with remote driver.

7. Only available with Matte White, Matte Black and Matte Metallic Silver finishes.

8. Available only on CS distributions.

9. Not available on CS distributions.

10. Product is marked spacing. Reference table on page 4.

11. Flange is the same finish as the reflector

12. DMX fixtures default to full on upon loss of DMX signal.

13. Refer to system specifications for additional information,features, and benefits. Order either factory installed option or accessory. Use with 0-10V driver.

14. WLST = WaveLinx LITE tilemount sensor kit for daylight dimming, PIR motion sensing, use with D010 only (Refer to WaveLinx LITE system specifications)

15. WPST = WaveLinx wireless sensor kit for daylight dimming, PIR motion sensing, and optional RLTS - Real Time Location Services, use with 0-10V only.

17. Limited to 1000 lumens with remote driver

18. Requires knife edge accessory ring.

19. Order die cast trim with flange type 4

20. Not available for W2N or 6500-7000 lumens with 90 and 97 CRI

22. Not available with 5500, 6500, 7500.

21. Available with remote driver only.

22. Limited to 2000 lumens

23. Accessories sold separately will be separately analyzed under domestic preference requirements. Consult factory for further information.

24. 120V-277V

25. Used to bypass local control during outage. Must be used in conjunction with UL 1008 device (provided by others)

26. Not available with Lutron drivers

27. WPN = WaveLinx PRO wireless node provides luminaire-level control with scene and zone configuration without an integrated sensor; Connects wirelessly with daylight dimming sensor and PIR motion sensor if desired. Use with 0-10V driver only.

28. Not available with CSSQ Cast Shallow Square, Die Cast Aluminum reflector

Product Specifications

Lower Shielding Reflector
- Painted die cast aluminum or anodized aluminum lower reflector with medium beam or medium beam 45° cutoff with a lensed upper optical chamber providing superior lumen output with minimal source brightness.
- Anodized reflectors are offered in all Portfolio finishes.
- Reflector is retained with two torsion springs holding the flange tight to the finished ceiling surface.
- Plaster lathing ring, knife edge and millwork ring accessory for flush reflector transition

Wall Wash Reflector
- **Lensed Wall Wash** - Angle cut aluminum lower reflector in combination with spread lens provides even vertical illumination with minimal downlight.

Trim Retention
- Two torsion springs hold reflector flange tightly to the finished ceiling surface

Plaster Frame/Collar
- Galvanized steel plaster frame with adjustable collar adjusts for up to 2" thick ceilings and rotates+/- 7.5°.

Universal Mounting Bracket
- Accepts 1/2" Electric Metallic Tube (EMT), C-channel and bar hangers
- Adjusts 5" vertically from above and below the ceiling

Junction box
- Four 1/2" and two 3/4" trade size pry outs positioned to allow straight conduit runs
- Lever connectors for simple push in wiring
- Listed for (4) #12 AWG (two in, two out) 90°C conductors and feed thru branch wiring for type IC and Plug in drivers for 120/277V only. For all other cases (8) #12 AWG (four in, four out) 90°C conductors and feed thru branch wiring for 120/277V only

Thermal
- Aluminum heat sink conducts heat away from the LED module for improved performance and longer life

LED System
- Contains a plurality of high brightness white LED's combined with a high reflectance upper reflector and convex transitional lens producing even distribution without pixilation
- Auto resetting, thermally protected, LED's are turned off when safe operating temperatures are exceeded
- Quick disconnect allows for tool-less replacement of LED engine from below ceiling
- 90 and 97 CRI
- 90 & 97CRI: L78 55,000 hours for 1000-2000 lumens, L90 55,000 for all other lumen output
- Color variation within 2-step MacAdam ellipses
- Available in 2400K, 2700K, 3000K, 3500K, 4000K and 5000K correlated color temperature (CCT)

Vividtune and High CRI
- 98 CRI and W2N: L70 55,000 hours
- D2W™ – dim-to-warm shifts CCT from 3000K to 1850K as fixture dims mimicking halogen sources.
- W2N - Tunable white CCT range 2700K to 6500K or 2000K to 5000K, 90 CRI. Standard
- **98 CRI** With a full-spectrum approach using broad-blue chip technology and special phosphor blends, Thrive is able to closely match the spectrum of the sun across all color temperatures. Benefits of the natural spectrum of the sun using Thrive include superior accurate color rendering, reduced eye strain, and a higher sense of emotional well-being.
- See dedicated specification sheet for more details.

Driver
- Standard 120-277V 0-10V dimming driver provides flicker free dimming from 100% to 1%
- Optional 120V leading edge/0-10V, <1% 0-10V, Fifth Light, DMX or Lutron® Ecosystem
- Driver can be serviced from above or through the aperture
- Distributed low voltage power system combines power, lighting, and controls with ease of installation.
- Optional magnetically guided snap in driver for ease of maintenance.

Emergency Option
- Provides 90 minutes of standby lighting, meeting most life safety codes for egress lighting
- Available with integral or remote charge indicator and test switch
- Available Self-Test (self-diagnostic) with remote charge indicator and test switch
- Emergency Transfer Relay Device bypasses local control during a power outage
- UL 924 listed

Connected Lighting System
Two WaveLinx connected solutions to choose from. Refer to WaveLinx system specifications and application guides for details.

WaveLinx PRO Tilemount Sensor Kit
- WaveLinx WPST tilemount sensor kit offers daylight dimming, PIR motion sensing, scene and zone configuration, automatic commissioning; and optional RLTS - Real Time Location Services available.

WaveLinx PRO Wireless Node
- WaveLinx PRO wireless node provides luminaire-level control with scene and zone configuration without an integrated sensor; Connects wirelessly with daylight dimming sensor and PIR motion sensor if desired. Use with 0-10V driver only.

WaveLinx LITE Tilemount Sensor Kit
- WaveLinx LITE WLST tilemount sensor kit offers daylight dimming and PIR motion sensing, scene and grouping configuration.

WaveLinx Tilemount Kits Application
- The WPST and WLST tilemount kits include a control module mounted on the luminaire junction box via 1/2" knock-out, and a tilemount sensor on 54-inch whip; for ceiling installation by direct-mount spring clips or via mounting bracket in octagon ceiling boxes.
- The WPST and WLST tilemount kits may be ordered as factory installed on the luminaire, or ordered separately as a field installed accessory kit.

Code Compliance
- Thermally protected
- cULus Certified to UL 1598 / C22.2 No. 250.0 suitable for wet locations with downlight; damp location with wall wash and hyperbolic with covered ceiling
- IP66 rated when used with IP66 gasket kit accessory
- Use IP66 gasket with non conductive reflector for sauna or steam room applications up to 2000 lumens and 40°C.
- Optional City of Chicago environmental air (CCEA) marking for plenum applications
- FCC CFR Title 47 Part 15 Class B at 120VAC and Class A at 277VAC
- Insulated ceiling (IC) rated up to 1,500 lumens (90 and 97CRI). All others are non-IC rated (insulation must be kept 3" from top and sides of housing).
- Can be used for State of California Title 24 high efficacy LED compliance under JA8, reference Modernized Appliance Efficiency Database System (MAEDBS) for 2016 JA8 High Efficacy Lighting
- RoHS compliant
- Photometric testing completed in accordance with IES LM-79
- LED life testing completed in accordance with IES LM-80-08 and TM-21-11 standards
- See table on page 3 for marked spacing requirements.

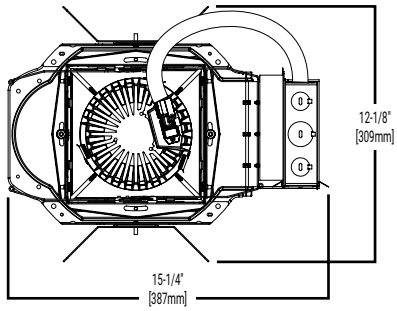
Warranty
- Five year warranty www.cooperlighting.com/legal

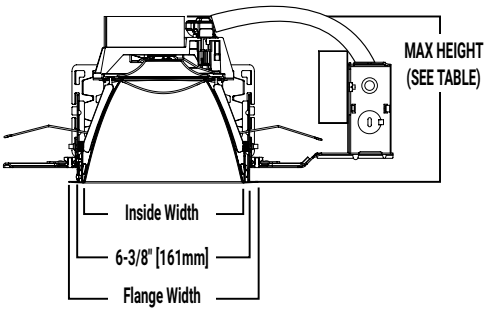
Marked Spacing

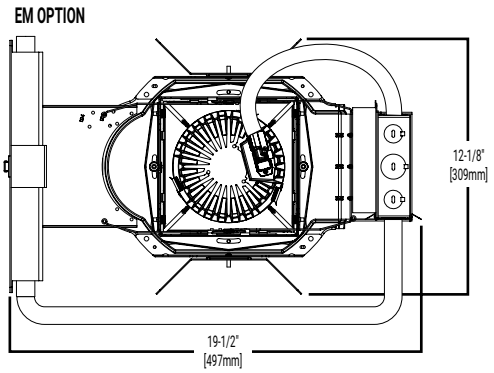
6-inch Marked spacing for 90 and 97 CRI			
4500-6000	36	36	6
6500-15,000	36	36	8

Dimensional and Mounting Details

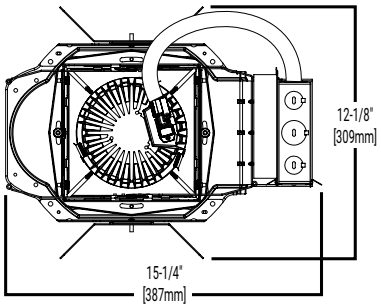
DOWNLIGHT

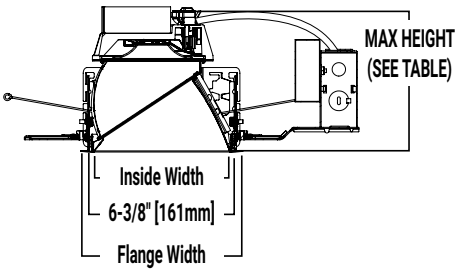


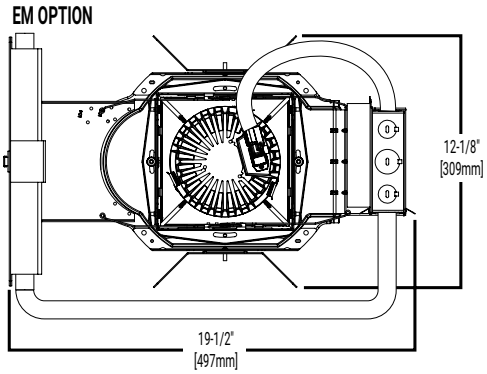


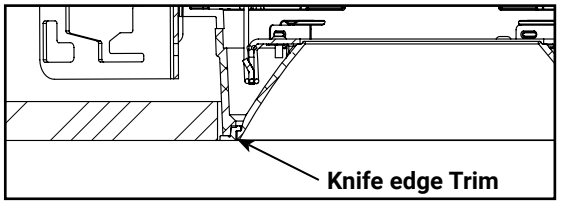


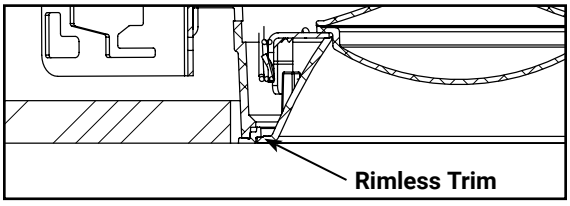
WALL WASH











CATALOG #	Flange WIDTH [IN]	INSIDE WIDTH [IN]	MAX HEIGHT				
			250-2500 LUMENS (90/97CRI)	3000-4000 LUMENS (90/97CRI)	1000-1500IC LUMENS (90/97CRI) 4500-6000 LUMENS (90/97CRI)	6500-7000 LUMENS (90/97CRI) 4000-8000 LUMENS (90/97CRI)	9000-15000 LUMENS (90/97CRI)
6LBSQ	7.18	5.97	6.1	6.3	6.5	7.5	9.5
6LBCSSQ	7.17	5.98	5.6	5.6	5.6	5.6	6.6
6LBSQW	7.18	5.5	6.8	6.9	7.1	8.1	10.1
6LBSQLWW	7.18	6.02	6.2	6.4	6.6	7.6	9.6

Energy and Performance Data

D010 DRIVER ENERGY DATA

Series	250 lumen		500 lumen		800 lumen		1000 lumen		1500 lumen		2000 lumen	
Input Voltage 120-277VAC	120V	277V	120V	277V	120V	277V	120V	277V	120V	277V	120V	277V
Input Current (A)	0.029	0.017	0.061	0.032	0.085	0.041	0.084	0.042	0.135	0.063	0.189	0.084
Input Power (W)	3.45	3.87	7.33	7.78	10.15	10.52	10.04	10.43	16.17	16.56	22.58	22.63
In-rush (A)	2.1	8.5	3.7	8.5	3.6	8.3	3.6	8.4	2.3	9.5	2.1	9.7
Inrush duration (µs)	250	131	190	136	220	135	226	136	230	125	243	132
THDi (%)	7.21	16.92	7.82	10.78	5.57	9.63	7.78	9.24	4.75	9.93	8.03	7.44
PF	≥ 0.98	≥ 0.9	≥ 0.99	≥ 0.93	≥ 0.99	≥ 0.95	≥ 0.99	≥ 0.95	≥ 0.99	≥ 0.94	≥ 0.99	≥ 0.96

Series	2500 lumen		3000 lumen		3500 lumen		4000 lumen		4500 lumen		5000 lumen	
Input Voltage 120-277VAC	120V	277V	120V	277V	120V	277V	120V	277V	120V	277V	120V	277V
Input Current (A)	0.276	0.121	0.276	0.121	0.333	0.152	0.404	0.181	0.421	0.192	0.491	0.216
Input Power (W)	32.98	32.57	32	32.57	39.83	39.84	48.38	47.94	50.22	50.17	58.69	58.01
In-rush (A)	2.5	11.8	3.6	11.8	3.1	14.3	3.1	14.5	5.6	22.6	5.6	22.6
Inrush duration (µs)	215	111	220	111	200	94	197	95	215	120	213	135
THDi (%)	9.86	6.57	5.57	6.57	4.25	10.05	5.02	7.97	6.12	8.35	8.51	7.92
PF	≥ 0.99	≥ 0.97	≥ 0.99	≥ 0.99	≥ 0.99	≥ 0.94	≥ 0.99	≥ 0.95	≥ 0.99	≥ 0.95	≥ 0.99	≥ 0.96

Series	5500 lumen		6000 lumen		6500 lumen		7000 lumen		7500 lumen		8000 lumen	
Input Voltage 120-277VAC	120V	277V	120V	277V	120V	277V	120V	277V	120V	277V	120V	277V
Input Current (A)	0.526	0.231	0.542	0.256	0.572	0.266	0.632	0.292	0.668	0.306	0.734	0.332
Input Power (W)	62.97	61.97	64.88	65.7	68.35	69.02	75.56	75.85	79.89	80.09	88.01	87.81
In-rush (A)	5.1	23.1	6.2	27.5	6.3	28.4	6.4	29.1	6.4	28.7	6.3	29.7
Inrush duration (µs)	217	138	188	101	189	92	187	90	185	100	187	123
THDi (%)	9.42	7.16	4.33	11.86	4.38	11.33	4.84	10.32	4.46	9.85	3.92	8.92
PF	≥ 0.99	≥ 0.96	≥ 0.99	≥ 0.93	≥ 0.99	≥ 0.93	≥ 0.99	≥ 0.94	≥ 0.99	≥ 0.94	≥ 0.99	≥ 0.95

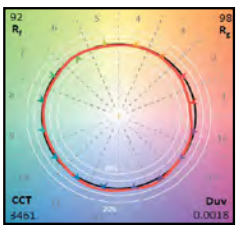
Series	9000 lumen		10000 lumen		11000 lumen		12000 lumen		13000 lumen		15000 lumen	
Input Voltage 120-277VAC	120V	277V	120V	277V	120V	277V	120V	277V	120V	277V	120V	277V
Input Current (A)	0.842	0.374	0.961	0.416	1.09	0.49	1.192	0.512	1.263	0.561	1.446	0.624
Input Power (W)	101.12	99.88	114.86	113.66	130.27	127.6	142.59	140.17	151.68	149.82	172.29	170.51
In-rush (A)	12.9	28.6	11.4	40.3	11.5	40.2	11.5	41.2	19.2	43.1	17.2	40.4
Inrush duration (µs)	170	97	248	124	233	118	246	114	170	97	240	125
THDi (%)	5.74	9.28	7.42	8.55	6.08	13.13	5.7	7.3	5.74	7.58	5.86	8.56
PF	≥ 0.99	≥ 0.95	≥ 0.99	≥ 0.98	≥ 0.99	≥ 0.9	≥ 0.99	≥ 0.99	≥ 0.99	≥ 0.96	≥ 0.99	≥ 0.98

Minimum starting temperature -30°C (-22°F)* (Nominal input 120-277VAC & 100% of rated output power)
Sound Rating: Class A standards

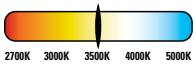
Notes:
Emergency Battery packs are rated for a minimum starting temperature of 0°C.

COLOR METRICS - TM-30-15 & CRI/CIE

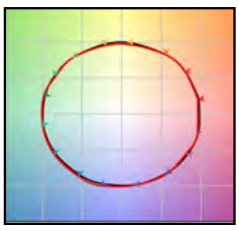
90 CRI Color Metric Summary - 3500K*



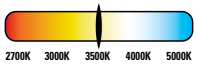
TM-30-15	Rf = 92
	Rg = 98
CRI/CIE	Ra = 92.2
	R9 = 51.4



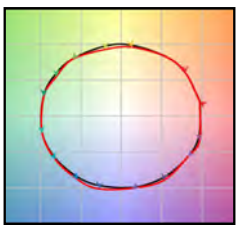
97 CRI Color Metric Summary - 2700K*



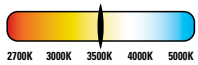
TM-30-15	Rf = 95
	Rg = 99.8
CRI/CIE	Ra = 92.2
	R9 = 85.8



97 CRI Color Metric Summary - 3000K*



TM-30-15	Rf = 93.9
	Rg = 100.2
CRI/CIE	Ra = 92.2
	R9 = 98.7



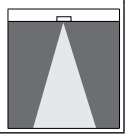
* Color values are based on haze reflector, other finishes and field results may vary.

Photometric Data

View IES files

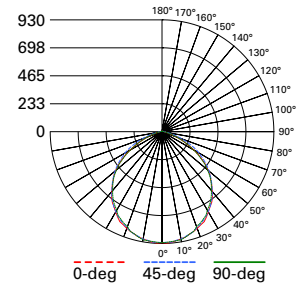
MEDIUM/WIDE 65° BEAM (H)

Test Number	P571671
Housing	LDSQ6C20D010
Module	EU6C10259035
Trim	6LBPSSQMW
Lumens	2236
Efficacy	102.6 Lm/W
SC	1.22
UGR	25.2

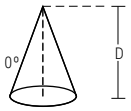


CANDLEPOWER DISTRIBUTION

Downlight



CONE OF LIGHT



D	FC	L	W
4'	58.2	4.8	4.8
7'	19	8.6	8.4
9'	11.5	11	10.8
13'	5.5	15.8	15.6
16'	3.6	19.6	19.4

CANDELA TABLE

Degrees Vertical	Candela
0	926
5	926
15	885
25	829
35	720
45	574
55	403
65	190
75	27
85	0
90	0

ZONAL LUMEN SUMMARY

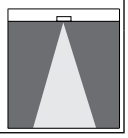
Zone	Lumens	% Fixture
0-30	713	31.9
0-40	1158	51.8
0-60	1969	88.1
0-90	2236	100
90-180	0	0
0-180	2236	100

LUMINANCE

Average Candela Degrees	Average 0° Luminance
37	37396
45	34933
55	30251
65	19347
75	4541
85	0

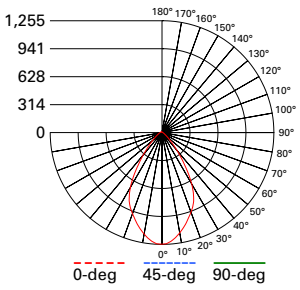
MEDIUM/WIDE 50° CUTOFF 60° BEAM (H)

Test Number	P571672
Housing	LDSQ6C20D010
Module	EU6C10259035
Trim	6LBSQH
Lumens	1268
Efficacy	58.2 Lm/W
SC	0.94
UGR	11.1

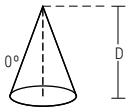


CANDLEPOWER DISTRIBUTION

Downlight



CONE OF LIGHT



D	FC	L	W
4'	78.4	3.6	3.6
7'	25.6	6.4	6.4
9'	15.5	8.4	8.4
13'	7.4	12.2	12.2
16'	4.9	15	15

CANDELA TABLE

Degrees Vertical	Candela
0	1255
5	1228
15	1059
25	853
35	453
45	148
55	45
65	16
75	5
85	0
90	0

ZONAL LUMEN SUMMARY

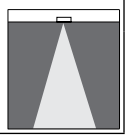
Zone	Lumens	% Fixture
0-30	796	62.8
0-40	1082	85.3
0-60	1245	98.2
0-90	1268	100
90-180	0	0
0-180	1268	100

LUMINANCE

Average Candela Degrees	Average 0° Luminance
37	20188
45	9042
55	3393
65	1661
75	898
85	0

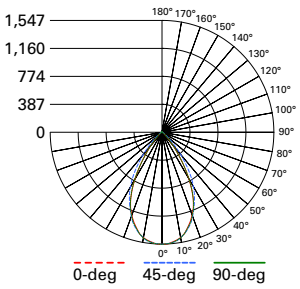
MEDIUM/WIDE 50° CUTOFF 65° BEAM (LI)

Test Number	P571673
Housing	LDSQ6C20D010
Module	EU6C10259035
Trim	6LBSQLI
Lumens	1451
Efficacy	66.6 Lm/W
SC	0.92
UGR	2.1

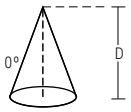


CANDLEPOWER DISTRIBUTION

Downlight



CONE OF LIGHT



D	FC	L	W
4'	96.8	3.6	3.6
7'	31.6	6.4	6.4
9'	19.1	8.2	8.2
13'	9.2	11.8	11.8
16'	6	14.6	14.6

CANDELA TABLE

Degrees Vertical	Candela
0	1544
5	1524
15	1362
25	1017
35	429
45	81
55	14
65	4
75	1
85	0
90	0

ZONAL LUMEN SUMMARY

Zone	Lumens	% Fixture
0-30	1001	69
0-40	1327	91.4
0-60	1445	99.6
0-90	1451	100
90-180	0	0
0-180	1451	100

LUMINANCE

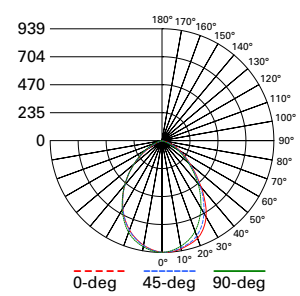
Average Candela Degrees	Average 0° Luminance
37	17971
45	4920
55	1021
65	397
75	166
85	0

LENSED WALL WASH (H)

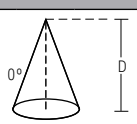
Test Number	P571674
Housing	LDSQ6C20D010
Module	EU6C10259035
Trim	6LBSQLWWH
Lumens	1704
Efficacy	78.2 Lm/W
SC	1.08
UGR	24.2

CANDLEPOWER DISTRIBUTION

Downlight



CONE OF LIGHT



D	FC	L	W
4'	58.6	4.4	4.2
7'	19.1	7.8	7.4
9'	11.6	10.1	9.6
13'	5.5	14.5	14
16'	3.7	17.9	17.2

CANDELA TABLE

Degrees Vertical	Candela
0	937
5	936
15	902
25	824
35	642
45	417
55	254
65	144
75	61
85	6
90	0

ZONAL LUMEN SUMMARY

Zone	Lumens	% Fixture
0-30	682	40
0-40	1049	61.6
0-60	1561	91.6
0-90	1704	100
90-180	0	0
0-180	1704	100

LUMINANCE

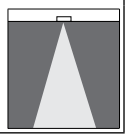
Average Candela Degrees	Average 0° Luminance
37	32089
45	25385
55	19097
65	14691
75	10114
85	2816

Photometric Data

View IES files

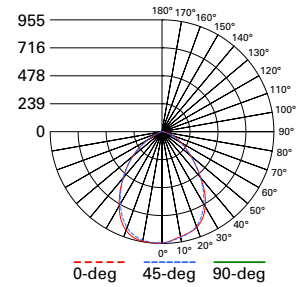
LENSED WALL WASH (LI)

Test Number	P571675
Housing	LDSQ6C20D010
Module	EU6C10259035
Trim	6LBSQLWWLI
Lumens	1753
Efficacy	80.4 Lm/W
SC	1.1
UGR	24

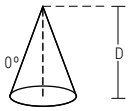


CANDLEPOWER DISTRIBUTION

Downlight



CONE OF LIGHT



D	FC	L	W
4'	59.6	4.6	4.2
7'	19.5	8	7.6
9'	11.8	10.3	9.8
13'	5.6	14.9	14.2
16'	3.7	18.5	17.4

CANDELA TABLE

Degrees Vertical	Candela
0	953
5	936
15	896
25	822
35	638
45	411
55	251
65	143
75	61
85	6
90	0

ZONAL LUMEN SUMMARY

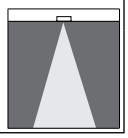
Zone	Lumens	% Fixture
0-30	712	40.6
0-40	1094	62.4
0-60	1620	92.4
0-90	1753	100
90-180	0	0
0-180	1753	100

LUMINANCE

Average Candela Degrees	Average 0° Luminance
37	31751
45	25001
55	18819
65	14528
75	10164
85	2816

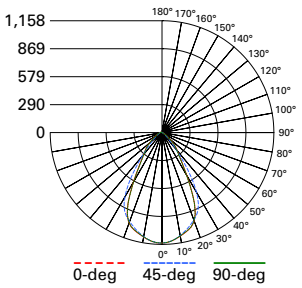
MEDIUM/WIDE 45° CUTOFF 60° BEAM (H)

Test Number	P571676
Housing	LDSQ6C20D010
Module	EU6C10259035
Trim	6LCSQH
Lumens	1268
Efficacy	58.2 Lm/W
SC	0.95
UGR	13.1

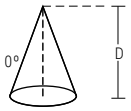


CANDLEPOWER DISTRIBUTION

Downlight



CONE OF LIGHT



D	FC	L	W
4'	72.4	3.8	3.8
7'	23.6	6.6	6.6
9'	14.3	8.6	8.6
13'	6.8	12.4	12.4
16'	4.5	15.2	15.2

CANDELA TABLE

Degrees Vertical	Candela
0	1158
5	1143
15	1064
25	821
35	363
45	204
55	73
65	24
75	6
85	1
90	0

ZONAL LUMEN SUMMARY

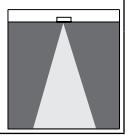
Zone	Lumens	% Fixture
0-30	787	62.1
0-40	1046	82.5
0-60	1240	97.8
0-90	1268	100
90-180	0	0
0-180	1268	100

LUMINANCE

Average Candela Degrees	Average 0° Luminance
37	17099
45	12409
55	5495
65	2476
75	1065
85	593

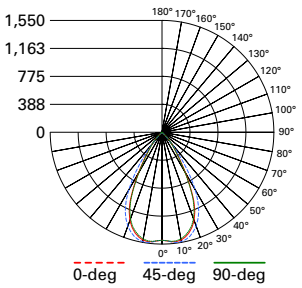
MEDIUM/WIDE 45° CUTOFF 65° BEAM (LI)

Test Number	P571677
Housing	LDSQ6C20D010
Module	EU6C10259035
Trim	6LCSQLI
Lumens	1451
Efficacy	66.6 Lm/W
SC	0.94
UGR	0.5

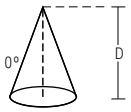


CANDLEPOWER DISTRIBUTION

Downlight



CONE OF LIGHT



D	FC	L	W
4'	94.8	3.8	3.6
7'	31	6.6	6.4
9'	18.7	8.4	8.4
13'	9	12.2	12.2
16'	5.9	15.2	15

CANDELA TABLE

Degrees Vertical	Candela
0	1505
5	1533
15	1452
25	1048
35	376
45	118
55	11
65	4
75	1
85	0
90	0

ZONAL LUMEN SUMMARY

Zone	Lumens	% Fixture
0-30	1061	73.1
0-40	1346	92.8
0-60	1446	99.6
0-90	1451	100
90-180	0	0
0-180	1451	100

LUMINANCE

Average Candela Degrees	Average 0° Luminance
37	16373
45	7173
55	803
65	367
75	133
85	198

Photometric Multipliers (Nominal Lumen Values)

250 Lumen	500 Lumen	800 Lumen	1000 Lumen	1500 Lumen	2000 Lumen	2500 Lumen	3000 Lumen	3500 Lumen	4000 Lumen	4500 Lumen	5000 Lumen
0.22	0.42	0.57	0.65	1.00	1.29	1.62	1.90	2.25	2.61	3.02	3.42

5500 Lumen	6000 Lumen	6500 Lumen	7000 Lumen	7500 Lumen	8000 Lumen	9000 Lumen	10000 Lumen	11000 Lumen	12000 Lumen	13000 Lumen
3.82	4.13	4.32	4.54	5.34	4.47	4.76	5.09	5.87	6.33	6.96

Multipliers for relative lumen values with other series models.

CCT Multipliers – 90CRI

2400K	2700K	3000K	3500K	4000K	5000K
0.912	0.949	0.986	1	1.001	1.022

Multipliers for relative lumen values with other series color temperatures.

CCT Multipliers – 97CRI

2700K	3000K	3500K	4000K	5000K
0.889	0.955	1	1.016	1.07

Multipliers for relative lumen values with other series color temperatures.

Color Finish Multipliers

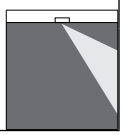
Finish code	LI	H	WMH	WH	GPH	B	MW
Finish	Specular Clear	Semi-Specular Clear	Warm Haze	Wheat	Graphite Haze	Specular Black	Matte White
Multiplier	1.33	1.0	1.06	1.11	0.83	0.62	1.11

Multipliers for relative lumen values with other color finishes.

Photometric Data

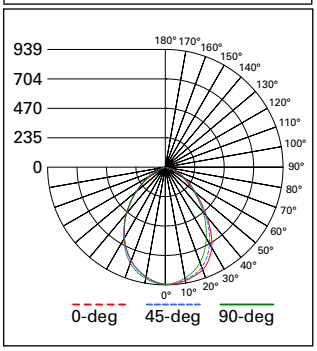
View IES files

WALL WASH	
Test Number	P563506
Housing	LD6C20D010
Module	EU6209035
Trim	6LBSQLWWH
Lumens	1704
Efficacy	78.2 Lm/W
SC	1.08
UGR	0



CANDLEPOWER DISTRIBUTION

Wall Wash



CANDELA TABLE

Degrees Vertical	Candela
0	937
5	936
15	902
25	824
35	642
45	417
55	254
65	144
75	61
85	6
90	0

ZONAL LUMEN SUMMARY

Zone	Lumens	% Fixture
0-30	682	40
0-40	1049	61.6
0-60	1561	91.6
0-90	1704	100
90-180	0	0
0-180	1704	100

LUMINANCE

Average Candela Degrees	Average 0° Luminance
37	32089
45	25385
55	19097
65	14691
75	10114
85	2816

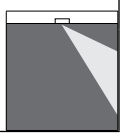
Single Unit Footcandles
3" from wall
(distance from fixture along wall)

DD	•	1'	2'	3'
1'	8.3	6.4	3.3	1.3
2'	15.2	12.5	7.5	3.8
3'	16.4	14	9.2	5.3
4'	14.4	12.7	9.1	5.7
5'	11	10.1	7.8	5.3
6'	8	7.5	6.2	4.6
7'	5.7	5.5	4.7	3.8
8'	4.2	4	3.6	3
9'	3.1	3	2.8	2.4
10'	2.4	2.3	2.2	1.9

Multiple Unit Footcandles
3" from wall
(spacing between fixtures)

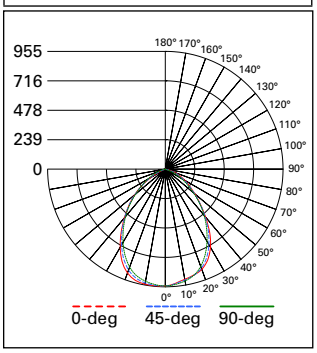
•	-- 3' --	•		•	-- 4' --	•
9.6	9.5	9.6		8.8	6.5	8.8
19.1	20.1	19.1		17.1	15.1	17.1
21.6	23.3	21.6		19.2	18.4	19.2
20	21.9	20		17.7	18.1	17.7
16.4	18.1	16.4		14.4	15.6	14.4
12.6	13.8	12.6		11.2	12.4	11.2
9.5	10.3	9.5		8.5	9.5	8.5
7.2	7.7	7.2		6.6	7.2	6.6
5.5	5.9	5.5		5.1	5.6	5.1
4.3	4.5	4.3		4	4.3	4

WALL WASH	
Test Number	P563507
Housing	LD6C20D010
Module	EU6209035
Trim	6LBSQLWWLI
Lumens	1753
Efficacy	80.4 Lm/W
SC	1.1
UGR	0



CANDLEPOWER DISTRIBUTION

Wall Wash



CANDELA TABLE

Degrees Vertical	Candela
0	953
5	936
15	896
25	822
35	638
45	411
55	251
65	143
75	61
85	6
90	0

ZONAL LUMEN SUMMARY

Zone	Lumens	% Fixture
0-30	712	40.6
0-40	1094	62.4
0-60	1620	92.4
0-90	1753	100
90-180	0	0
0-180	1753	100

LUMINANCE

Average Candela Degrees	Average 0° Luminance
37	31751
45	25001
55	18819
65	14528
75	10164
85	2816

Single Unit Footcandles
3" from wall
(distance from fixture along wall)

DD	•	1'	2'	3'
1'	8.3	6.4	3.2	1.3
2'	15.1	12.5	7.5	3.8
3'	16.1	13.9	9.2	5.3
4'	14.2	12.6	9.1	5.7
5'	10.9	10	7.8	5.4
6'	7.9	7.5	6.2	4.6
7'	5.7	5.5	4.8	3.8
8'	4.2	4	3.6	3
9'	3.1	3	2.8	2.4
10'	2.3	2.3	2.2	1.9

Multiple Unit Footcandles
3" from wall
(spacing between fixtures)

•	-- 3' --	•		•	-- 4' --	•
9.5	9.5	9.5		8.7	6.4	8.7
18.9	20	18.9		16.9	15.1	16.9
21.4	23.2	21.4		19	18.4	19
19.9	21.9	19.9		17.6	18.1	17.6
16.3	18	16.3		14.4	15.6	14.4
12.6	13.8	12.6		11.2	12.4	11.2
9.5	10.3	9.5		8.5	9.5	8.5
7.2	7.7	7.2		6.6	7.3	6.6
5.5	5.9	5.5		5.1	5.6	5.1
4.3	4.5	4.3		4	4.3	4

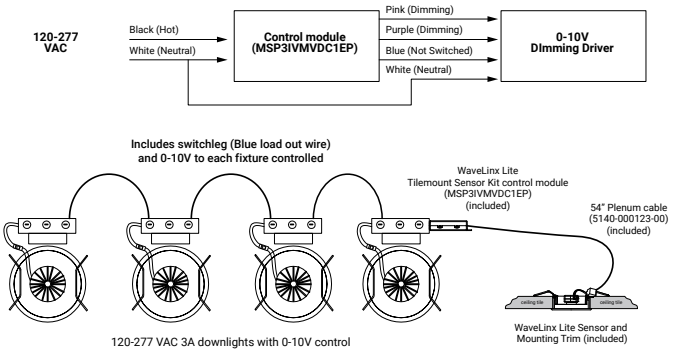
Connected Solutions

WaveLinx LITE - WLST Tilemount Sensor

- Intuitive Android™ or Apple® iOS® app for basic system code compliant set up and configuration via Bluetooth
- Up to 28 unique areas per project site (WaveLinx LITE Bluetooth network)
- Up to 50 devices for an area, any one of 16 control zones, up to 6 occupancy sets, and custom lighting scenes
- Automatic occupancy or vacancy, sensor sensitivity, daylight dimming, etc. configurable through the app
- Refer to the WaveLinx system specifications for details

Device Security | Manual Dimmer | Occupancy Sensor | Daylighting Control | Manually Switched ON/OFF | Tuning Control | Lumen Maintenance Control | Scenes

WaveLinx LITE WLST Tilemount Wiring Diagram



WaveLinx LITE Bluetooth Enabled System

WaveLinx PRO Wireless – WPST Tilemount Sensor

- WaveLinx PRO Wireless functionality configures zones and customizes settings from one secure mobile app
- Automatic code commissioning that meets the strictest codes
- Fixtures and sensors integrate with Wireless Area Controller, Wall Stations, and Control Devices
- Stand-Alone Offices or Entire Building Network Installations

Downlights with tilemount sensor wireless communication
Highly efficient LED fixtures

WaveLinx Area Controller
Provides centralized coordination of multiple area control options

Wireless Wall Station/Receptacle
Provides customized wireless control of each area

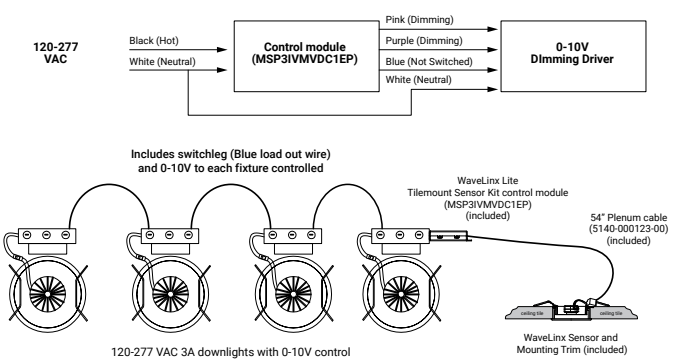
Mobile Applications
Provides personalized, local control from a tablet or smartphone

WaveLinx mobile app settings

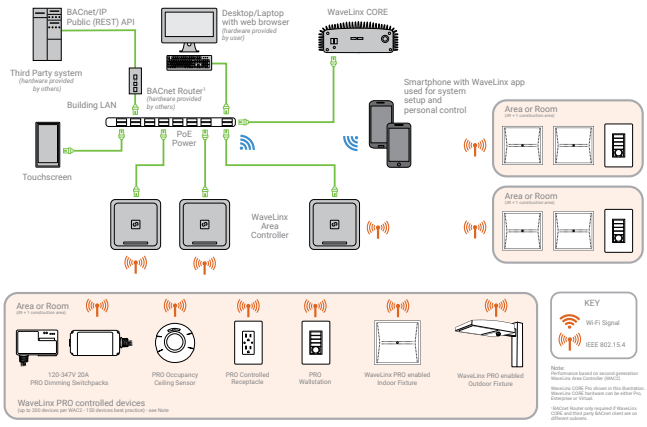
Manual Dimmer | Occupancy Sensor | Lumen Maintenance Control | Daylighting Control

Receptacle Control | Tuning Control | Scheduling | Manually Switched ON/OFF | Demand Response

WaveLinx PRO WPST Tilemount Wiring Diagram



WaveLinx CORE Building Management Integration



Connected Solutions

WaveLinx PRO Wireless Node - WPN

- WaveLinx Wireless functionality configures zones and customizes settings from one secure mobile app
- Automatic code commissioning that meets the strictest codes
- Fixtures and sensors integrate with WaveLinx Area Controller, Wall Stations, and Control Devices
- Stand-Alone Offices or Entire Building Network Installations

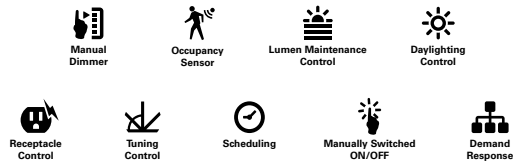
Downlights with wireless communication
Highly efficient LED fixtures

WaveLinx Area Controller
Provides centralized coordination of multiple area control options

Wireless Wall Station/Receptacle
Provides customized wireless control of each area

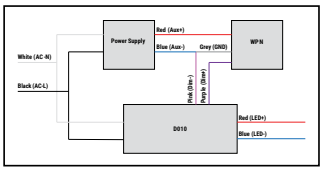
Mobile Applications
Provides personalized, local control from a tablet or smartphone

WaveLinx mobile app settings

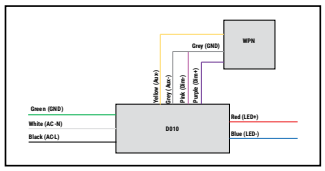


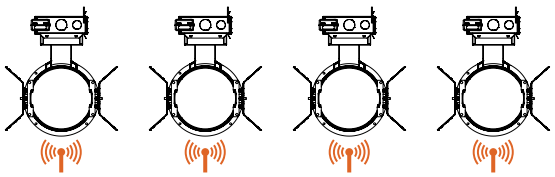
WaveLinx PRO Wireless Node (WPN) Wiring Diagram

For 0-10V drivers 250 lumens and Tunable White



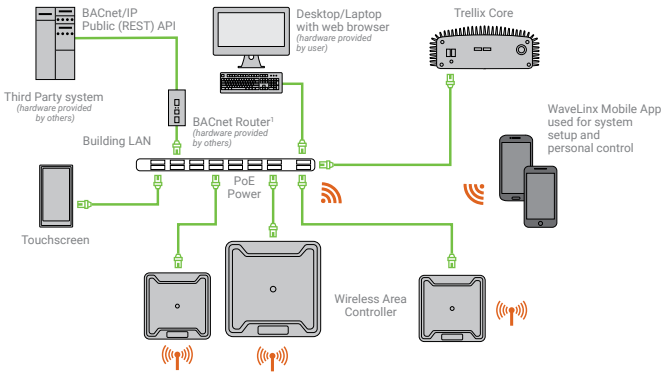
For 0-10V drivers 500 lumens and over





120-277 VAC 3A downlights with 0-10V control

WaveLinx CORE Building Management Integration



Multi-line Order Information

Single line Ordering Information Option

SAMPLE ORDER NUMBER: **LDSQ6C10D010TRIEM14**

Invoice will indicate separate fixture components (housing, trim, module) and may ship from multiple CLS facilities in separate cartons.

Housing	Lumens [2]			
LDSQ6C=LED Square Downlight 6" Nominal Aperture **LDSQ6CCP**=LED Square Downlight 6" Nominal Aperture, Chicago Plenum	**02**=250 lumens **05**=500 lumens **08**=800 lumens **10**=1000 lumens **15**=1500 lumens **20**=2000 lumens	**25**=2500 lumens **30**=3000 lumens **35**=3500 lumens **40**=4000 lumens **45**=4500 lumens [3] **50**=5000 lumens [3]	**55**=5500 lumens [3] **60**=6000 lumens [3] **65**=6500 lumens [3] **70**=7000 lumens [3] **75**=7500 lumens [3] **80**=8000 Lumens [3]	**90**=9000 Lumens [3] **100**=10,000 Lumens [3] **110**=11,000 Lumens [3] **120**=12,000 Lumens [3] **130**=13,000 Lumens [3] **150**=15,000 Lumens [3]

Driver	Driver Options
D010 = 0-10V Dimming, 1% to 100%, 120V-277V, up to 7000 lumens (up to 3000 lumens for remote driver) **1D010** = 0-10V Dimming, 1% to 100%, 120V, 7500 lumens and above (3500 to 7000 lumens for remote driver) **2D010** = 0-10V Dimming, 1% to 100%, 277V, 7500 lumens and above (3500 to 7000 lumens for remote driver) **3D010** = 0-10V Dimming, 1% to 100%, 347V dedicated drivers for 800 to 4000 lumens; 250, 500, 4500 and above use step down transformer (250 to 7000 lumens for remote driver) 1 driver: 250-7000 / 2 drivers: 7500-12,000 / 3 drivers: 13,000-15,000	**Blank**=Integral driver **R**=Remote driver (offered with single driver, order remote driver separately) [6] **PD**=Plug in Driver (offered with single driver) [8]
D010TR=0-10V (120-277V) or Line Voltage (120V) dimming, 5-100%, 250- 4500 lumens (up to 3000 lumens for remote driver) **1D010TR**=0-10V or Line Voltage Dimming, 5% to 100%, 120V, 5000-9000 & 13,000 lumens (3500 to 4500 lumens for remote driver) **2D010TR**=0-10V Dimming, 5% to 100%, 277V, 5000-9000 & 13,000 lumens (3500 to 4500 lumens for remote driver) **3D010TR**=0-10V Dimming, 5% to 100%, 347V step down transformer, 250-9000 & 13,000 lumens (250 to 4500 lumens for remote driver) 1 driver: 250-4500 / 2 drivers: 5000-9000 / 3 drivers: 13,000	
DE010 = 0-10V Dimming, 0% to 100%, 120V-277V, 500-7000 lumens (up to 3000 lumens for remote driver) **1DE010** = 0-10V Dimming, 0% to 100%, 120V, 7500 lumens and above (3500 to 7000 lumens for remote driver) **2DE010** = 0-10V Dimming, 0% to 100%, 277V, 7500 lumens and above (3500 to 7000 lumens for remote driver) **3DE010** = 0-10V Dimming, 0% to 100%, 0-10V Dimming, 347V step down transformer, 500-15,000 lumens (500 to 7000 lumens for remote driver) 1 driver: 500-7000 / 2 drivers: 7500-12,000 / 3 drivers: 13,000-15,000	
D5LT = Fifth Light® (DALI T6) Logarithmic Dimming, 0% to 100%, 120V-277V, 500-7000 lumens (up to 3000 lumens for remote driver) **1D5LT** = Fifth Light® (DALI T6) Logarithmic Dimming, 0% to 100%, 120V, 7500 lumens and above (3500 to 7000 lumens for remote driver) **2D5LT** =Fifth Light® (DALI T6) Logarithmic Dimming, 0% to 100%, 277V, 7500 lumens and above (3500 to 7000 lumens for remote driver) **3D5LT** =Fifth Light® (DALI T6) Logarithmic Dimming, 0% to 100% 347V step down transformer, 500-15,000 lumens (500 to 7000 lumens for remote driver) 1 driver: 500-7000 / 2 drivers: 7500-12,000 / 3 drivers: 13,000-15,000	
DMX=DMX/RDM Logarithmic Dimming, 0% to 100%, 120V-277V, 800-4500 lumens (up to 3000 lumens for remote driver) (up to 3000 lumens for remote driver) [5] **1DMX**=DMX/RDM Logarithmic Dimming, 0% to 100%, 120V, 5000-9000 and 13,000 lumens (3500 to 4500 lumens for remote driver) (3500 to 4500 lumens for remote driver) [5] **2DMX**=DMX/RDM Logarithmic Dimming, 0% to 100%, 277V, 5000-9000 and 13,000 lumens (3500 to 4500 lumens for remote driver) (3500 to 4500 lumens for remote driver) [5] **3DMX**=DMX/RDM Logarithmic Dimming, 0% to 100%, 347V step down transformer, 800-9000 and 13,000 lumens, RJ45 Connection (800 to 4500 lumens for remote driver) [5] 1 driver: 800-4500 / 2 drivers: 5000-9000 / 3 drivers: 13,000	
DMXC5=DMX/RDM Logarithmic Dimming, 0% to 100%, 120V-277V, up to 800-4500 lumens, RJ45 Connection (up to 3000 lumens for remote driver) [5] **1DMXC5**=DMX/RDM Logarithmic Dimming, 0% to 100%, 120V, 5000-9000 and 13,000 lumens, RJ45 Connection (3500 to 4500 lumens for remote driver) [5] **2DMXC5**=DMX/RDM Logarithmic Dimming, 0% to 100%, 277V, 5000-9000 and 13,000 lumens, RJ45 Connection (3500 to 4500 lumens for remote driver) [5] **3DMXCF**=DMX/RDM Logarithmic Dimming, 0% to 100%, 347V step down transformer, 250-9000 and 13,000 lumens, RJ45 Connection (800 to 4500 lumens for remote driver) [5] 1 driver: 800-4500 / 2 drivers: 5000-9000 / 3 drivers: 13,000	
DLE=Lutron Ecosystem dimming 1% to 100%, 120V-277V, 800-3500 lumens (up to 3000 lumens for remote driver) **1DLE**=Lutron Ecosystem dimming 1% to 100%, 120V, 4000-7500 lumens (3500 lumens for remote driver) **2DLE**=Lutron Ecosystem dimming 1% to 100%, 277V, 4000-7500 lumens (3500 lumens for remote driver) **3DLE**=Lutron Ecosystem dimming 1% to 100%, 347V step down transformer, 800-7500 lumens (800-3500 lumens for remote driver) 1 driver: 800-3500 / 2 drivers: 4000-7500	
DLV=Low voltage dimming driver (1-100%) for use with DLVP system 800-3000 lumens [6]	

Options [9] [27] [28] [30]	
EMBOD=Bodine® Emergency Module with Remote Test Switch [10] **EMBOD6ST**=Bodine® 6W Self Test Emergency Module with Remote Test Switch **EM7**=7W Emergency Module with Remote Test Switch **EM14**=14W Emergency Module with Remote Test Switch **BOD7ST**=Bodine® Self Test Emergency Module [10] **IEMBOD**=Bodine® Emergency Module with Integral Test Switch [10] [23] **IEMBOD6ST**=Bodine® 6W Self Test Emergency Module with Integral Test Switch [23]	**IEM7**=7W Emergency Module with Integral Test Switch [23] **IEM14**=14W Emergency Module with Integral Test Switch [23] **EMV7**=7W Low Voltage Emergency Module with Remote Test Switch [7] **EMV14**=14W Low Voltage Emergency Module with Remote Test Switch [7] **ETRD**=Emergency transfer device [29] **WPST** =Factory installed Wavelinx (includes control module, sensor, cable, tilemount and ceiling mount sensor) [11] [13] **WLST** =Factory installed WaveLinx LITE Sensor Kit [11] [12] **WPN** = WaveLinx PRO Wireless Node without sensor [31]

Continued on next page.

Multi-line Order Information

SAMPLE ORDER NUMBER: **EU6C10259035**

Power Module	Lumen Levels [2]	CRI [2]	Color	
EU6C=6-inch Universal LED Module	**For use with one driver** **0208IC**=250, 500, 800 lumens, IC Rated (for use with all drivers, min 500 lumen with DE010 and D5LT, min 800 lumens with DLVP, Lutron and DMX) **1025**= 1000, 1500, 2000, 2500 lumens **1015IC**=1000, 1500 lumens IC Rated **3040**=3000, 3500, 4000 lumens (For use with Lutron 3000-3500, DLVP 3000 lumens, DMX, D010, D010TR, D5LT and DE010 3000-4000) **4560**=4500, 5000, 5500, 6000 lumens (For use with DMX and D010TR 4500 lumens, D010, D5LT and DE010 4500-6000) [3] **6570**=6500, 7000 lumens (For use with D010, D5LT and DE010) [3] **For use with two drivers** **4080**=4000, 4500, 5000, 5500, 6000, 6500, 7000, 75000, 8000 lumens (For use with Lutron 4000-7500, D010TR & DMX 5000-8000, D010, D5LT & DE010 7500-8000 lumen) [3] **90120**=9000, 10000, 11000, 12000 lumens (D010, D5LT, DE010 to 9000-12,000 lumens, DMX and D010TR 9000 lumens) [3] **For use with three drivers** **130150**=13,000, 15000 lumens (D010, DE010, D5LT, 13,000-15,000 lumens, D010TR and DMX 13,000 lumens) [3]	**90**=90 CRI Minimum **97**=97 CRI Minimum	**90 CRI** **24**=2400K **27**=2700K **30**=3000K **35**=3500K **40**=4000K **50**=5000K	**97 CRI** **27**=2700K **30**=3000K

SAMPLE ORDER NUMBER: **6LBM2H**

Trim	Reflector	Flange	Finish		Options
6LB=6" Reflector	**SQ**=Square Anodized Aluminum **SQW**=Square Wide Anodized Aluminum **CSSQ**=Cast Shallow Square, Die Cast Aluminum **Wall Wash** **SQLWW**=Square Anodized Aluminum Lensed Wall Wash	**0**=White polymer trim ring [32] **1**=Self flanged [18] **2**=White painted self flanged **4**=Knife edge rimless use with die cast only [19]	**LI**=Specular Clear [20] **H**=Semi-Specular Clear [20] **WMH**=Warm Haze [20] **WH**=Wheat [20] **GPH**=Graphite Haze [20]	**B**=Specular Black [20] **MW**=Matte White **MB**=Matte Black [21] **MMS**=Matte Metallic Silver [21]	**E**=Integral Emergency Test Switch Hole [22]

REQUIRED if Remote Driver (R) is specified

SAMPLE ORDER NUMBER: **RC10010D010TREM7**

Remote Drivers	Lumens [2] [14]		
RC100=Remote 100ft **RC75**=Remote 75ft **RC50**=Remote 50ft **RC25**=Remote 25ft **RC15**=Remote 15ft **RC5**=Remote 5ft **RC2**=Remote 2ft	**02**=250 lumens **05**=500 lumens **08**=800 lumens **10**=1000 lumens **15**=1500 lumens	**20**=2000 lumens **25**=2500 lumens **30**=3000 lumens **35**=3500 lumens **40**=4000 lumens **45**=4500 lumens	**50**=5000 lumens **55**=5500 lumens **60**=6000 lumens **65**=6500 lumens **70**=7000 lumens

Continued on next page.

Multi-line Order Information (continued)

Driver
D010 = 0-10V Dimming, 1% to 100%, 120V-277V, 250-3000 lumens **1D010** = 0-10V Dimming, 1% to 100%, 120V, 3500-7000 lumens **2D010** = 0-10V Dimming, 1% to 100%, 277V, 3500-7000 lumens **3D010** = 0-10V Dimming, 1% to 100%, 347V dedicated drivers for 800 to 3000 lumens; 250, 500, 3500-7000 lumens use step down transformer
D010TR = 0-10V (120-277V) or Line Voltage (120V) dimming, 5-100%, 250- 3000 lumens **1D010TR** = 0-10V or Line Voltage Dimming, 5% to 100%, 120V, 3500-4500 lumens **2D010TR** = 0-10V Dimming, 5% to 100%, 277V, 3500-4500 lumens **3D010TR** = 0-10V Dimming, 5% to 100% 347V step down transformer, 250-4500 lumens
DE010 = 0-10V Dimming, 0% to 100%, 120V-277V, 500-3000 lumens **1DE010** = 0-10V Dimming, 0% to 100%, 120V, 3500-7,000 lumens **2DE010** = 0-10V Dimming, 0% to 100%, 277V, 3500-7,000 lumens **3DE010** = 0-10V Dimming, 0% to 100%, 347V step down transformer, 500-7,000 lumens
D5LT = Fifth Light® (DALI T6) Logarithmic Dimming, 0% to 100%, 120V-277V, 500-3000 lumens **1D5LT** = Fifth Light® (DALI T6) Logarithmic Dimming, 0% to 100%, 120V, 3500-7,000 lumens **2D5LT** =Fifth Light® (DALI T6) Logarithmic Dimming, 0% to 100%, 277V, 3500-7,000 lumens **3D5LT** =Fifth Light® (DALI T6) Logarithmic Dimming, 0% to 100% 347V step down transformer, 500-7,000 lumens
DMX = DMX/RDM Logarithmic Dimming, 0% to 100%, 120V-277V, 800-3000 lumens [5] **1DMX**=DMX/RDM Logarithmic Dimming, 0% to 100%, 120V, 3500-4500 [5] **2DMX**=DMX/RDM Logarithmic Dimming, 0% to 100%, 277V, 3500-4500 [5] **3DMX**=DMX/RDM Logarithmic Dimming, 0% to 100%, 347V step down transformer, 800-4500 [5]
DMXC5 = DMX/RDM Logarithmic Dimming, 0% to 100%, 120V-277V up to 800-3000 lumens, RJ45 Connection [5] **1DMXC5**=DMX/RDM Logarithmic Dimming, 0% to 100%, 120V, 3500-4500 lumens, RJ45 Connection [5] **2DMXC5**=DMX/RDM Logarithmic Dimming, 0% to 100%, 277V, 3500-4500 lumens, RJ45 Connection [5] **3DMXCF**=DMX/RDM Logarithmic Dimming, 0% to 100%, 347V step down transformer, 800-4500 lumens, RJ45 Connection [5]
DLE = Lutron Ecosystem dimming 1% to 100%, 120V-277V, 25' Max remote length, 800-3000 lumens **1DLE**=Lutron Ecosystem dimming 1% to 100%, 120V, 25' Max remote length, 3500 lumens **2DLE**=Lutron Ecosystem dimming 1% to 100%, 277V, 25' Max remote length, 3500 lumens **3DLE**=Lutron Ecosystem dimming 1% to 100%, 347V, step down transformer, 25' Max remote length, 800-3500 lumens
DLV = Low voltage dimming driver (1-100%) for use with DLVP system, 800-3000 lumens [6]

Options [9] [27] [28] [30]		Controls
EMBOD=Bodine® Emergency Module with Remote Test Switch [10]	**EMBOD7ST**=Bodine® Self Test Emergency Module [10]	**WPST**=Factory installed Wavelinx (includes control module, sensor, cable, tilemount and ceiling mount sensor) [11] [13]
EMBOD6ST=Bodine® 6W Self Test Emergency Module with Remote Test Switch	**EMV7**=7W Low Voltage Emergency Module with Remote Test Switch [7]	**WLST**=Factory installed WaveLinx LITE Sensor Kit [11] [12]
EM7=7W Emergency Module with Remote Test Switch	**EMV14**=14W Low Voltage Emergency Module with Remote Test Switch [7]	**WPN** = WaveLinx PRO Wireless Node without sensor [31]
EM14=14W Emergency Module with Remote Test Switch	**ETRD**=Emergency transfer device [29]	

Accessories (*Order separately*) [26]		
LGSKT6SQIP66=IP66 Gasket Kit	**Bar Hangers** **HB26**=C-channel Bar Hanger, 26" Long, Pair **HB50**=C-channel Bar Hanger, 50" Long, Pair **RMB22**=Wood Joist Bar Hanger, 22" Long, Pair	**Transformers** **H347**=H347 for 90/97CRI 5500 lumens and below; 98CRI 4000 lumens and below; D2W 4500 lumens and below; W2N 4000 lumens and below **H347200**=347 to 120V Step Down Transformer, 200VA
PRSQ6 = Rimless Plaster Ring [24] **RKPSQ6** = Knife Edge plaster Ring [25]		
RPMSQ6MW = Rimless Millwork Ring, Matte White [24] **RPMSQ6MB** = Rimless Millwork Ring, Matte Black [24] **RKMSQ6MW** = Knife Edge Millwork Ring, Matte White [25] **RKMSQ6MB** = Knife Edge Millwork Ring, Matte Black [25]	**Connected Lighting Systems** [6] [11] **WPST** = Field installed WaveLinx sensor Kit [13] **WLST** = Field installed WaveLinx LITE Sensor Kit [12]	

Notes:

1. IC rated up to 3000 lumens for 90 & 97 CRI, 2000 lumens for 98 CRI, 2500 lumens for D2W and 1000 lumens for W2N

2. Nominal Lumens will vary depending on selected color, CRI, driver and reflector finish. Reference Multiplier tables.

3. Product is marked spacing. Reference table on page 4 for the spacing details.

4. Not available with 5500, 6500, 7500 lumens

5. DMX fixtures default to full on upon loss of DMX signal.

6. Not available with Chicago Plenum.

7. ULus listed only

8. Offered up to 2500 lumens with D2W and 3500 with W2N
- D010, D5LT, DE010 up to 7000 lumens for 90 and 97 CRI and 4500 lumens with 98 CRI
- D010TR, DMX up to 4500 lumens for 90 and 97 CRI and 3000 lumens with 98 CRI
- DLE, DL2 up to 3500 lumens for 90 and 97 CRI and 2500 lumens with 98 CRI
- DLVP up to 3000 lumens for 90 and 97 CRI and 2000 lumens with 98 CRI

9. Not available with Chicago Plenum.

10. Not available for W2N or 6500-7000 lumens with 90 and 97 CRI.

11. Refer to system specifications for additional information,features, and benefits. Order either factory installed option or accessory. Use with 0-10V driver.

12. WLST = WaveLinx LITE tilemount sensor kit for daylight dimming, PIR motion sensing, use with D010 only (Refer to WaveLinx LITE system specifications)

13. WPST = WaveLinx wireless sensor kit for daylight dimming, PIR motion sensing, and optional RLTS - Real Time Location Services, use with 0-10V only.

14. Not available with 5500 lumens

15. Spun aluminum only

16. PS available in self-flanged MW finish only

17. Offered up to 4000 lumens

18. Flange is the same finish as the reflector

19. Requires knife edge ring

20. Anodized or spun reflectors

21. Die cast only

22. SQ and SQW trims only

23. Available with SQ and SQW anodized Aluminum trims. Required for use with all IEMBOD, IEM7, IEM14, IEMV7 and IEMV14

24. Order trim with polymer trim ring (Consult specification sheet for color ordering information and options).

25. Order die cast trim with flange type 4

26. Accessories sold separately will be separately analyzed under domestic preference.

27. If using remote driver order battery and controls with the remote driver.

28. 120V-277V

29. Used to bypass local control during outage. Must be used in conjunction with UL 1008 device (provided by others).

30. Non-IC

31. WPN = WaveLinx PRO wireless node provides luminaire-level control with scene and zone configuration without an integrated sensor; Connects wirelessly with daylight dimming sensor and PIR motion sensor if desired. Use with 0-10V driver only.

32. Not available with CSSQ Cast Shallow Square, Die Cast Aluminum reflector

Inverted available with WLU option only.

WSQ LED

Architectural Wall Sconce

Catalog Number

Notes

Type

Hit the Tab key or mouse over the page to see all interactive elements.

Introduction

Classic Architectural Wall Sconce with the LED technology. Long-life, maintenance-free product with typical energy savings of 80% compared to metal halide versions. The integral battery backup option provides emergency egress lighting, without the use of a back-box or remote gear, so installations maintain their aesthetic integrity. The WSQ LED is ideal for replacing existing 50 – 250W metal halide wall-mounted products. The expected service life is 20+ years of nighttime use.

Specifications

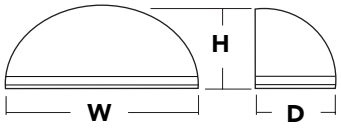
Luminaire

Height: 9-3/8" *(23.8 cm)*

Width: 18" *(45.7 cm)*

Depth: 9" *(22.8 cm)*

Weight: 17 lbs *(7.7 kg)*

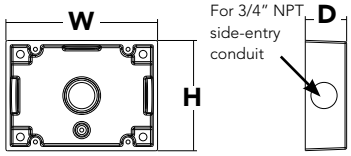


Optional Back Box (BBW)

Height: 4" *(10.2 cm)*

Width: 5-1/2" *(14.0 cm)*

Depth: 1-1/2" *(3.8 cm)*



Ordering Information

EXAMPLE: WSQ LED P2 40K SR3 MVOLT DDBTXD

WSQ LED							
Series	**Performance Package**	**Color Temperature**	**Distribution**	**Voltage**	**Mounting**	**Options**	**Finish *(required)***
WSQ LED	P1 P2 P3 P4	30K 40K 50K	SR2 Type II SR3 Type III SR4 Type IV	MVOLT [1] 120 208 240 277 347 480	**Shipped included** (blank) Surface mount **Shipped separately** [2] BBW Surface-mounted back box	**Shipped installed** PE Photoelectric cell, button type [2,3] SF Single fuse (120, 277, 347V) [4] DF Double fuse (208, 240, 480V) [4] DMG 0-10v dimming wires pulled outside fixture (for use with an external control, ordered separately) E20WC Emergency battery backup, Certified in CA Title 20 MAEDBS (18W, -20°C) [5] E10WH Emergency battery backup, Certified in CA Title 20 MAEDBS (10W, 5°C) [5] WLU Wet location door for up orientation [6] PIR Motion/ambient light sensor [7] DS Dual switching [8] SPD Separate Surge Protection [9] **Shipped separately** VG Vandal guard WG Wire guard	DDBXD Dark bronze DBLXD Black DNAXD Natural aluminum DWHXD White DSSXD Sandstone DDBTXD Textured dark bronze DBLBXD Textured black DNATXD Textured natural aluminum DWHGXD Textured white DSSTXD Textured sandstone

Emergency Battery Operation

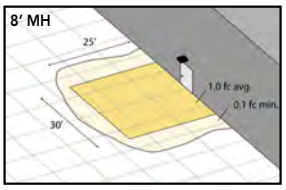
The emergency battery backup (E20WC & E10WH options) is integral to the luminaire - no external housing required! This design provides reliable emergency operation while maintaining the aesthetics of the product.

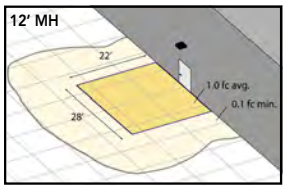
All E20WC & E10WH configurations include an independent secondary driver with an integral relay to immediately detect AC power loss.

The emergency battery will power the luminaire for a minimum duration of 90 minutes (maximum duration of three hours) from the time supply power is lost, per International Building Code Section 1006 and NFPA 101 Life Safety Code Section 7.9, provided luminaires are mounted at an appropriate height and illuminate an open space with no major obstructions.

The examples below show illuminance of 1 fc average and 0.1 fc minimum of the P1 power package Type IV product in emergency mode.

WSR P1 LED 40K SR4 MVOLT E20WC
10' x 10' Gridlines
8' and 12' Mounting Height





NOTES

1. MVOLT driver operates on any line voltage from 120-277V (50/60 Hz).
2. Not available with 480V option.
3. PE option is voltage specific.
4. Single fuse (SF) requires 120V, 277V or 347V options. Double fuse (DF) requires 208V, 240V or 480V options,
5. Not available with 347V or 480V. Not available with WLU.
6. WLU not available with PIR, E20WC or E10WH.
7. When ordering PIR, "PE" will be automatically added to the order line for "dim to off" capability. See PIR Table for default settings.
8. Only available with P3 & P4 packages. Provides 50/50 luminaire operation via two independent drivers and light engines on two separate circuits. Not available with E20WC, E10WH, WLU, SF, or DF. When ordered with photocell (PE) or motion sensor (PIR), only the primary power source leads will be controlled.
9. See electrical section on page 2 for more details.

Performance Data

Lumen Output

Lumen values are from photometric tests performed in accordance with IESNA LM-79-08. Data is considered to be representative of the configurations shown, within the tolerances allowed by Lighting Facts.

Performance Package	System Watts (MVOLT[1])	Dist. Type	30K (3000K, 70CRI)		40K (4000K, 70CRI)		50K (5000K, 70CRI)	
			Lumens	LPW	Lumens	LPW	Lumens	LPW
P1	20W	SR2	2,111	108	2,251	115	2,305	118
		SR3	2,104	108	2,244	115	2,298	117
		SR4	2,053	105	2,189	112	2,242	115
P2	29W	SR2	2,943	101	3,139	108	3,214	110
		SR3	2,934	101	3,129	107	3,204	110
		SR4	2,863	98	3,053	105	3,126	107
P3	40W	SR2	4,500	114	4,799	122	4,913	125
		SR3	4,486	114	4,784	122	4,898	125
		SR4	4,377	111	4,667	119	4,779	122
P4	61W	SR2	6,159	102	6,567	108	6,724	111
		SR3	6,139	101	6,547	108	6,703	110
		SR4	5,991	99	6,388	105	6,541	108

Motion/Ambient Sensor Default Settings						
	Dimmed State	High Level (when triggered)	Photocell Operation	Ramp-up Time	Dwell Time	Ramp-down Time
*PIR	3V (37%) Output	10V (100%) Output	Enabled @ 5FC	3 sec	5 min	5 min
*PIR USES SFOD 7						

Lumen Ambient Temperature (LAT) Multipliers

Use these factors to determine relative lumen output for average ambient temperatures from 0-40°C (32-104°F).

Ambient		Normalized Lumen Multiplier
0°C	32°F	1.05
10°C	50°F	1.03
20°C	68°F	1.01
25°C	**77°F**	**1.00**
30°C	86°F	0.99
40°C	104°F	0.97

Projected LED Lumen Maintenance

Data references the extrapolated performance projections for the **MRW LED P4** platform in a **25°C ambient**, based on 10,000 hours of LED testing (tested per IESNA LM-80-08 and projected per IESNA TM-21-11).

To calculate LLF, use the lumen maintenance factor that corresponds to the desired number of operating hours below. For other lumen maintenance values, contact factory.

Operating Hours	0	25000	50000	100000	L90
Lumen Maintenance Factor	1	0.96	0.95	0.92	>60000

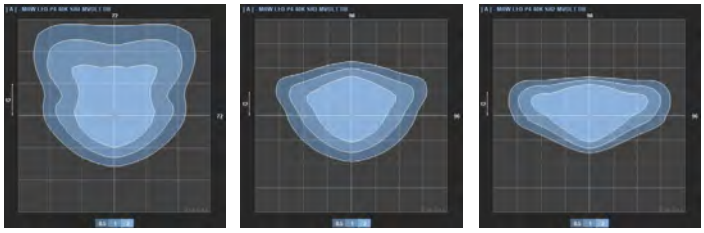
Electrical Load

Power Package	System Watts	Current (A)					
		120V	208V	240V	277V	347V	480V
P1	20W	0.17	0.10	0.09	0.08	0.06	0.05
P2	29W	0.26	0.15	0.13	0.12	0.09	0.07
P3	40W	0.37	0.21	0.18	0.16	0.13	0.09
P4	61W	0.59	0.33	0.18	0.25	0.19	0.14

Photometric Diagrams

To see complete photometric reports or download .ies files for this product, visit Lithonia Lighting's WSQ LED homepage.

Isofootcandle plots for the WSQ LED P4 40K SR2, SR3, and SR4. Distances are in units of mounting height (12').



FEATURES & SPECIFICATIONS

INTENDED USE

The classic architectural shape of the WSQ LED was designed for applications such as hospitals, schools, malls, restaurants, and commercial buildings. The long life LEDs and driver make this luminaire nearly maintenance-free.

CONSTRUCTION

The die-cast aluminum housing integrates secondary heat sinks to optimize thermal transfer from the internal light engine heat sinks and promote long life. The driver is mounted in direct contact with the casting for a low operating temperature and long life. The die-cast door frame is fully gasketed with a one-piece solid silicone gasket to keep out moisture and dust, providing an IP65 rating for the luminaire.

FINISH

Exterior parts are protected by a zinc-infused Super Durable TGIC thermoset powder coat finish that provides superior resistance to corrosion and weathering. A tightly controlled multi-stage process ensures a minimum 3 mils thickness for a finish that can withstand extreme climate changes without cracking or peeling. Standard Super Durable colors include dark bronze, black, natural aluminum, sandstone and white. Available in textured and non-textured finishes.

OPTICS

Precision-molded acrylic lenses are engineered for superior distribution, uniformity, and spacing in wall-mount applications. Light engines are 4000K (70 CRI). The WSQ LED has zero uplight and qualifies as a Nighttime Friendly™ product, meaning it is consistent with the LEED® and Green Globes™ criteria for eliminating wasteful uplight.

ELECTRICAL

Light engine(s) consist of 8 high-efficacy LEDs mounted to a metal core circuit board and integral aluminum heat sinks to maximize heat dissipation and promote long life (100,000 hrs at 25°C, L77). Class 2 electronic driver has a power factor >90%, THD <20%. and a minimum 6 KV surge protection.When ordering the SPD option, a separate surge protection device is installed within the luminaire which meets a minimum Category C low operation (per ANSI/IEEE C62.41.2).

INSTALLATION

A universal mounting plate with integral mounting support arms allows the fixture to hinge down for easy access while making wiring connections.

LISTINGS

CSA certified to U.S. and Canadian standards. Light engines are IP66 rated; luminaire is IP65 rated and suitable for wet locations when mounted with the lenses down. WLU option offers wet location listing in "up" orientation. Rated for -30°C minimum ambient. DesignLights Consortium® (DLC) Premium qualified product and DLC qualified product. Not all versions of this product may be DLC Premium qualified or DLC qualified. Please check the DLC Qualified Products List at www.designlights.org/QPL to confirm which versions are qualified.

BUY AMERICAN ACT

This product is assembled in the USA and meets the Buy America(n) government procurement requirements under FAR, DFARS and DOT regulations.
Please refer to www.acuitybrands.com/resources/buy-american for additional information.

WARRANTY

5-year limited warranty. This is the only warranty provided and no other statements in this specification sheet create any warranty of any kind. All other express and implied warranties are disclaimed. Complete warranty terms located at:
www.acuitybrands.com/CustomerResources/Terms_and_conditions.aspx.

Note: Actual performance may differ as a result of end-user environment and application. All values are design or typical values, measured under laboratory conditions at 25 °C. Specifications subject to change without notice.

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FDP-G-002	LEGEND AND ABBREVIATIONS
FDP-G-003	OFFSET PLAN
FDP-C-100	OVERALL SITE PLAN
FDP-C-101	DETAILED PLAN - AREA 1
FDP-C-102	DETAILED PLAN - AREA 2
FDP-C-103	DETAILED PLAN - AREA 3
FDP-C-104	DETAILED PLAN - AREA 4
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FDP-C-107	DETAILED PLAN - AREA 7
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FDP-C-113	DETAILED PLAN - AREA 13
FDP-C-114	DETAILED PLAN - AREA 14
FDP-C-115	DETAILED PLAN - AREA 15
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FDP-C-120	OVERALL UTILITY PLAN SHEET
FDP-C-121	FIRE TRUCK CIRCULATION PLAN
FDP-C-501	DETAILS
FDP-D-100	TREE REMOVAL PLAN
FDP-L-100	OVERALL LANDSCAPING PLAN
FDP-L-101	NALL LANDSCAPING
FDP-L-102	NALL LANDSCAPING
FDP-L-103	W. 49TH ST LANDSCAPING
FDP-L-104	ADMINISTRATION BUILDING ENLARGED PLAN
FDP-L-105	UV AND FILTER BUILDING ENLARGED PLAN
FDP-L-106	FOXRIDGE DRIVE ENLARGED PLAN
FDP-L-107	FOXRIDGE DRIVE ENLARGED PLAN
FDP-L-405	INITIAL PLANTINGS ENLARGED PLAN
FDP-L-406	INITIAL PLANTINGS ENLARGED PLAN
FDP-L-501	PLANT DETAILS
FDP-L-601	PLANT SCHEDULE
FDP-E-101	OVERALL PHOTOMETRIC PLAN
FDP-E-601	LIGHTING FIXTURE SCHEDULE
FDP-E-602	LIGHTING FIXTURE SCHEDULE
FDP-A-100	BUILDING SCHEDULE
160-A-201P	PDPS ELEVATION (INCLUDED OC 4)
200-A-003	LIFE SAFETY - OPERATING LEVEL PLAN
200-A-004	LIFE SAFETY - UPPER LEVEL PLAN
200-A-101	OVERALL OPERATING LEVEL PLAN
200-A-102	OVERALL CHANNEL LEVEL PLAN

SHEET INDEX CONTINUED

200-A-103	OVERALL UPPER LEVEL PLAN
200-A-104	OVERALL ROOF PLAN
200-A-201P	ELEVATIONS
200-A-202P	ELEVATIONS
210-M-201P	ELEVATIONS
210-M-202P	ELEVATIONS
300-A-201P	ELEVATIONS
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330-M-201P	ELEVATIONS
330-M-202P	ELEVATIONS
400-A-201P	ELEVATIONS
405-A-201P	ELEVATIONS
410-A-001	LIFE SAFETY PLAN
410-A-101	FLOOR PLAN
410-A-201P	ELEVATIONS
480-A-201P	ELEVATIONS
500-A-201P	ELEVATIONS
510-A-201P	ELEVATIONS
600-A-001	LIFE SAFETY PLAN
600-A-101	UPPER LEVEL - OVERALL PLAN
600-A-102	FILTER PUMP STATION 1 & 2 PLANS
600-A-201P	ELEVATIONS
600-A-202P	ELEVATIONS
610-A-001	LIFE SAFETY PLAN
610-A-101	OPERATING LEVEL PLAN
610-A-201P	ELEVATIONS
700-A-201P	ELEVATIONS
705-A-001	LOWER LEVEL LIFE SAFETY PLAN
705-A-002	UPPER LEVEL LIFE SAFETY PLAN
705-A-201P	ELEVATIONS
720-S-201P	ELEVATIONS
720-S-202P	ELEVATIONS
725-A-001	LIFE SAFETY - LOWER LEVEL PLAN
725-A-002	LIFE SAFETY - OPERATING LEVEL PLAN
725-A-101	OVERALL LOWER LEVEL PLAN
725-A-102	OVERALL OPERATING LEVEL PLAN
725-A-201P	ELEVATIONS (INCLUDES OC 3)
725-A-202P	ELEVATIONS (INCLUDES OC 3)
760-A-001	LOWER LEVEL LIFE SAFETY PLAN ELEVATION 942.83'
760-A-002	INTERMEDIATE LEVEL LIFE SAFETY PLAN ELEVATION 951.97'
760-A-003	UPPER LEVEL LIFE SAFETY PLAN ELEVATION 963.50'
760-A-101	LOWER LEVEL PLAN ELEVATION 842.83'
760-A-102	INTERMEDIATE LEVEL PLAN ELEVATION 951.97'
760-A-103	UPPER LEVEL PLAN ELEVATION 963.50'
760-A-201P	ELEVATIONS
800-A-002	LIFE SAFETY PLAN
800-A-101	OVERALL PLAN
800-A-102	PLAN - PHASE I
802-A-102	PLAN - PHASE II
800-A-201P	ELEVATIONS
800-A-202P	ELEVATIONS
810-A-002	LIFE SAFETY PLAN
810-A-101	OVERALL PLAN
810-A-102	PLAN - AREA A
810-A-201P	ELEVATIONS
810-A-202P	ELEVATIONS
820-A-002	LIFE SAFETY PLAN
820-A-101	OVERALL PLAN
820-A-201P	ELEVATIONS

JOHNSON COUNTY KANSAS

Wastewater

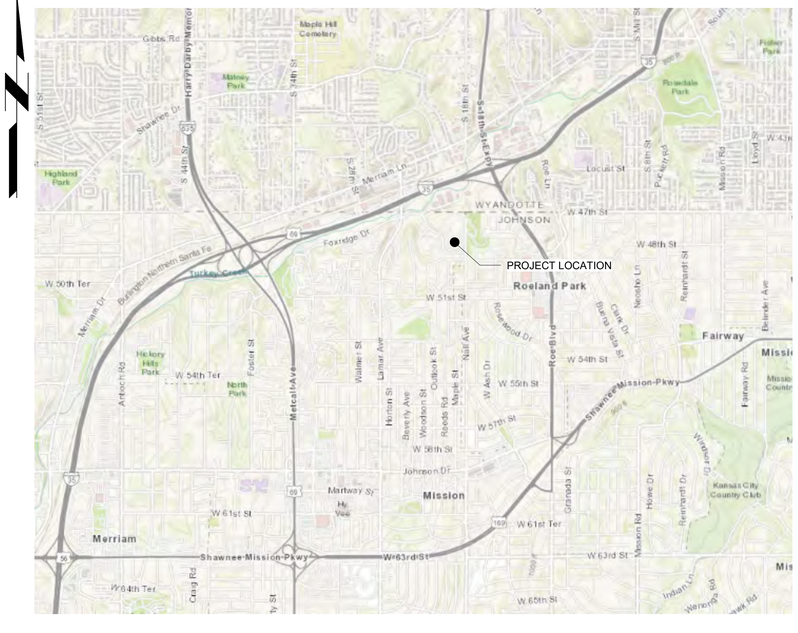
JCW CONTRACT NEL-CO01

COUNTY PROJECT NO. NEL-CO01

BLACK & VEATCH PROJECT NO. 408634

FDP

FINAL DEVELOPMENT PLAN



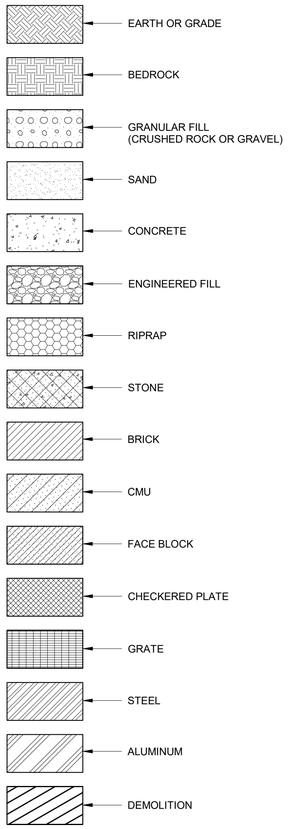
LOCATION MAP

BLACK & VEATCH Building a world of difference.

HDR

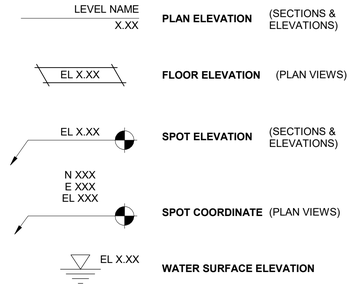
GBA

FILL PATTERNS



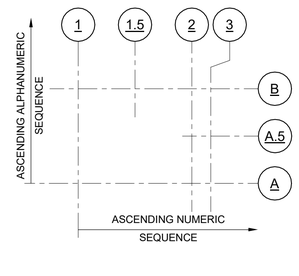
ELEVATION & GRID CALLOUTS

ELEVATION CALLOUTS

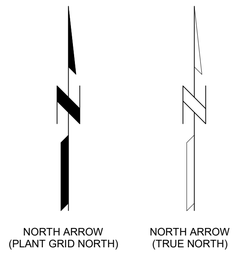


GRID/COLUMN CALLOUTS

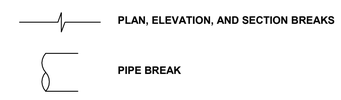
TYPICAL GRID/COLUMN LAYOUT



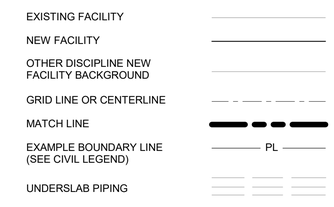
NORTH ARROW



BREAKS

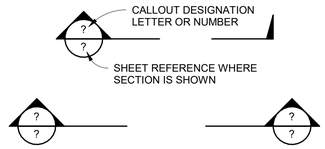


LINE STYLES

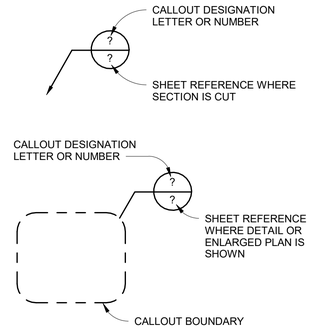


VIEW CALLOUTS

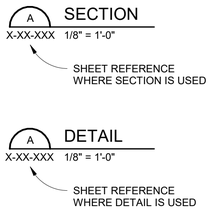
SECTION CALLOUTS



DETAIL/ENLARGED PLAN AREA CALLOUTS

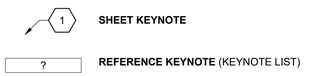


SECTION & DETAIL VIEW TITLES



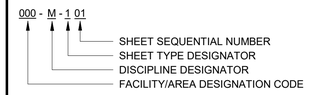
ANNOTATION

SHEET NOTES



REVISIONS

DRAWING NUMBERING SYSTEM



DISCIPLINE DESIGNATORS

A	ARCHITECTURAL
C	CIVIL
D	DEMOLITION
E	ELECTRICAL
F	FIRE PROTECTION
G	GENERAL
H	HVAC/BUILDING MECHANICAL
I	INSTRUMENTATION AND CONTROLS
L	LANDSCAPE
M	PROCESS MECHANICAL
P	PLUMBING
S	STRUCTURAL

AREA/FACILITY DESIGNATION CODES

REFER TO THE PROJECT SITE PLAN ON 113-G-100 AND LISTED BELOW FOR AREA OR FACILITY DESIGNATIONS.

SHEET TYPE DESIGNATORS

0	GENERAL, OVERALL PERSPECTIVES, SAFETY PLANNING
1	PLANS (ARRANGEMENT PLANS, PARTIAL PLANS)
2	ELEVATIONS
3	SECTIONS
4	LARGE SCALE VIEWS (ENLARGED PLANS, STAIR SECTIONS)
5	DETAILS
6	SCHEDULES
7	SCHEMATICS/DIAGRAMS (ONE-LINES, BLOCK DIAGRAMS)
8	CIVIL PROFILES
9	3D MODEL (PERSPECTIVES, ISOMETRICS, PHOTOGRAPHS)

DESCRIPTION	ABBV	SERIES
NEL09 - PLANT DRAIN PUMP STATION	PDPS	160
NEL02 - HEADWORKS BUILDING	HW	200
NELFMS - FLOW METER STRUCTURE	FMS	202
NELOC1 - ODOR CONTROL 1	OC1	210
NELPCSS - PRIMARY CLARIFIER SPLITTER STRUCTURE	PCSS	300
NELPC1 - PRIMARY CLARIFIER 1	PC1	310
NELPC2 - PRIMARY CLARIFIER 2	PC2	310
NELOC2 - ODOR CONTROL 2	OC2	330
NELBNR1 - BNR TRAIN 1	BNR1	400
NELBNR2 - BNR TRAIN 2	BNR2	400
NELBNR3 - BNR TRAIN 3	BNR3	400
NELBNRSS - BNR SPLITTER STRUCTURE	BSS	405
NEL03 - BASIN BLOWER BUILDING	BBB	410
NELCB - CENTRATE BASIN	CB	480
NELFCSS - FINAL CLARIFIER SPLITTER STRUCTURE	FCSS	500
NELFC1 - FINAL CLARIFIER 1	FC1	510
NELFC2 - FINAL CLARIFIER 2	FC2	510
NELFC3 - FINAL CLARIFIER 3	FC3	510
NEL05 - FILTER COMPLEX	FC	600
NEL06 - UV BUILDING	UV	610
NELDAF1 - DAF BASIN 1	DAF1	700
NELDAF2 - DAF BASIN 2	DAF2	700
NEL04 - SLUDGE BUILDING	SB	705
FERRIC	FECL	705
CARBON	CAR	705
NELDIG1 - DIGESTER 1	DIG1	720
NELDIG2 - DIGESTER 2	DIG2	720
NELDIG3 - DIGESTER 3	DIG3	720
NEL07 - DIGESTER CONTROL BUILDING	DCB	725
NELGFS - GAS FLARE STRUCTURE	GFS	740
NEL08 - DEWATERING BUILDING	DB	760
NEL01 - ADMIN BUILDING	ADMIN	800
NEL01 - ADMIN STORAGE	ADMIN	802
NEL11 - LINE MAINTENANCE BUILDING	LM	810
NELFS - FUELING STATION	FS	815
NEL12A - LINE REPAIR ADMIN BUILDING	LRA	820
NEL 12B - LINE REPAIR SHOP	LRS	830
NEL13 - FLAMMABLE STORAGE BUILDING	FSB	840
NEL14 - LOWER SWITCHGEAR BUILDING	SWGR1	150
NEL15 - UPPER SWITCHGEAR BUILDING	SWGR2	150
SITE	SITE	N/A
UTILITIES	UTL	N/A

BLACK & VEATCH

HDR

JOHNSON COUNTY KANSAS
Wastewater

JOHNSON COUNTY KANSAS

NELSON WASTEWATER TREATMENT FACILITY
CONTRACT NEL-C001
IMPROVEMENTS PROJECT

ISSUED FOR CONSTRUCTION

1/18/24	FINAL DEVELOPMENT PLAN

REVISIONS AND RECORD OF ISSUE

DESIGNED:	
DETAILED:	
CHECKED:	
APPROVED:	
DATE:	04/05/2023
PROJECT NO.:	408634

GENERAL

GENERAL

ANNOTATION, SYMBOL & CALLOUT LEGEND

FDP-G-001

OF

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FDP GENERAL ANNOTATION SYMBOL AND CALLOUT LEGENDS
12" = 1'-0"

(SCALE BAR IS 4" AT FULL SCALE) 0 1/2 1 2 3 4

GENERAL LEGEND

- SURFACED STREET, ROAD OR DRIVE
- SURFACED STREET, ROAD OR DRIVE WITH CURBS
- NON-SURFACED STREET, ROAD OR DRIVE
- CONCRETE WALK
- CB — CATCH BASIN
- MANHOLE
- DRAINAGE COURSE OR FLOW LINE
- 326 — EXISTING GROUND CONTOUR
- 326 — FINISH GRADE CONTOUR
- BANK OR SLOPE LINES
- •#3 OR ⊕ B3 — TEST HOLE AND NUMBER
- SURVEY LINE WITH PI, PT, OR POT
- CONCRETE ENCASEMENT-PLAN
- CONCRETE REACTION BLOCKING AT BEND, PLUG OR TEE
- DRAINS OR CULVERTS
- TUNNEL CASING - PLAN
- NEW PIPING
- UNDERGROUND PIPING
- EXISTING PIPING
- FUTURE PIPING

SMALLER THAN 15" / 15" AND LARGER — EXISTING

GENERAL LAYOUT YARD PIPING

SMALLER THAN 15" / 15" AND LARGER — NEW

- NEW WATER LINE OR SEWER IN PROFILE
- NON-CONNECTING PIPING
- CE/L — CONSTRUCTION EASEMENT LINE
- E/L — EASEMENT LINE
- R/W — RIGHT-OF-WAY LINE
- PL — PROPERTY LINE
- PE/L — PERMANENT EASEMENT LINE
- TE/L — TEMPORARY EASEMENT LINE
- UE/L — UTILITY EASEMENT LINE
- S/L — SURVEY LINE / SECTION LINE

NEW:
- FO—FO — FIBER OPTIC LINE
- T—T — TELEPHONE (UNDERGROUND)
- E—E — UNDERGROUND CONCRETE ENCASED ELECTRICAL DUCT BANK
- EE—EE — DIRECT BURIED CONDUIT
- OHP—/—T — POWER OR TELEPHONE LINES (OVERHEAD)

EXISTING:
- W—W — WATER LINE
- G—G — GAS LINE
- FO—FO — FIBER OPTIC LINE
- T—T — TELEPHONE (UNDERGROUND)
- E—E — ELECTRICAL (UNDERGROUND)
- OHP—/—T — POWER OR TELEPHONE LINES (OVERHEAD)

- (G) (W) — WATER OR GAS VALVE
- (WM) (GM) — WATER OR GAS METER
- TELEPHONE OR POWER POLE WITH GUY ANCHOR
- FIRE HYDRANT
- Y — YARD HYDRANT
- STREET LIGHT POLE
- TRAFFIC SIGNAL

- T — TRAFFIC SIGN
- S — STOP SIGN
- HEDGE, BRUSH, SHRUBS, WOODS
- 10" — DECIDUOUS TREE AND TRUNK DIAMETER
- 4" — CONIFEROUS TREE AND TRUNK DIAMETER
- SWAMP
- BUILDINGS, STRUCTURES
- STRUCTURES UNDERGROUND
- FUTURE BUILDINGS, STRUCTURES
- CLOTHES LINE
- SWING SET
- FENCE
- FENCE, ORNAMENTAL
- FENCE, WOOD
- RAILROAD, EACH TRACK
- CENTERLINE
- WHEELCHAIR ACCESSIBILITY MARKER
- # — NUMBER OF PARKING STALLS

MATERIALS LEGEND

- EARTH OR GRADE
- GRANULAR FILL (CRUSHED ROCK OR GRAVEL)
- ROCK
- NEW CONCRETE
- EXISTING CONCRETE, PRECAST OR PRESTRESSED CONCRETE
- BRICK, FACE
- BRICK, COMMON
- CONCRETE MASONRY UNITS (CMU)
- CUT STONE OR SAND FILL, GROUT, MORTAR, AND PLASTER
- WOOD, SHEATHING, PANELING, DECKING, ETC.
- WOOD, STUDS, BEAMS, JOISTS, ETC.
- RIPRAP
- CHECKERED PLATE
- STEEL (FOR 1" SCALE & LARGER)
- STEEL OR ALUMINUM (FOR 3/4" SCALE & SMALLER)
- BAR GRATING (LINES IN DIRECTION OF SPAN)
- ALUMINUM
- INSULATION (BATT)
- INSULATION (RIGID)

PIPING ACCESSORIES LEGEND

- BLIND FLANGE
- CAP OR PLUG
- CO — CLEANOUT
- CROSS
- DIAPHRAGM SEAL
- ELBOW
- ELBOW DOWN
- ELBOW TURNING UP
- SIZE — HOSE CONNECTION
- Q — QUICK COUPLING
- REDUCER
- RUPTURE DISK
- TEE
- TEE LINE DOWN
- TEE LINE UP
- WYE
- S — WYE STRAINER
- S — WYE STRAINER WITH BLOWOFF
- DRAIN OR BELL-UP
- CALIBRATING COLUMN
- TRAP
- UNION
- WALL SLEEVE
- AT — AUTOMATIC DRAIN TRAP
- DT — DRIP TRAP
- S S — DUPLEX STRAINER
- EXPANSION COMPENSATOR
- F — INLINE FILTER
- FLEXIBLE HOSE OR TUBING
- FLEXIBLE CONNECTOR
- HOSE REEL
- INJECTOR, EDUCTOR, BLENDER
- ORIFICE PLATE
- PIPE GUIDE
- S — SEDIMENT TRAP
- S — STRAINER
- SUCTION DIFFUSER
- PIPE DIFFUSER
- SURGE CHAMBER
- VENT - SCREENED
- VENT
- P — PRESSURE GAUGE W/SNUBBER
- T — TEMPERATURE INDICATOR
- THERMOMETER
- ELECTROMAGNETIC/ULTRASONIC FLOWMETER
- PITOT TUBE
- ROTAMETER
- TURBINE OR PROPELLER FLOWMETER
- M — SET STOP METER
- VENTURI
- FM — FLOWMETER

VALVE LEGEND

- PINCH VALVE
- PLUG VALVE, ECCENTRIC
- PLUG VALVE, NON-ECCENTRIC
- BUTTERFLY VALVE
- GATE VALVE
- BALL VALVE
- GLOBE VALVE
- CHECK VALVE
- 3-WAY VALVE
- 4-WAY VALVE
- ANGLE VALVE
- CHLORINE INSTITUTE VALVE
- DIAPHRAGM VALVE
- THROTTLING VALVE
- FLAME ARRESTER OR CHECK
- BACKWATER VALVE
- INLINE PRESSURE RELIEF VALVE
- PRESSURE REGULATING VALVE
- PRESSURE SUSTAINING OR MAINTAINING VALVE
- VACUUM BREAKER
- THERMAL SHUTOFF VALVE
- EXPLOSION RELIEF VALVE
- HOSE FAUCET
- HOSE FAUCET W/VACUUM BREAKER
- HOSE VALVE W/HOSE NIPPLE
- BACKFLOW PREVENTER
- SAFETY RELIEF VALVE
- V — VACUUM RELIEF CHECK VALVE
- PRESSURE VACUUM RELIEF VALVE

NOTE :
SYMBOLS ON THIS SHEET WHICH ARE TO BE SHOWN AS EXISTING SHALL BE DELINEATED AS SCREENED
THOSE SYMBOLS WHICH ARE TO BE SHOWN AS NEW SHALL BE DELINEATED AS SOLID (HEAVY)

ACTUATOR LEGEND

- E — ELECTRIC
- FLOAT
- DIAPHRAGM
- P/O — AIR/OIL TANDEM
- S — SOLENOID
- A — AIR

MISCELLANEOUS EQUIPMENT

- STATIC MIXER
- VERTICAL MIXER
- SIGHT GLASS
- CENTRIFUGE
- CHANNEL DIFFUSER
- COMPRESSOR OR BLOWER
- PIPE ANCHOR
- PUMP
- SLUICE GATE
- SLIDE GATE
- STOP PLATE
- BAR SCREEN
- EXPANSION TANK
- SCREW (LIFT) PUMP
- FLUME
- WEIR

BLACK & VEATCH
HDR

JOHNSON COUNTY KANSAS Wastewater

JOHNSON COUNTY KANSAS

NELSON WASTEWATER TREATMENT FACILITY CONTRACT NEL-CO01 IMPROVEMENTS PROJECT

NOT FOR CONSTRUCTION

01/18/24	FINAL DEVELOPMENT PLAN

REVISIONS AND RECORD OF ISSUE

DESIGNED:
DETAILED:
CHECKED:
APPROVED:
DATE:
PROJECT NO.: 408634

FINAL DEVELOPMENT PLAN

CIVIL

LEGENDS AND ABBREVIATIONS

FDP-G-002 | OF

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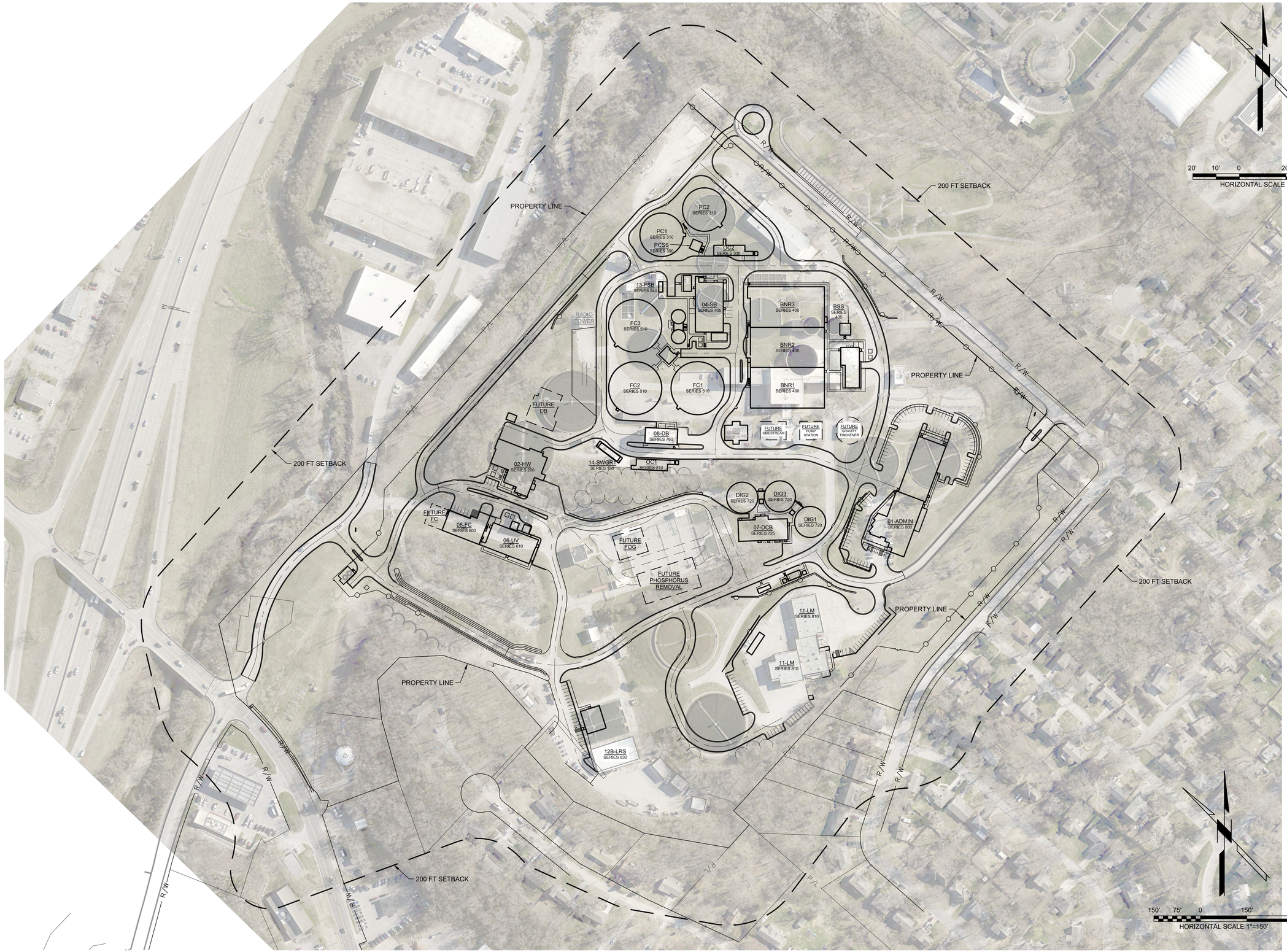
DWSH

(SCALE BAR IS 4" AT FULL SCALE) 0 1/2 1 2 3 4



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PLOTTED: 1/5/2024 8:53:21 AM
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D408634

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JOHNSON COUNTY KANSAS

NELSON WASTEWATER TREATMENT FACILITY CONTRACT NEL-CO01 IMPROVEMENTS PROJECT

NOT FOR CONSTRUCTION

01/18/24	FINAL DEVELOPMENT PLAN

REVISIONS AND RECORD OF ISSUE

DESIGNED:	
DETAILED:	
CHECKED:	
APPROVED:	
DATE:	
PROJECT NO.:	408634

FINAL DEVELOPMENT PLAN

CIVIL

OFFSET PLAN

FDP-G-003 | OF

LEGEND

DESRIPTION	ABBV	SERIES
NEL09 - PLANT DRAIN PUMP STATION	09-PDPS	160
NEL02 - HEADWORKS BUILDING	02-HW	200
NELOC1 - ODOR CONTROL 1	OC1	210
NELPCSS - PRIMARY CLARIFIER SPLITTER STRUCTURE	PCSS	300
NELPC1 - PRIMARY CLARIFIER 1	PC1	310
NELPC2 - PRIMARY CLARIFIER 2	PC2	310
NELOC2 - ODOR CONTROL 2	OC2	330
NELBNR1 - BNR TRAIN 1	BNR1	400
NELBNR2 - BNR TRAIN 2	BNR2	400
NELBNR3 - BNR TRAIN 3	BNR3	400
NELBNRSS - BNR SPLITTER STRUCTURE	BSS	405
NEL03 - BASIN BLOWER BUILDING	03-BBB	410
NELCB - CENTRATE BASIN	CB	480
NELFCSS - FINAL CLARIFIER SPLITTER STRUCTURE	FCSS	500
NELFC1 - FINAL CLARIFIER 1	FC1	510
NELFC2 - FINAL CLARIFIER 2	FC2	510
NELFC3 - FINAL CLARIFIER 3	FC3	510
NEL05 - FILTER COMPLEX	05-FC	600
NEL06 - UV BUILDING	06-UV	610
NELDAF1 - DAF BASIN 1	DAF1	700
NELDAF2 - DAF BASIN 2	DAF2	700
NEL04 - SLUDGE BUILDING	04-SB	705
FERRIC	FECL	705
CARBON	CAR	705

DESRIPTION	ABBV	SERIES
NELDIG1 - DIGESTER 1	DIG1	720
NELDIG2 - DIGESTER 2	DIG2	720
NELDIG3 - DIGESTER 3	DIG3	720
NEL07 - DIGESTER CONTROL BUILDING	07-DCB	725
NELGFS - GAS FLARE STRUCTURE	GFS	740
NEL08 - DEWATERING BUILDING*	08-DB	760
NEL01 - ADMIN BUILDING	01-ADMIN	800
NEL11 - LINE MAINTENANCE BUILDING*	11-LM	810
NEL12A - LINE REPAIR ADMIN BUILDING	12A-LRA	820
NEL12B - LINE REPAIR SHOP*	12B-LRS	820
NEL13 - FLAMMABLE STORAGE BUILDING	13-FSB	840
NELFS - FUELING STATION	FS	815
NEL14 - SWITCHGEAR BUILDING	14-SWGR1	150
NEL15 - SWITCHGEAR BUILDING	15-SWGR2	150
SITE	SITE	N/A
UTILITIES	UTL	N/A

*DEWATERING BUILDING, LINE MAINTENANCE BUILDING, AND LINE REPAIR SHOP ARE EXISTING STRUCTURES TO BE RENOVATED.

KEY MAP PLAN GRID BORDERS (TYP)

SECTION LINE / PROPERTY LINE

RIGHT OF WAY / PROPERTY LINE

RIGHT 0F WAY / PROPERTY LINE

RIGHT OF WAY / PROPERTY LINE

PROPERTY LINE

PROPERTY LINE

ROAD A
ROAD B
ROAD C
ROAD D
ROAD E
ROAD F
ROAD G
ROAD H
ROAD K
ROAD L

NALL AVENUE
JIM BILLS ROAD
49TH ST
FOXRIDGE DRIVE
LAMAR AVE
DEARBORN ST

PC2 SERIES 310
PC1 SERIES 310
PCSS SERIES 300
OC2 SERIES 330
13-FSB SERIES 840
04-SB SERIES 705
DAF2 SERIES 700
FC3 SERIES 510
DAF1 SERIES 700
RADIO TOWER
BNR3 SERIES 400
BNR2 SERIES 400
BNR1 SERIES 400
BSS SERIES 405
03-BBB SERIES 410
FCSS SERIES 500
FC2 SERIES 510
FC1 SERIES 510
FMS SERIES 202
FUTURE DB
08-DB SERIES 760
CB SERIES 480
FUTURE SIDESTREAM
FUTURE PUMP STATION
FUTURE GRAVITY THICKENER
14-SWGR1 SERIES 150
OC1 SERIES 210
02-HW SERIES 200
01-ADMIN STORAGE SERIES 802
01-ADMIN SERIES 800
DIG2 SERIES 720
DIG3 SERIES 720
DIG1 SERIES 720
07-DCB SERIES 725
15-SWGR2 SERIES 150
FUTURE FC
05-FC SERIES 600
06-UV SERIES 610
FUTURE FOG
FUTURE PHOSPHORUS REMOVAL
GFS SERIES 740
09-PDPS SERIES 160
11-LM SERIES 810
FS SERIES 815
11-LM SERIES 810
12A-LRA SERIES 820
12B-LRS SERIES 830

001 002 003 004 005 006 007 008 009 010 011 012 013 014 015 016 017 018 019

123.74' 121.32' 177.50' 288.32' 125.19' 151.45' 183.32' 169.55' 201.98' 216.14' 258.11' 246.61' 145.21' 61.54' 107.20' 95.66' 145.12' 228.35' 239.22' 227.12' 151.86' 62.68' 26.35'

TRUE NORTH
PLAN GRID NORTH
100' 50' 0 100' 200'
HORIZONTAL SCALE 1"=100'

(SCALE BAR IS 4" AT FULL SCALE) 0 1/2 1 2 3 4

100

PLOTTED: 1/8/2024 2:45:59 PM
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FDT19001
FDP0634

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NELSON WASTEWATER TREATMENT FACILITY CONTRACT NEL-CO01 IMPROVEMENTS PROJECT

NOT FOR CONSTRUCTION

01/18/23	FINAL DEVELOPMENT PLAN

REVISIONS AND RECORD OF ISSUE

DESIGNED:	
DETAILED:	
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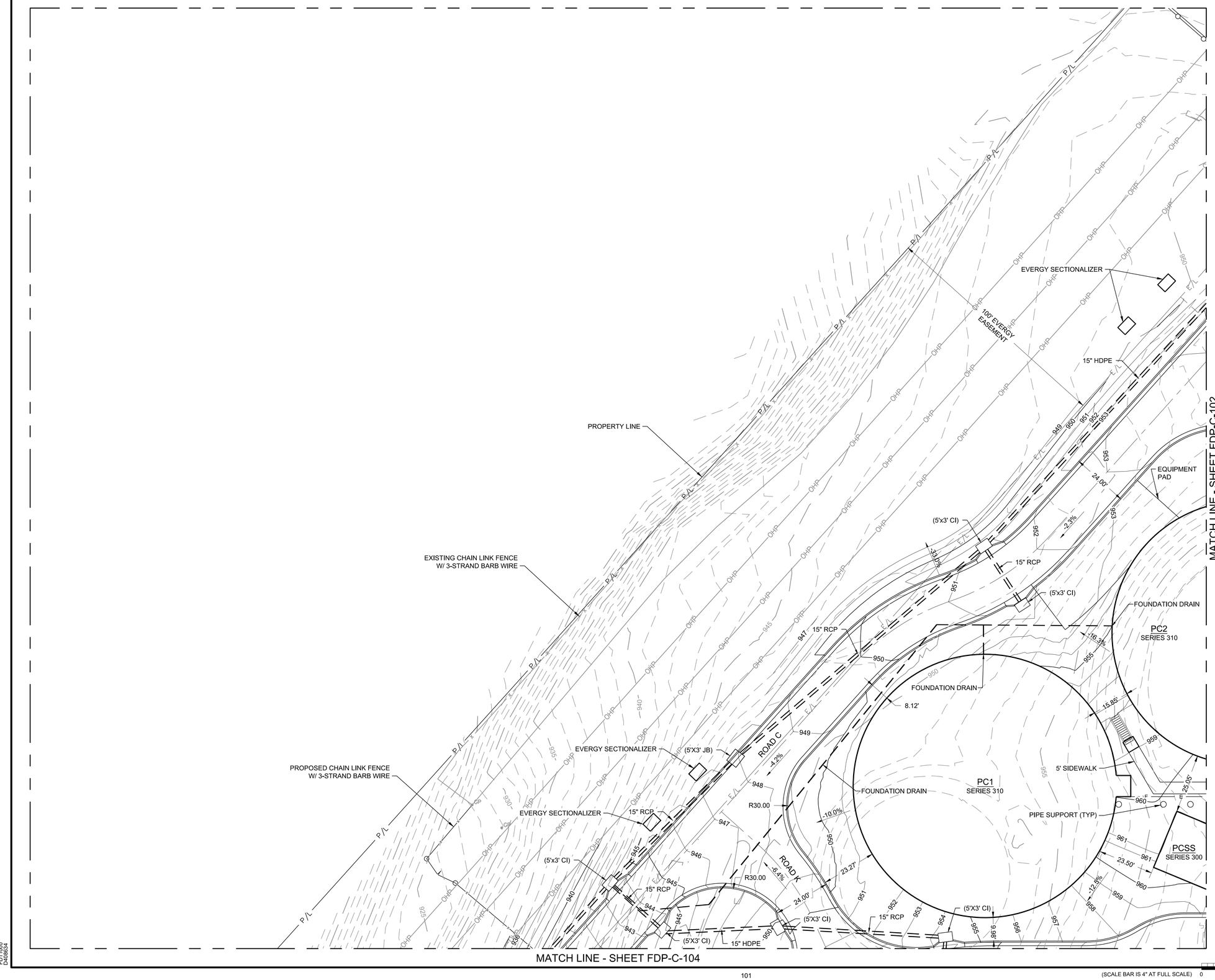
DATE:	
PROJECT NO.:	408634

FINAL DEVELOPMENT PLAN

CIVIL

OVERALL SITE PLAN

FDP-C-100 | OF



(SCALE BAR IS 4" AT FULL SCALE) 0 1/2 1 2 3 4

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Wastewater

JOHNSON COUNTY KANSAS

NELSON WASTEWATER TREATMENT FACILITY CONTRACT NEL-CO01 IMPROVEMENTS PROJECT

NOT FOR CONSTRUCTION

1	02/28/24	FINAL DEVELOPMENT PLAN RESUBMITTAL
	01/18/24	FINAL DEVELOPMENT PLAN

REVISIONS AND RECORD OF ISSUE

DESIGNED:
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DATE:
PROJECT NO.: 408634

FINAL DEVELOPMENT PLAN

CIVIL

DETAILED PLAN - AREA 1

FDP-C-101 | OF

PLOTTED: 2/27/2024 9:27:52 PM
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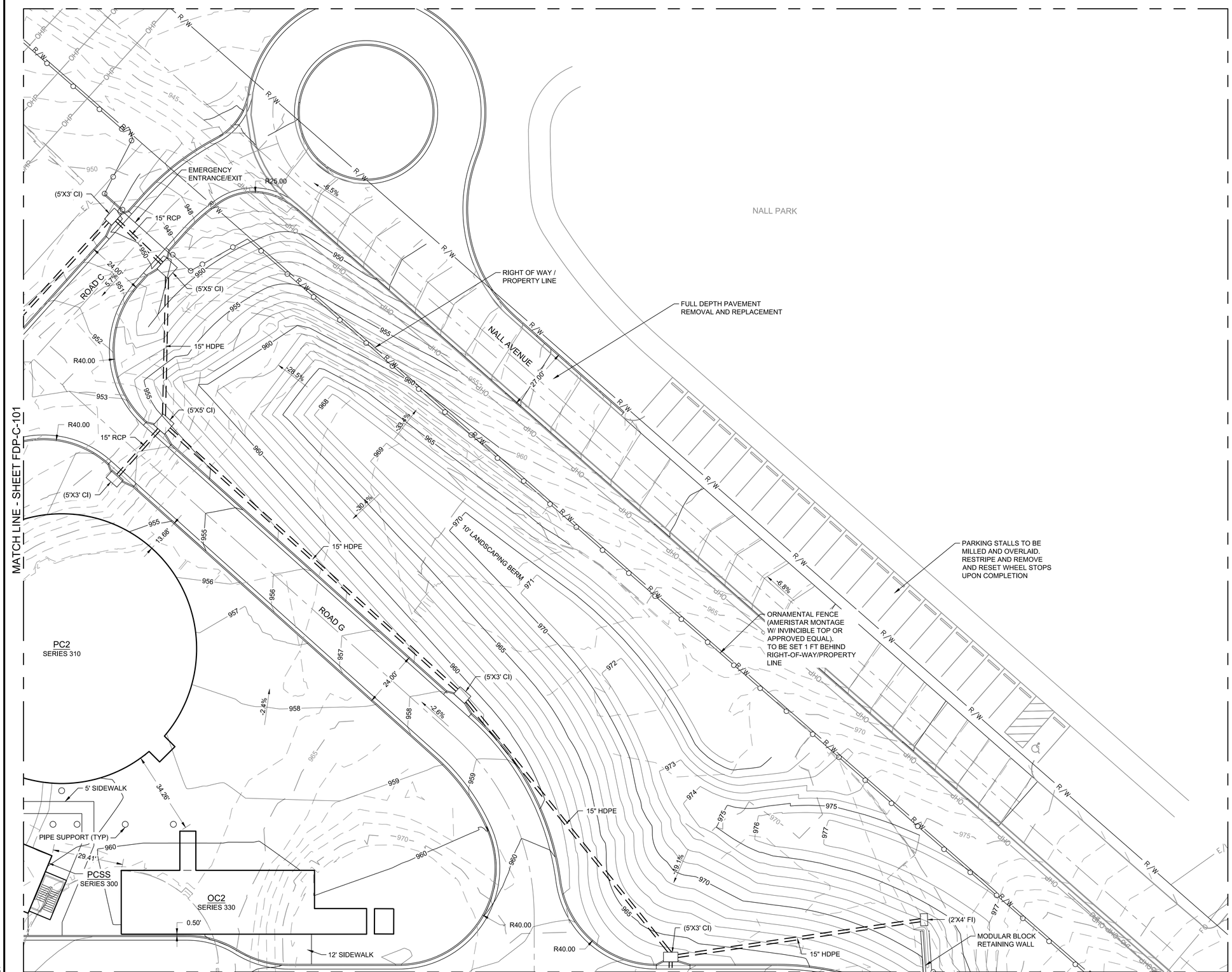
DAN634

101



KEY PLAN

	001	002		
003	004	005	006	
007	008	009	010	011
012	013	014	015	016
017		018	019	

(SCALE BAR IS 4" AT FULL SCALE) 0 1/2 1 2 3 4

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JOHNSON COUNTY KANSAS

NELSON WASTEWATER TREATMENT FACILITY CONTRACT NEL-CO01 IMPROVEMENTS PROJECT

NOT FOR CONSTRUCTION

1	02/28/24	FINAL DEVELOPMENT PLAN RESUBMITTAL
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REVISIONS AND RECORD OF ISSUE

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APPROVED:
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FINAL DEVELOPMENT PLAN

CIVIL

DETAILED PLAN - AREA 2

FDP-C-102 | OF

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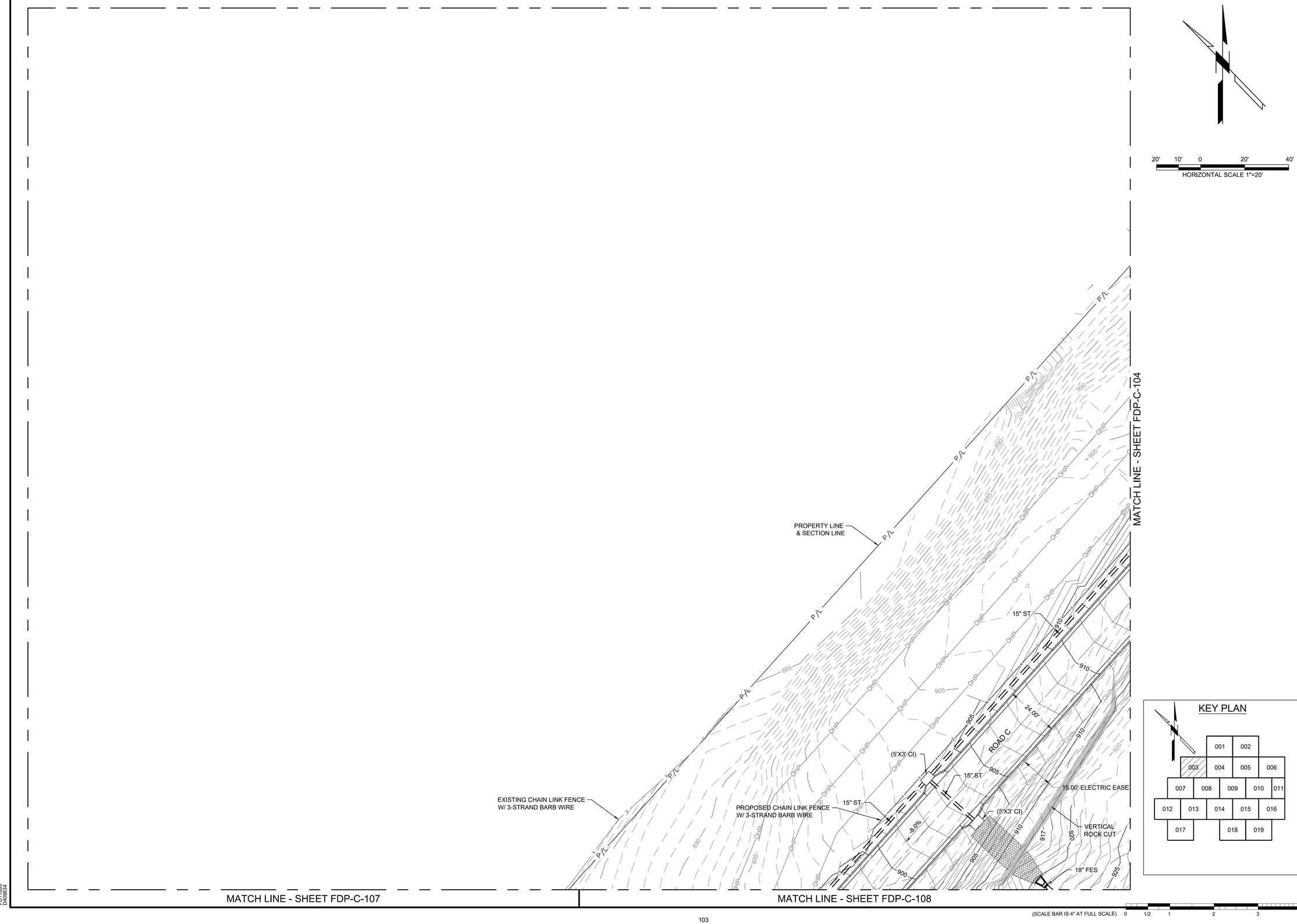
D408634



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JOHNSON COUNTY KANSAS

NELSON WASTEWATER TREATMENT FACILITY CONTRACT NEL-CO01 IMPROVEMENTS PROJECT

NOT FOR CONSTRUCTION

1	02/28/24	FINAL DEVELOPMENT PLAN RESUBMITTAL
	01/15/24	FINAL DEVELOPMENT PLAN

REVISIONS AND RECORD OF ISSUE

DESIGNED:
DETAILED:
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DATE:
PROJECT NO.: 408634

FINAL DEVELOPMENT PLAN

CIVIL

DETAILED PLAN - AREA 3

FDP-C-103 | OF

PLOTTED: 2/27/2024 9:29:36 PM
FILE: C:\PW_WORKING\BVW_AMERICAS_2\D1473262\FDP-C-103.DWG
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D408634

MATCH LINE - SHEET FDP-C-101

MATCH LINE - SHEET FDP-C-103

MATCH LINE - SHEET FDP-C-105

MATCH LINE - SHEET FDP-C-108

MATCH LINE - SHEET FDP-C-109

NORTH PROPERTY LINE & SECTION LINE

P/L

ROAD A

ROAD C

PROPOSED CHAIN LINK FENCE W/ 3-STRAND BARB WIRE

MODULAR BLOCK RETAINING WALL

RADIO TOWER

15" ST

24.00'

-5.8%

-28.4%

(5'X3' CI)

15.00' ELECTRIC EASE

-31.6%

-6.0%

R25.00'

R25.00' (5'X3' CI)

R15.00'

-4.6%

53.05'

13-FSB
SERIES 840

10.48'

FECL
SERIES 705

20.58'

10.00'

22.00'

5' SIDEWALK

ROOF DRAIN

37.69'

HVAC EQUIP

DAF2
SERIES 700

27.12'

25.04'

MECHANICAL EQUIPMENT

ROOF DRAIN

PIPE SUPPORT

DAF1
SERIES 700

26.69'

22.63'

18.63'

FC3
SERIES 510

5.00'

-2.3%

FOUNDATION DRAIN

5' SIDEWALK

MODULAR BLOCK RETAINING WALL

ACCESS DRIVE

12.00'

24.00'

FCSS
SERIES 500

27.02'

5' SIDEWALK

36.02'

22.52'

FOUNDATION DRAIN

-16.0%

-17.9%

FC2
SERIES 510

FOUNDATION DRAIN

24.00'

RIPRAP LINED CHANNEL

FC1
SERIES 510

(2' DIA MH)

FOUNDATION DRAIN

-19.5%

-17.0%

(1.5' DIA GI)

(2' DIA MH)

28.00'

-10.1%

SLUDGE TRUCK PARKING STALLS

3

168.90'

-21.1%

-12.2%

-5.8%

61.77'

-4.3%

-21.5%

R40.00'

FUTURE DB

FMS
SERIES 202

HORIZONTAL SCALE 1"=20'

20' 10' 0 20' 40'

KEY PLAN

	001	002		
003	004	005	006	
007	008	009	010	011
012	013	014	015	016
017		018	019	

(SCALE BAR IS 4" AT FULL SCALE) 0 1/2 1 2 3 4

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JOHNSON COUNTY KANSAS

NELSON WASTEWATER TREATMENT FACILITY CONTRACT NEL-CO01 IMPROVEMENTS PROJECT

NOT FOR CONSTRUCTION

1	02/26/24	FINAL DEVELOPMENT PLAN RESUBMITTAL
	01/16/24	FINAL DEVELOPMENT PLAN

REVISIONS AND RECORD OF ISSUE

DESIGNED:
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CHECKED:
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DATE:

PROJECT NO.: 408634

FINAL DEVELOPMENT PLAN

CIVIL

DETAILED PLAN - AREA 4

FDP-C-104 | OF

PLOTTED: 2/27/2024 9:30:27 PM
FILE: C:\PW_WORKING\BV\NA_AMERICAS_2\D0147326\2\FDP-C-104.DWG
FD110000
D408634

MATCH LINE - SHEET FDP-C-102

ROAD A

5' SIDEWALK

R20.00

R40.00

MODULAR BLOCK RETAINING WALL

15" RCP

(5'X3' CI)

RIGHT OF WAY / PROPERTY LINE

PROPOSED ORNAMENTAL FENCE (AMERISTAR MONTAGE W/ INVINCIBLE TOP OR APPROVED EQUAL)

10' LANDSCAPING BERM

20' 10' 0 20' 40'

HORIZONTAL SCALE 1"=20'

28.00'

25.07'

04-SB
SERIES 705

18.00'

22.00'

9.00'

20.00'

63.13'

7.00'

2.00'

CAR
SERIES 705

TRANSFORMERS

19.16'

ROAD H

BNR3
SERIES 400

BNR2
SERIES 400

BNR1
SERIES 400

FC1
SERIES 510

BSS
SERIES 405

03-BBB
SERIES 410

HVAC EQUIP

(1.5' DIA GI)

(2' DIA GI)

(2' DIA MH)

18" HDPE

39.58'

31.78'

41.43'

42.20'

49.75'

10400-P

10400-N

5' SIDEWALK

MODULAR BLOCK RETAINING WALL

BOLLARDS (TYP)

15.17'

28.00'

3.00'

67.71'

24.00'

58.28'

10.52'

RIPRAP OUTLET PROTECTION

R25.00

11' SIDEWALK

ROOF DRAIN

19.00'

-33.3%

-12.6%

-2.1%

-5.0%

-6.4%

-2.0%

-7.5%

-1.8%

-5.6%

-5.4%

-18.7%

MATCH LINE - SHEET FDP-C-104

MATCH LINE - SHEET FDP-C-106

MATCH LINE - SHEET FDP-C-109

MATCH LINE - SHEET FDP-C-110

KEY PLAN

		001	002	
	003	004	005	006
007	008	009	010	011
012	013	014	015	016
	017		018	019

(SCALE BAR IS 4" AT FULL SCALE) 0 1/2 1 2 3 4

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JOHNSON COUNTY KANSAS

NELSON WASTEWATER TREATMENT FACILITY CONTRACT NEL-CO01 IMPROVEMENTS PROJECT

NOT FOR CONSTRUCTION

1	02/28/24	FINAL DEVELOPMENT PLAN RESUBMITTAL
	01/18/24	FINAL DEVELOPMENT PLAN

REVISIONS AND RECORD OF ISSUE

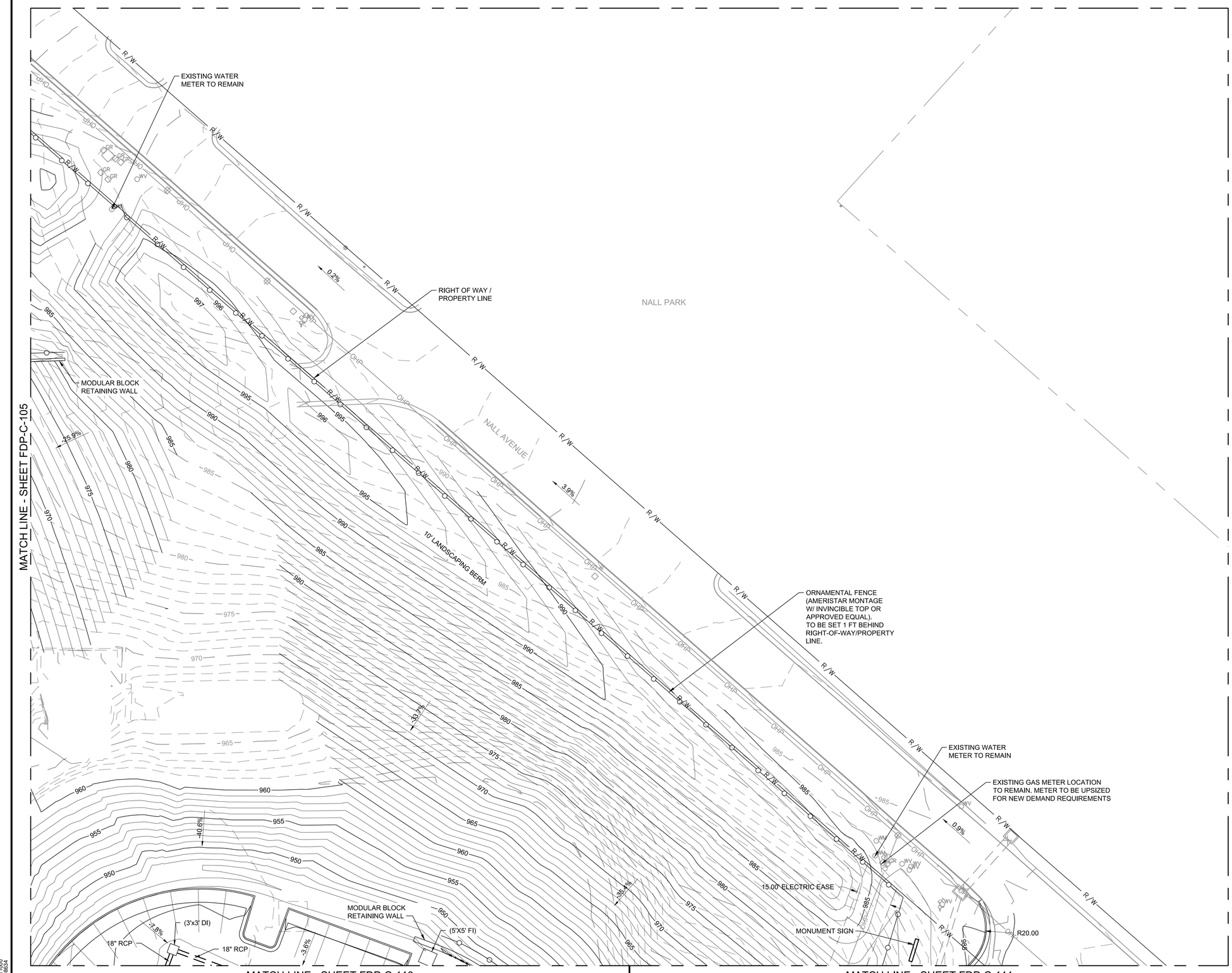
DESIGNED:
DETAILED:
CHECKED:
APPROVED:
DATE:
PROJECT NO.: 408634

FINAL DEVELOPMENT PLAN

CIVIL

DETAILED PLAN - AREA 5

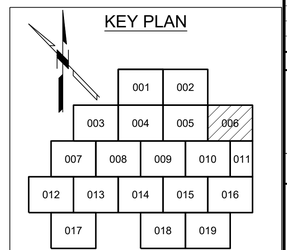
FDP-C-105 | OF



20' 10' 0 20' 40'

HORIZONTAL SCALE 1"=20'

KEY PLAN



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JOHNSON COUNTY KANSAS

NELSON WASTEWATER TREATMENT FACILITY CONTRACT NEL-CO01 IMPROVEMENTS PROJECT

NOT FOR CONSTRUCTION

1	02/28/24	FINAL DEVELOPMENT PLAN RESUBMITTAL
	01/18/24	FINAL DEVELOPMENT PLAN

REVISIONS AND RECORD OF ISSUE

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APPROVED:
DATE:
PROJECT NO.: 408634

FINAL DEVELOPMENT PLAN

CIVIL

DETAILED PLAN - AREA 6

FDP-C-106 | OF

PLOTTED: 2/27/2024 9:32:10 PM
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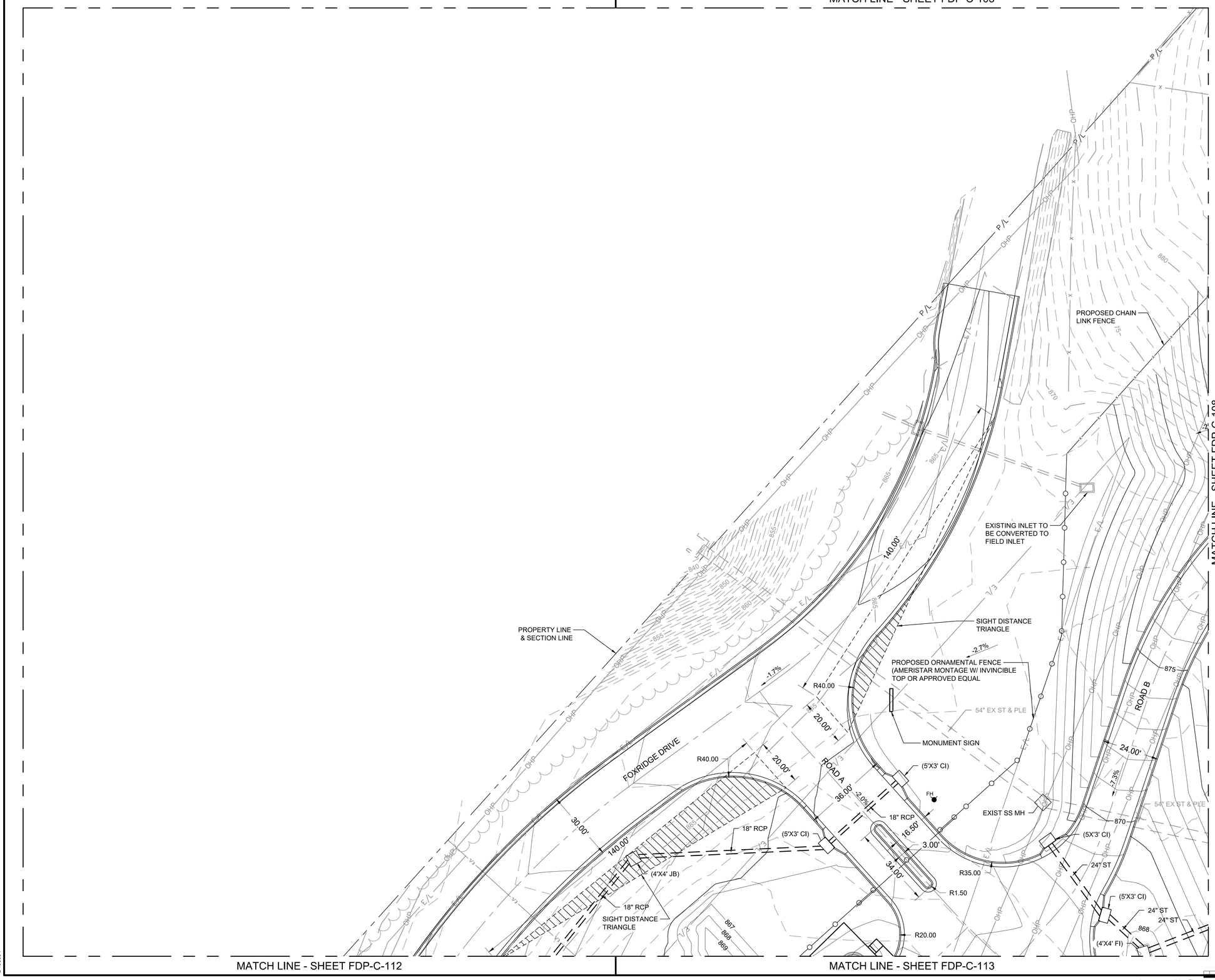
FDT1600
PW8934

(SCALE BAR IS 4" AT FULL SCALE) 0 1/2 1 2 3 4

MATCH LINE - SHEET FDP-C-103



MATCH LINE - SHEET FDP-C-108

MATCH LINE - SHEET FDP-C-112

MATCH LINE - SHEET FDP-C-113

KEY PLAN

		001	002		
	003	004	005	006	
007	008	009	010	011	
012	013	014	015	016	
017		018	019		

(SCALE BAR IS 4" AT FULL SCALE) 0 1/2 1 2 3 4

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NELSON WASTEWATER TREATMENT FACILITY CONTRACT NEL-CO01 IMPROVEMENTS PROJECT

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1	02/28/24	FINAL DEVELOPMENT PLAN RESUBMITTAL
	01/18/24	FINAL DEVELOPMENT PLAN

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FINAL DEVELOPMENT PLAN

CIVIL

DETAILED PLAN - AREA 7

FDP-C-107 | OF

PLOTTED: 2/27/2024 8:33:02 PM
FILE: C:\PW_WORKING\BVW_AMERICAS_2\D1473262\FDP-C-107.DWG
FD11000
D408634

MATCH LINE - SHEET FDP-C-103

MATCH LINE - SHEET FDP-C-104

MATCH LINE - SHEET FDP-C-107

MATCH LINE - SHEET FDP-C-109

MATCH LINE - SHEET FDP-C-113

MATCH LINE - SHEET FDP-C-114

PROPOSED FENCE

ROAD C

ROAD B

ROAD D

ROAD J

FUTURE FILTER COMPLEX EXPANSION

FUTURE DB

FMS
SERIES 202

02-HW
SERIES 200

05-FC
SERIES 600

06-UV
SERIES 610

14-SWGR1
SERIES 150

RETAINING WALL

TRANSFORMERS

5' SIDEWALK

HVAC EQUIP

CONCRETE RETAINING WALL

PIPE SUPPORT (TYP)

BOLLARD (TYP)

10' SLOTTED DRAIN

ALUM TANK PAD

EYEWASH DRAIN

HYPOCHLORITE TANK PAD

ROOF DRAIN

CONCRETE STORM CHANNEL

18" HDPE

10" HDPE

15" RCP

24" RCP

72" PLE

84" ST & PLE

24" ST

18" ST

15" ST

(5'X3' CI)

(5'X3' FI)

(5'X5' FI)

(4'X4' FI)

(6'X3' CI)

(2'X2' JB)

(2' DIA MH)

(1' DIA MH)

10.00'FH

10000-B

R25.00

R30.00

R40.00

HORIZONTAL SCALE 1"=20'

KEY PLAN

001 002
003 004 005 006
007 008 009 010 011
012 013 014 015 016
017 018 019

(SCALE BAR IS 4" AT FULL SCALE) 0 1/2 1 2 3 4

PLOTTED: 3/12/2024 3:08:48 PM
FILE: C:\PW_WORKING\BVW_AMERICAS_2\D1473262\FDP-C-108.DWG
FD11000
D408634

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NELSON WASTEWATER TREATMENT FACILITY CONTRACT NEL-CO01 IMPROVEMENTS PROJECT

NOT FOR CONSTRUCTION

2	03/14/24	FINAL DEVELOPMENT PLAN RESUBMITTAL
1	02/28/24	FINAL DEVELOPMENT PLAN RESUBMITTAL
	01/18/24	FINAL DEVELOPMENT PLAN

REVISIONS AND RECORD OF ISSUE

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FINAL DEVELOPMENT PLAN

CIVIL

DETAILED PLAN - AREA 8

FDP-C-108 | OF

MATCH LINE - SHEET FDP-C-104

MATCH LINE - SHEET FDP-C-105

MATCH LINE - SHEET FDP-C-108

MATCH LINE - SHEET FDP-C-110

MATCH LINE - SHEET FDP-C-114

MATCH LINE - SHEET FDP-C-115

5' SIDEWALK
HVAC EQUIP
EYEWASH DRAIN
08-DB
SERIES 760
14.90'
40.70'
26.61'
(4'X4' GI)
14.00'
69.28'
14-SWGR1
SERIES 150
(4' DIA MH)
29.34'
PIPE SUPPORT (TYP)
OC1
SERIES 210
41.04'
27.50'
2.38'
111.36'
28.00'
R3.00
15" RCP
18" RCP
(2' DIA MH)
12" HDPE
(2' DIA MH)
(5'X3' CI)
18" HDPE
15" RCP
28.00'
ROAD H
120.96'
R40.00
26.90'
R4.00
ROAD G
(3'X3' JB)
(5'X5' CI)
18" HDPE
PIPE SUPPORT (TYP)
CB
SERIES 480
FOUNDATION DRAIN
FUTURE
SIDESTREAM
-9.1%
(5'X3' CI)
15" RCP
28.00'
(5'X3' CI)
98.37'
-22.0%
24" HDPE
145.25'
-16.1%
CONCRETE
STORM
CHANNEL
(5'X5' CI)
24" RCP
(24" FES)
-5.9%
26.00'
-6.2%
-7.1%
(18" FES)
FUTURE
FOG
FUTURE
PHOSPHORUS
REMOVAL
CONCRETE
RETAINING
WALL
6" HDPE
WALL DRAIN
STAIR
TOWER
17.34'
3.57'
DIG2
SERIES 720
DIG3
SERIES 720
(1.5' DIA GI)
12" HDPE
(2' DIA MH)
12" HDPE
(1.5' DIA GI)
5.99'
32.08'
13.00'
18.17'
18.64'
-4.0%
5' SIDEWALK
12" HDPE
BOLLARDS (TYP)
07-DCB
SERIES 725
(2' DIA GI)
5' SIDEWALK
24.00'
5' SIDEWALK
40.48'
-3.0%
FH
36" RCP
28.00'

20' 10' 0 20' 40'
HORIZONTAL SCALE 1"=20'

KEY PLAN

		001	002		
	003	004	005	006	
007	008	009	010	011	
012	013	014	015	016	
	017		018	019	

BLACK & VEATCH
HDR

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Wastewater

JOHNSON COUNTY
KANSAS

NELSON WASTEWATER
TREATMENT FACILITY
CONTRACT NEL-CO01
IMPROVEMENTS
PROJECT

NOT FOR
CONSTRUCTION

2	03/14/24	FINAL DEVELOPMENT PLAN RESUBMITTAL
1	02/28/24	FINAL DEVELOPMENT PLAN RESUBMITTAL
	01/15/24	FINAL DEVELOPMENT PLAN

REVISIONS AND RECORD OF ISSUE

DESIGNED:
DETAILED:
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APPROVED:
DATE:
PROJECT NO.: 408634

FINAL DEVELOPMENT PLAN

CIVIL

DETAILED PLAN - AREA 9

FDP-C-109 | OF

PLOTTED: 3/12/2024 3:14:08 PM
FILE: C:\PW_WORKING\BVW_AMERICAS_2\D1473262\FDP-C-109.DWG
FD11000
D408634

(SCALE BAR IS 4" AT FULL SCALE) 0 1/2 1 2 3 4

MATCH LINE - SHEET FDP-C-105

MATCH LINE - SHEET FDP-C-106

MATCH LINE - SHEET FDP-C-109

MATCH LINE - SHEET FDP-C-111

MATCH LINE - SHEET FDP-C-115

MATCH LINE - SHEET FDP-C-116

FUTURE PUMP STATION

FUTURE GRAVITY THICKENER

ROAD A

ROAD E

JIM BILLS ROAD

01-ADMIN STORAGE
SERIES 802

01-ADMIN
SERIES 800

DIG1
SERIES 720

15-SWGR2
SERIES 150

TRASH ENCLOSURE

MODULAR BLOCK RETAINING WALL

CONCRETE RETAINING WALL

STAIR TOWER

ROOF DRAIN

COVERED PATIO

5' SIDEWALK

LANDSCAPING BERM

15.00' ELECTRIC EASE

FH

18" HDPE

18" RCP

15" RCP

24" RCP

30" RCP

36" RCP

(5'x3' CI)

(5'X3' CI)

(3'x3' DI)

(3'X3' DI)

(5'X3' JB)

(5' DIA MH)

R40.00

R25.00

R20.00

-9.4%

-1.2%

-4.0%

-1.0%

-1.8%

-3.6%

-24.4%

-15.2%

-6.5%

-2.5%

-6.9%

-5.7%

-3.0%

-2.7%

-41.5%

-29.5%

-33.8%

-34.4%

-25.9%

-1.1%

-2.0%

18.00'

99.00'

28.00'

60.15'

55.00'

63.00'

46.00'

9.00'

109.00'

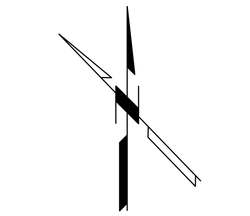
112.29'

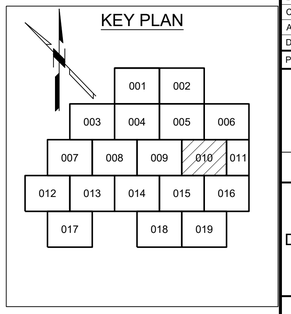
26.00'

60.00'

19.00'

16.00'





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FD11000
D408634

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NELSON WASTEWATER TREATMENT FACILITY CONTRACT NEL-CO01 IMPROVEMENTS PROJECT

NOT FOR CONSTRUCTION

1	02/28/24	FINAL DEVELOPMENT PLAN RESUBMITTAL
	01/18/24	FINAL DEVELOPMENT PLAN

REVISIONS AND RECORD OF ISSUE

DESIGNED:
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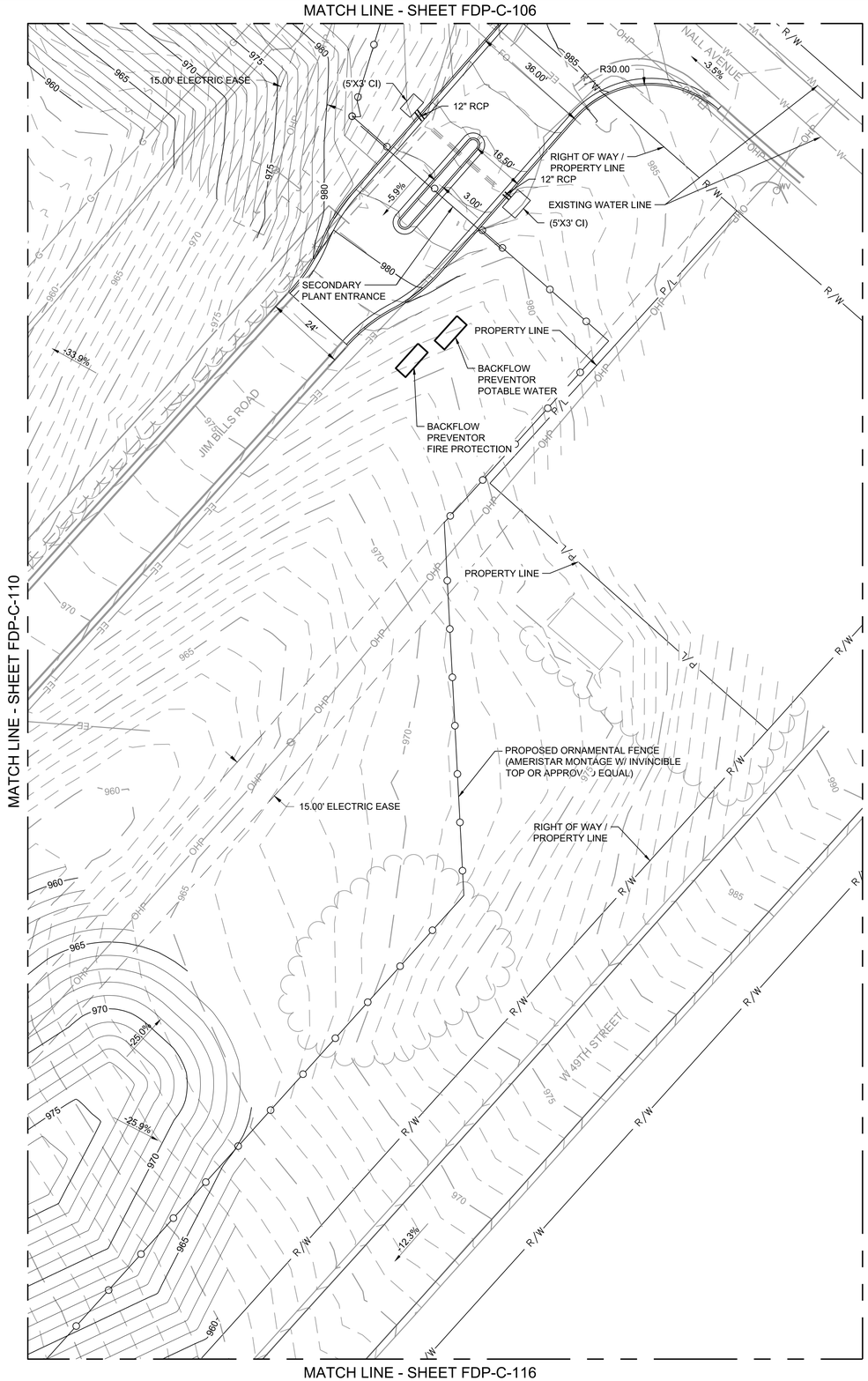
APPROVED:
DATE:
PROJECT NO.: 408634

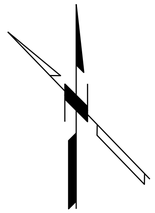
FINAL DEVELOPMENT PLAN

CIVIL

DETAILED PLAN - AREA 10

FDP-C-110 | OF





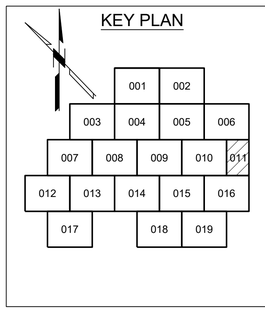
20' 10' 0 20' 40'

HORIZONTAL SCALE 1"=20'

GENERAL NOTES:

1. GRADE SLOPES SHALL NOT EXCEED 3:1 UNLESS NOTED OTHERWISE.
2. THE CONTRACTOR SHALL VERIFY PAVEMENT GRADES TO CONFIRM POSITIVE DRAINAGE IS MAINTAINED WITHOUT THE PRESENCE OF PONDING WATER.
3. REFER TO SERIES 110 FOR SITE FACILITY LOCATION AND SITE FENCING PLANS.
4. FINAL GRADING EXTENTS SHALL BE ADJUSTED AS NECESSARY TO ENSURE POSITIVE DRAINAGE.
5. SEE SERIES 170 DRAWINGS FOR PLANT ROAD PLAN AND PROFILES.
6. ALL AREAS WITHIN CONSTRUCTION LIMITS SHALL BE CLEARED AND GRUBBED. THE UPPER 6" OF TOPSOIL SHALL BE STOCKPILED.

KEY PLAN



(SCALE BAR IS 4" AT FULL SCALE) 0 1/2 1 2 3 4

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NELSON WASTEWATER TREATMENT FACILITY CONTRACT NEL-CO01 IMPROVEMENTS PROJECT

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FINAL DEVELOPMENT PLAN

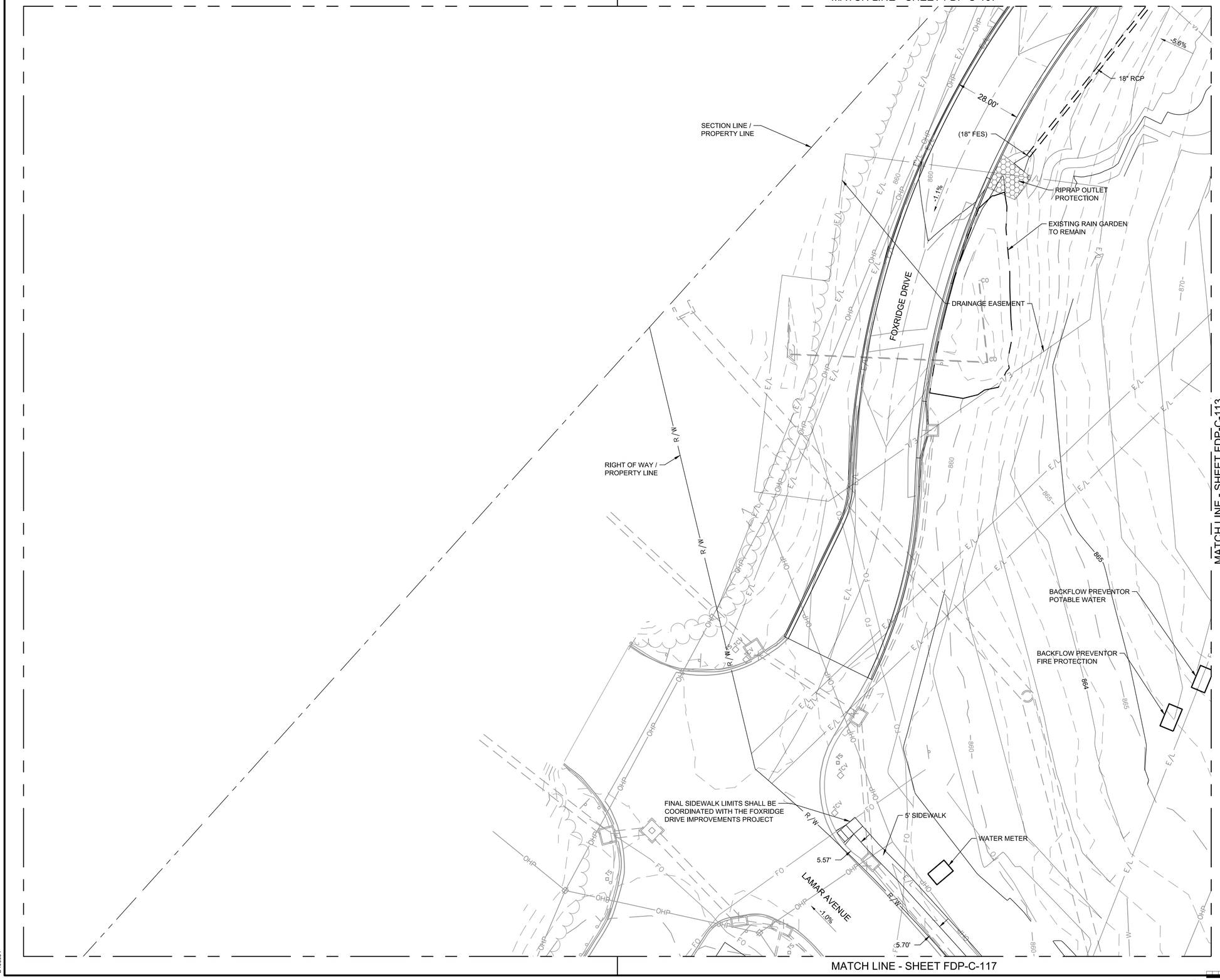
CIVIL

DETAILED PLAN - AREA 11

FDP-C-111 | OF

PLOTTED: 2/27/2024 9:36:31 PM
FILE: C:\PW_WORKING\BVW_AMERICAS_2\D147326\FDP-C-111.DWG
FD11000
D408634

MATCH LINE - SHEET FDP-C-107



KEY PLAN

		001	002		
	003	004	005	006	
007	008	009	010	011	
012	013	014	015	016	
017		018	019		

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NELSON WASTEWATER TREATMENT FACILITY CONTRACT NEL-CO01 IMPROVEMENTS PROJECT

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	01/15/24	FINAL DEVELOPMENT PLAN

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DATE:
PROJECT NO.: 408634

FINAL DEVELOPMENT PLAN

CIVIL

DETAILED PLAN - AREA 12

FDP-C-112 | OF

PLOTTED: 2/27/2024 9:37:15 PM
FILE: C:\PW_WORKINGBVW_AMERICAS_2\D1473282\FDP-C-112.DWG
FD1.0800
D408634

(SCALE BAR IS 4" AT FULL SCALE) 0 1/2 1 2 3 4

MATCH LINE - SHEET FDP-C-107

MATCH LINE - SHEET FDP-C-108

MATCH LINE - SHEET FDP-C-112

MATCH LINE - SHEET FDP-C-114

MATCH LINE - SHEET FDP-C-117

09-PDPS
SERIES 160

TRANSFORMER

(4'X4' FI)

18" ST

84" ST & PLE

4 FT FLAT BOTTOM DITCH
WITH 4:1 SIDE SLOPES
AT 6% MAX SLOPE

4 FT FLAT BOTTOM DITCH
WITH 4:1 SIDE SLOPES AT
6% MAX SLOPE

TRANSITION FROM 2 FT TO
4 FT FLAT BOTTOM DITCH

2 FT FLAT BOTTOM DITCH
WITH 4:1 SIDE SLOPES
AT 6% MAX SLOPE

ROAD A

PROPOSED ORNAMENTAL FENCE
(AMERISTAR MONTAGE W/ INCINCIBLE
TOP OR APPROVED EQUAL

100' EVERGY
EASEMENT

PROPERTY LINE

EXISTING CHAIN
LINK FENCE

-3.4%
-25.0%
-35.2%
-3.7%
-10.7%
-8.4%
-6.1%
-33.5%
-2.0%

R20.00
24.00'

E/L
OHP
P/L

20' 10' 0 20' 40'
HORIZONTAL SCALE 1"=20'

KEY PLAN

	001	002		
003	004	005	006	
007	008	009	010	011
012	013	014	015	016
017		018	019	

(SCALE BAR IS 4" AT FULL SCALE) 0 1/2 1 2 3 4

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	01/18/24	FINAL DEVELOPMENT PLAN

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FINAL DEVELOPMENT PLAN

CIVIL

DETAILED PLAN - AREA 13

FDP-C-113 | OF

PLOTTED: 2/27/2024 9:38:06 PM
FILE: C:\PW_WORKING\BVW_AMERICAS_2\D1473262\FDP-C-113.DWG
FD110000
D408634

MATCH LINE - SHEET FDP-C-108

MATCH LINE - SHEET FDP-C-109

MATCH LINE - SHEET FDP-C-113

MATCH LINE - SHEET FDP-C-115

MATCH LINE - SHEET FDP-C-118

84" ST & PLE
72" PLE
8" ROOF DRAIN
54" ST & PLE
10' DIA MH
(4'X4' JB)
24" RCP
10' DIA MH
24" RCP
48" RCP
EMERGENCY SPILLWAY ELEVATION = 892.50
TOP = 894.50
RIPRAP LINED BASIN BOTTOM CHANNEL
OUTLET CONTROL STRUCTURE
(24" FES)
(6' DIA MH)
36" HDPE
24" HDPE
DETENTION BASIN
RIPRAP OUTLET PROTECTION
(36" FES)
ROAD B
ROAD A
ROAD E
48" HDPE
36" HDPE
36" RCP
(5'X5' CI)
(5'X3' CI)
FUTURE PHOSPHORUS REMOVAL
18" RCP
R25.00
24" RCP
18" HDPE
15" RCP
R22.00
R40.00
R35.00
48" RCP
(5'X3' FI)
(5'X5' JB)
EXISTING FENCE
8.00' SIDEWALK
5' SIDEWALK
10.00' SIDEWALK
2 FT SWALE
12A-LRA
SERIES 820
PROPERTY LINE
-33.3%
-7.4%
-17.0%
-6.2%
-11.7%
-16.1%
-8.1%
-2.8%
24.00'
28.00'
124.35'

20' 10' 0 20' 40'
HORIZONTAL SCALE 1"=20'

KEY PLAN

		001	002		
	003	004	005	006	
007	008	009	010	011	
012	013	014	015	016	
	017		018	019	

(SCALE BAR IS 4" AT FULL SCALE) 0 1/2 1 2 3 4

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JOHNSON COUNTY KANSAS

NELSON WASTEWATER TREATMENT FACILITY CONTRACT NEL-CO01 IMPROVEMENTS PROJECT

NOT FOR CONSTRUCTION

2	03/14/24	FINAL DEVELOPMENT PLAN RESUBMITTAL
1	02/28/24	FINAL DEVELOPMENT PLAN RESUBMITTAL
	01/18/24	FINAL DEVELOPMENT PLAN

REVISIONS AND RECORD OF ISSUE

DESIGNED:
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APPROVED:
DATE:
PROJECT NO.: 408634

FINAL DEVELOPMENT PLAN

CIVIL

DETAILED PLAN - AREA 14

FDP-C-114 | OF

PLOTTED: 3/12/2024 3:31:41 PM
FILE: C:\PW_WORKING\BVW_AMERICAS_2\D1473262\FDP-C-114.DWG
FD11000
D408634

MATCH LINE - SHEET FDP-C-109

MATCH LINE - SHEET FDP-C-110

MATCH LINE - SHEET FDP-C-114

MATCH LINE - SHEET FDP-C-116

MATCH LINE - SHEET FDP-C-118

MATCH LINE - SHEET FDP-C-119

ROAD A

ROAD F

15-SWGR2
SERIES 150

GFS
SERIES 740

FS
SERIES 815

11-LM
SERIES 810

11-LM
SERIES 810

5 FT CONCRETE STAIRS

36" RCP

18" RCP

18" HDPE

18" HDPE

30" RCP

30" RCP

12" FR ST

(5'X3' JB)

(5'x5' WALL CH)

TRANSFORMER

TRANSFORMER

SIDEWALK WIDTH VARIES

5 FT MIN SIDEWALK
WIDTH VARIES

MODULAR BLOCK
RETAINING WALL

MODULAR BLOCK
RETAINING WALL

MODULAR BLOCK
RETAINING WALL

MODULAR BLOCK
RETAINING WALL

5' SIDEWALK

PATIO

PATIO

RIPRAP LINED CHANNEL

PROPOSED ORNAMENTAL FENCE
(AMERISTAR MONTAGE W/INVINCIBLE
TOP OR APPROVED EQUAL)

EXISTING CHAIN LINK FENCE
W/ 3-STRAND BARB WIRE

TRASH ENCLOSURE

PROPERTY LINE

PROPERTY LINE

15.00' ELECTRIC EASE

R20.00

R35.00

R50.00'

R40.00

R30.00

28.0%

22.4%

-10.7%

-7.4%

-7.5%

18.50'

118.00'

9.00'

9.00'

82.00'

18.00'

24.00'

HORIZONTAL SCALE 1"=20'

KEY PLAN

		001	002		
	003	004	005	006	
007	008	009	010	011	
012	013	014	015	016	
	017		018	019	

(SCALE BAR IS 4" AT FULL SCALE) 0 1/2 1 2 3 4

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JOHNSON COUNTY
KANSAS

NELSON WASTEWATER
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CONTRACT NEL-CO01
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	01/18/24	FINAL DEVELOPMENT PLAN

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FINAL DEVELOPMENT PLAN

CIVIL

DETAILED PLAN - AREA 15

FDP-C-115 | OF

PLOTTED: 2/28/2024 9:18:59 AM
FILE: C:\PW_WORKING\BVW_AMERICAS_2\D1473282\FDP-C-115.DWG
FD11000
D408634

MATCH LINE - SHEET FDP-C-110

MATCH LINE - SHEET FDP-C-111

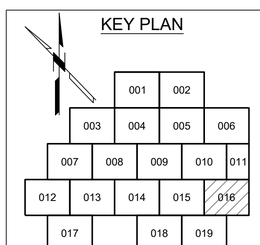
MATCH LINE - SHEET FDP-C-115

MATCH LINE - SHEET FDP-C-119

20' 10' 0 20' 40'

HORIZONTAL SCALE 1"=20'

KEY PLAN



(SCALE BAR IS 4" AT FULL SCALE) 0 1/2 1 2 3 4

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JOHNSON COUNTY KANSAS

NELSON WASTEWATER TREATMENT FACILITY CONTRACT NEL-CO01 IMPROVEMENTS PROJECT

NOT FOR CONSTRUCTION

1	02/26/24	FINAL DEVELOPMENT PLAN RESUBMITTAL
	01/16/24	FINAL DEVELOPMENT PLAN

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DATE:
PROJECT NO.: 408634

FINAL DEVELOPMENT PLAN

CIVIL

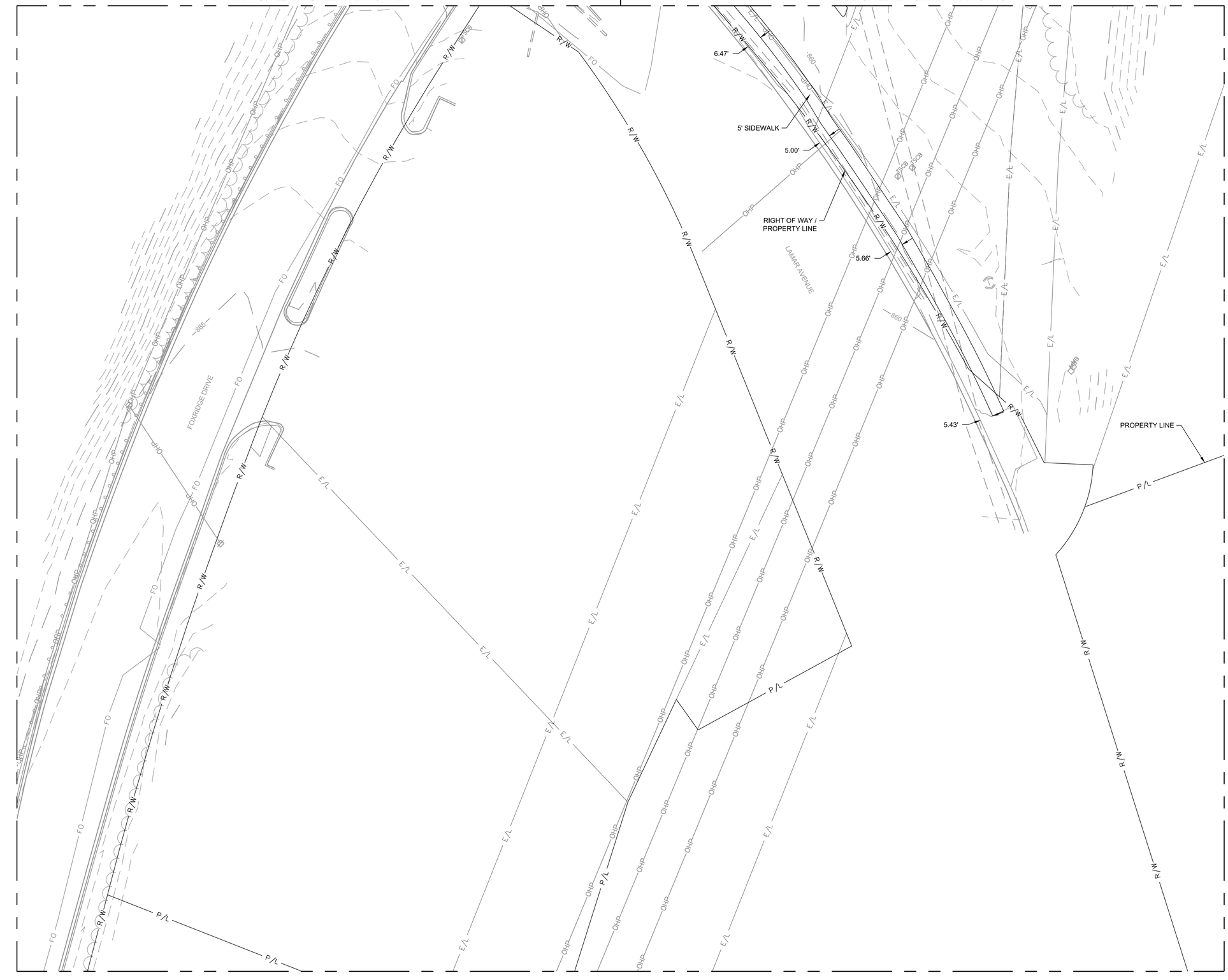
DETAILED PLAN - AREA 16

FDP-C-116 | OF

PLOTTED: 2/27/2024 9:40:28 PM
FILE: C:\PW_WORKING\BVW_AMERICAS_2\D1473362\FDP-C-116.DWG
FD11000
D408634

MATCH LINE - SHEET FDP-C-112

MATCH LINE - SHEET FDP-C-113



20' 10' 0 20' 40'

HORIZONTAL SCALE 1"=20'

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JOHNSON COUNTY KANSAS

NELSON WASTEWATER TREATMENT FACILITY CONTRACT NEL-CO01 IMPROVEMENTS PROJECT

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1	02/28/24	FINAL DEVELOPMENT PLAN RESUBMITTAL
	01/18/24	FINAL DEVELOPMENT PLAN

REVISIONS AND RECORD OF ISSUE

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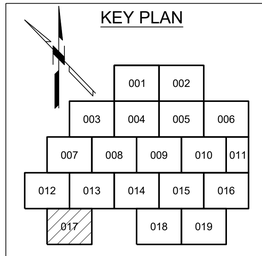
CHECKED:
APPROVED:
DATE:
PROJECT NO.: 408634

FINAL DEVELOPMENT PLAN

CIVIL

DETAILED PLAN - AREA 17

KEY PLAN

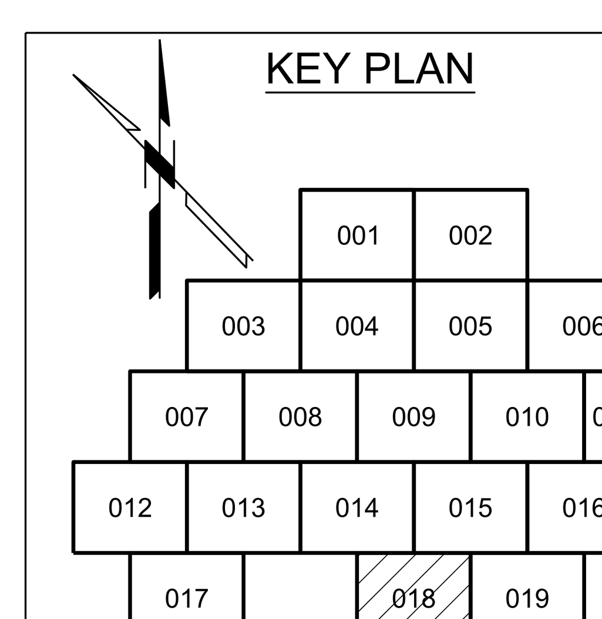


FDP-C-117 OF

PLOTTED: 2/27/2024 9:41:15 PM
FILE: C:\PW_WORKING\BVW_AMERICAS_2\D1473262\FDP-C-117.DWG
FD1 1050
PW634

(SCALE BAR IS 4" AT FULL SCALE) 0 1/2 1 2 3 4

KEY PLAN



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JOHNSON COUNTY KANSAS

NELSON WASTEWATER TREATMENT FACILITY CONTRACT NEL-CO01 IMPROVEMENTS PROJECT

NOT FOR CONSTRUCTION

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	01/18/24	FINAL DEVELOPMENT PLAN

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APPROVED:
DATE:
PROJECT NO.: 408634

FINAL DEVELOPMENT PLAN

CIVIL

DETAILED PLAN - AREA 18

FDP-C-118 OF

PLOTTED: 2/27/2024 9:42:03 PM
FILE: C:\PW_WORKING\BVW_AMERICAS_2\D1473262\FDP-C-118.DWG
FD11000
D408634

(SCALE BAR IS 4" AT FULL SCALE) 0 1/2 1 2 3 4

MATCH LINE - SHEET FDP-C-115

MATCH LINE - SHEET FDP-C-116

MATCH LINE - SHEET FDP-C-118

ROAD E

-6.2%

940

9.00'

3.1%

19.50'

39.80'

6

EXISTING CHAIN LINK FENCE
W/ 3-STRAND BARB WIRE

PROPERTY LINE

5790 W 49TH ST

5818 W 49TH ST

5846 W 49TH ST

5850 W 49TH ST

5870 W 49TH ST

5890 W 49TH ST

4901 DEARBORN ST

W 49TH STREET

940

935

930

925

920

915

910

915

920

P/L

R/W

20' 10' 0 20' 40'

HORIZONTAL SCALE 1"=20'

KEY PLAN

	001	002		
003	004	005	006	
007	008	009	010	011
012	013	014	015	016
017		018	019	

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	01/18/24	FINAL DEVELOPMENT PLAN

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FINAL DEVELOPMENT PLAN

CIVIL

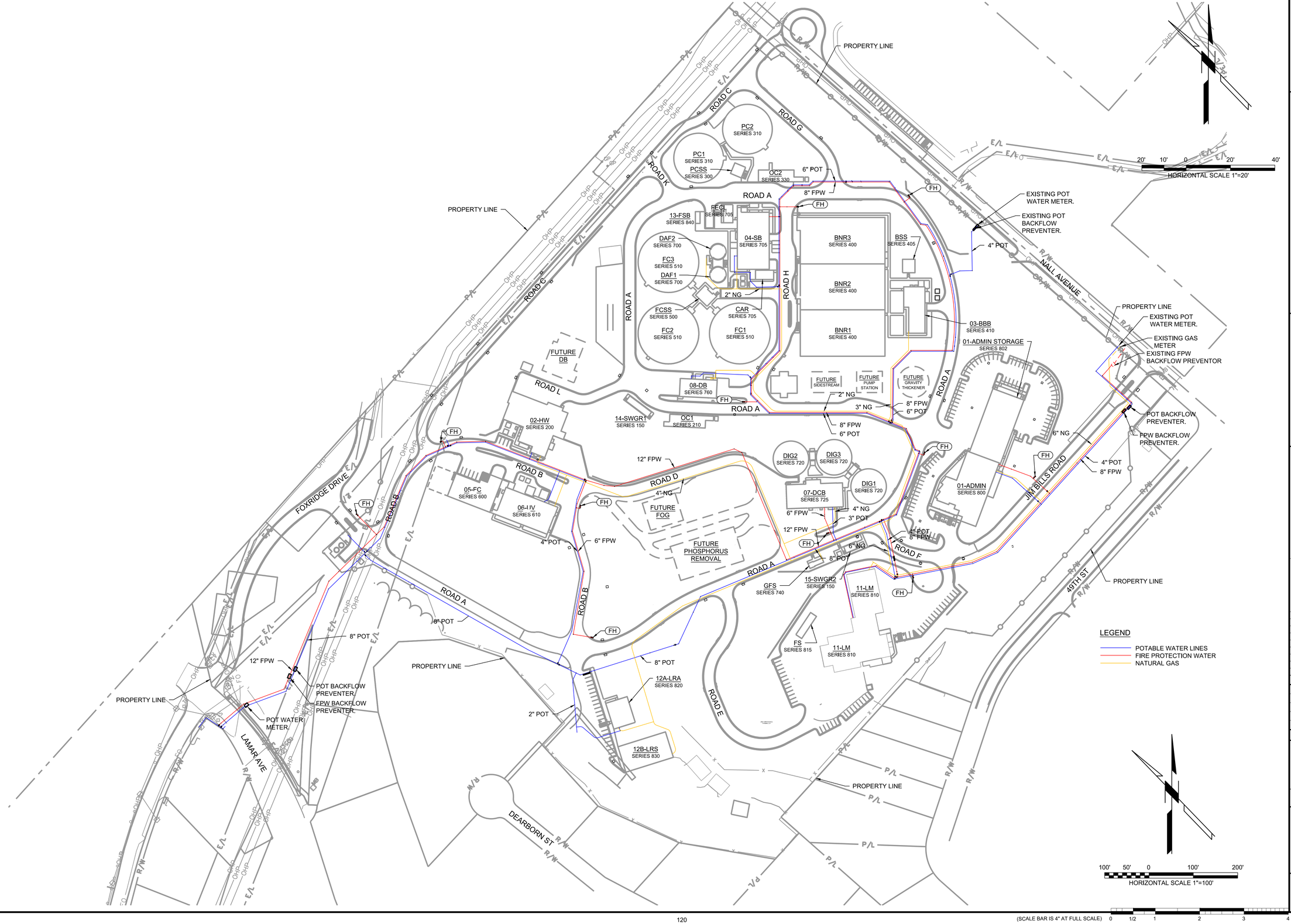
DETAILED PLAN - AREA 19

FDP-C-119 | OF

PLOTTED: 2/27/2024 9:42:52 PM
FILE: C:\PW_WORKING\BVW_AMERICAS_2\D1473262\FDP-C-119.DWG
FDP-1800
DW804

119

(SCALE BAR IS 4" AT FULL SCALE) 0 1/2 1 2 3 4



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Wastewater

JOHNSON COUNTY KANSAS

NELSON WASTEWATER TREATMENT FACILITY CONTRACT NEL-CO01 IMPROVEMENTS PROJECT

NOT FOR CONSTRUCTION

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	01/18/24	FINAL DEVELOPMENT PLAN

REVISIONS AND RECORD OF ISSUE

DESIGNED:
DETAILED:
CHECKED:
APPROVED:
DATE:

PROJECT NO.: 408634

FINAL DEVELOPMENT PLAN

CIVIL

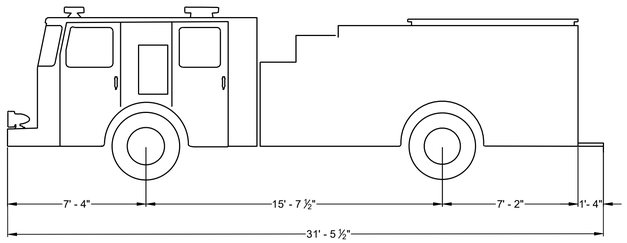
UTILITY PLAN

FDP-C-120 | OF

PLOTTED: 2/28/2024 9:35:31 AM
FILE: C:\PW_WORKING\BVW_AMERICAS_2\D1473262\FDP-C-120.DWG
FDT19500
PARKER

120

(SCALE BAR IS 4" AT FULL SCALE) 0 1/2 1 2 3 4



TYPE:

PIERCE CFD2 PUMPER W/ ENFORCER CHASSIS

SPECIFICATIONS:

TRACKING WIDTH = 9' - 1 ½"

OVERALL HEIGHT = 10' - 0"

TANK CAPACITY = 500 GALLONS

PUMP = 1500 GPM DARLEY MIDSHIP

PROPERTY LINE
ROAD C
ROAD G
PC2 SERIES 310
PC1 SERIES 310
PCSS SERIES 300
OC2 SERIES 330
ROAD K
ROAD A
FH
FECL SERIES 705
13-FSB SERIES 840
04-SB SERIES 705
DAF2 SERIES 700
FC3 SERIES 510
DAF1 SERIES 700
FCSS SERIES 500
FC2 SERIES 510
CAR SERIES 705
FC1 SERIES 510
ROAD H
BNR3 SERIES 400
BNR2 SERIES 400
BNR1 SERIES 400
BSS SERIES 405
03-BBB SERIES 410
01-ADMIN STORAGE SERIES 802
NALL AVENUE
PROPERTY LINE
FUTURE DB
ROAD L
08-DB SERIES 760
FUTURE SIDESTREAM
FUTURE PUMP STATION
FUTURE GRAVITY THICKENER
14-SWGR1 SERIES 150
OC1 SERIES 210
02-HW SERIES 200
DIG2 SERIES 720
DIG3 SERIES 720
DIG1 SERIES 720
07-DCB SERIES 725
01-ADMIN SERIES 800
JIM BILLS ROAD
FOXRIDGE DRIVE
ROAD B
ROAD D
05-FC SERIES 600
06-I IV SERIES 610
FUTURE FOG
FUTURE PHOSPHORUS REMOVAL
ROAD F
GFS SERIES 740
15-SWGR2 SERIES 150
11-LM SERIES 810
49TH ST
FS SERIES 815
12A-LRA SERIES 820
12B-LRS SERIES 830
LAMAR AVE
DEARBORN ST
100' 50' 0 100' 200'
HORIZONTAL SCALE 1"=100'
(SCALE BAR IS 4" AT FULL SCALE) 0 1/2 1 2 3 4

BLACK & VEATCH
HDR

JOHNSON COUNTY KANSAS Wastewater

JOHNSON COUNTY KANSAS

NELSON WASTEWATER TREATMENT FACILITY CONTRACT NEL-CO01 IMPROVEMENTS PROJECT

NOT FOR CONSTRUCTION

01/18/24	FINAL DEVELOPMENT PLAN

REVISIONS AND RECORD OF ISSUE

DESIGNED:	
DETAILED:	
CHECKED:	
APPROVED:	
DATE:	
PROJECT NO.:	408634

FINAL DEVELOPMENT PLAN

CIVIL

FIRE TRUCK CIRCULATION PLAN

FDP-C-121 | OF

PLOTTED: 1/15/2024 10:24:31 AM
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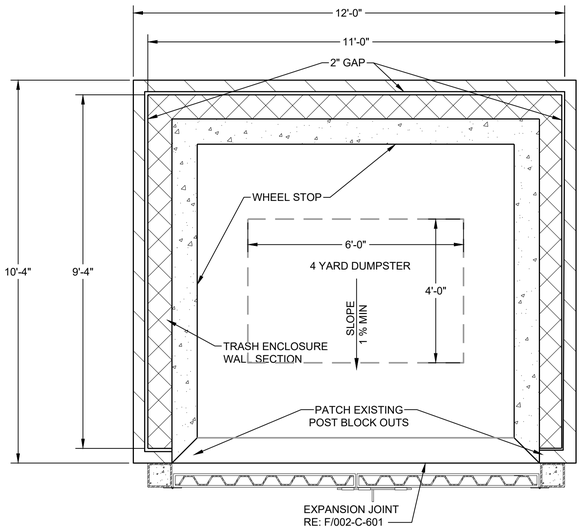
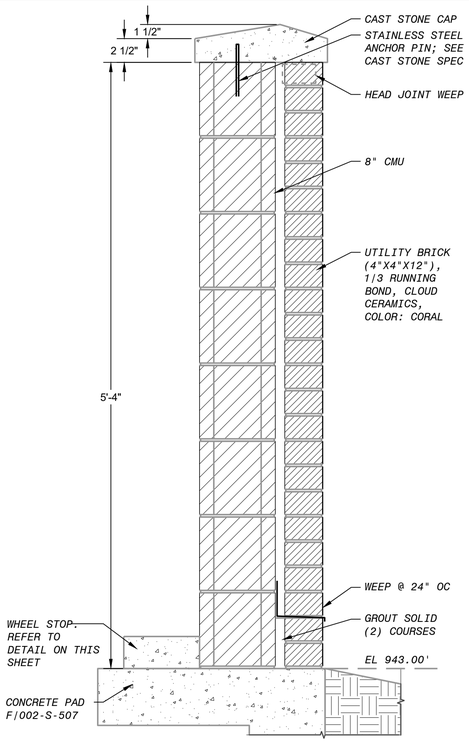
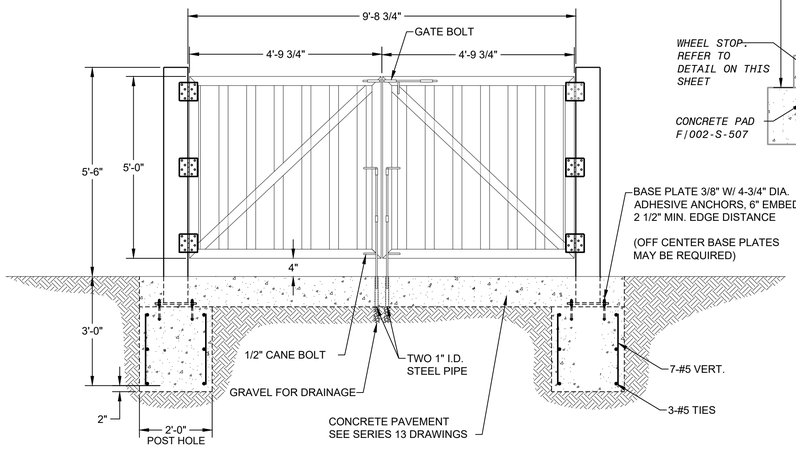
FDT1000
408634



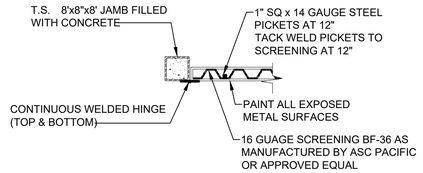
TRASH ENCLOSURE PLAN



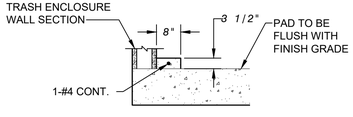
TRASH ENCLOSURE WALL SECTION



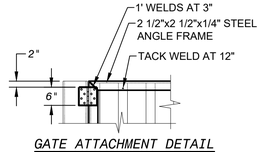
TRASH ENCLOSURE ELEVATION



GATE POST DETAIL



WHEEL STOP

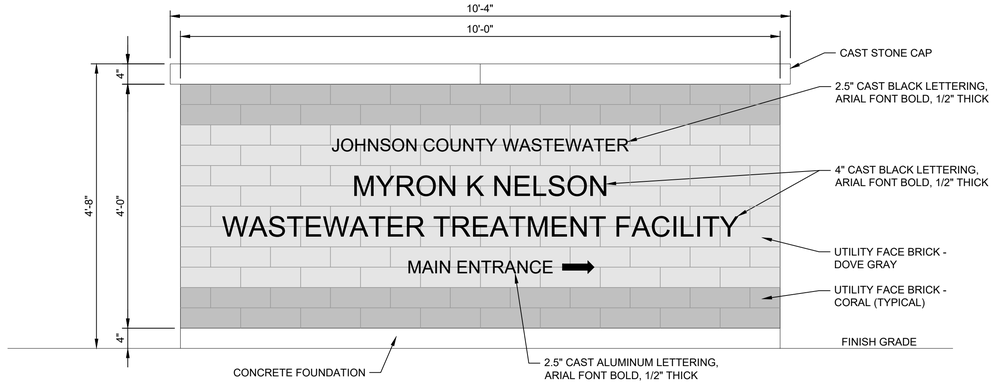


GATE ATTACHMENT DETAIL

A *TRASH ENCLOSURE*
NO SCALE

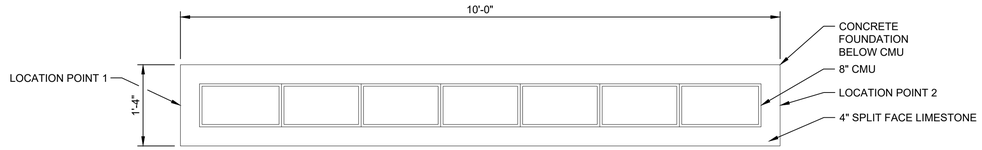
TRASH ENCLOSURE NOTES:

1. GATE MATERIAL TO BE APPROVED PRIOR TO CONSTRUCTION (SOLID VIEW OBSCURING).
2. IN LIEU OF A FABRICATED GATE PER THIS DETAIL THE CONTRACTOR CAN SUBMIT AN EQUIVALENT MANUFACTURED GATE TO THE ENGINEER FOR REVIEW AND APPROVAL.
3. FINISH OF PAD IS TO BE FLUSH WITH FINISH ELEVATION PARKING LOT.

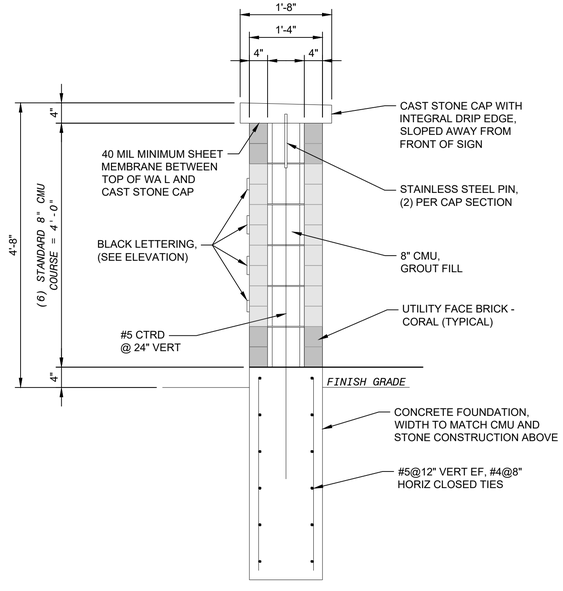


ELEVATION
NO SCALE

NOTE:
REMOVE "MAIN ENTRANCE →" AT THE MONUMENT SIGN LOCATED AT JIM BILLS ROAD AND NALL AVENUE.



PLAN
NO SCALE



SECTION
NO SCALE

B *SIGN DETAILS*
NO SCALE

BLACK & VEATCH
HDR

THIS DRAWING IS APPROVED FOR CONSTRUCTION, AND SIGNED AND SEALED BY THE PERSON(S) INDICATED ON THE CERTIFICATION SHEETS INCLUDED AT THE BEGINNING OF THIS DRAWING SET.

JOHNSON COUNTY KANSAS Wastewater

JOHNSON COUNTY KANSAS

NELSON WASTEWATER TREATMENT FACILITY CONTRACT NEL-CO01 IMPROVEMENTS PROJECT

NOT FOR CONSTRUCTION

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FINAL DEVELOPMENT PLAN

CIVIL

DETAILS

FDP-C-501 | OF

PLOTTED: 1/5/2024 9:13:31 AM
FILE: C:\PW_WORKING\BVW_AMERICAS_2\D1473262\FDP-C-501.DWG
PD1050
408634

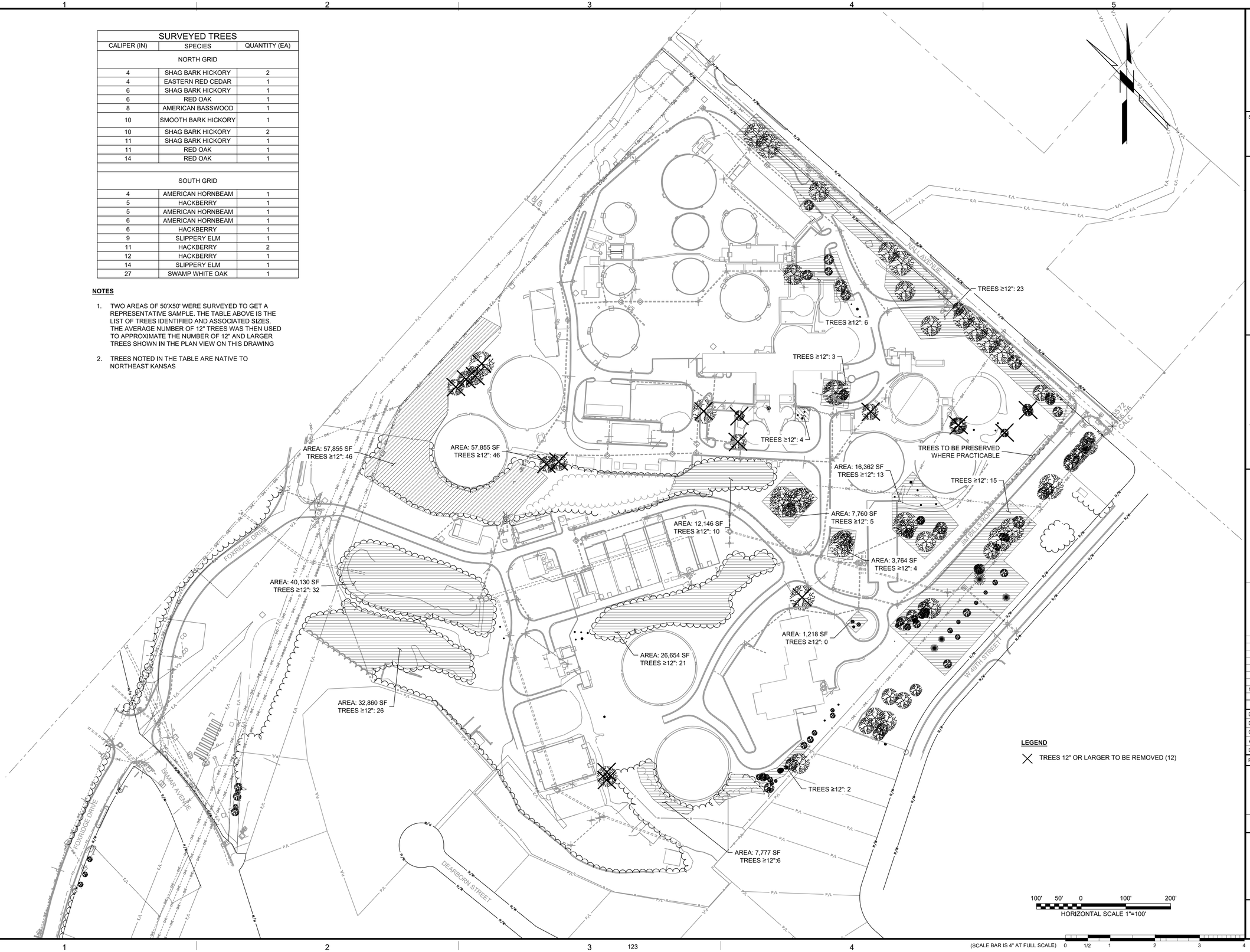
(SCALE BAR IS 4" AT FULL SCALE) 0 1/2 1 2 3 4

SURVEYED TREES		
CALIPER (IN)	SPECIES	QUANTITY (EA)
NORTH GRID		
4	SHAG BARK HICKORY	2
4	EASTERN RED CEDAR	1
6	SHAG BARK HICKORY	1
6	RED OAK	1
8	AMERICAN BASSWOOD	1
10	SMOOTH BARK HICKORY	1
10	SHAG BARK HICKORY	2
11	SHAG BARK HICKORY	1
11	RED OAK	1
14	RED OAK	1
SOUTH GRID		
4	AMERICAN HORNBEAM	1
5	HACKBERRY	1
5	AMERICAN HORNBEAM	1
6	AMERICAN HORNBEAM	1
6	HACKBERRY	1
9	SLIPPERY ELM	1
11	HACKBERRY	2
12	HACKBERRY	1
14	SLIPPERY ELM	1
27	SWAMP WHITE OAK	1

NOTES

1. TWO AREAS OF 50'X50' WERE SURVEYED TO GET A REPRESENTATIVE SAMPLE. THE TABLE ABOVE IS THE LIST OF TREES IDENTIFIED AND ASSOCIATED SIZES. THE AVERAGE NUMBER OF 12" TREES WAS THEN USED TO APPROXIMATE THE NUMBER OF 12" AND LARGER TREES SHOWN IN THE PLAN VIEW ON THIS DRAWING

2. TREES NOTED IN THE TABLE ARE NATIVE TO NORTHEAST KANSAS



BLACK & VEATCH
HDR

SUBCONSULTANT:

JOHNSON COUNTY KANSAS
Wastewater

JOHNSON COUNTY KANSAS

NELSON WASTEWATER TREATMENT FACILITY CONTRACT NEL-CO01 IMPROVEMENTS PROJECT

NOT FOR CONSTRUCTION

1	02/28/24	FINAL DEVELOPMENT PLAN RESUBMITTAL
	01/18/24	FINAL DEVELOPMENT PLAN

REVISIONS AND RECORD OF ISSUE

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FINAL DEVELOPMENT PLAN

CIVIL

TREE REMOVAL PLAN

FDP-D-100 | OF

PLOTTED: 2/27/2024 9:55:38 PM
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PD1.0500
DARKSIDE

(SCALE BAR IS 4" AT FULL SCALE) 0 1/2 1 2 3 4

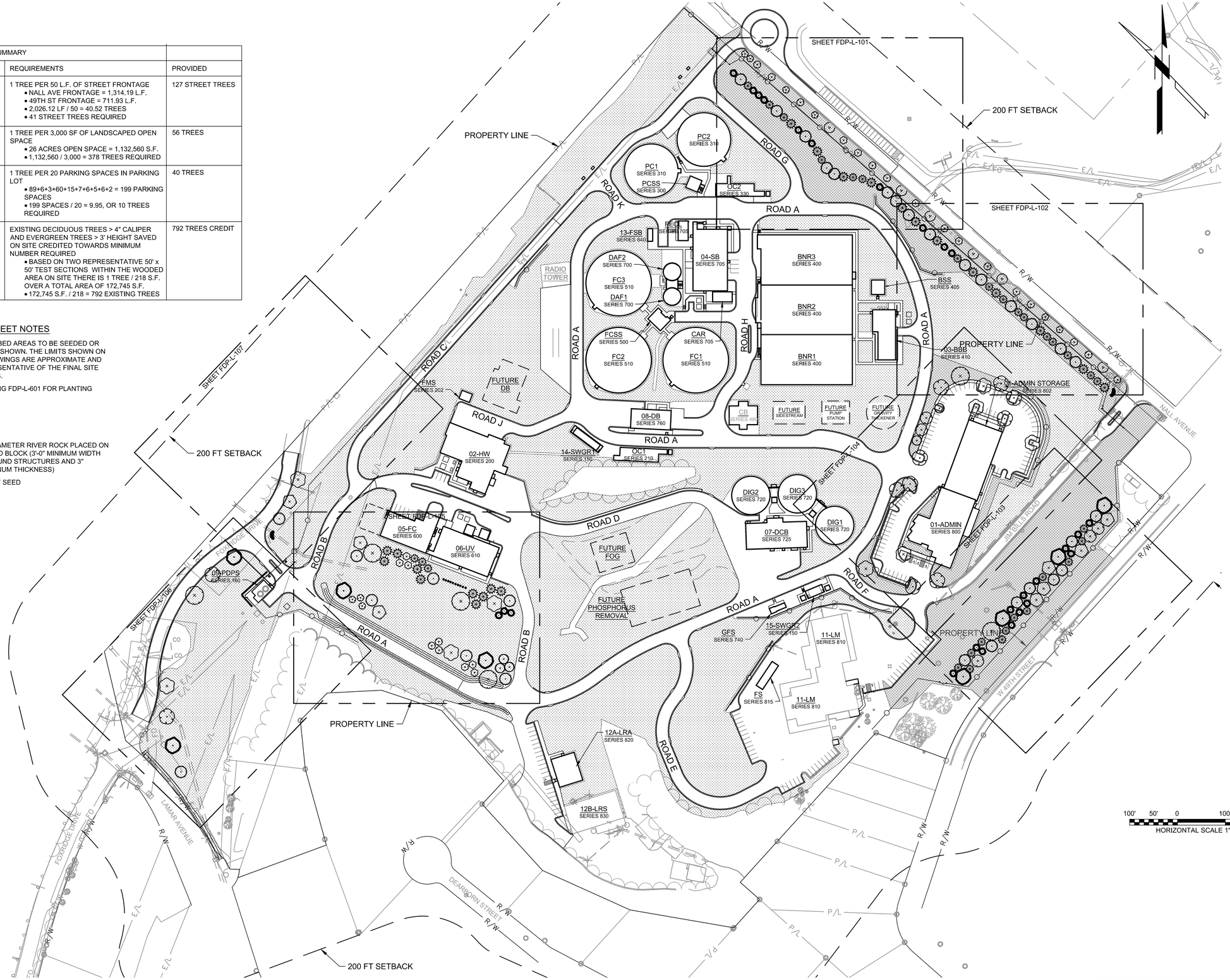
LANDSCAPE SUMMARY		
ITEM	REQUIREMENTS	PROVIDED
STREET TREES	1 TREE PER 50 L.F. OF STREET FRONTAGE • NALL AVE FRONTAGE = 1,314.19 L.F. • 49TH ST FRONTAGE = 711.93 L.F. • 2,026.12 LF / 50 = 40.52 TREES • 41 STREET TREES REQUIRED	127 STREET TREES
OPEN SPACE BUFFER	1 TREE PER 3,000 SF OF LANDSCAPED OPEN SPACE • 26 ACRES OPEN SPACE = 1,132,560 S.F. • 1,132,560 / 3,000 = 378 TREES REQUIRED	56 TREES
INTERIOR PARKING LOT LANDSCAPE	1 TREE PER 20 PARKING SPACES IN PARKING LOT • 89+6+3+60+15+7+6+5+6+2 = 199 PARKING SPACES • 199 SPACES / 20 = 9.95, OR 10 TREES REQUIRED	40 TREES
EXISTING TREE CREDIT	EXISTING DECIDUOUS TREES > 4" CALIPER AND EVERGREEN TREES > 3' HEIGHT SAVED ON SITE CREDITED TOWARDS MINIMUM NUMBER REQUIRED • BASED ON TWO REPRESENTATIVE 50' x 50' TEST SECTIONS WITHIN THE WOODED AREA ON SITE THERE IS 1 TREE / 218 S.F. OVER A TOTAL AREA OF 172,745 S.F. • 172,745 S.F. / 218 = 792 EXISTING TREES	792 TREES CREDIT

GENERAL SHEET NOTES

1. ALL DISTURBED AREAS TO BE SEEDED OR SODDED AS SHOWN. THE LIMITS SHOWN ON THESE DRAWINGS ARE APPROXIMATE AND NOT REPRESENTATIVE OF THE FINAL SITE CONDITIONS.
2. SEE DRAWING FDP-L-601 FOR PLANTING DETAILS.

LEGEND:

- 1" DIAMETER RIVER ROCK PLACED ON WEED BLOCK (3'-0" MINIMUM WIDTH AROUND STRUCTURES AND 3" MININUM THICKNESS)
- TURF SEED
- SOD



(SCALE BAR IS 4" AT FULL SCALE) 0 1/2 1 2 3 4

BLACK & VEATCH
HDR

JOHNSON COUNTY KANSAS Wastewater

JOHNSON COUNTY KANSAS

NELSON WASTEWATER TREATMENT FACILITY CONTRACT NEL-CO01 IMPROVEMENTS PROJECT

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FINAL DEVELOPMENT PLAN

LANDSCAPE

OVERALL LANDSCAPE PLAN

FDP-L-100 | OF

PLOTTED: 1/19/2024 11:04:11 AM
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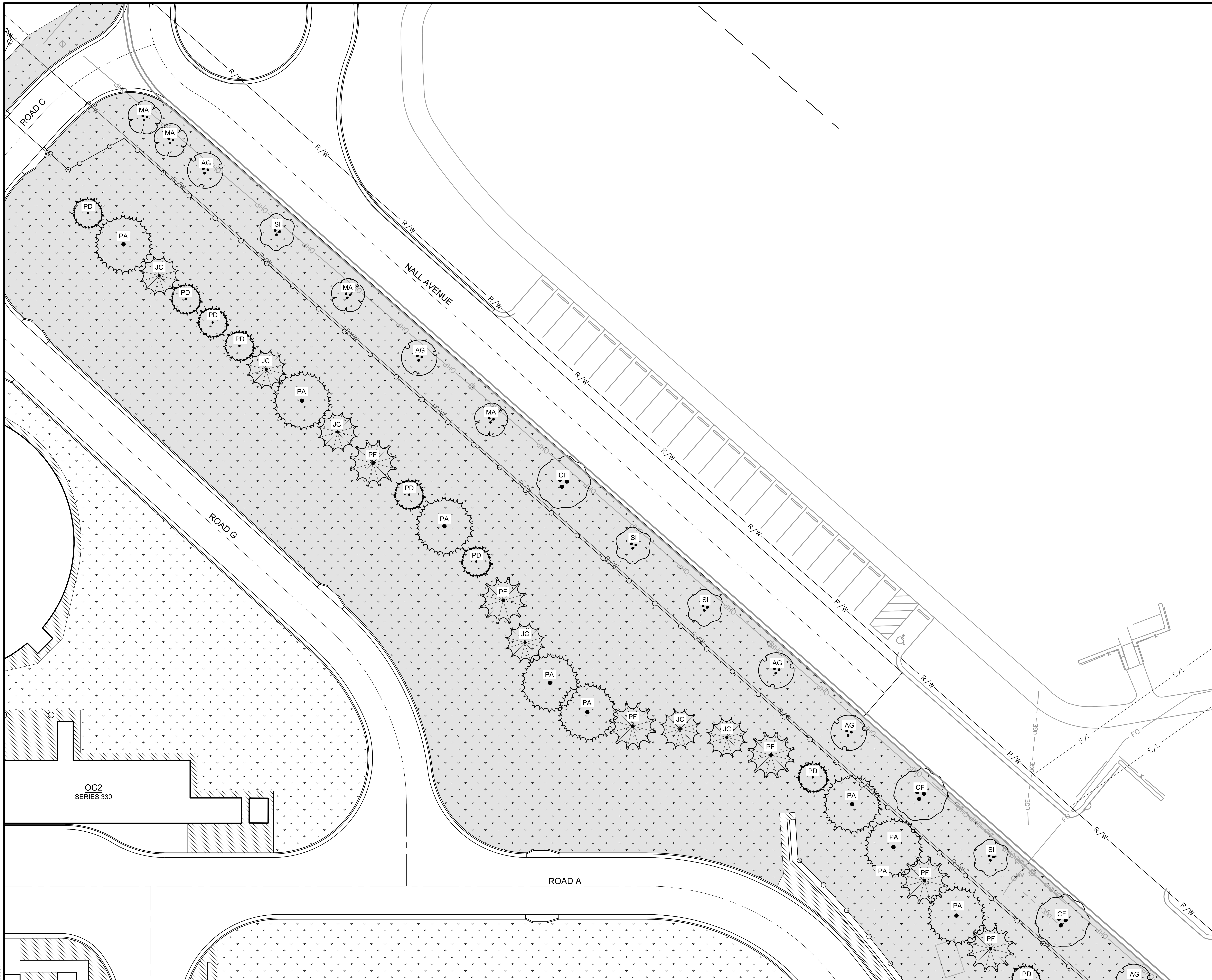

20' 10' 0 20' 40'
HORIZONTAL SCALE 1"=20'

GENERAL SHEET NOTES

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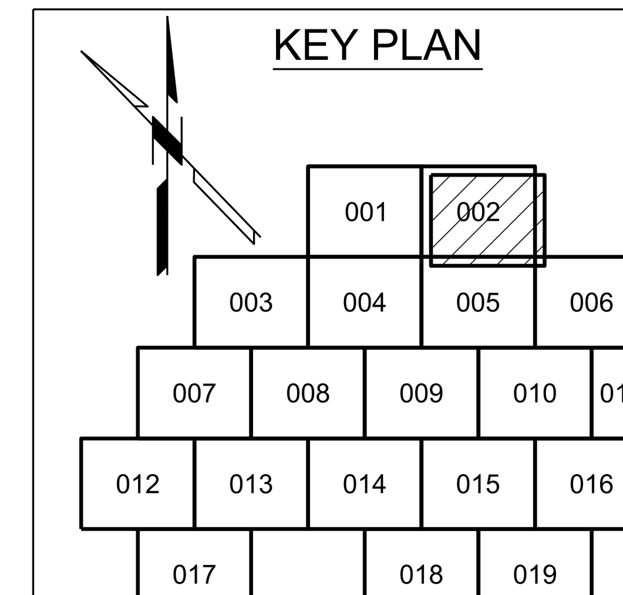
- TURF SEED
- SOD

KEY PLAN



BLACK & VEATCH

HDR

TROY D. HENNINGSON LICENSED 873 1/19/24 KANSAS LANDSCAPE ARCHITECT

JOHNSON COUNTY KANSAS Wastewater

JOHNSON COUNTY
KANSAS

NELSON WASTEWATER TREATMENT FACILITY CONTRACT NEL-CO01 IMPROVEMENTS PROJECT

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FINAL DEVELOPMENT PLAN

LANDSCAPE

NALL AVENUE ENLARGED PLAN

FDP-L-101 OF

(SCALE BAR IS 4" AT FULL SCALE) 0 1/2 1 2 3 4

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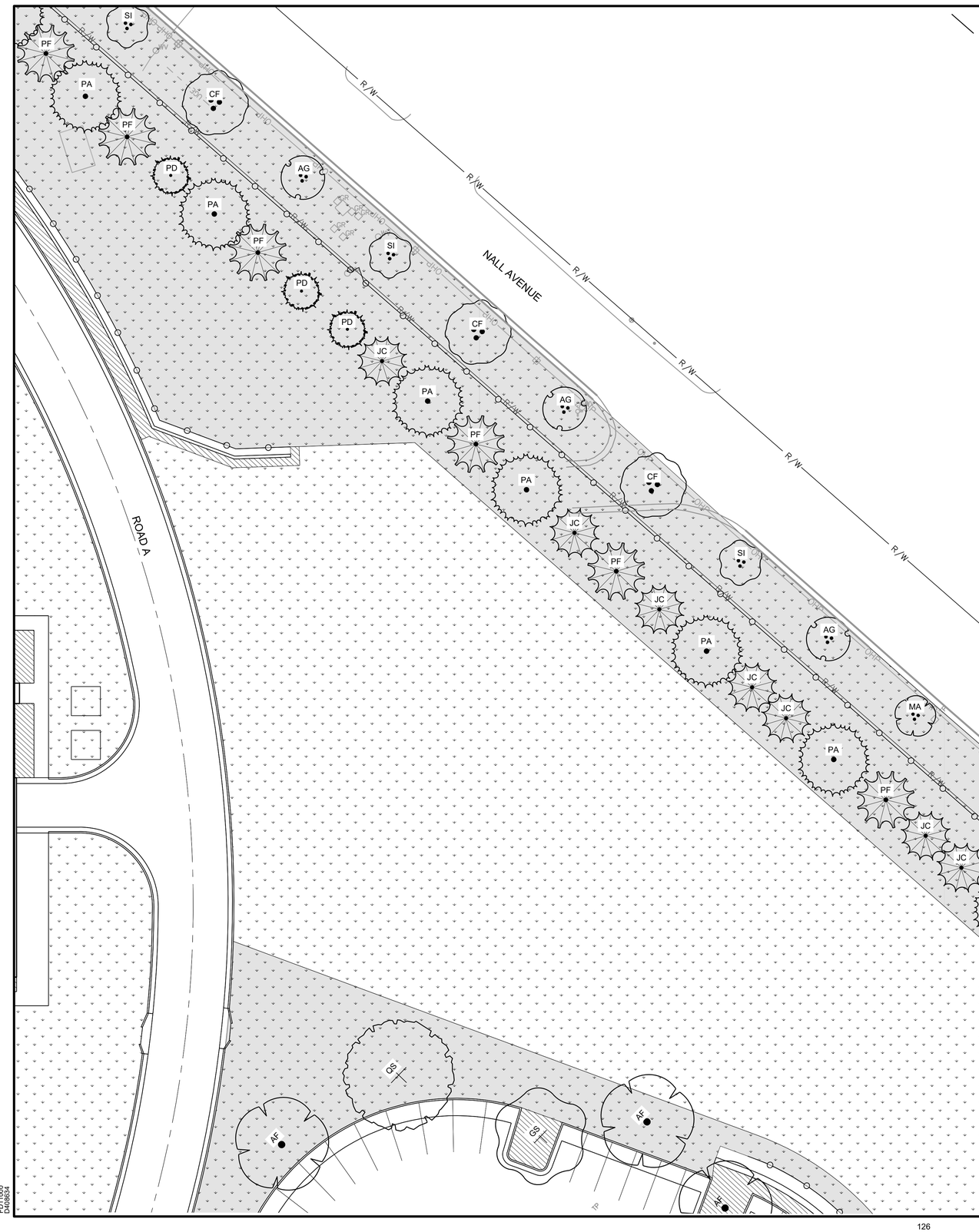

20' 10' 0 20' 40'

HORIZONTAL SCALE 1"=20'

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LEGEND:

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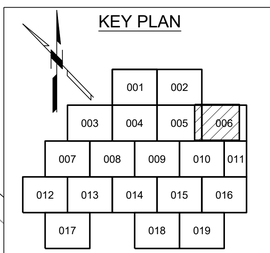
- TURF SEED
- SOD

KEY PLAN



(SCALE BAR IS 4" AT FULL SCALE) 0 1/2 1 2 3 4

BLACK & VEATCH

HDR

ROY D. HENNINGER LICENSED LANDSCAPE ARCHITECT 873 11/19/24 KANSAS

JOHNSON COUNTY KANSAS Wastewater

JOHNSON COUNTY KANSAS

NELSON WASTEWATER TREATMENT FACILITY CONTRACT NEL-CO01 IMPROVEMENTS PROJECT

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FINAL DEVELOPMENT PLAN

LANDSCAPE

NALL AVENUE ENLARGED PLAN

FDP-L-102 | OF

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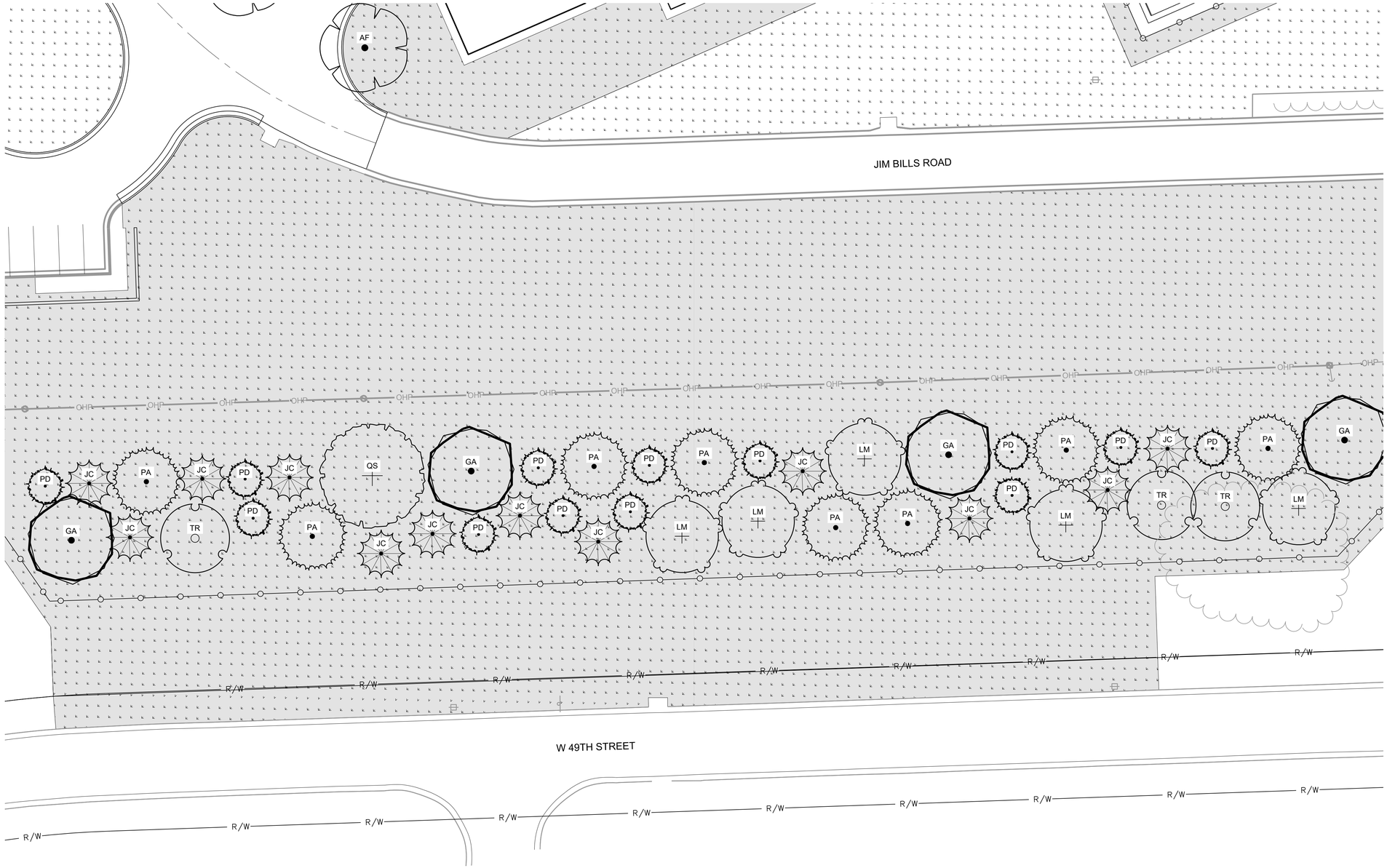

20' 10' 0 20' 40'

HORIZONTAL SCALE 1"=20'

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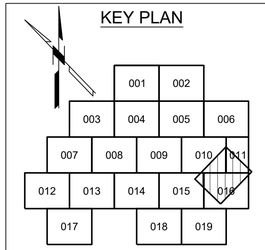
- SOD

KEY PLAN



(SCALE BAR IS 4" AT FULL SCALE) 0 1/2 1 2 3 4

BLACK & VEATCH

HDR

TROY D. HENNING LICENSED LANDSCAPE ARCHITECT 873 11/19/24 KANSAS

JOHNSON COUNTY KANSAS Wastewater

JOHNSON COUNTY KANSAS

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FINAL DEVELOPMENT PLAN

LANDSCAPE

W. 49TH STREET ENLARGED PLAN

FDP-L-103 | OF

PLOTTED: 1/5/2024 9:16:47 AM
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FDP1600
408634

DIG1
SERIES 720

ROAD A

01-ADMIN STORAGE
SERIES 802

01-ADMIN
SERIES 800

ROAD F

JIM BILLS ROAD

AF
GS
NS
TR
QS
TP

20' 10' 0 20' 40'
HORIZONTAL SCALE 1"=20'

GENERAL SHEET NOTES

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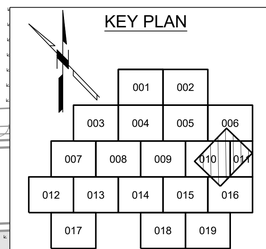
- SOD

KEY PLAN



(SCALE BAR IS 4" AT FULL SCALE) 0 1/2 1 2 3 4

BLACK & VEATCH
HDR

ROY D. HENNINGER LICENSED 873 1/19/24 KANSAS LANDSCAPE ARCHITECT

JOHNSON COUNTY KANSAS
Wastewater

JOHNSON COUNTY KANSAS

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FINAL DEVELOPMENT PLAN

LANDSCAPE

ADMINISTRATION BUILDING ENLARGED PLAN

FDP-L-104 OF

PLOTTED: 1/5/2024 9:17:20 AM
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FD11030
DWG

20' 10' 0 20' 40'

HORIZONTAL SCALE 1"=20'

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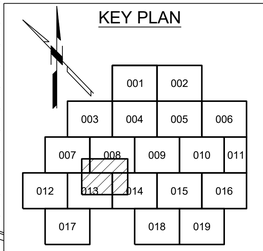
- SOD

KEY PLAN



(SCALE BAR IS 4" AT FULL SCALE) 0 1/2 1 2 3 4

BLACK & VEATCH

HDR

TROY D. HENNING LICENSED LANDSCAPE ARCHITECT 873 1/19/24 KANSAS

JOHNSON COUNTY KANSAS Wastewater

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FINAL DEVELOPMENT PLAN

LANDSCAPE

UV AND FILTER BUILDING ENLARGED PLAN

FDP-L-105 | OF

PLOTTED: 1/5/2024 9:17:54 AM
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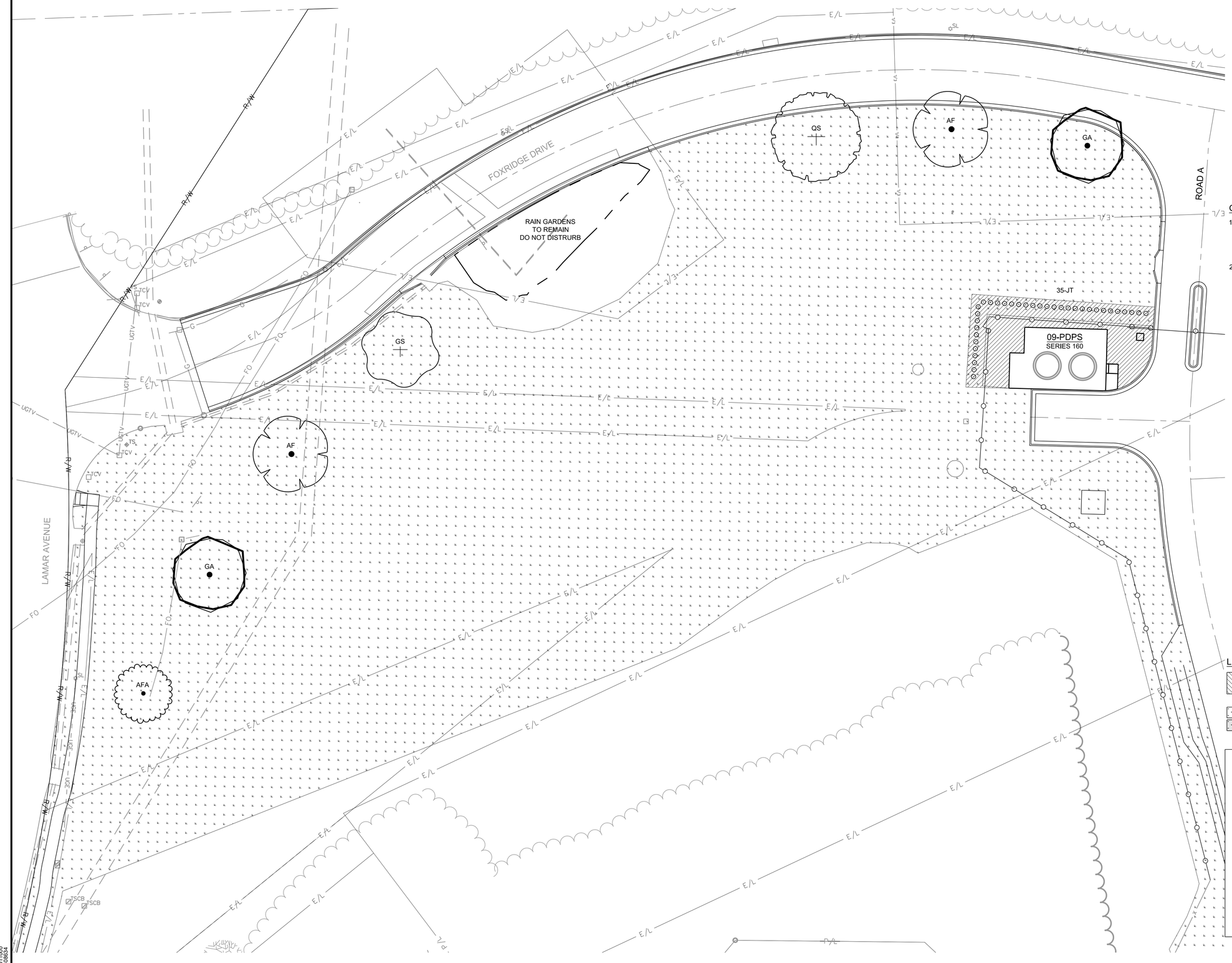

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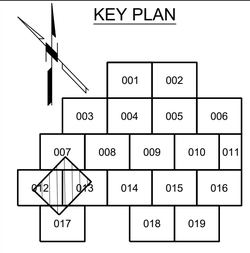
2. SEE DRAWING FDP-L-601 FOR PLANTING DETAILS.

LEGEND:

- 1" DIAMETER RIVER ROCK PLACED ON WEED BLOCK (3'-0" MINIMUM WIDTH AROUND STRUCTURES AND 3" MINIMUM THICKNESS)
- TURF SEED
- SOD

KEY PLAN



(SCALE BAR IS 4" AT FULL SCALE) 0 1/2 1 2 3 4

BLACK & VEATCH
HDR

TROY D. HENNING
LICENSED
8973
1/19/24
KANSAS
LANDSCAPE ARCHITECT

JOHNSON COUNTY KANSAS
Wastewater

JOHNSON COUNTY
KANSAS

NELSON WASTEWATER TREATMENT FACILITY
CONTRACT NEL-CO01
IMPROVEMENTS PROJECT

NOT FOR CONSTRUCTION

01/18/24	FINAL DEVELOPMENT PLAN

REVISIONS AND RECORD OF ISSUE

DESIGNED:	
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FINAL DEVELOPMENT PLAN

LANDSCAPE

FOXRIDGE DRIVE
ENLARGED PLAN

FDP-L-106 | OF

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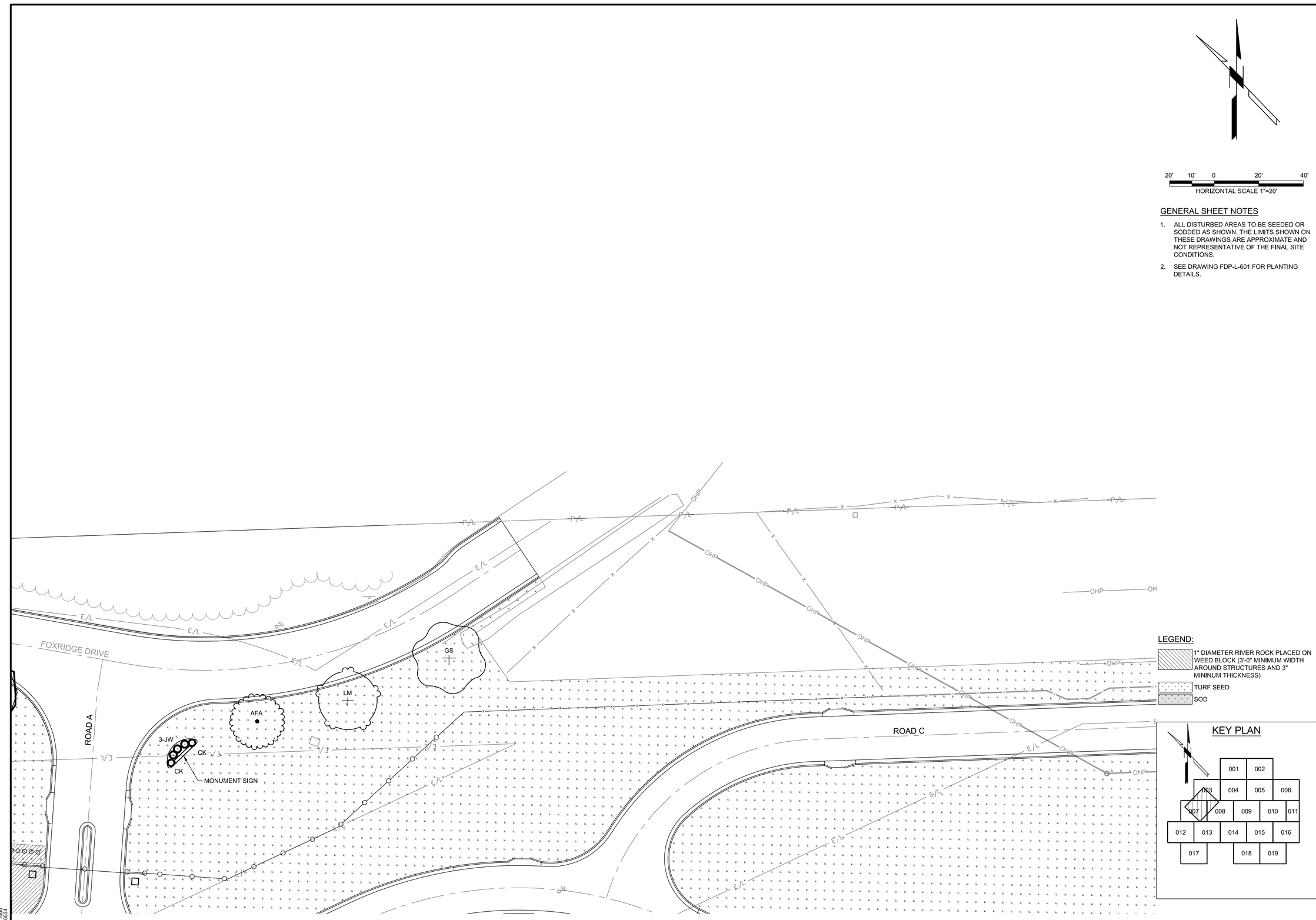

GENERAL SHEET NOTES

1. ALL DISTURBED AREAS TO BE SEEDED OR SODDED AS SHOWN. THE LIMITS SHOWN ON THESE DRAWINGS ARE APPROXIMATE AND NOT REPRESENTATIVE OF THE FINAL SITE CONDITIONS.
2. SEE DRAWING FDP-L-601 FOR PLANTING DETAILS.

(SCALE BAR IS 4" AT FULL SCALE) 0 1/2 1 2 3 4

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JOHNSON COUNTY KANSAS Wastewater

JOHNSON COUNTY KANSAS

NELSON WASTEWATER TREATMENT FACILITY CONTRACT NEL-CO01 IMPROVEMENTS PROJECT

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FINAL DEVELOPMENT PLAN

LANSCAPE

FOXRIDGE DRIVE ENLARGED PLAN

FDP-L-107 OF

PLOTTED: 1/5/2024 9:18:57 AM
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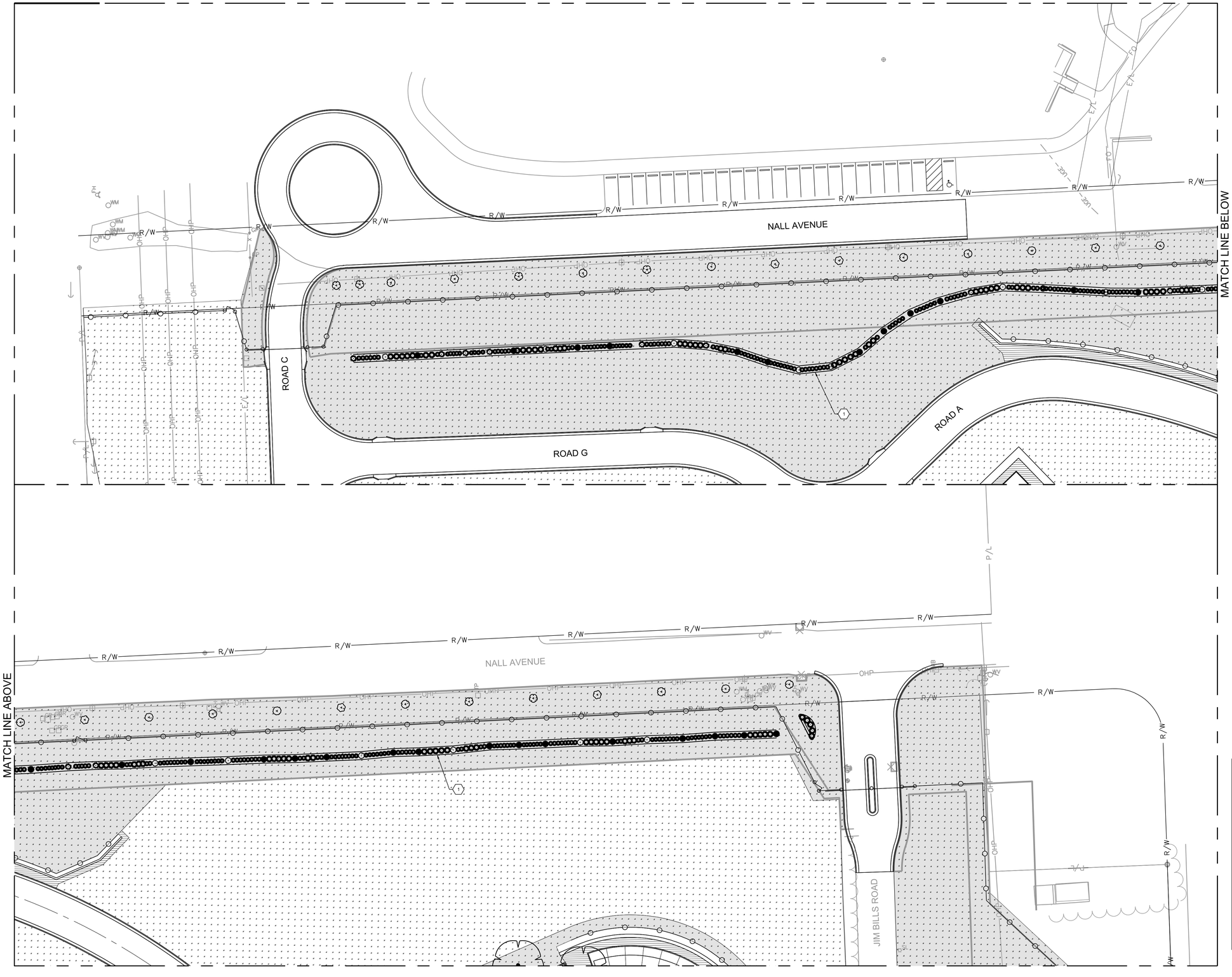
FD1 1030
DWGS



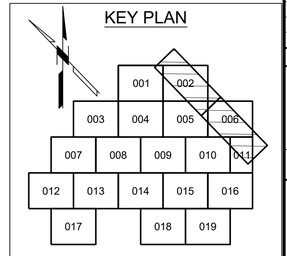
GENERAL SHEET NOTES

1. ALL DISTURBED AREAS TO BE SEEDED OR SODDED AS SHOWN. THE LIMITS SHOWN ON THESE PLANS ARE APPROXIMATE AND NOT REPRESENTATIVE OF THE FINAL SITE CONDITIONS.

SHEET KEYNOTES

1. INSTALL ORNAMENTAL GRASSES PER THE SCHEDULE ON DRAWING FDP-L-601. PROVIDE DRIP IRRIGATION FOR ESTABLISHMENT OF ALL ORNAMENTAL GRASSES.

KEY PLAN



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NELSON WASTEWATER TREATMENT FACILITY CONTRACT NEL-CO01 IMPROVEMENTS PROJECT

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FINAL DEVELOPMENT PLAN

LANDSCAPE

INITIAL PLANTINGS ENLARGED PLAN

FDP-L-405 OF

(SCALE BAR IS 4" AT FULL SCALE) 0 1/2 1 2 3 4

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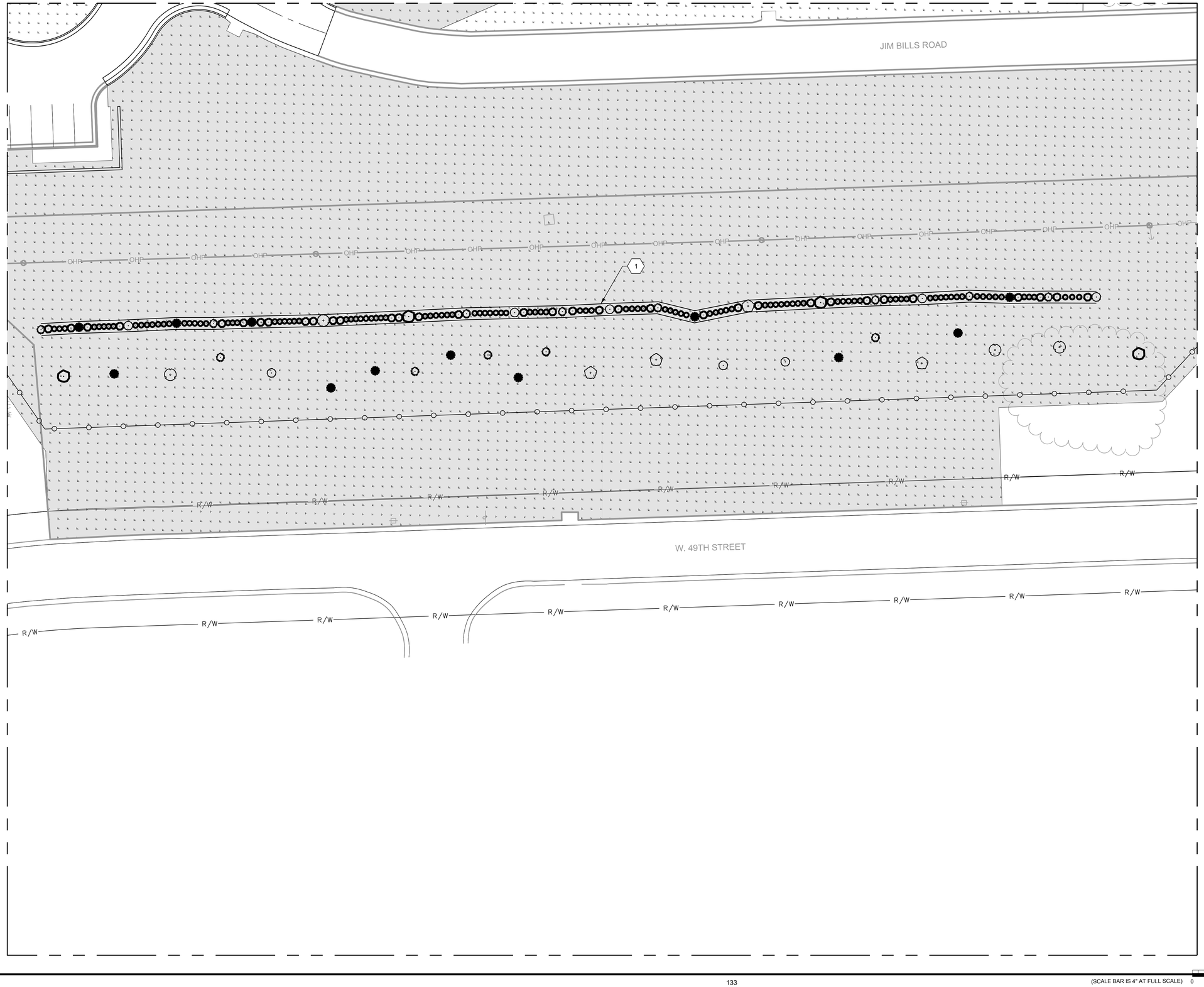


20' 10' 0 20' 40'

HORIZONTAL SCALE 1"=20'

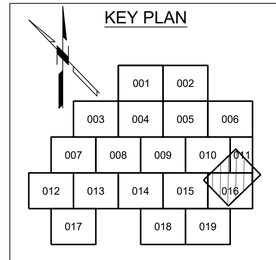
GENERAL SHEET NOTES

1. ALL DISTURBED AREAS TO BE SEEDED OR SODDED AS SHOWN. THE LIMITS SHOWN ON THESE PLANS ARE APPROXIMATE AND NOT REPRESENTATIVE OF THE FINAL SITE CONDITIONS.

SHEET KEYNOTES

1. INSTALL ORNAMENTAL GRASSES PER THE SCHEDULE ON DRAWING FDP-L-601. PROVIDE DRIP IRRIGATION FOR ESTABLISHMENT OF ALL ORNAMENTAL GRASSES.

KEY PLAN



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Wastewater

JOHNSON COUNTY KANSAS

NELSON WASTEWATER TREATMENT FACILITY CONTRACT NEL-CO01 IMPROVEMENTS PROJECT

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FINAL DEVELOPMENT PLAN

LANDSCAPE

INITIAL PLANTINGS ENLARGED PLAN

FDP-L-406 | OF

PLOTTED: 1/5/2024 9:20:23 AM
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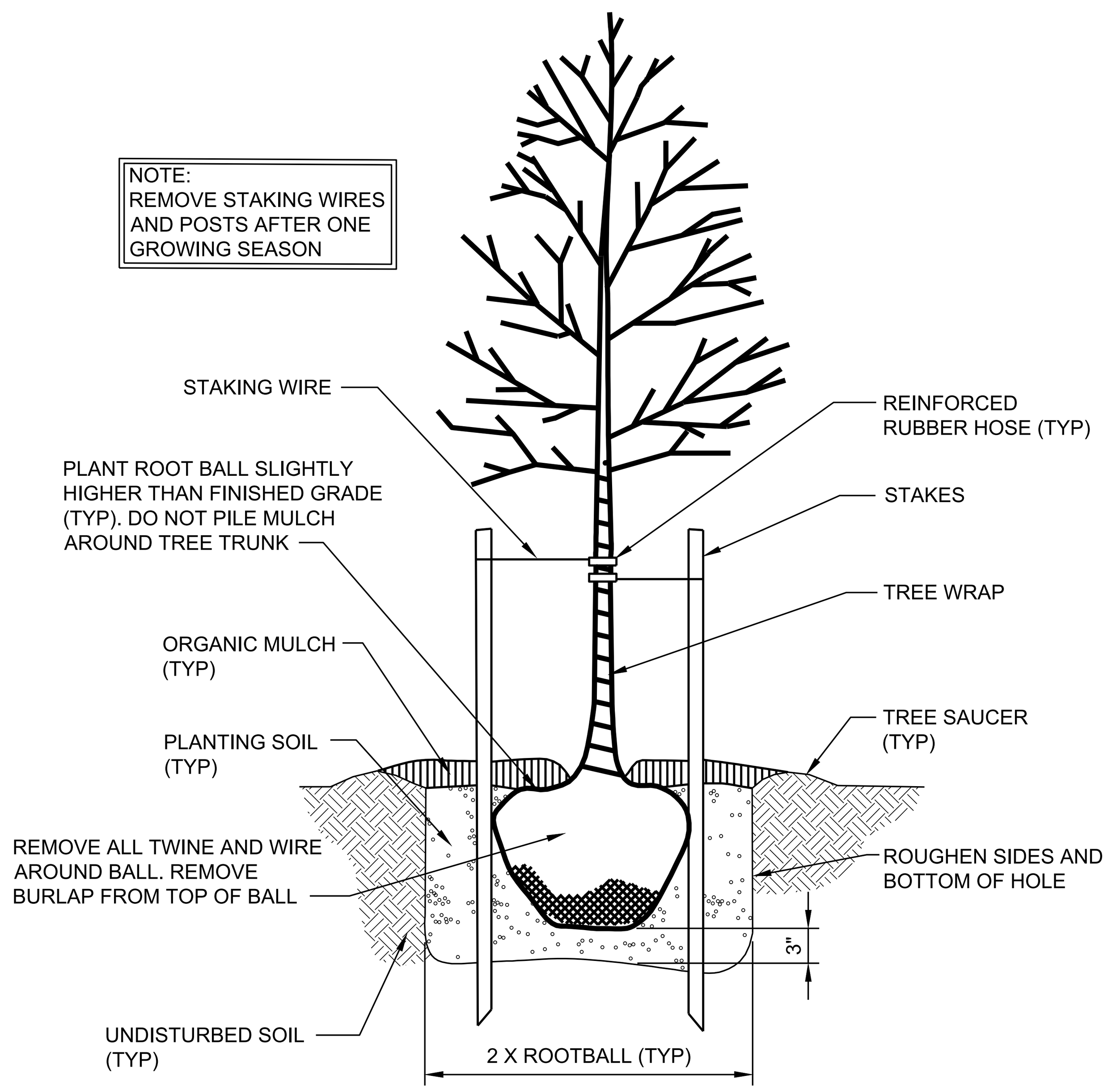
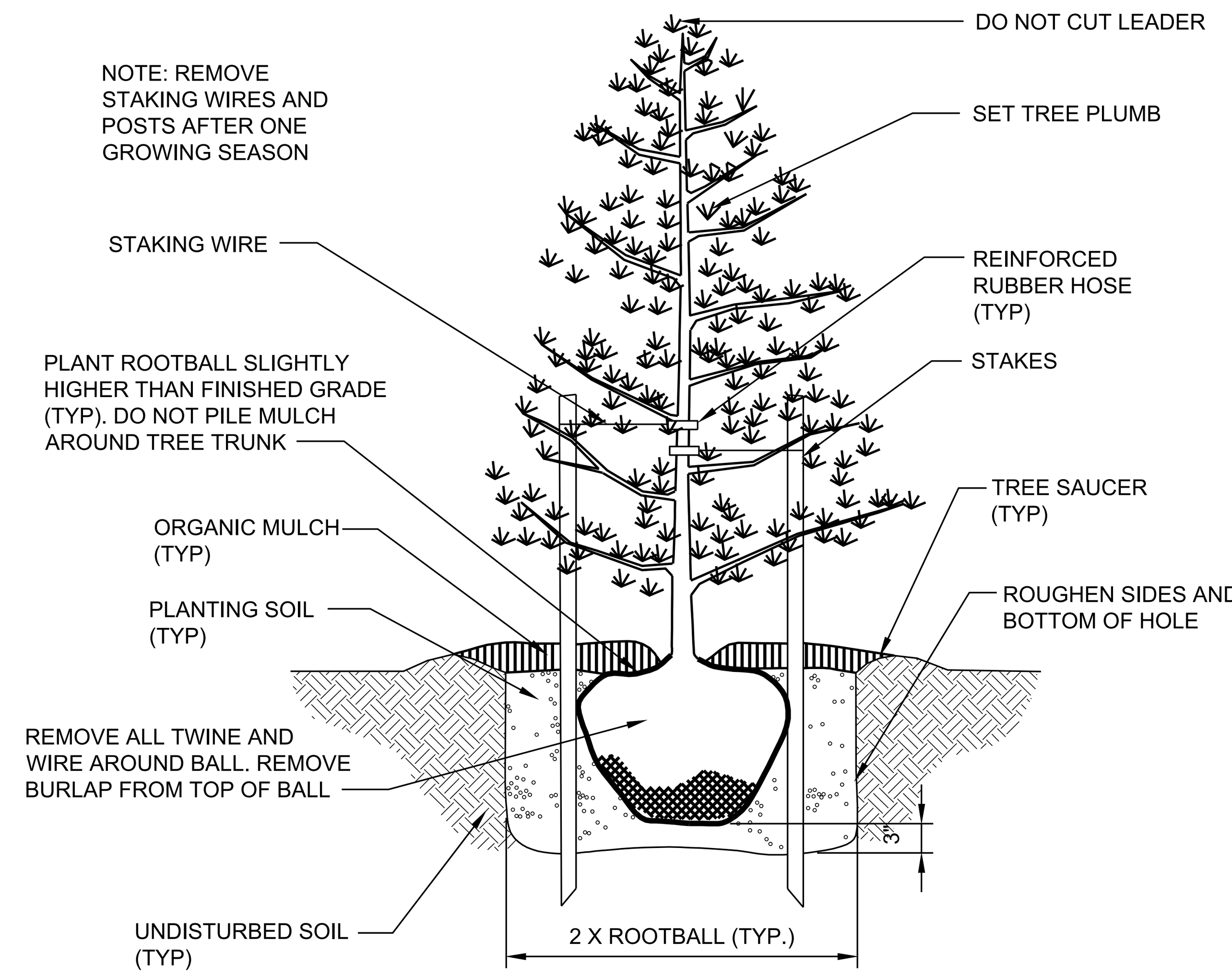
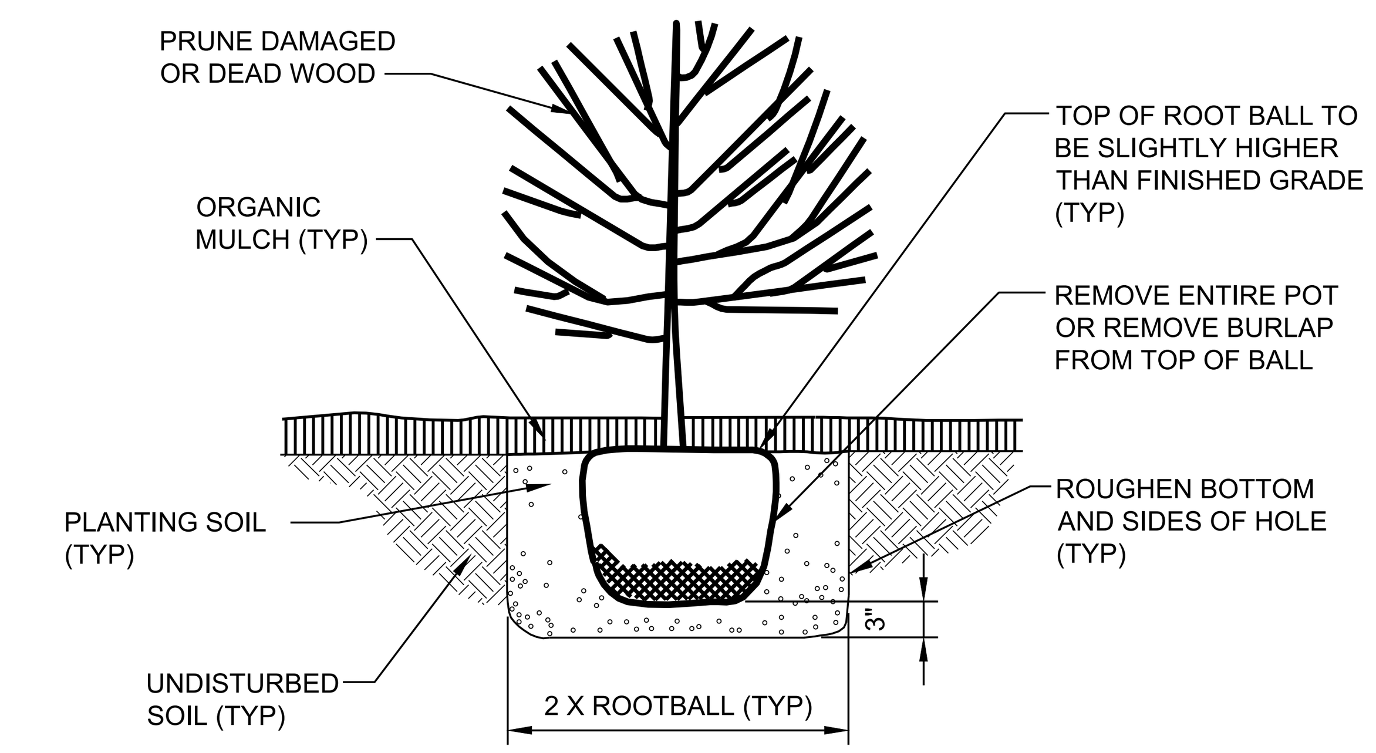


NOTE:
INSTALL ONE SINGLE TREEGATOR® OR APPROVED EQUAL WATERING BAG FOR EACH 2-3 INCH CALIPER TREE PLANTED OUTSIDE THE FENCE.

(A) DECIDUOUS TREE PLANTING
NO SCALE



(B) CONIFEROUS TREE PLANTING
NO SCALE



(C) SHRUB PLANTING DETAIL
NO SCALE

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KANSAS

NELSON WASTEWATER TREATMENT FACILITY CONTRACT NEL-CO01 IMPROVEMENTS PROJECT

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FINAL DEVELOPMENT PLAN

LANDSCAPE

PLANT DETAILS

FDP-L-501 OF

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(SCALE BAR IS 4" AT FULL SCALE) 0 1/2 1 2 3 4

PLANT SCHEDULE

TREES	CODE	QTY	BOTANICAL / COMMON NAME	CONT	SIZE	SPACING	REMARKS
	AF	12	ACER RUBRUM 'FRANKSRED' / RED SUNSET MAPLE	B & B	2" CAL		
	AFA	10	ACER FREMANII `AUTUMN BLAZE` / AUTUMN BLAZE MAPLE	B & B	2" CAL		
	GA	13	GINKGO BILOBA 'AUTUMN GOLD' TM / AUTUMN GOLD MAIDENHAIR TREE	B & B	2" CAL		
	GS	13	GLEDITSIA TRIACANTHOS INERMIS 'SHADEMASTER' / SHADEMASTER HONEY LOCUST	B & B	2" CAL		
	LM	10	LIQUIDAMBAR STYRACIFLUA 'MORAINE' / MORAINE SWEET GUM	B & B	2" CAL		
	NS	7	NYSSA SYLVATICA 'HAYMANRED' / RED RAGE TUPELO	B & B	2" CAL		
	QS	9	QUERCUS SHUMARDII / SHUMARD OAK	B & B	2" CAL		
	TR	9	TILIA AMERICANA 'REDMOND' / REDMOND AMERICAN LINDEN	B & B	2" CAL		

EVERGREENS	CODE	QTY	BOTANICAL / COMMON NAME	CONT	SIZE	SPACING	REMARKS
	JC	31	JUNIPERUS VIRGINIANA 'CANAERTII' / CANAERTI EASTERN REDCEDAR	B & B	6` HT		
	JT	45	JUNIPERUS VIRGINIANA 'TAYLOR' / TAYLOR EASTERN REDCEDAR	B & B	6` HT		
	PA	23	PICEA ABIES / NORWAY SPRUCE	B & B	6` HT		
	PD	26	PICEA GLAUCA 'DENSATA' / BLACK HILLS WHITE SPRUCE	B & B	6` HT		
	PF	22	PINUS FLEXILIS 'VANDERWOLF'S PYRAMID' / VANDERWOLF'S PYRAMID PINE	B & B	6` HT		

ORNAMENTAL TREES	CODE	QTY	BOTANICAL / COMMON NAME	CONT	SIZE	SPACING	REMARKS
	AG	12	AMELANCHIER X GRANDIFLORA 'AUTUMN BRILLIANCE' / AUTUMN BRILLIANCE APPLE SERVICEBERRY	B & B	2" CAL		
	CF	6	CERCIS CANADENSIS 'FOREST PANSY' / FOREST PANSY EASTERN REDBUD	B & B	2" CAL		
	MA	9	MALUS X 'ADIRONDACK' / ADIRONDACK CRABAPPLE	B & B	2" CAL		
	SI	13	SYRINGA RETICULATA 'IVORY SILK' / IVORY SILK JAPANESE TREE LILAC	B & B	2" CAL		

SHRUBS	CODE	QTY	BOTANICAL / COMMON NAME	CONT	SIZE	SPACING	SPACING	REMARKS
	JW	6	JUNIPERUS HORIZONTALIS `WILTONII' / BLUE RUG JUNIPER	CG			48" o.c.	

NATIVE GRASSES	CODE	QTY	BOTANICAL / COMMON NAME	CONT	SIZE	SPACING	SPACING	REMARKS
	AP	207	ANDROPOGON GERARDII 'PAWNEE' / PAWNEE BIG BLUESTEM	CG	3 GAL.	24" O.C	24" o.c.	
	CK	117	CALAMAGROSTIS X ACUTIFLORA 'KARL FOERSTER' / KARL FOERSTER FEATHER REED GRASS	CG	3 GAL.	3` O.C	36" o.c.	
	PD2	151	PANICUM VIRGATUM 'DALLAS BLUES' / DALLAS BLUES SWITCH GRASS	CG	3 GAL.	24" O.C	24" o.c.	

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NELSON WASTEWATER TREATMENT FACILITY CONTRACT NEL-CO01 IMPROVEMENTS PROJECT

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01/18/24	FINAL DEVELOPMENT PLAN

REVISIONS AND RECORD OF ISSUE

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PROJECT NO.:	408634

FINAL DEVELOPMENT PLAN

LANDSCAPE

PLANT SCHEDULE

FDP-L-601 | OF

(SCALE BAR IS 4" AT FULL SCALE) 0 1/2 1 2 3 4

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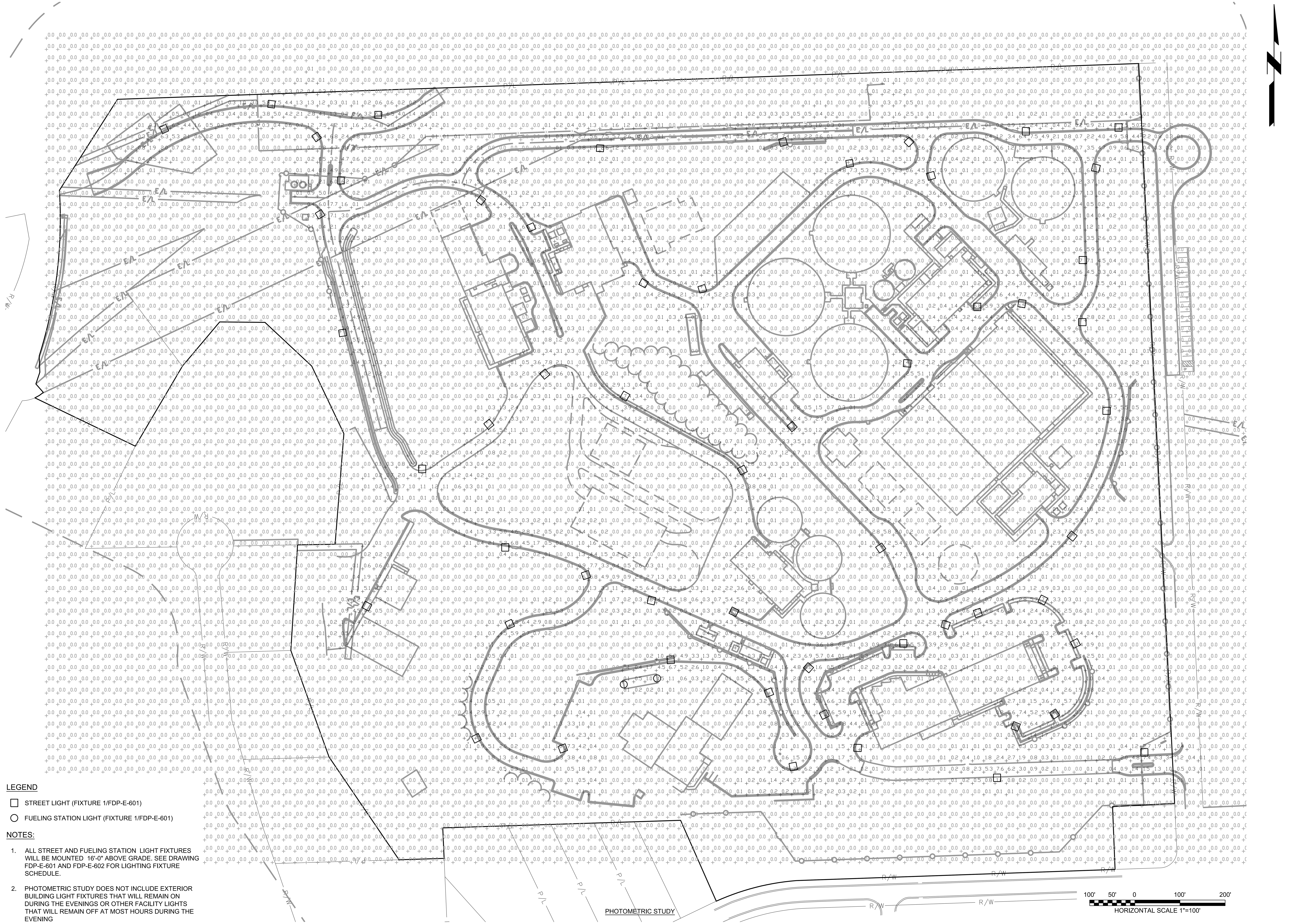

LEGEND

- ☐ STREET LIGHT (FIXTURE 1/FDP-E-601)
- ○ FUELING STATION LIGHT (FIXTURE 1/FDP-E-601)

NOTES:

1. ALL STREET AND FUELING STATION LIGHT FIXTURES WILL BE MOUNTED 16'-0" ABOVE GRADE. SEE DRAWING FDP-E-601 AND FDP-E-602 FOR LIGHTING FIXTURE SCHEDULE.
2. PHOTOMETRIC STUDY DOES NOT INCLUDE EXTERIOR BUILDING LIGHT FIXTURES THAT WILL REMAIN ON DURING THE EVENINGS OR OTHER FACILITY LIGHTS THAT WILL REMAIN OFF AT MOST HOURS DURING THE EVENING

PLOTTED: 2/27/2024 9:44:00 PM
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JOHNSON COUNTY KANSAS Wastewater

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NELSON WASTEWATER TREATMENT FACILITY CONTRACT NEL-CO01 IMPROVEMENTS PROJECT

NOT FOR CONSTRUCTION

1	02/28/24	FINAL DEVELOPMENT PLAN RESUBMITTAL
	01/18/24	FINAL DEVELOPMENT PLAN

REVISIONS AND RECORD OF ISSUE

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PROJECT NO.: 408634

FINAL DEVELOPMENT PLAN

ELECTRICAL

OVERALL PHOTOMETRIC PLAN

FDP-E-101 OF

(SCALE BAR IS 4" AT FULL SCALE) 0 1/2 1 2 3 4

LIGHTING FIXTURE SCHEDULE

FIXTURE TYPE	LAMP	MTG HGT	DESCRIPTION	MANUFACTURER
1	207W LED 22,582 LUMENS	AS NOTED ON PLAN	LED AREA LUMINAIRE, FORWARD OPTICS, 3000K COLOR TEMPERATURE, TYPE II MEDIUM DISTRIBUTION, 480V, ROUND POLE MOUNTING, HOUSE SHIELD, BLACK FINISH ROUND STRAIGHT ALUMINUM POLE, 16 FEET, BLACK FINISH	LITHONIA #DSX1 LED P8 30K T2M 480 RPA HS DBLXD POLE #RSA 16 4-5C DM19AS DBLXD
2	49W LED 6,198 LUMENS	AS NOTED ON PLAN	LINEAR LED FIXTURE, CLEAR POLYCABONATE LENS, WIDE DISTRIBUTION, 120V, 0-10V DIMMING, 4000K COLOR TEMPERATURE, 80CRI	HOLOPHANE #EVT4 6000LM PCL WD 120 GZ10 40K 80CRI
3	49W LED 6,198 LUMENS	AS NOTED ON PLAN	SAME AS FIXTURE 2 WITH BATTERY BACKUP ADDED	HOLOPHANE #EVT4 6000LM PCL WD 120 GZ10 40K 80CRI BSL722C
4	67W LED 8,604 LUMENS	AS NOTED ON PLAN	LINEAR LED FIXTURE, CLEAR POLYCABONATE LENS, MEDIUM DISTRIBUTION, 120V, 0-10V DIMMING, 4000K COLOR TEMPERATURE, 80CRI	HOLOPHANE #EVT4 8000LM PCL MD 120 GZ10 40K 80CRI
5	67W LED 8,604 LUMENS	AS NOTED ON PLAN	SAME AS FIXTURE 4 WITH EMERGENCY BATTERY BACKUP ADDED	HOLOPHANE #EVT4 8000LM PCL MD 120 GZ10 40K 80CRI E15WCP
6	106W LED 14,379 LUMENS	AS NOTED ON PLAN	HAZARDOUS LOCATION LED FIXTURE, SUITABLE FOR CLASS I DIVISION 1 OR DIVISION 2 LOCATIONS, WIDE DISTRIBUTION GLASS LENS, 120-277V, 4000K COLOR TEMPERATURE, 80CRI, UNIVERSAL MOUNT, WITH EMERGENCY BATTERY PACK BSL310HAZSB, GRAY CORROSION RESISTANT FINISH	HOLOPHANE #PXHH 15000LM WD MVOLT 40K 80CRI UNM BSL310HAZSB DGXD
7	51W LED 7,732 LUMENS	AS NOTED ON PLAN	LED AREA LUMINAIRE, FORWARD OPTICS, 3000K COLOR TEMPERATURE, TYPE V WIDE DISTRIBUTION, 120V, ROUND POLE MOUNTING, BLACK FINISH, PHOTOCELL SSL TWIST-LOCK (120-277V) ROUND STRAIGHT ALUMINUM POLE, 16 FEET, BLACK FINISH	LITHONIA #DSX1 LED P1 30K T5W 120 RPA PER DBLXD POLE #RSA 16 4-5C DM19AS DBLXD ACCESSORIES #DLL127F1.5 JU
8	40W LED 4,325 LUMENS	AS NOTED ON PLAN	WALL MOUNTED LED FIXTURE, 4' SERIES, 120V, 0-10V DIMMING DRIVER, 4000K COLOR TEMPERATURE, SENSOR SWITCH PIR INTEGRAL OCCUPANCY CONTROL, EMERGENCY BATTERY BACKUP, WHITE FINISH	LITHONIA #WL4 40L EZ1 LP840 MSD7 EL14L
9	100W LED 6,630 LUMENS	AS NOTED ON PLAN	POLE MOUNTED LED AREA LUMINAIRE, 700MA DRIVE CURRENT, 3000K COLOR TEMPERATURE TYPE II DISTRIBUTION, 208V, BLACK FINISH ROUND STRAIGHT ALUMINUM POLE, 8 FEET, BLACK FINISH	LITHONIA #MRP LED 42C 700MA 30K SR2 208 DBLXD POLE #RSA 8 4-5C T35 DBL
10	40W LED 4,377 LUMENS	AS NOTED ON PLAN	LED WALL PACK FIXTURE, ARCHITECTURAL WALL SCONCE, ALUMINUM HOUSING, PERFORMANCE PACKAGE P3, TYPE IV DISTRIBUTION, SUPER DURABLE THERMOSTAT POWEDER FINISH, EMERGENCY BATTERY BACKUP, WITH PHOTOELECTRIC CELL, 120V, 3000K, 60HZ	LITHONIA #WSQ LED P3 30K SR4 120 PE SF E20WC DBLXD
11	100W LED 6,985 LUMENS	AS NOTED ON PLAN	POLE MOUNTED LED AREA LUMINAIRE, 700MA DRIVE CURRENT, 3000K COLOR TEMPERATURE TYPE V DISTRIBUTION, 208V, BLACK FINISH ROUND STRAIGHT ALUMINUM POLE, 8 FEET, BLACK FINISH	LITHONIA #MRP LED 42C 700MA 30K SR5 208 DBLXD POLE #RSA 8 4-5C T35 DBL
12	9.5W/FT 896 LUMENS/FT	AS NOTED ON PLAN	DIRECT/INDIRECT LINEAR LED STRIP. SEE LIGHTING PLAN FOR REQUIRED LENGTHS	PEERLESS #SQM4-LLP-#FT-80CRI-35K-1500LMF-400LMF-DARK-ZT-120-SCT- APD-144A-C201
13	9.5W/FT 896 LUMENS/FT	AS NOTED ON PLAN	DIRECT/INDIRECT LINEAR LED STRIP. SEE LIGHTING PLAN FOR REQUIRED LENGTHS W/ BATTERY BACK UP	PEERLESS #SQM4-LLP-#FT-80CRI-35K-1500LMF-400LMF-DARK-ZT-120-SCT-1EC- APD-144A-C201
14	80W LED 9,500 LUMENS	AS NOTED ON PLAN	EXPLOSION PROOF LED FLOODLIGHT, P1 LED PERFORMANCE PACKAGE, 120-277V, 3000K COLOR TEMPERATURE, TYPE IV MEDIUM OPTICS, CLEAR GLASS LENS	HOLOPHANE #HEXF P1 MV 3K T4M CL
15	51W LED 5,650 LUMENS	AS NOTED ON PLAN	STANCHION MOUNTED LED FIXTURE, CLASS 1, DIV 2, WIDE OPTICS, GRAY FINISH, 3000K COLOR TEMPERATURE, 120-277VAC, HAZARDOUS LOCATION QUICK POLE ASSEMBLY, STANDARD KIT, 10 FEET HEIGHT, GALVANIZED STEEL 1-7/8" O.D. PIPE	HAZLUX #SMR6 CUT GY 30 AC HL U #Q P 5 10 N
16	54W LED 6,550 LUMENS	AS NOTED ON PLAN	WALL MOUNTED LED FIXTURE, 3000K COLOR TEMPERATURE, 120V, BLACK FINISH	LITHONIA #TWX2 LED ALO 30K MVOLT DBLXD
17	9W LED 811 LUMENS	AS NOTED ON PLAN	WALL MOUNTED LED FIXTURE, 5000K COLOR TEMPERATURE, 120V, BRONZE FINISH	COOPER #FE0650LPC
18	14W LED 1,526 LUMENS	AS NOTED ON PLAN	WALL MOUNTED LED FIXTURE, 3000K COLOR TEMPERATURE, 120V, BRONZE FINISH	COOPER #AXCS1A-WBK

LIGHTING FIXTURE SCHEDULE

FIXTURE TYPE	LAMP	MTG HGT	DESCRIPTION	MANUFACTURER
19	58W LED 5,611 LUMENS	AS NOTED ON PLAN	WALL MOUNTED LED FIXTURE, FULL CUTOFF, 3000K COLOR TEMPERATURE, 120V, BLACK FINISH	COOPER #XTOR6B Y
20	11W LED 1,000 LUMENS	AS NOTED ON PLAN	WALL MOUNTED LED FIXTURE, FULL CUTOFF, 3000K COLOR TEMPERATURE, 120V, BLACK FINISH	COOPER #LDSQ6B10D010 EU6B10208030 6LBCSSQ1MMS
21	33W LED 4,517 LUMENS	AS NOTED ON PLAN	LINEAR LED FIXTURE, CLEAR POLYCABONATE LENS, MEDIUM DISTRIBUTION, 120V, 0-10V DIMMING, 4000K COLOR TEMPERATURE, 80CRI	HOLOPHANE #EVT4 4000LM PCL MD 120V GZ10 40K 80CRI
22	33W LED 4,517 LUMENS	AS NOTED ON PLAN	SAME AS FIXTURE 21 WITH BATTERY BACKUP ADDED	HOLOPHANE #EVT4 4000LM PCL MD 120V GZ10 40K 80CRI BSL722C
23	81W LED 11,852 LUMENS	AS NOTED ON PLAN	HIGH BAY LED FIXTURE, MEDIUM ACRYLIC DISTRIBUTION, 120V, 4000K COLOR TEMPERATURE, 80CRI, PENDANT MOUNTING, WITH INDIVIDUAL NON-DIMMING OCCUPANCY SENSOR, WHITE FINISH	HOLOPHANE #PHZ 12000LM MD 120 40K 80CRI PM SBGR10 DWHXD
24	81W LED 11,852 LUMENS	AS NOTED ON PLAN	SAME AS FIXTURE 23 WITH BATTERY BACKUP ADDED	HOLOPHANE #PHZ 12000LM MD 120 40K 80CRI PM SBGR10 E10WCP DWHXD
25	45W LED 5,537 LUMENS	AS NOTED ON PLAN	CHAMP PRO VMVL LED, POLE MOUNT, IP66 RATED, NEMA 4X RATED, CLASS 1 DIVISION 2 RATED, DIE CAST ALUMINUM HOUSING, TYPE III OPTICS, DIFFUSED GLASS LENS, 3000K, 70CRI, 120V, 60HZ V-SPRING TELESCOPING SAFETY 8' ALUMINUM LIGHT POLE	EATON-CROUSE HINDS #VMVL 5 W J R3 UNV1 S891 EATON POLE #V65B-A-PM5-T57 SA
26	10W LED 800 LUMENS	AS NOTED ON PLAN	4" SQUARE LINEAR, SUSPENED LED FIXTURE, 3500K COLOR TEMPERATURE, 120V, ACRYLIC LENS, OCCUPANCY SENSOR, CONNECT END TO END, FIXTURE LENGTHS MAY VERY, SEE LIGHTING PLAN FOR FIXTURE LENGTHS	PEERLESS #SQMS LSL #FT 80CRI 35K 800LMF DARK ZT 120 SCT APD CO32
27	10W LED 800 LUMENS	AS NOTED ON PLAN	SAME AS FIXTURE 26 WITH BATTERY BACKUP ADDED	PEERLESS #SQMS LSL #FT 80CRI 35K 800LMF DARK ZT 120 1EC SCT APD CO32
28	10W LED 800 LUMENS	AS NOTED ON PLAN	4" SQUARE LINEAR,WALL MOUNTED LED FIXTURE, 3500K COLOR TEMPERATURE, 120V, ACRYLIC LENS, CONNECT END TO END, FIXTURE LENGTHS MAY VERY, SEE LIGHTING PLAN FOR FIXTURE LENGTHS	PEERLESS #SQWS LSL #FT 80CRI 35K 800LMF DARK NLIGHT 120 SCT APD CO32
29	10W LED 800 LUMENS	AS NOTED ON PLAN	SAME AS FIXTURE 28 WITH BATTERY BACKUP ADDED	PEERLESS #SQWS LSL #FT 80CRI 35K 800LMF DARK NLIGHT 120 1EC SCT APD CO32
30	10W LED 1,000 LUMENS	CEILING	4" WIDE RECESSED LINEAR LED, 3500K COLOR TEMPERATURE, 120V, SATIN ACRYLIC LENS, OCCUPANCY SENSOR, SATIN ACRYLIC LENS FIXTURE LENGTHS MAY VERY, SEE LIGHTING PLAN FOR FIXTURE LENGTHS	MARK #SL4LLOP #FT FLP GB 80CRI 35K 1000LMF MIN1 120V ZT PDT
31	10W LED 1,000 LUMENS	CEILING	SAME AS FIXTURE 30 WITH BATTERY BACKUP ADDED	MARK #SL4L LOP #FT FLP GB 80CRI 35K 1000LMF MIN1 120V E10WLCP ZT PDT
32	4W LED 400 LUMENS	CEILING	4" WIDE RECESSED LINEAR LED, 3500K COLOR TEMPERATURE, 120V, SATIN ACRYLIC LENS, OCCUPANCY SENSOR, SATIN ACRYLIC LENS FIXTURE LENGTHS MAY VERY, SEE LIGHTING PLAN FOR FIXTURE LENGTHS	MARK #SL4L LOP #FT FLP GB 80CRI 35K 400LMF MIN1 120 ZT
1 33	11W LED 1,000 LUMENS	CEILING	6" SQUARE LED DOWNLIGHT, 3000K COLOR TEMPERATURE, 120V, WET LOCATION RATED	COOPER #LDSQ6C 10 D010 SQ 1 XXX EMBOD6ST
34	15W LED 1,500 LUMENS	AS NOTED ON PLAN	6" ROUND LED CYLINDER DOWNLIGHT, 3500K COLOR TEMPERATURE, 120V, PENDANT MOUNTED	GOTHAM #EVO6CC 35/15 AR WD LSS MVOLT DWHG
35	15W LED 1,500 LUMENS	AS NOTED ON PLAN	SAME AS FIXTURE 34 WITH BATTERY BACKUP ADDED	GOTHAM #EVO6CC 35/15 AR WD LSS MVOLT EZ10 E10WCPR DWHG
36	15W LED 1,500 LUMENS	CEILING	4" ROUND LED DOWNLIGHT, 3500K COLOR TEMPERATURE, 120V, WET LOCATION RATED	GOTHAM #EVO4 35/15 AR MD LSS MVOLT GZ10 NLT TRW
37	8W LED 700 LUMENS	CEILING	4" ROUND LED DOWNLIGHT, 3500K COLOR TEMPERATURE, 120V, WET LOCATION RATED	GOTHAM #EVO4 35/7 AR MD LSS MVOLT GZ10 NLT TRW

GENERAL NOTES

1. SEE DRAWINGS 000-E-001 AND 000-E-002 FOR ELECTRICAL LEGENDS AND ABBREVIATIONS & NOTES.

SHEET KEYNOTES

1. COORDINATE WITH ARCHITECT FOR FIXTURE TRIM FINISH.

LEGEND:

- SITE LIGHTS TO BE ON FROM DUSK TO DAWN
- FACILITY LIGHTS ONLY ON DURING MAINTENANCE NOT INCLUDED WITH PHOTOMETRIC STUDY
- BUILDING EXTERIOR LIGHTS ON FROM DUSK TO DAWN NOT INCLUDED WITH PHOTOMETRIC STUDY

DARK SKY COMPLIANCE NOTES:

1. LIGHT FIXTURE 1 IS A DARK SKY APPROVED LIGHT FIXTURE AND WILL INCLUDE A HOUSE SHIELD.
2. LIGHT FIXTURE 7 IS A DARK SKY APPROVED LIGHT FIXTURE. THIS LIGHT FIXTURE WILL NOT INCLUDE A HOUSE SHIELD AS THE LIGHT IS DIRECTED DOWN.
3. LIGHT FIXTURE 9 EMITS MINIMAL UPLIGHT (0.02%) AND IS SWITCHED TO ONLY TURN ON WHEN NEEDED. THE LIGHT IS A DARK SKY RECOMMENDED 3000K COLOR TEMPERATURE. NO HOUSE SHIELD IS PROVIDED AS THE LIGHT IS DIRECTED DOWN.
4. LIGHT FIXTURE 10 MEETS THE REQUIREMENTS FOR A DARK SKY APPROVED LIGHT FIXTURE. NO HOUSE SHIELD IS PROVIDED AS THE LIGHT IS DIRECTED DOWN.
5. LIGHT FIXTURE 11 EMITS MINIMAL UPLIGHT (0.02%) AND IS SWITCHED TO ONLY TURN ON WHEN NEEDED. THE LIGHT IS A DARK SKY RECOMMENDED 3000K COLOR TEMPERATURE. NO HOUSE SHIELD IS PROVIDED AS THE LIGHT IS DIRECTED DOWN.
6. LIGHT FIXTURE 25 EMITS UPLIGHT (5%) AND IT IS REQUIRED BECAUSE THIS LOCATION IS IDENTIFIED AS HAZARDOUS. THE LIGHT IS A DARK SKY RECOMMENDED 3000K COLOR TEMPERATURE. NO HOUSE SHIELD IS PROVIDED AS THE LIGHT IS DIRECTED DOWN.
7. LIGHT FIXTURE 33 EMITS MINIMAL UPLIGHT (UNKNOWN) AND PROVIDES A 50° LIGHT BEAM CUTOFF. THE LIGHT IS A DARK SKY RECOMMENDED 3000K COLOR TEMPERATURE. NO HOUSE SHIELD IS PROVIDED AS THE LIGHT IS DIRECTED DOWN.

BLACK & VEATCH

HDR

JOHNSON COUNTY KANSAS Wastewater

JOHNSON COUNTY KANSAS

NELSON WASTEWATER TREATMENT FACILITY CONTRACT NEL-CO01 IMPROVEMENTS PROJECT

1	02/28/24	FINAL DEVELOPMENT PLAN RESUBMITTAL
	01/18/24	FINAL DEVELOPMENT PLAN

REVISIONS AND RECORD OF ISSUE

DESIGNED:
DETAILED:
CHECKED:
APPROVED:
DATE:

PROJECT NO.: 408634

GENERAL

ELECTRICAL

LIGHTING FIXTURE SCHEDULE

FDP-E-601 | OF

LIGHTING FIXTURE SCHEDULE
(NO SCALE)

PLOTTED: 10/17/2023 8:26:54 AM
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FDT1000
DWGS4

(SCALE BAR IS 4" AT FULL SCALE) 0 1/2 1 2 3 4

LIGHTING FIXTURE SCHEDULE

FIXTURE TYPE	LAMP	MTG HGT	DESCRIPTION	MANUFACTURER
38	8W LED 700 LUMENS	CEILING	SAME AS FIXTURE 37 WITH BATTERY BACKUP ADDED	GOTHAM #EVO4 35/7 AR MD LSS MVOLT GZ10 NLT TRW EL
39	25W LED 3,000 LUMENS	CEILING	2'X4' RECESSED LED TROFFER, 3500K COLOR TEMPERATURE, 120V, OCCUPANCY SENSOR, SOFT WHITE ACRYLIC LENS	MARK #WHSPR 2X4 80CRI 35K 3000LM MIN1 MVOLT SWC ZT PDT
40	25W LED 3,000 LUMENS	CEILING	SAME AS FIXTURE 39 WITH BATTERY BACKUP ADDED	MARK #WHSPR 2X4 80CRI 35K 3000LM MIN1 MVOLT SWC E10WLCP ZT PDT
41	30W LED 3,300 LUMENS	CEILING	2'X2' RECESSED LED TROFFER, 3500K COLOR TEMPERATURE, 120V, OCCUPANCY SENSOR, SOFT WHITE ACRYLIC LENS	MARK #WHSPR 2X2 80CRI 35K 3300LM MIN1 MVOLT SWC ZT PDT
42	30W LED 3,300 LUMENS	CEILING	SAME AS FIXTURE 41 WITH BATTERY BACKUP ADDED	MARK #WHSPR 2X2 80CRI 35K 3300LM MIN1 MVOLT SWC E10WLCP ZT PDT
43	41W LED 4,800 LUMENS	CEILING	2'X4' RECESSED LED TROFFER, 3500K COLOR TEMPERATURE, 120V, OCCUPANCY SENSOR, SOFT WHITE ACRYLIC LENS	MARK #WHSPR 2X4 80CRI 35K 4800LM MIN1 MVOLT SWC ZT PDT
44	41W LED 4,800 LUMENS	CEILING	SAME AS FIXTURE 43 WITH BATTERY BACKUP ADDED	MARK #WHSPR 2X4 80CRI 35K 4800LM MIN1 MVOLT SWC E10WLCP ZT PDT
45	13W LED 750 LUMENS	UNDER CABINET	LED UNDER CABINET, 3000K COLOR TEMPERATURE, 120V, ACRYLIC DIFFUSER WITH INTEGRAL SWITCH	LITHONIA #UCLD 24IN 30K 90CRI SWR
46	95W LED 7,040 LUMENS	AS NOTED ON PLAN	TWO FACED LED VERTICAL WALL SCONCE	OCL #DO1-S1SA-89-MW-XXX-2LED1-35K-UNV-DM1
47	73W LED 7,052 LUMENS	AS NOTED ON PLAN	D-SERIES SIZE 1 LED WALL LUMINAIRE, 1000mA DRIVE CURRENT, 3000K COLOR TEMPERATURE, TYPE III MEDIUM DISTRIBUTION, MVOLT (120-277V), BLACK FINISH	LITHONIA #DSXW1 LED 20C 1000 30K T3M MVOLT DBLXD
48	164W LED 21, 338 LUMENS	AS NOTED ON PLAN	RSXF1 LED FLOODLIGHT, P5 PERFORMANCE PACKAGE 30K COLOR TEMPERATURE ARE WIDE FORWARD DISTRIBUTION, MVOLT (120-277V), BLACK FINISH	LITHONIA #RSXF1 P5 30K AWFD MVOLT DBLXD
49	184W LED 21,311 LUMENS	AS NOTED ON PLAN	LED AREA LUMINARIE, 3000K COLOR TEMPERATURE, TYPE III MEDIUM DISTRIBUTION, 208V, ROUND POLE MOUNTED, BLACK FINISH ROUND STRAIGHT ALUMINUM POLE, 16 FEET BLACK FINISH	LITHONIA #DSX1 P7 30K T3M 208 RPA HS DBLXD POLE #RSA 16 4-5C DM19AS DBLXD
50	33W LED 4,139 LUMENS	AS NOTED ON PLAN	LED TROFFER, 2' X 2' SMOOTH REFLECTOR, ACRYLIC LINEAR PRISMATIC DIFFUSER, 0-10V DIMMING DRIVER, 4000K COLOR TEMPERATURE, 80CRI	LITHONIA #2VTL2 40L ADP EZ1 LP840
51	33W LED 4,139 LUMENS	AS NOTED ON PLAN	LED TROFFER, 2' X 2' SMOOTH REFLECTOR, ACRYLIC LINEAR PRISMATIC DIFFUSER, 0-10V DIMMING DRIVER, 4000K COLOR TEMPERATURE, WITH EMERGENCY BATTERY PACK, 80CRI	LITHONIA #2VTL2 40L ADP EZ1 LP840 EL7L
52	26W LED 3,050 LUMENS	AS NOTED ON PLAN	STANCHION MOUNTED LED FIXTURE, CLASS 1, DIV 2, WIDE OPTICS, GRAY FINISH, 3000K COLOR TEMPERATURE, 120-277VAC, HAZARDOUS LOCATION POLE MOUNT ACCESSORY QUICK POLE ASSEMBLY, STANDARD KIT, 10 FEET HEIGHT, GALVANIZED STEEL 1-7/8" O.D. PIPE	HAZLUX #SMR3 CUT GY 30 AC HL U #SMR PM GY #Q P 5 10 N
53	26W LED 3,050 LUMENS	AS NOTED ON PLAN	PENDANT MOUNTED LED FIXTURE, CLASS 1, DIV 2, WIDE OPTICS, GRAY FINISH, 3000K COLOR TEMPERATURE, 120-277VAC, HAZARDOUS LOCATION	HAZLUX #SMR3 CUT GY 30 AC HL U
54	59W LED 9,276 LUMENS	AS NOTED ON PLAN	LINEAR LED FIXTURE, 24" LENGTH, FROSTED ACRYLIC DIFFUSER, MEDIUM DISTRIBUTION, 120-277V, 0-10V DIMMING DRIVER, 4000K COLOR TEMPERATURE, 80CRI	HOLOPHANE #EMW L24 9000LM FST MD MVOLT GZ10 40K 80CRI
55	59W LED 9,276 LUMENS	AS NOTED ON PLAN	SAME AS FIXTURE 54 WITH BATTERY BACKUP ADDED	HOLOPHANE #EMW L24 9000LM FST MD MVOLT GZ10 40K 80CRI E10WLCP

LIGHTING FIXTURE SCHEDULE

FIXTURE TYPE	LAMP	MTG HGT	DESCRIPTION	MANUFACTURER
56	124W LED 18,359 LUMENS	AS NOTED ON PLAN	LED LINEAR FIXTURE, 96" LENGTH, STANDARD EFFICIENCY PACKAGE, ROUND DIFFUSE LENS, GENERAL DISTRIBUTION, 120-277V, 0-10V DIMMING DRIVER, 4000K COLOR TEMPERATURE, WITH EMERGENCY BATTERY PACK, 80CRI	LITHONIA #CLX L96 18000LM SEF RDL MVOLT GZ10 40K 80CRI E10WLCP SPD WH
57	70W LED 10,605 LUMENS	AS NOTED ON PLAN	LED LINEAR FIXTURE, 48" LENGTH, STANDARD EFFICIENCY PACKAGE, ROUND DIFFUSE LENS, GENERAL DISTRIBUTION, 120-277V, 0-10V DIMMING DRIVER, 4000K COLOR TEMPERATURE, 80CRI, WITH EMERGENCY BATERY BACKUP	LITHONIA #CLX L48 10000LM SEF RDL MVOLT GZ10 40K 80CRI E10WLCP SPD WH
58	81.2W LED 8,732 LUMENS	AS NOTED ON PLAN	MULTI HEAD LED PENDANT MOUNTED ARCHITECTURAL FIXTURE	EUREKA #7470D-5-LED-35-80-120V-NLIGHT-S7-36-24-BLK-BLK-39NLWA
59	46W LED 7,272 LUMENS	AS NOTED ON PLAN	LED LINEAR FIXTURE, 48" LENGTH, STANDARD EFFICIENCY PACKAGE, ROUND DIFFUSE LENS, GENERAL DISTRIBUTION, 120-277V, 0-10V DIMMING DRIVER, 4000K COLOR TEMPERATURE, WITH EMERGENCY BATTERY PACK, 80CRI	LITHONIA #CLX L48 7000LM SEF RDL MVOLT GZ10 40K 80CRI E10WLCP SPD WH
60	38W LED 4,842 LUMENS	AS NOTED ON PLAN	LED TROFFER, 2' X 2' SMOOTH REFLECTOR, ACRYLIC LINEAR PRISMATIC DIFFUSER, 0-10V DIMMING DRIVER, 4000K COLOR TEMPERATURE, 80CRI	LITHONIA #2VTL2 48L ADP EZ1 LP840
61	38W LED 4,842 LUMENS	AS NOTED ON PLAN	SAME AS FIXTURE 60 WITH BATTERY BACKUP ADDED	LITHONIA #2VTL2 48L ADP EZ1 LP840 EL7L
62	100W LED 6,985 LUMENS	AS NOTED ON PLAN	POLE MOUNTED LED AREA LUMINAIRE, 700MA DRIVE CURRENT, 3000K COLOR TEMPERATURE TYPE V DISTRIBUTION, 208V, BLACK FINISH, WITH IN-BUILT PHOTOCELL OPTION ROUND STRAIGHT ALUMINUM POLE, 8 FEET, BLACK FINISH	LITHONIA #MRP LED 42C 700MA 30K SR5 208 PER DBLXD POLE #RSA 8 4-5C T35 DBL ACCESSORIES #DLL127F 1.5 JU
EXIT	LED	AS NOTED ON PLAN	LED EXIT SIGN, STENCIL FACE TYPE, WHITE HOUSING, 3 FACES, RED LETTER COLOR, 120-277V, NICKEL CADMIUM BATTERY, SELF-DIAGNOSTICS	LITHONIA #LQM S W 3 R MVOLT EL N SD
EXIT2	LED	AS NOTED ON PLAN	LED EXIT SIGN, STENCIL FACE TYPE, BLACK HOUSING, 1 FACE, RED LETTER COLOR, 120/277V, NICKEL CADMIUM BATTERY, SELF-DIAGNOSTICS	LITHONIA #LE S 1 R EL N SD

GENERAL NOTES

1. SEE DRAWINGS 000-E-001 AND 000-E-002 FOR ELECTRICAL LEGENDS AND ABBREVIATIONS & NOTES.

LEGEND:

- SITE LIGHTS TO BE ON FROM DUSK TO DAWN
- FACILITY LIGHTS ONLY ON DURING MAINTENANCE NOT INCLUDED WITH PHOTOMETRIC STUDY
- BUILDING EXTERIOR LIGHTS ON FROM DUSK TO DAWN NOT INCLUDED WITH PHOTOMETRIC STUDY

DARK SKY COMPLIANCE NOTES:

1. LIGHT FIXTURE 47 IS A DARK SKY APPROVED LIGHT FIXTURE AND IS SWITCHED TO ONLY TURN ON WHEN NEEDED. NO HOUSE SHIELD IS PROVIDED AS THE LIGHT IS DIRECTED DOWN.
2. LIGHT FIXTURE 49 IS A DARK SKY APPROVED LIGHT FIXTURE AND IS SWITCHED TO ONLY TURN ON WHEN NEEDED. NO HOUSE SHIELD IS PROVIDED AS THE LIGHT IS DIRECTED DOWN.
3. LIGHT FIXTURE 62 EMITS MINIMAL UPLIGHT (0.02%) AND IS SWITCHED TO ONLY TURN ON WHEN NEEDED. THE LIGHT IS A DARK SKY RECOMMENDED 3000K COLOR TEMPERATURE. NO HOUSE SHIELD IS PROVIDED AS THE LIGHT IS DIRECTED DOWN.

BLACK & VEATCH

HDR

JOHNSON COUNTY KANSAS Wastewater

JOHNSON COUNTY KANSAS

NELSON WASTEWATER TREATMENT FACILITY CONTRACT NEL-CO01 IMPROVEMENTS PROJECT

1	02/28/24	FINAL DEVELOPMENT PLAN RESUBMITTAL
	01/18/24	FINAL DEVELOPMENT PLAN

REVISIONS AND RECORD OF ISSUE

DESIGNED:
DETAILED:
CHECKED:
APPROVED:
DATE:
PROJECT NO.: 408634

GENERAL

ELECTRICAL

LIGHTING FIXTURE SCHEDULE

FDP-E-602 | OF

LIGHTING FIXTURE SCHEDULE
(NO SCALE)

PLOTTED: 10/17/2023 8:28:04 AM
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(SCALE BAR IS 4" AT FULL SCALE) 0 1/2 1 2 3 4

Building ID	Nelson Building/Structure Name	Abbreviation	Series	LENGTH (FT)	WIDTH (FT)	DIAMETER (FT)	HEIGHT (FT)	NUMBER OF STORIES	GROSS BUILDING AREA (SQ FT)	FLOOR AREA (SQ FT)	PARKING STALLS (1/500 SF)[1]	PARKING STALLS PROVIDED[1]
EXISTING BUILDINGS TO REMAIN												
NEL11	LINE MAINTENANCE BUILDING	LM	810	200	152	-	21	1	18831	18831	38	89
NEL12B	LINE REPAIR SHOP	LRS	820	59.5	48	-	15.5	1	2856	2856	6	6
EXISTING PROCESS BUILDINGS TO REMAIN												
NEL08	DEWATERING BUILDING	DB	760	83.33*	40.67*	-	43.54*	2	3389.03*	9245.52*	-	-
PROPOSED BUILDINGS												
NEL01	ADMIN BUILDING	ADMIN	800	152	102	-	21	1	12408	12408	25	60
NEL12A	LINE REPAIR ADMIN BUILDING	LRA	820	59	49	-	15.5	1	2891	2891	6	15
PROPOSED PROCESS BUILDINGS AND TANKS												
NEL09	PLANT DRAIN PUMP STATION	PDPS	160	35	26	-	9.94*	1	127	127	-	-
NELOC5	ODOR CONTROL 5	OC5	160									
NEL02	HEADWORKS BUILDING	HW	200	147	88	-	53.34*	3	10200	19636	-	7
NELFMS	FLOW METER VAULT	FMS	202	23	18	-	0.00 to 0.40*	1	296	296	-	-
NELOC1	ODOR CONTROL 1	OC1	210	97	27	-	22.16*	1	2557	2557	-	-
NELPCSS	PRIMARY CLARIFIER SPLITTER STRUCTURE	PCSS	300	26.33*	25.83*	-	9.25 to 10.75*	1	680.1*	680.1*	-	-
NELPC1	PRIMARY CLARIFIER 1	PC1	310	-	-	112	21.92 to 31.42*	1	9852.03*	9852.03*	-	-
NELPC2	PRIMARY CLARIFIER 2	PC2	310	-	-	112	29.03 to 31.42*	1	9852.03*	9852.03*	-	-
NELOC2	ODOR CONTROL 2	OC2	330	100	27	-	18.94*	1	2094	2094	-	-
NELBNR1	BNR TRAIN 1	BNR1	400	104.75*	191*	-	0.77 to 3.23*	1	20265.38*	20007.25*	-	-
NELBNR2	BNR TRAIN 2	BNR2	400	103.5*	191*	-	0.50 to 9.13*	1	20026.63*	19768.5*	-	-
NELBNR3	BNR TRAIN 3	BNR3	400	104.75*	191*	-	0.50 to 12.80*	1	20265.38*	20007.25*	-	-
NELBNRSS	BNR SPLITTER STRUCTURE	*BSS	405	30.33*	28.08*	-	3.20 to 3.95*	1	851.67*	851.67*	-	-
NEL03	BASIN BLOWER BUILDING	BBB	410	104.67*	48*	-	23.68*	1	4359.43*	4359.43*	-	-
NELCB	CENTRATE BASIN	CB	480	59.33*	39.33*	-	0.67 to 4.80*	1	2678.17*	2678.17*	-	-
NELFCSS	FINAL CLARIFIER SPLITTER STRUCTURE	FCSS	500	36.33*	28.42*	-	2.66*	1	1032.5*	1032.5*	-	-
NELFC1	FINAL CLARIFIER 1	FC1	510	-	-	137*	3.25 to 13.75*	1	14741.14*	14741.14*	-	-
NELFC2	FINAL CLARIFIER 2	FC2	510	-	-	137*	3.25 to 12.00*	1	14741.14*	14741.14*	-	-
NELFC3	FINAL CLARIFER 3	FC3	510	-	-	137*	3.25 to 10.70*	1	14741.14*	14741.14*	-	-
NEL05	FILTER COMPLEX	FC	600	102.33*	54.33*	-	18.42*	1	6408.36*	6408.36*	-	6
NEL5A	FILTER PUMP STATION 1/2	FPS1	600	119	76	-	12.67*	1	7068	7068	-	-
NEL5B	FILTER PUMP STATION 3/4	FPS3	600				12.67*				-	-
NEL06	UV BUILDING	UV	610	123.33*	64.67*	-	24*	1	7975.75*	7975.75*	-	-
NELDAF1	DAF BASIN 1	DAF1	700	-	-	32*	21.25*	1	1009.25*	1009.25*	-	-
NELDAF2	DAF BASIN 2	DAF2	700	-	-	32*	21.25*	1	1009.25*	1009.25*	-	-
NEL04	SLUDGE BUILDING	SB	705	128.67*	72*	-	21.09*	2	9624.44*	18528.48*	-	3
NELDIG1	DIGESTER 1	DIG1	720	-	-	75	63.50 to 78.70*	1	5625	5625	-	-
NELDIG2	DIGESTER 2	DIG2	720	-	-	75	65.47 to 83.07*	1	5625	5625	-	-
NELDIG3	DIGESTER 3	DIG3	720	-	-	75	58.80 to 77.00*	1	5625	5625	-	-
NEL07	DIGESTER CONTROL BUILDING	DCB	725	125	63	-	30*	2	7084	11514	-	-
NELGFS	GAS FLARE STRUCTURE	GFS	740	34*	10*	-	28.4*	1	340*	340*	-	-
PROPOSED ADDITIONAL FACILITIES/STRUCTURES												
NEL13	FLAMMABLES STORAGE BUILDING	FSB										
NELFS	FUELING STATION	FS										
NELSWGR1	LOWER SWITCHGEAR BUILDING	SWGR1										
NELSWGR2	UPPER SWITCHGEAR BUILDING	SWGR2										

	Total Floor Area*	344,981.96
	Total Site Area	2,212,247
	Floor Area Ratio*	0.16

[1] Facilities with provided parking and no required parking are unmanned. Parking spaces are provided for JCW staff to perform maintenance activities.

* Indicates information that has been updated and differs from Preliminary Development Plan version of Building Schedule

BLACK & VEATCH

HDR

JOHNSON COUNTY KANSAS Wastewater

JOHNSON COUNTY KANSAS

NELSON WASTEWATER TREATMENT FACILITY CONTRACT NEL-CO01 IMPROVEMENTS PROJECT

NOT FOR CONSTRUCTION

01/18/24	FINAL DEVELOPMENT PLAN
REVISIONS AND RECORD OF ISSUE	
DESIGNED:	
DETAILED:	
CHECKED:	
APPROVED:	
DATE:	
PROJECT NO.:	408634

FINAL DEVELOPMENT PLAN

CIVIL

BUILDING SCHEDULE

FDP-A-100 | OF

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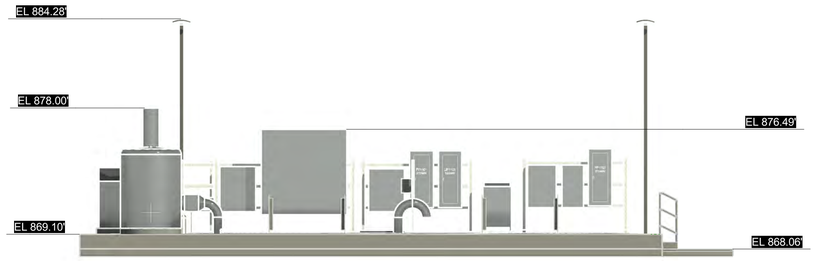
408634

(SCALE BAR IS 4" AT FULL SCALE) 0 1/2 1 2 3 4

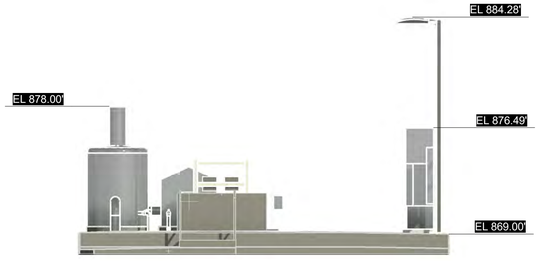
NORTH ELEVATION

3/16" = 1'-0"



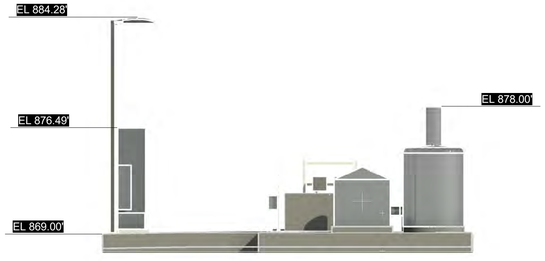
SOUTH ELEVATION

3/16" = 1'-0"



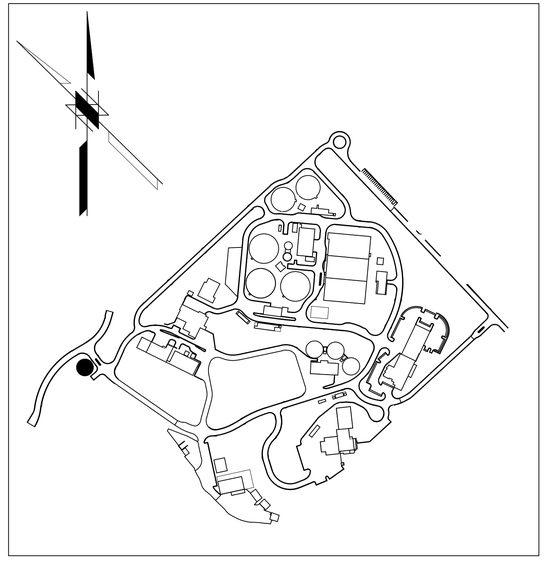
EAST ELEVATION

3/16" = 1'-0"



WEST ELEVATION

3/16" = 1'-0"



KEY PLAN

BLACK & VEATCH

HDR

JOHNSON COUNTY KANSAS Wastewater

JOHNSON COUNTY KANSAS

NELSON WASTEWATER TREATMENT FACILITY CONTRACT NEL-C001 IMPROVEMENTS PROJECT

NOT FOR CONSTRUCTION

1/19/24	FINAL DEVELOPMENT PLAN

REVISIONS AND RECORD OF ISSUE

DESIGNED:	
DETAILED:	
CHECKED:	
APPROVED:	
DATE:	
PROJECT NO.:	408634

PLANT DRAIN PUMP STATION

ARCHITECTURAL

PDPS ELEVATIONS (INCLUDED OC 4)

160-A-201P

OF

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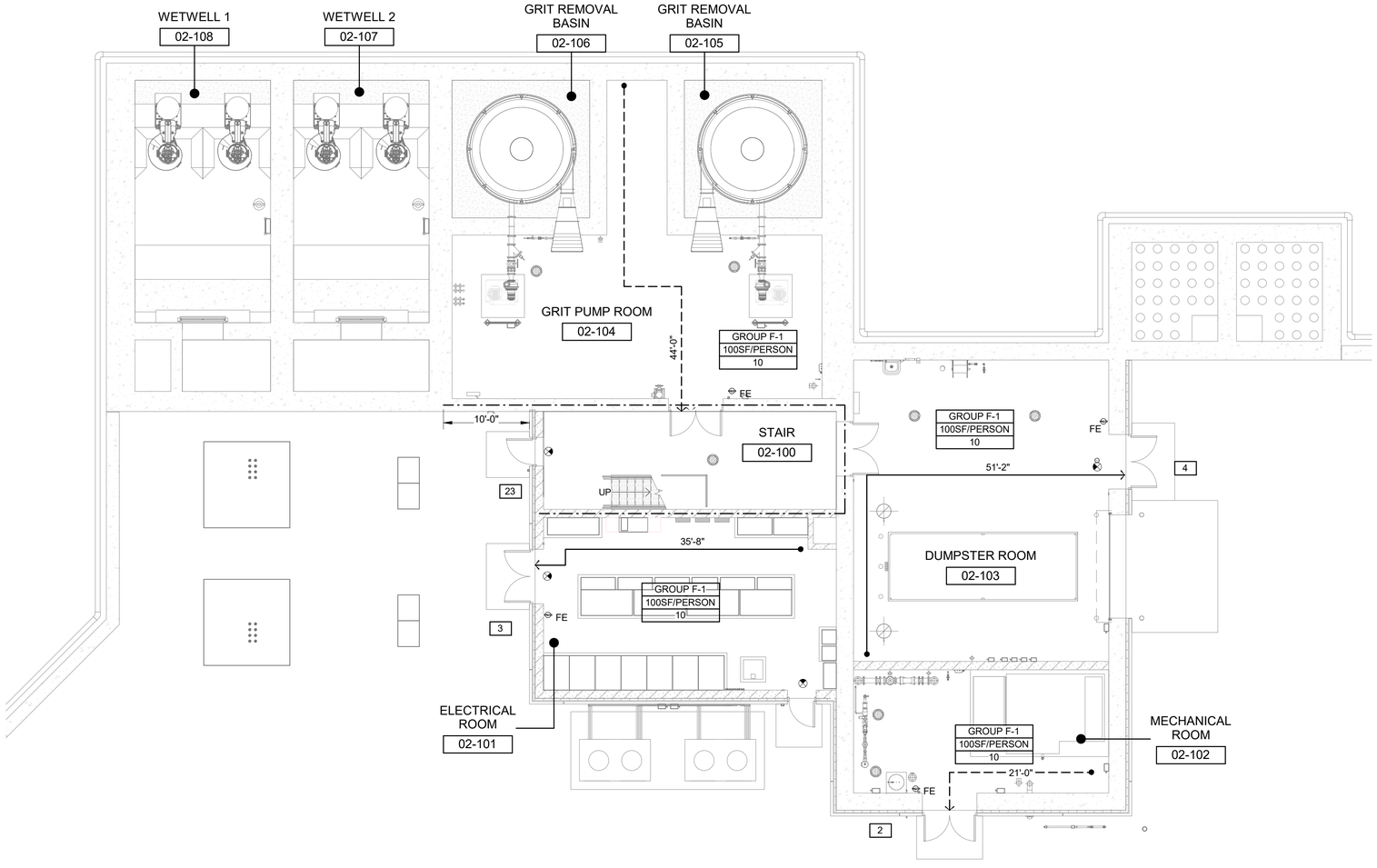
D408634

(SCALE BAR IS 4" AT FULL SCALE) 0 1/2 1 2 3 4

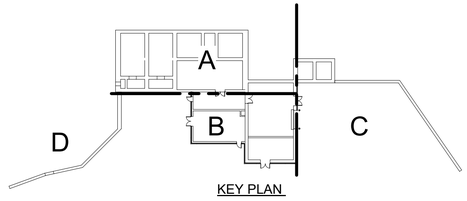
LIFE SAFETY LEGEND

FE	FIRE EXTINGUISHER (FE)
X'-X"	COMMON PATH OF EGRESS TRAVEL
X'-X"	TRAVEL DISTANCE
	1-HOUR FIRE BARRIER
300 SF/PERSON / 1	OCCUPANTS PER SF OCCUPANT LOAD
1	CUMULATIVE OCCUPANT LOAD
	EXIT



LIFE SAFETY - OPERATING LEVEL PLAN

1/8" = 1'-0"



KEY PLAN

(SCALE BAR IS 4" AT FULL SCALE) 0 1/2 1 2 3 4

BLACK & VEATCH
HDR

JOHNSON COUNTY KANSAS
Wastewater

JOHNSON COUNTY KANSAS

NELSON WASTEWATER TREATMENT FACILITY
CONTRACT NEL-CO01
IMPROVEMENTS PROJECT

NOT FOR CONSTRUCTION

1/18/24	FINAL DEVELOPMENT PLAN

REVISIONS AND RECORD OF ISSUE

DESIGNED:	
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PROJECT NO.:	408634

HEADWORKS BUILDING

ARCHITECTURAL

LIFE SAFETY
-OPERATING LEVEL PLAN

200-A-003 | OF

PLOTTED: 11/21/2023 10:22:08 AM
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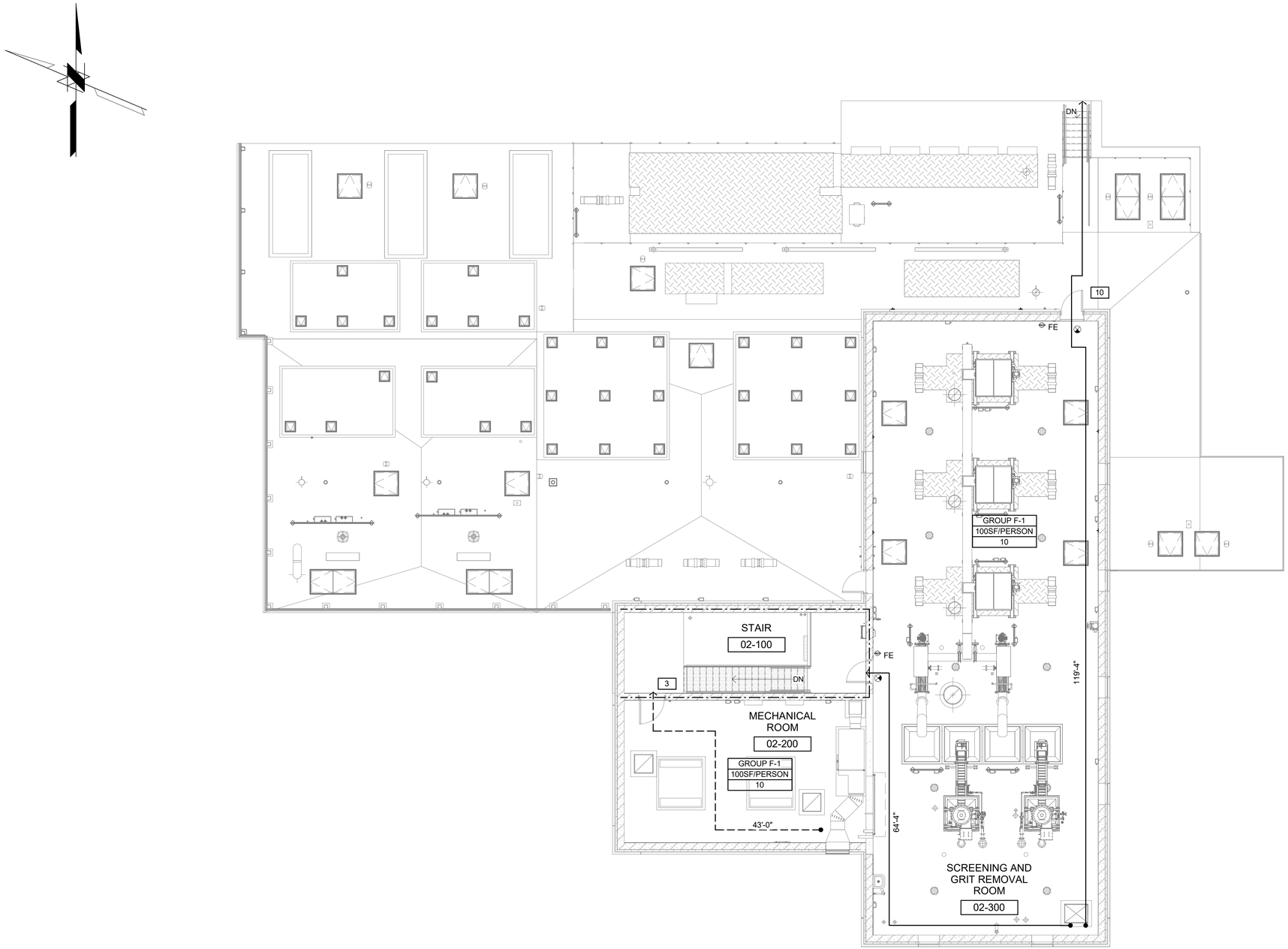
D408634

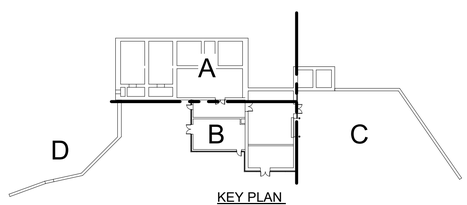


LIFE SAFETY - UPPER LEVEL PLAN

1/8" = 1'-0"

LIFE SAFETY LEGEND

FE	FIRE EXTINGUISHER (FE)
X'-X"	COMMON PATH OF EGRESS TRAVEL
X'-X"	TRAVEL DISTANCE
	1-HOUR FIRE BARRIER
300 SF/PERSON / 1	OCCUPANTS PER SF OCCUPANT LOAD
1	CUMULATIVE OCCUPANT LOAD
	EXIT



KEY PLAN

(SCALE BAR IS 4" AT FULL SCALE) 0 1/2 1 2 3 4

BLACK & VEATCH

HDR

JOHNSON COUNTY KANSAS Wastewater

JOHNSON COUNTY KANSAS

NELSON WASTEWATER TREATMENT FACILITY CONTRACT NEL-C001 IMPROVEMENTS PROJECT

NOT FOR CONSTRUCTION

1/18/24	FINAL DEVELOPMENT PLAN

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PROJECT NO.:	408634

HEADWORKS BUILDING

ARCHITECTURAL

LIFE SAFETY - UPPER LEVEL PLAN

200-A-004 | OF

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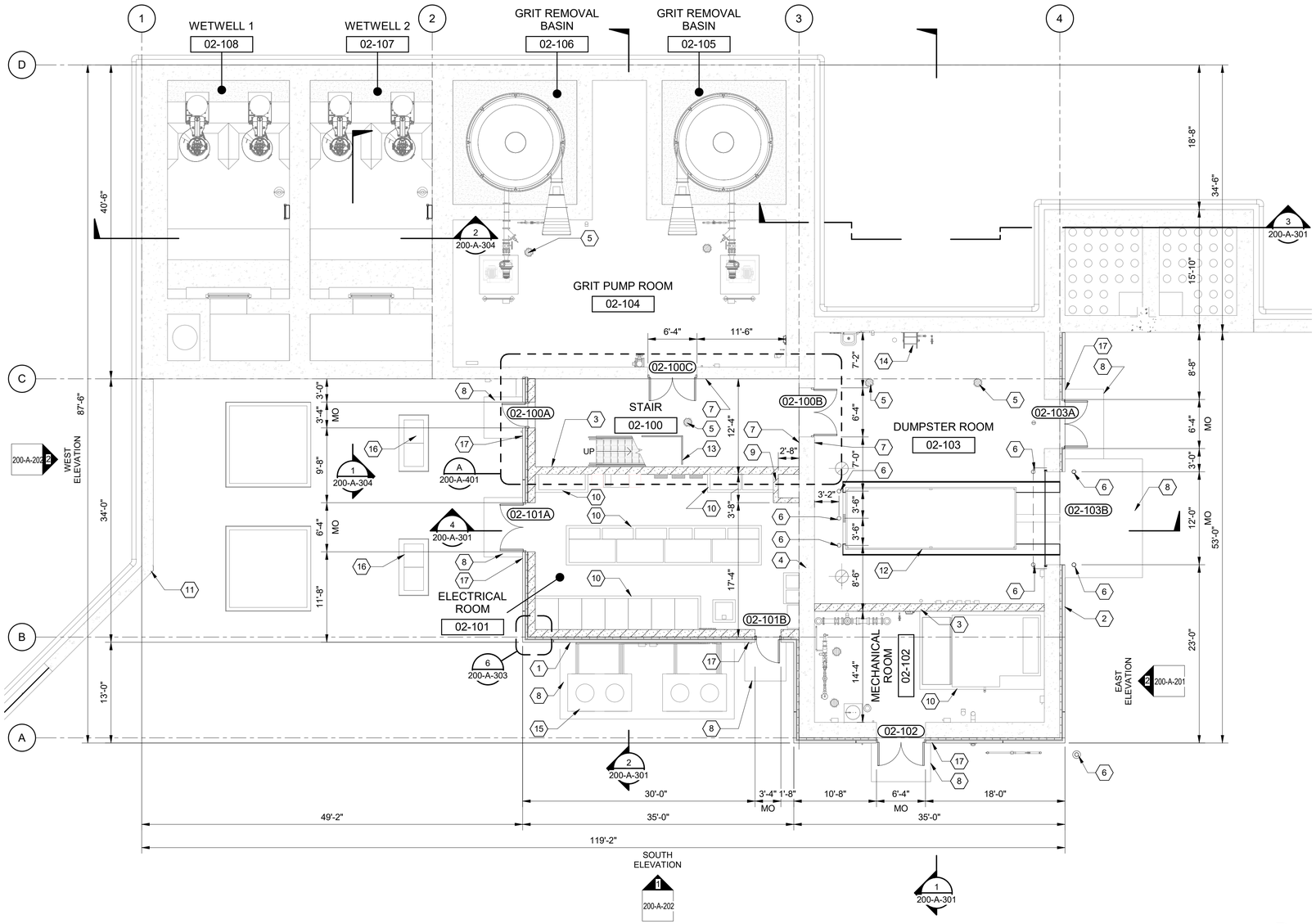


OVERALL OPERATING LEVEL - ARCHITECTURAL FLOOR PLAN

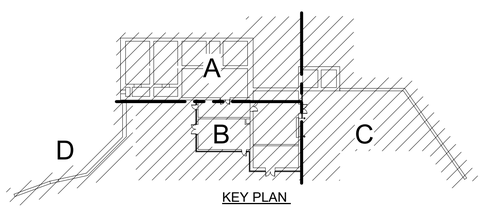
1/8" = 1'-0"

GENERAL NOTES

1. ALL INTERIOR WALLS ARE AS TAGGED AND PER WALL TYPES DETAIL.
2. ALL ANGLES ON PLAN ARE 45 OR 90 DEGREES UNLESS NOTED OTHERWISE.
3. ALL DIMENSIONS ARE ACTUAL AND ARE TO FACE OF MASONRY, CENTERLINE OF COLUMN OR CENTERLINE OF BEAM UNLESS NOTED OTHERWISE. ALL DIMENSIONS ARE FOR BIDDING PURPOSES ONLY. ACTUAL FIELD DIMENSIONS SHALL BE VERIFIED PRIOR TO SUBMITTAL OF SHOP DRAWINGS, ORDERING RELATED MATERIALS AND PERFORMING DEMOLITION OR CONSTRUCTION WORK.
4. VERIFY MECHANICAL AND ELECTRICAL DRAWINGS FOR SCOPE AND INTERFACE. CONTRACTOR SHALL COORDINATE LOCATION FOR ALL MECHANICAL AND ELECTRICAL ITEMS WITH GENERAL CONSTRUCTION. REVIEW ANY DISCREPANCIES WITH THE ENGINEER PRIOR TO INSTALLATION AND/OR FABRICATION.
5. SEE MECHANICAL DRAWINGS FOR ALL ROOF PENETRATIONS WHICH MUST BE FLASHED/ROOFED AROUND.
6. SLOPE EXTERIOR TOP SLABS AND INTERIOR FLOOR SLABS TO DRAINS, SEE STRUCUTRAL SHEETS FOR ELEVATION MARKERS.
7. LOCATE CONTROL JOINTS WHERE SHOWN ON THE PLANS AND ELEVATIONS.
8. IT IS THE INTENT OF THIS CONTRACT THAT ALL AREAS AFFECTED BY CONSTRUCTION BE A FINISHED & COMPLETE PROJECT. CONTRACTOR SHALL PATCH, REPAIR & ADJUST AS REQUIRED TO ACHIEVE THIS FINISHED PROJECT.
9. FOR VERTICAL REINFORCING AND BOND BEAMS IN MASONRY, DESIGN SEE STRUCTURAL DRAWINGS.
10. FOR HORIZONTAL JOINT REINFORCING, SEE SPECIFICATION SECTION 04200.
11. FIRE EXTIGUISHERS - SEE SHEET 200-A-003 & 200-A-004

SHEET KEYNOTES

1	BRICK VENEER CAVITY WALL WITH CMU BACKUP
2	BRICK VENEER CAVITY WALL WITH CONCRETE BACKUP
3	12" CMU WALL
4	C.I.P. CONCRETE WALL
5	FLOOR DRAIN, SEE PLUMBING
6	PIPE BOLLARD
7	SIGN TYPE D.2, SEE SHEET 002-A-507
8	STRUCTURAL STOOP; SEE FOUNDATION PLAN
9	8" CMU WALL
10	EQUIPMENT PAD, SEE ALSO STRUCUTRAL
11	C.I.P. CONCRETE RETAINING WALL
12	DUMPSTER
13	VERTICAL CLEARANCE RAILING, UNDER STAIR
14	HOSE REEL, SEE PLUMBING
15	MECHANICAL UNIT, SEE MECHANICAL
16	SWITCHBOARD, SEE ELECTRICAL
17	SIGN TYPE D.1, SEE SHEET 002-A-507



KEY PLAN

(SCALE BAR IS 4" AT FULL SCALE) 0 1/2 1 2 3 4

BLACK & VEATCH
HDR

JOHNSON COUNTY KANSAS
Wastewater

JOHNSON COUNTY KANSAS

NELSON WASTEWATER TREATMENT FACILITY CONTRACT NEL-CO01 IMPROVEMENTS PROJECT

NOT FOR CONSTRUCTION

1/18/24	FINAL DEVELOPMENT PLAN

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DATE:
PROJECT NO.: 408634

HEADWORKS BUILDING

ARCHITECTURAL

OVERALL OPERATING LEVEL PLAN

200-A-101 | OF

PLOTTED: 11/21/2023 10:22:44 AM
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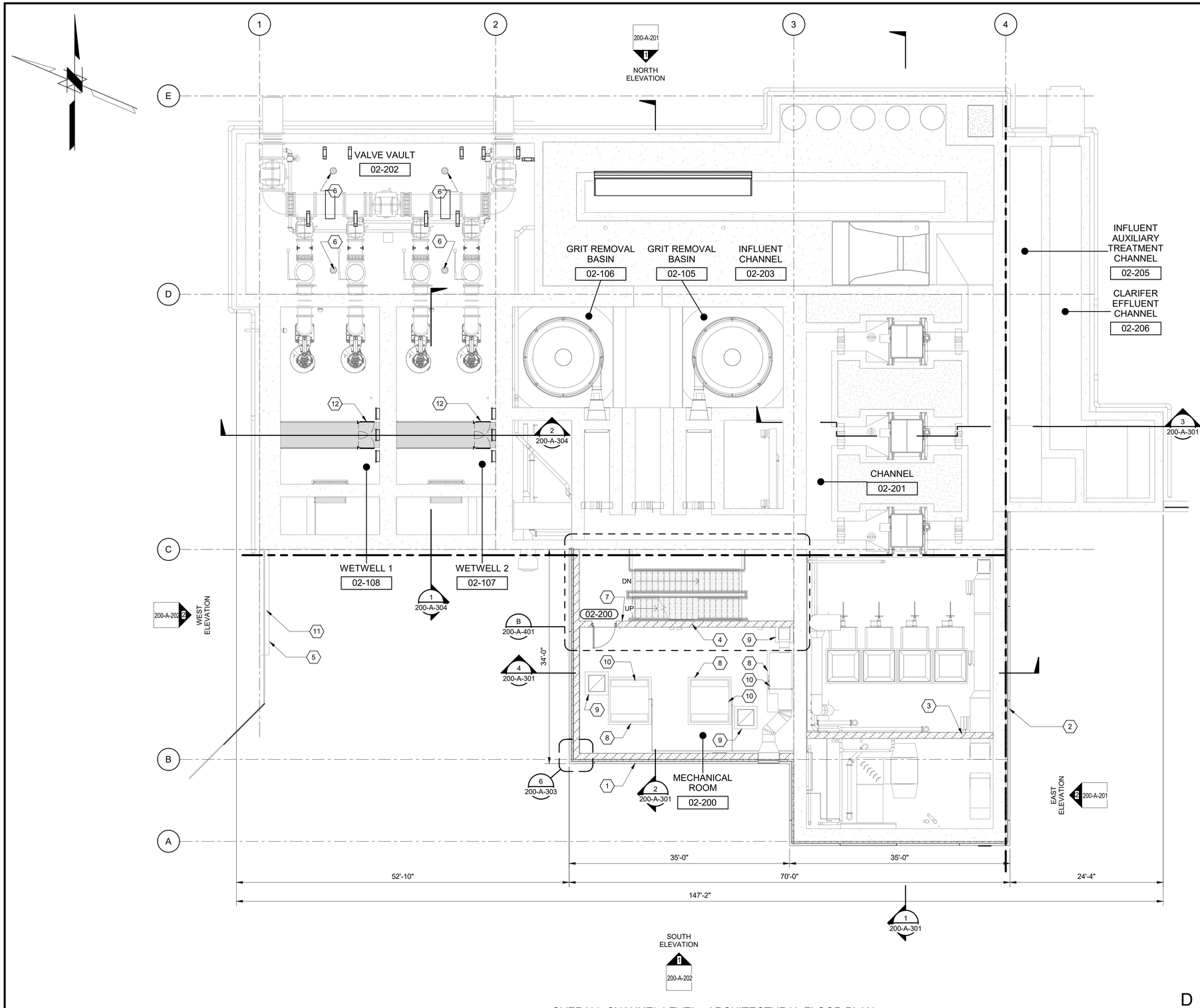
D408634



OVERALL CHANNEL LEVEL - ARCHITECTURAL FLOOR PLAN

1/8" = 1'-0"

GENERAL NOTES

1. ALL INTERIOR WALLS ARE AS TAGGED AND PER WALL TYPES DETAIL.
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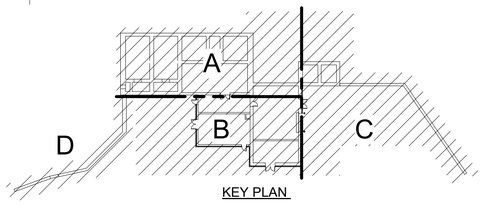
10. FOR HORIZONTAL JOINT REINFORCING, SEE SPECIFICATION SECTION 04200.
11. FIRE EXTIGUISHERS - SEE SHEET 200-A-003 & 200-A-004

SHEET KEYNOTES

1	BRICK VENEER CAVITY WALL WITH CMU BACKUP
2	BRICK VENEER CAVITY WALL WITH CONCRETE BACKUP
3	8" CMU WALL
4	12" CMU WALL
5	ALUMINUM GUARDRAIL
6	FLOOR DRAIN, SEE PLUMBING
7	SIGN TYPE D.2, SEE SHEET 002-A-507
8	EQUIPMENT PAD, SEE ALSO STRUCUTRAL
9	RAISED CURB, SEE ALSO STRUCUTRAL
10	MECHANICAL UNIT, SEE MECHANICAL
11	C.I.P. CONCRETE RETAINING WALL
12	FRP LADDER, PLATFORM WITH WALK THROUGH GATES TO OFF-SET LADDER SECTIONS



KEY PLAN

(SCALE BAR IS 4" AT FULL SCALE) 0 1/2 1 2 3 4

BLACK & VEATCH
HDR

JOHNSON COUNTY KANSAS
Wastewater

JOHNSON COUNTY KANSAS

NELSON WASTEWATER TREATMENT FACILITY CONTRACT NEL-CO01 IMPROVEMENTS PROJECT

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HEADWORKS BUILDING

ARCHITECTURAL

OVERALL CHANNEL LEVEL PLAN

200-A-102 | OF

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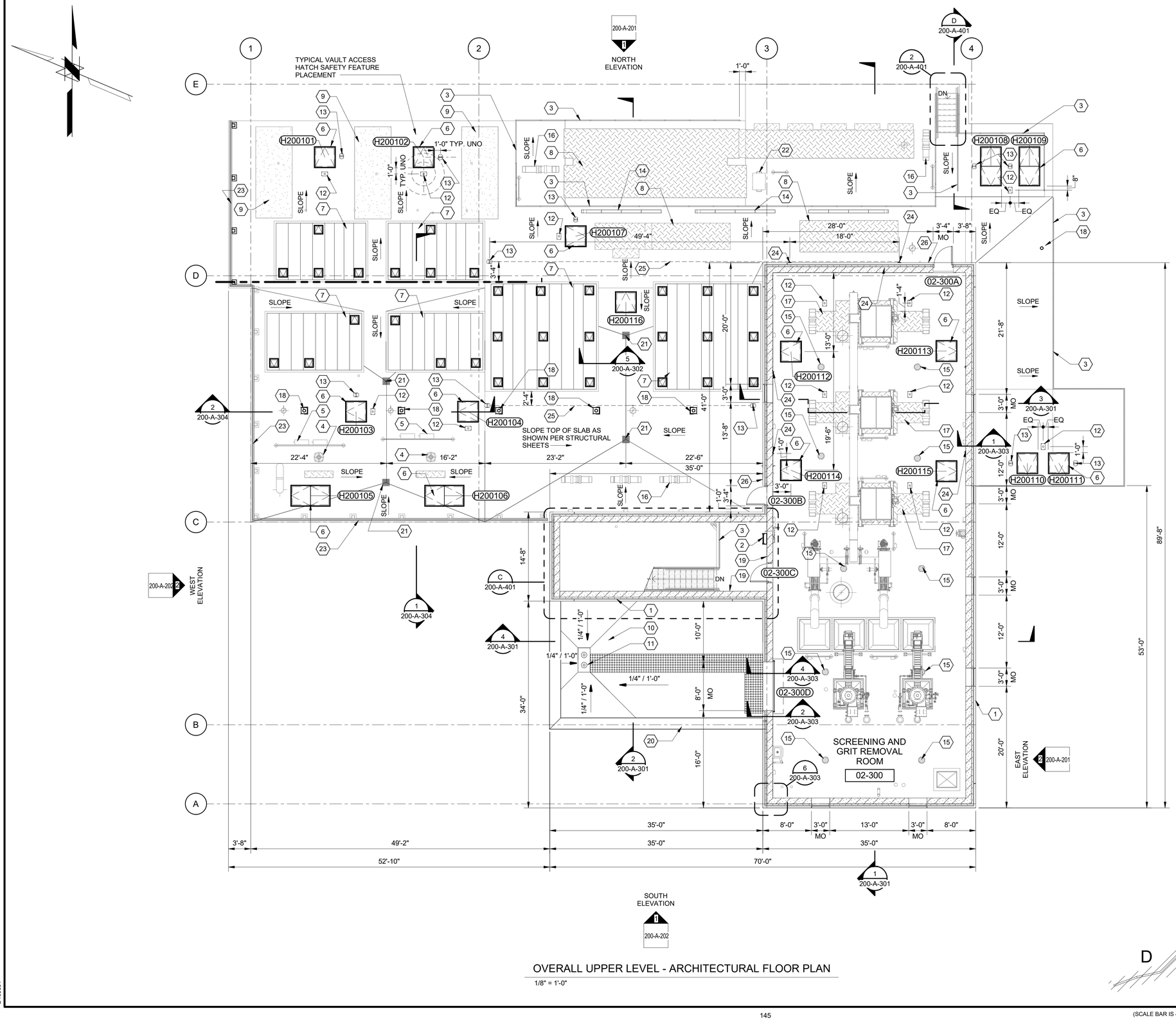
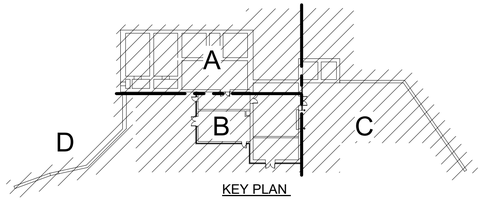


OVERALL UPPER LEVEL - ARCHITECTURAL FLOOR PLAN

1/8" = 1'-0"



KEY PLAN

(SCALE BAR IS 4" AT FULL SCALE) 0 1/2 1 2 3 4

GENERAL NOTES

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10. FOR HORIZONTAL JOINT REINFORCING, SEE SPECIFICATION SECTION 04200.
11. FIRE EXTIGUISHERS - SEE SHEET 200-A-003 & 200-A-004

SHEET KEYNOTES

1 BRICK VENEER CAVITY WALL WITH CMU BACKUP
2 LADDER
3 ALUMINUM GUARDRAIL
4 SLIDE GATE HANDWHEEL, SEE PROCESS DRAWINGS
5 DISCONNECT SWITCH, SEE ELECTRICAL
6 VAULT FLOOR HATCH
7 FLAT PANEL ALUMINUM BASIN COVER SYSTEM ON RAISED CURB WITH INTEGRAL VIEW HATCHES AS SHOWN
8 CHECKER PLATE BASIN COVER SYSTEM, SEE STRUCTURAL
9 CONCRETE PLANK BASIN COVER SYSTEM, SEE STRUCTURAL
10 SINGLE-PLY TPO ROOF MEMBRANE
11 COMBINATION ROOF DRAIN/OVERFLOW DRAIN UNIT
12 PORTABLE DAVIT CRANE FLUSH MOUNTED POST SLEEVE WITH SLEEVE CAP
13 PORTABLE FALL ARREST POST BASE
14 TRENCH ROOF DRAIN, SEE PLUMBING
15 FLOOR DRAIN, SEE PLUMBING
16 SLIDE GATE, SEE PROCESS DRAWINGS
17 STAINLESS STEEL CHECKER PLATE COVER, SEE STRUCTURAL
18 PIPE SUPPORT, SEE PROCESS
19 SIGN TYPE D.2, SEE SHEET 002-A-507
20 PREFINISHED METAL COPING
21 SLAB ROOF DRAIN, SEE PLUMBING
22 MECHANICAL UNIT, SEE MECHANICAL
23 LOUVERED EQUIPMENT SCREEN, SEE DETAIL 6/200-A-302
24 WALL MOUNTED, FALL PROTECTION TIE-OFF CLIP THROUGH BOLTED TO BACKUP WALL TO REQUIRED ARRESTING FORCE
25 HORIZONTAL LIFELINE SYSTEM
26 SIGN TYPE D.1, SEE SHEET 002-A-507

BLACK & VEATCH
HDR

JOHNSON COUNTY KANSAS Wastewater

JOHNSON COUNTY KANSAS

NELSON WASTEWATER TREATMENT FACILITY CONTRACT NEL-CO01 IMPROVEMENTS PROJECT

NOT FOR CONSTRUCTION

1/18/24	FINAL DEVELOPMENT PLAN

REVISIONS AND RECORD OF ISSUE

DESIGNED:	
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HEADWORKS BUILDING

ARCHITECTURAL

OVERALL UPPER LEVEL PLAN

200-A-103 | OF

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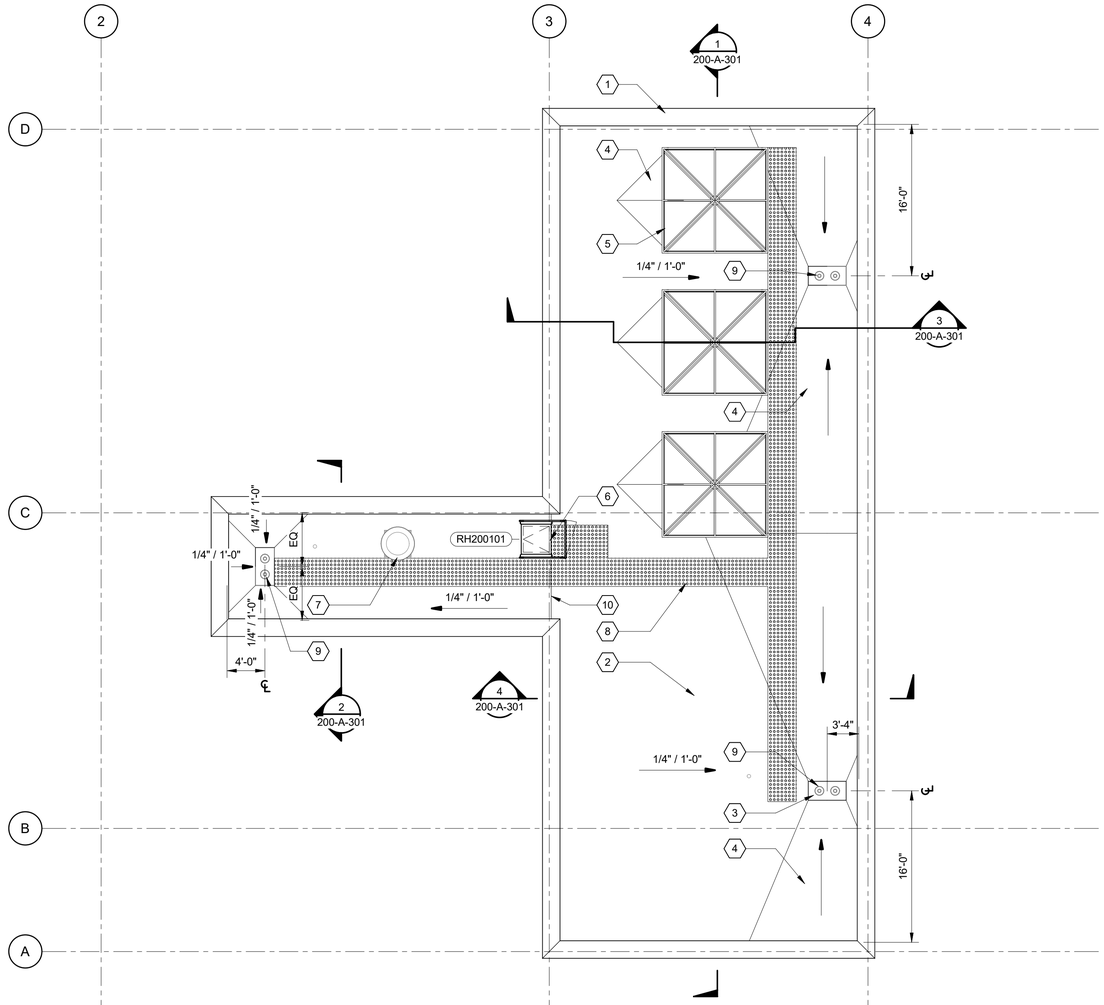

OVERALL ROOF LEVEL - ARCHITECTURAL FLOOR PLAN

1/8" = 1'-0"

GENERAL NOTES

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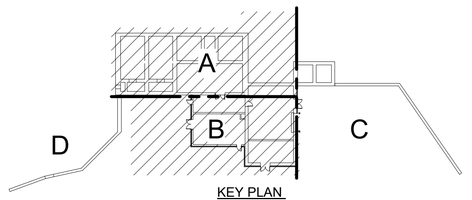
11. FIRE EXTIGUISHERS - SEE SHEET 200-A-003 & 200-A-004

SHEET KEYNOTES

1	PREFINISHED METAL COPING
2	SINGLE-PLY TPO ROOF MEMBRANE
3	COMBINATION ROOF DRAIN/OVERFLOW DRAIN UNIT
4	CRICKET
5	REMOVABLE PROTECTED SKYLIGHT EQUIPMENT ROOF ACCESS
6	ROOF ACCESS HATCH WITH INTEGRATED GATE AND GUARD
7	EXHAUST FAN, SEE MECHANICAL
8	WALKING PAD
9	MIN. 6" ROOF INSULATION AT ROOF DRAINS
10	13 1/2" ROOF INSULATION AT RIDGE



KEY PLAN

(SCALE BAR IS 4" AT FULL SCALE) 0 1/2 1 2 3 4

BLACK & VEATCH

HDR

JOHNSON COUNTY KANSAS Wastewater

JOHNSON COUNTY KANSAS

NELSON WASTEWATER TREATMENT FACILITY CONTRACT NEL-CO01 IMPROVEMENTS PROJECT

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HEADWORKS BUILDING

ARCHITECTURAL

OVERALL ROOF PLAN

200-A-104 | OF

PLOTTED: 11/21/2023 10:24:53 AM
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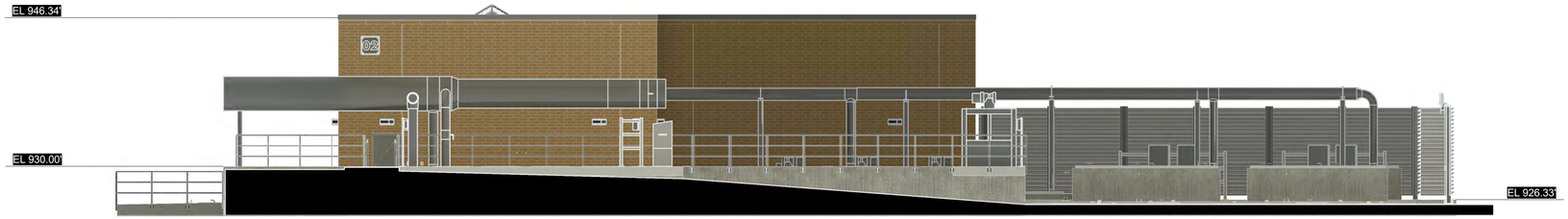
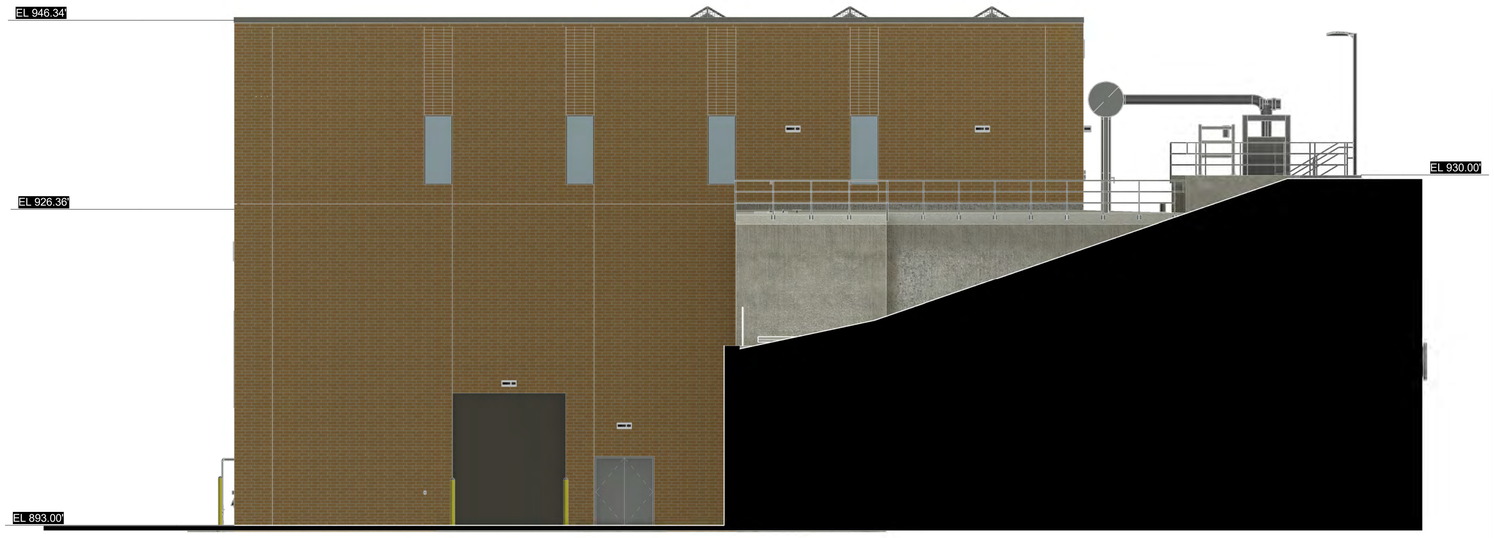


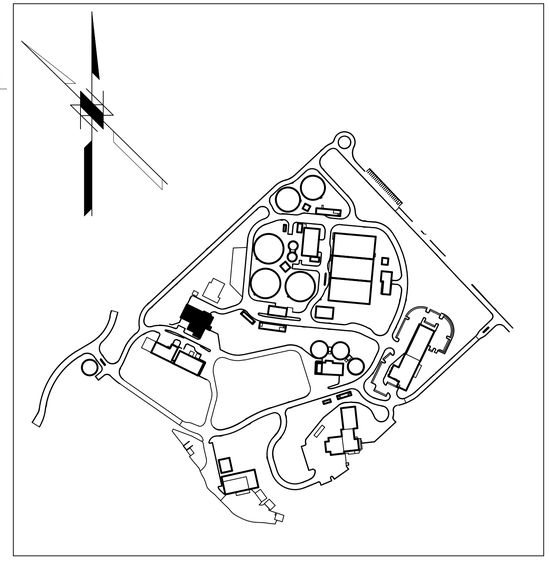
NORTH ELEVATION

1/8" = 1'-0"



EAST ELEVATION

1/8" = 1'-0"



KEY PLAN

BLACK & VEATCH

HDR

JOHNSON COUNTY KANSAS Wastewater

JOHNSON COUNTY KANSAS

NELSON WASTEWATER TREATMENT FACILITY CONTRACT NEL-CO01 IMPROVEMENTS PROJECT

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HEADWORKS BUILDING

ARCHITECTURAL

ELEVATIONS

200-A-201P

OF

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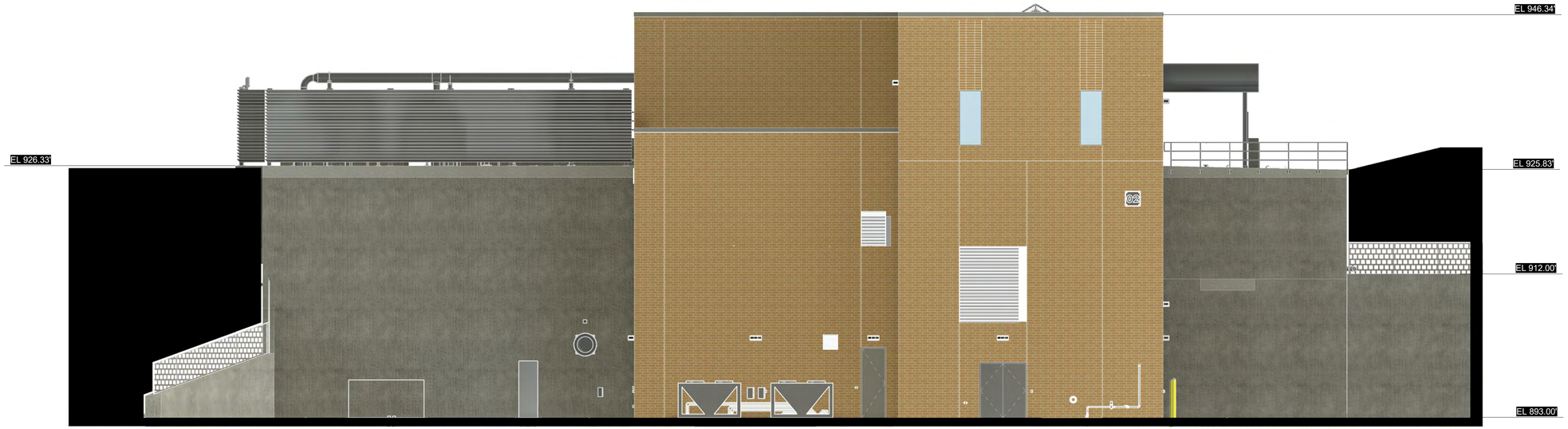
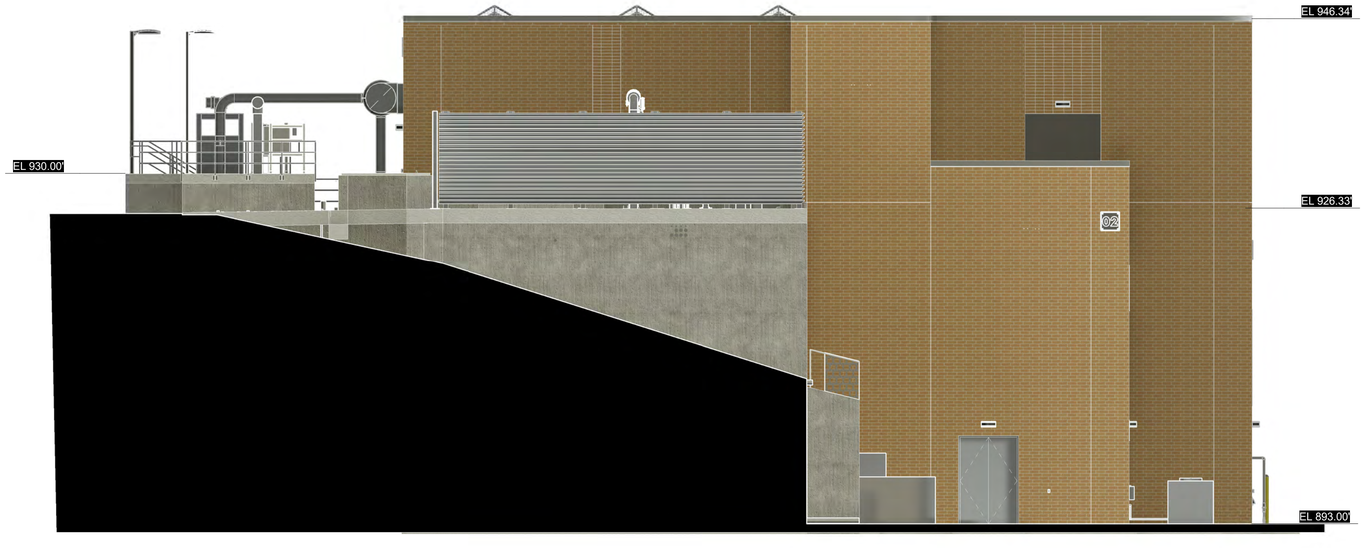
D408634

(SCALE BAR IS 4" AT FULL SCALE) 0 1/2 1 2 3 4



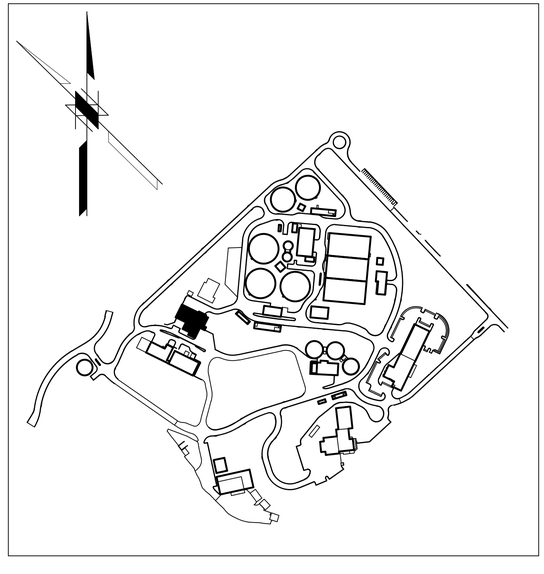
SOUTH ELEVATION

1/8" = 1'-0"



WEST ELEVATION

1/8" = 1'-0"



KEY PLAN

BLACK & VEATCH

HDR

JOHNSON COUNTY KANSAS Wastewater

JOHNSON COUNTY KANSAS

NELSON WASTEWATER TREATMENT FACILITY CONTRACT NEL-CO01 IMPROVEMENTS PROJECT

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HEADWORKS BUILDING

ARCHITECTURAL

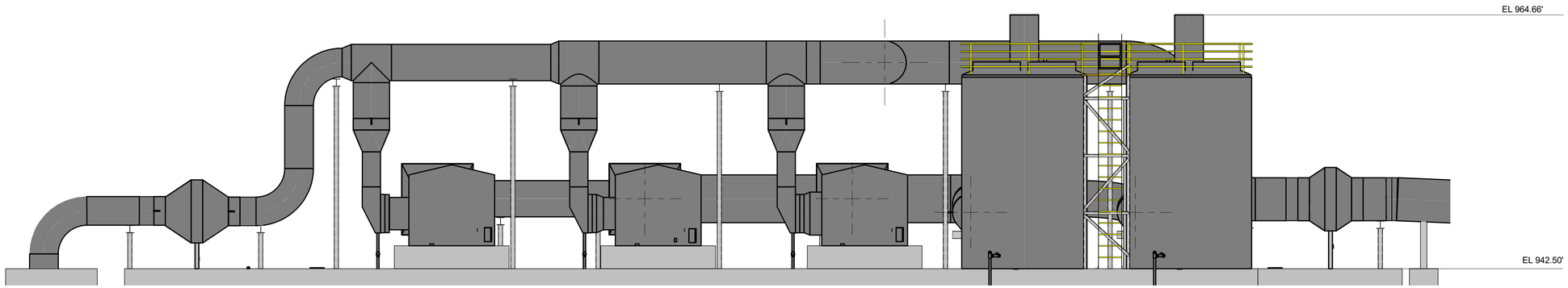
ELEVATIONS

200-A-202P

OF

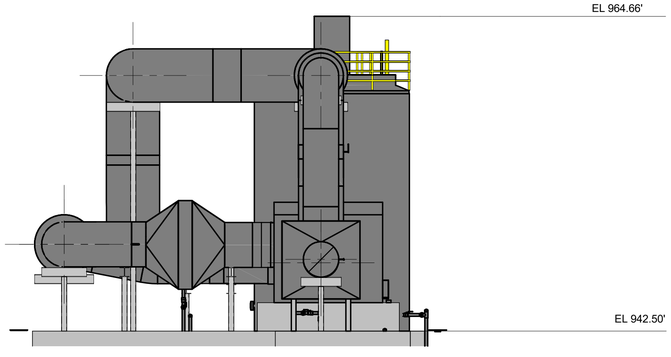
PLOTTED: 1/5/2024 10:17:10 AM
FILE: BIM 360://408634 - Nelson WWTF Improvements/408634-200-HW.rvt
D408634

(SCALE BAR IS 4" AT FULL SCALE) 0 1/2 1 2 3 4



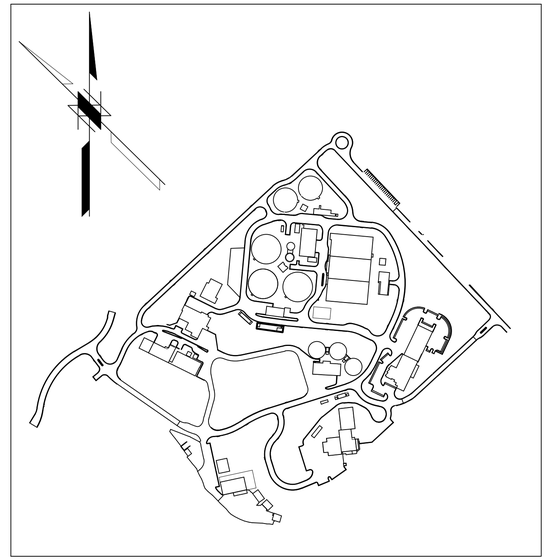
NORTH ELEVATION

3/16" = 1'-0"



EAST ELEVATION

3/16" = 1'-0"



KEY PLAN

(SCALE BAR IS 4" AT FULL SCALE) 0 1/2 1 2 3 4

BLACK & VEATCH

HDR

JOHNSON COUNTY KANSAS

Wastewater

JOHNSON COUNTY KANSAS

NELSON WASTEWATER TREATMENT FACILITY CONTRACT NEL-CO01 IMPROVEMENTS PROJECT

NOT FOR CONSTRUCTION

1/18/24	FINAL DEVELOPMENT PLAN

REVISIONS AND RECORD OF ISSUE

DESIGNED:
DETAILED:
CHECKED:
APPROVED:
DATE:

PROJECT NO.: 408634

OC NO. 1 - HEADWORKS & DEWATERING & CENTRATE AREA

PROCESS MECHANICAL

ELEVATIONS

210-M-201P

OF

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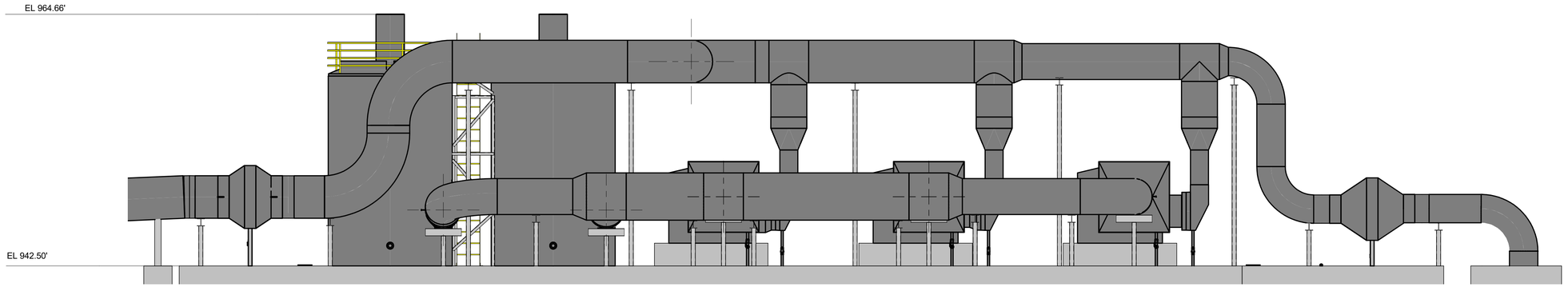
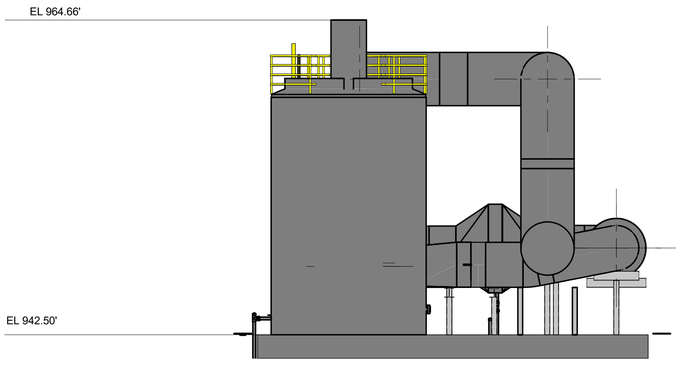
D408634



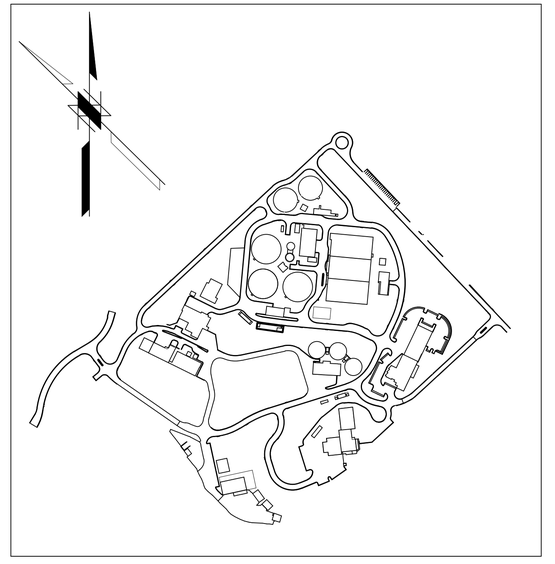
SOUTH ELEVATION

3/16" = 1'-0"



WEST ELEVATION

3/16" = 1'-0"



KEY PLAN

(SCALE BAR IS 4" AT FULL SCALE) 0 1/2 1 2 3 4

BLACK & VEATCH

HDR

JOHNSON COUNTY KANSAS

Wastewater

JOHNSON COUNTY KANSAS

NELSON WASTEWATER TREATMENT FACILITY CONTRACT NEL-CO01 IMPROVEMENTS PROJECT

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DATE:	
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OC NO. 1 - HEADWORKS & DEWATERING & CENTRATE AREA

PROCESS MECHANICAL

ELEVATIONS

210-M-202P

OF

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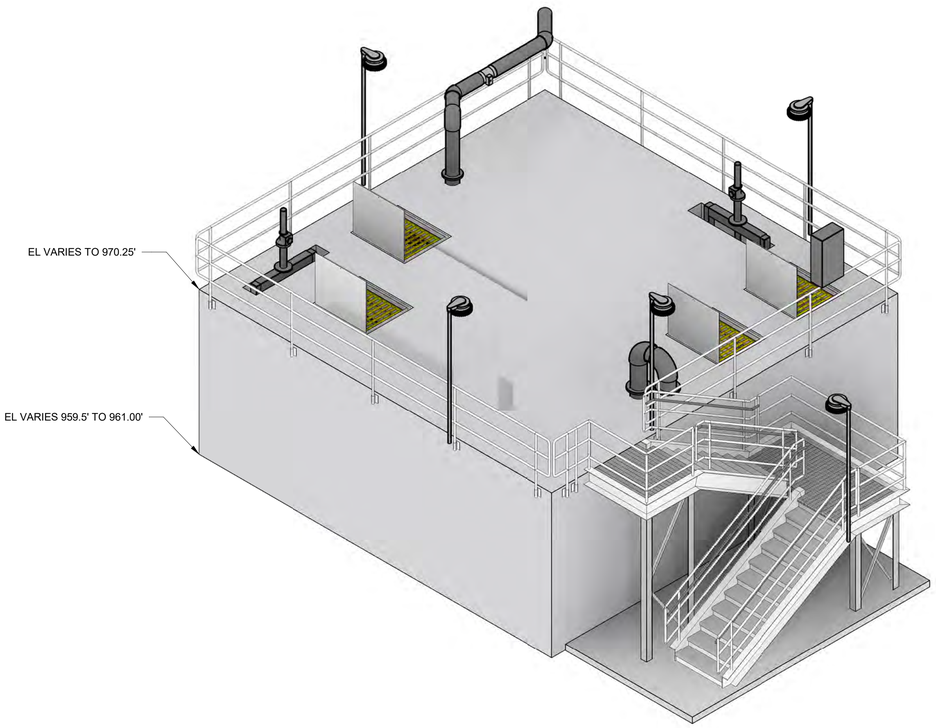
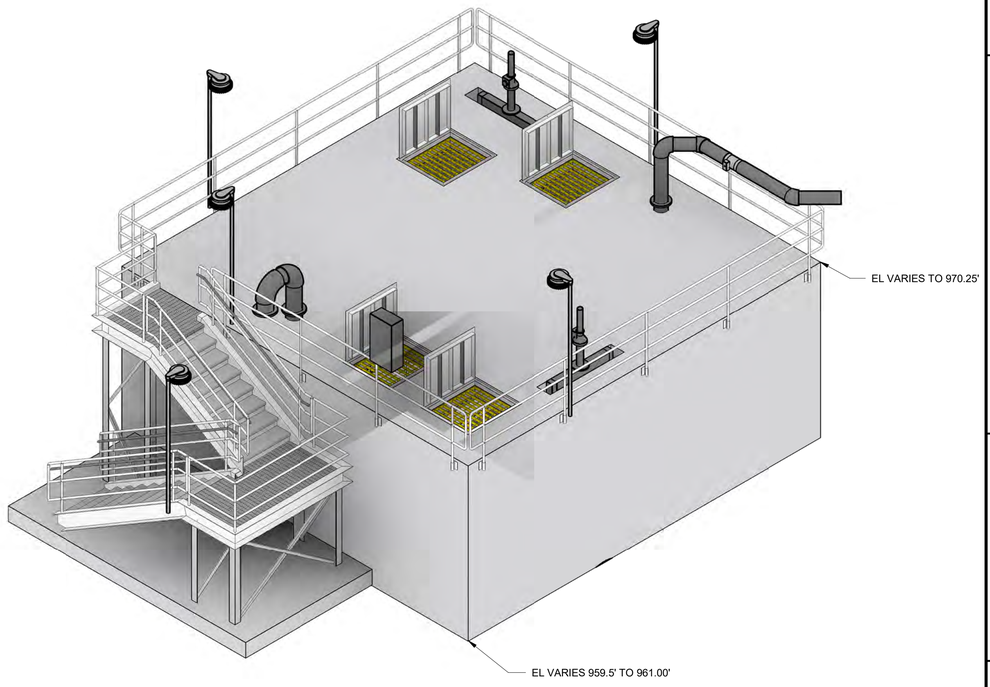
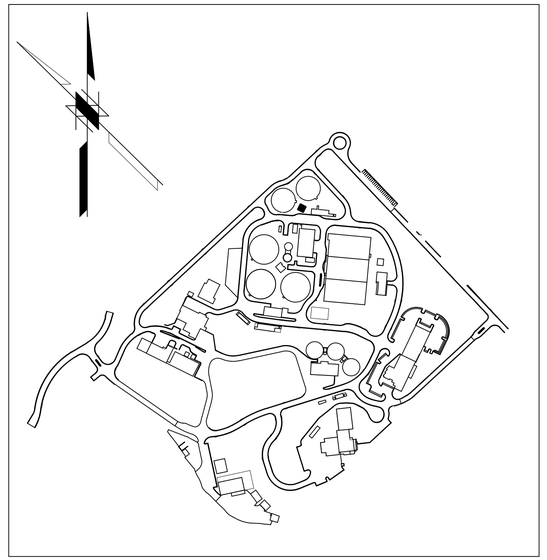
D408634



SOUTHWEST PERSPECTIVE



SOUTHEAST PERSPECTIVE



KEY PLAN

(SCALE BAR IS 4" AT FULL SCALE) 0 1/2 1 2 3 4

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11401 Lamar Avenue
Overland Park, Kansas 66211

JOHNSON COUNTY KANSAS
Wastewater

JOHNSON COUNTY
KANSAS

NELSON WASTEWATER
TREATMENT FACILITY
CONTRACT NEL-CO01
IMPROVEMENTS
PROJECT

NOT FOR CONSTRUCTION

01/18/24	FINAL DEVELOPMENT PLAN

REVISIONS AND RECORD OF ISSUE

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PRIMARY CLARIFIER
SPLITTER STRUCTURE

ARCHITECTURAL

EAST & SOUTH
AERIAL PERSPECTIVES

300-A-201P

OF

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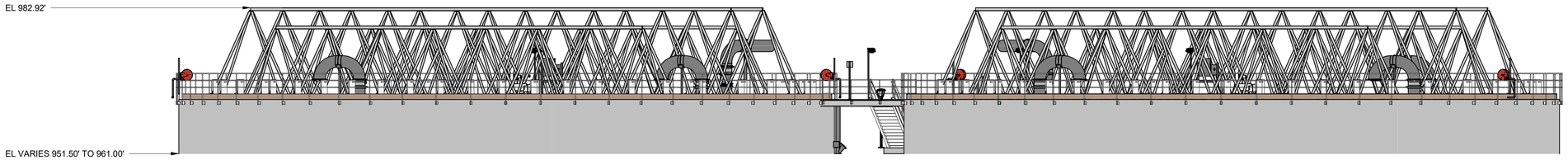
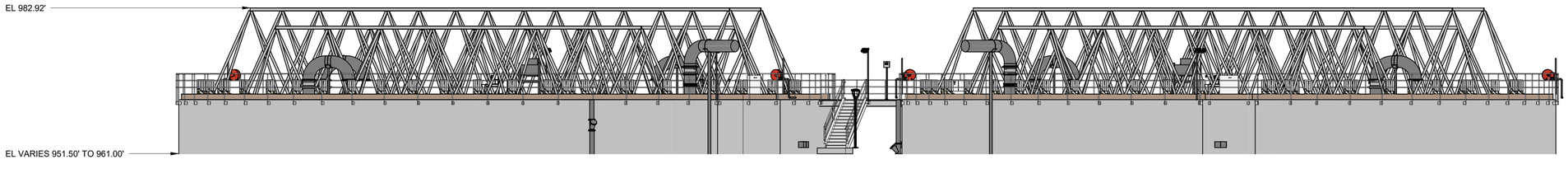
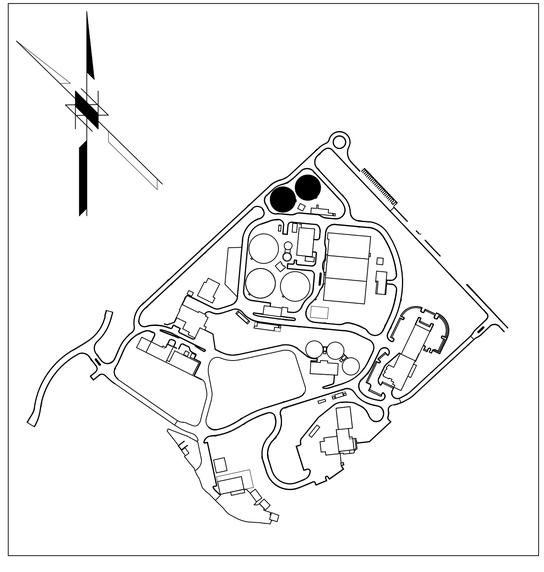
D408634



North Elevation



South Elevation



KEY PLAN

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Overland Park, Kansas 66211

JOHNSON COUNTY KANSAS Wastewater

JOHNSON COUNTY KANSAS

NELSON WASTEWATER TREATMENT FACILITY CONTRACT NEL-CO01 IMPROVEMENTS PROJECT

NOT FOR CONSTRUCTION

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PRIMARY CLARIFIERS

ARCHITECTURAL

ELEVATIONS

310-A-201P | OF

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D409634

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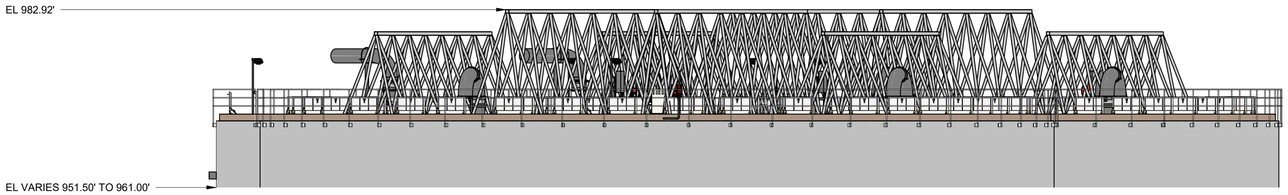
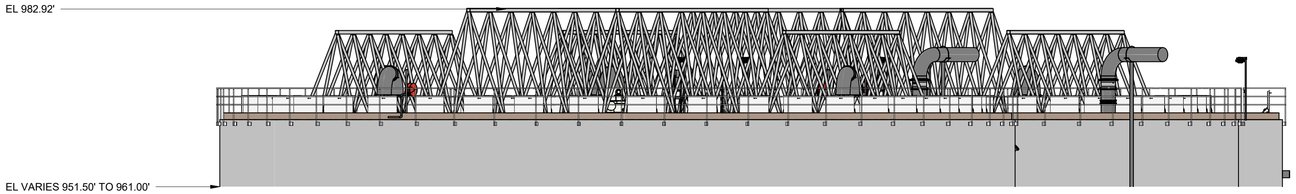
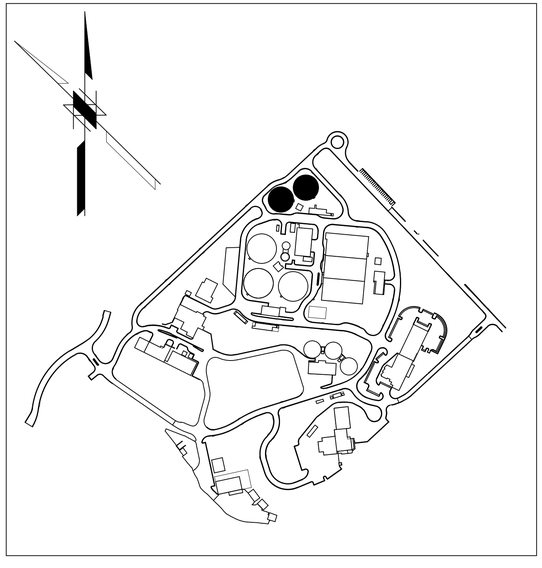


East Elevation



West Elevation



KEY PLAN

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JOHNSON COUNTY KANSAS Wastewater

JOHNSON COUNTY KANSAS

NELSON WASTEWATER TREATMENT FACILITY CONTRACT NEL-CO01 IMPROVEMENTS PROJECT

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01/18/24	FINAL DEVELOPMENT PLAN

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PRIMARY CLARIFIERS

ARCHITECTURAL

ELEVATIONS

310-A-202P | OF

PLOTTED: 1/16/2024 9:25:12 AM
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D408634

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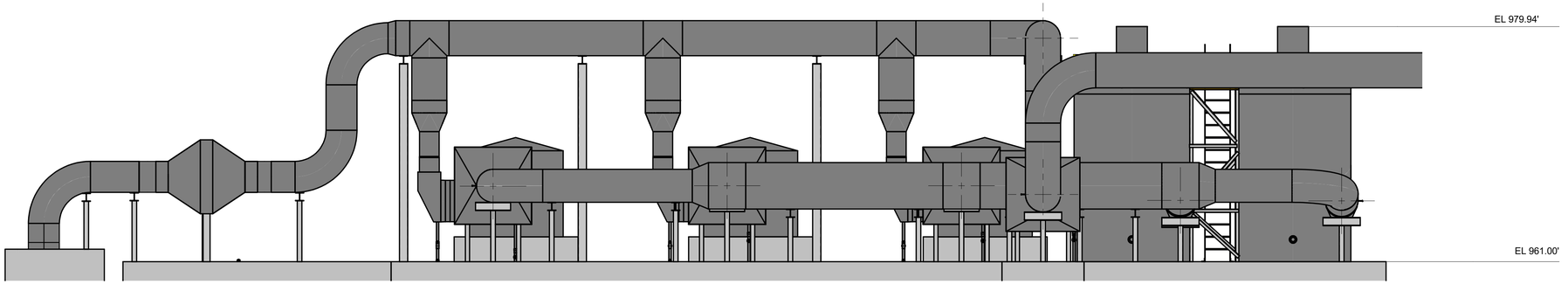
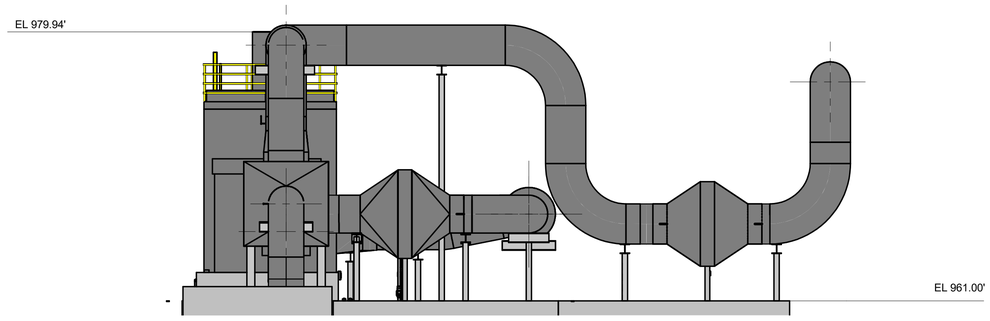


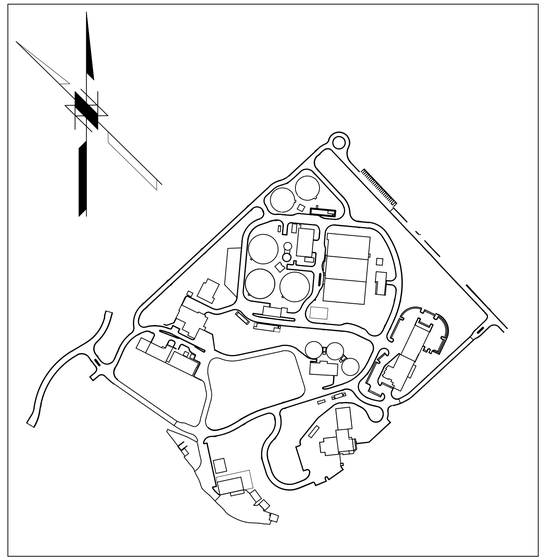
NORTH ELEVATION

3/16" = 1'-0"



EAST ELEVATION

3/16" = 1'-0"



KEY PLAN

(SCALE BAR IS 4" AT FULL SCALE) 0 1/2 1 2 3 4

BLACK & VEATCH

HDR

JOHNSON COUNTY KANSAS

Wastewater

JOHNSON COUNTY KANSAS

NELSON WASTEWATER TREATMENT FACILITY CONTRACT NEL-CO01 IMPROVEMENTS PROJECT

NOT FOR CONSTRUCTION

1/18/24	FINAL DEVELOPMENT PLAN

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PROJECT NO.: 408634

ODOR CONTROL SYSTEM NO. 2 - PRIMARY CLARIFIERS, DAF & BNR AREA

PROCESS MECHANICAL

ELEVATIONS

330-M-201P

OF

PLOTTED: 1/5/2024 11:15:12 AM
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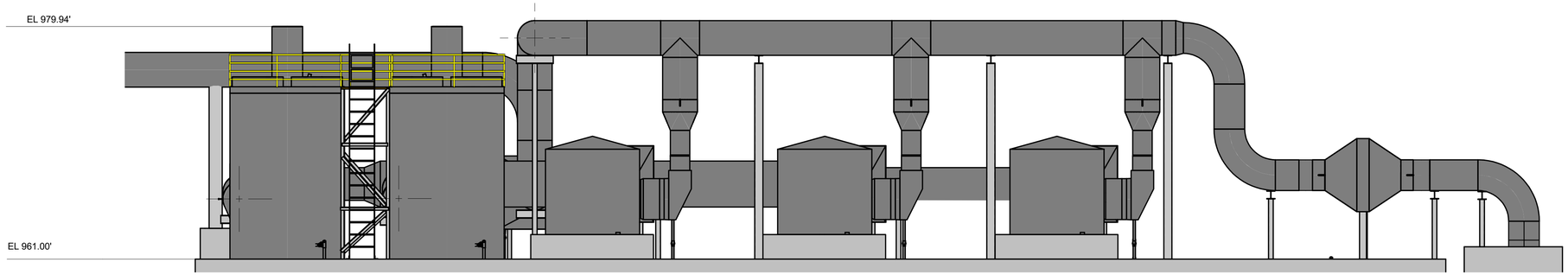
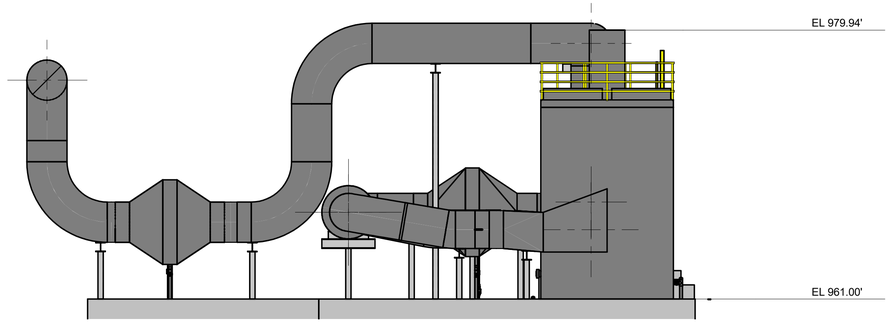
D408634



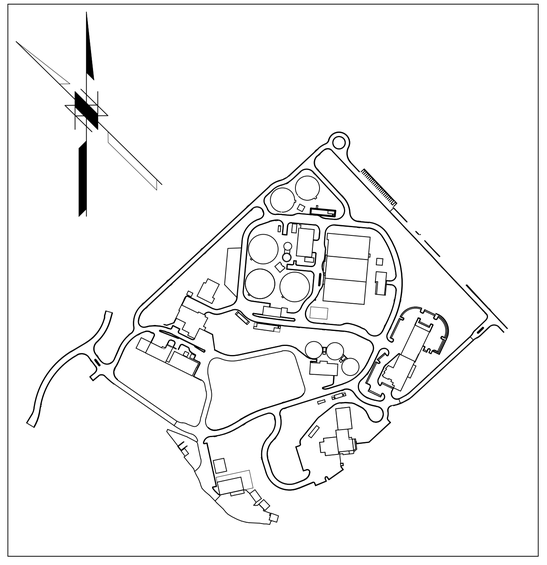
SOUTH ELEVATION

3/16" = 1'-0"



WEST ELEVATION

3/16" = 1'-0"



KEY PLAN

(SCALE BAR IS 4" AT FULL SCALE) 0 1/2 1 2 3 4

BLACK & VEATCH

HDR

JOHNSON COUNTY KANSAS Wastewater

JOHNSON COUNTY KANSAS

NELSON WASTEWATER TREATMENT FACILITY CONTRACT NEL-CO01 IMPROVEMENTS PROJECT

NOT FOR CONSTRUCTION

1/18/24	FINAL DEVELOPMENT PLAN

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ODOR CONTROL SYSTEM NO. 2 - PRIMARY CLARIFIERS, DAF & BNR AREA

PROCESS MECHANICAL

ELEVATIONS

330-M-202P

OF

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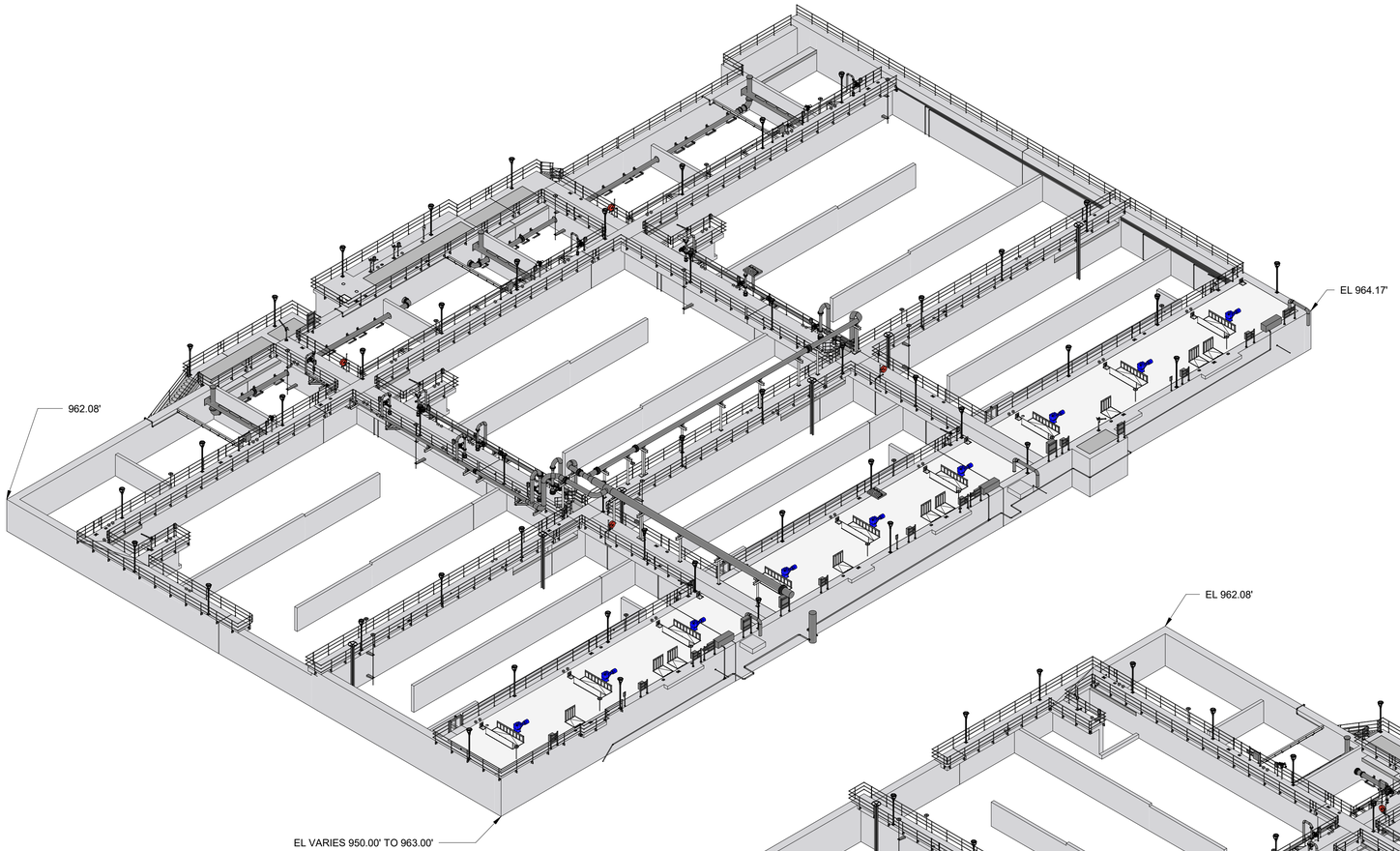
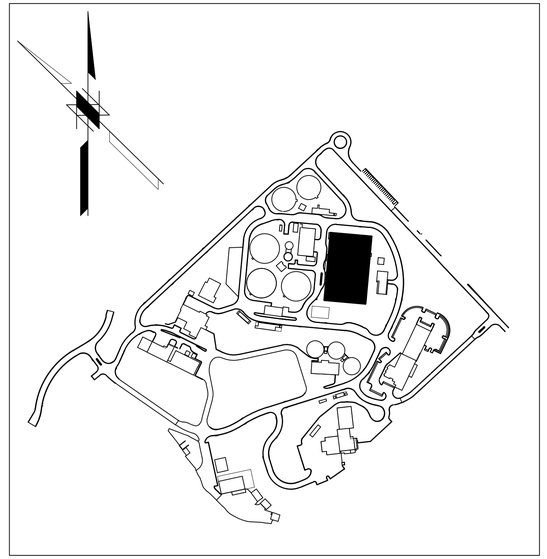
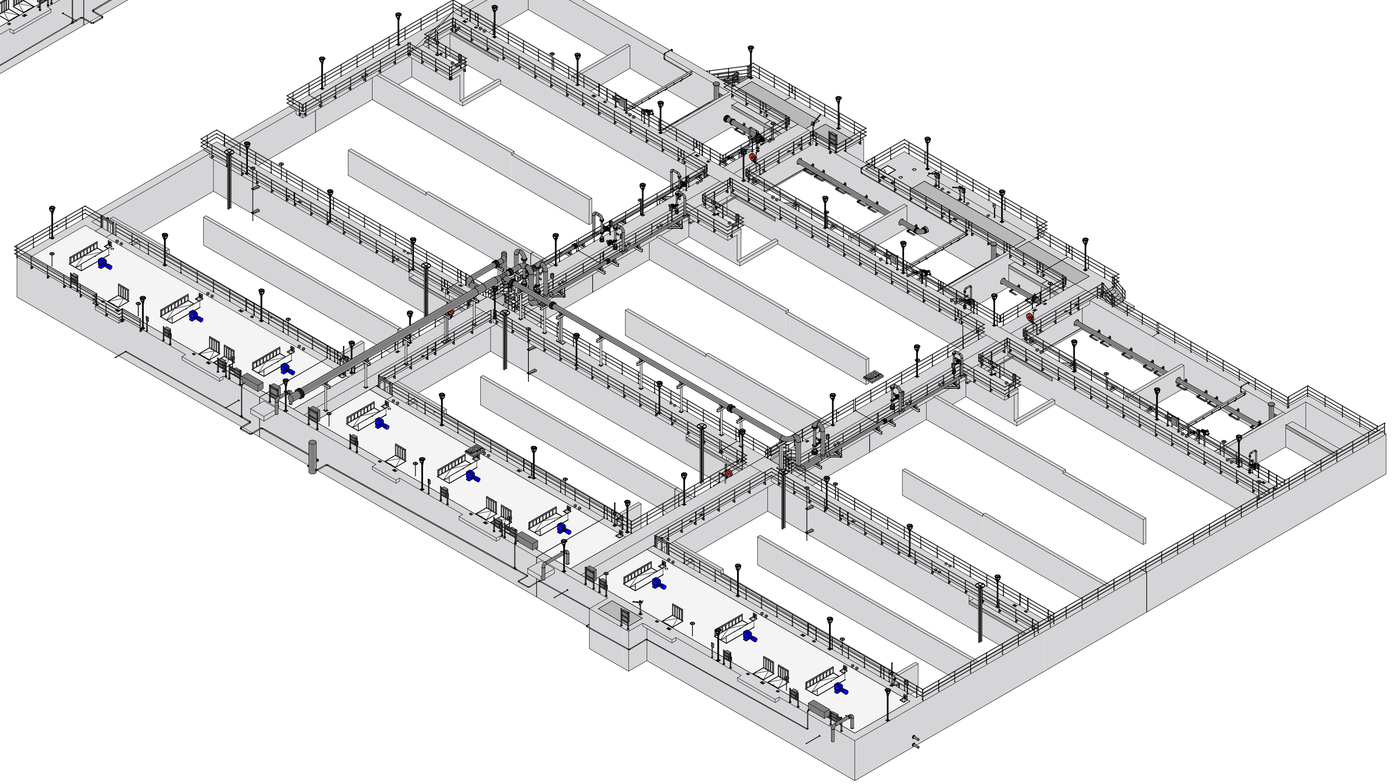
D408634



SOUTH AERIAL PERSPECTIVE



KEY PLAN



EAST AERIAL PERSPECTIVE

BLACK & VEATCH

HDR

JOHNSON COUNTY KANSAS Wastewater

JOHNSON COUNTY KANSAS

NELSON WASTEWATER TREATMENT FACILITY CONTRACT NEL-CO01 IMPROVEMENTS PROJECT

NOT FOR CONSTRUCTION

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BNR BASIN

ARCHITECTURAL

PERSPECTIVES

400-A-201P

OF

(SCALE BAR IS 4" AT FULL SCALE) 0 1/2 1 2 3 4

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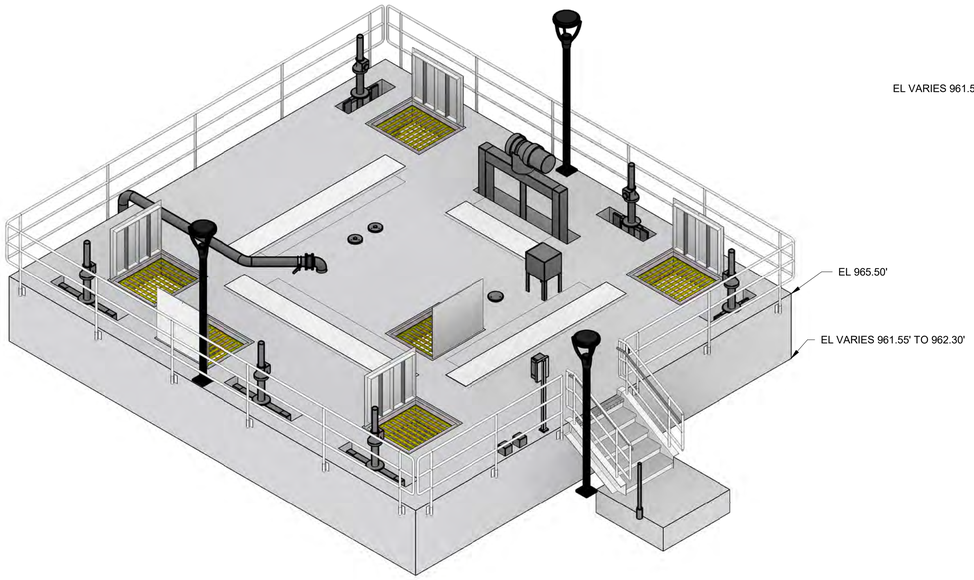
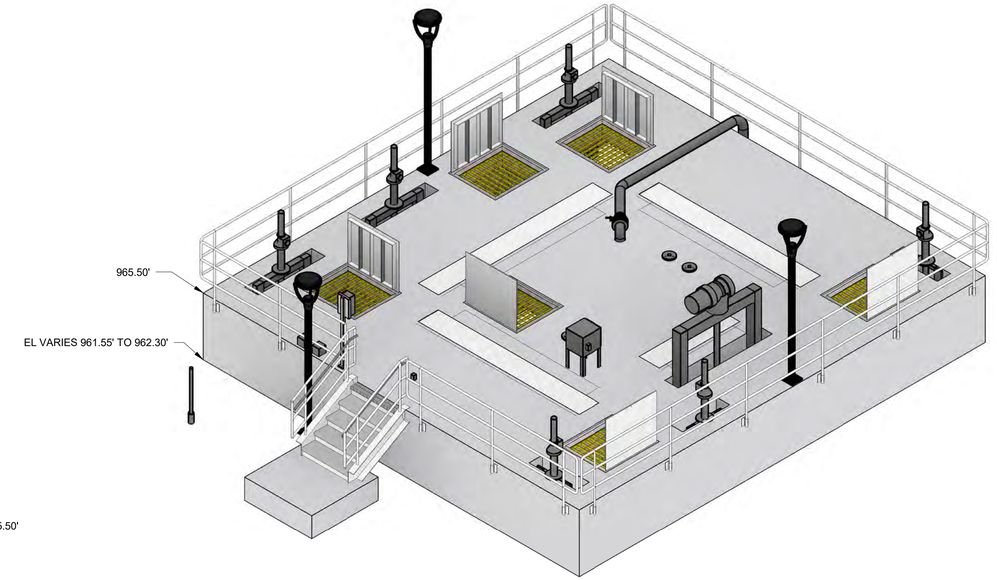
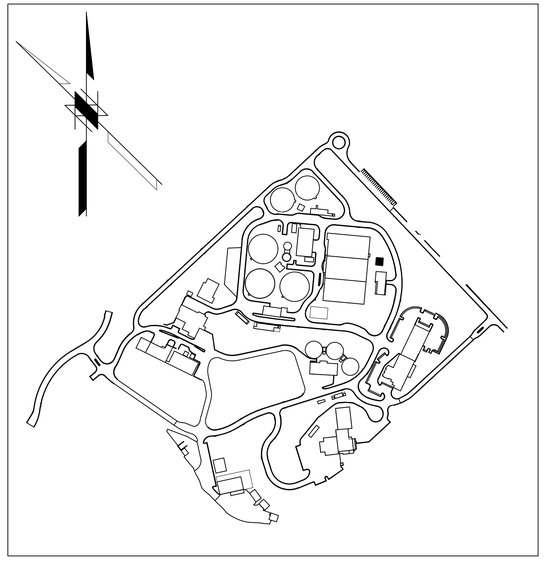
D408634



WEST PERSPECTIVE



SOUTH PERSPECTIVE



KEY PLAN

(SCALE BAR IS 4" AT FULL SCALE) 0 1/2 1 2 3 4

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NELSON WASTEWATER TREATMENT FACILITY CONTRACT NEL-CO01 IMPROVEMENTS PROJECT

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BNR BASIN FLOW SPLITTER

ARCHITECTURAL

PERSPECTIVES

405-A-201P | OF

PLOTTED: 1/16/2024 11:36:17 AM
FILE: BIM 360://408634 - Nelson WWTF Improvements/408634-405-BNR SPLITTER.rvt
D408634

GENERAL SHEET NOTES

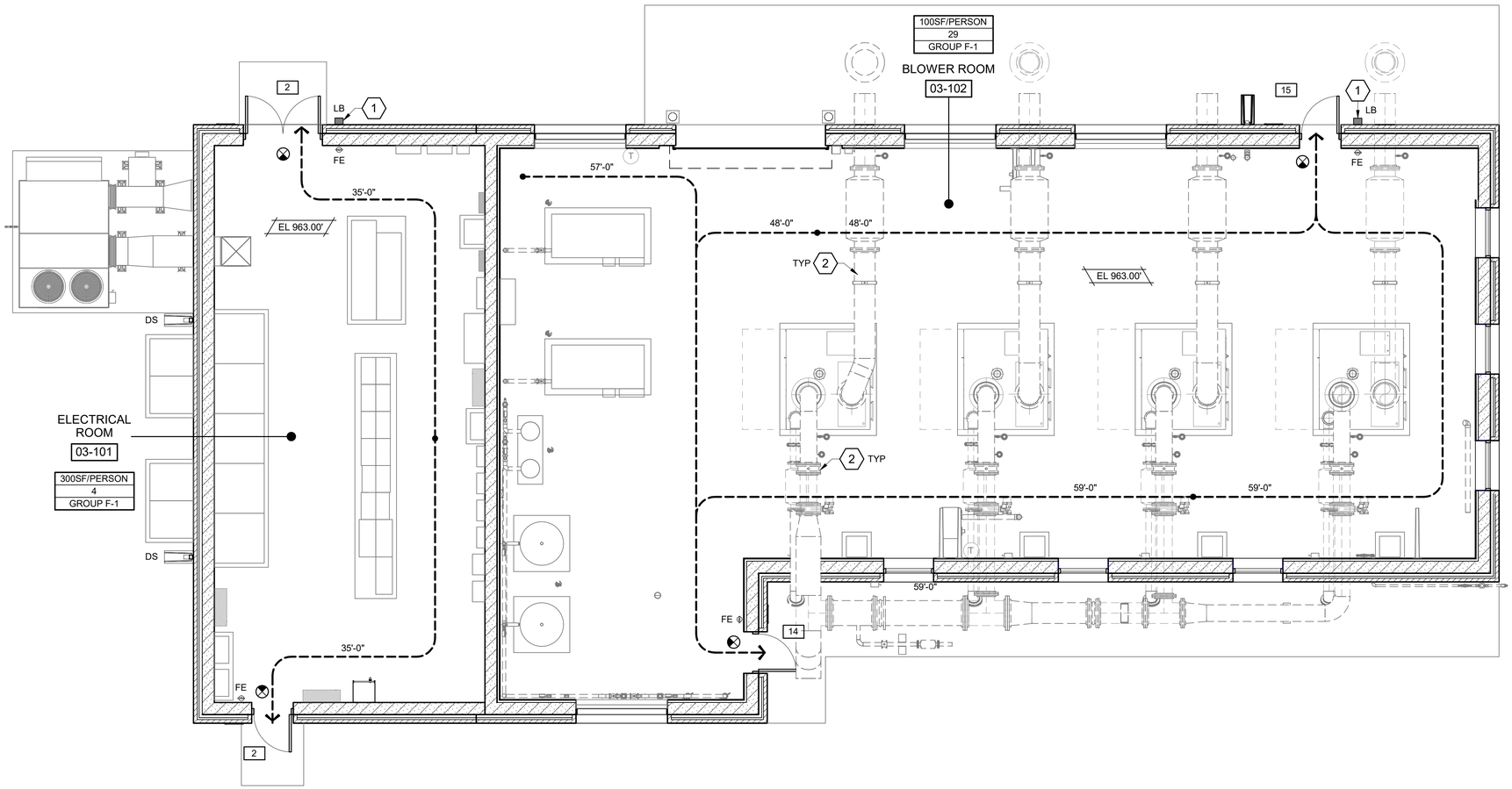
1. FOR ARCHITECTURAL SYMBOL LEGEND, SEE FLOOR PLAN DRAWING.
2. FOR EXIT LIGHTS AND EMERGENCY LIGHTING SEE ELECTRICAL LIGHTING DRAWINGS (E SERIES).
3. FOR OCCUPANT LOAD CALCULATION & INFORMATION, SEE CODE ANALYSIS DRAWING 410-G-001.

SHEET KEYNOTES

1. WALL MOUNTED LOCK BOX (LB). BOTTOM OF UNIT BETWEEN 5'-0 & 6'-0" ABOVE FLOOR LEVEL.
2. PROCESS PIPING ABOVE, TYPICAL. REFER TO MECHANICAL DRAWINGS FOR INFORMATION.

LIFE SAFETY LEGEND

FE	FIRE EXTINGUISHER (FE)
X'-X"	EXIT ACCESS TRAVEL DISTANCE
100SF/PERSON 0 GROUP F-1	OCCUPANTS PER SF OCCUPANT LOAD OCCUPANCY CLASSIFICATION
1	CUMULATIVE OCCUPANT LOAD AT EXIT
	EXIT SYMBOL
	LOCK BOX (LB)



OPERATING LEVEL - LIFE SAFETY PLAN

3/16" = 1'-0"

6" 4' 2' 0' 5' 10'

3/16" = 1'-0"

(SCALE BAR IS 4" AT FULL SCALE) 0 1/2 1 2 3 4

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JOHNSON COUNTY KANSAS Wastewater

JOHNSON COUNTY KANSAS

NELSON WASTEWATER TREATMENT FACILITY CONTRACT NEL-CO01 IMPROVEMENTS PROJECT

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BASIN BLOWER BUILDING

ARCHITECTURAL

LIFE SAFETY PLAN

410-A-001 OF

PLOTTED: 10/10/2023 12:27:48 PM
FILE: BIM 360://408634 - Nelson WWTF Improvements/408634-410-BLOWER.rvt
D408634

GENERAL SHEET NOTES

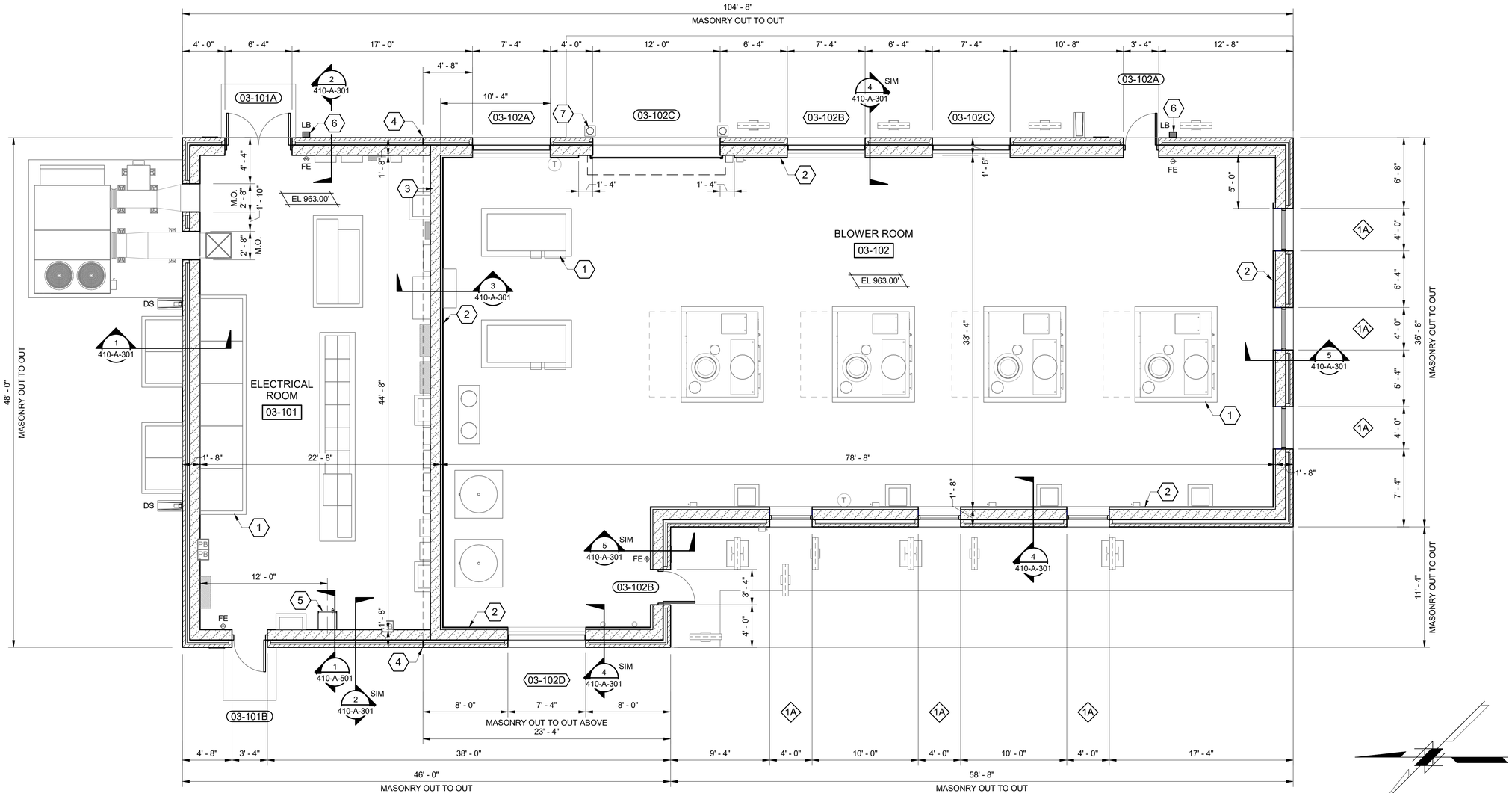
1. FOR ARCHITECTURAL SYMBOL LEGEND, SEE OVERALL FLOOR PLAN.
2. WALL DIMENSIONS ARE TO MASONRY FACE UNLESS NOTED OTHERWISE ON PLAN.
3. FOR MASONRY VENEER EXPANSION JOINT (EJ) LOCATIONS, SEE BUILDING ELEVATIONS.
4. FOR CONTROL JOINT (CJ) LOCATIONS IN CMU BACKUP WALL, SEE STRUCTURAL PLAN.
5. FOR DOWNSPOUT (DS) LOCATIONS, SEE ROOF PLAN.
6. FOR CONCRETE DOOR STOOPS, SEE STRUCTURAL DWGS.

SHEET KEYNOTES

1. EQUIPMENT PAD, TYPICAL. SEE STRUCTURAL DRAWINGS.
2. CONTINUOUS ACOUSTICAL WALL PANEL & INSULATION OVER 2" METAL Z-FURRING W/ J-TRIM EDGE.
3. 12 INCH CONCRETE MASONRY UNIT, TYPICAL.
4. ALIGN EXPANSION JOINT WITH MASONRY OUTSIDE CORNER ABOVE.
5. ROOF ACCESS LADDER, SEE STRUCTURAL DRAWINGS.
6. WALL MOUNTED LOCK BOX (LB). BOTTOM OF UNIT BETWEEN 5'-0 & 6'-0" ABOVE FLOOR LEVEL.
7. INTERIOR/EXTERIOR BOLLARD, TYPICAL OF 2. SEE DETAIL C ON CIVIL DRAWING 002-C-504.

ARCHITECTURAL SYMBOL LEGEND

00-101A	DOOR OR ROOF HATCH
00-101A	LOUVER
W	WINDOW OR WINDOW SYSTEM
ROOM NAME 00-101	ROOM NAME & NUMBER



OPERATING FLOOR PLAN

3/16" = 1'-0"

6" 4' 2' 0' 5' 10'

3/16" = 1'-0"

(SCALE BAR IS 4" AT FULL SCALE) 0 1/2 1 2 3 4

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JOHNSON COUNTY KANSAS

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PROJECT NO.:	408634

BASIN BLOWER BUILDING

ARCHITECTURAL

FLOOR PLAN

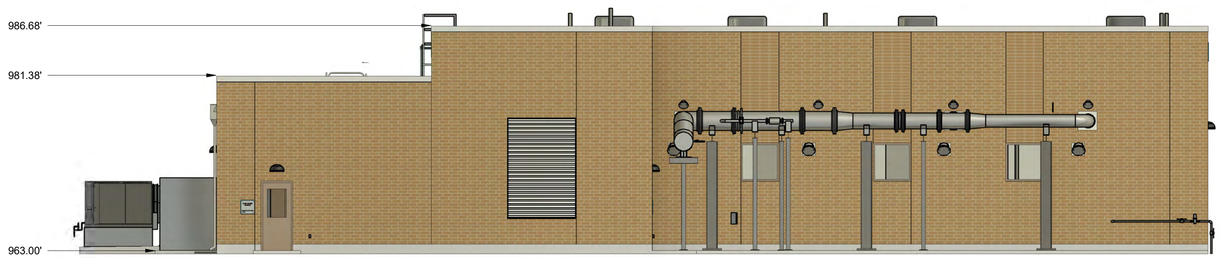
410-A-101 | OF

PLOTTED: 10/12/2023 4:11:40 PM
FILE: BIM 360://408634 - Nelson WWTF Improvements/408634-410-BLOWER.rvt
D4/08634

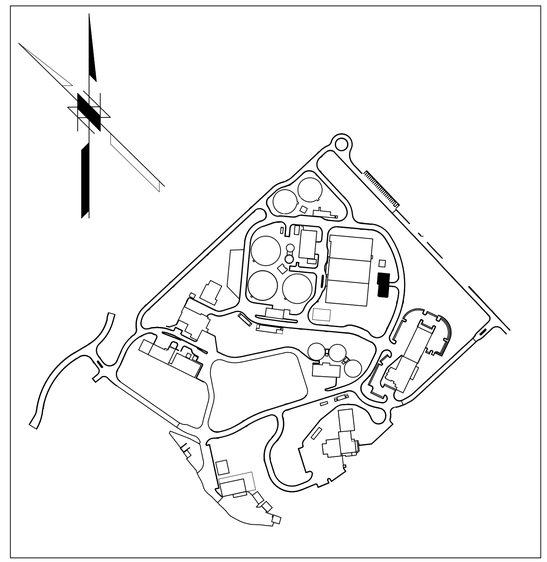
East Elevation

North Elevation

South Elevation



West Elevation



KEY PLAN

(SCALE BAR IS 4" AT FULL SCALE) 0 1/2 1 2 3 4

PLOTTED: 1/16/2024 2:04:14 PM
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NELSON WASTEWATER TREATMENT FACILITY CONTRACT NEL-CO01 IMPROVEMENTS PROJECT

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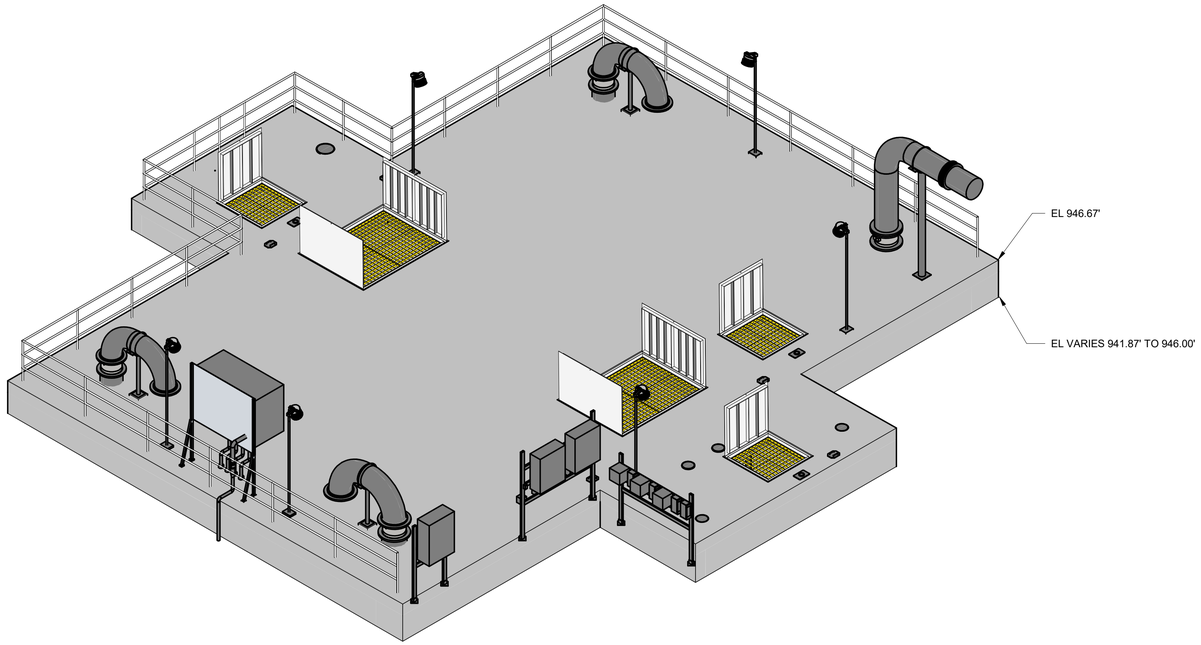
BASIN BLOWER BUILDING

ARCHITECTURAL

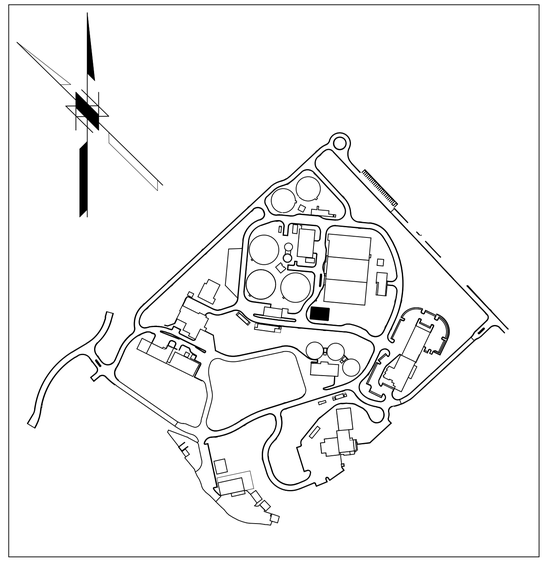
ELEVATIONS

410-A-201P

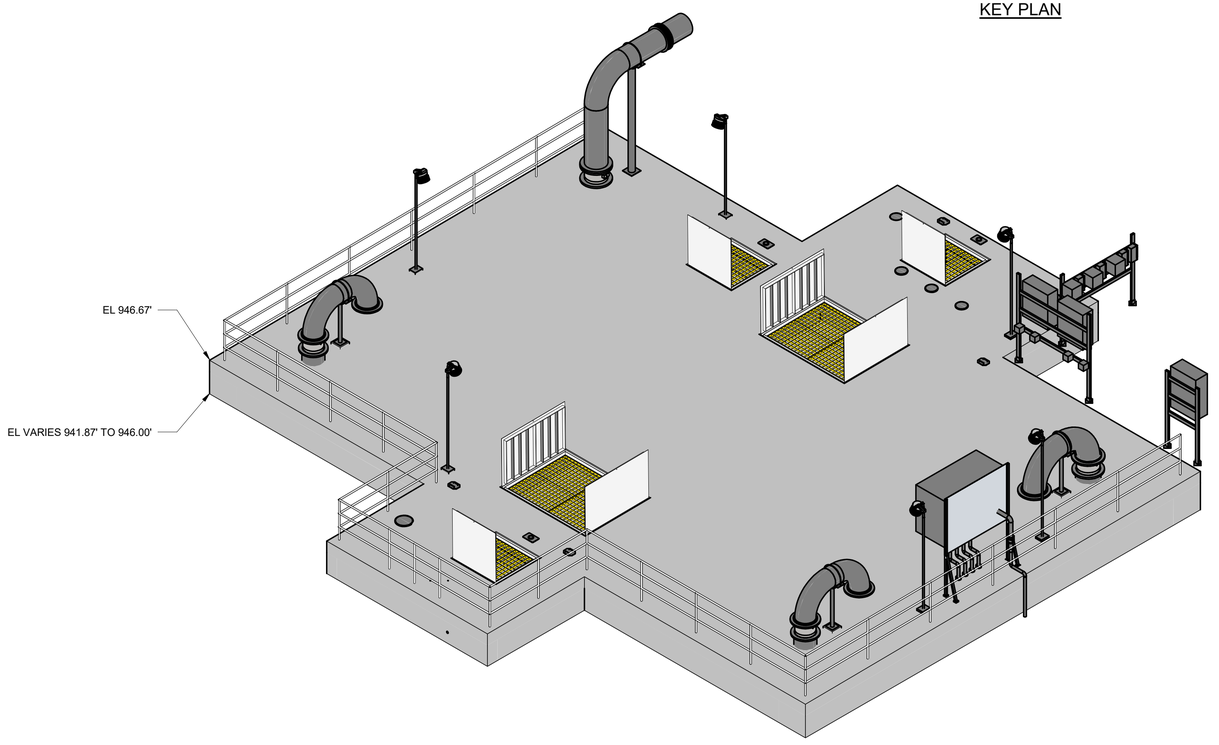
OF



EAST PERSPECTIVE



KEY PLAN



SOUTH PERSPECTIVE

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Wastewater

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NELSON WASTEWATER TREATMENT FACILITY CONTRACT NEL-CO01 IMPROVEMENTS PROJECT

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01/18/24	FINAL DEVELOPMENT PLAN

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CENTRATE BASIN

ARCHITECTURAL

PERSPECTIVES

480-A-201P | OF

(SCALE BAR IS 4" AT FULL SCALE) 0 1/2 1 2 3 4

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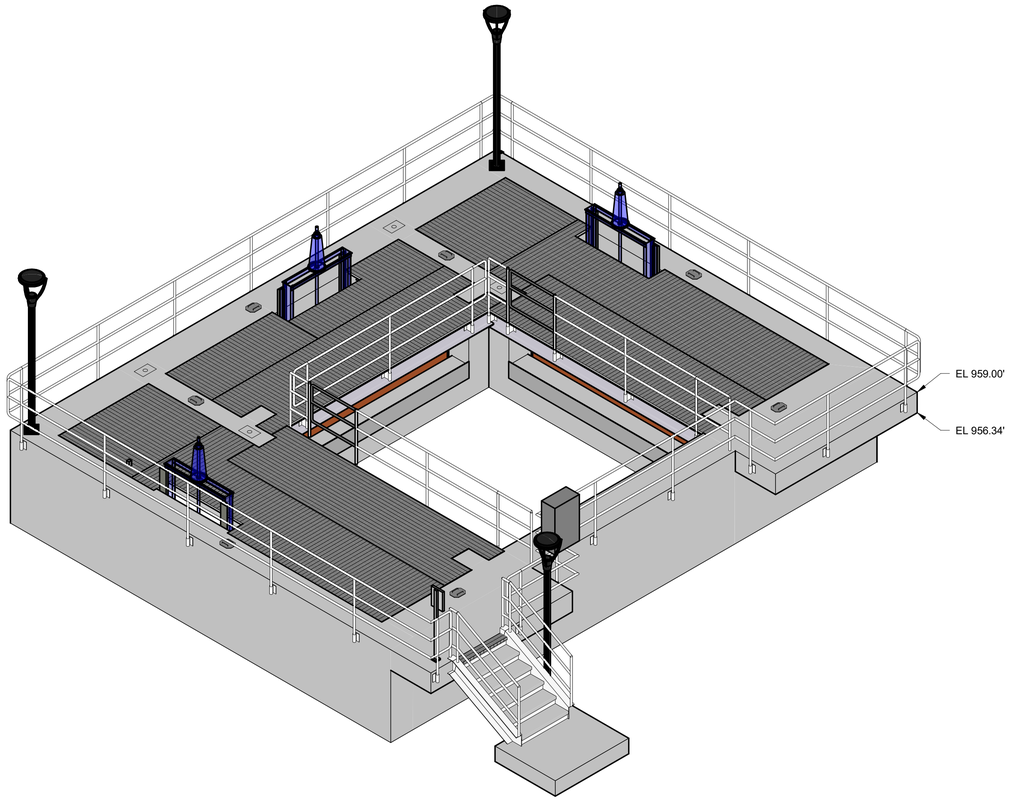
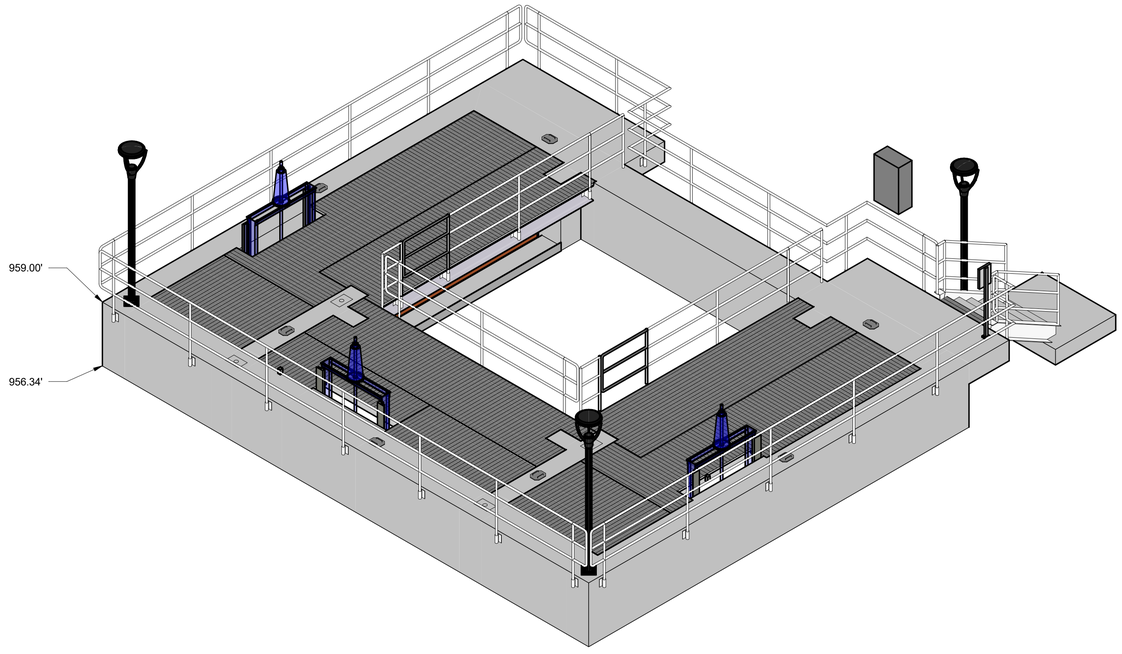
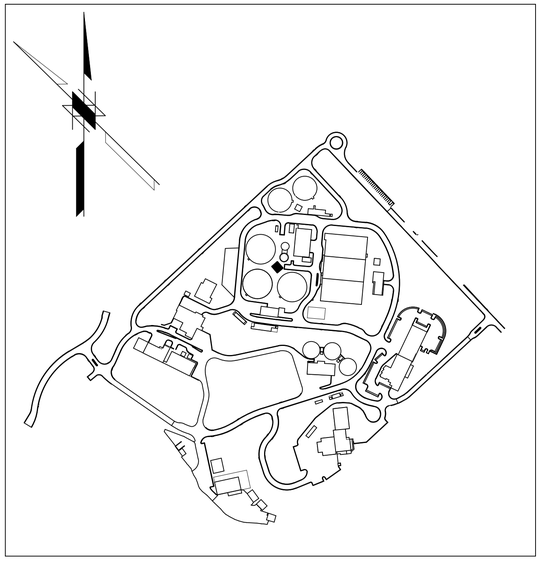


SE PERSPECTIVE



SW PERSPECTIVE



KEY PLAN

(SCALE BAR IS 4" AT FULL SCALE) 0 1/2 1 2 3 4

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FINAL CLARIFIER SPLITTER STRUCTURE

ARCHITECTURAL

PERSPECTIVES

500-A-201P | OF

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D408634

NORTH ELEVATION

3/32" = 1'-0"

EAST ELEVATION

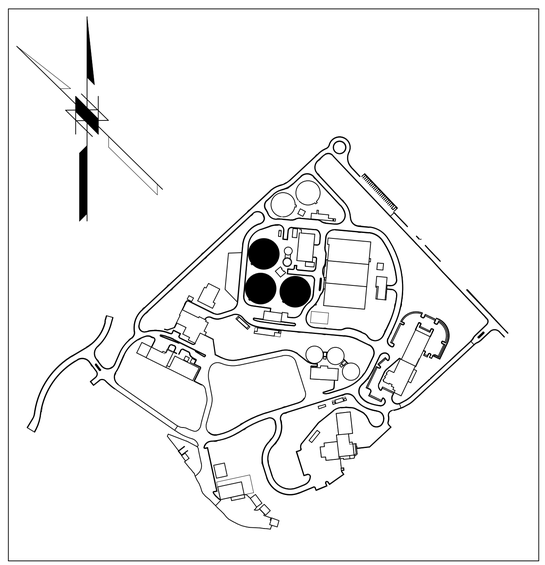
3/32" = 1'-0"

WEST ELEVATION

3/32" = 1'-0"

SOUTH ELEVATION

3/32" = 1'-0"



KEY PLAN

(SCALE BAR IS 4" AT FULL SCALE) 0 1/2 1 2 3 4

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FINAL CLARIFIERS

ARCHITECTURAL

ELEVATIONS

510-A-201P | OF

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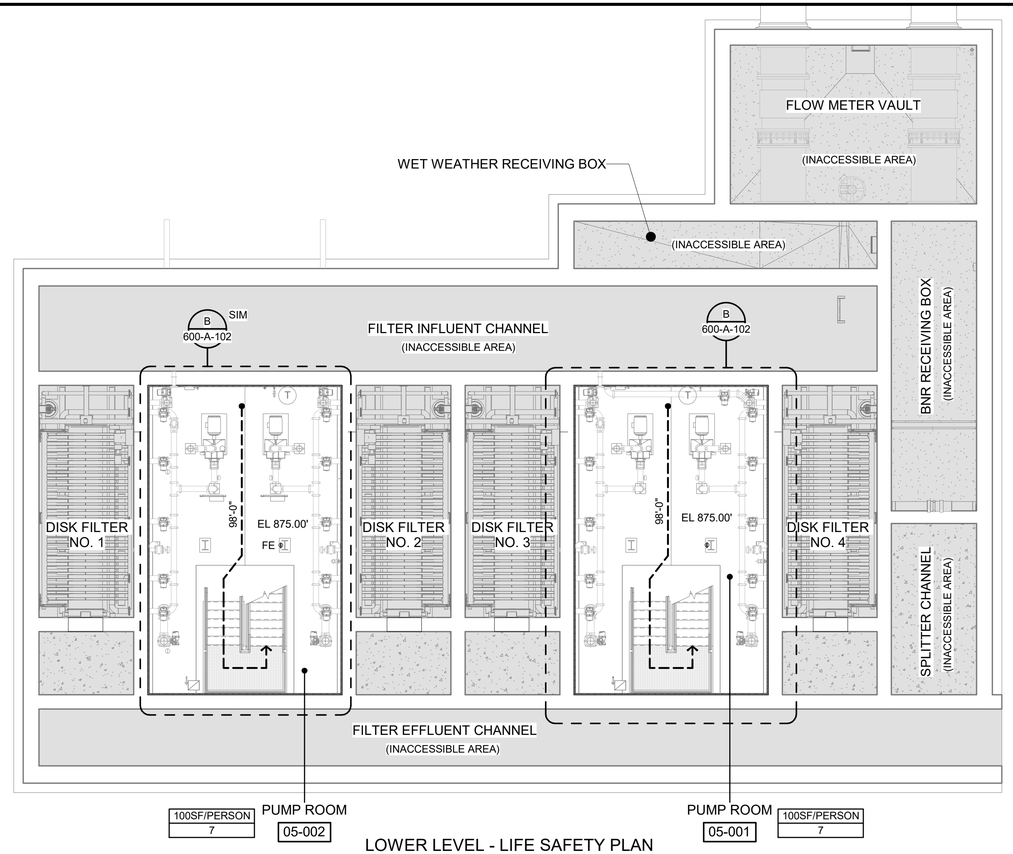
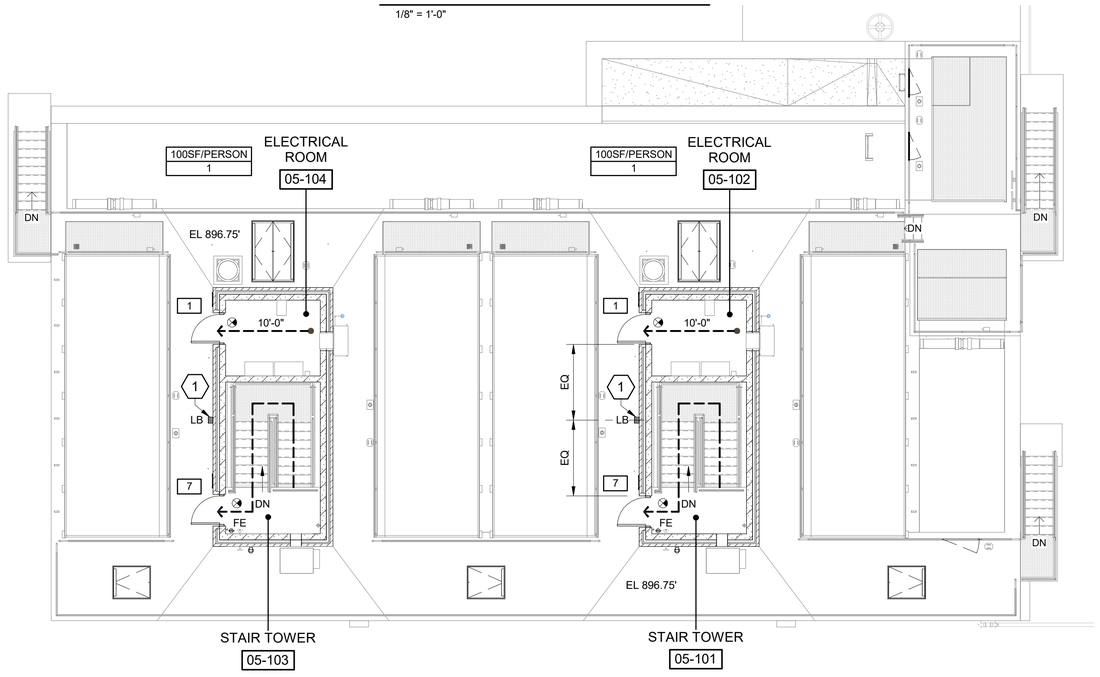


LOWER LEVEL - LIFE SAFETY PLAN

1/8" = 1'-0"



OPERATING LEVEL - LIFE SAFETY PLAN

1/8" = 1'-0"

GENERAL SHEET NOTES

1. FOR ARCHITECTURAL SYMBOL LEGEND, SEE OPERATING FLOOR PLAN SHEET. FOR ARCHITECTURAL ABBREVIATIONS, SEE SCHEDULE SHEET.
2. FOR EXIT LIGHTS AND EMERGENCY LIGHTING, SEE ELECTRICAL LIGHTING DRAWINGS (E SERIES).
3. FOR OCCUPANT LOAD CALCULATION & INFORMATION, SEE CODE ANALYSIS DRAWING 600-G-001.

SHEET KEYNOTES

1. WALL MOUNTED LOCK BOX (LB). BOTTOM OF UNIT BETWEEN 5'-0 & 6'-0" ABOVE FLOOR LEVEL.

LIFE SAFETY LEGEND

FE	FIRE EXTINGUISHER (FE)
X'-X"	PATH OF EGRESS TRAVEL
100SF/PERSON / 1	OCCUPANTS PER SF OCCUPANT LOAD
1	CUMULATIVE OCCUPANT LOAD AT EXIT
	EXIT SYMBOL
	LOCK BOX (LB)

8' 4' 0' 8' 16'

1/8" = 1'-0"

(SCALE BAR IS 4" AT FULL SCALE) 0 1/2 1 2 3 4

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LIFE SAFETY PLAN

600-A-001 | OF

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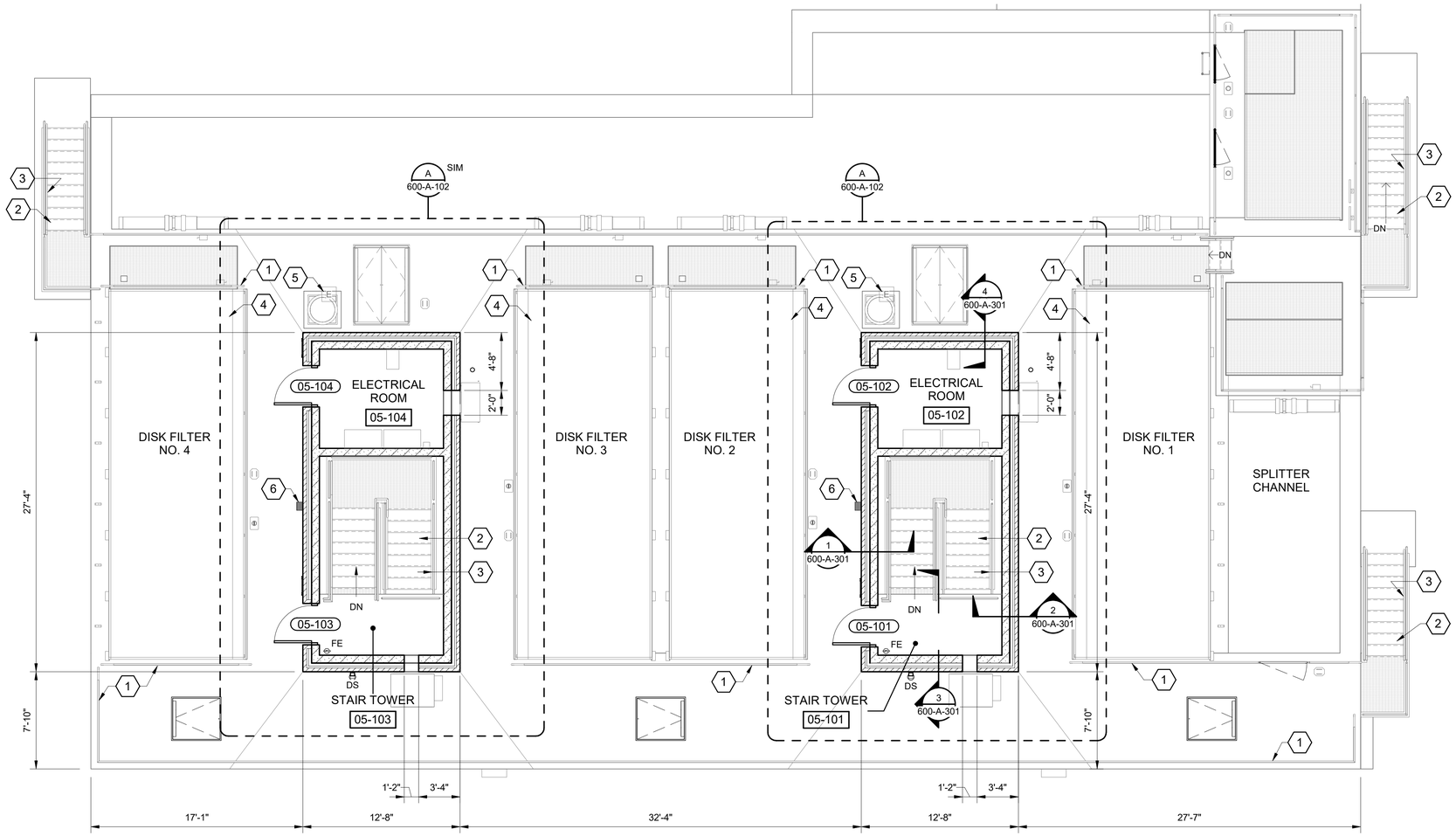
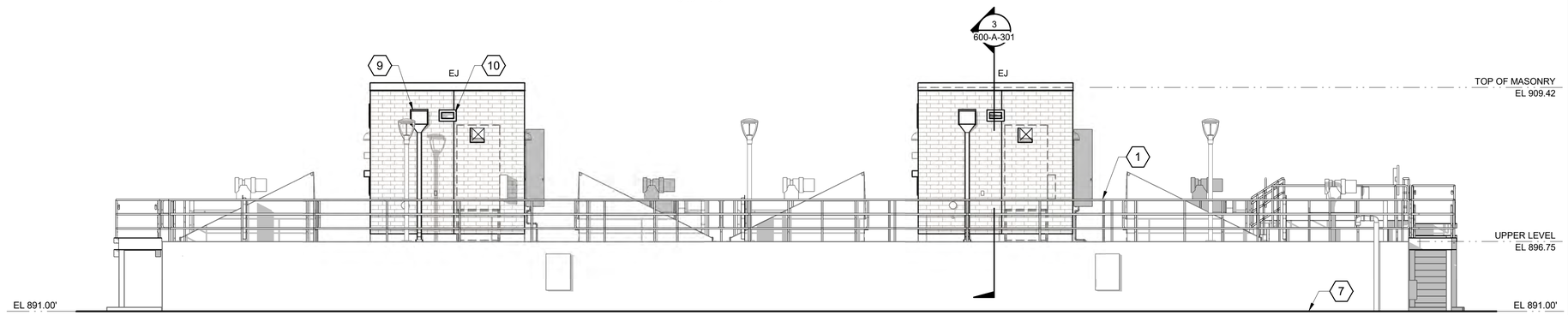


UPPER LEVEL - OVERALL PLAN

3/16" = 1'-0"



OVERALL - SOUTH ELEVATION

3/16" = 1'-0"

GENERAL SHEET NOTES

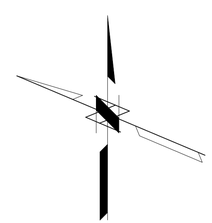
1. FOR ARCHITECTURAL SYMBOL LEGEND, SEE OVERALL FLOOR PLAN. FOR ARCHITECTURAL ABBREVIATIONS, SEE SCHEDULE SHEET.
2. WALL DIMENSIONS ARE TO MASONRY OR CONCRETE FACE UNLESS NOTED OTHERWISE ON PLAN.
3. SEE LIFE SAFETY PLAN FOR RATED BARRIER WALLS.
4. FOR DOWNSPOUT (DS) LOCATIONS, SEE BUILDING ELEVATIONS.
5. GRADE LINES SHOWN ON OVERALL ELEVATION ARE APPROXIMATE, SEE CIVIL SITE PLAN.

SHEET KEYNOTES

1. GUARDRAIL, TYPICAL. SEE STRUCTURAL DRAWINGS.
2. STAIRS AND GRATING, SEE STRUCTURAL DRAWINGS.
3. HANDRAIL, TYPICAL. SEE STRUCTURAL DRAWINGS.
4. RETRACTABLE FILTER COVER, SEE PROCESS MECHANICAL DRAWINGS.
5. EXHAUST FAN, SEE HVAC DRAWINGS.
6. WALL MOUNTED LOCK BOX (LB). BOTTOM OF UNIT BETWEEN 5'-0 & 6'-0" ABOVE FLOOR LEVEL.
7. GRADE LINE, SEE GENERAL SHEET NOTE 5 & CIVIL SITE PLAN.
9. CONDUCTOR HEAD & DOWNSPOUT (DS), TYPICAL.
10. SECONDARY OVERFLOW SCUPPER W/ EXTENDED DRIP. FLOW LINE 2" ABOVE PRIMARY SCUPPER FLOW LINE, TYPICAL

ARCHITECTURAL SYMBOL LEGEND

00-101A	DOOR
00-101A	LOUVER
W	WINDOW
ROOM NAME 00-101	ROOM NAME & NUMBER



6' 4' 2' 0' 5' 10'

3/16" = 1'-0"

(SCALE BAR IS 4" AT FULL SCALE) 0 1/2 1 2 3 4

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UPPER LEVEL - OVERALL PLAN

600-A-101 OF

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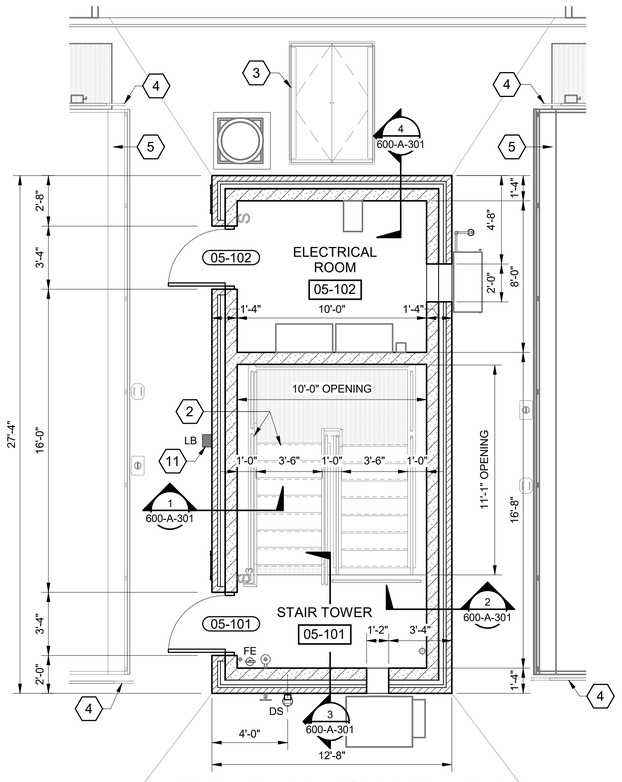
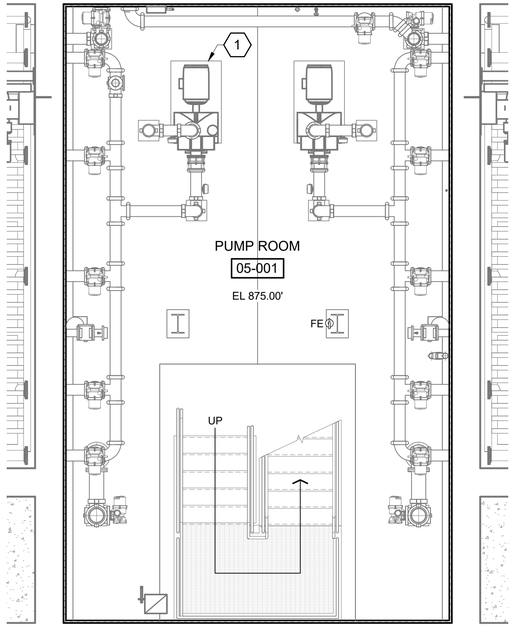


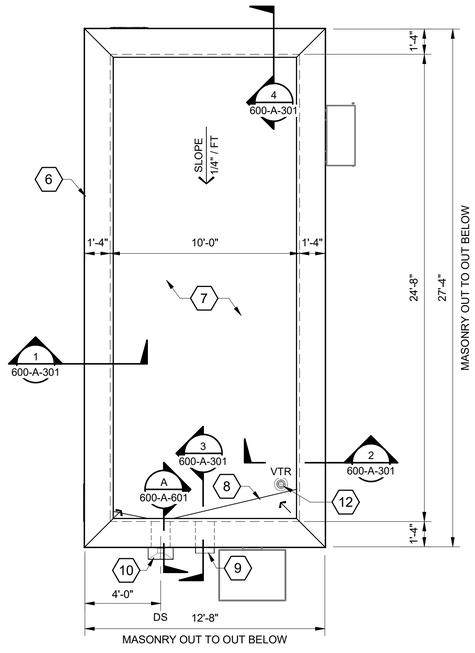
A 600-A-101 1/4" = 1'-0"

UPPER LEVEL - ENLARGED PARTIAL PLAN STAIR TOWER 101 (STAIR TOWER 103 SIM)



B 600-A-001 1/4" = 1'-0"

LOWER LEVEL - ENLARGED PARTIAL PLAN FILTER 001 (FILTER 002 SIM)



ROOF LEVEL - ENLARGED PARTIAL PLAN STAIR TOWER 101 (STAIR TOWER 103 SIM)

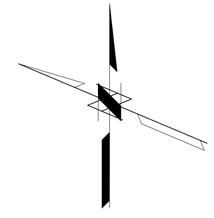
1/4" = 1'-0"

GENERAL SHEET NOTES

1. FOR ARCHITECTURAL SYMBOL LEGEND, SEE OPERATING FLOOR PLAN SHEET. FOR ARCHITECTURAL ABBREVIATIONS, SEE SCHEDULE SHEET.
2. WALL DIMENSIONS ARE TO MASONRY FACE UNLESS NOTED OTHERWISE ON PLAN.
3. FOR PROCESS PIPING & EQUIPMENT, SEE MECHANICAL DRAWINGS.
4. FOR TYPICAL ROOF DETAILS, SEE 002-SERIES DRAWINGS.

SHEET KEYNOTES

1. EQUIPMENT PAD, TYPICAL. SEE STRUCTURAL DRAWINGS.
2. STAIRS AND GRATING, SEE STRUCTURAL DRAWINGS.
3. FLOOR ACCESS HATCH, SEE MECHANICAL DRAWINGS.
4. GUARDRAIL, SEE STRUCTURAL DRAWINGS.
5. RETRACTABLE FILTER COVER, SEE PROCESS MECHANICAL DRAWINGS.
6. PREFINISHED METAL COPING, TYPICAL.
7. SINGLE-PLY ROOFING MEMBRANE SYSTEM OVER 1/2" COVERBOARD & TAPERED INSULATION (R-30 MIN).
8. CRICKET DRAINAGE SYSTEM, TYPICAL. 14° ANGLE UNLESS NOTED OTHERWISE ON ROOF PLAN.
9. SECONDARY OVERFLOW SCUPPER W/ EXTENDED DRIP, TYPICAL.
10. CONDUCTER HEAD W/ DOWNSPOUT (DS), TYPICAL.
11. WALL MOUNTED LOCK BOX (LB). BOTTOM OF UNIT BETWEEN 5'-0 & 6'-0" ABOVE FLOOR LEVEL.
12. VENT THROUGH ROOF (VTR), TYPICAL.



4' 2' 0' 4' 8'

1/4" = 1'-0"

(SCALE BAR IS 4" AT FULL SCALE) 0 1/2 1 2 3 4

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JOHNSON COUNTY KANSAS Wastewater

JOHNSON COUNTY KANSAS

NELSON WASTEWATER TREATMENT FACILITY CONTRACT NEL-CO01 IMPROVEMENTS PROJECT

NOT FOR CONSTRUCTION

01/18/24	FINAL DEVELOPMENT PLAN

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FILTER PUMP STATION 1/2 PLANS

600-A-102 OF

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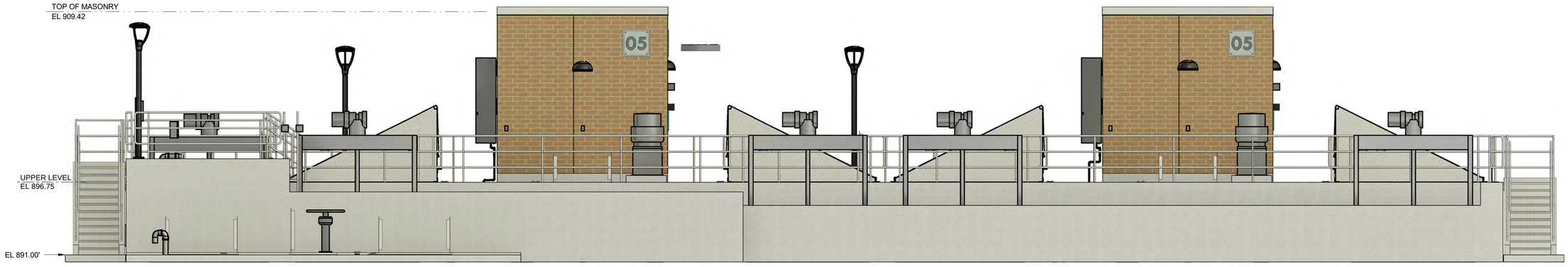
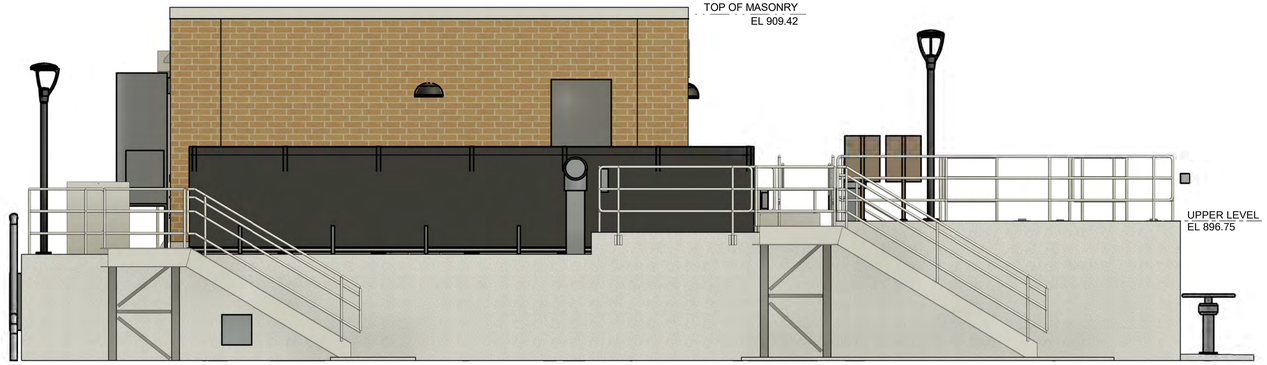
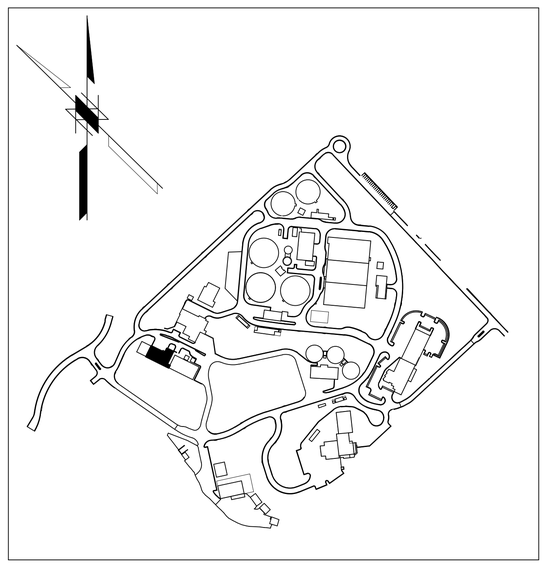


North Elevation



East Elevation



KEY PLAN

(SCALE BAR IS 4" AT FULL SCALE) 0 1/2 1 2 3 4

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JOHNSON COUNTY KANSAS
Wastewater

JOHNSON COUNTY
KANSAS

NELSON WASTEWATER
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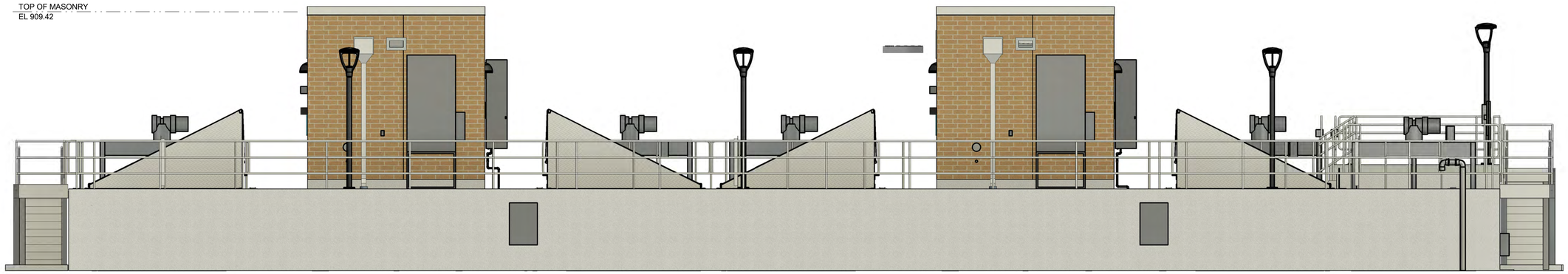
ARCHITECTURAL

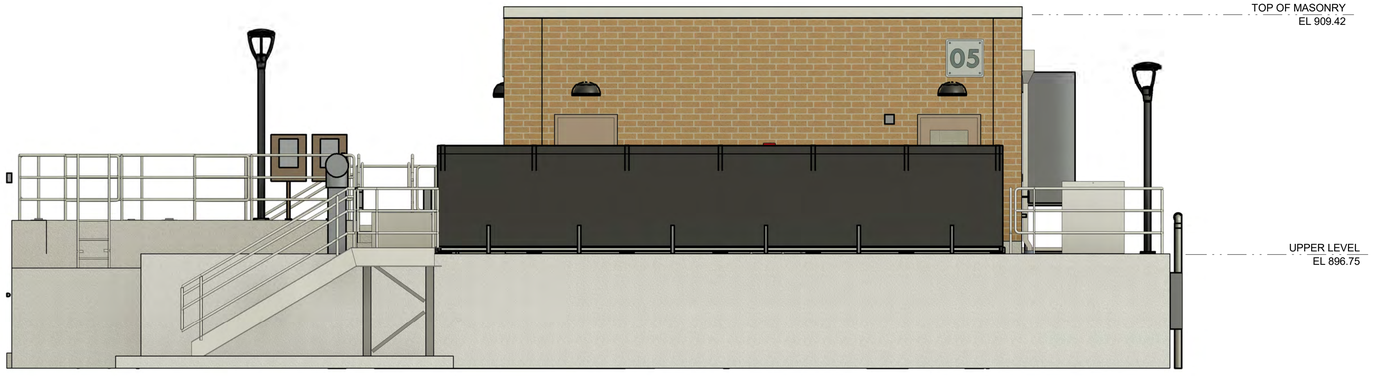
ELEVATIONS

600-A-201P

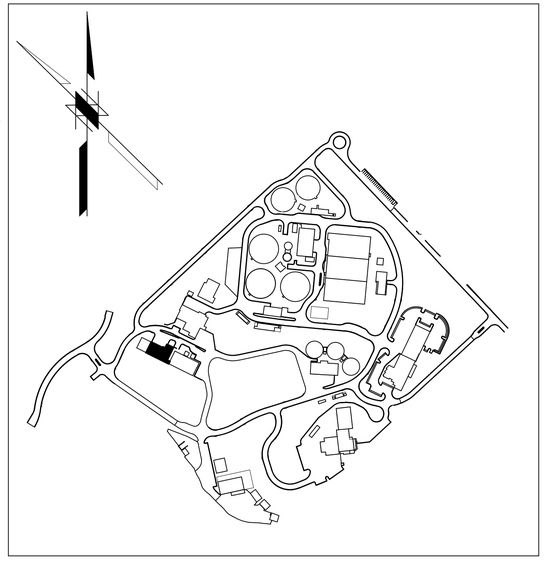
OF 1898



South Elevation



West Elevation



KEY PLAN

(SCALE BAR IS 4" AT FULL SCALE) 0 1/2 1 2 3 4

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FILTER COMPLEX

ARCHITECTURAL

ELEVATIONS

600-A-202P | OF

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GENERAL SHEET NOTES

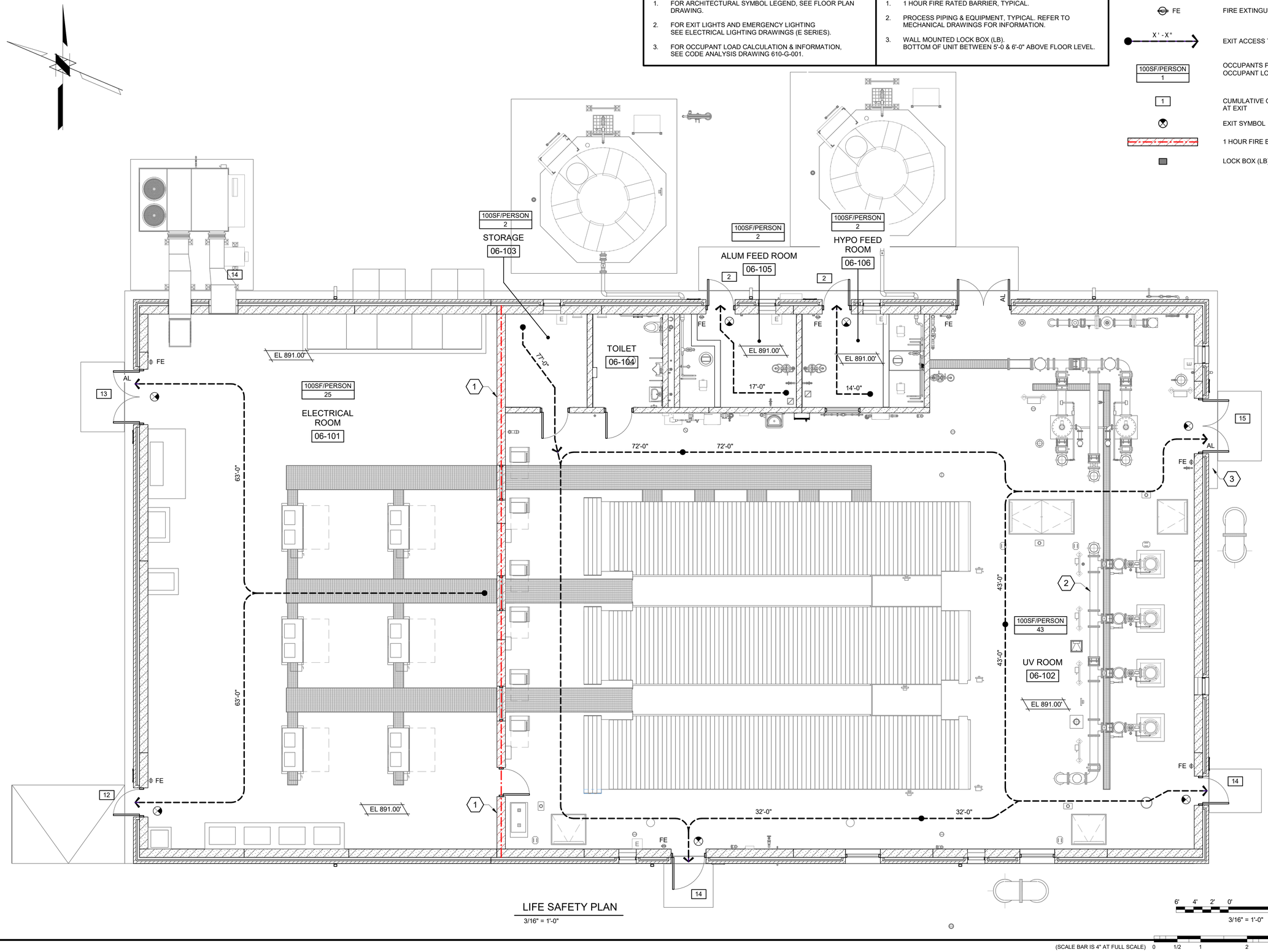
1. FOR ARCHITECTURAL SYMBOL LEGEND, SEE FLOOR PLAN DRAWING.
2. FOR EXIT LIGHTS AND EMERGENCY LIGHTING SEE ELECTRICAL LIGHTING DRAWINGS (E SERIES).
3. FOR OCCUPANT LOAD CALCULATION & INFORMATION, SEE CODE ANALYSIS DRAWING 610-G-001.

SHEET KEYNOTES

1. 1 HOUR FIRE RATED BARRIER, TYPICAL.
2. PROCESS PIPING & EQUIPMENT, TYPICAL. REFER TO MECHANICAL DRAWINGS FOR INFORMATION.
3. WALL MOUNTED LOCK BOX (LB). BOTTOM OF UNIT BETWEEN 5'-0 & 6'-0" ABOVE FLOOR LEVEL.

LIFE SAFETY LEGEND

FE	FIRE EXTINGUISHER (FE)
X ' - X "	EXIT ACCESS TRAVEL DISTANCE
100SF/PERSON / 1	OCCUPANTS PER SF OCCUPANT LOAD
1	CUMULATIVE OCCUPANT LOAD AT EXIT
	EXIT SYMBOL
	1 HOUR FIRE BARRIER
	LOCK BOX (LB)



LIFE SAFETY PLAN
3/16" = 1'-0"

6' 4' 2' 0' 5' 10'
3/16" = 1'-0"

(SCALE BAR IS 4" AT FULL SCALE) 0 1/2 1 2 3 4

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UV BUILDING

ARCHITECTURAL

LIFE SAFETY PLAN

610-A-001 | OF

GENERAL SHEET NOTES

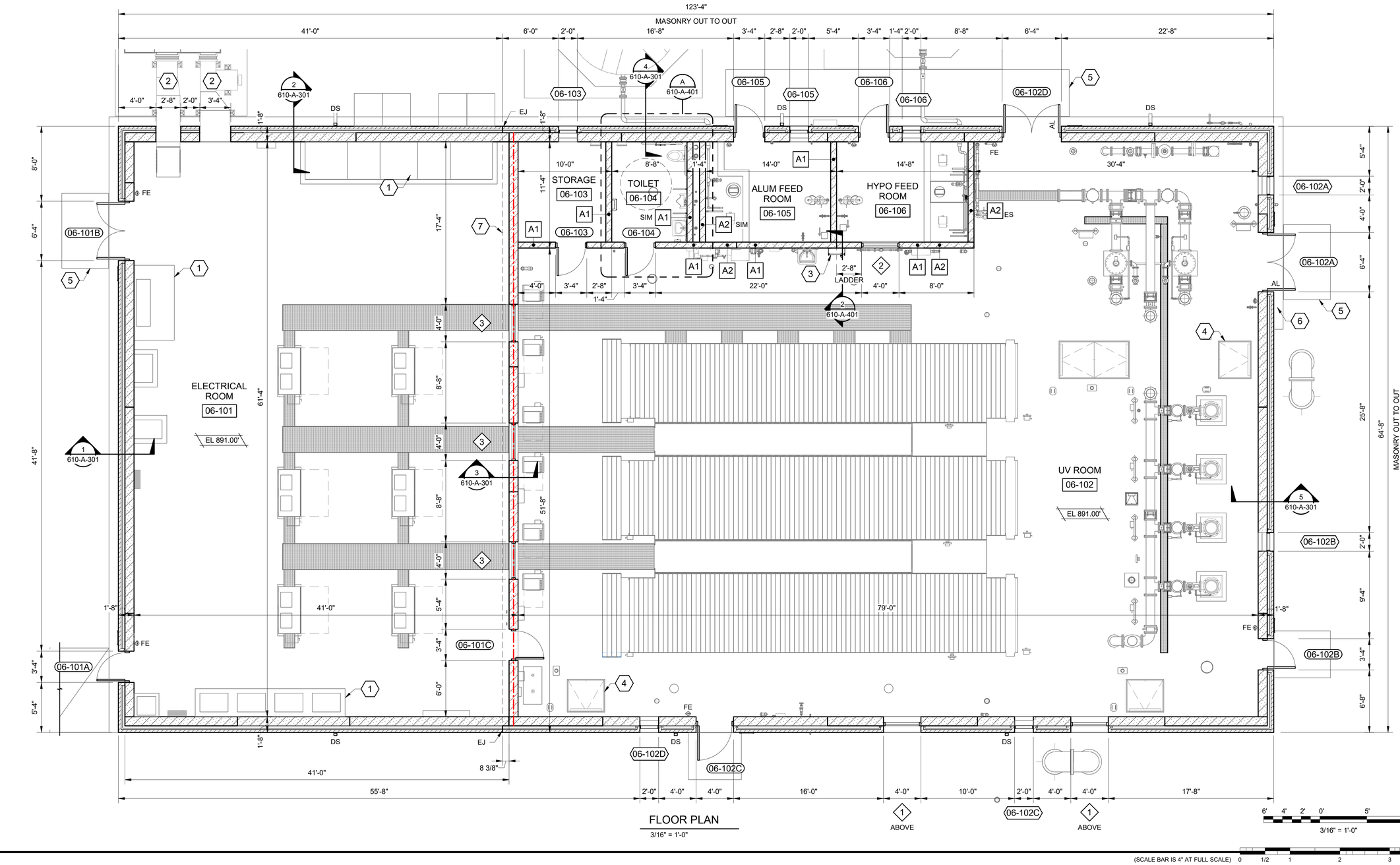
1. FOR ARCHITECTURAL ABBREVIATIONS, SEE SCHEDULE SHEET.
2. FOR MASONRY VENEER EXPANSION JOINT (EJ) LOCATIONS, SEE BUILDING ELEVATIONS.
3. FOR CONTROL JOINT (CJ) LOCATIONS IN CMU BACKUP WALL, SEE STRUCTURAL PLAN.
4. FOR INTERIOR CMU WALL TYPES, SEE DRAWING 610-A-501.
5. FOR FLOOR HATCHES, SEE MECHANICAL PROCESS DWGS.

SHEET KEYNOTES

1. EQUIPMENT PAD, TYPICAL. SEE STRUCTURAL DRAWINGS.
2. WALL OPENING FOR DUCTWORK, SEE HVAC DRAWINGS.
3. ROOF ACCESS LADDER, SEE STRUCTURAL.
4. FLOOR ACCESS HATCH, TYPICAL. SEE STRUCTURAL & PROCESS MECHANICAL DRAWINGS.
5. CONCRETE STOOP, TYPICAL. SEE STRUCTURAL FOUNDATION PLAN.
6. WALL MOUNTED LOCK BOX (LB). BOTTOM OF UNIT BETWEEN 5'-0 & 6'-0" ABOVE FLOOR LEVEL.
7. OUTSIDE FACE OF MASONRY ABOVE ROOF.

ARCHITECTURAL SYMBOL LEGEND

(X)	ACCESSORY ITEM
101A	DOOR OR ROOF HATCH
W	WINDOW OR WINDOW SYSTEM
101A	LOUVER
ROOM NAME 101	ROOM NAME & NUMBER
A1	WALL TYPE



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01/18/24	FINAL DEVELOPMENT PLAN

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DESIGNED:	
DETAILED:	
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DATE:	
PROJECT NO.:	408634

UV BUILDING

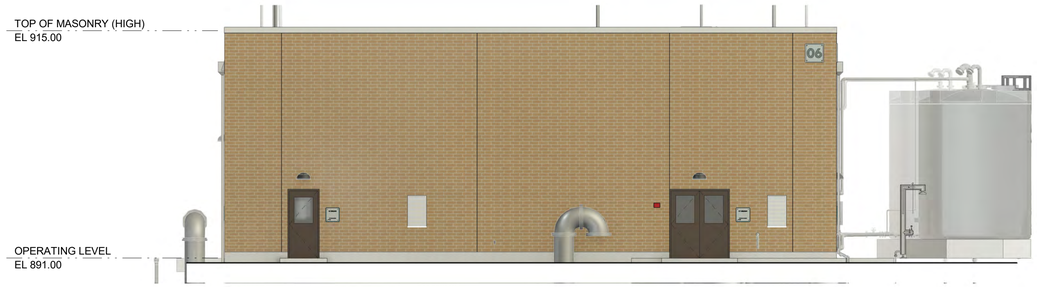
ARCHITECTURAL

OPERATING LEVEL PLAN

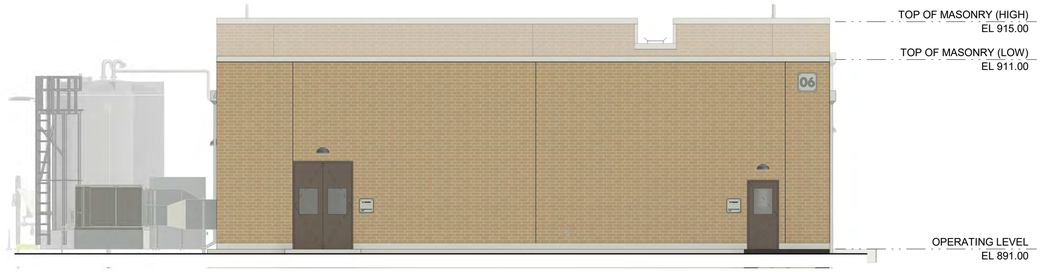
610-A-101 | OF

PLOTTED: 10/12/2023 4:04:48 PM
FILE: BIM 360://408634 - Nelson WWTF Improvements/408634-610-UV.rvt
D408634

NORTH ELEVATION
1/8" = 1'-0"

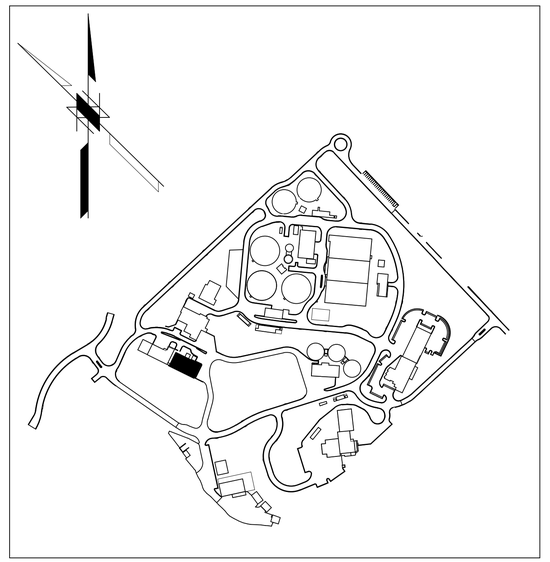


EAST ELEVATION
1/8" = 1'-0"



WEST ELEVATION
1/8" = 1'-0"

SOUTH ELEVATION
1/8" = 1'-0"



KEY PLAN

(SCALE BAR IS 4" AT FULL SCALE) 0 1/2 1 2 3 4

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Overland Park, Kansas 66211

JOHNSON COUNTY KANSAS
Wastewater

JOHNSON COUNTY KANSAS

NELSON WASTEWATER TREATMENT FACILITY
CONTRACT NEL-CO01
IMPROVEMENTS PROJECT

NOT FOR CONSTRUCTION

01/18/24	FINAL DEVELOPMENT PLAN

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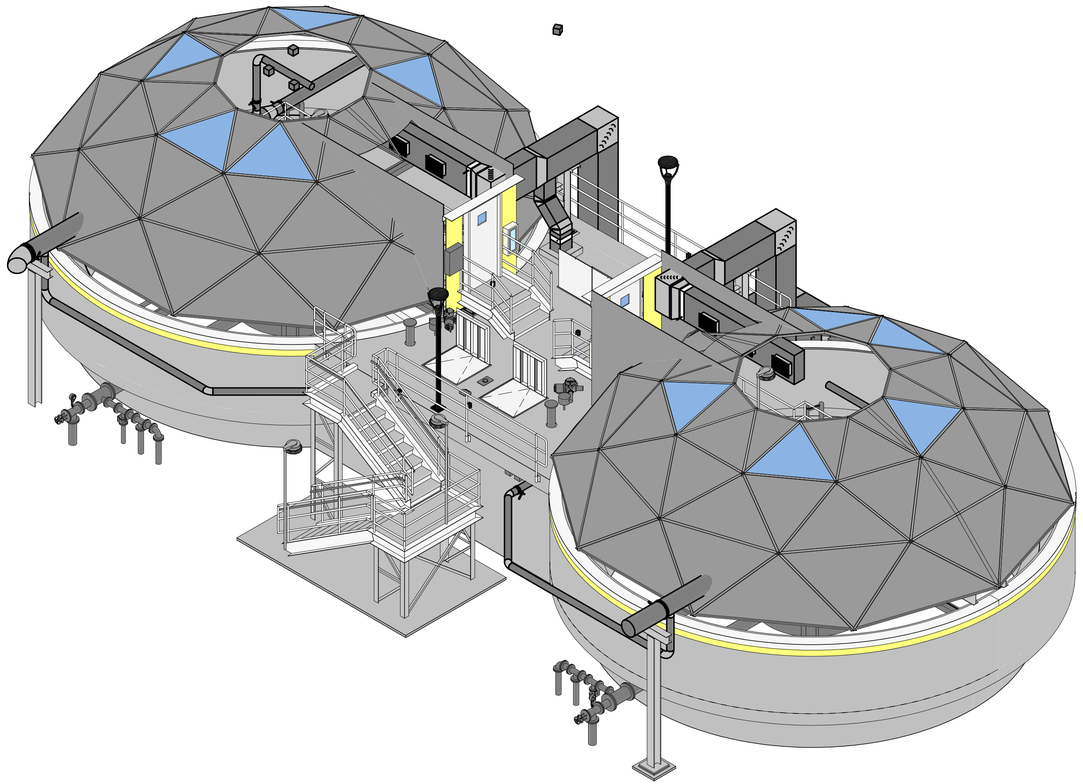
UV BUILDING

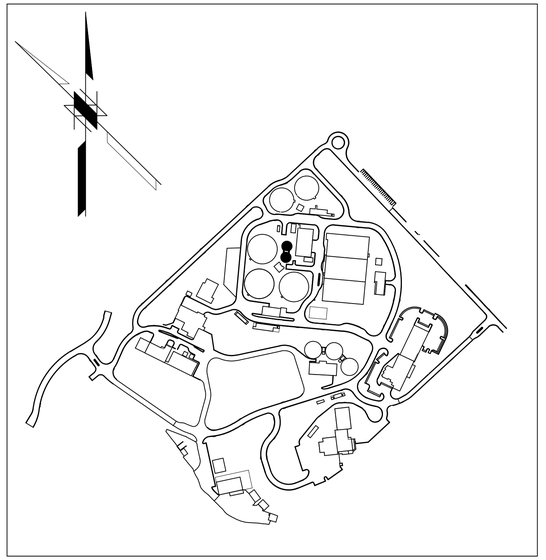
ARCHITECTURAL

ELEVATIONS

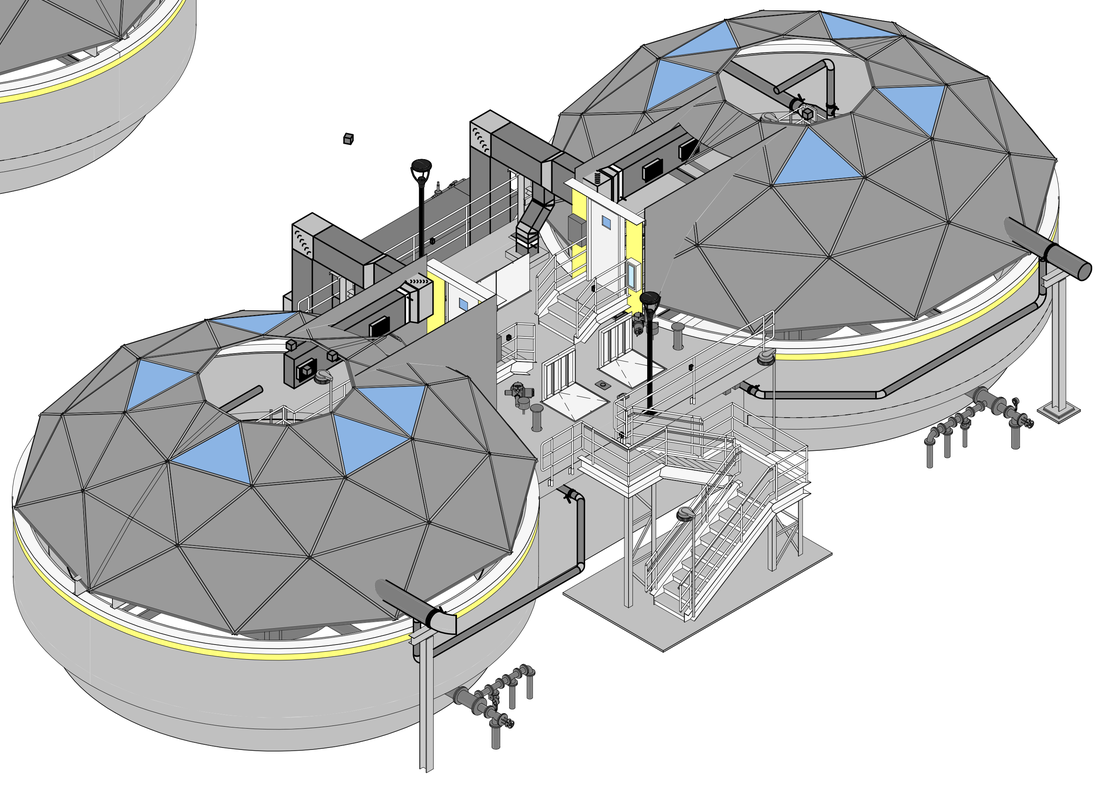
610-A-201P | OF



EAST PERSPECTIVE



KEY PLAN



SOUTH PERSPECTIVE

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JOHNSON COUNTY KANSAS Wastewater

JOHNSON COUNTY KANSAS

NELSON WASTEWATER TREATMENT FACILITY CONTRACT NEL-CO01 IMPROVEMENTS PROJECT

NOT FOR CONSTRUCTION

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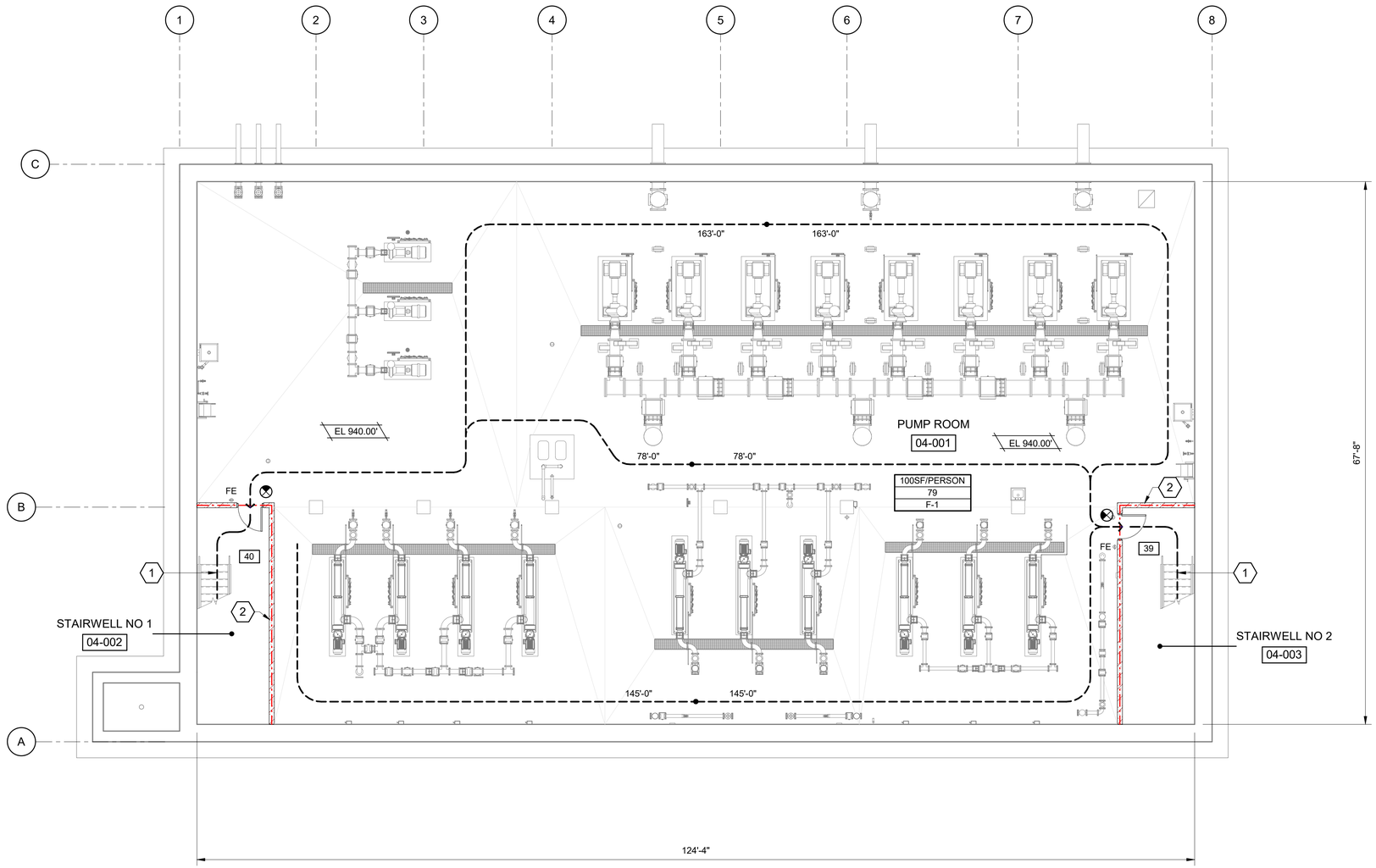
DAF BASINS

ARCHITECTURAL

PERSPECTIVES

700-A-201P | OF

(SCALE BAR IS 4" AT FULL SCALE) 0 1/2 1 2 3 4



LOWER LEVEL - LIFE SAFETY PLAN

1/8" = 1'-0"

GENERAL SHEET NOTES

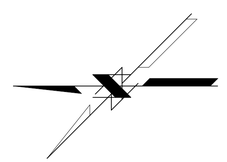
1. FOR ARCHITECTURAL SYMBOL LEGEND, SEE FLOOR PLAN DRAWING.
2. FOR EXIT LIGHTS AND EMERGENCY LIGHTING SEE ELECTRICAL LIGHTING DRAWINGS (E SERIES).
3. FOR OCCUPANT LOAD CALCULATION & INFORMATION, SEE CODE ANALYSIS DRAWING 705-G-001.

SHEET KEYNOTES

1. EGRESS TRAVEL CONTINUES UP STAIR TO EXIT.
2. 1 HOUR FIRE RATED WALL.

LIFE SAFETY LEGEND

FE	FIRE EXTINGUISHER (FE)
FEC	SURFACE MOUNTED FIRE EXTINGUISHER CABINET (FEC)
X'-X"	EXIT ACCESS TRAVEL DISTANCE
300SF/PERSON / 0 / F-1	OCCUPANTS PER SF OCCUPANT LOAD OCCUPANCY CLASSIFICATION
1	CUMULATIVE OCCUPANT LOAD AT EXIT
	EXIT SYMBOL
	1 HOUR FIRE BARRIER
	LOCK BOX (LB)



8' 4' 0' 8' 16'

1/8" = 1'-0"

(SCALE BAR IS 4" AT FULL SCALE) 0 1/2 1 2 3 4

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JOHNSON COUNTY KANSAS Wastewater

JOHNSON COUNTY KANSAS

NELSON WASTEWATER TREATMENT FACILITY CONTRACT NEL-CO01 IMPROVEMENTS PROJECT

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SLUDGE BUILDING - DAF

ARCHITECTURAL

LOWER LEVEL LIFE SAFETY PLAN

705-A-001 OF

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FILE: BIM 360://408634 - Nelson WWTF Improvements/408634-705-DAFSLUDGE.rvt
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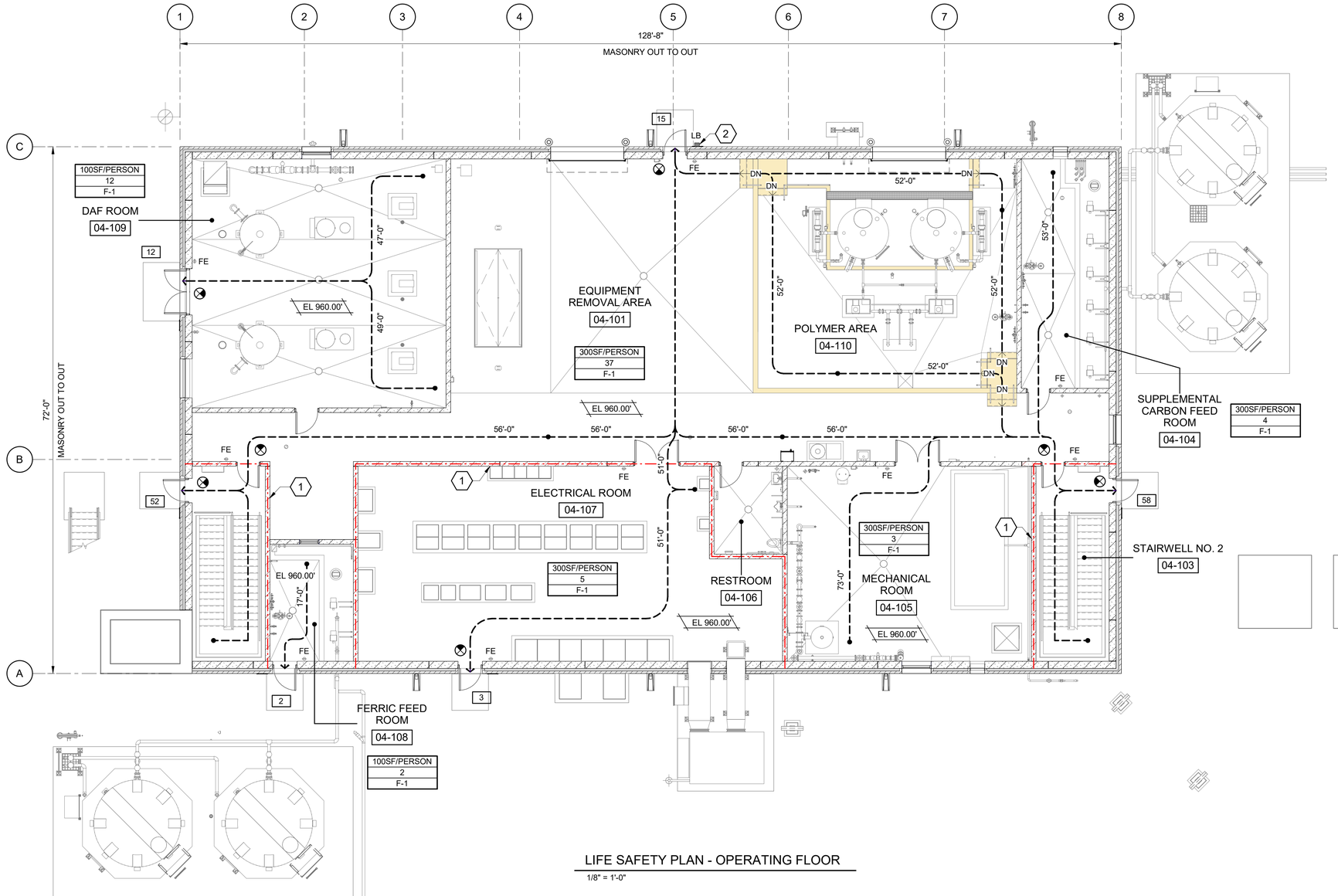

LIFE SAFETY PLAN - OPERATING FLOOR

1/8" = 1'-0"

GENERAL SHEET NOTES

1. FOR ARCHITECTURAL SYMBOL LEGEND, SEE FLOOR PLAN DRAWING.
2. FOR EXIT LIGHTS AND EMERGENCY LIGHTING SEE ELECTRICAL LIGHTING DRAWINGS (E SERIES).
3. FOR OCCUPANT LOAD CALCULATION & INFORMATION, SEE CODE ANALYSIS DRAWING 705-G-001.

SHEET KEYNOTES

1. 1 HOUR FIRE RATED BARRIER.
2. WALL MOUNTED LOCK BOX (LB). BOTTOM OF UNIT BETWEEN 5'-0 & 6'-0" ABOVE FLOOR LEVEL.

LIFE SAFETY LEGEND

FE	FIRE EXTINGUISHER (FE)
FEC	SURFACE MOUNTED FIRE EXTINGUISHER CABINET (FEC)
X'-X"	EXIT ACCESS TRAVEL DISTANCE
300SF/PERSON / 0 / F-1	OCCUPANTS PER SF OCCUPANT LOAD OCCUPANCY CLASSIFICATION
1	CUMULATIVE OCCUPANT LOAD AT EXIT
	EXIT SYMBOL
	1 HOUR FIRE BARRIER
	LOCK BOX (LB)

8' 4' 0' 8' 16'

1/8" = 1'-0"

(SCALE BAR IS 4" AT FULL SCALE) 0 1/2 1 2 3 4

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NELSON WASTEWATER TREATMENT FACILITY CONTRACT NEL-C001 IMPROVEMENTS PROJECT

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SLUDGE BUILDING - DAF

ARCHITECTURAL

UPPER LEVEL LIFE SAFETY PLAN

705-A-002 OF

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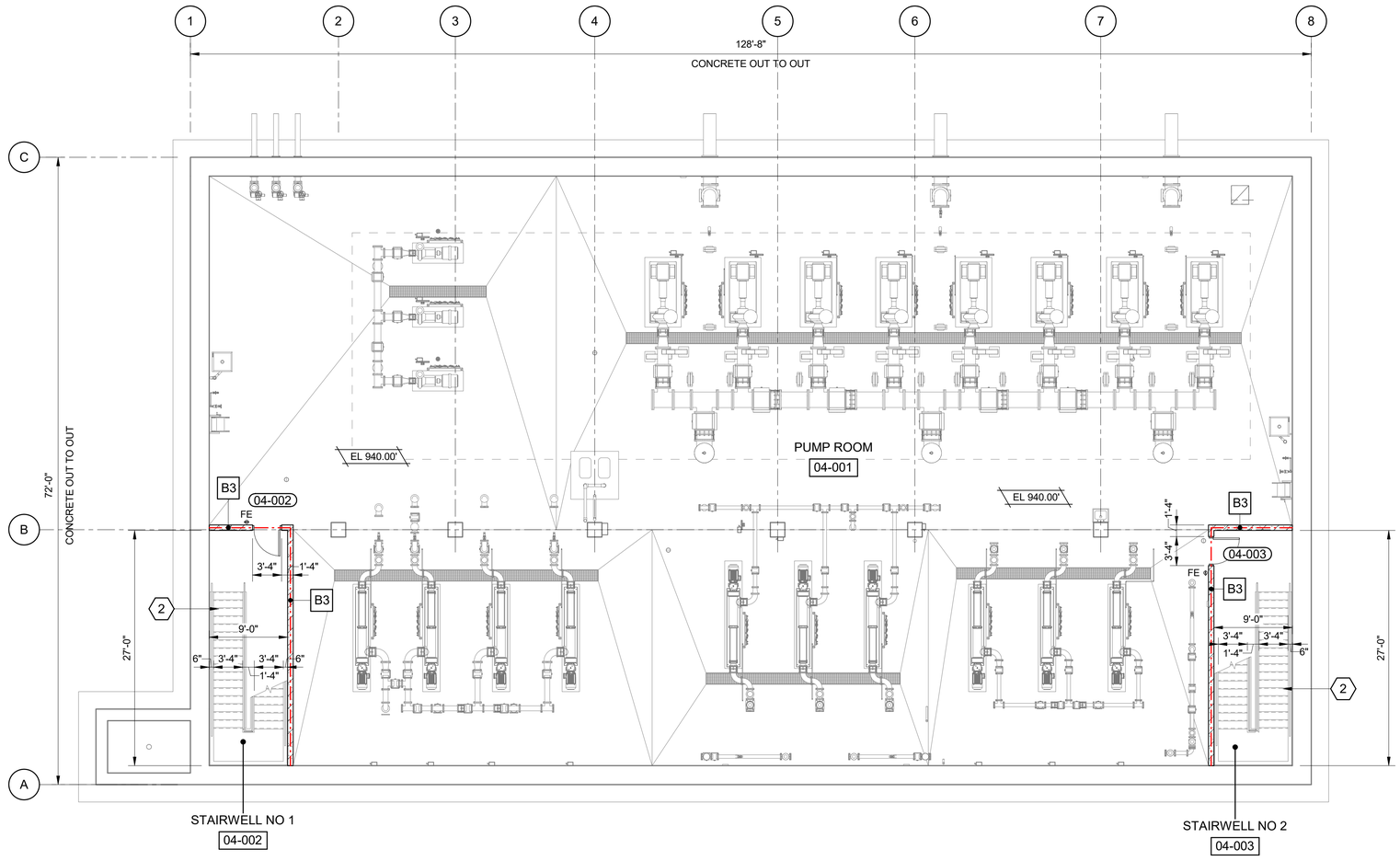


LOWER LEVEL FLOOR PLAN

1/8" = 1'-0"

GENERAL SHEET NOTES

1. FOR ARCHITECTURAL SYMBOL LEGEND, SEE OPERATING FLOOR PLAN.
2. FOR ARCHITECTURAL ABBREVIATIONS, SEE SCHEDULE SHEET.
3. FOR INTERIOR CMU WALL TYPES, SEE DRAWING 705-A-501.

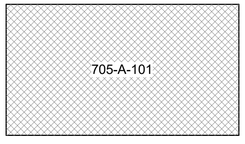
SHEET KEYNOTES

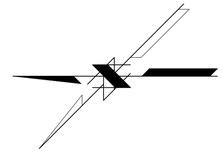
1. EQUIPMENT PAD, TYPICAL. SEE STRUCTURAL DRAWINGS.
2. STAIRS, SEE STRUCTURAL DRAWINGS.

ARCHITECTURAL SYMBOL LEGEND

X	ACCESSORY ITEM
101A	DOOR OR ROOF HATCH
W	WINDOW OR WINDOW SYSTEM
101A	LOUVER
ROOM NAME 101	ROOM NAME & NUMBER
A1	WALL TYPE
	PAINT ALL SURFACES OF STEPS OR CONCRETE CURB SAFETY YELLOW

LOWER LEVEL KEYPLAN





8' 4' 0' 8' 16'
1/8" = 1'-0"

6" 4' 2' 0' 5' 10'
3/16" = 1'-0"

(SCALE BAR IS 4" AT FULL SCALE) 0 1/2 1 2 3 4

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JOHNSON COUNTY KANSAS Wastewater

JOHNSON COUNTY KANSAS

NELSON WASTEWATER TREATMENT FACILITY CONTRACT NEL-CO01 IMPROVEMENTS PROJECT

NOT FOR CONSTRUCTION

01/18/24	FINAL DEVELOPMENT PLAN

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SLUDGE BUILDING - DAF

ARCHITECTURAL

LOWER LEVEL PLAN

705-A-101 | OF

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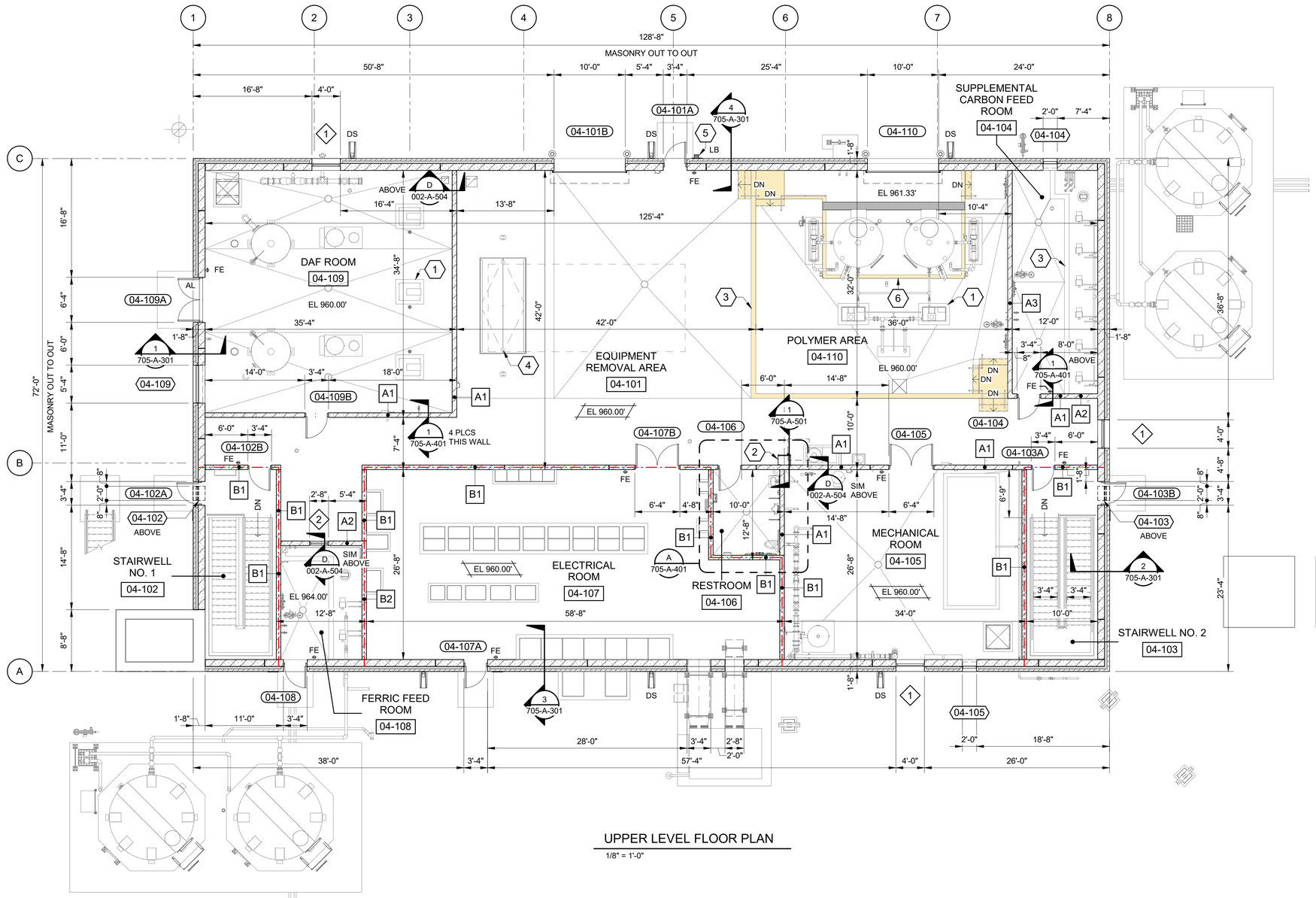


UPPER LEVEL FLOOR PLAN

1/8" = 1'-0"

GENERAL SHEET NOTES

1. FOR ARCHITECTURAL SYMBOL LEGEND, SEE OVERALL FLOOR PLAN.
2. WALL DIMENSIONS ARE TO MASONRY FACE UNLESS NOTED OTHERWISE ON PLAN.
3. SEE LIFE SAFETY PLAN FOR RATED BARRIER WALLS.
4. FOR MASONRY VENEER CONTROL JOINT (CJ) LOCATIONS, SEE BUILDING ELEVATIONS.
5. FOR DOWNSPOUT (DS) LOCATIONS, SEE BUILDING ELEVATIONS.
6. SEE STRUCTURAL DRAWINGS FOR CONCRETE STEPS & HANDRAILING.
7. FOR INTERIOR CMU WALL TYPES, SEE DRAWING 705-A-501.

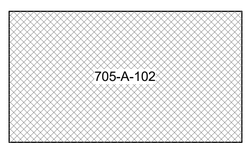
SHEET KEYNOTES

1. CONCRETE EQUIPMENT PAD, TYPICAL. SEE STRUCTURAL DRAWINGS.
2. ROOF ACCESS LADDER TO SCUTTLE. SEE ROOF PLAN.
3. CONCRETE CONTAINMENT CURB, TYPICAL. SEE STRUCTURAL DRAWINGS.
4. FLOOR OPENING & REMOVABLE PANELS FOR LOWER LEVEL ACCESS. SEE STRUCTURAL DRAWINGS.
5. WALL MOUNTED LOCK BOX (LB). BOTTOM OF UNIT BETWEEN 5'-0 & 6'-0" ABOVE FLOOR LEVEL.
6. 6" SAFETY YELLOW PAINTED STRIPE ALONG SLAB EDGE.

ARCHITECTURAL SYMBOL LEGEND

X	ACCESSORY ITEM
101A	DOOR OR ROOF HATCH
W	WINDOW OR WINDOW SYSTEM
101A	LOUVER
ROOM NAME 101	ROOM NAME & NUMBER
A1	WALL TYPE
	PAINT ALL SURFACES OF STEPS OR CONCRETE CURB SAFETY YELLOW

UPPER LEVEL KEYPLAN



8' 4' 0' 8' 16'

1/8" = 1'-0"

(SCALE BAR IS 4" AT FULL SCALE) 0 1/2 1 2 3 4

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JOHNSON COUNTY KANSAS Wastewater

JOHNSON COUNTY KANSAS

NELSON WASTEWATER TREATMENT FACILITY CONTRACT NEL-CO01 IMPROVEMENTS PROJECT

NOT FOR CONSTRUCTION

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SLUDGE BUILDING - DAF

ARCHITECTURAL

UPPER LEVEL PLAN

705-A-102 OF

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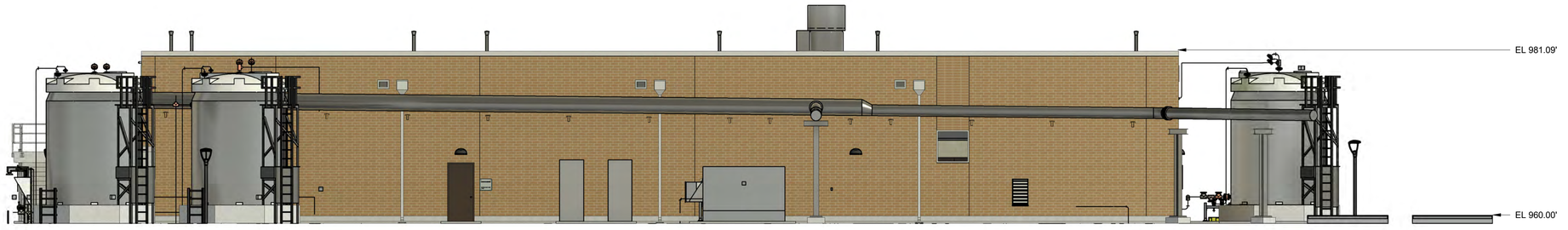
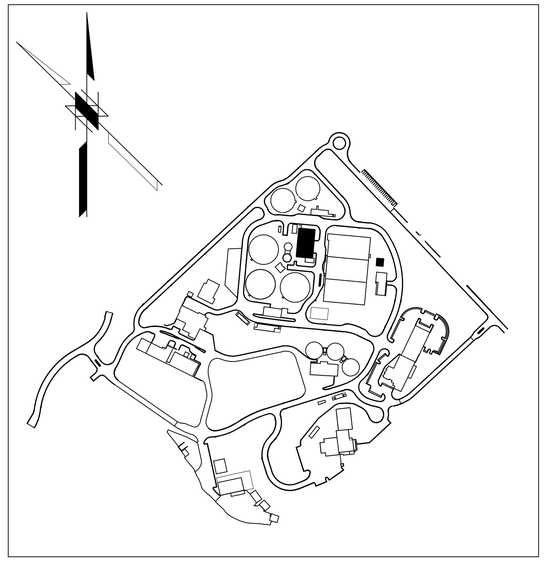
EAST ELEVATION



WEST ELEVATION

NORTH ELEVATION

SOUTH ELEVATION



KEY PLAN

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JOHNSON COUNTY KANSAS Wastewater

JOHNSON COUNTY KANSAS

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SLUDGE BUILDING - DAF

ARCHITECTURAL

ELEVATIONS

705-A-201P

OF

(SCALE BAR IS 4" AT FULL SCALE) 0 1/2 1 2 3 4

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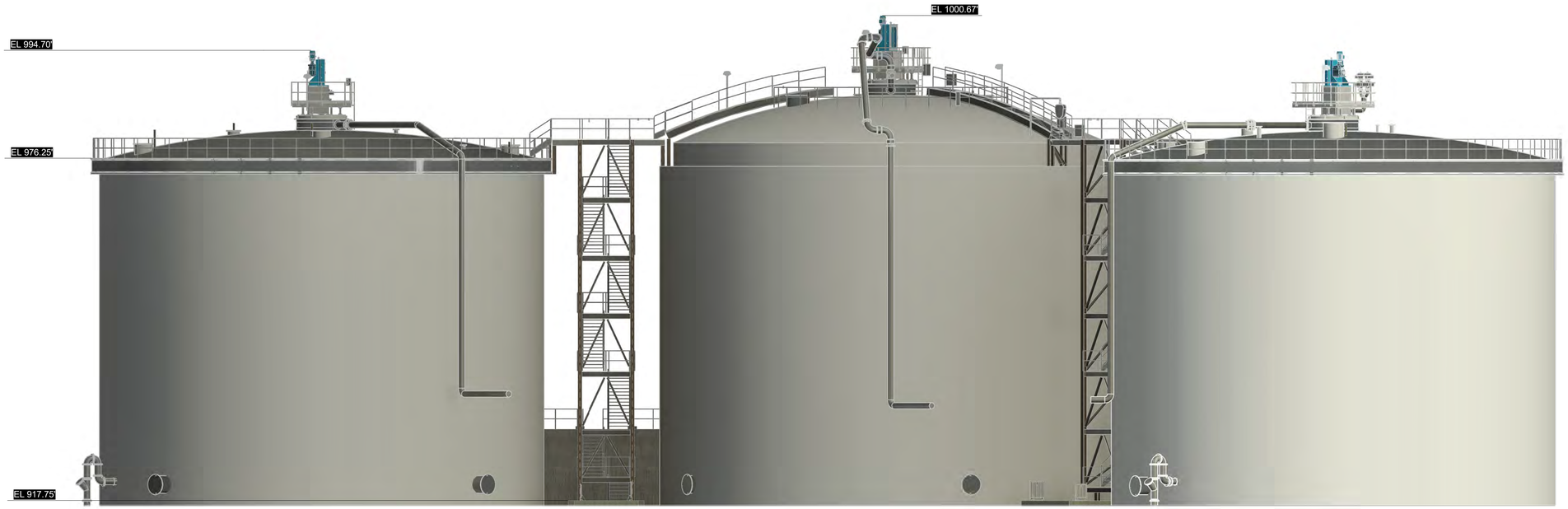
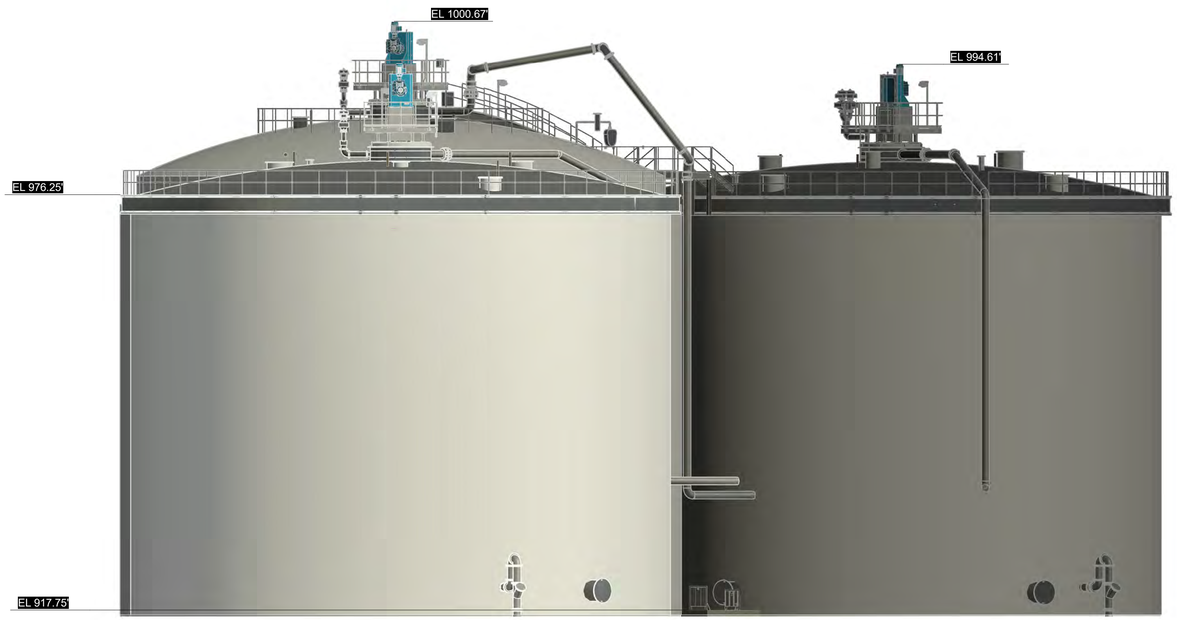


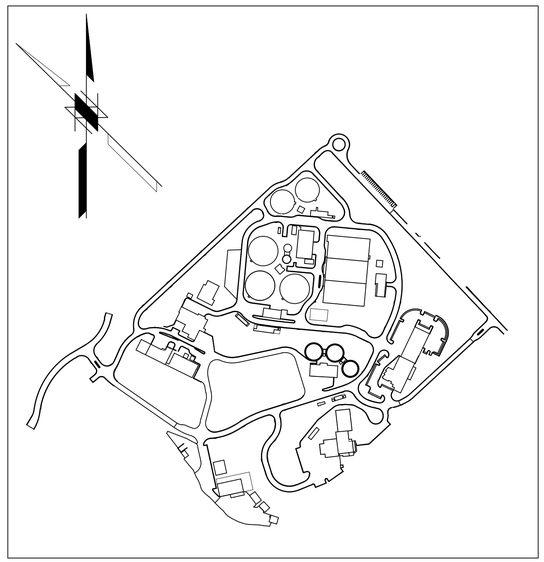
SOUTH ELEVATION DIGESTER TANKS

3/32" = 1'-0"



WEST ELEVATION DIGESTER TANKS

3/32" = 1'-0"



KEY PLAN

(SCALE BAR IS 4" AT FULL SCALE) 0 1/2 1 2 3 4

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FILE: BIM 360://408634 - Nelson WWTF Improvements/408634-720-DIGESTERS.rvt

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Wastewater

JOHNSON COUNTY KANSAS

NELSON WASTEWATER TREATMENT FACILITY CONTRACT NEL-CO01 IMPROVEMENTS PROJECT

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DIGESTERS

STRUCTURAL

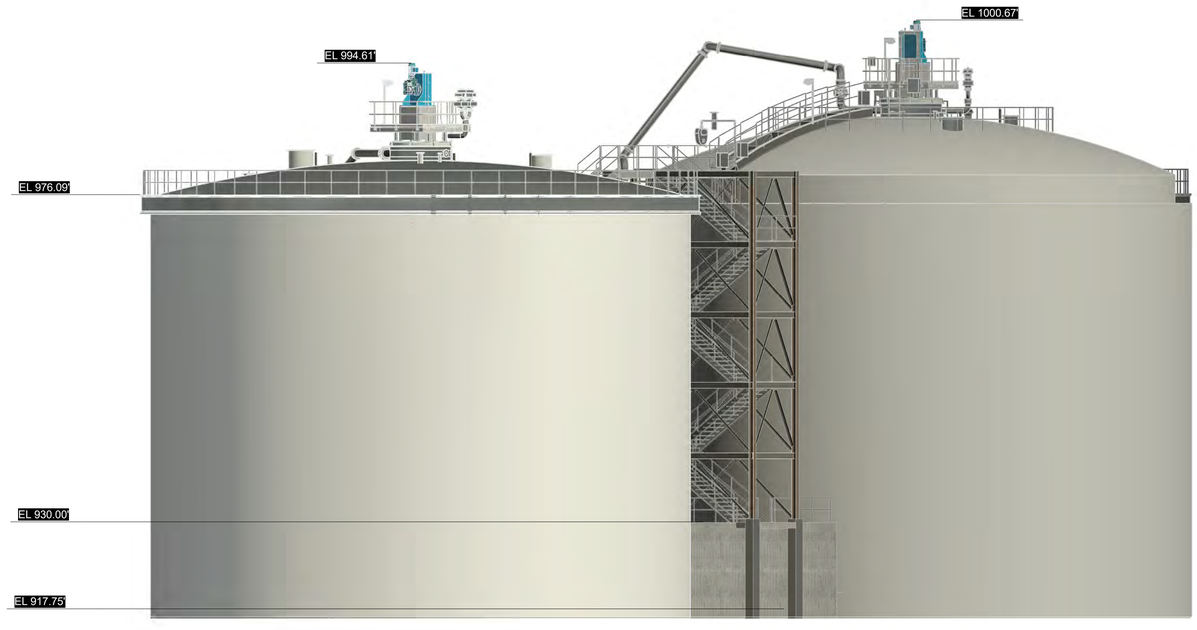
ELEVATIONS

720-S-201P

OF

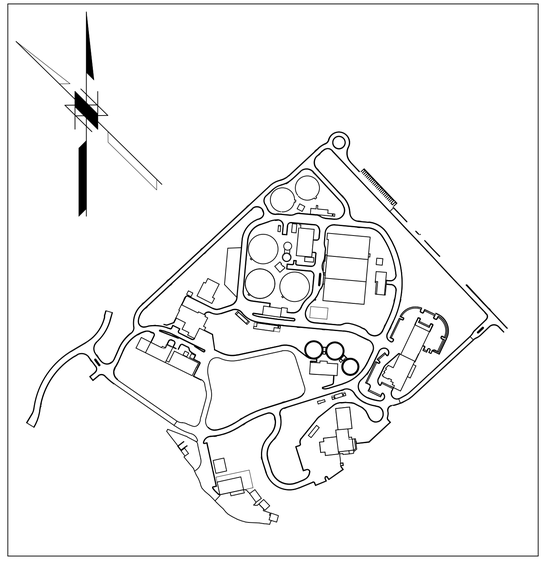
NORTH ELEVATION DIGESTER TANKS

3/32" = 1'-0"



EAST ELEVATION DIGESTER TANKS

3/32" = 1'-0"



KEY PLAN

(SCALE BAR IS 4" AT FULL SCALE) 0 1/2 1 2 3 4

PLOTTED: 1/5/2024 11:37:25 AM
FILE: BIM 360://408634 - Nelson WWTF Improvements/408634-720-DIGESTERS.rvt
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Wastewater

JOHNSON COUNTY
KANSAS

NELSON WASTEWATER TREATMENT FACILITY
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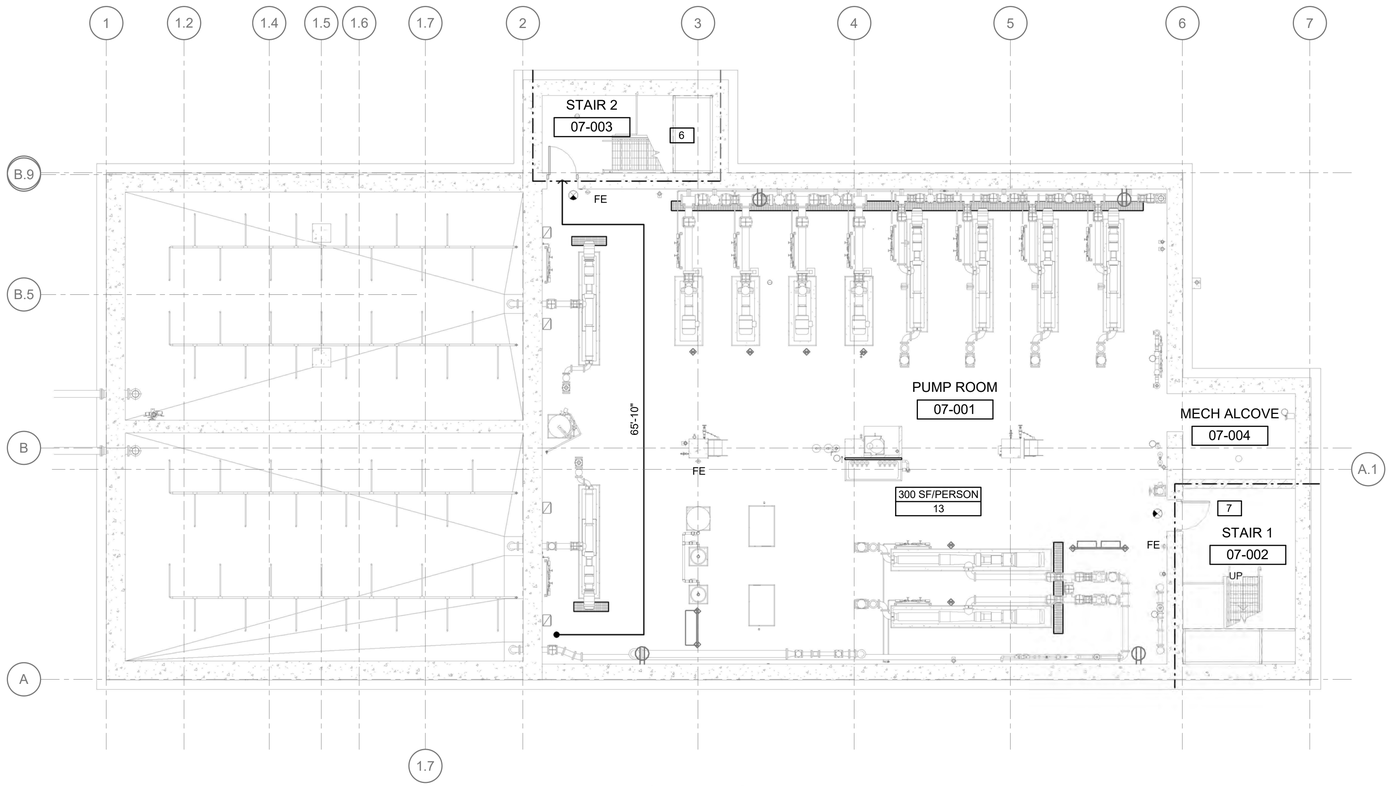
DIGESTERS

STRUCTURAL

ELEVATIONS

720-S-202P

OF



LIFE SAFETY - LOWER LEVEL PLAN

1/8" = 1'-0"

LIFE SAFETY LEGEND

FE	FIRE EXTINGUISHER (FE)
X'-X"	COMMON PATH OF EGRESS TRAVEL
X'-X"	TRAVEL DISTANCE
300 SF/PERSON / 1	OCCUPANTS PER SF OCCUPANT LOAD
1	CUMULATIVE OCCUPANT LOAD
	EXIT
	1-HOUR RATED FIRE BARRIER

BLACK & VEATCH

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JOHNSON COUNTY KANSAS Wastewater

JOHNSON COUNTY KANSAS

NELSON WASTEWATER TREATMENT FACILITY CONTRACT NEL-CO01 IMPROVEMENTS PROJECT

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DIGESTER CONTROL BUILDING

ARCHITECTURAL

LIFE SAFETY - LOWER LEVEL PLAN

725-A-001 OF

(SCALE BAR IS 4" AT FULL SCALE) 0 1/2 1 2 3 4

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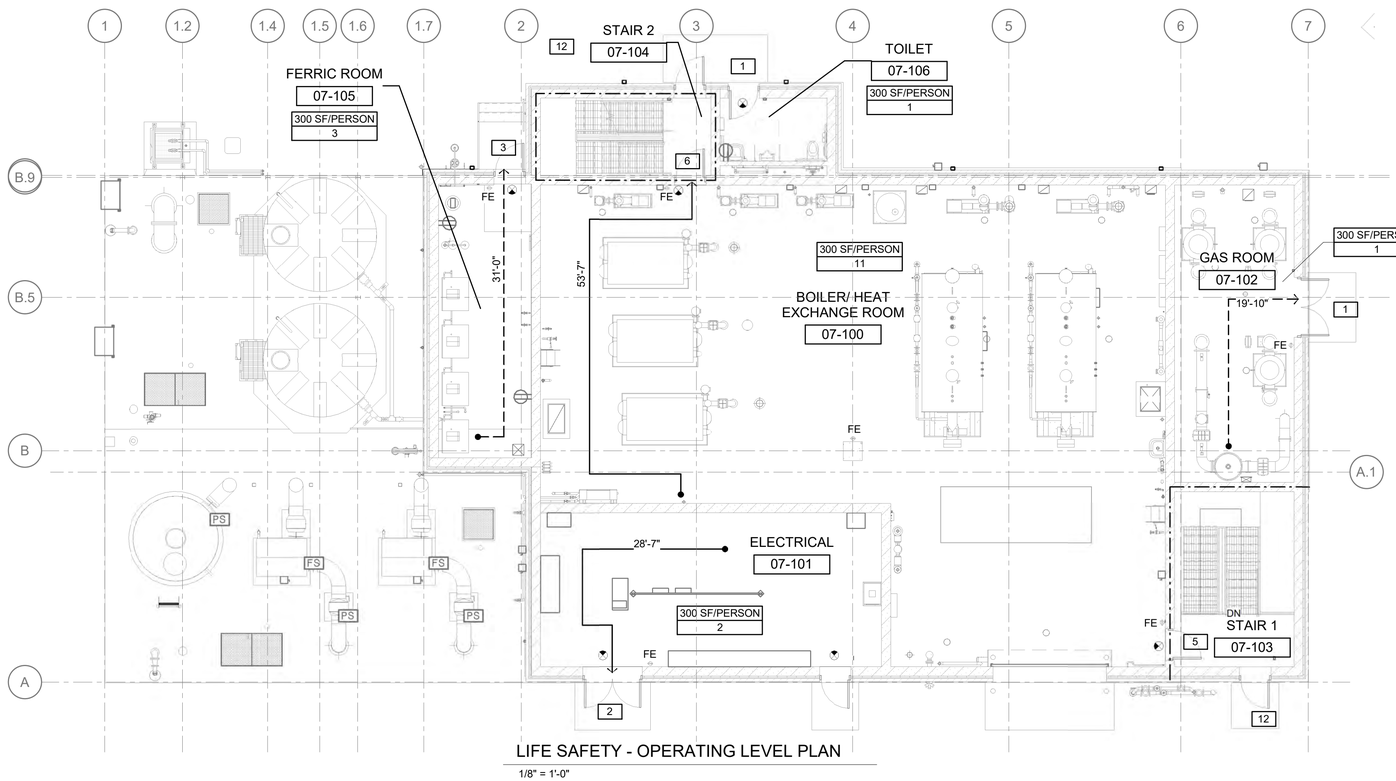

LIFE SAFETY - OPERATING LEVEL PLAN

1/8" = 1'-0"

LIFE SAFETY LEGEND

FE	FIRE EXTINGUISHER (FE)
X'-X"	COMMON PATH OF EGRESS TRAVEL
X'-X"	TRAVEL DISTANCE
300 SF/PERSON / 1	OCCUPANTS PER SF OCCUPANT LOAD
1	CUMULATIVE OCCUPANT LOAD
	EXIT
	1-HOUR RATED FIRE BARRIER

BLACK & VEATCH

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JOHNSON COUNTY KANSAS Wastewater

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DIGESTER CONTROL BUILDING

ARCHITECTURAL

LIFE SAFETY - OPERATING LEVEL PLAN

725-A-002 | OF

(SCALE BAR IS 4" AT FULL SCALE) 0 1/2 1 2 3 4

PLOTTED: 11/21/2023 10:40:03 AM
FILE: BIM 360://408634 - Nelson WWTF Improvements/408634-725-DCB BASE DESIGN.rvt
D408634

GENERAL NOTES

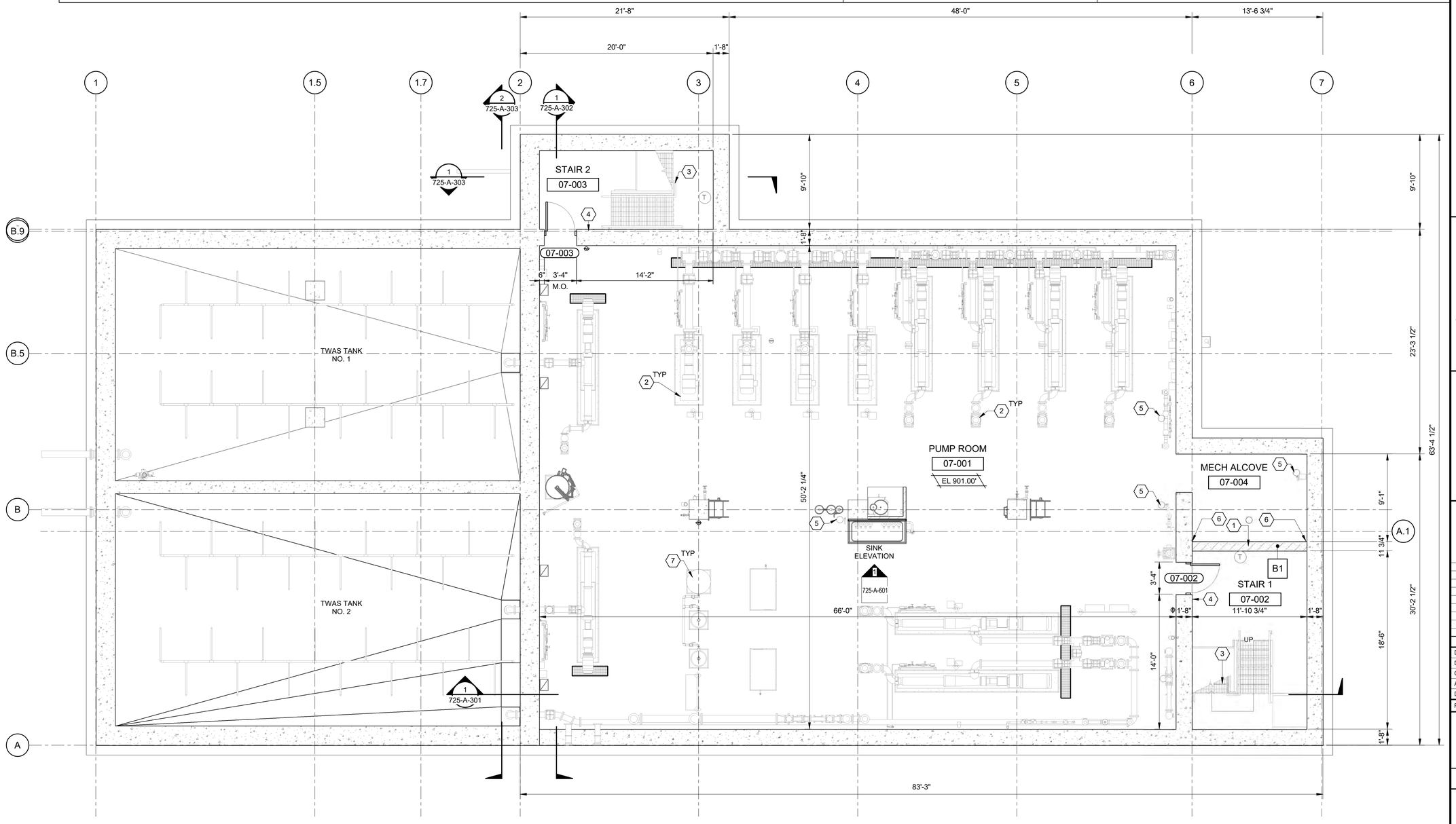
1. ALL INTERIOR WALLS ARE AS TAGGED AND PER WALL TYPES DETAIL.
2. ALL ANGLES ON PLAN ARE 45 OR 90 DEGREES UNLESS NOTED OTHERWISE.
3. ALL DIMENSIONS ARE ACTUAL AND ARE TO FACE OF MASONRY, FACE OF GYPSUM WALL BOARD, CENTERLINE OF COLUMN OR CENTERLINE OF BEAM UNLESS NOTED OTHERWISE. ALL DIMENSIONS ARE FOR BIDDING PURPOSES ONLY. ACTUAL FIELD DIMENSIONS SHALL BE VERIFIED PRIOR TO SUBMITTAL OF SHOP DRAWINGS, ORDERING RELATED MATERIALS AND PERFORMING DEMOLITION OR CONSTRUCTION WORK. ALL DIMENSIONS ALIGNING WITH OR RELATED TO EXISTING CONDITIONS ARE TO BE LAID OUT PRIOR TO COMMENCING WORK AND VERIFIED.
4. VERIFY MECHANICAL AND ELECTRICAL DRAWINGS FOR SCOPE AND INTERFACE. CONTRACTOR SHALL COORDINATE LOCATION FOR ALL MECHANICAL AND ELECTRICAL ITEMS WITH GENERAL CONSTRUCTION. REVIEW ANY DISCREPANCIES WITH THE ENGINEER PRIOR TO INSTALLATION AND/OR FABRICATION.
5. SEE MECHANICAL DRAWINGS FOR ALL ROOF PENETRATIONS WHICH MUST BE FLASHED/ROOFED AROUND.
6. LOCATE CONTROL JOINTS WHERE SHOWN ON THE PLANS AND ELEVATIONS.
7. IT IS THE INTENT OF THIS CONTRACT THAT ALL AREAS AFFECTED BY CONSTRUCTION BE A FINISHED & COMPLETE PROJECT. CONTRACTOR SHALL PATCH, REPAIR & ADJUST AS REQUIRED TO ACHIEVE THIS FINISHED PROJECT.
8. FOR VERTICAL REINFORCING AND BOND BEAMS IN MASONRY, DESIGN SEE STRUCTURAL DRAWINGS.
9. FOR HORIZONTAL JOINT REINFORCING, SEE SPECIFICATION SECTION 04200.
10. FIRE EXTINGUISHERS - SEE SHEET 725-A-002.

SHEET KEYNOTES

1. 12" CMU
2. PROCESS EQUIPMENT SEE PROCESS MECHANICAL DRAWINGS
3. STAIRS, SEE STRUCT
4. SIGN TYPE D SEE SHEET 002-A-507
5. FLOOR DRAIN. SEE PLUMBING
6. MASONRY WALL TO CONCRETE WALL JOINT SEE DETAIL F/002-S-531
7. MECHANICAL UNIT, SEE MECHANICAL

ARCHITECTURAL SYMBOL LEGEND

- (X) ACCESSORY ITEM
- 101A DOOR OR ROOF HATCH
- (X) WINDOW OR WINDOW SYSTEM
- 101A LOUVER
- ROOM NAME 101 — ROOM NAME & NUMBER
- A1 — WALL TYPE
- X — INTERIOR ELEVATION



LOWER LEVEL - OVERALL ARCHITECTURAL FLOOR PLAN

3/16" = 1'-0"

(SCALE BAR IS 4" AT FULL SCALE) 0 1/2 1 2 3 4

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NELSON WASTEWATER TREATMENT FACILITY CONTRACT NEL-CO01 IMPROVEMENTS PROJECT

NOT FOR CONSTRUCTION

1/18/24	FINAL DEVELOPMENT PLAN

REVISIONS AND RECORD OF ISSUE

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DIGESTER CONTROL BUILDING

ARCHITECTURAL

OVERALL LOWER LEVEL PLAN

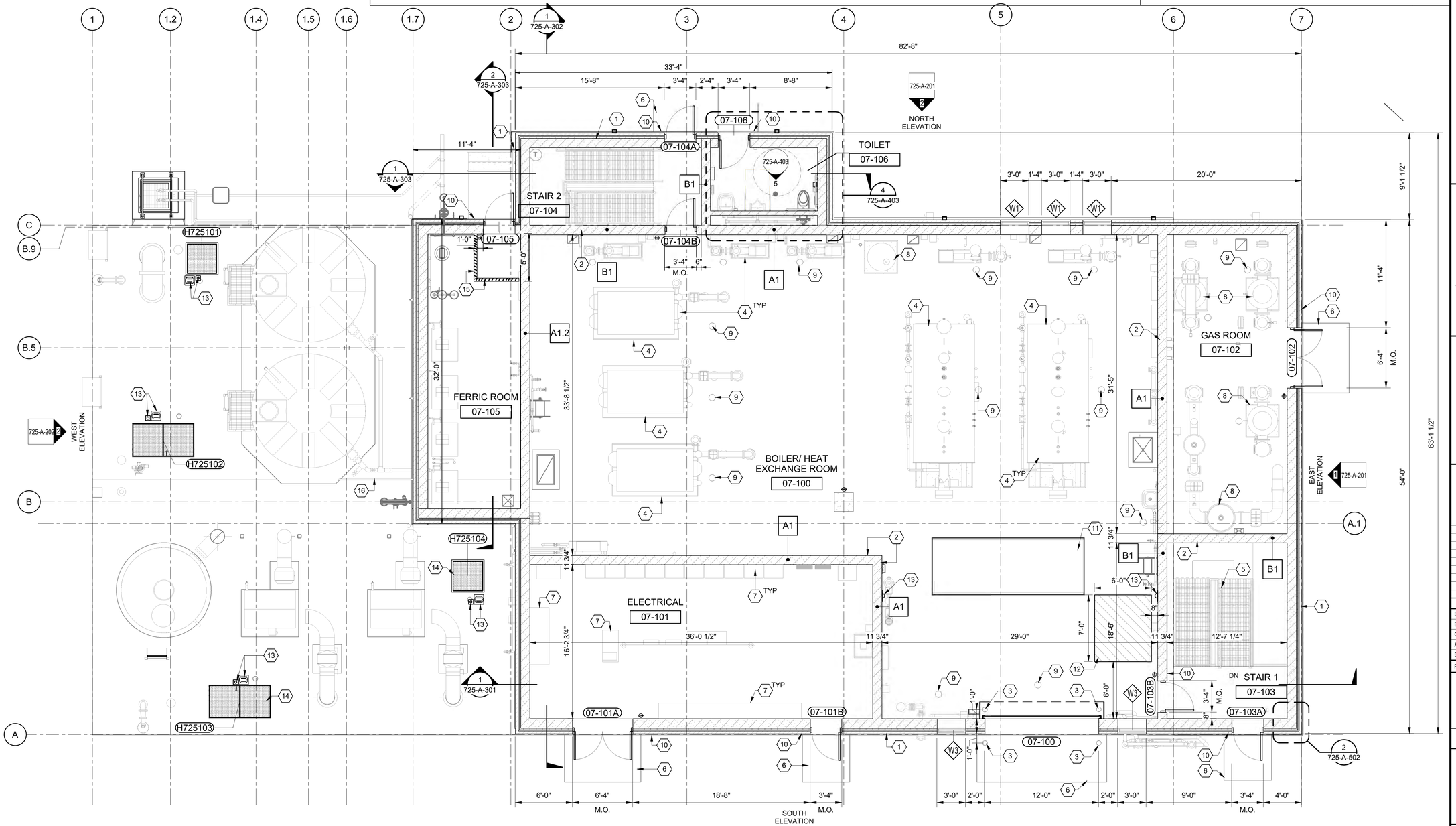
725-A-101 | OF

GENERAL NOTES

1. ALL INTERIOR WALLS ARE AS TAGGED AND PER WALL TYPES DETAIL.
2. ALL ANGLES ON PLAN ARE 45 OR 90 DEGREES UNLESS NOTED OTHERWISE.
3. ALL DIMENSIONS ARE ACTUAL AND ARE TO FACE OF MASONRY, FACE OF GYPSUM WALL BOARD, CENTERLINE OF COLUMN OR CENTERLINE OF BEAM UNLESS NOTED OTHERWISE. ALL DIMENSIONS ARE FOR BIDDING PURPOSES ONLY. ACTUAL FIELD DIMENSIONS SHALL BE VERIFIED PRIOR TO SUBMITTAL OF SHOP DRAWINGS, ORDERING RELATED MATERIALS AND PERFORMING DEMOLITION OR CONSTRUCTION WORK. ALL DIMENSIONS ALIGNING WITH OR RELATED TO EXISTING CONDITIONS ARE TO BE LAID OUT PRIOR TO COMMENCING WORK AND VERIFIED.
4. VERIFY MECHANICAL AND ELECTRICAL DRAWINGS FOR SCOPE AND INTERFACE. CONTRACTOR SHALL COORDINATE LOCATION FOR ALL MECHANICAL AND ELECTRICAL ITEMS WITH GENERAL CONSTRUCTION. REVIEW ANY DISCREPANCIES WITH THE ENGINEER PRIOR TO INSTALLATION AND/OR FABRICATION.
5. SEE MECHANICAL DRAWINGS FOR ALL ROOF PENETRATIONS WHICH MUST BE FLASHED/ROOFED AROUND.
6. LOCATE CONTROL JOINTS WHERE SHOWN ON THE PLANS AND ELEVATIONS.
7. IT IS THE INTENT OF THIS CONTRACT THAT ALL AREAS AFFECTED BY CONSTRUCTION BE A FINISHED & COMPLETE PROJECT. CONTRACTOR SHALL PATCH, REPAIR & ADJUST AS REQUIRED TO ACHIEVE THIS FINISHED PROJECT.
8. FOR VERTICAL REINFORCING AND BOND BEAMS IN MASONRY, DESIGN SEE STRUCTURAL DRAWINGS.
9. FOR HORIZONTAL JOINT REINFORCING, SEE SPECIFICATION SECTION 04200.
10. FIRE EXTINGUISHERS - SEE SHEET 725-A-003.

SHEET KEYNOTES

1 BRICK VENEER CAVITY WALL WITH CMU BACKUP
2 12" CMU
3 PIPE BOLLARD, SEE STRUCTURAL DETAIL 6/725-S-503
4 PROCESS EQUIPMENT SEE PROCESS MECHANICAL DRAWINGS
5 STAIRS, SEE STRUCT
6 CONCRETE STOOP, SEE STRUCT
7 ELECTRICAL EQUIPMENT SEE ELECTRICAL DRAWINGS
8 MECHANICAL EQUIPMENT, SEE MECHANICAL DRAWINGS
9 FLOOR DRAIN. SEE PLUMBING
10 SIGN TYPE D SEE SHEET 002-A-507
11 CONCRETE PLANK COVER SYSTEM SEE STRUCT
12 CONCRETE PANEL LAYDOWN AREA. STRIPE DESIGNATED AREA AS SHOWN
13 FALL PROTECTION. SEE STRUCT
14 FLOOR HATCH, SEE STRUCT
15 PAINTED YELLOW SAFETY STRIP
16 GUARDRAIL



OPERATING LEVEL - OVERALL ARCHITECTURAL FLOOR PLAN

3/16" = 1'-0"

(SCALE BAR IS 4" AT FULL SCALE) 0 1/2 1 2 3 4

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DIGESTER CONTROL BUILDING

ARCHITECTURAL

OVERALL OPERATING LEVEL PLAN

725-A-102 | OF

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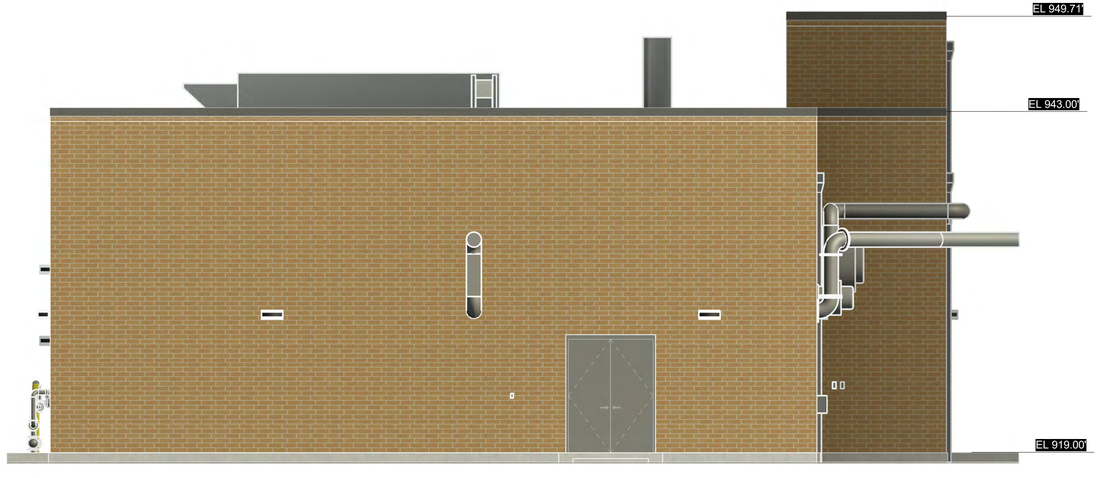
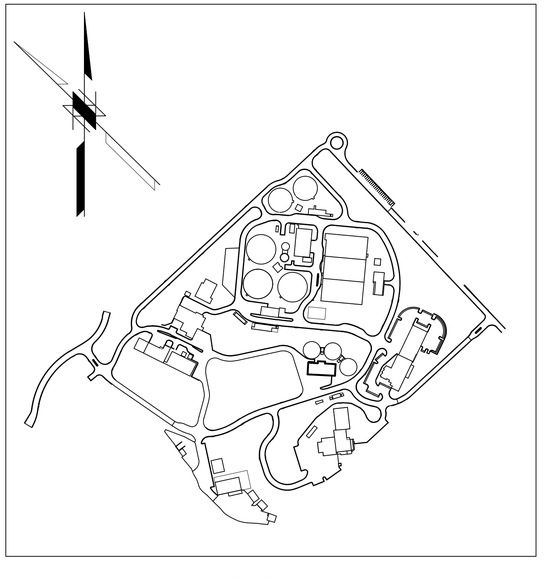
NORTH ELEVATION

3/16" = 1'-0"



EAST ELEVATION

3/16" = 1'-0"



KEY PLAN

(SCALE BAR IS 4" AT FULL SCALE) 0 1/2 1 2 3 4

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DIGESTER CONTROL BUILDING

ARCHITECTURAL

ELEVATIONS (INCLUDES OC 3)

725-A-201P

OF

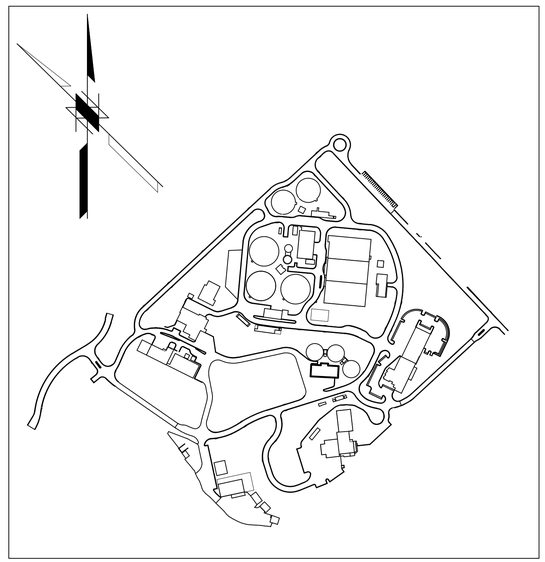
D408634

SOUTH ELEVATION

3/16" = 1'-0"

WEST ELEVATION

3/16" = 1'-0"



KEY PLAN

(SCALE BAR IS 4" AT FULL SCALE) 0 1/2 1 2 3 4

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NELSON WASTEWATER TREATMENT FACILITY CONTRACT NEL-CO01 IMPROVEMENTS PROJECT

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DIGESTER CONTROL BUILDING

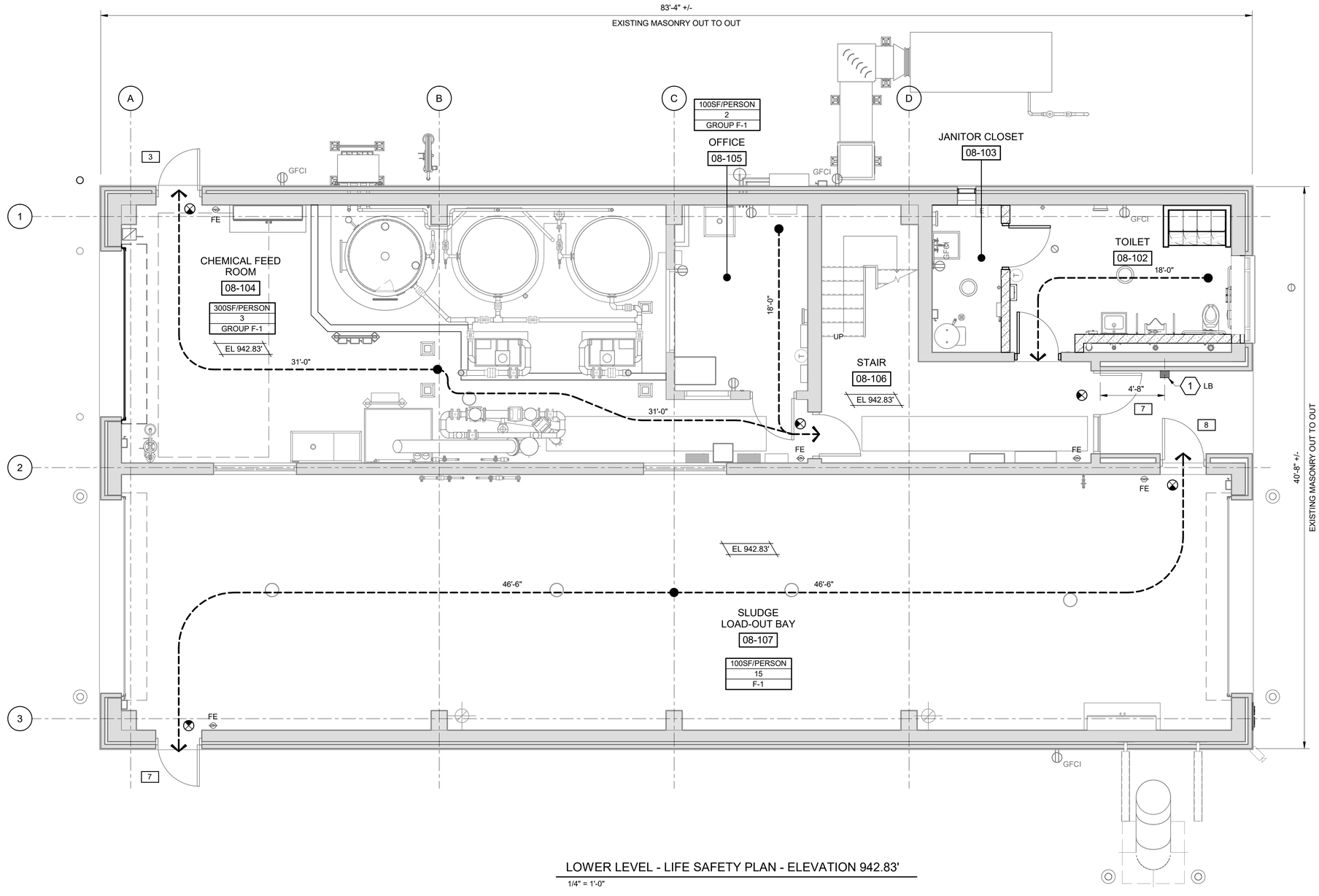
ARCHITECTURAL

ELEVATIONS (INCLUDES OC 3)

725-A-202P

OF XXX

D408634



LOWER LEVEL - LIFE SAFETY PLAN - ELEVATION 942.83'

1/4" = 1'-0"

GENERAL SHEET NOTES

1. FOR ARCHITECTURAL SYMBOL LEGEND, SEE FLOOR PLAN DRAWING.
2. FOR EXIT LIGHTS AND EMERGENCY LIGHTING SEE ELECTRICAL LIGHTING DRAWINGS (E SERIES).
3. FOR OCCUPANT LOAD CALCULATION & INFORMATION, SEE CODE ANALYSIS DRAWING 760-G-001.
4. EXISTING PATHS OF EGRESS, BUILDING OCCUPANCY AND BUILDING USE ARE UNCHANGED FROM EXISTING CONDITIONS.

SHEET KEYNOTES

1. WALL MOUNTED LOCK BOX (LB). BOTTOM OF UNIT BETWEEN 5'-0 & 6'-0" ABOVE FLOOR LEVEL.

LIFE SAFETY LEGEND

FE	FIRE EXTINGUISHER (FE)
X'-X"	EXIT ACCESS TRAVEL DISTANCE
100SF/PERSON / 0 / GROUP X-0	OCCUPANTS PER SF OCCUPANT LOAD OCCUPANCY CLASSIFICATION
1	CUMULATIVE OCCUPANT LOAD AT EXIT
	EXIT SYMBOL
	LOCK BOX (LB)

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NELSON WASTEWATER TREATMENT FACILITY CONTRACT NEL-CO01 IMPROVEMENTS PROJECT

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DEWATERING BUILDING

ARCHITECTURAL

LOWER LEVEL LIFE SAFETY PLAN ELEVATION 942.83'

760-A-001 | OF

4' 2' 0' 4' 8'
1/4" = 1'-0"

(SCALE BAR IS 4" AT FULL SCALE) 0 1/2 1 2 3 4

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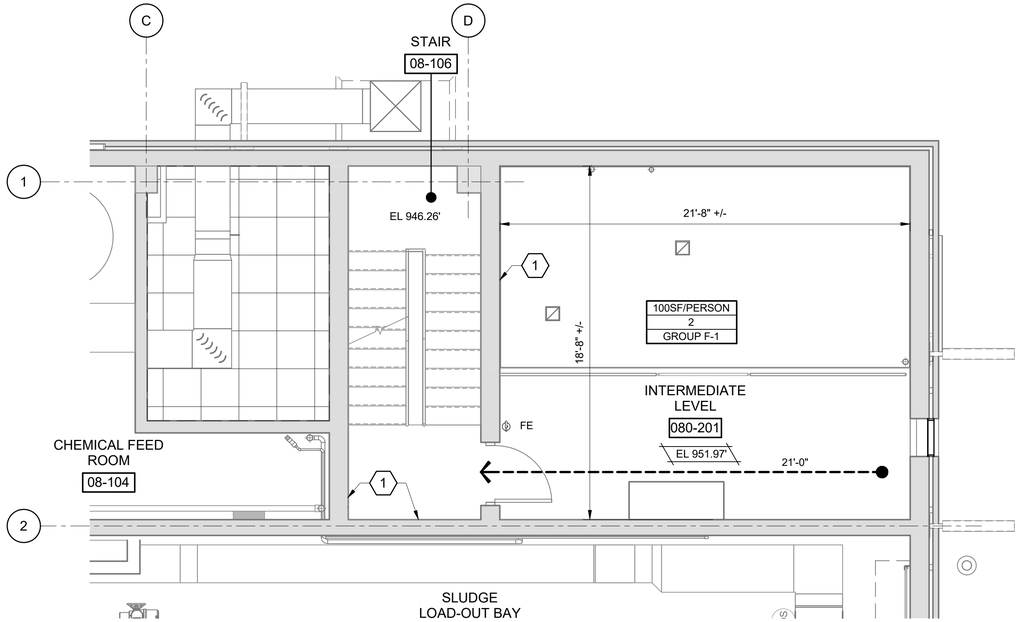

INTERMEDIATE LEVEL LIFE SAFETY PLAN - ELEVATION 951.97'

1/4" = 1'-0"

GENERAL SHEET NOTES

1. FOR ARCHITECTURAL SYMBOL LEGEND, SEE FLOOR PLAN DRAWING.
2. FOR EXIT LIGHTS AND EMERGENCY LIGHTING SEE ELECTRICAL LIGHTING DRAWINGS (E SERIES).
3. FOR OCCUPANT LOAD CALCULATION & INFORMATION, SEE CODE ANALYSIS DRAWING 760-G-001.
4. EXISTING PATHS OF EGRESS, BUILDING OCCUPANCY AND BUILDING USE ARE UNCHANGED FROM EXISTING CONDITIONS.

SHEET KEYNOTES

1. EXISTING 2 HOUR RATED RATED CONSTRUCTION.

LIFE SAFETY LEGEND

FE	FIRE EXTINGUISHER (FE)
X'-X"	EXIT ACCESS TRAVEL DISTANCE
100SF/PERSON / 0 / GROUP X-0	OCCUPANTS PER SF OCCUPANT LOAD OCCUPANCY CLASSIFICATION
1	CUMULATIVE OCCUPANT LOAD AT EXIT
	EXIT SYMBOL
	LOCK BOX (LB)

4' 2' 0' 4' 8'

1/4" = 1'-0"

(SCALE BAR IS 4" AT FULL SCALE) 0 1/2 1 2 3 4

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DEWATERING BUILDING

ARCHITECTURAL

INTERMEDIATE LEVEL LIFE SAFETY PLAN ELEVATION 951.97'

760-A-002 | OF

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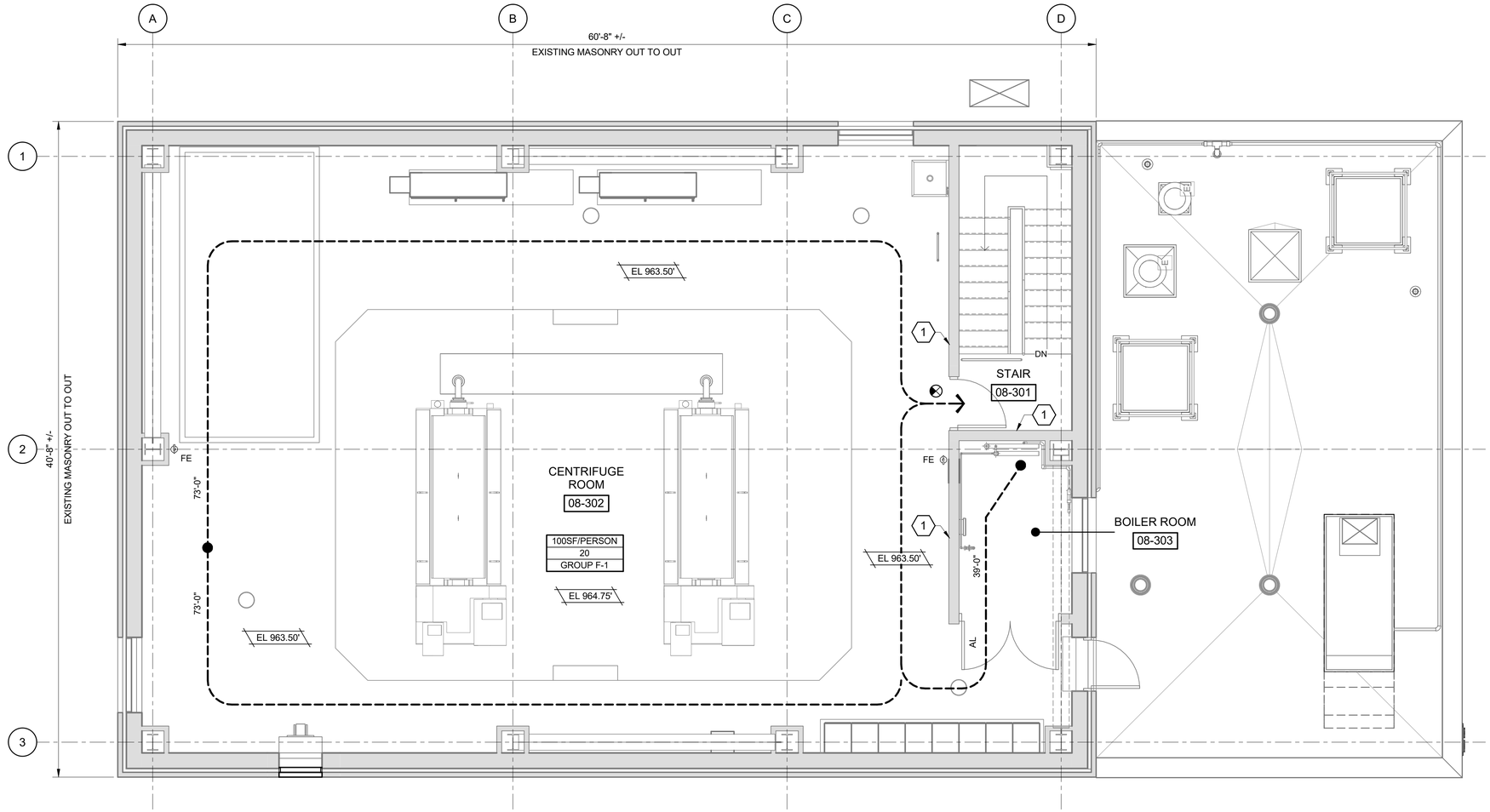

UPPER LEVEL LIFE SAFETY PLAN - ELEVATION 963.50'

1/4" = 1'-0"

GENERAL SHEET NOTES

1. FOR ARCHITECTURAL SYMBOL LEGEND, SEE FLOOR PLAN DRAWING.
2. FOR EXIT LIGHTS AND EMERGENCY LIGHTING SEE ELECTRICAL LIGHTING DRAWINGS (E SERIES).
3. FOR OCCUPANT LOAD CALCULATION & INFORMATION, SEE CODE ANALYSIS DRAWING 760-G-001.
4. EXISTING PATHS OF EGRESS, BUILDING OCCUPANCY AND BUILDING USE ARE UNCHANGED FROM EXISTING CONDITIONS.

SHEET KEYNOTES

1. EXISTING 2 HOUR FIRE RATED CONSTRUCTION.

LIFE SAFETY LEGEND

FE	FIRE EXTINGUISHER (FE)
X'-X"	EXIT ACCESS TRAVEL DISTANCE
100SF/PERSON 0 GROUP X-0	OCCUPANTS PER SF OCCUPANT LOAD OCCUPANCY CLASSIFICATION
1	CUMULATIVE OCCUPANT LOAD AT EXIT
	EXIT SYMBOL
	LOCK BOX (LB)

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NELSON WASTEWATER TREATMENT FACILITY CONTRACT NEL-CO01 IMPROVEMENTS PROJECT

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DEWATERING BUILDING

ARCHITECTURAL

UPPER LEVEL LIFE SAFETY PLAN ELEVATION 963.50'

760-A-003 | OF

4' 2' 0' 4' 8'
1/4" = 1'-0"

(SCALE BAR IS 4" AT FULL SCALE) 0 1/2 1 2 3 4

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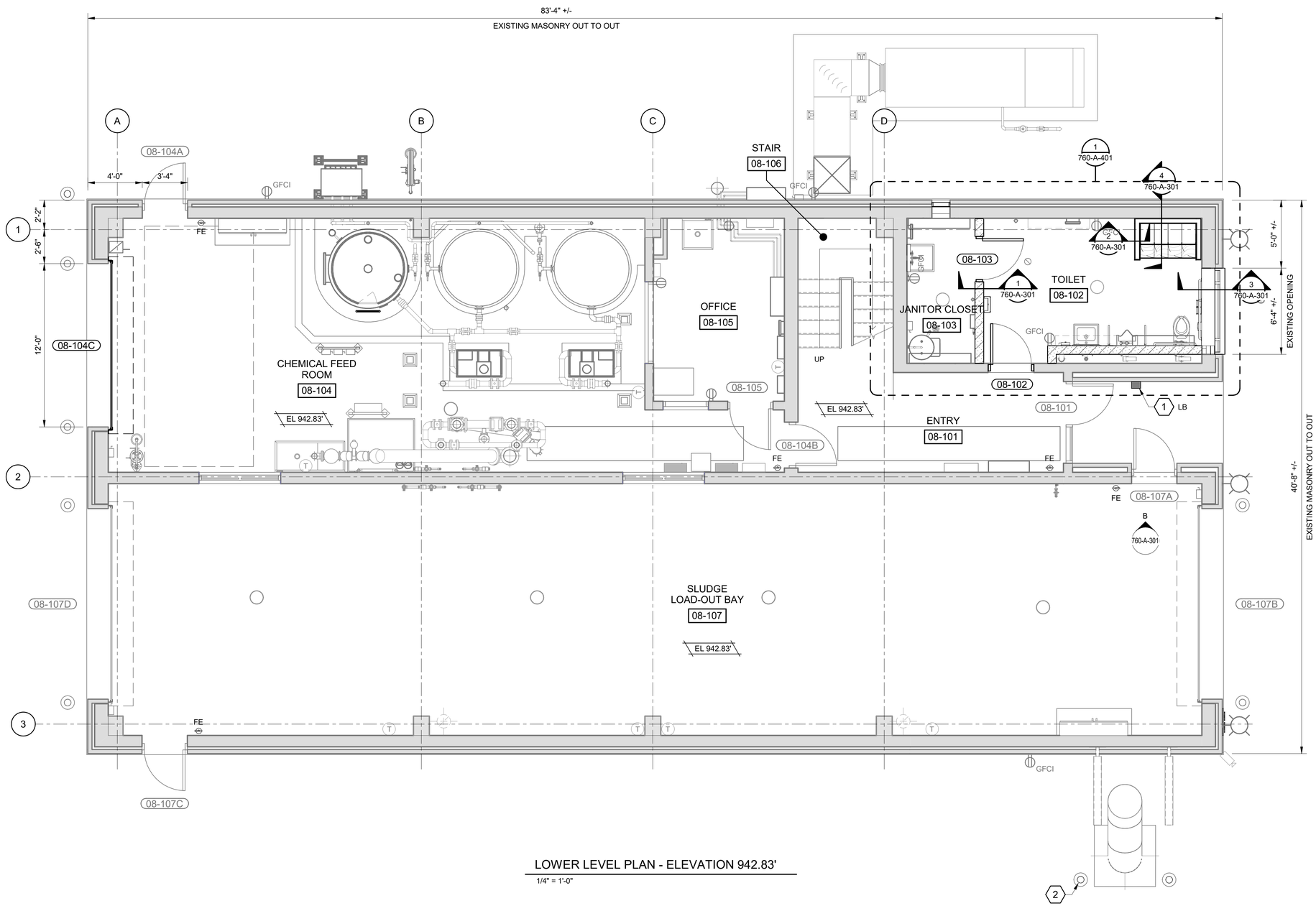

LOWER LEVEL PLAN - ELEVATION 942.83'

1/4" = 1'-0"

GENERAL SHEET NOTES

1. EXISTING DIMENSIONS (+/-) ARE TYPICALLY INDICATED TO THE MASONRY OR CONCRETE FACE OR TO THE CENTERLINE OF COLUMNS UNLESS OTHERWISE NOTED.
2. FIELD VERIFY ALL EXISTING CONDITIONS AND NOTIFY THE ENGINEER AND/OR ARCHITECT OF ANY DISCREPANCIES.
3.

SHEET KEYNOTES

1. WALL MOUNTED LOCK BOX (LB). BOTTOM OF UNIT BETWEEN 5'-0 & 6'-0" ABOVE FLOOR LEVEL.
2. NEW BOLLARD, TYPICAL OF 2. SEE CIVIL DRAWINGS.

ARCHITECTURAL SYMBOL LEGEND

X	ACCESSORY ITEM
000-101A	DOOR
000-101A	LOUVER
W	WINDOW
X	INTERIOR ELEVATION
ROOM NAME 000-101	ROOM NAME & NUMBER
X	WALL BASE TYPE

4' 2' 0' 4' 8'

1/4" = 1'-0"

(SCALE BAR IS 4" AT FULL SCALE) 0 1/2 1 2 3 4

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DEWATERING BUILDING

ARCHITECTURAL

LOWER LEVEL PLAN ELEVATION 942.83'

760-A-101 | OF

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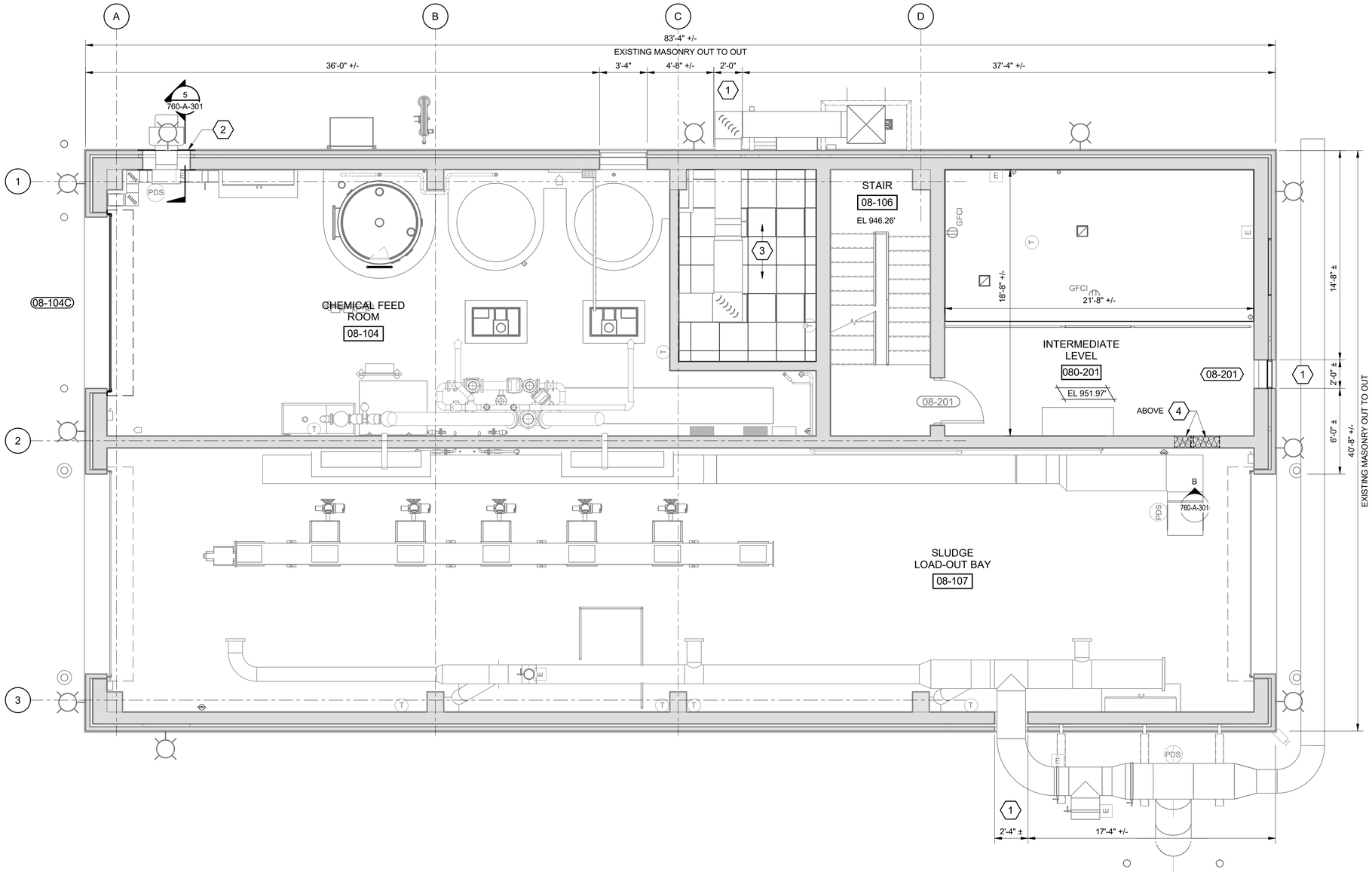

INTERMEDIATE LEVEL PLAN - ELEVATION 951.97'

1/4" = 1'-0"

GENERAL SHEET NOTES

1. EXISTING DIMENSIONS (+/-) ARE TYPICALLY INDICATED TO THE MASONRY OR CONCRETE FACE OR TO THE CENTERLINE OF COLUMNS UNLESS OTHERWISE NOTED.
2. FIELD VERIFY ALL EXISTING CONDITIONS AND NOTIFY THE ENGINEER AND/OR ARCHITECT OF ANY DISCREPANCIES.
3. FOR ARCHITECTURAL SYMBOL LEGEND, SEE LOWER LEVEL PLAN.
4. FOR NEW DUCTWORK, SEE HVAC DRAWINGS.
5. FOR NEW WALL OPENINGS, DIMENSIONS SHOWN ON THIS DRAWING ARE APPROXIMATE. FIELD VERIFY.

   ALIGN CUTS TO NEAREST MASONRY JOINT. COORDINATE OPENING SIZE WITH SYSTEM TO BE INSTALLED, REFER TO HVAC DRAWINGS.

   REFER TO STRUCTURAL DRAWINGS FOR MASONRY LINTEL & CUT CONCRETE WALL INFORMATION.

   REFER TO ARCHITECTURAL HVAC PENETRATION WALL DETAIL FOR FLASHING & ADDITIONAL INFORMATION.

SHEET KEYNOTES

1. SAW CUT NEW OPENING IN EXISTING BRICK & CMU WALL OR BRICK & CONCRETE WALL. SEE GENERAL SHEET NOTE 5.

   PATCH & REPAIR AS REQUIRED FOR NEW DUCTWORK OR LOUVER & DAMPER INSTALLATION. COORDINATE WITH HVAC DRAWINGS.
2. NEW 20 GA SS SPLIT COVER PLATE CLOSURE AS REQ'D FOR DUCTWORK PROVIDED (TYPICAL FOR INTERIOR & EXTERIOR WALL).
3. NEW LAY-IN ACOUSTICAL CEILING BELOW. SEE ENLARGED PLAN.
4. INFILL ABANDONED DUCT OPENINGS IN EXISTING CONCRETE WALL ABOVE W/ FIRE SAFING INSULATION AND SHEET METAL CLOSURES, BOTH SIDES OF EXISTING WALL. TYPICAL OF 2.

4' 2' 0' 4' 8'

1/4" = 1'-0"

(SCALE BAR IS 4" AT FULL SCALE) 0 1/2 1 2 3 4

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NELSON WASTEWATER TREATMENT FACILITY CONTRACT NEL-CO001 IMPROVEMENTS PROJECT

NOT FOR CONSTRUCTION

01/18/24	FINAL DEVELOPMENT PLAN

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DEWATERING BUILDING

ARCHITECTURAL

INTERMEDIATE LEVEL PLAN ELEVATION 951.97'

760-A-102 | OF

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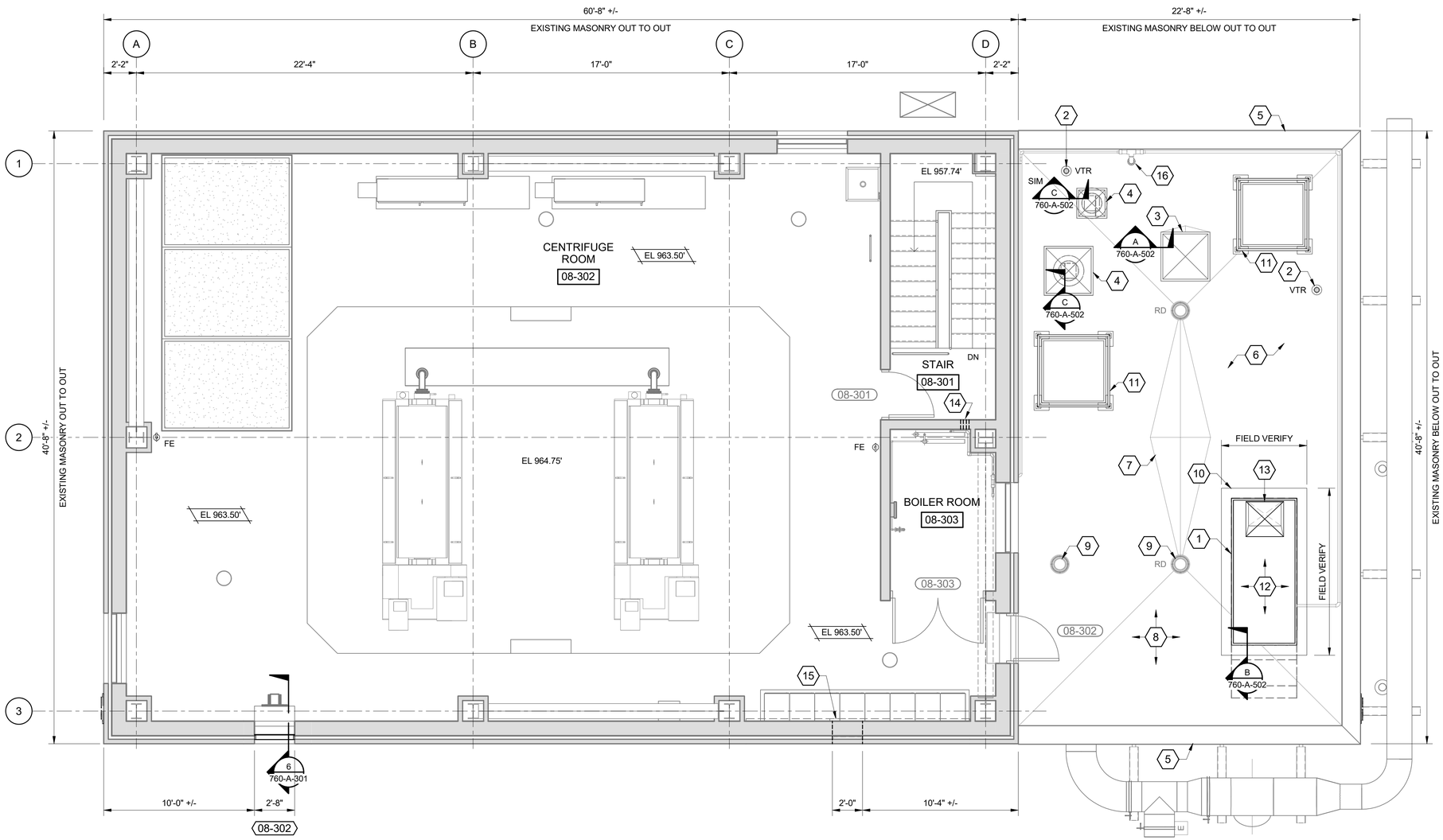

UPPER LEVEL PLAN - ELEVATION 963.50'

1/4" = 1'-0"

GENERAL SHEET NOTES

1. EXISTING DIMENSIONS (+/-) ARE TYPICALLY INDICATED TO THE MASONRY OR CONCRETE FACE OR TO THE CENTERLINE OF COLUMNS UNLESS OTHERWISE NOTED.
2. FIELD VERIFY ALL EXISTING CONDITIONS AND NOTIFY THE ENGINEER AND/OR ARCHITECT OF ANY DISCREPANCIES.
3. SEE HVAC DRAWINGS FOR NEW ROOF EQUIPMENT ATOP EXISTING CURBS TO REMAIN.
4. EXISTING ROOFING SYSTEM, METAL FASCIAS, ROOF CURBS, ACCESS HATCH, CRICKET DRAIN SYSTEMS AND ROOF DRAINS TO REMAIN UNDISTURBED.
5. INSPECT EXISTING CURBS & FLASHING MEMBRANES TO RECEIVE NEW CURB EXTENSION OR CLOSURE COVER. NOTIFY ARCHITECT OF ANY COMPROMISED OR DAMAGED ROOFING SYSTEM ITEMS.

SHEET KEYNOTES

1. NEW INSULATED ROOF CURB.
2. NEW PLUMBING VENT & MEMBRANE FLASHING THROUGH EXISTING ROOF. PATCH & REPAIR EXISTING ROOF SYSTEM. FOR SIMILAR INFORMATION, SEE VENT THROUGH ROOF DETAIL A3 ON DRAWING 002-A-505.

   COORDINATE NEW OPENING WITH STRUCTURAL & PLUMBING DRAWINGS.
3. EXISTING ROOF CURB WITH NEW CLOSURE COVER.
4. EXISTING ROOF CURB PREPARED FOR INSTALLATION OF NEW EQUIPMENT. COORDINATE WITH HVAC DRAWINGS.
5. EXISTING METAL FASCIA, TYPICAL.
6. EXISTING SINGLE-PLY ROOFING MEMBRANE SYSTEM OVER EXISTING TAPERED INSULATION.
7. EXISTING CRICKET DRAINAGE SYSTEM, TYPICAL.
8. EXISTING WALK WAY PADS TO REMAIN, NOT SHOWN.
9. EXISTING ROOF DRAIN (RD), TYPICAL.
10. NEW MEMBRANE ROOFING TO MATCH EXISTING.
11. NEW SKYLIGHT GUARDRAIL FALL PROTECTION SYSTEM, TYPICAL.
12. NEW RIGID INSULATION TO MATCH EXISTING.
13. EXISTING ROOF OPENING.
14. INFILL ABANDONED PIPE OPENINGS IN EXISTING CMU WALL W/ FIRE SAFING INSULATION & FIRE RATED CAULKING.
15. REMOVE EXISTING ACOUSTICAL WALL PANELS TO EXTENT REQUIRED FOR NEW CONDUIT WALL OPENING. COORDINATE WITH STRUCTURAL & ELECTRICAL DRAWINGS.
16. NEW ROOF OPENING IN EXISTING ROOF SYSTEM FOR NEW GAS LINE PIPE. PROVIDE NEW MEMBRANE FLASHING SYSTEM AROUND NEW GAS PIPE, REPAIR EXISTING ROOFING SYSTEM TO MATCH EXISTING.
    FOR SIMILAR INFORMATION, SEE VENT THROUGH ROOF DETAIL A3 ON DRAWING 002-A-505.

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11401 Lamar Avenue
Overland Park, Kansas 66211

JOHNSON COUNTY KANSAS Wastewater

JOHNSON COUNTY KANSAS

NELSON WASTEWATER TREATMENT FACILITY CONTRACT NEL-CO01 IMPROVEMENTS PROJECT

NOT FOR CONSTRUCTION

01/18/24	FINAL DEVELOPMENT PLAN

REVISIONS AND RECORD OF ISSUE

DESIGNED:	
DETAILED:	
CHECKED:	
APPROVED:	
DATE:	
PROJECT NO.:	408634

DEWATERING BUILDING

ARCHITECTURAL

UPPER LEVEL PLAN ELEVATION 963.50'

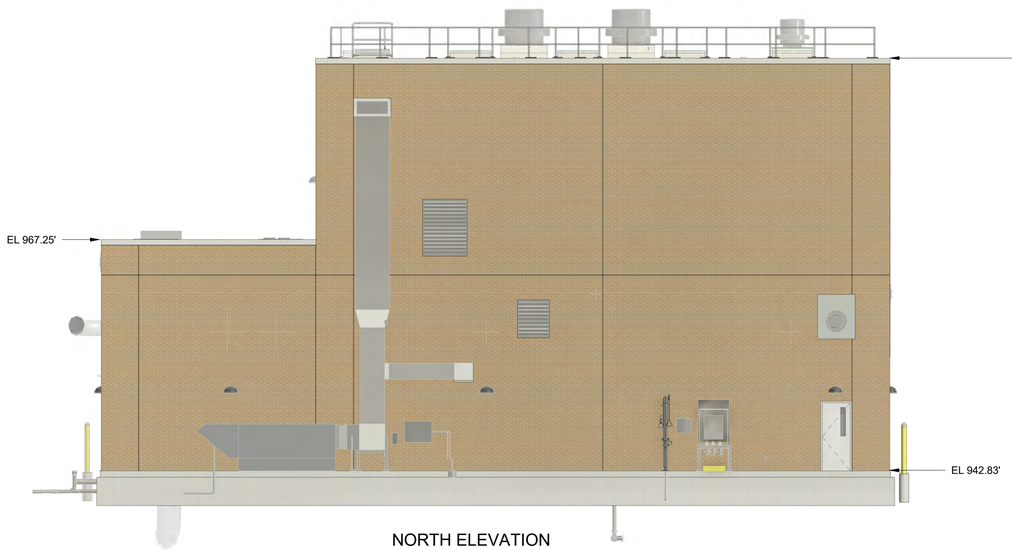
760-A-103 | OF

4' 2' 0' 4' 8'

1/4" = 1'-0"

(SCALE BAR IS 4" AT FULL SCALE) 0 1/2 1 2 3 4

PLOTTED: 10/11/2023 12:58 PM
FILE: BIM 360://408634 - Nelson WWTF Improvements/408634-760-DEWATERING.rvt
D408634

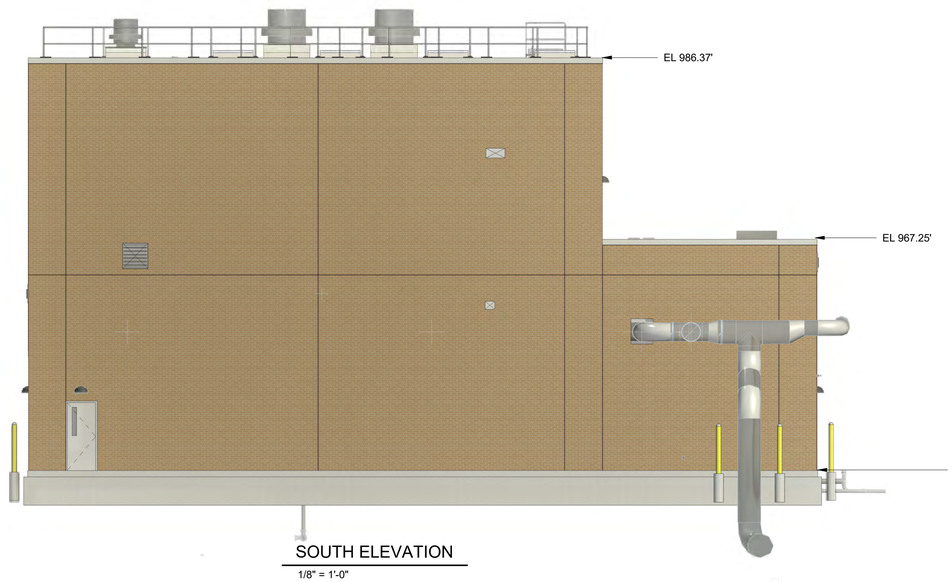


NORTH ELEVATION

1/8" = 1'-0"

EAST ELEVATION

1/8" = 1'-0"

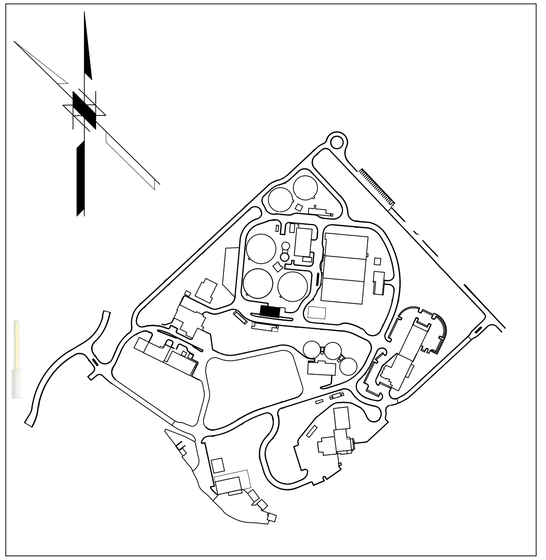


SOUTH ELEVATION

1/8" = 1'-0"

WEST ELEVATION

1/8" = 1'-0"



KEY PLAN

(SCALE BAR IS 4" AT FULL SCALE) 0 1/2 1 2 3 4

PLOTTED: 1/16/2024 2:47:30 PM
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DEWATERING BUILDING

ARCHITECTURAL

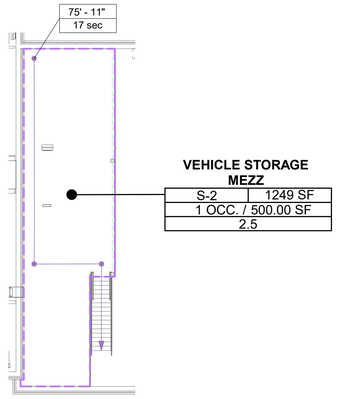
ELEVATIONS

760-A-201P

OF

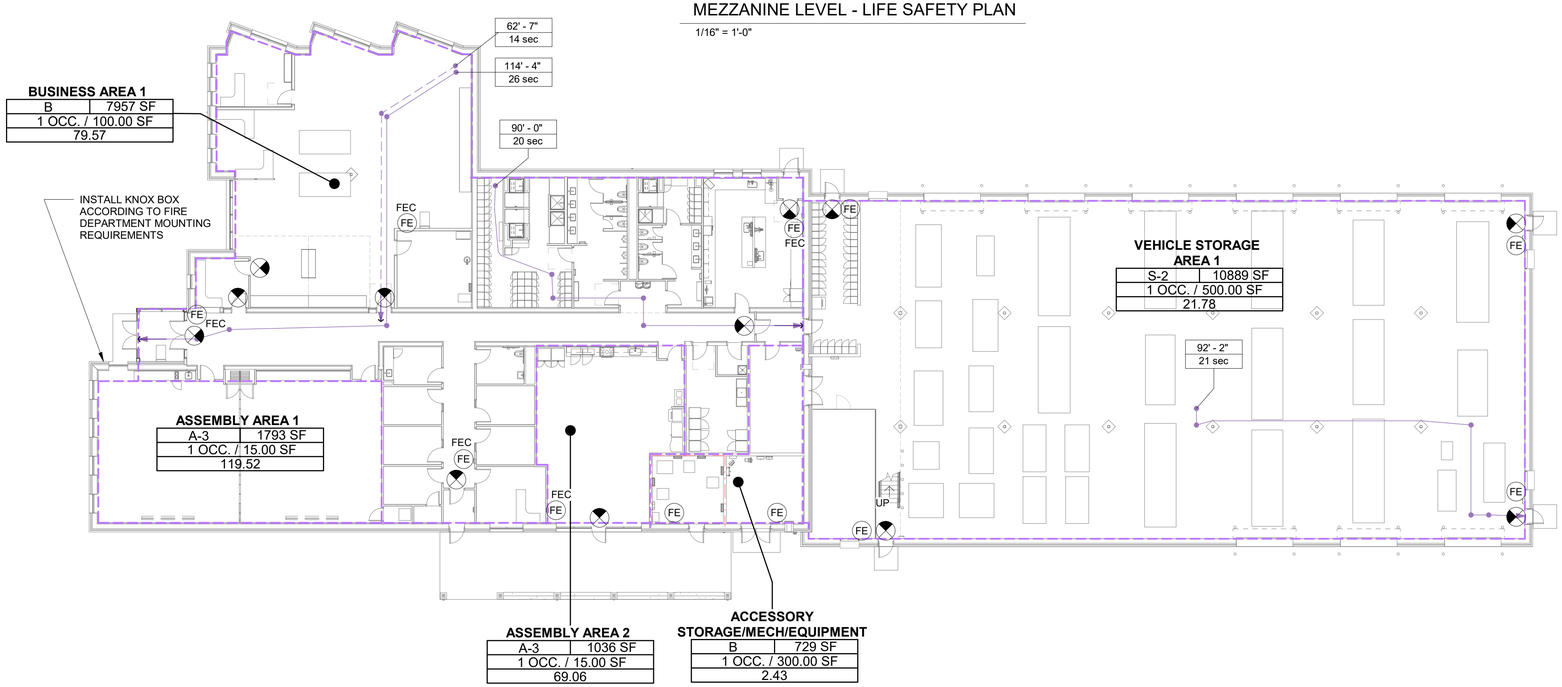
AREA OCCUPANCY SCHEDULE - 2018 IBC

OCC. AREA	OCC. CLASS.	AREA	NET OR GROSS	SPACE FUNCTION	OCC. LOAD FACTOR	CALC. OCC. LOAD	EGRESS CAPACITY FACTOR	REQ'D EXIT WIDTH (INCHES)	PROVIDED EXIT WIDTH
OPERATING LEVEL									
ASSEMBLY AREA 1	A-3	1792.78 SF	Net	Assembly without fixed seats - Unconcentraded (tables and chairs)	15.00 SF	120	0.15	18	68"
ASSEMBLY AREA 2	A-3	1035.86 SF	Net	Assembly without fixed seats - Unconcentraded (tables and chairs)	15.00 SF	70	0.15	10.5	34"
BUSINESS AREA 1	B	7956.81 SF	Gross	Business areas	100.00 SF	80	0.15	12	102"
ACCESSORY STORAGE/MECH/EQUIPMENT	B	728.52 SF	Gross	Accessory storage areas, mechanical equipment room	300.00 SF	3	0.15	0.45	65"
VEHICLE STORAGE AREA 1	S-2	10888.54 SF	Gross	Warehouses	500.00 SF	22	0.15	3.3	136"
OPERATING LEVEL		22402.51 SF				295			
MEZZANINE									
VEHICLE STORAGE MEZZ	S-2	1249.10 SF	Gross	Warehouses	500.00 SF	3	0.15	0.45	48"
MEZZANINE		1249.10 SF				3			
GRAND TOTAL		23651.61 SF				298			



MEZZANINE LEVEL - LIFE SAFETY PLAN

1/16" = 1'-0"



OPERATING LEVEL - LIFE SAFETY FLOOR PLAN

1/16" = 1'-0"

FE — FIRE EXTINGUISHER (FE)

FEC — FIRE EXTINGUISHER CABINET (FEC)

X'-X" — MAXIMUM COMMON PATH OF TRAVEL

X'-X" — TRAVEL DISTANCE

AREA USE BOUNDRY LINE

2 HR WALL ASSEMBLY

AREA NAME

Occ. Class	SF SF
1 OCC. / Load Factor	
Calculated Occ. Total	

OCCUPANCY TAG

EMERGENCY EXIT SIGN

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ADMINISTRATION BUILDING

ARCHITECTURAL

LIFE SAFETY PLAN

800-A-002 OF

(SCALE BAR IS 4" AT FULL SCALE) 0 1/2 1 2 3 4

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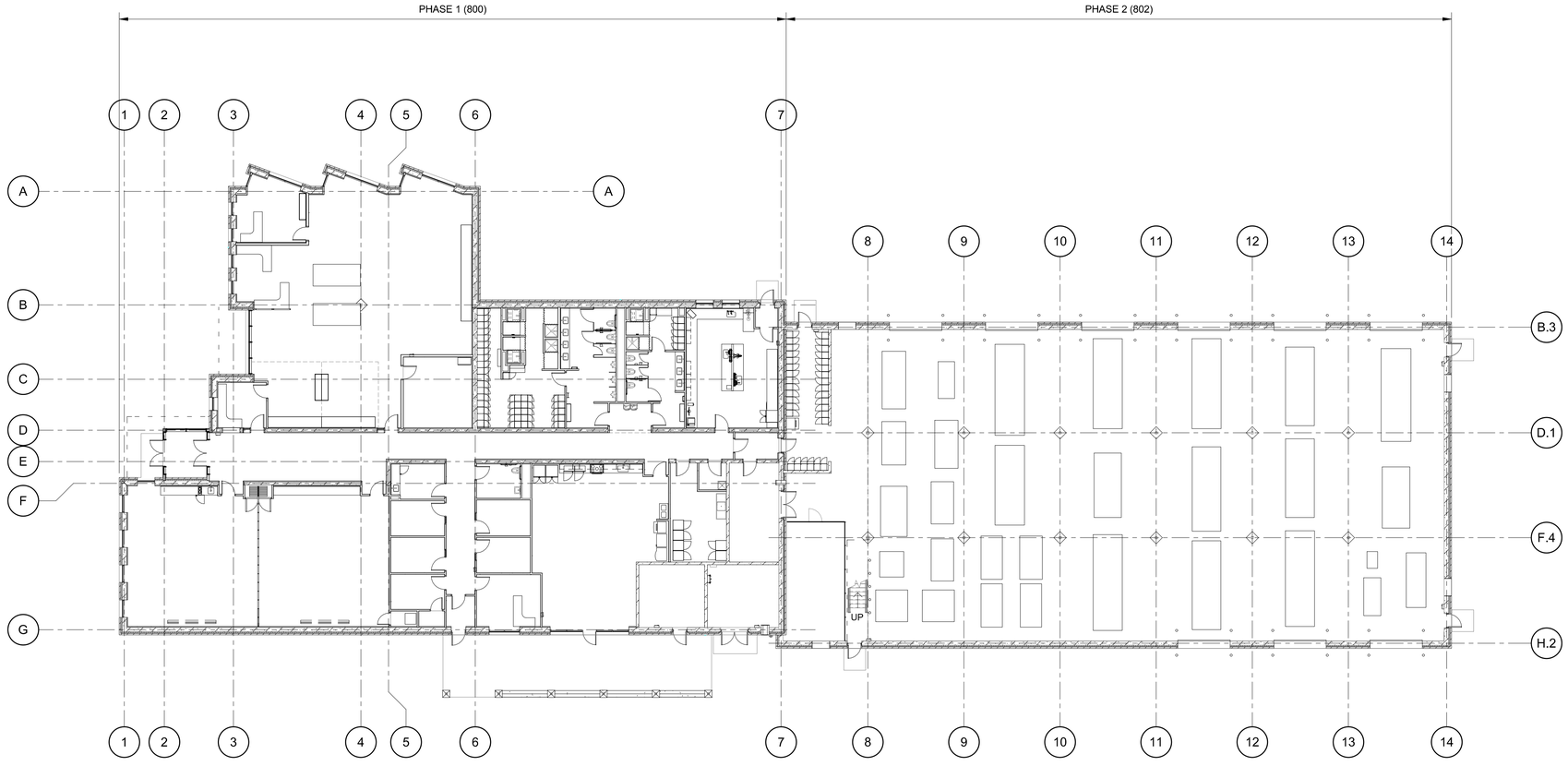
D408634



OPERATING LEVEL - FLOOR PLAN - EL 951.00'

1/16" = 1'-0"

GENERAL NOTES

1. ALL INTERIOR WALLS ARE AS TAGGED AND PER WALL TYPES DETAIL.
2. ALL GYPSUM BOARD IS 5/8" THICK UNLESS NOTED OTHERWISE.
3. REFER TO ENLARGED PLANS FOR UNTAGGED WALL TYPES.
4. ALL ANGLES ON PLAN ARE 45 OR 90 DEGREES UNLESS NOTED OTHERWISE.
5. PROVIDE IN-WALL BLOCKING FOR WALL-MOUNTED ITEMS, INCLUDING CABINETS, SHELVING, TOILET AND BATH ACCESSORIES, AND SIMILAR ITEMS.
6. ALL DIMENSIONS ARE ACTUAL AND ARE TO FACE OF BRICK MASONRY, FACE OF GYPSUM WALLBOARD, CENTERLINE OF COLUMN OR CENTERLINE OF BEAM UNLESS NOTED OTHERWISE. ALL DIMENSIONS ARE FOR BIDDING PURPOSES ONLY. ACTUAL FIELD DIMENSIONS SHALL BE VERIFIED PRIOR TO SUBMITTAL OF SHOP DRAWINGS, ORDERING RELATED MATERIALS AND PERFORMING CONSTRUCTION WORK.
7. VERIFY MECHANICAL AND ELECTRICAL DRAWINGS FOR SCOPE AND INTERFACE. CONTRACTOR SHALL COORDINATE LOCATION OF ALL MECHANICAL AND ELECTRICAL ITEMS WITH GENERAL CONSTRUCTION. REVIEW ANY DISCREPANCIES WITH THE ENGINEER PRIOR TO INSTALLATION AND/OR FABRICATION.
8. SEE MECHANICAL DRAWINGS FOR ALL ROOF PENETRATIONS WHICH MUST BE FLASHED/ROOFED AROUND.
9. LOCATE CONTROL JOINTS WHERE SHOWN ON THE PLANS AND ELEVATIONS.
10. IN SOME INSTANCES, THERMAL AND SOUND BATT INSULATION HAS BEEN OMITTED FROM THE DETAILS FOR CLARITY. SEE SPECIFICATIONS, WALL TYPES AND REFLECTED CEILING PLANS FOR LOCATIONS REQUIRING INSULATION.
11. IT IS THE INTENT OF THIS CONTRACT THAT ALL AREAS AFFECTED BY CONSTRUCTION BE A FINISHED AND COMPLETE PROJECT. CONTRACTOR SHALL PATCH, REPAIR, AND ADJUST AS REQUIRED TO ACHIEVE THIS FINISHED PROJECT.
12. SEE LIFE SAFETY PLAN FOR CODES, EXITING, RATINGS, AND FEC LOCATIONS.
13. FOR VERTICAL REINFORCING AND BOND BEAMS IN MASONRY, DESIGN SEE STRUCTURAL DRAWINGS.
14. FOR HORIZONTAL JOINT REINFORCING, SEE SPECIFICATION SECTION 04200.
15. SEQUENCE WALL CONSTRUCTION AROUND SHOWER SURROUND TO ENSURE THERE IS ADEQUATE ROOM FOR INSTALLATION. COORDINATE ROUGH-IN FRAMING AT SHOWERS WITH SURROUND MANUFACTURER.

SHEET KEYNOTES

KEYNOTE INDICATOR

(##) KEYNOTE INDICATION SYMBOL FOR, BUT NOT LIMITED TO: CONSTRUCTION NOTES AND EQUIPMENT NOTES

A - ARCHITECTURAL / GENERAL
B - PRE-ENGINEERED METAL BUILDING
C - CIVIL
E - ELECTRICAL
F - FURNITURE / FIXTURES / EQUIPMENT
G - GLAZING / DOORS
M - MECHANICAL
P - PLUMBING
R - ROOF
S - STRUCTURAL
W - WALLS

NOTES:
1. INDICATOR LETTER IS USED FOR KEYNOTE ORGANIZATION ONLY AND IS NOT INTENDED TO ASSIGN OR EXCLUDE WORK AND/OR COORINATION TO OR FROM SPECIFIC TRADES OR DISCIPLINES.
2. KEYNOTES ARE TYPICALLY ASSOCIATED WITH A DRAWING SERIES. KEYNOTE NUMBERS MAY VARY FROM SERIES TO SERIES. SOME KEYNOTES MAY APPEAR IN A SHEET'S LEGEND BUT NOT APPEAR IN A DRAWING ON THAT SPECIFIC SHEET.

BLACK & VEATCH
HDR
GBA
JOHNSON COUNTY KANSAS Wastewater

JOHNSON COUNTY KANSAS

NELSON WASTEWATER TREATMENT FACILITY CONTRACT NEL-C001 IMPROVEMENTS PROJECT

NOT FOR CONSTRUCTION

01/18/24	FINAL DEVELOPMENT PLAN

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ADMINISTRATION BUILDING

ARCHITECTURAL

OVERALL PLAN

800-A-101 | OF

(SCALE BAR IS 4" AT FULL SCALE) 0 1/2 1 2 3 4

PLOTTED: 10/23/2023 6:36:41 PM
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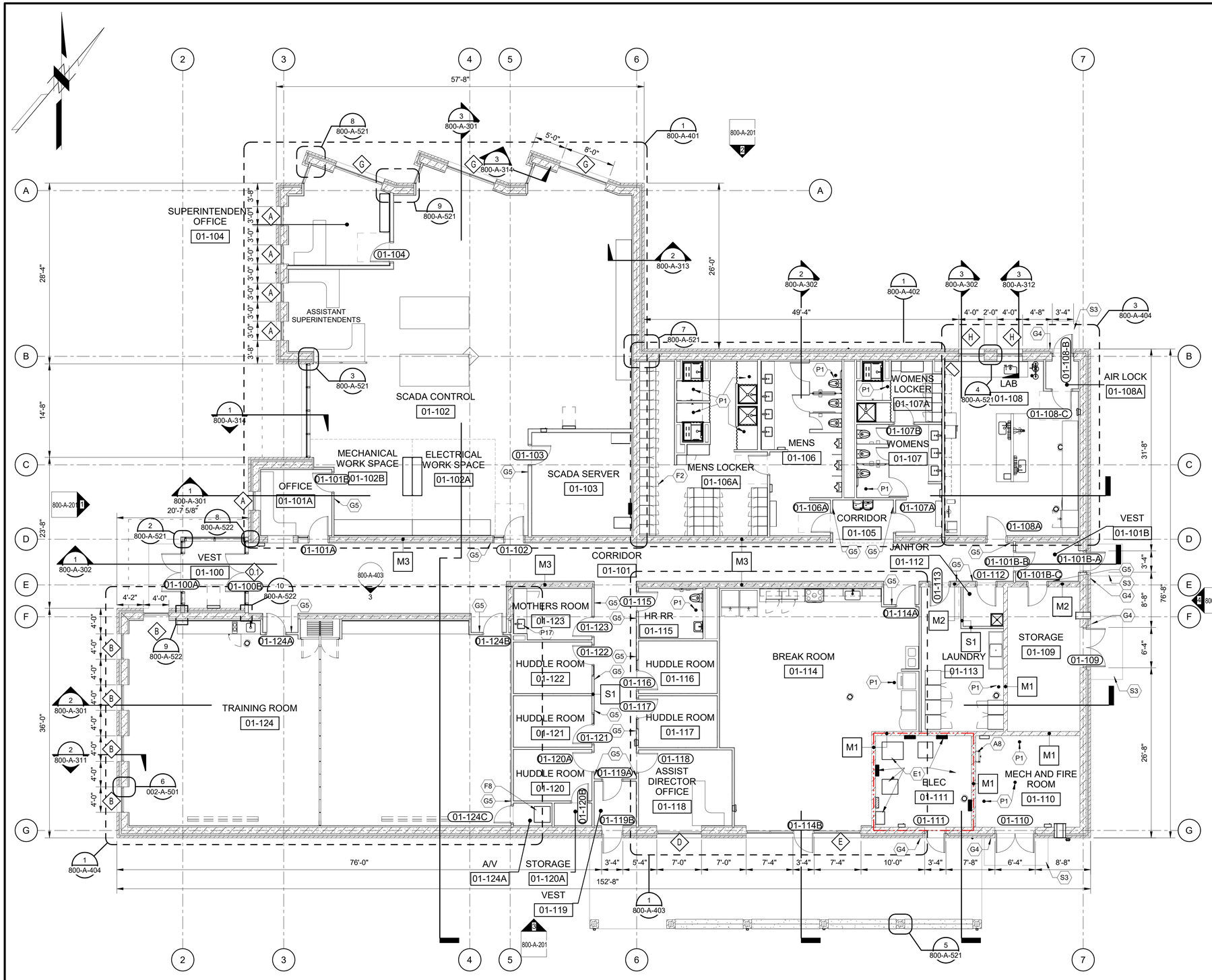

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SHEET KEYNOTES

- A8 INSTALL NEW ROOF ACCESS LADDER - REFER TO B/002-S-540 "UNDER HATCH"
- E1 ELECTRICAL EQUIPMENT - REF. ELEC. DWGS. FOR ADDTL. INFO.
- F2 18"x18" PREFINISHED METAL LOCKERS
- F8 A/V CABINET BY OWNER
- G4 EXTERIOR DOOR SIGN. REFER TO TYPE D ON SHEET 002-A-507
- G5 INTERIOR DOOR SIGN. REFER TO SHEET 002-A-507
- P1 PROVIDE FLOOR DRAIN AT THIS LOCATION - REF. PLUMB. DWGS. FOR ADDTL. INFO.
- P17 UNDER-MOUNTED VANITY SINK - REF. PLUMB. DWGS. FOR ADDTL. INFO.
- S3 CONCRETE STOOP, TYPICAL. SEE STRUCT. FOUNDATION DWG FOR ADDTL. INFO.

(SCALE BAR IS 4" AT FULL SCALE) 0 1/2 1 2 3 4

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HDR
GBA

JOHNSON COUNTY KANSAS
Wastewater

JOHNSON COUNTY KANSAS

NELSON WASTEWATER TREATMENT FACILITY CONTRACT NEL-CO01 IMPROVEMENTS PROJECT

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01/18/24	FINAL DEVELOPMENT PLAN

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ADMINISTRATION BUILDING

ARCHITECTURAL

PLAN - PHASE I

800-A-102 OF

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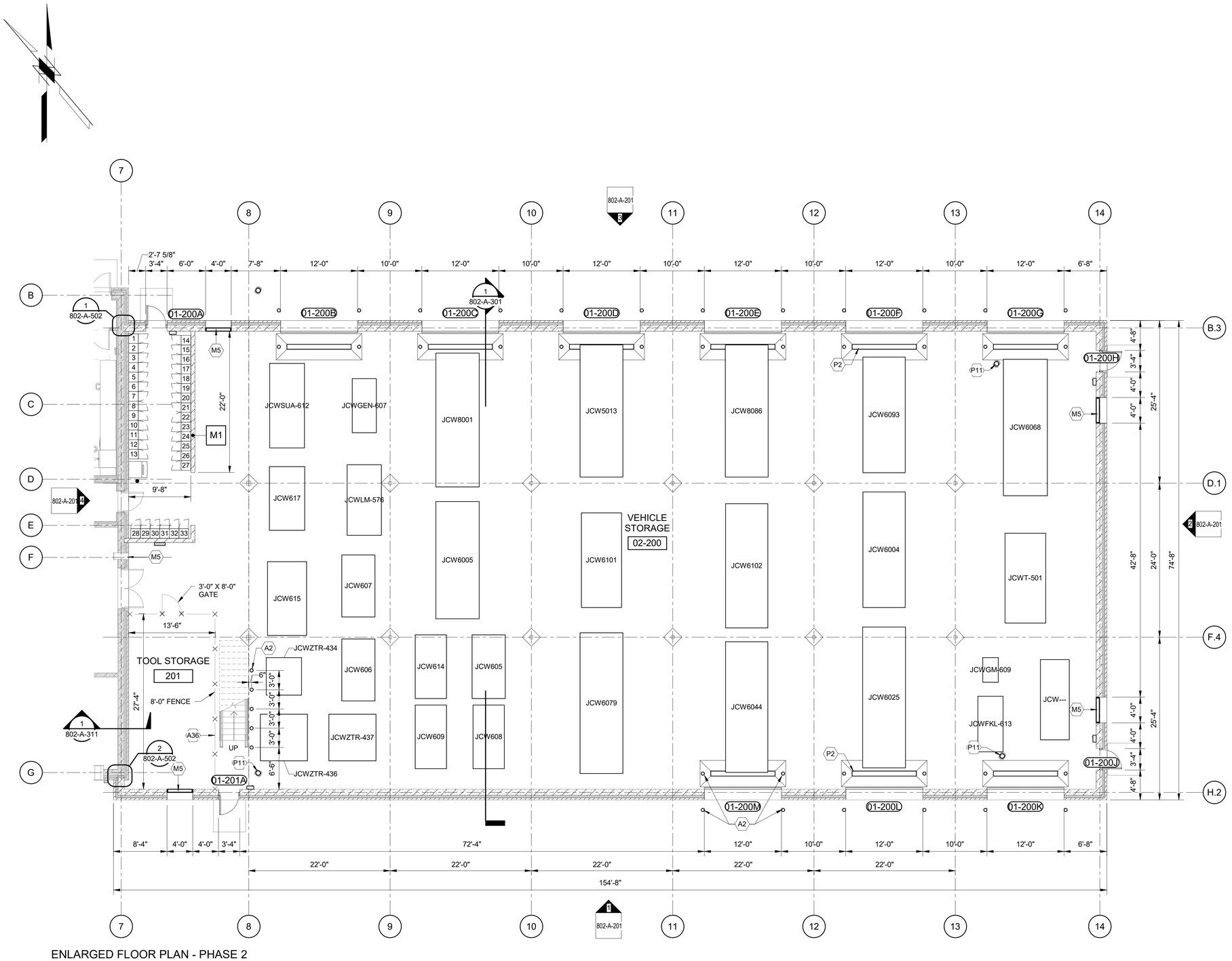

ENLARGED FLOOR PLAN - PHASE 2

1/8" = 1'-0"

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SHEET KEYNOTES

A2	6 NOM. DIAM. x 4'-0" H. STL. PIPE BOLLARD IN CONCRETE FOOTING - REF. DETAIL B/002-C-504 FOR ADDTL. INFO.
A36	CHAINLINK FENCE PER MANUF. STANDARDS
M5	ADJUSTABLE LOUVER - REF. HVAC DWGS. FOR ADDTL. INFO.
P2	PROVIDE TRENCH DRAIN THIS LOCATION - REF. PLUMB. DWGS. FOR ADDTL. INFO.
P11	PROVIDE FLOOR CLEAN OUT AT THIS LOCATION - REF. PLUMB. DAWGS. FOR ADDTL. INFO.

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NELSON WASTEWATER TREATMENT FACILITY CONTRACT NEL-C001 IMPROVEMENTS PROJECT

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ADMINISTRATION BUILDING

ARCHITECTURAL

PLAN - PHASE II

802-A-102 | OF

(SCALE BAR IS 4" AT FULL SCALE) 0 1/2 1 2 3 4

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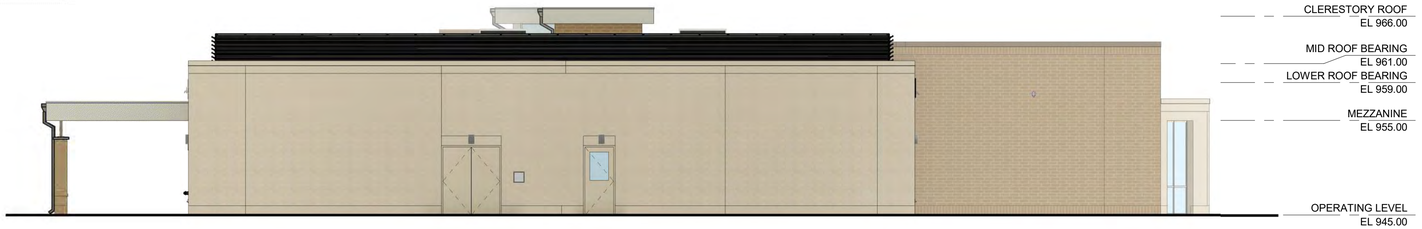
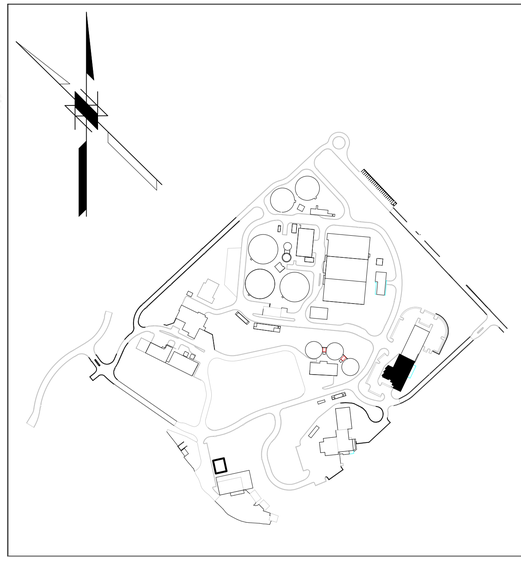


EAST ELEVATION
1/8" = 1'-0"

SOUTH ELEVATION
1/8" = 1'-0"

NORTH ELEVATION
1/8" = 1'-0"

WEST ELEVATION
1/8" = 1'-0"



KEY PLAN

(SCALE BAR IS 4" AT FULL SCALE) 0 1/2 1 2 3 4

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JOHNSON COUNTY KANSAS
Wastewater

JOHNSON COUNTY
KANSAS

NELSON WASTEWATER
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ADMINISTRATION BUILDING

ARCHITECTURAL

ELEVATIONS

800-A-201 | OF

PLOTTED: 1/15/2024 9:23:13 AM
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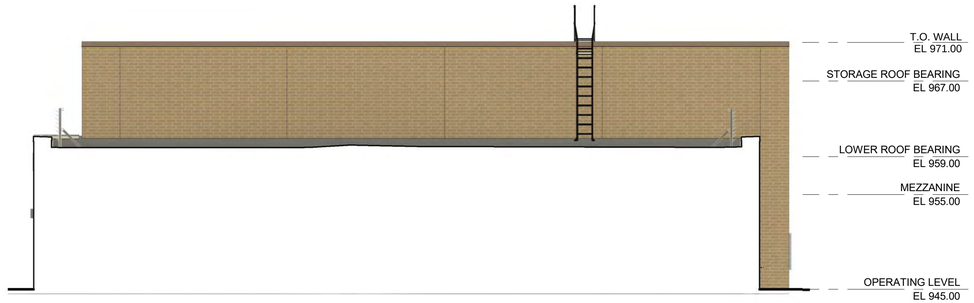
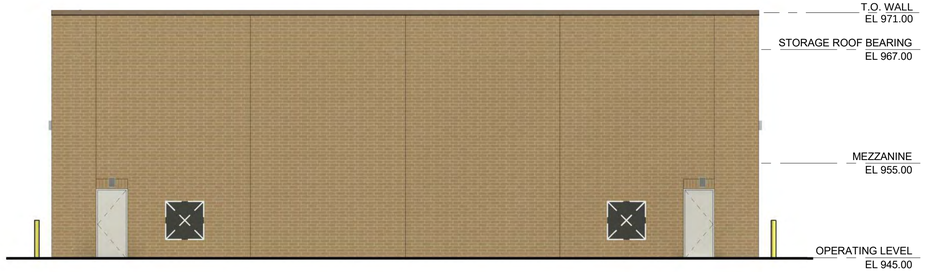


WEST ELEVATION - PHASE 2

1/8" = 1'-0"

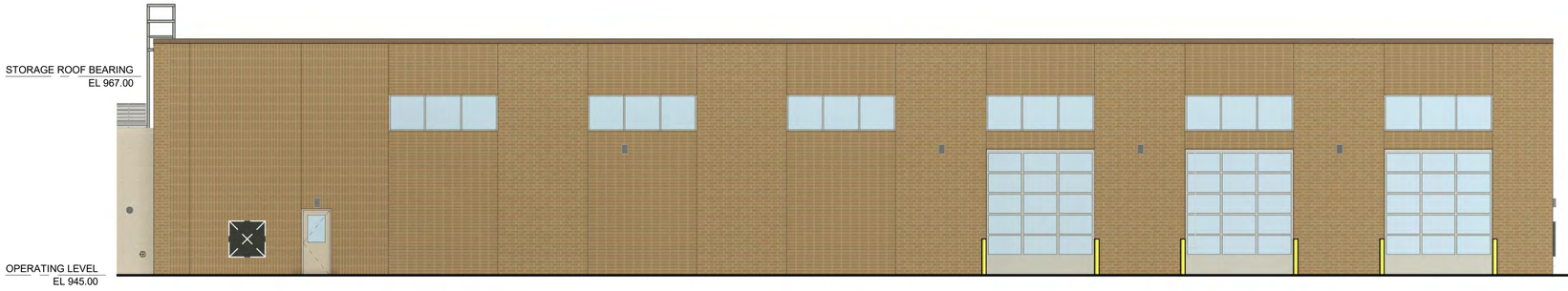
NORTH ELEVATION - PHASE 2

1/8" = 1'-0"



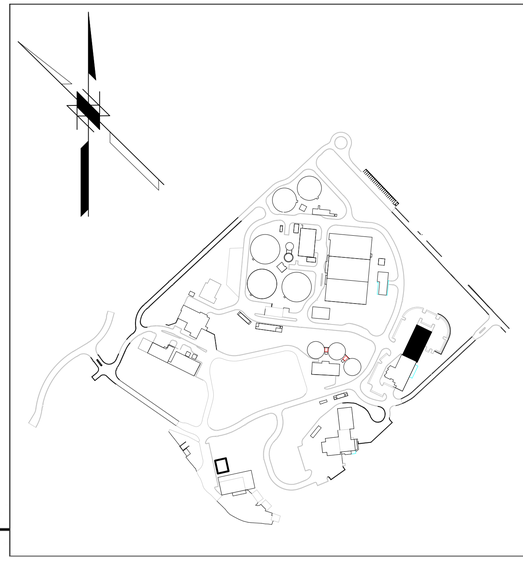
EAST ELEVATION - PHASE 2

1/8" = 1'-0"



SOUTH ELEVATION - PHASE 2

1/8" = 1'-0"



KEY PLAN

(SCALE BAR IS 4" AT FULL SCALE) 0 1/2 1 2 3 4

BLACK & VEATCH

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JOHNSON COUNTY KANSAS
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NELSON WASTEWATER
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DESIGNED:	MAW
DETAILED:	MAW
CHECKED:	RJR
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ADMINISTRATION BUILDING

ARCHITECTURAL

ELEVATIONS

802-A-201

OF

PLOTTED: 1/15/2024 9:23:24 AM
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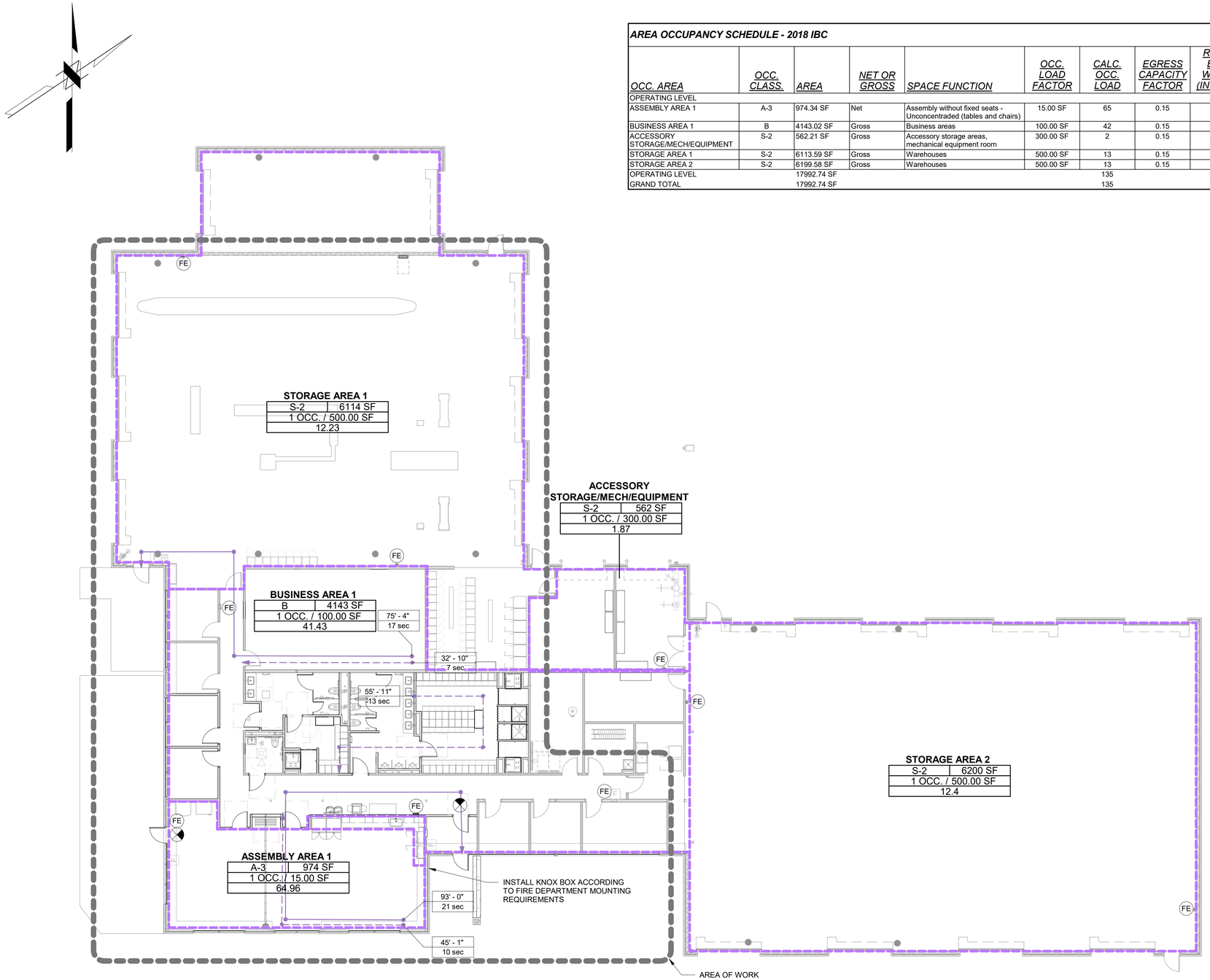
D408634

AREA OCCUPANCY SCHEDULE - 2018 IBC

OCC. AREA	OCC. CLASS.	AREA	NET OR GROSS	SPACE FUNCTION	OCC. LOAD FACTOR	CALC. OCC. LOAD	EGRESS CAPACITY FACTOR	REQ'D EXIT WIDTH (INCHES)	PROVIDED EXIT WIDTH
OPERATING LEVEL									
ASSEMBLY AREA 1	A-3	974.34 SF	Net	Assembly without fixed seats - Unconcentraded (tables and chairs)	15.00 SF	65	0.15	9.75	2
BUSINESS AREA 1	B	4143.02 SF	Gross	Business areas	100.00 SF	42	0.15	6.3	1
ACCESSORY STORAGE/MECH/EQUIPMENT	S-2	562.21 SF	Gross	Accessory storage areas, mechanical equipment room	300.00 SF	2	0.15	0.3	5
STORAGE AREA 1	S-2	6113.59 SF	Gross	Warehouses	500.00 SF	13	0.15	1.95	4
STORAGE AREA 2	S-2	6199.58 SF	Gross	Warehouses	500.00 SF	13	0.15	1.95	3
OPERATING LEVEL		17992.74 SF				135			
GRAND TOTAL		17992.74 SF				135			



OPERATING LEVEL

3/32" = 1'-0"

FE — FIRE EXTINGUISHER (FE)

X'-X" — MAXIMUM COMMON PATH OF TRAVEL

X'-X" — TRAVEL DISTANCE

AREA USE BOUNDRY LINE

2 HR WALL ASSEMBLY

AREA NAME

Occ. Class	SF SF
1 OCC. / Load Factor	
Calculated Occ. Total	

OCCUPANCY TAG

EMERGENCY EXIT SIGN

BLACK & VEATCH

HDR

GBA

JOHNSON COUNTY KANSAS Wastewater

JOHNSON COUNTY KANSAS

NELSON WASTEWATER TREATMENT FACILITY CONTRACT NEL-C001 IMPROVEMENTS PROJECT

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01/18/24	FINAL DEVELOPMENT PLAN

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LINE MAINTENANCE BUILDING

ARCHITECTURAL

LIFE SAFETY PLAN

810-A-002 | OF

(SCALE BAR IS 4" AT FULL SCALE) 0 1/2 1 2 3 4

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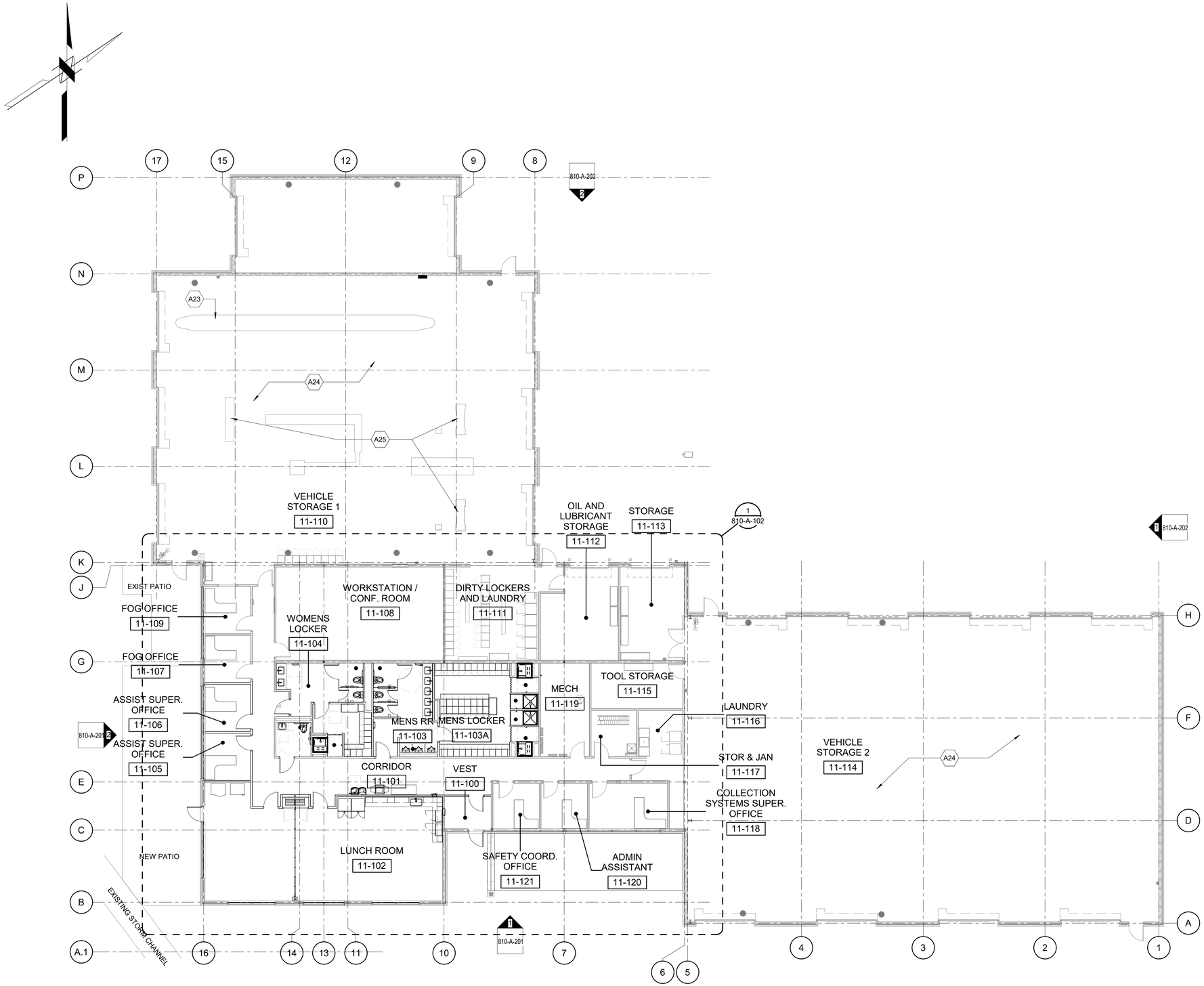

OPERATING LEVEL - FLOOR PLAN

3/32" = 1'-0"

GENERAL ARCHITECTURAL NOTES

1. ALL INTERIOR WALLS ARE AS TAGGED AND PER WALL TYPES DETAIL.
2. ALL GYPSUM BOARD IS 5/8" THICK UNLESS NOTED OTHERWISE.
3. REFER TO ENLARGED PLANS FOR UNTAGGED WALL TYPES.
4. ALL ANGLES ON PLAN ARE 45 OR 90 DEGREES UNLESS NOTED OTHERWISE.
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12. SEE LIFE SAFETY PLAN FOR CODES, EXITING, RATINGS, AND FEX LOCATIONS.
13. FOR VERTICAL REINFORCING AND BOND BEAMS IN MASONRY, DESIGN SEE STRUCTURAL DRAWINGS.
14. FOR HORIZONTAL JOINT REINFORCING, SEE SPECIFICATION SECTION 04200.
15. REPAIR DAMAGED INSULATION IN GARAGE BAY WALLS.
16. SEQUENCE WALL CONSTRUCTION AROUND SHOWER SURROUND TO ENSURE THERE IS ADEQUATE ROOM FOR INSTALLATION. COORDINATE ROUGH-IN FRAMING AT SHOWERS WITH SURROUND MANUFACTURER.

SHEET KEYNOTES

A23 INFILL EXISTING VEHICLE MAINTENANCE PIT. REFER TO STRUCTURAL DRAWINGS 810-S-501

A24 PREP EXISTING CONCRETE SLAB AS REQUIRED TO ACCEPT NEW FLOOR FINISH. REFER TO FINISH SHCEDULE AND STRUCTURAL DRAWINGS

A25 PATCH AND REPAIR EXISTING CONCRETE FLOOR SLAB. REFER TO STRUCTURAL DRAWINGS 810-S-501

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LINE MAINTENANCE BUILDING

ARCHITECTURAL

OVERALL PLAN

810-A-101 | OF

(SCALE BAR IS 4" AT FULL SCALE) 0 1/2 1 2 3 4

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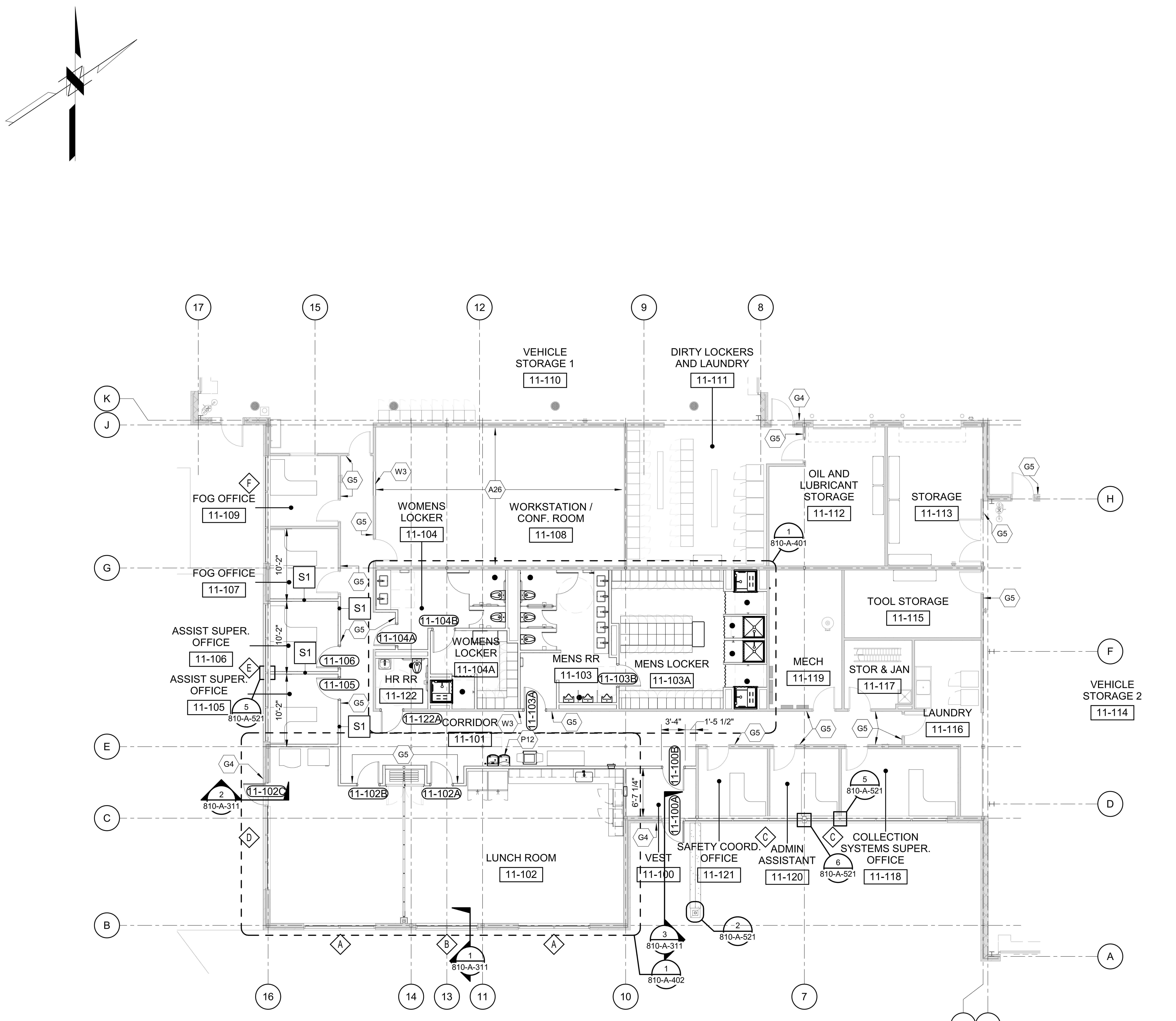

ENLARGED FLOOR PLAN - AREA A

1/8" = 1'-0"

GENERAL ARCHITECTURAL NOTES

1. ALL INTERIOR WALLS ARE AS TAGGED AND PER WALL TYPES DETAIL.
2. ALL GYPSUM BOARD IS 5/8" THICK UNLESS NOTED OTHERWISE.
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16. SEQUENCE WALL CONSTRUCTION AROUND SHOWER SURROUND TO ENSURE THERE IS ADEQUATE ROOM FOR INSTALLATION. COORDINATE ROUGH-IN FRAMING AT SHOWERS WITH SURROUND MANUFACTURER.

SHEET KEYNOTES

A26	INSTALL NEW 5/8" TYPE X GYP PANELING. FINISH PER ROOM FINISH SCHEDULE
G4	EXTERIOR DOOR SIGN, REFER TO TYPE D ON SHEET 002-A-507
G5	INTERIOR DOOR SIGN, REFER TO SHEET 002-A-507
P12	WALL MOUNTED ADA COMPLIANT, HI-LO STYLE, WATER COOLER WITH BOTTLE FILLER - REF. PLUMB. DWGS. FOR ADDTL. INFO.
W3	STUD WALL INFILL. MATCH EXISTING CONSTRUCTION. FINISH TO LIKE NEW CONDITIONS.

BLACK & VEATCH

HDR

GBA

JOHNSON COUNTY KANSAS Wastewater

JOHNSON COUNTY KANSAS

NELSON WASTEWATER TREATMENT FACILITY CONTRACT NEL-CO01 IMPROVEMENTS PROJECT

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LINE MAINTENANCE BUILDING

ARCHITECTURAL

PLAN - AREA A

810-A-102 OF

(SCALE BAR IS 4" AT FULL SCALE) 0 1/2 1 2 3 4

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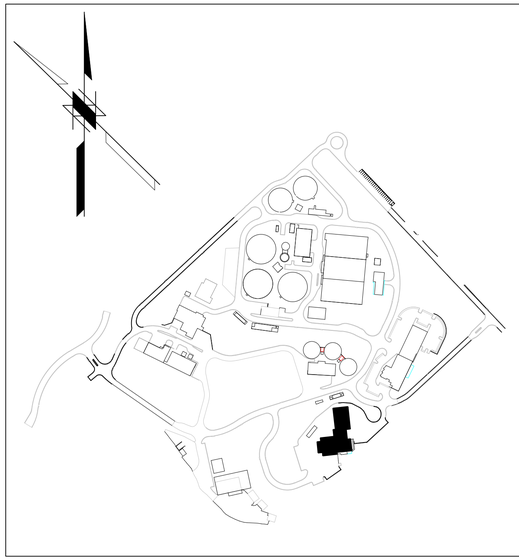
2 WEST ELEVATION
810-A-101 1/8" = 1'-0"

1 SOUTH ELEVATION
810-A-101 1/8" = 1'-0"



KEY PLAN

(SCALE BAR IS 4" AT FULL SCALE) 0 1/2 1 2 3 4

BLACK & VEATCH
HDR
GBA

JOHNSON COUNTY KANSAS
Wastewater

JOHNSON COUNTY KANSAS

NELSON WASTEWATER TREATMENT FACILITY CONTRACT NEL-CO01 IMPROVEMENTS PROJECT

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LINE MAINTENANCE BUILDING

ARCHITECTURAL

ELEVATIONS

810-A-201 OF

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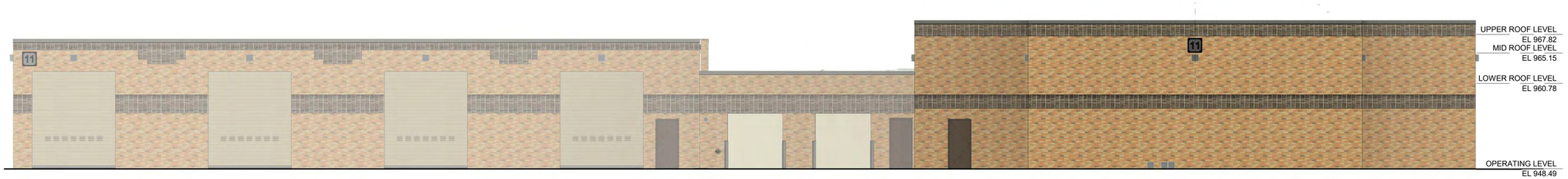
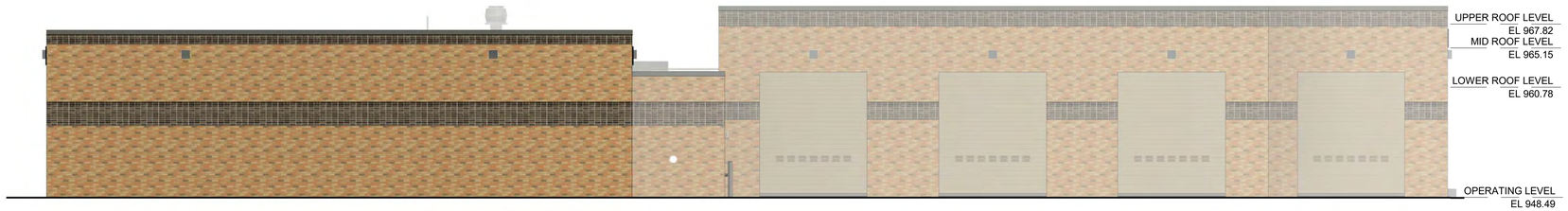
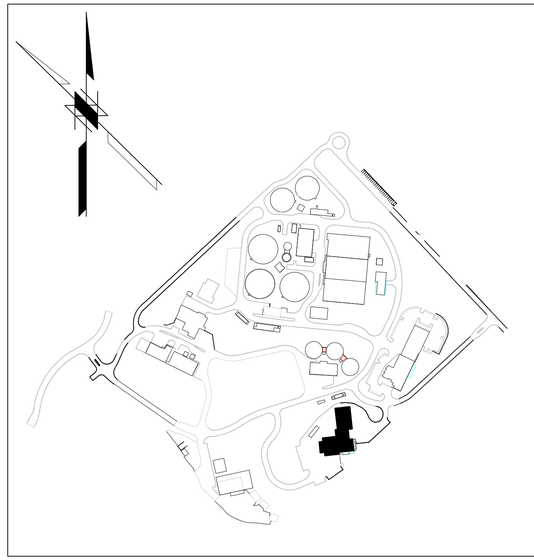


2 NORTH ELEVATION
810-A-101 1/8" = 1'-0"



1 EAST ELEVATION
810-A-101 1/8" = 1'-0"



KEY PLAN

(SCALE BAR IS 4" AT FULL SCALE) 0 1/2 1 2 3 4

BLACK & VEATCH
HDR
GBA

JOHNSON COUNTY KANSAS
Wastewater

JOHNSON COUNTY
KANSAS

NELSON WASTEWATER
TREATMENT FACILITY
CONTRACT NEL-CO01
IMPROVEMENTS
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01/18/24	FINAL DEVELOPMENT PLAN

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LINE MAINTENANCE BUILDING

ARCHITECTURAL

ELEVATIONS

810-A-202 OF

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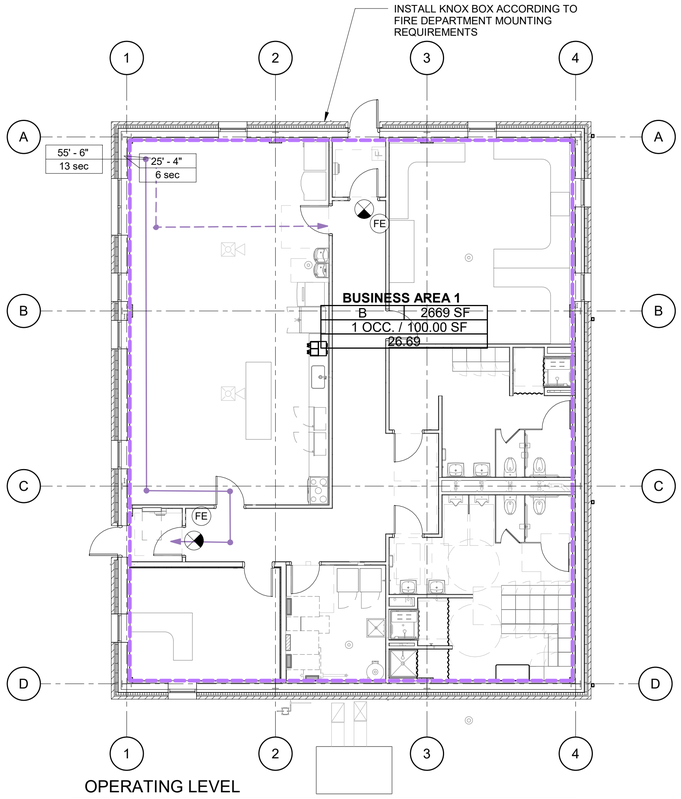
AREA OCCUPANCY SCHEDULE - 2018 IBC

OCC. AREA	OCC. CLASS.	AREA	NET OR GROSS	SPACE FUNCTION	OCC. LOAD FACTOR	CALC. OCC. LOAD	EGRESS CAPACITY FACTOR	REQ'D EXIT WIDTH (INCHES)	PROVIDED EXIT WIDTH
OPERATING LEVEL									
BUSINESS AREA 1	B	2668.65 SF	Gross	Business areas	100.00 SF	27	0.2	5.4	1
OPERATING LEVEL		2668.65 SF				27			
GRAND TOTAL		2668.65 SF				27			



OPERATING LEVEL

1/8" = 1'-0"

FE — FIRE EXTINGUISHER (FE)

X'-X" — MAXIMUM COMMON PATH OF TRAVEL

X'-X" — TRAVEL DISTANCE

AREA USE BOUNDRY LINE

2 HR WALL ASSEMBLY

AREA NAME

Occ. Class	SF SF
1 OCC. / Load Factor	
Calculated Occ. Total	

OCCUPANCY TAG

EMERGENCY EXIT SIGN

BLACK & VEATCH

HDR

GBA

JOHNSON COUNTY KANSAS
Wastewater

JOHNSON COUNTY KANSAS

NELSON WASTEWATER TREATMENT FACILITY CONTRACT NEL-C001 IMPROVEMENTS PROJECT

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DATE:	
PROJECT NO.:	408634

LINE REPAIR OFFICE BUILDING

ARCHITECTURAL

LIFE SAFETY PLAN

820-A-002 | OF

(SCALE BAR IS 4" AT FULL SCALE) 0 1/2 1 2 3 4

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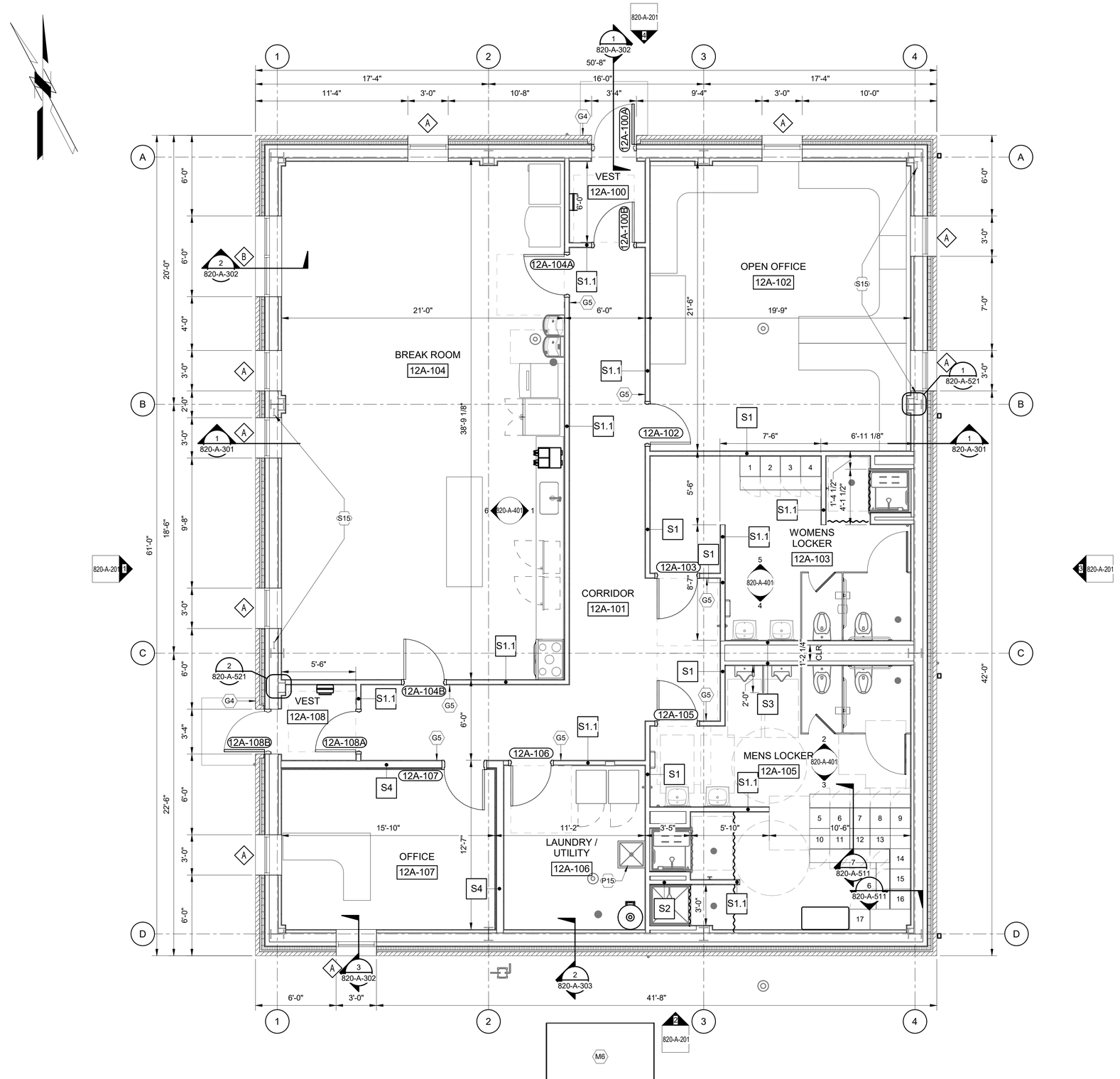

OPERATING LEVEL - ARCHITECTURAL FLOOR PLAN

1/4" = 1'-0"

GENERAL NOTES

1. ALL INTERIOR WALLS ARE AS TAGGED AND PER WALL TYPES DETAIL.
2. ALL GYPSUM BOARD IS 5/8" THICK UNLESS NOTED OTHERWISE.
3. REFER TO ENLARGED PLANS FOR UNTAGGED WALL TYPES.
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SHEET KEYNOTES

G4 EXTERIOR DOOR SIGN. REFER TO TYPE D ON SHEET 002-A-507
G5 INTERIOR DOOR SIGN. REFER TO SHEET 002-A-507
M6 MECHANICAL EQUIPMENT - REF. HVAC DWGS. FOR ADDTL. INFO.
P15 PROVIDE FLOOR MOUNTED MOP SINK - REF. PLUMB. DWGS. FOR ADDTL. INFO.
S15 PORTAL FRAME COLUMN BY PEMB MANUFACTURER

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JOHNSON COUNTY KANSAS

NELSON WASTEWATER TREATMENT FACILITY CONTRACT NEL-C001 IMPROVEMENTS PROJECT

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LINE REPAIR OFFICE BUILDING

ARCHITECTURAL

OVERALL PLAN

820-A-101 | OF

(SCALE BAR IS 4" AT FULL SCALE) 0 1/2 1 2 3 4

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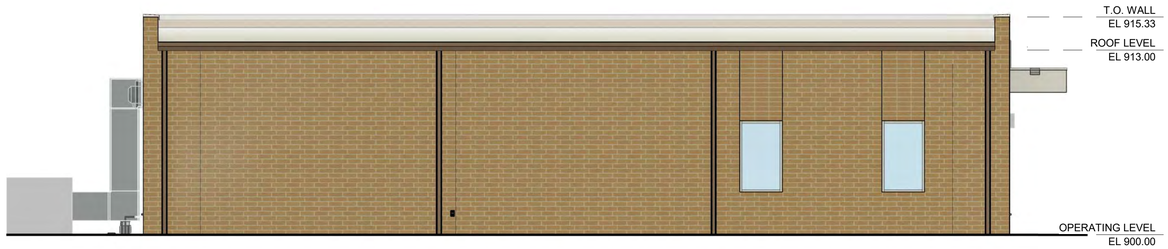
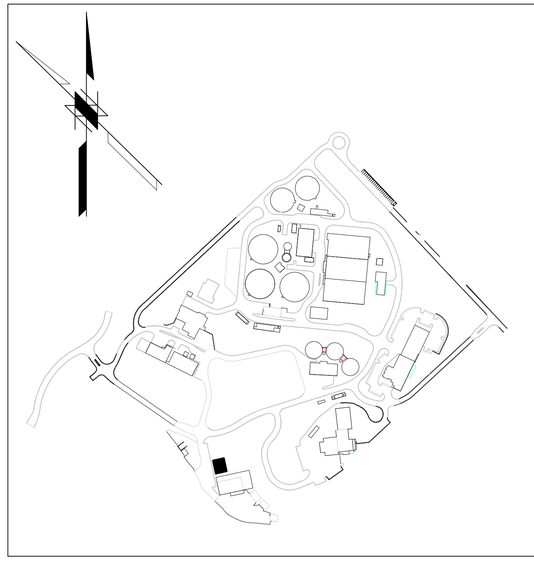
NORTH ELEVATION
3/16" = 1'-0"

SOUTH ELEVATION
3/16" = 1'-0"



EAST ELEVATION
3/16" = 1'-0"

WEST ELEVATION
3/16" = 1'-0"



KEY PLAN

(SCALE BAR IS 4" AT FULL SCALE) 0 1/2 1 2 3 4

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JOHNSON COUNTY KANSAS
Wastewater

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LINE REPAIR OFFICE
BUILDING

ARCHITECTURAL

ELEVATIONS

820-A-201 | OF

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Johnson County Wastewater
Nelson WWTF

Final Drainage Report

March 13, 2024

Contents

Tables

Figures

Appendices

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1 Overview

The following final drainage report addresses the proposed Nelson Wastewater Treatment Facility's (WWTF) stormwater components. The project consists of increasing the capacity of the facility and updating the facility's infrastructure.

Stormwater management was developed in accordance with KC APWA Section 5600. No floodplain analysis was performed, as the site falls outside the FEMA designated floodplain per Flood Insurance Rate Maps (FIRM) 20091C0009G dated August 3, 2009.

The proposed facility decreases the impervious area by 2.42 acres. This decrease in impervious area means that the proposed redevelopment does not require mitigation using a stormwater best management practice (BMP) or runoff detention per KC APWA Section 5601.3.A.

1.1 Methodology

The site was modeled using Computational Hydraulics International's (CHI) PCSWMM program with the alternative runoff method (ARM) add-on. Site runoff was calculated utilizing the Huff Rainfall First Quartile Distribution with NOAA Atlas 14 rainfall depths for Mission, KS, and land use and time of concentration calculated using NRCS curve number methodology (i.e., TR-55). As part of the Huff Rainfall Distribution a critical storm duration analysis must be performed. It was determined after comparing peak runoffs from the 1-hour, 2-hour and 3-hour rainfall durations that a 1-hour storm resulted in the peak runoff. Therefore, the critical storm duration for the drainage area related to the Nelson WWTF is the 1-hour storm. Per APWA 5600 the 2-yr, 10-yr, and 100-yr storm events were modeled for the pre- and post-development conditions. The NOAA Atlas 14 1-hour rainfall depths for the 2-yr, 10-yr and 100-yr are provided in Table 1-1.

Table 1-1. NOAA Atlas 14 1-hour Rainfall Depths (Mission, KS)

Storm Event	Depth (in)
2-yr	1.56
10-yr	2.32
100-yr	3.67

Site land cover was collected from both aerial imagery and surveyed existing and proposed conditions of the site. Land cover for both conditions consists of grass, wooded, and impervious land covers. Soils information was obtained from the NRCS Web Soil Survey; soils for the site are predominantly composed of hydrologic group D soils (see Appendix B). Topography for the site and nearby drainage areas was obtained from site survey and Johnson County AIMS database.

Hydrology and hydraulics for the adjacent Turkey Creek were obtained for the current HEC-RAS models. The HEC-RAS model's steady state flow for the nearest upstream cross sections were assumed accurate for the 10% and 4% return frequency storms (10- and 25-year, respectively). HEC-RAS steady-state flows were modeled as a constant elevation for outfalls near the Turkey Creek channel. Per the KDOT Bridge Design Manual Section 2.3.6.2 Frequency Mixing, the Drainage Area for the Nelson WWTF project compared to the Turkey Creek Watershed has an area ratio greater than 100 but less than 1,000. An area ratio of 100

to 1 applies to the Nelson WWTF drainage study. Table 1-2 provides the frequency mixing table from the KDOT Bridge Desing Manual.

Table 1-2. Frequencies for Coincidental Occurrence

Area Ratio	10-yr Design*		100-yr Design	
	Main Stream	Tributary	Main Stream	Tributary
10,000 to 1	1 10	10 1	25 100	100 25
1,000 to 1	2 10	10 2	10 100	100 10
100 to 1	**5** **10**	**10** **5**	**25** **100**	**100** **25**
10 to 1	10 10	10 10	50 100	100 50
1 to 1	10 10	10 10	100 100	100 100

Source: KDOT Bridge Drainage Manual Section 2.3.6.2

The Turkey Creek 5-yr water surface profile was not available and was replaced with the 10-yr water surface elevation for this study.

2 Pre-Development & Post-Development Sites

The pre-development condition consists of the existing wastewater treatment facility, with the post-development condition consisting of the redesigned wastewater treatment facility. For both conditions, most of the site drains through existing storm networks, under Foxridge Dr., and into Turkey Creek. Figure 2-1 shows the pre-development site layout.

Figure 2-1. Pre-Development Site Area

The total impervious area for the pre-development site is 21.07 acres. However, approximately 5.39 acres of the impervious area consists of open-top tanks that will route precipitation through the facility's treatment system before combining with runoff at the facility's outfall.

The pre-development site's runoff drains through four outfall locations, with each outfall location draining north to Turkey Creek. The majority of the site's runoff passes through Outfall 10000, which routes the stormwater through a 54" RCP, under Foxridge Dr., and into Turkey Creek. Table 2-1 shows the total drainage area, amount of impervious cover, and weighted curve

number for each outfall location. Note that the drainage areas include area outside the site boundary. Detailed drainage area maps are contained in Appendix A.

Table 2-1. Pre-Development Drainage Areas

Outfall	Area	CN	% Imp
10000	79.92	83.19	36.0%
11000	2.12	82.24	20.5%
12000	12.00	81.22	11.1%
13000	1.38	89.55	58.5%

The post-development condition removes many of the existing structures and re-configures the site roads around new structures. The total impervious area for the post-development site is 18.43 acres, with 2.42 acres consisting of open-top tanks. The post-development site results in a total reduction in impervious area of approximately 2.64 acres; if the open-top tanks are excluded from this calculation, the post-development condition has a net decrease in impervious area of 0.22 acres.

The open-top tank areas were included in this analysis's impervious area comparison because the open-tank areas flow by gravity to the plant outfall where they combine with the other stormwater runoff prior to leaving the site. Due to the reduction in total impervious area, the proposed site does not require any stormwater quality BMPs or runoff detention, per KC APWA 5600 (5601.3.A).

Figure 2-2 displays the post-development site. Table 2-2 shows the total drainage area, amount of impervious cover, and weighted curve number for each outfall location. Note that the drainage areas include area outside the site boundary. Detailed drainage area maps are contained in Appendix A.

Figure 2-2. Post-Development Site Area

Table 2-2. Post-Development Drainage Areas

Outfall	Area	CN	% Imp
10000	87.70	84.44	31.0%
11000	0.41	81.04	15.0%
12000	10.19	83.38	18.7%
13000	1.73	88.05	55.0%

Using the PCSWMM model, the post-development peak discharges are less than the pre-development discharges for most of the site, with the aggregate peak discharge being less for the post-development condition than for the pre-development condition for the 2-, 10-, and 100-year storms. Where localized discharges to the creek are higher for post-development (e.g., Outfall 12000), the increase is insignificant when compared to the flow rate in Turkey Creek (approximately 10,926 ft^3/s for 10-year flood, 15,632 ft^3/s for 100-year flood). Table 2-3 summarizes the peak discharges at each outfall location.

Table 2-3. Pre- and Post-Development Discharge Summary

Outfall Area ID	Pre-Development Qpeak			Post-Development Qpeak			Δ Qpeak		
	2-Y	10-Yr	100-Yr	2-Yr	10-Yr	100-Yr	2-Yr	10-Yr	100-Yr
10000	93.89	166.74	274.64	39.68	80.66	183.08	-54.21	-86.08	-91.56
11000	2.04	4.43	12.17	0.29	0.69	1.61	-1.75	-3.74	-10.56
12000	5.57	14.50	32.32	6.67	14.98	27.89	1.10	0.48	-4.43
13000	3.18	5.11	8.78	2.02	4.15	8.52	-1.16	-0.96	-0.26
					Aggregate Totals:		-56.02	-90.24	-106.81

Neither pre- nor post-development peak flows for Outfall 10000 include the Nelson WWTF average daily flow. The average daily flow from the plant is 15 MGD (23.21 cfs).

The reduction at Outfall 10000 is achieved by the construction of a detention basin. The detention basin collects drainage from an area of 38.49 acres. Table 2-4 summarizes the performance of the inflow and outflow from the detention basin. Table 2-5 summarizes the water surface elevations and volume storage.

Table 2-4. Detention Basin Summary

Detention Basin	Inflow (cfs)			Outflow (cfs)			Reduction (cfs)		
	2-Yr	10-Yr	100-Yr	2-Yr	10-Yr	100-Yr	2-Yr	10-Yr	100-Yr
1	30.26	66.20	143.82	21.26	43.39	93.21	10.00	22.81	50.60

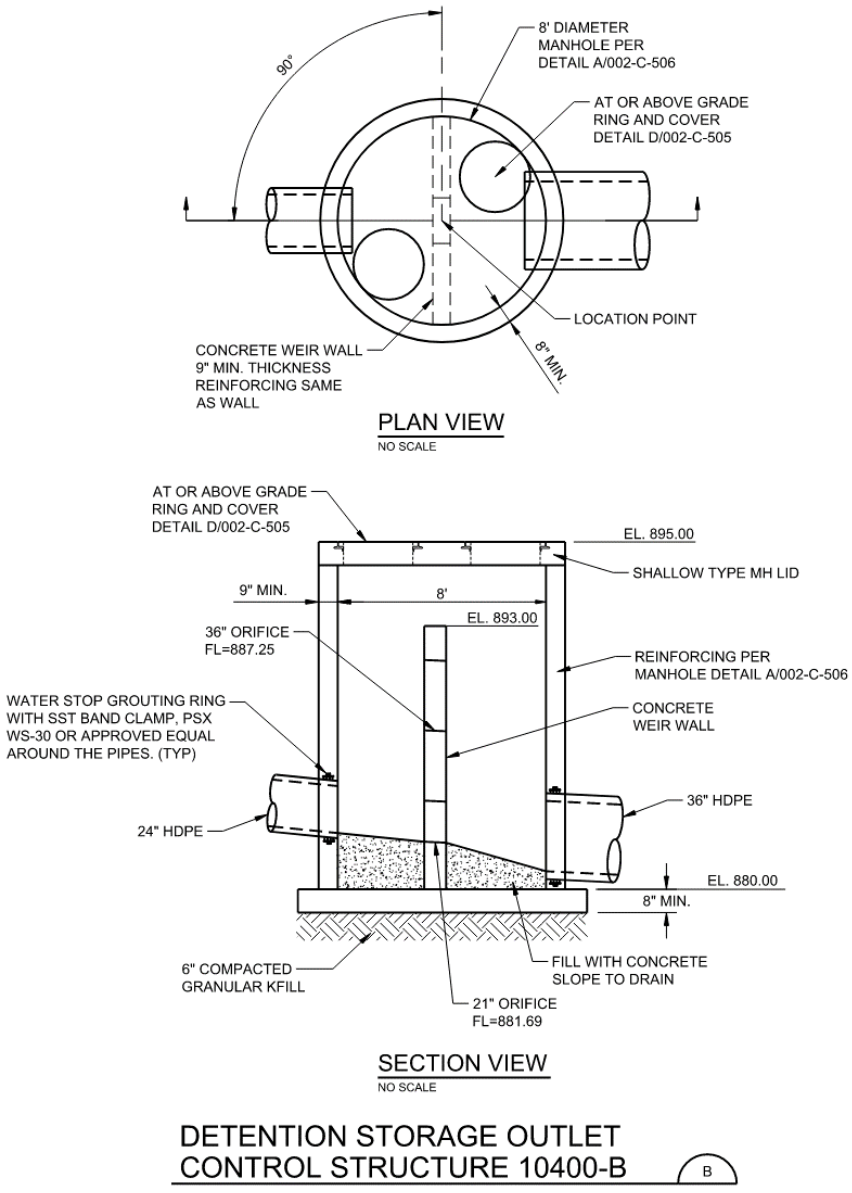
Table 2-5. Detention Basin Water Surface Elevation

Detention Basin	Water Surface Elevation (ft)			Volume (ft^3)		
	2-Yr	10-Yr	100-Yr	2-Yr	10-Yr	100-Yr
1	885.58	888.72	891.92	15,722	42,626	82,199

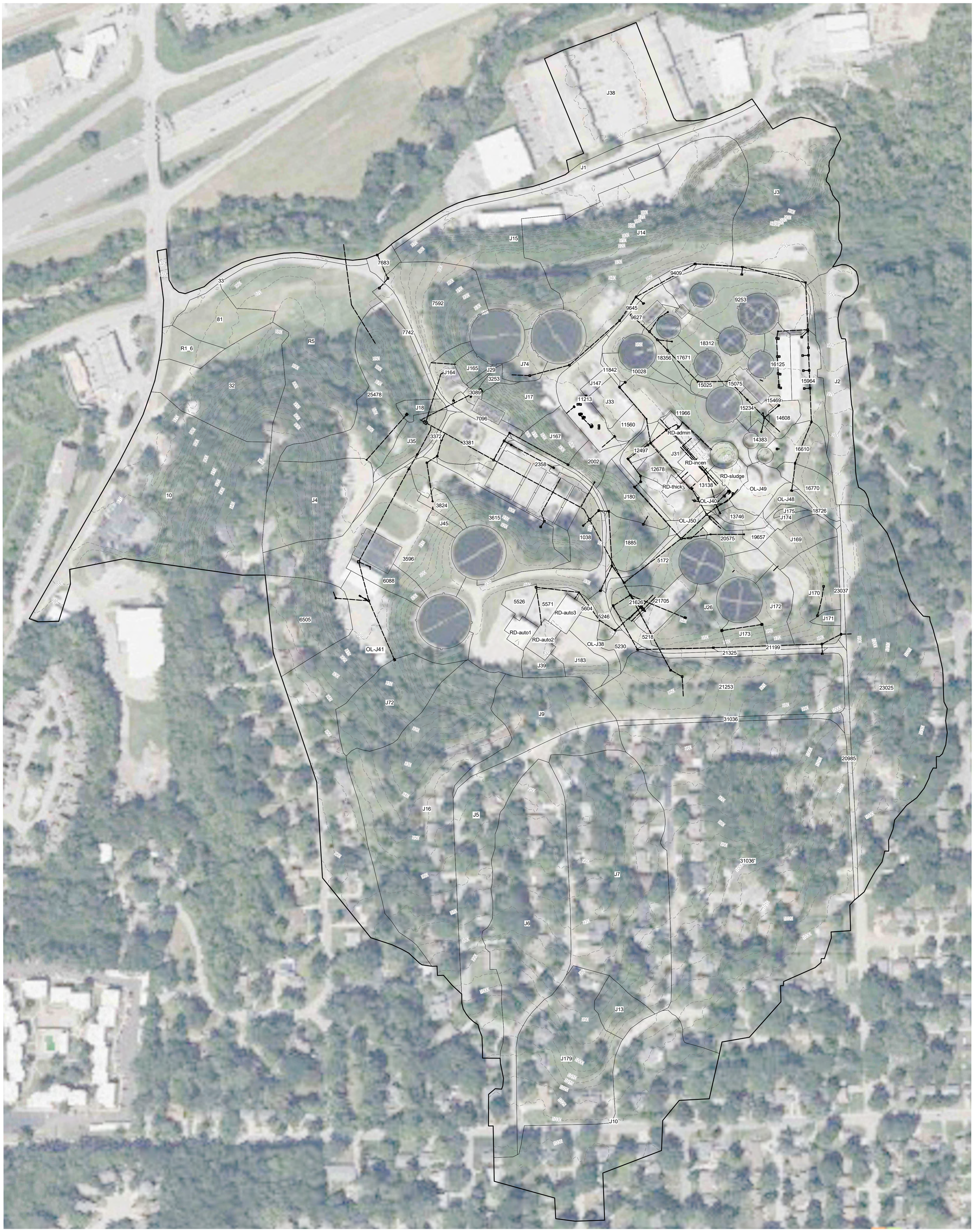
The detention basin is controlled by a 24-inch pipe with end section discharging to an 8 ft diameter manhole. The manhole is the outlet control structure for the basin and consists of an interior concrete wall that consists of a 21-inch orifice at an invert of 881.69, 36-inch orifice at an invert of 887.25, an overflow weir at an elevation of 893.00. Figure 2-3 is the detail provided in the Issued for Construction Plans for the Nelson WWTF. If the outlet were to get clogged, an emergency spillway is provided at an elevation of 892.50, which provides 0.58-feet of freeboard from the 100-yr water surface elevation. An emergency spillway length of

48-feet has been provided to convey the 100-yr inflow at a depth of 1-foot. The top of dam elevation is 894.50, which provides 1-foot of freeboard.

Figure 2-3. Detention Basin 1 Outlet Control Structure Detail



Appendix A. PCSWMM Model Results



PRE-DEVELOPMENT DRAINAGE AREAS

PRE-DEVELOPMENT PCSWMM MODEL RESULTS

PCSWMM Report

Pre-Development 2-yr Results

Model NelsonWWTF-ExCond-002YR.inp

HDR Engineering Inc.

January 19, 2024

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Summary 1: Options

Name	NelsonWWTF-ExCond-002YR
Flow Units	CFS
Infiltration method	Curve Number
Flow routing method	Dynamic Wave
Link offsets defined by	Elevation
Allow ponding	Yes
Skip steady flow periods	No
Inertial dampening	Partial
Define supercritical flow by	Both
Force Main Equation	H-W
Variable time step	On
Adjustment factor (%)	75
Conduit lengthening (s)	0
Minimum surface area (ft²)	0
Starting date	May-1-2022 12:00:00 AM
Ending date	May-4-2022 12:00:00 AM
Duration of simulation (hours)	72
Antecedent dry days (days)	0
Rain interval (h:mm)	0:01
Report time step (h:mm:ss)	00:01:00
Wet time step (h:mm:ss)	00:06:00
Dry time step (h:mm:ss)	00:06:00
Routing time step (s)	5
Minimum time step used (s)	0.5
Average time step used (s)	4.26
Minimum conduit slope	0
Ignore rainfall/runoff	No
Ignore snow melt	No
Ignore groundwater	No
Ignore flow routing	No
Ignore water quality	No
Report average results	No

Summary 2: Model inventory

Name	NelsonWWTF-ExCond-002YR
Raingages	6
Subcatchments	0
Aquifers	0
Snowpacks	0
RDII hydrographs	0
Junction nodes	266
Outfall nodes	7
Flow divider nodes	0
Storage unit nodes	17
Conduit links	272
Pump links	0
Orifice links	0
Weir links	84
Outlet links	0
Treatment units	0
Transects	6
Control rules	0
Pollutants	0
Land Uses	0
Control Curves	0
Diversion Curves	0
Pump Curves	0
Rating Curves	0
Shape Curves	0
Storage Curves	13
Tidal Curves	0
Weir Curves	0
Time Series	12
Time Patterns	0

Summary 3: Model complexity

Name	NelsonWWTF-ExCond-002YR
Subcatchments	n/a
Groundwater	n/a
Aquifers	n/a
Snowpacks	n/a
RDII hydrographs	n/a
Junction nodes	595
Outfall nodes	7
Flow divider nodes	n/a
Storage unit nodes	61
Conduit links	2094
Pump links	n/a
Orifice links	n/a
Weir links	336
Outlet links	n/a
Transect	30
Pollutants	n/a
Land Uses	n/a
Model complexity (total uncertain input parameters)	3123

Summary 4: Inflows

Name	NelsonWWTF-ExCond-002YR
Time series inflows	0
Dry weather	0
Groundwater	0
RDII inflows	0

Summary 5: Subcatchment statistics

Name	NelsonWWTF-ExCond-002YR
Max. width (ft)	n/a
Min. width (ft)	n/a
Max. area (ac)	n/a
Min. area (ac)	n/a
Total area (ac)	n/a
Max. length of overland flow (ft)	n/a
Min. length of overland flow (ft)	n/a
Max. slope (%)	n/a

Summary 5: Subcatchment statistics (continued...)

Name	NelsonWWTF-ExCond-002YR
Min. slope (%)	n/a
Max. imperviousness (%)	n/a
Min. imperviousness (%)	n/a
Max. imp. roughness	n/a
Min. imp. roughness	n/a
Max. perv. roughness	n/a
Min. perv. roughness	n/a
Max. imp. depression storage (in)	n/a
Min. imp. depression storage (in)	n/a
Max. perv. depression storage (in)	n/a
Min. perv. depression storage (in)	n/a

Summary 6: Node statistics

Name	NelsonWWTF-ExCond-002YR
Max. ground elev. (ft)	1012.7
Min. ground elev. (ft)	843
Max. invert elev. (ft)	1011.6
Min. invert elev. (ft)	831.42
Max. depth (ft)	35.1
Min. depth (ft)	0.5

Summary 7: Conduit statistics

Name	NelsonWWTF-ExCond-002YR
Max. roughness	0.035
Min. roughness	0.01
Max. entry loss coef.	1
Min. entry loss coef.	0
Max. exit loss coef.	1
Min. exit loss coef.	0
Max. avg. loss coef.	0
Min. avg. loss coef.	0
Max. length (ft)	632.865
Min. length (ft)	5.501
Total length (ft)	27494.362
Max. slope (ft/ft)	2.2053
Min. slope (ft/ft)	0

Summary 8: Conduit Inventory

Name	NelsonWWTF-ExCond-002YR
Open Rectangular (ft)	427.084
Trapezoidal (ft)	12971.041
Triangular (ft)	16.06
Irregular (ft)	995.946
Circular (ft)	12498.167
Closed Rectangular (ft)	338.88
Horizontal Elliptical (ft)	247.184

Summary 9: Pipe inventory

Name	NelsonWWTF-ExCond-002YR
Max. pipe diameter (ft)	4.5
Min. pipe diameter (ft)	0.25
Total 12” pipe length (ft)	2788.892
Total 15” pipe length (ft)	1384.484
Total 18” pipe length (ft)	1041.624
Total 21” pipe length (ft)	1397.394
Total 24” pipe length (ft)	2885.987
Total 30” pipe length (ft)	393.151
Total 36” pipe length (ft)	1288.106
Total 42” pipe length (ft)	24.992
Total 48” pipe length (ft)	51.106
Total 54” pipe length (ft)	315.125
Total other pipe length (ft)	927.306
Total pipe length (ft)	12498.167

Summary 10: Unused objects

Name	NelsonWWTF-ExCond-002YR
Rain Gages	5
Aquifers	n/a
Snow Packs	n/a
Unit Hydrographs	n/a
Transects	0
Control Curves	n/a
Diversion Curves	n/a
Pump Curves	n/a
Rating Curves	n/a

Summary 10: Unused objects (continued...)

Name	NelsonWWTF-ExCond-002YR
Shape Curves	n/a
Storage Curves	0
Tidal Curves	n/a
Weir Curves	n/a
Time Series	6
Time Patterns	n/a

Summary 11: Flow routing continuity

Name	NelsonWWTF-ExCond-002YR
Dry weather inflow (MG)	0.000
Wet weather inflow (MG)	0.000
Groundwater inflow (MG)	0.000
RDII inflow (MG)	0.000
External inflow (MG)	2.216
External outflow (MG)	2.210
Flooding loss (MG)	0.000
Evaporation loss (MG)	0.000
Exfiltration loss (MG)	0.000
Initial stored volume (MG)	0.000
Final stored volume (MG)	0.007
Continuity error (%)	-0.052

Summary 12: Results statistics

Name	NelsonWWTF-ExCond-002YR
Max. subcatchment total runoff (MG)	n/a
Max. subcatchment peak runoff (cfs)	n/a
Max. subcatchment runoff coefficient	n/a
Max. subcatchment total precip (in)	n/a
Min. subcatchment total precip (in)	n/a
Max. node depth (ft)	10.93
Num. nodes surcharged	3
Max. node surcharge duration (hours)	0.37
Max. node height above crown (ft)	1.785
Min. node depth below rim (ft)	0
Num. nodes flooded	2
Max. node flooding duration (hours)	0.16

Summary 12: Results statistics (continued...)

Name	NelsonWWTF-ExCond-002YR
Max. node flood volume (MG)	0
Max. node ponded volume or depth (acre-in/1000 ft³/ft)	0.152
Max. storage volume (1000 ft³)	2.041
Max. storage percent full (%)	79.3
Max. outfall flow frequency (%)	23.24
Max. outfall peak flow (cfs)	93.88
Max. outfall total volume (MG)	1.626
Total outfall volume (MG)	2.210
Max. link peak flow (cfs)	93.88
Max. link peak velocity (ft/s)	19.41
Min. link peak velocity (ft/s)	0
Num. conduits surcharged	15
Max. conduit surcharge duration (hours)	71.95
Max. conduit capacity limited duration (hours)	3.41

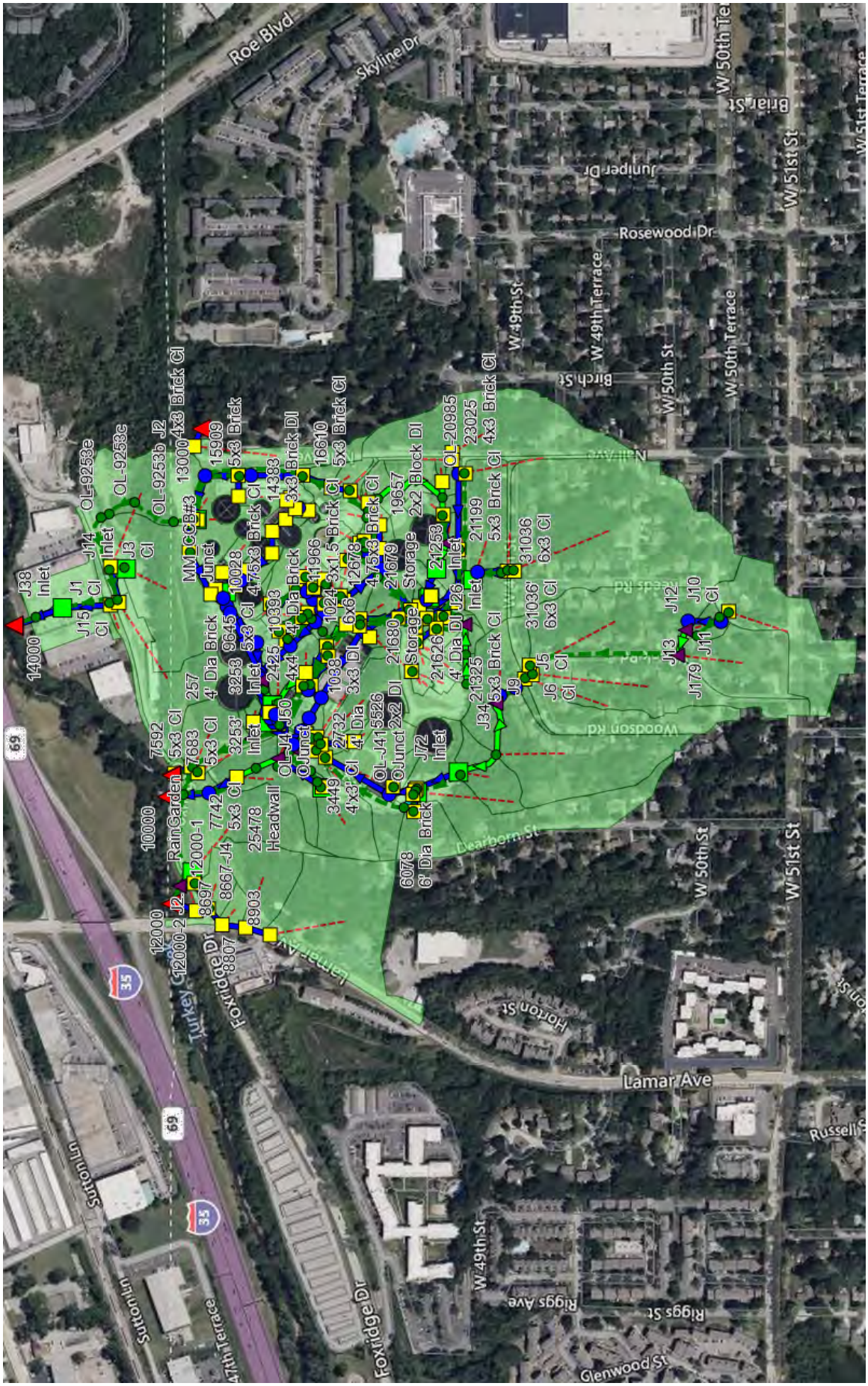

Figure 1: Map Extents

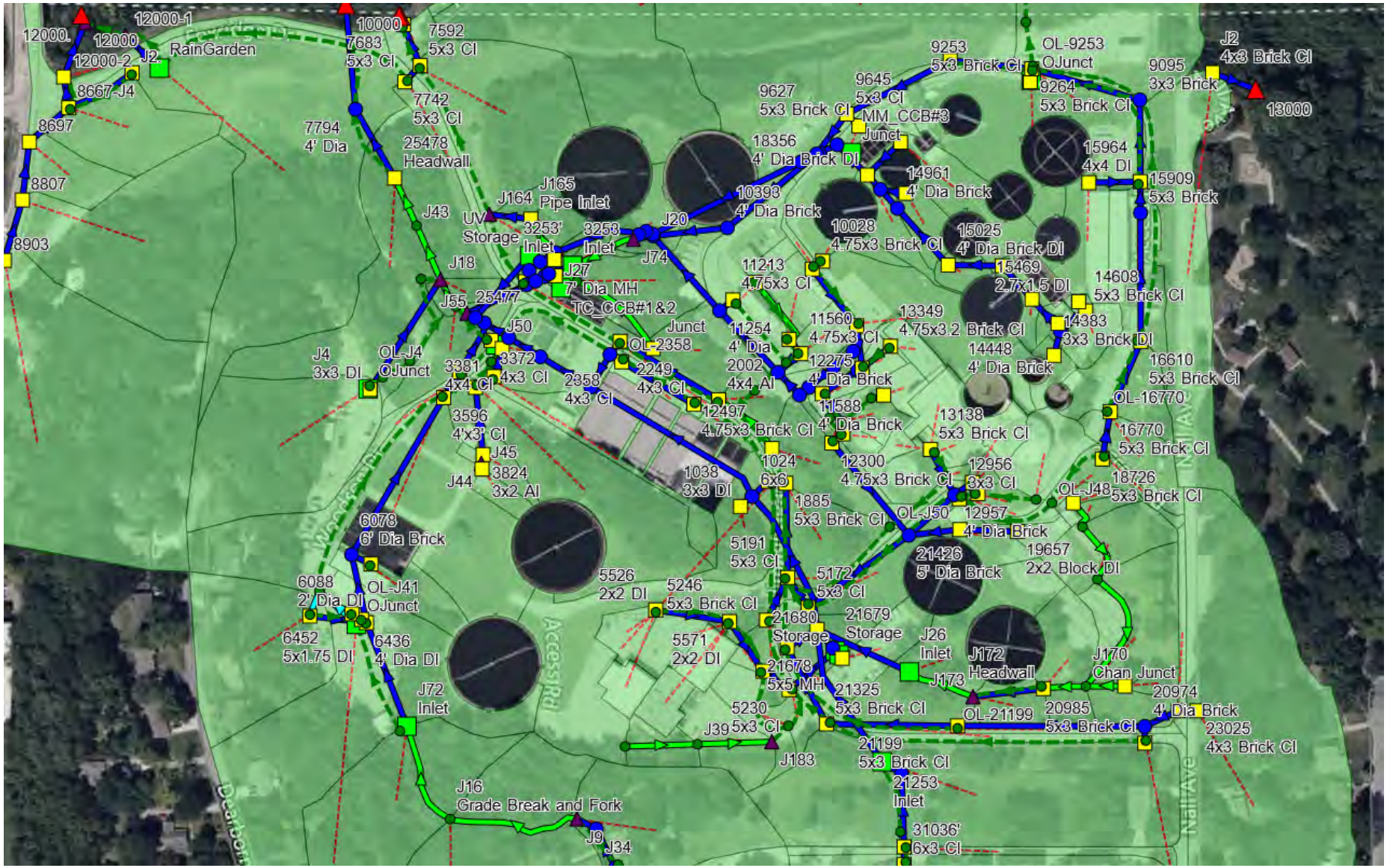

Figure 2: WWTF Site

Table 1A: Conduits

Name	Inlet Node	Outlet Node	Tag	Length (ft)	Roughness	Inlet Elev. (ft)	Outlet Elev. (ft)	Initial Flow (cfs)	Flow Limit (cfs)	Entry Loss Coeff.	Exit Loss Coeff.	Avg. Loss Coeff.	Seepage Rate (in/hr)	Flap Gate	Cross-Section
1	8903	8807	pipe	107.867	0.01	857.01	856.03	0	0	0	0	0	0	NO	CIRCULAR
1A	7794	10000	Pipe	179.773	0.013	832.49	831.42	0	0	1	0	0	0	NO	CIRCULAR
1B	25478	7794	Pipe	135.352	0.013	837.53	836.36	0	0	1	0	0	0	NO	CIRCULAR
1C_1A	J4	J18	Pipe	223.478	0.011	891.609	866	0	0	1	0	0	0	NO	CIRCULAR
1C_2	J35	J18	Channel	53.524	0.035	865.44	860.437	0	0	0	0	0	0	NO	IRREGULAR
1C_3	J18	J43	Channel	100.805	0.035	860.437	856.851	0	0	0	0	0	0	NO	IRREGULAR
1C_4	J43	25478	Channel	89.977	0.035	856.851	837.53	0	0	0	0	0	0	NO	IRREGULAR
1D	25477	J35	Channel	22.116	0.013	866.82	865.44	0	0	0	0	0	0	NO	RECT_OPEN
1DA_1	J163	25477	Pipe	113.769	0.013	879.59	867.83	0	0	1	0	0	0	NO	CIRCULAR
1DA_2	J30	J163	Pipe	41.94	0.013	884.62	879.59	0	0	1	0	0	0	NO	CIRCULAR
1DA_3	3253'	J30	Pipe	43.347	0.013	889.82	884.62	0	0	1	0	0	0	NO	CIRCULAR
1DAA	7096	J163	Pipe	5.501	0.013	885.07	880.06	0	0	1	0	0	0	NO	CIRCULAR
1DB_1	J28	25477	Pipe	130.111	0.013	878.5	867.03	0	0	1	0	0	0	NO	CIRCULAR
1DB_2	J166	J28	Pipe	17.022	0.013	880.78	879.189	0	0	1	0	0	0	NO	CIRCULAR
1DB_2A	J19	J28	Pipe	21.476	0.013	878.5	878.5	0	0	1	0	0	0	NO	CIRCULAR
1DBA'	3089	J30	Pipe	11.927	0.011	888.59	885.07	0	0	1	0	0	0	NO	CIRCULAR
1DBA''	3089	J30	Pipe	12.572	0.011	888.49	880.78	0	0	1	0	0	0	NO	CIRCULAR
1DBB_1	J167	J17	Channel	177.943	0.013	894.56	891.467	0	0	0	0	0	0	NO	IRREGULAR
1DBB_2	J17	3089	Channel	39.019	0.013	891.467	890.79	0	0	0	0	0	0	NO	IRREGULAR
1DD_1	J36	3253	Channel	72.67	0.013	919.444	898.55	0	0	0	0	0	0	NO	TRAPEZOIDAL
1DD_2	J74	J36	Channel	40.715	0.013	930.61	919.444	0	0	0	0	0	0	NO	TRAPEZOIDAL
1DE	J20	J74	Pipe	34.553	0.013	931.17	930.61	0	0	1	0	0	0	NO	CIRCULAR
1DeA	11254	J20	Pipe	171.186	0.013	932.61	931.17	0	0	1	0	0	0	NO	CIRCULAR
1DEAA	11213	11254	Pipe	29.416	0.011	936.1	932.94	0	0	1	0	0	0	NO	CIRCULAR
1DEB	25504	11254	Pipe	145.365	0.011	933.1	932.75	0	0	1	0	0	0	NO	CIRCULAR
1DEBA	11560	25504	Pipe	50.827	0.011	936.8	934.34	0	0	1	0	0	0	NO	CIRCULAR

Table 1A: Conduits (continued...)

Name	Inlet Node	Outlet Node	Tag	Length (ft)	Roughness	Inlet Elev. (ft)	Outlet Elev. (ft)	Initial Flow (cfs)	Flow Limit (cfs)	Entry Loss Coeff.	Exit Loss Coeff.	Avg. Loss Coeff.	Seepage Rate (in/hr)	Flap Gate	Cross-Section
1DEBD_1	J147	J33	Channel	128.743	0.011	942.12	941.663	0	0	0	0	0	0	NO	RECT_OPEN
1DEBD_2	J33	11560	Pipe	31.821	0.011	941.663	941.55	0	0	1	0	0	0	NO	CIRCULAR
1DEC	12275	25504	Pipe	53.652	0.013	933.6	933.24	0	0	1	0	0	0	NO	CIRCULAR
1DED	11588	12275	Pipe	20.548	0.014	934.52	933.6	0	0	1	0	0	0	NO	CIRCULAR
1DEE	12161	11588	Pipe	54.86	0.014	938.99	934.64	0	0	1	0	0	0	NO	CIRCULAR
1DEF	12759	12161	Pipe	43.201	0.014	943.02	939.09	0	0	1	0	0	0	NO	CIRCULAR
1DF	10393	J20	Pipe	128.094	0.013	939.1	932.491	0	0	1	0	0	0	NO	CIRCULAR
1DG	257	10393	Pipe	198.467	0.013	940.39	939.4	0	0	1	0	0	0	NO	CIRCULAR
1DH	9645	257	Pipe	85.613	0.013	940.71	940.49	0	0	1	0	0	0	NO	CIRCULAR
1DHA	9627	9645	Pipe	29.474	0.013	946.2	945.2	0	0	1	0	0	0	NO	CIRCULAR
1DI	9409	9645	Pipe	199.931	0.013	941.68	940.94	0	0	1	0	0	0	NO	CIRCULAR
1DJ	9264	9409	Pipe	140.55	0.013	942.7	941.74	0	0	1	0	0	0	NO	CIRCULAR
1DJA	9253	9264	Pipe	22.374	0.013	944.06	943.43	0	0	1	0	0	0	NO	CIRCULAR
1DK	9095	9264	Pipe	193.106	0.013	952.36	942.88	0	0	1	0	0	0	NO	CIRCULAR
1DL	15964	9095	Pipe	139.678	0.013	959.62	952.49	0	0	1	0	0	0	NO	CIRCULAR
1DLA	16125	15964	Pipe	88.47	0.013	960.63	960.18	0	0	1	0	0	0	NO	CIRCULAR
1DM	15909	15964	Pipe	53.433	0.013	962.57	959.68	0	0	1	0	0	0	NO	CIRCULAR
1DN	16610	15909	Pipe	219.757	0.013	967.84	962.59	0	0	1	0	0	0	NO	CIRCULAR
1DO	16770	16610	Pipe	131.132	0.013	969.75	967.92	0	0	1	0	0	0	NO	CIRCULAR
1DP	18726	16770	Pipe	81.842	0.013	973.96	969.79	0	0	1	0	0	0	NO	CIRCULAR
1E	J55	25477	Pipe	16.211	0.013	867.48	866.82	0	0	1	0	0	0	NO	HORIZ_ELLIPSE
1F	J177	J55	Pipe	17.786	0.013	868.21	867.48	0	0	1	0	0	0	NO	HORIZ_ELLIPSE
1FA	3449	J177	Pipe	95.854	0.013	871.72	867.85	0	0	1	0	0	0	NO	CIRCULAR
1FB	3596	3449	Pipe	51.332	0.013	873.97	871.76	0	0	1	0	0	0	NO	CIRCULAR
1FC	6078	3596	Pipe	311.509	0.013	886.38	874.01	0	0	1	0	0	0	NO	CIRCULAR
1FCA'	6088	6078	Pipe	36.933	0.013	888.94	888.18	0	0	1	0	0	0	NO	CIRCULAR

Table 1A: Conduits (continued...)

Name	Inlet Node	Outlet Node	Tag	Length (ft)	Roughness	Inlet Elev. (ft)	Outlet Elev. (ft)	Initial Flow (cfs)	Flow Limit (cfs)	Entry Loss Coeff.	Exit Loss Coeff.	Avg. Loss Coeff.	Seepage Rate (in/hr)	Flap Gate	Cross-Section
1FD	6436	6078	Pipe	119.067	0.013	891.64	886.73	0	0	1	0	0	0	NO	CIRCULAR
1FDA'	6505	6436	Pipe	98.171	0.011	898.68	896.12	0	0	1	0	0	0	NO	CIRCULAR
1FDA''	6452	6436	Pipe	10.314	0.011	897.28	896.97	0	0	1	0	0	0	NO	CIRCULAR
1FDA''A	6457	6452	Pipe	19.12	0.011	897.83	897.38	0	0	1	0	0	0	NO	CIRCULAR
1FE	J72	6436	Pipe	190.103	0.013	900.49	891.64	0	0	1	0	0	0	NO	CIRCULAR
1FF_1	J9	J16	Channel	228.886	0.035	926.22	910.168	0	0	0	0	0	0	NO	IRREGULAR
1FF_2	J16	J72	Channel	183.777	0.035	910.168	900.49	0	0	0	0	0	0	NO	IRREGULAR
1FG	J34	J9	Pipe	37.578	0.013	928.85	926.22	0	0	1	0	0	0	NO	CIRCULAR
1FH	J8	J34	Pipe	73.827	0.013	938.5	932.92	0	0	1	0	0	0	NO	CIRCULAR
1FI	J5	J8	Pipe	53.078	0.013	940.1	938.5	0	0	1	0	0	0	NO	CIRCULAR
1FJ	J6	J5	Pipe	36.361	0.013	941.2	940.1	0	0	1	0	0	0	NO	CIRCULAR
1FK	J7	J6	Pipe	42.062	0.013	942.46	941.2	0	0	1	0	0	0	NO	CIRCULAR
1G	J159	J177	Pipe	48.967	0.013	870.22	868.21	0	0	1	0	0	0	NO	HORIZ_ELLIPSE
1GA	3381	J159	Pipe	21.521	0.013	880.54	872.15	0	0	1	0	0	0	NO	CIRCULAR
1GAA	3372	3381	Pipe	23.777	0.013	882.86	880.99	0	0	1	0	0	0	NO	CIRCULAR
1GB	3424	3381	Pipe	50.008	0.013	885.05	883.29	0	0	1	0	0	0	NO	CIRCULAR
1GC	3615	3424	Pipe	36.603	0.013	885.71	885.4	0	0	1	0	0	0	NO	CIRCULAR
1GD	3824	3615	Pipe	115.434	0.011	889.05	886.28	0	0	1	0	0	0	NO	CIRCULAR
1GE	J44	3824	Channel	16.06	0.013	900.56	898.67	0	0	0	0	0	0	NO	TRIANGULAR
1GF	J45	J44	Pipe	9.739	0.024	901	900.56	0	0	1	0	0	0	NO	CIRCULAR
1H	J168	J159	Pipe	63.316	0.013	872.82	870.22	0	0	1	0	0	0	NO	HORIZ_ELLIPSE
1I	2732	J168	Pipe	100.904	0.013	876.96	872.82	0	0	1	0	0	0	NO	HORIZ_ELLIPSE
1IA	2425	2732	Pipe	64.578	0.013	883.79	877.34	0	0	1	0	0	0	NO	CIRCULAR
1IAA	2358	2425	Pipe	23.798	0.013	885.98	885.64	0	0	1	0	0	0	NO	CIRCULAR
1IAB	2249	2358	Pipe	143.4	0.013	887.16	886.18	0	0	1	0	0	0	NO	CIRCULAR
1IB	2374	2425	Pipe	28.517	0.013	886.12	885.71	0	0	1	0	0	0	NO	CIRCULAR

Table 1A: Conduits (continued...)

Name	Inlet Node	Outlet Node	Tag	Length (ft)	Roughness	Inlet Elev. (ft)	Outlet Elev. (ft)	Initial Flow (cfs)	Flow Limit (cfs)	Entry Loss Coeff.	Exit Loss Coeff.	Avg. Loss Coeff.	Seepage Rate (in/hr)	Flap Gate	Cross-Section
1IC	2002	2374	Pipe	196.469	0.011	897.88	891.22	0	0	1	0	0	0	NO	CIRCULAR
1ID	J180	2002	Channel	125.098	0.013	907.77	898.95	0	0	0	0	0	0	NO	TRAPEZOIDAL
1J	1024	2732	Pipe	338.88	0.013	886.87	877.29	0	0	1	0	0	0	NO	RECT_CLOSED
1JA	1896	1024	Pipe	37.938	0.013	904.36	896.02	0	0	1	0	0	0	NO	CIRCULAR
1JA'	1038	1024	Pipe	26.173	0.013	895.91	893.97	0	0	1	0	0	0	NO	CIRCULAR
1JB	1885	1896	Pipe	30.451	0.013	906.3	905.04	0	0	1	0	0	0	NO	CIRCULAR
1JC	5191	1885	Pipe	161.111	0.013	914.79	906.78	0	0	1	0	0	0	NO	CIRCULAR
1JCA	5246	5191	Pipe	81.378	0.013	924.03	919.06	0	0	1	0	0	0	NO	CIRCULAR
1JD	5172	5191	Pipe	62.088	0.013	920.24	916.87	0	0	1	0	0	0	NO	CIRCULAR
1JE	21426	5172	Pipe	212.614	0.013	932.3	921.24	0	0	1	0	0	0	NO	CIRCULAR
1JEA'	12957	21426	Pipe	104.62	0.013	941.95	937.85	0	0	1	0	0	0	NO	CIRCULAR
1JEA''	20575	21426	Pipe	88.095	0.013	946.54	938.03	0	0	1	0	0	0	NO	CIRCULAR
1JEA'A	13138	12957	Pipe	87.994	0.013	942.33	941.02	0	0	1	0	0	0	NO	CIRCULAR
1JEA'A'	13029	12957	Pipe	37.363	0.013	944.27	943.39	0	0	1	0	0	0	NO	CIRCULAR
1JEA'A''	12956	12957	Pipe	10.661	0.013	946.18	944.47	0	0	1	0	0	0	NO	CIRCULAR
1JEA''A	19657	20575	Pipe	99.137	0.013	955.58	946.54	0	0	1	0	0	0	NO	CIRCULAR
1JEA'A'A'	13746	13029	Pipe	21.283	0.013	946.8	945.66	0	0	1	0	0	0	NO	CIRCULAR
1JF	12300	21426	Pipe	205.754	0.014	934.44	932.35	0	0	1	0	0	0	NO	CIRCULAR
1JG	12709	12300	Pipe	24.603	0.013	935.32	934.6	0	0	1	0	0	0	NO	CIRCULAR
1JH	12678	12709	Pipe	16.283	0.013	935.68	935.42	0	0	1	0	0	0	NO	CIRCULAR
1JI	12497	12678	Pipe	63.458	0.013	936.23	935.86	0	0	1	0	0	0	NO	CIRCULAR
1JJ	12514	12497	Pipe	72.078	0.013	941.63	936.47	0	0	1	0	0	0	NO	CIRCULAR
1JK	13528	12514	Pipe	9.227	0.013	944.16	941.72	0	0	1	0	0	0	NO	CIRCULAR
1JKA	11966	13528	Pipe	73.07	0.013	946.03	944.57	0	0	1	0	0	0	NO	CIRCULAR
1JKB	11842	11966	Pipe	123.324	0.013	947.17	946.71	0	0	1	0	0	0	NO	CIRCULAR
1JKC	10028	11842	Pipe	22.508	0.013	947.47	947.37	0	0	1	0	0	0	NO	CIRCULAR

Table 1A: Conduits (continued...)

Name	Inlet Node	Outlet Node	Tag	Length (ft)	Roughness	Inlet Elev. (ft)	Outlet Elev. (ft)	Initial Flow (cfs)	Flow Limit (cfs)	Entry Loss Coeff.	Exit Loss Coeff.	Avg. Loss Coeff.	Seepage Rate (in/hr)	Flap Gate	Cross-Section
1JL	13349	13528	Pipe	61.326	0.024	945.85	944.4	0	0	1	0	0	0	NO	CIRCULAR
1K	21626	1024	Pipe	258.165	0.013	910.56	887.08	0	0	1	0	0	0	NO	CIRCULAR
1KA	5218	21626	Pipe	59.911	0.013	927.34	910.76	0	0	1	0	0	0	NO	CIRCULAR
1KA'	J26	21626	Pipe	174.392	0.013	937.33	923.26	0	0	1	0	0	0	NO	CIRCULAR
1KA''	21678	21626	Pipe	41.775	0.024	926.94	919.91	0	0	1	0	0	0	NO	CIRCULAR
1KA'A	J173	J26	Channel	118.097	0.035	946.71	937.33	0	0	0	0	0	0	NO	TRAPEZOIDAL
1KA''A	21679	21678	Pipe	6.643	0.024	927.5	927.45	0	0	1	0	0	0	NO	CIRCULAR
1KA''AA	21680	21679	Pipe	9.122	0.024	928	927.5	0	0	1	0	0	0	NO	CIRCULAR
1KA''AB	21705	21680	Pipe	8.012	0.024	938.43	938.32	0	0	1	0	0	0	NO	CIRCULAR
1KA'B	J172	J173	Pipe	121.836	0.024	950.01	946.71	0	0	1	0	0	0	NO	CIRCULAR
1KA''B	5230	21679	Pipe	52	0.024	929.03	928	0	0	1	0	0	0	NO	CIRCULAR
1KA''BA_1	J183	OL-J37	Overland	39.434	0.013	941.38	941.039	0	0	0	0	0	0	NO	TRAPEZOIDAL
1KA''BA_2	OL-J37	5230	Overland	77.272	0.013	941.039	938.08	0	0	0	0	0	0	NO	TRAPEZOIDAL
1KA''BB_1	J182	J39	Channel	124.408	0.013	942.74	942.068	0	0	0	0	0	0	NO	TRAPEZOIDAL
1KA''BB_2	J39	J183	Channel	127.469	0.013	942.068	941.38	0	0	0	0	0	0	NO	TRAPEZOIDAL
1KA'C	J170	J172	Channel	72.885	0.013	956.31	950.01	0	0	0	0	0	0	NO	TRAPEZOIDAL
1KA''C	5604	5230	Pipe	54.86	0.011	935.84	932	0	0	1	0	0	0	NO	CIRCULAR
1KA'CA	J169	J170	Channel	229.445	0.013	959.9	956.31	0	0	0	0	0	0	NO	TRAPEZOIDAL
1KA'CA'	J171	J170	Channel	66.764	0.013	963.54	956.31	0	0	0	0	0	0	NO	TRAPEZOIDAL
1KA'CB	J174	J169	Channel	110.592	0.013	966.85	959.9	0	0	0	0	0	0	NO	TRAPEZOIDAL
1KA'CC	J175	J174	Channel	55.793	0.013	970.34	966.85	0	0	0	0	0	0	NO	TRAPEZOIDAL
1KA''D	5571	5604	Pipe	102.441	0.011	936.99	936.04	0	0	1	0	0	0	NO	CIRCULAR
1KA''E	5526	5571	Pipe	128.317	0.011	938.6	937.34	0	0	1	0	0	0	NO	CIRCULAR
1KB	21325	5218	Pipe	146.867	0.013	937.46	927.59	0	0	1	0	0	0	NO	CIRCULAR
1KC	21199	21325	Pipe	225.066	0.013	954.3	937.61	0	0	1	0	0	0	NO	CIRCULAR
1KD	20974	21199	Pipe	321.203	0.013	975.25	954.9	0	0	1	0	0	0	NO	CIRCULAR

Table 1A: Conduits (continued...)

Name	Inlet Node	Outlet Node	Tag	Length (ft)	Roughness	Inlet Elev. (ft)	Outlet Elev. (ft)	Initial Flow (cfs)	Flow Limit (cfs)	Entry Loss Coeff.	Exit Loss Coeff.	Avg. Loss Coeff.	Seepage Rate (in/hr)	Flap Gate	Cross-Section
1KDA	20985	20974	Pipe	28.687	0.013	978.38	975.8	0	0	1	0	0	0	NO	CIRCULAR
1KE	23037	20974	Pipe	63.819	0.013	976.57	975.45	0	0	1	0	0	0	NO	CIRCULAR
1KF	23025	23037	Pipe	32.149	0.013	979.35	977.69	0	0	1	0	0	0	NO	CIRCULAR
1L	21253	21626	Pipe	258.79	0.013	934.87	910.76	0	0	1	0	0	0	NO	CIRCULAR
1M	24932	21253	Pipe	38.949	0.013	939.32	935.15	0	0	1	0	0	0	NO	CIRCULAR
1N	31036	24932	Pipe	125.328	0.011	950.51	943.62	0	0	1	0	0	0	NO	CIRCULAR
1O	31036'	31036	Pipe	30.02	0.024	951.29	950.65	0	0	1	0	0	0	NO	CIRCULAR
2A	7683	11000	Pipe	15.958	0.013	861.67	861.08	0	0	1	0	0	0	NO	CIRCULAR
2B	7592	7683	Pipe	75.415	0.013	863.07	861.77	0	0	1	0	0	0	NO	CIRCULAR
2BA	7742	7592	Pipe	38.613	0.013	863.98	863.22	0	0	1	0	0	0	NO	CIRCULAR
2C	J164	OL-7592	Overland	278.428	0.013	882.06	867.37	0	0	0	0	0	0	NO	TRAPEZOIDAL
2D	J165	J164	Pipe	71.547	0.011	893.78	882.06	0	0	1	0	0	0	NO	CIRCULAR
2E	J29	J165	Channel	80.217	0.013	894.5	893.78	0	0	0	0	0	0	NO	TRAPEZOIDAL
3A	J38	14000	Pipe	219.172	0.013	848.35	845.99	0	0	1	0	0	0	NO	CIRCULAR
3B	J1	J38	Pipe	202.553	0.013	850.38	848.35	0	0	1	0	0	0	NO	CIRCULAR
3C	J15	J1	Pipe	37.439	0.013	850.75	850.38	0	0	1	0	0	0	NO	CIRCULAR
3D	J3	J15	Pipe	156.876	0.013	852.32	850.75	0	0	1	0	0	0	NO	CIRCULAR
3E	J14	J3	Pipe	67.535	0.013	853	852.32	0	0	1	0	0	0	NO	CIRCULAR
4A	J2	13000	Pipe	79.383	0.013	941.46	936.2	0	0	1	0	0	0	NO	CIRCULAR
5	8807	8697	pipe	99.864	0.01	855.48	854.19	0	0	0	0	0	0	NO	CIRCULAR
8	8697	8667-J4	pipe	89.36	0.01	853.99	852.76	0	0	0	0	0	0	NO	CIRCULAR
C1	J179	OL-J7	Overland	632.865	0.013	976.793	942.46	0	0	0	0	0	0	NO	TRAPEZOIDAL
C10	OL-3596	OL-3615	Overland	64.295	0.013	891.84	890.71	0	0	0	0	0	0	NO	TRAPEZOIDAL
C11	OL-3449	J50	Overland	75.919	0.013	890.06	888.76	0	0	0	0	0	0	NO	TRAPEZOIDAL
C12	OL-3615	J37	Overland	46.799	0.013	890.71	889.376	0	0	0	0	0	0	NO	TRAPEZOIDAL
C12_1	OL-3424	J37	Overland	30.368	0.013	890.3	889.376	0	0	0	0	0	0	NO	TRAPEZOIDAL

Table 1A: Conduits (continued...)

Name	Inlet Node	Outlet Node	Tag	Length (ft)	Roughness	Inlet Elev. (ft)	Outlet Elev. (ft)	Initial Flow (cfs)	Flow Limit (cfs)	Entry Loss Coeff.	Exit Loss Coeff.	Avg. Loss Coeff.	Seepage Rate (in/hr)	Flap Gate	Cross-Section
C12_2	J37	J50	Overland	25.907	0.013	889.376	888	0	0	0	0	0	0	NO	TRAPEZOIDAL
C13	OL-5526	OL-5571	Overland	129.82	0.013	942.1	941.99	0	0	0	0	0	0	NO	TRAPEZOIDAL
C14	OL-5571	OL-5604	Overland	106.04	0.013	941.99	941.84	0	0	0	0	0	0	NO	TRAPEZOIDAL
C144_1	J10	J11	Pipe	53.569	0.013	1008.97	1004.59	0	0	1	0	0	0	NO	CIRCULAR
C144_2	J11	J12	Pipe	139.856	0.013	1004.59	981.34	0	0	1	0	0	0	NO	CIRCULAR
C146	J12	J13	Pipe	40.264	0.013	981.34	980.139	0	0	1	0	0	0	NO	CIRCULAR
C147	J13	J179	Channel	111.819	0.013	980.139	976.793	0	0	0	0	0	0	NO	TRAPEZOIDAL
C15	OL-5604	OL-J37	Overland	140.055	0.013	941.84	941.039	0	0	0	0	0	0	NO	TRAPEZOIDAL
C16	OL-20985	OL-21325	Overland	548.188	0.013	983.08	943.644	0	0	0	0	0	0	NO	TRAPEZOIDAL
C17	OL-21325	OL-5230	Overland	86.895	0.013	943.644	938.08	0	0	0	0	0	0	NO	TRAPEZOIDAL
C18	OL-5230	OL-5246	Overland	124.979	0.013	938.08	929.58	0	0	0	0	0	0	NO	TRAPEZOIDAL
C19	OL-21199	OL-5218	Overland	354.907	0.013	960.12	933.24	0	0	0	0	0	0	NO	TRAPEZOIDAL
C19.	J4-S	12000-2	Overland	59.518	0.013	858.04	851.96	0	0	0	0	0	0	NO	RECT_OPEN
C2	OL-9253a	OL-9253b	Overland	76.713	0.013	948.316	944.247	0	0	0	0	0	0	NO	TRAPEZOIDAL
C2_2	J48	21253	Overland	126.357	0.035	953.84	934.84	0	0	0	0	0	0	NO	TRAPEZOIDAL
C2_3	J49	J35	Overland	78.237	0.035	888.46	865.44	0	0	0	0	0	0	NO	TRAPEZOIDAL
C20	OL-18726	OL-J48	Overland	130.333	0.013	978.31	968.322	0	0	0	0	0	0	NO	TRAPEZOIDAL
C21	OL-J48	OL-12956	Overland	177.316	0.013	968.322	950.18	0	0	0	0	0	0	NO	TRAPEZOIDAL
C22	OL-J49	OL-13746	Overland	105.161	0.013	967.672	951.4	0	0	0	0	0	0	NO	TRAPEZOIDAL
C23	OL-13746	OL-12956	Overland	24.361	0.013	951.4	950.18	0	0	0	0	0	0	NO	TRAPEZOIDAL
C24	OL-12956	OL-5172	Overland	330.39	0.013	950.18	927.59	0	0	0	0	0	0	NO	TRAPEZOIDAL
C25	OL-5172	OL-5191	Overland	63.814	0.013	927.59	924.14	0	0	0	0	0	0	NO	TRAPEZOIDAL
C26	OL-13138	OL-J40	Overland	46.976	0.013	948.73	948.514	0	0	0	0	0	0	NO	TRAPEZOIDAL
C27	OL-J40	OL-J50	Overland	131.304	0.013	948.514	940.647	0	0	0	0	0	0	NO	TRAPEZOIDAL
C28	OL-J50	OL-5191	Overland	229.633	0.013	940.647	924.14	0	0	0	0	0	0	NO	TRAPEZOIDAL
C29	OL-16770	OL-16610	Overland	131.977	0.013	975.6	972.22	0	0	0	0	0	0	NO	TRAPEZOIDAL

Table 1A: Conduits (continued...)

Name	Inlet Node	Outlet Node	Tag	Length (ft)	Roughness	Inlet Elev. (ft)	Outlet Elev. (ft)	Initial Flow (cfs)	Flow Limit (cfs)	Entry Loss Coeff.	Exit Loss Coeff.	Avg. Loss Coeff.	Seepage Rate (in/hr)	Flap Gate	Cross-Section
C3	3253	J17	Overland	33.438	0.035	900.5	891.467	0	0	0	0	0	0	NO	TRAPEZOIDAL
C30	OL-9264	OL-9253	Overland	17.175	0.013	948.71	948.6	0	0	0	0	0	0	NO	TRAPEZOIDAL
C31	OL-16610	OL-9264	Overland	616.356	0.013	972.22	952.36	0	0	0	0	0	0	NO	TRAPEZOIDAL
C32	OL-15964	OL-9253	Overland	320.278	0.013	964.87	948.6	0	0	0	0	0	0	NO	TRAPEZOIDAL
C33	OL-9409	OL-9264	Overland	141.28	0.013	949.68	948.71	0	0	0	0	0	0	NO	TRAPEZOIDAL
C34	OL-11842	OL-10028	Overland	15.083	0.013	951.79	951.77	0	0	0	0	0	0	NO	TRAPEZOIDAL
C35	OL-11842	OL-11966	Overland	124.43	0.013	951.79	950.67	0	0	0	0	0	0	NO	TRAPEZOIDAL
C36	OL-13349	OL-13528	Overland	54.926	0.013	950.4	948.07	0	0	0	0	0	0	NO	TRAPEZOIDAL
C37	OL-12497	J40	Overland	42.855	0.013	940.3	940	0	0	0	0	0	0	NO	TRAPEZOIDAL
C37_1	OL-12678	J40	Overland	30.932	0.013	940.27	939.972	0	0	0	0	0	0	NO	TRAPEZOIDAL
C37_2	J40	OL-12709	Overland	36.575	0.013	939.972	939.62	0	0	0	0	0	0	NO	TRAPEZOIDAL
C38	OL-12709	OL-12300	Overland	18.339	0.013	939.62	939.5	0	0	0	0	0	0	NO	TRAPEZOIDAL
C39	OL-5191	OL-1885	Overland	165.14	0.013	924.14	912.35	0	0	0	0	0	0	NO	TRAPEZOIDAL
C4	OL-9253b	OL-9253c	Overland	193.063	0.035	944.247	888	0	0	0	0	0	0	NO	TRAPEZOIDAL
C40	OL-1896	OL-2249	Overland	197.742	0.013	911.56	897.819	0	0	0	0	0	0	NO	TRAPEZOIDAL
C41	OL-J10	OL-J10a	Overland	43.181	0.013	1011.7	1010.1	0	0	0	0	0	0	NO	TRAPEZOIDAL
C41_1	OL-1885	2002'	Overland	182.693	0.013	912.35	898.82	0	0	0	0	0	0	NO	TRAPEZOIDAL
C41_2	2002'	OL-2374	Overland	196.228	0.013	898.82	893.12	0	0	0	0	0	0	NO	TRAPEZOIDAL
C42	OL-2249	OL-2358	Overland	143.857	0.013	897.819	893.28	0	0	0	0	0	0	NO	TRAPEZOIDAL
C43	OL-2358	J50	Overland	271.117	0.013	893.28	888	0	0	0	0	0	0	NO	TRAPEZOIDAL
C44	OL-2374	OL-7096	Overland	194.356	0.013	893.12	889.82	0	0	0	0	0	0	NO	TRAPEZOIDAL
C45	OL-7096	J164	Overland	133.947	0.013	889.82	882.06	0	0	0	0	0	0	NO	TRAPEZOIDAL
C46	OL-7592	OL-7683	Overland	76.657	0.013	867.37	865.22	0	0	0	0	0	0	NO	TRAPEZOIDAL
C47	25478	J46	Overland	251.209	0.035	866.5	864.9	0	0	0	0	0	0	NO	TRAPEZOIDAL
C47_1	OL-7742	J46	Overland	116.996	0.013	867.53	864.9	0	0	0	0	0	0	NO	TRAPEZOIDAL
C47_2	J46	RainGarden	Overland	350.216	0.013	864.9	860.01	0	0	0	0	0	0	NO	TRAPEZOIDAL

Table 1A: Conduits (continued...)

Name	Inlet Node	Outlet Node	Tag	Length (ft)	Roughness	Inlet Elev. (ft)	Outlet Elev. (ft)	Initial Flow (cfs)	Flow Limit (cfs)	Entry Loss Coeff.	Exit Loss Coeff.	Avg. Loss Coeff.	Seepage Rate (in/hr)	Flap Gate	Cross-Section
C48	OL-5246	OL-1896	Overland	236.817	0.013	929.58	911.56	0	0	0	0	0	0	NO	TRAPEZOIDAL
C49	OL-5218	OL-5191	Overland	121.525	0.013	933.24	924.14	0	0	0	0	0	0	NO	TRAPEZOIDAL
C5	OL-6505	OL-J41	Overland	88.134	0.013	901.45	900.8	0	0	0	0	0	0	NO	TRAPEZOIDAL
C50	OL-J147	OL-J33	Overland	127.499	0.013	942.62	942.163	0	0	0	0	0	0	NO	RECT_OPEN
C51	OL-J33	OL-11560	Overland	30.912	0.013	942.163	942.05	0	0	0	0	0	0	NO	TRAPEZOIDAL
C52	OL-11560	J41	Overland	25.383	0.013	942.05	940.866	0	0	0	0	0	0	NO	TRAPEZOIDAL
C53	J41	J42	Overland	72.163	0.013	940.866	937.461	0	0	0	0	0	0	NO	TRAPEZOIDAL
C54	OL-11213	J41	Overland	132.556	0.013	942.05	940.866	0	0	0	0	0	0	NO	TRAPEZOIDAL
C55	J42	2002	Overland	74.768	0.035	937.461	897.88	0	0	0	0	0	0	NO	TRAPEZOIDAL
C56	OL-J10a	OL-J10b	Overland	124.249	0.035	1010.1	981.75	0	0	0	0	0	0	NO	TRAPEZOIDAL
C57	OL-J10b	J13	Overland	55.173	0.035	981.75	980.139	0	0	0	0	0	0	NO	TRAPEZOIDAL
C58	OL-J5	OL-J8	Overland	57.87	0.035	945.85	944.5	0	0	0	0	0	0	NO	TRAPEZOIDAL
C59	OL-J8	J9	Overland	106.202	0.035	944.5	926.22	0	0	0	0	0	0	NO	TRAPEZOIDAL
C6	OL-6457	OL-6452	Overland	19.41	0.013	900.8	900.57	0	0	0	0	0	0	NO	TRAPEZOIDAL
C60	OL-7683	11000'	Overland	20.552	0.035	865.22	864	0	0	0	0	0	0	NO	TRAPEZOIDAL
C61	OL-9253c	OL-9253d	Overland	129.198	0.035	888	888.001	0	0	0	0	0	0	NO	TRAPEZOIDAL
C62	OL-J3	OL-J15	Overland	132.178	0.013	857.191	855.996	0	0	0	0	0	0	NO	TRAPEZOIDAL
C63	OL-J15	OL-J1	Overland	35.894	0.013	855.996	855.925	0	0	0	0	0	0	NO	TRAPEZOIDAL
C64	OL-J1	J38	Overland	199.437	0.013	855.925	852	0	0	0	0	0	0	NO	TRAPEZOIDAL
C65	OL-9253d	OL-9253e	Overland	37.559	0.035	888.001	863.833	0	0	0	0	0	0	NO	TRAPEZOIDAL
C65_2	J47	14000'	Overland	100.128	0.013	848.575	847.5	0	0	0	0	0	0	NO	TRAPEZOIDAL
C66	OL-9253e	OL-J3	Overland	242.209	0.013	863.833	857.19	0	0	0	0	0	0	NO	TRAPEZOIDAL
C67	OL-J72	OL-J41	Overland	197.971	0.013	905.6	900.57	0	0	0	0	0	0	NO	TRAPEZOIDAL
C68	OL-J4a	OL-J4b	Overland	26.832	0.035	894.5	892.469	0	0	0	0	0	0	NO	TRAPEZOIDAL
C69	OL-J4b	OL-J4c	Overland	55.125	0.035	892.469	881.808	0	0	0	0	0	0	NO	TRAPEZOIDAL
C7	OL-6452	OL-6436	Overland	10.224	0.013	900.57	900.57	0	0	0	0	0	0	NO	TRAPEZOIDAL

Table 1A: Conduits (continued...)

Name	Inlet Node	Outlet Node	Tag	Length (ft)	Roughness	Inlet Elev. (ft)	Outlet Elev. (ft)	Initial Flow (cfs)	Flow Limit (cfs)	Entry Loss Coeff.	Exit Loss Coeff.	Avg. Loss Coeff.	Seepage Rate (in/hr)	Flap Gate	Cross-Section
C70	OL-J4c	OL-J4d	Overland	161.651	0.035	881.808	871.789	0	0	0	0	0	0	NO	TRAPEZOIDAL
C71	OL-J4d	J18	Overland	33.547	0.035	871.789	860.437	0	0	0	0	0	0	NO	TRAPEZOIDAL
C72	OL-6505a	OL-3596	Overland	407.777	0.013	901.23	891.74	0	0	0	0	0	0	NO	TRAPEZOIDAL
C73	J2.	8667-J4	pipe	124.965	0.013	855.48	854.11	0	0	0	0	0	0	NO	CIRCULAR
C74	8667-J4	12000-2	pipe	53.361	0.013	852.76	851.96	0	0	0	0	0	0	NO	CIRCULAR
C75	RainGarden	12000-1	pipe	80.411	0.013	857.75	853.36	0	0	0	0	0	0	NO	CIRCULAR
C76	12000-2	12000	pipe	81	0.024	851.71	838.55	0	0	0	1	0	0	NO	CIRCULAR
C77	12000-1	12000	OVERLAND	72.825	0.013	853	838	0	0	0	1	0	0	NO	TRAPEZOIDAL
C78	12000	12000.	OVERLAND	14.58	0.013	838	836	0	0	0	1	0	0	NO	TRAPEZOIDAL
C79	J2-S	J4-S	OVERLAND	122.015	0.013	858.93	857.11	0	0	0	0	0	0	NO	IRREGULAR
C8	J31	J32	Channel	22.261	0.013	948.103	944.803	0	0	0	0	0	0	NO	TRAPEZOIDAL
C80	RainGarden	12000-1	OVERLAND	89.208	0.013	860	857	0	0	0	0	0	0	NO	RECT_OPEN
C9	J32	OL-12678	Overland	63.533	0.013	944.803	940.7	0	0	0	0	0	0	NO	TRAPEZOIDAL
MM_out	MM_CCB#3	9733	Pipe	28.585	0.013	947.77	938.64	0	0	1	0	0	0	NO	CIRCULAR
OL-1KA'B	OL-J172	J173	Overland	118.952	0.035	951	946.71	0	0	0	0	0	0	NO	TRAPEZOIDAL
OL-31036	OL-31036'	OL-31036	Overland	24.662	0.013	954.23	953.88	0	0	0	0	0	0	NO	TRAPEZOIDAL
TC_out	TC_CCB#1&2	J27	Pipe	61.318	0.013	887	881	0	0	1	0	0	0	NO	CIRCULAR
UV_Out	UV	J55	Pipe	24.992	0.013	878.25	870.25	0	0	1	0	0	0	NO	CIRCULAR
UVA	J25	UV	Pipe	20.736	0.013	881	879.21	0	0	1	0	0	0	NO	CIRCULAR
UVB	J27	J25	Pipe	30.37	0.013	881	881	0	0	1	0	0	0	NO	CIRCULAR
UVC	J24	J27	Pipe	146.949	0.013	929.5	894	0	0	1	0	0	0	NO	CIRCULAR
UVE	J23	J24	Pipe	14.051	0.014	932.58	929.5	0	0	1	0	0	0	NO	CIRCULAR
UVF	J22	J23	Pipe	12.832	0.013	932.68	932.58	0	0	1	0	0	0	NO	CIRCULAR
UVG	J21	J22	Pipe	282.602	0.013	936.78	933.48	0	0	1	0	0	0	NO	CIRCULAR
UVH	9733	J21	Pipe	68.282	0.013	938.64	936.78	0	0	1	0	0	0	NO	CIRCULAR
UVI	18356	9733	Pipe	73.676	0.014	943.2	938.64	0	0	1	0	0	0	NO	CIRCULAR

Table 1A: Conduits (continued...)

Name	Inlet Node	Outlet Node	Tag	Length (ft)	Roughness	Inlet Elev. (ft)	Outlet Elev. (ft)	Initial Flow (cfs)	Flow Limit (cfs)	Entry Loss Coeff.	Exit Loss Coeff.	Avg. Loss Coeff.	Seepage Rate (in/hr)	Flap Gate	Cross-Section
UVIA	18312	18356	Pipe	79.835	0.013	947.29	946.89	0	0	1	0	0	0	NO	CIRCULAR
UVJ	18402	18356	Pipe	33.147	0.014	945.58	943.7	0	0	1	0	0	0	NO	CIRCULAR
UVJA	17671	18402	Pipe	43.931	0.013	948.24	947.99	0	0	1	0	0	0	NO	CIRCULAR
UVK	14961	18402	Pipe	43.742	0.014	946.56	945.62	0	0	1	0	0	0	NO	CIRCULAR
UVL	15025	14961	Pipe	130.15	0.014	956.02	948.11	0	0	1	0	0	0	NO	CIRCULAR
UVM	15075	15025	Pipe	93.129	0.014	959.13	956.18	0	0	1	0	0	0	NO	CIRCULAR
UVN	15234	15075	Pipe	76.437	0.014	963.99	962.25	0	0	1	0	0	0	NO	CIRCULAR
UVO	14448	15234	Pipe	72.757	0.014	965.94	964.14	0	0	1	0	0	0	NO	CIRCULAR
UVOA	14608	14448	Pipe	55.437	0.013	968.91	968.74	0	0	1	0	0	0	NO	CIRCULAR
UVOA'	14383	14448	Pipe	43.125	0.013	971.63	968.62	0	0	1	0	0	0	NO	CIRCULAR
UVOB	15469	14608	Pipe	19.896	0.014	969.81	969.01	0	0	1	0	0	0	NO	CIRCULAR
UVP	15374	14448	Pipe	13.52	0.013	967.48	967.07	0	0	1	0	0	0	NO	CIRCULAR

Table 1B: Conduits

Name	Geom1 (ft)	Geom2 (ft)	Geom3	Geom4	Barrels	Transect	Shape Curve	Culvert Code	Control Rules	Slope (ft/ft)	Max. |Flow| (cfs)	Time Max. Flow (M/D/Y)	Max. |Velocity| (ft/s)
1	1.25	0	0	0	1				NO	0.00909	3.73	05/01/2022 00:24 AM	6.41
1A	4.5	0	0	0	1				NO	0.00595	93.88	05/01/2022 00:20 AM	8.85
1B	4.5	0	0	0	1				NO	0.00864	93.87	05/01/2022 00:20 AM	9.88
1C_1A	0.667	0	0	0	1				NO	0.11535	1.82	05/01/2022 00:18 AM	12.6
1C_2	0	0	0	0	1	PlantOutfallChannel_US			NO	0.09388	90.57	05/01/2022 00:19 AM	7.12
1C_3	0	0	0	0	1	PlantOutfallChannel_DS			NO	0.0356	92.4	05/01/2022 00:19 AM	6.88
1C_4	0	0	0	0	1	PlantOutfallChannel_DS			NO	0.21986	92.4	05/01/2022 00:19 AM	3.28
1D	6	8	0	0	1				NO	0.06252	90.2	05/01/2022 00:19 AM	14.94

Table 1B: Conduits (continued...)

Name	Geom1 (ft)	Geom2 (ft)	Geom3	Geom4	Barrels	Transect	Shape Curve	Culvert Code	Control Rules	Slope (ft/ft)	Max. |Flow| (cfs)	Time Max. Flow (M/D/Y)	Max. |Velocity| (ft/s)
1DA_1	1.75	0	0	0	2				NO	0.10392	11.07	05/01/2022 00:16 AM	13.2
1DA_2	1.75	0	0	0	1				NO	0.12081	10.68	05/01/2022 00:16 AM	16.93
1DA_3	1.75	0	0	0	1				NO	0.12083	0	05/01/2022 00:00 AM	0
1DAA	1	0	0	0	1				NO	2.20534	0.45	05/01/2022 00:12 AM	15.01
1DB_1	3	0	0	0	2				NO	0.0885	0	05/01/2022 00:00 AM	0
1DB_2	3	0	0	0	2				NO	0.09388	0	05/01/2022 00:00 AM	0
1DB_2A	3	0	0	0	1				NO	0	0	05/01/2022 00:00 AM	0
1DBA'	1	0	0	0	1				NO	0.30889	4.41	05/01/2022 00:16 AM	16.74
1DBA''	1	0	0	0	1				NO	0.77641	6.27	05/01/2022 00:16 AM	9.63
1DBB_1	0	0	0	0	1	1DBB			NO	0.01738	0.54	05/01/2022 00:18 AM	1.73
1DBB_2	0	0	0	0	1	1DBB			NO	0.01735	10.62	05/01/2022 00:16 AM	8.1
1DD_1	3	2.5	1	1	1				NO	0.30019	9.38	05/01/2022 00:15 AM	13.59
1DD_2	3	2.5	1	1	1				NO	0.28518	9.38	05/01/2022 00:15 AM	18.5
1DE	1.75	0	0	0	1				NO	0.01621	9.33	05/01/2022 00:15 AM	13.2
1DeA	1	0	0	0	1				NO	0.00841	3.03	05/01/2022 00:10 AM	4.32
1DEAA	1	0	0	0	1				NO	0.10805	1.59	05/01/2022 00:06 AM	9.73
1DEB	1	0	0	0	1				NO	0.00241	1.46	05/01/2022 00:10 AM	2.66
1DEBA	0.833	0	0	0	1				NO	0.04846	1.47	05/01/2022 00:08 AM	8
1DEBD_1	0.5	0.5	0	0	1				NO	0.00355	0.17	05/01/2022 00:07 AM	0.9
1DEBD_2	0.333	0	0	0	1				NO	0.00355	0.24	05/01/2022 00:08 AM	2.9
1DEC	1	0	0	0	1				NO	0.00671	0.06	05/01/2022 00:06 AM	0.34
1DED	0.667	0	0	0	1				NO	0.04482	0	05/01/2022 00:00 AM	0
1DEE	0.667	0	0	0	1				NO	0.07954	0	05/01/2022 00:00 AM	0
1DEF	0.667	0	0	0	1				NO	0.09135	0	05/01/2022 00:00 AM	0
1DF	1.75	0	0	0	1				NO	0.05166	6.51	05/01/2022 00:16 AM	10.7
1DG	1.75	0	0	0	1				NO	0.00499	6.51	05/01/2022 00:16 AM	4.59

Table 1B: Conduits (continued...)

Name	Geom1 (ft)	Geom2 (ft)	Geom3	Geom4	Barrels	Transect	Shape Curve	Culvert Code	Control Rules	Slope (ft/ft)	Max. |Flow| (cfs)	Time Max. Flow (M/D/Y)	Max. |Velocity| (ft/s)
1DH	1.75	0	0	0	1				NO	0.00257	6.52	05/01/2022 00:15 AM	4.07
1DHA	1	0	0	0	1				NO	0.03395	0.56	05/01/2022 00:12 AM	4.74
1DI	1.5	0	0	0	1				NO	0.0037	5.77	05/01/2022 00:15 AM	3.99
1DJ	1.5	0	0	0	1				NO	0.00683	5.61	05/01/2022 00:14 AM	4.14
1DJA	1.5	0	0	0	1				NO	0.02817	1.91	05/01/2022 00:18 AM	5.63
1DK	1.5	0	0	0	1				NO	0.04915	3.43	05/01/2022 00:12 AM	6.49
1DL	1.25	0	0	0	1				NO	0.05111	3.43	05/01/2022 00:12 AM	9.32
1DLA	1	0	0	0	1				NO	0.00509	0.69	05/01/2022 00:12 AM	2.67
1DM	1	0	0	0	1				NO	0.05417	1.15	05/01/2022 00:18 AM	5.68
1DN	1	0	0	0	1				NO	0.0239	1.15	05/01/2022 00:18 AM	5.43
1DO	1	0	0	0	1				NO	0.01396	0.61	05/01/2022 00:13 AM	3.73
1DP	1	0	0	0	1				NO	0.05102	0.13	05/01/2022 00:12 AM	2.43
1E	3.583	5.667	0	0	1				NO	0.04075	79.5	05/01/2022 00:19 AM	18.87
1F	3.583	5.667	0	0	1				NO	0.04108	78.06	05/01/2022 00:19 AM	8.97
1FA	3	0	0	0	1				NO	0.04041	34.27	05/01/2022 00:21 AM	7.39
1FB	3	0	0	0	1				NO	0.04309	34.11	05/01/2022 00:21 AM	10.87
1FC	3	0	0	0	1				NO	0.03974	32.62	05/01/2022 00:21 AM	12.07
1FCA'	1.25	0	0	0	1				NO	0.02058	0.54	05/01/2022 00:12 AM	3.87
1FD	3	0	0	0	1				NO	0.04127	32.13	05/01/2022 00:21 AM	13.77
1FDA'	0.5	0	0	0	1				NO	0.02609	1.36	05/01/2022 00:18 AM	6.91
1FDA''	0.833	0	0	0	1				NO	0.03007	3.25	05/01/2022 00:23 AM	6.83
1FDA''A	0.833	0	0	0	1				NO	0.02354	0.24	05/01/2022 00:23 AM	0.57
1FE	3	0	0	0	1				NO	0.0466	25.73	05/01/2022 00:20 AM	11.55
1FF_1	0	0	0	0	1	Wchan_49th_US			NO	0.0703	22.3	05/01/2022 00:18 AM	6.25
1FF_2	0	0	0	0	1	Wchan_49th_DS			NO	0.05273	25.43	05/01/2022 00:19 AM	12.4
1FG	2	0	0	0	1				NO	0.07016	12.21	05/01/2022 00:18 AM	11.11

Table 1B: Conduits (continued...)

Name	Geom1 (ft)	Geom2 (ft)	Geom3	Geom4	Barrels	Transect	Shape Curve	Culvert Code	Control Rules	Slope (ft/ft)	Max. |Flow| (cfs)	Time Max. Flow (M/D/Y)	Max. |Velocity| (ft/s)
1FH	2	0	0	0	1				NO	0.0758	12.21	05/01/2022 00:18 AM	13.69
1FI	2	0	0	0	1				NO	0.03016	12.21	05/01/2022 00:18 AM	9.8
1FJ	2	0	0	0	1				NO	0.03027	7.86	05/01/2022 00:18 AM	5.78
1FK	2	0	0	0	1				NO	0.02997	4.27	05/01/2022 00:18 AM	4.49
1G	3.583	5.667	0	0	1				NO	0.04108	44.35	05/01/2022 00:17 AM	6.9
1GA	1.25	0	0	0	1				NO	0.42335	5.11	05/01/2022 00:16 AM	19.41
1GAA	1.25	0	0	0	1				NO	0.07889	0	05/01/2022 00:00 AM	0
1GB	1.25	0	0	0	1				NO	0.03522	2.03	05/01/2022 00:13 AM	6.73
1GC	1.25	0	0	0	1				NO	0.00847	1.37	05/01/2022 00:15 AM	3.57
1GD	1	0	0	0	1				NO	0.024	0.42	05/01/2022 00:12 AM	4.57
1GE	1.5	7	0	0	1				NO	0.11851	0.12	05/01/2022 00:12 AM	5.08
1GF	1	0	0	0	1				NO	0.04523	0.12	05/01/2022 00:12 AM	2.46
1H	3.583	5.667	0	0	1				NO	0.0411	39.27	05/01/2022 00:18 AM	9.16
1I	3.583	5.667	0	0	1				NO	0.04106	39.27	05/01/2022 00:18 AM	11.12
1IA	1.25	0	0	0	1				NO	0.10038	3.49	05/01/2022 00:12 AM	10.59
1IAA	1.25	0	0	0	1				NO	0.01429	1.95	05/01/2022 00:13 AM	4.55
1IAB	1.25	0	0	0	1				NO	0.00683	1.05	05/01/2022 00:13 AM	3.27
1IB	1.25	0	0	0	1				NO	0.01438	1.54	05/01/2022 00:12 AM	4.36
1IC	0.5	0	0	0	1				NO	0.03392	1.22	05/01/2022 00:13 AM	6.84
1ID	0.5	2.5	0.01	0.01	1				NO	0.07068	0.23	05/01/2022 00:24 AM	2.96
1J	3	6	0	0	1				NO	0.02828	36.26	05/01/2022 00:18 AM	9.92
1JA	2	0	0	0	1				NO	0.22534	12.09	05/01/2022 00:13 AM	19.22
1JA'	1.5	0	0	0	1				NO	0.07433	0.2	05/01/2022 00:24 AM	4.48
1JB	2	0	0	0	1				NO	0.04141	10.58	05/01/2022 00:13 AM	9.56
1JC	2	0	0	0	1				NO	0.04978	10.1	05/01/2022 00:13 AM	11.81
1JCA	1.25	0	0	0	1				NO	0.06119	0.2	05/01/2022 00:18 AM	4.43

Table 1B: Conduits (continued...)

Name	Geom1 (ft)	Geom2 (ft)	Geom3	Geom4	Barrels	Transect	Shape Curve	Culvert Code	Control Rules	Slope (ft/ft)	Max. |Flow| (cfs)	Time Max. Flow (M/D/Y)	Max. |Velocity| (ft/s)
1JD	2	0	0	0	1				NO	0.05436	9.03	05/01/2022 00:12 AM	11.08
1JE	2	0	0	0	1				NO	0.05209	8.24	05/01/2022 00:12 AM	11.55
1JEA'	1.5	0	0	0	1				NO	0.03922	2.99	05/01/2022 00:09 AM	7.94
1JEA''	1	0	0	0	1				NO	0.09705	0.68	05/01/2022 00:12 AM	7.63
1JEA'A	1.5	0	0	0	1				NO	0.01489	1.26	05/01/2022 00:06 AM	2.21
1JEA'A'	1	0	0	0	1				NO	0.02356	1.1	05/01/2022 00:07 AM	4.98
1JEA'A''	1	0	0	0	1				NO	0.1625	0.68	05/01/2022 00:12 AM	8.19
1JEA''A	1	0	0	0	1				NO	0.09157	0.29	05/01/2022 00:06 AM	4.39
1JEA'A'A'	1	0	0	0	1				NO	0.05364	0.54	05/01/2022 00:12 AM	5.45
1JF	1.5	0	0	0	1				NO	0.01016	4.62	05/01/2022 00:13 AM	5.25
1JG	1.25	0	0	0	1				NO	0.02928	4.08	05/01/2022 00:12 AM	6.49
1JH	1.25	0	0	0	1				NO	0.01597	3.25	05/01/2022 00:12 AM	4.94
1JI	1.25	0	0	0	1				NO	0.00583	2.52	05/01/2022 00:12 AM	3.69
1JJ	1.25	0	0	0	1				NO	0.07177	2.37	05/01/2022 00:12 AM	7.73
1JK	1.25	0	0	0	1				NO	0.2742	2.37	05/01/2022 00:12 AM	12.44
1JKA	1	0	0	0	1				NO	0.01998	1.67	05/01/2022 00:13 AM	5.4
1JKB	1	0	0	0	1				NO	0.00373	0.23	05/01/2022 00:14 AM	1.86
1JKC	1	0	0	0	1				NO	0.00444	0.16	05/01/2022 00:18 AM	1.69
1JL	1	0	0	0	1				NO	0.02365	0.46	05/01/2022 00:06 AM	2.7
1K	3	0	0	0	1				NO	0.09133	25.32	05/01/2022 00:19 AM	18.52
1KA	2	0	0	0	1				NO	0.28799	5.88	05/01/2022 00:13 AM	15.14
1KA'	1	0	0	0	1				NO	0.08094	3	05/01/2022 00:19 AM	10.9
1KA''	1.25	0	0	0	1				NO	0.17072	4.2	05/01/2022 00:21 AM	9.71
1KA'A	2	2	1	1	1				NO	0.07968	2.18	05/01/2022 00:19 AM	3.01
1KA''A	0.833	0	0	0	1				NO	0.00753	4.2	05/01/2022 00:21 AM	7.74
1KA''AA	1.5	0	0	0	1				NO	0.0549	0.94	05/01/2022 00:34 AM	2.18

Table 1B: Conduits (continued...)

Name	Geom1 (ft)	Geom2 (ft)	Geom3	Geom4	Barrels	Transect	Shape Curve	Culvert Code	Control Rules	Slope (ft/ft)	Max. |Flow| (cfs)	Time Max. Flow (M/D/Y)	Max. |Velocity| (ft/s)
1KA''AB	1.25	0	0	0	1				NO	0.01373	0.96	05/01/2022 00:12 AM	2.62
1KA'B	1	0	0	0	1				NO	0.0271	1.99	05/01/2022 00:18 AM	5.84
1KA''B	1.5	0	0	0	1				NO	0.01981	4.78	05/01/2022 00:11 AM	4.38
1KA''BA_1	1	4	50	50	1				NO	0.00865	1.05	05/01/2022 00:13 AM	1.1
1KA''BA_2	1	0.5	50	0.25	1				NO	0.03832	1.68	05/01/2022 00:13 AM	3.67
1KA''BB_1	0.5	3	1	1	1				NO	0.0054	0	05/01/2022 00:00 AM	0
1KA''BB_2	0.5	3	1	1	1				NO	0.0054	0.32	05/01/2022 00:14 AM	1.32
1KA'C	0.5	1	2	2	1				NO	0.08676	1.48	05/01/2022 00:18 AM	2.8
1KA''C	1.25	0	0	0	1				NO	0.07017	2.98	05/01/2022 00:07 AM	10.64
1KA'CA	0.5	1	2	2	1				NO	0.01565	0.64	05/01/2022 00:18 AM	3.39
1KA'CA'	0.5	1	2	2	1				NO	0.10893	0.06	05/01/2022 00:18 AM	0.6
1KA'CB	0.5	1	2	2	1				NO	0.06297	0.15	05/01/2022 00:18 AM	1.3
1KA'CC	0.5	1	2	2	1				NO	0.06268	0.02	05/01/2022 00:24 AM	0.75
1KA''D	1.25	0	0	0	1				NO	0.00927	2.78	05/01/2022 00:07 AM	5.13
1KA''E	1	0	0	0	1				NO	0.00982	1	05/01/2022 00:07 AM	4.17
1KB	2	0	0	0	1				NO	0.06736	5.39	05/01/2022 00:13 AM	11.16
1KC	2	0	0	0	1				NO	0.07436	4.75	05/01/2022 00:17 AM	11.33
1KD	2	0	0	0	1				NO	0.06348	4.49	05/01/2022 00:18 AM	10.62
1KDA	1	0	0	0	1				NO	0.0903	0.79	05/01/2022 00:09 AM	7.43
1KE	2	0	0	0	1				NO	0.01755	3.81	05/01/2022 00:18 AM	5.95
1KF	3	0	0	0	1				NO	0.0517	3.53	05/01/2022 00:18 AM	7.87
1L	2.5	0	0	0	1				NO	0.09357	12.42	05/01/2022 00:19 AM	15.21
1M	2	0	0	0	1				NO	0.10768	7.4	05/01/2022 00:18 AM	13.08
1N	2	0	0	0	1				NO	0.05506	7.4	05/01/2022 00:18 AM	12.41
1O	2	0	0	0	1				NO	0.02132	3.03	05/01/2022 00:18 AM	3.97
2A	1	0	0	0	1				NO	0.037	2.04	05/01/2022 00:15 AM	6.28

Table 1B: Conduits (continued...)

Name	Geom1 (ft)	Geom2 (ft)	Geom3	Geom4	Barrels	Transect	Shape Curve	Culvert Code	Control Rules	Slope (ft/ft)	Max. |Flow| (cfs)	Time Max. Flow (M/D/Y)	Max. |Velocity| (ft/s)
2B	1	0	0	0	1				NO	0.01724	1.56	05/01/2022 00:14 AM	5.03
2BA	1	0	0	0	1				NO	0.01969	0.64	05/01/2022 00:12 AM	4.06
2C	1	0.5	50	0.25	1				NO	0.05283	0.62	05/01/2022 00:13 AM	3.22
2D	0.667	0	0	0	1				NO	0.16605	0.11	05/01/2022 00:19 AM	6.01
2E	2	2	3	3	1				NO	0.00898	0.01	05/01/2022 00:30 AM	0.16
3A	2	0	0	0	1				NO	0.01077	25.17	05/01/2022 00:15 AM	8.21
3B	2	0	0	0	1				NO	0.01002	15.63	05/01/2022 00:19 AM	5.51
3C	2	0	0	0	1				NO	0.00988	13.73	05/01/2022 00:17 AM	5.54
3D	2	0	0	0	1				NO	0.01001	11.17	05/01/2022 00:12 AM	4.83
3E	2	0	0	0	1				NO	0.01007	8.82	05/01/2022 00:12 AM	5.05
4A	2	0	0	0	1				NO	0.06641	3.18	05/01/2022 00:12 AM	9.38
5	2	0	0	0	1				NO	0.01292	4.63	05/01/2022 00:24 AM	7.48
8	2	0	0	0	1				NO	0.01377	4.81	05/01/2022 00:24 AM	7.37
C1	1	0.5	50	0.25	1				NO	0.05433	7.46	05/01/2022 00:15 AM	4.13
C10	1	0.5	50	0.25	1				NO	0.01758	1.39	05/01/2022 00:18 AM	2.61
C11	1	0.5	50	0.25	1				NO	0.01713	0	05/01/2022 00:00 AM	0
C12	1	4	50	50	1				NO	0.02852	1.52	05/01/2022 00:18 AM	1.85
C12_1	1	0.5	50	0.25	1				NO	0.03044	0.09	05/01/2022 00:12 AM	1.55
C12_2	1	0.5	50	0.25	1				NO	0.05319	1.56	05/01/2022 00:18 AM	2.77
C13	1	0.5	50	0.25	1				NO	0.00085	0	05/01/2022 00:00 AM	0
C14	1	0.5	50	0.25	1				NO	0.00141	0	05/01/2022 00:06 AM	0
C144_1	1.25	0	0	0	1				NO	0.08204	1.71	05/01/2022 00:12 AM	9.76
C144_2	1.25	0	0	0	1				NO	0.16859	1.71	05/01/2022 00:12 AM	8.22
C146	1.25	0	0	0	1				NO	0.02984	1.71	05/01/2022 00:12 AM	7.53
C147	1	2	2	2	1				NO	0.02994	4.42	05/01/2022 00:12 AM	7.47
C15	1	0.5	50	0.25	1				NO	0.00572	0	05/01/2022 00:00 AM	0

Table 1B: Conduits (continued...)

Name	Geom1 (ft)	Geom2 (ft)	Geom3	Geom4	Barrels	Transect	Shape Curve	Culvert Code	Control Rules	Slope (ft/ft)	Max. |Flow| (cfs)	Time Max. Flow (M/D/Y)	Max. |Velocity| (ft/s)
C16	1	0.5	50	0.25	1				NO	0.07213	0.09	05/01/2022 00:09 AM	2.21
C17	1	0.5	50	0.25	1				NO	0.06416	0.03	05/01/2022 00:09 AM	1.63
C18	1	0.5	50	0.25	1				NO	0.06817	0	05/01/2022 00:00 AM	0
C19	1	0.5	50	0.25	1				NO	0.07596	0	05/01/2022 00:00 AM	0
C19.	1	10	0	0	1				NO	0.10269	0	05/01/2022 00:00 AM	0
C2	1	4	50	50	1				NO	0.05312	0	05/01/2022 00:00 AM	0
C2_2	1	4	3	3	1				NO	0.1521	3.76	05/01/2022 00:18 AM	2.04
C2_3	1	4	3	3	1				NO	0.30786	0	05/01/2022 00:00 AM	0
C20	1	0.5	50	0.25	1				NO	0.07686	0	05/01/2022 00:00 AM	0
C21	1	0.5	50	0.25	1				NO	0.10285	0.22	05/01/2022 00:18 AM	3.07
C22	1	0.5	50	0.25	1				NO	0.15662	1.13	05/01/2022 00:06 AM	5.61
C23	1	4	50	50	1				NO	0.05014	0.7	05/01/2022 00:12 AM	2.41
C24	1	0.5	50	0.25	1				NO	0.06853	0.49	05/01/2022 00:12 AM	3.34
C25	1	4	50	50	1				NO	0.05414	0.38	05/01/2022 00:12 AM	1.95
C26	1	0.5	50	0.25	1				NO	0.0046	0	05/01/2022 00:00 AM	0
C27	1	0.5	50	0.25	1				NO	0.06002	0.08	05/01/2022 00:12 AM	1.17
C28	1	0.5	50	0.25	1				NO	0.07207	0.34	05/01/2022 00:10 AM	3.11
C29	1	0.5	50	0.25	1				NO	0.02562	0	05/01/2022 00:00 AM	0
C3	1	0.5	50	0.25	1				NO	0.28057	9.4	05/01/2022 00:15 AM	4.31
C30	1	4	50	50	1				NO	0.0064	0.09	05/01/2022 00:18 AM	0.15
C31	1	0.5	50	0.25	1				NO	0.03224	0	05/01/2022 00:18 AM	0
C32	1	0.5	50	0.25	1				NO	0.05087	0	05/01/2022 00:00 AM	0
C33	1	0.5	50	0.25	1				NO	0.00687	0	05/01/2022 00:00 AM	0
C34	1	4	50	50	1				NO	0.00133	0	05/01/2022 00:00 AM	0
C35	1	0.5	50	0.25	1				NO	0.009	0	05/01/2022 00:00 AM	0
C36	1	4	50	50	1				NO	0.04246	0	05/01/2022 00:00 AM	0

Table 1B: Conduits (continued...)

Name	Geom1 (ft)	Geom2 (ft)	Geom3	Geom4	Barrels	Transect	Shape Curve	Culvert Code	Control Rules	Slope (ft/ft)	Max. |Flow| (cfs)	Time Max. Flow (M/D/Y)	Max. |Velocity| (ft/s)
C37	1	4	50	50	1				NO	0.007	0	05/01/2022 00:00 AM	0
C37_1	1	0.5	50	0.25	1				NO	0.00963	0.03	05/01/2022 00:12 AM	0.88
C37_2	1	0.5	50	0.25	1				NO	0.00962	0.03	05/01/2022 00:12 AM	0.76
C38	1	4	50	50	1				NO	0.00654	0.22	05/01/2022 00:12 AM	0.93
C39	1	0.5	50	0.25	1				NO	0.07158	0.15	05/01/2022 00:12 AM	2.53
C4	1	4	3	3	1				NO	0.30455	0	05/01/2022 00:00 AM	0
C40	1	0.5	50	0.25	1				NO	0.06966	1.39	05/01/2022 00:12 AM	4.37
C41	1	4	3	3	1				NO	0.03708	2.62	05/01/2022 00:12 AM	4.93
C41_1	1	0.5	50	0.25	1				NO	0.07426	0	05/01/2022 00:00 AM	0
C41_2	1	0.5	50	0.25	1				NO	0.02906	0	05/01/2022 00:00 AM	0
C42	1	0.5	50	0.25	1				NO	0.03157	0.57	05/01/2022 00:12 AM	2.6
C43	1	0.5	50	0.25	1				NO	0.01948	0.26	05/01/2022 00:12 AM	0.49
C44	1	0.5	50	0.25	1				NO	0.01698	0	05/01/2022 00:00 AM	0
C45	1	0.5	50	0.25	1				NO	0.05803	0	05/01/2022 00:12 AM	0.04
C46	1	0.5	50	0.25	1				NO	0.02806	0.21	05/01/2022 00:19 AM	1.93
C47	3	10	15	15	1				NO	0.00637	0	05/01/2022 00:00 AM	0
C47_1	1	0.5	50	0.25	1				NO	0.02249	0.01	05/01/2022 00:12 AM	0
C47_2	1	0.5	50	0.25	1				NO	0.01396	0	05/01/2022 00:16 AM	0
C48	1	0.5	50	0.25	1				NO	0.07631	0	05/01/2022 00:00 AM	0
C49	1	0.5	50	0.25	1				NO	0.07509	0	05/01/2022 00:00 AM	0
C5	1	4	50	50	1				NO	0.00738	0.28	05/01/2022 00:18 AM	1
C50	1	4	0	0	1				NO	0.00358	0.08	05/01/2022 00:07 AM	0.25
C51	1	0.5	50	0.25	1				NO	0.00366	0.83	05/01/2022 00:08 AM	1.39
C52	1	0.5	50	0.25	1				NO	0.0467	0.07	05/01/2022 00:08 AM	1.52
C53	1	4	50	50	1				NO	0.04724	0.54	05/01/2022 00:08 AM	1.92
C54	1	0.5	50	0.25	1				NO	0.00893	0.47	05/01/2022 00:07 AM	2.57

Table 1B: Conduits (continued...)

Name	Geom1 (ft)	Geom2 (ft)	Geom3	Geom4	Barrels	Transect	Shape Curve	Culvert Code	Control Rules	Slope (ft/ft)	Max. |Flow| (cfs)	Time Max. Flow (M/D/Y)	Max. |Velocity| (ft/s)
C55	1	2	3	3	1				NO	0.62399	0.54	05/01/2022 00:09 AM	0.94
C56	1	4	3	3	1				NO	0.23435	2.61	05/01/2022 00:12 AM	3.29
C57	1	4	3	3	1				NO	0.02921	2.6	05/01/2022 00:12 AM	2.24
C58	1	10	3	3	1				NO	0.02333	9.25	05/01/2022 00:18 AM	2.88
C59	1	4	3	3	1				NO	0.17473	9.24	05/01/2022 00:18 AM	3.14
C6	1	4	50	50	1				NO	0.01185	0	05/01/2022 00:00 AM	0
C60	1	4	3	3	1				NO	0.05947	0	05/01/2022 00:00 AM	0
C61	1	4	3	3	1				NO	-1E-05	0	05/01/2022 00:00 AM	0
C62	1	0.5	50	0.25	1				NO	0.00904	1.62	05/01/2022 00:12 AM	1.76
C63	1	4	50	50	1				NO	0.00198	3.43	05/01/2022 00:13 AM	1.47
C64	1	4	50	50	1				NO	0.01968	3.55	05/01/2022 00:13 AM	2.88
C65	1	4	3	3	1				NO	0.84061	0	05/01/2022 00:00 AM	0
C65_2	1	4	50	50	1				NO	0.01074	0	05/01/2022 00:00 AM	0
C66	1	0.5	50	0.25	1				NO	0.02744	0	05/01/2022 00:00 AM	0
C67	1	4	50	50	1				NO	0.02542	0	05/01/2022 00:00 AM	0
C68	1	4	3	3	1				NO	0.07591	0	05/01/2022 00:00 AM	0
C69	1	4	3	3	1				NO	0.19712	0	05/01/2022 00:00 AM	0
C7	1	4	50	50	1				NO	0	0.53	05/01/2022 00:22 AM	0.8
C70	1	4	3	3	1				NO	0.0621	0	05/01/2022 00:00 AM	0
C71	1	4	3	3	1				NO	0.35961	0	05/01/2022 00:00 AM	0
C72	1	0.5	50	0.25	1				NO	0.02328	0	05/01/2022 00:00 AM	0
C73	1	0	0	0	1				NO	0.01096	0	05/01/2022 00:00 AM	0
C74	2.5	0	0	0	1				NO	0.01499	5.13	05/01/2022 00:24 AM	6.59
C75	0.25	0	0	0	1				NO	0.05468	0.25	05/01/2022 01:02 AM	5.08
C76	2.5	0	0	0	1				NO	0.16466	5.35	05/01/2022 00:25 AM	9.8
C77	5	10	4	4	1				NO	0.21049	0.66	05/01/2022 01:02 AM	2.26

Table 1B: Conduits (continued...)

Name	Geom1 (ft)	Geom2 (ft)	Geom3	Geom4	Barrels	Transect	Shape Curve	Culvert Code	Control Rules	Slope (ft/ft)	Max. |Flow| (cfs)	Time Max. Flow (M/D/Y)	Max. |Velocity| (ft/s)
C78	5	10	4	4	1				NO	0.13848	5.57	05/01/2022 00:25 AM	6.76
C79	0	0	0	0	1	HalfSectionRd			NO	0.01492	0	05/01/2022 00:00 AM	0
C8	0.667	2	2	2	1				NO	0.1499	0.35	05/01/2022 00:06 AM	3.57
C80	1	10	0	0	1				NO	0.03365	0.41	05/01/2022 01:02 AM	1.73
C9	1	0.5	50	0.25	1				NO	0.06472	0.35	05/01/2022 00:06 AM	3
MM_out	2	0	0	0	1				NO	0.33705	0	05/01/2022 00:00 AM	0
OL-1KA'B	1	2	3	3	1				NO	0.03609	0	05/01/2022 00:00 AM	0
OL-31036	1	4	50	50	1				NO	0.01419	7.55	05/01/2022 00:18 AM	2.51
TC_out	3	0	0	0	1				NO	0.09832	0	05/01/2022 00:00 AM	0
UV_Out	3.5	0	0	0	1				NO	0.33788	1.44	05/01/2022 00:18 AM	11.89
UVA	4	0	0	0	1				NO	0.08665	1.44	05/01/2022 00:17 AM	7.05
UVB	4	0	0	0	1				NO	0	1.44	05/01/2022 00:17 AM	3.51
UVC	2	0	0	0	1				NO	0.24895	1.44	05/01/2022 00:16 AM	12.2
UVE	1.75	0	0	0	1				NO	0.22467	1.44	05/01/2022 00:16 AM	10.65
UVF	1.75	0	0	0	2				NO	0.00779	1.44	05/01/2022 00:16 AM	3.38
UVG	1.75	0	0	0	2				NO	0.01168	1.44	05/01/2022 00:16 AM	3.49
UVH	1.75	0	0	0	2				NO	0.02725	1.45	05/01/2022 00:14 AM	4.19
UVI	1.75	0	0	0	1				NO	0.06201	1.45	05/01/2022 00:14 AM	7.76
UVIA	1	0	0	0	1				NO	0.00501	0.36	05/01/2022 00:18 AM	2.25
UVJ	1.75	0	0	0	1				NO	0.05681	1.1	05/01/2022 00:13 AM	6.18
UVJA	1	0	0	0	1				NO	0.00569	0.07	05/01/2022 00:30 AM	1.46
UVK	1.75	0	0	0	1				NO	0.02149	1.08	05/01/2022 00:13 AM	4.39
UVL	1.75	0	0	0	1				NO	0.06089	1.08	05/01/2022 00:13 AM	6.62
UVM	1.75	0	0	0	1				NO	0.03169	1.07	05/01/2022 00:12 AM	5.19
UVN	1	0	0	0	1				NO	0.02277	1.03	05/01/2022 00:12 AM	4.79
UVO	1	0	0	0	1				NO	0.02475	0.98	05/01/2022 00:12 AM	4.86

Table 1B: Conduits (continued...)

Name	Geom1 (ft)	Geom2 (ft)	Geom3	Geom4	Barrels	Transect	Shape Curve	Culvert Code	Control Rules	Slope (ft/ft)	Max. |Flow| (cfs)	Time Max. Flow (M/D/Y)	Max. |Velocity| (ft/s)
UVOA	1	0	0	0	1				NO	0.00307	0.66	05/01/2022 00:07 AM	2.38
UVOA'	1	0	0	0	1				NO	0.06997	0.22	05/01/2022 00:12 AM	4.85
UVOB	0.667	0	0	0	1				NO	0.04024	0.05	05/01/2022 00:12 AM	1.34
UVP	1	0	0	0	1				NO	0.03034	0.11	05/01/2022 00:18 AM	2.83

Table 1C: Conduits

Name	Max/Full Flow	Max/Full Depth	Max. Volume (ft³)	Full Both Ends (h)	Full Upstream (h)	Full Downstream (h)	Above Full Normal (h)	Capacity Limited (h)	Length Factor (fraction)	Dry (fraction)	Subcritical (fraction)	Supercritical (fraction)	Normal Limited (fraction)
1	0.47	0.48	0	0	0	0	0	0	1	0	0	0	0
1A	0.62	0.63	0	0	0	0	0	0	1	0	0.93	0.07	0
1B	0.51	0.58	0	0	0	0	0	0	1	0	0	0	0
1C_1A	0.37	0.43	0	0	0	0	0	0	1	0	0	0	0
1C_2	0	0.07	0	0	0	0	0	0	1	0	0.37	0.63	0
1C_3	0	0.06	0	0	0	0	0	0	1	0.33	0.65	0.02	0
1C_4	0	0.14	0	0	0	0	0	0	1	0	0.65	0	0.99
1D	0.04	0.13	0	0	0	0	0	0	1	0	0.28	0.02	1
1DA_1	0.11	0.23	0	0	0	0	0	0	1	0	0	0	0
1DA_2	0.19	0.31	0	0	0	0	0	0	1	0	0.94	0.06	0.95
1DA_3	0	0.19	0	0	0	0	0	0	1	0	0	0	0
1DAA	0.01	0.08	0	0	0	0	0	0	1	0	0	0	0
1DB_1	0	0.07	0	0	0	0	0	0	1	0.99	0	0	0
1DB_2	0	0	0	0	0	0	0	0	1	1	0	0	0
1DB_2A	0	0	0	0	0	0	0	0	1	1	0	0	0
1DBA'	0.19	0.37	0	0	0	0	0	0	1	0.98	0	0	0

Table 1C: Conduits (continued...)

Name	Max/Full Flow	Max/Full Depth	Max. Volume (ft³)	Full Both Ends (h)	Full Upstream (h)	Full Downstream (h)	Above Full Normal (h)	Capacity Limited (h)	Length Factor (fraction)	Dry (fraction)	Subcritical (fraction)	Supercritical (fraction)	Normal Limited (fraction)
1DBA''	0.17	0.77	0	0.01	0.01	71.95	0.01	0.01	1	0	0.06	0.01	0.99
1DBB_1	0	0.09	0	0	0	0	0	0	1	0.94	0.04	0	1
1DBB_2	0.02	0.15	0	0	0	0	0	0	1	0.94	0	0	0
1DD_1	0.01	0.4	0	0	0	0	0	0	1	0	0.05	0	1
1DD_2	0.01	0.06	0	0	0	0	0	0	1	0.95	0	0.05	0.01
1DE	0.46	0.33	0	0	0	0	0	0	1	0	0.96	0.04	0
1DeA	0.93	0.9	0	0	0	0	0	0	1	0	1	0	0.99
1DEAA	0.11	0.38	0	0	0	0	0	0	1	0	0	0.01	0
1DEB	0.71	0.7	0	0	0	0	0	0	1	0	0.01	0	0
1DEBA	0.26	0.37	0	0	0	0	0	0	1	0	0	0	0
1DEBD_1	0.28	0.75	0	0.01	0.01	0.73	0.01	0.01	1	0	0.04	0	0.99
1DEBD_2	1.81	0.91	0	0.01	0.91	0.01	0.96	0.01	1	0	0	0	0
1DEC	0.02	0.38	0	0	0	0	0	0	1	0.98	0.01	0	0.99
1DED	0	0.15	0	0	0	0	0	0	1	0.99	0	0	0
1DEE	0	0	0	0	0	0	0	0	1	1	0	0	0
1DEF	0	0	0	0	0	0	0	0	1	1	0	0	0
1DF	0.18	0.3	0	0	0	0	0	0	1	0	0	0	0
1DG	0.58	0.57	0	0	0	0	0	0	1	0	0	0	0
1DH	0.81	0.64	0	0	0	0	0	0	1	0	0	0	0
1DHA	0.09	0.21	0	0	0	0	0	0	1	0	0	0	0
1DI	0.9	0.76	0	0	0	0	0	0	1	0	0.01	0	0
1DJ	0.65	0.73	0	0	0	0	0	0	1	0	0.01	0	0
1DJA	0.11	0.25	0	0	0	0	0	0	1	0	0	0	0
1DK	0.15	0.4	0	0	0	0	0	0	1	0	0	0.01	0.01
1DL	0.24	0.34	0	0	0	0	0	0	1	0	0	0	0
1DLA	0.27	0.36	0	0	0	0	0	0	1	0	0	0	0

Table 1C: Conduits (continued...)

Name	Max/Full Flow	Max/Full Depth	Max. Volume (ft³)	Full Both Ends (h)	Full Upstream (h)	Full Downstream (h)	Above Full Normal (h)	Capacity Limited (h)	Length Factor (fraction)	Dry (fraction)	Subcritical (fraction)	Supercritical (fraction)	Normal Limited (fraction)
1DM	0.14	0.32	0	0	0	0	0	0	1	0	0	0.01	0
1DN	0.21	0.31	0	0	0	0	0	0	1	0	0	0	0
1DO	0.15	0.26	0	0	0	0	0	0	1	0	0	0	0
1DP	0.02	0.16	0	0	0	0	0	0	1	0	0.01	0	0.02
1E	0.2	0.33	0	0	0	0	0	0	1	0.7	0.11	0.06	0.85
1F	0.19	0.53	0	0	0	0	0	0	1	0.8	0.16	0.03	0.07
1FA	0.26	0.63	0	0	0	0	0	0	1	0	0.32	0.01	0.99
1FB	0.25	0.46	0	0	0	0	0	0	1	0	0	0.01	0
1FC	0.25	0.41	0	0	0	0	0	0	1	0	0	0.02	0
1FCA'	0.06	0.17	0	0	0	0	0	0	1	0	0	0	0
1FD	0.24	0.36	0	0	0	0	0	0	1	0	0	0	0
1FDA'	1.27	1	0	0.37	0.45	0.37	0.39	0.37	1	0	0	0	0
1FDA''	0.72	0.82	0	0.01	0.15	0.01	0.01	0.01	1	0	0	0	0
1FDA''A	0.06	0.75	0	0.01	0.01	0.07	0.01	0.01	1	0.98	0.01	0	0.99
1FE	0.18	0.35	0	0	0	0	0	0	1	0	0.84	0.16	0.98
1FF_1	0	0.07	0	0	0	0	0	0	1	0	0.15	0.02	0.99
1FF_2	0	0.13	0	0	0	0	0	0	1	0	0.97	0.03	0.65
1FG	0.2	0.39	0	0	0	0	0	0	1	0.83	0.03	0.03	0.98
1FH	0.2	0.33	0	0	0	0	0	0	1	0	0	0	0
1FI	0.31	0.42	0	0	0	0	0	0	1	0	0.96	0.04	0.96
1FJ	0.2	0.45	0	0	0	0	0	0	1	0	0.96	0.04	0.03
1FK	0.11	0.34	0	0	0	0	0	0	1	0	0.97	0.03	0.98
1G	0.11	0.47	0	0	0	0	0	0	1	0.82	0.05	0.02	0.98
1GA	0.12	0.27	0	0	0	0	0	0	1	0	0	0	0
1GAA	0	0	0	0	0	0	0	0	1	1	0	0	0
1GB	0.17	0.29	0	0	0	0	0	0	1	0	0	0	0

Table 1C: Conduits (continued...)

Name	Max/Full Flow	Max/Full Depth	Max. Volume (ft³)	Full Both Ends (h)	Full Upstream (h)	Full Downstream (h)	Above Full Normal (h)	Capacity Limited (h)	Length Factor (fraction)	Dry (fraction)	Subcritical (fraction)	Supercritical (fraction)	Normal Limited (fraction)
1GC	0.23	0.35	0	0	0	0	0	0	1	0	0	0	0
1GD	0.07	0.18	0	0	0	0	0	0	1	0	0	0	0
1GE	0	0.07	0	0	0	0	0	0	1	0	0	0	0
1GF	0.03	0.11	0	0	0	0	0	0	1	0	0.01	0.02	0.98
1H	0.1	0.33	0	0	0	0	0	0	1	0.93	0.04	0.03	0
1I	0.1	0.29	0	0	0	0	0	0	1	0.93	0.04	0.03	0
1IA	0.17	0.38	0	0	0	0	0	0	1	0	0	0.01	0.01
1IAA	0.25	0.38	0	0	0	0	0	0	1	0	0	0	0
1IAB	0.2	0.31	0	0	0	0	0	0	1	0	0	0	0
1IB	0.2	0.33	0	0	0	0	0	0	1	0	0	0	0
1IC	1	0.86	0	0	0	0	0	0	1	0	0	0	0
1ID	0.01	0.06	0	0	0	0	0	0	1	0.97	0	0	0
1J	0.1	0.2	0	0	0	0	0	0	1	0.91	0	0.01	0
1JA	0.11	0.25	0	0	0	0	0	0	1	0	0	0	0
1JA'	0.01	0.06	0	0	0	0	0	0	1	0	0	0	0
1JB	0.23	0.38	0	0	0	0	0	0	1	0	0	0	0
1JC	0.2	0.32	0	0	0	0	0	0	1	0	0	0	0
1JCA	0.01	0.08	0	0	0	0	0	0	1	0	0	0	0
1JD	0.17	0.31	0	0	0	0	0	0	1	0	0	0	0
1JE	0.16	0.28	0	0	0	0	0	0	1	0	0	0	0
1JEA'	0.14	0.27	0	0	0	0	0	0	1	0	0	0	0
1JEA''	0.06	0.17	0	0	0	0	0	0	1	0	0	0	0
1JEA'A	0.1	0.55	0	0	0	0	0	0	1	0	0.03	0	1
1JEA'A'	0.2	0.32	0	0	0	0	0	0	1	0	0	0	0
1JEA'A''	0.05	0.16	0	0	0	0	0	0	1	0	0	0	0
1JEA''A	0.03	0.14	0	0	0	0	0	0	1	0	0.98	0.02	1

Table 1C: Conduits (continued...)

Name	Max/Full Flow	Max/Full Depth	Max. Volume (ft³)	Full Both Ends (h)	Full Upstream (h)	Full Downstream (h)	Above Full Normal (h)	Capacity Limited (h)	Length Factor (fraction)	Dry (fraction)	Subcritical (fraction)	Supercritical (fraction)	Normal Limited (fraction)
1JEA'A'A'	0.07	0.18	0	0	0	0	0	0	1	0	0	0	0
1JF	0.47	0.5	0	0	0	0	0	0	1	0	0	0	0
1JG	0.37	0.52	0	0	0	0	0	0	1	0	0	0.01	0
1JH	0.4	0.54	0	0	0	0	0	0	1	0	0	0	0
1JI	0.51	0.54	0	0	0	0	0	0	1	0	0	0	0
1JJ	0.14	0.32	0	0	0	0	0	0	1	0	0	0.01	0
1JK	0.07	0.21	0	0	0	0	0	0	1	0	0	0	0
1JKA	0.33	0.42	0	0	0	0	0	0	1	0	0	0	0
1JKB	0.1	0.21	0	0	0	0	0	0	1	0	0	0	0
1JKC	0.07	0.18	0	0	0	0	0	0	1	0	0	0	0
1JL	0.15	0.27	0	0	0	0	0	0	1	0	0	0	0
1K	0.13	0.25	0	0	0	0	0	0	1	0	0	0	0
1KA	0.05	0.22	0	0	0	0	0	0	1	0	0	0.01	0.01
1KA'	0.3	0.38	0	0	0	0	0	0	1	0	0	0	0
1KA''	0.29	0.38	0	0	0	0	0	0	1	0	0	0	0
1KA'A	0.02	0.16	0	0	0	0	0	0	1	0	0.06	0	1
1KA''A	4.08	0.98	0	0.01	0.78	0.01	0.94	0.01	1	0	0	0	0
1KA''AA	0.07	1	0	0.35	0.35	0.52	0.01	0.01	1	0	0.03	0	0.99
1KA''AB	0.23	0.34	0	0	0	0	0	0	1	0	0	0	0
1KA'B	0.63	0.45	0	0	0	0	0	0	1	0	0.97	0.03	0.95
1KA''B	0.6	0.91	0	0.01	0.01	0.35	0.01	0.01	1	0	0.01	0	0
1KA''BA_1	0	0.1	0	0	0	0	0	0	1	0	0.06	0	1
1KA''BA_2	0	0.13	0	0	0	0	0	0	1	0	0	0	0
1KA''BB_1	0	0.07	0	0	0	0	0	0	1	0.94	0	0	0
1KA''BB_2	0.04	0.16	0	0	0	0	0	0	1	0.94	0.06	0	1
1KA'C	0.1	0.65	0	0.01	0.01	0.43	0.01	0.01	1	0	0.05	0	1

Table 1C: Conduits (continued...)

Name	Max/Full Flow	Max/Full Depth	Max. Volume (ft³)	Full Both Ends (h)	Full Upstream (h)	Full Downstream (h)	Above Full Normal (h)	Capacity Limited (h)	Length Factor (fraction)	Dry (fraction)	Subcritical (fraction)	Supercritical (fraction)	Normal Limited (fraction)
1KA''C	0.15	0.28	0	0	0	0	0	0	1	0	0	0	0
1KA'CA	0.1	0.29	0	0	0	0	0	0	1	0.95	0.03	0.02	0.01
1KA'CA'	0	0.17	0	0	0	0	0	0	1	0.95	0.02	0	1
1KA'CB	0.01	0.19	0	0	0	0	0	0	1	0.95	0.03	0	1
1KA'CC	0	0.05	0	0	0	0	0	0	1	0.97	0.02	0	1
1KA''D	0.38	0.45	0	0	0	0	0	0	1	0	0	0	0
1KA''E	0.24	0.34	0	0	0	0	0	0	1	0	0	0	0
1KB	0.09	0.21	0	0	0	0	0	0	1	0	0	0	0
1KC	0.08	0.19	0	0	0	0	0	0	1	0	0	0	0
1KD	0.08	0.19	0	0	0	0	0	0	1	0	0	0	0
1KDA	0.07	0.19	0	0	0	0	0	0	1	0	0	0	0
1KE	0.13	0.26	0	0	0	0	0	0	1	0	0	0	0
1KF	0.02	0.11	0	0	0	0	0	0	1	0	0	0	0
1L	0.1	0.22	0	0	0	0	0	0	1	0	0	0.01	0
1M	0.1	0.24	0	0	0	0	0	0	1	0	0	0	0
1N	0.12	0.24	0	0	0	0	0	0	1	0	0	0	0
1O	0.17	0.29	0	0	0	0	0	0	1	0	0	0	0
2A	0.3	0.43	0	0	0	0	0	0	1	0	0.96	0.04	0
2B	0.33	0.42	0	0	0	0	0	0	1	0	0	0	0
2BA	0.13	0.27	0	0	0	0	0	0	1	0	0	0.01	0
2C	0	0.08	0	0	0	0	0	0	1	0.96	0	0	0
2D	0.02	0.11	0	0	0	0	0	0	1	0	0.97	0.03	0.99
2E	0	0.02	0	0	0	0	0	0	1	0	0.03	0	1
3A	1.07	0.94	0	0.01	0.23	0.01	0.15	0.01	1	0	0.98	0.02	0
3B	0.69	1	0	0.1	0.1	0.23	0.01	0.01	1	0	0.01	0.01	0.98
3C	0.61	1	0	0.1	0.11	0.1	0.01	0.1	1	0	0.99	0.01	0.98

Table 1C: Conduits (continued...)

Name	Max/Full Flow	Max/Full Depth	Max. Volume (ft³)	Full Both Ends (h)	Full Upstream (h)	Full Downstream (h)	Above Full Normal (h)	Capacity Limited (h)	Length Factor (fraction)	Dry (fraction)	Subcritical (fraction)	Supercritical (fraction)	Normal Limited (fraction)
3D	0.49	0.83	0	0.01	0.01	0.11	0.01	0.01	1	0	1	0	0.98
3E	0.39	0.61	0	0	0	0	0	0	1	0	0.99	0.01	0.98
4A	0.05	0.16	0	0	0	0	0	0	1	0	0.98	0.02	0
5	0.14	0.25	0	0	0	0	0	0	1	0	0	0	0
8	0.14	0.26	0	0	0	0	0	0	1	0	0.98	0.02	1
C1	0.02	0.31	0	0	0	0	0	0	1	0	0.94	0.06	0.02
C10	0.01	0.14	0	0	0	0	0	0	1	0.99	0	0	0
C11	0	0	0	0	0	0	0	0	1	1	0	0	0
C12	0	0.09	0	0	0	0	0	0	1	0.98	0	0.01	1
C12_1	0	0.07	0	0	0	0	0	0	1	0.98	0	0	1
C12_2	0	0.2	0	0	0	0	0	0	1	0.98	0	0	0.01
C13	0	0.01	0	0	0	0	0	0	1	1	0	0	0
C14	0	0.01	0	0	0	0	0	0	1	1	0	0	0
C144_1	0.09	0.2	0	0	0	0	0	0	1	0	0.98	0.02	0.98
C144_2	0.06	0.24	0	0	0	0	0	0	1	0	0	0.02	1
C146	0.15	0.26	0	0	0	0	0	0	1	0	0.98	0.02	0.98
C147	0.08	0.24	0	0	0	0	0	0	1	0	0.03	0.02	0.99
C15	0	0.06	0	0	0	0	0	0	1	0	0	0	0
C16	0	0.03	0	0	0	0	0	0	1	1	0	0	0
C17	0	0.02	0	0	0	0	0	0	1	1	0	0	0
C18	0	0	0	0	0	0	0	0	1	1	0	0	0
C19	0	0	0	0	0	0	0	0	1	1	0	0	0
C19.	0	0.09	0	0	0	0	0	0	1	0.99	0	0	0
C2	0	0	0	0	0	0	0	0	1	1	0	0	0
C2_2	0.04	0.36	0	0	0	0	0	0	1	0	0.03	0	1
C2_3	0	0.45	0	0	0	0	0	0	1	0	0	0	0

Table 1C: Conduits (continued...)

Name	Max/Full Flow	Max/Full Depth	Max. Volume (ft³)	Full Both Ends (h)	Full Upstream (h)	Full Downstream (h)	Above Full Normal (h)	Capacity Limited (h)	Length Factor (fraction)	Dry (fraction)	Subcritical (fraction)	Supercritical (fraction)	Normal Limited (fraction)
C20	0	0.02	0	0	0	0	0	0	1	0.97	0	0	0
C21	0	0.06	0	0	0	0	0	0	1	0.97	0	0	0
C22	0	0.08	0	0	0	0	0	0	1	0.98	0	0	0
C23	0	0.06	0	0	0	0	0	0	1	0.99	0	0.01	0.01
C24	0	0.07	0	0	0	0	0	0	1	0.99	0	0	0
C25	0	0.04	0	0	0	0	0	0	1	0.99	0	0	0
C26	0	0.02	0	0	0	0	0	0	1	0.97	0	0	0
C27	0	0.04	0	0	0	0	0	0	1	0.97	0.01	0.01	1
C28	0	0.06	0	0	0	0	0	0	1	0.97	0	0	0
C29	0	0	0	0	0	0	0	0	1	1	0	0	0
C3	0.03	0.45	0	0	0	0	0	0	1	0	0.93	0.06	0.02
C30	0	0.08	0	0	0	0	0	0	1	0.99	0	0	0
C31	0	0	0	0	0	0	0	0	1	1	0	0	0
C32	0	0.07	0	0	0	0	0	0	1	0.99	0	0	0
C33	0	0	0	0	0	0	0	0	1	1	0	0	0
C34	0	0	0	0	0	0	0	0	1	1	0	0	0
C35	0	0.09	0	0	0	0	0	0	1	0.99	0	0	0
C36	0	0	0	0	0	0	0	0	1	1	0	0	0
C37	0	0	0	0	0	0	0	0	1	1	0	0	0
C37_1	0	0.03	0	0	0	0	0	0	1	0.99	0	0	1
C37_2	0	0.04	0	0	0	0	0	0	1	0.99	0.01	0	0.01
C38	0	0.04	0	0	0	0	0	0	1	0.99	0	0	0
C39	0	0.04	0	0	0	0	0	0	1	1	0	0	0
C4	0	0	0	0	0	0	0	0	1	1	0	0	0
C40	0	0.1	0	0	0	0	0	0	1	0.99	0	0	0
C41	0.02	0.12	0	0	0	0	0	0	1	0.97	0	0.01	1

Table 1C: Conduits (continued...)

Name	Max/Full Flow	Max/Full Depth	Max. Volume (ft³)	Full Both Ends (h)	Full Upstream (h)	Full Downstream (h)	Above Full Normal (h)	Capacity Limited (h)	Length Factor (fraction)	Dry (fraction)	Subcritical (fraction)	Supercritical (fraction)	Normal Limited (fraction)
C41_1	0	0	0	0	0	0	0	0	1	1	0	0	0
C41_2	0	0	0	0	0	0	0	0	1	1	0	0	0
C42	0	0.08	0	0	0	0	0	0	1	0.99	0	0	0
C43	0	0.17	0	0	0	0	0	0	1	0.99	0.01	0	1
C44	0	0	0	0	0	0	0	0	1	1	0	0	0
C45	0	0.04	0	0	0	0	0	0	1	0.96	0	0	1
C46	0	0.06	0	0	0	0	0	0	1	0.99	0	0	0
C47	0	0	0	0	0	0	0	0	1	0.85	0	0	0
C47_1	0	0.01	0	0	0	0	0	0	1	0.84	0	0	1
C47_2	0	0.01	0	0	0	0	0	0	1	0.85	0	0	0
C48	0	0.05	0	0	0	0	0	0	1	0.99	0	0	0
C49	0	0.02	0	0	0	0	0	0	1	1	0	0	0
C5	0	0.05	0	0	0	0	0	0	1	0.99	0	0	1
C50	0	0.09	0	0	0	0	0	0	1	0.98	0.02	0	1
C51	0.01	0.14	0	0	0	0	0	0	1	0.98	0	0	0
C52	0	0.04	0	0	0	0	0	0	1	0.99	0	0	1
C53	0	0.05	0	0	0	0	0	0	1	0.98	0	0.01	1
C54	0	0.08	0	0	0	0	0	0	1	0.99	0	0.01	0.99
C55	0	0.25	0	0	0	0	0	0	1	0	0.02	0	1
C56	0.02	0.18	0	0	0	0	0	0	1	0.95	0.01	0.01	1
C57	0.07	0.25	0	0	0	0	0	0	1	0.95	0.05	0	1
C58	0.13	0.3	0	0	0	0	0	0	1	0.96	0.02	0	0.98
C59	0.1	0.53	0	0	0	0	0	0	1	0.83	0.03	0	1
C6	0	0.03	0	0	0	0	0	0	1	0.99	0	0	0
C60	0	0	0	0	0	0	0	0	1	1	0	0	0
C61	0	0	0	0	0	0	0	0	1	1	0	0	0

Table 1C: Conduits (continued...)

Name	Max/Full Flow	Max/Full Depth	Max. Volume (ft³)	Full Both Ends (h)	Full Upstream (h)	Full Downstream (h)	Above Full Normal (h)	Capacity Limited (h)	Length Factor (fraction)	Dry (fraction)	Subcritical (fraction)	Supercritical (fraction)	Normal Limited (fraction)
C62	0.01	0.18	0	0	0	0	0	0	1	0.98	0.01	0	0.01
C63	0.02	0.18	0	0	0	0	0	0	1	0.99	0	0	0
C64	0.01	0.12	0	0	0	0	0	0	1	0.99	0	0	0
C65	0	0	0	0	0	0	0	0	1	1	0	0	0
C65_2	0	0	0	0	0	0	0	0	1	1	0	0	0
C66	0	0.08	0	0	0	0	0	0	1	0.98	0	0	0
C67	0	0.14	0	0	0	0	0	0	1	0.96	0	0	0
C68	0	0	0	0	0	0	0	0	1	1	0	0	0
C69	0	0	0	0	0	0	0	0	1	1	0	0	0
C7	0.01	0.08	0	0	0	0	0	0	1	0.99	0	0	0
C70	0	0	0	0	0	0	0	0	1	1	0	0	0
C71	0	0.47	0	0	0	0	0	0	1	0.33	0	0	0
C72	0	0.12	0	0	0	0	0	0	1	0.97	0	0	0
C73	0	0	0	0	0	0	0	0	1	1	0	0	0
C74	0.1	0.22	0	0	0	0	0	0	1	0	0	0	0
C75	1.21	1	0	3.41	3.45	3.44	3.44	3.41	1	0	0	0	0
C76	0.06	0.17	0	0	0	0	0	0	1	0	0	0	0
C77	0	0.01	0	0	0	0	0	0	1	0.91	0.02	0.05	0.06
C78	0	0.02	0	0	0	0	0	0	1	0.9	0	0.09	0
C79	0	0	0	0	0	0	0	0	1	1	0	0	0
C8	0.01	0.07	0	0	0	0	0	0	1	0.98	0	0.02	1
C80	0	0.02	0	0	0	0	0	0	1	1	0	0	0
C9	0	0.06	0	0	0	0	0	0	1	0.98	0	0	0
MM_out	0	0.05	0	0	0	0	0	0	1	0	0	0	0
OL-1KA'B	0	0.12	0	0	0	0	0	0	1	0.93	0	0	0
OL-31036	0.02	0.22	0	0	0	0	0	0	1	0.98	0	0.01	0.01

Table 1C: Conduits (continued...)

Name	Max/Full Flow	Max/Full Depth	Max. Volume (ft³)	Full Both Ends (h)	Full Upstream (h)	Full Downstream (h)	Above Full Normal (h)	Capacity Limited (h)	Length Factor (fraction)	Dry (fraction)	Subcritical (fraction)	Supercritical (fraction)	Normal Limited (fraction)
TC_out	0	0.07	0	0	0	0	0	0	1	0	0	0	0
UV_Out	0	0.04	0	0	0	0	0	0	1	0	0	0	0
UVA	0	0.05	0	0	0	0	0	0	1	0	0	0	0
UVB	0.18	0.07	0	0	0	0	0	0	1	0	0.98	0.02	0
UVC	0.01	0.08	0	0	0	0	0	0	1	0	0	0	0
UVE	0.02	0.11	0	0	0	0	0	0	1	0	0.97	0.03	0.97
UVF	0.05	0.14	0	0	0	0	0	0	1	0	0.98	0.02	0.97
UVG	0.04	0.14	0	0	0	0	0	0	1	0	0	0	0
UVH	0.03	0.13	0	0	0	0	0	0	1	0	0.98	0.02	0.99
UVI	0.04	0.13	0	0	0	0	0	0	1	0	0.97	0.03	0
UVIA	0.14	0.26	0	0	0	0	0	0	1	0	0	0	0
UVJ	0.03	0.13	0	0	0	0	0	0	1	0	0	0	0
UVJA	0.03	0.11	0	0	0	0	0	0	1	0	0	0	0
UVK	0.05	0.16	0	0	0	0	0	0	1	0	0	0	0
UVL	0.03	0.12	0	0	0	0	0	0	1	0	0	0	0
UVM	0.04	0.14	0	0	0	0	0	0	1	0	0	0	0
UVN	0.21	0.32	0	0	0	0	0	0	1	0	0	0	0
UVO	0.19	0.3	0	0	0	0	0	0	1	0	0	0	0
UVOA	0.33	0.38	0	0	0	0	0	0	1	0	0	0	0
UVOA'	0.02	0.11	0	0	0	0	0	0	1	0	0	0	0
UVOB	0.02	0.3	0	0	0	0	0	0	1	0	0.01	0	0.01
UVP	0.02	0.1	0	0	0	0	0	0	1	0	0	0	0

Table 1D: Conduits

Name	Inlet Control (fraction)	Max. Spread (ft)	Contributing Area (ac)	Contributing Imp. Area (ac)	Max. Unit Flow (cfs/ac)	GIS_LENGTH (m)	GIS_AREA (m²)	GIS_PARTS
1	0	0	0	0	0	32.878	0	1
1A	0	0	0	0	0	54.795	0	1
1B	0	0	0	0	0	41.255	0	1
1C_1A	0	0	0	0	0	68.116	0	1
1C_2	0	23.045	0	0	0	16.315	0	1
1C_3	0	22.792	0	0	0	30.744	0	1
1C_4	0	28.495	0	0	0	27.421	0	1
1D	0	0	0	0	0	6.74	0	1
1DA_1	0	0	0	0	0	34.677	0	1
1DA_2	0	0	0	0	0	12.782	0	1
1DA_3	0	0	0	0	0	13.21	0	1
1DAA	0	0	0	0	0	1.677	0	1
1DB_1	0	0	0	0	0	39.659	0	1
1DB_2	0	0	0	0	0	5.189	0	1
1DB_2A	0	0	0	0	0	6.547	0	1
1DBA'	0	0	0	0	0	3.643	0	1
1DBA''	0	0	0	0	0	3.834	0	1
1DBB_1	0	2	0	0	0	54.238	0	1
1DBB_2	0	2	0	0	0	11.893	0	1
1DD_1	0	0	0	0	0	22.152	0	1
1DD_2	0	0	0	0	0	12.409	0	1
1DE	0	0	0	0	0	10.531	0	1
1DeA	0	0	0	0	0	52.178	0	1
1DEAA	0	0	0	0	0	8.966	0	1
1DEB	0	0	0	0	0	44.307	0	1
1DEBA	0	0	0	0	0	15.492	0	1

Table 1D: Conduits (continued...)

Name	Inlet Control (fraction)	Max. Spread (ft)	Contributing Area (ac)	Contributing Imp. Area (ac)	Max. Unit Flow (cfs/ac)	GIS_LENGTH (m)	GIS_AREA (m²)	GIS_PARTS
1DEBD_1	0	0	0	0	0	39.242	0	1
1DEBD_2	0	0	0	0	0	9.699	0	1
1DEC	0	0	0	0	0	16.354	0	1
1DED	0	0	0	0	0	6.263	0	1
1DEE	0	0	0	0	0	16.722	0	1
1DEF	0	0	0	0	0	13.167	0	1
1DF	0	0	0	0	0	39.043	0	1
1DG	0	0	0	0	0	60.493	0	1
1DH	0	0	0	0	0	26.095	0	1
1DHA	0	0	0	0	0	8.984	0	1
1DI	0	0	0	0	0	60.939	0	1
1DJ	0	0	0	0	0	42.84	0	1
1DJA	0	0	0	0	0	6.819	0	1
1DK	0	0	0	0	0	58.859	0	1
1DL	0	0	0	0	0	42.574	0	1
1DLA	0	0	0	0	0	26.966	0	1
1DM	0	0	0	0	0	16.286	0	1
1DN	0	0	0	0	0	66.982	0	1
1DO	0	0	0	0	0	39.969	0	1
1DP	0	0	0	0	0	24.946	0	1
1E	0	0	0	0	0	4.939	0	1
1F	0	0	0	0	0	5.421	0	1
1FA	0	0	0	0	0	29.216	0	1
1FB	0	0	0	0	0	15.647	0	1
1FC	0	0	0	0	0	94.948	0	1
1FCA'	0	0	0	0	0	11.257	0	1

Table 1D: Conduits (continued...)

Name	Inlet Control (fraction)	Max. Spread (ft)	Contributing Area (ac)	Contributing Imp. Area (ac)	Max. Unit Flow (cfs/ac)	GIS_LENGTH (m)	GIS_AREA (m²)	GIS_PARTS
1FD	0	0	0	0	0	36.292	0	1
1FDA'	0	0	0	0	0	29.923	0	1
1FDA''	0	0	0	0	0	3.144	0	1
1FDA''A	0	0	0	0	0	5.828	0	1
1FE	0	0	0	0	0	57.944	0	1
1FF_1	0	7.594	0	0	0	69.766	0	1
1FF_2	0	18.783	0	0	0	56.039	0	1
1FG	0	0	0	0	0	11.454	0	1
1FH	0	0	0	0	0	22.503	0	1
1FI	0	0	0	0	0	16.178	0	1
1FJ	0	0	0	0	0	11.083	0	1
1FK	0	0	0	0	0	12.82	0	1
1G	0	0	0	0	0	14.925	0	1
1GA	0	0	0	0	0	6.56	0	1
1GAA	0	0	0	0	0	7.247	0	1
1GB	0	0	0	0	0	15.242	0	1
1GC	0	0	0	0	0	11.156	0	1
1GD	0	0	0	0	0	35.184	0	1
1GE	0	0	0	0	0	4.893	0	1
1GF	0	0	0	0	0	2.967	0	1
1H	0	0	0	0	0	19.299	0	1
1I	0	0	0	0	0	30.755	0	1
1IA	0	0	0	0	0	19.684	0	1
1IAA	0	0	0	0	0	7.252	0	1
1IAB	0	0	0	0	0	43.708	0	1
1IB	0	0	0	0	0	8.693	0	1

Table 1D: Conduits (continued...)

Name	Inlet Control (fraction)	Max. Spread (ft)	Contributing Area (ac)	Contributing Imp. Area (ac)	Max. Unit Flow (cfs/ac)	GIS_LENGTH (m)	GIS_AREA (m²)	GIS_PARTS
1IC	0	0	0	0	0	59.884	0	1
1ID	0	0	0	0	0	38.131	0	1
1J	0	0	0	0	0	103.291	0	1
1JA	0	0	0	0	0	11.563	0	1
1JA'	0	0	0	0	0	7.978	0	1
1JB	0	0	0	0	0	9.281	0	1
1JC	0	0	0	0	0	49.107	0	1
1JCA	0	0	0	0	0	24.804	0	1
1JD	0	0	0	0	0	18.924	0	1
1JE	0	0	0	0	0	64.805	0	1
1JEA'	0	0	0	0	0	31.888	0	1
1JEA''	0	0	0	0	0	26.851	0	1
1JEA'A	0	0	0	0	0	26.821	0	1
1JEA'A'	0	0	0	0	0	11.388	0	1
1JEA'A''	0	0	0	0	0	3.249	0	1
1JEA''A	0	0	0	0	0	30.217	0	1
1JEA'A'A'	0	0	0	0	0	6.486	0	1
1JF	0	0	0	0	0	62.714	0	1
1JG	0	0	0	0	0	7.498	0	1
1JH	0	0	0	0	0	4.961	0	1
1JI	0	0	0	0	0	19.342	0	1
1JJ	0	0	0	0	0	21.969	0	1
1JK	0	0	0	0	0	2.812	0	1
1JKA	0	0	0	0	0	22.272	0	1
1JKB	0	0	0	0	0	37.589	0	1
1JKC	0	0	0	0	0	6.86	0	1

Table 1D: Conduits (continued...)

Name	Inlet Control (fraction)	Max. Spread (ft)	Contributing Area (ac)	Contributing Imp. Area (ac)	Max. Unit Flow (cfs/ac)	GIS_LENGTH (m)	GIS_AREA (m²)	GIS_PARTS
1JL	0	0	0	0	0	18.692	0	1
1K	0	0	0	0	0	78.687	0	1
1KA	0	0	0	0	0	18.261	0	1
1KA'	0	0	0	0	0	53.155	0	1
1KA''	0	0	0	0	0	12.733	0	1
1KA'A	0	0	0	0	0	35.996	0	1
1KA''A	0	0	0	0	0	2.02	0	1
1KA''AA	0	0	0	0	0	2.78	0	1
1KA''AB	0	0	0	0	0	2.442	0	1
1KA'B	0	0	0	0	0	37.135	0	1
1KA''B	0	0	0	0	0	31.56	0	1
1KA''BA_1	0	0	0	0	0	12.02	0	1
1KA''BA_2	0	0	0	0	0	23.553	0	1
1KA''BB_1	0	0	0	0	0	37.921	0	1
1KA''BB_2	0	0	0	0	0	38.852	0	1
1KA'C	0	0	0	0	0	22.215	0	1
1KA''C	0	0	0	0	0	16.721	0	1
1KA'CA	0	0	0	0	0	69.93	0	1
1KA'CA'	0	0	0	0	0	20.35	0	1
1KA'CB	0	0	0	0	0	33.705	0	1
1KA'CC	0	0	0	0	0	16.999	0	1
1KA''D	0	0	0	0	0	31.224	0	1
1KA''E	0	0	0	0	0	39.111	0	1
1KB	0	0	0	0	0	44.765	0	1
1KC	0	0	0	0	0	68.6	0	1
1KD	0	0	0	0	0	97.903	0	1

Table 1D: Conduits (continued...)

Name	Inlet Control (fraction)	Max. Spread (ft)	Contributing Area (ac)	Contributing Imp. Area (ac)	Max. Unit Flow (cfs/ac)	GIS_LENGTH (m)	GIS_AREA (m²)	GIS_PARTS
1KDA	0	0	0	0	0	8.744	0	1
1KE	0	0	0	0	0	19.452	0	1
1KF	0	0	0	0	0	9.799	0	1
1L	0	0	0	0	0	78.879	0	1
1M	0	0	0	0	0	11.872	0	1
1N	0	0	0	0	0	38.2	0	1
1O	0	0	0	0	0	9.149	0	1
2A	0	0	0	0	0	4.864	0	1
2B	0	0	0	0	0	22.986	0	1
2BA	0	0	0	0	0	11.769	0	1
2C	0	0	0	0	0	84.865	0	1
2D	0	0	0	0	0	21.808	0	1
2E	0	0	0	0	0	24.45	0	1
3A	0	0	0	0	0	66.804	0	1
3B	0	0	0	0	0	61.738	0	1
3C	0	0	0	0	0	11.412	0	1
3D	0	0	0	0	0	47.816	0	1
3E	0	0	0	0	0	20.584	0	1
4A	0	0	0	0	0	24.196	0	1
5	0	0	0	0	0	30.438	0	1
8	0	0	0	0	0	27.237	0	1
C1	0	0	0	0	0	192.896	0	1
C10	0	0	0	0	0	19.599	0	1
C11	0	0	0	0	0	24.044	0	1
C12	0	0	0	0	0	14.265	0	1
C12_1	0	0	0	0	0	9.256	0	1

Table 1D: Conduits (continued...)

Name	Inlet Control (fraction)	Max. Spread (ft)	Contributing Area (ac)	Contributing Imp. Area (ac)	Max. Unit Flow (cfs/ac)	GIS_LENGTH (m)	GIS_AREA (m²)	GIS_PARTS
C12_2	0	0	0	0	0	9.525	0	1
C13	0	0	0	0	0	39.569	0	1
C14	0	0	0	0	0	32.322	0	1
C144_1	0	0	0	0	0	16.328	0	1
C144_2	0	0	0	0	0	42.628	0	1
C146	0	0	0	0	0	12.272	0	1
C147	0	0	0	0	0	34.083	0	1
C15	0	0	0	0	0	42.691	0	1
C16	0	0	0	0	0	167.087	0	1
C17	0	0	0	0	0	26.486	0	1
C18	0	0	0	0	0	38.094	0	1
C19	0	0	0	0	0	108.175	0	1
C19.	0	0	0	0	0	18.493	0	1
C2	0	0	0	0	0	23.382	0	1
C2_2	0	0	0	0	0	38.514	0	1
C2_3	0	0	0	0	0	23.849	0	1
C20	0	0	0	0	0	39.731	0	1
C21	0	0	0	0	0	54.049	0	1
C22	0	0	0	0	0	32.051	0	1
C23	0	0	0	0	0	7.425	0	1
C24	0	0	0	0	0	100.707	0	1
C25	0	0	0	0	0	19.449	0	1
C26	0	0	0	0	0	14.319	0	1
C27	0	0	0	0	0	40.021	0	1
C28	0	0	0	0	0	69.994	0	1
C29	0	0	0	0	0	40.226	0	1

Table 1D: Conduits (continued...)

Name	Inlet Control (fraction)	Max. Spread (ft)	Contributing Area (ac)	Contributing Imp. Area (ac)	Max. Unit Flow (cfs/ac)	GIS_LENGTH (m)	GIS_AREA (m²)	GIS_PARTS
C3	0	0	0	0	0	10.192	0	1
C30	0	0	0	0	0	5.235	0	1
C31	0	0	0	0	0	187.866	0	1
C32	0	0	0	0	0	97.619	0	1
C33	0	0	0	0	0	43.063	0	1
C34	0	0	0	0	0	4.597	0	1
C35	0	0	0	0	0	37.926	0	1
C36	0	0	0	0	0	16.741	0	1
C37	0	0	0	0	0	13.061	0	1
C37_1	0	0	0	0	0	9.425	0	1
C37_2	0	0	0	0	0	11.122	0	1
C38	0	0	0	0	0	5.588	0	1
C39	0	0	0	0	0	50.335	0	1
C4	0	0	0	0	0	58.846	0	1
C40	0	0	0	0	0	60.273	0	1
C41	0	0	0	0	0	13.162	0	1
C41_1	0	0	0	0	0	55.684	0	1
C41_2	0	0	0	0	0	59.811	0	1
C42	0	0	0	0	0	43.847	0	1
C43	0	0	0	0	0	81.714	0	1
C44	0	0	0	0	0	59.244	0	1
C45	0	0	0	0	0	40.828	0	1
C46	0	0	0	0	0	23.366	0	1
C47	0	0	0	0	0	76.569	0	1
C47_1	0	0	0	0	0	35.66	0	1
C47_2	0	0	0	0	0	106.746	0	1

Table 1D: Conduits (continued...)

Name	Inlet Control (fraction)	Max. Spread (ft)	Contributing Area (ac)	Contributing Imp. Area (ac)	Max. Unit Flow (cfs/ac)	GIS_LENGTH (m)	GIS_AREA (m²)	GIS_PARTS
C48	0	0	0	0	0	72.18	0	1
C49	0	0	0	0	0	37.041	0	1
C5	0	0	0	0	0	25.136	0	1
C50	0	0	0	0	0	38.862	0	1
C51	0	0	0	0	0	9.423	0	1
C52	0	0	0	0	0	7.737	0	1
C53	0	0	0	0	0	21.995	0	1
C54	0	0	0	0	0	40.403	0	1
C55	0	0	0	0	0	22.79	0	1
C56	0	0	0	0	0	37.871	0	1
C57	0	0	0	0	0	16.817	0	1
C58	0	0	0	0	0	17.638	0	1
C59	0	0	0	0	0	32.371	0	1
C6	0	0	0	0	0	5.916	0	1
C60	0	0	0	0	0	6.016	0	1
C61	0	0	0	0	0	39.378	0	1
C62	0	0	0	0	0	40.288	0	1
C63	0	0	0	0	0	10.941	0	1
C64	0	0	0	0	0	64.322	0	1
C65	0	0	0	0	0	11.448	0	1
C65_2	0	0	0	0	0	30.413	0	1
C66	0	0	0	0	0	73.826	0	1
C67	0	0	0	0	0	60.342	0	1
C68	0	0	0	0	0	8.178	0	1
C69	0	0	0	0	0	16.802	0	1
C7	0	0	0	0	0	3.119	0	1

Table 1D: Conduits (continued...)

Name	Inlet Control (fraction)	Max. Spread (ft)	Contributing Area (ac)	Contributing Imp. Area (ac)	Max. Unit Flow (cfs/ac)	GIS_LENGTH (m)	GIS_AREA (m²)	GIS_PARTS
C70	0	0	0	0	0	49.271	0	1
C71	0	0	0	0	0	10.225	0	1
C72	0	0	0	0	0	124.293	0	1
C73	0	0	0	0	0	38.161	0	1
C74	0	0	0	0	0	16.265	0	1
C75	0	0	0	0	0	24.509	0	1
C76	0	0	0	0	0	30.404	0	1
C77	0	0	0	0	0	22.197	0	1
C78	0	0	0	0	0	4.444	0	1
C79	0	0	0	0	0	37.281	0	1
C8	0	0	0	0	0	6.782	0	1
C80	0	0	0	0	0	29.214	0	1
C9	0	0	0	0	0	19.365	0	1
MM_out	0	0	0	0	0	8.713	0	1
OL-1KA'B	0	0	0	0	0	36.256	0	1
OL-31036	0	0	0	0	0	7.517	0	1
TC_out	0	0	0	0	0	18.69	0	1
UV_Out	0	0	0	0	0	42.993	0	1
UVA	0	0	0	0	0	6.32	0	1
UVB	0	0	0	0	0	9.257	0	1
UVC	0	0	0	0	0	46.069	0	1
UVE	0	0	0	0	0	4.283	0	1
UVF	0	0	0	0	0	3.91	0	1
UVG	0	0	0	0	0	86.137	0	1
UVH	0	0	0	0	0	20.812	0	1
UVI	0	0	0	0	0	22.457	0	1

Table 1D: Conduits (continued...)

Name	Inlet Control (fraction)	Max. Spread (ft)	Contributing Area (ac)	Contributing Imp. Area (ac)	Max. Unit Flow (cfs/ac)	GIS_LENGTH (m)	GIS_AREA (m²)	GIS_PARTS
UVIA	0	0	0	0	0	24.334	0	1
UVJ	0	0	0	0	0	10.103	0	1
UVJA	0	0	0	0	0	13.39	0	1
UVK	0	0	0	0	0	13.333	0	1
UVL	0	0	0	0	0	39.67	0	1
UVM	0	0	0	0	0	28.386	0	1
UVN	0	0	0	0	0	23.298	0	1
UVO	0	0	0	0	0	22.176	0	1
UVOA	0	0	0	0	0	16.897	0	1
UVOA'	0	0	0	0	0	13.144	0	1
UVOB	0	0	0	0	0	6.065	0	1
UVP	0	0	0	0	0	4.121	0	1

Table 2A: Junctions

Name	X-Coordinate	Y-Coordinate	Tag	Inflows	Treatment	Invert Elev. (ft)	Rim Elev. (ft)	Depth (ft)	Initial Depth (ft)	Surcharge Depth (ft)	Ponded Area (ft²)	Baseline (cfs)	Baseline Pattern	Time Series
10028	2263226.292	275992.289	Inlet	NO	NO	947.47	951.77	4.3	0	0	0	0		
1024	2263120	275586	Junct	NO	NO	886.87	905.62	18.75	0	0	0	0		
1038	2263101	275568	Inlet	NO	NO	895.91	899.16	3.25	0	0	0	0		
10393	2263060.74	276043.192	Junct	NO	NO	939.1	947.67	8.57	0	0	0	0		
11213	2263074.932	275920.349	Inlet	NO	NO	936.1	942.05	5.95	0	0	0	0		
11254	2263052.709	275901.078	Junct	NO	NO	932.61	941.89	9.28	0	0	0	0		
11560	2263195.07	275832.849	Inlet	NO	NO	936.8	942.05	5.25	0	0	0	0		
11588	2263210.522	275775.558	Junct	NO	NO	934.52	939.59	5.07	0	0	0	0		

Table 2A: Junctions (continued...)

Name	X-Coordinate	Y-Coordinate	Tag	Inflows	Treatment	Invert Elev. (ft)	Rim Elev. (ft)	Depth (ft)	Initial Depth (ft)	Surcharge Depth (ft)	Ponded Area (ft²)	Baseline (cfs)	Baseline Pattern	Time Series
11842	2263208.931	275977.966	Inlet	NO	NO	947.17	951.79	4.62	0	0	0	0		
11966	2263288.792	275883.999	Inlet	NO	NO	946.03	950.67	4.64	0	0	0	0		
12000	2261946.099	276352.754	Outlet	NO	NO	838	843	5	0	0	0	0		
12000-1	2262016.165	276332.914	Outlet	NO	NO	853	858	5	0	0	0	0		
12000-2	2261912.904	276258.693	Inlet	NO	NO	851.71	858.53	6.82	0	0	0	0		
12161	2263251.668	275811.842	Junct	NO	NO	938.99	941.34	2.35	0	0	0	0		
12275	2263195.07	275762.016	Junct	NO	NO	933.6	940.46	6.86	0	0	0	0		
12300	2263253.636	275682.176	Inlet	NO	NO	934.44	940.18	5.74	0	0	0	0		
12497	2263234.105	275765.726	Inlet	NO	NO	936.23	941.29	5.06	0	0	0	0		
12514	2263292.916	275807.393	Junct	NO	NO	941.63	947.16	5.53	0	0	0	0		
12678	2263271.865	275714.728	Inlet	NO	NO	935.68	940.7	5.02	0	0	0	0		
12709	2263272.082	275698.452	Inlet	NO	NO	935.32	940.22	4.9	0	1	10	0		
12759	2263284.307	275840.141	Junct	NO	NO	943.02	949.32	6.3	0	0	0	0		
12956	2263475.852	275594.967	Inlet	NO	NO	946.18	950.18	4	0	0	0	0		
12957	2263467.345	275601.391	Junct	NO	NO	941.02	949.1	8.08	0	0	0	0		
13029	2263497.379	275623.613	Inlet	NO	NO	944.27	950.31	6.04	0	0	0	0		
13138	2263423.074	275677.433	Inlet	NO	NO	942.33	948.73	6.4	0	0	0	0		
13349	2263348.037	275851.23	Inlet	NO	NO	945.85	951.25	5.4	0	0	0	0		
13528	2263300.945	275811.95	Inlet	NO	NO	944.16	948.81	4.65	0	0	0	0		
13746	2263507.449	275604.863	Inlet	NO	NO	946.8	951.4	4.6	0	0	0	0		
14383	2263628.882	275845.927	Inlet	NO	NO	971.63	974.95	3.32	0	0	0	0		
14448	2263638.214	275888.027	Junct	NO	NO	965.94	971.92	5.98	0	0	0	0		
14608	2263680.531	275923.835	Inlet	NO	NO	968.91	971.36	2.45	0	0	0	0		
14961	2263351.321	276087.029	Junct	NO	NO	946.56	957.41	10.85	0	0	0	0		
15025	2263441.816	275993.496	Inlet	NO	NO	956.02	963.64	7.62	0	0	0	0		
15075	2263534.915	275995.666	Inlet	NO	NO	959.13	969.08	9.95	0	0	0	0		

Table 2A: Junctions (continued...)

Name	X-Coordinate	Y-Coordinate	Tag	Inflows	Treatment	Invert Elev. (ft)	Rim Elev. (ft)	Depth (ft)	Initial Depth (ft)	Surcharge Depth (ft)	Ponded Area (ft²)	Baseline (cfs)	Baseline Pattern	Time Series
15234	2263587.866	275940.545	Inlet	NO	NO	963.99	969.99	6	0	0	0	0		
15374	2263633.873	275900.831	Inlet	NO	NO	967.48	970.08	2.6	0	0	0	0		
15469	2263667.944	275939.243	Inlet	NO	NO	969.81	970.76	0.95	0	0	0	0		
15909	2263768.422	276094.841	Junct	NO	NO	962.57	966.47	3.9	0	0	0	0		
15964	2263766.252	276148.227	Inlet	NO	NO	959.62	964.87	5.25	0	0	0	0		
16125	2263677.927	276143.236	Inlet	NO	NO	960.63	962.59	1.96	0	0	0	0		
16610	2263777.03	275875.261	Inlet	NO	NO	967.84	972.22	4.38	0	0	0	0		
16770	2263729.236	275753.155	Inlet	NO	NO	969.75	975.6	5.85	0	0	0	0		
17671	2263364.559	276113.288	Inlet	NO	NO	948.24	953.49	5.25	0	0	0	0		
18312	2263352.406	276200.31	Inlet	NO	NO	947.29	952.67	5.38	0	1	300	0		
18356	2263297.719	276142.15	Inlet	NO	NO	943.2	952.23	9.03	0	0	0	0		
18402	2263320.939	276118.496	Junct	NO	NO	945.58	953.32	7.74	0	0	0	0		
18726	2263718.446	275672.03	Inlet	NO	NO	973.96	978.31	4.35	0	0	0	0		
1885	2263177.231	275610.494	Inlet	NO	NO	906.3	912.35	6.05	0	0	0	0		
1896	2263146.868	275612.783	Inlet	NO	NO	904.36	911.56	7.2	0	0	0	0		
19657	2263577.692	275542.791	Inlet	NO	NO	955.58	959.93	4.35	0	0	0	0		
2002	2263056.671	275748.929	Inlet	NO	NO	897.88	899.78	1.9	0	1	10	0		
2002'	2263055.211	275744.748	OJunct	NO	NO	898.82	900.82	2	0	0	0	0		
20575	2263478.56	275542.444	Inlet	NO	NO	946.54	950.08	3.54	0	0	0	0		
20974	2263808	275218	Junct	NO	NO	975.25	983.1	7.85	0	0	0	0		
20985	2263809.389	275189.347	Inlet	NO	NO	978.38	983.08	4.7	0	0	0	0		
21199	2263487	275207	Inlet	NO	NO	954.3	960.12	5.82	0	0	0	0		
21325	2263262	275202	Inlet	NO	NO	937.46	943.644	6.184	0	0	0	0		
21426	2263391.44	275529.398	Junct	NO	NO	932.3	943.3	11	0	0	0	0		
21626	2263240	275363	Inlet	NO	NO	910.56	927.46	16.9	0	0	0	0		
21678	2263268	275332	Junct	NO	NO	926.94	938.14	11.2	0	0	0	0		

Table 2A: Junctions (continued...)

Name	X-Coordinate	Y-Coordinate	Tag	Inflows	Treatment	Invert Elev. (ft)	Rim Elev. (ft)	Depth (ft)	Initial Depth (ft)	Surcharge Depth (ft)	Ponded Area (ft²)	Baseline (cfs)	Baseline Pattern	Time Series
21705	2263284.822	275315.219	Inlet	NO	NO	938.43	941.98	3.55	0	0	0	0		
2249	2263014.309	275739.381	Inlet	NO	NO	887.16	899.96	12.8	0	0	0	0		
23025	2263897	275248	Inlet	NO	NO	979.35	984.83	5.48	0	0	0	0		
23037	2263864.868	275246.958	Inlet	NO	NO	976.57	985.09	8.52	0	0	0	0		
2358	2262888.094	275807.436	Inlet	NO	NO	885.98	893.28	7.3	0	0	0	0		
2374	2262883.928	275842.506	Inlet	NO	NO	886.12	893.12	7	0	0	0	0		
2425	2262867.434	275819.242	Junct	NO	NO	883.79	894.59	10.8	0	0	0	0		
24932	2263394	275122	Junct	NO	NO	939.32	946.47	7.15	0	0	0	0		
25477	2262619.619	275880.757	Outlet	NO	NO	866.82	880.5	13.68	0	0	0	0		
25478	2262486.892	276107.158	Inlet	NO	NO	837.53	866	28.47	0	3	1000	0		
25504	2263156.702	275799.516	Junct	NO	NO	933.1	940.66	7.56	0	0	0	0		
257	2263209.177	276174.92	Junct	NO	NO	940.39	951.32	10.93	0	0	0	0		
2732	2262836.633	275762.485	Junct	NO	NO	876.96	893.39	16.43	0	0	0	0		
3089	2262768.925	275950.419	Inlet	NO	NO	888.49	890.79	2.3	0	0	0	0		
31036	2263403	274997	Inlet	NO	NO	950.51	954.15	3.64	0	0	0	0		
31036'	2263404	274967	Inlet	NO	NO	951.29	954.24	2.95	0	0	0	0		
3372	2262662.588	275835.835	Inlet	NO	NO	882.86	888.76	5.9	0	1.5	500	0		
3381	2262682.336	275822.598	Inlet	NO	NO	880.54	888.59	8.05	0	1.67	500	0		
3424	2262669.749	275774.203	Inlet	NO	NO	885.05	890.3	5.25	0	0.5	15	0		
3449	2262610.504	275779.629	Inlet	NO	NO	871.72	890.06	18.34	0	0	0	0		
3596	2262584.897	275735.141	Inlet	NO	NO	873.97	891.84	17.87	0	0	0	0		
3615	2262638.933	275754.455	Inlet	NO	NO	885.71	890.71	5	0	0	0	0		
3824	2262656.077	275640.306	Inlet	NO	NO	889.05	899.9	10.85	0	0	0	0		
5172	2263223.037	275399.624	Inlet	NO	NO	920.24	927.59	7.35	0	0	0	0		
5191	2263186.259	275449.643	Inlet	NO	NO	914.79	924.14	9.35	0	0	0	0		
5218	2263190	275330	Inlet	NO	NO	927.34	933.24	5.9	0	0	0	0		

Table 2A: Junctions (continued...)

Name	X-Coordinate	Y-Coordinate	Tag	Inflows	Treatment	Invert Elev. (ft)	Rim Elev. (ft)	Depth (ft)	Initial Depth (ft)	Surcharge Depth (ft)	Ponded Area (ft²)	Baseline (cfs)	Baseline Pattern	Time Series
5230	2263195.89	275258.188	Inlet	NO	NO	929.03	938.08	9.05	0	0	0	0		
5246	2263152.795	275375.468	Inlet	NO	NO	924.03	929.58	5.55	0	0	0	0		
5526	2262961.966	275385.981	Inlet	NO	NO	938.6	941.89	3.29	0	0.5	4	0		
5571	2263089.371	275370.757	Inlet	NO	NO	936.99	941.99	5	0	0	0	0		
5604	2263149.927	275288.136	Inlet	NO	NO	935.84	941.84	6	0	0	0	0		
6078	2262436.893	275461.052	Junct	NO	NO	886.38	900.58	14.2	0	0	0	0		
6088	2262470.748	275446.295	Inlet	NO	NO	888.94	900.54	11.6	0	0	0	0		
6436	2262466.841	275345.818	Inlet	NO	NO	891.64	900.57	8.93	0	2.43	0	0		
6452	2262457.944	275351.026	Inlet	NO	NO	897.28	900.57	3.29	0	2.43	0	0		
6457	2262441.017	275359.924	Inlet	NO	NO	897.83	900.8	2.97	0	2.2	0	0		
6505	2262368.968	275353.414	Inlet	NO	NO	898.68	901.45	2.77	0	1	200	0		
7096	2262717.926	275938.266	Inlet	NO	NO	885.07	889.82	4.75	0	0	0	0		
7592	2262523.651	276301	Inlet	NO	NO	863.07	867.37	4.3	0	0.5	15	0		
7683	2262492.349	276369.609	Inlet	NO	NO	861.67	865.22	3.55	0	1	500	0		
7742	2262498.26	276271.911	Inlet	NO	NO	863.98	867.53	3.55	0	0.5	15	0		
7794	2262415.446	276222.11	Junct	NO	NO	832.49	867.59	35.1	0	0	0	0		
8667-J4	2261923.441	276206.384	INLET	NO	NO	852.76	858.11	5.35	0	0	0	0		
8697	2261857.98	276145.56	INLET	NO	NO	853.99	858.64	4.65	0	0	0	0		
8807	2261849.953	276046.023	INLET	NO	NO	855.48	859.53	4.05	0	0	0	0		
8903	2261822.661	275941.67	INLET	NO	NO	857.01	860.26	3.25	0	0	0	0		
9095	2263760.175	276287.767	Junct	NO	NO	952.36	959.13	6.77	0	0	0	0		
9253	2263570.997	276311.676	Inlet	NO	NO	944.06	948.6	4.54	0	1	15	0		
9264	2263572.69	276333.985	Inlet	NO	NO	942.7	948.71	6.01	0	1	15	0		
9409	2263432.441	276343.089	Inlet	NO	NO	941.68	949.68	8	0	0	0	0		
9627	2263280.039	276225.38	Inlet	NO	NO	946.2	950.3	4.1	0	0	0	0		
9645	2263258.164	276245.129	Inlet	NO	NO	940.71	950.24	9.53	0	0	0	0		

Table 2A: Junctions (continued...)

Name	X-Coordinate	Y-Coordinate	Tag	Inflows	Treatment	Invert Elev. (ft)	Rim Elev. (ft)	Depth (ft)	Initial Depth (ft)	Surcharge Depth (ft)	Ponded Area (ft²)	Baseline (cfs)	Baseline Pattern	Time Series
9733	2263243.549	276192.084	Junct	NO	NO	938.64	950.409	11.769	0	0	0	0		
J1	2263196.658	276667.451	Inlet	NO	NO	850.38	856	5.62	0	1.5	500	0		
J10	2263266	274056	Inlet	NO	NO	1008.97	1011.97	3	0	0	0	0		
J11	2263221.743	274086.177	Junct	NO	NO	1004.59	1007.591	3.001	0	0	0	0		
J12	2263219	274226	Junct	NO	NO	981.34	986.8	5.46	0	0	0	0		
J13	2263180	274236	Outlet	NO	NO	980.139	982.139	2	0	0	0	0		
J147	2263112.779	275951.599	Inlet	NO	NO	942.12	942.62	0.5	0	1	25	0		
J15	2263208.78	276632.029	Inlet	NO	NO	850.75	856	5.25	0	1.5	500	0		
J159	2262692.667	275841.476	Junct	NO	NO	870.22	889.08	18.86	0	0	0	0		
J16	2262622.477	275015.571	OJunct	NO	NO	910.168	911.268	1.1	0	0	0	0		
J163	2262720.473	275933.395	Junct	NO	NO	879.59	889.52	9.93	0	0	0	0		
J164	2262651.723	276050.843	Outlet	NO	NO	882.06	883.28	1.22	0	0	0	0		
J165	2262723.077	276045.635	Inlet	NO	NO	893.78	895.05	1.27	0	0	0	0		
J166	2262750.168	275948.353	Junct	NO	NO	880.78	889.4	8.62	0	0	0	0		
J167	2262941.124	275832.164	Inlet	NO	NO	894.56	895.3	0.74	0	0	0	0		
J168	2262748.136	275810.951	Junct	NO	NO	872.82	893.75	20.93	0	0	0	0		
J169	2263717.72	275466.377	OJunct	NO	NO	959.9	961.163	1.263	0	0	0	0		
J17	2262806.082	275942.835	OJunct	NO	NO	891.467	894.82	3.353	0	0	0	0		
J170	2263704.629	275282.644	OJunct	NO	NO	956.31	957.895	1.585	0	0	0	0		
J171	2263771.329	275285.499	Inlet	NO	NO	963.54	964.1	0.56	0	0	0	0		
J172	2263632.115	275276.059	Inlet	NO	NO	950.01	951.51	1.5	0	1	30	0		
J173	2263511.672	275257.722	Outlet	NO	NO	946.71	948.26	1.55	0	0	0	0		
J174	2263688.916	275554.917	OJunct	NO	NO	966.85	968.577	1.727	0	0	0	0		
J175	2263671.364	275595.126	Inlet	NO	NO	970.34	971.14	0.8	0	0	0	0		
J177	2262649.929	275865.37	Junct	NO	NO	867.85	882.96	15.11	0	0	0	0		
J179	2263072.121	274265.406	Outlet	NO	NO	976.793	977.793	1	0	0	0	0		

Table 2A: Junctions (continued...)

Name	X-Coordinate	Y-Coordinate	Tag	Inflows	Treatment	Invert Elev. (ft)	Rim Elev. (ft)	Depth (ft)	Initial Depth (ft)	Surcharge Depth (ft)	Ponded Area (ft²)	Baseline (cfs)	Baseline Pattern	Time Series
J18	2262572.113	275936.511	Outlet	NO	NO	860.437	872.52	12.083	0	0	0	0		
J180	2263151.234	275669.078	Inlet	NO	NO	907.77	908.27	0.5	0	0	0	0		
J182	2262918.118	275150.642	OJunct	NO	NO	942.74	943.84	1.1	0	0	0	0		
J183	2263169.392	275167.911	Outlet	NO	NO	941.38	941.88	0.5	0	0	0	0		
J19	2262723.473	275957.761	Junct	NO	NO	878.5	890.674	12.174	0	0	0	0		
J2	2263883	276339	Inlet	NO	NO	941.46	943.46	2	0	0	0	0		
J2.	2262029.955	276270.21	INLET	NO	NO	855.48	858.83	3.35	0	0	0	0		
J20	2262934.031	276024.44	Junct	NO	NO	931.17	939.1	7.93	0	0	0	0		
J21	2263182.989	276160.547	Junct	NO	NO	936.78	950.03	13.25	0	0	0	0		
J22	2262933.614	276027.622	Junct	NO	NO	932.68	940.081	7.401	0	0	0	0		
J23	2262921.622	276032.174	Junct	NO	NO	932.58	939.871	7.291	0	0	0	0		
J24	2262909.076	276025.845	Junct	NO	NO	929.5	940.355	10.855	0	0	0	0		
J25	2262741.879	275973.186	Junct	NO	NO	881	890.831	9.831	0	0	0	0		
J27	2262767.209	275989.941	Junct	NO	NO	881	898.921	17.921	0	0	0	0		
J28	2262735.392	275939.897	Junct	NO	NO	878.5	887.447	8.947	0	0	0	0		
J29	2262765.948	275977.84	Inlet	NO	NO	894.5	896.5	2	0	0	0	0		
J2-S	2262029.316	276266.961	OJunct	NO	NO	858.83	859.83	1	0	0	0	0		
J3	2263360.144	276673.22	Inlet	NO	NO	852.32	856.69	4.37	0	1.5	500	0		
J30	2262757.326	275953.262	Junct	NO	NO	880.78	895.563	14.783	0	0	0	0		
J31	2263339.475	275767.244	Inlet	NO	NO	948.103	948.77	0.667	0	0	0	0		
J32	2263318.401	275761.449	OJunct	NO	NO	944.803	945.903	1.1	0	0	0	0		
J33	2263173.848	275856.557	Inlet	NO	NO	941.663	942.163	0.5	0	1	10	0		
J34	2262874	275008	Junct	NO	NO	928.85	936.426	7.576	0	0	0	0		
J35	2262600.238	275891.408	OJunct	NO	NO	865.44	873	7.56	0	0	0	0		
J36	2262862.813	276002.988	OJunct	NO	NO	919.444	929.14	9.696	0	0	0	0		
J37	2262664.069	275799.013	OJunct	NO	NO	889.376	890.476	1.1	0	0	0	0		

Table 2A: Junctions (continued...)

Name	X-Coordinate	Y-Coordinate	Tag	Inflows	Treatment	Invert Elev. (ft)	Rim Elev. (ft)	Depth (ft)	Initial Depth (ft)	Surcharge Depth (ft)	Ponded Area (ft²)	Baseline (cfs)	Baseline Pattern	Time Series
J39	2263042.229	275159.172	OJunct	NO	NO	942.068	943.436	1.368	0	0	0	0		
J4	2262458.026	275744.358	Inlet	NO	NO	891.609	894	2.391	0	1.5	9	0		
J40	2263248.217	275725.251	OJunct	NO	NO	939.972	941.072	1.1	0	0	0	0		
J41	2263170.159	275816.749	OJunct	NO	NO	940.866	941.966	1.1	0	0	0	0		
J42	2263117.738	275767.161	OJunct	NO	NO	937.461	938.561	1.1	0	0	0	0		
J43	2262527.638	276026.953	OJunct	NO	NO	856.851	870	13.149	0	0	0	0		
J44	2262653.591	275625.085	Outlet	NO	NO	900.56	901.92	1.36	0	0	0	0		
J45	2262655.1	275615.467	Inlet	NO	NO	901	902.48	1.48	0	0	0	0		
J46	2262404.521	276328.891	OJunct	NO	NO	864.9	866	1.1	0	0	0	0		
J47	2263134.012	276980.126	OJunct	NO	NO	848.575	853.43	4.855	0	0	0	0		
J48	2263395.595	275022.361	OJunct	NO	NO	953.84	954.95	1.11	0	0	0	0		
J49	2262655.217	275836.793	OJunct	NO	NO	888.46	889.56	1.1	0	0	0	0		
J4-S	2261926.055	276203.77	OJunct	NO	NO	857.11	859.11	2	0	0	0	0		
J5	2262948	274907	Inlet	NO	NO	940.1	945.85	5.75	0	1	1000	0		
J55	2262634.159	275873.596	Junct	NO	NO	867.48	880.34	12.86	0	0	0	0		
J6	2262967	274876	Inlet	NO	NO	941.2	945.903	4.703	0	1	1000	0		
J7	2263007	274889	Inlet	NO	NO	942.46	945.968	3.508	0	1	1000	0		
J74	2262900.18	276017.526	Outlet	NO	NO	930.61	935.05	4.44	0	0	0	0		
J8	2262909	274943	Junct	NO	NO	938.5	944.752	6.252	0	0	0	0		
J9	2262840	275024	Outlet	NO	NO	926.22	936.22	10	0	0	0	0		
OL-10028	2263222.429	275991.829	OJunct	NO	NO	951.67	952.77	1.1	0	0	0	0		
OL-11213	2263080.335	275914.224	OJunct	NO	NO	941.95	943.05	1.1	0	0	0	0		
OL-11560	2263189.772	275832.861	OJunct	NO	NO	941.95	943.05	1.1	0	0	0	0		
OL-11842	2263210.778	275982.255	OJunct	NO	NO	951.69	952.79	1.1	0	0	0	0		
OL-11966	2263291.595	275887.65	OJunct	NO	NO	950.57	951.67	1.1	0	0	0	0		
OL-12300	2263255.041	275685.554	OJunct	NO	NO	939.4	940.841	1.441	0	0	0	0		

Table 2A: Junctions (continued...)

Name	X-Coordinate	Y-Coordinate	Tag	Inflows	Treatment	Invert Elev. (ft)	Rim Elev. (ft)	Depth (ft)	Initial Depth (ft)	Surcharge Depth (ft)	Ponded Area (ft²)	Baseline (cfs)	Baseline Pattern	Time Series
OL-12497	2263238.668	275765.54	OJunct	NO	NO	940.2	941.938	1.738	0	0	0	0		
OL-12678	2263270.917	275719.247	OJunct	NO	NO	940.17	941.27	1.1	0	0	0	0		
OL-12709	2263269.149	275697.262	OJunct	NO	NO	939.22	940.62	1.4	0	0	0	0		
OL-12956	2263478.946	275598.813	OJunct	NO	NO	950.08	951.18	1.1	0	0	0	0		
OL-13029	2263497.327	275621.527	OJunct	NO	NO	950.21	951.362	1.152	0	0	0	0		
OL-13138	2263429.797	275672.733	OJunct	NO	NO	948.63	949.73	1.1	0	0	0	0		
OL-13349	2263346.153	275847.959	OJunct	NO	NO	950.3	951.418	1.118	0	0	0	0		
OL-13528	2263302.663	275814.414	OJunct	NO	NO	947.97	949.07	1.1	0	0	0	0		
OL-13746	2263502.614	275604.575	OJunct	NO	NO	951.3	952.4	1.1	0	0	0	0		
OL-15964	2263762.97	276143.627	OJunct	NO	NO	964.77	966.033	1.263	0	0	0	0		
OL-16610	2263771.883	275876.332	OJunct	NO	NO	972.12	973.22	1.1	0	0	0	0		
OL-16770	2263723.912	275753.388	OJunct	NO	NO	975.5	976.6	1.1	0	0	0	0		
OL-18726	2263721.16	275676.563	OJunct	NO	NO	978.21	979.31	1.1	0	0	0	0		
OL-1885	2263173.253	275612.565	OJunct	NO	NO	912.25	913.35	1.1	0	0	0	0		
OL-1896	2263152.52	275609.973	OJunct	NO	NO	911.46	912.56	1.1	0	0	0	0		
OL-20985	2263810.74	275193.917	OJunct	NO	NO	982.98	984.08	1.1	0	0	0	0		
OL-21199	2263487.128	275202.815	OJunct	NO	NO	960.02	961.12	1.1	0	0	0	0		
OL-21325	2263268.234	275204.63	OJunct	NO	NO	943.54	944.64	1.1	0	0	0	0		
OL-2249	2263015.884	275742.164	OJunct	NO	NO	897.719	898.819	1.1	0	0	0	0		
OL-2358	2262890.186	275812.113	OJunct	NO	NO	893.18	894.28	1.1	0	0	0	0		
OL-2374	2262883.376	275839.094	OJunct	NO	NO	893.02	894.12	1.1	0	0	0	0		
OL-31036	2263406.12	274995.832	OJunct	NO	NO	953.78	955.16	1.38	0	0	0	0		
OL-31036'	2263407.087	274971.189	OJunct	NO	NO	954.13	955.23	1.1	0	0	0	0		
OL-3424	2262667.994	275769.325	OJunct	NO	NO	890.2	891.3	1.1	0	0	0	0		
OL-3449	2262612.938	275775.695	OJunct	NO	NO	889.96	891.06	1.1	0	0	0	0		
OL-3596	2262582.802	275736.731	OJunct	NO	NO	891.74	892.84	1.1	0	0	0	0		

Table 2A: Junctions (continued...)

Name	X-Coordinate	Y-Coordinate	Tag	Inflows	Treatment	Invert Elev. (ft)	Rim Elev. (ft)	Depth (ft)	Initial Depth (ft)	Surcharge Depth (ft)	Ponded Area (ft²)	Baseline (cfs)	Baseline Pattern	Time Series
OL-3615	2262640.431	275758.624	OJunct	NO	NO	890.61	891.71	1.1	0	0	0	0		
OL-5172	2263223.349	275405.509	OJunct	NO	NO	927.49	928.59	1.1	0	0	0	0		
OL-5191	2263181.736	275447.674	OJunct	NO	NO	924.04	925.14	1.1	0	0	0	0		
OL-5218	2263186.536	275326.398	OJunct	NO	NO	933.14	934.24	1.1	0	0	0	0		
OL-5230	2263201.086	275259.054	OJunct	NO	NO	937.98	939.08	1.1	0	0	0	0		
OL-5246	2263158.023	275373.718	OJunct	NO	NO	929.48	930.58	1.1	0	0	0	0		
OL-5526	2262962.267	275381.991	OJunct	NO	NO	941.89	943.1	1.21	0	0	0	0		
OL-5571	2263087.184	275367.448	OJunct	NO	NO	941.89	943.321	1.431	0	0	0	0		
OL-5604	2263146.326	275285.996	OJunct	NO	NO	941.74	943.184	1.444	0	0	0	0		
OL-6088	2262469.203	275443.412	OJunct	NO	NO	900.44	901.54	1.1	0	0	0	0		
OL-6436	2262465.988	275344.559	OJunct	NO	NO	900.47	902	1.53	0	1	0	0		
OL-6452	2262457.282	275349.932	OJunct	NO	NO	900.47	902	1.53	0	1	0	0		
OL-6457	2262439.955	275358.675	OJunct	NO	NO	900.7	902	1.3	0	1	0	0		
OL-6505	2262369.28	275355.92	OJunct	NO	NO	901.35	902.5	1.15	0	0	0	0		
OL-6505a	2262384.01	275396.515	OJunct	NO	NO	901.23	902.23	1	0	0	0	0		
OL-7096	2262714.482	275934.565	OJunct	NO	NO	889.72	890.82	1.1	0	0	0	0		
OL-7592	2262522.895	276296.131	OJunct	NO	NO	867.27	868.37	1.1	0	0	0	0		
OL-7683	2262490.788	276364.805	OJunct	NO	NO	865.12	866.22	1.1	0	1	1000	0		
OL-7742	2262502.842	276273.871	OJunct	NO	NO	867.43	868.53	1.1	0	0	0	0		
OL-9253a	2263574.604	276338.363	OJunct	NO	NO	948.316	949.416	1.1	0	0	0	0		
OL-9253b	2263559.701	276413.612	OJunct	NO	NO	944.247	945.347	1.1	0	0	0	0		
OL-9253c	2263636.283	276581.094	OJunct	NO	NO	888	889.1	1.1	0	0	0	0		
OL-9253d	2263582.493	276686.931	OJunct	NO	NO	888.001	889.101	1.1	0	0	0	0		
OL-9253e	2263566.526	276720.924	OJunct	NO	NO	863.833	864.933	1.1	0	0	0	0		
OL-9264	2263574.009	276331.557	OJunct	NO	NO	948.61	949.71	1.1	0	0	0	0		
OL-9409	2263432.945	276339.222	OJunct	NO	NO	949.58	950.68	1.1	0	0	0	0		

Table 2A: Junctions (continued...)

Name	X-Coordinate	Y-Coordinate	Tag	Inflows	Treatment	Invert Elev. (ft)	Rim Elev. (ft)	Depth (ft)	Initial Depth (ft)	Surcharge Depth (ft)	Ponded Area (ft²)	Baseline (cfs)	Baseline Pattern	Time Series
OL-J1	2263205.534	276671.75	OJunct	NO	NO	855.825	856.925	1.1	0	0	0	0		
OL-J10	2263262.205	274055.562	OJunct	NO	NO	1011.6	1012.7	1.1	0	0	0	0		
OL-J10a	2263240.667	274092.987	OJunct	NO	NO	1010.1	1011.2	1.1	0	0	0	0		
OL-J10b	2263158.026	274185.404	OJunct	NO	NO	981.75	982.85	1.1	0	0	0	0		
OL-J14	2263358.081	276614.44	OJunct	NO	NO	855.9	858	2.1	0	0	0	0		
OL-J147	2263110.075	275951.692	OJunct	NO	NO	942.62	943.72	1.1	0	0	0	0		
OL-J15	2263219.775	276638.802	OJunct	NO	NO	855.896	856.996	1.1	0	0	0	0		
OL-J172	2263628.408	275279.761	OJunct	NO	NO	951	952.1	1.1	0	0	0	0		
OL-J3	2263346.069	276677.779	OJunct	NO	NO	857.09	858.19	1.1	0	0	0	0		
OL-J33	2263169.982	275856.608	OJunct	NO	NO	942.163	943.263	1.1	0	0	0	0		
OL-J37	2263196.698	275196.361	OJunct	NO	NO	941.039	942.139	1.1	0	0	0	0		
OL-J40	2263452.015	275632.514	OJunct	NO	NO	948.514	949.614	1.1	0	0	0	0		
OL-J48	2263634.823	275593.819	OJunct	NO	NO	968.322	969.422	1.1	0	0	0	0		
OL-J49	2263607.595	275598.536	OJunct	NO	NO	967.672	968.772	1.1	0	0	0	0		
OL-J4a	2262457.146	275750.607	OJunct	NO	NO	894.5	895.5	1	0	0	0	0		
OL-J4b	2262479.146	275765.966	OJunct	NO	NO	892.469	893.469	1	0	0	0	0		
OL-J4c	2262524.816	275795.91	OJunct	NO	NO	881.808	882.808	1	0	0	0	0		
OL-J4d	2262538.568	275936.418	OJunct	NO	NO	871.789	872.789	1	0	0	0	0		
OL-J5	2262952.003	274905.114	OJunct	NO	NO	945.75	946.85	1.1	0	1	500	0		
OL-J50	2263358.026	275542.817	OJunct	NO	NO	940.647	941.747	1.1	0	0	0	0		
OL-J6	2262969.854	274874.512	OJunct	NO	NO	945.803	946.903	1.1	0	1	15	0		
OL-J7	2263005.02	274885.921	OJunct	NO	NO	945.868	946.968	1.1	0	1	15	0		
OL-J72	2262530.914	275162.93	OJunct	NO	NO	905.6	906.6	1	0	1	0	0		
OL-J8	2262913.576	274948.379	OJunct	NO	NO	944.5	945.6	1.1	0	0	0	0		

Table 2B: Junctions

Name	Scale Factor	Average Value (cfs)	Time Pattern 1	Time Pattern 2	Time Pattern 3	Time Pattern 4	Hydrograph	Sewershed Area (ac)	Avg. Depth (ft)	Max. Depth (ft)	Max. HGL (ft)	Time Max. HGL (M/D/Y)	Rep. Max. Depth (ft)	Max. Lat. Inflow (cfs)
10028	1	0						0	0.02	0.19	947.66	05/01/2022 00:18 AM	0.19	0
1024	1	0						0	0.05	0.56	887.43	05/01/2022 00:18 AM	0.56	0
1038	1	0						0	0.01	0.09	896	05/01/2022 00:24 AM	0.09	0.2
10393	1	0						0	0.05	0.55	939.65	05/01/2022 00:16 AM	0.55	0
11213	1	0						0	0.02	0.25	936.35	05/01/2022 00:06 AM	0.25	0
11254	1	0						0	0.06	0.85	933.46	05/01/2022 00:10 AM	0.85	0
11560	1	0						0	0.03	0.33	937.13	05/01/2022 00:08 AM	0.33	0.47
11588	1	0						0	0	0	934.52	05/01/2022 00:00 AM	0	0
11842	1	0						0	0.02	0.23	947.4	05/01/2022 00:14 AM	0.23	0
11966	1	0						0	0.04	0.44	946.47	05/01/2022 00:13 AM	0.44	0
12000	1	0						0	0.01	0.09	838.09	05/01/2022 00:25 AM	0.09	0
12000-1	1	0						0	0	0.02	853.02	05/01/2022 01:02 AM	0.02	0
12000-2	1	0						0	0.04	0.43	852.14	05/01/2022 00:25 AM	0.43	0.23
12161	1	0						0	0	0	938.99	05/01/2022 00:00 AM	0	0
12275	1	0						0	0.01	0.2	933.8	05/01/2022 00:10 AM	0.2	0
12300	1	0						0	0.07	0.77	935.21	05/01/2022 00:12 AM	0.77	0
12497	1	0						0	0.06	0.73	936.96	05/01/2022 00:12 AM	0.73	0
12514	1	0						0	0.03	0.32	941.95	05/01/2022 00:12 AM	0.32	0
12678	1	0						0	0.06	0.74	936.42	05/01/2022 00:12 AM	0.74	0
12709	1	0						0	0.06	0.7	936.02	05/01/2022 00:12 AM	0.7	0
12759	1	0						0	0	0	943.02	05/01/2022 00:00 AM	0	0
12956	1	0						0	0.02	0.18	946.36	05/01/2022 00:12 AM	0.18	0
12957	1	0						0	0.96	1.34	942.36	05/01/2022 00:09 AM	1.34	0
13029	1	0						0	0.03	0.34	944.61	05/01/2022 00:07 AM	0.34	0.49
13138	1	0						0	0.03	0.32	942.65	05/01/2022 00:06 AM	0.32	0.8
13349	1	0						0	0.02	0.27	946.12	05/01/2022 00:06 AM	0.27	0.4

Table 2B: Junctions (continued...)

Name	Scale Factor	Average Value (cfs)	Time Pattern 1	Time Pattern 2	Time Pattern 3	Time Pattern 4	Hydrograph	Sewershed Area (ac)	Avg. Depth (ft)	Max. Depth (ft)	Max. HGL (ft)	Time Max. HGL (M/D/Y)	Rep. Max. Depth (ft)	Max. Lat. Inflow (cfs)
13528	1	0						0	0.03	0.3	944.46	05/01/2022 00:12 AM	0.3	0
13746	1	0						0	0.02	0.2	947	05/01/2022 00:12 AM	0.2	0
14383	1	0						0	0.01	0.11	971.74	05/01/2022 00:12 AM	0.11	0.22
14448	1	0						0	0.03	0.31	966.25	05/01/2022 00:12 AM	0.31	0
14608	1	0						0	0.04	0.43	969.34	05/01/2022 00:07 AM	0.43	0.61
14961	1	0						0	0.03	0.29	946.85	05/01/2022 00:13 AM	0.29	0
15025	1	0						0	0.02	0.21	956.23	05/01/2022 00:12 AM	0.21	0.04
15075	1	0						0	0.02	0.25	959.38	05/01/2022 00:12 AM	0.25	0.04
15234	1	0						0	0.03	0.33	964.32	05/01/2022 00:12 AM	0.33	0.07
15374	1	0						0	0.01	0.1	967.58	05/01/2022 00:18 AM	0.1	0.11
15469	1	0						0	0.01	0.07	969.88	05/01/2022 00:12 AM	0.07	0.05
15909	1	0						0	0.03	0.26	962.83	05/01/2022 00:18 AM	0.26	0
15964	1	0						0	0.04	0.44	960.06	05/01/2022 00:12 AM	0.44	0
16125	1	0						0	0.04	0.38	961.01	05/01/2022 00:12 AM	0.38	0.69
16610	1	0						0	0.03	0.32	968.16	05/01/2022 00:18 AM	0.32	0
16770	1	0						0	0.03	0.27	970.02	05/01/2022 00:13 AM	0.27	0
17671	1	0						0	0.01	0.11	948.35	05/01/2022 00:30 AM	0.11	0.07
18312	1	0						0	0.03	0.27	947.56	05/01/2022 00:18 AM	0.27	0.36
18356	1	0						0	0.03	0.26	943.46	05/01/2022 00:14 AM	0.26	0.08
18402	1	0						0	0.02	0.23	945.81	05/01/2022 00:13 AM	0.23	0
18726	1	0						0	0.01	0.09	974.05	05/01/2022 00:12 AM	0.09	0
1885	1	0						0	0.07	0.88	907.18	05/01/2022 00:13 AM	0.88	0
1896	1	0						0	0.05	0.56	904.92	05/01/2022 00:13 AM	0.56	0
19657	1	0						0	0.01	0.11	955.69	05/01/2022 00:06 AM	0.11	0.29
2002	1	0						0	0.03	0.45	898.33	05/01/2022 00:13 AM	0.45	0.58
2002'	1	0						0	0	0	898.82	05/01/2022 00:00 AM	0	0

Table 2B: Junctions (continued...)

Name	Scale Factor	Average Value (cfs)	Time Pattern 1	Time Pattern 2	Time Pattern 3	Time Pattern 4	Hydrograph	Sewershed Area (ac)	Avg. Depth (ft)	Max. Depth (ft)	Max. HGL (ft)	Time Max. HGL (M/D/Y)	Rep. Max. Depth (ft)	Max. Lat. Inflow (cfs)
20575	1	0						0	0.02	0.17	946.71	05/01/2022 00:12 AM	0.17	0.4
20974	1	0						0	0.04	0.39	975.64	05/01/2022 00:18 AM	0.39	0
20985	1	0						0	0.02	0.2	978.58	05/01/2022 00:09 AM	0.2	0
21199	1	0						0	0.04	0.39	954.69	05/01/2022 00:17 AM	0.39	0
21325	1	0						0	0.04	0.43	937.89	05/01/2022 00:13 AM	0.43	0
21426	1	0						0	0.05	0.57	932.87	05/01/2022 00:12 AM	0.57	0
21626	1	0						0	0.08	0.77	911.33	05/01/2022 00:19 AM	0.77	0.13
21678	1	0						0	0.05	0.5	927.44	05/01/2022 00:21 AM	0.5	0
21705	1	0						0	0.04	0.46	938.89	05/01/2022 00:12 AM	0.46	0.96
2249	1	0						0	0.03	0.39	887.55	05/01/2022 00:13 AM	0.39	0
23025	1	0						0	0.04	0.37	979.72	05/01/2022 00:18 AM	0.37	3.53
23037	1	0						0	0.06	0.55	977.12	05/01/2022 00:18 AM	0.55	0.39
2358	1	0						0	0.04	0.52	886.5	05/01/2022 00:12 AM	0.52	0
2374	1	0						0	0.04	0.45	886.57	05/01/2022 00:12 AM	0.45	0
2425	1	0						0	0.03	0.36	884.15	05/01/2022 00:10 AM	0.36	0
24932	1	0						0	0.06	0.52	939.84	05/01/2022 00:18 AM	0.52	0
25477	1	0						0	0.06	0.61	867.43	05/01/2022 00:19 AM	0.61	0
25478	1	0						0	0.27	2.91	840.44	05/01/2022 00:20 AM	2.91	1.58
25504	1	0						0	0.05	0.7	933.8	05/01/2022 00:09 AM	0.7	0
257	1	0						0	0.09	1.06	941.45	05/01/2022 00:16 AM	1.06	0
2732	1	0						0	0.09	0.99	877.95	05/01/2022 00:18 AM	0.99	0
3089	1	0						0	0.04	0.54	889.03	05/01/2022 00:16 AM	0.54	0.06
31036	1	0						0	0.06	0.52	951.03	05/01/2022 00:18 AM	0.51	0
31036'	1	0						0	0.07	0.61	951.9	05/01/2022 00:18 AM	0.61	0
3372	1	0						0	0	0	882.86	05/01/2022 00:00 AM	0	0
3381	1	0						0	0.03	0.37	880.91	05/01/2022 00:16 AM	0.37	0

Table 2B: Junctions (continued...)

Name	Scale Factor	Average Value (cfs)	Time Pattern 1	Time Pattern 2	Time Pattern 3	Time Pattern 4	Hydrograph	Sewershed Area (ac)	Avg. Depth (ft)	Max. Depth (ft)	Max. HGL (ft)	Time Max. HGL (M/D/Y)	Rep. Max. Depth (ft)	Max. Lat. Inflow (cfs)
3424	1	0						0	0.04	0.39	885.44	05/01/2022 00:13 AM	0.39	0
3449	1	0						0	0.12	1.36	873.08	05/01/2022 00:20 AM	1.36	0
3596	1	0						0	0.13	1.43	875.4	05/01/2022 00:21 AM	1.43	0
3615	1	0						0	0.05	0.47	886.18	05/01/2022 00:15 AM	0.47	0
3824	1	0						0	0.02	0.18	889.23	05/01/2022 00:12 AM	0.18	0.31
5172	1	0						0	0.06	0.66	920.9	05/01/2022 00:12 AM	0.66	0
5191	1	0						0	0.06	0.66	915.45	05/01/2022 00:12 AM	0.66	0
5218	1	0						0	0.03	0.3	927.64	05/01/2022 00:13 AM	0.3	0
5230	1	0						0	0.09	1.22	930.25	05/01/2022 00:19 AM	1.22	0
5246	1	0						0	0.01	0.1	924.13	05/01/2022 00:18 AM	0.1	0
5526	1	0						0	0.03	0.35	938.95	05/01/2022 00:06 AM	0.35	0.47
5571	1	0						0	0.05	0.6	937.59	05/01/2022 00:06 AM	0.6	1.05
5604	1	0						0	0.03	0.37	936.21	05/01/2022 00:07 AM	0.37	0
6078	1	0						0	0.1	1.06	887.44	05/01/2022 00:20 AM	1.06	0
6088	1	0						0	0.02	0.22	889.16	05/01/2022 00:12 AM	0.22	0
6436	1	0						0	0.11	1.19	892.83	05/01/2022 00:20 AM	1.19	0
6452	1	0						0	0.07	0.96	898.24	05/01/2022 00:23 AM	0.96	0
6457	1	0						0	0.01	0.41	898.24	05/01/2022 00:22 AM	0.41	0
6505	1	0						0	0.14	2.79	901.47	05/01/2022 00:18 AM	2.78	0
7096	1	0						0	0.01	0.1	885.17	05/01/2022 00:12 AM	0.1	0
7592	1	0						0	0.05	0.44	863.51	05/01/2022 00:14 AM	0.44	0
7683	1	0						0	0.05	0.49	862.16	05/01/2022 00:15 AM	0.49	0
7742	1	0						0	0.02	0.26	864.24	05/01/2022 00:12 AM	0.26	0
7794	1	0						0	0.29	3.14	835.63	05/01/2022 00:20 AM	3.13	0
8667-J4	1	0						0	0.05	0.54	853.3	05/01/2022 00:24 AM	0.54	0.32
8697	1	0						0	0.05	0.5	854.49	05/01/2022 00:24 AM	0.5	0.18

Table 2B: Junctions (continued...)

Name	Scale Factor	Average Value (cfs)	Time Pattern 1	Time Pattern 2	Time Pattern 3	Time Pattern 4	Hydrograph	Sewershed Area (ac)	Avg. Depth (ft)	Max. Depth (ft)	Max. HGL (ft)	Time Max. HGL (M/D/Y)	Rep. Max. Depth (ft)	Max. Lat. Inflow (cfs)
8807	1	0						0	0.05	0.5	855.98	05/01/2022 00:24 AM	0.5	0.9
8903	1	0						0	0.06	0.6	857.61	05/01/2022 00:24 AM	0.6	3.73
9095	1	0						0	0.04	0.39	952.75	05/01/2022 00:12 AM	0.39	0
9253	1	0						0	0.04	0.41	944.47	05/01/2022 00:18 AM	0.41	0
9264	1	0						0	0.09	1	943.7	05/01/2022 00:14 AM	1	0
9409	1	0						0	0.1	1.25	942.93	05/01/2022 00:15 AM	1.25	0
9627	1	0						0	0.02	0.22	946.42	05/01/2022 00:12 AM	0.22	0.56
9645	1	0						0	0.11	1.27	941.98	05/01/2022 00:15 AM	1.27	0.25
9733	1	0						0	0.02	0.2	938.84	05/01/2022 00:13 AM	0.2	0
J1	1	0						0	0.14	2.46	852.84	05/01/2022 00:13 AM	2.31	0
J10	1	0						0	0.03	0.29	1009.26	05/01/2022 00:12 AM	0.29	0
J11	1	0						0	0.02	0.21	1004.8	05/01/2022 00:12 AM	0.21	0
J12	1	0						0	0.04	0.38	981.72	05/01/2022 00:12 AM	0.38	0
J13	1	0						0	0.02	0.26	980.4	05/01/2022 00:12 AM	0.26	0.19
J147	1	0						0	0.02	0.25	942.37	05/01/2022 00:07 AM	0.25	0
J15	1	0						0	0.15	2.51	853.26	05/01/2022 00:13 AM	2.36	0
J159	1	0						0	0.12	1.29	871.51	05/01/2022 00:14 AM	1.29	0
J16	1	0						0	0.09	0.67	910.84	05/01/2022 00:19 AM	0.67	3.41
J163	1	0						0	0.04	0.42	880.01	05/01/2022 00:16 AM	0.42	0
J164	1	0						0	0.01	0.08	882.14	05/01/2022 00:13 AM	0.08	0.54
J165	1	0						0	0.01	0.06	893.84	05/01/2022 00:19 AM	0.06	0.11
J166	1	0						0	0	0	880.78	05/01/2022 00:00 AM	0	0
J167	1	0						0	0.01	0.09	894.65	05/01/2022 00:18 AM	0.09	0.54
J168	1	0						0	0.1	1.09	873.91	05/01/2022 00:18 AM	1.09	0
J169	1	0						0	0.01	0.15	960.05	05/01/2022 00:18 AM	0.15	0.5
J17	1	0						0	0.05	0.66	892.12	05/01/2022 00:16 AM	0.66	0.7

Table 2B: Junctions (continued...)

Name	Scale Factor	Average Value (cfs)	Time Pattern 1	Time Pattern 2	Time Pattern 3	Time Pattern 4	Hydrograph	Sewershed Area (ac)	Avg. Depth (ft)	Max. Depth (ft)	Max. HGL (ft)	Time Max. HGL (M/D/Y)	Rep. Max. Depth (ft)	Max. Lat. Inflow (cfs)
J170	1	0						0	0.01	0.15	956.46	05/01/2022 00:18 AM	0.15	0.79
J171	1	0						0	0	0.02	963.56	05/01/2022 00:18 AM	0.02	0.06
J172	1	0						0	0.06	0.66	950.67	05/01/2022 00:18 AM	0.66	0.52
J173	1	0						0	0.02	0.24	946.95	05/01/2022 00:19 AM	0.24	0.2
J174	1	0						0	0	0.04	966.89	05/01/2022 00:18 AM	0.04	0.13
J175	1	0						0	0	0.01	970.35	05/01/2022 00:24 AM	0.01	0.02
J177	1	0						0	0.55	2.41	870.26	05/01/2022 00:19 AM	2.41	0
J179	1	0						0	0.02	0.22	977.01	05/01/2022 00:15 AM	0.22	3.19
J18	1	0						0	0.09	0.94	861.37	05/01/2022 00:19 AM	0.94	0.06
J180	1	0						0	0	0.03	907.8	05/01/2022 00:24 AM	0.03	0.23
J182	1	0						0	0	0	942.74	05/01/2022 00:00 AM	0	0
J183	1	0						0	0.01	0.08	941.46	05/01/2022 00:13 AM	0.08	0.75
J19	1	0						0	0	0	878.5	05/01/2022 00:00 AM	0	0
J2	1	0						0	0.03	0.34	941.8	05/01/2022 00:12 AM	0.34	3.18
J2.	1	0						0	0	0	855.48	05/01/2022 00:00 AM	0	0
J20	1	0						0	0.09	0.98	932.15	05/01/2022 00:15 AM	0.98	0
J21	1	0						0	0.03	0.25	937.03	05/01/2022 00:16 AM	0.25	0
J22	1	0						0	0.03	0.3	932.98	05/01/2022 00:16 AM	0.3	0
J23	1	0						0	0.02	0.21	932.79	05/01/2022 00:16 AM	0.21	0
J24	1	0						0	0.02	0.16	929.66	05/01/2022 00:16 AM	0.16	0
J25	1	0						0	0.02	0.19	881.19	05/01/2022 00:17 AM	0.19	0
J27	1	0						0	0.04	0.39	881.39	05/01/2022 00:17 AM	0.39	0
J28	1	0						0	0	0	878.5	05/01/2022 00:00 AM	0	0
J29	1	0						0	0	0.01	894.51	05/01/2022 00:30 AM	0.01	0.01
J2-S	1	0						0	0	0	858.83	05/01/2022 00:00 AM	0	0
J3	1	0						0	0.1	1.31	853.63	05/01/2022 00:15 AM	1.31	0

Table 2B: Junctions (continued...)

Name	Scale Factor	Average Value (cfs)	Time Pattern 1	Time Pattern 2	Time Pattern 3	Time Pattern 4	Hydrograph	Sewershed Area (ac)	Avg. Depth (ft)	Max. Depth (ft)	Max. HGL (ft)	Time Max. HGL (M/D/Y)	Rep. Max. Depth (ft)	Max. Lat. Inflow (cfs)
J30	1	0						0	3.87	4.5	885.28	05/01/2022 00:16 AM	4.5	0
J31	1	0						0	0	0.04	948.14	05/01/2022 00:06 AM	0.04	0.35
J32	1	0						0	0	0.06	944.86	05/01/2022 00:06 AM	0.06	0
J33	1	0						0	0.07	0.65	942.31	05/01/2022 00:08 AM	0.65	0
J34	1	0						0	0.08	0.8	929.65	05/01/2022 00:18 AM	0.8	0
J35	1	0						0	0.1	0.9	866.34	05/01/2022 00:19 AM	0.9	0.38
J36	1	0						0	0.02	0.19	919.63	05/01/2022 00:15 AM	0.19	0
J37	1	0						0	0.01	0.11	889.49	05/01/2022 00:18 AM	0.11	0
J39	1	0						0	0.01	0.07	942.14	05/01/2022 00:14 AM	0.07	0.32
J4	1	0						0	0.03	0.29	891.9	05/01/2022 00:18 AM	0.29	0
J40	1	0						0	0	0.03	940	05/01/2022 00:12 AM	0.03	0
J41	1	0						0	0	0.04	940.9	05/01/2022 00:08 AM	0.04	0
J42	1	0						0	0	0.05	937.52	05/01/2022 00:09 AM	0.05	0
J43	1	0						0	0.06	0.57	857.42	05/01/2022 00:19 AM	0.57	0
J44	1	0						0	0.02	0.1	900.66	05/01/2022 00:12 AM	0.1	0
J45	1	0						0	0.01	0.13	901.13	05/01/2022 00:12 AM	0.13	0.12
J46	1	0						0	0	0	864.9	05/01/2022 00:16 AM	0	0
J47	1	0						0	0	0	848.58	05/01/2022 00:00 AM	0	0
J48	1	0						0	0.01	0.17	954.01	05/01/2022 00:18 AM	0.17	0
J49	1	0						0	0	0	888.46	05/01/2022 00:00 AM	0	0
J4-S	1	0						0	0	0	857.11	05/01/2022 00:00 AM	0	0
J5	1	0						0	0.09	0.97	941.07	05/01/2022 00:18 AM	0.97	0
J55	1	0						0	0.17	1.74	869.22	05/01/2022 00:19 AM	1.74	0
J6	1	0						0	0.08	0.82	942.02	05/01/2022 00:18 AM	0.82	0
J7	1	0						0	0.05	0.55	943.01	05/01/2022 00:18 AM	0.55	0
J74	1	0						0	0.02	0.19	930.8	05/01/2022 00:15 AM	0.19	0.1

Table 2B: Junctions (continued...)

Name	Scale Factor	Average Value (cfs)	Time Pattern 1	Time Pattern 2	Time Pattern 3	Time Pattern 4	Hydrograph	Sewershed Area (ac)	Avg. Depth (ft)	Max. Depth (ft)	Max. HGL (ft)	Time Max. HGL (M/D/Y)	Rep. Max. Depth (ft)	Max. Lat. Inflow (cfs)
J8	1	0						0	0.07	0.71	939.21	05/01/2022 00:18 AM	0.71	0
J9	1	0						0	0.08	0.77	926.99	05/01/2022 00:18 AM	0.77	0.91
OL-10028	1	0						0	0	0.05	951.72	05/01/2022 00:18 AM	0.05	0.16
OL-11213	1	0						0	0.02	0.22	942.17	05/01/2022 00:06 AM	0.22	2.06
OL-11560	1	0						0	0.01	0.13	942.08	05/01/2022 00:08 AM	0.13	0
OL-11842	1	0						0	0	0.03	951.72	05/01/2022 00:06 AM	0.03	0.09
OL-11966	1	0						0	0.02	0.28	950.85	05/01/2022 00:12 AM	0.28	1.47
OL-12300	1	0						0	0.01	0.11	939.51	05/01/2022 00:12 AM	0.11	0.34
OL-12497	1	0						0	0	0.05	940.25	05/01/2022 00:12 AM	0.05	0.16
OL-12678	1	0						0	0.01	0.13	940.3	05/01/2022 00:12 AM	0.13	0.43
OL-12709	1	0						0	0.31	0.44	939.66	05/01/2022 00:12 AM	0.44	1.03
OL-12956	1	0						0	0.01	0.17	950.25	05/01/2022 00:12 AM	0.17	0.27
OL-13029	1	0						0	0	0.04	950.25	05/01/2022 00:12 AM	0.04	0.08
OL-13138	1	0						0	0.01	0.09	948.72	05/01/2022 00:06 AM	0.09	0.46
OL-13349	1	0						0	0	0.03	950.33	05/01/2022 00:06 AM	0.03	0.07
OL-13528	1	0						0	0.01	0.08	948.05	05/01/2022 00:06 AM	0.08	0.28
OL-13746	1	0						0	0.01	0.14	951.44	05/01/2022 00:12 AM	0.14	0.13
OL-15964	1	0						0	0.01	0.1	964.87	05/01/2022 00:12 AM	0.1	1.67
OL-16610	1	0						0	0.01	0.1	972.22	05/01/2022 00:18 AM	0.1	0.56
OL-16770	1	0						0	0.01	0.1	975.6	05/01/2022 00:18 AM	0.1	0.49
OL-18726	1	0						0	0	0.04	978.25	05/01/2022 00:12 AM	0.04	0.13
OL-1885	1	0						0	0.01	0.09	912.34	05/01/2022 00:13 AM	0.09	0.38
OL-1896	1	0						0	0.02	0.2	911.66	05/01/2022 00:12 AM	0.2	2.93
OL-20985	1	0						0	0.01	0.13	983.11	05/01/2022 00:09 AM	0.13	0.9
OL-21199	1	0						0	0.01	0.08	960.1	05/01/2022 00:06 AM	0.08	0.36
OL-21325	1	0						0	0.01	0.12	943.66	05/01/2022 00:09 AM	0.12	0.65

Table 2B: Junctions (continued...)

Name	Scale Factor	Average Value (cfs)	Time Pattern 1	Time Pattern 2	Time Pattern 3	Time Pattern 4	Hydrograph	Sewershed Area (ac)	Avg. Depth (ft)	Max. Depth (ft)	Max. HGL (ft)	Time Max. HGL (M/D/Y)	Rep. Max. Depth (ft)	Max. Lat. Inflow (cfs)
OL-2249	1	0						0	0.01	0.18	897.9	05/01/2022 00:12 AM	0.18	0.25
OL-2358	1	0						0	0.01	0.17	893.35	05/01/2022 00:12 AM	0.17	0.6
OL-2374	1	0						0	0.01	0.09	893.11	05/01/2022 00:06 AM	0.09	0.34
OL-31036	1	0						0	0.03	0.36	954.14	05/01/2022 00:18 AM	0.36	0.8
OL-31036'	1	0						0	0.03	0.28	954.41	05/01/2022 00:18 AM	0.28	10.58
OL-3424	1	0						0	0.01	0.14	890.34	05/01/2022 00:12 AM	0.14	0.78
OL-3449	1	0						0	0.01	0.07	890.03	05/01/2022 00:06 AM	0.07	0.26
OL-3596	1	0						0	0.02	0.24	891.98	05/01/2022 00:18 AM	0.24	2.93
OL-3615	1	0						0	0.02	0.17	890.78	05/01/2022 00:18 AM	0.17	1.1
OL-5172	1	0						0	0.01	0.13	927.62	05/01/2022 00:12 AM	0.13	0.69
OL-5191	1	0						0	0.01	0.14	924.18	05/01/2022 00:12 AM	0.14	0.33
OL-5218	1	0						0	0.01	0.1	933.24	05/01/2022 00:12 AM	0.1	0.52
OL-5230	1	0						0	0.01	0.07	938.05	05/01/2022 00:12 AM	0.07	0.26
OL-5246	1	0						0	0	0.05	929.53	05/01/2022 00:18 AM	0.05	0.2
OL-5526	1	0						0	0.01	0.09	941.98	05/01/2022 00:06 AM	0.09	0.53
OL-5571	1	0						0	0.01	0.11	942	05/01/2022 00:06 AM	0.11	0.74
OL-5604	1	0						0	0	0.05	941.79	05/01/2022 00:06 AM	0.05	0.19
OL-6088	1	0						0	0.01	0.09	900.53	05/01/2022 00:12 AM	0.09	0.54
OL-6436	1	0						0	0.02	0.2	900.67	05/01/2022 00:22 AM	0.2	0
OL-6452	1	0						0	0.01	0.16	900.63	05/01/2022 00:22 AM	0.16	0
OL-6457	1	0						0	0	0.03	900.73	05/01/2022 00:22 AM	0.03	0
OL-6505	1	0						0	0.01	0.14	901.49	05/01/2022 00:18 AM	0.14	1.65
OL-6505a	1	0						0	0	0	901.23	05/01/2022 00:00 AM	0	0
OL-7096	1	0						0	0.01	0.11	889.83	05/01/2022 00:12 AM	0.11	0.46
OL-7592	1	0						0	0.02	0.16	867.43	05/01/2022 00:19 AM	0.16	0.72
OL-7683	1	0						0	0.01	0.1	865.22	05/01/2022 00:18 AM	0.1	0.35

Table 2B: Junctions (continued...)

Name	Scale Factor	Average Value (cfs)	Time Pattern 1	Time Pattern 2	Time Pattern 3	Time Pattern 4	Hydrograph	Sewershed Area (ac)	Avg. Depth (ft)	Max. Depth (ft)	Max. HGL (ft)	Time Max. HGL (M/D/Y)	Rep. Max. Depth (ft)	Max. Lat. Inflow (cfs)
OL-7742	1	0						0	0.01	0.11	867.54	05/01/2022 00:12 AM	0.11	0.64
OL-9253a	1	0						0	0	0	948.32	05/01/2022 00:00 AM	0	0
OL-9253b	1	0						0	0	0	944.25	05/01/2022 00:00 AM	0	0
OL-9253c	1	0						0	0	0	888	05/01/2022 00:00 AM	0	0
OL-9253d	1	0						0	0	0	888	05/01/2022 00:00 AM	0	0
OL-9253e	1	0						0	0	0	863.83	05/01/2022 00:00 AM	0	0
OL-9264	1	0						0	0.01	0.08	948.69	05/01/2022 00:14 AM	0.08	0.37
OL-9409	1	0						0	0	0.05	949.63	05/01/2022 00:06 AM	0.05	0.2
OL-J1	1	0						0	0.02	0.22	856.05	05/01/2022 00:13 AM	0.22	2.02
OL-J10	1	0						0	0.02	0.22	1011.82	05/01/2022 00:12 AM	0.22	4.33
OL-J10a	1	0						0	0.01	0.12	1010.22	05/01/2022 00:12 AM	0.12	0
OL-J10b	1	0						0	0.02	0.23	981.98	05/01/2022 00:12 AM	0.23	0
OL-J14	1	0						0	0.03	0.37	856.27	05/01/2022 00:12 AM	0.36	6.58
OL-J147	1	0						0	0	0.03	942.65	05/01/2022 00:07 AM	0.03	0.25
OL-J15	1	0						0	0.03	0.3	856.19	05/01/2022 00:13 AM	0.3	4.55
OL-J172	1	0						0	0	0	951	05/01/2022 00:00 AM	0	0
OL-J3	1	0						0	0.03	0.27	857.36	05/01/2022 00:12 AM	0.27	6.19
OL-J33	1	0						0	0.01	0.15	942.32	05/01/2022 00:08 AM	0.15	0.84
OL-J37	1	0						0	0.01	0.13	941.16	05/01/2022 00:13 AM	0.13	0.66
OL-J40	1	0						0	0	0.03	948.54	05/01/2022 00:12 AM	0.03	0.08
OL-J48	1	0						0	0	0.04	968.37	05/01/2022 00:18 AM	0.04	0.22
OL-J49	1	0						0	0.01	0.08	967.75	05/01/2022 00:06 AM	0.08	1.13
OL-J4a	1	0						0	0	0	894.5	05/01/2022 00:00 AM	0	0
OL-J4b	1	0						0	0	0	892.47	05/01/2022 00:00 AM	0	0
OL-J4c	1	0						0	0	0	881.81	05/01/2022 00:00 AM	0	0
OL-J4d	1	0						0	0	0	871.79	05/01/2022 00:00 AM	0	0

Table 2B: Junctions (continued...)

Name	Scale Factor	Average Value (cfs)	Time Pattern 1	Time Pattern 2	Time Pattern 3	Time Pattern 4	Hydrograph	Sewershed Area (ac)	Avg. Depth (ft)	Max. Depth (ft)	Max. HGL (ft)	Time Max. HGL (M/D/Y)	Rep. Max. Depth (ft)	Max. Lat. Inflow (cfs)
OL-J5	1	0						0	0.04	0.41	946.16	05/01/2022 00:18 AM	0.41	4.34
OL-J50	1	0						0	0	0.06	940.7	05/01/2022 00:10 AM	0.06	0.27
OL-J6	1	0						0	0.03	0.37	946.17	05/01/2022 00:18 AM	0.37	4.81
OL-J7	1	0						0	0.04	0.4	946.27	05/01/2022 00:18 AM	0.4	5.07
OL-J72	1	0						0	0	0	905.6	05/01/2022 00:00 AM	0	0
OL-J8	1	0						0	0.02	0.28	944.78	05/01/2022 00:18 AM	0.28	0

Table 2C: Junctions

Name	Max. Total Inflow (cfs)	Total Lat. Inflow (MG)	Total inflow (MG)	Flow Error (%)	Hours Surcharged (h)	Max. Surcharge (ft)	Min. Freeboard (ft)	Hours Flooded (h)	Max. Flood Rate (cfs)	Total Flood Vol. (MG)	Max. Ponded Depth (ft)	Contributing Area (ac)	Contributing Imp. Area (ac)	Max. Unit Flow (cfs/ac)
10028	0.16	0	0.003	0.006	0	0	4.11	0	0	0	0	0	0	0
1024	36.26	0	0.642	-0.045	0	0	18.19	0	0	0	0	0	0	0
1038	0.2	0.004	0.004	0.003	0	0	3.16	0	0	0	0	0	0	0
10393	6.51	0	0.101	0	0	0	8.02	0	0	0	0	0	0	0
11213	1.59	0	0.022	0.016	0	0	5.7	0	0	0	0	0	0	0
11254	3.03	0	0.042	0.426	0	0	8.43	0	0	0	0	0	0	0
11560	1.47	0.006	0.019	0.001	0	0	4.92	0	0	0	0	0	0	0
11588	0	0	0	0	0	0	5.07	0	0	0	0	0	0	0
11842	0.23	0	0.004	-0.005	0	0	4.39	0	0	0	0	0	0	0
11966	1.67	0	0.025	0	0	0	4.2	0	0	0	0	0	0	0
12000	5.57	0	0.117	-0.109	0	0	4.91	0	0	0	0	0	0	0
12000-1	0.66	0	0.024	-0.662	0	0	4.98	0	0	0	0	0	0	0
12000-2	5.36	0.004	0.093	0	0	0	6.39	0	0	0	0	0	0	0
12161	0	0	0	0	0	0	2.35	0	0	0	0	0	0	0

Table 2C: Junctions (continued...)

Name	Max. Total Inflow (cfs)	Total Lat. Inflow (MG)	Total inflow (MG)	Flow Error (%)	Hours Surcharged (h)	Max. Surcharge (ft)	Min. Freeboard (ft)	Hours Flooded (h)	Max. Flood Rate (cfs)	Total Flood Vol. (MG)	Max. Ponded Depth (ft)	Contributing Area (ac)	Contributing Imp. Area (ac)	Max. Unit Flow (cfs/ac)
12275	0.06	0	0	0.713	0	0	6.66	0	0	0	0	0	0	0
12300	4.63	0	0.065	-0.014	0	0	4.97	0	0	0	0	0	0	0
12497	2.52	0	0.036	-0.004	0	0	4.33	0	0	0	0	0	0	0
12514	2.37	0	0.034	0.008	0	0	5.21	0	0	0	0	0	0	0
12678	3.25	0	0.046	0.01	0	0	4.28	0	0	0	0	0	0	0
12709	4.08	0	0.06	0.01	0	0	4.2	0	0	0	0	0	0	0
12759	0	0	0	0	0	0	6.3	0	0	0	0	0	0	0
12956	0.68	0	0.01	0.002	0	0	3.82	0	0	0	0	0	0	0
12957	2.99	0	0.043	0.861	0	0	6.74	0	0	0	0	0	0	0
13029	1.1	0.006	0.018	0	0	0	5.7	0	0	0	0	0	0	0
13138	1.26	0.01	0.015	-0.14	0	0	6.08	0	0	0	0	0	0	0
13349	0.46	0.005	0.006	0.001	0	0	5.13	0	0	0	0	0	0	0
13528	2.37	0	0.034	0	0	0	4.35	0	0	0	0	0	0	0
13746	0.54	0	0.01	0.002	0	0	4.4	0	0	0	0	0	0	0
14383	0.22	0.003	0.003	0.004	0	0	3.21	0	0	0	0	0	0	0
14448	0.98	0	0.013	0	0	0	5.67	0	0	0	0	0	0	0
14608	0.66	0.008	0.008	-0.005	0	0	2.02	0	0	0	0	0	0	0
14961	1.08	0	0.016	0	0	0	10.56	0	0	0	0	0	0	0
15025	1.08	0.001	0.016	-0.001	0	0	7.41	0	0	0	0	0	0	0
15075	1.07	0.001	0.015	-0.001	0	0	9.7	0	0	0	0	0	0	0
15234	1.03	0.001	0.014	-0.001	0	0	5.67	0	0	0	0	0	0	0
15374	0.11	0.002	0.002	0.009	0	0	2.5	0	0	0	0	0	0	0
15469	0.05	0.001	0.001	0.027	0	0	0.88	0	0	0	0	0	0	0
15909	1.15	0	0.019	-0.055	0	0	3.64	0	0	0	0	0	0	0
15964	3.43	0	0.051	-0.012	0	0	4.81	0	0	0	0	0	0	0
16125	0.69	0.01	0.01	-0.003	0	0	1.58	0	0	0	0	0	0	0

Table 2C: Junctions (continued...)

Name	Max. Total Inflow (cfs)	Total Lat. Inflow (MG)	Total inflow (MG)	Flow Error (%)	Hours Surcharged (h)	Max. Surcharge (ft)	Min. Freeboard (ft)	Hours Flooded (h)	Max. Flood Rate (cfs)	Total Flood Vol. (MG)	Max. Ponded Depth (ft)	Contributing Area (ac)	Contributing Imp. Area (ac)	Max. Unit Flow (cfs/ac)
16610	1.15	0	0.019	-0.002	0	0	4.06	0	0	0	0	0	0	0
16770	0.62	0	0.01	-0.069	0	0	5.58	0	0	0	0	0	0	0
17671	0.07	0.001	0.001	0.012	0	0	5.14	0	0	0	0	0	0	0
18312	0.36	0.006	0.006	-0.001	0	0	5.11	0	0	0	0	0	0	0
18356	1.45	0.001	0.025	-0.001	0	0	8.77	0	0	0	0	0	0	0
18402	1.1	0	0.017	0	0	0	7.51	0	0	0	0	0	0	0
18726	0.13	0	0.002	0.107	0	0	4.26	0	0	0	0	0	0	0
1885	10.58	0	0.149	0	0	0	5.17	0	0	0	0	0	0	0
1896	12.09	0	0.177	0	0	0	6.64	0	0	0	0	0	0	0
19657	0.29	0.004	0.004	-0.019	0	0	4.24	0	0	0	0	0	0	0
2002	1.25	0.008	0.016	0.022	0	0	1.45	0	0	0	0	0	0	0
2002'	0	0	0	0	0	0	2	0	0	0	0	0	0	0
20575	0.68	0.006	0.009	0.01	0	0	3.37	0	0	0	0	0	0	0
20974	4.49	0	0.082	-0.001	0	0	7.46	0	0	0	0	0	0	0
20985	0.79	0	0.011	0.002	0	0	4.5	0	0	0	0	0	0	0
21199	4.75	0	0.086	-0.001	0	0	5.43	0	0	0	0	0	0	0
21325	5.39	0	0.095	0	0	0	5.754	0	0	0	0	0	0	0
21426	8.25	0	0.116	-0.002	0	0	10.43	0	0	0	0	0	0	0
21626	25.33	0.002	0.462	0.044	0	0	16.13	0	0	0	0	0	0	0
21678	4.2	0	0.077	0	0	0	10.7	0	0	0	0	0	0	0
21705	0.96	0.012	0.012	0	0	0	3.09	0	0	0	0	0	0	0
2249	1.05	0	0.012	-0.008	0	0	12.41	0	0	0	0	0	0	0
23025	3.53	0.067	0.067	0	0	0	5.11	0	0	0	0	0	0	0
23037	3.81	0.005	0.072	-0.001	0	0	7.97	0	0	0	0	0	0	0
2358	1.95	0	0.022	0.001	0	0	6.78	0	0	0	0	0	0	0
2374	1.54	0	0.02	0	0	0	6.55	0	0	0	0	0	0	0

Table 2C: Junctions (continued...)

Name	Max. Total Inflow (cfs)	Total Lat. Inflow (MG)	Total inflow (MG)	Flow Error (%)	Hours Surcharged (h)	Max. Surcharge (ft)	Min. Freeboard (ft)	Hours Flooded (h)	Max. Flood Rate (cfs)	Total Flood Vol. (MG)	Max. Ponded Depth (ft)	Contributing Area (ac)	Contributing Imp. Area (ac)	Max. Unit Flow (cfs/ac)
2425	3.49	0	0.042	0.099	0	0	10.44	0	0	0	0	0	0	0
24932	7.4	0	0.148	0	0	0	6.63	0	0	0	0	0	0	0
25477	90.19	0	1.56	0	0	0	13.07	0	0	0	0	0	0	0
25478	93.97	0.029	1.63	0.003	0	0	29.06	0	0	0	0	0	0	0
25504	1.47	0	0.019	-0.887	0	0	6.86	0	0	0	0	0	0	0
257	6.52	0	0.101	-0.04	0	0	9.87	0	0	0	0	0	0	0
2732	39.27	0	0.684	0.028	0	0	15.44	0	0	0	0	0	0	0
3089	10.68	0.001	0.16	0.105	0	0	6.111	0	0	0	0	0	0	0
31036	7.4	0	0.148	-0.001	0	0	3.12	0	0	0	0	0	0	0
31036'	3.03	0	0.072	-0.001	0	0	2.34	0	0	0	0	0	0	0
3372	0	0	0	0	0	0	5.9	0	0	0	0	0	0	0
3381	5.11	0	0.074	0	0	0	7.68	0	0	0	0	0	0	0
3424	2.03	0	0.036	0	0	0	4.86	0	0	0	0	0	0	0
3449	34.27	0	0.609	-0.007	0	0	16.98	0	0	0	0	0	0	0
3596	34.11	0	0.606	0.057	0	0	16.44	0	0	0	0	0	0	0
3615	1.37	0	0.026	-0.001	0	0	4.53	0	0	0	0	0	0	0
3824	0.43	0.004	0.006	0	0	0	10.94	0	0	0	0	0	0	0
5172	9.03	0	0.129	0	0	0	6.69	0	0	0	0	0	0	0
5191	10.1	0	0.142	-0.001	0	0	8.69	0	0	0	0	0	0	0
5218	5.88	0	0.102	0.023	0	0	5.6	0	0	0	0	0	0	0
5230	4.82	0	0.065	0.218	0	0	8.83	0	0	0	0	0	0	0
5246	0.2	0	0.003	0.004	0	0	5.45	0	0	0	0	0	0	0
5526	1	0.006	0.012	-0.005	0	0	2.94	0	0	0	0	0	0	0
5571	2.78	0.013	0.034	-0.003	0	0	4.4	0	0	0	0	0	0	0
5604	2.97	0	0.036	0	0	0	5.63	0	0	0	0	0	0	0
6078	32.62	0	0.575	-0.058	0	0	13.14	0	0	0	0	0	0	0

Table 2C: Junctions (continued...)

Name	Max. Total Inflow (cfs)	Total Lat. Inflow (MG)	Total inflow (MG)	Flow Error (%)	Hours Surcharged (h)	Max. Surcharge (ft)	Min. Freeboard (ft)	Hours Flooded (h)	Max. Flood Rate (cfs)	Total Flood Vol. (MG)	Max. Ponded Depth (ft)	Contributing Area (ac)	Contributing Imp. Area (ac)	Max. Unit Flow (cfs/ac)
6088	0.54	0	0.008	0.001	0	0	11.38	0	0	0	0	0	0	0
6436	32.13	0	0.566	-0.003	0	0	7.74	0	0	0	0	0	0	0
6452	3.25	0	0.052	0	0	0	2.33	0	0	0	0	0	0	0
6457	0.24	0	0.001	0.001	0	0	2.56	0	0	0	0	0	0	0
6505	1.38	0	0.026	-0.022	0.37	1.785	0	0.16	0.02	0	0.015	0	0	0
7096	0.45	0	0.006	0.001	0	0	4.65	0	0	0	0	0	0	0
7592	1.56	0	0.03	-0.038	0	0	3.86	0	0	0	0	0	0	0
7683	2.04	0	0.036	0.001	0	0	3.06	0	0	0	0	0	0	0
7742	0.64	0	0.008	0.216	0	0	3.29	0	0	0	0	0	0	0
7794	93.87	0	1.63	-0.003	0	0	31.96	0	0	0	0	0	0	0
8667-J4	5.13	0.006	0.088	0	0	0	4.81	0	0	0	0	0	0	0
8697	4.81	0.003	0.083	0	0	0	4.15	0	0	0	0	0	0	0
8807	4.63	0.015	0.08	-0.001	0	0	3.55	0	0	0	0	0	0	0
8903	3.73	0.064	0.064	-0.001	0	0	2.65	0	0	0	0	0	0	0
9095	3.43	0	0.051	0.069	0	0	6.38	0	0	0	0	0	0	0
9253	1.91	0	0.032	0	0	0	4.13	0	0	0	0	0	0	0
9264	5.62	0	0.088	0.205	0	0	5.01	0	0	0	0	0	0	0
9409	5.79	0	0.09	-0.281	0	0	6.75	0	0	0	0	0	0	0
9627	0.56	0.008	0.008	0.002	0	0	3.88	0	0	0	0	0	0	0
9645	6.53	0.003	0.101	0.047	0	0	8.26	0	0	0	0	0	0	0
9733	1.45	0	0.025	-0.026	0	0	11.569	0	0	0	0	0	0	0
J1	15.41	0	0.259	-0.004	0.1	0.464	3.156	0	0	0	0	0	0	0
J10	1.71	0	0.035	-0.001	0	0	2.71	0	0	0	0	0	0	0
J11	1.71	0	0.035	-0.012	0	0	2.791	0	0	0	0	0	0	0
J12	1.71	0	0.035	0.012	0	0	5.08	0	0	0	0	0	0	0
J13	4.42	0.004	0.072	-0.003	0	0	1.739	0	0	0	0	0	0	0

Table 2C: Junctions (continued...)

Name	Max. Total Inflow (cfs)	Total Lat. Inflow (MG)	Total inflow (MG)	Flow Error (%)	Hours Surcharged (h)	Max. Surcharge (ft)	Min. Freeboard (ft)	Hours Flooded (h)	Max. Flood Rate (cfs)	Total Flood Vol. (MG)	Max. Ponded Depth (ft)	Contributing Area (ac)	Contributing Imp. Area (ac)	Max. Unit Flow (cfs/ac)
J147	0.17	0	0.002	0.002	0	0	0.75	0	0	0	0	0	0	0
J15	13.88	0	0.23	-0.001	0.11	0.514	2.736	0	0	0	0	0	0	0
J159	44.33	0	0.759	-0.002	0	0	17.57	0	0	0	0	0	0	0
J16	25.45	0.065	0.441	-0.052	0	0	9.353	0	0	0	0	0	0	0
J163	11.07	0	0.166	-0.001	0	0	9.51	0	0	0	0	0	0	0
J164	0.63	0.008	0.01	-0.006	0	0	1.14	0	0	0	0	0	0	0
J165	0.11	0.002	0.002	0.038	0	0	1.94	0	0	0	0	0	0	0
J166	0	0	0	0	0	0	8.62	0	0	0	0	0	0	0
J167	0.54	0.009	0.009	-0.003	0	0	4.261	0	0	0	0	0	0	0
J168	39.27	0	0.684	0.004	0	0	19.84	0	0	0	0	0	0	0
J169	0.64	0.008	0.011	0	0	0	1.113	0	0	0	0	0	0	0
J17	10.63	0.012	0.159	0.008	0	0	3.698	0	0	0	0	0	0	0
J170	1.49	0.014	0.026	-0.004	0	0	1.435	0	0	0	0	0	0	0
J171	0.06	0.001	0.001	-0.006	0	0	0.54	0	0	0	0	0	0	0
J172	2	0.009	0.034	-0.003	0	0	1.33	0	0	0	0	0	0	0
J173	2.19	0.003	0.038	0.005	0	0	1.76	0	0	0	0	0	0	0
J174	0.15	0.002	0.002	-0.011	0	0	1.687	0	0	0	0	0	0	0
J175	0.02	0	0	0.013	0	0	0.79	0	0	0	0	0	0	0
J177	78.06	0	1.37	-0.032	0	0	12.7	0	0	0	0	0	0	0
J179	7.48	0.053	0.125	-0.172	0	0	0.783	0	0	0	0	0	0	0
J18	92.41	0.001	1.6	0.001	0	0	11.862	0	0	0	0	0	0	0
J180	0.23	0.004	0.004	-0.005	0	0	0.47	0	0	0	0	0	0	0
J182	0	0	0	0	0	0	1.1	0	0	0	0	0	0	0
J183	1.05	0.011	0.016	0	0	0	0.92	0	0	0	0	0	0	0
J19	0	0	0	0	0	0	12.174	0	0	0	0	0	0	0
J2	3.18	0.046	0.046	0	0	0	1.66	0	0	0	0	0	0	0

Table 2C: Junctions (continued...)

Name	Max. Total Inflow (cfs)	Total Lat. Inflow (MG)	Total inflow (MG)	Flow Error (%)	Hours Surcharged (h)	Max. Surcharge (ft)	Min. Freeboard (ft)	Hours Flooded (h)	Max. Flood Rate (cfs)	Total Flood Vol. (MG)	Max. Ponded Depth (ft)	Contributing Area (ac)	Contributing Imp. Area (ac)	Max. Unit Flow (cfs/ac)
J2.	0	0	0	0	0	0	3.35	0	0	0	0	0	0	0
J20	9.33	0	0.143	0.004	0	0	6.95	0	0	0	0	0	0	0
J21	1.45	0	0.025	0.02	0	0	13	0	0	0	0	0	0	0
J22	1.44	0	0.025	0	0	0	7.101	0	0	0	0	0	0	0
J23	1.44	0	0.025	0	0	0	7.081	0	0	0	0	0	0	0
J24	1.44	0	0.025	0	0	0	10.695	0	0	0	0	0	0	0
J25	1.44	0	0.025	0.001	0	0	9.641	0	0	0	0	0	0	0
J27	1.44	0	0.025	-0.002	0	0	17.531	0	0	0	0	0	0	0
J28	0	0	0	0	0	0	8.947	0	0	0	0	0	0	0
J29	0.01	0	0	0.088	0	0	1.99	0	0	0	0	0	0	0
J2-S	0	0	0	0	0	0	2	0	0	0	0	0	0	0
J3	11.1	0	0.18	-0.001	0	0	3.06	0	0	0	0	0	0	0
J30	10.68	0	0.16	0.121	0	0	10.283	0	0	0	0	0	0	0
J31	0.35	0.004	0.004	-0.006	0	0	0.63	0	0	0	0	0	0	0
J32	0.35	0	0.004	-0.006	0	0	1.043	0	0	0	0	0	0	0
J33	0.45	0	0.006	-1.845	0	0	0.353	0.13	0.22	0	0.152	0	0	0
J34	12.21	0	0.222	-0.002	0	0	6.776	0	0	0	0	0	0	0
J35	90.57	0.006	1.57	-0.002	0	0	11.443	0	0	0	0	0	0	0
J36	9.38	0	0.145	0.031	0	0	9.51	0	0	0	0	0	0	0
J37	1.56	0	0.016	0.017	0	0	0.986	0	0	0	0	0	0	0
J39	0.32	0.005	0.005	-0.002	0	0	1.296	0	0	0	0	0	0	0
J4	1.82	0	0.031	0	0	0	2.1	0	0	0	0	0	0	0
J40	0.03	0	0	1.701	0	0	1.072	0	0	0	0	0	0	0
J41	0.54	0	0.003	0.041	0	0	1.066	0	0	0	0	0	0	0
J42	0.54	0	0.003	0.01	0	0	1.041	0	0	0	0	0	0	0
J43	92.4	0	1.6	-0.005	0	0	12.58	0	0	0	0	0	0	0

Table 2C: Junctions (continued...)

Name	Max. Total Inflow (cfs)	Total Lat. Inflow (MG)	Total inflow (MG)	Flow Error (%)	Hours Surcharged (h)	Max. Surcharge (ft)	Min. Freeboard (ft)	Hours Flooded (h)	Max. Flood Rate (cfs)	Total Flood Vol. (MG)	Max. Ponded Depth (ft)	Contributing Area (ac)	Contributing Imp. Area (ac)	Max. Unit Flow (cfs/ac)
J44	0.12	0	0.002	0.027	0	0	1.4	0	0	0	0	0	0	0
J45	0.12	0.002	0.002	0.001	0	0	1.35	0	0	0	0	0	0	0
J46	0.01	0	0	-0.739	0	0	3	0	0	0	0	0	0	0
J47	0	0	0	0	0	0	4.85	0	0	0	0	0	0	0
J48	3.77	0	0.053	-0.008	0	0	0.94	0	0	0	0	0	0	0
J49	0	0	0	0	0	0	1.1	0	0	0	0	0	0	0
J4-S	0	0	0	0	0	0	2	0	0	0	0	0	0	0
J5	12.22	0	0.222	0.002	0	0	4.78	0	0	0	0	0	0	0
J55	79.5	0	1.39	0.001	0	0	11.12	0	0	0	0	0	0	0
J6	7.95	0	0.138	0.078	0	0	3.883	0	0	0	0	0	0	0
J7	4.27	0	0.073	0.002	0	0	2.958	0	0	0	0	0	0	0
J74	9.38	0.002	0.145	0	0	0	4.25	0	0	0	0	0	0	0
J8	12.21	0	0.222	0.001	0	0	5.542	0	0	0	0	0	0	0
J9	22.32	0.017	0.377	-0.012	0	0	9.255	0	0	0	0	0	0	0
OL-10028	0.16	0.003	0.003	0	0	0	1.05	0	0	0	0	0	0	0
OL-11213	2.06	0.025	0.025	-0.016	0	0	0.88	0	0	0	0	0	0	0
OL-11560	0.83	0	0.007	0	0	0	0.97	0	0	0	0	0	0	0
OL-11842	0.09	0.001	0.001	-0.001	0	0	1.07	0	0	0	0	0	0	0
OL-11966	1.47	0.021	0.021	-0.001	0	0	0.82	0	0	0	0	0	0	0
OL-12300	0.55	0.004	0.005	-0.001	0	0	1.331	0	0	0	0	0	0	0
OL-12497	0.16	0.002	0.002	-0.001	0	0	1.688	0	0	0	0	0	0	0
OL-12678	0.77	0.006	0.01	-0.005	0	0	1.4	0	0	0	0	0	0	0
OL-12709	1.06	0.014	0.015	0.178	0	0	0.96	0	0	0	0	0	0	0
OL-12956	1.18	0.003	0.013	-0.002	0	0	0.93	0	0	0	0	0	0	0
OL-13029	0.08	0.001	0.001	0	0	0	1.112	0	0	0	0	0	0	0
OL-13138	0.46	0.006	0.006	-0.002	0	0	1.01	0	0	0	0	0	0	0

Table 2C: Junctions (continued...)

Name	Max. Total Inflow (cfs)	Total Lat. Inflow (MG)	Total inflow (MG)	Flow Error (%)	Hours Surcharged (h)	Max. Surcharge (ft)	Min. Freeboard (ft)	Hours Flooded (h)	Max. Flood Rate (cfs)	Total Flood Vol. (MG)	Max. Ponded Depth (ft)	Contributing Area (ac)	Contributing Imp. Area (ac)	Max. Unit Flow (cfs/ac)
OL-13349	0.07	0.001	0.001	0	0	0	1.088	0	0	0	0	0	0	0
OL-13528	0.28	0.003	0.003	-0.001	0	0	1.02	0	0	0	0	0	0	0
OL-13746	1.24	0.002	0.016	0.075	0	0	0.96	0	0	0	0	0	0	0
OL-15964	1.67	0.022	0.022	-0.003	0	0	1.163	0	0	0	0	0	0	0
OL-16610	0.56	0.009	0.009	0	0	0	1	0	0	0	0	0	0	0
OL-16770	0.49	0.008	0.008	0	0	0	1	0	0	0	0	0	0	0
OL-18726	0.13	0.002	0.002	-0.001	0	0	1.06	0	0	0	0	0	0	0
OL-1885	0.48	0.007	0.007	0	0	0	1.01	0	0	0	0	0	0	0
OL-1896	2.93	0.04	0.04	-0.002	0	0	0.9	0	0	0	0	0	0	0
OL-20985	0.9	0.011	0.011	-0.003	0	0	0.97	0	0	0	0	0	0	0
OL-21199	0.36	0.004	0.004	-0.001	0	0	1.02	0	0	0	0	0	0	0
OL-21325	0.73	0.008	0.008	0.003	0	0	0.984	0	0	0	0	0	0	0
OL-2249	1.63	0.003	0.016	-0.004	0	0	0.919	0	0	0	0	0	0	0
OL-2358	1.17	0.008	0.011	-0.994	0	0	0.93	0	0	0	0	0	0	0
OL-2374	0.34	0.004	0.004	-0.001	0	0	1.01	0	0	0	0	0	0	0
OL-31036	8.15	0.01	0.129	0.026	0	0	1.02	0	0	0	0	0	0	0
OL-31036'	10.58	0.191	0.191	-0.019	0	0	0.82	0	0	0	0	0	0	0
OL-3424	0.78	0.01	0.01	-0.048	0	0	0.96	0	0	0	0	0	0	0
OL-3449	0.26	0.003	0.003	-0.001	0	0	1.03	0	0	0	0	0	0	0
OL-3596	2.93	0.047	0.047	0	0	0	0.86	0	0	0	0	0	0	0
OL-3615	2.5	0.019	0.035	-0.005	0	0	0.93	0	0	0	0	0	0	0
OL-5172	1.17	0.011	0.014	-0.192	0	0	0.97	0	0	0	0	0	0	0
OL-5191	1.04	0.004	0.011	0.178	0	0	0.96	0	0	0	0	0	0	0
OL-5218	0.52	0.007	0.007	-0.001	0	0	1	0	0	0	0	0	0	0
OL-5230	0.29	0.004	0.004	0	0	0	1.03	0	0	0	0	0	0	0
OL-5246	0.2	0.003	0.003	0	0	0	1.05	0	0	0	0	0	0	0

Table 2C: Junctions (continued...)

Name	Max. Total Inflow (cfs)	Total Lat. Inflow (MG)	Total inflow (MG)	Flow Error (%)	Hours Surcharged (h)	Max. Surcharge (ft)	Min. Freeboard (ft)	Hours Flooded (h)	Max. Flood Rate (cfs)	Total Flood Vol. (MG)	Max. Ponded Depth (ft)	Contributing Area (ac)	Contributing Imp. Area (ac)	Max. Unit Flow (cfs/ac)
OL-5526	0.53	0.006	0.006	-0.002	0	0	1.12	0	0	0	0	0	0	0
OL-5571	0.74	0.009	0.009	-0.002	0	0	1.321	0	0	0	0	0	0	0
OL-5604	0.19	0.002	0.002	-0.001	0	0	1.394	0	0	0	0	0	0	0
OL-6088	0.54	0.008	0.008	0	0	0	1.01	0	0	0	0	0	0	0
OL-6436	2.38	0	0.044	0	0	0	1.33	0	0	0	0	0	0	0
OL-6452	3.01	0	0.051	0	0	0	1.37	0	0	0	0	0	0	0
OL-6457	0.24	0	0.001	0.001	0	0	1.27	0	0	0	0	0	0	0
OL-6505	1.65	0.027	0.027	0.278	0	0	1.02	0	0	0	0	0	0	0
OL-6505a	0	0	0	0	0	0	1	0	0	0	0	0	0	0
OL-7096	0.46	0.006	0.006	-0.009	0	0	0.99	0	0	0	0	0	0	0
OL-7592	1.24	0.013	0.023	0.001	0	0	0.94	0	0	0	0	0	0	0
OL-7683	0.49	0.005	0.007	-0.001	0	0	1	0	0	0	0	0	0	0
OL-7742	0.64	0.008	0.008	-0.003	0	0	0.99	0	0	0	0	0	0	0
OL-9253a	0	0	0	0	0	0	1.096	0	0	0	0	0	0	0
OL-9253b	0	0	0	0	0	0	1.097	0	0	0	0	0	0	0
OL-9253c	0	0	0	0	0	0	1.1	0	0	0	0	0	0	0
OL-9253d	0	0	0	0	0	0	1.101	0	0	0	0	0	0	0
OL-9253e	0	0	0	0	0	0	1.103	0	0	0	0	0	0	0
OL-9264	0.41	0.005	0.005	-0.001	0	0	4.67	0	0	0	0	0	0	0
OL-9409	0.2	0.002	0.002	-0.001	0	0	1.05	0	0	0	0	0	0	0
OL-J1	5.35	0.025	0.062	-0.005	0	0	0.875	0	0	0	0	0	0	0
OL-J10	4.33	0.068	0.068	0	0	0	0.88	0	0	0	0	0	0	0
OL-J10a	2.62	0	0.034	-0.011	0	0	0.98	0	0	0	0	0	0	0
OL-J10b	2.61	0	0.034	0.011	0	0	0.87	0	0	0	0	0	0	0
OL-J14	8.81	0.104	0.135	-0.001	0	0	1.92	0	0	0	0	0	0	0
OL-J147	0.25	0.003	0.003	0.003	0	0	1.07	0	0	0	0	0	0	0

Table 2C: Junctions (continued...)

Name	Max. Total Inflow (cfs)	Total Lat. Inflow (MG)	Total inflow (MG)	Flow Error (%)	Hours Surcharged (h)	Max. Surcharge (ft)	Min. Freeboard (ft)	Hours Flooded (h)	Max. Flood Rate (cfs)	Total Flood Vol. (MG)	Max. Ponded Depth (ft)	Contributing Area (ac)	Contributing Imp. Area (ac)	Max. Unit Flow (cfs/ac)
OL-J15	6.16	0.07	0.087	-0.037	0	0	0.806	0	0	0	0	0	0	0
OL-J172	0	0	0	0	0	0	1.1	0	0	0	0	0	0	0
OL-J3	6.19	0.092	0.092	0.018	0	0	0.831	0	0	0	0	0	0	0
OL-J33	0.92	0.01	0.011	1.014	0	0	0.943	0	0	0	0	0	0	0
OL-J37	1.69	0.009	0.024	-0.006	0	0	0.979	0	0	0	0	0	0	0
OL-J40	0.08	0.001	0.001	-0.122	0	0	1.074	0	0	0	0	0	0	0
OL-J48	0.22	0.004	0.004	-0.565	0	0	1.052	0	0	0	0	0	0	0
OL-J49	1.13	0.014	0.014	-0.001	0	0	1.022	0	0	0	0	0	0	0
OL-J4a	0	0	0	0	0	0	1	0	0	0	0	0	0	0
OL-J4b	0	0	0	0	0	0	0.999	0	0	0	0	0	0	0
OL-J4c	0	0	0	0	0	0	0.998	0	0	0	0	0	0	0
OL-J4d	0	0	0	0	0	0	0.999	0	0	0	0	0	0	0
OL-J5	14.78	0.069	0.222	-0.19	0	0	0.69	0	0	0	0	0	0	0
OL-J50	0.35	0.003	0.004	0.019	0	0	1.047	0	0	0	0	0	0	0
OL-J6	4.81	0.08	0.08	0.362	0	0	0.733	0	0	0	0	0	0	0
OL-J7	12.5	0.086	0.211	0.109	0	0	0.698	0	0	0	0	0	0	0
OL-J72	0	0	0	0	0	0	1	0	0	0	0	0	0	0
OL-J8	9.25	0	0.138	0.001	0	0	0.82	0	0	0	0	0	0	0

Table 2D: Junctions

Name	GIS_LENGTH (m)	GIS_AREA (m²)	GIS_PARTS
10028	0	0	1
1024	0	0	1
1038	0	0	1
10393	0	0	1
11213	0	0	1
11254	0	0	1
11560	0	0	1
11588	0	0	1
11842	0	0	1
11966	0	0	1
12000	0	0	1
12000-1	0	0	1
12000-2	0	0	1
12161	0	0	1
12275	0	0	1
12300	0	0	1
12497	0	0	1
12514	0	0	1
12678	0	0	1
12709	0	0	1
12759	0	0	1
12956	0	0	1
12957	0	0	1
13029	0	0	1
13138	0	0	1
13349	0	0	1

Table 2D: Junctions (continued...)

Name	GIS_LENGTH (m)	GIS_AREA (m²)	GIS_PARTS
13528	0	0	1
13746	0	0	1
14383	0	0	1
14448	0	0	1
14608	0	0	1
14961	0	0	1
15025	0	0	1
15075	0	0	1
15234	0	0	1
15374	0	0	1
15469	0	0	1
15909	0	0	1
15964	0	0	1
16125	0	0	1
16610	0	0	1
16770	0	0	1
17671	0	0	1
18312	0	0	1
18356	0	0	1
18402	0	0	1
18726	0	0	1
1885	0	0	1
1896	0	0	1
19657	0	0	1
2002	0	0	1
2002'	0	0	1

Table 2D: Junctions (continued...)

Name	GIS_LENGTH (m)	GIS_AREA (m²)	GIS_PARTS
20575	0	0	1
20974	0	0	1
20985	0	0	1
21199	0	0	1
21325	0	0	1
21426	0	0	1
21626	0	0	1
21678	0	0	1
21705	0	0	1
2249	0	0	1
23025	0	0	1
23037	0	0	1
2358	0	0	1
2374	0	0	1
2425	0	0	1
24932	0	0	1
25477	0	0	1
25478	0	0	1
25504	0	0	1
257	0	0	1
2732	0	0	1
3089	0	0	1
31036	0	0	1
31036'	0	0	1
3372	0	0	1
3381	0	0	1

Table 2D: Junctions (continued...)

Name	GIS_LENGTH (m)	GIS_AREA (m²)	GIS_PARTS
3424	0	0	1
3449	0	0	1
3596	0	0	1
3615	0	0	1
3824	0	0	1
5172	0	0	1
5191	0	0	1
5218	0	0	1
5230	0	0	1
5246	0	0	1
5526	0	0	1
5571	0	0	1
5604	0	0	1
6078	0	0	1
6088	0	0	1
6436	0	0	1
6452	0	0	1
6457	0	0	1
6505	0	0	1
7096	0	0	1
7592	0	0	1
7683	0	0	1
7742	0	0	1
7794	0	0	1
8667-J4	0	0	1
8697	0	0	1

Table 2D: Junctions (continued...)

Name	GIS_LENGTH (m)	GIS_AREA (m²)	GIS_PARTS
8807	0	0	1
8903	0	0	1
9095	0	0	1
9253	0	0	1
9264	0	0	1
9409	0	0	1
9627	0	0	1
9645	0	0	1
9733	0	0	1
J1	0	0	1
J10	0	0	1
J11	0	0	1
J12	0	0	1
J13	0	0	1
J147	0	0	1
J15	0	0	1
J159	0	0	1
J16	0	0	1
J163	0	0	1
J164	0	0	1
J165	0	0	1
J166	0	0	1
J167	0	0	1
J168	0	0	1
J169	0	0	1
J17	0	0	1

Table 2D: Junctions (continued...)

Name	GIS_LENGTH (m)	GIS_AREA (m²)	GIS_PARTS
J170	0	0	1
J171	0	0	1
J172	0	0	1
J173	0	0	1
J174	0	0	1
J175	0	0	1
J177	0	0	1
J179	0	0	1
J18	0	0	1
J180	0	0	1
J182	0	0	1
J183	0	0	1
J19	0	0	1
J2	0	0	1
J2.	0	0	1
J20	0	0	1
J21	0	0	1
J22	0	0	1
J23	0	0	1
J24	0	0	1
J25	0	0	1
J27	0	0	1
J28	0	0	1
J29	0	0	1
J2-S	0	0	1
J3	0	0	1

Table 2D: Junctions (continued...)

Name	GIS_LENGTH (m)	GIS_AREA (m²)	GIS_PARTS
J30	0	0	1
J31	0	0	1
J32	0	0	1
J33	0	0	1
J34	0	0	1
J35	0	0	1
J36	0	0	1
J37	0	0	1
J39	0	0	1
J4	0	0	1
J40	0	0	1
J41	0	0	1
J42	0	0	1
J43	0	0	1
J44	0	0	1
J45	0	0	1
J46	0	0	1
J47	0	0	1
J48	0	0	1
J49	0	0	1
J4-S	0	0	1
J5	0	0	1
J55	0	0	1
J6	0	0	1
J7	0	0	1
J74	0	0	1

Table 2D: Junctions (continued...)

Name	GIS_LENGTH (m)	GIS_AREA (m²)	GIS_PARTS
J8	0	0	1
J9	0	0	1
OL-10028	0	0	1
OL-11213	0	0	1
OL-11560	0	0	1
OL-11842	0	0	1
OL-11966	0	0	1
OL-12300	0	0	1
OL-12497	0	0	1
OL-12678	0	0	1
OL-12709	0	0	1
OL-12956	0	0	1
OL-13029	0	0	1
OL-13138	0	0	1
OL-13349	0	0	1
OL-13528	0	0	1
OL-13746	0	0	1
OL-15964	0	0	1
OL-16610	0	0	1
OL-16770	0	0	1
OL-18726	0	0	1
OL-1885	0	0	1
OL-1896	0	0	1
OL-20985	0	0	1
OL-21199	0	0	1
OL-21325	0	0	1

Table 2D: Junctions (continued...)

Name	GIS_LENGTH (m)	GIS_AREA (m²)	GIS_PARTS
OL-2249	0	0	1
OL-2358	0	0	1
OL-2374	0	0	1
OL-31036	0	0	1
OL-31036'	0	0	1
OL-3424	0	0	1
OL-3449	0	0	1
OL-3596	0	0	1
OL-3615	0	0	1
OL-5172	0	0	1
OL-5191	0	0	1
OL-5218	0	0	1
OL-5230	0	0	1
OL-5246	0	0	1
OL-5526	0	0	1
OL-5571	0	0	1
OL-5604	0	0	1
OL-6088	0	0	1
OL-6436	0	0	1
OL-6452	0	0	1
OL-6457	0	0	1
OL-6505	0	0	1
OL-6505a	0	0	1
OL-7096	0	0	1
OL-7592	0	0	1
OL-7683	0	0	1

Table 2D: Junctions (continued...)

Name	GIS_LENGTH (m)	GIS_AREA (m²)	GIS_PARTS
OL-7742	0	0	1
OL-9253a	0	0	1
OL-9253b	0	0	1
OL-9253c	0	0	1
OL-9253d	0	0	1
OL-9253e	0	0	1
OL-9264	0	0	1
OL-9409	0	0	1
OL-J1	0	0	1
OL-J10	0	0	1
OL-J10a	0	0	1
OL-J10b	0	0	1
OL-J14	0	0	1
OL-J147	0	0	1
OL-J15	0	0	1
OL-J172	0	0	1
OL-J3	0	0	1
OL-J33	0	0	1
OL-J37	0	0	1
OL-J40	0	0	1
OL-J48	0	0	1
OL-J49	0	0	1
OL-J4a	0	0	1
OL-J4b	0	0	1
OL-J4c	0	0	1
OL-J4d	0	0	1

Table 2D: Junctions (continued...)

Name	GIS_LENGTH (m)	GIS_AREA (m²)	GIS_PARTS
OL-J5	0	0	1
OL-J50	0	0	1
OL-J6	0	0	1
OL-J7	0	0	1
OL-J72	0	0	1
OL-J8	0	0	1

Table 3A: Outfalls

Name	X-Coordinate	Y-Coordinate	Tag	Inflows	Treatment	Invert Elev. (ft)	Rim Elev. (ft)	Tide Gate	Route To	Type	Fixed Stage (ft)	Curve Name	Series Name	Outlet	Baseline (cfs)	Baseline Pattern
10000	2262392.186	276400.364	Outlet	NO	NO	831.42	837.22	NO		FREE	0	*	*		0	
11000	2262486.781	276384.562	Outlet	NO	NO	861.08	864	NO		FREE	0	*	*		0	
11000'	2262484.196	276383.409	Overland	NO	NO	864	866	NO		FREE	0	*	*		0	
12000.	2261939.436	276365.72	Outlet	NO	NO	836	841	NO		FREE	0	*	*		0	
13000	2263958	276313	Outlet	NO	NO	936.2	938.2	NO		FREE	0	*	*		0	
14000	2263091.354	277070.708	Outlet	NO	NO	845.99	848.99	NO		FREE	0	*	*		0	
14000'	2263095.852	277072.318	Overland	NO	NO	847.5	849.5	NO		FREE	0	*	*		0	

Table 3B: Outfalls

Name	Time Series	Scale Factor	Average Value (cfs)	Time Pattern 1	Time Pattern 2	Time Pattern 3	Time Pattern 4	Hydrograph	Sewershed Area (ac)	Avg. Depth (ft)	Max. Depth (ft)	Max. HGL (ft)	Time Max. HGL (M/D/Y)	Rep. Max. Depth (ft)
10000		1	0						0	0.24	2.56	833.98	05/01/2022 00:20 AM	2.56
11000		1	0						0	0.04	0.37	861.45	05/01/2022 00:15 AM	0.37
11000'		1	0						0	0	0	864	05/01/2022 00:00 AM	0
12000.		1	0						0	0.01	0.07	836.07	05/01/2022 00:25 AM	0.07
13000		1	0						0	0.03	0.32	936.52	05/01/2022 00:12 AM	0.32
14000		1	0						0	0.14	1.77	847.76	05/01/2022 00:15 AM	1.77
14000'		1	0						0	0	0	847.5	05/01/2022 00:00 AM	0

Table 3C: Outfalls

Name	Max. Lat. Inflow (cfs)	Max. Total Inflow (cfs)	Total Lat. Inflow (MG)	Total inflow (MG)	Flow Error (%)	Hours Surcharged (h)	Max. Surcharge (ft)	Min. Freeboard (ft)	Hours Flooded (h)	Max. Flood Rate (cfs)	Total Flood Vol. (MG)	Max. Ponded Depth (ft)	Flow Frequency	Avg. Flow (cfs)	Max. Flow (cfs)	Total Flow (MG)
10000	0	93.88	0	1.63	0	0	0	0	0	0	0	0	23.24	29.88	93.88	1.626
11000	0	2.04	0	0.036	0	0	0	0	0	0	0	0	15.73	1	2.04	0.036
11000'	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
12000.	0	5.57	0	0.117	0	0	0	0	0	0	0	0	19.06	2.34	5.57	0.117
13000	0	3.18	0	0.046	0	0	0	0	0	0	0	0	15.45	1.29	3.18	0.046
14000	0	25.17	0	0.384	0	0	0	0	0	0	0	0	16.03	10.46	25.17	0.384
14000'	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

Table 3D: Outfalls

Name	Contributing Area (ac)	Contributing Imp. Area (ac)	Max. Unit Flow (cfs/ac)	GIS_LENGTH (m)	GIS_AREA (m²)	GIS_PARTS
10000	0	0	0	0	0	1
11000	0	0	0	0	0	1
11000'	0	0	0	0	0	1
12000.	0	0	0	0	0	1
13000	0	0	0	0	0	1
14000	0	0	0	0	0	1
14000'	0	0	0	0	0	1

Table 4A: ARM Subcatchments

Name	X-Coordinate	Y-Coordinate	Description	Tag	Runoff Method	Rain Gage	Outlet	Area (ac)	Flow Length (ft)	Slope (%)
J10	2263191.448	273805.81			SCS Dimensionless UH	Huff_002YR_1Q_1HR_1.56in	OL-J10	3.668	660.651	5.53
J13	2263208.036	274136.841			SCS Dimensionless UH	Huff_002YR_1Q_1HR_1.56in	J13	0.395	205.795	20.579
J179	2263051.515	273990.583			SCS Dimensionless UH	Huff_002YR_1Q_1HR_1.56in	J179	2.565	615.555	14.057
J7	2263202.374	274536.232			SCS Dimensionless UH	Huff_002YR_1Q_1HR_1.56in	OL-J7	4.568	885.498	10.954
J6	2262935.371	274390.446			SCS Dimensionless UH	Huff_002YR_1Q_1HR_1.56in	OL-J6	3.945	1275.042	9.849
31036'	2263588.959	274576.169			SCS Dimensionless UH	Huff_002YR_1Q_1HR_1.56in	OL-31036'	10.887	788.077	12.171
31036	2263564.558	274994.257			SCS Dimensionless UH	Huff_002YR_1Q_1HR_1.56in	OL-31036	0.235	489.846	10.238
J5	2262847.425	274557.22			SCS Dimensionless UH	Huff_002YR_1Q_1HR_1.56in	OL-J5	2.633	1055.794	9.319
7592	2262671.695	276225.753			SCS Dimensionless UH	Huff_002YR_1Q_1HR_1.56in	OL-7592	1.335	389.585	25.869
J9	2262974.779	275010.368			SCS Dimensionless UH	Huff_002YR_1Q_1HR_1.56in	J9	1.369	428.007	8.225
J16	2262638.515	274728.755			SCS Dimensionless UH	Huff_002YR_1Q_1HR_1.56in	J16	5.022	908.899	14.03
J72	2262528.037	275044.619			SCS Dimensionless UH	Huff_002YR_1Q_1HR_1.56in	J72	1.317	377.81	21.885
21253	2263522.427	275090.994			SCS Dimensionless UH	Huff_002YR_1Q_1HR_1.56in	21253	2.869	553.3	13.427

Table 4A: ARM Subcatchments (continued...)

Name	X-Coordinate	Y-Coordinate	Description	Tag	Runoff Method	Rain Gage	Outlet	Area (ac)	Flow Length (ft)	Slope (%)
23025	2263999.464	275089.139			SCS Dimensionless UH	Huff_002YR_1Q_1HR_1.56in	23025	5.039	532.096	11.549
23037	2263866.46	275379.473			SCS Dimensionless UH	Huff_002YR_1Q_1HR_1.56in	23037	0.113	324.45	4.18
20985	2263887.721	274867.539			SCS Dimensionless UH	Huff_002YR_1Q_1HR_1.56in	OL-20985	0.263	786.416	7.361
21325	2263542.537	275190.5			SCS Dimensionless UH	Huff_002YR_1Q_1HR_1.56in	OL-21325	0.192	561.669	8.75
21199	2263678.665	275207.325			SCS Dimensionless UH	Huff_002YR_1Q_1HR_1.56in	OL-21199	0.104	385.326	8.55
J171	2263828.093	275292.848			SCS Dimensionless UH	Huff_002YR_1Q_1HR_1.56in	J171	0.071	93.737	22.714
J175	2263710.534	275610.546			SCS Dimensionless UH	Huff_002YR_1Q_1HR_1.56in	J175	0.035	97.775	17.955
J174	2263702.177	275591.896			SCS Dimensionless UH	Huff_002YR_1Q_1HR_1.56in	J174	0.104	119.901	22.45
J169	2263732.836	275527.107			SCS Dimensionless UH	Huff_002YR_1Q_1HR_1.56in	J169	0.436	226.955	15.304
J170	2263785.724	275367.789			SCS Dimensionless UH	Huff_002YR_1Q_1HR_1.56in	J170	0.905	355.538	21.163
18726	2263800.664	275610.922			SCS Dimensionless UH	Huff_002YR_1Q_1HR_1.56in	OL-18726	0.047	166.246	9.805
16770	2263780.942	275679.244			SCS Dimensionless UH	Huff_002YR_1Q_1HR_1.56in	OL-16770	0.332	189.962	12.694
16610	2263750.281	275793.849			SCS Dimensionless UH	Huff_002YR_1Q_1HR_1.56in	OL-16610	0.45	250.396	10.624
14608	2263693.896	275886.574			SCS Dimensionless UH	Huff_002YR_1Q_1HR_1.56in	14608	0.183	106.039	6.036
14383	2263624.419	275821.153			SCS Dimensionless UH	Huff_002YR_1Q_1HR_1.56in	14383	0.099	101.319	2.194
15374	2263626.261	275900.916			SCS Dimensionless UH	Huff_002YR_1Q_1HR_1.56in	15374	0.08	104.428	17.161
15469	2263666.685	275938.37			SCS Dimensionless UH	Huff_002YR_1Q_1HR_1.56in	15469	0.024	25.396	10.166
16125	2263678.587	276045.254			SCS Dimensionless UH	Huff_002YR_1Q_1HR_1.56in	16125	0.338	230.726	5.808
J3	2263674.436	276554.303			SCS Dimensionless UH	Huff_002YR_1Q_1HR_1.56in	OL-J3	3.315	808.732	21.496
J2	2263854.077	275994.364			SCS Dimensionless UH	Huff_002YR_1Q_1HR_1.56in	J2	1.381	833.162	13.739
15964	2263767.815	275996.991			SCS Dimensionless UH	Huff_002YR_1Q_1HR_1.56in	OL-15964	0.544	390.858	7.299
J172	2263671.948	275327.512			SCS Dimensionless UH	Huff_002YR_1Q_1HR_1.56in	J172	0.439	190.836	15.616
J173	2263579.421	275246.822			SCS Dimensionless UH	Huff_002YR_1Q_1HR_1.56in	J173	0.207	169.251	23.465
J26	2263472.066	275325.797			SCS Dimensionless UH	Huff_002YR_1Q_1HR_1.56in	J26	0.88	351.691	15.668
19657	2263618.594	275538.217			SCS Dimensionless UH	Huff_002YR_1Q_1HR_1.56in	19657	0.084	102.262	10.096
20575	2263526.897	275529.237			SCS Dimensionless UH	Huff_002YR_1Q_1HR_1.56in	20575	0.193	160.945	10.59

Table 4A: ARM Subcatchments (continued...)

Name	X-Coordinate	Y-Coordinate	Description	Tag	Runoff Method	Rain Gage	Outlet	Area (ac)	Flow Length (ft)	Slope (%)
OL-J48	2263702.248	275644.11			SCS Dimensionless UH	Huff_002YR_1Q_1HR_1.56in	OL-J48	0.149	199.47	10.727
OL-J49	2263619.255	275677.216			SCS Dimensionless UH	Huff_002YR_1Q_1HR_1.56in	OL-J49	0.339	172.92	6.599
12956	2263572.58	275572.762			SCS Dimensionless UH	Huff_002YR_1Q_1HR_1.56in	OL-12956	0.083	206.144	13.01
13746	2263557.442	275594.434			SCS Dimensionless UH	Huff_002YR_1Q_1HR_1.56in	OL-13746	0.096	103.604	27.397
J39	2262976.772	275151.868			SCS Dimensionless UH	Huff_002YR_1Q_1HR_1.56in	J39	0.185	154.967	13.067
5526	2262914.069	275346.455			SCS Dimensionless UH	Huff_002YR_1Q_1HR_1.56in	OL-5526	0.151	136.921	3.116
5571	2262996.23	275336.639			SCS Dimensionless UH	Huff_002YR_1Q_1HR_1.56in	OL-5571	0.212	197.015	2.088
5604	2263115.319	275322.029			SCS Dimensionless UH	Huff_002YR_1Q_1HR_1.56in	OL-5604	0.059	110.508	2.476
J183	2263092.729	275169.28			SCS Dimensionless UH	Huff_002YR_1Q_1HR_1.56in	J183	0.377	109.065	14.192
OL-J38	2263138.894	275216.995			SCS Dimensionless UH	Huff_002YR_1Q_1HR_1.56in	OL-J37	0.222	159.888	6.338
5230	2263211.709	275210.043			SCS Dimensionless UH	Huff_002YR_1Q_1HR_1.56in	OL-5230	0.142	133.332	7.294
5246	2263163.285	275298.12			SCS Dimensionless UH	Huff_002YR_1Q_1HR_1.56in	OL-5246	0.153	165.139	19.088
21705	2263348.048	275332.633			SCS Dimensionless UH	Huff_002YR_1Q_1HR_1.56in	21705	0.313	184.32	5.229
5218	2263292.852	275238.831			SCS Dimensionless UH	Huff_002YR_1Q_1HR_1.56in	OL-5218	0.175	367.623	8.695
21626	2263252.8	275346.573			SCS Dimensionless UH	Huff_002YR_1Q_1HR_1.56in	21626	0.246	113.587	17.767
5172	2263339.026	275464.142			SCS Dimensionless UH	Huff_002YR_1Q_1HR_1.56in	OL-5172	0.492	314.6	15.299
6505	2262277.607	275292.278			SCS Dimensionless UH	Huff_002YR_1Q_1HR_1.56in	OL-6505	1.218	341.636	15.174
OL-J41	2262426.055	274934.524			SCS Dimensionless UH	Huff_002YR_1Q_1HR_1.56in	OL-J41	4.028	1260.521	11.469
6088	2262528.513	275405.256			SCS Dimensionless UH	Huff_002YR_1Q_1HR_1.56in	OL-6088	0.309	223.158	15.965
J4	2262305.894	275642.421			SCS Dimensionless UH	Huff_002YR_1Q_1HR_1.56in	OL-J4	1.563	492.043	17.395
1896	2262905.332	275318.72			SCS Dimensionless UH	Huff_002YR_1Q_1HR_1.56in	OL-1896	1.249	863.527	12.535
1038	2263108.692	275532.332			SCS Dimensionless UH	Huff_002YR_1Q_1HR_1.56in	1038	0.424	116.969	23.658
2358	2262973.71	275746.75			SCS Dimensionless UH	Huff_002YR_1Q_1HR_1.56in	OL-2358	0.194	284.92	9.838
J45	2262689.338	275573.078			SCS Dimensionless UH	Huff_002YR_1Q_1HR_1.56in	J45	0.09	114.151	32.31
3824	2262684.677	275624.205			SCS Dimensionless UH	Huff_002YR_1Q_1HR_1.56in	3824	0.144	125.555	28.091
3596	2262497.2	275515.301			SCS Dimensionless UH	Huff_002YR_1Q_1HR_1.56in	OL-3596	2.021	537.471	15.133

Table 4A: ARM Subcatchments (continued...)

Name	X-Coordinate	Y-Coordinate	Description	Tag	Runoff Method	Rain Gage	Outlet	Area (ac)	Flow Length (ft)	Slope (%)
3449	2262505.583	275688.316			SCS Dimensionless UH	Huff_002YR_1Q_1HR_1.56in	OL-3449	0.075	274.068	4.947
3372	2262664.405	275833.754			SCS Dimensionless UH	Huff_002YR_1Q_1HR_1.56in	J50	0.045	82.76	4.762
3615	2262832.039	275587.432			SCS Dimensionless UH	Huff_002YR_1Q_1HR_1.56in	OL-3615	1.301	654.826	24.095
3424	2262886.097	275640.974			SCS Dimensionless UH	Huff_002YR_1Q_1HR_1.56in	OL-3424	0.295	528.446	15.515
3381	2262760.619	275813.491			SCS Dimensionless UH	Huff_002YR_1Q_1HR_1.56in	J50	0.594	121.39	4.84
15234	2263584.895	275914.449			SCS Dimensionless UH	Huff_002YR_1Q_1HR_1.56in	15234	0.085	99.725	7.707
15075	2263550.73	275986.554			SCS Dimensionless UH	Huff_002YR_1Q_1HR_1.56in	15075	0.038	49.704	5.968
15025	2263462.159	275982.815			SCS Dimensionless UH	Huff_002YR_1Q_1HR_1.56in	15025	0.096	81.018	11.919
17671	2263396.521	276063.574			SCS Dimensionless UH	Huff_002YR_1Q_1HR_1.56in	17671	0.172	154.418	8.033
18356	2263342.819	276064.714			SCS Dimensionless UH	Huff_002YR_1Q_1HR_1.56in	18356	0.204	278.578	8.974
18312	2263469.142	276108.478			SCS Dimensionless UH	Huff_002YR_1Q_1HR_1.56in	18312	0.372	320.3	10.449
9264	2263661.071	276277.669			SCS Dimensionless UH	Huff_002YR_1Q_1HR_1.56in	OL-9264	0.122	353.984	5.593
9253	2263576.891	276235.821			SCS Dimensionless UH	Huff_002YR_1Q_1HR_1.56in	OL-9253	1.194	359.447	10.715
9627	2263262.177	276180.452			SCS Dimensionless UH	Huff_002YR_1Q_1HR_1.56in	9627	0.281	235.968	6.587
10028	2263244.709	276027.749			SCS Dimensionless UH	Huff_002YR_1Q_1HR_1.56in	OL-10028	0.152	183.465	7.554
11842	2263180.261	276023.24			SCS Dimensionless UH	Huff_002YR_1Q_1HR_1.56in	OL-11842	0.026	114.839	3.754
11966	2263399.847	275903.641			SCS Dimensionless UH	Huff_002YR_1Q_1HR_1.56in	OL-11966	0.814	378.423	11.871
RD-incen	2263435.07	275753.228			SCS Dimensionless UH	Huff_002YR_1Q_1HR_1.56in	13138	0.185	125.031	2
13029	2263516.805	275640.631			SCS Dimensionless UH	Huff_002YR_1Q_1HR_1.56in	OL-13029	0.064	48.415	45.753
13138	2263465.463	275686.329			SCS Dimensionless UH	Huff_002YR_1Q_1HR_1.56in	OL-13138	0.132	97.235	6.685
OL-J40	2263473.823	275640.347			SCS Dimensionless UH	Huff_002YR_1Q_1HR_1.56in	OL-J40	0.026	66.49	5.212
OL-J50	2263408.601	275583.472			SCS Dimensionless UH	Huff_002YR_1Q_1HR_1.56in	OL-J50	0.079	172.17	6.959
5191	2263253.801	275452.294			SCS Dimensionless UH	Huff_002YR_1Q_1HR_1.56in	OL-5191	0.096	246.86	8.259
1885	2263240.98	275518.05			SCS Dimensionless UH	Huff_002YR_1Q_1HR_1.56in	OL-1885	0.497	207.187	12.96
J147	2263137.962	275989.31			SCS Dimensionless UH	Huff_002YR_1Q_1HR_1.56in	OL-J147	0.07	114.708	10.66
J33	2263182.494	275933.638			SCS Dimensionless UH	Huff_002YR_1Q_1HR_1.56in	OL-J33	0.241	199.37	11.413

Table 4A: ARM Subcatchments (continued...)

Name	X-Coordinate	Y-Coordinate	Description	Tag	Runoff Method	Rain Gage	Outlet	Area (ac)	Flow Length (ft)	Slope (%)
11560	2263235.138	275865.679			SCS Dimensionless UH	Huff_002YR_1Q_1HR_1.56in	11560	0.156	114.688	9.498
11213	2263108.341	275944.043			SCS Dimensionless UH	Huff_002YR_1Q_1HR_1.56in	OL-11213	0.604	270.074	5.196
13528	2263333.338	275827.628			SCS Dimensionless UH	Huff_002YR_1Q_1HR_1.56in	OL-13528	0.081	82.28	5.668
J31	2263373.012	275780.83			SCS Dimensionless UH	Huff_002YR_1Q_1HR_1.56in	J31	0.1	79.072	5.354
12497	2263279.504	275784.366			SCS Dimensionless UH	Huff_002YR_1Q_1HR_1.56in	OL-12497	0.059	90.615	10.782
12678	2263322.759	275734.231			SCS Dimensionless UH	Huff_002YR_1Q_1HR_1.56in	OL-12678	0.164	124.513	11.884
12709	2263328.745	275694.315			SCS Dimensionless UH	Huff_002YR_1Q_1HR_1.56in	OL-12709	0.427	246.728	9.817
12300	2263262.413	275717.51			SCS Dimensionless UH	Huff_002YR_1Q_1HR_1.56in	OL-12300	0.101	262.218	5.084
2374	2263035.555	275741.743			SCS Dimensionless UH	Huff_002YR_1Q_1HR_1.56in	OL-2374	0.099	389.074	7.015
J180	2263232.464	275645.817			SCS Dimensionless UH	Huff_002YR_1Q_1HR_1.56in	J180	0.433	232.81	30.548
2002	2263132.881	275757.479			SCS Dimensionless UH	Huff_002YR_1Q_1HR_1.56in	2002	0.244	203.432	40.274
J167	2263022.538	275832.987			SCS Dimensionless UH	Huff_002YR_1Q_1HR_1.56in	J167	0.414	216.453	39.496
3253	2262838.922	275999.766			SCS Dimensionless UH	Huff_002YR_1Q_1HR_1.56in	3253	0.075	121.105	49.323
J74	2262928.255	276046.465			SCS Dimensionless UH	Huff_002YR_1Q_1HR_1.56in	J74	0.243	170.471	16.992
J17	2262940.884	275949.476			SCS Dimensionless UH	Huff_002YR_1Q_1HR_1.56in	J17	0.621	449.865	31.68
J35	2262593.855	275817.759			SCS Dimensionless UH	Huff_002YR_1Q_1HR_1.56in	J35	0.385	255.573	20.085
25478	2262484.189	275955.44			SCS Dimensionless UH	Huff_002YR_1Q_1HR_1.56in	25478	1.892	552.101	22.892
7096	2262808.709	275888.578			SCS Dimensionless UH	Huff_002YR_1Q_1HR_1.56in	OL-7096	0.146	191.373	8.584
7742	2262583.127	276138.248			SCS Dimensionless UH	Huff_002YR_1Q_1HR_1.56in	OL-7742	0.214	456.391	5.886
3089	2262780.704	275963.748			SCS Dimensionless UH	Huff_002YR_1Q_1HR_1.56in	3089	0.059	103.959	29.173
J29	2262801.787	276011.301			SCS Dimensionless UH	Huff_002YR_1Q_1HR_1.56in	J29	0.033	115.016	43.66
J165	2262768.921	276037.475			SCS Dimensionless UH	Huff_002YR_1Q_1HR_1.56in	J165	0.135	153.727	49.791
J164	2262706.33	276021.768			SCS Dimensionless UH	Huff_002YR_1Q_1HR_1.56in	J164	0.272	179.815	21.846
J14	2263274.431	276434.608			SCS Dimensionless UH	Huff_002YR_1Q_1HR_1.56in	OL-J14	4.784	816.413	29.933
J1	2263100.491	276628.505			SCS Dimensionless UH	Huff_002YR_1Q_1HR_1.56in	OL-J1	0.614	722.059	3.794
7683	2262510.45	276345.926			SCS Dimensionless UH	Huff_002YR_1Q_1HR_1.56in	OL-7683	0.132	86.954	7.495

Table 4A: ARM Subcatchments (continued...)

Name	X-Coordinate	Y-Coordinate	Description	Tag	Runoff Method	Rain Gage	Outlet	Area (ac)	Flow Length (ft)	Slope (%)
J15	2262896.26	276417.308			SCS Dimensionless UH	Huff_002YR_1Q_1HR_1.56in	OL-J15	2.715	903.755	20.438
J38	2263184.151	276848.73			SCS Dimensionless UH	Huff_002YR_1Q_1HR_1.56in	J38	2.226	341.103	3.829
RD-auto1	2262916.586	275252.818			SCS Dimensionless UH	Huff_002YR_1Q_1HR_1.56in	5526	0.135	80.54	2
RD-auto2	2262984.571	275229.518			SCS Dimensionless UH	Huff_002YR_1Q_1HR_1.56in	5571	0.152	117.195	2
RD-auto3	2263052.569	275306.805			SCS Dimensionless UH	Huff_002YR_1Q_1HR_1.56in	5571	0.149	98.701	2
13349	2263348.355	275864.256			SCS Dimensionless UH	Huff_002YR_1Q_1HR_1.56in	OL-13349	0.019	71.191	7.721
RD-thick	2263365.431	275682.682			SCS Dimensionless UH	Huff_002YR_1Q_1HR_1.56in	13138	0.044	57.233	2
RD-sludge	2263543.883	275714.711			SCS Dimensionless UH	Huff_002YR_1Q_1HR_1.56in	13029	0.14	117.504	2
RD-admin	2263390.459	275848.141			SCS Dimensionless UH	Huff_002YR_1Q_1HR_1.56in	13349	0.113	75.316	2
J18	2262616.166	275916.711			SCS Dimensionless UH	Huff_002YR_1Q_1HR_1.56in	J18	0.137	145.702	36.779
2249	2263083.455	275696.383			SCS Dimensionless UH	Huff_002YR_1Q_1HR_1.56in	OL-2249	0.074	205.563	8.856
9645	2263267.034	276236.397			SCS Dimensionless UH	Huff_002YR_1Q_1HR_1.56in	9645	0.072	144.31	4.63
9409	2263378.056	276315.63			SCS Dimensionless UH	Huff_002YR_1Q_1HR_1.56in	OL-9409	0.058	113.675	5.682
10	2261890.811	275633.595			SCS Dimensionless UH	Huff_002YR_1Q_1HR_1.56in	8903	5.113	718.372	3.355
32	2262061.542	275982.302			SCS Dimensionless UH	Huff_002YR_1Q_1HR_1.56in	8807	1.913	441.969	5.046
R1_6	2261926.281	276092.213			SCS Dimensionless UH	Huff_002YR_1Q_1HR_1.56in	8697	0.317	172.579	1.258
81	2262026.639	276178.01			SCS Dimensionless UH	Huff_002YR_1Q_1HR_1.56in	8667-J4	0.689	256.256	1.706
33	2262027.771	276292.842			SCS Dimensionless UH	Huff_002YR_1Q_1HR_1.56in	12000-2	0.434	616.888	5.866
R5	2262296.473	276112.788			SCS Dimensionless UH	Huff_002YR_1Q_1HR_1.56in	RainGarden	3.534	1111.755	14.245

Table 4B: ARM Subcatchments

Name	Imperv. (%)	Dstore Imperv (in)	Dstore Perv (in)	Max. Infil. Rate (in/hr)	Min. Infil. Rate (in/hr)	Decay Constant (1/hr)	Drying Time (days)	Max. Volume (in)	Suction Head (in)	Conductivity (in/hr)	Initial Deficit (frac.)	TC Method	Time of Concentration (min)
J10	31.261	0.05	0.05	0	0	0	0	0	3.5	0.5	0.25	User entered value	6
J13	4.722	0.05	0.05	0	0	0	0	0	3.5	0.5	0.25	User entered value	9.261
J179	28.743	0.05	0.05	0	0	0	0	0	3.5	0.5	0.25	User entered value	9.274
J7	24.816	0.05	0.05	0	0	0	0	0	3.5	0.5	0.25	User entered value	9.648
J6	29.14	0.05	0.05	0	0	0	0	0	3.5	0.5	0.25	User entered value	10.087
31036'	25.965	0.05	0.05	0	0	0	0	0	3.5	0.5	0.25	User entered value	13.058
31036	94.691	0.05	0.05	0	0	0	0	0	3.5	0.5	0.25	User entered value	6
J5	41.747	0.05	0.05	0	0	0	0	0	3.5	0.5	0.25	User entered value	9.881
7592	6.538	0.05	0.05	0	0	0	0	0	3.5	0.5	0.25	User entered value	9.761
J9	12.067	0.05	0.05	0	0	0	0	0	3.5	0.5	0.25	User entered value	10.833
J16	13.406	0.05	0.05	0	0	0	0	0	3.5	0.5	0.25	User entered value	13.273
J72	0.22	0.05	0.05	0	0	0	0	0	3.5	0.5	0.25	User entered value	10.079
21253	6.15	0.05	0.05	0	0	0	0	0	3.5	0.5	0.25	User entered value	10.863
23025	19.835	0.05	0.05	0	0	0	0	0	3.5	0.5	0.25	User entered value	11.685
23037	99.3	0.05	0.05	0	0	0	0	0	3.5	0.5	0.25	User entered value	6
20985	96.196	0.05	0.05	0	0	0	0	0	3.5	0.5	0.25	User entered value	6
21325	92.775	0.05	0.05	0	0	0	0	0	3.5	0.5	0.25	User entered value	6
21199	95.795	0.05	0.05	0	0	0	0	0	3.5	0.5	0.25	User entered value	6
J171	15.425	0.05	0.05	0	0	0	0	0	3.5	0.5	0.25	User entered value	7.239
J175	6.871	0.05	0.05	0	0	0	0	0	3.5	0.5	0.25	User entered value	8.223
J174	27.571	0.05	0.05	0	0	0	0	0	3.5	0.5	0.25	User entered value	7.712
J169	24.955	0.05	0.05	0	0	0	0	0	3.5	0.5	0.25	User entered value	9.311
J170	16.879	0.05	0.05	0	0	0	0	0	3.5	0.5	0.25	User entered value	8.744
18726	68.715	0.05	0.05	0	0	0	0	0	3.5	0.5	0.25	User entered value	6
16770	35.014	0.05	0.05	0	0	0	0	0	3.5	0.5	0.25	User entered value	8.849
16610	27.686	0.05	0.05	0	0	0	0	0	3.5	0.5	0.25	User entered value	8.898

Table 4B: ARM Subcatchments (continued...)

Name	Imperv. (%)	Dstore Imperv (in)	Dstore Perv (in)	Max. Infil. Rate (in/hr)	Min. Infil. Rate (in/hr)	Decay Constant (1/hr)	Drying Time (days)	Max. Volume (in)	Suction Head (in)	Conductivity (in/hr)	Initial Deficit (frac.)	TC Method	Time of Concentration (min)
14608	91.223	0.05	0.05	0	0	0	0	0	3.5	0.5	0.25	User entered value	6
14383	52.77	0.05	0.05	0	0	0	0	0	3.5	0.5	0.25	User entered value	6
15374	31.263	0.05	0.05	0	0	0	0	0	3.5	0.5	0.25	User entered value	8.528
15469	52.878	0.05	0.05	0	0	0	0	0	3.5	0.5	0.25	User entered value	6
16125	52.038	0.05	0.05	0	0	0	0	0	3.5	0.5	0.25	User entered value	9.894
J3	44.937	0.05	0.05	0	0	0	0	0	3.5	0.5	0.25	User entered value	8.328
J2	58.464	0.05	0.05	0	0	0	0	0	3.5	0.5	0.25	User entered value	9.498
15964	80.749	0.05	0.05	0	0	0	0	0	3.5	0.5	0.25	User entered value	6
J172	26.391	0.05	0.05	0	0	0	0	0	3.5	0.5	0.25	User entered value	9.151
J173	18.357	0.05	0.05	0	0	0	0	0	3.5	0.5	0.25	User entered value	7.745
J26	19.601	0.05	0.05	0	0	0	0	0	3.5	0.5	0.25	User entered value	9.81
19657	100	0.05	0.05	0	0	0	0	0	3.5	0.5	0.25	User entered value	6
20575	48.458	0.05	0.05	0	0	0	0	0	3.5	0.5	0.25	User entered value	6
OL-J48	35.821	0.05	0.05	0	0	0	0	0	3.5	0.5	0.25	User entered value	9.355
OL-J49	91.623	0.05	0.05	0	0	0	0	0	3.5	0.5	0.25	User entered value	6
12956	89.718	0.05	0.05	0	0	0	0	0	3.5	0.5	0.25	User entered value	6
13746	32.246	0.05	0.05	0	0	0	0	0	3.5	0.5	0.25	User entered value	7.069
J39	42.007	0.05	0.05	0	0	0	0	0	3.5	0.5	0.25	User entered value	8.788
5526	99.354	0.05	0.05	0	0	0	0	0	3.5	0.5	0.25	User entered value	6
5571	99.987	0.05	0.05	0	0	0	0	0	3.5	0.5	0.25	User entered value	6
5604	88.793	0.05	0.05	0	0	0	0	0	3.5	0.5	0.25	User entered value	6
J183	48.168	0.05	0.05	0	0	0	0	0	3.5	0.5	0.25	User entered value	8.805
OL-J38	76.417	0.05	0.05	0	0	0	0	0	3.5	0.5	0.25	User entered value	6
5230	44.04	0.05	0.05	0	0	0	0	0	3.5	0.5	0.25	User entered value	8.889
5246	29.827	0.05	0.05	0	0	0	0	0	3.5	0.5	0.25	User entered value	8.209
21705	81.721	0.05	0.05	0	0	0	0	0	3.5	0.5	0.25	User entered value	6

Table 4B: ARM Subcatchments (continued...)

Name	Imperv. (%)	Dstore Imperv (in)	Dstore Perv (in)	Max. Infil. Rate (in/hr)	Min. Infil. Rate (in/hr)	Decay Constant (1/hr)	Drying Time (days)	Max. Volume (in)	Suction Head (in)	Conductivity (in/hr)	Initial Deficit (frac.)	TC Method	Time of Concentration (min)
5218	76.136	0.05	0.05	0	0	0	0	0	3.5	0.5	0.25	User entered value	6
21626	4.432	0.05	0.05	0	0	0	0	0	3.5	0.5	0.25	User entered value	8.446
5172	32.951	0.05	0.05	0	0	0	0	0	3.5	0.5	0.25	User entered value	8.967
6505	32.751	0.05	0.05	0	0	0	0	0	3.5	0.5	0.25	User entered value	10.022
OL-J41	33.625	0.05	0.05	0	0	0	0	0	3.5	0.5	0.25	User entered value	16.045
6088	42.711	0.05	0.05	0	0	0	0	0	3.5	0.5	0.25	User entered value	9.269
J4	27.614	0.05	0.05	0	0	0	0	0	3.5	0.5	0.25	User entered value	10.406
1896	56.591	0.05	0.05	0	0	0	0	0	3.5	0.5	0.25	User entered value	6
1038	3.113	0.05	0.05	0	0	0	0	0	3.5	0.5	0.25	User entered value	7.542
2358	83.198	0.05	0.05	0	0	0	0	0	3.5	0.5	0.25	User entered value	6
J45	30.375	0.05	0.05	0	0	0	0	0	3.5	0.5	0.25	User entered value	6.648
3824	50.971	0.05	0.05	0	0	0	0	0	3.5	0.5	0.25	User entered value	7.067
3596	34.241	0.05	0.05	0	0	0	0	0	3.5	0.5	0.25	User entered value	9.142
3449	100	0.05	0.05	0	0	0	0	0	3.5	0.5	0.25	User entered value	6
3372	100	0.05	0.05	0	0	0	0	0	3.5	0.5	0.25	User entered value	6
3615	16.151	0.05	0.05	0	0	0	0	0	3.5	0.5	0.25	User entered value	7.838
3424	65.743	0.05	0.05	0	0	0	0	0	3.5	0.5	0.25	User entered value	6
3381	60.7	0.05	0.05	0	0	0	0	0	3.5	0.5	0.25	User entered value	6
15234	14.128	0.05	0.05	0	0	0	0	0	3.5	0.5	0.25	User entered value	8.894
15075	20.527	0.05	0.05	0	0	0	0	0	3.5	0.5	0.25	User entered value	7.456
15025	0	0.05	0.05	0	0	0	0	0	3.5	0.5	0.25	User entered value	8.319
17671	0	0.05	0.05	0	0	0	0	0	3.5	0.5	0.25	User entered value	9.253
18356	0	0.05	0.05	0	0	0	0	0	3.5	0.5	0.25	User entered value	9.885
18312	20.666	0.05	0.05	0	0	0	0	0	3.5	0.5	0.25	User entered value	9.992
9264	81.17	0.05	0.05	0	0	0	0	0	3.5	0.5	0.25	User entered value	6
9253	43.048	0.05	0.05	0	0	0	0	0	3.5	0.5	0.25	User entered value	10.167

Table 4B: ARM Subcatchments (continued...)

Name	Imperv. (%)	Dstore Imperv (in)	Dstore Perv (in)	Max. Infil. Rate (in/hr)	Min. Infil. Rate (in/hr)	Decay Constant (1/hr)	Drying Time (days)	Max. Volume (in)	Suction Head (in)	Conductivity (in/hr)	Initial Deficit (frac.)	TC Method	Time of Concentration (min)
9627	48.646	0.05	0.05	0	0	0	0	0	3.5	0.5	0.25	User entered value	8.976
10028	21.581	0.05	0.05	0	0	0	0	0	3.5	0.5	0.25	User entered value	9.47
11842	100	0.05	0.05	0	0	0	0	0	3.5	0.5	0.25	User entered value	6
11966	41.45	0.05	0.05	0	0	0	0	0	3.5	0.5	0.25	User entered value	6
RD-incen	100	0.05	0.05	0	0	0	0	0	3.5	0.5	0.25	User entered value	6
13029	29.258	0.05	0.05	0	0	0	0	0	3.5	0.5	0.25	User entered value	6
13138	97.665	0.05	0.05	0	0	0	0	0	3.5	0.5	0.25	User entered value	6
OL-J40	80.428	0.05	0.05	0	0	0	0	0	3.5	0.5	0.25	User entered value	6
OL-J50	95.097	0.05	0.05	0	0	0	0	0	3.5	0.5	0.25	User entered value	6
5191	97.662	0.05	0.05	0	0	0	0	0	3.5	0.5	0.25	User entered value	6
1885	14.161	0.05	0.05	0	0	0	0	0	3.5	0.5	0.25	User entered value	9.424
J147	100	0.05	0.05	0	0	0	0	0	3.5	0.5	0.25	User entered value	6
J33	100	0.05	0.05	0	0	0	0	0	3.5	0.5	0.25	User entered value	6
11560	79.438	0.05	0.05	0	0	0	0	0	3.5	0.5	0.25	User entered value	6
11213	94.738	0.05	0.05	0	0	0	0	0	3.5	0.5	0.25	User entered value	6
13528	96.624	0.05	0.05	0	0	0	0	0	3.5	0.5	0.25	User entered value	6
J31	100	0.05	0.05	0	0	0	0	0	3.5	0.5	0.25	User entered value	6
12497	68.307	0.05	0.05	0	0	0	0	0	3.5	0.5	0.25	User entered value	6
12678	64.88	0.05	0.05	0	0	0	0	0	3.5	0.5	0.25	User entered value	6
12709	60.092	0.05	0.05	0	0	0	0	0	3.5	0.5	0.25	User entered value	8.917
12300	92.815	0.05	0.05	0	0	0	0	0	3.5	0.5	0.25	User entered value	6
2374	95.953	0.05	0.05	0	0	0	0	0	3.5	0.5	0.25	User entered value	6
J180	6.569	0.05	0.05	0	0	0	0	0	3.5	0.5	0.25	User entered value	7.154
2002	57.832	0.05	0.05	0	0	0	0	0	3.5	0.5	0.25	User entered value	6
J167	30.307	0.05	0.05	0	0	0	0	0	3.5	0.5	0.25	User entered value	8.816
3253	0	0.05	0.05	0	0	0	0	0	3.5	0.5	0.25	User entered value	7.778

Table 4B: ARM Subcatchments (continued...)

Name	Imperv. (%)	Dstore Imperv (in)	Dstore Perv (in)	Max. Infil. Rate (in/hr)	Min. Infil. Rate (in/hr)	Decay Constant (1/hr)	Drying Time (days)	Max. Volume (in)	Suction Head (in)	Conductivity (in/hr)	Initial Deficit (frac.)	TC Method	Time of Concentration (min)
J74	1.189	0.05	0.05	0	0	0	0	0	3.5	0.5	0.25	User entered value	8.826
J17	25.102	0.05	0.05	0	0	0	0	0	3.5	0.5	0.25	User entered value	6
J35	20.072	0.05	0.05	0	0	0	0	0	3.5	0.5	0.25	User entered value	8.565
25478	18.168	0.05	0.05	0	0	0	0	0	3.5	0.5	0.25	User entered value	10.813
7096	83.732	0.05	0.05	0	0	0	0	0	3.5	0.5	0.25	User entered value	6
7742	78.38	0.05	0.05	0	0	0	0	0	3.5	0.5	0.25	User entered value	6
3089	20.12	0.05	0.05	0	0	0	0	0	3.5	0.5	0.25	User entered value	8.804
J29	0.518	0.05	0.05	0	0	0	0	0	3.5	0.5	0.25	User entered value	8.149
J165	15.048	0.05	0.05	0	0	0	0	0	3.5	0.5	0.25	User entered value	7.813
J164	46.672	0.05	0.05	0	0	0	0	0	3.5	0.5	0.25	User entered value	6
J14	31.924	0.05	0.05	0	0	0	0	0	3.5	0.5	0.25	User entered value	7.285
J1	89.731	0.05	0.05	0	0	0	0	0	3.5	0.5	0.25	User entered value	6
7683	67.196	0.05	0.05	0	0	0	0	0	3.5	0.5	0.25	User entered value	6
J15	40.272	0.05	0.05	0	0	0	0	0	3.5	0.5	0.25	User entered value	8.577
J38	92.02	0.05	0.05	0	0	0	0	0	3.5	0.5	0.25	User entered value	6
RD-auto1	100	0.05	0.05	0	0	0	0	0	3.5	0.5	0.25	User entered value	6
RD-auto2	100	0.05	0.05	0	0	0	0	0	3.5	0.5	0.25	User entered value	6
RD-auto3	100	0.05	0.05	0	0	0	0	0	3.5	0.5	0.25	User entered value	6
13349	100	0.05	0.05	0	0	0	0	0	3.5	0.5	0.25	User entered value	6
RD-thick	100	0.05	0.05	0	0	0	0	0	3.5	0.5	0.25	User entered value	6
RD-sludge	100	0.05	0.05	0	0	0	0	0	3.5	0.5	0.25	User entered value	6
RD-admin	100	0.05	0.05	0	0	0	0	0	3.5	0.5	0.25	User entered value	6
J18	1.196	0.05	0.05	0	0	0	0	0	3.5	0.5	0.25	User entered value	6.398
2249	94.252	0	0	0	0	0	0	0	0	0	0	User entered value	6
9645	99.908	0.05	0.05	0	0	0	0	0	3.5	0.5	0.25	User entered value	6
9409	100	0.05	0.05	0	0	0	0	0	3.5	0.5	0.25	User entered value	6

Table 4B: ARM Subcatchments (continued...)

Name	Imperv. (%)	Dstore Imperv (in)	Dstore Perv (in)	Max. Infil. Rate (in/hr)	Min. Infil. Rate (in/hr)	Decay Constant (1/hr)	Drying Time (days)	Max. Volume (in)	Suction Head (in)	Conductivity (in/hr)	Initial Deficit (frac.)	TC Method	Time of Concentration (min)
10	0	0.05	0.05	0	0	0	0	0	3.5	0.5	0.25	SCS	11.467
32	0	0.05	0.05	0	0	0	0	0	3.5	0.5	0.25	SCS	7.503
R1_6	0	0.05	0.05	0	0	0	0	0	3.5	0.5	0.25	SCS	6.653
81	0	0.05	0.05	0	0	0	0	0	3.5	0.5	0.25	SCS	8.345
33	4.347	0.05	0.05	0	0	0	0	0	3.5	0.5	0.25	SCS	9.136
R5	0	0.05	0.05	0	0	0	0	0	3.5	0.5	0.25	User entered value	13.393

Table 4C: ARM Subcatchments

Name	Loss Method	IA Method	IA Value (in)	SCS Curve Number	Peak Rate Factor	Initial Loss (in)	Const. Rate (in/hr)	Runoff Coef.	Lag Time (min)	Peak Coef.	# Reservoirs	Storage Coef. (h)	IDF Curve	Return Period (y)	Steady Duration (mins)
J10	SCS CN	0.2 S	0.527	79.16	Standard (483.4)	0	0	0.6	30	0.6	3	0.4		5	60
J13	SCS CN	0.2 S	0.556	78.24	Standard (483.4)	0	0	0.6	30	0.6	3	0.4		5	60
J179	SCS CN	0.2 S	0.407	83.08	Standard (483.4)	0	0	0.6	30	0.6	3	0.4		5	60
J7	SCS CN	0.2 S	0.424	82.51	Standard (483.4)	0	0	0.6	30	0.6	3	0.4		5	60
J6	SCS CN	0.2 S	0.408	83.06	Standard (483.4)	0	0	0.6	30	0.6	3	0.4		5	60
31036'	SCS CN	0.2 S	0.473	80.86	Standard (483.4)	0	0	0.6	30	0.6	3	0.4		5	60
31036	SCS CN	0.2 S	0.064	96.89	Standard (483.4)	0	0	0.6	30	0.6	3	0.4		5	60
J5	SCS CN	0.2 S	0.325	86.02	Standard (483.4)	0	0	0.6	30	0.6	3	0.4		5	60
7592	SCS CN	0.2 S	0.536	78.87	Standard (483.4)	0	0	0.6	30	0.6	3	0.4		5	60
J9	SCS CN	0.2 S	0.507	79.79	Standard (483.4)	0	0	0.6	30	0.6	3	0.4		5	60
J16	SCS CN	0.2 S	0.498	80.06	Standard (483.4)	0	0	0.6	30	0.6	3	0.4		5	60
J72	SCS CN	0.2 S	0.594	77.11	Standard (483.4)	0	0	0.6	30	0.6	3	0.4		5	60
21253	SCS CN	0.2 S	0.536	78.85	Standard (483.4)	0	0	0.6	30	0.6	3	0.4		5	60
23025	SCS CN	0.2 S	0.6	76.91	Standard (483.4)	0	0	0.6	30	0.6	3	0.4		5	60

Table 4C: ARM Subcatchments (continued...)

Name	Loss Method	IA Method	IA Value (in)	SCS Curve Number	Peak Rate Factor	Initial Loss (in)	Const. Rate (in/hr)	Runoff Coef.	Lag Time (min)	Peak Coef.	# Reservoirs	Storage Coef. (h)	IDF Curve	Return Period (y)	Steady Duration (mins)
23037	SCS CN	0.2 S	0.044	97.86	Standard (483.4)	0	0	0.6	30	0.6	3	0.4		5	60
20985	SCS CN	0.2 S	0.06	97.1	Standard (483.4)	0	0	0.6	30	0.6	3	0.4		5	60
21325	SCS CN	0.2 S	0.072	96.53	Standard (483.4)	0	0	0.6	30	0.6	3	0.4		5	60
21199	SCS CN	0.2 S	0.058	97.16	Standard (483.4)	0	0	0.6	30	0.6	3	0.4		5	60
J171	SCS CN	0.2 S	0.486	80.46	Standard (483.4)	0	0	0.6	30	0.6	3	0.4		5	60
J175	SCS CN	0.2 S	0.525	79.22	Standard (483.4)	0	0	0.6	30	0.6	3	0.4		5	60
J174	SCS CN	0.2 S	0.408	83.06	Standard (483.4)	0	0	0.6	30	0.6	3	0.4		5	60
J169	SCS CN	0.2 S	0.416	82.79	Standard (483.4)	0	0	0.6	30	0.6	3	0.4		5	60
J170	SCS CN	0.2 S	0.465	81.13	Standard (483.4)	0	0	0.6	30	0.6	3	0.4		5	60
18726	SCS CN	0.2 S	0.184	91.57	Standard (483.4)	0	0	0.6	30	0.6	3	0.4		5	60
16770	SCS CN	0.2 S	0.357	84.86	Standard (483.4)	0	0	0.6	30	0.6	3	0.4		5	60
16610	SCS CN	0.2 S	0.402	83.27	Standard (483.4)	0	0	0.6	30	0.6	3	0.4		5	60
14608	SCS CN	0.2 S	0.079	96.18	Standard (483.4)	0	0	0.6	30	0.6	3	0.4		5	60
14383	SCS CN	0.2 S	0.259	88.53	Standard (483.4)	0	0	0.6	30	0.6	3	0.4		5	60
15374	SCS CN	0.2 S	0.382	83.97	Standard (483.4)	0	0	0.6	30	0.6	3	0.4		5	60
15469	SCS CN	0.2 S	0.258	88.58	Standard (483.4)	0	0	0.6	30	0.6	3	0.4		5	60
16125	SCS CN	0.2 S	0.262	88.41	Standard (483.4)	0	0	0.6	30	0.6	3	0.4		5	60
J3	SCS CN	0.2 S	0.312	86.52	Standard (483.4)	0	0	0.6	30	0.6	3	0.4		5	60
J2	SCS CN	0.2 S	0.233	89.55	Standard (483.4)	0	0	0.6	30	0.6	3	0.4		5	60
15964	SCS CN	0.2 S	0.124	94.14	Standard (483.4)	0	0	0.6	30	0.6	3	0.4		5	60
J172	SCS CN	0.2 S	0.412	82.92	Standard (483.4)	0	0	0.6	30	0.6	3	0.4		5	60
J173	SCS CN	0.2 S	0.449	81.67	Standard (483.4)	0	0	0.6	30	0.6	3	0.4		5	60
J26	SCS CN	0.2 S	0.451	81.6	Standard (483.4)	0	0	0.6	30	0.6	3	0.4		5	60
19657	SCS CN	0.2 S	0.041	98	Standard (483.4)	0	0	0.6	30	0.6	3	0.4		5	60
20575	SCS CN	0.2 S	0.287	87.45	Standard (483.4)	0	0	0.6	30	0.6	3	0.4		5	60
OL-J48	SCS CN	0.2 S	0.349	85.16	Standard (483.4)	0	0	0.6	30	0.6	3	0.4		5	60

Table 4C: ARM Subcatchments (continued...)

Name	Loss Method	IA Method	IA Value (in)	SCS Curve Number	Peak Rate Factor	Initial Loss (in)	Const. Rate (in/hr)	Runoff Coef.	Lag Time (min)	Peak Coef.	# Reservoirs	Storage Coef. (h)	IDF Curve	Return Period (y)	Steady Duration (mins)
OL-J49	SCS CN	0.2 S	0.078	96.26	Standard (483.4)	0	0	0.6	30	0.6	3	0.4		5	60
12956	SCS CN	0.2 S	0.087	95.85	Standard (483.4)	0	0	0.6	30	0.6	3	0.4		5	60
13746	SCS CN	0.2 S	0.376	84.19	Standard (483.4)	0	0	0.6	30	0.6	3	0.4		5	60
J39	SCS CN	0.2 S	0.326	85.99	Standard (483.4)	0	0	0.6	30	0.6	3	0.4		5	60
5526	SCS CN	0.2 S	0.044	97.87	Standard (483.4)	0	0	0.6	30	0.6	3	0.4		5	60
5571	SCS CN	0.2 S	0.041	98	Standard (483.4)	0	0	0.6	30	0.6	3	0.4		5	60
5604	SCS CN	0.2 S	0.089	95.72	Standard (483.4)	0	0	0.6	30	0.6	3	0.4		5	60
J183	SCS CN	0.2 S	0.285	87.53	Standard (483.4)	0	0	0.6	30	0.6	3	0.4		5	60
OL-J38	SCS CN	0.2 S	0.144	93.28	Standard (483.4)	0	0	0.6	30	0.6	3	0.4		5	60
5230	SCS CN	0.2 S	0.307	86.7	Standard (483.4)	0	0	0.6	30	0.6	3	0.4		5	60
5246	SCS CN	0.2 S	0.385	83.86	Standard (483.4)	0	0	0.6	30	0.6	3	0.4		5	60
21705	SCS CN	0.2 S	0.123	94.22	Standard (483.4)	0	0	0.6	30	0.6	3	0.4		5	60
5218	SCS CN	0.2 S	0.145	93.23	Standard (483.4)	0	0	0.6	30	0.6	3	0.4		5	60
21626	SCS CN	0.2 S	0.54	78.74	Standard (483.4)	0	0	0.6	30	0.6	3	0.4		5	60
5172	SCS CN	0.2 S	0.37	84.4	Standard (483.4)	0	0	0.6	30	0.6	3	0.4		5	60
6505	SCS CN	0.2 S	0.379	84.08	Standard (483.4)	0	0	0.6	30	0.6	3	0.4		5	60
OL-J41	SCS CN	0.2 S	0.373	84.28	Standard (483.4)	0	0	0.6	30	0.6	3	0.4		5	60
6088	SCS CN	0.2 S	0.317	86.31	Standard (483.4)	0	0	0.6	30	0.6	3	0.4		5	60
J4	SCS CN	0.2 S	0.414	82.85	Standard (483.4)	0	0	0.6	30	0.6	3	0.4		5	60
1896	SCS CN	0.2 S	0.242	89.22	Standard (483.4)	0	0	0.6	30	0.6	3	0.4		5	60
1038	SCS CN	0.2 S	0.557	78.22	Standard (483.4)	0	0	0.6	30	0.6	3	0.4		5	60
2358	SCS CN	0.2 S	0.113	94.64	Standard (483.4)	0	0	0.6	30	0.6	3	0.4		5	60
J45	SCS CN	0.2 S	0.379	84.08	Standard (483.4)	0	0	0.6	30	0.6	3	0.4		5	60
3824	SCS CN	0.2 S	0.269	88.16	Standard (483.4)	0	0	0.6	30	0.6	3	0.4		5	60
3596	SCS CN	0.2 S	0.361	84.7	Standard (483.4)	0	0	0.6	30	0.6	3	0.4		5	60
3449	SCS CN	0.2 S	0.041	98	Standard (483.4)	0	0	0.6	30	0.6	3	0.4		5	60

Table 4C: ARM Subcatchments (continued...)

Name	Loss Method	IA Method	IA Value (in)	SCS Curve Number	Peak Rate Factor	Initial Loss (in)	Const. Rate (in/hr)	Runoff Coef.	Lag Time (min)	Peak Coef.	# Reservoirs	Storage Coef. (h)	IDF Curve	Return Period (y)	Steady Duration (mins)
3372	SCS CN	0.2 S	0.041	98	Standard (483.4)	0	0	0.6	30	0.6	3	0.4		5	60
3615	SCS CN	0.2 S	0.476	80.79	Standard (483.4)	0	0	0.6	30	0.6	3	0.4		5	60
3424	SCS CN	0.2 S	0.201	90.87	Standard (483.4)	0	0	0.6	30	0.6	3	0.4		5	60
3381	SCS CN	0.2 S	0.219	90.14	Standard (483.4)	0	0	0.6	30	0.6	3	0.4		5	60
15234	SCS CN	0.2 S	0.474	80.83	Standard (483.4)	0	0	0.6	30	0.6	3	0.4		5	60
15075	SCS CN	0.2 S	0.436	82.11	Standard (483.4)	0	0	0.6	30	0.6	3	0.4		5	60
15025	SCS CN	0.2 S	0.564	78	Standard (483.4)	0	0	0.6	30	0.6	3	0.4		5	60
17671	SCS CN	0.2 S	0.564	78	Standard (483.4)	0	0	0.6	30	0.6	3	0.4		5	60
18356	SCS CN	0.2 S	0.564	78	Standard (483.4)	0	0	0.6	30	0.6	3	0.4		5	60
18312	SCS CN	0.2 S	0.435	82.13	Standard (483.4)	0	0	0.6	30	0.6	3	0.4		5	60
9264	SCS CN	0.2 S	0.125	94.12	Standard (483.4)	0	0	0.6	30	0.6	3	0.4		5	60
9253	SCS CN	0.2 S	0.309	86.61	Standard (483.4)	0	0	0.6	30	0.6	3	0.4		5	60
9627	SCS CN	0.2 S	0.28	87.73	Standard (483.4)	0	0	0.6	30	0.6	3	0.4		5	60
10028	SCS CN	0.2 S	0.43	82.32	Standard (483.4)	0	0	0.6	30	0.6	3	0.4		5	60
11842	SCS CN	0.2 S	0.041	98	Standard (483.4)	0	0	0.6	30	0.6	3	0.4		5	60
11966	SCS CN	0.2 S	0.318	86.29	Standard (483.4)	0	0	0.6	30	0.6	3	0.4		5	60
RD-incen	SCS CN	0.2 S	0.041	98	Standard (483.4)	0	0	0.6	30	0.6	3	0.4		5	60
13029	SCS CN	0.2 S	0.405	83.15	Standard (483.4)	0	0	0.6	30	0.6	3	0.4		5	60
13138	SCS CN	0.2 S	0.051	97.51	Standard (483.4)	0	0	0.6	30	0.6	3	0.4		5	60
OL-J40	SCS CN	0.2 S	0.13	93.89	Standard (483.4)	0	0	0.6	30	0.6	3	0.4		5	60
OL-J50	SCS CN	0.2 S	0.062	97	Standard (483.4)	0	0	0.6	30	0.6	3	0.4		5	60
5191	SCS CN	0.2 S	0.051	97.53	Standard (483.4)	0	0	0.6	30	0.6	3	0.4		5	60
1885	SCS CN	0.2 S	0.486	80.46	Standard (483.4)	0	0	0.6	30	0.6	3	0.4		5	60
J147	SCS CN	0.2 S	0.041	98	Standard (483.4)	0	0	0.6	30	0.6	3	0.4		5	60
J33	SCS CN	0.2 S	0.041	98	Standard (483.4)	0	0	0.6	30	0.6	3	0.4		5	60
11560	SCS CN	0.2 S	0.13	93.89	Standard (483.4)	0	0	0.6	30	0.6	3	0.4		5	60

Table 4C: ARM Subcatchments (continued...)

Name	Loss Method	IA Method	IA Value (in)	SCS Curve Number	Peak Rate Factor	Initial Loss (in)	Const. Rate (in/hr)	Runoff Coef.	Lag Time (min)	Peak Coef.	# Reservoirs	Storage Coef. (h)	IDF Curve	Return Period (y)	Steady Duration (mins)
11213	SCS CN	0.2 S	0.063	96.95	Standard (483.4)	0	0	0.6	30	0.6	3	0.4		5	60
13528	SCS CN	0.2 S	0.055	97.32	Standard (483.4)	0	0	0.6	30	0.6	3	0.4		5	60
J31	SCS CN	0.2 S	0.041	98	Standard (483.4)	0	0	0.6	30	0.6	3	0.4		5	60
12497	SCS CN	0.2 S	0.184	91.57	Standard (483.4)	0	0	0.6	30	0.6	3	0.4		5	60
12678	SCS CN	0.2 S	0.201	90.87	Standard (483.4)	0	0	0.6	30	0.6	3	0.4		5	60
12709	SCS CN	0.2 S	0.224	89.92	Standard (483.4)	0	0	0.6	30	0.6	3	0.4		5	60
12300	SCS CN	0.2 S	0.072	96.52	Standard (483.4)	0	0	0.6	30	0.6	3	0.4		5	60
2374	SCS CN	0.2 S	0.059	97.15	Standard (483.4)	0	0	0.6	30	0.6	3	0.4		5	60
J180	SCS CN	0.2 S	0.541	78.7	Standard (483.4)	0	0	0.6	30	0.6	3	0.4		5	60
2002	SCS CN	0.2 S	0.244	89.14	Standard (483.4)	0	0	0.6	30	0.6	3	0.4		5	60
J167	SCS CN	0.2 S	0.398	83.39	Standard (483.4)	0	0	0.6	30	0.6	3	0.4		5	60
3253	SCS CN	0.2 S	0.595	77.06	Standard (483.4)	0	0	0.6	30	0.6	3	0.4		5	60
J74	SCS CN	0.2 S	0.568	77.88	Standard (483.4)	0	0	0.6	30	0.6	3	0.4		5	60
J17	SCS CN	0.2 S	0.425	82.47	Standard (483.4)	0	0	0.6	30	0.6	3	0.4		5	60
J35	SCS CN	0.2 S	0.445	81.79	Standard (483.4)	0	0	0.6	30	0.6	3	0.4		5	60
25478	SCS CN	0.2 S	0.471	80.95	Standard (483.4)	0	0	0.6	30	0.6	3	0.4		5	60
7096	SCS CN	0.2 S	0.111	94.75	Standard (483.4)	0	0	0.6	30	0.6	3	0.4		5	60
7742	SCS CN	0.2 S	0.135	93.68	Standard (483.4)	0	0	0.6	30	0.6	3	0.4		5	60
3089	SCS CN	0.2 S	0.454	81.51	Standard (483.4)	0	0	0.6	30	0.6	3	0.4		5	60
J29	SCS CN	0.2 S	0.594	77.11	Standard (483.4)	0	0	0.6	30	0.6	3	0.4		5	60
J165	SCS CN	0.2 S	0.495	80.16	Standard (483.4)	0	0	0.6	30	0.6	3	0.4		5	60
J164	SCS CN	0.2 S	0.295	87.13	Standard (483.4)	0	0	0.6	30	0.6	3	0.4		5	60
J14	SCS CN	0.2 S	0.384	83.91	Standard (483.4)	0	0	0.6	30	0.6	3	0.4		5	60
J1	SCS CN	0.2 S	0.085	95.91	Standard (483.4)	0	0	0.6	30	0.6	3	0.4		5	60
7683	SCS CN	0.2 S	0.193	91.18	Standard (483.4)	0	0	0.6	30	0.6	3	0.4		5	60
J15	SCS CN	0.2 S	0.336	85.62	Standard (483.4)	0	0	0.6	30	0.6	3	0.4		5	60

Table 4C: ARM Subcatchments (continued...)

Name	Loss Method	IA Method	IA Value (in)	SCS Curve Number	Peak Rate Factor	Initial Loss (in)	Const. Rate (in/hr)	Runoff Coef.	Lag Time (min)	Peak Coef.	# Reservoirs	Storage Coef. (h)	IDF Curve	Return Period (y)	Steady Duration (mins)
J38	SCS CN	0.2 S	0.076	96.36	Standard (483.4)	0	0	0.6	30	0.6	3	0.4		5	60
RD-auto1	SCS CN	0.2 S	0.041	98	Standard (483.4)	0	0	0.6	30	0.6	3	0.4		5	60
RD-auto2	SCS CN	0.2 S	0.041	98	Standard (483.4)	0	0	0.6	30	0.6	3	0.4		5	60
RD-auto3	SCS CN	0.2 S	0.041	98	Standard (483.4)	0	0	0.6	30	0.6	3	0.4		5	60
13349	SCS CN	0.2 S	0.041	98	Standard (483.4)	0	0	0.6	30	0.6	3	0.4		5	60
RD-thick	SCS CN	0.2 S	0.041	98	Standard (483.4)	0	0	0.6	30	0.6	3	0.4		5	60
RD-sludge	SCS CN	0.2 S	0.041	98	Standard (483.4)	0	0	0.6	30	0.6	3	0.4		5	60
RD-admin	SCS CN	0.2 S	0.041	98	Standard (483.4)	0	0	0.6	30	0.6	3	0.4		5	60
J18	SCS CN	0.2 S	0.577	77.61	Standard (483.4)	0	0	0.6	30	0.6	3	0.4		5	60
2249	SCS CN	0.2 S	0.065	96.85	Standard (483.4)	0	0	0	0	0	0	0		0	0
9645	SCS CN	0.2 S	0.041	97.98	Standard (483.4)	0	0	0.6	30	0.6	3	0.4		5	60
9409	SCS CN	0.2 S	0.041	98	Standard (483.4)	0	0	0.6	30	0.6	3	0.4		5	60
10	SCS CN	0.2 S	0.365	84.549	Standard (483.4)	0	0	0.6	30	0.6	3	0.4		5	60
32	SCS CN	0.2 S	0.519	79.383	Standard (483.4)	0	0	0.6	30	0.6	3	0.4		5	60
R1_6	SCS CN	0.2 S	0.458	81.368	Standard (483.4)	0	0	0.6	30	0.6	3	0.4		5	60
81	SCS CN	0.2 S	0.52	79.379	Standard (483.4)	0	0	0.6	30	0.6	3	0.4		5	60
33	SCS CN	0.2 S	0.525	79.208	Standard (483.4)	0	0	0.6	30	0.6	3	0.4		5	60
R5	SCS CN	0.2 S	0.564	77.99	Standard (483.4)	0	0	0.6	30	0.6	3	0.4		5	60

Table 4D: ARM Subcatchments

Name	Peak Rainfall (in/hr)	Roughness	Version	Rainfall Zone	Soil Type	Hydrograph Fattening	Runoff Depth (in)	Total rainfall (in)	Fire Factor	User entered PRF	Precipitation (in)	Infiltration (in)	Runoff Depth (in)	Runoff Volume (MG)
J10	0	0.1	2017			No	0	0	0	0	1.55	0.868	0.688	0.068
J13	0	0.1	2017			No	0	0	0	0	1.55	1.227	0.33	0.004
J179	0	0.1	2017			No	0	0	0	0	1.55	0.812	0.756	0.053
J7	0	0.1	2017			No	0	0	0	0	1.55	0.872	0.69	0.086
J6	0	0.1	2017			No	0	0	0	0	1.55	0.808	0.749	0.08
31036'	0	0.1	2017			No	0	0	0	0	1.55	0.898	0.647	0.191
31036	0	0.1	2017			No	0	0	0	0	1.55	0.017	1.546	0.01
J5	0	0.1	2017			No	0	0	0	0	1.55	0.596	0.966	0.069
7592	0	0.1	2017			No	0	0	0	0	1.55	1.188	0.367	0.013
J9	0	0.1	2017			No	0	0	0	0	1.55	1.095	0.455	0.017
J16	0	0.1	2017			No	0	0	0	0	1.55	1.072	0.475	0.065
J72	0	0.1	2017			No	0	0	0	0	1.55	1.314	0.238	0.009
21253	0	0.1	2017			No	0	0	0	0	1.55	1.194	0.356	0.028
23025	0	0.1	2017			No	0	0	0	0	1.55	1.059	0.488	0.067
23037	0	0.1	2017			No	0	0	0	0	1.55	0.002	1.563	0.005
20985	0	0.1	2017			No	0	0	0	0	1.55	0.012	1.552	0.011
21325	0	0.1	2017			No	0	0	0	0	1.55	0.026	1.538	0.008
21199	0	0.1	2017			No	0	0	0	0	1.55	0.013	1.551	0.004
J171	0	0.1	2017			No	0	0	0	0	1.55	1.036	0.518	0.001
J175	0	0.1	2017			No	0	0	0	0	1.55	1.175	0.383	0
J174	0	0.1	2017			No	0	0	0	0	1.55	0.826	0.736	0.002
J169	0	0.1	2017			No	0	0	0	0	1.55	0.863	0.704	0.008
J170	0	0.1	2017			No	0	0	0	0	1.55	1.001	0.562	0.014
18726	0	0.1	2017			No	0	0	0	0	1.55	0.23	1.332	0.002
16770	0	0.1	2017			No	0	0	0	0	1.55	0.696	0.875	0.008
16610	0	0.1	2017			No	0	0	0	0	1.55	0.819	0.749	0.009

Table 4D: ARM Subcatchments (continued...)

Name	Peak Rainfall (in/hr)	Roughness	Version	Rainfall Zone	Soil Type	Hydrograph Fattening	Runoff Depth (in)	Total rainfall (in)	Fire Factor	User entered PRF	Precipitation (in)	Infiltration (in)	Runoff Depth (in)	Runoff Volume (MG)
14608	0	0.1	2017			No	0	0	0	0	1.55	0.034	1.529	0.008
14383	0	0.1	2017			No	0	0	0	0	1.55	0.428	1.132	0.003
15374	0	0.1	2017			No	0	0	0	0	1.55	0.76	0.809	0.002
15469	0	0.1	2017			No	0	0	0	0	1.55	0.426	1.135	0.001
16125	0	0.1	2017			No	0	0	0	0	1.55	0.437	1.126	0.01
J3	0	0.1	2017			No	0	0	0	0	1.55	0.551	1.022	0.092
J2	0	0.1	2017			No	0	0	0	0	1.55	0.354	1.221	0.046
15964	0	0.1	2017			No	0	0	0	0	1.55	0.107	1.456	0.022
J172	0	0.1	2017			No	0	0	0	0	1.55	0.843	0.725	0.009
J173	0	0.1	2017			No	0	0	0	0	1.55	0.969	0.59	0.003
J26	0	0.1	2017			No	0	0	0	0	1.55	0.956	0.602	0.014
19657	0	0.1	2017			No	0	0	0	0	1.55	0	1.564	0.004
20575	0	0.1	2017			No	0	0	0	0	1.55	0.494	1.065	0.006
OL-J48	0	0.1	2017			No	0	0	0	0	1.55	0.68	0.89	0.004
OL-J49	0	0.1	2017			No	0	0	0	0	1.55	0.032	1.532	0.014
12956	0	0.1	2017			No	0	0	0	0	1.55	0.043	1.52	0.003
13746	0	0.1	2017			No	0	0	0	0	1.55	0.744	0.811	0.002
J39	0	0.1	2017			No	0	0	0	0	1.55	0.594	0.979	0.005
5526	0	0.1	2017			No	0	0	0	0	1.55	0.002	1.563	0.006
5571	0	0.1	2017			No	0	0	0	0	1.55	0	1.564	0.009
5604	0	0.1	2017			No	0	0	0	0	1.55	0.048	1.516	0.002
J183	0	0.1	2017			No	0	0	0	0	1.55	0.495	1.081	0.011
OL-J38	0	0.1	2017			No	0	0	0	0	1.55	0.146	1.417	0.009
5230	0	0.1	2017			No	0	0	0	0	1.55	0.556	1.018	0.004
5246	0	0.1	2017			No	0	0	0	0	1.55	0.779	0.788	0.003
21705	0	0.1	2017			No	0	0	0	0	1.55	0.101	1.463	0.012

Table 4D: ARM Subcatchments (continued...)

Name	Peak Rainfall (in/hr)	Roughness	Version	Rainfall Zone	Soil Type	Hydrograph Fattening	Runoff Depth (in)	Total rainfall (in)	Fire Factor	User entered PRF	Precipitation (in)	Infiltration (in)	Runoff Depth (in)	Runoff Volume (MG)
5218	0	0.1	2017			No	0	0	0	0	1.55	0.149	1.414	0.007
21626	0	0.1	2017			No	0	0	0	0	1.55	1.218	0.339	0.002
5172	0	0.1	2017			No	0	0	0	0	1.55	0.731	0.839	0.011
6505	0	0.1	2017			No	0	0	0	0	1.55	0.741	0.817	0.027
OL-J41	0	0.1	2017			No	0	0	0	0	1.55	0.726	0.819	0.09
6088	0	0.1	2017			No	0	0	0	0	1.55	0.579	0.995	0.008
J4	0	0.1	2017			No	0	0	0	0	1.55	0.83	0.723	0.031
1896	0	0.1	2017			No	0	0	0	0	1.55	0.378	1.183	0.04
1038	0	0.1	2017			No	0	0	0	0	1.55	1.249	0.305	0.004
2358	0	0.1	2017			No	0	0	0	0	1.55	0.087	1.477	0.008
J45	0	0.1	2017			No	0	0	0	0	1.55	0.767	0.785	0.002
3824	0	0.1	2017			No	0	0	0	0	1.55	0.453	1.105	0.004
3596	0	0.1	2017			No	0	0	0	0	1.55	0.709	0.862	0.047
3449	0	0.1	2017			No	0	0	0	0	1.55	0	1.564	0.003
3372	0	0.1	2017			No	0	0	0	0	1.55	0	1.564	0.002
3615	0	0.1	2017			No	0	0	0	0	1.55	1.019	0.54	0.019
3424	0	0.1	2017			No	0	0	0	0	1.55	0.266	1.295	0.01
3381	0	0.1	2017			No	0	0	0	0	1.55	0.322	1.239	0.02
15234	0	0.1	2017			No	0	0	0	0	1.55	1.043	0.52	0.001
15075	0	0.1	2017			No	0	0	0	0	1.55	0.932	0.625	0.001
15025	0	0.1	2017			No	0	0	0	0	1.55	1.294	0.261	0.001
17671	0	0.1	2017			No	0	0	0	0	1.55	1.294	0.262	0.001
18356	0	0.1	2017			No	0	0	0	0	1.55	1.294	0.258	0.001
18312	0	0.1	2017			No	0	0	0	0	1.55	0.93	0.626	0.006
9264	0	0.1	2017			No	0	0	0	0	1.55	0.105	1.458	0.005
9253	0	0.1	2017			No	0	0	0	0	1.55	0.568	0.99	0.032

Table 4D: ARM Subcatchments (continued...)

Name	Peak Rainfall (in/hr)	Roughness	Version	Rainfall Zone	Soil Type	Hydrograph Fattening	Runoff Depth (in)	Total rainfall (in)	Fire Factor	User entered PRF	Precipitation (in)	Infiltration (in)	Runoff Depth (in)	Runoff Volume (MG)
9627	0	0.1	2017			No	0	0	0	0	1.55	0.485	1.09	0.008
10028	0	0.1	2017			No	0	0	0	0	1.55	0.914	0.649	0.003
11842	0	0.1	2017			No	0	0	0	0	1.55	0	1.564	0.001
11966	0	0.1	2017			No	0	0	0	0	1.55	0.592	0.966	0.021
RD-incen	0	0.1	2017			No	0	0	0	0	1.55	0	1.563	0.008
13029	0	0.1	2017			No	0	0	0	0	1.55	0.804	0.752	0.001
13138	0	0.1	2017			No	0	0	0	0	1.55	0.006	1.558	0.006
OL-J40	0	0.1	2017			No	0	0	0	0	1.55	0.113	1.45	0.001
OL-J50	0	0.1	2017			No	0	0	0	0	1.55	0.016	1.549	0.003
5191	0	0.1	2017			No	0	0	0	0	1.55	0.006	1.558	0.004
1885	0	0.1	2017			No	0	0	0	0	1.55	1.052	0.509	0.007
J147	0	0.1	2017			No	0	0	0	0	1.55	0	1.564	0.003
J33	0	0.1	2017			No	0	0	0	0	1.55	0	1.564	0.01
11560	0	0.1	2017			No	0	0	0	0	1.55	0.119	1.445	0.006
11213	0	0.1	2017			No	0	0	0	0	1.55	0.017	1.547	0.025
13528	0	0.1	2017			No	0	0	0	0	1.55	0.01	1.555	0.003
J31	0	0.1	2017			No	0	0	0	0	1.55	0	1.564	0.004
12497	0	0.1	2017			No	0	0	0	0	1.55	0.233	1.329	0.002
12678	0	0.1	2017			No	0	0	0	0	1.55	0.273	1.289	0.006
12709	0	0.1	2017			No	0	0	0	0	1.55	0.332	1.248	0.014
12300	0	0.1	2017			No	0	0	0	0	1.55	0.026	1.538	0.004
2374	0	0.1	2017			No	0	0	0	0	1.55	0.012	1.552	0.004
J180	0	0.1	2017			No	0	0	0	0	1.55	1.192	0.361	0.004
2002	0	0.1	2017			No	0	0	0	0	1.55	0.369	1.192	0.008
J167	0	0.1	2017			No	0	0	0	0	1.55	0.786	0.783	0.009
3253	0	0.1	2017			No	0	0	0	0	1.55	1.318	0.236	0

Table 4D: ARM Subcatchments (continued...)

Name	Peak Rainfall (in/hr)	Roughness	Version	Rainfall Zone	Soil Type	Hydrograph Fattening	Runoff Depth (in)	Total rainfall (in)	Fire Factor	User entered PRF	Precipitation (in)	Infiltration (in)	Runoff Depth (in)	Runoff Volume (MG)
J74	0	0.1	2017			No	0	0	0	0	1.55	1.282	0.274	0.002
J17	0	0.1	2017			No	0	0	0	0	1.55	0.869	0.687	0.012
J35	0	0.1	2017			No	0	0	0	0	1.55	0.946	0.618	0.006
25478	0	0.1	2017			No	0	0	0	0	1.55	0.991	0.56	0.029
7096	0	0.1	2017			No	0	0	0	0	1.55	0.083	1.48	0.006
7742	0	0.1	2017			No	0	0	0	0	1.55	0.128	1.435	0.008
3089	0	0.1	2017			No	0	0	0	0	1.55	0.953	0.612	0.001
J29	0	0.1	2017			No	0	0	0	0	1.55	1.31	0.245	0
J165	0	0.1	2017			No	0	0	0	0	1.55	1.049	0.51	0.002
J164	0	0.1	2017			No	0	0	0	0	1.55	0.519	1.04	0.008
J14	0	0.1	2017			No	0	0	0	0	1.55	0.755	0.803	0.104
J1	0	0.1	2017			No	0	0	0	0	1.55	0.043	1.521	0.025
7683	0	0.1	2017			No	0	0	0	0	1.55	0.249	1.313	0.005
J15	0	0.1	2017			No	0	0	0	0	1.55	0.621	0.951	0.07
J38	0	0.1	2017			No	0	0	0	0	1.55	0.03	1.533	0.093
RD-auto1	0	0.1	2017			No	0	0	0	0	1.55	0	1.564	0.006
RD-auto2	0	0.1	2017			No	0	0	0	0	1.55	0	1.564	0.006
RD-auto3	0	0.1	2017			No	0	0	0	0	1.55	0	1.564	0.006
13349	0	0.1	2017			No	0	0	0	0	1.55	0	1.564	0.001
RD-thick	0	0.1	2017			No	0	0	0	0	1.55	0	1.564	0.002
RD-sludge	0	0.1	2017			No	0	0	0	0	1.55	0	1.564	0.006
RD-admin	0	0.1	2017			No	0	0	0	0	1.55	0	1.564	0.005
J18	0	0.1	2017			No	0	0	0	0	1.55	1.289	0.262	0.001
2249	0	0					0	0	0	0	1.55	0.019	1.545	0.003
9645	0	0.1	2017			No	0	0	0	0	1.55	0	1.564	0.003
9409	0	0.1	2017			No	0	0	0	0	1.55	0	1.564	0.002

Table 4D: ARM Subcatchments (continued...)

Name	Peak Rainfall (in/hr)	Roughness	Version	Rainfall Zone	Soil Type	Hydrograph Fattening	Runoff Depth (in)	Total rainfall (in)	Fire Factor	User entered PRF	Precipitation (in)	Infiltration (in)	Runoff Depth (in)	Runoff Volume (MG)
10	0	0.1	2017			No	0	0	0	0	1.55	1.084	0.464	0.064
32	0	0.1	2017			No	0	0	0	0	1.55	1.257	0.296	0.015
R1_6	0	0.1	2017			No	0	0	0	0	1.55	1.197	0.354	0.003
81	0	0.1	2017			No	0	0	0	0	1.55	1.257	0.3	0.006
33	0	0.1	2017			No	0	0	0	0	1.55	1.207	0.351	0.004
R5	0	0.1	2017			No	0	0	0	0	1.55	1.295	0.253	0.024

Table 4E: ARM Subcatchments

Name	Peak Runoff (cfs)	Runoff Coefficient	GIS_LENGTH (m)	GIS_AREA (m²)	GIS_PARTS
J10	4.326	0.444	682.979	14843.168	1
J13	0.192	0.213	165.078	1600.609	1
J179	3.189	0.488	479.638	10379.214	1
J7	5.069	0.445	629.574	18487.969	1
J6	4.813	0.483	805.431	15967.079	1
31036'	10.584	0.417	926.351	44062.951	1
31036	0.802	0.998	436.341	951.522	1
J5	4.34	0.623	835.918	10657.045	1
7592	0.719	0.237	304.507	5401.627	1
J9	0.906	0.294	435.301	5542.063	1
J16	3.413	0.306	764.416	20326.722	1
J72	0.475	0.154	332.977	5329.22	1
21253	1.478	0.23	531.637	11609.452	1
23025	3.526	0.315	783.375	20393.606	1

Table 4E: ARM Subcatchments (continued...)

Name	Peak Runoff (cfs)	Runoff Coefficient	GIS_LENGTH (m)	GIS_AREA (m²)	GIS_PARTS
23037	0.395	1.008	231.734	455.329	1
20985	0.905	1.001	493.587	1066.068	1
21325	0.647	0.992	352.121	777.158	1
21199	0.357	1.001	242.841	422.117	1
J171	0.058	0.334	74.06	288.285	1
J175	0.02	0.247	69.482	143.137	1
J174	0.127	0.475	155.705	419.644	1
J169	0.498	0.454	183.002	1764.046	1
J170	0.79	0.362	314.635	3662.424	1
18726	0.128	0.86	119.741	192.01	1
16770	0.49	0.564	171.705	1343.714	1
16610	0.555	0.483	208.323	1820.172	1
14608	0.61	0.987	106.388	740.805	1
14383	0.22	0.731	117.993	399.27	1
15374	0.108	0.522	84.32	324.83	1
15469	0.053	0.732	39.789	98.33	1
16125	0.689	0.727	205.624	1369.193	1
J3	6.193	0.659	698.364	13414.814	1
J2	3.185	0.788	552.054	5587.246	1
15964	1.665	0.939	280.665	2202.943	1
J172	0.52	0.468	193.282	1776.561	1
J173	0.196	0.381	119.655	838.193	1
J26	0.822	0.388	357.16	3563.401	1
19657	0.294	1.009	79.824	340.518	1
20575	0.396	0.687	137.057	781.753	1
OL-J48	0.224	0.574	151.927	602.203	1

Table 4E: ARM Subcatchments (continued...)

Name	Peak Runoff (cfs)	Runoff Coefficient	GIS_LENGTH (m)	GIS_AREA (m²)	GIS_PARTS
OL-J49	1.133	0.988	161.01	1372.069	1
12956	0.273	0.981	130.852	337.763	1
13746	0.134	0.524	86.335	389.755	1
J39	0.321	0.631	123.134	750.256	1
5526	0.528	1.008	106.641	610.017	1
5571	0.743	1.009	143.832	857.451	1
5604	0.193	0.978	77.836	239.863	1
J183	0.748	0.697	172.576	1526.516	1
OL-J38	0.656	0.914	186.449	900.075	1
5230	0.259	0.657	128.204	576.527	1
5246	0.201	0.509	123.682	619.369	1
21705	0.964	0.944	162.084	1268.386	1
5218	0.516	0.912	235.985	708.127	1
21626	0.125	0.219	126.116	995.779	1
5172	0.693	0.541	322.993	1990.091	1
6505	1.649	0.527	280.498	4927.52	1
OL-J41	4.94	0.528	1033.923	16303.015	1
6088	0.539	0.642	192.932	1252.559	1
J4	1.822	0.467	317.321	6327.525	1
1896	2.931	0.763	600.35	5055.783	1
1038	0.196	0.197	198.826	1716.422	1
2358	0.604	0.953	387.156	784.355	1
J45	0.121	0.506	86.485	366.055	1
3824	0.306	0.713	126.26	581.693	1
3596	2.931	0.556	603.852	8178.73	1
3449	0.263	1.009	177.379	301.732	1

Table 4E: ARM Subcatchments (continued...)

Name	Peak Runoff (cfs)	Runoff Coefficient	GIS_LENGTH (m)	GIS_AREA (m²)	GIS_PARTS
3372	0.158	1.009	120.069	181.427	1
3615	1.103	0.349	473.167	5265.415	1
3424	0.778	0.836	447.252	1192.329	1
3381	1.479	0.799	218.825	2402.409	1
15234	0.067	0.335	98.192	345.688	1
15075	0.039	0.403	53.955	155.206	1
15025	0.039	0.169	86.698	387.587	1
17671	0.069	0.169	119.323	695.156	1
18356	0.08	0.167	214.601	826.83	1
18312	0.365	0.404	321.1	1506.973	1
9264	0.374	0.941	313.319	493.809	1
9253	2.024	0.639	559.553	4833.429	2
9627	0.561	0.703	224.865	1136.28	1
10028	0.157	0.419	171.758	613.692	1
11842	0.091	1.009	72.551	105.407	1
11966	1.468	0.623	362.484	3293.346	1
RD-incen	0.648	1.009	127.686	749.647	1
13029	0.083	0.485	74.048	259.225	1
13138	0.458	1.005	107.493	534.29	1
OL-J40	0.079	0.936	52.701	103.726	1
OL-J50	0.27	0.999	130.767	320.184	1
5191	0.333	1.005	189.279	390.025	1
1885	0.377	0.328	200.457	2009.79	1
J147	0.245	1.009	77.355	281.549	1
J33	0.844	1.009	128.275	976.916	1
11560	0.473	0.932	100.916	629.931	1

Table 4E: ARM Subcatchments (continued...)

Name	Peak Runoff (cfs)	Runoff Coefficient	GIS_LENGTH (m)	GIS_AREA (m²)	GIS_PARTS
11213	2.062	0.998	305.601	2442.653	1
13528	0.279	1.003	73.676	326.79	1
J31	0.35	1.009	91.406	404.05	1
12497	0.161	0.858	70.101	239.917	1
12678	0.429	0.832	116.091	663.508	1
12709	1.031	0.805	334.634	1726.728	1
12300	0.34	0.992	250.776	409.125	1
2374	0.34	1.001	241.994	399.78	1
J180	0.231	0.233	191.249	1752.753	1
2002	0.579	0.769	161.206	985.567	1
J167	0.537	0.505	168.46	1676.18	1
3253	0.027	0.152	103.763	303.292	1
J74	0.1	0.177	156.776	982.547	1
J17	0.705	0.443	301.081	2513.319	1
J35	0.38	0.399	204.477	1557.749	1
25478	1.583	0.361	531.064	7656.938	1
7096	0.457	0.955	179.807	590.37	1
7742	0.643	0.926	294.209	867.808	1
3089	0.057	0.395	98.605	240.756	1
J29	0.012	0.158	81.215	132.658	1
J165	0.106	0.329	104.515	546.659	1
J164	0.541	0.671	169.768	1101.609	1
J14	6.58	0.518	657.638	19362.775	1
J1	2.022	0.981	720.255	2483.463	1
7683	0.354	0.847	99.607	534.105	1
J15	4.554	0.613	743.665	10988.512	1

Table 4E: ARM Subcatchments (continued...)

Name	Peak Runoff (cfs)	Runoff Coefficient	GIS_LENGTH (m)	GIS_AREA (m²)	GIS_PARTS
J38	7.46	0.989	469.788	9009.869	1
RD-auto1	0.473	1.009	99.217	545.321	1
RD-auto2	0.532	1.009	105.04	613.989	1
RD-auto3	0.522	1.009	102.467	605.046	2
13349	0.067	1.009	77.305	75.273	1
RD-thick	0.154	1.009	60.864	194.199	1
RD-sludge	0.49	1.009	108.769	567.93	1
RD-admin	0.396	1.009	100.039	457.023	1
J18	0.056	0.169	112.952	555.341	1
2249	0.252	0.997	144.339	297.632	1
9645	0.252	1.009	149.928	290.97	1
9409	0.203	1.009	81.795	236.292	1
10	3.729	0.299	725.102	20690.747	1
32	0.902	0.191	387.006	7742.427	1
R1_6	0.181	0.228	159.335	1281.681	1
81	0.325	0.193	235.218	2788.282	1
33	0.229	0.226	512.549	1756.394	1
R5	1.308	0.163	669.542	14302.893	1

PCSWMM Report

Pre-Development 10-yr Results

Model NelsonWWTF-ExCond-010YR.inp

HDR Engineering Inc.

January 19, 2024

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Summary 1: Options

Name	NelsonWWTF-ExCond-010YR
Flow Units	CFS
Infiltration method	Curve Number
Flow routing method	Dynamic Wave
Link offsets defined by	Elevation
Allow ponding	Yes
Skip steady flow periods	No
Inertial dampening	Partial
Define supercritical flow by	Both
Force Main Equation	H-W
Variable time step	On
Adjustment factor (%)	75
Conduit lengthening (s)	0
Minimum surface area (ft²)	0
Starting date	May-1-2022 12:00:00 AM
Ending date	May-4-2022 12:00:00 AM
Duration of simulation (hours)	72
Antecedent dry days (days)	0
Rain interval (h:mm)	0:01
Report time step (h:mm:ss)	00:01:00
Wet time step (h:mm:ss)	00:06:00
Dry time step (h:mm:ss)	00:06:00
Routing time step (s)	5
Minimum time step used (s)	0.5
Average time step used (s)	4.24
Minimum conduit slope	0
Ignore rainfall/runoff	No
Ignore snow melt	No
Ignore groundwater	No
Ignore flow routing	No
Ignore water quality	No
Report average results	No

Summary 2: Model inventory

Name	NelsonWWTF-ExCond-010YR
Raingages	6
Subcatchments	0
Aquifers	0
Snowpacks	0
RDII hydrographs	0
Junction nodes	266
Outfall nodes	7
Flow divider nodes	0
Storage unit nodes	17
Conduit links	272
Pump links	0
Orifice links	0
Weir links	84
Outlet links	0
Treatment units	0
Transects	6
Control rules	0
Pollutants	0
Land Uses	0
Control Curves	0
Diversion Curves	0
Pump Curves	0
Rating Curves	0
Shape Curves	0
Storage Curves	13
Tidal Curves	0
Weir Curves	0
Time Series	12
Time Patterns	0

Summary 3: Model complexity

Name	NelsonWWTF-ExCond-010YR
Subcatchments	n/a
Groundwater	n/a
Aquifers	n/a
Snowpacks	n/a
RDII hydrographs	n/a
Junction nodes	595
Outfall nodes	7
Flow divider nodes	n/a
Storage unit nodes	61
Conduit links	2094
Pump links	n/a
Orifice links	n/a
Weir links	336
Outlet links	n/a
Transect	30
Pollutants	n/a
Land Uses	n/a
Model complexity (total uncertain input parameters)	3123

Summary 4: Inflows

Name	NelsonWWTF-ExCond-010YR
Time series inflows	0
Dry weather	0
Groundwater	0
RDII inflows	0

Summary 5: Subcatchment statistics

Name	NelsonWWTF-ExCond-010YR
Max. width (ft)	n/a
Min. width (ft)	n/a
Max. area (ac)	n/a
Min. area (ac)	n/a
Total area (ac)	n/a
Max. length of overland flow (ft)	n/a
Min. length of overland flow (ft)	n/a
Max. slope (%)	n/a

Summary 5: Subcatchment statistics (continued...)

Name	NelsonWWTF-ExCond-010YR
Min. slope (%)	n/a
Max. imperviousness (%)	n/a
Min. imperviousness (%)	n/a
Max. imp. roughness	n/a
Min. imp. roughness	n/a
Max. perv. roughness	n/a
Min. perv. roughness	n/a
Max. imp. depression storage (in)	n/a
Min. imp. depression storage (in)	n/a
Max. perv. depression storage (in)	n/a
Min. perv. depression storage (in)	n/a

Summary 6: Node statistics

Name	NelsonWWTF-ExCond-010YR
Max. ground elev. (ft)	1012.7
Min. ground elev. (ft)	843
Max. invert elev. (ft)	1011.6
Min. invert elev. (ft)	831.42
Max. depth (ft)	35.1
Min. depth (ft)	0.5

Summary 7: Conduit statistics

Name	NelsonWWTF-ExCond-010YR
Max. roughness	0.035
Min. roughness	0.01
Max. entry loss coef.	1
Min. entry loss coef.	0
Max. exit loss coef.	1
Min. exit loss coef.	0
Max. avg. loss coef.	0
Min. avg. loss coef.	0
Max. length (ft)	632.865
Min. length (ft)	5.501
Total length (ft)	27494.362
Max. slope (ft/ft)	2.2053
Min. slope (ft/ft)	0

Summary 8: Conduit Inventory

Name	NelsonWWTF-ExCond-010YR
Open Rectangular (ft)	427.084
Trapezoidal (ft)	12971.041
Triangular (ft)	16.06
Irregular (ft)	995.946
Circular (ft)	12498.167
Closed Rectangular (ft)	338.88
Horizontal Elliptical (ft)	247.184

Summary 9: Pipe inventory

Name	NelsonWWTF-ExCond-010YR
Max. pipe diameter (ft)	4.5
Min. pipe diameter (ft)	0.25
Total 12” pipe length (ft)	2788.892
Total 15” pipe length (ft)	1384.484
Total 18” pipe length (ft)	1041.624
Total 21” pipe length (ft)	1397.394
Total 24” pipe length (ft)	2885.987
Total 30” pipe length (ft)	393.151
Total 36” pipe length (ft)	1288.106
Total 42” pipe length (ft)	24.992
Total 48” pipe length (ft)	51.106
Total 54” pipe length (ft)	315.125
Total other pipe length (ft)	927.306
Total pipe length (ft)	12498.167

Summary 10: Unused objects

Name	NelsonWWTF-ExCond-010YR
Rain Gages	5
Aquifers	n/a
Snow Packs	n/a
Unit Hydrographs	n/a
Transects	0
Control Curves	n/a
Diversion Curves	n/a
Pump Curves	n/a
Rating Curves	n/a

Summary 10: Unused objects (continued...)

Name	NelsonWWTF-ExCond-010YR
Shape Curves	n/a
Storage Curves	0
Tidal Curves	n/a
Weir Curves	n/a
Time Series	5
Time Patterns	n/a

Summary 11: Flow routing continuity

Name	NelsonWWTF-ExCond-010YR
Dry weather inflow (MG)	0.000
Wet weather inflow (MG)	0.000
Groundwater inflow (MG)	0.000
RDII inflow (MG)	0.000
External inflow (MG)	3.942
External outflow (MG)	3.926
Flooding loss (MG)	0.000
Evaporation loss (MG)	0.000
Exfiltration loss (MG)	0.000
Initial stored volume (MG)	0.011
Final stored volume (MG)	0.028
Continuity error (%)	-0.022

Summary 12: Results statistics

Name	NelsonWWTF-ExCond-010YR
Max. subcatchment total runoff (MG)	n/a
Max. subcatchment peak runoff (cfs)	n/a
Max. subcatchment runoff coefficient	n/a
Max. subcatchment total precip (in)	n/a
Min. subcatchment total precip (in)	n/a
Max. node depth (ft)	10.97
Num. nodes surcharged	13
Max. node surcharge duration (hours)	0.64
Max. node height above crown (ft)	2.865
Min. node depth below rim (ft)	0
Num. nodes flooded	2
Max. node flooding duration (hours)	0.49

Summary 12: Results statistics (continued...)

Name	NelsonWWTF-ExCond-010YR
Max. node flood volume (MG)	0
Max. node ponded volume or depth (acre-in/1000 ft³/ft)	0.184
Max. storage volume (1000 ft³)	5.99
Max. storage percent full (%)	80
Max. outfall flow frequency (%)	24.58
Max. outfall peak flow (cfs)	166.72
Max. outfall total volume (MG)	2.918
Total outfall volume (MG)	3.960
Max. link peak flow (cfs)	166.72
Max. link peak velocity (ft/s)	22.17
Min. link peak velocity (ft/s)	0
Num. conduits surcharged	35
Max. conduit surcharge duration (hours)	72
Max. conduit capacity limited duration (hours)	3.65

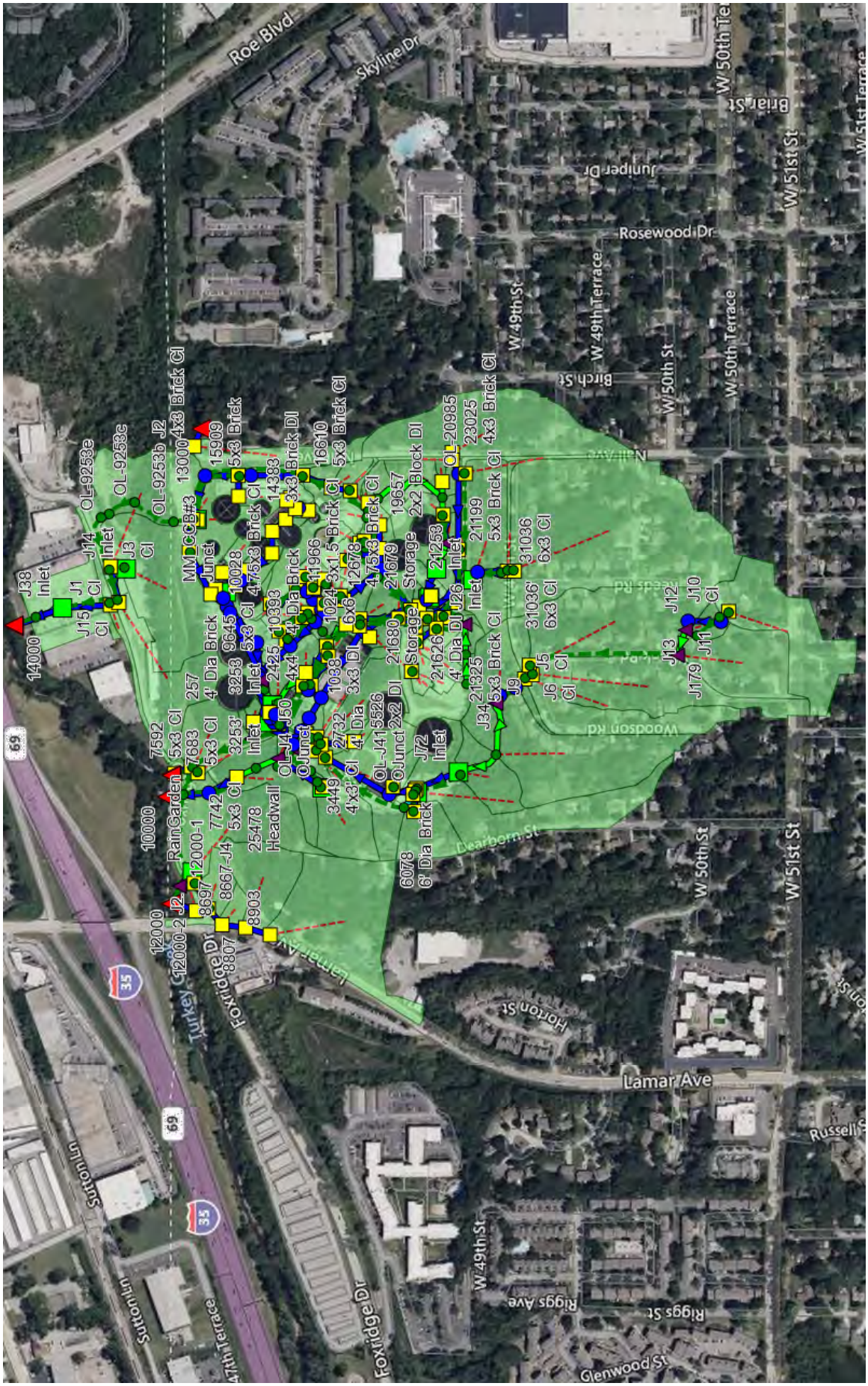

Figure 1: Map Extents

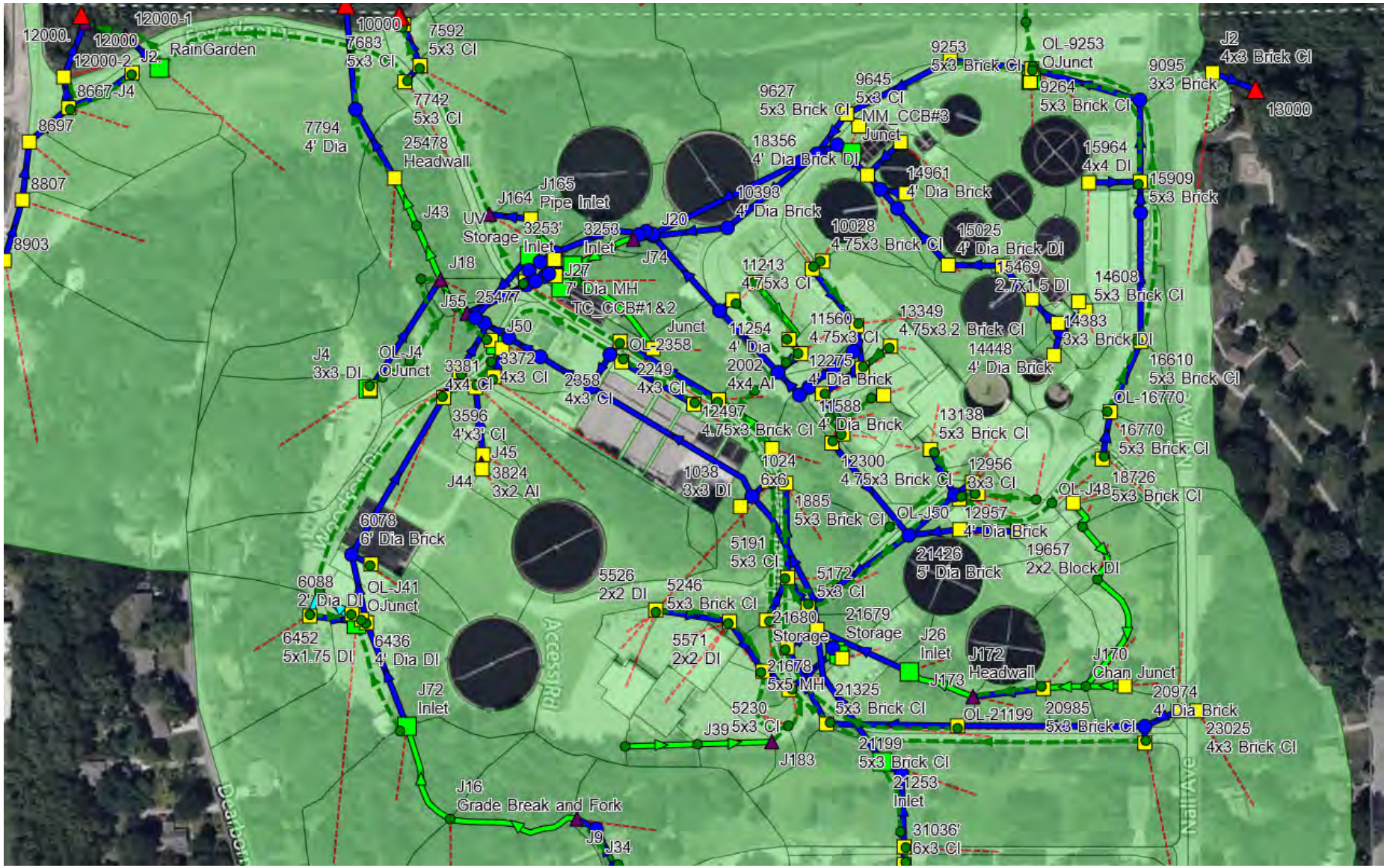

Figure 2: WWTF Site

Table 1A: Conduits

Name	Inlet Node	Outlet Node	Tag	Length (ft)	Roughness	Inlet Elev. (ft)	Outlet Elev. (ft)	Initial Flow (cfs)	Flow Limit (cfs)	Entry Loss Coeff.	Exit Loss Coeff.	Avg. Loss Coeff.	Seepage Rate (in/hr)	Flap Gate	Cross-Section
1	8903	8807	pipe	107.867	0.01	857.01	856.03	0	0	0	0	0	0	NO	CIRCULAR
1A	7794	10000	Pipe	179.773	0.013	832.49	831.42	0	0	1	0	0	0	NO	CIRCULAR
1B	25478	7794	Pipe	135.352	0.013	837.53	836.36	0	0	1	0	0	0	NO	CIRCULAR
1C_1A	J4	J18	Pipe	223.478	0.011	891.609	866	0	0	1	0	0	0	NO	CIRCULAR
1C_2	J35	J18	Channel	53.524	0.035	865.44	860.437	0	0	0	0	0	0	NO	IRREGULAR
1C_3	J18	J43	Channel	100.805	0.035	860.437	856.851	0	0	0	0	0	0	NO	IRREGULAR
1C_4	J43	25478	Channel	89.977	0.035	856.851	837.53	0	0	0	0	0	0	NO	IRREGULAR
1D	25477	J35	Channel	22.116	0.013	866.82	865.44	0	0	0	0	0	0	NO	RECT_OPEN
1DA_1	J163	25477	Pipe	113.769	0.013	879.59	867.83	0	0	1	0	0	0	NO	CIRCULAR
1DA_2	J30	J163	Pipe	41.94	0.013	884.62	879.59	0	0	1	0	0	0	NO	CIRCULAR
1DA_3	3253'	J30	Pipe	43.347	0.013	889.82	884.62	0	0	1	0	0	0	NO	CIRCULAR
1DAA	7096	J163	Pipe	5.501	0.013	885.07	880.06	0	0	1	0	0	0	NO	CIRCULAR
1DB_1	J28	25477	Pipe	130.111	0.013	878.5	867.03	0	0	1	0	0	0	NO	CIRCULAR
1DB_2	J166	J28	Pipe	17.022	0.013	880.78	879.189	0	0	1	0	0	0	NO	CIRCULAR
1DB_2A	J19	J28	Pipe	21.476	0.013	878.5	878.5	0	0	1	0	0	0	NO	CIRCULAR
1DBA'	3089	J30	Pipe	11.927	0.011	888.59	885.07	0	0	1	0	0	0	NO	CIRCULAR
1DBA''	3089	J30	Pipe	12.572	0.011	888.49	880.78	0	0	1	0	0	0	NO	CIRCULAR
1DBB_1	J167	J17	Channel	177.943	0.013	894.56	891.467	0	0	0	0	0	0	NO	IRREGULAR
1DBB_2	J17	3089	Channel	39.019	0.013	891.467	890.79	0	0	0	0	0	0	NO	IRREGULAR
1DD_1	J36	3253	Channel	72.67	0.013	919.444	898.55	0	0	0	0	0	0	NO	TRAPEZOIDAL
1DD_2	J74	J36	Channel	40.715	0.013	930.61	919.444	0	0	0	0	0	0	NO	TRAPEZOIDAL
1DE	J20	J74	Pipe	34.553	0.013	931.17	930.61	0	0	1	0	0	0	NO	CIRCULAR
1DeA	11254	J20	Pipe	171.186	0.013	932.61	931.17	0	0	1	0	0	0	NO	CIRCULAR
1DEAA	11213	11254	Pipe	29.416	0.011	936.1	932.94	0	0	1	0	0	0	NO	CIRCULAR
1DEB	25504	11254	Pipe	145.365	0.011	933.1	932.75	0	0	1	0	0	0	NO	CIRCULAR
1DEBA	11560	25504	Pipe	50.827	0.011	936.8	934.34	0	0	1	0	0	0	NO	CIRCULAR

Table 1A: Conduits (continued...)

Name	Inlet Node	Outlet Node	Tag	Length (ft)	Roughness	Inlet Elev. (ft)	Outlet Elev. (ft)	Initial Flow (cfs)	Flow Limit (cfs)	Entry Loss Coeff.	Exit Loss Coeff.	Avg. Loss Coeff.	Seepage Rate (in/hr)	Flap Gate	Cross-Section
1DEBD_1	J147	J33	Channel	128.743	0.011	942.12	941.663	0	0	0	0	0	0	NO	RECT_OPEN
1DEBD_2	J33	11560	Pipe	31.821	0.011	941.663	941.55	0	0	1	0	0	0	NO	CIRCULAR
1DEC	12275	25504	Pipe	53.652	0.013	933.6	933.24	0	0	1	0	0	0	NO	CIRCULAR
1DED	11588	12275	Pipe	20.548	0.014	934.52	933.6	0	0	1	0	0	0	NO	CIRCULAR
1DEE	12161	11588	Pipe	54.86	0.014	938.99	934.64	0	0	1	0	0	0	NO	CIRCULAR
1DEF	12759	12161	Pipe	43.201	0.014	943.02	939.09	0	0	1	0	0	0	NO	CIRCULAR
1DF	10393	J20	Pipe	128.094	0.013	939.1	932.491	0	0	1	0	0	0	NO	CIRCULAR
1DG	257	10393	Pipe	198.467	0.013	940.39	939.4	0	0	1	0	0	0	NO	CIRCULAR
1DH	9645	257	Pipe	85.613	0.013	940.71	940.49	0	0	1	0	0	0	NO	CIRCULAR
1DHA	9627	9645	Pipe	29.474	0.013	946.2	945.2	0	0	1	0	0	0	NO	CIRCULAR
1DI	9409	9645	Pipe	199.931	0.013	941.68	940.94	0	0	1	0	0	0	NO	CIRCULAR
1DJ	9264	9409	Pipe	140.55	0.013	942.7	941.74	0	0	1	0	0	0	NO	CIRCULAR
1DJA	9253	9264	Pipe	22.374	0.013	944.06	943.43	0	0	1	0	0	0	NO	CIRCULAR
1DK	9095	9264	Pipe	193.106	0.013	952.36	942.88	0	0	1	0	0	0	NO	CIRCULAR
1DL	15964	9095	Pipe	139.678	0.013	959.62	952.49	0	0	1	0	0	0	NO	CIRCULAR
1DLA	16125	15964	Pipe	88.47	0.013	960.63	960.18	0	0	1	0	0	0	NO	CIRCULAR
1DM	15909	15964	Pipe	53.433	0.013	962.57	959.68	0	0	1	0	0	0	NO	CIRCULAR
1DN	16610	15909	Pipe	219.757	0.013	967.84	962.59	0	0	1	0	0	0	NO	CIRCULAR
1DO	16770	16610	Pipe	131.132	0.013	969.75	967.92	0	0	1	0	0	0	NO	CIRCULAR
1DP	18726	16770	Pipe	81.842	0.013	973.96	969.79	0	0	1	0	0	0	NO	CIRCULAR
1E	J55	25477	Pipe	16.211	0.013	867.48	866.82	0	0	1	0	0	0	NO	HORIZ_ELLIPSE
1F	J177	J55	Pipe	17.786	0.013	868.21	867.48	0	0	1	0	0	0	NO	HORIZ_ELLIPSE
1FA	3449	J177	Pipe	95.854	0.013	871.72	867.85	0	0	1	0	0	0	NO	CIRCULAR
1FB	3596	3449	Pipe	51.332	0.013	873.97	871.76	0	0	1	0	0	0	NO	CIRCULAR
1FC	6078	3596	Pipe	311.509	0.013	886.38	874.01	0	0	1	0	0	0	NO	CIRCULAR
1FCA'	6088	6078	Pipe	36.933	0.013	888.94	888.18	0	0	1	0	0	0	NO	CIRCULAR

Table 1A: Conduits (continued...)

Name	Inlet Node	Outlet Node	Tag	Length (ft)	Roughness	Inlet Elev. (ft)	Outlet Elev. (ft)	Initial Flow (cfs)	Flow Limit (cfs)	Entry Loss Coeff.	Exit Loss Coeff.	Avg. Loss Coeff.	Seepage Rate (in/hr)	Flap Gate	Cross-Section
1FD	6436	6078	Pipe	119.067	0.013	891.64	886.73	0	0	1	0	0	0	NO	CIRCULAR
1FDA'	6505	6436	Pipe	98.171	0.011	898.68	896.12	0	0	1	0	0	0	NO	CIRCULAR
1FDA''	6452	6436	Pipe	10.314	0.011	897.28	896.97	0	0	1	0	0	0	NO	CIRCULAR
1FDA''A	6457	6452	Pipe	19.12	0.011	897.83	897.38	0	0	1	0	0	0	NO	CIRCULAR
1FE	J72	6436	Pipe	190.103	0.013	900.49	891.64	0	0	1	0	0	0	NO	CIRCULAR
1FF_1	J9	J16	Channel	228.886	0.035	926.22	910.168	0	0	0	0	0	0	NO	IRREGULAR
1FF_2	J16	J72	Channel	183.777	0.035	910.168	900.49	0	0	0	0	0	0	NO	IRREGULAR
1FG	J34	J9	Pipe	37.578	0.013	928.85	926.22	0	0	1	0	0	0	NO	CIRCULAR
1FH	J8	J34	Pipe	73.827	0.013	938.5	932.92	0	0	1	0	0	0	NO	CIRCULAR
1FI	J5	J8	Pipe	53.078	0.013	940.1	938.5	0	0	1	0	0	0	NO	CIRCULAR
1FJ	J6	J5	Pipe	36.361	0.013	941.2	940.1	0	0	1	0	0	0	NO	CIRCULAR
1FK	J7	J6	Pipe	42.062	0.013	942.46	941.2	0	0	1	0	0	0	NO	CIRCULAR
1G	J159	J177	Pipe	48.967	0.013	870.22	868.21	0	0	1	0	0	0	NO	HORIZ_ELLIPSE
1GA	3381	J159	Pipe	21.521	0.013	880.54	872.15	0	0	1	0	0	0	NO	CIRCULAR
1GAA	3372	3381	Pipe	23.777	0.013	882.86	880.99	0	0	1	0	0	0	NO	CIRCULAR
1GB	3424	3381	Pipe	50.008	0.013	885.05	883.29	0	0	1	0	0	0	NO	CIRCULAR
1GC	3615	3424	Pipe	36.603	0.013	885.71	885.4	0	0	1	0	0	0	NO	CIRCULAR
1GD	3824	3615	Pipe	115.434	0.011	889.05	886.28	0	0	1	0	0	0	NO	CIRCULAR
1GE	J44	3824	Channel	16.06	0.013	900.56	898.67	0	0	0	0	0	0	NO	TRIANGULAR
1GF	J45	J44	Pipe	9.739	0.024	901	900.56	0	0	1	0	0	0	NO	CIRCULAR
1H	J168	J159	Pipe	63.316	0.013	872.82	870.22	0	0	1	0	0	0	NO	HORIZ_ELLIPSE
1I	2732	J168	Pipe	100.904	0.013	876.96	872.82	0	0	1	0	0	0	NO	HORIZ_ELLIPSE
1IA	2425	2732	Pipe	64.578	0.013	883.79	877.34	0	0	1	0	0	0	NO	CIRCULAR
1IAA	2358	2425	Pipe	23.798	0.013	885.98	885.64	0	0	1	0	0	0	NO	CIRCULAR
1IAB	2249	2358	Pipe	143.4	0.013	887.16	886.18	0	0	1	0	0	0	NO	CIRCULAR
1IB	2374	2425	Pipe	28.517	0.013	886.12	885.71	0	0	1	0	0	0	NO	CIRCULAR

Table 1A: Conduits (continued...)

Name	Inlet Node	Outlet Node	Tag	Length (ft)	Roughness	Inlet Elev. (ft)	Outlet Elev. (ft)	Initial Flow (cfs)	Flow Limit (cfs)	Entry Loss Coeff.	Exit Loss Coeff.	Avg. Loss Coeff.	Seepage Rate (in/hr)	Flap Gate	Cross-Section
1IC	2002	2374	Pipe	196.469	0.011	897.88	891.22	0	0	1	0	0	0	NO	CIRCULAR
1ID	J180	2002	Channel	125.098	0.013	907.77	898.95	0	0	0	0	0	0	NO	TRAPEZOIDAL
1J	1024	2732	Pipe	338.88	0.013	886.87	877.29	0	0	1	0	0	0	NO	RECT_CLOSED
1JA	1896	1024	Pipe	37.938	0.013	904.36	896.02	0	0	1	0	0	0	NO	CIRCULAR
1JA'	1038	1024	Pipe	26.173	0.013	895.91	893.97	0	0	1	0	0	0	NO	CIRCULAR
1JB	1885	1896	Pipe	30.451	0.013	906.3	905.04	0	0	1	0	0	0	NO	CIRCULAR
1JC	5191	1885	Pipe	161.111	0.013	914.79	906.78	0	0	1	0	0	0	NO	CIRCULAR
1JCA	5246	5191	Pipe	81.378	0.013	924.03	919.06	0	0	1	0	0	0	NO	CIRCULAR
1JD	5172	5191	Pipe	62.088	0.013	920.24	916.87	0	0	1	0	0	0	NO	CIRCULAR
1JE	21426	5172	Pipe	212.614	0.013	932.3	921.24	0	0	1	0	0	0	NO	CIRCULAR
1JEA'	12957	21426	Pipe	104.62	0.013	941.95	937.85	0	0	1	0	0	0	NO	CIRCULAR
1JEA''	20575	21426	Pipe	88.095	0.013	946.54	938.03	0	0	1	0	0	0	NO	CIRCULAR
1JEA'A	13138	12957	Pipe	87.994	0.013	942.33	941.02	0	0	1	0	0	0	NO	CIRCULAR
1JEA'A'	13029	12957	Pipe	37.363	0.013	944.27	943.39	0	0	1	0	0	0	NO	CIRCULAR
1JEA'A''	12956	12957	Pipe	10.661	0.013	946.18	944.47	0	0	1	0	0	0	NO	CIRCULAR
1JEA''A	19657	20575	Pipe	99.137	0.013	955.58	946.54	0	0	1	0	0	0	NO	CIRCULAR
1JEA'A'A'	13746	13029	Pipe	21.283	0.013	946.8	945.66	0	0	1	0	0	0	NO	CIRCULAR
1JF	12300	21426	Pipe	205.754	0.014	934.44	932.35	0	0	1	0	0	0	NO	CIRCULAR
1JG	12709	12300	Pipe	24.603	0.013	935.32	934.6	0	0	1	0	0	0	NO	CIRCULAR
1JH	12678	12709	Pipe	16.283	0.013	935.68	935.42	0	0	1	0	0	0	NO	CIRCULAR
1JI	12497	12678	Pipe	63.458	0.013	936.23	935.86	0	0	1	0	0	0	NO	CIRCULAR
1JJ	12514	12497	Pipe	72.078	0.013	941.63	936.47	0	0	1	0	0	0	NO	CIRCULAR
1JK	13528	12514	Pipe	9.227	0.013	944.16	941.72	0	0	1	0	0	0	NO	CIRCULAR
1JKA	11966	13528	Pipe	73.07	0.013	946.03	944.57	0	0	1	0	0	0	NO	CIRCULAR
1JKB	11842	11966	Pipe	123.324	0.013	947.17	946.71	0	0	1	0	0	0	NO	CIRCULAR
1JKC	10028	11842	Pipe	22.508	0.013	947.47	947.37	0	0	1	0	0	0	NO	CIRCULAR

Table 1A: Conduits (continued...)

Name	Inlet Node	Outlet Node	Tag	Length (ft)	Roughness	Inlet Elev. (ft)	Outlet Elev. (ft)	Initial Flow (cfs)	Flow Limit (cfs)	Entry Loss Coeff.	Exit Loss Coeff.	Avg. Loss Coeff.	Seepage Rate (in/hr)	Flap Gate	Cross-Section
1JL	13349	13528	Pipe	61.326	0.024	945.85	944.4	0	0	1	0	0	0	NO	CIRCULAR
1K	21626	1024	Pipe	258.165	0.013	910.56	887.08	0	0	1	0	0	0	NO	CIRCULAR
1KA	5218	21626	Pipe	59.911	0.013	927.34	910.76	0	0	1	0	0	0	NO	CIRCULAR
1KA'	J26	21626	Pipe	174.392	0.013	937.33	923.26	0	0	1	0	0	0	NO	CIRCULAR
1KA''	21678	21626	Pipe	41.775	0.024	926.94	919.91	0	0	1	0	0	0	NO	CIRCULAR
1KA'A	J173	J26	Channel	118.097	0.035	946.71	937.33	0	0	0	0	0	0	NO	TRAPEZOIDAL
1KA''A	21679	21678	Pipe	6.643	0.024	927.5	927.45	0	0	1	0	0	0	NO	CIRCULAR
1KA''AA	21680	21679	Pipe	9.122	0.024	928	927.5	0	0	1	0	0	0	NO	CIRCULAR
1KA''AB	21705	21680	Pipe	8.012	0.024	938.43	938.32	0	0	1	0	0	0	NO	CIRCULAR
1KA'B	J172	J173	Pipe	121.836	0.024	950.01	946.71	0	0	1	0	0	0	NO	CIRCULAR
1KA''B	5230	21679	Pipe	52	0.024	929.03	928	0	0	1	0	0	0	NO	CIRCULAR
1KA''BA_1	J183	OL-J37	Overland	39.434	0.013	941.38	941.039	0	0	0	0	0	0	NO	TRAPEZOIDAL
1KA''BA_2	OL-J37	5230	Overland	77.272	0.013	941.039	938.08	0	0	0	0	0	0	NO	TRAPEZOIDAL
1KA''BB_1	J182	J39	Channel	124.408	0.013	942.74	942.068	0	0	0	0	0	0	NO	TRAPEZOIDAL
1KA''BB_2	J39	J183	Channel	127.469	0.013	942.068	941.38	0	0	0	0	0	0	NO	TRAPEZOIDAL
1KA'C	J170	J172	Channel	72.885	0.013	956.31	950.01	0	0	0	0	0	0	NO	TRAPEZOIDAL
1KA''C	5604	5230	Pipe	54.86	0.011	935.84	932	0	0	1	0	0	0	NO	CIRCULAR
1KA'CA	J169	J170	Channel	229.445	0.013	959.9	956.31	0	0	0	0	0	0	NO	TRAPEZOIDAL
1KA'CA'	J171	J170	Channel	66.764	0.013	963.54	956.31	0	0	0	0	0	0	NO	TRAPEZOIDAL
1KA'CB	J174	J169	Channel	110.592	0.013	966.85	959.9	0	0	0	0	0	0	NO	TRAPEZOIDAL
1KA'CC	J175	J174	Channel	55.793	0.013	970.34	966.85	0	0	0	0	0	0	NO	TRAPEZOIDAL
1KA''D	5571	5604	Pipe	102.441	0.011	936.99	936.04	0	0	1	0	0	0	NO	CIRCULAR
1KA''E	5526	5571	Pipe	128.317	0.011	938.6	937.34	0	0	1	0	0	0	NO	CIRCULAR
1KB	21325	5218	Pipe	146.867	0.013	937.46	927.59	0	0	1	0	0	0	NO	CIRCULAR
1KC	21199	21325	Pipe	225.066	0.013	954.3	937.61	0	0	1	0	0	0	NO	CIRCULAR
1KD	20974	21199	Pipe	321.203	0.013	975.25	954.9	0	0	1	0	0	0	NO	CIRCULAR

Table 1A: Conduits (continued...)

Name	Inlet Node	Outlet Node	Tag	Length (ft)	Roughness	Inlet Elev. (ft)	Outlet Elev. (ft)	Initial Flow (cfs)	Flow Limit (cfs)	Entry Loss Coeff.	Exit Loss Coeff.	Avg. Loss Coeff.	Seepage Rate (in/hr)	Flap Gate	Cross-Section
1KDA	20985	20974	Pipe	28.687	0.013	978.38	975.8	0	0	1	0	0	0	NO	CIRCULAR
1KE	23037	20974	Pipe	63.819	0.013	976.57	975.45	0	0	1	0	0	0	NO	CIRCULAR
1KF	23025	23037	Pipe	32.149	0.013	979.35	977.69	0	0	1	0	0	0	NO	CIRCULAR
1L	21253	21626	Pipe	258.79	0.013	934.87	910.76	0	0	1	0	0	0	NO	CIRCULAR
1M	24932	21253	Pipe	38.949	0.013	939.32	935.15	0	0	1	0	0	0	NO	CIRCULAR
1N	31036	24932	Pipe	125.328	0.011	950.51	943.62	0	0	1	0	0	0	NO	CIRCULAR
1O	31036'	31036	Pipe	30.02	0.024	951.29	950.65	0	0	1	0	0	0	NO	CIRCULAR
2A	7683	11000	Pipe	15.958	0.013	861.67	861.08	0	0	1	0	0	0	NO	CIRCULAR
2B	7592	7683	Pipe	75.415	0.013	863.07	861.77	0	0	1	0	0	0	NO	CIRCULAR
2BA	7742	7592	Pipe	38.613	0.013	863.98	863.22	0	0	1	0	0	0	NO	CIRCULAR
2C	J164	OL-7592	Overland	278.428	0.013	882.06	867.37	0	0	0	0	0	0	NO	TRAPEZOIDAL
2D	J165	J164	Pipe	71.547	0.011	893.78	882.06	0	0	1	0	0	0	NO	CIRCULAR
2E	J29	J165	Channel	80.217	0.013	894.5	893.78	0	0	0	0	0	0	NO	TRAPEZOIDAL
3A	J38	14000	Pipe	219.172	0.013	848.35	845.99	0	0	1	0	0	0	NO	CIRCULAR
3B	J1	J38	Pipe	202.553	0.013	850.38	848.35	0	0	1	0	0	0	NO	CIRCULAR
3C	J15	J1	Pipe	37.439	0.013	850.75	850.38	0	0	1	0	0	0	NO	CIRCULAR
3D	J3	J15	Pipe	156.876	0.013	852.32	850.75	0	0	1	0	0	0	NO	CIRCULAR
3E	J14	J3	Pipe	67.535	0.013	853	852.32	0	0	1	0	0	0	NO	CIRCULAR
4A	J2	13000	Pipe	79.383	0.013	941.46	936.2	0	0	1	0	0	0	NO	CIRCULAR
5	8807	8697	pipe	99.864	0.01	855.48	854.19	0	0	0	0	0	0	NO	CIRCULAR
8	8697	8667-J4	pipe	89.36	0.01	853.99	852.76	0	0	0	0	0	0	NO	CIRCULAR
C1	J179	OL-J7	Overland	632.865	0.013	976.793	942.46	0	0	0	0	0	0	NO	TRAPEZOIDAL
C10	OL-3596	OL-3615	Overland	64.295	0.013	891.84	890.71	0	0	0	0	0	0	NO	TRAPEZOIDAL
C11	OL-3449	J50	Overland	75.919	0.013	890.06	888.76	0	0	0	0	0	0	NO	TRAPEZOIDAL
C12	OL-3615	J37	Overland	46.799	0.013	890.71	889.376	0	0	0	0	0	0	NO	TRAPEZOIDAL
C12_1	OL-3424	J37	Overland	30.368	0.013	890.3	889.376	0	0	0	0	0	0	NO	TRAPEZOIDAL

Table 1A: Conduits (continued...)

Name	Inlet Node	Outlet Node	Tag	Length (ft)	Roughness	Inlet Elev. (ft)	Outlet Elev. (ft)	Initial Flow (cfs)	Flow Limit (cfs)	Entry Loss Coeff.	Exit Loss Coeff.	Avg. Loss Coeff.	Seepage Rate (in/hr)	Flap Gate	Cross-Section
C12_2	J37	J50	Overland	25.907	0.013	889.376	888	0	0	0	0	0	0	NO	TRAPEZOIDAL
C13	OL-5526	OL-5571	Overland	129.82	0.013	942.1	941.99	0	0	0	0	0	0	NO	TRAPEZOIDAL
C14	OL-5571	OL-5604	Overland	106.04	0.013	941.99	941.84	0	0	0	0	0	0	NO	TRAPEZOIDAL
C144_1	J10	J11	Pipe	53.569	0.013	1008.97	1004.59	0	0	1	0	0	0	NO	CIRCULAR
C144_2	J11	J12	Pipe	139.856	0.013	1004.59	981.34	0	0	1	0	0	0	NO	CIRCULAR
C146	J12	J13	Pipe	40.264	0.013	981.34	980.139	0	0	1	0	0	0	NO	CIRCULAR
C147	J13	J179	Channel	111.819	0.013	980.139	976.793	0	0	0	0	0	0	NO	TRAPEZOIDAL
C15	OL-5604	OL-J37	Overland	140.055	0.013	941.84	941.039	0	0	0	0	0	0	NO	TRAPEZOIDAL
C16	OL-20985	OL-21325	Overland	548.188	0.013	983.08	943.644	0	0	0	0	0	0	NO	TRAPEZOIDAL
C17	OL-21325	OL-5230	Overland	86.895	0.013	943.644	938.08	0	0	0	0	0	0	NO	TRAPEZOIDAL
C18	OL-5230	OL-5246	Overland	124.979	0.013	938.08	929.58	0	0	0	0	0	0	NO	TRAPEZOIDAL
C19	OL-21199	OL-5218	Overland	354.907	0.013	960.12	933.24	0	0	0	0	0	0	NO	TRAPEZOIDAL
C19.	J4-S	12000-2	Overland	59.518	0.013	858.04	851.96	0	0	0	0	0	0	NO	RECT_OPEN
C2	OL-9253a	OL-9253b	Overland	76.713	0.013	948.316	944.247	0	0	0	0	0	0	NO	TRAPEZOIDAL
C2_2	J48	21253	Overland	126.357	0.035	953.84	934.84	0	0	0	0	0	0	NO	TRAPEZOIDAL
C2_3	J49	J35	Overland	78.237	0.035	888.46	865.44	0	0	0	0	0	0	NO	TRAPEZOIDAL
C20	OL-18726	OL-J48	Overland	130.333	0.013	978.31	968.322	0	0	0	0	0	0	NO	TRAPEZOIDAL
C21	OL-J48	OL-12956	Overland	177.316	0.013	968.322	950.18	0	0	0	0	0	0	NO	TRAPEZOIDAL
C22	OL-J49	OL-13746	Overland	105.161	0.013	967.672	951.4	0	0	0	0	0	0	NO	TRAPEZOIDAL
C23	OL-13746	OL-12956	Overland	24.361	0.013	951.4	950.18	0	0	0	0	0	0	NO	TRAPEZOIDAL
C24	OL-12956	OL-5172	Overland	330.39	0.013	950.18	927.59	0	0	0	0	0	0	NO	TRAPEZOIDAL
C25	OL-5172	OL-5191	Overland	63.814	0.013	927.59	924.14	0	0	0	0	0	0	NO	TRAPEZOIDAL
C26	OL-13138	OL-J40	Overland	46.976	0.013	948.73	948.514	0	0	0	0	0	0	NO	TRAPEZOIDAL
C27	OL-J40	OL-J50	Overland	131.304	0.013	948.514	940.647	0	0	0	0	0	0	NO	TRAPEZOIDAL
C28	OL-J50	OL-5191	Overland	229.633	0.013	940.647	924.14	0	0	0	0	0	0	NO	TRAPEZOIDAL
C29	OL-16770	OL-16610	Overland	131.977	0.013	975.6	972.22	0	0	0	0	0	0	NO	TRAPEZOIDAL

Table 1A: Conduits (continued...)

Name	Inlet Node	Outlet Node	Tag	Length (ft)	Roughness	Inlet Elev. (ft)	Outlet Elev. (ft)	Initial Flow (cfs)	Flow Limit (cfs)	Entry Loss Coeff.	Exit Loss Coeff.	Avg. Loss Coeff.	Seepage Rate (in/hr)	Flap Gate	Cross-Section
C3	3253	J17	Overland	33.438	0.035	900.5	891.467	0	0	0	0	0	0	NO	TRAPEZOIDAL
C30	OL-9264	OL-9253	Overland	17.175	0.013	948.71	948.6	0	0	0	0	0	0	NO	TRAPEZOIDAL
C31	OL-16610	OL-9264	Overland	616.356	0.013	972.22	952.36	0	0	0	0	0	0	NO	TRAPEZOIDAL
C32	OL-15964	OL-9253	Overland	320.278	0.013	964.87	948.6	0	0	0	0	0	0	NO	TRAPEZOIDAL
C33	OL-9409	OL-9264	Overland	141.28	0.013	949.68	948.71	0	0	0	0	0	0	NO	TRAPEZOIDAL
C34	OL-11842	OL-10028	Overland	15.083	0.013	951.79	951.77	0	0	0	0	0	0	NO	TRAPEZOIDAL
C35	OL-11842	OL-11966	Overland	124.43	0.013	951.79	950.67	0	0	0	0	0	0	NO	TRAPEZOIDAL
C36	OL-13349	OL-13528	Overland	54.926	0.013	950.4	948.07	0	0	0	0	0	0	NO	TRAPEZOIDAL
C37	OL-12497	J40	Overland	42.855	0.013	940.3	940	0	0	0	0	0	0	NO	TRAPEZOIDAL
C37_1	OL-12678	J40	Overland	30.932	0.013	940.27	939.972	0	0	0	0	0	0	NO	TRAPEZOIDAL
C37_2	J40	OL-12709	Overland	36.575	0.013	939.972	939.62	0	0	0	0	0	0	NO	TRAPEZOIDAL
C38	OL-12709	OL-12300	Overland	18.339	0.013	939.62	939.5	0	0	0	0	0	0	NO	TRAPEZOIDAL
C39	OL-5191	OL-1885	Overland	165.14	0.013	924.14	912.35	0	0	0	0	0	0	NO	TRAPEZOIDAL
C4	OL-9253b	OL-9253c	Overland	193.063	0.035	944.247	888	0	0	0	0	0	0	NO	TRAPEZOIDAL
C40	OL-1896	OL-2249	Overland	197.742	0.013	911.56	897.819	0	0	0	0	0	0	NO	TRAPEZOIDAL
C41	OL-J10	OL-J10a	Overland	43.181	0.013	1011.7	1010.1	0	0	0	0	0	0	NO	TRAPEZOIDAL
C41_1	OL-1885	2002'	Overland	182.693	0.013	912.35	898.82	0	0	0	0	0	0	NO	TRAPEZOIDAL
C41_2	2002'	OL-2374	Overland	196.228	0.013	898.82	893.12	0	0	0	0	0	0	NO	TRAPEZOIDAL
C42	OL-2249	OL-2358	Overland	143.857	0.013	897.819	893.28	0	0	0	0	0	0	NO	TRAPEZOIDAL
C43	OL-2358	J50	Overland	271.117	0.013	893.28	888	0	0	0	0	0	0	NO	TRAPEZOIDAL
C44	OL-2374	OL-7096	Overland	194.356	0.013	893.12	889.82	0	0	0	0	0	0	NO	TRAPEZOIDAL
C45	OL-7096	J164	Overland	133.947	0.013	889.82	882.06	0	0	0	0	0	0	NO	TRAPEZOIDAL
C46	OL-7592	OL-7683	Overland	76.657	0.013	867.37	865.22	0	0	0	0	0	0	NO	TRAPEZOIDAL
C47	25478	J46	Overland	251.209	0.035	866.5	864.9	0	0	0	0	0	0	NO	TRAPEZOIDAL
C47_1	OL-7742	J46	Overland	116.996	0.013	867.53	864.9	0	0	0	0	0	0	NO	TRAPEZOIDAL
C47_2	J46	RainGarden	Overland	350.216	0.013	864.9	860.01	0	0	0	0	0	0	NO	TRAPEZOIDAL

Table 1A: Conduits (continued...)

Name	Inlet Node	Outlet Node	Tag	Length (ft)	Roughness	Inlet Elev. (ft)	Outlet Elev. (ft)	Initial Flow (cfs)	Flow Limit (cfs)	Entry Loss Coeff.	Exit Loss Coeff.	Avg. Loss Coeff.	Seepage Rate (in/hr)	Flap Gate	Cross-Section
C48	OL-5246	OL-1896	Overland	236.817	0.013	929.58	911.56	0	0	0	0	0	0	NO	TRAPEZOIDAL
C49	OL-5218	OL-5191	Overland	121.525	0.013	933.24	924.14	0	0	0	0	0	0	NO	TRAPEZOIDAL
C5	OL-6505	OL-J41	Overland	88.134	0.013	901.45	900.8	0	0	0	0	0	0	NO	TRAPEZOIDAL
C50	OL-J147	OL-J33	Overland	127.499	0.013	942.62	942.163	0	0	0	0	0	0	NO	RECT_OPEN
C51	OL-J33	OL-11560	Overland	30.912	0.013	942.163	942.05	0	0	0	0	0	0	NO	TRAPEZOIDAL
C52	OL-11560	J41	Overland	25.383	0.013	942.05	940.866	0	0	0	0	0	0	NO	TRAPEZOIDAL
C53	J41	J42	Overland	72.163	0.013	940.866	937.461	0	0	0	0	0	0	NO	TRAPEZOIDAL
C54	OL-11213	J41	Overland	132.556	0.013	942.05	940.866	0	0	0	0	0	0	NO	TRAPEZOIDAL
C55	J42	2002	Overland	74.768	0.035	937.461	897.88	0	0	0	0	0	0	NO	TRAPEZOIDAL
C56	OL-J10a	OL-J10b	Overland	124.249	0.035	1010.1	981.75	0	0	0	0	0	0	NO	TRAPEZOIDAL
C57	OL-J10b	J13	Overland	55.173	0.035	981.75	980.139	0	0	0	0	0	0	NO	TRAPEZOIDAL
C58	OL-J5	OL-J8	Overland	57.87	0.035	945.85	944.5	0	0	0	0	0	0	NO	TRAPEZOIDAL
C59	OL-J8	J9	Overland	106.202	0.035	944.5	926.22	0	0	0	0	0	0	NO	TRAPEZOIDAL
C6	OL-6457	OL-6452	Overland	19.41	0.013	900.8	900.57	0	0	0	0	0	0	NO	TRAPEZOIDAL
C60	OL-7683	11000'	Overland	20.552	0.035	865.22	864	0	0	0	0	0	0	NO	TRAPEZOIDAL
C61	OL-9253c	OL-9253d	Overland	129.198	0.035	888	888.001	0	0	0	0	0	0	NO	TRAPEZOIDAL
C62	OL-J3	OL-J15	Overland	132.178	0.013	857.191	855.996	0	0	0	0	0	0	NO	TRAPEZOIDAL
C63	OL-J15	OL-J1	Overland	35.894	0.013	855.996	855.925	0	0	0	0	0	0	NO	TRAPEZOIDAL
C64	OL-J1	J38	Overland	199.437	0.013	855.925	852	0	0	0	0	0	0	NO	TRAPEZOIDAL
C65	OL-9253d	OL-9253e	Overland	37.559	0.035	888.001	863.833	0	0	0	0	0	0	NO	TRAPEZOIDAL
C65_2	J47	14000'	Overland	100.128	0.013	848.575	847.5	0	0	0	0	0	0	NO	TRAPEZOIDAL
C66	OL-9253e	OL-J3	Overland	242.209	0.013	863.833	857.19	0	0	0	0	0	0	NO	TRAPEZOIDAL
C67	OL-J72	OL-J41	Overland	197.971	0.013	905.6	900.57	0	0	0	0	0	0	NO	TRAPEZOIDAL
C68	OL-J4a	OL-J4b	Overland	26.832	0.035	894.5	892.469	0	0	0	0	0	0	NO	TRAPEZOIDAL
C69	OL-J4b	OL-J4c	Overland	55.125	0.035	892.469	881.808	0	0	0	0	0	0	NO	TRAPEZOIDAL
C7	OL-6452	OL-6436	Overland	10.224	0.013	900.57	900.57	0	0	0	0	0	0	NO	TRAPEZOIDAL

Table 1A: Conduits (continued...)

Name	Inlet Node	Outlet Node	Tag	Length (ft)	Roughness	Inlet Elev. (ft)	Outlet Elev. (ft)	Initial Flow (cfs)	Flow Limit (cfs)	Entry Loss Coeff.	Exit Loss Coeff.	Avg. Loss Coeff.	Seepage Rate (in/hr)	Flap Gate	Cross-Section
C70	OL-J4c	OL-J4d	Overland	161.651	0.035	881.808	871.789	0	0	0	0	0	0	NO	TRAPEZOIDAL
C71	OL-J4d	J18	Overland	33.547	0.035	871.789	860.437	0	0	0	0	0	0	NO	TRAPEZOIDAL
C72	OL-6505a	OL-3596	Overland	407.777	0.013	901.23	891.74	0	0	0	0	0	0	NO	TRAPEZOIDAL
C73	J2.	8667-J4	pipe	124.965	0.013	855.48	854.11	0	0	0	0	0	0	NO	CIRCULAR
C74	8667-J4	12000-2	pipe	53.361	0.013	852.76	851.96	0	0	0	0	0	0	NO	CIRCULAR
C75	RainGarden	12000-1	pipe	80.411	0.013	857.75	853.36	0	0	0	0	0	0	NO	CIRCULAR
C76	12000-2	12000	pipe	81	0.024	851.71	838.55	0	0	0	1	0	0	NO	CIRCULAR
C77	12000-1	12000	OVERLAND	72.825	0.013	853	838	0	0	0	1	0	0	NO	TRAPEZOIDAL
C78	12000	12000.	OVERLAND	14.58	0.013	838	836	0	0	0	1	0	0	NO	TRAPEZOIDAL
C79	J2-S	J4-S	OVERLAND	122.015	0.013	858.93	857.11	0	0	0	0	0	0	NO	IRREGULAR
C8	J31	J32	Channel	22.261	0.013	948.103	944.803	0	0	0	0	0	0	NO	TRAPEZOIDAL
C80	RainGarden	12000-1	OVERLAND	89.208	0.013	860	857	0	0	0	0	0	0	NO	RECT_OPEN
C9	J32	OL-12678	Overland	63.533	0.013	944.803	940.7	0	0	0	0	0	0	NO	TRAPEZOIDAL
MM_out	MM_CCB#3	9733	Pipe	28.585	0.013	947.77	938.64	0	0	1	0	0	0	NO	CIRCULAR
OL-1KA'B	OL-J172	J173	Overland	118.952	0.035	951	946.71	0	0	0	0	0	0	NO	TRAPEZOIDAL
OL-31036	OL-31036'	OL-31036	Overland	24.662	0.013	954.23	953.88	0	0	0	0	0	0	NO	TRAPEZOIDAL
TC_out	TC_CCB#1&2	J27	Pipe	61.318	0.013	887	881	0	0	1	0	0	0	NO	CIRCULAR
UV_Out	UV	J55	Pipe	24.992	0.013	878.25	870.25	0	0	1	0	0	0	NO	CIRCULAR
UVA	J25	UV	Pipe	20.736	0.013	881	879.21	0	0	1	0	0	0	NO	CIRCULAR
UVB	J27	J25	Pipe	30.37	0.013	881	881	0	0	1	0	0	0	NO	CIRCULAR
UVC	J24	J27	Pipe	146.949	0.013	929.5	894	0	0	1	0	0	0	NO	CIRCULAR
UVE	J23	J24	Pipe	14.051	0.014	932.58	929.5	0	0	1	0	0	0	NO	CIRCULAR
UVF	J22	J23	Pipe	12.832	0.013	932.68	932.58	0	0	1	0	0	0	NO	CIRCULAR
UVG	J21	J22	Pipe	282.602	0.013	936.78	933.48	0	0	1	0	0	0	NO	CIRCULAR
UVH	9733	J21	Pipe	68.282	0.013	938.64	936.78	0	0	1	0	0	0	NO	CIRCULAR
UVI	18356	9733	Pipe	73.676	0.014	943.2	938.64	0	0	1	0	0	0	NO	CIRCULAR

Table 1A: Conduits (continued...)

Name	Inlet Node	Outlet Node	Tag	Length (ft)	Roughness	Inlet Elev. (ft)	Outlet Elev. (ft)	Initial Flow (cfs)	Flow Limit (cfs)	Entry Loss Coeff.	Exit Loss Coeff.	Avg. Loss Coeff.	Seepage Rate (in/hr)	Flap Gate	Cross-Section
UVIA	18312	18356	Pipe	79.835	0.013	947.29	946.89	0	0	1	0	0	0	NO	CIRCULAR
UVJ	18402	18356	Pipe	33.147	0.014	945.58	943.7	0	0	1	0	0	0	NO	CIRCULAR
UVJA	17671	18402	Pipe	43.931	0.013	948.24	947.99	0	0	1	0	0	0	NO	CIRCULAR
UVK	14961	18402	Pipe	43.742	0.014	946.56	945.62	0	0	1	0	0	0	NO	CIRCULAR
UVL	15025	14961	Pipe	130.15	0.014	956.02	948.11	0	0	1	0	0	0	NO	CIRCULAR
UVM	15075	15025	Pipe	93.129	0.014	959.13	956.18	0	0	1	0	0	0	NO	CIRCULAR
UVN	15234	15075	Pipe	76.437	0.014	963.99	962.25	0	0	1	0	0	0	NO	CIRCULAR
UVO	14448	15234	Pipe	72.757	0.014	965.94	964.14	0	0	1	0	0	0	NO	CIRCULAR
UVOA	14608	14448	Pipe	55.437	0.013	968.91	968.74	0	0	1	0	0	0	NO	CIRCULAR
UVOA'	14383	14448	Pipe	43.125	0.013	971.63	968.62	0	0	1	0	0	0	NO	CIRCULAR
UVOB	15469	14608	Pipe	19.896	0.014	969.81	969.01	0	0	1	0	0	0	NO	CIRCULAR
UVP	15374	14448	Pipe	13.52	0.013	967.48	967.07	0	0	1	0	0	0	NO	CIRCULAR

Table 1B: Conduits

Name	Geom1 (ft)	Geom2 (ft)	Geom3	Geom4	Barrels	Transect	Shape Curve	Culvert Code	Control Rules	Slope (ft/ft)	Max. |Flow| (cfs)	Time Max. Flow (M/D/Y)	Max. |Velocity| (ft/s)
1	1.25	0	0	0	1				NO	0.00909	8.16	05/01/2022 00:24 AM	7.46
1A	4.5	0	0	0	1				NO	0.00595	166.72	05/01/2022 00:21 AM	10.48
1B	4.5	0	0	0	1				NO	0.00864	166.71	05/01/2022 00:21 AM	11.3
1C_1A	0.667	0	0	0	1				NO	0.11535	3.4	05/01/2022 00:18 AM	14.53
1C_2	0	0	0	0	1	PlantOutfallChannel_US			NO	0.09388	161.67	05/01/2022 00:19 AM	8.37
1C_3	0	0	0	0	1	PlantOutfallChannel_DS			NO	0.0356	165.12	05/01/2022 00:19 AM	8.52
1C_4	0	0	0	0	1	PlantOutfallChannel_DS			NO	0.21986	165.11	05/01/2022 00:20 AM	3.28
1D	6	8	0	0	1				NO	0.06252	160.94	05/01/2022 00:19 AM	19.87

Table 1B: Conduits (continued...)

Name	Geom1 (ft)	Geom2 (ft)	Geom3	Geom4	Barrels	Transect	Shape Curve	Culvert Code	Control Rules	Slope (ft/ft)	Max. |Flow| (cfs)	Time Max. Flow (M/D/Y)	Max. |Velocity| (ft/s)
1DA_1	1.75	0	0	0	2				NO	0.10392	18.03	05/01/2022 00:16 AM	14.96
1DA_2	1.75	0	0	0	1				NO	0.12081	17.08	05/01/2022 00:16 AM	18.3
1DA_3	1.75	0	0	0	1				NO	0.12083	0	05/01/2022 00:00 AM	0
1DAA	1	0	0	0	1				NO	2.20534	0.98	05/01/2022 00:14 AM	17.91
1DB_1	3	0	0	0	2				NO	0.0885	0	05/01/2022 00:00 AM	0
1DB_2	3	0	0	0	2				NO	0.09388	0	05/01/2022 00:00 AM	0
1DB_2A	3	0	0	0	1				NO	0	0	05/01/2022 00:00 AM	0
1DBA'	1	0	0	0	1				NO	0.30889	7.78	05/01/2022 00:16 AM	17.76
1DBA''	1	0	0	0	1				NO	0.77641	9.3	05/01/2022 00:16 AM	12.62
1DBB_1	0	0	0	0	1	1DBB			NO	0.01738	0.98	05/01/2022 00:18 AM	2
1DBB_2	0	0	0	0	1	1DBB			NO	0.01735	16.97	05/01/2022 00:16 AM	9.21
1DD_1	3	2.5	1	1	1				NO	0.30019	14.61	05/01/2022 00:15 AM	14.37
1DD_2	3	2.5	1	1	1				NO	0.28518	14.61	05/01/2022 00:15 AM	21.63
1DE	1.75	0	0	0	1				NO	0.01621	14.4	05/01/2022 00:15 AM	14.26
1DeA	1	0	0	0	1				NO	0.00841	3.93	05/01/2022 00:12 AM	5
1DEAA	1	0	0	0	1				NO	0.10805	2.06	05/01/2022 00:07 AM	9.95
1DEB	1	0	0	0	1				NO	0.00241	1.95	05/01/2022 00:13 AM	2.64
1DEBA	0.833	0	0	0	1				NO	0.04846	2	05/01/2022 00:08 AM	8.57
1DEBD_1	0.5	0.5	0	0	1				NO	0.00355	0.25	05/01/2022 00:07 AM	1.2
1DEBD_2	0.333	0	0	0	1				NO	0.00355	0.25	05/01/2022 00:07 AM	2.98
1DEC	1	0	0	0	1				NO	0.00671	0.26	05/01/2022 00:08 AM	0.46
1DED	0.667	0	0	0	1				NO	0.04482	0.15	05/01/2022 00:08 AM	0.7
1DEE	0.667	0	0	0	1				NO	0.07954	0	05/01/2022 00:00 AM	0
1DEF	0.667	0	0	0	1				NO	0.09135	0	05/01/2022 00:00 AM	0
1DF	1.75	0	0	0	1				NO	0.05166	10.66	05/01/2022 00:16 AM	12.07
1DG	1.75	0	0	0	1				NO	0.00499	10.66	05/01/2022 00:16 AM	5.17

Table 1B: Conduits (continued...)

Name	Geom1 (ft)	Geom2 (ft)	Geom3	Geom4	Barrels	Transect	Shape Curve	Culvert Code	Control Rules	Slope (ft/ft)	Max. |Flow| (cfs)	Time Max. Flow (M/D/Y)	Max. |Velocity| (ft/s)
1DH	1.75	0	0	0	1				NO	0.00257	10.69	05/01/2022 00:14 AM	4.69
1DHA	1	0	0	0	1				NO	0.03395	0.93	05/01/2022 00:12 AM	5.38
1DI	1.5	0	0	0	1				NO	0.0037	9.63	05/01/2022 00:12 AM	5.45
1DJ	1.5	0	0	0	1				NO	0.00683	9.3	05/01/2022 00:12 AM	5.26
1DJA	1.5	0	0	0	1				NO	0.02817	2.77	05/01/2022 00:18 AM	5.79
1DK	1.5	0	0	0	1				NO	0.04915	5.36	05/01/2022 00:13 AM	6.76
1DL	1.25	0	0	0	1				NO	0.05111	5.36	05/01/2022 00:13 AM	10.41
1DLA	1	0	0	0	1				NO	0.00509	1.12	05/01/2022 00:12 AM	3.04
1DM	1	0	0	0	1				NO	0.05417	1.9	05/01/2022 00:18 AM	6.39
1DN	1	0	0	0	1				NO	0.0239	1.9	05/01/2022 00:18 AM	6.21
1DO	1	0	0	0	1				NO	0.01396	1	05/01/2022 00:13 AM	4.25
1DP	1	0	0	0	1				NO	0.05102	0.2	05/01/2022 00:12 AM	2.54
1E	3.583	5.667	0	0	1				NO	0.04075	143.49	05/01/2022 00:20 AM	19.32
1F	3.583	5.667	0	0	1				NO	0.04108	140.77	05/01/2022 00:19 AM	10.07
1FA	3	0	0	0	1				NO	0.04041	63.28	05/01/2022 00:21 AM	9.63
1FB	3	0	0	0	1				NO	0.04309	63.03	05/01/2022 00:21 AM	11.28
1FC	3	0	0	0	1				NO	0.03974	61.04	05/01/2022 00:21 AM	12.86
1FCA'	1.25	0	0	0	1				NO	0.02058	0.91	05/01/2022 00:12 AM	4.44
1FD	3	0	0	0	1				NO	0.04127	60.22	05/01/2022 00:21 AM	15.66
1FDA'	0.5	0	0	0	1				NO	0.02609	1.37	05/01/2022 00:18 AM	6.96
1FDA''	0.833	0	0	0	1				NO	0.03007	6.55	05/01/2022 00:24 AM	12.07
1FDA''A	0.833	0	0	0	1				NO	0.02354	1.35	05/01/2022 00:19 AM	2.47
1FE	3	0	0	0	1				NO	0.0466	49.13	05/01/2022 00:20 AM	12.93
1FF_1	0	0	0	0	1	Wchan_49th_US			NO	0.0703	41.15	05/01/2022 00:18 AM	7.5
1FF_2	0	0	0	0	1	Wchan_49th_DS			NO	0.05273	48.06	05/01/2022 00:19 AM	10.76
1FG	2	0	0	0	1				NO	0.07016	20.93	05/01/2022 00:18 AM	11.91

Table 1B: Conduits (continued...)

Name	Geom1 (ft)	Geom2 (ft)	Geom3	Geom4	Barrels	Transect	Shape Curve	Culvert Code	Control Rules	Slope (ft/ft)	Max. |Flow| (cfs)	Time Max. Flow (M/D/Y)	Max. |Velocity| (ft/s)
1FH	2	0	0	0	1				NO	0.0758	20.93	05/01/2022 00:18 AM	15.36
1FI	2	0	0	0	1				NO	0.03016	20.93	05/01/2022 00:18 AM	10.67
1FJ	2	0	0	0	1				NO	0.03027	14	05/01/2022 00:18 AM	6.34
1FK	2	0	0	0	1				NO	0.02997	7.87	05/01/2022 00:19 AM	4.78
1G	3.583	5.667	0	0	1				NO	0.04108	78.35	05/01/2022 00:19 AM	7.05
1GA	1.25	0	0	0	1				NO	0.42335	10	05/01/2022 00:18 AM	22.17
1GAA	1.25	0	0	0	1				NO	0.07889	0	05/01/2022 00:00 AM	0
1GB	1.25	0	0	0	1				NO	0.03522	2.92	05/01/2022 00:13 AM	7.35
1GC	1.25	0	0	0	1				NO	0.00847	2.04	05/01/2022 00:14 AM	3.95
1GD	1	0	0	0	1				NO	0.024	0.72	05/01/2022 00:12 AM	5.29
1GE	1.5	7	0	0	1				NO	0.11851	0.22	05/01/2022 00:12 AM	5.9
1GF	1	0	0	0	1				NO	0.04523	0.22	05/01/2022 00:12 AM	3.03
1H	3.583	5.667	0	0	1				NO	0.0411	68.44	05/01/2022 00:19 AM	9.53
1I	3.583	5.667	0	0	1				NO	0.04106	68.45	05/01/2022 00:19 AM	11.73
1IA	1.25	0	0	0	1				NO	0.10038	5.41	05/01/2022 00:13 AM	10.91
1IAA	1.25	0	0	0	1				NO	0.01429	2.88	05/01/2022 00:13 AM	4.99
1IAB	1.25	0	0	0	1				NO	0.00683	1.47	05/01/2022 00:12 AM	3.52
1IB	1.25	0	0	0	1				NO	0.01438	2.55	05/01/2022 00:14 AM	4.92
1IC	0.5	0	0	0	1				NO	0.03392	1.24	05/01/2022 00:36 AM	7.01
1ID	0.5	2.5	0.01	0.01	1				NO	0.07068	0.58	05/01/2022 00:18 AM	4.25
1J	3	6	0	0	1				NO	0.02828	63.46	05/01/2022 00:19 AM	11.43
1JA	2	0	0	0	1				NO	0.22534	18.36	05/01/2022 00:13 AM	20.96
1JA'	1.5	0	0	0	1				NO	0.07433	0.51	05/01/2022 00:18 AM	5.85
1JB	2	0	0	0	1				NO	0.04141	16.45	05/01/2022 00:13 AM	10.47
1JC	2	0	0	0	1				NO	0.04978	15.32	05/01/2022 00:13 AM	13.08
1JCA	1.25	0	0	0	1				NO	0.06119	0.38	05/01/2022 00:12 AM	5.34

Table 1B: Conduits (continued...)

Name	Geom1 (ft)	Geom2 (ft)	Geom3	Geom4	Barrels	Transect	Shape Curve	Culvert Code	Control Rules	Slope (ft/ft)	Max. |Flow| (cfs)	Time Max. Flow (M/D/Y)	Max. |Velocity| (ft/s)
1JD	2	0	0	0	1				NO	0.05436	13.58	05/01/2022 00:12 AM	12.12
1JE	2	0	0	0	1				NO	0.05209	12.52	05/01/2022 00:12 AM	12.86
1JEA'	1.5	0	0	0	1				NO	0.03922	4.15	05/01/2022 00:09 AM	8.63
1JEA''	1	0	0	0	1				NO	0.09705	1.08	05/01/2022 00:12 AM	8.69
1JEA'A	1.5	0	0	0	1				NO	0.01489	1.86	05/01/2022 00:06 AM	2.39
1JEA'A'	1	0	0	0	1				NO	0.02356	1.49	05/01/2022 00:12 AM	5.35
1JEA'A''	1	0	0	0	1				NO	0.1625	0.87	05/01/2022 00:12 AM	8.65
1JEA''A	1	0	0	0	1				NO	0.09157	0.44	05/01/2022 00:06 AM	4.78
1JEA'A'A'	1	0	0	0	1				NO	0.05364	0.64	05/01/2022 00:12 AM	5.67
1JF	1.5	0	0	0	1				NO	0.01016	7.38	05/01/2022 00:13 AM	5.79
1JG	1.25	0	0	0	1				NO	0.02928	6.25	05/01/2022 00:13 AM	6.62
1JH	1.25	0	0	0	1				NO	0.01597	5.13	05/01/2022 00:13 AM	5.06
1JI	1.25	0	0	0	1				NO	0.00583	4.12	05/01/2022 00:13 AM	4.08
1JJ	1.25	0	0	0	1				NO	0.07177	3.88	05/01/2022 00:12 AM	7.82
1JK	1.25	0	0	0	1				NO	0.2742	3.88	05/01/2022 00:12 AM	12.93
1JKA	1	0	0	0	1				NO	0.01998	2.86	05/01/2022 00:13 AM	6.08
1JKB	1	0	0	0	1				NO	0.00373	0.41	05/01/2022 00:18 AM	2.19
1JKC	1	0	0	0	1				NO	0.00444	0.31	05/01/2022 00:18 AM	2.03
1JL	1	0	0	0	1				NO	0.02365	0.68	05/01/2022 00:06 AM	3.01
1K	3	0	0	0	1				NO	0.09133	46.53	05/01/2022 00:19 AM	21.6
1KA	2	0	0	0	1				NO	0.28799	10.33	05/01/2022 00:18 AM	15.29
1KA'	1	0	0	0	1				NO	0.08094	5.96	05/01/2022 00:19 AM	12.84
1KA''	1.25	0	0	0	1				NO	0.17072	5.83	05/01/2022 00:23 AM	10.51
1KA'A	2	2	1	1	1				NO	0.07968	4.33	05/01/2022 00:19 AM	3.68
1KA''A	0.833	0	0	0	1				NO	0.00753	5.83	05/01/2022 00:23 AM	10.75
1KA''AA	1.5	0	0	0	1				NO	0.0549	1.5	05/01/2022 00:36 AM	2.42

Table 1B: Conduits (continued...)

Name	Geom1 (ft)	Geom2 (ft)	Geom3	Geom4	Barrels	Transect	Shape Curve	Culvert Code	Control Rules	Slope (ft/ft)	Max. |Flow| (cfs)	Time Max. Flow (M/D/Y)	Max. |Velocity| (ft/s)
1KA''AB	1.25	0	0	0	1				NO	0.01373	1.47	05/01/2022 00:12 AM	2.94
1KA'B	1	0	0	0	1				NO	0.0271	2.97	05/01/2022 00:11 AM	6
1KA''B	1.5	0	0	0	1				NO	0.01981	7.6	05/01/2022 00:12 AM	4.72
1KA''BA_1	1	4	50	50	1				NO	0.00865	1.76	05/01/2022 00:13 AM	1.31
1KA''BA_2	1	0.5	50	0.25	1				NO	0.03832	2.74	05/01/2022 00:13 AM	4.14
1KA''BB_1	0.5	3	1	1	1				NO	0.0054	0	05/01/2022 00:00 AM	0
1KA''BB_2	0.5	3	1	1	1				NO	0.0054	0.54	05/01/2022 00:14 AM	1.68
1KA'C	0.5	1	2	2	1				NO	0.08676	2.99	05/01/2022 00:18 AM	4.88
1KA''C	1.25	0	0	0	1				NO	0.07017	4.42	05/01/2022 00:07 AM	11.64
1KA'CA	0.5	1	2	2	1				NO	0.01565	1.23	05/01/2022 00:18 AM	4.05
1KA'CA'	0.5	1	2	2	1				NO	0.10893	0.12	05/01/2022 00:18 AM	0.8
1KA'CB	0.5	1	2	2	1				NO	0.06297	0.28	05/01/2022 00:18 AM	1.64
1KA'CC	0.5	1	2	2	1				NO	0.06268	0.05	05/01/2022 00:18 AM	1.11
1KA''D	1.25	0	0	0	1				NO	0.00927	4.11	05/01/2022 00:07 AM	5.6
1KA''E	1	0	0	0	1				NO	0.00982	1.49	05/01/2022 00:06 AM	4.57
1KB	2	0	0	0	1				NO	0.06736	9.72	05/01/2022 00:18 AM	13.03
1KC	2	0	0	0	1				NO	0.07436	8.93	05/01/2022 00:18 AM	13.46
1KD	2	0	0	0	1				NO	0.06348	8.55	05/01/2022 00:18 AM	12.7
1KDA	1	0	0	0	1				NO	0.0903	1.01	05/01/2022 00:10 AM	7.9
1KE	2	0	0	0	1				NO	0.01755	7.68	05/01/2022 00:18 AM	7.03
1KF	3	0	0	0	1				NO	0.0517	7.26	05/01/2022 00:18 AM	9.32
1L	2.5	0	0	0	1				NO	0.09357	24.26	05/01/2022 00:18 AM	17.06
1M	2	0	0	0	1				NO	0.10768	12.43	05/01/2022 00:18 AM	14.62
1N	2	0	0	0	1				NO	0.05506	12.43	05/01/2022 00:18 AM	14.07
1O	2	0	0	0	1				NO	0.02132	4.2	05/01/2022 00:18 AM	4.32
2A	1	0	0	0	1				NO	0.037	3.81	05/01/2022 00:16 AM	7.12

Table 1B: Conduits (continued...)

Name	Geom1 (ft)	Geom2 (ft)	Geom3	Geom4	Barrels	Transect	Shape Curve	Culvert Code	Control Rules	Slope (ft/ft)	Max. |Flow| (cfs)	Time Max. Flow (M/D/Y)	Max. |Velocity| (ft/s)
2B	1	0	0	0	1				NO	0.01724	2.56	05/01/2022 00:16 AM	5.1
2BA	1	0	0	0	1				NO	0.01969	0.91	05/01/2022 00:12 AM	4.23
2C	1	0.5	50	0.25	1				NO	0.05283	1.68	05/01/2022 00:15 AM	4.11
2D	0.667	0	0	0	1				NO	0.16605	0.26	05/01/2022 00:18 AM	8.05
2E	2	2	3	3	1				NO	0.00898	0.03	05/01/2022 00:24 AM	0.27
3A	2	0	0	0	1				NO	0.01077	28.67	05/01/2022 00:25 AM	9.25
3B	2	0	0	0	1				NO	0.01002	20.16	05/01/2022 00:19 AM	6.42
3C	2	0	0	0	1				NO	0.00988	17.93	05/01/2022 00:22 AM	5.71
3D	2	0	0	0	1				NO	0.01001	14.84	05/01/2022 00:29 AM	5.01
3E	2	0	0	0	1				NO	0.01007	12.72	05/01/2022 00:34 AM	5.15
4A	2	0	0	0	1				NO	0.06641	5.11	05/01/2022 00:12 AM	10.62
5	2	0	0	0	1				NO	0.01292	10.42	05/01/2022 00:24 AM	9.4
8	2	0	0	0	1				NO	0.01377	10.84	05/01/2022 00:23 AM	9.31
C1	1	0.5	50	0.25	1				NO	0.05433	13.94	05/01/2022 00:18 AM	4.19
C10	1	0.5	50	0.25	1				NO	0.01758	3.15	05/01/2022 00:18 AM	3.21
C11	1	0.5	50	0.25	1				NO	0.01713	0	05/01/2022 00:00 AM	0
C12	1	4	50	50	1				NO	0.02852	4.1	05/01/2022 00:18 AM	2.51
C12_1	1	0.5	50	0.25	1				NO	0.03044	0.32	05/01/2022 00:12 AM	1.61
C12_2	1	0.5	50	0.25	1				NO	0.05319	4.3	05/01/2022 00:18 AM	2.92
C13	1	0.5	50	0.25	1				NO	0.00085	0	05/01/2022 00:00 AM	0
C14	1	0.5	50	0.25	1				NO	0.00141	0.01	05/01/2022 00:07 AM	0.33
C144_1	1.25	0	0	0	1				NO	0.08204	2.5	05/01/2022 00:12 AM	10.76
C144_2	1.25	0	0	0	1				NO	0.16859	2.5	05/01/2022 00:12 AM	9.04
C146	1.25	0	0	0	1				NO	0.02984	2.5	05/01/2022 00:12 AM	7.88
C147	1	2	2	2	1				NO	0.02994	8.2	05/01/2022 00:13 AM	9.52
C15	1	0.5	50	0.25	1				NO	0.00572	0	05/01/2022 00:00 AM	0

Table 1B: Conduits (continued...)

Name	Geom1 (ft)	Geom2 (ft)	Geom3	Geom4	Barrels	Transect	Shape Curve	Culvert Code	Control Rules	Slope (ft/ft)	Max. |Flow| (cfs)	Time Max. Flow (M/D/Y)	Max. |Velocity| (ft/s)
C16	1	0.5	50	0.25	1				NO	0.07213	0.31	05/01/2022 00:10 AM	3.03
C17	1	0.5	50	0.25	1				NO	0.06416	0.27	05/01/2022 00:09 AM	2.8
C18	1	0.5	50	0.25	1				NO	0.06817	0.02	05/01/2022 00:12 AM	1.54
C19	1	0.5	50	0.25	1				NO	0.07596	0	05/01/2022 00:06 AM	0.01
C19.	1	10	0	0	1				NO	0.10269	0	05/01/2022 00:00 AM	0
C2	1	4	50	50	1				NO	0.05312	0	05/01/2022 00:00 AM	0
C2_2	1	4	3	3	1				NO	0.1521	8.45	05/01/2022 00:18 AM	2.87
C2_3	1	4	3	3	1				NO	0.30786	0	05/01/2022 00:00 AM	0
C20	1	0.5	50	0.25	1				NO	0.07686	0	05/01/2022 00:00 AM	0
C21	1	0.5	50	0.25	1				NO	0.10285	0.39	05/01/2022 00:18 AM	3.26
C22	1	0.5	50	0.25	1				NO	0.15662	1.7	05/01/2022 00:06 AM	6.21
C23	1	4	50	50	1				NO	0.05014	1.27	05/01/2022 00:12 AM	2.56
C24	1	0.5	50	0.25	1				NO	0.06853	1.16	05/01/2022 00:12 AM	4.15
C25	1	4	50	50	1				NO	0.05414	1.31	05/01/2022 00:12 AM	2.32
C26	1	0.5	50	0.25	1				NO	0.0046	0.01	05/01/2022 00:06 AM	0.21
C27	1	0.5	50	0.25	1				NO	0.06002	0.13	05/01/2022 00:08 AM	1.34
C28	1	0.5	50	0.25	1				NO	0.07207	0.52	05/01/2022 00:09 AM	3.41
C29	1	0.5	50	0.25	1				NO	0.02562	0.06	05/01/2022 00:18 AM	1.24
C3	1	0.5	50	0.25	1				NO	0.28057	14.68	05/01/2022 00:15 AM	3.84
C30	1	4	50	50	1				NO	0.0064	0.66	05/01/2022 00:18 AM	0.45
C31	1	0.5	50	0.25	1				NO	0.03224	0.14	05/01/2022 00:18 AM	1.84
C32	1	0.5	50	0.25	1				NO	0.05087	0.06	05/01/2022 00:12 AM	0.54
C33	1	0.5	50	0.25	1				NO	0.00687	0	05/01/2022 00:00 AM	0
C34	1	4	50	50	1				NO	0.00133	0	05/01/2022 00:00 AM	0
C35	1	0.5	50	0.25	1				NO	0.009	0	05/01/2022 00:00 AM	0
C36	1	4	50	50	1				NO	0.04246	0	05/01/2022 00:00 AM	0

Table 1B: Conduits (continued...)

Name	Geom1 (ft)	Geom2 (ft)	Geom3	Geom4	Barrels	Transect	Shape Curve	Culvert Code	Control Rules	Slope (ft/ft)	Max. |Flow| (cfs)	Time Max. Flow (M/D/Y)	Max. |Velocity| (ft/s)
C37	1	4	50	50	1				NO	0.007	0	05/01/2022 00:00 AM	0
C37_1	1	0.5	50	0.25	1				NO	0.00963	0.15	05/01/2022 00:12 AM	1.34
C37_2	1	0.5	50	0.25	1				NO	0.00962	0.15	05/01/2022 00:12 AM	1.17
C38	1	4	50	50	1				NO	0.00654	0.67	05/01/2022 00:12 AM	1.23
C39	1	0.5	50	0.25	1				NO	0.07158	0.96	05/01/2022 00:13 AM	4.03
C4	1	4	3	3	1				NO	0.30455	0	05/01/2022 00:00 AM	0
C40	1	0.5	50	0.25	1				NO	0.06966	2.8	05/01/2022 00:12 AM	5.21
C41	1	4	3	3	1				NO	0.03708	5.41	05/01/2022 00:12 AM	6.38
C41_1	1	0.5	50	0.25	1				NO	0.07426	0.51	05/01/2022 00:14 AM	3.35
C41_2	1	0.5	50	0.25	1				NO	0.02906	1.87	05/01/2022 00:14 AM	3.4
C42	1	0.5	50	0.25	1				NO	0.03157	1.68	05/01/2022 00:12 AM	3.41
C43	1	0.5	50	0.25	1				NO	0.01948	1.16	05/01/2022 00:12 AM	0.77
C44	1	0.5	50	0.25	1				NO	0.01698	0.95	05/01/2022 00:14 AM	2.35
C45	1	0.5	50	0.25	1				NO	0.05803	0.6	05/01/2022 00:14 AM	2.14
C46	1	0.5	50	0.25	1				NO	0.02806	1.43	05/01/2022 00:18 AM	3.13
C47	3	10	15	15	1				NO	0.00637	0	05/01/2022 00:00 AM	0
C47_1	1	0.5	50	0.25	1				NO	0.02249	0.08	05/01/2022 00:12 AM	2.48
C47_2	1	0.5	50	0.25	1				NO	0.01396	0.02	05/01/2022 00:19 AM	0.83
C48	1	0.5	50	0.25	1				NO	0.07631	0	05/01/2022 00:00 AM	0
C49	1	0.5	50	0.25	1				NO	0.07509	0.06	05/01/2022 00:12 AM	0.83
C5	1	4	50	50	1				NO	0.00738	1.35	05/01/2022 00:18 AM	1.49
C50	1	4	0	0	1				NO	0.00358	0.12	05/01/2022 00:06 AM	0.27
C51	1	0.5	50	0.25	1				NO	0.00366	1.35	05/01/2022 00:07 AM	1.56
C52	1	0.5	50	0.25	1				NO	0.0467	0.33	05/01/2022 00:07 AM	2.59
C53	1	4	50	50	1				NO	0.04724	1.35	05/01/2022 00:07 AM	2.33
C54	1	0.5	50	0.25	1				NO	0.00893	1.03	05/01/2022 00:06 AM	2.98

Table 1B: Conduits (continued...)

Name	Geom1 (ft)	Geom2 (ft)	Geom3	Geom4	Barrels	Transect	Shape Curve	Culvert Code	Control Rules	Slope (ft/ft)	Max. |Flow| (cfs)	Time Max. Flow (M/D/Y)	Max. |Velocity| (ft/s)
C55	1	2	3	3	1				NO	0.62399	1.35	05/01/2022 00:08 AM	1.12
C56	1	4	3	3	1				NO	0.23435	5.4	05/01/2022 00:12 AM	4.23
C57	1	4	3	3	1				NO	0.02921	5.38	05/01/2022 00:12 AM	2.93
C58	1	10	3	3	1				NO	0.02333	18.28	05/01/2022 00:18 AM	3.71
C59	1	4	3	3	1				NO	0.17473	18.27	05/01/2022 00:18 AM	4.22
C6	1	4	50	50	1				NO	0.01185	0.23	05/01/2022 00:24 AM	0.2
C60	1	4	3	3	1				NO	0.05947	0.62	05/01/2022 00:18 AM	1.83
C61	1	4	3	3	1				NO	-1E-05	0	05/01/2022 00:00 AM	0
C62	1	0.5	50	0.25	1				NO	0.00904	3.61	05/01/2022 00:12 AM	2.14
C63	1	4	50	50	1				NO	0.00198	7.58	05/01/2022 00:13 AM	1.8
C64	1	4	50	50	1				NO	0.01968	8.01	05/01/2022 00:13 AM	3.29
C65	1	4	3	3	1				NO	0.84061	0	05/01/2022 00:00 AM	0
C65_2	1	4	50	50	1				NO	0.01074	1.68	05/01/2022 00:25 AM	1.89
C66	1	0.5	50	0.25	1				NO	0.02744	0	05/01/2022 00:00 AM	0
C67	1	4	50	50	1				NO	0.02542	0	05/01/2022 00:00 AM	0
C68	1	4	3	3	1				NO	0.07591	0	05/01/2022 00:00 AM	0
C69	1	4	3	3	1				NO	0.19712	0	05/01/2022 00:00 AM	0
C7	1	4	50	50	1				NO	0	1.25	05/01/2022 00:17 AM	0.81
C70	1	4	3	3	1				NO	0.0621	0	05/01/2022 00:00 AM	0
C71	1	4	3	3	1				NO	0.35961	0	05/01/2022 00:00 AM	0
C72	1	0.5	50	0.25	1				NO	0.02328	0.02	05/01/2022 00:18 AM	0.03
C73	1	0	0	0	1				NO	0.01096	0	05/01/2022 00:00 AM	0
C74	2.5	0	0	0	1				NO	0.01499	11.68	05/01/2022 00:23 AM	8.33
C75	0.25	0	0	0	1				NO	0.05468	0.25	05/01/2022 00:30 AM	5.11
C76	2.5	0	0	0	1				NO	0.16466	12.22	05/01/2022 00:24 AM	12.26
C77	5	10	4	4	1				NO	0.21049	3.43	05/01/2022 00:30 AM	3.75

Table 1B: Conduits (continued...)

Name	Geom1 (ft)	Geom2 (ft)	Geom3	Geom4	Barrels	Transect	Shape Curve	Culvert Code	Control Rules	Slope (ft/ft)	Max. |Flow| (cfs)	Time Max. Flow (M/D/Y)	Max. |Velocity| (ft/s)
C78	5	10	4	4	1				NO	0.13848	14.5	05/01/2022 00:28 AM	4.48
C79	0	0	0	0	1	HalfSectionRd			NO	0.01492	0	05/01/2022 00:00 AM	0
C8	0.667	2	2	2	1				NO	0.1499	0.52	05/01/2022 00:06 AM	4.32
C80	1	10	0	0	1				NO	0.03365	3.18	05/01/2022 00:30 AM	3.9
C9	1	0.5	50	0.25	1				NO	0.06472	0.52	05/01/2022 00:06 AM	3.32
MM_out	2	0	0	0	1				NO	0.33705	0	05/01/2022 00:00 AM	0
OL-1KA'B	1	2	3	3	1				NO	0.03609	1.01	05/01/2022 00:18 AM	1.34
OL-31036	1	4	50	50	1				NO	0.01419	15.83	05/01/2022 00:18 AM	2.52
TC_out	3	0	0	0	1				NO	0.09832	0	05/01/2022 00:00 AM	0
UV_Out	3.5	0	0	0	1				NO	0.33788	2.71	05/01/2022 00:19 AM	13.96
UVA	4	0	0	0	1				NO	0.08665	2.72	05/01/2022 00:19 AM	8.3
UVB	4	0	0	0	1				NO	0	2.72	05/01/2022 00:19 AM	4.22
UVC	2	0	0	0	1				NO	0.24895	2.72	05/01/2022 00:19 AM	14.65
UVE	1.75	0	0	0	1				NO	0.22467	2.72	05/01/2022 00:19 AM	12.32
UVF	1.75	0	0	0	2				NO	0.00779	2.72	05/01/2022 00:18 AM	3.88
UVG	1.75	0	0	0	2				NO	0.01168	2.72	05/01/2022 00:18 AM	4.18
UVH	1.75	0	0	0	2				NO	0.02725	2.73	05/01/2022 00:18 AM	4.69
UVI	1.75	0	0	0	1				NO	0.06201	2.73	05/01/2022 00:18 AM	9.11
UVIA	1	0	0	0	1				NO	0.00501	0.72	05/01/2022 00:18 AM	2.69
UVJ	1.75	0	0	0	1				NO	0.05681	1.88	05/01/2022 00:13 AM	7.1
UVJA	1	0	0	0	1				NO	0.00569	0.19	05/01/2022 00:24 AM	1.91
UVK	1.75	0	0	0	1				NO	0.02149	1.78	05/01/2022 00:13 AM	5
UVL	1.75	0	0	0	1				NO	0.06089	1.78	05/01/2022 00:13 AM	7.63
UVM	1.75	0	0	0	1				NO	0.03169	1.72	05/01/2022 00:12 AM	5.92
UVN	1	0	0	0	1				NO	0.02277	1.65	05/01/2022 00:12 AM	5.4
UVO	1	0	0	0	1				NO	0.02475	1.53	05/01/2022 00:12 AM	5.46

Table 1B: Conduits (continued...)

Name	Geom1 (ft)	Geom2 (ft)	Geom3	Geom4	Barrels	Transect	Shape Curve	Culvert Code	Control Rules	Slope (ft/ft)	Max. |Flow| (cfs)	Time Max. Flow (M/D/Y)	Max. |Velocity| (ft/s)
UVOA	1	0	0	0	1				NO	0.00307	0.99	05/01/2022 00:06 AM	2.67
UVOA'	1	0	0	0	1				NO	0.06997	0.36	05/01/2022 00:12 AM	5.57
UVOB	0.667	0	0	0	1				NO	0.04024	0.09	05/01/2022 00:12 AM	1.36
UVP	1	0	0	0	1				NO	0.03034	0.2	05/01/2022 00:18 AM	3.31

Table 1C: Conduits

Name	Max/Full Flow	Max/Full Depth	Max. Volume (ft³)	Full Both Ends (h)	Full Upstream (h)	Full Downstream (h)	Above Full Normal (h)	Capacity Limited (h)	Length Factor (fraction)	Dry (fraction)	Subcritical (fraction)	Supercritical (fraction)	Normal Limited (fraction)
1	1.02	0.88	0	0.01	0.01	0.01	0.05	0.01	1	0	0	0	0
1A	1.1	1	0	0.67	0.67	72	0.21	0.48	1	0	1	0	0
1B	0.91	0.88	0	0.01	0.18	0.01	0.01	0.01	1	0	0.61	0	0.97
1C_1A	0.7	0.63	0	0	0	0	0	0	1	0	0	0	0
1C_2	0.01	0.1	0	0	0	0	0	0	1	0	0.37	0.63	0.01
1C_3	0.01	0.08	0	0	0	0	0	0	1	0.33	0.65	0.02	0
1C_4	0	0.23	0	0	0	0	0	0	1	0.34	0.63	0.01	0.47
1D	0.07	0.17	0	0	0	0	0	0	1	0	0.28	0.02	0.99
1DA_1	0.18	0.3	0	0	0	0	0	0	1	0	0	0	0
1DA_2	0.31	0.41	0	0	0	0	0	0	1	0	0.93	0.06	0.95
1DA_3	0	0.26	0	0	0	0	0	0	1	0	0	0	0
1DAA	0.02	0.12	0	0	0	0	0	0	1	0	0	0	0
1DB_1	0	0.11	0	0	0	0	0	0	1	0.98	0	0	0
1DB_2	0	0	0	0	0	0	0	0	1	1	0	0	0
1DB_2A	0	0	0	0	0	0	0	0	1	1	0	0	0
1DBA'	0.33	0.56	0	0	0	0	0	0	1	0.98	0	0	0

Table 1C: Conduits (continued...)

Name	Max/Full Flow	Max/Full Depth	Max. Volume (ft³)	Full Both Ends (h)	Full Upstream (h)	Full Downstream (h)	Above Full Normal (h)	Capacity Limited (h)	Length Factor (fraction)	Dry (fraction)	Subcritical (fraction)	Supercritical (fraction)	Normal Limited (fraction)
1DBA''	0.25	0.89	0	0.01	0.01	71.96	0.01	0.01	1	0	0.06	0.01	0.99
1DBB_1	0	0.12	0	0	0	0	0	0	1	0.94	0.04	0	1
1DBB_2	0.03	0.21	0	0	0	0	0	0	1	0.94	0	0	0
1DD_1	0.01	0.41	0	0	0	0	0	0	1	0	0.05	0	1
1DD_2	0.01	0.08	0	0	0	0	0	0	1	0.95	0	0.05	0.96
1DE	0.71	0.44	0	0	0	0	0	0	1	0	0.96	0.04	0
1DeA	1.2	1	0	0.28	0.31	0.37	0.23	0.26	1	0	1	0	0.99
1DEAA	0.15	0.64	0	0.01	0.01	0.23	0.01	0.01	1	0	0	0	0
1DEB	0.94	1	0	0.26	0.26	0.28	0.01	0.14	1	0	0.01	0	0
1DEBA	0.35	0.73	0	0.01	0.01	0.04	0.01	0.01	1	0	0	0	0
1DEBD_1	0.41	0.83	0	0.01	0.01	0.97	0.01	0.01	1	0	0.04	0	0.99
1DEBD_2	1.87	0.92	0	0.01	1.03	0.01	1.05	0.01	1	0	0	0	0
1DEC	0.09	1	0	0.18	0.18	0.23	0.01	0.01	1	0	0.02	0	0.99
1DED	0.06	1	0	0.03	0.03	0.22	0.01	0.01	1	0	1	0	1
1DEE	0	0.46	0	0	0	0	0	0	1	1	0	0	0
1DEF	0	0	0	0	0	0	0	0	1	1	0	0	0
1DF	0.3	0.39	0	0	0	0	0	0	1	0	0	0	0
1DG	0.95	0.8	0	0	0	0	0	0	1	0	0	0	0
1DH	1.33	0.92	0	0.01	0.16	0.01	0.3	0.01	1	0	0.01	0	0
1DHA	0.14	0.27	0	0	0	0	0	0	1	0	0	0	0
1DI	1.51	1	0	0.16	0.35	0.16	0.38	0.16	1	0	0.01	0	0
1DJ	1.07	1	0	0.29	0.29	0.33	0.13	0.26	1	0	0.01	0	0
1DJA	0.16	1	0	0.14	0.14	0.18	0.01	0.01	1	0	0	0	0
1DK	0.23	0.66	0	0.01	0.01	0.27	0.01	0.01	1	0	0	0.01	0.02
1DL	0.37	0.44	0	0	0	0	0	0	1	0	0	0	0
1DLA	0.44	0.48	0	0	0	0	0	0	1	0	0	0	0

Table 1C: Conduits (continued...)

Name	Max/Full Flow	Max/Full Depth	Max. Volume (ft³)	Full Both Ends (h)	Full Upstream (h)	Full Downstream (h)	Above Full Normal (h)	Capacity Limited (h)	Length Factor (fraction)	Dry (fraction)	Subcritical (fraction)	Supercritical (fraction)	Normal Limited (fraction)
1DM	0.23	0.42	0	0	0	0	0	0	1	0	0	0.01	0
1DN	0.35	0.41	0	0	0	0	0	0	1	0	0	0	0
1DO	0.24	0.34	0	0	0	0	0	0	1	0	0	0.01	0
1DP	0.02	0.21	0	0	0	0	0	0	1	0	0.02	0	0.02
1E	0.36	0.47	0	0	0	0	0	0	1	0.7	0.11	0.06	0.85
1F	0.35	0.79	0	0	0	0	0	0	1	0.8	0.16	0.03	0.07
1FA	0.47	0.88	0	0.01	0.01	0.3	0.01	0.01	1	0	0.33	0.01	0.98
1FB	0.46	0.76	0	0	0	0	0	0	1	0	0	0.01	0
1FC	0.46	0.64	0	0	0	0	0	0	1	0	0	0.02	0
1FCA'	0.1	0.22	0	0	0	0	0	0	1	0	0	0	0
1FD	0.44	0.53	0	0	0	0	0	0	1	0	0	0	0
1FDA'	1.28	1	0	0.63	0.77	0.63	0.67	0.63	1	0	0	0	0
1FDA''	1.46	0.98	0	0.01	0.54	0.01	0.4	0.01	1	0	0	0	0
1FDA''A	0.34	1	0	0.45	0.45	0.52	0.01	0.01	1	0.98	0.02	0	0.99
1FE	0.34	0.53	0	0	0	0	0	0	1	0	0.84	0.16	0.98
1FF_1	0	0.09	0	0	0	0	0	0	1	0	0.15	0.02	0.99
1FF_2	0.01	0.19	0	0	0	0	0	0	1	0	0.97	0.03	0.65
1FG	0.35	0.55	0	0	0	0	0	0	1	0.83	0.03	0.03	0.98
1FH	0.34	0.45	0	0	0	0	0	0	1	0	0	0	0
1FI	0.53	0.6	0	0	0	0	0	0	1	0	0.96	0.04	0.96
1FJ	0.36	0.66	0	0	0	0	0	0	1	0	0.96	0.04	0.03
1FK	0.2	0.52	0	0	0	0	0	0	1	0	0.97	0.03	0.98
1G	0.2	0.7	0	0	0	0	0	0	1	0.81	0.05	0.01	0.98
1GA	0.24	0.4	0	0	0	0	0	0	1	0	0	0	0
1GAA	0	0.05	0	0	0	0	0	0	1	1	0	0	0
1GB	0.24	0.36	0	0	0	0	0	0	1	0	0	0	0

Table 1C: Conduits (continued...)

Name	Max/Full Flow	Max/Full Depth	Max. Volume (ft³)	Full Both Ends (h)	Full Upstream (h)	Full Downstream (h)	Above Full Normal (h)	Capacity Limited (h)	Length Factor (fraction)	Dry (fraction)	Subcritical (fraction)	Supercritical (fraction)	Normal Limited (fraction)
1GC	0.34	0.44	0	0	0	0	0	0	1	0	0	0	0
1GD	0.11	0.23	0	0	0	0	0	0	1	0	0	0	0
1GE	0	0.08	0	0	0	0	0	0	1	0	0	0	0
1GF	0.05	0.15	0	0	0	0	0	0	1	0	0.01	0.02	0.98
1H	0.17	0.47	0	0	0	0	0	0	1	0.93	0.04	0.03	0
1I	0.17	0.4	0	0	0	0	0	0	1	0.93	0.04	0.03	0
1IA	0.26	0.56	0	0	0	0	0	0	1	0	0	0.01	0.01
1IAA	0.37	0.48	0	0	0	0	0	0	1	0	0	0	0
1IAB	0.28	0.37	0	0	0	0	0	0	1	0	0	0	0
1IB	0.33	0.44	0	0	0	0	0	0	1	0	0	0	0
1IC	1.02	0.99	0	0.01	0.5	0.01	0.01	0.01	1	0	0	0	0
1ID	0.03	0.11	0	0	0	0	0	0	1	0.97	0	0	0
1J	0.18	0.31	0	0	0	0	0	0	1	0.91	0	0.01	0
1JA	0.17	0.32	0	0	0	0	0	0	1	0	0	0	0
1JA'	0.02	0.1	0	0	0	0	0	0	1	0	0	0	0
1JB	0.36	0.5	0	0	0	0	0	0	1	0	0	0	0
1JC	0.3	0.4	0	0	0	0	0	0	1	0	0	0	0
1JCA	0.02	0.11	0	0	0	0	0	0	1	0	0	0	0
1JD	0.26	0.39	0	0	0	0	0	0	1	0	0	0	0
1JE	0.24	0.35	0	0	0	0	0	0	1	0	0	0	0
1JEA'	0.2	0.32	0	0	0	0	0	0	1	0	0	0	0
1JEA''	0.1	0.22	0	0	0	0	0	0	1	0	0	0	0
1JEA'A	0.15	0.6	0	0	0	0	0	0	1	0	0.03	0	1
1JEA'A'	0.27	0.38	0	0	0	0	0	0	1	0	0	0	0
1JEA'A''	0.06	0.19	0	0	0	0	0	0	1	0	0	0	0
1JEA''A	0.04	0.18	0	0	0	0	0	0	1	0	0.98	0.02	1

Table 1C: Conduits (continued...)

Name	Max/Full Flow	Max/Full Depth	Max. Volume (ft³)	Full Both Ends (h)	Full Upstream (h)	Full Downstream (h)	Above Full Normal (h)	Capacity Limited (h)	Length Factor (fraction)	Dry (fraction)	Subcritical (fraction)	Supercritical (fraction)	Normal Limited (fraction)
1JEA'A'A'	0.08	0.2	0	0	0	0	0	0	1	0	0	0	0
1JF	0.75	0.68	0	0	0	0	0	0	1	0	0	0	0
1JG	0.57	0.76	0	0	0	0	0	0	1	0	0	0.01	0
1JH	0.63	0.8	0	0	0	0	0	0	1	0	0	0	0
1JI	0.84	0.8	0	0	0	0	0	0	1	0	0	0	0
1JJ	0.22	0.5	0	0	0	0	0	0	1	0	0	0.01	0
1JK	0.11	0.29	0	0	0	0	0	0	1	0	0	0.01	0
1JKA	0.57	0.58	0	0	0	0	0	0	1	0	0	0	0
1JKB	0.19	0.29	0	0	0	0	0	0	1	0	0	0	0
1JKC	0.13	0.25	0	0	0	0	0	0	1	0	0	0	0
1JL	0.23	0.33	0	0	0	0	0	0	1	0	0	0	0
1K	0.23	0.34	0	0	0	0	0	0	1	0	0	0	0
1KA	0.09	0.32	0	0	0	0	0	0	1	0	0	0.02	0.01
1KA'	0.59	0.57	0	0	0	0	0	0	1	0	0	0	0
1KA''	0.4	0.46	0	0	0	0	0	0	1	0	0	0	0
1KA'A	0.04	0.24	0	0	0	0	0	0	1	0	0.06	0.01	1
1KA''A	5.67	0.98	0	0.01	1.02	0.01	1.08	0.01	1	0	0	0	0
1KA''AA	0.11	1	0	0.68	0.68	0.81	0.01	0.01	1	0	0.03	0	0.98
1KA''AB	0.36	0.43	0	0	0	0	0	0	1	0	0	0	0
1KA'B	0.93	0.68	0	0.01	0.33	0.01	0.01	0.01	1	0	0.97	0.03	0
1KA''B	0.95	1	0	0.52	0.52	0.67	0.01	0.12	1	0	0.01	0	0
1KA''BA_1	0	0.13	0	0	0	0	0	0	1	0	0.06	0	1
1KA''BA_2	0.01	0.15	0	0	0	0	0	0	1	0	0	0	0
1KA''BB_1	0	0.1	0	0	0	0	0	0	1	0.94	0	0	0
1KA''BB_2	0.07	0.21	0	0	0	0	0	0	1	0.94	0.06	0	1
1KA'C	0.19	0.71	0	0.01	0.01	0.84	0.01	0.01	1	0	0.05	0.01	1

Table 1C: Conduits (continued...)

Name	Max/Full Flow	Max/Full Depth	Max. Volume (ft³)	Full Both Ends (h)	Full Upstream (h)	Full Downstream (h)	Above Full Normal (h)	Capacity Limited (h)	Length Factor (fraction)	Dry (fraction)	Subcritical (fraction)	Supercritical (fraction)	Normal Limited (fraction)
1KA''C	0.22	0.35	0	0	0	0	0	0	1	0	0	0	0
1KA'CA	0.19	0.42	0	0	0	0	0	0	1	0.94	0.03	0.02	0.01
1KA'CA'	0.01	0.25	0	0	0	0	0	0	1	0.95	0.02	0	1
1KA'CB	0.02	0.27	0	0	0	0	0	0	1	0.94	0.03	0	1
1KA'CC	0	0.08	0	0	0	0	0	0	1	0.97	0.01	0.01	1
1KA''D	0.56	0.58	0	0	0	0	0	0	1	0	0	0	0
1KA''E	0.36	0.44	0	0	0	0	0	0	1	0	0	0	0
1KB	0.17	0.29	0	0	0	0	0	0	1	0	0	0	0
1KC	0.14	0.26	0	0	0	0	0	0	1	0	0	0	0
1KD	0.15	0.27	0	0	0	0	0	0	1	0	0	0	0
1KDA	0.09	0.22	0	0	0	0	0	0	1	0	0	0	0
1KE	0.26	0.38	0	0	0	0	0	0	1	0	0	0	0
1KF	0.05	0.17	0	0	0	0	0	0	1	0	0	0	0
1L	0.19	0.33	0	0	0	0	0	0	1	0	0	0.01	0
1M	0.17	0.32	0	0	0	0	0	0	1	0	0	0	0
1N	0.2	0.32	0	0	0	0	0	0	1	0	0	0	0
1O	0.23	0.35	0	0	0	0	0	0	1	0	0	0	0
2A	0.56	0.64	0	0	0	0	0	0	1	0	0.96	0.04	0
2B	0.55	0.63	0	0	0	0	0	0	1	0	0	0.01	0
2BA	0.18	0.38	0	0	0	0	0	0	1	0	0.01	0.01	0.01
2C	0	0.12	0	0	0	0	0	0	1	0.96	0	0.01	0.01
2D	0.04	0.16	0	0	0	0	0	0	1	0	0.97	0.03	0.98
2E	0	0.03	0	0	0	0	0	0	1	0	0.03	0	1
3A	1.22	0.96	0	0.01	0.66	0.01	0.64	0.01	1	0	0.98	0.02	0
3B	0.89	1	0	0.63	0.63	0.66	0.01	0.36	1	0	0.02	0.01	0.98
3C	0.8	1	0	0.61	0.61	0.63	0.01	0.54	1	0	0.99	0.01	0.98

Table 1C: Conduits (continued...)

Name	Max/Full Flow	Max/Full Depth	Max. Volume (ft³)	Full Both Ends (h)	Full Upstream (h)	Full Downstream (h)	Above Full Normal (h)	Capacity Limited (h)	Length Factor (fraction)	Dry (fraction)	Subcritical (fraction)	Supercritical (fraction)	Normal Limited (fraction)
3D	0.66	1	0	0.52	0.52	0.61	0.01	0.01	1	0	1	0	0.98
3E	0.56	1	0	0.52	0.52	0.52	0.01	0.01	1	0	0.99	0.01	0.98
4A	0.09	0.21	0	0	0	0	0	0	1	0	0.98	0.02	0
5	0.31	0.38	0	0	0	0	0	0	1	0	0	0	0
8	0.31	0.4	0	0	0	0	0	0	1	0	0.98	0.02	0.99
C1	0.03	0.44	0	0	0	0	0	0	1	0	0.94	0.06	0.02
C10	0.01	0.19	0	0	0	0	0	0	1	0.98	0	0	0
C11	0	0	0	0	0	0	0	0	1	1	0	0	0
C12	0.01	0.15	0	0	0	0	0	0	1	0.98	0	0.01	1
C12_1	0	0.12	0	0	0	0	0	0	1	0.98	0.01	0	1
C12_2	0.01	0.37	0	0	0	0	0	0	1	0.98	0.01	0	0.01
C13	0	0.02	0	0	0	0	0	0	1	1	0	0	0
C14	0	0.03	0	0	0	0	0	0	1	1	0	0	0
C144_1	0.14	0.24	0	0	0	0	0	0	1	0	0.98	0.02	0.98
C144_2	0.09	0.29	0	0	0	0	0	0	1	0	0	0.02	1
C146	0.22	0.34	0	0	0	0	0	0	1	0	0.98	0.02	0.98
C147	0.14	0.33	0	0	0	0	0	0	1	0	0.03	0.02	0.99
C15	0	0.08	0	0	0	0	0	0	1	0	0	0	0
C16	0	0.05	0	0	0	0	0	0	1	0.99	0	0	0
C17	0	0.05	0	0	0	0	0	0	1	1	0	0	0
C18	0	0.02	0	0	0	0	0	0	1	1	0	0	0
C19	0	0.01	0	0	0	0	0	0	1	1	0	0	1
C19.	0	0.21	0	0	0	0	0	0	1	0.99	0	0	0
C2	0	0	0	0	0	0	0	0	1	1	0	0	0
C2_2	0.09	0.53	0	0	0	0	0	0	1	0	0.03	0	1
C2_3	0	0.5	0	0	0	0	0	0	1	0	0	0	0

Table 1C: Conduits (continued...)

Name	Max/Full Flow	Max/Full Depth	Max. Volume (ft³)	Full Both Ends (h)	Full Upstream (h)	Full Downstream (h)	Above Full Normal (h)	Capacity Limited (h)	Length Factor (fraction)	Dry (fraction)	Subcritical (fraction)	Supercritical (fraction)	Normal Limited (fraction)
C20	0	0.03	0	0	0	0	0	0	1	0.97	0	0	0
C21	0	0.08	0	0	0	0	0	0	1	0.97	0	0.01	0.01
C22	0	0.09	0	0	0	0	0	0	1	0	0	0	0
C23	0	0.08	0	0	0	0	0	0	1	0.99	0	0.01	0.01
C24	0	0.1	0	0	0	0	0	0	1	0.99	0	0	0
C25	0	0.07	0	0	0	0	0	0	1	0.99	0	0.01	0.01
C26	0	0.03	0	0	0	0	0	0	1	0.97	0	0	1
C27	0	0.05	0	0	0	0	0	0	1	0.97	0.01	0.01	1
C28	0	0.08	0	0	0	0	0	0	1	0.97	0	0	0
C29	0	0.04	0	0	0	0	0	0	1	0.99	0	0	1
C3	0.04	0.61	0	0	0	0	0	0	1	0	0.94	0.06	0.02
C30	0	0.14	0	0	0	0	0	0	1	0.99	0	0	0
C31	0	0.05	0	0	0	0	0	0	1	0.99	0	0	0
C32	0	0.11	0	0	0	0	0	0	1	0.99	0	0	1
C33	0	0.04	0	0	0	0	0	0	1	0.99	0	0	0
C34	0	0	0	0	0	0	0	0	1	1	0	0	0
C35	0	0.15	0	0	0	0	0	0	1	0.99	0	0	0
C36	0	0	0	0	0	0	0	0	1	1	0	0	0
C37	0	0.02	0	0	0	0	0	0	1	1	0	0	0
C37_1	0	0.06	0	0	0	0	0	0	1	0.99	0	0	1
C37_2	0	0.07	0	0	0	0	0	0	1	0.99	0.01	0	0.01
C38	0	0.07	0	0	0	0	0	0	1	0.99	0	0	0
C39	0	0.09	0	0	0	0	0	0	1	0.99	0	0	0.99
C4	0	0	0	0	0	0	0	0	1	1	0	0	0
C40	0.01	0.14	0	0	0	0	0	0	1	0.99	0	0	0
C41	0.05	0.19	0	0	0	0	0	0	1	0.97	0	0.02	1

Table 1C: Conduits (continued...)

Name	Max/Full Flow	Max/Full Depth	Max. Volume (ft³)	Full Both Ends (h)	Full Upstream (h)	Full Downstream (h)	Above Full Normal (h)	Capacity Limited (h)	Length Factor (fraction)	Dry (fraction)	Subcritical (fraction)	Supercritical (fraction)	Normal Limited (fraction)
C41_1	0	0.1	0	0	0	0	0	0	1	0.99	0	0.01	1
C41_2	0.01	0.14	0	0	0	0	0	0	1	0.99	0	0	0
C42	0.01	0.13	0	0	0	0	0	0	1	0.99	0	0	0
C43	0	0.33	0	0	0	0	0	0	1	0.99	0.01	0	1
C44	0	0.12	0	0	0	0	0	0	1	0.99	0	0	0
C45	0	0.1	0	0	0	0	0	0	1	0.96	0	0	1
C46	0	0.13	0	0	0	0	0	0	1	0.99	0	0	0
C47	0	0	0	0	0	0	0	0	1	0.78	0	0	0
C47_1	0	0.03	0	0	0	0	0	0	1	0.78	0	0	1
C47_2	0	0.05	0	0	0	0	0	0	1	0.78	0.01	0	0.01
C48	0	0.07	0	0	0	0	0	0	1	0.99	0	0	0
C49	0	0.06	0	0	0	0	0	0	1	0.99	0	0	1
C5	0	0.15	0	0	0	0	0	0	1	0.99	0.01	0	1
C50	0.01	0.11	0	0	0	0	0	0	1	0.98	0.02	0	1
C51	0.01	0.18	0	0	0	0	0	0	1	0.98	0	0	0
C52	0	0.06	0	0	0	0	0	0	1	0.98	0	0	1
C53	0	0.08	0	0	0	0	0	0	1	0.98	0	0.01	1
C54	0.01	0.11	0	0	0	0	0	0	1	0.98	0	0.01	0.99
C55	0.01	0.55	0	0.01	0.01	0.33	0.01	0.01	1	0	0.02	0	1
C56	0.05	0.27	0	0	0	0	0	0	1	0.95	0.01	0.01	1
C57	0.14	0.36	0	0	0	0	0	0	1	0.95	0.05	0	1
C58	0.25	0.44	0	0	0	0	0	0	1	0.96	0.01	0.01	0.98
C59	0.19	0.71	0	0.01	0.01	0.14	0.01	0.01	1	0.83	0.03	0	1
C6	0	0.12	0	0	0	0	0	0	1	0.99	0	0	1
C60	0.01	0.08	0	0	0	0	0	0	1	0.99	0	0.01	0.99
C61	0	0	0	0	0	0	0	0	1	1	0	0	0

Table 1C: Conduits (continued...)

Name	Max/Full Flow	Max/Full Depth	Max. Volume (ft³)	Full Both Ends (h)	Full Upstream (h)	Full Downstream (h)	Above Full Normal (h)	Capacity Limited (h)	Length Factor (fraction)	Dry (fraction)	Subcritical (fraction)	Supercritical (fraction)	Normal Limited (fraction)
C62	0.02	0.25	0	0	0	0	0	0	1	0.98	0.01	0.01	0.01
C63	0.04	0.25	0	0	0	0	0	0	1	0.98	0	0	0
C64	0.01	0.34	0	0	0	0	0	0	1	0.99	0.01	0	0.01
C65	0	0	0	0	0	0	0	0	1	1	0	0	0
C65_2	0	0.1	0	0	0	0	0	0	1	0.98	0.01	0.01	0.01
C66	0	0.11	0	0	0	0	0	0	1	0.98	0	0	0
C67	0	0.22	0	0	0	0	0	0	1	0.96	0	0	0
C68	0	0	0	0	0	0	0	0	1	1	0	0	0
C69	0	0	0	0	0	0	0	0	1	1	0	0	0
C7	0.03	0.2	0	0	0	0	0	0	1	0.98	0.01	0	0
C70	0	0	0	0	0	0	0	0	1	1	0	0	0
C71	0	0.5	0	0	0	0	0	0	1	0.33	0	0	0
C72	0	0.15	0	0	0	0	0	0	1	0.97	0.01	0	1
C73	0	0	0	0	0	0	0	0	1	1	0	0	0
C74	0.23	0.33	0	0	0	0	0	0	1	0	0	0	0
C75	1.21	1	0	3.65	3.65	3.67	3.67	3.65	1	0	0	0	0
C76	0.14	0.26	0	0	0	0	0	0	1	0	0	0	0
C77	0	0.02	0	0	0	0	0	0	1	0.81	0.01	0.11	0.91
C78	0	0.06	0	0	0	0	0	0	1	0	0.18	0.01	1
C79	0	0	0	0	0	0	0	0	1	1	0	0	0
C8	0.01	0.09	0	0	0	0	0	0	1	0.98	0	0.02	1
C80	0.02	0.08	0	0	0	0	0	0	1	0.99	0	0	0
C9	0	0.07	0	0	0	0	0	0	1	0.98	0	0	0
MM_out	0	0.07	0	0	0	0	0	0	1	0	0	0	0
OL-1KA'B	0.04	0.27	0	0	0	0	0	0	1	0.93	0.01	0	1
OL-31036	0.03	0.35	0	0	0	0	0	0	1	0.98	0.01	0.01	0.01

Table 1C: Conduits (continued...)

Name	Max/Full Flow	Max/Full Depth	Max. Volume (ft³)	Full Both Ends (h)	Full Upstream (h)	Full Downstream (h)	Above Full Normal (h)	Capacity Limited (h)	Length Factor (fraction)	Dry (fraction)	Subcritical (fraction)	Supercritical (fraction)	Normal Limited (fraction)
TC_out	0	0.09	0	0	0	0	0	0	1	0	0	0	0
UV_Out	0	0.05	0	0	0	0	0	0	1	0	0	0	0
UVA	0.01	0.06	0	0	0	0	0	0	1	0	0	0	0
UVB	0.33	0.1	0	0	0	0	0	0	1	0	0.98	0.02	0
UVC	0.02	0.11	0	0	0	0	0	0	1	0	0	0	0
UVE	0.04	0.15	0	0	0	0	0	0	1	0	0.97	0.03	0.97
UVF	0.1	0.2	0	0	0	0	0	0	1	0	0.98	0.02	0
UVG	0.08	0.19	0	0	0	0	0	0	1	0	0	0	0
UVH	0.05	0.18	0	0	0	0	0	0	1	0	0.98	0.02	0.99
UVI	0.07	0.18	0	0	0	0	0	0	1	0	0.97	0.03	0
UVIA	0.29	0.37	0	0	0	0	0	0	1	0	0	0	0
UVJ	0.05	0.17	0	0	0	0	0	0	1	0	0	0	0
UVJA	0.07	0.18	0	0	0	0	0	0	1	0	0	0	0
UVK	0.08	0.21	0	0	0	0	0	0	1	0	0	0	0
UVL	0.05	0.15	0	0	0	0	0	0	1	0	0	0	0
UVM	0.07	0.18	0	0	0	0	0	0	1	0	0	0	0
UVN	0.33	0.41	0	0	0	0	0	0	1	0	0	0	0
UVO	0.29	0.39	0	0	0	0	0	0	1	0	0	0	0
UVOA	0.5	0.48	0	0	0	0	0	0	1	0	0	0	0
UVOA'	0.04	0.14	0	0	0	0	0	0	1	0	0	0	0
UVOB	0.04	0.39	0	0	0	0	0	0	1	0	0.01	0	0.01
UVP	0.03	0.13	0	0	0	0	0	0	1	0	0	0	0

Table 1D: Conduits

Name	Inlet Control (fraction)	Max. Spread (ft)	Contributing Area (ac)	Contributing Imp. Area (ac)	Max. Unit Flow (cfs/ac)	GIS_LENGTH (m)	GIS_AREA (m²)	GIS_PARTS
1	0	0	0	0	0	32.878	0	1
1A	0	0	0	0	0	54.795	0	1
1B	0	0	0	0	0	41.255	0	1
1C_1A	0	0	0	0	0	68.116	0	1
1C_2	0	24.866	0	0	0	16.315	0	1
1C_3	0	24.188	0	0	0	30.744	0	1
1C_4	0	35.08	0	0	0	27.421	0	1
1D	0	0	0	0	0	6.74	0	1
1DA_1	0	0	0	0	0	34.677	0	1
1DA_2	0	0	0	0	0	12.782	0	1
1DA_3	0	0	0	0	0	13.21	0	1
1DAA	0	0	0	0	0	1.677	0	1
1DB_1	0	0	0	0	0	39.659	0	1
1DB_2	0	0	0	0	0	5.189	0	1
1DB_2A	0	0	0	0	0	6.547	0	1
1DBA'	0	0	0	0	0	3.643	0	1
1DBA''	0	0	0	0	0	3.834	0	1
1DBB_1	0	2	0	0	0	54.238	0	1
1DBB_2	0	2	0	0	0	11.893	0	1
1DD_1	0	0	0	0	0	22.152	0	1
1DD_2	0	0	0	0	0	12.409	0	1
1DE	0	0	0	0	0	10.531	0	1
1DeA	0	0	0	0	0	52.178	0	1
1DEAA	0	0	0	0	0	8.966	0	1
1DEB	0	0	0	0	0	44.307	0	1
1DEBA	0	0	0	0	0	15.492	0	1

Table 1D: Conduits (continued...)

Name	Inlet Control (fraction)	Max. Spread (ft)	Contributing Area (ac)	Contributing Imp. Area (ac)	Max. Unit Flow (cfs/ac)	GIS_LENGTH (m)	GIS_AREA (m²)	GIS_PARTS
1DEBD_1	0	0	0	0	0	39.242	0	1
1DEBD_2	0	0	0	0	0	9.699	0	1
1DEC	0	0	0	0	0	16.354	0	1
1DED	0	0	0	0	0	6.263	0	1
1DEE	0	0	0	0	0	16.722	0	1
1DEF	0	0	0	0	0	13.167	0	1
1DF	0	0	0	0	0	39.043	0	1
1DG	0	0	0	0	0	60.493	0	1
1DH	0	0	0	0	0	26.095	0	1
1DHA	0	0	0	0	0	8.984	0	1
1DI	0	0	0	0	0	60.939	0	1
1DJ	0	0	0	0	0	42.84	0	1
1DJA	0	0	0	0	0	6.819	0	1
1DK	0	0	0	0	0	58.859	0	1
1DL	0	0	0	0	0	42.574	0	1
1DLA	0	0	0	0	0	26.966	0	1
1DM	0	0	0	0	0	16.286	0	1
1DN	0	0	0	0	0	66.982	0	1
1DO	0	0	0	0	0	39.969	0	1
1DP	0	0	0	0	0	24.946	0	1
1E	0	0	0	0	0	4.939	0	1
1F	0	0	0	0	0	5.421	0	1
1FA	0	0	0	0	0	29.216	0	1
1FB	0	0	0	0	0	15.647	0	1
1FC	0	0	0	0	0	94.948	0	1
1FCA'	0	0	0	0	0	11.257	0	1

Table 1D: Conduits (continued...)

Name	Inlet Control (fraction)	Max. Spread (ft)	Contributing Area (ac)	Contributing Imp. Area (ac)	Max. Unit Flow (cfs/ac)	GIS_LENGTH (m)	GIS_AREA (m²)	GIS_PARTS
1FD	0	0	0	0	0	36.292	0	1
1FDA'	0	0	0	0	0	29.923	0	1
1FDA''	0	0	0	0	0	3.144	0	1
1FDA''A	0	0	0	0	0	5.828	0	1
1FE	0	0	0	0	0	57.944	0	1
1FF_1	0	9.258	0	0	0	69.766	0	1
1FF_2	0	29.18	0	0	0	56.039	0	1
1FG	0	0	0	0	0	11.454	0	1
1FH	0	0	0	0	0	22.503	0	1
1FI	0	0	0	0	0	16.178	0	1
1FJ	0	0	0	0	0	11.083	0	1
1FK	0	0	0	0	0	12.82	0	1
1G	0	0	0	0	0	14.925	0	1
1GA	0	0	0	0	0	6.56	0	1
1GAA	0	0	0	0	0	7.247	0	1
1GB	0	0	0	0	0	15.242	0	1
1GC	0	0	0	0	0	11.156	0	1
1GD	0	0	0	0	0	35.184	0	1
1GE	0	0	0	0	0	4.893	0	1
1GF	0	0	0	0	0	2.967	0	1
1H	0	0	0	0	0	19.299	0	1
1I	0	0	0	0	0	30.755	0	1
1IA	0	0	0	0	0	19.684	0	1
1IAA	0	0	0	0	0	7.252	0	1
1IAB	0	0	0	0	0	43.708	0	1
1IB	0	0	0	0	0	8.693	0	1

Table 1D: Conduits (continued...)

Name	Inlet Control (fraction)	Max. Spread (ft)	Contributing Area (ac)	Contributing Imp. Area (ac)	Max. Unit Flow (cfs/ac)	GIS_LENGTH (m)	GIS_AREA (m²)	GIS_PARTS
1IC	0	0	0	0	0	59.884	0	1
1ID	0	0	0	0	0	38.131	0	1
1J	0	0	0	0	0	103.291	0	1
1JA	0	0	0	0	0	11.563	0	1
1JA'	0	0	0	0	0	7.978	0	1
1JB	0	0	0	0	0	9.281	0	1
1JC	0	0	0	0	0	49.107	0	1
1JCA	0	0	0	0	0	24.804	0	1
1JD	0	0	0	0	0	18.924	0	1
1JE	0	0	0	0	0	64.805	0	1
1JEA'	0	0	0	0	0	31.888	0	1
1JEA''	0	0	0	0	0	26.851	0	1
1JEA'A	0	0	0	0	0	26.821	0	1
1JEA'A'	0	0	0	0	0	11.388	0	1
1JEA'A''	0	0	0	0	0	3.249	0	1
1JEA''A	0	0	0	0	0	30.217	0	1
1JEA'A'A'	0	0	0	0	0	6.486	0	1
1JF	0	0	0	0	0	62.714	0	1
1JG	0	0	0	0	0	7.498	0	1
1JH	0	0	0	0	0	4.961	0	1
1JI	0	0	0	0	0	19.342	0	1
1JJ	0	0	0	0	0	21.969	0	1
1JK	0	0	0	0	0	2.812	0	1
1JKA	0	0	0	0	0	22.272	0	1
1JKB	0	0	0	0	0	37.589	0	1
1JKC	0	0	0	0	0	6.86	0	1

Table 1D: Conduits (continued...)

Name	Inlet Control (fraction)	Max. Spread (ft)	Contributing Area (ac)	Contributing Imp. Area (ac)	Max. Unit Flow (cfs/ac)	GIS_LENGTH (m)	GIS_AREA (m²)	GIS_PARTS
1JL	0	0	0	0	0	18.692	0	1
1K	0	0	0	0	0	78.687	0	1
1KA	0	0	0	0	0	18.261	0	1
1KA'	0	0	0	0	0	53.155	0	1
1KA''	0	0	0	0	0	12.733	0	1
1KA'A	0	0	0	0	0	35.996	0	1
1KA''A	0	0	0	0	0	2.02	0	1
1KA''AA	0	0	0	0	0	2.78	0	1
1KA''AB	0	0	0	0	0	2.442	0	1
1KA'B	0	0	0	0	0	37.135	0	1
1KA''B	0	0	0	0	0	31.56	0	1
1KA''BA_1	0	0	0	0	0	12.02	0	1
1KA''BA_2	0	0	0	0	0	23.553	0	1
1KA''BB_1	0	0	0	0	0	37.921	0	1
1KA''BB_2	0	0	0	0	0	38.852	0	1
1KA'C	0	0	0	0	0	22.215	0	1
1KA''C	0	0	0	0	0	16.721	0	1
1KA'CA	0	0	0	0	0	69.93	0	1
1KA'CA'	0	0	0	0	0	20.35	0	1
1KA'CB	0	0	0	0	0	33.705	0	1
1KA'CC	0	0	0	0	0	16.999	0	1
1KA''D	0	0	0	0	0	31.224	0	1
1KA''E	0	0	0	0	0	39.111	0	1
1KB	0	0	0	0	0	44.765	0	1
1KC	0	0	0	0	0	68.6	0	1
1KD	0	0	0	0	0	97.903	0	1

Table 1D: Conduits (continued...)

Name	Inlet Control (fraction)	Max. Spread (ft)	Contributing Area (ac)	Contributing Imp. Area (ac)	Max. Unit Flow (cfs/ac)	GIS_LENGTH (m)	GIS_AREA (m²)	GIS_PARTS
1KDA	0	0	0	0	0	8.744	0	1
1KE	0	0	0	0	0	19.452	0	1
1KF	0	0	0	0	0	9.799	0	1
1L	0	0	0	0	0	78.879	0	1
1M	0	0	0	0	0	11.872	0	1
1N	0	0	0	0	0	38.2	0	1
1O	0	0	0	0	0	9.149	0	1
2A	0	0	0	0	0	4.864	0	1
2B	0	0	0	0	0	22.986	0	1
2BA	0	0	0	0	0	11.769	0	1
2C	0	0	0	0	0	84.865	0	1
2D	0	0	0	0	0	21.808	0	1
2E	0	0	0	0	0	24.45	0	1
3A	0	0	0	0	0	66.804	0	1
3B	0	0	0	0	0	61.738	0	1
3C	0	0	0	0	0	11.412	0	1
3D	0	0	0	0	0	47.816	0	1
3E	0	0	0	0	0	20.584	0	1
4A	0	0	0	0	0	24.196	0	1
5	0	0	0	0	0	30.438	0	1
8	0	0	0	0	0	27.237	0	1
C1	0	0	0	0	0	192.896	0	1
C10	0	0	0	0	0	19.599	0	1
C11	0	0	0	0	0	24.044	0	1
C12	0	0	0	0	0	14.265	0	1
C12_1	0	0	0	0	0	9.256	0	1

Table 1D: Conduits (continued...)

Name	Inlet Control (fraction)	Max. Spread (ft)	Contributing Area (ac)	Contributing Imp. Area (ac)	Max. Unit Flow (cfs/ac)	GIS_LENGTH (m)	GIS_AREA (m²)	GIS_PARTS
C12_2	0	0	0	0	0	9.525	0	1
C13	0	0	0	0	0	39.569	0	1
C14	0	0	0	0	0	32.322	0	1
C144_1	0	0	0	0	0	16.328	0	1
C144_2	0	0	0	0	0	42.628	0	1
C146	0	0	0	0	0	12.272	0	1
C147	0	0	0	0	0	34.083	0	1
C15	0	0	0	0	0	42.691	0	1
C16	0	0	0	0	0	167.087	0	1
C17	0	0	0	0	0	26.486	0	1
C18	0	0	0	0	0	38.094	0	1
C19	0	0	0	0	0	108.175	0	1
C19.	0	0	0	0	0	18.493	0	1
C2	0	0	0	0	0	23.382	0	1
C2_2	0	0	0	0	0	38.514	0	1
C2_3	0	0	0	0	0	23.849	0	1
C20	0	0	0	0	0	39.731	0	1
C21	0	0	0	0	0	54.049	0	1
C22	0	0	0	0	0	32.051	0	1
C23	0	0	0	0	0	7.425	0	1
C24	0	0	0	0	0	100.707	0	1
C25	0	0	0	0	0	19.449	0	1
C26	0	0	0	0	0	14.319	0	1
C27	0	0	0	0	0	40.021	0	1
C28	0	0	0	0	0	69.994	0	1
C29	0	0	0	0	0	40.226	0	1

Table 1D: Conduits (continued...)

Name	Inlet Control (fraction)	Max. Spread (ft)	Contributing Area (ac)	Contributing Imp. Area (ac)	Max. Unit Flow (cfs/ac)	GIS_LENGTH (m)	GIS_AREA (m²)	GIS_PARTS
C3	0	0	0	0	0	10.192	0	1
C30	0	0	0	0	0	5.235	0	1
C31	0	0	0	0	0	187.866	0	1
C32	0	0	0	0	0	97.619	0	1
C33	0	0	0	0	0	43.063	0	1
C34	0	0	0	0	0	4.597	0	1
C35	0	0	0	0	0	37.926	0	1
C36	0	0	0	0	0	16.741	0	1
C37	0	0	0	0	0	13.061	0	1
C37_1	0	0	0	0	0	9.425	0	1
C37_2	0	0	0	0	0	11.122	0	1
C38	0	0	0	0	0	5.588	0	1
C39	0	0	0	0	0	50.335	0	1
C4	0	0	0	0	0	58.846	0	1
C40	0	0	0	0	0	60.273	0	1
C41	0	0	0	0	0	13.162	0	1
C41_1	0	0	0	0	0	55.684	0	1
C41_2	0	0	0	0	0	59.811	0	1
C42	0	0	0	0	0	43.847	0	1
C43	0	0	0	0	0	81.714	0	1
C44	0	0	0	0	0	59.244	0	1
C45	0	0	0	0	0	40.828	0	1
C46	0	0	0	0	0	23.366	0	1
C47	0	0	0	0	0	76.569	0	1
C47_1	0	0	0	0	0	35.66	0	1
C47_2	0	0	0	0	0	106.746	0	1

Table 1D: Conduits (continued...)

Name	Inlet Control (fraction)	Max. Spread (ft)	Contributing Area (ac)	Contributing Imp. Area (ac)	Max. Unit Flow (cfs/ac)	GIS_LENGTH (m)	GIS_AREA (m²)	GIS_PARTS
C48	0	0	0	0	0	72.18	0	1
C49	0	0	0	0	0	37.041	0	1
C5	0	0	0	0	0	25.136	0	1
C50	0	0	0	0	0	38.862	0	1
C51	0	0	0	0	0	9.423	0	1
C52	0	0	0	0	0	7.737	0	1
C53	0	0	0	0	0	21.995	0	1
C54	0	0	0	0	0	40.403	0	1
C55	0	0	0	0	0	22.79	0	1
C56	0	0	0	0	0	37.871	0	1
C57	0	0	0	0	0	16.817	0	1
C58	0	0	0	0	0	17.638	0	1
C59	0	0	0	0	0	32.371	0	1
C6	0	0	0	0	0	5.916	0	1
C60	0	0	0	0	0	6.016	0	1
C61	0	0	0	0	0	39.378	0	1
C62	0	0	0	0	0	40.288	0	1
C63	0	0	0	0	0	10.941	0	1
C64	0	0	0	0	0	64.322	0	1
C65	0	0	0	0	0	11.448	0	1
C65_2	0	0	0	0	0	30.413	0	1
C66	0	0	0	0	0	73.826	0	1
C67	0	0	0	0	0	60.342	0	1
C68	0	0	0	0	0	8.178	0	1
C69	0	0	0	0	0	16.802	0	1
C7	0	0	0	0	0	3.119	0	1

Table 1D: Conduits (continued...)

Name	Inlet Control (fraction)	Max. Spread (ft)	Contributing Area (ac)	Contributing Imp. Area (ac)	Max. Unit Flow (cfs/ac)	GIS_LENGTH (m)	GIS_AREA (m²)	GIS_PARTS
C70	0	0	0	0	0	49.271	0	1
C71	0	0	0	0	0	10.225	0	1
C72	0	0	0	0	0	124.293	0	1
C73	0	0	0	0	0	38.161	0	1
C74	0	0	0	0	0	16.265	0	1
C75	0	0	0	0	0	24.509	0	1
C76	0	0	0	0	0	30.404	0	1
C77	0	0	0	0	0	22.197	0	1
C78	0	0	0	0	0	4.444	0	1
C79	0	0	0	0	0	37.281	0	1
C8	0	0	0	0	0	6.782	0	1
C80	0	0	0	0	0	29.214	0	1
C9	0	0	0	0	0	19.365	0	1
MM_out	0	0	0	0	0	8.713	0	1
OL-1KA'B	0	0	0	0	0	36.256	0	1
OL-31036	0	0	0	0	0	7.517	0	1
TC_out	0	0	0	0	0	18.69	0	1
UV_Out	0	0	0	0	0	42.993	0	1
UVA	0	0	0	0	0	6.32	0	1
UVB	0	0	0	0	0	9.257	0	1
UVC	0	0	0	0	0	46.069	0	1
UVE	0	0	0	0	0	4.283	0	1
UVF	0	0	0	0	0	3.91	0	1
UVG	0	0	0	0	0	86.137	0	1
UVH	0	0	0	0	0	20.812	0	1
UVI	0	0	0	0	0	22.457	0	1

Table 1D: Conduits (continued...)

Name	Inlet Control (fraction)	Max. Spread (ft)	Contributing Area (ac)	Contributing Imp. Area (ac)	Max. Unit Flow (cfs/ac)	GIS_LENGTH (m)	GIS_AREA (m²)	GIS_PARTS
UVIA	0	0	0	0	0	24.334	0	1
UVJ	0	0	0	0	0	10.103	0	1
UVJA	0	0	0	0	0	13.39	0	1
UVK	0	0	0	0	0	13.333	0	1
UVL	0	0	0	0	0	39.67	0	1
UVM	0	0	0	0	0	28.386	0	1
UVN	0	0	0	0	0	23.298	0	1
UVO	0	0	0	0	0	22.176	0	1
UVOA	0	0	0	0	0	16.897	0	1
UVOA'	0	0	0	0	0	13.144	0	1
UVOB	0	0	0	0	0	6.065	0	1
UVP	0	0	0	0	0	4.121	0	1

Table 2A: Junctions

Name	X-Coordinate	Y-Coordinate	Tag	Inflows	Treatment	Invert Elev. (ft)	Rim Elev. (ft)	Depth (ft)	Initial Depth (ft)	Surcharge Depth (ft)	Ponded Area (ft²)	Baseline (cfs)	Baseline Pattern	Time Series
10028	2263226.292	275992.289	Inlet	NO	NO	947.47	951.77	4.3	0	0	0	0		
1024	2263120	275586	Junct	NO	NO	886.87	905.62	18.75	0	0	0	0		
1038	2263101	275568	Inlet	NO	NO	895.91	899.16	3.25	0	0	0	0		
10393	2263060.74	276043.192	Junct	NO	NO	939.1	947.67	8.57	0	0	0	0		
11213	2263074.932	275920.349	Inlet	NO	NO	936.1	942.05	5.95	0	0	0	0		
11254	2263052.709	275901.078	Junct	NO	NO	932.61	941.89	9.28	0	0	0	0		
11560	2263195.07	275832.849	Inlet	NO	NO	936.8	942.05	5.25	0	0	0	0		
11588	2263210.522	275775.558	Junct	NO	NO	934.52	939.59	5.07	0	0	0	0		

Table 2A: Junctions (continued...)

Name	X-Coordinate	Y-Coordinate	Tag	Inflows	Treatment	Invert Elev. (ft)	Rim Elev. (ft)	Depth (ft)	Initial Depth (ft)	Surcharge Depth (ft)	Ponded Area (ft²)	Baseline (cfs)	Baseline Pattern	Time Series
11842	2263208.931	275977.966	Inlet	NO	NO	947.17	951.79	4.62	0	0	0	0		
11966	2263288.792	275883.999	Inlet	NO	NO	946.03	950.67	4.64	0	0	0	0		
12000	2261946.099	276352.754	Outlet	NO	NO	838	843	5	0	0	0	0		
12000-1	2262016.165	276332.914	Outlet	NO	NO	853	858	5	0	0	0	0		
12000-2	2261912.904	276258.693	Inlet	NO	NO	851.71	858.53	6.82	0	0	0	0		
12161	2263251.668	275811.842	Junct	NO	NO	938.99	941.34	2.35	0	0	0	0		
12275	2263195.07	275762.016	Junct	NO	NO	933.6	940.46	6.86	0	0	0	0		
12300	2263253.636	275682.176	Inlet	NO	NO	934.44	940.18	5.74	0	0	0	0		
12497	2263234.105	275765.726	Inlet	NO	NO	936.23	941.29	5.06	0	0	0	0		
12514	2263292.916	275807.393	Junct	NO	NO	941.63	947.16	5.53	0	0	0	0		
12678	2263271.865	275714.728	Inlet	NO	NO	935.68	940.7	5.02	0	0	0	0		
12709	2263272.082	275698.452	Inlet	NO	NO	935.32	940.22	4.9	0	1	10	0		
12759	2263284.307	275840.141	Junct	NO	NO	943.02	949.32	6.3	0	0	0	0		
12956	2263475.852	275594.967	Inlet	NO	NO	946.18	950.18	4	0	0	0	0		
12957	2263467.345	275601.391	Junct	NO	NO	941.02	949.1	8.08	0	0	0	0		
13029	2263497.379	275623.613	Inlet	NO	NO	944.27	950.31	6.04	0	0	0	0		
13138	2263423.074	275677.433	Inlet	NO	NO	942.33	948.73	6.4	0	0	0	0		
13349	2263348.037	275851.23	Inlet	NO	NO	945.85	951.25	5.4	0	0	0	0		
13528	2263300.945	275811.95	Inlet	NO	NO	944.16	948.81	4.65	0	0	0	0		
13746	2263507.449	275604.863	Inlet	NO	NO	946.8	951.4	4.6	0	0	0	0		
14383	2263628.882	275845.927	Inlet	NO	NO	971.63	974.95	3.32	0	0	0	0		
14448	2263638.214	275888.027	Junct	NO	NO	965.94	971.92	5.98	0	0	0	0		
14608	2263680.531	275923.835	Inlet	NO	NO	968.91	971.36	2.45	0	0	0	0		
14961	2263351.321	276087.029	Junct	NO	NO	946.56	957.41	10.85	0	0	0	0		
15025	2263441.816	275993.496	Inlet	NO	NO	956.02	963.64	7.62	0	0	0	0		
15075	2263534.915	275995.666	Inlet	NO	NO	959.13	969.08	9.95	0	0	0	0		

Table 2A: Junctions (continued...)

Name	X-Coordinate	Y-Coordinate	Tag	Inflows	Treatment	Invert Elev. (ft)	Rim Elev. (ft)	Depth (ft)	Initial Depth (ft)	Surcharge Depth (ft)	Ponded Area (ft²)	Baseline (cfs)	Baseline Pattern	Time Series
15234	2263587.866	275940.545	Inlet	NO	NO	963.99	969.99	6	0	0	0	0		
15374	2263633.873	275900.831	Inlet	NO	NO	967.48	970.08	2.6	0	0	0	0		
15469	2263667.944	275939.243	Inlet	NO	NO	969.81	970.76	0.95	0	0	0	0		
15909	2263768.422	276094.841	Junct	NO	NO	962.57	966.47	3.9	0	0	0	0		
15964	2263766.252	276148.227	Inlet	NO	NO	959.62	964.87	5.25	0	0	0	0		
16125	2263677.927	276143.236	Inlet	NO	NO	960.63	962.59	1.96	0	0	0	0		
16610	2263777.03	275875.261	Inlet	NO	NO	967.84	972.22	4.38	0	0	0	0		
16770	2263729.236	275753.155	Inlet	NO	NO	969.75	975.6	5.85	0	0	0	0		
17671	2263364.559	276113.288	Inlet	NO	NO	948.24	953.49	5.25	0	0	0	0		
18312	2263352.406	276200.31	Inlet	NO	NO	947.29	952.67	5.38	0	1	300	0		
18356	2263297.719	276142.15	Inlet	NO	NO	943.2	952.23	9.03	0	0	0	0		
18402	2263320.939	276118.496	Junct	NO	NO	945.58	953.32	7.74	0	0	0	0		
18726	2263718.446	275672.03	Inlet	NO	NO	973.96	978.31	4.35	0	0	0	0		
1885	2263177.231	275610.494	Inlet	NO	NO	906.3	912.35	6.05	0	0	0	0		
1896	2263146.868	275612.783	Inlet	NO	NO	904.36	911.56	7.2	0	0	0	0		
19657	2263577.692	275542.791	Inlet	NO	NO	955.58	959.93	4.35	0	0	0	0		
2002	2263056.671	275748.929	Inlet	NO	NO	897.88	899.78	1.9	0	1	10	0		
2002'	2263055.211	275744.748	OJunct	NO	NO	898.82	900.82	2	0	0	0	0		
20575	2263478.56	275542.444	Inlet	NO	NO	946.54	950.08	3.54	0	0	0	0		
20974	2263808	275218	Junct	NO	NO	975.25	983.1	7.85	0	0	0	0		
20985	2263809.389	275189.347	Inlet	NO	NO	978.38	983.08	4.7	0	0	0	0		
21199	2263487	275207	Inlet	NO	NO	954.3	960.12	5.82	0	0	0	0		
21325	2263262	275202	Inlet	NO	NO	937.46	943.644	6.184	0	0	0	0		
21426	2263391.44	275529.398	Junct	NO	NO	932.3	943.3	11	0	0	0	0		
21626	2263240	275363	Inlet	NO	NO	910.56	927.46	16.9	0	0	0	0		
21678	2263268	275332	Junct	NO	NO	926.94	938.14	11.2	0	0	0	0		

Table 2A: Junctions (continued...)

Name	X-Coordinate	Y-Coordinate	Tag	Inflows	Treatment	Invert Elev. (ft)	Rim Elev. (ft)	Depth (ft)	Initial Depth (ft)	Surcharge Depth (ft)	Ponded Area (ft²)	Baseline (cfs)	Baseline Pattern	Time Series
21705	2263284.822	275315.219	Inlet	NO	NO	938.43	941.98	3.55	0	0	0	0		
2249	2263014.309	275739.381	Inlet	NO	NO	887.16	899.96	12.8	0	0	0	0		
23025	2263897	275248	Inlet	NO	NO	979.35	984.83	5.48	0	0	0	0		
23037	2263864.868	275246.958	Inlet	NO	NO	976.57	985.09	8.52	0	0	0	0		
2358	2262888.094	275807.436	Inlet	NO	NO	885.98	893.28	7.3	0	0	0	0		
2374	2262883.928	275842.506	Inlet	NO	NO	886.12	893.12	7	0	0	0	0		
2425	2262867.434	275819.242	Junct	NO	NO	883.79	894.59	10.8	0	0	0	0		
24932	2263394	275122	Junct	NO	NO	939.32	946.47	7.15	0	0	0	0		
25477	2262619.619	275880.757	Outlet	NO	NO	866.82	880.5	13.68	0	0	0	0		
25478	2262486.892	276107.158	Inlet	NO	NO	837.53	866	28.47	0	3	1000	0		
25504	2263156.702	275799.516	Junct	NO	NO	933.1	940.66	7.56	0	0	0	0		
257	2263209.177	276174.92	Junct	NO	NO	940.39	951.32	10.93	0	0	0	0		
2732	2262836.633	275762.485	Junct	NO	NO	876.96	893.39	16.43	0	0	0	0		
3089	2262768.925	275950.419	Inlet	NO	NO	888.49	890.79	2.3	0	0	0	0		
31036	2263403	274997	Inlet	NO	NO	950.51	954.15	3.64	0	0	0	0		
31036'	2263404	274967	Inlet	NO	NO	951.29	954.24	2.95	0	0	0	0		
3372	2262662.588	275835.835	Inlet	NO	NO	882.86	888.76	5.9	0	1.5	500	0		
3381	2262682.336	275822.598	Inlet	NO	NO	880.54	888.59	8.05	0	1.67	500	0		
3424	2262669.749	275774.203	Inlet	NO	NO	885.05	890.3	5.25	0	0.5	15	0		
3449	2262610.504	275779.629	Inlet	NO	NO	871.72	890.06	18.34	0	0	0	0		
3596	2262584.897	275735.141	Inlet	NO	NO	873.97	891.84	17.87	0	0	0	0		
3615	2262638.933	275754.455	Inlet	NO	NO	885.71	890.71	5	0	0	0	0		
3824	2262656.077	275640.306	Inlet	NO	NO	889.05	899.9	10.85	0	0	0	0		
5172	2263223.037	275399.624	Inlet	NO	NO	920.24	927.59	7.35	0	0	0	0		
5191	2263186.259	275449.643	Inlet	NO	NO	914.79	924.14	9.35	0	0	0	0		
5218	2263190	275330	Inlet	NO	NO	927.34	933.24	5.9	0	0	0	0		

Table 2A: Junctions (continued...)

Name	X-Coordinate	Y-Coordinate	Tag	Inflows	Treatment	Invert Elev. (ft)	Rim Elev. (ft)	Depth (ft)	Initial Depth (ft)	Surcharge Depth (ft)	Ponded Area (ft²)	Baseline (cfs)	Baseline Pattern	Time Series
5230	2263195.89	275258.188	Inlet	NO	NO	929.03	938.08	9.05	0	0	0	0		
5246	2263152.795	275375.468	Inlet	NO	NO	924.03	929.58	5.55	0	0	0	0		
5526	2262961.966	275385.981	Inlet	NO	NO	938.6	941.89	3.29	0	0.5	4	0		
5571	2263089.371	275370.757	Inlet	NO	NO	936.99	941.99	5	0	0	0	0		
5604	2263149.927	275288.136	Inlet	NO	NO	935.84	941.84	6	0	0	0	0		
6078	2262436.893	275461.052	Junct	NO	NO	886.38	900.58	14.2	0	0	0	0		
6088	2262470.748	275446.295	Inlet	NO	NO	888.94	900.54	11.6	0	0	0	0		
6436	2262466.841	275345.818	Inlet	NO	NO	891.64	900.57	8.93	0	2.43	0	0		
6452	2262457.944	275351.026	Inlet	NO	NO	897.28	900.57	3.29	0	2.43	0	0		
6457	2262441.017	275359.924	Inlet	NO	NO	897.83	900.8	2.97	0	2.2	0	0		
6505	2262368.968	275353.414	Inlet	NO	NO	898.68	901.45	2.77	0	1	200	0		
7096	2262717.926	275938.266	Inlet	NO	NO	885.07	889.82	4.75	0	0	0	0		
7592	2262523.651	276301	Inlet	NO	NO	863.07	867.37	4.3	0	0.5	15	0		
7683	2262492.349	276369.609	Inlet	NO	NO	861.67	865.22	3.55	0	1	500	0		
7742	2262498.26	276271.911	Inlet	NO	NO	863.98	867.53	3.55	0	0.5	15	0		
7794	2262415.446	276222.11	Junct	NO	NO	832.49	867.59	35.1	0	0	0	0		
8667-J4	2261923.441	276206.384	INLET	NO	NO	852.76	858.11	5.35	0	0	0	0		
8697	2261857.98	276145.56	INLET	NO	NO	853.99	858.64	4.65	0	0	0	0		
8807	2261849.953	276046.023	INLET	NO	NO	855.48	859.53	4.05	0	0	0	0		
8903	2261822.661	275941.67	INLET	NO	NO	857.01	860.26	3.25	0	0	0	0		
9095	2263760.175	276287.767	Junct	NO	NO	952.36	959.13	6.77	0	0	0	0		
9253	2263570.997	276311.676	Inlet	NO	NO	944.06	948.6	4.54	0	1	15	0		
9264	2263572.69	276333.985	Inlet	NO	NO	942.7	948.71	6.01	0	1	15	0		
9409	2263432.441	276343.089	Inlet	NO	NO	941.68	949.68	8	0	0	0	0		
9627	2263280.039	276225.38	Inlet	NO	NO	946.2	950.3	4.1	0	0	0	0		
9645	2263258.164	276245.129	Inlet	NO	NO	940.71	950.24	9.53	0	0	0	0		

Table 2A: Junctions (continued...)

Name	X-Coordinate	Y-Coordinate	Tag	Inflows	Treatment	Invert Elev. (ft)	Rim Elev. (ft)	Depth (ft)	Initial Depth (ft)	Surcharge Depth (ft)	Ponded Area (ft²)	Baseline (cfs)	Baseline Pattern	Time Series
9733	2263243.549	276192.084	Junct	NO	NO	938.64	950.409	11.769	0	0	0	0		
J1	2263196.658	276667.451	Inlet	NO	NO	850.38	856	5.62	0	1.5	500	0		
J10	2263266	274056	Inlet	NO	NO	1008.97	1011.97	3	0	0	0	0		
J11	2263221.743	274086.177	Junct	NO	NO	1004.59	1007.591	3.001	0	0	0	0		
J12	2263219	274226	Junct	NO	NO	981.34	986.8	5.46	0	0	0	0		
J13	2263180	274236	Outlet	NO	NO	980.139	982.139	2	0	0	0	0		
J147	2263112.779	275951.599	Inlet	NO	NO	942.12	942.62	0.5	0	1	25	0		
J15	2263208.78	276632.029	Inlet	NO	NO	850.75	856	5.25	0	1.5	500	0		
J159	2262692.667	275841.476	Junct	NO	NO	870.22	889.08	18.86	0	0	0	0		
J16	2262622.477	275015.571	OJunct	NO	NO	910.168	911.268	1.1	0	0	0	0		
J163	2262720.473	275933.395	Junct	NO	NO	879.59	889.52	9.93	0	0	0	0		
J164	2262651.723	276050.843	Outlet	NO	NO	882.06	883.28	1.22	0	0	0	0		
J165	2262723.077	276045.635	Inlet	NO	NO	893.78	895.05	1.27	0	0	0	0		
J166	2262750.168	275948.353	Junct	NO	NO	880.78	889.4	8.62	0	0	0	0		
J167	2262941.124	275832.164	Inlet	NO	NO	894.56	895.3	0.74	0	0	0	0		
J168	2262748.136	275810.951	Junct	NO	NO	872.82	893.75	20.93	0	0	0	0		
J169	2263717.72	275466.377	OJunct	NO	NO	959.9	961.163	1.263	0	0	0	0		
J17	2262806.082	275942.835	OJunct	NO	NO	891.467	894.82	3.353	0	0	0	0		
J170	2263704.629	275282.644	OJunct	NO	NO	956.31	957.895	1.585	0	0	0	0		
J171	2263771.329	275285.499	Inlet	NO	NO	963.54	964.1	0.56	0	0	0	0		
J172	2263632.115	275276.059	Inlet	NO	NO	950.01	951.51	1.5	0	1	30	0		
J173	2263511.672	275257.722	Outlet	NO	NO	946.71	948.26	1.55	0	0	0	0		
J174	2263688.916	275554.917	OJunct	NO	NO	966.85	968.577	1.727	0	0	0	0		
J175	2263671.364	275595.126	Inlet	NO	NO	970.34	971.14	0.8	0	0	0	0		
J177	2262649.929	275865.37	Junct	NO	NO	867.85	882.96	15.11	0	0	0	0		
J179	2263072.121	274265.406	Outlet	NO	NO	976.793	977.793	1	0	0	0	0		

Table 2A: Junctions (continued...)

Name	X-Coordinate	Y-Coordinate	Tag	Inflows	Treatment	Invert Elev. (ft)	Rim Elev. (ft)	Depth (ft)	Initial Depth (ft)	Surcharge Depth (ft)	Ponded Area (ft²)	Baseline (cfs)	Baseline Pattern	Time Series
J18	2262572.113	275936.511	Outlet	NO	NO	860.437	872.52	12.083	0	0	0	0		
J180	2263151.234	275669.078	Inlet	NO	NO	907.77	908.27	0.5	0	0	0	0		
J182	2262918.118	275150.642	OJunct	NO	NO	942.74	943.84	1.1	0	0	0	0		
J183	2263169.392	275167.911	Outlet	NO	NO	941.38	941.88	0.5	0	0	0	0		
J19	2262723.473	275957.761	Junct	NO	NO	878.5	890.674	12.174	0	0	0	0		
J2	2263883	276339	Inlet	NO	NO	941.46	943.46	2	0	0	0	0		
J2.	2262029.955	276270.21	INLET	NO	NO	855.48	858.83	3.35	0	0	0	0		
J20	2262934.031	276024.44	Junct	NO	NO	931.17	939.1	7.93	0	0	0	0		
J21	2263182.989	276160.547	Junct	NO	NO	936.78	950.03	13.25	0	0	0	0		
J22	2262933.614	276027.622	Junct	NO	NO	932.68	940.081	7.401	0	0	0	0		
J23	2262921.622	276032.174	Junct	NO	NO	932.58	939.871	7.291	0	0	0	0		
J24	2262909.076	276025.845	Junct	NO	NO	929.5	940.355	10.855	0	0	0	0		
J25	2262741.879	275973.186	Junct	NO	NO	881	890.831	9.831	0	0	0	0		
J27	2262767.209	275989.941	Junct	NO	NO	881	898.921	17.921	0	0	0	0		
J28	2262735.392	275939.897	Junct	NO	NO	878.5	887.447	8.947	0	0	0	0		
J29	2262765.948	275977.84	Inlet	NO	NO	894.5	896.5	2	0	0	0	0		
J2-S	2262029.316	276266.961	OJunct	NO	NO	858.83	859.83	1	0	0	0	0		
J3	2263360.144	276673.22	Inlet	NO	NO	852.32	856.69	4.37	0	1.5	500	0		
J30	2262757.326	275953.262	Junct	NO	NO	880.78	895.563	14.783	0	0	0	0		
J31	2263339.475	275767.244	Inlet	NO	NO	948.103	948.77	0.667	0	0	0	0		
J32	2263318.401	275761.449	OJunct	NO	NO	944.803	945.903	1.1	0	0	0	0		
J33	2263173.848	275856.557	Inlet	NO	NO	941.663	942.163	0.5	0	1	10	0		
J34	2262874	275008	Junct	NO	NO	928.85	936.426	7.576	0	0	0	0		
J35	2262600.238	275891.408	OJunct	NO	NO	865.44	873	7.56	0	0	0	0		
J36	2262862.813	276002.988	OJunct	NO	NO	919.444	929.14	9.696	0	0	0	0		
J37	2262664.069	275799.013	OJunct	NO	NO	889.376	890.476	1.1	0	0	0	0		

Table 2A: Junctions (continued...)

Name	X-Coordinate	Y-Coordinate	Tag	Inflows	Treatment	Invert Elev. (ft)	Rim Elev. (ft)	Depth (ft)	Initial Depth (ft)	Surcharge Depth (ft)	Ponded Area (ft²)	Baseline (cfs)	Baseline Pattern	Time Series
J39	2263042.229	275159.172	OJunct	NO	NO	942.068	943.436	1.368	0	0	0	0		
J4	2262458.026	275744.358	Inlet	NO	NO	891.609	894	2.391	0	1.5	9	0		
J40	2263248.217	275725.251	OJunct	NO	NO	939.972	941.072	1.1	0	0	0	0		
J41	2263170.159	275816.749	OJunct	NO	NO	940.866	941.966	1.1	0	0	0	0		
J42	2263117.738	275767.161	OJunct	NO	NO	937.461	938.561	1.1	0	0	0	0		
J43	2262527.638	276026.953	OJunct	NO	NO	856.851	870	13.149	0	0	0	0		
J44	2262653.591	275625.085	Outlet	NO	NO	900.56	901.92	1.36	0	0	0	0		
J45	2262655.1	275615.467	Inlet	NO	NO	901	902.48	1.48	0	0	0	0		
J46	2262404.521	276328.891	OJunct	NO	NO	864.9	866	1.1	0	0	0	0		
J47	2263134.012	276980.126	OJunct	NO	NO	848.575	853.43	4.855	0	0	0	0		
J48	2263395.595	275022.361	OJunct	NO	NO	953.84	954.95	1.11	0	0	0	0		
J49	2262655.217	275836.793	OJunct	NO	NO	888.46	889.56	1.1	0	0	0	0		
J4-S	2261926.055	276203.77	OJunct	NO	NO	857.11	859.11	2	0	0	0	0		
J5	2262948	274907	Inlet	NO	NO	940.1	945.85	5.75	0	1	1000	0		
J55	2262634.159	275873.596	Junct	NO	NO	867.48	880.34	12.86	0	0	0	0		
J6	2262967	274876	Inlet	NO	NO	941.2	945.903	4.703	0	1	1000	0		
J7	2263007	274889	Inlet	NO	NO	942.46	945.968	3.508	0	1	1000	0		
J74	2262900.18	276017.526	Outlet	NO	NO	930.61	935.05	4.44	0	0	0	0		
J8	2262909	274943	Junct	NO	NO	938.5	944.752	6.252	0	0	0	0		
J9	2262840	275024	Outlet	NO	NO	926.22	936.22	10	0	0	0	0		
OL-10028	2263222.429	275991.829	OJunct	NO	NO	951.67	952.77	1.1	0	0	0	0		
OL-11213	2263080.335	275914.224	OJunct	NO	NO	941.95	943.05	1.1	0	0	0	0		
OL-11560	2263189.772	275832.861	OJunct	NO	NO	941.95	943.05	1.1	0	0	0	0		
OL-11842	2263210.778	275982.255	OJunct	NO	NO	951.69	952.79	1.1	0	0	0	0		
OL-11966	2263291.595	275887.65	OJunct	NO	NO	950.57	951.67	1.1	0	0	0	0		
OL-12300	2263255.041	275685.554	OJunct	NO	NO	939.4	940.841	1.441	0	0	0	0		

Table 2A: Junctions (continued...)

Name	X-Coordinate	Y-Coordinate	Tag	Inflows	Treatment	Invert Elev. (ft)	Rim Elev. (ft)	Depth (ft)	Initial Depth (ft)	Surcharge Depth (ft)	Ponded Area (ft²)	Baseline (cfs)	Baseline Pattern	Time Series
OL-12497	2263238.668	275765.54	OJunct	NO	NO	940.2	941.938	1.738	0	0	0	0		
OL-12678	2263270.917	275719.247	OJunct	NO	NO	940.17	941.27	1.1	0	0	0	0		
OL-12709	2263269.149	275697.262	OJunct	NO	NO	939.22	940.62	1.4	0	0	0	0		
OL-12956	2263478.946	275598.813	OJunct	NO	NO	950.08	951.18	1.1	0	0	0	0		
OL-13029	2263497.327	275621.527	OJunct	NO	NO	950.21	951.362	1.152	0	0	0	0		
OL-13138	2263429.797	275672.733	OJunct	NO	NO	948.63	949.73	1.1	0	0	0	0		
OL-13349	2263346.153	275847.959	OJunct	NO	NO	950.3	951.418	1.118	0	0	0	0		
OL-13528	2263302.663	275814.414	OJunct	NO	NO	947.97	949.07	1.1	0	0	0	0		
OL-13746	2263502.614	275604.575	OJunct	NO	NO	951.3	952.4	1.1	0	0	0	0		
OL-15964	2263762.97	276143.627	OJunct	NO	NO	964.77	966.033	1.263	0	0	0	0		
OL-16610	2263771.883	275876.332	OJunct	NO	NO	972.12	973.22	1.1	0	0	0	0		
OL-16770	2263723.912	275753.388	OJunct	NO	NO	975.5	976.6	1.1	0	0	0	0		
OL-18726	2263721.16	275676.563	OJunct	NO	NO	978.21	979.31	1.1	0	0	0	0		
OL-1885	2263173.253	275612.565	OJunct	NO	NO	912.25	913.35	1.1	0	0	0	0		
OL-1896	2263152.52	275609.973	OJunct	NO	NO	911.46	912.56	1.1	0	0	0	0		
OL-20985	2263810.74	275193.917	OJunct	NO	NO	982.98	984.08	1.1	0	0	0	0		
OL-21199	2263487.128	275202.815	OJunct	NO	NO	960.02	961.12	1.1	0	0	0	0		
OL-21325	2263268.234	275204.63	OJunct	NO	NO	943.54	944.64	1.1	0	0	0	0		
OL-2249	2263015.884	275742.164	OJunct	NO	NO	897.719	898.819	1.1	0	0	0	0		
OL-2358	2262890.186	275812.113	OJunct	NO	NO	893.18	894.28	1.1	0	0	0	0		
OL-2374	2262883.376	275839.094	OJunct	NO	NO	893.02	894.12	1.1	0	0	0	0		
OL-31036	2263406.12	274995.832	OJunct	NO	NO	953.78	955.16	1.38	0	0	0	0		
OL-31036'	2263407.087	274971.189	OJunct	NO	NO	954.13	955.23	1.1	0	0	0	0		
OL-3424	2262667.994	275769.325	OJunct	NO	NO	890.2	891.3	1.1	0	0	0	0		
OL-3449	2262612.938	275775.695	OJunct	NO	NO	889.96	891.06	1.1	0	0	0	0		
OL-3596	2262582.802	275736.731	OJunct	NO	NO	891.74	892.84	1.1	0	0	0	0		

Table 2A: Junctions (continued...)

Name	X-Coordinate	Y-Coordinate	Tag	Inflows	Treatment	Invert Elev. (ft)	Rim Elev. (ft)	Depth (ft)	Initial Depth (ft)	Surcharge Depth (ft)	Ponded Area (ft²)	Baseline (cfs)	Baseline Pattern	Time Series
OL-3615	2262640.431	275758.624	OJunct	NO	NO	890.61	891.71	1.1	0	0	0	0		
OL-5172	2263223.349	275405.509	OJunct	NO	NO	927.49	928.59	1.1	0	0	0	0		
OL-5191	2263181.736	275447.674	OJunct	NO	NO	924.04	925.14	1.1	0	0	0	0		
OL-5218	2263186.536	275326.398	OJunct	NO	NO	933.14	934.24	1.1	0	0	0	0		
OL-5230	2263201.086	275259.054	OJunct	NO	NO	937.98	939.08	1.1	0	0	0	0		
OL-5246	2263158.023	275373.718	OJunct	NO	NO	929.48	930.58	1.1	0	0	0	0		
OL-5526	2262962.267	275381.991	OJunct	NO	NO	941.89	943.1	1.21	0	0	0	0		
OL-5571	2263087.184	275367.448	OJunct	NO	NO	941.89	943.321	1.431	0	0	0	0		
OL-5604	2263146.326	275285.996	OJunct	NO	NO	941.74	943.184	1.444	0	0	0	0		
OL-6088	2262469.203	275443.412	OJunct	NO	NO	900.44	901.54	1.1	0	0	0	0		
OL-6436	2262465.988	275344.559	OJunct	NO	NO	900.47	902	1.53	0	1	0	0		
OL-6452	2262457.282	275349.932	OJunct	NO	NO	900.47	902	1.53	0	1	0	0		
OL-6457	2262439.955	275358.675	OJunct	NO	NO	900.7	902	1.3	0	1	0	0		
OL-6505	2262369.28	275355.92	OJunct	NO	NO	901.35	902.5	1.15	0	0	0	0		
OL-6505a	2262384.01	275396.515	OJunct	NO	NO	901.23	902.23	1	0	0	0	0		
OL-7096	2262714.482	275934.565	OJunct	NO	NO	889.72	890.82	1.1	0	0	0	0		
OL-7592	2262522.895	276296.131	OJunct	NO	NO	867.27	868.37	1.1	0	0	0	0		
OL-7683	2262490.788	276364.805	OJunct	NO	NO	865.12	866.22	1.1	0	1	1000	0		
OL-7742	2262502.842	276273.871	OJunct	NO	NO	867.43	868.53	1.1	0	0	0	0		
OL-9253a	2263574.604	276338.363	OJunct	NO	NO	948.316	949.416	1.1	0	0	0	0		
OL-9253b	2263559.701	276413.612	OJunct	NO	NO	944.247	945.347	1.1	0	0	0	0		
OL-9253c	2263636.283	276581.094	OJunct	NO	NO	888	889.1	1.1	0	0	0	0		
OL-9253d	2263582.493	276686.931	OJunct	NO	NO	888.001	889.101	1.1	0	0	0	0		
OL-9253e	2263566.526	276720.924	OJunct	NO	NO	863.833	864.933	1.1	0	0	0	0		
OL-9264	2263574.009	276331.557	OJunct	NO	NO	948.61	949.71	1.1	0	0	0	0		
OL-9409	2263432.945	276339.222	OJunct	NO	NO	949.58	950.68	1.1	0	0	0	0		

Table 2A: Junctions (continued...)

Name	X-Coordinate	Y-Coordinate	Tag	Inflows	Treatment	Invert Elev. (ft)	Rim Elev. (ft)	Depth (ft)	Initial Depth (ft)	Surcharge Depth (ft)	Ponded Area (ft²)	Baseline (cfs)	Baseline Pattern	Time Series
OL-J1	2263205.534	276671.75	OJunct	NO	NO	855.825	856.925	1.1	0	0	0	0		
OL-J10	2263262.205	274055.562	OJunct	NO	NO	1011.6	1012.7	1.1	0	0	0	0		
OL-J10a	2263240.667	274092.987	OJunct	NO	NO	1010.1	1011.2	1.1	0	0	0	0		
OL-J10b	2263158.026	274185.404	OJunct	NO	NO	981.75	982.85	1.1	0	0	0	0		
OL-J14	2263358.081	276614.44	OJunct	NO	NO	855.9	858	2.1	0	0	0	0		
OL-J147	2263110.075	275951.692	OJunct	NO	NO	942.62	943.72	1.1	0	0	0	0		
OL-J15	2263219.775	276638.802	OJunct	NO	NO	855.896	856.996	1.1	0	0	0	0		
OL-J172	2263628.408	275279.761	OJunct	NO	NO	951	952.1	1.1	0	0	0	0		
OL-J3	2263346.069	276677.779	OJunct	NO	NO	857.09	858.19	1.1	0	0	0	0		
OL-J33	2263169.982	275856.608	OJunct	NO	NO	942.163	943.263	1.1	0	0	0	0		
OL-J37	2263196.698	275196.361	OJunct	NO	NO	941.039	942.139	1.1	0	0	0	0		
OL-J40	2263452.015	275632.514	OJunct	NO	NO	948.514	949.614	1.1	0	0	0	0		
OL-J48	2263634.823	275593.819	OJunct	NO	NO	968.322	969.422	1.1	0	0	0	0		
OL-J49	2263607.595	275598.536	OJunct	NO	NO	967.672	968.772	1.1	0	0	0	0		
OL-J4a	2262457.146	275750.607	OJunct	NO	NO	894.5	895.5	1	0	0	0	0		
OL-J4b	2262479.146	275765.966	OJunct	NO	NO	892.469	893.469	1	0	0	0	0		
OL-J4c	2262524.816	275795.91	OJunct	NO	NO	881.808	882.808	1	0	0	0	0		
OL-J4d	2262538.568	275936.418	OJunct	NO	NO	871.789	872.789	1	0	0	0	0		
OL-J5	2262952.003	274905.114	OJunct	NO	NO	945.75	946.85	1.1	0	1	500	0		
OL-J50	2263358.026	275542.817	OJunct	NO	NO	940.647	941.747	1.1	0	0	0	0		
OL-J6	2262969.854	274874.512	OJunct	NO	NO	945.803	946.903	1.1	0	1	15	0		
OL-J7	2263005.02	274885.921	OJunct	NO	NO	945.868	946.968	1.1	0	1	15	0		
OL-J72	2262530.914	275162.93	OJunct	NO	NO	905.6	906.6	1	0	1	0	0		
OL-J8	2262913.576	274948.379	OJunct	NO	NO	944.5	945.6	1.1	0	0	0	0		

Table 2B: Junctions

Name	Scale Factor	Average Value (cfs)	Time Pattern 1	Time Pattern 2	Time Pattern 3	Time Pattern 4	Hydrograph	Sewershed Area (ac)	Avg. Depth (ft)	Max. Depth (ft)	Max. HGL (ft)	Time Max. HGL (M/D/Y)	Rep. Max. Depth (ft)	Max. Lat. Inflow (cfs)
10028	1	0						0	0.03	0.27	947.74	05/01/2022 00:18 AM	0.27	0
1024	1	0						0	0.07	0.82	887.69	05/01/2022 00:18 AM	0.82	0
1038	1	0						0	0.02	0.15	896.06	05/01/2022 00:18 AM	0.15	0.51
10393	1	0						0	0.07	0.73	939.83	05/01/2022 00:16 AM	0.73	0
11213	1	0						0	0.03	0.29	936.39	05/01/2022 00:06 AM	0.29	0
11254	1	0						0	0.11	2.74	935.35	05/01/2022 00:07 AM	2.23	0
11560	1	0						0	0.03	0.4	937.2	05/01/2022 00:08 AM	0.4	0.72
11588	1	0						0	0.01	0.73	935.25	05/01/2022 00:12 AM	0.73	0
11842	1	0						0	0.03	0.31	947.48	05/01/2022 00:18 AM	0.31	0
11966	1	0						0	0.05	0.62	946.65	05/01/2022 00:13 AM	0.62	0
12000	1	0						0	0.01	0.13	838.13	05/01/2022 00:28 AM	0.13	0
12000-1	1	0						0	0	0.05	853.05	05/01/2022 00:30 AM	0.05	0
12000-2	1	0						0	0.06	0.66	852.37	05/01/2022 00:24 AM	0.66	0.55
12161	1	0						0	0	0	938.99	05/01/2022 00:00 AM	0	0
12275	1	0						0	0.04	1.66	935.26	05/01/2022 00:12 AM	1.65	0
12300	1	0						0	0.09	1.06	935.5	05/01/2022 00:13 AM	1.06	0
12497	1	0						0	0.08	1.08	937.31	05/01/2022 00:13 AM	1.08	0
12514	1	0						0	0.04	0.41	942.04	05/01/2022 00:12 AM	0.41	0
12678	1	0						0	0.08	1.1	936.78	05/01/2022 00:13 AM	1.1	0
12709	1	0						0	0.08	0.99	936.31	05/01/2022 00:13 AM	0.99	0
12759	1	0						0	0	0	943.02	05/01/2022 00:00 AM	0	0
12956	1	0						0	0.02	0.2	946.38	05/01/2022 00:12 AM	0.2	0
12957	1	0						0	0.97	1.43	942.45	05/01/2022 00:09 AM	1.43	0
13029	1	0						0	0.04	0.41	944.68	05/01/2022 00:12 AM	0.41	0.73
13138	1	0						0	0.03	0.39	942.72	05/01/2022 00:06 AM	0.39	1.19
13349	1	0						0	0.03	0.34	946.19	05/01/2022 00:06 AM	0.34	0.59

Table 2B: Junctions (continued...)

Name	Scale Factor	Average Value (cfs)	Time Pattern 1	Time Pattern 2	Time Pattern 3	Time Pattern 4	Hydrograph	Sewershed Area (ac)	Avg. Depth (ft)	Max. Depth (ft)	Max. HGL (ft)	Time Max. HGL (M/D/Y)	Rep. Max. Depth (ft)	Max. Lat. Inflow (cfs)
13528	1	0						0	0.03	0.42	944.58	05/01/2022 00:12 AM	0.42	0
13746	1	0						0	0.02	0.21	947.01	05/01/2022 00:12 AM	0.21	0
14383	1	0						0	0.01	0.14	971.77	05/01/2022 00:12 AM	0.14	0.36
14448	1	0						0	0.03	0.4	966.34	05/01/2022 00:12 AM	0.4	0
14608	1	0						0	0.04	0.54	969.45	05/01/2022 00:06 AM	0.54	0.92
14961	1	0						0	0.03	0.38	946.94	05/01/2022 00:13 AM	0.38	0
15025	1	0						0	0.03	0.27	956.29	05/01/2022 00:12 AM	0.27	0.11
15075	1	0						0	0.03	0.32	959.45	05/01/2022 00:12 AM	0.32	0.08
15234	1	0						0	0.04	0.43	964.42	05/01/2022 00:12 AM	0.43	0.15
15374	1	0						0	0.01	0.14	967.62	05/01/2022 00:18 AM	0.14	0.2
15469	1	0						0	0.01	0.09	969.9	05/01/2022 00:12 AM	0.09	0.09
15909	1	0						0	0.03	0.35	962.92	05/01/2022 00:18 AM	0.35	0
15964	1	0						0	0.05	0.57	960.19	05/01/2022 00:13 AM	0.57	0
16125	1	0						0	0.05	0.51	961.14	05/01/2022 00:12 AM	0.51	1.13
16610	1	0						0	0.04	0.42	968.26	05/01/2022 00:18 AM	0.42	0
16770	1	0						0	0.03	0.35	970.1	05/01/2022 00:13 AM	0.35	0
17671	1	0						0	0.02	0.19	948.43	05/01/2022 00:24 AM	0.19	0.19
18312	1	0						0	0.04	0.39	947.68	05/01/2022 00:18 AM	0.39	0.72
18356	1	0						0	0.03	0.35	943.55	05/01/2022 00:18 AM	0.35	0.22
18402	1	0						0	0.03	0.31	945.89	05/01/2022 00:13 AM	0.31	0
18726	1	0						0	0.01	0.11	974.07	05/01/2022 00:12 AM	0.11	0
1885	1	0						0	0.1	1.17	907.47	05/01/2022 00:13 AM	1.17	0
1896	1	0						0	0.06	0.73	905.09	05/01/2022 00:13 AM	0.73	0
19657	1	0						0	0.01	0.14	955.72	05/01/2022 00:06 AM	0.14	0.44
2002	1	0						0	0.08	1.11	898.99	05/01/2022 00:13 AM	1.11	0.93
2002'	1	0						0	0	0.14	898.96	05/01/2022 00:14 AM	0.14	0

Table 2B: Junctions (continued...)

Name	Scale Factor	Average Value (cfs)	Time Pattern 1	Time Pattern 2	Time Pattern 3	Time Pattern 4	Hydrograph	Sewershed Area (ac)	Avg. Depth (ft)	Max. Depth (ft)	Max. HGL (ft)	Time Max. HGL (M/D/Y)	Rep. Max. Depth (ft)	Max. Lat. Inflow (cfs)
20575	1	0						0	0.02	0.22	946.76	05/01/2022 00:12 AM	0.22	0.66
20974	1	0						0	0.06	0.54	975.79	05/01/2022 00:18 AM	0.54	0
20985	1	0						0	0.02	0.23	978.61	05/01/2022 00:10 AM	0.23	0
21199	1	0						0	0.06	0.54	954.84	05/01/2022 00:18 AM	0.54	0
21325	1	0						0	0.06	0.6	938.06	05/01/2022 00:18 AM	0.6	0
21426	1	0						0	0.06	0.72	933.02	05/01/2022 00:12 AM	0.72	0
21626	1	0						0	0.11	1.08	911.64	05/01/2022 00:19 AM	1.08	0.31
21678	1	0						0	0.06	0.6	927.54	05/01/2022 00:23 AM	0.6	0
21705	1	0						0	0.05	0.59	939.02	05/01/2022 00:12 AM	0.59	1.47
2249	1	0						0	0.04	0.47	887.63	05/01/2022 00:12 AM	0.47	0
23025	1	0						0	0.06	0.56	979.91	05/01/2022 00:18 AM	0.56	7.25
23037	1	0						0	0.08	0.83	977.4	05/01/2022 00:18 AM	0.82	0.59
2358	1	0						0	0.05	0.66	886.64	05/01/2022 00:13 AM	0.66	0
2374	1	0						0	0.05	0.6	886.72	05/01/2022 00:14 AM	0.6	0
2425	1	0						0	0.04	0.46	884.25	05/01/2022 00:13 AM	0.46	0
24932	1	0						0	0.07	0.71	940.03	05/01/2022 00:18 AM	0.71	0
25477	1	0						0	0.08	0.9	867.72	05/01/2022 00:19 AM	0.9	0
25478	1	0						0	0.4	5.11	842.64	05/01/2022 00:21 AM	5.11	3.26
25504	1	0						0	0.1	2.15	935.25	05/01/2022 00:12 AM	2.15	0
257	1	0						0	0.13	1.58	941.97	05/01/2022 00:15 AM	1.58	0
2732	1	0						0	0.13	1.36	878.32	05/01/2022 00:19 AM	1.36	0
3089	1	0						0	0.06	0.78	889.27	05/01/2022 00:16 AM	0.78	0.11
31036	1	0						0	0.07	0.69	951.2	05/01/2022 00:18 AM	0.69	0
31036'	1	0						0	0.09	0.73	952.02	05/01/2022 00:18 AM	0.73	0
3372	1	0						0	0	0	882.86	05/01/2022 00:00 AM	0	0
3381	1	0						0	0.05	0.57	881.11	05/01/2022 00:18 AM	0.57	0

Table 2B: Junctions (continued...)

Name	Scale Factor	Average Value (cfs)	Time Pattern 1	Time Pattern 2	Time Pattern 3	Time Pattern 4	Hydrograph	Sewershed Area (ac)	Avg. Depth (ft)	Max. Depth (ft)	Max. HGL (ft)	Time Max. HGL (M/D/Y)	Rep. Max. Depth (ft)	Max. Lat. Inflow (cfs)
3424	1	0						0	0.05	0.48	885.53	05/01/2022 00:13 AM	0.48	0
3449	1	0						0	0.19	2.26	873.98	05/01/2022 00:21 AM	2.26	0
3596	1	0						0	0.2	2.32	876.29	05/01/2022 00:21 AM	2.32	0
3615	1	0						0	0.06	0.59	886.3	05/01/2022 00:14 AM	0.59	0
3824	1	0						0	0.02	0.24	889.29	05/01/2022 00:12 AM	0.23	0.5
5172	1	0						0	0.07	0.85	921.09	05/01/2022 00:12 AM	0.85	0
5191	1	0						0	0.07	0.84	915.63	05/01/2022 00:13 AM	0.84	0
5218	1	0						0	0.04	0.4	927.74	05/01/2022 00:18 AM	0.4	0
5230	1	0						0	0.21	3.24	932.27	05/01/2022 00:19 AM	3.24	0
5246	1	0						0	0.01	0.14	924.17	05/01/2022 00:12 AM	0.14	0
5526	1	0						0	0.04	0.45	939.05	05/01/2022 00:06 AM	0.44	0.7
5571	1	0						0	0.06	0.78	937.77	05/01/2022 00:07 AM	0.78	1.57
5604	1	0						0	0.04	0.47	936.31	05/01/2022 00:07 AM	0.47	0
6078	1	0						0	0.15	1.54	887.92	05/01/2022 00:21 AM	1.54	0
6088	1	0						0	0.03	0.3	889.24	05/01/2022 00:12 AM	0.3	0
6436	1	0						0	0.16	1.81	893.45	05/01/2022 00:21 AM	1.81	0
6452	1	0						0	0.2	3.39	900.67	05/01/2022 00:24 AM	3.39	0
6457	1	0						0	0.13	2.98	900.81	05/01/2022 00:24 AM	2.98	0
6505	1	0						0	0.23	2.86	901.54	05/01/2022 00:18 AM	2.86	0
7096	1	0						0	0.01	0.15	885.22	05/01/2022 00:14 AM	0.15	0
7592	1	0						0	0.06	0.6	863.67	05/01/2022 00:16 AM	0.6	0
7683	1	0						0	0.07	0.76	862.43	05/01/2022 00:16 AM	0.76	0
7742	1	0						0	0.03	0.32	864.3	05/01/2022 00:12 AM	0.32	0
7794	1	0						0	4.11	6.96	839.45	05/01/2022 00:21 AM	6.96	0
8667-J4	1	0						0	0.08	0.82	853.58	05/01/2022 00:23 AM	0.82	0.83
8697	1	0						0	0.08	0.77	854.76	05/01/2022 00:23 AM	0.77	0.46

Table 2B: Junctions (continued...)

Name	Scale Factor	Average Value (cfs)	Time Pattern 1	Time Pattern 2	Time Pattern 3	Time Pattern 4	Hydrograph	Sewershed Area (ac)	Avg. Depth (ft)	Max. Depth (ft)	Max. HGL (ft)	Time Max. HGL (M/D/Y)	Rep. Max. Depth (ft)	Max. Lat. Inflow (cfs)
8807	1	0						0	0.08	0.77	856.25	05/01/2022 00:23 AM	0.77	2.33
8903	1	0						0	0.09	1.07	858.08	05/01/2022 00:24 AM	1.07	8.16
9095	1	0						0	0.05	0.49	952.85	05/01/2022 00:13 AM	0.49	0
9253	1	0						0	0.08	2.82	946.88	05/01/2022 00:12 AM	2.26	0
9264	1	0						0	0.17	4.1	946.8	05/01/2022 00:12 AM	3.57	0
9409	1	0						0	0.17	3.34	945.02	05/01/2022 00:12 AM	3.08	0
9627	1	0						0	0.03	0.29	946.49	05/01/2022 00:12 AM	0.29	0.93
9645	1	0						0	0.16	1.98	942.69	05/01/2022 00:15 AM	1.98	0.37
9733	1	0						0	0.03	0.28	938.92	05/01/2022 00:18 AM	0.28	0
J1	1	0						0	0.34	4.87	855.25	05/01/2022 00:06 AM	4.37	0
J10	1	0						0	0.04	0.35	1009.32	05/01/2022 00:12 AM	0.35	0
J11	1	0						0	0.03	0.26	1004.85	05/01/2022 00:12 AM	0.26	0
J12	1	0						0	0.05	0.47	981.81	05/01/2022 00:12 AM	0.47	0
J13	1	0						0	0.03	0.38	980.52	05/01/2022 00:12 AM	0.38	0.48
J147	1	0						0	0.02	0.33	942.45	05/01/2022 00:07 AM	0.33	0
J15	1	0						0	0.36	4.8	855.55	05/01/2022 00:06 AM	4.74	0
J159	1	0						0	0.17	1.86	872.08	05/01/2022 00:19 AM	1.86	0
J16	1	0						0	0.11	0.87	911.03	05/01/2022 00:19 AM	0.87	7.33
J163	1	0						0	0.05	0.55	880.14	05/01/2022 00:16 AM	0.55	0
J164	1	0						0	0.01	0.12	882.18	05/01/2022 00:15 AM	0.12	0.91
J165	1	0						0	0.01	0.1	893.88	05/01/2022 00:18 AM	0.1	0.23
J166	1	0						0	0	0	880.78	05/01/2022 00:00 AM	0	0
J167	1	0						0	0.01	0.14	894.7	05/01/2022 00:18 AM	0.14	0.98
J168	1	0						0	0.14	1.52	874.34	05/01/2022 00:19 AM	1.52	0
J169	1	0						0	0.02	0.21	960.11	05/01/2022 00:18 AM	0.21	0.95
J17	1	0						0	0.07	0.92	892.39	05/01/2022 00:16 AM	0.92	1.35

Table 2B: Junctions (continued...)

Name	Scale Factor	Average Value (cfs)	Time Pattern 1	Time Pattern 2	Time Pattern 3	Time Pattern 4	Hydrograph	Sewershed Area (ac)	Avg. Depth (ft)	Max. Depth (ft)	Max. HGL (ft)	Time Max. HGL (M/D/Y)	Rep. Max. Depth (ft)	Max. Lat. Inflow (cfs)
J170	1	0						0	0.02	0.21	956.52	05/01/2022 00:18 AM	0.21	1.65
J171	1	0						0	0	0.03	963.57	05/01/2022 00:18 AM	0.03	0.12
J172	1	0						0	0.1	1.18	951.19	05/01/2022 00:18 AM	1.18	0.98
J173	1	0						0	0.03	0.36	947.07	05/01/2022 00:19 AM	0.36	0.4
J174	1	0						0	0.01	0.06	966.91	05/01/2022 00:18 AM	0.06	0.24
J175	1	0						0	0	0.02	970.36	05/01/2022 00:18 AM	0.02	0.05
J177	1	0						0	0.64	3.52	871.37	05/01/2022 00:19 AM	3.52	0
J179	1	0						0	0.03	0.28	977.07	05/01/2022 00:18 AM	0.28	5.91
J18	1	0						0	0.12	1.26	861.69	05/01/2022 00:19 AM	1.26	0.15
J180	1	0						0	0	0.05	907.82	05/01/2022 00:18 AM	0.05	0.58
J182	1	0						0	0	0	942.74	05/01/2022 00:00 AM	0	0
J183	1	0						0	0.01	0.11	941.49	05/01/2022 00:13 AM	0.11	1.24
J19	1	0						0	0	0	878.5	05/01/2022 00:00 AM	0	0
J2	1	0						0	0.04	0.44	941.9	05/01/2022 00:12 AM	0.44	5.11
J2.	1	0						0	0	0	855.48	05/01/2022 00:00 AM	0	0
J20	1	0						0	0.11	1.28	932.45	05/01/2022 00:15 AM	1.28	0
J21	1	0						0	0.03	0.34	937.12	05/01/2022 00:18 AM	0.34	0
J22	1	0						0	0.04	0.42	933.1	05/01/2022 00:18 AM	0.42	0
J23	1	0						0	0.03	0.29	932.87	05/01/2022 00:18 AM	0.29	0
J24	1	0						0	0.02	0.22	929.72	05/01/2022 00:19 AM	0.22	0
J25	1	0						0	0.03	0.27	881.27	05/01/2022 00:19 AM	0.27	0
J27	1	0						0	0.05	0.52	881.52	05/01/2022 00:19 AM	0.52	0
J28	1	0						0	0	0	878.5	05/01/2022 00:00 AM	0	0
J29	1	0						0	0	0.02	894.52	05/01/2022 00:24 AM	0.02	0.03
J2-S	1	0						0	0	0	858.83	05/01/2022 00:00 AM	0	0
J3	1	0						0	0.29	4.15	856.47	05/01/2022 00:23 AM	4.15	0

Table 2B: Junctions (continued...)

Name	Scale Factor	Average Value (cfs)	Time Pattern 1	Time Pattern 2	Time Pattern 3	Time Pattern 4	Hydrograph	Sewershed Area (ac)	Avg. Depth (ft)	Max. Depth (ft)	Max. HGL (ft)	Time Max. HGL (M/D/Y)	Rep. Max. Depth (ft)	Max. Lat. Inflow (cfs)
J30	1	0						0	3.9	4.73	885.51	05/01/2022 00:16 AM	4.73	0
J31	1	0						0	0	0.05	948.15	05/01/2022 00:06 AM	0.05	0.52
J32	1	0						0	0.01	0.07	944.87	05/01/2022 00:06 AM	0.07	0
J33	1	0						0	0.08	0.68	942.35	05/01/2022 00:07 AM	0.68	0
J34	1	0						0	0.11	1.16	930.01	05/01/2022 00:18 AM	1.16	0
J35	1	0						0	0.13	1.13	866.57	05/01/2022 00:19 AM	1.13	0.76
J36	1	0						0	0.02	0.24	919.69	05/01/2022 00:15 AM	0.24	0
J37	1	0						0	0.01	0.17	889.55	05/01/2022 00:18 AM	0.17	0
J39	1	0						0	0.01	0.1	942.17	05/01/2022 00:14 AM	0.1	0.54
J4	1	0						0	0.04	0.44	892.04	05/01/2022 00:18 AM	0.43	0
J40	1	0						0	0	0.06	940.03	05/01/2022 00:12 AM	0.06	0
J41	1	0						0	0	0.06	940.93	05/01/2022 00:07 AM	0.06	0
J42	1	0						0	0	0.09	937.55	05/01/2022 00:08 AM	0.09	0
J43	1	0						0	0.08	0.76	857.61	05/01/2022 00:20 AM	0.76	0
J44	1	0						0	0.02	0.13	900.69	05/01/2022 00:12 AM	0.13	0
J45	1	0						0	0.02	0.17	901.17	05/01/2022 00:12 AM	0.17	0.22
J46	1	0						0	0	0.02	864.92	05/01/2022 00:19 AM	0.02	0
J47	1	0						0	0	0.1	848.67	05/01/2022 00:25 AM	0.1	0
J48	1	0						0	0.02	0.28	954.12	05/01/2022 00:18 AM	0.28	0
J49	1	0						0	0	0	888.46	05/01/2022 00:00 AM	0	0
J4-S	1	0						0	0	0	857.11	05/01/2022 00:00 AM	0	0
J5	1	0						0	0.13	1.4	941.5	05/01/2022 00:18 AM	1.4	0
J55	1	0						0	0.23	2.48	869.96	05/01/2022 00:19 AM	2.48	0
J6	1	0						0	0.11	1.26	942.46	05/01/2022 00:18 AM	1.26	0
J7	1	0						0	0.07	0.82	943.28	05/01/2022 00:19 AM	0.82	0
J74	1	0						0	0.02	0.25	930.86	05/01/2022 00:15 AM	0.25	0.27

Table 2B: Junctions (continued...)

Name	Scale Factor	Average Value (cfs)	Time Pattern 1	Time Pattern 2	Time Pattern 3	Time Pattern 4	Hydrograph	Sewershed Area (ac)	Avg. Depth (ft)	Max. Depth (ft)	Max. HGL (ft)	Time Max. HGL (M/D/Y)	Rep. Max. Depth (ft)	Max. Lat. Inflow (cfs)
J8	1	0						0	0.09	0.99	939.49	05/01/2022 00:18 AM	0.99	0
J9	1	0						0	0.1	1.03	927.25	05/01/2022 00:18 AM	1.03	1.97
OL-10028	1	0						0	0.01	0.07	951.74	05/01/2022 00:18 AM	0.07	0.31
OL-11213	1	0						0	0.02	0.26	942.21	05/01/2022 00:06 AM	0.26	3.09
OL-11560	1	0						0	0.01	0.16	942.11	05/01/2022 00:07 AM	0.16	0
OL-11842	1	0						0	0	0.04	951.73	05/01/2022 00:06 AM	0.04	0.14
OL-11966	1	0						0	0.03	0.39	950.96	05/01/2022 00:13 AM	0.39	2.52
OL-12300	1	0						0	0.01	0.18	939.58	05/01/2022 00:12 AM	0.17	0.51
OL-12497	1	0						0	0	0.06	940.26	05/01/2022 00:12 AM	0.06	0.25
OL-12678	1	0						0	0.01	0.16	940.33	05/01/2022 00:12 AM	0.16	0.68
OL-12709	1	0						0	0.31	0.47	939.69	05/01/2022 00:12 AM	0.47	1.65
OL-12956	1	0						0	0.02	0.2	950.28	05/01/2022 00:12 AM	0.2	0.41
OL-13029	1	0						0	0.01	0.07	950.28	05/01/2022 00:12 AM	0.07	0.15
OL-13138	1	0						0	0.01	0.12	948.75	05/01/2022 00:06 AM	0.12	0.68
OL-13349	1	0						0	0	0.03	950.33	05/01/2022 00:06 AM	0.03	0.1
OL-13528	1	0						0	0.01	0.1	948.07	05/01/2022 00:06 AM	0.1	0.42
OL-13746	1	0						0	0.02	0.16	951.46	05/01/2022 00:12 AM	0.16	0.24
OL-15964	1	0						0	0.01	0.13	964.9	05/01/2022 00:12 AM	0.13	2.54
OL-16610	1	0						0	0.01	0.15	972.27	05/01/2022 00:18 AM	0.15	1.03
OL-16770	1	0						0	0.01	0.13	975.63	05/01/2022 00:18 AM	0.13	0.87
OL-18726	1	0						0	0	0.05	978.26	05/01/2022 00:12 AM	0.05	0.2
OL-1885	1	0						0	0.01	0.17	912.42	05/01/2022 00:14 AM	0.17	0.82
OL-1896	1	0						0	0.02	0.24	911.7	05/01/2022 00:12 AM	0.24	4.75
OL-20985	1	0						0	0.01	0.15	983.13	05/01/2022 00:10 AM	0.15	1.35
OL-21199	1	0						0	0.01	0.1	960.12	05/01/2022 00:06 AM	0.1	0.53
OL-21325	1	0						0	0.01	0.16	943.7	05/01/2022 00:09 AM	0.16	0.97

Table 2B: Junctions (continued...)

Name	Scale Factor	Average Value (cfs)	Time Pattern 1	Time Pattern 2	Time Pattern 3	Time Pattern 4	Hydrograph	Sewershed Area (ac)	Avg. Depth (ft)	Max. Depth (ft)	Max. HGL (ft)	Time Max. HGL (M/D/Y)	Rep. Max. Depth (ft)	Max. Lat. Inflow (cfs)
OL-2249	1	0						0	0.02	0.23	897.95	05/01/2022 00:12 AM	0.23	0.38
OL-2358	1	0						0	0.01	0.22	893.4	05/01/2022 00:12 AM	0.22	0.92
OL-2374	1	0						0	0.01	0.22	893.24	05/01/2022 00:14 AM	0.22	0.51
OL-31036	1	0						0	0.05	0.55	954.33	05/01/2022 00:18 AM	0.55	1.2
OL-31036'	1	0						0	0.04	0.35	954.48	05/01/2022 00:18 AM	0.35	20.04
OL-3424	1	0						0	0.01	0.17	890.37	05/01/2022 00:12 AM	0.17	1.23
OL-3449	1	0						0	0.01	0.1	890.06	05/01/2022 00:06 AM	0.09	0.39
OL-3596	1	0						0	0.03	0.29	892.03	05/01/2022 00:18 AM	0.29	5.21
OL-3615	1	0						0	0.02	0.22	890.83	05/01/2022 00:18 AM	0.22	2.33
OL-5172	1	0						0	0.01	0.16	927.65	05/01/2022 00:12 AM	0.16	1.24
OL-5191	1	0						0	0.01	0.19	924.23	05/01/2022 00:13 AM	0.19	0.5
OL-5218	1	0						0	0.01	0.13	933.27	05/01/2022 00:12 AM	0.13	0.79
OL-5230	1	0						0	0.01	0.12	938.1	05/01/2022 00:12 AM	0.12	0.44
OL-5246	1	0						0	0.01	0.08	929.56	05/01/2022 00:12 AM	0.08	0.37
OL-5526	1	0						0	0.01	0.12	942.01	05/01/2022 00:06 AM	0.12	0.79
OL-5571	1	0						0	0.01	0.14	942.03	05/01/2022 00:07 AM	0.14	1.1
OL-5604	1	0						0	0	0.06	941.8	05/01/2022 00:07 AM	0.06	0.29
OL-6088	1	0						0	0.01	0.12	900.56	05/01/2022 00:12 AM	0.12	0.91
OL-6436	1	0						0	0.03	0.3	900.77	05/01/2022 00:24 AM	0.3	0
OL-6452	1	0						0	0.02	0.3	900.77	05/01/2022 00:24 AM	0.3	0
OL-6457	1	0						0	0.01	0.14	900.84	05/01/2022 00:24 AM	0.14	0
OL-6505	1	0						0	0.02	0.2	901.55	05/01/2022 00:18 AM	0.2	2.97
OL-6505a	1	0						0	0	0.02	901.25	05/01/2022 00:18 AM	0.02	0
OL-7096	1	0						0	0.01	0.18	889.9	05/01/2022 00:14 AM	0.18	0.69
OL-7592	1	0						0	0.02	0.23	867.5	05/01/2022 00:18 AM	0.23	1.71
OL-7683	1	0						0	0.01	0.18	865.3	05/01/2022 00:18 AM	0.18	0.56

Table 2B: Junctions (continued...)

Name	Scale Factor	Average Value (cfs)	Time Pattern 1	Time Pattern 2	Time Pattern 3	Time Pattern 4	Hydrograph	Sewershed Area (ac)	Avg. Depth (ft)	Max. Depth (ft)	Max. HGL (ft)	Time Max. HGL (M/D/Y)	Rep. Max. Depth (ft)	Max. Lat. Inflow (cfs)
OL-7742	1	0						0	0.01	0.14	867.57	05/01/2022 00:12 AM	0.14	0.99
OL-9253a	1	0						0	0	0	948.32	05/01/2022 00:00 AM	0	0
OL-9253b	1	0						0	0	0	944.25	05/01/2022 00:00 AM	0	0
OL-9253c	1	0						0	0	0	888	05/01/2022 00:00 AM	0	0
OL-9253d	1	0						0	0	0	888	05/01/2022 00:00 AM	0	0
OL-9253e	1	0						0	0	0	863.83	05/01/2022 00:00 AM	0	0
OL-9264	1	0						0	0.01	0.18	948.79	05/01/2022 00:17 AM	0.18	0.57
OL-9409	1	0						0	0	0.07	949.65	05/01/2022 00:06 AM	0.07	0.3
OL-J1	1	0						0	0.02	0.28	856.1	05/01/2022 00:13 AM	0.28	3.05
OL-J10	1	0						0	0.03	0.28	1011.88	05/01/2022 00:12 AM	0.28	7.91
OL-J10a	1	0						0	0.01	0.19	1010.29	05/01/2022 00:12 AM	0.19	0
OL-J10b	1	0						0	0.03	0.34	982.09	05/01/2022 00:12 AM	0.34	0
OL-J14	1	0						0	0.06	1.04	856.94	05/01/2022 00:23 AM	1.03	11.83
OL-J147	1	0						0	0	0.04	942.66	05/01/2022 00:06 AM	0.04	0.36
OL-J15	1	0						0	0.04	0.37	856.27	05/01/2022 00:13 AM	0.37	7.78
OL-J172	1	0						0	0.01	0.18	951.18	05/01/2022 00:18 AM	0.18	0
OL-J3	1	0						0	0.03	0.33	857.42	05/01/2022 00:12 AM	0.33	10.4
OL-J33	1	0						0	0.01	0.18	942.35	05/01/2022 00:07 AM	0.18	1.26
OL-J37	1	0						0	0.02	0.15	941.19	05/01/2022 00:13 AM	0.15	1.01
OL-J40	1	0						0	0	0.04	948.55	05/01/2022 00:08 AM	0.04	0.12
OL-J48	1	0						0	0.01	0.06	968.38	05/01/2022 00:18 AM	0.06	0.39
OL-J49	1	0						0	0.01	0.09	967.77	05/01/2022 00:06 AM	0.09	1.7
OL-J4a	1	0						0	0	0	894.5	05/01/2022 00:00 AM	0	0
OL-J4b	1	0						0	0	0	892.47	05/01/2022 00:00 AM	0	0
OL-J4c	1	0						0	0	0	881.81	05/01/2022 00:00 AM	0	0
OL-J4d	1	0						0	0	0	871.79	05/01/2022 00:00 AM	0	0

Table 2B: Junctions (continued...)

Name	Scale Factor	Average Value (cfs)	Time Pattern 1	Time Pattern 2	Time Pattern 3	Time Pattern 4	Hydrograph	Sewershed Area (ac)	Avg. Depth (ft)	Max. Depth (ft)	Max. HGL (ft)	Time Max. HGL (M/D/Y)	Rep. Max. Depth (ft)	Max. Lat. Inflow (cfs)
OL-J5	1	0						0	0.05	0.56	946.31	05/01/2022 00:18 AM	0.56	7.42
OL-J50	1	0						0	0.01	0.07	940.72	05/01/2022 00:09 AM	0.07	0.4
OL-J6	1	0						0	0.05	0.54	946.34	05/01/2022 00:20 AM	0.54	8.89
OL-J7	1	0						0	0.05	0.61	946.47	05/01/2022 00:19 AM	0.61	9.69
OL-J72	1	0						0	0	0	905.6	05/01/2022 00:00 AM	0	0
OL-J8	1	0						0	0.04	0.41	944.91	05/01/2022 00:18 AM	0.41	0

Table 2C: Junctions

Name	Max. Total Inflow (cfs)	Total Lat. Inflow (MG)	Total inflow (MG)	Flow Error (%)	Hours Surcharged (h)	Max. Surcharge (ft)	Min. Freeboard (ft)	Hours Flooded (h)	Max. Flood Rate (cfs)	Total Flood Vol. (MG)	Max. Ponded Depth (ft)	Contributing Area (ac)	Contributing Imp. Area (ac)	Max. Unit Flow (cfs/ac)
10028	0.31	0	0.005	0.003	0	0	4.03	0	0	0	0	0	0	0
1024	63.44	0	1.11	-0.028	0	0	17.93	0	0	0	0	0	0	0
1038	0.51	0.008	0.008	0.001	0	0	3.1	0	0	0	0	0	0	0
10393	10.66	0	0.164	0	0	0	7.84	0	0	0	0	0	0	0
11213	2.05	0	0.03	0.017	0	0	5.66	0	0	0	0	0	0	0
11254	3.93	0	0.058	0.305	0.23	1.413	6.537	0	0	0	0	0	0	0
11560	1.99	0.009	0.027	0.031	0	0	4.85	0	0	0	0	0	0	0
11588	0.15	0	0	0.165	0	0	4.34	0	0	0	0	0	0	0
11842	0.41	0	0.007	-0.006	0	0	4.31	0	0	0	0	0	0	0
11966	2.86	0	0.042	0	0	0	4.02	0	0	0	0	0	0	0
12000	14.5	0	0.271	0	0	0	4.87	0	0	0	0	0	0	0
12000-1	3.43	0	0.064	-0.027	0	0	4.95	0	0	0	0	0	0	0
12000-2	12.23	0.01	0.207	0.001	0	0	6.16	0	0	0	0	0	0	0
12161	0	0	0	0	0	0	2.35	0	0	0	0	0	0	0

Table 2C: Junctions (continued...)

Name	Max. Total Inflow (cfs)	Total Lat. Inflow (MG)	Total inflow (MG)	Flow Error (%)	Hours Surcharged (h)	Max. Surcharge (ft)	Min. Freeboard (ft)	Hours Flooded (h)	Max. Flood Rate (cfs)	Total Flood Vol. (MG)	Max. Ponded Depth (ft)	Contributing Area (ac)	Contributing Imp. Area (ac)	Max. Unit Flow (cfs/ac)
12275	0.26	0	0	-0.187	0.18	0.657	5.203	0	0	0	0	0	0	0
12300	7.39	0	0.104	-0.01	0	0	4.68	0	0	0	0	0	0	0
12497	4.13	0	0.059	-0.013	0	0	3.98	0	0	0	0	0	0	0
12514	3.88	0	0.056	0.006	0	0	5.12	0	0	0	0	0	0	0
12678	5.13	0	0.074	0.013	0	0	3.92	0	0	0	0	0	0	0
12709	6.25	0	0.092	0.013	0	0	3.91	0	0	0	0	0	0	0
12759	0	0	0	0	0	0	6.3	0	0	0	0	0	0	0
12956	0.87	0	0.014	0.002	0	0	3.8	0	0	0	0	0	0	0
12957	4.15	0	0.061	0.605	0	0	6.65	0	0	0	0	0	0	0
13029	1.49	0.009	0.024	0	0	0	5.63	0	0	0	0	0	0	0
13138	1.87	0.014	0.023	-0.105	0	0	6.01	0	0	0	0	0	0	0
13349	0.69	0.007	0.008	0	0	0	5.06	0	0	0	0	0	0	0
13528	3.88	0	0.056	0	0	0	4.23	0	0	0	0	0	0	0
13746	0.64	0	0.013	0.002	0	0	4.39	0	0	0	0	0	0	0
14383	0.36	0.005	0.005	0.002	0	0	3.18	0	0	0	0	0	0	0
14448	1.53	0	0.02	0	0	0	5.58	0	0	0	0	0	0	0
14608	0.99	0.011	0.013	-0.005	0	0	1.91	0	0	0	0	0	0	0
14961	1.78	0	0.026	-0.001	0	0	10.47	0	0	0	0	0	0	0
15025	1.78	0.002	0.026	-0.001	0	0	7.35	0	0	0	0	0	0	0
15075	1.72	0.001	0.024	-0.001	0	0	9.63	0	0	0	0	0	0	0
15234	1.65	0.002	0.023	-0.001	0	0	5.57	0	0	0	0	0	0	0
15374	0.2	0.003	0.003	0.005	0	0	2.46	0	0	0	0	0	0	0
15469	0.09	0.001	0.001	0.016	0	0	0.86	0	0	0	0	0	0	0
15909	1.9	0	0.032	-0.04	0	0	3.55	0	0	0	0	0	0	0
15964	5.36	0	0.081	-0.014	0	0	4.68	0	0	0	0	0	0	0
16125	1.13	0.017	0.017	-0.004	0	0	1.45	0	0	0	0	0	0	0

Table 2C: Junctions (continued...)

Name	Max. Total Inflow (cfs)	Total Lat. Inflow (MG)	Total inflow (MG)	Flow Error (%)	Hours Surcharged (h)	Max. Surcharge (ft)	Min. Freeboard (ft)	Hours Flooded (h)	Max. Flood Rate (cfs)	Total Flood Vol. (MG)	Max. Ponded Depth (ft)	Contributing Area (ac)	Contributing Imp. Area (ac)	Max. Unit Flow (cfs/ac)
16610	1.9	0	0.032	-0.119	0	0	3.96	0	0	0	0	0	0	0
16770	1	0	0.016	0.259	0	0	5.5	0	0	0	0	0	0	0
17671	0.19	0.003	0.003	0.004	0	0	5.06	0	0	0	0	0	0	0
18312	0.72	0.012	0.012	-0.002	0	0	4.99	0	0	0	0	0	0	0
18356	2.73	0.004	0.045	-0.001	0	0	8.68	0	0	0	0	0	0	0
18402	1.88	0	0.029	0	0	0	7.43	0	0	0	0	0	0	0
18726	0.2	0	0.003	0.055	0	0	4.24	0	0	0	0	0	0	0
1885	16.45	0	0.236	0	0	0	4.88	0	0	0	0	0	0	0
1896	18.36	0	0.273	0	0	0	6.47	0	0	0	0	0	0	0
19657	0.44	0.005	0.005	-0.018	0	0	4.21	0	0	0	0	0	0	0
2002	2.65	0.013	0.032	0.086	0	0	0.79	0	0	0	0	0	0	0
2002'	1.93	0	0.011	0.055	0	0	1.86	0	0	0	0	0	0	0
20575	1.08	0.009	0.014	0.009	0	0	3.32	0	0	0	0	0	0	0
20974	8.57	0	0.151	-0.001	0	0	7.31	0	0	0	0	0	0	0
20985	1.01	0	0.015	0.002	0	0	4.47	0	0	0	0	0	0	0
21199	8.94	0	0.158	-0.001	0	0	5.28	0	0	0	0	0	0	0
21325	9.72	0	0.17	0	0	0	5.584	0	0	0	0	0	0	0
21426	12.52	0	0.178	-0.002	0	0	10.28	0	0	0	0	0	0	0
21626	46.54	0.005	0.83	0.022	0	0	15.82	0	0	0	0	0	0	0
21678	5.83	0	0.12	0	0	0	10.6	0	0	0	0	0	0	0
21705	1.47	0.019	0.019	0	0	0	2.96	0	0	0	0	0	0	0
2249	1.47	0	0.02	0.005	0	0	12.33	0	0	0	0	0	0	0
23025	7.25	0.13	0.13	0	0	0	4.92	0	0	0	0	0	0	0
23037	7.69	0.007	0.137	-0.001	0	0	7.69	0	0	0	0	0	0	0
2358	2.88	0	0.037	-0.001	0	0	6.64	0	0	0	0	0	0	0
2374	2.55	0	0.036	0	0	0	6.4	0	0	0	0	0	0	0

Table 2C: Junctions (continued...)

Name	Max. Total Inflow (cfs)	Total Lat. Inflow (MG)	Total inflow (MG)	Flow Error (%)	Hours Surcharged (h)	Max. Surcharge (ft)	Min. Freeboard (ft)	Hours Flooded (h)	Max. Flood Rate (cfs)	Total Flood Vol. (MG)	Max. Ponded Depth (ft)	Contributing Area (ac)	Contributing Imp. Area (ac)	Max. Unit Flow (cfs/ac)
2425	5.41	0	0.073	0.07	0	0	10.34	0	0	0	0	0	0	0
24932	12.43	0	0.239	0	0	0	6.44	0	0	0	0	0	0	0
25477	160.93	0	2.73	0	0	0	12.78	0	0	0	0	0	0	0
25478	168.32	0.055	2.86	-0.015	0	0	26.86	0	0	0	0	0	0	0
25504	2	0	0.028	-0.639	0.04	0.075	5.412	0	0	0	0	0	0	0
257	10.69	0	0.164	-0.04	0	0	9.35	0	0	0	0	0	0	0
2732	68.45	0	1.18	-0.002	0	0	15.07	0	0	0	0	0	0	0
3089	17.08	0.002	0.26	0.033	0	0	5.871	0	0	0	0	0	0	0
31036	12.43	0	0.239	-0.001	0	0	2.95	0	0	0	0	0	0	0
31036'	4.2	0	0.099	-0.001	0	0	2.22	0	0	0	0	0	0	0
3372	0	0	0	0	0	0	5.9	0	0	0	0	0	0	0
3381	10	0	0.144	0	0	0	7.48	0	0	0	0	0	0	0
3424	2.92	0	0.052	0	0	0	4.77	0	0	0	0	0	0	0
3449	63.27	0	1.09	-0.006	0	0	16.08	0	0	0	0	0	0	0
3596	63.03	0	1.09	0.045	0	0	15.55	0	0	0	0	0	0	0
3615	2.04	0	0.038	-0.001	0	0	4.41	0	0	0	0	0	0	0
3824	0.72	0.007	0.01	-0.001	0	0	10.88	0	0	0	0	0	0	0
5172	13.58	0	0.197	0	0	0	6.5	0	0	0	0	0	0	0
5191	15.32	0	0.22	-0.001	0	0	8.51	0	0	0	0	0	0	0
5218	10.33	0	0.18	0.013	0	0	5.5	0	0	0	0	0	0	0
5230	7.65	0	0.101	0.245	0	0	6.81	0	0	0	0	0	0	0
5246	0.38	0	0.006	0.002	0	0	5.41	0	0	0	0	0	0	0
5526	1.49	0.009	0.018	0.028	0	0	2.84	0	0	0	0	0	0	0
5571	4.12	0.019	0.05	-0.006	0	0	4.22	0	0	0	0	0	0	0
5604	4.42	0	0.054	0	0	0	5.53	0	0	0	0	0	0	0
6078	61.03	0	1.04	-0.034	0	0	12.66	0	0	0	0	0	0	0

Table 2C: Junctions (continued...)

Name	Max. Total Inflow (cfs)	Total Lat. Inflow (MG)	Total inflow (MG)	Flow Error (%)	Hours Surcharged (h)	Max. Surcharge (ft)	Min. Freeboard (ft)	Hours Flooded (h)	Max. Flood Rate (cfs)	Total Flood Vol. (MG)	Max. Ponded Depth (ft)	Contributing Area (ac)	Contributing Imp. Area (ac)	Max. Unit Flow (cfs/ac)
6088	0.91	0	0.014	0.001	0	0	11.3	0	0	0	0	0	0	0
6436	60.23	0	1.03	-0.002	0	0	7.12	0	0	0	0	0	0	0
6452	6.55	0	0.108	-0.006	0.5	2.394	0	0	0	0	0	0	0	0
6457	1.35	0	0.014	0	0.42	1.982	0	0	0	0	0	0	0	0
6505	1.45	0	0.034	-0.037	0.64	1.856	0	0.49	0.09	0	0.086	0	0	0
7096	0.98	0	0.011	0.002	0	0	4.6	0	0	0	0	0	0	0
7592	2.56	0	0.047	-0.044	0	0	3.7	0	0	0	0	0	0	0
7683	3.81	0	0.065	0.004	0	0	2.79	0	0	0	0	0	0	0
7742	0.91	0	0.012	0.183	0	0	3.23	0	0	0	0	0	0	0
7794	166.71	0	2.89	0.373	0	0	28.14	0	0	0	0	0	0	0
8667-J4	11.67	0.014	0.197	-0.001	0	0	4.53	0	0	0	0	0	0	0
8697	10.83	0.007	0.183	0	0	0	3.88	0	0	0	0	0	0	0
8807	10.42	0.038	0.176	-0.001	0	0	3.28	0	0	0	0	0	0	0
8903	8.16	0.138	0.138	0	0	0	2.18	0	0	0	0	0	0	0
9095	5.36	0	0.081	0.056	0	0	6.28	0	0	0	0	0	0	0
9253	2.77	0	0.049	-0.034	0.14	1.321	1.719	0	0	0	0	0	0	0
9264	9.22	0	0.143	0.187	0.18	1.873	1.907	0	0	0	0	0	0	0
9409	9.58	0	0.146	-0.202	0.33	1.781	4.659	0	0	0	0	0	0	0
9627	0.93	0.014	0.014	0.001	0	0	3.81	0	0	0	0	0	0	0
9645	10.9	0.005	0.164	0.109	0	0	7.55	0	0	0	0	0	0	0
9733	2.73	0	0.045	-0.019	0	0	11.489	0	0	0	0	0	0	0
J1	20.16	0	0.408	-0.006	0.63	2.865	0.755	0	0	0	0	0	0	0
J10	2.5	0	0.049	-0.002	0	0	2.65	0	0	0	0	0	0	0
J11	2.5	0	0.049	-0.011	0	0	2.741	0	0	0	0	0	0	0
J12	2.5	0	0.049	0.01	0	0	4.99	0	0	0	0	0	0	0
J13	8.19	0.008	0.13	-0.002	0	0	1.619	0	0	0	0	0	0	0

Table 2C: Junctions (continued...)

Name	Max. Total Inflow (cfs)	Total Lat. Inflow (MG)	Total inflow (MG)	Flow Error (%)	Hours Surcharged (h)	Max. Surcharge (ft)	Min. Freeboard (ft)	Hours Flooded (h)	Max. Flood Rate (cfs)	Total Flood Vol. (MG)	Max. Ponded Depth (ft)	Contributing Area (ac)	Contributing Imp. Area (ac)	Max. Unit Flow (cfs/ac)
J147	0.25	0	0.003	0.001	0	0	0.67	0	0	0	0	0	0	0
J15	17.93	0	0.366	-0.008	0.61	2.798	0.452	0	0	0	0	0	0	0
J159	78.38	0	1.33	-0.001	0	0	17	0	0	0	0	0	0	0
J16	48.1	0.131	0.804	-0.041	0	0	9.163	0	0	0	0	0	0	0
J163	18.03	0	0.271	-0.001	0	0	9.38	0	0	0	0	0	0	0
J164	1.69	0.013	0.019	1.35	0	0	1.1	0	0	0	0	0	0	0
J165	0.26	0.004	0.004	0.019	0	0	1.9	0	0	0	0	0	0	0
J166	0	0	0	0	0	0	8.62	0	0	0	0	0	0	0
J167	0.98	0.016	0.016	0	0	0	4.211	0	0	0	0	0	0	0
J168	68.45	0	1.18	0.003	0	0	19.41	0	0	0	0	0	0	0
J169	1.23	0.015	0.02	0.001	0	0	1.053	0	0	0	0	0	0	0
J17	16.99	0.021	0.258	0.004	0	0	3.428	0	0	0	0	0	0	0
J170	3	0.027	0.048	-0.002	0	0	1.375	0	0	0	0	0	0	0
J171	0.12	0.002	0.002	-0.007	0	0	0.53	0	0	0	0	0	0	0
J172	3.96	0.016	0.064	0.001	0	0	0.81	0	0	0	0	0	0	0
J173	4.34	0.006	0.07	0.003	0	0	1.64	0	0	0	0	0	0	0
J174	0.28	0.004	0.005	-0.011	0	0	1.667	0	0	0	0	0	0	0
J175	0.05	0.001	0.001	0.009	0	0	0.78	0	0	0	0	0	0	0
J177	140.78	0	2.42	-0.02	0	0	11.59	0	0	0	0	0	0	0
J179	13.97	0.094	0.224	-0.198	0	0	0.723	0	0	0	0	0	0	0
J18	165.12	0.002	2.8	0.001	0	0	11.542	0	0	0	0	0	0	0
J180	0.58	0.01	0.01	-0.01	0	0	0.45	0	0	0	0	0	0	0
J182	0	0	0	0	0	0	1.1	0	0	0	0	0	0	0
J183	1.76	0.018	0.026	0.003	0	0	0.89	0	0	0	0	0	0	0
J19	0	0	0	0	0	0	12.174	0	0	0	0	0	0	0
J2	5.11	0.073	0.073	0.001	0	0	1.56	0	0	0	0	0	0	0

Table 2C: Junctions (continued...)

Name	Max. Total Inflow (cfs)	Total Lat. Inflow (MG)	Total inflow (MG)	Flow Error (%)	Hours Surcharged (h)	Max. Surcharge (ft)	Min. Freeboard (ft)	Hours Flooded (h)	Max. Flood Rate (cfs)	Total Flood Vol. (MG)	Max. Ponded Depth (ft)	Contributing Area (ac)	Contributing Imp. Area (ac)	Max. Unit Flow (cfs/ac)
J2.	0	0	0	0	0	0	3.35	0	0	0	0	0	0	0
J20	14.4	0	0.222	-0.012	0	0	6.65	0	0	0	0	0	0	0
J21	2.73	0	0.045	0.013	0	0	12.91	0	0	0	0	0	0	0
J22	2.72	0	0.045	0	0	0	6.981	0	0	0	0	0	0	0
J23	2.72	0	0.045	0	0	0	7.001	0	0	0	0	0	0	0
J24	2.72	0	0.045	0	0	0	10.635	0	0	0	0	0	0	0
J25	2.72	0	0.045	0.001	0	0	9.561	0	0	0	0	0	0	0
J27	2.72	0	0.045	-0.002	0	0	17.401	0	0	0	0	0	0	0
J28	0	0	0	0	0	0	8.947	0	0	0	0	0	0	0
J29	0.03	0.001	0.001	0.052	0	0	1.98	0	0	0	0	0	0	0
J2-S	0	0	0	0	0	0	2	0	0	0	0	0	0	0
J3	14.84	0	0.295	0.001	0.52	2.152	0.218	0	0	0	0	0	0	0
J30	17.08	0	0.26	0.106	0	0	10.053	0	0	0	0	0	0	0
J31	0.52	0.006	0.006	-0.003	0	0	0.62	0	0	0	0	0	0	0
J32	0.52	0	0.006	0	0	0	1.033	0	0	0	0	0	0	0
J33	0.49	0	0.007	-2.628	0	0	0.313	0.21	0.29	0	0.184	0	0	0
J34	20.93	0	0.367	-0.001	0	0	6.416	0	0	0	0	0	0	0
J35	161.67	0.012	2.75	-0.002	0	0	11.213	0	0	0	0	0	0	0
J36	14.61	0	0.226	0.022	0	0	9.45	0	0	0	0	0	0	0
J37	4.3	0	0.05	0.01	0	0	0.926	0	0	0	0	0	0	0
J39	0.54	0.008	0.008	0.003	0	0	1.266	0	0	0	0	0	0	0
J4	3.4	0	0.055	0	0	0	1.96	0	0	0	0	0	0	0
J40	0.15	0	0.001	1.101	0	0	1.042	0	0	0	0	0	0	0
J41	1.35	0	0.009	0.022	0	0	1.036	0	0	0	0	0	0	0
J42	1.35	0	0.009	-0.17	0	0	1.011	0	0	0	0	0	0	0
J43	165.12	0	2.8	-0.004	0	0	12.39	0	0	0	0	0	0	0

Table 2C: Junctions (continued...)

Name	Max. Total Inflow (cfs)	Total Lat. Inflow (MG)	Total inflow (MG)	Flow Error (%)	Hours Surcharged (h)	Max. Surcharge (ft)	Min. Freeboard (ft)	Hours Flooded (h)	Max. Flood Rate (cfs)	Total Flood Vol. (MG)	Max. Ponded Depth (ft)	Contributing Area (ac)	Contributing Imp. Area (ac)	Max. Unit Flow (cfs/ac)
J44	0.22	0	0.003	0.015	0	0	1.37	0	0	0	0	0	0	0
J45	0.22	0.003	0.003	0	0	0	1.31	0	0	0	0	0	0	0
J46	0.08	0	0	4.598	0	0	2.98	0	0	0	0	0	0	0
J47	1.68	0	0.009	0.003	0	0	4.76	0	0	0	0	0	0	0
J48	8.46	0	0.124	-0.007	0	0	0.83	0	0	0	0	0	0	0
J49	0	0	0	0	0	0	1.1	0	0	0	0	0	0	0
J4-S	0	0	0	0	0	0	2	0	0	0	0	0	0	0
J5	20.95	0	0.367	0.006	0	0	4.35	0	0	0	0	0	0	0
J55	143.49	0	2.46	0.001	0	0	10.38	0	0	0	0	0	0	0
J6	14.2	0	0.238	0.147	0	0	3.443	0	0	0	0	0	0	0
J7	7.87	0	0.13	0.001	0	0	2.688	0	0	0	0	0	0	0
J74	14.61	0.005	0.226	0	0	0	4.19	0	0	0	0	0	0	0
J8	20.93	0	0.367	0.001	0	0	5.262	0	0	0	0	0	0	0
J9	41.16	0.035	0.673	-0.011	0	0	8.995	0	0	0	0	0	0	0
OL-10028	0.31	0.005	0.005	0	0	0	1.03	0	0	0	0	0	0	0
OL-11213	3.09	0.038	0.038	-0.019	0	0	0.84	0	0	0	0	0	0	0
OL-11560	1.35	0	0.013	-0.001	0	0	0.94	0	0	0	0	0	0	0
OL-11842	0.14	0.002	0.002	-0.001	0	0	1.06	0	0	0	0	0	0	0
OL-11966	2.52	0.036	0.036	0	0	0	0.71	0	0	0	0	0	0	0
OL-12300	1.16	0.006	0.011	0.022	0	0	1.261	0	0	0	0	0	0	0
OL-12497	0.25	0.003	0.003	-0.001	0	0	1.678	0	0	0	0	0	0	0
OL-12678	1.18	0.009	0.015	-0.01	0	0	1.37	0	0	0	0	0	0	0
OL-12709	1.8	0.023	0.024	0.058	0	0	0.93	0	0	0	0	0	0	0
OL-12956	2.04	0.005	0.023	0.065	0	0	0.9	0	0	0	0	0	0	0
OL-13029	0.15	0.002	0.002	-0.001	0	0	1.082	0	0	0	0	0	0	0
OL-13138	0.68	0.008	0.008	-0.003	0	0	0.98	0	0	0	0	0	0	0

Table 2C: Junctions (continued...)

Name	Max. Total Inflow (cfs)	Total Lat. Inflow (MG)	Total inflow (MG)	Flow Error (%)	Hours Surcharged (h)	Max. Surcharge (ft)	Min. Freeboard (ft)	Hours Flooded (h)	Max. Flood Rate (cfs)	Total Flood Vol. (MG)	Max. Ponded Depth (ft)	Contributing Area (ac)	Contributing Imp. Area (ac)	Max. Unit Flow (cfs/ac)
OL-13349	0.1	0.001	0.001	-0.001	0	0	1.088	0	0	0	0	0	0	0
OL-13528	0.42	0.005	0.005	-0.002	0	0	1	0	0	0	0	0	0	0
OL-13746	1.9	0.004	0.025	0.059	0	0	0.94	0	0	0	0	0	0	0
OL-15964	2.54	0.033	0.033	-0.186	0	0	1.133	0	0	0	0	0	0	0
OL-16610	1.09	0.016	0.017	-0.038	0	0	0.95	0	0	0	0	0	0	0
OL-16770	0.87	0.014	0.014	-0.026	0	0	0.97	0	0	0	0	0	0	0
OL-18726	0.2	0.003	0.003	-0.001	0	0	1.05	0	0	0	0	0	0	0
OL-1885	1.66	0.014	0.02	-0.084	0	0	0.93	0	0	0	0	0	0	0
OL-1896	4.75	0.064	0.064	-0.003	0	0	0.86	0	0	0	0	0	0	0
OL-20985	1.35	0.016	0.016	-0.145	0	0	0.95	0	0	0	0	0	0	0
OL-21199	0.53	0.007	0.007	-0.002	0	0	1	0	0	0	0	0	0	0
OL-21325	1.26	0.012	0.014	0.033	0	0	0.944	0	0	0	0	0	0	0
OL-2249	3.16	0.005	0.032	-0.004	0	0	0.869	0	0	0	0	0	0	0
OL-2358	2.58	0.012	0.024	-1.715	0	0	0.88	0	0	0	0	0	0	0
OL-2374	2.33	0.006	0.017	-0.13	0	0	0.88	0	0	0	0	0	0	0
OL-31036	16.72	0.015	0.265	0.023	0	0	0.83	0	0	0	0	0	0	0
OL-31036'	20.04	0.349	0.349	-0.01	0	0	0.75	0	0	0	0	0	0	0
OL-3424	1.23	0.016	0.016	-0.066	0	0	0.93	0	0	0	0	0	0	0
OL-3449	0.39	0.005	0.005	-0.002	0	0	1	0	0	0	0	0	0	0
OL-3596	5.24	0.082	0.082	-0.011	0	0	0.81	0	0	0	0	0	0	0
OL-3615	5.48	0.037	0.076	-0.003	0	0	0.88	0	0	0	0	0	0	0
OL-5172	2.36	0.02	0.029	-0.087	0	0	0.94	0	0	0	0	0	0	0
OL-5191	2.35	0.006	0.023	-0.034	0	0	0.91	0	0	0	0	0	0	0
OL-5218	0.79	0.01	0.01	-0.068	0	0	0.97	0	0	0	0	0	0	0
OL-5230	0.7	0.007	0.008	-0.001	0	0	0.98	0	0	0	0	0	0	0
OL-5246	0.38	0.006	0.006	0	0	0	1.02	0	0	0	0	0	0	0

Table 2C: Junctions (continued...)

Name	Max. Total Inflow (cfs)	Total Lat. Inflow (MG)	Total inflow (MG)	Flow Error (%)	Hours Surcharged (h)	Max. Surcharge (ft)	Min. Freeboard (ft)	Hours Flooded (h)	Max. Flood Rate (cfs)	Total Flood Vol. (MG)	Max. Ponded Depth (ft)	Contributing Area (ac)	Contributing Imp. Area (ac)	Max. Unit Flow (cfs/ac)
OL-5526	0.79	0.01	0.01	-0.002	0	0	1.09	0	0	0	0	0	0	0
OL-5571	1.1	0.013	0.013	-0.002	0	0	1.291	0	0	0	0	0	0	0
OL-5604	0.3	0.004	0.004	-0.002	0	0	1.384	0	0	0	0	0	0	0
OL-6088	0.91	0.014	0.014	0	0	0	0.98	0	0	0	0	0	0	0
OL-6436	4.2	0	0.076	0	0	0	1.23	0	0	0	0	0	0	0
OL-6452	5.24	0	0.094	0	0	0	1.23	0	0	0	0	0	0	0
OL-6457	1.54	0	0.014	0	0	0	1.16	0	0	0	0	0	0	0
OL-6505	2.97	0.047	0.047	0.388	0	0	0.96	0	0	0	0	0	0	0
OL-6505a	0.24	0	0.001	0.622	0	0	0.98	0	0	0	0	0	0	0
OL-7096	1.58	0.009	0.013	0.158	0	0	0.92	0	0	0	0	0	0	0
OL-7592	3.22	0.03	0.049	-0.351	0	0	0.87	0	0	0	0	0	0	0
OL-7683	1.88	0.007	0.021	0	0	0	0.92	0	0	0	0	0	0	0
OL-7742	0.99	0.013	0.013	-0.042	0	0	0.96	0	0	0	0	0	0	0
OL-9253a	0	0	0	0	0	0	1.096	0	0	0	0	0	0	0
OL-9253b	0	0	0	0	0	0	1.097	0	0	0	0	0	0	0
OL-9253c	0	0	0	0	0	0	1.1	0	0	0	0	0	0	0
OL-9253d	0	0	0	0	0	0	1.101	0	0	0	0	0	0	0
OL-9253e	0	0	0	0	0	0	1.103	0	0	0	0	0	0	0
OL-9264	1.25	0.007	0.013	0.093	0	0	4.57	0	0	0	0	0	0	0
OL-9409	0.3	0.004	0.004	-0.002	0	0	1.03	0	0	0	0	0	0	0
OL-J1	10.45	0.038	0.125	0.276	0	0	0.825	0	0	0	0	0	0	0
OL-J10	7.91	0.122	0.122	0	0	0	0.82	0	0	0	0	0	0	0
OL-J10a	5.41	0	0.073	-0.008	0	0	0.91	0	0	0	0	0	0	0
OL-J10b	5.4	0	0.073	0.007	0	0	0.76	0	0	0	0	0	0	0
OL-J14	15.41	0.182	0.235	0.011	0	0	1.25	0	0	0	0	0	0	0
OL-J147	0.36	0.004	0.004	-0.001	0	0	1.06	0	0	0	0	0	0	0

Table 2C: Junctions (continued...)

Name	Max. Total Inflow (cfs)	Total Lat. Inflow (MG)	Total inflow (MG)	Flow Error (%)	Hours Surcharged (h)	Max. Surcharge (ft)	Min. Freeboard (ft)	Hours Flooded (h)	Max. Flood Rate (cfs)	Total Flood Vol. (MG)	Max. Ponded Depth (ft)	Contributing Area (ac)	Contributing Imp. Area (ac)	Max. Unit Flow (cfs/ac)
OL-J15	11.37	0.118	0.157	-0.019	0	0	0.726	0	0	0	0	0	0	0
OL-J172	1.02	0	0.005	-0.002	0	0	0.92	0	0	0	0	0	0	0
OL-J3	10.4	0.152	0.152	0.006	0	0	0.771	0	0	0	0	0	0	0
OL-J33	1.37	0.015	0.017	1.074	0	0	0.913	0	0	0	0	0	0	0
OL-J37	2.75	0.013	0.039	-0.004	0	0	0.949	0	0	0	0	0	0	0
OL-J40	0.13	0.002	0.002	-0.103	0	0	1.064	0	0	0	0	0	0	0
OL-J48	0.39	0.006	0.006	-0.39	0	0	1.042	0	0	0	0	0	0	0
OL-J49	1.7	0.021	0.021	-0.001	0	0	1.002	0	0	0	0	0	0	0
OL-J4a	0	0	0	0	0	0	1	0	0	0	0	0	0	0
OL-J4b	0	0	0	0	0	0	0.999	0	0	0	0	0	0	0
OL-J4c	0	0	0	0	0	0	0.998	0	0	0	0	0	0	0
OL-J4d	0	0	0	0	0	0	0.999	0	0	0	0	0	0	0
OL-J5	27.87	0.116	0.401	-0.171	0	0	0.54	0	0	0	0	0	0	0
OL-J50	0.53	0.005	0.007	0.635	0	0	1.027	0	0	0	0	0	0	0
OL-J6	8.89	0.143	0.143	0.172	0	0	0.563	0	0	0	0	0	0	0
OL-J7	23.63	0.156	0.381	0.13	0	0	0.498	0	0	0	0	0	0	0
OL-J72	0	0	0	0	0	0	1	0	0	0	0	0	0	0
OL-J8	18.28	0	0.272	0.003	0	0	0.69	0	0	0	0	0	0	0

Table 2D: Junctions

Name	GIS_LENGTH (m)	GIS_AREA (m²)	GIS_PARTS
10028	0	0	1
1024	0	0	1
1038	0	0	1
10393	0	0	1
11213	0	0	1
11254	0	0	1
11560	0	0	1
11588	0	0	1
11842	0	0	1
11966	0	0	1
12000	0	0	1
12000-1	0	0	1
12000-2	0	0	1
12161	0	0	1
12275	0	0	1
12300	0	0	1
12497	0	0	1
12514	0	0	1
12678	0	0	1
12709	0	0	1
12759	0	0	1
12956	0	0	1
12957	0	0	1
13029	0	0	1
13138	0	0	1
13349	0	0	1

Table 2D: Junctions (continued...)

Name	GIS_LENGTH (m)	GIS_AREA (m²)	GIS_PARTS
13528	0	0	1
13746	0	0	1
14383	0	0	1
14448	0	0	1
14608	0	0	1
14961	0	0	1
15025	0	0	1
15075	0	0	1
15234	0	0	1
15374	0	0	1
15469	0	0	1
15909	0	0	1
15964	0	0	1
16125	0	0	1
16610	0	0	1
16770	0	0	1
17671	0	0	1
18312	0	0	1
18356	0	0	1
18402	0	0	1
18726	0	0	1
1885	0	0	1
1896	0	0	1
19657	0	0	1
2002	0	0	1
2002'	0	0	1

Table 2D: Junctions (continued...)

Name	GIS_LENGTH (m)	GIS_AREA (m²)	GIS_PARTS
20575	0	0	1
20974	0	0	1
20985	0	0	1
21199	0	0	1
21325	0	0	1
21426	0	0	1
21626	0	0	1
21678	0	0	1
21705	0	0	1
2249	0	0	1
23025	0	0	1
23037	0	0	1
2358	0	0	1
2374	0	0	1
2425	0	0	1
24932	0	0	1
25477	0	0	1
25478	0	0	1
25504	0	0	1
257	0	0	1
2732	0	0	1
3089	0	0	1
31036	0	0	1
31036'	0	0	1
3372	0	0	1
3381	0	0	1

Table 2D: Junctions (continued...)

Name	GIS_LENGTH (m)	GIS_AREA (m²)	GIS_PARTS
3424	0	0	1
3449	0	0	1
3596	0	0	1
3615	0	0	1
3824	0	0	1
5172	0	0	1
5191	0	0	1
5218	0	0	1
5230	0	0	1
5246	0	0	1
5526	0	0	1
5571	0	0	1
5604	0	0	1
6078	0	0	1
6088	0	0	1
6436	0	0	1
6452	0	0	1
6457	0	0	1
6505	0	0	1
7096	0	0	1
7592	0	0	1
7683	0	0	1
7742	0	0	1
7794	0	0	1
8667-J4	0	0	1
8697	0	0	1

Table 2D: Junctions (continued...)

Name	GIS_LENGTH (m)	GIS_AREA (m²)	GIS_PARTS
8807	0	0	1
8903	0	0	1
9095	0	0	1
9253	0	0	1
9264	0	0	1
9409	0	0	1
9627	0	0	1
9645	0	0	1
9733	0	0	1
J1	0	0	1
J10	0	0	1
J11	0	0	1
J12	0	0	1
J13	0	0	1
J147	0	0	1
J15	0	0	1
J159	0	0	1
J16	0	0	1
J163	0	0	1
J164	0	0	1
J165	0	0	1
J166	0	0	1
J167	0	0	1
J168	0	0	1
J169	0	0	1
J17	0	0	1

Table 2D: Junctions (continued...)

Name	GIS_LENGTH (m)	GIS_AREA (m²)	GIS_PARTS
J170	0	0	1
J171	0	0	1
J172	0	0	1
J173	0	0	1
J174	0	0	1
J175	0	0	1
J177	0	0	1
J179	0	0	1
J18	0	0	1
J180	0	0	1
J182	0	0	1
J183	0	0	1
J19	0	0	1
J2	0	0	1
J2.	0	0	1
J20	0	0	1
J21	0	0	1
J22	0	0	1
J23	0	0	1
J24	0	0	1
J25	0	0	1
J27	0	0	1
J28	0	0	1
J29	0	0	1
J2-S	0	0	1
J3	0	0	1

Table 2D: Junctions (continued...)

Name	GIS_LENGTH (m)	GIS_AREA (m²)	GIS_PARTS
J30	0	0	1
J31	0	0	1
J32	0	0	1
J33	0	0	1
J34	0	0	1
J35	0	0	1
J36	0	0	1
J37	0	0	1
J39	0	0	1
J4	0	0	1
J40	0	0	1
J41	0	0	1
J42	0	0	1
J43	0	0	1
J44	0	0	1
J45	0	0	1
J46	0	0	1
J47	0	0	1
J48	0	0	1
J49	0	0	1
J4-S	0	0	1
J5	0	0	1
J55	0	0	1
J6	0	0	1
J7	0	0	1
J74	0	0	1

Table 2D: Junctions (continued...)

Name	GIS_LENGTH (m)	GIS_AREA (m²)	GIS_PARTS
J8	0	0	1
J9	0	0	1
OL-10028	0	0	1
OL-11213	0	0	1
OL-11560	0	0	1
OL-11842	0	0	1
OL-11966	0	0	1
OL-12300	0	0	1
OL-12497	0	0	1
OL-12678	0	0	1
OL-12709	0	0	1
OL-12956	0	0	1
OL-13029	0	0	1
OL-13138	0	0	1
OL-13349	0	0	1
OL-13528	0	0	1
OL-13746	0	0	1
OL-15964	0	0	1
OL-16610	0	0	1
OL-16770	0	0	1
OL-18726	0	0	1
OL-1885	0	0	1
OL-1896	0	0	1
OL-20985	0	0	1
OL-21199	0	0	1
OL-21325	0	0	1

Table 2D: Junctions (continued...)

Name	GIS_LENGTH (m)	GIS_AREA (m²)	GIS_PARTS
OL-2249	0	0	1
OL-2358	0	0	1
OL-2374	0	0	1
OL-31036	0	0	1
OL-31036'	0	0	1
OL-3424	0	0	1
OL-3449	0	0	1
OL-3596	0	0	1
OL-3615	0	0	1
OL-5172	0	0	1
OL-5191	0	0	1
OL-5218	0	0	1
OL-5230	0	0	1
OL-5246	0	0	1
OL-5526	0	0	1
OL-5571	0	0	1
OL-5604	0	0	1
OL-6088	0	0	1
OL-6436	0	0	1
OL-6452	0	0	1
OL-6457	0	0	1
OL-6505	0	0	1
OL-6505a	0	0	1
OL-7096	0	0	1
OL-7592	0	0	1
OL-7683	0	0	1

Table 2D: Junctions (continued...)

Name	GIS_LENGTH (m)	GIS_AREA (m²)	GIS_PARTS
OL-7742	0	0	1
OL-9253a	0	0	1
OL-9253b	0	0	1
OL-9253c	0	0	1
OL-9253d	0	0	1
OL-9253e	0	0	1
OL-9264	0	0	1
OL-9409	0	0	1
OL-J1	0	0	1
OL-J10	0	0	1
OL-J10a	0	0	1
OL-J10b	0	0	1
OL-J14	0	0	1
OL-J147	0	0	1
OL-J15	0	0	1
OL-J172	0	0	1
OL-J3	0	0	1
OL-J33	0	0	1
OL-J37	0	0	1
OL-J40	0	0	1
OL-J48	0	0	1
OL-J49	0	0	1
OL-J4a	0	0	1
OL-J4b	0	0	1
OL-J4c	0	0	1
OL-J4d	0	0	1

Table 2D: Junctions (continued...)

Name	GIS_LENGTH (m)	GIS_AREA (m²)	GIS_PARTS
OL-J5	0	0	1
OL-J50	0	0	1
OL-J6	0	0	1
OL-J7	0	0	1
OL-J72	0	0	1
OL-J8	0	0	1

Table 3A: Outfalls

Name	X-Coordinate	Y-Coordinate	Tag	Inflows	Treatment	Invert Elev. (ft)	Rim Elev. (ft)	Tide Gate	Route To	Type	Fixed Stage (ft)	Curve Name	Series Name	Outlet
10000	2262392.186	276400.364	Outlet	NO	NO	831.42	837.22	NO		TIMESERIES	0	*	TC_Flood_10Y	
11000	2262486.781	276384.562	Outlet	NO	NO	861.08	864	NO		TIMESERIES	0	*	TC_Flood_10Y	
11000'	2262484.196	276383.409	Overland	NO	NO	864	866	NO		TIMESERIES	0	*	TC_Flood_10Y	
12000.	2261939.436	276365.72	Outlet	NO	NO	836	841	NO		TIMESERIES	0	*	TC_Flood_10Y	
13000	2263958	276313	Outlet	NO	NO	936.2	938.2	NO		FREE	0	*	*	
14000	2263091.354	277070.708	Outlet	NO	NO	845.99	848.99	NO		TIMESERIES	0	*	TC_Flood_10Y	
14000'	2263095.852	277072.318	Overland	NO	NO	847.5	849.5	NO		TIMESERIES	0	*	TC_Flood_10Y	

Table 3B: Outfalls

Name	Baseline (cfs)	Baseline Pattern	Time Series	Scale Factor	Average Value (cfs)	Time Pattern 1	Time Pattern 2	Time Pattern 3	Time Pattern 4	Hydrograph	Sewershed Area (ac)	Avg. Depth (ft)	Max. Depth (ft)	Max. HGL (ft)
10000	0			1	0						0	5.03	5.03	836.45
11000	0			1	0						0	0.05	0.53	861.61
11000'	0			1	0						0	0	0.08	864.08
12000.	0			1	0						0	0.45	0.45	836.45
13000	0			1	0						0	0.04	0.4	936.6
14000	0			1	0						0	0.19	1.84	847.83
14000'	0			1	0						0	0	0.1	847.6

Table 3C: Outfalls

Name	Time Max. HGL (M/D/Y)	Rep. Max. Depth (ft)	Max. Lat. Inflow (cfs)	Max. Total Inflow (cfs)	Total Lat. Inflow (MG)	Total inflow (MG)	Flow Error (%)	Hours Surcharged (h)	Max. Surcharge (ft)	Min. Freeboard (ft)	Hours Flooded (h)	Max. Flood Rate (cfs)	Total Flood Vol. (MG)	Max. Ponded Depth (ft)
10000	05/01/2022 00:00 AM	5.03	0	166.72	0	2.92	0	0	0	0	0	0	0	0
11000	05/01/2022 00:16 AM	0.53	0	3.81	0	0.065	0	0	0	0	0	0	0	0
11000'	05/01/2022 00:18 AM	0.08	0	0.62	0	0.004	0	0	0	0	0	0	0	0
12000.	05/01/2022 00:00 AM	0.45	0	14.5	0	0.271	0	0	0	0	0	0	0	0
13000	05/01/2022 00:12 AM	0.4	0	5.11	0	0.073	0	0	0	0	0	0	0	0
14000	05/01/2022 00:25 AM	1.84	0	28.67	0	0.621	0	0	0	0	0	0	0	0
14000'	05/01/2022 00:25 AM	0.1	0	1.68	0	0.009	0	0	0	0	0	0	0	0

Table 3D: Outfalls

Name	Flow Frequency	Avg. Flow (cfs)	Max. Flow (cfs)	Total Flow (MG)	Contributing Area (ac)	Contributing Imp. Area (ac)	Max. Unit Flow (cfs/ac)	GIS_LENGTH (m)	GIS_AREA (m²)	GIS_PARTS
10000	24.58	50.92	166.72	2.918	0	0	0	0	0	1
11000	16.13	1.74	3.81	0.065	0	0	0	0	0	1
11000'	6.15	0.29	0.62	0.004	0	0	0	0	0	1
12000.	19.4	5.72	14.5	0.271	0	0	0	0	0	1
13000	15.8	2	5.11	0.073	0	0	0	0	0	1
14000	16.41	16.47	28.67	0.621	0	0	0	0	0	1
14000'	5.21	0.75	1.68	0.009	0	0	0	0	0	1

Table 4A: ARM Subcatchments

Name	X-Coordinate	Y-Coordinate	Description	Tag	Runoff Method	Rain Gage	Outlet	Area (ac)	Flow Length (ft)	Slope (%)
J10	2263191.448	273805.81			SCS Dimensionless UH	Huff_010YR_1Q_1HR_2.32in	OL-J10	3.668	660.651	5.53
J13	2263208.036	274136.841			SCS Dimensionless UH	Huff_010YR_1Q_1HR_2.32in	J13	0.395	205.795	20.579
J179	2263051.515	273990.583			SCS Dimensionless UH	Huff_010YR_1Q_1HR_2.32in	J179	2.565	615.555	14.057
J7	2263202.374	274536.232			SCS Dimensionless UH	Huff_010YR_1Q_1HR_2.32in	OL-J7	4.568	885.498	10.954
J6	2262935.371	274390.446			SCS Dimensionless UH	Huff_010YR_1Q_1HR_2.32in	OL-J6	3.945	1275.042	9.849
31036'	2263588.959	274576.169			SCS Dimensionless UH	Huff_010YR_1Q_1HR_2.32in	OL-31036'	10.887	788.077	12.171
31036	2263564.558	274994.257			SCS Dimensionless UH	Huff_010YR_1Q_1HR_2.32in	OL-31036	0.235	489.846	10.238
J5	2262847.425	274557.22			SCS Dimensionless UH	Huff_010YR_1Q_1HR_2.32in	OL-J5	2.633	1055.794	9.319
7592	2262671.695	276225.753			SCS Dimensionless UH	Huff_010YR_1Q_1HR_2.32in	OL-7592	1.335	389.585	25.869
J9	2262974.779	275010.368			SCS Dimensionless UH	Huff_010YR_1Q_1HR_2.32in	J9	1.369	428.007	8.225
J16	2262638.515	274728.755			SCS Dimensionless UH	Huff_010YR_1Q_1HR_2.32in	J16	5.022	908.899	14.03
J72	2262528.037	275044.619			SCS Dimensionless UH	Huff_010YR_1Q_1HR_2.32in	J72	1.317	377.81	21.885
21253	2263522.427	275090.994			SCS Dimensionless UH	Huff_010YR_1Q_1HR_2.32in	21253	2.869	553.3	13.427

Table 4A: ARM Subcatchments (continued...)

Name	X-Coordinate	Y-Coordinate	Description	Tag	Runoff Method	Rain Gage	Outlet	Area (ac)	Flow Length (ft)	Slope (%)
23025	2263999.464	275089.139			SCS Dimensionless UH	Huff_010YR_1Q_1HR_2.32in	23025	5.039	532.096	11.549
23037	2263866.46	275379.473			SCS Dimensionless UH	Huff_010YR_1Q_1HR_2.32in	23037	0.113	324.45	4.18
20985	2263887.721	274867.539			SCS Dimensionless UH	Huff_010YR_1Q_1HR_2.32in	OL-20985	0.263	786.416	7.361
21325	2263542.537	275190.5			SCS Dimensionless UH	Huff_010YR_1Q_1HR_2.32in	OL-21325	0.192	561.669	8.75
21199	2263678.665	275207.325			SCS Dimensionless UH	Huff_010YR_1Q_1HR_2.32in	OL-21199	0.104	385.326	8.55
J171	2263828.093	275292.848			SCS Dimensionless UH	Huff_010YR_1Q_1HR_2.32in	J171	0.071	93.737	22.714
J175	2263710.534	275610.546			SCS Dimensionless UH	Huff_010YR_1Q_1HR_2.32in	J175	0.035	97.775	17.955
J174	2263702.177	275591.896			SCS Dimensionless UH	Huff_010YR_1Q_1HR_2.32in	J174	0.104	119.901	22.45
J169	2263732.836	275527.107			SCS Dimensionless UH	Huff_010YR_1Q_1HR_2.32in	J169	0.436	226.955	15.304
J170	2263785.724	275367.789			SCS Dimensionless UH	Huff_010YR_1Q_1HR_2.32in	J170	0.905	355.538	21.163
18726	2263800.664	275610.922			SCS Dimensionless UH	Huff_010YR_1Q_1HR_2.32in	OL-18726	0.047	166.246	9.805
16770	2263780.942	275679.244			SCS Dimensionless UH	Huff_010YR_1Q_1HR_2.32in	OL-16770	0.332	189.962	12.694
16610	2263750.281	275793.849			SCS Dimensionless UH	Huff_010YR_1Q_1HR_2.32in	OL-16610	0.45	250.396	10.624
14608	2263693.896	275886.574			SCS Dimensionless UH	Huff_010YR_1Q_1HR_2.32in	14608	0.183	106.039	6.036
14383	2263624.419	275821.153			SCS Dimensionless UH	Huff_010YR_1Q_1HR_2.32in	14383	0.099	101.319	2.194
15374	2263626.261	275900.916			SCS Dimensionless UH	Huff_010YR_1Q_1HR_2.32in	15374	0.08	104.428	17.161
15469	2263666.685	275938.37			SCS Dimensionless UH	Huff_010YR_1Q_1HR_2.32in	15469	0.024	25.396	10.166
16125	2263678.587	276045.254			SCS Dimensionless UH	Huff_010YR_1Q_1HR_2.32in	16125	0.338	230.726	5.808
J3	2263674.436	276554.303			SCS Dimensionless UH	Huff_010YR_1Q_1HR_2.32in	OL-J3	3.315	808.732	21.496
J2	2263854.077	275994.364			SCS Dimensionless UH	Huff_010YR_1Q_1HR_2.32in	J2	1.381	833.162	13.739
15964	2263767.815	275996.991			SCS Dimensionless UH	Huff_010YR_1Q_1HR_2.32in	OL-15964	0.544	390.858	7.299
J172	2263671.948	275327.512			SCS Dimensionless UH	Huff_010YR_1Q_1HR_2.32in	J172	0.439	190.836	15.616
J173	2263579.421	275246.822			SCS Dimensionless UH	Huff_010YR_1Q_1HR_2.32in	J173	0.207	169.251	23.465
J26	2263472.066	275325.797			SCS Dimensionless UH	Huff_010YR_1Q_1HR_2.32in	J26	0.88	351.691	15.668
19657	2263618.594	275538.217			SCS Dimensionless UH	Huff_010YR_1Q_1HR_2.32in	19657	0.084	102.262	10.096
20575	2263526.897	275529.237			SCS Dimensionless UH	Huff_010YR_1Q_1HR_2.32in	20575	0.193	160.945	10.59

Table 4A: ARM Subcatchments (continued...)

Name	X-Coordinate	Y-Coordinate	Description	Tag	Runoff Method	Rain Gage	Outlet	Area (ac)	Flow Length (ft)	Slope (%)
OL-J48	2263702.248	275644.11			SCS Dimensionless UH	Huff_010YR_1Q_1HR_2.32in	OL-J48	0.149	199.47	10.727
OL-J49	2263619.255	275677.216			SCS Dimensionless UH	Huff_010YR_1Q_1HR_2.32in	OL-J49	0.339	172.92	6.599
12956	2263572.58	275572.762			SCS Dimensionless UH	Huff_010YR_1Q_1HR_2.32in	OL-12956	0.083	206.144	13.01
13746	2263557.442	275594.434			SCS Dimensionless UH	Huff_010YR_1Q_1HR_2.32in	OL-13746	0.096	103.604	27.397
J39	2262976.772	275151.868			SCS Dimensionless UH	Huff_010YR_1Q_1HR_2.32in	J39	0.185	154.967	13.067
5526	2262914.069	275346.455			SCS Dimensionless UH	Huff_010YR_1Q_1HR_2.32in	OL-5526	0.151	136.921	3.116
5571	2262996.23	275336.639			SCS Dimensionless UH	Huff_010YR_1Q_1HR_2.32in	OL-5571	0.212	197.015	2.088
5604	2263115.319	275322.029			SCS Dimensionless UH	Huff_010YR_1Q_1HR_2.32in	OL-5604	0.059	110.508	2.476
J183	2263092.729	275169.28			SCS Dimensionless UH	Huff_010YR_1Q_1HR_2.32in	J183	0.377	109.065	14.192
OL-J38	2263138.894	275216.995			SCS Dimensionless UH	Huff_010YR_1Q_1HR_2.32in	OL-J37	0.222	159.888	6.338
5230	2263211.709	275210.043			SCS Dimensionless UH	Huff_010YR_1Q_1HR_2.32in	OL-5230	0.142	133.332	7.294
5246	2263163.285	275298.12			SCS Dimensionless UH	Huff_010YR_1Q_1HR_2.32in	OL-5246	0.153	165.139	19.088
21705	2263348.048	275332.633			SCS Dimensionless UH	Huff_010YR_1Q_1HR_2.32in	21705	0.313	184.32	5.229
5218	2263292.852	275238.831			SCS Dimensionless UH	Huff_010YR_1Q_1HR_2.32in	OL-5218	0.175	367.623	8.695
21626	2263252.8	275346.573			SCS Dimensionless UH	Huff_010YR_1Q_1HR_2.32in	21626	0.246	113.587	17.767
5172	2263339.026	275464.142			SCS Dimensionless UH	Huff_010YR_1Q_1HR_2.32in	OL-5172	0.492	314.6	15.299
6505	2262277.607	275292.278			SCS Dimensionless UH	Huff_010YR_1Q_1HR_2.32in	OL-6505	1.218	341.636	15.174
OL-J41	2262426.055	274934.524			SCS Dimensionless UH	Huff_010YR_1Q_1HR_2.32in	OL-J41	4.028	1260.521	11.469
6088	2262528.513	275405.256			SCS Dimensionless UH	Huff_010YR_1Q_1HR_2.32in	OL-6088	0.309	223.158	15.965
J4	2262305.894	275642.421			SCS Dimensionless UH	Huff_010YR_1Q_1HR_2.32in	OL-J4	1.563	492.043	17.395
1896	2262905.332	275318.72			SCS Dimensionless UH	Huff_010YR_1Q_1HR_2.32in	OL-1896	1.249	863.527	12.535
1038	2263108.692	275532.332			SCS Dimensionless UH	Huff_010YR_1Q_1HR_2.32in	1038	0.424	116.969	23.658
2358	2262973.71	275746.75			SCS Dimensionless UH	Huff_010YR_1Q_1HR_2.32in	OL-2358	0.194	284.92	9.838
J45	2262689.338	275573.078			SCS Dimensionless UH	Huff_010YR_1Q_1HR_2.32in	J45	0.09	114.151	32.31
3824	2262684.677	275624.205			SCS Dimensionless UH	Huff_010YR_1Q_1HR_2.32in	3824	0.144	125.555	28.091
3596	2262497.2	275515.301			SCS Dimensionless UH	Huff_010YR_1Q_1HR_2.32in	OL-3596	2.021	537.471	15.133

Table 4A: ARM Subcatchments (continued...)

Name	X-Coordinate	Y-Coordinate	Description	Tag	Runoff Method	Rain Gage	Outlet	Area (ac)	Flow Length (ft)	Slope (%)
3449	2262505.583	275688.316			SCS Dimensionless UH	Huff_010YR_1Q_1HR_2.32in	OL-3449	0.075	274.068	4.947
3372	2262664.405	275833.754			SCS Dimensionless UH	Huff_010YR_1Q_1HR_2.32in	J50	0.045	82.76	4.762
3615	2262832.039	275587.432			SCS Dimensionless UH	Huff_010YR_1Q_1HR_2.32in	OL-3615	1.301	654.826	24.095
3424	2262886.097	275640.974			SCS Dimensionless UH	Huff_010YR_1Q_1HR_2.32in	OL-3424	0.295	528.446	15.515
3381	2262760.619	275813.491			SCS Dimensionless UH	Huff_010YR_1Q_1HR_2.32in	J50	0.594	121.39	4.84
15234	2263584.895	275914.449			SCS Dimensionless UH	Huff_010YR_1Q_1HR_2.32in	15234	0.085	99.725	7.707
15075	2263550.73	275986.554			SCS Dimensionless UH	Huff_010YR_1Q_1HR_2.32in	15075	0.038	49.704	5.968
15025	2263462.159	275982.815			SCS Dimensionless UH	Huff_010YR_1Q_1HR_2.32in	15025	0.096	81.018	11.919
17671	2263396.521	276063.574			SCS Dimensionless UH	Huff_010YR_1Q_1HR_2.32in	17671	0.172	154.418	8.033
18356	2263342.819	276064.714			SCS Dimensionless UH	Huff_010YR_1Q_1HR_2.32in	18356	0.204	278.578	8.974
18312	2263469.142	276108.478			SCS Dimensionless UH	Huff_010YR_1Q_1HR_2.32in	18312	0.372	320.3	10.449
9264	2263661.071	276277.669			SCS Dimensionless UH	Huff_010YR_1Q_1HR_2.32in	OL-9264	0.122	353.984	5.593
9253	2263576.891	276235.821			SCS Dimensionless UH	Huff_010YR_1Q_1HR_2.32in	OL-9253	1.194	359.447	10.715
9627	2263262.177	276180.452			SCS Dimensionless UH	Huff_010YR_1Q_1HR_2.32in	9627	0.281	235.968	6.587
10028	2263244.709	276027.749			SCS Dimensionless UH	Huff_010YR_1Q_1HR_2.32in	OL-10028	0.152	183.465	7.554
11842	2263180.261	276023.24			SCS Dimensionless UH	Huff_010YR_1Q_1HR_2.32in	OL-11842	0.026	114.839	3.754
11966	2263399.847	275903.641			SCS Dimensionless UH	Huff_010YR_1Q_1HR_2.32in	OL-11966	0.814	378.423	11.871
RD-incen	2263435.07	275753.228			SCS Dimensionless UH	Huff_010YR_1Q_1HR_2.32in	13138	0.185	125.031	2
13029	2263516.805	275640.631			SCS Dimensionless UH	Huff_010YR_1Q_1HR_2.32in	OL-13029	0.064	48.415	45.753
13138	2263465.463	275686.329			SCS Dimensionless UH	Huff_010YR_1Q_1HR_2.32in	OL-13138	0.132	97.235	6.685
OL-J40	2263473.823	275640.347			SCS Dimensionless UH	Huff_010YR_1Q_1HR_2.32in	OL-J40	0.026	66.49	5.212
OL-J50	2263408.601	275583.472			SCS Dimensionless UH	Huff_010YR_1Q_1HR_2.32in	OL-J50	0.079	172.17	6.959
5191	2263253.801	275452.294			SCS Dimensionless UH	Huff_010YR_1Q_1HR_2.32in	OL-5191	0.096	246.86	8.259
1885	2263240.98	275518.05			SCS Dimensionless UH	Huff_010YR_1Q_1HR_2.32in	OL-1885	0.497	207.187	12.96
J147	2263137.962	275989.31			SCS Dimensionless UH	Huff_010YR_1Q_1HR_2.32in	OL-J147	0.07	114.708	10.66
J33	2263182.494	275933.638			SCS Dimensionless UH	Huff_010YR_1Q_1HR_2.32in	OL-J33	0.241	199.37	11.413

Table 4A: ARM Subcatchments (continued...)

Name	X-Coordinate	Y-Coordinate	Description	Tag	Runoff Method	Rain Gage	Outlet	Area (ac)	Flow Length (ft)	Slope (%)
11560	2263235.138	275865.679			SCS Dimensionless UH	Huff_010YR_1Q_1HR_2.32in	11560	0.156	114.688	9.498
11213	2263108.341	275944.043			SCS Dimensionless UH	Huff_010YR_1Q_1HR_2.32in	OL-11213	0.604	270.074	5.196
13528	2263333.338	275827.628			SCS Dimensionless UH	Huff_010YR_1Q_1HR_2.32in	OL-13528	0.081	82.28	5.668
J31	2263373.012	275780.83			SCS Dimensionless UH	Huff_010YR_1Q_1HR_2.32in	J31	0.1	79.072	5.354
12497	2263279.504	275784.366			SCS Dimensionless UH	Huff_010YR_1Q_1HR_2.32in	OL-12497	0.059	90.615	10.782
12678	2263322.759	275734.231			SCS Dimensionless UH	Huff_010YR_1Q_1HR_2.32in	OL-12678	0.164	124.513	11.884
12709	2263328.745	275694.315			SCS Dimensionless UH	Huff_010YR_1Q_1HR_2.32in	OL-12709	0.427	246.728	9.817
12300	2263262.413	275717.51			SCS Dimensionless UH	Huff_010YR_1Q_1HR_2.32in	OL-12300	0.101	262.218	5.084
2374	2263035.555	275741.743			SCS Dimensionless UH	Huff_010YR_1Q_1HR_2.32in	OL-2374	0.099	389.074	7.015
J180	2263232.464	275645.817			SCS Dimensionless UH	Huff_010YR_1Q_1HR_2.32in	J180	0.433	232.81	30.548
2002	2263132.881	275757.479			SCS Dimensionless UH	Huff_010YR_1Q_1HR_2.32in	2002	0.244	203.432	40.274
J167	2263022.538	275832.987			SCS Dimensionless UH	Huff_010YR_1Q_1HR_2.32in	J167	0.414	216.453	39.496
3253	2262838.922	275999.766			SCS Dimensionless UH	Huff_010YR_1Q_1HR_2.32in	3253	0.075	121.105	49.323
J74	2262928.255	276046.465			SCS Dimensionless UH	Huff_010YR_1Q_1HR_2.32in	J74	0.243	170.471	16.992
J17	2262940.884	275949.476			SCS Dimensionless UH	Huff_010YR_1Q_1HR_2.32in	J17	0.621	449.865	31.68
J35	2262593.855	275817.759			SCS Dimensionless UH	Huff_010YR_1Q_1HR_2.32in	J35	0.385	255.573	20.085
25478	2262484.189	275955.44			SCS Dimensionless UH	Huff_010YR_1Q_1HR_2.32in	25478	1.892	552.101	22.892
7096	2262808.709	275888.578			SCS Dimensionless UH	Huff_010YR_1Q_1HR_2.32in	OL-7096	0.146	191.373	8.584
7742	2262583.127	276138.248			SCS Dimensionless UH	Huff_010YR_1Q_1HR_2.32in	OL-7742	0.214	456.391	5.886
3089	2262780.704	275963.748			SCS Dimensionless UH	Huff_010YR_1Q_1HR_2.32in	3089	0.059	103.959	29.173
J29	2262801.787	276011.301			SCS Dimensionless UH	Huff_010YR_1Q_1HR_2.32in	J29	0.033	115.016	43.66
J165	2262768.921	276037.475			SCS Dimensionless UH	Huff_010YR_1Q_1HR_2.32in	J165	0.135	153.727	49.791
J164	2262706.33	276021.768			SCS Dimensionless UH	Huff_010YR_1Q_1HR_2.32in	J164	0.272	179.815	21.846
J14	2263274.431	276434.608			SCS Dimensionless UH	Huff_010YR_1Q_1HR_2.32in	OL-J14	4.784	816.413	29.933
J1	2263100.491	276628.505			SCS Dimensionless UH	Huff_010YR_1Q_1HR_2.32in	OL-J1	0.614	722.059	3.794
7683	2262510.45	276345.926			SCS Dimensionless UH	Huff_010YR_1Q_1HR_2.32in	OL-7683	0.132	86.954	7.495

Table 4A: ARM Subcatchments (continued...)

Name	X-Coordinate	Y-Coordinate	Description	Tag	Runoff Method	Rain Gage	Outlet	Area (ac)	Flow Length (ft)	Slope (%)
J15	2262896.26	276417.308			SCS Dimensionless UH	Huff_010YR_1Q_1HR_2.32in	OL-J15	2.715	903.755	20.438
J38	2263184.151	276848.73			SCS Dimensionless UH	Huff_010YR_1Q_1HR_2.32in	J38	2.226	341.103	3.829
RD-auto1	2262916.586	275252.818			SCS Dimensionless UH	Huff_010YR_1Q_1HR_2.32in	5526	0.135	80.54	2
RD-auto2	2262984.571	275229.518			SCS Dimensionless UH	Huff_010YR_1Q_1HR_2.32in	5571	0.152	117.195	2
RD-auto3	2263052.569	275306.805			SCS Dimensionless UH	Huff_010YR_1Q_1HR_2.32in	5571	0.149	98.701	2
13349	2263348.355	275864.256			SCS Dimensionless UH	Huff_010YR_1Q_1HR_2.32in	OL-13349	0.019	71.191	7.721
RD-thick	2263365.431	275682.682			SCS Dimensionless UH	Huff_010YR_1Q_1HR_2.32in	13138	0.044	57.233	2
RD-sludge	2263543.883	275714.711			SCS Dimensionless UH	Huff_010YR_1Q_1HR_2.32in	13029	0.14	117.504	2
RD-admin	2263390.459	275848.141			SCS Dimensionless UH	Huff_010YR_1Q_1HR_2.32in	13349	0.113	75.316	2
J18	2262616.166	275916.711			SCS Dimensionless UH	Huff_010YR_1Q_1HR_2.32in	J18	0.137	145.702	36.779
2249	2263083.455	275696.383			SCS Dimensionless UH	Huff_010YR_1Q_1HR_2.32in	OL-2249	0.074	205.563	8.856
9645	2263267.034	276236.397			SCS Dimensionless UH	Huff_010YR_1Q_1HR_2.32in	9645	0.072	144.31	4.63
9409	2263378.056	276315.63			SCS Dimensionless UH	Huff_010YR_1Q_1HR_2.32in	OL-9409	0.058	113.675	5.682
10	2261890.811	275633.595			SCS Dimensionless UH	Huff_010YR_1Q_1HR_2.32in	8903	5.113	718.372	3.355
32	2262061.542	275982.302			SCS Dimensionless UH	Huff_010YR_1Q_1HR_2.32in	8807	1.913	441.969	5.046
R1_6	2261926.281	276092.213			SCS Dimensionless UH	Huff_010YR_1Q_1HR_2.32in	8697	0.317	172.579	1.258
81	2262026.639	276178.01			SCS Dimensionless UH	Huff_010YR_1Q_1HR_2.32in	8667-J4	0.689	256.256	1.706
33	2262027.771	276292.842			SCS Dimensionless UH	Huff_010YR_1Q_1HR_2.32in	12000-2	0.434	616.888	5.866
R5	2262296.473	276112.788			SCS Dimensionless UH	Huff_010YR_1Q_1HR_2.32in	RainGarden	3.534	1111.755	14.245

Table 4B: ARM Subcatchments

Name	Imperv. (%)	Dstore Imperv (in)	Dstore Perv (in)	Max. Infil. Rate (in/hr)	Min. Infil. Rate (in/hr)	Decay Constant (1/hr)	Drying Time (days)	Max. Volume (in)	Suction Head (in)	Conductivity (in/hr)	Initial Deficit (frac.)	TC Method	Time of Concentration (min)
J10	31.261	0.05	0.05	0	0	0	0	0	3.5	0.5	0.25	User entered value	6
J13	4.722	0.05	0.05	0	0	0	0	0	3.5	0.5	0.25	User entered value	9.261
J179	28.743	0.05	0.05	0	0	0	0	0	3.5	0.5	0.25	User entered value	9.274
J7	24.816	0.05	0.05	0	0	0	0	0	3.5	0.5	0.25	User entered value	9.648
J6	29.14	0.05	0.05	0	0	0	0	0	3.5	0.5	0.25	User entered value	10.087
31036'	25.965	0.05	0.05	0	0	0	0	0	3.5	0.5	0.25	User entered value	13.058
31036	94.691	0.05	0.05	0	0	0	0	0	3.5	0.5	0.25	User entered value	6
J5	41.747	0.05	0.05	0	0	0	0	0	3.5	0.5	0.25	User entered value	9.881
7592	6.538	0.05	0.05	0	0	0	0	0	3.5	0.5	0.25	User entered value	9.761
J9	12.067	0.05	0.05	0	0	0	0	0	3.5	0.5	0.25	User entered value	10.833
J16	13.406	0.05	0.05	0	0	0	0	0	3.5	0.5	0.25	User entered value	13.273
J72	0.22	0.05	0.05	0	0	0	0	0	3.5	0.5	0.25	User entered value	10.079
21253	6.15	0.05	0.05	0	0	0	0	0	3.5	0.5	0.25	User entered value	10.863
23025	19.835	0.05	0.05	0	0	0	0	0	3.5	0.5	0.25	User entered value	11.685
23037	99.3	0.05	0.05	0	0	0	0	0	3.5	0.5	0.25	User entered value	6
20985	96.196	0.05	0.05	0	0	0	0	0	3.5	0.5	0.25	User entered value	6
21325	92.775	0.05	0.05	0	0	0	0	0	3.5	0.5	0.25	User entered value	6
21199	95.795	0.05	0.05	0	0	0	0	0	3.5	0.5	0.25	User entered value	6
J171	15.425	0.05	0.05	0	0	0	0	0	3.5	0.5	0.25	User entered value	7.239
J175	6.871	0.05	0.05	0	0	0	0	0	3.5	0.5	0.25	User entered value	8.223
J174	27.571	0.05	0.05	0	0	0	0	0	3.5	0.5	0.25	User entered value	7.712
J169	24.955	0.05	0.05	0	0	0	0	0	3.5	0.5	0.25	User entered value	9.311
J170	16.879	0.05	0.05	0	0	0	0	0	3.5	0.5	0.25	User entered value	8.744
18726	68.715	0.05	0.05	0	0	0	0	0	3.5	0.5	0.25	User entered value	6
16770	35.014	0.05	0.05	0	0	0	0	0	3.5	0.5	0.25	User entered value	8.849
16610	27.686	0.05	0.05	0	0	0	0	0	3.5	0.5	0.25	User entered value	8.898

Table 4B: ARM Subcatchments (continued...)

Name	Imperv. (%)	Dstore Imperv (in)	Dstore Perv (in)	Max. Infil. Rate (in/hr)	Min. Infil. Rate (in/hr)	Decay Constant (1/hr)	Drying Time (days)	Max. Volume (in)	Suction Head (in)	Conductivity (in/hr)	Initial Deficit (frac.)	TC Method	Time of Concentration (min)
14608	91.223	0.05	0.05	0	0	0	0	0	3.5	0.5	0.25	User entered value	6
14383	52.77	0.05	0.05	0	0	0	0	0	3.5	0.5	0.25	User entered value	6
15374	31.263	0.05	0.05	0	0	0	0	0	3.5	0.5	0.25	User entered value	8.528
15469	52.878	0.05	0.05	0	0	0	0	0	3.5	0.5	0.25	User entered value	6
16125	52.038	0.05	0.05	0	0	0	0	0	3.5	0.5	0.25	User entered value	9.894
J3	44.937	0.05	0.05	0	0	0	0	0	3.5	0.5	0.25	User entered value	8.328
J2	58.464	0.05	0.05	0	0	0	0	0	3.5	0.5	0.25	User entered value	9.498
15964	80.749	0.05	0.05	0	0	0	0	0	3.5	0.5	0.25	User entered value	6
J172	26.391	0.05	0.05	0	0	0	0	0	3.5	0.5	0.25	User entered value	9.151
J173	18.357	0.05	0.05	0	0	0	0	0	3.5	0.5	0.25	User entered value	7.745
J26	19.601	0.05	0.05	0	0	0	0	0	3.5	0.5	0.25	User entered value	9.81
19657	100	0.05	0.05	0	0	0	0	0	3.5	0.5	0.25	User entered value	6
20575	48.458	0.05	0.05	0	0	0	0	0	3.5	0.5	0.25	User entered value	6
OL-J48	35.821	0.05	0.05	0	0	0	0	0	3.5	0.5	0.25	User entered value	9.355
OL-J49	91.623	0.05	0.05	0	0	0	0	0	3.5	0.5	0.25	User entered value	6
12956	89.718	0.05	0.05	0	0	0	0	0	3.5	0.5	0.25	User entered value	6
13746	32.246	0.05	0.05	0	0	0	0	0	3.5	0.5	0.25	User entered value	7.069
J39	42.007	0.05	0.05	0	0	0	0	0	3.5	0.5	0.25	User entered value	8.788
5526	99.354	0.05	0.05	0	0	0	0	0	3.5	0.5	0.25	User entered value	6
5571	99.987	0.05	0.05	0	0	0	0	0	3.5	0.5	0.25	User entered value	6
5604	88.793	0.05	0.05	0	0	0	0	0	3.5	0.5	0.25	User entered value	6
J183	48.168	0.05	0.05	0	0	0	0	0	3.5	0.5	0.25	User entered value	8.805
OL-J38	76.417	0.05	0.05	0	0	0	0	0	3.5	0.5	0.25	User entered value	6
5230	44.04	0.05	0.05	0	0	0	0	0	3.5	0.5	0.25	User entered value	8.889
5246	29.827	0.05	0.05	0	0	0	0	0	3.5	0.5	0.25	User entered value	8.209
21705	81.721	0.05	0.05	0	0	0	0	0	3.5	0.5	0.25	User entered value	6

Table 4B: ARM Subcatchments (continued...)

Name	Imperv. (%)	Dstore Imperv (in)	Dstore Perv (in)	Max. Infil. Rate (in/hr)	Min. Infil. Rate (in/hr)	Decay Constant (1/hr)	Drying Time (days)	Max. Volume (in)	Suction Head (in)	Conductivity (in/hr)	Initial Deficit (frac.)	TC Method	Time of Concentration (min)
5218	76.136	0.05	0.05	0	0	0	0	0	3.5	0.5	0.25	User entered value	6
21626	4.432	0.05	0.05	0	0	0	0	0	3.5	0.5	0.25	User entered value	8.446
5172	32.951	0.05	0.05	0	0	0	0	0	3.5	0.5	0.25	User entered value	8.967
6505	32.751	0.05	0.05	0	0	0	0	0	3.5	0.5	0.25	User entered value	10.022
OL-J41	33.625	0.05	0.05	0	0	0	0	0	3.5	0.5	0.25	User entered value	16.045
6088	42.711	0.05	0.05	0	0	0	0	0	3.5	0.5	0.25	User entered value	9.269
J4	27.614	0.05	0.05	0	0	0	0	0	3.5	0.5	0.25	User entered value	10.406
1896	56.591	0.05	0.05	0	0	0	0	0	3.5	0.5	0.25	User entered value	6
1038	3.113	0.05	0.05	0	0	0	0	0	3.5	0.5	0.25	User entered value	7.542
2358	83.198	0.05	0.05	0	0	0	0	0	3.5	0.5	0.25	User entered value	6
J45	30.375	0.05	0.05	0	0	0	0	0	3.5	0.5	0.25	User entered value	6.648
3824	50.971	0.05	0.05	0	0	0	0	0	3.5	0.5	0.25	User entered value	7.067
3596	34.241	0.05	0.05	0	0	0	0	0	3.5	0.5	0.25	User entered value	9.142
3449	100	0.05	0.05	0	0	0	0	0	3.5	0.5	0.25	User entered value	6
3372	100	0.05	0.05	0	0	0	0	0	3.5	0.5	0.25	User entered value	6
3615	16.151	0.05	0.05	0	0	0	0	0	3.5	0.5	0.25	User entered value	7.838
3424	65.743	0.05	0.05	0	0	0	0	0	3.5	0.5	0.25	User entered value	6
3381	60.7	0.05	0.05	0	0	0	0	0	3.5	0.5	0.25	User entered value	6
15234	14.128	0.05	0.05	0	0	0	0	0	3.5	0.5	0.25	User entered value	8.894
15075	20.527	0.05	0.05	0	0	0	0	0	3.5	0.5	0.25	User entered value	7.456
15025	0	0.05	0.05	0	0	0	0	0	3.5	0.5	0.25	User entered value	8.319
17671	0	0.05	0.05	0	0	0	0	0	3.5	0.5	0.25	User entered value	9.253
18356	0	0.05	0.05	0	0	0	0	0	3.5	0.5	0.25	User entered value	9.885
18312	20.666	0.05	0.05	0	0	0	0	0	3.5	0.5	0.25	User entered value	9.992
9264	81.17	0.05	0.05	0	0	0	0	0	3.5	0.5	0.25	User entered value	6
9253	43.048	0.05	0.05	0	0	0	0	0	3.5	0.5	0.25	User entered value	10.167

Table 4B: ARM Subcatchments (continued...)

Name	Imperv. (%)	Dstore Imperv (in)	Dstore Perv (in)	Max. Infil. Rate (in/hr)	Min. Infil. Rate (in/hr)	Decay Constant (1/hr)	Drying Time (days)	Max. Volume (in)	Suction Head (in)	Conductivity (in/hr)	Initial Deficit (frac.)	TC Method	Time of Concentration (min)
9627	48.646	0.05	0.05	0	0	0	0	0	3.5	0.5	0.25	User entered value	8.976
10028	21.581	0.05	0.05	0	0	0	0	0	3.5	0.5	0.25	User entered value	9.47
11842	100	0.05	0.05	0	0	0	0	0	3.5	0.5	0.25	User entered value	6
11966	41.45	0.05	0.05	0	0	0	0	0	3.5	0.5	0.25	User entered value	6
RD-incen	100	0.05	0.05	0	0	0	0	0	3.5	0.5	0.25	User entered value	6
13029	29.258	0.05	0.05	0	0	0	0	0	3.5	0.5	0.25	User entered value	6
13138	97.665	0.05	0.05	0	0	0	0	0	3.5	0.5	0.25	User entered value	6
OL-J40	80.428	0.05	0.05	0	0	0	0	0	3.5	0.5	0.25	User entered value	6
OL-J50	95.097	0.05	0.05	0	0	0	0	0	3.5	0.5	0.25	User entered value	6
5191	97.662	0.05	0.05	0	0	0	0	0	3.5	0.5	0.25	User entered value	6
1885	14.161	0.05	0.05	0	0	0	0	0	3.5	0.5	0.25	User entered value	9.424
J147	100	0.05	0.05	0	0	0	0	0	3.5	0.5	0.25	User entered value	6
J33	100	0.05	0.05	0	0	0	0	0	3.5	0.5	0.25	User entered value	6
11560	79.438	0.05	0.05	0	0	0	0	0	3.5	0.5	0.25	User entered value	6
11213	94.738	0.05	0.05	0	0	0	0	0	3.5	0.5	0.25	User entered value	6
13528	96.624	0.05	0.05	0	0	0	0	0	3.5	0.5	0.25	User entered value	6
J31	100	0.05	0.05	0	0	0	0	0	3.5	0.5	0.25	User entered value	6
12497	68.307	0.05	0.05	0	0	0	0	0	3.5	0.5	0.25	User entered value	6
12678	64.88	0.05	0.05	0	0	0	0	0	3.5	0.5	0.25	User entered value	6
12709	60.092	0.05	0.05	0	0	0	0	0	3.5	0.5	0.25	User entered value	8.917
12300	92.815	0.05	0.05	0	0	0	0	0	3.5	0.5	0.25	User entered value	6
2374	95.953	0.05	0.05	0	0	0	0	0	3.5	0.5	0.25	User entered value	6
J180	6.569	0.05	0.05	0	0	0	0	0	3.5	0.5	0.25	User entered value	7.154
2002	57.832	0.05	0.05	0	0	0	0	0	3.5	0.5	0.25	User entered value	6
J167	30.307	0.05	0.05	0	0	0	0	0	3.5	0.5	0.25	User entered value	8.816
3253	0	0.05	0.05	0	0	0	0	0	3.5	0.5	0.25	User entered value	7.778

Table 4B: ARM Subcatchments (continued...)

Name	Imperv. (%)	Dstore Imperv (in)	Dstore Perv (in)	Max. Infil. Rate (in/hr)	Min. Infil. Rate (in/hr)	Decay Constant (1/hr)	Drying Time (days)	Max. Volume (in)	Suction Head (in)	Conductivity (in/hr)	Initial Deficit (frac.)	TC Method	Time of Concentration (min)
J74	1.189	0.05	0.05	0	0	0	0	0	3.5	0.5	0.25	User entered value	8.826
J17	25.102	0.05	0.05	0	0	0	0	0	3.5	0.5	0.25	User entered value	6
J35	20.072	0.05	0.05	0	0	0	0	0	3.5	0.5	0.25	User entered value	8.565
25478	18.168	0.05	0.05	0	0	0	0	0	3.5	0.5	0.25	User entered value	10.813
7096	83.732	0.05	0.05	0	0	0	0	0	3.5	0.5	0.25	User entered value	6
7742	78.38	0.05	0.05	0	0	0	0	0	3.5	0.5	0.25	User entered value	6
3089	20.12	0.05	0.05	0	0	0	0	0	3.5	0.5	0.25	User entered value	8.804
J29	0.518	0.05	0.05	0	0	0	0	0	3.5	0.5	0.25	User entered value	8.149
J165	15.048	0.05	0.05	0	0	0	0	0	3.5	0.5	0.25	User entered value	7.813
J164	46.672	0.05	0.05	0	0	0	0	0	3.5	0.5	0.25	User entered value	6
J14	31.924	0.05	0.05	0	0	0	0	0	3.5	0.5	0.25	User entered value	7.285
J1	89.731	0.05	0.05	0	0	0	0	0	3.5	0.5	0.25	User entered value	6
7683	67.196	0.05	0.05	0	0	0	0	0	3.5	0.5	0.25	User entered value	6
J15	40.272	0.05	0.05	0	0	0	0	0	3.5	0.5	0.25	User entered value	8.577
J38	92.02	0.05	0.05	0	0	0	0	0	3.5	0.5	0.25	User entered value	6
RD-auto1	100	0.05	0.05	0	0	0	0	0	3.5	0.5	0.25	User entered value	6
RD-auto2	100	0.05	0.05	0	0	0	0	0	3.5	0.5	0.25	User entered value	6
RD-auto3	100	0.05	0.05	0	0	0	0	0	3.5	0.5	0.25	User entered value	6
13349	100	0.05	0.05	0	0	0	0	0	3.5	0.5	0.25	User entered value	6
RD-thick	100	0.05	0.05	0	0	0	0	0	3.5	0.5	0.25	User entered value	6
RD-sludge	100	0.05	0.05	0	0	0	0	0	3.5	0.5	0.25	User entered value	6
RD-admin	100	0.05	0.05	0	0	0	0	0	3.5	0.5	0.25	User entered value	6
J18	1.196	0.05	0.05	0	0	0	0	0	3.5	0.5	0.25	User entered value	6.398
2249	94.252	0	0	0	0	0	0	0	0	0	0	User entered value	6
9645	99.908	0.05	0.05	0	0	0	0	0	3.5	0.5	0.25	User entered value	6
9409	100	0.05	0.05	0	0	0	0	0	3.5	0.5	0.25	User entered value	6

Table 4B: ARM Subcatchments (continued...)

Name	Imperv. (%)	Dstore Imperv (in)	Dstore Perv (in)	Max. Infil. Rate (in/hr)	Min. Infil. Rate (in/hr)	Decay Constant (1/hr)	Drying Time (days)	Max. Volume (in)	Suction Head (in)	Conductivity (in/hr)	Initial Deficit (frac.)	TC Method	Time of Concentration (min)
10	0	0.05	0.05	0	0	0	0	0	3.5	0.5	0.25	SCS	11.467
32	0	0.05	0.05	0	0	0	0	0	3.5	0.5	0.25	SCS	7.503
R1_6	0	0.05	0.05	0	0	0	0	0	3.5	0.5	0.25	SCS	6.653
81	0	0.05	0.05	0	0	0	0	0	3.5	0.5	0.25	SCS	8.345
33	4.347	0.05	0.05	0	0	0	0	0	3.5	0.5	0.25	SCS	9.136
R5	0	0.05	0.05	0	0	0	0	0	3.5	0.5	0.25	User entered value	13.393

Table 4C: ARM Subcatchments

Name	Loss Method	IA Method	IA Value (in)	SCS Curve Number	Peak Rate Factor	Initial Loss (in)	Const. Rate (in/hr)	Runoff Coef.	Lag Time (min)	Peak Coef.	# Reservoirs	Storage Coef. (h)	IDF Curve	Return Period (y)	Steady Duration (mins)
J10	SCS CN	0.2 S	0.527	79.16	Standard (483.4)	0	0	0.6	30	0.6	3	0.4		5	60
J13	SCS CN	0.2 S	0.556	78.24	Standard (483.4)	0	0	0.6	30	0.6	3	0.4		5	60
J179	SCS CN	0.2 S	0.407	83.08	Standard (483.4)	0	0	0.6	30	0.6	3	0.4		5	60
J7	SCS CN	0.2 S	0.424	82.51	Standard (483.4)	0	0	0.6	30	0.6	3	0.4		5	60
J6	SCS CN	0.2 S	0.408	83.06	Standard (483.4)	0	0	0.6	30	0.6	3	0.4		5	60
31036'	SCS CN	0.2 S	0.473	80.86	Standard (483.4)	0	0	0.6	30	0.6	3	0.4		5	60
31036	SCS CN	0.2 S	0.064	96.89	Standard (483.4)	0	0	0.6	30	0.6	3	0.4		5	60
J5	SCS CN	0.2 S	0.325	86.02	Standard (483.4)	0	0	0.6	30	0.6	3	0.4		5	60
7592	SCS CN	0.2 S	0.536	78.87	Standard (483.4)	0	0	0.6	30	0.6	3	0.4		5	60
J9	SCS CN	0.2 S	0.507	79.79	Standard (483.4)	0	0	0.6	30	0.6	3	0.4		5	60
J16	SCS CN	0.2 S	0.498	80.06	Standard (483.4)	0	0	0.6	30	0.6	3	0.4		5	60
J72	SCS CN	0.2 S	0.594	77.11	Standard (483.4)	0	0	0.6	30	0.6	3	0.4		5	60
21253	SCS CN	0.2 S	0.536	78.85	Standard (483.4)	0	0	0.6	30	0.6	3	0.4		5	60
23025	SCS CN	0.2 S	0.6	76.91	Standard (483.4)	0	0	0.6	30	0.6	3	0.4		5	60

Table 4C: ARM Subcatchments (continued...)

Name	Loss Method	IA Method	IA Value (in)	SCS Curve Number	Peak Rate Factor	Initial Loss (in)	Const. Rate (in/hr)	Runoff Coef.	Lag Time (min)	Peak Coef.	# Reservoirs	Storage Coef. (h)	IDF Curve	Return Period (y)	Steady Duration (mins)
23037	SCS CN	0.2 S	0.044	97.86	Standard (483.4)	0	0	0.6	30	0.6	3	0.4		5	60
20985	SCS CN	0.2 S	0.06	97.1	Standard (483.4)	0	0	0.6	30	0.6	3	0.4		5	60
21325	SCS CN	0.2 S	0.072	96.53	Standard (483.4)	0	0	0.6	30	0.6	3	0.4		5	60
21199	SCS CN	0.2 S	0.058	97.16	Standard (483.4)	0	0	0.6	30	0.6	3	0.4		5	60
J171	SCS CN	0.2 S	0.486	80.46	Standard (483.4)	0	0	0.6	30	0.6	3	0.4		5	60
J175	SCS CN	0.2 S	0.525	79.22	Standard (483.4)	0	0	0.6	30	0.6	3	0.4		5	60
J174	SCS CN	0.2 S	0.408	83.06	Standard (483.4)	0	0	0.6	30	0.6	3	0.4		5	60
J169	SCS CN	0.2 S	0.416	82.79	Standard (483.4)	0	0	0.6	30	0.6	3	0.4		5	60
J170	SCS CN	0.2 S	0.465	81.13	Standard (483.4)	0	0	0.6	30	0.6	3	0.4		5	60
18726	SCS CN	0.2 S	0.184	91.57	Standard (483.4)	0	0	0.6	30	0.6	3	0.4		5	60
16770	SCS CN	0.2 S	0.357	84.86	Standard (483.4)	0	0	0.6	30	0.6	3	0.4		5	60
16610	SCS CN	0.2 S	0.402	83.27	Standard (483.4)	0	0	0.6	30	0.6	3	0.4		5	60
14608	SCS CN	0.2 S	0.079	96.18	Standard (483.4)	0	0	0.6	30	0.6	3	0.4		5	60
14383	SCS CN	0.2 S	0.259	88.53	Standard (483.4)	0	0	0.6	30	0.6	3	0.4		5	60
15374	SCS CN	0.2 S	0.382	83.97	Standard (483.4)	0	0	0.6	30	0.6	3	0.4		5	60
15469	SCS CN	0.2 S	0.258	88.58	Standard (483.4)	0	0	0.6	30	0.6	3	0.4		5	60
16125	SCS CN	0.2 S	0.262	88.41	Standard (483.4)	0	0	0.6	30	0.6	3	0.4		5	60
J3	SCS CN	0.2 S	0.312	86.52	Standard (483.4)	0	0	0.6	30	0.6	3	0.4		5	60
J2	SCS CN	0.2 S	0.233	89.55	Standard (483.4)	0	0	0.6	30	0.6	3	0.4		5	60
15964	SCS CN	0.2 S	0.124	94.14	Standard (483.4)	0	0	0.6	30	0.6	3	0.4		5	60
J172	SCS CN	0.2 S	0.412	82.92	Standard (483.4)	0	0	0.6	30	0.6	3	0.4		5	60
J173	SCS CN	0.2 S	0.449	81.67	Standard (483.4)	0	0	0.6	30	0.6	3	0.4		5	60
J26	SCS CN	0.2 S	0.451	81.6	Standard (483.4)	0	0	0.6	30	0.6	3	0.4		5	60
19657	SCS CN	0.2 S	0.041	98	Standard (483.4)	0	0	0.6	30	0.6	3	0.4		5	60
20575	SCS CN	0.2 S	0.287	87.45	Standard (483.4)	0	0	0.6	30	0.6	3	0.4		5	60
OL-J48	SCS CN	0.2 S	0.349	85.16	Standard (483.4)	0	0	0.6	30	0.6	3	0.4		5	60

Table 4C: ARM Subcatchments (continued...)

Name	Loss Method	IA Method	IA Value (in)	SCS Curve Number	Peak Rate Factor	Initial Loss (in)	Const. Rate (in/hr)	Runoff Coef.	Lag Time (min)	Peak Coef.	# Reservoirs	Storage Coef. (h)	IDF Curve	Return Period (y)	Steady Duration (mins)
OL-J49	SCS CN	0.2 S	0.078	96.26	Standard (483.4)	0	0	0.6	30	0.6	3	0.4		5	60
12956	SCS CN	0.2 S	0.087	95.85	Standard (483.4)	0	0	0.6	30	0.6	3	0.4		5	60
13746	SCS CN	0.2 S	0.376	84.19	Standard (483.4)	0	0	0.6	30	0.6	3	0.4		5	60
J39	SCS CN	0.2 S	0.326	85.99	Standard (483.4)	0	0	0.6	30	0.6	3	0.4		5	60
5526	SCS CN	0.2 S	0.044	97.87	Standard (483.4)	0	0	0.6	30	0.6	3	0.4		5	60
5571	SCS CN	0.2 S	0.041	98	Standard (483.4)	0	0	0.6	30	0.6	3	0.4		5	60
5604	SCS CN	0.2 S	0.089	95.72	Standard (483.4)	0	0	0.6	30	0.6	3	0.4		5	60
J183	SCS CN	0.2 S	0.285	87.53	Standard (483.4)	0	0	0.6	30	0.6	3	0.4		5	60
OL-J38	SCS CN	0.2 S	0.144	93.28	Standard (483.4)	0	0	0.6	30	0.6	3	0.4		5	60
5230	SCS CN	0.2 S	0.307	86.7	Standard (483.4)	0	0	0.6	30	0.6	3	0.4		5	60
5246	SCS CN	0.2 S	0.385	83.86	Standard (483.4)	0	0	0.6	30	0.6	3	0.4		5	60
21705	SCS CN	0.2 S	0.123	94.22	Standard (483.4)	0	0	0.6	30	0.6	3	0.4		5	60
5218	SCS CN	0.2 S	0.145	93.23	Standard (483.4)	0	0	0.6	30	0.6	3	0.4		5	60
21626	SCS CN	0.2 S	0.54	78.74	Standard (483.4)	0	0	0.6	30	0.6	3	0.4		5	60
5172	SCS CN	0.2 S	0.37	84.4	Standard (483.4)	0	0	0.6	30	0.6	3	0.4		5	60
6505	SCS CN	0.2 S	0.379	84.08	Standard (483.4)	0	0	0.6	30	0.6	3	0.4		5	60
OL-J41	SCS CN	0.2 S	0.373	84.28	Standard (483.4)	0	0	0.6	30	0.6	3	0.4		5	60
6088	SCS CN	0.2 S	0.317	86.31	Standard (483.4)	0	0	0.6	30	0.6	3	0.4		5	60
J4	SCS CN	0.2 S	0.414	82.85	Standard (483.4)	0	0	0.6	30	0.6	3	0.4		5	60
1896	SCS CN	0.2 S	0.242	89.22	Standard (483.4)	0	0	0.6	30	0.6	3	0.4		5	60
1038	SCS CN	0.2 S	0.557	78.22	Standard (483.4)	0	0	0.6	30	0.6	3	0.4		5	60
2358	SCS CN	0.2 S	0.113	94.64	Standard (483.4)	0	0	0.6	30	0.6	3	0.4		5	60
J45	SCS CN	0.2 S	0.379	84.08	Standard (483.4)	0	0	0.6	30	0.6	3	0.4		5	60
3824	SCS CN	0.2 S	0.269	88.16	Standard (483.4)	0	0	0.6	30	0.6	3	0.4		5	60
3596	SCS CN	0.2 S	0.361	84.7	Standard (483.4)	0	0	0.6	30	0.6	3	0.4		5	60
3449	SCS CN	0.2 S	0.041	98	Standard (483.4)	0	0	0.6	30	0.6	3	0.4		5	60

Table 4C: ARM Subcatchments (continued...)

Name	Loss Method	IA Method	IA Value (in)	SCS Curve Number	Peak Rate Factor	Initial Loss (in)	Const. Rate (in/hr)	Runoff Coef.	Lag Time (min)	Peak Coef.	# Reservoirs	Storage Coef. (h)	IDF Curve	Return Period (y)	Steady Duration (mins)
3372	SCS CN	0.2 S	0.041	98	Standard (483.4)	0	0	0.6	30	0.6	3	0.4		5	60
3615	SCS CN	0.2 S	0.476	80.79	Standard (483.4)	0	0	0.6	30	0.6	3	0.4		5	60
3424	SCS CN	0.2 S	0.201	90.87	Standard (483.4)	0	0	0.6	30	0.6	3	0.4		5	60
3381	SCS CN	0.2 S	0.219	90.14	Standard (483.4)	0	0	0.6	30	0.6	3	0.4		5	60
15234	SCS CN	0.2 S	0.474	80.83	Standard (483.4)	0	0	0.6	30	0.6	3	0.4		5	60
15075	SCS CN	0.2 S	0.436	82.11	Standard (483.4)	0	0	0.6	30	0.6	3	0.4		5	60
15025	SCS CN	0.2 S	0.564	78	Standard (483.4)	0	0	0.6	30	0.6	3	0.4		5	60
17671	SCS CN	0.2 S	0.564	78	Standard (483.4)	0	0	0.6	30	0.6	3	0.4		5	60
18356	SCS CN	0.2 S	0.564	78	Standard (483.4)	0	0	0.6	30	0.6	3	0.4		5	60
18312	SCS CN	0.2 S	0.435	82.13	Standard (483.4)	0	0	0.6	30	0.6	3	0.4		5	60
9264	SCS CN	0.2 S	0.125	94.12	Standard (483.4)	0	0	0.6	30	0.6	3	0.4		5	60
9253	SCS CN	0.2 S	0.309	86.61	Standard (483.4)	0	0	0.6	30	0.6	3	0.4		5	60
9627	SCS CN	0.2 S	0.28	87.73	Standard (483.4)	0	0	0.6	30	0.6	3	0.4		5	60
10028	SCS CN	0.2 S	0.43	82.32	Standard (483.4)	0	0	0.6	30	0.6	3	0.4		5	60
11842	SCS CN	0.2 S	0.041	98	Standard (483.4)	0	0	0.6	30	0.6	3	0.4		5	60
11966	SCS CN	0.2 S	0.318	86.29	Standard (483.4)	0	0	0.6	30	0.6	3	0.4		5	60
RD-incen	SCS CN	0.2 S	0.041	98	Standard (483.4)	0	0	0.6	30	0.6	3	0.4		5	60
13029	SCS CN	0.2 S	0.405	83.15	Standard (483.4)	0	0	0.6	30	0.6	3	0.4		5	60
13138	SCS CN	0.2 S	0.051	97.51	Standard (483.4)	0	0	0.6	30	0.6	3	0.4		5	60
OL-J40	SCS CN	0.2 S	0.13	93.89	Standard (483.4)	0	0	0.6	30	0.6	3	0.4		5	60
OL-J50	SCS CN	0.2 S	0.062	97	Standard (483.4)	0	0	0.6	30	0.6	3	0.4		5	60
5191	SCS CN	0.2 S	0.051	97.53	Standard (483.4)	0	0	0.6	30	0.6	3	0.4		5	60
1885	SCS CN	0.2 S	0.486	80.46	Standard (483.4)	0	0	0.6	30	0.6	3	0.4		5	60
J147	SCS CN	0.2 S	0.041	98	Standard (483.4)	0	0	0.6	30	0.6	3	0.4		5	60
J33	SCS CN	0.2 S	0.041	98	Standard (483.4)	0	0	0.6	30	0.6	3	0.4		5	60
11560	SCS CN	0.2 S	0.13	93.89	Standard (483.4)	0	0	0.6	30	0.6	3	0.4		5	60

Table 4C: ARM Subcatchments (continued...)

Name	Loss Method	IA Method	IA Value (in)	SCS Curve Number	Peak Rate Factor	Initial Loss (in)	Const. Rate (in/hr)	Runoff Coef.	Lag Time (min)	Peak Coef.	# Reservoirs	Storage Coef. (h)	IDF Curve	Return Period (y)	Steady Duration (mins)
11213	SCS CN	0.2 S	0.063	96.95	Standard (483.4)	0	0	0.6	30	0.6	3	0.4		5	60
13528	SCS CN	0.2 S	0.055	97.32	Standard (483.4)	0	0	0.6	30	0.6	3	0.4		5	60
J31	SCS CN	0.2 S	0.041	98	Standard (483.4)	0	0	0.6	30	0.6	3	0.4		5	60
12497	SCS CN	0.2 S	0.184	91.57	Standard (483.4)	0	0	0.6	30	0.6	3	0.4		5	60
12678	SCS CN	0.2 S	0.201	90.87	Standard (483.4)	0	0	0.6	30	0.6	3	0.4		5	60
12709	SCS CN	0.2 S	0.224	89.92	Standard (483.4)	0	0	0.6	30	0.6	3	0.4		5	60
12300	SCS CN	0.2 S	0.072	96.52	Standard (483.4)	0	0	0.6	30	0.6	3	0.4		5	60
2374	SCS CN	0.2 S	0.059	97.15	Standard (483.4)	0	0	0.6	30	0.6	3	0.4		5	60
J180	SCS CN	0.2 S	0.541	78.7	Standard (483.4)	0	0	0.6	30	0.6	3	0.4		5	60
2002	SCS CN	0.2 S	0.244	89.14	Standard (483.4)	0	0	0.6	30	0.6	3	0.4		5	60
J167	SCS CN	0.2 S	0.398	83.39	Standard (483.4)	0	0	0.6	30	0.6	3	0.4		5	60
3253	SCS CN	0.2 S	0.595	77.06	Standard (483.4)	0	0	0.6	30	0.6	3	0.4		5	60
J74	SCS CN	0.2 S	0.568	77.88	Standard (483.4)	0	0	0.6	30	0.6	3	0.4		5	60
J17	SCS CN	0.2 S	0.425	82.47	Standard (483.4)	0	0	0.6	30	0.6	3	0.4		5	60
J35	SCS CN	0.2 S	0.445	81.79	Standard (483.4)	0	0	0.6	30	0.6	3	0.4		5	60
25478	SCS CN	0.2 S	0.471	80.95	Standard (483.4)	0	0	0.6	30	0.6	3	0.4		5	60
7096	SCS CN	0.2 S	0.111	94.75	Standard (483.4)	0	0	0.6	30	0.6	3	0.4		5	60
7742	SCS CN	0.2 S	0.135	93.68	Standard (483.4)	0	0	0.6	30	0.6	3	0.4		5	60
3089	SCS CN	0.2 S	0.454	81.51	Standard (483.4)	0	0	0.6	30	0.6	3	0.4		5	60
J29	SCS CN	0.2 S	0.594	77.11	Standard (483.4)	0	0	0.6	30	0.6	3	0.4		5	60
J165	SCS CN	0.2 S	0.495	80.16	Standard (483.4)	0	0	0.6	30	0.6	3	0.4		5	60
J164	SCS CN	0.2 S	0.295	87.13	Standard (483.4)	0	0	0.6	30	0.6	3	0.4		5	60
J14	SCS CN	0.2 S	0.384	83.91	Standard (483.4)	0	0	0.6	30	0.6	3	0.4		5	60
J1	SCS CN	0.2 S	0.085	95.91	Standard (483.4)	0	0	0.6	30	0.6	3	0.4		5	60
7683	SCS CN	0.2 S	0.193	91.18	Standard (483.4)	0	0	0.6	30	0.6	3	0.4		5	60
J15	SCS CN	0.2 S	0.336	85.62	Standard (483.4)	0	0	0.6	30	0.6	3	0.4		5	60

Table 4C: ARM Subcatchments (continued...)

Name	Loss Method	IA Method	IA Value (in)	SCS Curve Number	Peak Rate Factor	Initial Loss (in)	Const. Rate (in/hr)	Runoff Coef.	Lag Time (min)	Peak Coef.	# Reservoirs	Storage Coef. (h)	IDF Curve	Return Period (y)	Steady Duration (mins)
J38	SCS CN	0.2 S	0.076	96.36	Standard (483.4)	0	0	0.6	30	0.6	3	0.4		5	60
RD-auto1	SCS CN	0.2 S	0.041	98	Standard (483.4)	0	0	0.6	30	0.6	3	0.4		5	60
RD-auto2	SCS CN	0.2 S	0.041	98	Standard (483.4)	0	0	0.6	30	0.6	3	0.4		5	60
RD-auto3	SCS CN	0.2 S	0.041	98	Standard (483.4)	0	0	0.6	30	0.6	3	0.4		5	60
13349	SCS CN	0.2 S	0.041	98	Standard (483.4)	0	0	0.6	30	0.6	3	0.4		5	60
RD-thick	SCS CN	0.2 S	0.041	98	Standard (483.4)	0	0	0.6	30	0.6	3	0.4		5	60
RD-sludge	SCS CN	0.2 S	0.041	98	Standard (483.4)	0	0	0.6	30	0.6	3	0.4		5	60
RD-admin	SCS CN	0.2 S	0.041	98	Standard (483.4)	0	0	0.6	30	0.6	3	0.4		5	60
J18	SCS CN	0.2 S	0.577	77.61	Standard (483.4)	0	0	0.6	30	0.6	3	0.4		5	60
2249	SCS CN	0.2 S	0.065	96.85	Standard (483.4)	0	0	0	0	0	0	0		0	0
9645	SCS CN	0.2 S	0.041	97.98	Standard (483.4)	0	0	0.6	30	0.6	3	0.4		5	60
9409	SCS CN	0.2 S	0.041	98	Standard (483.4)	0	0	0.6	30	0.6	3	0.4		5	60
10	SCS CN	0.2 S	0.365	84.549	Standard (483.4)	0	0	0.6	30	0.6	3	0.4		5	60
32	SCS CN	0.2 S	0.519	79.383	Standard (483.4)	0	0	0.6	30	0.6	3	0.4		5	60
R1_6	SCS CN	0.2 S	0.458	81.368	Standard (483.4)	0	0	0.6	30	0.6	3	0.4		5	60
81	SCS CN	0.2 S	0.52	79.379	Standard (483.4)	0	0	0.6	30	0.6	3	0.4		5	60
33	SCS CN	0.2 S	0.525	79.208	Standard (483.4)	0	0	0.6	30	0.6	3	0.4		5	60
R5	SCS CN	0.2 S	0.564	77.99	Standard (483.4)	0	0	0.6	30	0.6	3	0.4		5	60

Table 4D: ARM Subcatchments

Name	Peak Rainfall (in/hr)	Roughness	Version	Rainfall Zone	Soil Type	Hydrograph Fattening	Runoff Depth (in)	Total rainfall (in)	Fire Factor	User entered PRF	Precipitation (in)	Infiltration (in)	Runoff Depth (in)	Runoff Volume (MG)
J10	0	0.1	2017			No	0	0	0	0	2.305	1.091	1.224	0.122
J13	0	0.1	2017			No	0	0	0	0	2.305	1.553	0.771	0.008
J179	0	0.1	2017			No	0	0	0	0	2.305	0.99	1.348	0.094
J7	0	0.1	2017			No	0	0	0	0	2.305	1.068	1.259	0.156
J6	0	0.1	2017			No	0	0	0	0	2.305	0.985	1.332	0.143
31036'	0	0.1	2017			No	0	0	0	0	2.305	1.115	1.181	0.349
31036	0	0.1	2017			No	0	0	0	0	2.305	0.018	2.308	0.015
J5	0	0.1	2017			No	0	0	0	0	2.305	0.709	1.616	0.116
7592	0	0.1	2017			No	0	0	0	0	2.305	1.497	0.821	0.03
J9	0	0.1	2017			No	0	0	0	0	2.305	1.37	0.935	0.035
J16	0	0.1	2017			No	0	0	0	0	2.305	1.338	0.96	0.131
J72	0	0.1	2017			No	0	0	0	0	2.305	1.675	0.635	0.023
21253	0	0.1	2017			No	0	0	0	0	2.305	1.504	0.802	0.062
23025	0	0.1	2017			No	0	0	0	0	2.305	1.353	0.947	0.13
23037	0	0.1	2017			No	0	0	0	0	2.305	0.002	2.324	0.007
20985	0	0.1	2017			No	0	0	0	0	2.305	0.012	2.314	0.017
21325	0	0.1	2017			No	0	0	0	0	2.305	0.028	2.298	0.012
21199	0	0.1	2017			No	0	0	0	0	2.305	0.013	2.313	0.007
J171	0	0.1	2017			No	0	0	0	0	2.305	1.29	1.024	0.002
J175	0	0.1	2017			No	0	0	0	0	2.305	1.476	0.848	0.001
J174	0	0.1	2017			No	0	0	0	0	2.305	1.007	1.319	0.004
J169	0	0.1	2017			No	0	0	0	0	2.305	1.055	1.281	0.015
J170	0	0.1	2017			No	0	0	0	0	2.305	1.24	1.09	0.027
18726	0	0.1	2017			No	0	0	0	0	2.305	0.258	2.065	0.003
16770	0	0.1	2017			No	0	0	0	0	2.305	0.837	1.503	0.014
16610	0	0.1	2017			No	0	0	0	0	2.305	0.997	1.339	0.016

Table 4D: ARM Subcatchments (continued...)

Name	Peak Rainfall (in/hr)	Roughness	Version	Rainfall Zone	Soil Type	Hydrograph Fattening	Runoff Depth (in)	Total rainfall (in)	Fire Factor	User entered PRF	Precipitation (in)	Infiltration (in)	Runoff Depth (in)	Runoff Volume (MG)
14608	0	0.1	2017			No	0	0	0	0	2.305	0.037	2.29	0.011
14383	0	0.1	2017			No	0	0	0	0	2.305	0.497	1.825	0.005
15374	0	0.1	2017			No	0	0	0	0	2.305	0.921	1.417	0.003
15469	0	0.1	2017			No	0	0	0	0	2.305	0.494	1.827	0.001
16125	0	0.1	2017			No	0	0	0	0	2.305	0.509	1.819	0.017
J3	0	0.1	2017			No	0	0	0	0	2.305	0.653	1.692	0.152
J2	0	0.1	2017			No	0	0	0	0	2.305	0.407	1.937	0.073
15964	0	0.1	2017			No	0	0	0	0	2.305	0.117	2.208	0.033
J172	0	0.1	2017			No	0	0	0	0	2.305	1.029	1.307	0.016
J173	0	0.1	2017			No	0	0	0	0	2.305	1.196	1.128	0.006
J26	0	0.1	2017			No	0	0	0	0	2.305	1.18	1.14	0.027
19657	0	0.1	2017			No	0	0	0	0	2.305	0	2.326	0.005
20575	0	0.1	2017			No	0	0	0	0	2.305	0.58	1.74	0.009
OL-J48	0	0.1	2017			No	0	0	0	0	2.305	0.815	1.525	0.006
OL-J49	0	0.1	2017			No	0	0	0	0	2.305	0.034	2.292	0.021
12956	0	0.1	2017			No	0	0	0	0	2.305	0.046	2.28	0.005
13746	0	0.1	2017			No	0	0	0	0	2.305	0.899	1.416	0.004
J39	0	0.1	2017			No	0	0	0	0	2.305	0.707	1.636	0.008
5526	0	0.1	2017			No	0	0	0	0	2.305	0.002	2.324	0.01
5571	0	0.1	2017			No	0	0	0	0	2.305	0	2.326	0.013
5604	0	0.1	2017			No	0	0	0	0	2.305	0.052	2.274	0.004
J183	0	0.1	2017			No	0	0	0	0	2.305	0.581	1.766	0.018
OL-J38	0	0.1	2017			No	0	0	0	0	2.305	0.161	2.163	0.013
5230	0	0.1	2017			No	0	0	0	0	2.305	0.657	1.688	0.007
5246	0	0.1	2017			No	0	0	0	0	2.305	0.945	1.392	0.006
21705	0	0.1	2017			No	0	0	0	0	2.305	0.11	2.215	0.019

Table 4D: ARM Subcatchments (continued...)

Name	Peak Rainfall (in/hr)	Roughness	Version	Rainfall Zone	Soil Type	Hydrograph Fattening	Runoff Depth (in)	Total rainfall (in)	Fire Factor	User entered PRF	Precipitation (in)	Infiltration (in)	Runoff Depth (in)	Runoff Volume (MG)
5218	0	0.1	2017			No	0	0	0	0	2.305	0.164	2.16	0.01
21626	0	0.1	2017			No	0	0	0	0	2.305	1.536	0.787	0.005
5172	0	0.1	2017			No	0	0	0	0	2.305	0.882	1.458	0.019
6505	0	0.1	2017			No	0	0	0	0	2.305	0.897	1.423	0.047
OL-J41	0	0.1	2017			No	0	0	0	0	2.305	0.877	1.419	0.155
6088	0	0.1	2017			No	0	0	0	0	2.305	0.687	1.658	0.014
J4	0	0.1	2017			No	0	0	0	0	2.305	1.015	1.297	0.055
1896	0	0.1	2017			No	0	0	0	0	2.305	0.436	1.886	0.064
1038	0	0.1	2017			No	0	0	0	0	2.305	1.58	0.735	0.008
2358	0	0.1	2017			No	0	0	0	0	2.305	0.095	2.231	0.012
J45	0	0.1	2017			No	0	0	0	0	2.305	0.928	1.381	0.003
3824	0	0.1	2017			No	0	0	0	0	2.305	0.528	1.789	0.007
3596	0	0.1	2017			No	0	0	0	0	2.305	0.853	1.487	0.082
3449	0	0.1	2017			No	0	0	0	0	2.305	0	2.326	0.005
3372	0	0.1	2017			No	0	0	0	0	2.305	0	2.326	0.003
3615	0	0.1	2017			No	0	0	0	0	2.305	1.266	1.058	0.037
3424	0	0.1	2017			No	0	0	0	0	2.305	0.302	2.022	0.016
3381	0	0.1	2017			No	0	0	0	0	2.305	0.368	1.955	0.032
15234	0	0.1	2017			No	0	0	0	0	2.305	1.294	1.035	0.002
15075	0	0.1	2017			No	0	0	0	0	2.305	1.146	1.173	0.001
15025	0	0.1	2017			No	0	0	0	0	2.305	1.64	0.68	0.002
17671	0	0.1	2017			No	0	0	0	0	2.305	1.64	0.681	0.003
18356	0	0.1	2017			No	0	0	0	0	2.305	1.64	0.673	0.004
18312	0	0.1	2017			No	0	0	0	0	2.305	1.143	1.174	0.012
9264	0	0.1	2017			No	0	0	0	0	2.305	0.115	2.21	0.007
9253	0	0.1	2017			No	0	0	0	0	2.305	0.672	1.647	0.053

Table 4D: ARM Subcatchments (continued...)

Name	Peak Rainfall (in/hr)	Roughness	Version	Rainfall Zone	Soil Type	Hydrograph Fattening	Runoff Depth (in)	Total rainfall (in)	Fire Factor	User entered PRF	Precipitation (in)	Infiltration (in)	Runoff Depth (in)	Runoff Volume (MG)
9627	0	0.1	2017			No	0	0	0	0	2.305	0.568	1.779	0.014
10028	0	0.1	2017			No	0	0	0	0	2.305	1.122	1.208	0.005
11842	0	0.1	2017			No	0	0	0	0	2.305	0	2.327	0.002
11966	0	0.1	2017			No	0	0	0	0	2.305	0.703	1.617	0.036
RD-incen	0	0.1	2017			No	0	0	0	0	2.305	0	2.326	0.012
13029	0	0.1	2017			No	0	0	0	0	2.305	0.98	1.337	0.002
13138	0	0.1	2017			No	0	0	0	0	2.305	0.007	2.321	0.008
OL-J40	0	0.1	2017			No	0	0	0	0	2.305	0.124	2.202	0.002
OL-J50	0	0.1	2017			No	0	0	0	0	2.305	0.016	2.31	0.005
5191	0	0.1	2017			No	0	0	0	0	2.305	0.007	2.32	0.006
1885	0	0.1	2017			No	0	0	0	0	2.305	1.31	1.017	0.014
J147	0	0.1	2017			No	0	0	0	0	2.305	0	2.326	0.004
J33	0	0.1	2017			No	0	0	0	0	2.305	0	2.326	0.015
11560	0	0.1	2017			No	0	0	0	0	2.305	0.13	2.195	0.009
11213	0	0.1	2017			No	0	0	0	0	2.305	0.018	2.308	0.038
13528	0	0.1	2017			No	0	0	0	0	2.305	0.01	2.316	0.005
J31	0	0.1	2017			No	0	0	0	0	2.305	0	2.326	0.006
12497	0	0.1	2017			No	0	0	0	0	2.305	0.262	2.062	0.003
12678	0	0.1	2017			No	0	0	0	0	2.305	0.309	2.014	0.009
12709	0	0.1	2017			No	0	0	0	0	2.305	0.38	1.972	0.023
12300	0	0.1	2017			No	0	0	0	0	2.305	0.027	2.298	0.006
2374	0	0.1	2017			No	0	0	0	0	2.305	0.013	2.313	0.006
J180	0	0.1	2017			No	0	0	0	0	2.305	1.503	0.808	0.01
2002	0	0.1	2017			No	0	0	0	0	2.305	0.426	1.897	0.013
J167	0	0.1	2017			No	0	0	0	0	2.305	0.956	1.381	0.016
3253	0	0.1	2017			No	0	0	0	0	2.305	1.681	0.634	0.001

Table 4D: ARM Subcatchments (continued...)

Name	Peak Rainfall (in/hr)	Roughness	Version	Rainfall Zone	Soil Type	Hydrograph Fattening	Runoff Depth (in)	Total rainfall (in)	Fire Factor	User entered PRF	Precipitation (in)	Infiltration (in)	Runoff Depth (in)	Runoff Volume (MG)
J74	0	0.1	2017			No	0	0	0	0	2.305	1.626	0.695	0.005
J17	0	0.1	2017			No	0	0	0	0	2.305	1.065	1.25	0.021
J35	0	0.1	2017			No	0	0	0	0	2.305	1.166	1.166	0.012
25478	0	0.1	2017			No	0	0	0	0	2.305	1.229	1.077	0.055
7096	0	0.1	2017			No	0	0	0	0	2.305	0.09	2.236	0.009
7742	0	0.1	2017			No	0	0	0	0	2.305	0.14	2.184	0.013
3089	0	0.1	2017			No	0	0	0	0	2.305	1.177	1.156	0.002
J29	0	0.1	2017			No	0	0	0	0	2.305	1.67	0.649	0.001
J165	0	0.1	2017			No	0	0	0	0	2.305	1.309	1.014	0.004
J164	0	0.1	2017			No	0	0	0	0	2.305	0.612	1.709	0.013
J14	0	0.1	2017			No	0	0	0	0	2.305	0.914	1.404	0.182
J1	0	0.1	2017			No	0	0	0	0	2.305	0.045	2.28	0.038
7683	0	0.1	2017			No	0	0	0	0	2.305	0.281	2.042	0.007
J15	0	0.1	2017			No	0	0	0	0	2.305	0.742	1.6	0.118
J38	0	0.1	2017			No	0	0	0	0	2.305	0.032	2.294	0.139
RD-auto1	0	0.1	2017			No	0	0	0	0	2.305	0	2.326	0.009
RD-auto2	0	0.1	2017			No	0	0	0	0	2.305	0	2.327	0.01
RD-auto3	0	0.1	2017			No	0	0	0	0	2.305	0	2.326	0.009
13349	0	0.1	2017			No	0	0	0	0	2.305	0	2.326	0.001
RD-thick	0	0.1	2017			No	0	0	0	0	2.305	0	2.326	0.003
RD-sludge	0	0.1	2017			No	0	0	0	0	2.305	0	2.326	0.009
RD-admin	0	0.1	2017			No	0	0	0	0	2.305	0	2.326	0.007
J18	0	0.1	2017			No	0	0	0	0	2.305	1.638	0.671	0.002
2249	0	0					0	0	0	0	2.305	0.02	2.306	0.005
9645	0	0.1	2017			No	0	0	0	0	2.305	0	2.326	0.005
9409	0	0.1	2017			No	0	0	0	0	2.305	0	2.326	0.004

Table 4D: ARM Subcatchments (continued...)

Name	Peak Rainfall (in/hr)	Roughness	Version	Rainfall Zone	Soil Type	Hydrograph Fattening	Runoff Depth (in)	Total rainfall (in)	Fire Factor	User entered PRF	Precipitation (in)	Infiltration (in)	Runoff Depth (in)	Runoff Volume (MG)
10	0	0.1	2017			No	0	0	0	0	2.305	1.306	0.995	0.138
32	0	0.1	2017			No	0	0	0	0	2.305	1.577	0.736	0.038
R1_6	0	0.1	2017			No	0	0	0	0	2.305	1.48	0.827	0.007
81	0	0.1	2017			No	0	0	0	0	2.305	1.578	0.745	0.014
33	0	0.1	2017			No	0	0	0	0	2.305	1.517	0.807	0.01
R5	0	0.1	2017			No	0	0	0	0	2.305	1.641	0.659	0.063

Table 4E: ARM Subcatchments

Name	Peak Runoff (cfs)	Runoff Coefficient	GIS_LENGTH (m)	GIS_AREA (m^2)	GIS_PARTS
J10	7.907	0.531	682.979	14843.168	1
J13	0.478	0.334	165.078	1600.609	1
J179	5.908	0.585	479.638	10379.214	1
J7	9.69	0.546	629.574	18487.969	1
J6	8.891	0.578	805.431	15967.079	1
31036'	20.038	0.512	926.351	44062.951	1
31036	1.2	1.001	436.341	951.522	1
J5	7.422	0.701	835.918	10657.045	1
7592	1.709	0.356	304.507	5401.627	1
J9	1.971	0.406	435.301	5542.063	1
J16	7.334	0.416	764.416	20326.722	1
J72	1.331	0.276	332.977	5329.22	1
21253	3.576	0.348	531.637	11609.452	1
23025	7.255	0.411	783.375	20393.606	1

Table 4E: ARM Subcatchments (continued...)

Name	Peak Runoff (cfs)	Runoff Coefficient	GIS_LENGTH (m)	GIS_AREA (m²)	GIS_PARTS
23037	0.587	1.008	231.734	455.329	1
20985	1.352	1.004	493.587	1066.068	1
21325	0.971	0.997	352.121	777.158	1
21199	0.534	1.003	242.841	422.117	1
J171	0.124	0.444	74.06	288.285	1
J175	0.048	0.368	69.482	143.137	1
J174	0.236	0.572	155.705	419.644	1
J169	0.948	0.556	183.002	1764.046	1
J170	1.649	0.473	314.635	3662.424	1
18726	0.201	0.896	119.741	192.01	1
16770	0.868	0.652	171.705	1343.714	1
16610	1.034	0.581	208.323	1820.172	1
14608	0.917	0.993	106.388	740.805	1
14383	0.36	0.792	117.993	399.27	1
15374	0.196	0.615	84.32	324.83	1
15469	0.087	0.793	39.789	98.33	1
16125	1.126	0.789	205.624	1369.193	1
J3	10.396	0.734	698.364	13414.814	1
J2	5.114	0.84	552.054	5587.246	1
15964	2.539	0.958	280.665	2202.943	1
J172	0.979	0.567	193.282	1776.561	1
J173	0.398	0.489	119.655	838.193	1
J26	1.659	0.495	357.16	3563.401	1
19657	0.438	1.009	79.824	340.518	1
20575	0.66	0.755	137.057	781.753	1
OL-J48	0.395	0.661	151.927	602.203	1

Table 4E: ARM Subcatchments (continued...)

Name	Peak Runoff (cfs)	Runoff Coefficient	GIS_LENGTH (m)	GIS_AREA (m²)	GIS_PARTS
OL-J49	1.703	0.994	161.01	1372.069	1
12956	0.412	0.989	130.852	337.763	1
13746	0.242	0.614	86.335	389.755	1
J39	0.544	0.71	123.134	750.256	1
5526	0.785	1.008	106.641	610.017	1
5571	1.104	1.009	143.832	857.451	1
5604	0.291	0.986	77.836	239.863	1
J183	1.24	0.766	172.576	1526.516	1
OL-J38	1.009	0.938	186.449	900.075	1
5230	0.435	0.732	128.204	576.527	1
5246	0.368	0.604	123.682	619.369	1
21705	1.467	0.961	162.084	1268.386	1
5218	0.794	0.937	235.985	708.127	1
21626	0.308	0.342	126.116	995.779	1
5172	1.242	0.633	322.993	1990.091	1
6505	2.966	0.617	280.498	4927.52	1
OL-J41	8.77	0.616	1033.923	16303.015	1
6088	0.911	0.719	192.932	1252.559	1
J4	3.404	0.563	317.321	6327.525	1
1896	4.748	0.818	600.35	5055.783	1
1038	0.507	0.319	198.826	1716.422	1
2358	0.918	0.968	387.156	784.355	1
J45	0.221	0.599	86.485	366.055	1
3824	0.504	0.776	126.26	581.693	1
3596	5.214	0.645	603.852	8178.73	1
3449	0.391	1.009	177.379	301.732	1

Table 4E: ARM Subcatchments (continued...)

Name	Peak Runoff (cfs)	Runoff Coefficient	GIS_LENGTH (m)	GIS_AREA (m²)	GIS_PARTS
3372	0.234	1.009	120.069	181.427	1
3615	2.326	0.459	473.167	5265.415	1
3424	1.228	0.877	447.252	1192.329	1
3381	2.366	0.848	218.825	2402.409	1
15234	0.146	0.449	98.192	345.688	1
15075	0.077	0.509	53.955	155.206	1
15025	0.106	0.295	86.698	387.587	1
17671	0.189	0.295	119.323	695.156	1
18356	0.22	0.292	214.601	826.83	1
18312	0.724	0.51	321.1	1506.973	1
9264	0.57	0.959	313.319	493.809	1
9253	3.436	0.714	559.553	4833.429	2
9627	0.929	0.772	224.865	1136.28	1
10028	0.308	0.524	171.758	613.692	1
11842	0.135	1.009	72.551	105.407	1
11966	2.521	0.701	362.484	3293.346	1
RD-incen	0.964	1.009	127.686	749.647	1
13029	0.153	0.58	74.048	259.225	1
13138	0.683	1.007	107.493	534.29	1
OL-J40	0.121	0.955	52.701	103.726	1
OL-J50	0.404	1.002	130.767	320.184	1
5191	0.496	1.006	189.279	390.025	1
1885	0.823	0.441	200.457	2009.79	1
J147	0.365	1.009	77.355	281.549	1
J33	1.255	1.009	128.275	976.916	1
11560	0.723	0.952	100.916	629.931	1

Table 4E: ARM Subcatchments (continued...)

Name	Peak Runoff (cfs)	Runoff Coefficient	GIS_LENGTH (m)	GIS_AREA (m²)	GIS_PARTS
11213	3.086	1.001	305.601	2442.653	1
13528	0.417	1.005	73.676	326.79	1
J31	0.521	1.009	91.406	404.05	1
12497	0.252	0.895	70.101	239.917	1
12678	0.679	0.874	116.091	663.508	1
12709	1.649	0.856	334.634	1726.728	1
12300	0.511	0.997	250.776	409.125	1
2374	0.508	1.004	241.994	399.78	1
J180	0.583	0.351	191.249	1752.753	1
2002	0.934	0.823	161.206	985.567	1
J167	0.984	0.599	168.46	1676.18	1
3253	0.077	0.275	103.763	303.292	1
J74	0.271	0.302	156.776	982.547	1
J17	1.351	0.543	301.081	2513.319	1
J35	0.76	0.506	204.477	1557.749	1
25478	3.261	0.467	531.064	7656.938	1
7096	0.694	0.97	179.807	590.37	1
7742	0.985	0.948	294.209	867.808	1
3089	0.115	0.501	98.605	240.756	1
J29	0.034	0.281	81.215	132.658	1
J165	0.23	0.44	104.515	546.659	1
J164	0.908	0.741	169.768	1101.609	1
J14	11.835	0.609	657.638	19362.775	1
J1	3.049	0.989	720.255	2483.463	1
7683	0.557	0.886	99.607	534.105	1
J15	7.783	0.694	743.665	10988.512	1

Table 4E: ARM Subcatchments (continued...)

Name	Peak Runoff (cfs)	Runoff Coefficient	GIS_LENGTH (m)	GIS_AREA (m²)	GIS_PARTS
J38	11.209	0.995	469.788	9009.869	1
RD-auto1	0.703	1.009	99.217	545.321	1
RD-auto2	0.792	1.01	105.04	613.989	1
RD-auto3	0.776	1.009	102.467	605.046	2
13349	0.099	1.009	77.305	75.273	1
RD-thick	0.229	1.009	60.864	194.199	1
RD-sludge	0.729	1.009	108.769	567.93	1
RD-admin	0.589	1.009	100.039	457.023	1
J18	0.155	0.291	112.952	555.341	1
2249	0.377	1	144.339	297.632	1
9645	0.375	1.009	149.928	290.97	1
9409	0.302	1.009	81.795	236.292	1
10	8.165	0.432	725.102	20690.747	1
32	2.333	0.319	387.006	7742.427	1
R1_6	0.458	0.359	159.335	1281.681	1
81	0.832	0.323	235.218	2788.282	1
33	0.554	0.35	512.549	1756.394	1
R5	3.484	0.286	669.542	14302.893	1

PCSWMM Report

Pre-Development Model 100-yr Results

Model NelsonWWTF-ExCond-100YR.inp

HDR Engineering Inc.

January 19, 2024

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Summary 1: Options

Name	NelsonWWTF-ExCond-100YR
Flow Units	CFS
Infiltration method	Curve Number
Flow routing method	Dynamic Wave
Link offsets defined by	Elevation
Allow ponding	Yes
Skip steady flow periods	No
Inertial dampening	Partial
Define supercritical flow by	Both
Force Main Equation	H-W
Variable time step	On
Adjustment factor (%)	75
Conduit lengthening (s)	0
Minimum surface area (ft²)	0
Starting date	May-1-2022 12:00:00 AM
Ending date	May-4-2022 12:00:00 AM
Duration of simulation (hours)	72
Antecedent dry days (days)	0
Rain interval (h:mm)	0:01
Report time step (h:mm:ss)	00:01:00
Wet time step (h:mm:ss)	00:06:00
Dry time step (h:mm:ss)	00:06:00
Routing time step (s)	5
Minimum time step used (s)	0.5
Average time step used (s)	4.21
Minimum conduit slope	0
Ignore rainfall/runoff	No
Ignore snow melt	No
Ignore groundwater	No
Ignore flow routing	No
Ignore water quality	No
Report average results	No

Summary 2: Model inventory

Name	NelsonWWTF-ExCond-100YR
Raingages	6
Subcatchments	0
Aquifers	0
Snowpacks	0
RDII hydrographs	0
Junction nodes	266
Outfall nodes	7
Flow divider nodes	0
Storage unit nodes	17
Conduit links	272
Pump links	0
Orifice links	0
Weir links	84
Outlet links	0
Treatment units	0
Transects	6
Control rules	0
Pollutants	0
Land Uses	0
Control Curves	0
Diversion Curves	0
Pump Curves	0
Rating Curves	0
Shape Curves	0
Storage Curves	13
Tidal Curves	0
Weir Curves	0
Time Series	12
Time Patterns	0

Summary 3: Model complexity

Name	NelsonWWTF-ExCond-100YR
Subcatchments	n/a
Groundwater	n/a
Aquifers	n/a
Snowpacks	n/a
RDII hydrographs	n/a
Junction nodes	595
Outfall nodes	7
Flow divider nodes	n/a
Storage unit nodes	61
Conduit links	2094
Pump links	n/a
Orifice links	n/a
Weir links	336
Outlet links	n/a
Transect	30
Pollutants	n/a
Land Uses	n/a
Model complexity (total uncertain input parameters)	3123

Summary 4: Inflows

Name	NelsonWWTF-ExCond-100YR
Time series inflows	0
Dry weather	0
Groundwater	0
RDII inflows	0

Summary 5: Subcatchment statistics

Name	NelsonWWTF-ExCond-100YR
Max. width (ft)	n/a
Min. width (ft)	n/a
Max. area (ac)	n/a
Min. area (ac)	n/a
Total area (ac)	n/a
Max. length of overland flow (ft)	n/a
Min. length of overland flow (ft)	n/a
Max. slope (%)	n/a

Summary 5: Subcatchment statistics (continued...)

Name	NelsonWWTF-ExCond-100YR
Min. slope (%)	n/a
Max. imperviousness (%)	n/a
Min. imperviousness (%)	n/a
Max. imp. roughness	n/a
Min. imp. roughness	n/a
Max. perv. roughness	n/a
Min. perv. roughness	n/a
Max. imp. depression storage (in)	n/a
Min. imp. depression storage (in)	n/a
Max. perv. depression storage (in)	n/a
Min. perv. depression storage (in)	n/a

Summary 6: Node statistics

Name	NelsonWWTF-ExCond-100YR
Max. ground elev. (ft)	1012.7
Min. ground elev. (ft)	843
Max. invert elev. (ft)	1011.6
Min. invert elev. (ft)	831.42
Max. depth (ft)	35.1
Min. depth (ft)	0.5

Summary 7: Conduit statistics

Name	NelsonWWTF-ExCond-100YR
Max. roughness	0.035
Min. roughness	0.01
Max. entry loss coef.	1
Min. entry loss coef.	0
Max. exit loss coef.	1
Min. exit loss coef.	0
Max. avg. loss coef.	0
Min. avg. loss coef.	0
Max. length (ft)	632.865
Min. length (ft)	5.501
Total length (ft)	27494.362
Max. slope (ft/ft)	2.2053
Min. slope (ft/ft)	0

Summary 8: Conduit Inventory

Name	NelsonWWTF-ExCond-100YR
Open Rectangular (ft)	427.084
Trapezoidal (ft)	12971.041
Triangular (ft)	16.06
Irregular (ft)	995.946
Circular (ft)	12498.167
Closed Rectangular (ft)	338.88
Horizontal Elliptical (ft)	247.184

Summary 9: Pipe inventory

Name	NelsonWWTF-ExCond-100YR
Max. pipe diameter (ft)	4.5
Min. pipe diameter (ft)	0.25
Total 12” pipe length (ft)	2788.892
Total 15” pipe length (ft)	1384.484
Total 18” pipe length (ft)	1041.624
Total 21” pipe length (ft)	1397.394
Total 24” pipe length (ft)	2885.987
Total 30” pipe length (ft)	393.151
Total 36” pipe length (ft)	1288.106
Total 42” pipe length (ft)	24.992
Total 48” pipe length (ft)	51.106
Total 54” pipe length (ft)	315.125
Total other pipe length (ft)	927.306
Total pipe length (ft)	12498.167

Summary 10: Unused objects

Name	NelsonWWTF-ExCond-100YR
Rain Gages	5
Aquifers	n/a
Snow Packs	n/a
Unit Hydrographs	n/a
Transects	0
Control Curves	n/a
Diversion Curves	n/a
Pump Curves	n/a
Rating Curves	n/a

Summary 10: Unused objects (continued...)

Name	NelsonWWTF-ExCond-100YR
Shape Curves	n/a
Storage Curves	0
Tidal Curves	n/a
Weir Curves	n/a
Time Series	5
Time Patterns	n/a

Summary 11: Flow routing continuity

Name	NelsonWWTF-ExCond-100YR
Dry weather inflow (MG)	0.000
Wet weather inflow (MG)	0.000
Groundwater inflow (MG)	0.000
RDII inflow (MG)	0.000
External inflow (MG)	7.331
External outflow (MG)	7.326
Flooding loss (MG)	0.018
Evaporation loss (MG)	0.000
Exfiltration loss (MG)	0.000
Initial stored volume (MG)	0.012
Final stored volume (MG)	0.033
Continuity error (%)	-0.459

Summary 12: Results statistics

Name	NelsonWWTF-ExCond-100YR
Max. subcatchment total runoff (MG)	n/a
Max. subcatchment peak runoff (cfs)	n/a
Max. subcatchment runoff coefficient	n/a
Max. subcatchment total precip (in)	n/a
Min. subcatchment total precip (in)	n/a
Max. node depth (ft)	15.64
Num. nodes surcharged	40
Max. node surcharge duration (hours)	0.99
Max. node height above crown (ft)	8.316
Min. node depth below rim (ft)	0
Num. nodes flooded	9
Max. node flooding duration (hours)	1.06

Summary 12: Results statistics (continued...)

Name	NelsonWWTF-ExCond-100YR
Max. node flood volume (MG)	0.018
Max. node ponded volume or depth (acre-in/1000 ft³/ft)	0.789
Max. storage volume (1000 ft³)	17.54
Max. storage percent full (%)	99.7
Max. outfall flow frequency (%)	69.42
Max. outfall peak flow (cfs)	275.08
Max. outfall total volume (MG)	5.39
Total outfall volume (MG)	7.362
Max. link peak flow (cfs)	283.67
Max. link peak velocity (ft/s)	25.55
Min. link peak velocity (ft/s)	0
Num. conduits surcharged	79
Max. conduit surcharge duration (hours)	72
Max. conduit capacity limited duration (hours)	3.81

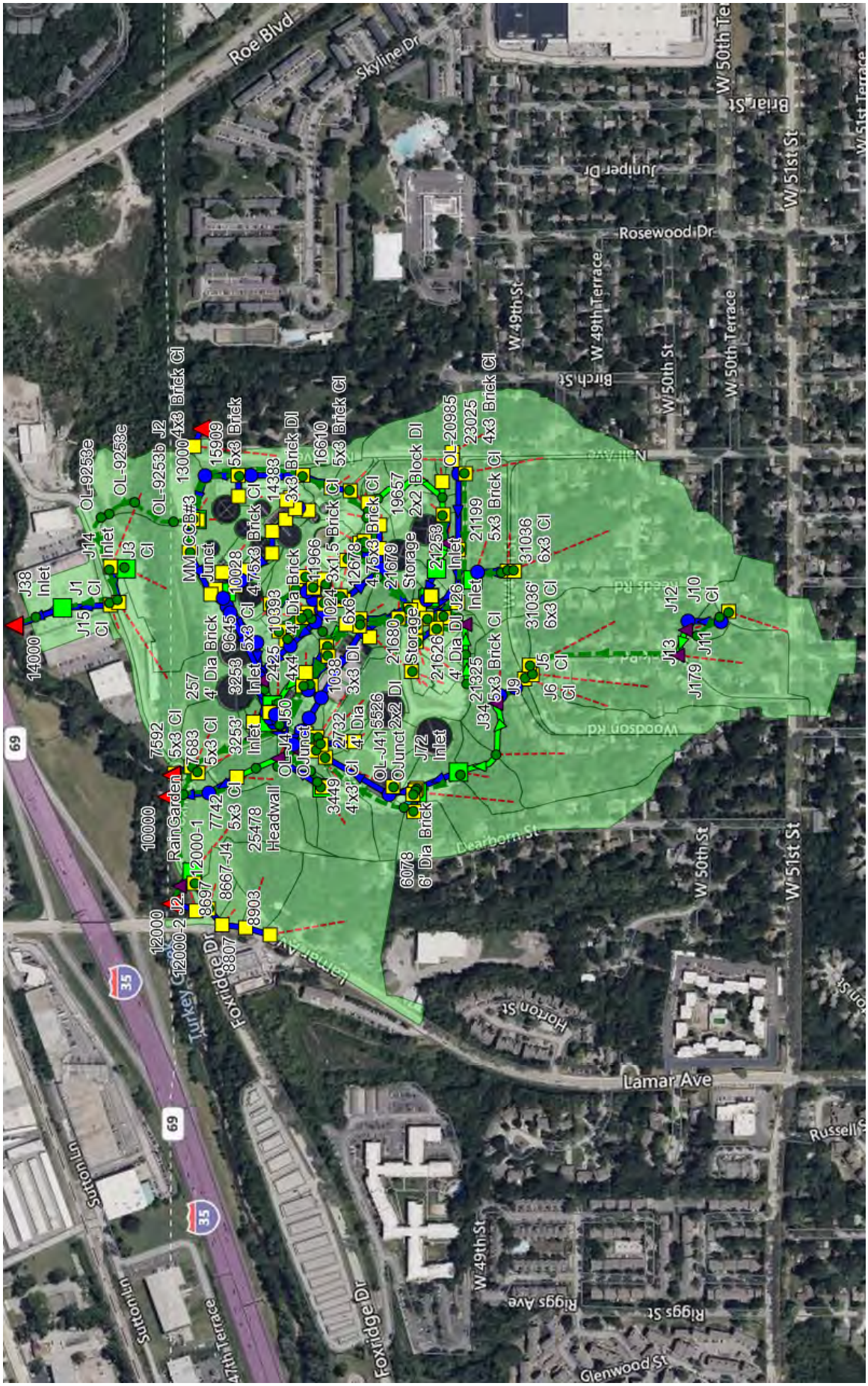


Figure 1: Map Extents

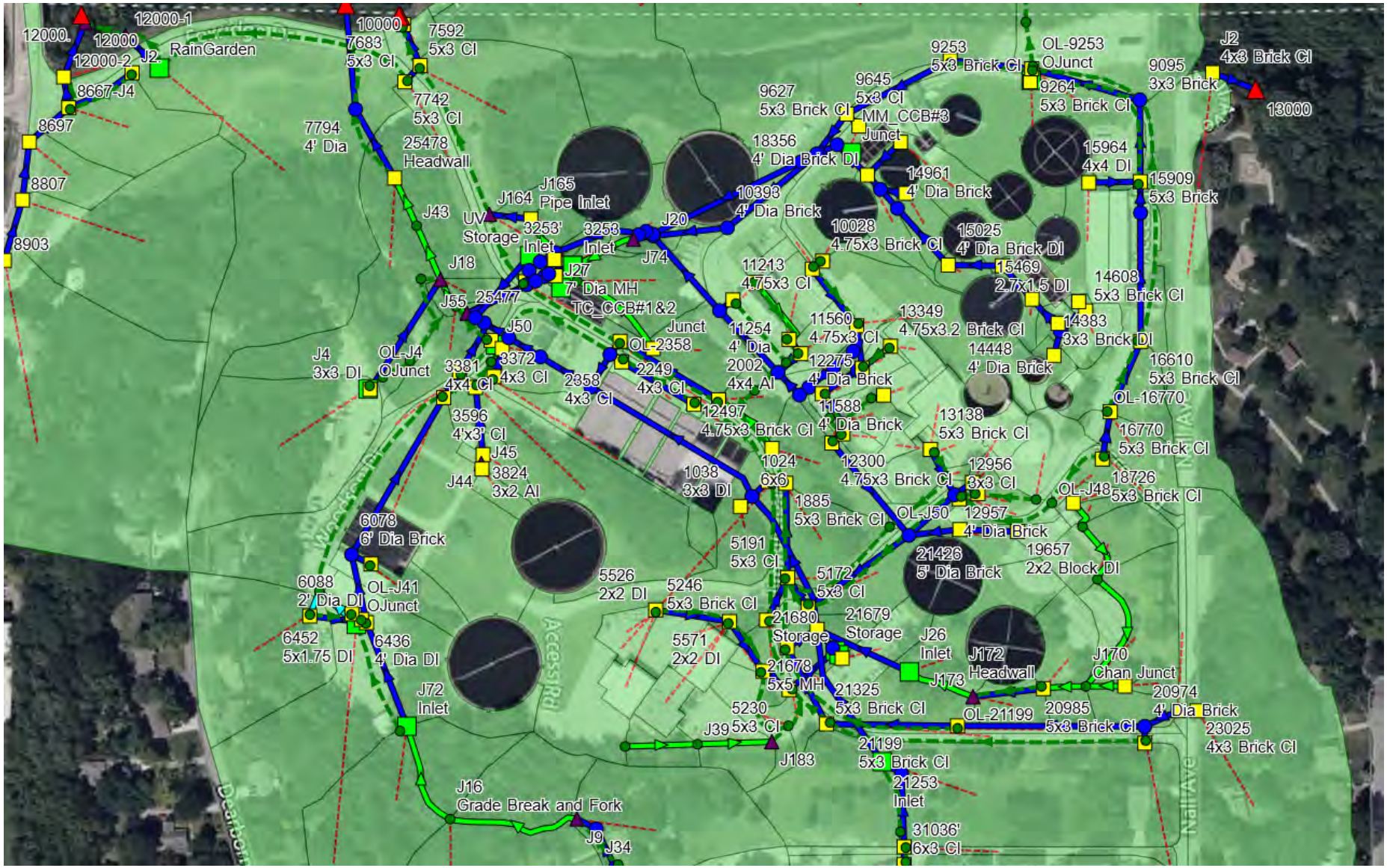


Figure 2: WWTF Site

Table 1A: Conduits

Name	Inlet Node	Outlet Node	Tag	Length (ft)	Roughness	Inlet Elev. (ft)	Outlet Elev. (ft)	Initial Flow (cfs)	Flow Limit (cfs)	Entry Loss Coeff.	Exit Loss Coeff.	Avg. Loss Coeff.	Seepage Rate (in/hr)	Flap Gate	Cross-Section
1	8903	8807	pipe	107.867	0.01	857.01	856.03	0	0	0	0	0	0	NO	CIRCULAR
1A	7794	10000	Pipe	179.773	0.013	832.49	831.42	0	0	1	0	0	0	NO	CIRCULAR
1B	25478	7794	Pipe	135.352	0.013	837.53	836.36	0	0	1	0	0	0	NO	CIRCULAR
1C_1A	J4	J18	Pipe	223.478	0.011	891.609	866	0	0	1	0	0	0	NO	CIRCULAR
1C_2	J35	J18	Channel	53.524	0.035	865.44	860.437	0	0	0	0	0	0	NO	IRREGULAR
1C_3	J18	J43	Channel	100.805	0.035	860.437	856.851	0	0	0	0	0	0	NO	IRREGULAR
1C_4	J43	25478	Channel	89.977	0.035	856.851	837.53	0	0	0	0	0	0	NO	IRREGULAR
1D	25477	J35	Channel	22.116	0.013	866.82	865.44	0	0	0	0	0	0	NO	RECT_OPEN
1DA_1	J163	25477	Pipe	113.769	0.013	879.59	867.83	0	0	1	0	0	0	NO	CIRCULAR
1DA_2	J30	J163	Pipe	41.94	0.013	884.62	879.59	0	0	1	0	0	0	NO	CIRCULAR
1DA_3	3253'	J30	Pipe	43.347	0.013	889.82	884.62	0	0	1	0	0	0	NO	CIRCULAR
1DAA	7096	J163	Pipe	5.501	0.013	885.07	880.06	0	0	1	0	0	0	NO	CIRCULAR
1DB_1	J28	25477	Pipe	130.111	0.013	878.5	867.03	0	0	1	0	0	0	NO	CIRCULAR
1DB_2	J166	J28	Pipe	17.022	0.013	880.78	879.189	0	0	1	0	0	0	NO	CIRCULAR
1DB_2A	J19	J28	Pipe	21.476	0.013	878.5	878.5	0	0	1	0	0	0	NO	CIRCULAR
1DBA'	3089	J30	Pipe	11.927	0.011	888.59	885.07	0	0	1	0	0	0	NO	CIRCULAR
1DBA''	3089	J30	Pipe	12.572	0.011	888.49	880.78	0	0	1	0	0	0	NO	CIRCULAR
1DBB_1	J167	J17	Channel	177.943	0.013	894.56	891.467	0	0	0	0	0	0	NO	IRREGULAR
1DBB_2	J17	3089	Channel	39.019	0.013	891.467	890.79	0	0	0	0	0	0	NO	IRREGULAR
1DD_1	J36	3253	Channel	72.67	0.013	919.444	898.55	0	0	0	0	0	0	NO	TRAPEZOIDAL
1DD_2	J74	J36	Channel	40.715	0.013	930.61	919.444	0	0	0	0	0	0	NO	TRAPEZOIDAL
1DE	J20	J74	Pipe	34.553	0.013	931.17	930.61	0	0	1	0	0	0	NO	CIRCULAR
1DeA	11254	J20	Pipe	171.186	0.013	932.61	931.17	0	0	1	0	0	0	NO	CIRCULAR
1DEAA	11213	11254	Pipe	29.416	0.011	936.1	932.94	0	0	1	0	0	0	NO	CIRCULAR
1DEB	25504	11254	Pipe	145.365	0.011	933.1	932.75	0	0	1	0	0	0	NO	CIRCULAR
1DEBA	11560	25504	Pipe	50.827	0.011	936.8	934.34	0	0	1	0	0	0	NO	CIRCULAR

Table 1A: Conduits (continued...)

Name	Inlet Node	Outlet Node	Tag	Length (ft)	Roughness	Inlet Elev. (ft)	Outlet Elev. (ft)	Initial Flow (cfs)	Flow Limit (cfs)	Entry Loss Coeff.	Exit Loss Coeff.	Avg. Loss Coeff.	Seepage Rate (in/hr)	Flap Gate	Cross-Section
1DEBD_1	J147	J33	Channel	128.743	0.011	942.12	941.663	0	0	0	0	0	0	NO	RECT_OPEN
1DEBD_2	J33	11560	Pipe	31.821	0.011	941.663	941.55	0	0	1	0	0	0	NO	CIRCULAR
1DEC	12275	25504	Pipe	53.652	0.013	933.6	933.24	0	0	1	0	0	0	NO	CIRCULAR
1DED	11588	12275	Pipe	20.548	0.014	934.52	933.6	0	0	1	0	0	0	NO	CIRCULAR
1DEE	12161	11588	Pipe	54.86	0.014	938.99	934.64	0	0	1	0	0	0	NO	CIRCULAR
1DEF	12759	12161	Pipe	43.201	0.014	943.02	939.09	0	0	1	0	0	0	NO	CIRCULAR
1DF	10393	J20	Pipe	128.094	0.013	939.1	932.491	0	0	1	0	0	0	NO	CIRCULAR
1DG	257	10393	Pipe	198.467	0.013	940.39	939.4	0	0	1	0	0	0	NO	CIRCULAR
1DH	9645	257	Pipe	85.613	0.013	940.71	940.49	0	0	1	0	0	0	NO	CIRCULAR
1DHA	9627	9645	Pipe	29.474	0.013	946.2	945.2	0	0	1	0	0	0	NO	CIRCULAR
1DI	9409	9645	Pipe	199.931	0.013	941.68	940.94	0	0	1	0	0	0	NO	CIRCULAR
1DJ	9264	9409	Pipe	140.55	0.013	942.7	941.74	0	0	1	0	0	0	NO	CIRCULAR
1DJA	9253	9264	Pipe	22.374	0.013	944.06	943.43	0	0	1	0	0	0	NO	CIRCULAR
1DK	9095	9264	Pipe	193.106	0.013	952.36	942.88	0	0	1	0	0	0	NO	CIRCULAR
1DL	15964	9095	Pipe	139.678	0.013	959.62	952.49	0	0	1	0	0	0	NO	CIRCULAR
1DLA	16125	15964	Pipe	88.47	0.013	960.63	960.18	0	0	1	0	0	0	NO	CIRCULAR
1DM	15909	15964	Pipe	53.433	0.013	962.57	959.68	0	0	1	0	0	0	NO	CIRCULAR
1DN	16610	15909	Pipe	219.757	0.013	967.84	962.59	0	0	1	0	0	0	NO	CIRCULAR
1DO	16770	16610	Pipe	131.132	0.013	969.75	967.92	0	0	1	0	0	0	NO	CIRCULAR
1DP	18726	16770	Pipe	81.842	0.013	973.96	969.79	0	0	1	0	0	0	NO	CIRCULAR
1E	J55	25477	Pipe	16.211	0.013	867.48	866.82	0	0	1	0	0	0	NO	HORIZ_ELLIPSE
1F	J177	J55	Pipe	17.786	0.013	868.21	867.48	0	0	1	0	0	0	NO	HORIZ_ELLIPSE
1FA	3449	J177	Pipe	95.854	0.013	871.72	867.85	0	0	1	0	0	0	NO	CIRCULAR
1FB	3596	3449	Pipe	51.332	0.013	873.97	871.76	0	0	1	0	0	0	NO	CIRCULAR
1FC	6078	3596	Pipe	311.509	0.013	886.38	874.01	0	0	1	0	0	0	NO	CIRCULAR
1FCA'	6088	6078	Pipe	36.933	0.013	888.94	888.18	0	0	1	0	0	0	NO	CIRCULAR

Table 1A: Conduits (continued...)

Name	Inlet Node	Outlet Node	Tag	Length (ft)	Roughness	Inlet Elev. (ft)	Outlet Elev. (ft)	Initial Flow (cfs)	Flow Limit (cfs)	Entry Loss Coeff.	Exit Loss Coeff.	Avg. Loss Coeff.	Seepage Rate (in/hr)	Flap Gate	Cross-Section
1FD	6436	6078	Pipe	119.067	0.013	891.64	886.73	0	0	1	0	0	0	NO	CIRCULAR
1FDA'	6505	6436	Pipe	98.171	0.011	898.68	896.12	0	0	1	0	0	0	NO	CIRCULAR
1FDA''	6452	6436	Pipe	10.314	0.011	897.28	896.97	0	0	1	0	0	0	NO	CIRCULAR
1FDA''A	6457	6452	Pipe	19.12	0.011	897.83	897.38	0	0	1	0	0	0	NO	CIRCULAR
1FE	J72	6436	Pipe	190.103	0.013	900.49	891.64	0	0	1	0	0	0	NO	CIRCULAR
1FF_1	J9	J16	Channel	228.886	0.035	926.22	910.168	0	0	0	0	0	0	NO	IRREGULAR
1FF_2	J16	J72	Channel	183.777	0.035	910.168	900.49	0	0	0	0	0	0	NO	IRREGULAR
1FG	J34	J9	Pipe	37.578	0.013	928.85	926.22	0	0	1	0	0	0	NO	CIRCULAR
1FH	J8	J34	Pipe	73.827	0.013	938.5	932.92	0	0	1	0	0	0	NO	CIRCULAR
1FI	J5	J8	Pipe	53.078	0.013	940.1	938.5	0	0	1	0	0	0	NO	CIRCULAR
1FJ	J6	J5	Pipe	36.361	0.013	941.2	940.1	0	0	1	0	0	0	NO	CIRCULAR
1FK	J7	J6	Pipe	42.062	0.013	942.46	941.2	0	0	1	0	0	0	NO	CIRCULAR
1G	J159	J177	Pipe	48.967	0.013	870.22	868.21	0	0	1	0	0	0	NO	HORIZ_ELLIPSE
1GA	3381	J159	Pipe	21.521	0.013	880.54	872.15	0	0	1	0	0	0	NO	CIRCULAR
1GAA	3372	3381	Pipe	23.777	0.013	882.86	880.99	0	0	1	0	0	0	NO	CIRCULAR
1GB	3424	3381	Pipe	50.008	0.013	885.05	883.29	0	0	1	0	0	0	NO	CIRCULAR
1GC	3615	3424	Pipe	36.603	0.013	885.71	885.4	0	0	1	0	0	0	NO	CIRCULAR
1GD	3824	3615	Pipe	115.434	0.011	889.05	886.28	0	0	1	0	0	0	NO	CIRCULAR
1GE	J44	3824	Channel	16.06	0.013	900.56	898.67	0	0	0	0	0	0	NO	TRIANGULAR
1GF	J45	J44	Pipe	9.739	0.024	901	900.56	0	0	1	0	0	0	NO	CIRCULAR
1H	J168	J159	Pipe	63.316	0.013	872.82	870.22	0	0	1	0	0	0	NO	HORIZ_ELLIPSE
1I	2732	J168	Pipe	100.904	0.013	876.96	872.82	0	0	1	0	0	0	NO	HORIZ_ELLIPSE
1IA	2425	2732	Pipe	64.578	0.013	883.79	877.34	0	0	1	0	0	0	NO	CIRCULAR
1IAA	2358	2425	Pipe	23.798	0.013	885.98	885.64	0	0	1	0	0	0	NO	CIRCULAR
1IAB	2249	2358	Pipe	143.4	0.013	887.16	886.18	0	0	1	0	0	0	NO	CIRCULAR
1IB	2374	2425	Pipe	28.517	0.013	886.12	885.71	0	0	1	0	0	0	NO	CIRCULAR

Table 1A: Conduits (continued...)

Name	Inlet Node	Outlet Node	Tag	Length (ft)	Roughness	Inlet Elev. (ft)	Outlet Elev. (ft)	Initial Flow (cfs)	Flow Limit (cfs)	Entry Loss Coeff.	Exit Loss Coeff.	Avg. Loss Coeff.	Seepage Rate (in/hr)	Flap Gate	Cross-Section
1IC	2002	2374	Pipe	196.469	0.011	897.88	891.22	0	0	1	0	0	0	NO	CIRCULAR
1ID	J180	2002	Channel	125.098	0.013	907.77	898.95	0	0	0	0	0	0	NO	TRAPEZOIDAL
1J	1024	2732	Pipe	338.88	0.013	886.87	877.29	0	0	1	0	0	0	NO	RECT_CLOSED
1JA	1896	1024	Pipe	37.938	0.013	904.36	896.02	0	0	1	0	0	0	NO	CIRCULAR
1JA'	1038	1024	Pipe	26.173	0.013	895.91	893.97	0	0	1	0	0	0	NO	CIRCULAR
1JB	1885	1896	Pipe	30.451	0.013	906.3	905.04	0	0	1	0	0	0	NO	CIRCULAR
1JC	5191	1885	Pipe	161.111	0.013	914.79	906.78	0	0	1	0	0	0	NO	CIRCULAR
1JCA	5246	5191	Pipe	81.378	0.013	924.03	919.06	0	0	1	0	0	0	NO	CIRCULAR
1JD	5172	5191	Pipe	62.088	0.013	920.24	916.87	0	0	1	0	0	0	NO	CIRCULAR
1JE	21426	5172	Pipe	212.614	0.013	932.3	921.24	0	0	1	0	0	0	NO	CIRCULAR
1JEA'	12957	21426	Pipe	104.62	0.013	941.95	937.85	0	0	1	0	0	0	NO	CIRCULAR
1JEA''	20575	21426	Pipe	88.095	0.013	946.54	938.03	0	0	1	0	0	0	NO	CIRCULAR
1JEA'A	13138	12957	Pipe	87.994	0.013	942.33	941.02	0	0	1	0	0	0	NO	CIRCULAR
1JEA'A'	13029	12957	Pipe	37.363	0.013	944.27	943.39	0	0	1	0	0	0	NO	CIRCULAR
1JEA'A''	12956	12957	Pipe	10.661	0.013	946.18	944.47	0	0	1	0	0	0	NO	CIRCULAR
1JEA''A	19657	20575	Pipe	99.137	0.013	955.58	946.54	0	0	1	0	0	0	NO	CIRCULAR
1JEA'A'A'	13746	13029	Pipe	21.283	0.013	946.8	945.66	0	0	1	0	0	0	NO	CIRCULAR
1JF	12300	21426	Pipe	205.754	0.014	934.44	932.35	0	0	1	0	0	0	NO	CIRCULAR
1JG	12709	12300	Pipe	24.603	0.013	935.32	934.6	0	0	1	0	0	0	NO	CIRCULAR
1JH	12678	12709	Pipe	16.283	0.013	935.68	935.42	0	0	1	0	0	0	NO	CIRCULAR
1JI	12497	12678	Pipe	63.458	0.013	936.23	935.86	0	0	1	0	0	0	NO	CIRCULAR
1JJ	12514	12497	Pipe	72.078	0.013	941.63	936.47	0	0	1	0	0	0	NO	CIRCULAR
1JK	13528	12514	Pipe	9.227	0.013	944.16	941.72	0	0	1	0	0	0	NO	CIRCULAR
1JKA	11966	13528	Pipe	73.07	0.013	946.03	944.57	0	0	1	0	0	0	NO	CIRCULAR
1JKB	11842	11966	Pipe	123.324	0.013	947.17	946.71	0	0	1	0	0	0	NO	CIRCULAR
1JKC	10028	11842	Pipe	22.508	0.013	947.47	947.37	0	0	1	0	0	0	NO	CIRCULAR

Table 1A: Conduits (continued...)

Name	Inlet Node	Outlet Node	Tag	Length (ft)	Roughness	Inlet Elev. (ft)	Outlet Elev. (ft)	Initial Flow (cfs)	Flow Limit (cfs)	Entry Loss Coeff.	Exit Loss Coeff.	Avg. Loss Coeff.	Seepage Rate (in/hr)	Flap Gate	Cross-Section
1JL	13349	13528	Pipe	61.326	0.024	945.85	944.4	0	0	1	0	0	0	NO	CIRCULAR
1K	21626	1024	Pipe	258.165	0.013	910.56	887.08	0	0	1	0	0	0	NO	CIRCULAR
1KA	5218	21626	Pipe	59.911	0.013	927.34	910.76	0	0	1	0	0	0	NO	CIRCULAR
1KA'	J26	21626	Pipe	174.392	0.013	937.33	923.26	0	0	1	0	0	0	NO	CIRCULAR
1KA''	21678	21626	Pipe	41.775	0.024	926.94	919.91	0	0	1	0	0	0	NO	CIRCULAR
1KA'A	J173	J26	Channel	118.097	0.035	946.71	937.33	0	0	0	0	0	0	NO	TRAPEZOIDAL
1KA''A	21679	21678	Pipe	6.643	0.024	927.5	927.45	0	0	1	0	0	0	NO	CIRCULAR
1KA''AA	21680	21679	Pipe	9.122	0.024	928	927.5	0	0	1	0	0	0	NO	CIRCULAR
1KA''AB	21705	21680	Pipe	8.012	0.024	938.43	938.32	0	0	1	0	0	0	NO	CIRCULAR
1KA'B	J172	J173	Pipe	121.836	0.024	950.01	946.71	0	0	1	0	0	0	NO	CIRCULAR
1KA''B	5230	21679	Pipe	52	0.024	929.03	928	0	0	1	0	0	0	NO	CIRCULAR
1KA''BA_1	J183	OL-J37	Overland	39.434	0.013	941.38	941.039	0	0	0	0	0	0	NO	TRAPEZOIDAL
1KA''BA_2	OL-J37	5230	Overland	77.272	0.013	941.039	938.08	0	0	0	0	0	0	NO	TRAPEZOIDAL
1KA''BB_1	J182	J39	Channel	124.408	0.013	942.74	942.068	0	0	0	0	0	0	NO	TRAPEZOIDAL
1KA''BB_2	J39	J183	Channel	127.469	0.013	942.068	941.38	0	0	0	0	0	0	NO	TRAPEZOIDAL
1KA'C	J170	J172	Channel	72.885	0.013	956.31	950.01	0	0	0	0	0	0	NO	TRAPEZOIDAL
1KA''C	5604	5230	Pipe	54.86	0.011	935.84	932	0	0	1	0	0	0	NO	CIRCULAR
1KA'CA	J169	J170	Channel	229.445	0.013	959.9	956.31	0	0	0	0	0	0	NO	TRAPEZOIDAL
1KA'CA'	J171	J170	Channel	66.764	0.013	963.54	956.31	0	0	0	0	0	0	NO	TRAPEZOIDAL
1KA'CB	J174	J169	Channel	110.592	0.013	966.85	959.9	0	0	0	0	0	0	NO	TRAPEZOIDAL
1KA'CC	J175	J174	Channel	55.793	0.013	970.34	966.85	0	0	0	0	0	0	NO	TRAPEZOIDAL
1KA''D	5571	5604	Pipe	102.441	0.011	936.99	936.04	0	0	1	0	0	0	NO	CIRCULAR
1KA''E	5526	5571	Pipe	128.317	0.011	938.6	937.34	0	0	1	0	0	0	NO	CIRCULAR
1KB	21325	5218	Pipe	146.867	0.013	937.46	927.59	0	0	1	0	0	0	NO	CIRCULAR
1KC	21199	21325	Pipe	225.066	0.013	954.3	937.61	0	0	1	0	0	0	NO	CIRCULAR
1KD	20974	21199	Pipe	321.203	0.013	975.25	954.9	0	0	1	0	0	0	NO	CIRCULAR

Table 1A: Conduits (continued...)

Name	Inlet Node	Outlet Node	Tag	Length (ft)	Roughness	Inlet Elev. (ft)	Outlet Elev. (ft)	Initial Flow (cfs)	Flow Limit (cfs)	Entry Loss Coeff.	Exit Loss Coeff.	Avg. Loss Coeff.	Seepage Rate (in/hr)	Flap Gate	Cross-Section
1KDA	20985	20974	Pipe	28.687	0.013	978.38	975.8	0	0	1	0	0	0	NO	CIRCULAR
1KE	23037	20974	Pipe	63.819	0.013	976.57	975.45	0	0	1	0	0	0	NO	CIRCULAR
1KF	23025	23037	Pipe	32.149	0.013	979.35	977.69	0	0	1	0	0	0	NO	CIRCULAR
1L	21253	21626	Pipe	258.79	0.013	934.87	910.76	0	0	1	0	0	0	NO	CIRCULAR
1M	24932	21253	Pipe	38.949	0.013	939.32	935.15	0	0	1	0	0	0	NO	CIRCULAR
1N	31036	24932	Pipe	125.328	0.011	950.51	943.62	0	0	1	0	0	0	NO	CIRCULAR
1O	31036'	31036	Pipe	30.02	0.024	951.29	950.65	0	0	1	0	0	0	NO	CIRCULAR
2A	7683	11000	Pipe	15.958	0.013	861.67	861.08	0	0	1	0	0	0	NO	CIRCULAR
2B	7592	7683	Pipe	75.415	0.013	863.07	861.77	0	0	1	0	0	0	NO	CIRCULAR
2BA	7742	7592	Pipe	38.613	0.013	863.98	863.22	0	0	1	0	0	0	NO	CIRCULAR
2C	J164	OL-7592	Overland	278.428	0.013	882.06	867.37	0	0	0	0	0	0	NO	TRAPEZOIDAL
2D	J165	J164	Pipe	71.547	0.011	893.78	882.06	0	0	1	0	0	0	NO	CIRCULAR
2E	J29	J165	Channel	80.217	0.013	894.5	893.78	0	0	0	0	0	0	NO	TRAPEZOIDAL
3A	J38	14000	Pipe	219.172	0.013	848.35	845.99	0	0	1	0	0	0	NO	CIRCULAR
3B	J1	J38	Pipe	202.553	0.013	850.38	848.35	0	0	1	0	0	0	NO	CIRCULAR
3C	J15	J1	Pipe	37.439	0.013	850.75	850.38	0	0	1	0	0	0	NO	CIRCULAR
3D	J3	J15	Pipe	156.876	0.013	852.32	850.75	0	0	1	0	0	0	NO	CIRCULAR
3E	J14	J3	Pipe	67.535	0.013	853	852.32	0	0	1	0	0	0	NO	CIRCULAR
4A	J2	13000	Pipe	79.383	0.013	941.46	936.2	0	0	1	0	0	0	NO	CIRCULAR
5	8807	8697	pipe	99.864	0.01	855.48	854.19	0	0	0	0	0	0	NO	CIRCULAR
8	8697	8667-J4	pipe	89.36	0.01	853.99	852.76	0	0	0	0	0	0	NO	CIRCULAR
C1	J179	OL-J7	Overland	632.865	0.013	976.793	942.46	0	0	0	0	0	0	NO	TRAPEZOIDAL
C10	OL-3596	OL-3615	Overland	64.295	0.013	891.84	890.71	0	0	0	0	0	0	NO	TRAPEZOIDAL
C11	OL-3449	J50	Overland	75.919	0.013	890.06	888.76	0	0	0	0	0	0	NO	TRAPEZOIDAL
C12	OL-3615	J37	Overland	46.799	0.013	890.71	889.376	0	0	0	0	0	0	NO	TRAPEZOIDAL
C12_1	OL-3424	J37	Overland	30.368	0.013	890.3	889.376	0	0	0	0	0	0	NO	TRAPEZOIDAL

Table 1A: Conduits (continued...)

Name	Inlet Node	Outlet Node	Tag	Length (ft)	Roughness	Inlet Elev. (ft)	Outlet Elev. (ft)	Initial Flow (cfs)	Flow Limit (cfs)	Entry Loss Coeff.	Exit Loss Coeff.	Avg. Loss Coeff.	Seepage Rate (in/hr)	Flap Gate	Cross-Section
C12_2	J37	J50	Overland	25.907	0.013	889.376	888	0	0	0	0	0	0	NO	TRAPEZOIDAL
C13	OL-5526	OL-5571	Overland	129.82	0.013	942.1	941.99	0	0	0	0	0	0	NO	TRAPEZOIDAL
C14	OL-5571	OL-5604	Overland	106.04	0.013	941.99	941.84	0	0	0	0	0	0	NO	TRAPEZOIDAL
C144_1	J10	J11	Pipe	53.569	0.013	1008.97	1004.59	0	0	1	0	0	0	NO	CIRCULAR
C144_2	J11	J12	Pipe	139.856	0.013	1004.59	981.34	0	0	1	0	0	0	NO	CIRCULAR
C146	J12	J13	Pipe	40.264	0.013	981.34	980.139	0	0	1	0	0	0	NO	CIRCULAR
C147	J13	J179	Channel	111.819	0.013	980.139	976.793	0	0	0	0	0	0	NO	TRAPEZOIDAL
C15	OL-5604	OL-J37	Overland	140.055	0.013	941.84	941.039	0	0	0	0	0	0	NO	TRAPEZOIDAL
C16	OL-20985	OL-21325	Overland	548.188	0.013	983.08	943.644	0	0	0	0	0	0	NO	TRAPEZOIDAL
C17	OL-21325	OL-5230	Overland	86.895	0.013	943.644	938.08	0	0	0	0	0	0	NO	TRAPEZOIDAL
C18	OL-5230	OL-5246	Overland	124.979	0.013	938.08	929.58	0	0	0	0	0	0	NO	TRAPEZOIDAL
C19	OL-21199	OL-5218	Overland	354.907	0.013	960.12	933.24	0	0	0	0	0	0	NO	TRAPEZOIDAL
C19.	J4-S	12000-2	Overland	59.518	0.013	858.04	851.96	0	0	0	0	0	0	NO	RECT_OPEN
C2	OL-9253a	OL-9253b	Overland	76.713	0.013	948.316	944.247	0	0	0	0	0	0	NO	TRAPEZOIDAL
C2_2	J48	21253	Overland	126.357	0.035	953.84	934.84	0	0	0	0	0	0	NO	TRAPEZOIDAL
C2_3	J49	J35	Overland	78.237	0.035	888.46	865.44	0	0	0	0	0	0	NO	TRAPEZOIDAL
C20	OL-18726	OL-J48	Overland	130.333	0.013	978.31	968.322	0	0	0	0	0	0	NO	TRAPEZOIDAL
C21	OL-J48	OL-12956	Overland	177.316	0.013	968.322	950.18	0	0	0	0	0	0	NO	TRAPEZOIDAL
C22	OL-J49	OL-13746	Overland	105.161	0.013	967.672	951.4	0	0	0	0	0	0	NO	TRAPEZOIDAL
C23	OL-13746	OL-12956	Overland	24.361	0.013	951.4	950.18	0	0	0	0	0	0	NO	TRAPEZOIDAL
C24	OL-12956	OL-5172	Overland	330.39	0.013	950.18	927.59	0	0	0	0	0	0	NO	TRAPEZOIDAL
C25	OL-5172	OL-5191	Overland	63.814	0.013	927.59	924.14	0	0	0	0	0	0	NO	TRAPEZOIDAL
C26	OL-13138	OL-J40	Overland	46.976	0.013	948.73	948.514	0	0	0	0	0	0	NO	TRAPEZOIDAL
C27	OL-J40	OL-J50	Overland	131.304	0.013	948.514	940.647	0	0	0	0	0	0	NO	TRAPEZOIDAL
C28	OL-J50	OL-5191	Overland	229.633	0.013	940.647	924.14	0	0	0	0	0	0	NO	TRAPEZOIDAL
C29	OL-16770	OL-16610	Overland	131.977	0.013	975.6	972.22	0	0	0	0	0	0	NO	TRAPEZOIDAL

Table 1A: Conduits (continued...)

Name	Inlet Node	Outlet Node	Tag	Length (ft)	Roughness	Inlet Elev. (ft)	Outlet Elev. (ft)	Initial Flow (cfs)	Flow Limit (cfs)	Entry Loss Coeff.	Exit Loss Coeff.	Avg. Loss Coeff.	Seepage Rate (in/hr)	Flap Gate	Cross-Section
C3	3253	J17	Overland	33.438	0.035	900.5	891.467	0	0	0	0	0	0	NO	TRAPEZOIDAL
C30	OL-9264	OL-9253	Overland	17.175	0.013	948.71	948.6	0	0	0	0	0	0	NO	TRAPEZOIDAL
C31	OL-16610	OL-9264	Overland	616.356	0.013	972.22	952.36	0	0	0	0	0	0	NO	TRAPEZOIDAL
C32	OL-15964	OL-9253	Overland	320.278	0.013	964.87	948.6	0	0	0	0	0	0	NO	TRAPEZOIDAL
C33	OL-9409	OL-9264	Overland	141.28	0.013	949.68	948.71	0	0	0	0	0	0	NO	TRAPEZOIDAL
C34	OL-11842	OL-10028	Overland	15.083	0.013	951.79	951.77	0	0	0	0	0	0	NO	TRAPEZOIDAL
C35	OL-11842	OL-11966	Overland	124.43	0.013	951.79	950.67	0	0	0	0	0	0	NO	TRAPEZOIDAL
C36	OL-13349	OL-13528	Overland	54.926	0.013	950.4	948.07	0	0	0	0	0	0	NO	TRAPEZOIDAL
C37	OL-12497	J40	Overland	42.855	0.013	940.3	940	0	0	0	0	0	0	NO	TRAPEZOIDAL
C37_1	OL-12678	J40	Overland	30.932	0.013	940.27	939.972	0	0	0	0	0	0	NO	TRAPEZOIDAL
C37_2	J40	OL-12709	Overland	36.575	0.013	939.972	939.62	0	0	0	0	0	0	NO	TRAPEZOIDAL
C38	OL-12709	OL-12300	Overland	18.339	0.013	939.62	939.5	0	0	0	0	0	0	NO	TRAPEZOIDAL
C39	OL-5191	OL-1885	Overland	165.14	0.013	924.14	912.35	0	0	0	0	0	0	NO	TRAPEZOIDAL
C4	OL-9253b	OL-9253c	Overland	193.063	0.035	944.247	888	0	0	0	0	0	0	NO	TRAPEZOIDAL
C40	OL-1896	OL-2249	Overland	197.742	0.013	911.56	897.819	0	0	0	0	0	0	NO	TRAPEZOIDAL
C41	OL-J10	OL-J10a	Overland	43.181	0.013	1011.7	1010.1	0	0	0	0	0	0	NO	TRAPEZOIDAL
C41_1	OL-1885	2002'	Overland	182.693	0.013	912.35	898.82	0	0	0	0	0	0	NO	TRAPEZOIDAL
C41_2	2002'	OL-2374	Overland	196.228	0.013	898.82	893.12	0	0	0	0	0	0	NO	TRAPEZOIDAL
C42	OL-2249	OL-2358	Overland	143.857	0.013	897.819	893.28	0	0	0	0	0	0	NO	TRAPEZOIDAL
C43	OL-2358	J50	Overland	271.117	0.013	893.28	888	0	0	0	0	0	0	NO	TRAPEZOIDAL
C44	OL-2374	OL-7096	Overland	194.356	0.013	893.12	889.82	0	0	0	0	0	0	NO	TRAPEZOIDAL
C45	OL-7096	J164	Overland	133.947	0.013	889.82	882.06	0	0	0	0	0	0	NO	TRAPEZOIDAL
C46	OL-7592	OL-7683	Overland	76.657	0.013	867.37	865.22	0	0	0	0	0	0	NO	TRAPEZOIDAL
C47	25478	J46	Overland	251.209	0.035	866.5	864.9	0	0	0	0	0	0	NO	TRAPEZOIDAL
C47_1	OL-7742	J46	Overland	116.996	0.013	867.53	864.9	0	0	0	0	0	0	NO	TRAPEZOIDAL
C47_2	J46	RainGarden	Overland	350.216	0.013	864.9	860.01	0	0	0	0	0	0	NO	TRAPEZOIDAL

Table 1A: Conduits (continued...)

Name	Inlet Node	Outlet Node	Tag	Length (ft)	Roughness	Inlet Elev. (ft)	Outlet Elev. (ft)	Initial Flow (cfs)	Flow Limit (cfs)	Entry Loss Coeff.	Exit Loss Coeff.	Avg. Loss Coeff.	Seepage Rate (in/hr)	Flap Gate	Cross-Section
C48	OL-5246	OL-1896	Overland	236.817	0.013	929.58	911.56	0	0	0	0	0	0	NO	TRAPEZOIDAL
C49	OL-5218	OL-5191	Overland	121.525	0.013	933.24	924.14	0	0	0	0	0	0	NO	TRAPEZOIDAL
C5	OL-6505	OL-J41	Overland	88.134	0.013	901.45	900.8	0	0	0	0	0	0	NO	TRAPEZOIDAL
C50	OL-J147	OL-J33	Overland	127.499	0.013	942.62	942.163	0	0	0	0	0	0	NO	RECT_OPEN
C51	OL-J33	OL-11560	Overland	30.912	0.013	942.163	942.05	0	0	0	0	0	0	NO	TRAPEZOIDAL
C52	OL-11560	J41	Overland	25.383	0.013	942.05	940.866	0	0	0	0	0	0	NO	TRAPEZOIDAL
C53	J41	J42	Overland	72.163	0.013	940.866	937.461	0	0	0	0	0	0	NO	TRAPEZOIDAL
C54	OL-11213	J41	Overland	132.556	0.013	942.05	940.866	0	0	0	0	0	0	NO	TRAPEZOIDAL
C55	J42	2002	Overland	74.768	0.035	937.461	897.88	0	0	0	0	0	0	NO	TRAPEZOIDAL
C56	OL-J10a	OL-J10b	Overland	124.249	0.035	1010.1	981.75	0	0	0	0	0	0	NO	TRAPEZOIDAL
C57	OL-J10b	J13	Overland	55.173	0.035	981.75	980.139	0	0	0	0	0	0	NO	TRAPEZOIDAL
C58	OL-J5	OL-J8	Overland	57.87	0.035	945.85	944.5	0	0	0	0	0	0	NO	TRAPEZOIDAL
C59	OL-J8	J9	Overland	106.202	0.035	944.5	926.22	0	0	0	0	0	0	NO	TRAPEZOIDAL
C6	OL-6457	OL-6452	Overland	19.41	0.013	900.8	900.57	0	0	0	0	0	0	NO	TRAPEZOIDAL
C60	OL-7683	11000'	Overland	20.552	0.035	865.22	864	0	0	0	0	0	0	NO	TRAPEZOIDAL
C61	OL-9253c	OL-9253d	Overland	129.198	0.035	888	888.001	0	0	0	0	0	0	NO	TRAPEZOIDAL
C62	OL-J3	OL-J15	Overland	132.178	0.013	857.191	855.996	0	0	0	0	0	0	NO	TRAPEZOIDAL
C63	OL-J15	OL-J1	Overland	35.894	0.013	855.996	855.925	0	0	0	0	0	0	NO	TRAPEZOIDAL
C64	OL-J1	J38	Overland	199.437	0.013	855.925	852	0	0	0	0	0	0	NO	TRAPEZOIDAL
C65	OL-9253d	OL-9253e	Overland	37.559	0.035	888.001	863.833	0	0	0	0	0	0	NO	TRAPEZOIDAL
C65_2	J47	14000'	Overland	100.128	0.013	848.575	847.5	0	0	0	0	0	0	NO	TRAPEZOIDAL
C66	OL-9253e	OL-J3	Overland	242.209	0.013	863.833	857.19	0	0	0	0	0	0	NO	TRAPEZOIDAL
C67	OL-J72	OL-J41	Overland	197.971	0.013	905.6	900.57	0	0	0	0	0	0	NO	TRAPEZOIDAL
C68	OL-J4a	OL-J4b	Overland	26.832	0.035	894.5	892.469	0	0	0	0	0	0	NO	TRAPEZOIDAL
C69	OL-J4b	OL-J4c	Overland	55.125	0.035	892.469	881.808	0	0	0	0	0	0	NO	TRAPEZOIDAL
C7	OL-6452	OL-6436	Overland	10.224	0.013	900.57	900.57	0	0	0	0	0	0	NO	TRAPEZOIDAL

Table 1A: Conduits (continued...)

Name	Inlet Node	Outlet Node	Tag	Length (ft)	Roughness	Inlet Elev. (ft)	Outlet Elev. (ft)	Initial Flow (cfs)	Flow Limit (cfs)	Entry Loss Coeff.	Exit Loss Coeff.	Avg. Loss Coeff.	Seepage Rate (in/hr)	Flap Gate	Cross-Section
C70	OL-J4c	OL-J4d	Overland	161.651	0.035	881.808	871.789	0	0	0	0	0	0	NO	TRAPEZOIDAL
C71	OL-J4d	J18	Overland	33.547	0.035	871.789	860.437	0	0	0	0	0	0	NO	TRAPEZOIDAL
C72	OL-6505a	OL-3596	Overland	407.777	0.013	901.23	891.74	0	0	0	0	0	0	NO	TRAPEZOIDAL
C73	J2.	8667-J4	pipe	124.965	0.013	855.48	854.11	0	0	0	0	0	0	NO	CIRCULAR
C74	8667-J4	12000-2	pipe	53.361	0.013	852.76	851.96	0	0	0	0	0	0	NO	CIRCULAR
C75	RainGarden	12000-1	pipe	80.411	0.013	857.75	853.36	0	0	0	0	0	0	NO	CIRCULAR
C76	12000-2	12000	pipe	81	0.024	851.71	838.55	0	0	0	1	0	0	NO	CIRCULAR
C77	12000-1	12000	OVERLAND	72.825	0.013	853	838	0	0	0	1	0	0	NO	TRAPEZOIDAL
C78	12000	12000.	OVERLAND	14.58	0.013	838	836	0	0	0	1	0	0	NO	TRAPEZOIDAL
C79	J2-S	J4-S	OVERLAND	122.015	0.013	858.93	857.11	0	0	0	0	0	0	NO	IRREGULAR
C8	J31	J32	Channel	22.261	0.013	948.103	944.803	0	0	0	0	0	0	NO	TRAPEZOIDAL
C80	RainGarden	12000-1	OVERLAND	89.208	0.013	860	857	0	0	0	0	0	0	NO	RECT_OPEN
C9	J32	OL-12678	Overland	63.533	0.013	944.803	940.7	0	0	0	0	0	0	NO	TRAPEZOIDAL
MM_out	MM_CCB#3	9733	Pipe	28.585	0.013	947.77	938.64	0	0	1	0	0	0	NO	CIRCULAR
OL-1KA'B	OL-J172	J173	Overland	118.952	0.035	951	946.71	0	0	0	0	0	0	NO	TRAPEZOIDAL
OL-31036	OL-31036'	OL-31036	Overland	24.662	0.013	954.23	953.88	0	0	0	0	0	0	NO	TRAPEZOIDAL
TC_out	TC_CCB#1&2	J27	Pipe	61.318	0.013	887	881	0	0	1	0	0	0	NO	CIRCULAR
UV_Out	UV	J55	Pipe	24.992	0.013	878.25	870.25	0	0	1	0	0	0	NO	CIRCULAR
UVA	J25	UV	Pipe	20.736	0.013	881	879.21	0	0	1	0	0	0	NO	CIRCULAR
UVB	J27	J25	Pipe	30.37	0.013	881	881	0	0	1	0	0	0	NO	CIRCULAR
UVC	J24	J27	Pipe	146.949	0.013	929.5	894	0	0	1	0	0	0	NO	CIRCULAR
UVE	J23	J24	Pipe	14.051	0.014	932.58	929.5	0	0	1	0	0	0	NO	CIRCULAR
UVF	J22	J23	Pipe	12.832	0.013	932.68	932.58	0	0	1	0	0	0	NO	CIRCULAR
UVG	J21	J22	Pipe	282.602	0.013	936.78	933.48	0	0	1	0	0	0	NO	CIRCULAR
UVH	9733	J21	Pipe	68.282	0.013	938.64	936.78	0	0	1	0	0	0	NO	CIRCULAR
UVI	18356	9733	Pipe	73.676	0.014	943.2	938.64	0	0	1	0	0	0	NO	CIRCULAR

Table 1A: Conduits (continued...)

Name	Inlet Node	Outlet Node	Tag	Length (ft)	Roughness	Inlet Elev. (ft)	Outlet Elev. (ft)	Initial Flow (cfs)	Flow Limit (cfs)	Entry Loss Coeff.	Exit Loss Coeff.	Avg. Loss Coeff.	Seepage Rate (in/hr)	Flap Gate	Cross-Section
UVIA	18312	18356	Pipe	79.835	0.013	947.29	946.89	0	0	1	0	0	0	NO	CIRCULAR
UVJ	18402	18356	Pipe	33.147	0.014	945.58	943.7	0	0	1	0	0	0	NO	CIRCULAR
UVJA	17671	18402	Pipe	43.931	0.013	948.24	947.99	0	0	1	0	0	0	NO	CIRCULAR
UVK	14961	18402	Pipe	43.742	0.014	946.56	945.62	0	0	1	0	0	0	NO	CIRCULAR
UVL	15025	14961	Pipe	130.15	0.014	956.02	948.11	0	0	1	0	0	0	NO	CIRCULAR
UVM	15075	15025	Pipe	93.129	0.014	959.13	956.18	0	0	1	0	0	0	NO	CIRCULAR
UVN	15234	15075	Pipe	76.437	0.014	963.99	962.25	0	0	1	0	0	0	NO	CIRCULAR
UVO	14448	15234	Pipe	72.757	0.014	965.94	964.14	0	0	1	0	0	0	NO	CIRCULAR
UVOA	14608	14448	Pipe	55.437	0.013	968.91	968.74	0	0	1	0	0	0	NO	CIRCULAR
UVOA'	14383	14448	Pipe	43.125	0.013	971.63	968.62	0	0	1	0	0	0	NO	CIRCULAR
UVOB	15469	14608	Pipe	19.896	0.014	969.81	969.01	0	0	1	0	0	0	NO	CIRCULAR
UVP	15374	14448	Pipe	13.52	0.013	967.48	967.07	0	0	1	0	0	0	NO	CIRCULAR

Table 1B: Conduits

Name	Geom1 (ft)	Geom2 (ft)	Geom3	Geom4	Barrels	Transect	Shape Curve	Culvert Code	Control Rules	Slope (ft/ft)	Max. |Flow| (cfs)	Time Max. Flow (M/D/Y)	Max. |Velocity| (ft/s)
1	1.25	0	0	0	1				NO	0.00909	13.96	05/01/2022 00:16 AM	11.37
1A	4.5	0	0	0	1				NO	0.00595	275.08	05/01/2022 00:25 AM	17.3
1B	4.5	0	0	0	1				NO	0.00864	275.08	05/01/2022 00:25 AM	17.3
1C_1A	0.667	0	0	0	1				NO	0.11535	4.77	05/01/2022 00:10 AM	15.3
1C_2	0	0	0	0	1	PlantOutfallChannel_US			NO	0.09388	276.77	05/01/2022 00:20 AM	9.81
1C_3	0	0	0	0	1	PlantOutfallChannel_DS			NO	0.0356	283.67	05/01/2022 00:20 AM	10.34
1C_4	0	0	0	0	1	PlantOutfallChannel_DS			NO	0.21986	283.66	05/01/2022 00:20 AM	2.72
1D	6	8	0	0	1				NO	0.06252	275.31	05/01/2022 00:20 AM	25.55

Table 1B: Conduits (continued...)

Name	Geom1 (ft)	Geom2 (ft)	Geom3	Geom4	Barrels	Transect	Shape Curve	Culvert Code	Control Rules	Slope (ft/ft)	Max. |Flow| (cfs)	Time Max. Flow (M/D/Y)	Max. |Velocity| (ft/s)
1DA_1	1.75	0	0	0	2				NO	0.10392	26.27	05/01/2022 00:13 AM	16.39
1DA_2	1.75	0	0	0	1				NO	0.12081	24.37	05/01/2022 00:13 AM	19.15
1DA_3	1.75	0	0	0	1				NO	0.12083	0	05/01/2022 00:00 AM	0
1DAA	1	0	0	0	1				NO	2.20534	1.9	05/01/2022 00:14 AM	19.33
1DB_1	3	0	0	0	2				NO	0.0885	0	05/01/2022 00:00 AM	0
1DB_2	3	0	0	0	2				NO	0.09388	0	05/01/2022 00:00 AM	0
1DB_2A	3	0	0	0	1				NO	0	0	05/01/2022 00:00 AM	0
1DBA'	1	0	0	0	1				NO	0.30889	12.15	05/01/2022 00:13 AM	17.76
1DBA''	1	0	0	0	1				NO	0.77641	12.22	05/01/2022 00:13 AM	15.55
1DBB_1	0	0	0	0	1	1DBB			NO	0.01738	1.88	05/01/2022 00:18 AM	2.38
1DBB_2	0	0	0	0	1	1DBB			NO	0.01735	24.15	05/01/2022 00:13 AM	9.45
1DD_1	3	2.5	1	1	1				NO	0.30019	19.44	05/01/2022 00:12 AM	15.18
1DD_2	3	2.5	1	1	1				NO	0.28518	19.44	05/01/2022 00:12 AM	23.86
1DE	1.75	0	0	0	1				NO	0.01621	18.93	05/01/2022 00:12 AM	14.53
1DeA	1	0	0	0	1				NO	0.00841	5.43	05/01/2022 00:10 AM	6.91
1DEAA	1	0	0	0	1				NO	0.10805	2.73	05/01/2022 00:07 AM	10.23
1DEB	1	0	0	0	1				NO	0.00241	2.77	05/01/2022 00:10 AM	3.53
1DEBA	0.833	0	0	0	1				NO	0.04846	2.78	05/01/2022 00:10 AM	9.02
1DEBD_1	0.5	0.5	0	0	1				NO	0.00355	0.38	05/01/2022 00:07 AM	1.6
1DEBD_2	0.333	0	0	0	1				NO	0.00355	0.26	05/01/2022 00:07 AM	3.07
1DEC	1	0	0	0	1				NO	0.00671	1.06	05/01/2022 00:06 AM	1.35
1DED	0.667	0	0	0	1				NO	0.04482	1.06	05/01/2022 00:06 AM	3.04
1DEE	0.667	0	0	0	1				NO	0.07954	0.05	05/01/2022 00:06 AM	0.26
1DEF	0.667	0	0	0	1				NO	0.09135	0	05/01/2022 00:00 AM	0
1DF	1.75	0	0	0	1				NO	0.05166	13.58	05/01/2022 00:15 AM	12.76
1DG	1.75	0	0	0	1				NO	0.00499	13.59	05/01/2022 00:15 AM	6

Table 1B: Conduits (continued...)

Name	Geom1 (ft)	Geom2 (ft)	Geom3	Geom4	Barrels	Transect	Shape Curve	Culvert Code	Control Rules	Slope (ft/ft)	Max. |Flow| (cfs)	Time Max. Flow (M/D/Y)	Max. |Velocity| (ft/s)
1DH	1.75	0	0	0	1				NO	0.00257	13.59	05/01/2022 00:15 AM	5.65
1DHA	1	0	0	0	1				NO	0.03395	1.65	05/01/2022 00:12 AM	6.16
1DI	1.5	0	0	0	1				NO	0.0037	11.77	05/01/2022 00:30 AM	6.66
1DJ	1.5	0	0	0	1				NO	0.00683	11.61	05/01/2022 00:32 AM	6.57
1DJA	1.5	0	0	0	1				NO	0.02817	4.83	05/01/2022 00:38 AM	5.8
1DK	1.5	0	0	0	1				NO	0.04915	8.47	05/01/2022 00:13 AM	7.21
1DL	1.25	0	0	0	1				NO	0.05111	8.47	05/01/2022 00:13 AM	11.52
1DLA	1	0	0	0	1				NO	0.00509	1.96	05/01/2022 00:12 AM	3.52
1DM	1	0	0	0	1				NO	0.05417	2.98	05/01/2022 00:16 AM	6.81
1DN	1	0	0	0	1				NO	0.0239	2.98	05/01/2022 00:16 AM	6.92
1DO	1	0	0	0	1				NO	0.01396	1.55	05/01/2022 00:12 AM	4.54
1DP	1	0	0	0	1				NO	0.05102	0.33	05/01/2022 00:12 AM	2.65
1E	3.583	5.667	0	0	1				NO	0.04075	250.19	05/01/2022 00:20 AM	20.56
1F	3.583	5.667	0	0	1				NO	0.04108	244.86	05/01/2022 00:20 AM	15.03
1FA	3	0	0	0	1				NO	0.04041	104.66	05/01/2022 00:33 AM	14.81
1FB	3	0	0	0	1				NO	0.04309	104.48	05/01/2022 00:33 AM	14.78
1FC	3	0	0	0	1				NO	0.03974	101.89	05/01/2022 00:33 AM	14.41
1FCA'	1.25	0	0	0	1				NO	0.02058	2.74	05/01/2022 00:14 AM	5.14
1FD	3	0	0	0	1				NO	0.04127	101.11	05/01/2022 00:34 AM	16.21
1FDA'	0.5	0	0	0	1				NO	0.02609	1.37	05/01/2022 00:15 AM	6.99
1FDA''	0.833	0	0	0	1				NO	0.03007	6.98	05/01/2022 00:40 AM	12.87
1FDA''A	0.833	0	0	0	1				NO	0.02354	1.35	05/01/2022 00:11 AM	2.48
1FE	3	0	0	0	1				NO	0.0466	82.64	05/01/2022 00:39 AM	13.77
1FF_1	0	0	0	0	1	Wchan_49th_US			NO	0.0703	79.78	05/01/2022 00:18 AM	9.04
1FF_2	0	0	0	0	1	Wchan_49th_DS			NO	0.05273	95.28	05/01/2022 00:19 AM	6.95
1FG	2	0	0	0	1				NO	0.07016	37.52	05/01/2022 00:18 AM	13.43

Table 1B: Conduits (continued...)

Name	Geom1 (ft)	Geom2 (ft)	Geom3	Geom4	Barrels	Transect	Shape Curve	Culvert Code	Control Rules	Slope (ft/ft)	Max. |Flow| (cfs)	Time Max. Flow (M/D/Y)	Max. |Velocity| (ft/s)
1FH	2	0	0	0	1				NO	0.0758	37.54	05/01/2022 00:18 AM	16.98
1FI	2	0	0	0	1				NO	0.03016	37.65	05/01/2022 00:18 AM	12.82
1FJ	2	0	0	0	1				NO	0.03027	25.87	05/01/2022 00:18 AM	8.23
1FK	2	0	0	0	1				NO	0.02997	14.52	05/01/2022 00:19 AM	4.98
1G	3.583	5.667	0	0	1				NO	0.04108	145.83	05/01/2022 00:19 AM	8.95
1GA	1.25	0	0	0	1				NO	0.42335	20.73	05/01/2022 00:20 AM	23.55
1GAA	1.25	0	0	0	1				NO	0.07889	3.27	05/01/2022 00:20 AM	4.83
1GB	1.25	0	0	0	1				NO	0.03522	4.39	05/01/2022 00:12 AM	8.04
1GC	1.25	0	0	0	1				NO	0.00847	3.21	05/01/2022 00:13 AM	4.39
1GD	1	0	0	0	1				NO	0.024	1.31	05/01/2022 00:12 AM	6.19
1GE	1.5	7	0	0	1				NO	0.11851	0.43	05/01/2022 00:12 AM	6.97
1GF	1	0	0	0	1				NO	0.04523	0.43	05/01/2022 00:12 AM	3.79
1H	3.583	5.667	0	0	1				NO	0.0411	125.13	05/01/2022 00:19 AM	9.63
1I	3.583	5.667	0	0	1				NO	0.04106	125.13	05/01/2022 00:19 AM	11.99
1IA	1.25	0	0	0	1				NO	0.10038	8.08	05/01/2022 00:18 AM	11.15
1IAA	1.25	0	0	0	1				NO	0.01429	4.44	05/01/2022 00:18 AM	5.51
1IAB	1.25	0	0	0	1				NO	0.00683	2.24	05/01/2022 00:17 AM	3.57
1IB	1.25	0	0	0	1				NO	0.01438	3.8	05/01/2022 00:14 AM	5.39
1IC	0.5	0	0	0	1				NO	0.03392	1.25	05/01/2022 00:51 AM	6.99
1ID	0.5	2.5	0.01	0.01	1				NO	0.07068	1.38	05/01/2022 00:18 AM	5.53
1J	3	6	0	0	1				NO	0.02828	118.85	05/01/2022 00:18 AM	12.88
1JA	2	0	0	0	1				NO	0.22534	28.87	05/01/2022 00:16 AM	22.81
1JA'	1.5	0	0	0	1				NO	0.07433	1.28	05/01/2022 00:18 AM	7.43
1JB	2	0	0	0	1				NO	0.04141	26.36	05/01/2022 00:13 AM	11.4
1JC	2	0	0	0	1				NO	0.04978	24.44	05/01/2022 00:12 AM	13.6
1JCA	1.25	0	0	0	1				NO	0.06119	1.89	05/01/2022 00:17 AM	8.34

Table 1B: Conduits (continued...)

Name	Geom1 (ft)	Geom2 (ft)	Geom3	Geom4	Barrels	Transect	Shape Curve	Culvert Code	Control Rules	Slope (ft/ft)	Max. |Flow| (cfs)	Time Max. Flow (M/D/Y)	Max. |Velocity| (ft/s)
1JD	2	0	0	0	1				NO	0.05436	21.44	05/01/2022 00:12 AM	13.28
1JE	2	0	0	0	1				NO	0.05209	20.01	05/01/2022 00:12 AM	14.4
1JEA'	1.5	0	0	0	1				NO	0.03922	6.08	05/01/2022 00:09 AM	9.48
1JEA''	1	0	0	0	1				NO	0.09705	1.83	05/01/2022 00:12 AM	10.02
1JEA'A	1.5	0	0	0	1				NO	0.01489	2.89	05/01/2022 00:06 AM	2.55
1JEA'A'	1	0	0	0	1				NO	0.02356	2.17	05/01/2022 00:12 AM	5.83
1JEA'A''	1	0	0	0	1				NO	0.1625	1.12	05/01/2022 00:12 AM	9.14
1JEA''A	1	0	0	0	1				NO	0.09157	0.69	05/01/2022 00:06 AM	5.23
1JEA'A'A'	1	0	0	0	1				NO	0.05364	0.77	05/01/2022 00:12 AM	5.94
1JF	1.5	0	0	0	1				NO	0.01016	12.28	05/01/2022 00:14 AM	7.12
1JG	1.25	0	0	0	1				NO	0.02928	9.24	05/01/2022 00:09 AM	7.53
1JH	1.25	0	0	0	1				NO	0.01597	7.83	05/01/2022 00:08 AM	6.38
1JI	1.25	0	0	0	1				NO	0.00583	6.6	05/01/2022 00:19 AM	5.38
1JJ	1.25	0	0	0	1				NO	0.07177	6.68	05/01/2022 00:13 AM	7.96
1JK	1.25	0	0	0	1				NO	0.2742	6.7	05/01/2022 00:13 AM	13.15
1JKA	1	0	0	0	1				NO	0.01998	5.15	05/01/2022 00:15 AM	6.71
1JKB	1	0	0	0	1				NO	0.00373	0.82	05/01/2022 00:17 AM	2.52
1JKC	1	0	0	0	1				NO	0.00444	0.62	05/01/2022 00:18 AM	2.44
1JL	1	0	0	0	1				NO	0.02365	1.08	05/01/2022 00:06 AM	3.39
1K	3	0	0	0	1				NO	0.09133	89.9	05/01/2022 00:19 AM	25.07
1KA	2	0	0	0	1				NO	0.28799	20.25	05/01/2022 00:18 AM	15.36
1KA'	1	0	0	0	1				NO	0.08094	9.74	05/01/2022 00:26 AM	13.9
1KA''	1.25	0	0	0	1				NO	0.17072	9.47	05/01/2022 00:16 AM	11.64
1KA'A	2	2	1	1	1				NO	0.07968	8.86	05/01/2022 00:18 AM	4
1KA''A	0.833	0	0	0	1				NO	0.00753	9.47	05/01/2022 00:16 AM	17.45
1KA''AA	1.5	0	0	0	1				NO	0.0549	4.17	05/01/2022 00:14 AM	2.67

Table 1B: Conduits (continued...)

Name	Geom1 (ft)	Geom2 (ft)	Geom3	Geom4	Barrels	Transect	Shape Curve	Culvert Code	Control Rules	Slope (ft/ft)	Max. |Flow| (cfs)	Time Max. Flow (M/D/Y)	Max. |Velocity| (ft/s)
1KA''AB	1.25	0	0	0	1				NO	0.01373	2.38	05/01/2022 00:06 AM	3.37
1KA'B	1	0	0	0	1				NO	0.0271	3.17	05/01/2022 00:18 AM	6.01
1KA''B	1.5	0	0	0	1				NO	0.01981	12.33	05/01/2022 00:12 AM	6.98
1KA''BA_1	1	4	50	50	1				NO	0.00865	3.17	05/01/2022 00:12 AM	1.57
1KA''BA_2	1	0.5	50	0.25	1				NO	0.03832	4.76	05/01/2022 00:12 AM	4.76
1KA''BB_1	0.5	3	1	1	1				NO	0.0054	0	05/01/2022 00:00 AM	0
1KA''BB_2	0.5	3	1	1	1				NO	0.0054	0.99	05/01/2022 00:13 AM	2.21
1KA'C	0.5	1	2	2	1				NO	0.08676	6.17	05/01/2022 00:18 AM	8.34
1KA''C	1.25	0	0	0	1				NO	0.07017	6.96	05/01/2022 00:07 AM	12.76
1KA'CA	0.5	1	2	2	1				NO	0.01565	2.44	05/01/2022 00:18 AM	4.87
1KA'CA'	0.5	1	2	2	1				NO	0.10893	0.26	05/01/2022 00:18 AM	1.06
1KA'CB	0.5	1	2	2	1				NO	0.06297	0.57	05/01/2022 00:18 AM	2.09
1KA'CC	0.5	1	2	2	1				NO	0.06268	0.11	05/01/2022 00:18 AM	1.58
1KA''D	1.25	0	0	0	1				NO	0.00927	6.41	05/01/2022 00:07 AM	6.02
1KA''E	1	0	0	0	1				NO	0.00982	2.37	05/01/2022 00:06 AM	4.58
1KB	2	0	0	0	1				NO	0.06736	19.38	05/01/2022 00:18 AM	15.39
1KC	2	0	0	0	1				NO	0.07436	18.24	05/01/2022 00:18 AM	16.17
1KD	2	0	0	0	1				NO	0.06348	17.62	05/01/2022 00:18 AM	15.35
1KDA	1	0	0	0	1				NO	0.0903	1.3	05/01/2022 00:08 AM	8.39
1KE	2	0	0	0	1				NO	0.01755	16.53	05/01/2022 00:18 AM	8.32
1KF	3	0	0	0	1				NO	0.0517	15.86	05/01/2022 00:18 AM	11.04
1L	2.5	0	0	0	1				NO	0.09357	49.95	05/01/2022 00:18 AM	19.26
1M	2	0	0	0	1				NO	0.10768	22.18	05/01/2022 00:18 AM	15.32
1N	2	0	0	0	1				NO	0.05506	22.18	05/01/2022 00:18 AM	15.98
1O	2	0	0	0	1				NO	0.02132	6.04	05/01/2022 00:18 AM	4.61
2A	1	0	0	0	1				NO	0.037	7.8	05/01/2022 00:15 AM	9.93

Table 1B: Conduits (continued...)

Name	Geom1 (ft)	Geom2 (ft)	Geom3	Geom4	Barrels	Transect	Shape Curve	Culvert Code	Control Rules	Slope (ft/ft)	Max. |Flow| (cfs)	Time Max. Flow (M/D/Y)	Max. |Velocity| (ft/s)
2B	1	0	0	0	1				NO	0.01724	4.37	05/01/2022 00:14 AM	5.57
2BA	1	0	0	0	1				NO	0.01969	1.3	05/01/2022 00:09 AM	4.13
2C	1	0.5	50	0.25	1				NO	0.05283	6.67	05/01/2022 00:14 AM	5.21
2D	0.667	0	0	0	1				NO	0.16605	0.58	05/01/2022 00:18 AM	9.11
2E	2	2	3	3	1				NO	0.00898	0.09	05/01/2022 00:18 AM	0.44
3A	2	0	0	0	1				NO	0.01077	30.13	05/01/2022 00:25 AM	9.7
3B	2	0	0	0	1				NO	0.01002	22.48	05/01/2022 00:15 AM	7.16
3C	2	0	0	0	1				NO	0.00988	18.49	05/01/2022 00:38 AM	5.89
3D	2	0	0	0	1				NO	0.01001	15.43	05/01/2022 00:43 AM	5.19
3E	2	0	0	0	1				NO	0.01007	13.61	05/01/2022 00:04 AM	5.31
4A	2	0	0	0	1				NO	0.06641	8.78	05/01/2022 00:12 AM	12.14
5	2	0	0	0	1				NO	0.01292	19.85	05/01/2022 00:18 AM	11.09
8	2	0	0	0	1				NO	0.01377	20.93	05/01/2022 00:18 AM	11.09
C1	1	0.5	50	0.25	1				NO	0.05433	27.5	05/01/2022 00:15 AM	4.34
C10	1	0.5	50	0.25	1				NO	0.01758	7.01	05/01/2022 00:18 AM	3.92
C11	1	0.5	50	0.25	1				NO	0.01713	0.03	05/01/2022 00:06 AM	0.94
C12	1	4	50	50	1				NO	0.02852	9.98	05/01/2022 00:18 AM	3.25
C12_1	1	0.5	50	0.25	1				NO	0.03044	0.86	05/01/2022 00:12 AM	1.57
C12_2	1	0.5	50	0.25	1				NO	0.05319	10.57	05/01/2022 00:18 AM	2.87
C13	1	0.5	50	0.25	1				NO	0.00085	0	05/01/2022 00:00 AM	0
C14	1	0.5	50	0.25	1				NO	0.00141	0.08	05/01/2022 00:08 AM	0.54
C144_1	1.25	0	0	0	1				NO	0.08204	3.98	05/01/2022 00:12 AM	12.05
C144_2	1.25	0	0	0	1				NO	0.16859	3.98	05/01/2022 00:12 AM	9.8
C146	1.25	0	0	0	1				NO	0.02984	3.98	05/01/2022 00:12 AM	8.31
C147	1	2	2	2	1				NO	0.02994	16.56	05/01/2022 00:12 AM	12.41
C15	1	0.5	50	0.25	1				NO	0.00572	0	05/01/2022 00:00 AM	0

Table 1B: Conduits (continued...)

Name	Geom1 (ft)	Geom2 (ft)	Geom3	Geom4	Barrels	Transect	Shape Curve	Culvert Code	Control Rules	Slope (ft/ft)	Max. |Flow| (cfs)	Time Max. Flow (M/D/Y)	Max. |Velocity| (ft/s)
C16	1	0.5	50	0.25	1				NO	0.07213	0.82	05/01/2022 00:08 AM	3.74
C17	1	0.5	50	0.25	1				NO	0.06416	0.96	05/01/2022 00:09 AM	3.86
C18	1	0.5	50	0.25	1				NO	0.06817	4.07	05/01/2022 00:16 AM	5.68
C19	1	0.5	50	0.25	1				NO	0.07596	0.07	05/01/2022 00:07 AM	1.15
C19.	1	10	0	0	1				NO	0.10269	0	05/01/2022 00:00 AM	0
C2	1	4	50	50	1				NO	0.05312	2.25	05/01/2022 00:22 AM	3.14
C2_2	1	4	3	3	1				NO	0.1521	19.46	05/01/2022 00:18 AM	4.37
C2_3	1	4	3	3	1				NO	0.30786	0	05/01/2022 00:00 AM	0
C20	1	0.5	50	0.25	1				NO	0.07686	0	05/01/2022 00:00 AM	0
C21	1	0.5	50	0.25	1				NO	0.10285	0.73	05/01/2022 00:18 AM	3.41
C22	1	0.5	50	0.25	1				NO	0.15662	2.71	05/01/2022 00:06 AM	6.99
C23	1	4	50	50	1				NO	0.05014	2.35	05/01/2022 00:12 AM	2.76
C24	1	0.5	50	0.25	1				NO	0.06853	2.54	05/01/2022 00:12 AM	5.06
C25	1	4	50	50	1				NO	0.05414	3.42	05/01/2022 00:12 AM	2.86
C26	1	0.5	50	0.25	1				NO	0.0046	0.07	05/01/2022 00:06 AM	0.77
C27	1	0.5	50	0.25	1				NO	0.06002	0.27	05/01/2022 00:07 AM	1.73
C28	1	0.5	50	0.25	1				NO	0.07207	0.9	05/01/2022 00:08 AM	3.42
C29	1	0.5	50	0.25	1				NO	0.02562	0.4	05/01/2022 00:12 AM	1.92
C3	1	0.5	50	0.25	1				NO	0.28057	19.59	05/01/2022 00:13 AM	3.23
C30	1	4	50	50	1				NO	0.0064	3.99	05/01/2022 00:23 AM	0.48
C31	1	0.5	50	0.25	1				NO	0.03224	0.88	05/01/2022 00:18 AM	2.92
C32	1	0.5	50	0.25	1				NO	0.05087	0.44	05/01/2022 00:07 AM	1.05
C33	1	0.5	50	0.25	1				NO	0.00687	0	05/01/2022 00:00 AM	0
C34	1	4	50	50	1				NO	0.00133	0	05/01/2022 00:00 AM	0
C35	1	0.5	50	0.25	1				NO	0.009	0	05/01/2022 00:00 AM	0
C36	1	4	50	50	1				NO	0.04246	0	05/01/2022 00:00 AM	0

Table 1B: Conduits (continued...)

Name	Geom1 (ft)	Geom2 (ft)	Geom3	Geom4	Barrels	Transect	Shape Curve	Culvert Code	Control Rules	Slope (ft/ft)	Max. |Flow| (cfs)	Time Max. Flow (M/D/Y)	Max. |Velocity| (ft/s)
C37	1	4	50	50	1				NO	0.007	1.36	05/01/2022 00:14 AM	1.14
C37_1	1	0.5	50	0.25	1				NO	0.00963	0.5	05/01/2022 00:12 AM	1.72
C37_2	1	0.5	50	0.25	1				NO	0.00962	1.77	05/01/2022 00:14 AM	2.21
C38	1	4	50	50	1				NO	0.00654	2.64	05/01/2022 00:14 AM	1.29
C39	1	0.5	50	0.25	1				NO	0.07158	3.31	05/01/2022 00:12 AM	5.49
C4	1	4	3	3	1				NO	0.30455	2.24	05/01/2022 00:23 AM	3.82
C40	1	0.5	50	0.25	1				NO	0.06966	7.12	05/01/2022 00:17 AM	6.53
C41	1	4	3	3	1				NO	0.03708	11.73	05/01/2022 00:12 AM	8.29
C41_1	1	0.5	50	0.25	1				NO	0.07426	2.95	05/01/2022 00:13 AM	4.33
C41_2	1	0.5	50	0.25	1				NO	0.02906	7.36	05/01/2022 00:13 AM	4.79
C42	1	0.5	50	0.25	1				NO	0.03157	5.19	05/01/2022 00:17 AM	4.53
C43	1	0.5	50	0.25	1				NO	0.01948	3.99	05/01/2022 00:18 AM	0.88
C44	1	0.5	50	0.25	1				NO	0.01698	5.48	05/01/2022 00:14 AM	3.64
C45	1	0.5	50	0.25	1				NO	0.05803	4.61	05/01/2022 00:14 AM	4.7
C46	1	0.5	50	0.25	1				NO	0.02806	7	05/01/2022 00:16 AM	4.43
C47	3	10	15	15	1				NO	0.00637	0	05/01/2022 00:00 AM	0
C47_1	1	0.5	50	0.25	1				NO	0.02249	0.35	05/01/2022 00:12 AM	3.45
C47_2	1	0.5	50	0.25	1				NO	0.01396	0.22	05/01/2022 00:17 AM	1.49
C48	1	0.5	50	0.25	1				NO	0.07631	2.82	05/01/2022 00:16 AM	3.63
C49	1	0.5	50	0.25	1				NO	0.07509	0.34	05/01/2022 00:12 AM	1.42
C5	1	4	50	50	1				NO	0.00738	3.66	05/01/2022 00:18 AM	1.69
C50	1	4	0	0	1				NO	0.00358	0.19	05/01/2022 00:06 AM	0.35
C51	1	0.5	50	0.25	1				NO	0.00366	2.28	05/01/2022 00:07 AM	1.77
C52	1	0.5	50	0.25	1				NO	0.0467	0.92	05/01/2022 00:07 AM	3.42
C53	1	4	50	50	1				NO	0.04724	3.12	05/01/2022 00:07 AM	2.65
C54	1	0.5	50	0.25	1				NO	0.00893	2.21	05/01/2022 00:06 AM	3.48

Table 1B: Conduits (continued...)

Name	Geom1 (ft)	Geom2 (ft)	Geom3	Geom4	Barrels	Transect	Shape Curve	Culvert Code	Control Rules	Slope (ft/ft)	Max. |Flow| (cfs)	Time Max. Flow (M/D/Y)	Max. |Velocity| (ft/s)
C55	1	2	3	3	1				NO	0.62399	3.11	05/01/2022 00:08 AM	1.45
C56	1	4	3	3	1				NO	0.23435	11.71	05/01/2022 00:12 AM	5.44
C57	1	4	3	3	1				NO	0.02921	11.68	05/01/2022 00:12 AM	3.81
C58	1	10	3	3	1				NO	0.02333	38.06	05/01/2022 00:18 AM	4.84
C59	1	4	3	3	1				NO	0.17473	38.03	05/01/2022 00:18 AM	7.32
C6	1	4	50	50	1				NO	0.01185	9.32	05/01/2022 00:41 AM	1.15
C60	1	4	3	3	1				NO	0.05947	4.37	05/01/2022 00:15 AM	3.69
C61	1	4	3	3	1				NO	-1E-05	1.68	05/01/2022 00:26 AM	1.04
C62	1	0.5	50	0.25	1				NO	0.00904	22.52	05/01/2022 00:18 AM	3.85
C63	1	4	50	50	1				NO	0.00198	33.03	05/01/2022 00:18 AM	2.58
C64	1	4	50	50	1				NO	0.01968	32.06	05/01/2022 00:18 AM	3.6
C65	1	4	3	3	1				NO	0.84061	1.68	05/01/2022 00:26 AM	4.05
C65_2	1	4	50	50	1				NO	0.01074	24.44	05/01/2022 00:25 AM	3.76
C66	1	0.5	50	0.25	1				NO	0.02744	1.65	05/01/2022 00:27 AM	1.06
C67	1	4	50	50	1				NO	0.02542	0	05/01/2022 00:00 AM	0
C68	1	4	3	3	1				NO	0.07591	1.92	05/01/2022 00:18 AM	3.38
C69	1	4	3	3	1				NO	0.19712	1.92	05/01/2022 00:18 AM	3.75
C7	1	4	50	50	1				NO	0	12.92	05/01/2022 00:32 AM	0.82
C70	1	4	3	3	1				NO	0.0621	1.91	05/01/2022 00:18 AM	3.4
C71	1	4	3	3	1				NO	0.35961	1.9	05/01/2022 00:19 AM	0.62
C72	1	0.5	50	0.25	1				NO	0.02328	3.04	05/01/2022 00:29 AM	1.63
C73	1	0	0	0	1				NO	0.01096	0	05/01/2022 00:00 AM	0
C74	2.5	0	0	0	1				NO	0.01499	23.03	05/01/2022 00:18 AM	10.01
C75	0.25	0	0	0	1				NO	0.05468	0.25	05/01/2022 00:24 AM	5.13
C76	2.5	0	0	0	1				NO	0.16466	24.36	05/01/2022 00:18 AM	14.59
C77	5	10	4	4	1				NO	0.21049	8.99	05/01/2022 00:24 AM	5.75

Table 1B: Conduits (continued...)

Name	Geom1 (ft)	Geom2 (ft)	Geom3	Geom4	Barrels	Transect	Shape Curve	Culvert Code	Control Rules	Slope (ft/ft)	Max. |Flow| (cfs)	Time Max. Flow (M/D/Y)	Max. |Velocity| (ft/s)
C78	5	10	4	4	1				NO	0.13848	32.32	05/01/2022 00:20 AM	2.43
C79	0	0	0	0	1	HalfSectionRd			NO	0.01492	0	05/01/2022 00:00 AM	0
C8	0.667	2	2	2	1				NO	0.1499	0.82	05/01/2022 00:06 AM	5.37
C80	1	10	0	0	1				NO	0.03365	8.74	05/01/2022 00:24 AM	5.81
C9	1	0.5	50	0.25	1				NO	0.06472	0.82	05/01/2022 00:06 AM	3.73
MM_out	2	0	0	0	1				NO	0.33705	0	05/01/2022 00:00 AM	0
OL-1KA'B	1	2	3	3	1				NO	0.03609	4.9	05/01/2022 00:18 AM	2.95
OL-31036	1	4	50	50	1				NO	0.01419	34.33	05/01/2022 00:18 AM	2.53
TC_out	3	0	0	0	1				NO	0.09832	0	05/01/2022 00:00 AM	0
UV_Out	3.5	0	0	0	1				NO	0.33788	5.41	05/01/2022 00:19 AM	15.63
UVA	4	0	0	0	1				NO	0.08665	5.41	05/01/2022 00:19 AM	9.71
UVB	4	0	0	0	1				NO	0	5.41	05/01/2022 00:19 AM	5.09
UVC	2	0	0	0	1				NO	0.24895	5.41	05/01/2022 00:18 AM	17.85
UVE	1.75	0	0	0	1				NO	0.22467	5.41	05/01/2022 00:18 AM	14.18
UVF	1.75	0	0	0	2				NO	0.00779	5.41	05/01/2022 00:18 AM	4.44
UVG	1.75	0	0	0	2				NO	0.01168	5.41	05/01/2022 00:18 AM	5.07
UVH	1.75	0	0	0	2				NO	0.02725	5.43	05/01/2022 00:18 AM	5.54
UVI	1.75	0	0	0	1				NO	0.06201	5.43	05/01/2022 00:18 AM	10.66
UVIA	1	0	0	0	1				NO	0.00501	1.48	05/01/2022 00:18 AM	3.25
UVJ	1.75	0	0	0	1				NO	0.05681	3.54	05/01/2022 00:13 AM	8.28
UVJA	1	0	0	0	1				NO	0.00569	0.48	05/01/2022 00:18 AM	2.42
UVK	1.75	0	0	0	1				NO	0.02149	3.19	05/01/2022 00:13 AM	5.78
UVL	1.75	0	0	0	1				NO	0.06089	3.19	05/01/2022 00:12 AM	8.98
UVM	1.75	0	0	0	1				NO	0.03169	2.99	05/01/2022 00:12 AM	6.87
UVN	1	0	0	0	1				NO	0.02277	2.84	05/01/2022 00:12 AM	6.11
UVO	1	0	0	0	1				NO	0.02475	2.57	05/01/2022 00:12 AM	6.16

Table 1B: Conduits (continued...)

Name	Geom1 (ft)	Geom2 (ft)	Geom3	Geom4	Barrels	Transect	Shape Curve	Culvert Code	Control Rules	Slope (ft/ft)	Max. |Flow| (cfs)	Time Max. Flow (M/D/Y)	Max. |Velocity| (ft/s)
UVOA	1	0	0	0	1				NO	0.00307	1.6	05/01/2022 00:06 AM	3.07
UVOA'	1	0	0	0	1				NO	0.06997	0.63	05/01/2022 00:12 AM	6.5
UVOB	0.667	0	0	0	1				NO	0.04024	0.15	05/01/2022 00:12 AM	1.38
UVP	1	0	0	0	1				NO	0.03034	0.37	05/01/2022 00:18 AM	3.89

Table 1C: Conduits

Name	Max/Full Flow	Max/Full Depth	Max. Volume (ft³)	Full Both Ends (h)	Full Upstream (h)	Full Downstream (h)	Above Full Normal (h)	Capacity Limited (h)	Length Factor (fraction)	Dry (fraction)	Subcritical (fraction)	Supercritical (fraction)	Normal Limited (fraction)
1	1.74	1	0	0.42	0.52	0.42	0.57	0.42	1	0	0	0	0
1A	1.81	1	0	71.98	71.98	72	0.62	0.84	1	0	1	0	0
1B	1.5	1	0	0.58	0.65	0.58	0.56	0.58	1	0	0.99	0	0.01
1C_1A	0.98	0.89	0	0.01	0.4	0.01	0.01	0.01	1	0	0	0	0
1C_2	0.01	0.12	0	0	0	0	0	0	1	0	0.37	0.63	0.01
1C_3	0.01	0.1	0	0	0	0	0	0	1	0.33	0.65	0.02	0
1C_4	0.01	0.54	0	0.01	0.01	0.32	0.01	0.01	1	0	0.65	0	1
1D	0.11	0.22	0	0	0	0	0	0	1	0	0.28	0.02	0.99
1DA_1	0.26	0.37	0	0	0	0	0	0	1	0	0	0	0
1DA_2	0.44	0.52	0	0	0	0	0	0	1	0	0.93	0.07	0.95
1DA_3	0	0.33	0	0	0	0	0	0	1	0	0	0	0
1DAA	0.04	0.21	0	0	0	0	0	0	1	0	0	0.01	0
1DB_1	0	0.18	0	0	0	0	0	0	1	0.98	0	0	0
1DB_2	0	0	0	0	0	0	0	0	1	1	0	0	0
1DB_2A	0	0	0	0	0	0	0	0	1	1	0	0	0
1DBA'	0.52	0.85	0	0.01	0.24	0.01	0.01	0.01	1	0.98	0	0.01	0

Table 1C: Conduits (continued...)

Name	Max/Full Flow	Max/Full Depth	Max. Volume (ft³)	Full Both Ends (h)	Full Upstream (h)	Full Downstream (h)	Above Full Normal (h)	Capacity Limited (h)	Length Factor (fraction)	Dry (fraction)	Subcritical (fraction)	Supercritical (fraction)	Normal Limited (fraction)
1DBA''	0.33	1	0	0.27	0.27	71.97	0.01	0.01	1	0	0.06	0.01	0.98
1DBB_1	0	0.15	0	0	0	0	0	0	1	0.93	0.04	0	1
1DBB_2	0.05	0.26	0	0	0	0	0	0	1	0.93	0	0	0
1DD_1	0.01	0.43	0	0	0	0	0	0	1	0	0.05	0	1
1DD_2	0.01	0.1	0	0	0	0	0	0	1	0.95	0	0.05	0.01
1DE	0.94	0.53	0	0	0	0	0	0	1	0	0.96	0.04	0
1DeA	1.66	1	0	0.48	0.5	0.64	0.4	0.41	1	0	1	0	0.98
1DEAA	0.2	1	0	0.13	0.13	0.43	0.01	0.01	1	0	0.01	0	0
1DEB	1.34	1	0	0.45	0.45	0.47	0.25	0.34	1	0	0.01	0	0
1DEBA	0.49	1	0	0.19	0.19	0.3	0.01	0.01	1	0	0	0	0
1DEBD_1	0.63	0.96	0	0.01	0.01	1.06	0.01	0.01	1	0	0.04	0	0.99
1DEBD_2	1.94	0.93	0	0.01	1.09	0.01	1.1	0.01	1	0	0	0	0
1DEC	0.36	1	0	0.38	0.38	0.42	0.01	0.01	1	0	0.02	0	0.99
1DED	0.45	1	0	0.3	0.3	0.41	0.01	0.01	1	0	1	0	0.99
1DEE	0.01	0.5	0	0.01	0.01	0.28	0.01	0.01	1	0	0.01	0	1
1DEF	0	0	0	0	0	0	0	0	1	1	0	0	0
1DF	0.38	0.45	0	0	0	0	0	0	1	0	0	0	0
1DG	1.21	0.89	0	0.01	0.54	0.01	0.54	0.01	1	0	0	0	0
1DH	1.69	1	0	0.52	0.57	0.52	0.62	0.52	1	0	0.01	0	0
1DHA	0.25	0.37	0	0	0	0	0	0	1	0	0	0	0
1DI	1.84	1	0	0.57	0.64	0.57	0.65	0.57	1	0	0.01	0	0
1DJ	1.34	1	0	0.62	0.62	0.63	0.56	0.6	1	0	0.02	0	0
1DJA	0.27	1	0	0.56	0.56	0.57	0.01	0.01	1	0	0.01	0	0
1DK	0.36	0.76	0	0.01	0.01	0.61	0.01	0.01	1	0	0.01	0.01	0.01
1DL	0.58	0.58	0	0	0	0	0	0	1	0	0	0	0
1DLA	0.77	0.67	0	0	0	0	0	0	1	0	0	0	0

Table 1C: Conduits (continued...)

Name	Max/Full Flow	Max/Full Depth	Max. Volume (ft³)	Full Both Ends (h)	Full Upstream (h)	Full Downstream (h)	Above Full Normal (h)	Capacity Limited (h)	Length Factor (fraction)	Dry (fraction)	Subcritical (fraction)	Supercritical (fraction)	Normal Limited (fraction)
1DM	0.36	0.58	0	0	0	0	0	0	1	0	0	0.01	0
1DN	0.54	0.54	0	0	0	0	0	0	1	0	0	0	0
1DO	0.37	0.45	0	0	0	0	0	0	1	0	0	0.01	0
1DP	0.04	0.27	0	0	0	0	0	0	1	0	0.02	0	0.02
1E	0.63	0.68	0	0.01	0.3	0.01	0.01	0.01	1	0.7	0.11	0.06	0.85
1F	0.61	1	0	0.3	0.54	0.3	0.01	0.3	1	0.8	0.16	0.02	0.07
1FA	0.78	1	0	0.53	0.53	0.63	0.01	0.49	1	0	0.33	0.01	0.98
1FB	0.75	1	0	0.52	0.53	0.53	0.01	0.52	1	0	0.01	0.01	0
1FC	0.77	1	0	0.47	0.47	0.53	0.01	0.01	1	0	0.01	0.01	0
1FCA'	0.3	1	0	0.45	0.45	0.47	0.01	0.01	1	0	0.01	0	0
1FD	0.75	1	0	0.46	0.46	0.46	0.01	0.42	1	0	0.01	0	0
1FDA'	1.28	1	0	0.97	1.02	0.97	0.61	0.63	1	0	0.01	0	0
1FDA''	1.56	1	0	0.39	0.9	0.39	0.49	0.39	1	0	0.01	0	0
1FDA''A	0.34	1	0	0.8	0.8	0.88	0.01	0.01	1	0	0.02	0	0.98
1FE	0.57	1	0	0.34	0.34	0.46	0.01	0.01	1	0	0.84	0.16	0.98
1FF_1	0.01	0.13	0	0	0	0	0	0	1	0	0.15	0.02	0.98
1FF_2	0.02	0.49	0	0	0	0	0	0	1	0	0.97	0.03	0.65
1FG	0.63	0.84	0	0.01	0.04	0.01	0.01	0.01	1	0.83	0.03	0.03	0.98
1FH	0.6	0.66	0	0	0	0	0	0	1	0	0	0	0
1FI	0.96	0.88	0	0.01	0.31	0.01	0.01	0.01	1	0	0.96	0.04	0.96
1FJ	0.66	1	0	0.29	0.29	0.31	0.01	0.24	1	0	0.97	0.03	0.03
1FK	0.37	1	0	0.22	0.22	0.29	0.01	0.01	1	0	0.97	0.03	0.98
1G	0.36	1	0	0.41	0.41	0.54	0.01	0.01	1	0.81	0.06	0.01	0.98
1GA	0.49	1	0	0.17	0.17	0.44	0.01	0.01	1	0	0	0	0
1GAA	0.18	1	0	0.03	0.03	0.15	0.01	0.01	1	0	0	0	0.99
1GB	0.36	0.53	0	0	0	0	0	0	1	0	0	0	0

Table 1C: Conduits (continued...)

Name	Max/Full Flow	Max/Full Depth	Max. Volume (ft³)	Full Both Ends (h)	Full Upstream (h)	Full Downstream (h)	Above Full Normal (h)	Capacity Limited (h)	Length Factor (fraction)	Dry (fraction)	Subcritical (fraction)	Supercritical (fraction)	Normal Limited (fraction)
1GC	0.54	0.58	0	0	0	0	0	0	1	0	0	0	0
1GD	0.2	0.31	0	0	0	0	0	0	1	0	0	0	0
1GE	0	0.11	0	0	0	0	0	0	1	0	0	0	0
1GF	0.1	0.2	0	0	0	0	0	0	1	0	0.01	0.02	0.98
1H	0.31	1	0	0.25	0.25	0.41	0.01	0.01	1	0.93	0.04	0.02	0
1I	0.31	0.9	0	0.01	0.01	0.25	0.01	0.01	1	0.93	0.04	0.02	0
1IA	0.39	0.76	0	0.01	0.01	0.36	0.01	0.01	1	0	0	0.02	0.01
1IAA	0.57	0.62	0	0	0	0	0	0	1	0	0	0	0
1IAB	0.42	0.51	0	0	0	0	0	0	1	0	0	0	0
1IB	0.49	0.56	0	0	0	0	0	0	1	0	0	0	0
1IC	1.02	0.99	0	0.01	0.78	0.01	0.01	0.01	1	0	0	0	0
1ID	0.07	0.29	0	0	0	0	0	0	1	0.97	0	0	0
1J	0.34	0.64	0	0	0	0	0	0	1	0.91	0	0.01	0
1JA	0.27	0.42	0	0	0	0	0	0	1	0	0	0	0
1JA'	0.04	0.15	0	0	0	0	0	0	1	0	0	0	0
1JB	0.57	0.69	0	0	0	0	0	0	1	0	0	0	0
1JC	0.48	0.58	0	0	0	0	0	0	1	0	0	0	0
1JCA	0.12	0.24	0	0	0	0	0	0	1	0	0	0	0
1JD	0.41	0.51	0	0	0	0	0	0	1	0	0	0	0
1JE	0.39	0.45	0	0	0	0	0	0	1	0	0	0	0
1JEA'	0.29	0.39	0	0	0	0	0	0	1	0	0	0	0
1JEA''	0.16	0.28	0	0	0	0	0	0	1	0	0	0	0
1JEA'A	0.23	0.66	0	0.01	0.01	0.19	0.01	0.01	1	0	0.03	0	1
1JEA'A'	0.4	0.48	0	0	0	0	0	0	1	0	0	0	0
1JEA'A''	0.08	0.21	0	0	0	0	0	0	1	0	0	0	0
1JEA''A	0.06	0.23	0	0	0	0	0	0	1	0	0.98	0.02	1

Table 1C: Conduits (continued...)

Name	Max/Full Flow	Max/Full Depth	Max. Volume (ft³)	Full Both Ends (h)	Full Upstream (h)	Full Downstream (h)	Above Full Normal (h)	Capacity Limited (h)	Length Factor (fraction)	Dry (fraction)	Subcritical (fraction)	Supercritical (fraction)	Normal Limited (fraction)
1JEA'A'A'	0.09	0.22	0	0	0	0	0	0	1	0	0	0	0
1JF	1.25	0.94	0	0.01	0.26	0.01	0.25	0.01	1	0	0	0	0
1JG	0.84	1	0	0.28	0.3	0.28	0.01	0.28	1	0	0	0.01	0
1JH	0.96	1	0	0.29	0.34	0.29	0.01	0.29	1	0	0.01	0	0
1JI	1.34	1	0	0.3	0.34	0.3	0.32	0.3	1	0	0.01	0	0
1JJ	0.39	0.83	0	0.01	0.01	0.31	0.01	0.01	1	0	0	0.01	0
1JK	0.2	0.53	0	0	0	0	0	0	1	0	0	0.01	0
1JKA	1.02	0.96	0	0.01	0.21	0.01	0.09	0.01	1	0	0	0	0
1JKB	0.37	0.74	0	0	0	0	0	0	1	0	0	0	0
1JKC	0.26	0.38	0	0	0	0	0	0	1	0	0	0	0
1JL	0.36	0.43	0	0	0	0	0	0	1	0	0	0	0
1K	0.45	0.51	0	0	0	0	0	0	1	0	0	0	0
1KA	0.17	0.51	0	0	0	0	0	0	1	0	0	0.02	0.01
1KA'	0.96	0.89	0	0.01	0.45	0.01	0.01	0.01	1	0	0	0	0
1KA''	0.65	0.63	0	0	0	0	0	0	1	0	0	0	0
1KA'A	0.09	0.64	0	0.01	0.01	0.34	0.01	0.01	1	0	0.06	0.01	1
1KA''A	9.2	0.98	0	0.01	1.18	0.01	1.22	0.01	1	0	0	0	0
1KA''AA	0.31	1	0	0.97	0.97	1.06	0.01	0.01	1	0	0.03	0	0.98
1KA''AB	0.58	0.56	0	0	0	0	0	0	1	0	0	0	0
1KA'B	1	0.77	0	0.01	0.67	0.01	0.01	0.01	1	0	0.97	0.03	0.95
1KA''B	1.54	1	0	0.83	0.84	0.97	0.17	0.38	1	0	0.02	0	0
1KA''BA_1	0.01	0.16	0	0	0	0	0	0	1	0	0.06	0	1
1KA''BA_2	0.01	0.23	0	0	0	0	0	0	1	0	0	0	0
1KA''BB_1	0	0.14	0	0	0	0	0	0	1	0.94	0	0	0
1KA''BB_2	0.12	0.28	0	0	0	0	0	0	1	0.94	0.05	0	1
1KA'C	0.4	0.81	0	0.01	0.01	1.03	0.01	0.01	1	0	0.04	0.01	1

Table 1C: Conduits (continued...)

Name	Max/Full Flow	Max/Full Depth	Max. Volume (ft³)	Full Both Ends (h)	Full Upstream (h)	Full Downstream (h)	Above Full Normal (h)	Capacity Limited (h)	Length Factor (fraction)	Dry (fraction)	Subcritical (fraction)	Supercritical (fraction)	Normal Limited (fraction)
1KA''C	0.34	1	0	0.22	0.22	0.46	0.01	0.01	1	0	0.01	0	0
1KA'CA	0.37	0.62	0	0	0	0	0	0	1	0.94	0.03	0.02	0.02
1KA'CA'	0.02	0.37	0	0	0	0	0	0	1	0.95	0.02	0	1
1KA'CB	0.04	0.4	0	0	0	0	0	0	1	0.94	0.03	0	1
1KA'CC	0.01	0.13	0	0	0	0	0	0	1	0.97	0.01	0.01	1
1KA''D	0.87	1	0	0.18	0.18	0.21	0.01	0.01	1	0	0	0	0
1KA''E	0.57	1	0	0.06	0.06	0.17	0.01	0.01	1	0	0	0	0
1KB	0.33	0.42	0	0	0	0	0	0	1	0	0	0	0
1KC	0.3	0.39	0	0	0	0	0	0	1	0	0	0	0
1KD	0.31	0.39	0	0	0	0	0	0	1	0	0	0	0
1KDA	0.12	0.25	0	0	0	0	0	0	1	0	0	0	0
1KE	0.55	0.61	0	0	0	0	0	0	1	0	0	0	0
1KF	0.1	0.26	0	0	0	0	0	0	1	0	0	0	0
1L	0.4	0.52	0	0	0	0	0	0	1	0	0	0.01	0
1M	0.3	0.48	0	0	0	0	0	0	1	0	0	0.01	0
1N	0.35	0.45	0	0	0	0	0	0	1	0	0	0	0
1O	0.34	0.44	0	0	0	0	0	0	1	0	0	0	0
2A	1.14	1	0	0.19	0.36	0.19	0.19	0.19	1	0	0.97	0.03	0
2B	0.93	1	0	0.28	0.28	0.34	0.01	0.18	1	0	0.01	0.01	0
2BA	0.26	1	0	0.19	0.19	0.26	0.01	0.01	1	0	0.01	0	0.01
2C	0.02	0.22	0	0	0	0	0	0	1	0.96	0	0.01	0.01
2D	0.1	0.26	0	0	0	0	0	0	1	0	0.97	0.03	0.98
2E	0	0.04	0	0	0	0	0	0	1	0	0.03	0	1
3A	1.28	0.96	0	0.01	1.01	0.01	1	0.01	1	0	0.93	0.07	0
3B	0.99	1	0	0.99	0.99	1.01	0.01	0.71	1	0	0.99	0.01	0.98
3C	0.82	1	0	0.97	0.97	0.99	0.01	0.9	1	0	0.99	0.01	0.61

Table 1C: Conduits (continued...)

Name	Max/Full Flow	Max/Full Depth	Max. Volume (ft³)	Full Both Ends (h)	Full Upstream (h)	Full Downstream (h)	Above Full Normal (h)	Capacity Limited (h)	Length Factor (fraction)	Dry (fraction)	Subcritical (fraction)	Supercritical (fraction)	Normal Limited (fraction)
3D	0.68	1	0	0.89	0.89	0.97	0.01	0.01	1	0	1	0	0.93
3E	0.6	1	0	0.89	0.89	0.89	0.01	0.01	1	0	0.02	0	0.98
4A	0.15	0.28	0	0	0	0	0	0	1	0	0.98	0.02	0
5	0.59	0.55	0	0	0	0	0	0	1	0	0	0	0
8	0.61	0.58	0	0	0	0	0	0	1	0	0.98	0.02	0.99
C1	0.07	0.65	0	0	0	0	0	0	1	0	0.95	0.05	0.02
C10	0.03	0.26	0	0	0	0	0	0	1	0.98	0	0	0
C11	0	0.15	0	0	0	0	0	0	1	0.99	0	0	1
C12	0.01	0.21	0	0	0	0	0	0	1	0.97	0	0.01	1
C12_1	0	0.17	0	0	0	0	0	0	1	0.97	0.01	0	1
C12_2	0.02	0.62	0	0.01	0.01	0.13	0.01	0.01	1	0.97	0.01	0	0.01
C13	0	0.04	0	0	0	0	0	0	1	0.99	0	0	0
C14	0	0.07	0	0	0	0	0	0	1	0.99	0	0	0
C144_1	0.22	0.31	0	0	0	0	0	0	1	0	0.98	0.02	0.98
C144_2	0.15	0.38	0	0	0	0	0	0	1	0	0	0.02	1
C146	0.36	0.48	0	0	0	0	0	0	1	0	0.98	0.02	0.98
C147	0.29	0.46	0	0	0	0	0	0	1	0	0.03	0.02	0.99
C15	0	0.09	0	0	0	0	0	0	1	0	0	0	0
C16	0	0.09	0	0	0	0	0	0	1	0.99	0	0	0
C17	0	0.12	0	0	0	0	0	0	1	0.99	0	0	0
C18	0.01	0.16	0	0	0	0	0	0	1	0.99	0	0	0
C19	0	0.04	0	0	0	0	0	0	1	0.99	0	0	1
C19.	0	0.36	0	0	0	0	0	0	1	0.98	0	0	0
C2	0	0.09	0	0	0	0	0	0	1	0.98	0	0	1
C2_2	0.22	0.72	0	0.01	0.01	0.32	0.01	0.01	1	0	0.03	0	1
C2_3	0	0.5	0	0	0	0	0	0	1	0	0	0	0

Table 1C: Conduits (continued...)

Name	Max/Full Flow	Max/Full Depth	Max. Volume (ft³)	Full Both Ends (h)	Full Upstream (h)	Full Downstream (h)	Above Full Normal (h)	Capacity Limited (h)	Length Factor (fraction)	Dry (fraction)	Subcritical (fraction)	Supercritical (fraction)	Normal Limited (fraction)
C20	0	0.04	0	0	0	0	0	0	1	0.97	0	0	0
C21	0	0.1	0	0	0	0	0	0	1	0.97	0	0.01	0.01
C22	0	0.11	0	0	0	0	0	0	1	0.98	0	0	0
C23	0	0.11	0	0	0	0	0	0	1	0.99	0	0.01	0.01
C24	0.01	0.13	0	0	0	0	0	0	1	0.99	0	0	0
C25	0	0.12	0	0	0	0	0	0	1	0.99	0	0.01	0.01
C26	0	0.05	0	0	0	0	0	0	1	0.97	0.01	0	1
C27	0	0.07	0	0	0	0	0	0	1	0.97	0.01	0.02	1
C28	0	0.11	0	0	0	0	0	0	1	0.97	0	0.01	0.01
C29	0	0.09	0	0	0	0	0	0	1	0.99	0	0.01	1
C3	0.05	0.66	0	0.01	0.01	0.38	0.01	0.01	1	0	0.94	0.06	0.02
C30	0.01	0.66	0	0	0	0	0	0	1	0.98	0.01	0	0
C31	0	0.1	0	0	0	0	0	0	1	0.99	0	0	0
C32	0	0.37	0	0	0	0	0	0	1	0.98	0.01	0	1
C33	0	0.3	0	0	0	0	0	0	1	0.99	0	0	0
C34	0	0.01	0	0	0	0	0	0	1	1	0	0	0
C35	0	0.24	0	0	0	0	0	0	1	0.99	0	0	0
C36	0	0.02	0	0	0	0	0	0	1	1	0	0	0
C37	0	0.12	0	0	0	0	0	0	1	0.99	0	0	1
C37_1	0	0.13	0	0	0	0	0	0	1	0.99	0	0	1
C37_2	0.01	0.17	0	0	0	0	0	0	1	0.99	0.01	0	0.01
C38	0.01	0.2	0	0	0	0	0	0	1	0.99	0	0	0
C39	0.01	0.15	0	0	0	0	0	0	1	0.99	0	0	0.99
C4	0.02	0.34	0	0	0	0	0	0	1	0	0.02	0	1
C40	0.01	0.2	0	0	0	0	0	0	1	0.98	0	0	0
C41	0.1	0.29	0	0	0	0	0	0	1	0.97	0	0.02	1

Table 1C: Conduits (continued...)

Name	Max/Full Flow	Max/Full Depth	Max. Volume (ft³)	Full Both Ends (h)	Full Upstream (h)	Full Downstream (h)	Above Full Normal (h)	Capacity Limited (h)	Length Factor (fraction)	Dry (fraction)	Subcritical (fraction)	Supercritical (fraction)	Normal Limited (fraction)
C41_1	0.01	0.19	0	0	0	0	0	0	1	0.99	0	0.01	1
C41_2	0.02	0.24	0	0	0	0	0	0	1	0.99	0	0	0
C42	0.02	0.2	0	0	0	0	0	0	1	0.99	0	0	0
C43	0.02	0.6	0	0.01	0.01	0.13	0.01	0.01	1	0.98	0.01	0	1
C44	0.02	0.24	0	0	0	0	0	0	1	0.99	0	0	0
C45	0.01	0.19	0	0	0	0	0	0	1	0.96	0	0.01	1
C46	0.02	0.24	0	0	0	0	0	0	1	0.98	0	0	0
C47	0	0.01	0	0	0	0	0	0	1	0.77	0	0	0
C47_1	0	0.07	0	0	0	0	0	0	1	0.77	0	0	1
C47_2	0	0.1	0	0	0	0	0	0	1	0.77	0.01	0	0.01
C48	0.01	0.17	0	0	0	0	0	0	1	0.98	0	0	1
C49	0	0.1	0	0	0	0	0	0	1	0.99	0.01	0	1
C5	0.01	0.38	0	0	0	0	0	0	1	0.98	0.01	0	1
C50	0.01	0.14	0	0	0	0	0	0	1	0.98	0.02	0	1
C51	0.02	0.22	0	0	0	0	0	0	1	0.98	0	0	0
C52	0	0.09	0	0	0	0	0	0	1	0.98	0	0.01	1
C53	0	0.12	0	0	0	0	0	0	1	0.98	0	0.01	1
C54	0.01	0.15	0	0	0	0	0	0	1	0.98	0	0.01	0.99
C55	0.03	0.58	0	0.01	0.01	0.56	0.01	0.01	1	0	0.02	0	1
C56	0.11	0.41	0	0	0	0	0	0	1	0.95	0.01	0.02	1
C57	0.3	0.54	0	0	0	0	0	0	1	0.95	0.05	0	1
C58	0.53	0.66	0	0	0	0	0	0	1	0.96	0.01	0.01	0.98
C59	0.4	0.81	0	0.01	0.01	0.51	0.01	0.01	1	0.83	0.03	0.01	1
C6	0.02	0.69	0	0	0	0	0	0	1	0.98	0.01	0	0.99
C60	0.08	0.25	0	0	0	0	0	0	1	0.99	0	0.01	0.99
C61	2.64	0.32	0	0.01	0.01	0.01	0.19	0.01	1	0	1	0	0

Table 1C: Conduits (continued...)

Name	Max/Full Flow	Max/Full Depth	Max. Volume (ft³)	Full Both Ends (h)	Full Upstream (h)	Full Downstream (h)	Above Full Normal (h)	Capacity Limited (h)	Length Factor (fraction)	Dry (fraction)	Subcritical (fraction)	Supercritical (fraction)	Normal Limited (fraction)
C62	0.13	0.47	0	0	0	0	0	0	1	0.98	0.01	0.01	0.02
C63	0.19	0.47	0	0	0	0	0	0	1	0.98	0	0	0
C64	0.06	0.66	0	0.01	0.01	0.19	0.01	0.01	1	0.98	0.01	0	0.01
C65	0.01	0.1	0	0	0	0	0	0	1	0.32	0.3	0.05	0.33
C65_2	0.06	0.32	0	0	0	0	0	0	1	0.97	0.01	0.01	0.01
C66	0.01	0.27	0	0	0	0	0	0	1	0.31	0.01	0	0.01
C67	0	0.43	0	0	0	0	0	0	1	0.96	0	0	0
C68	0.03	0.13	0	0	0	0	0	0	1	0.99	0	0	0.99
C69	0.02	0.14	0	0	0	0	0	0	1	0.96	0.01	0	1
C7	0.33	0.8	0	0	0	0	0	0	1	0.98	0.01	0	0
C70	0.03	0.13	0	0	0	0	0	0	1	0.96	0.03	0	0.96
C71	0.01	0.55	0	0.01	0.01	0.67	0.01	0.01	1	0.33	0.03	0	1
C72	0.01	0.26	0	0	0	0	0	0	1	0.97	0.02	0	1
C73	0	0	0	0	0	0	0	0	1	1	0	0	0
C74	0.46	0.48	0	0	0	0	0	0	1	0	0	0	0
C75	1.22	1	0	3.81	3.82	3.83	3.83	3.81	1	0	0	0	0
C76	0.27	0.37	0	0	0	0	0	0	1	0	0	0	0
C77	0	0.03	0	0	0	0	0	0	1	0.8	0.01	0.11	0.91
C78	0	0.19	0	0	0	0	0	0	1	0	0.2	0	1
C79	0	0	0	0	0	0	0	0	1	1	0	0	0
C8	0.01	0.11	0	0	0	0	0	0	1	0.98	0	0.02	1
C80	0.05	0.15	0	0	0	0	0	0	1	0.98	0	0	0
C9	0	0.08	0	0	0	0	0	0	1	0.98	0	0	0
MM_out	0	0.1	0	0	0	0	0	0	1	0	0	0	0
OL-1KA'B	0.17	0.48	0	0	0	0	0	0	1	0.93	0.01	0	1
OL-31036	0.07	0.57	0	0	0	0	0	0	1	0.98	0.01	0	0.02

Table 1C: Conduits (continued...)

Name	Max/Full Flow	Max/Full Depth	Max. Volume (ft³)	Full Both Ends (h)	Full Upstream (h)	Full Downstream (h)	Above Full Normal (h)	Capacity Limited (h)	Length Factor (fraction)	Dry (fraction)	Subcritical (fraction)	Supercritical (fraction)	Normal Limited (fraction)
TC_out	0	0.12	0	0	0	0	0	0	1	0	0	0	0
UV_Out	0.01	0.3	0	0	0	0	0	0	1	0	0	0	0.01
UVA	0.01	0.09	0	0	0	0	0	0	1	0	0	0	0
UVB	0.66	0.14	0	0	0	0	0	0	1	0	0.98	0.02	0
UVC	0.05	0.15	0	0	0	0	0	0	1	0	0	0	0
UVE	0.08	0.22	0	0	0	0	0	0	1	0	0.97	0.03	0.97
UVF	0.19	0.3	0	0	0	0	0	0	1	0	0.98	0.02	0
UVG	0.16	0.27	0	0	0	0	0	0	1	0	0	0	0
UVH	0.1	0.26	0	0	0	0	0	0	1	0	0.98	0.02	0.99
UVI	0.15	0.26	0	0	0	0	0	0	1	0	0.97	0.03	0
UVIA	0.58	0.56	0	0	0	0	0	0	1	0	0	0	0
UVJ	0.1	0.23	0	0	0	0	0	0	1	0	0	0	0
UVJA	0.18	0.3	0	0	0	0	0	0	1	0	0	0	0
UVK	0.15	0.28	0	0	0	0	0	0	1	0	0	0	0
UVL	0.09	0.21	0	0	0	0	0	0	1	0	0	0	0
UVM	0.11	0.24	0	0	0	0	0	0	1	0	0	0	0
UVN	0.57	0.57	0	0	0	0	0	0	1	0	0	0	0
UVO	0.49	0.53	0	0	0	0	0	0	1	0	0	0	0
UVOA	0.81	0.63	0	0	0	0	0	0	1	0	0	0	0
UVOA'	0.07	0.18	0	0	0	0	0	0	1	0	0	0	0
UVOB	0.07	0.55	0	0	0	0	0	0	1	0	0.01	0	0.02
UVP	0.06	0.18	0	0	0	0	0	0	1	0	0	0	0

Table 1D: Conduits

Name	Inlet Control (fraction)	Max. Spread (ft)	Contributing Area (ac)	Contributing Imp. Area (ac)	Max. Unit Flow (cfs/ac)	GIS_LENGTH (m)	GIS_AREA (m²)	GIS_PARTS
1	0	0	0	0	0	32.878	0	1
1A	0	0	0	0	0	54.795	0	1
1B	0	0	0	0	0	41.255	0	1
1C_1A	0	0	0	0	0	68.116	0	1
1C_2	0	26.074	0	0	0	16.315	0	1
1C_3	0	25.541	0	0	0	30.744	0	1
1C_4	0	57.687	0	0	0	27.421	0	1
1D	0	0	0	0	0	6.74	0	1
1DA_1	0	0	0	0	0	34.677	0	1
1DA_2	0	0	0	0	0	12.782	0	1
1DA_3	0	0	0	0	0	13.21	0	1
1DAA	0	0	0	0	0	1.677	0	1
1DB_1	0	0	0	0	0	39.659	0	1
1DB_2	0	0	0	0	0	5.189	0	1
1DB_2A	0	0	0	0	0	6.547	0	1
1DBA'	0	0	0	0	0	3.643	0	1
1DBA''	0	0	0	0	0	3.834	0	1
1DBB_1	0	2	0	0	0	54.238	0	1
1DBB_2	0	6.763	0	0	0	11.893	0	1
1DD_1	0	0	0	0	0	22.152	0	1
1DD_2	0	0	0	0	0	12.409	0	1
1DE	0	0	0	0	0	10.531	0	1
1DeA	0	0	0	0	0	52.178	0	1
1DEAA	0	0	0	0	0	8.966	0	1
1DEB	0	0	0	0	0	44.307	0	1
1DEBA	0	0	0	0	0	15.492	0	1

Table 1D: Conduits (continued...)

Name	Inlet Control (fraction)	Max. Spread (ft)	Contributing Area (ac)	Contributing Imp. Area (ac)	Max. Unit Flow (cfs/ac)	GIS_LENGTH (m)	GIS_AREA (m²)	GIS_PARTS
1DEBD_1	0	0	0	0	0	39.242	0	1
1DEBD_2	0	0	0	0	0	9.699	0	1
1DEC	0	0	0	0	0	16.354	0	1
1DED	0	0	0	0	0	6.263	0	1
1DEE	0	0	0	0	0	16.722	0	1
1DEF	0	0	0	0	0	13.167	0	1
1DF	0	0	0	0	0	39.043	0	1
1DG	0	0	0	0	0	60.493	0	1
1DH	0	0	0	0	0	26.095	0	1
1DHA	0	0	0	0	0	8.984	0	1
1DI	0	0	0	0	0	60.939	0	1
1DJ	0	0	0	0	0	42.84	0	1
1DJA	0	0	0	0	0	6.819	0	1
1DK	0	0	0	0	0	58.859	0	1
1DL	0	0	0	0	0	42.574	0	1
1DLA	0	0	0	0	0	26.966	0	1
1DM	0	0	0	0	0	16.286	0	1
1DN	0	0	0	0	0	66.982	0	1
1DO	0	0	0	0	0	39.969	0	1
1DP	0	0	0	0	0	24.946	0	1
1E	0	0	0	0	0	4.939	0	1
1F	0	0	0	0	0	5.421	0	1
1FA	0	0	0	0	0	29.216	0	1
1FB	0	0	0	0	0	15.647	0	1
1FC	0	0	0	0	0	94.948	0	1
1FCA'	0	0	0	0	0	11.257	0	1

Table 1D: Conduits (continued...)

Name	Inlet Control (fraction)	Max. Spread (ft)	Contributing Area (ac)	Contributing Imp. Area (ac)	Max. Unit Flow (cfs/ac)	GIS_LENGTH (m)	GIS_AREA (m²)	GIS_PARTS
1FD	0	0	0	0	0	36.292	0	1
1FDA'	0	0	0	0	0	29.923	0	1
1FDA''	0	0	0	0	0	3.144	0	1
1FDA''A	0	0	0	0	0	5.828	0	1
1FE	0	0	0	0	0	57.944	0	1
1FF_1	0	12.246	0	0	0	69.766	0	1
1FF_2	0	40.222	0	0	0	56.039	0	1
1FG	0	0	0	0	0	11.454	0	1
1FH	0	0	0	0	0	22.503	0	1
1FI	0	0	0	0	0	16.178	0	1
1FJ	0	0	0	0	0	11.083	0	1
1FK	0	0	0	0	0	12.82	0	1
1G	0	0	0	0	0	14.925	0	1
1GA	0	0	0	0	0	6.56	0	1
1GAA	0	0	0	0	0	7.247	0	1
1GB	0	0	0	0	0	15.242	0	1
1GC	0	0	0	0	0	11.156	0	1
1GD	0	0	0	0	0	35.184	0	1
1GE	0	0	0	0	0	4.893	0	1
1GF	0	0	0	0	0	2.967	0	1
1H	0	0	0	0	0	19.299	0	1
1I	0	0	0	0	0	30.755	0	1
1IA	0	0	0	0	0	19.684	0	1
1IAA	0	0	0	0	0	7.252	0	1
1IAB	0	0	0	0	0	43.708	0	1
1IB	0	0	0	0	0	8.693	0	1

Table 1D: Conduits (continued...)

Name	Inlet Control (fraction)	Max. Spread (ft)	Contributing Area (ac)	Contributing Imp. Area (ac)	Max. Unit Flow (cfs/ac)	GIS_LENGTH (m)	GIS_AREA (m²)	GIS_PARTS
1IC	0	0	0	0	0	59.884	0	1
1ID	0	0	0	0	0	38.131	0	1
1J	0	0	0	0	0	103.291	0	1
1JA	0	0	0	0	0	11.563	0	1
1JA'	0	0	0	0	0	7.978	0	1
1JB	0	0	0	0	0	9.281	0	1
1JC	0	0	0	0	0	49.107	0	1
1JCA	0	0	0	0	0	24.804	0	1
1JD	0	0	0	0	0	18.924	0	1
1JE	0	0	0	0	0	64.805	0	1
1JEA'	0	0	0	0	0	31.888	0	1
1JEA''	0	0	0	0	0	26.851	0	1
1JEA'A	0	0	0	0	0	26.821	0	1
1JEA'A'	0	0	0	0	0	11.388	0	1
1JEA'A''	0	0	0	0	0	3.249	0	1
1JEA''A	0	0	0	0	0	30.217	0	1
1JEA'A'A'	0	0	0	0	0	6.486	0	1
1JF	0	0	0	0	0	62.714	0	1
1JG	0	0	0	0	0	7.498	0	1
1JH	0	0	0	0	0	4.961	0	1
1JI	0	0	0	0	0	19.342	0	1
1JJ	0	0	0	0	0	21.969	0	1
1JK	0	0	0	0	0	2.812	0	1
1JKA	0	0	0	0	0	22.272	0	1
1JKB	0	0	0	0	0	37.589	0	1
1JKC	0	0	0	0	0	6.86	0	1

Table 1D: Conduits (continued...)

Name	Inlet Control (fraction)	Max. Spread (ft)	Contributing Area (ac)	Contributing Imp. Area (ac)	Max. Unit Flow (cfs/ac)	GIS_LENGTH (m)	GIS_AREA (m²)	GIS_PARTS
1JL	0	0	0	0	0	18.692	0	1
1K	0	0	0	0	0	78.687	0	1
1KA	0	0	0	0	0	18.261	0	1
1KA'	0	0	0	0	0	53.155	0	1
1KA''	0	0	0	0	0	12.733	0	1
1KA'A	0	0	0	0	0	35.996	0	1
1KA''A	0	0	0	0	0	2.02	0	1
1KA''AA	0	0	0	0	0	2.78	0	1
1KA''AB	0	0	0	0	0	2.442	0	1
1KA'B	0	0	0	0	0	37.135	0	1
1KA''B	0	0	0	0	0	31.56	0	1
1KA''BA_1	0	0	0	0	0	12.02	0	1
1KA''BA_2	0	0	0	0	0	23.553	0	1
1KA''BB_1	0	0	0	0	0	37.921	0	1
1KA''BB_2	0	0	0	0	0	38.852	0	1
1KA'C	0	0	0	0	0	22.215	0	1
1KA''C	0	0	0	0	0	16.721	0	1
1KA'CA	0	0	0	0	0	69.93	0	1
1KA'CA'	0	0	0	0	0	20.35	0	1
1KA'CB	0	0	0	0	0	33.705	0	1
1KA'CC	0	0	0	0	0	16.999	0	1
1KA''D	0	0	0	0	0	31.224	0	1
1KA''E	0	0	0	0	0	39.111	0	1
1KB	0	0	0	0	0	44.765	0	1
1KC	0	0	0	0	0	68.6	0	1
1KD	0	0	0	0	0	97.903	0	1

Table 1D: Conduits (continued...)

Name	Inlet Control (fraction)	Max. Spread (ft)	Contributing Area (ac)	Contributing Imp. Area (ac)	Max. Unit Flow (cfs/ac)	GIS_LENGTH (m)	GIS_AREA (m²)	GIS_PARTS
1KDA	0	0	0	0	0	8.744	0	1
1KE	0	0	0	0	0	19.452	0	1
1KF	0	0	0	0	0	9.799	0	1
1L	0	0	0	0	0	78.879	0	1
1M	0	0	0	0	0	11.872	0	1
1N	0	0	0	0	0	38.2	0	1
1O	0	0	0	0	0	9.149	0	1
2A	0	0	0	0	0	4.864	0	1
2B	0	0	0	0	0	22.986	0	1
2BA	0	0	0	0	0	11.769	0	1
2C	0	0	0	0	0	84.865	0	1
2D	0	0	0	0	0	21.808	0	1
2E	0	0	0	0	0	24.45	0	1
3A	0	0	0	0	0	66.804	0	1
3B	0	0	0	0	0	61.738	0	1
3C	0	0	0	0	0	11.412	0	1
3D	0	0	0	0	0	47.816	0	1
3E	0	0	0	0	0	20.584	0	1
4A	0	0	0	0	0	24.196	0	1
5	0	0	0	0	0	30.438	0	1
8	0	0	0	0	0	27.237	0	1
C1	0	0	0	0	0	192.896	0	1
C10	0	0	0	0	0	19.599	0	1
C11	0	0	0	0	0	24.044	0	1
C12	0	0	0	0	0	14.265	0	1
C12_1	0	0	0	0	0	9.256	0	1

Table 1D: Conduits (continued...)

Name	Inlet Control (fraction)	Max. Spread (ft)	Contributing Area (ac)	Contributing Imp. Area (ac)	Max. Unit Flow (cfs/ac)	GIS_LENGTH (m)	GIS_AREA (m²)	GIS_PARTS
C12_2	0	0	0	0	0	9.525	0	1
C13	0	0	0	0	0	39.569	0	1
C14	0	0	0	0	0	32.322	0	1
C144_1	0	0	0	0	0	16.328	0	1
C144_2	0	0	0	0	0	42.628	0	1
C146	0	0	0	0	0	12.272	0	1
C147	0	0	0	0	0	34.083	0	1
C15	0	0	0	0	0	42.691	0	1
C16	0	0	0	0	0	167.087	0	1
C17	0	0	0	0	0	26.486	0	1
C18	0	0	0	0	0	38.094	0	1
C19	0	0	0	0	0	108.175	0	1
C19.	0	0	0	0	0	18.493	0	1
C2	0	0	0	0	0	23.382	0	1
C2_2	0	0	0	0	0	38.514	0	1
C2_3	0	0	0	0	0	23.849	0	1
C20	0	0	0	0	0	39.731	0	1
C21	0	0	0	0	0	54.049	0	1
C22	0	0	0	0	0	32.051	0	1
C23	0	0	0	0	0	7.425	0	1
C24	0	0	0	0	0	100.707	0	1
C25	0	0	0	0	0	19.449	0	1
C26	0	0	0	0	0	14.319	0	1
C27	0	0	0	0	0	40.021	0	1
C28	0	0	0	0	0	69.994	0	1
C29	0	0	0	0	0	40.226	0	1

Table 1D: Conduits (continued...)

Name	Inlet Control (fraction)	Max. Spread (ft)	Contributing Area (ac)	Contributing Imp. Area (ac)	Max. Unit Flow (cfs/ac)	GIS_LENGTH (m)	GIS_AREA (m²)	GIS_PARTS
C3	0	0	0	0	0	10.192	0	1
C30	0	0	0	0	0	5.235	0	1
C31	0	0	0	0	0	187.866	0	1
C32	0	0	0	0	0	97.619	0	1
C33	0	0	0	0	0	43.063	0	1
C34	0	0	0	0	0	4.597	0	1
C35	0	0	0	0	0	37.926	0	1
C36	0	0	0	0	0	16.741	0	1
C37	0	0	0	0	0	13.061	0	1
C37_1	0	0	0	0	0	9.425	0	1
C37_2	0	0	0	0	0	11.122	0	1
C38	0	0	0	0	0	5.588	0	1
C39	0	0	0	0	0	50.335	0	1
C4	0	0	0	0	0	58.846	0	1
C40	0	0	0	0	0	60.273	0	1
C41	0	0	0	0	0	13.162	0	1
C41_1	0	0	0	0	0	55.684	0	1
C41_2	0	0	0	0	0	59.811	0	1
C42	0	0	0	0	0	43.847	0	1
C43	0	0	0	0	0	81.714	0	1
C44	0	0	0	0	0	59.244	0	1
C45	0	0	0	0	0	40.828	0	1
C46	0	0	0	0	0	23.366	0	1
C47	0	0	0	0	0	76.569	0	1
C47_1	0	0	0	0	0	35.66	0	1
C47_2	0	0	0	0	0	106.746	0	1

Table 1D: Conduits (continued...)

Name	Inlet Control (fraction)	Max. Spread (ft)	Contributing Area (ac)	Contributing Imp. Area (ac)	Max. Unit Flow (cfs/ac)	GIS_LENGTH (m)	GIS_AREA (m²)	GIS_PARTS
C48	0	0	0	0	0	72.18	0	1
C49	0	0	0	0	0	37.041	0	1
C5	0	0	0	0	0	25.136	0	1
C50	0	0	0	0	0	38.862	0	1
C51	0	0	0	0	0	9.423	0	1
C52	0	0	0	0	0	7.737	0	1
C53	0	0	0	0	0	21.995	0	1
C54	0	0	0	0	0	40.403	0	1
C55	0	0	0	0	0	22.79	0	1
C56	0	0	0	0	0	37.871	0	1
C57	0	0	0	0	0	16.817	0	1
C58	0	0	0	0	0	17.638	0	1
C59	0	0	0	0	0	32.371	0	1
C6	0	0	0	0	0	5.916	0	1
C60	0	0	0	0	0	6.016	0	1
C61	0	0	0	0	0	39.378	0	1
C62	0	0	0	0	0	40.288	0	1
C63	0	0	0	0	0	10.941	0	1
C64	0	0	0	0	0	64.322	0	1
C65	0	0	0	0	0	11.448	0	1
C65_2	0	0	0	0	0	30.413	0	1
C66	0	0	0	0	0	73.826	0	1
C67	0	0	0	0	0	60.342	0	1
C68	0	0	0	0	0	8.178	0	1
C69	0	0	0	0	0	16.802	0	1
C7	0	0	0	0	0	3.119	0	1

Table 1D: Conduits (continued...)

Name	Inlet Control (fraction)	Max. Spread (ft)	Contributing Area (ac)	Contributing Imp. Area (ac)	Max. Unit Flow (cfs/ac)	GIS_LENGTH (m)	GIS_AREA (m²)	GIS_PARTS
C70	0	0	0	0	0	49.271	0	1
C71	0	0	0	0	0	10.225	0	1
C72	0	0	0	0	0	124.293	0	1
C73	0	0	0	0	0	38.161	0	1
C74	0	0	0	0	0	16.265	0	1
C75	0	0	0	0	0	24.509	0	1
C76	0	0	0	0	0	30.404	0	1
C77	0	0	0	0	0	22.197	0	1
C78	0	0	0	0	0	4.444	0	1
C79	0	0	0	0	0	37.281	0	1
C8	0	0	0	0	0	6.782	0	1
C80	0	0	0	0	0	29.214	0	1
C9	0	0	0	0	0	19.365	0	1
MM_out	0	0	0	0	0	8.713	0	1
OL-1KA'B	0	0	0	0	0	36.256	0	1
OL-31036	0	0	0	0	0	7.517	0	1
TC_out	0	0	0	0	0	18.69	0	1
UV_Out	0	0	0	0	0	42.993	0	1
UVA	0	0	0	0	0	6.32	0	1
UVB	0	0	0	0	0	9.257	0	1
UVC	0	0	0	0	0	46.069	0	1
UVE	0	0	0	0	0	4.283	0	1
UVF	0	0	0	0	0	3.91	0	1
UVG	0	0	0	0	0	86.137	0	1
UVH	0	0	0	0	0	20.812	0	1
UVI	0	0	0	0	0	22.457	0	1

Table 1D: Conduits (continued...)

Name	Inlet Control (fraction)	Max. Spread (ft)	Contributing Area (ac)	Contributing Imp. Area (ac)	Max. Unit Flow (cfs/ac)	GIS_LENGTH (m)	GIS_AREA (m²)	GIS_PARTS
UVIA	0	0	0	0	0	24.334	0	1
UVJ	0	0	0	0	0	10.103	0	1
UVJA	0	0	0	0	0	13.39	0	1
UVK	0	0	0	0	0	13.333	0	1
UVL	0	0	0	0	0	39.67	0	1
UVM	0	0	0	0	0	28.386	0	1
UVN	0	0	0	0	0	23.298	0	1
UVO	0	0	0	0	0	22.176	0	1
UVOA	0	0	0	0	0	16.897	0	1
UVOA'	0	0	0	0	0	13.144	0	1
UVOB	0	0	0	0	0	6.065	0	1
UVP	0	0	0	0	0	4.121	0	1

Table 2A: Junctions

Name	X-Coordinate	Y-Coordinate	Tag	Inflows	Treatment	Invert Elev. (ft)	Rim Elev. (ft)	Depth (ft)	Initial Depth (ft)	Surcharge Depth (ft)	Ponded Area (ft²)	Baseline (cfs)	Baseline Pattern	Time Series
10028	2263226.292	275992.289	Inlet	NO	NO	947.47	951.77	4.3	0	0	0	0		
1024	2263120	275586	Junct	NO	NO	886.87	905.62	18.75	0	0	0	0		
1038	2263101	275568	Inlet	NO	NO	895.91	899.16	3.25	0	0	0	0		
10393	2263060.74	276043.192	Junct	NO	NO	939.1	947.67	8.57	0	0	0	0		
11213	2263074.932	275920.349	Inlet	NO	NO	936.1	942.05	5.95	0	0	0	0		
11254	2263052.709	275901.078	Junct	NO	NO	932.61	941.89	9.28	0	0	0	0		
11560	2263195.07	275832.849	Inlet	NO	NO	936.8	942.05	5.25	0	0	0	0		
11588	2263210.522	275775.558	Junct	NO	NO	934.52	939.59	5.07	0	0	0	0		

Table 2A: Junctions (continued...)

Name	X-Coordinate	Y-Coordinate	Tag	Inflows	Treatment	Invert Elev. (ft)	Rim Elev. (ft)	Depth (ft)	Initial Depth (ft)	Surcharge Depth (ft)	Ponded Area (ft²)	Baseline (cfs)	Baseline Pattern	Time Series
11842	2263208.931	275977.966	Inlet	NO	NO	947.17	951.79	4.62	0	0	0	0		
11966	2263288.792	275883.999	Inlet	NO	NO	946.03	950.67	4.64	0	0	0	0		
12000	2261946.099	276352.754	Outlet	NO	NO	838	843	5	0	0	0	0		
12000-1	2262016.165	276332.914	Outlet	NO	NO	853	858	5	0	0	0	0		
12000-2	2261912.904	276258.693	Inlet	NO	NO	851.71	858.53	6.82	0	0	0	0		
12161	2263251.668	275811.842	Junct	NO	NO	938.99	941.34	2.35	0	0	0	0		
12275	2263195.07	275762.016	Junct	NO	NO	933.6	940.46	6.86	0	0	0	0		
12300	2263253.636	275682.176	Inlet	NO	NO	934.44	940.18	5.74	0	0	0	0		
12497	2263234.105	275765.726	Inlet	NO	NO	936.23	941.29	5.06	0	0	0	0		
12514	2263292.916	275807.393	Junct	NO	NO	941.63	947.16	5.53	0	0	0	0		
12678	2263271.865	275714.728	Inlet	NO	NO	935.68	940.7	5.02	0	0	0	0		
12709	2263272.082	275698.452	Inlet	NO	NO	935.32	940.22	4.9	0	1	10	0		
12759	2263284.307	275840.141	Junct	NO	NO	943.02	949.32	6.3	0	0	0	0		
12956	2263475.852	275594.967	Inlet	NO	NO	946.18	950.18	4	0	0	0	0		
12957	2263467.345	275601.391	Junct	NO	NO	941.02	949.1	8.08	0	0	0	0		
13029	2263497.379	275623.613	Inlet	NO	NO	944.27	950.31	6.04	0	0	0	0		
13138	2263423.074	275677.433	Inlet	NO	NO	942.33	948.73	6.4	0	0	0	0		
13349	2263348.037	275851.23	Inlet	NO	NO	945.85	951.25	5.4	0	0	0	0		
13528	2263300.945	275811.95	Inlet	NO	NO	944.16	948.81	4.65	0	0	0	0		
13746	2263507.449	275604.863	Inlet	NO	NO	946.8	951.4	4.6	0	0	0	0		
14383	2263628.882	275845.927	Inlet	NO	NO	971.63	974.95	3.32	0	0	0	0		
14448	2263638.214	275888.027	Junct	NO	NO	965.94	971.92	5.98	0	0	0	0		
14608	2263680.531	275923.835	Inlet	NO	NO	968.91	971.36	2.45	0	0	0	0		
14961	2263351.321	276087.029	Junct	NO	NO	946.56	957.41	10.85	0	0	0	0		
15025	2263441.816	275993.496	Inlet	NO	NO	956.02	963.64	7.62	0	0	0	0		
15075	2263534.915	275995.666	Inlet	NO	NO	959.13	969.08	9.95	0	0	0	0		

Table 2A: Junctions (continued...)

Name	X-Coordinate	Y-Coordinate	Tag	Inflows	Treatment	Invert Elev. (ft)	Rim Elev. (ft)	Depth (ft)	Initial Depth (ft)	Surcharge Depth (ft)	Ponded Area (ft²)	Baseline (cfs)	Baseline Pattern	Time Series
15234	2263587.866	275940.545	Inlet	NO	NO	963.99	969.99	6	0	0	0	0		
15374	2263633.873	275900.831	Inlet	NO	NO	967.48	970.08	2.6	0	0	0	0		
15469	2263667.944	275939.243	Inlet	NO	NO	969.81	970.76	0.95	0	0	0	0		
15909	2263768.422	276094.841	Junct	NO	NO	962.57	966.47	3.9	0	0	0	0		
15964	2263766.252	276148.227	Inlet	NO	NO	959.62	964.87	5.25	0	0	0	0		
16125	2263677.927	276143.236	Inlet	NO	NO	960.63	962.59	1.96	0	0	0	0		
16610	2263777.03	275875.261	Inlet	NO	NO	967.84	972.22	4.38	0	0	0	0		
16770	2263729.236	275753.155	Inlet	NO	NO	969.75	975.6	5.85	0	0	0	0		
17671	2263364.559	276113.288	Inlet	NO	NO	948.24	953.49	5.25	0	0	0	0		
18312	2263352.406	276200.31	Inlet	NO	NO	947.29	952.67	5.38	0	1	300	0		
18356	2263297.719	276142.15	Inlet	NO	NO	943.2	952.23	9.03	0	0	0	0		
18402	2263320.939	276118.496	Junct	NO	NO	945.58	953.32	7.74	0	0	0	0		
18726	2263718.446	275672.03	Inlet	NO	NO	973.96	978.31	4.35	0	0	0	0		
1885	2263177.231	275610.494	Inlet	NO	NO	906.3	912.35	6.05	0	0	0	0		
1896	2263146.868	275612.783	Inlet	NO	NO	904.36	911.56	7.2	0	0	0	0		
19657	2263577.692	275542.791	Inlet	NO	NO	955.58	959.93	4.35	0	0	0	0		
2002	2263056.671	275748.929	Inlet	NO	NO	897.88	899.78	1.9	0	1	10	0		
2002'	2263055.211	275744.748	OJunct	NO	NO	898.82	900.82	2	0	0	0	0		
20575	2263478.56	275542.444	Inlet	NO	NO	946.54	950.08	3.54	0	0	0	0		
20974	2263808	275218	Junct	NO	NO	975.25	983.1	7.85	0	0	0	0		
20985	2263809.389	275189.347	Inlet	NO	NO	978.38	983.08	4.7	0	0	0	0		
21199	2263487	275207	Inlet	NO	NO	954.3	960.12	5.82	0	0	0	0		
21325	2263262	275202	Inlet	NO	NO	937.46	943.644	6.184	0	0	0	0		
21426	2263391.44	275529.398	Junct	NO	NO	932.3	943.3	11	0	0	0	0		
21626	2263240	275363	Inlet	NO	NO	910.56	927.46	16.9	0	0	0	0		
21678	2263268	275332	Junct	NO	NO	926.94	938.14	11.2	0	0	0	0		

Table 2A: Junctions (continued...)

Name	X-Coordinate	Y-Coordinate	Tag	Inflows	Treatment	Invert Elev. (ft)	Rim Elev. (ft)	Depth (ft)	Initial Depth (ft)	Surcharge Depth (ft)	Ponded Area (ft²)	Baseline (cfs)	Baseline Pattern	Time Series
21705	2263284.822	275315.219	Inlet	NO	NO	938.43	941.98	3.55	0	0	0	0		
2249	2263014.309	275739.381	Inlet	NO	NO	887.16	899.96	12.8	0	0	0	0		
23025	2263897	275248	Inlet	NO	NO	979.35	984.83	5.48	0	0	0	0		
23037	2263864.868	275246.958	Inlet	NO	NO	976.57	985.09	8.52	0	0	0	0		
2358	2262888.094	275807.436	Inlet	NO	NO	885.98	893.28	7.3	0	0	0	0		
2374	2262883.928	275842.506	Inlet	NO	NO	886.12	893.12	7	0	0	0	0		
2425	2262867.434	275819.242	Junct	NO	NO	883.79	894.59	10.8	0	0	0	0		
24932	2263394	275122	Junct	NO	NO	939.32	946.47	7.15	0	0	0	0		
25477	2262619.619	275880.757	Outlet	NO	NO	866.82	880.5	13.68	0	0	0	0		
25478	2262486.892	276107.158	Inlet	NO	NO	837.53	866	28.47	0	3	1000	0		
25504	2263156.702	275799.516	Junct	NO	NO	933.1	940.66	7.56	0	0	0	0		
257	2263209.177	276174.92	Junct	NO	NO	940.39	951.32	10.93	0	0	0	0		
2732	2262836.633	275762.485	Junct	NO	NO	876.96	893.39	16.43	0	0	0	0		
3089	2262768.925	275950.419	Inlet	NO	NO	888.49	890.79	2.3	0	0	0	0		
31036	2263403	274997	Inlet	NO	NO	950.51	954.15	3.64	0	0	0	0		
31036'	2263404	274967	Inlet	NO	NO	951.29	954.24	2.95	0	0	0	0		
3372	2262662.588	275835.835	Inlet	NO	NO	882.86	888.76	5.9	0	1.5	500	0		
3381	2262682.336	275822.598	Inlet	NO	NO	880.54	888.59	8.05	0	1.67	500	0		
3424	2262669.749	275774.203	Inlet	NO	NO	885.05	890.3	5.25	0	0.5	15	0		
3449	2262610.504	275779.629	Inlet	NO	NO	871.72	890.06	18.34	0	0	0	0		
3596	2262584.897	275735.141	Inlet	NO	NO	873.97	891.84	17.87	0	0	0	0		
3615	2262638.933	275754.455	Inlet	NO	NO	885.71	890.71	5	0	0	0	0		
3824	2262656.077	275640.306	Inlet	NO	NO	889.05	899.9	10.85	0	0	0	0		
5172	2263223.037	275399.624	Inlet	NO	NO	920.24	927.59	7.35	0	0	0	0		
5191	2263186.259	275449.643	Inlet	NO	NO	914.79	924.14	9.35	0	0	0	0		
5218	2263190	275330	Inlet	NO	NO	927.34	933.24	5.9	0	0	0	0		

Table 2A: Junctions (continued...)

Name	X-Coordinate	Y-Coordinate	Tag	Inflows	Treatment	Invert Elev. (ft)	Rim Elev. (ft)	Depth (ft)	Initial Depth (ft)	Surcharge Depth (ft)	Ponded Area (ft²)	Baseline (cfs)	Baseline Pattern	Time Series
5230	2263195.89	275258.188	Inlet	NO	NO	929.03	938.08	9.05	0	0	0	0		
5246	2263152.795	275375.468	Inlet	NO	NO	924.03	929.58	5.55	0	0	0	0		
5526	2262961.966	275385.981	Inlet	NO	NO	938.6	941.89	3.29	0	0.5	4	0		
5571	2263089.371	275370.757	Inlet	NO	NO	936.99	941.99	5	0	0	0	0		
5604	2263149.927	275288.136	Inlet	NO	NO	935.84	941.84	6	0	0	0	0		
6078	2262436.893	275461.052	Junct	NO	NO	886.38	900.58	14.2	0	0	0	0		
6088	2262470.748	275446.295	Inlet	NO	NO	888.94	900.54	11.6	0	0	0	0		
6436	2262466.841	275345.818	Inlet	NO	NO	891.64	900.57	8.93	0	2.43	0	0		
6452	2262457.944	275351.026	Inlet	NO	NO	897.28	900.57	3.29	0	2.43	0	0		
6457	2262441.017	275359.924	Inlet	NO	NO	897.83	900.8	2.97	0	2.2	0	0		
6505	2262368.968	275353.414	Inlet	NO	NO	898.68	901.45	2.77	0	1	200	0		
7096	2262717.926	275938.266	Inlet	NO	NO	885.07	889.82	4.75	0	0	0	0		
7592	2262523.651	276301	Inlet	NO	NO	863.07	867.37	4.3	0	0.5	15	0		
7683	2262492.349	276369.609	Inlet	NO	NO	861.67	865.22	3.55	0	1	500	0		
7742	2262498.26	276271.911	Inlet	NO	NO	863.98	867.53	3.55	0	0.5	15	0		
7794	2262415.446	276222.11	Junct	NO	NO	832.49	867.59	35.1	0	0	0	0		
8667-J4	2261923.441	276206.384	INLET	NO	NO	852.76	858.11	5.35	0	0	0	0		
8697	2261857.98	276145.56	INLET	NO	NO	853.99	858.64	4.65	0	0	0	0		
8807	2261849.953	276046.023	INLET	NO	NO	855.48	859.53	4.05	0	0	0	0		
8903	2261822.661	275941.67	INLET	NO	NO	857.01	860.26	3.25	0	0	0	0		
9095	2263760.175	276287.767	Junct	NO	NO	952.36	959.13	6.77	0	0	0	0		
9253	2263570.997	276311.676	Inlet	NO	NO	944.06	948.6	4.54	0	1	15	0		
9264	2263572.69	276333.985	Inlet	NO	NO	942.7	948.71	6.01	0	1	15	0		
9409	2263432.441	276343.089	Inlet	NO	NO	941.68	949.68	8	0	0	0	0		
9627	2263280.039	276225.38	Inlet	NO	NO	946.2	950.3	4.1	0	0	0	0		
9645	2263258.164	276245.129	Inlet	NO	NO	940.71	950.24	9.53	0	0	0	0		

Table 2A: Junctions (continued...)

Name	X-Coordinate	Y-Coordinate	Tag	Inflows	Treatment	Invert Elev. (ft)	Rim Elev. (ft)	Depth (ft)	Initial Depth (ft)	Surcharge Depth (ft)	Ponded Area (ft²)	Baseline (cfs)	Baseline Pattern	Time Series
9733	2263243.549	276192.084	Junct	NO	NO	938.64	950.409	11.769	0	0	0	0		
J1	2263196.658	276667.451	Inlet	NO	NO	850.38	856	5.62	0	1.5	500	0		
J10	2263266	274056	Inlet	NO	NO	1008.97	1011.97	3	0	0	0	0		
J11	2263221.743	274086.177	Junct	NO	NO	1004.59	1007.591	3.001	0	0	0	0		
J12	2263219	274226	Junct	NO	NO	981.34	986.8	5.46	0	0	0	0		
J13	2263180	274236	Outlet	NO	NO	980.139	982.139	2	0	0	0	0		
J147	2263112.779	275951.599	Inlet	NO	NO	942.12	942.62	0.5	0	1	25	0		
J15	2263208.78	276632.029	Inlet	NO	NO	850.75	856	5.25	0	1.5	500	0		
J159	2262692.667	275841.476	Junct	NO	NO	870.22	889.08	18.86	0	0	0	0		
J16	2262622.477	275015.571	OJunct	NO	NO	910.168	911.268	1.1	0	0	0	0		
J163	2262720.473	275933.395	Junct	NO	NO	879.59	889.52	9.93	0	0	0	0		
J164	2262651.723	276050.843	Outlet	NO	NO	882.06	883.28	1.22	0	0	0	0		
J165	2262723.077	276045.635	Inlet	NO	NO	893.78	895.05	1.27	0	0	0	0		
J166	2262750.168	275948.353	Junct	NO	NO	880.78	889.4	8.62	0	0	0	0		
J167	2262941.124	275832.164	Inlet	NO	NO	894.56	895.3	0.74	0	0	0	0		
J168	2262748.136	275810.951	Junct	NO	NO	872.82	893.75	20.93	0	0	0	0		
J169	2263717.72	275466.377	OJunct	NO	NO	959.9	961.163	1.263	0	0	0	0		
J17	2262806.082	275942.835	OJunct	NO	NO	891.467	894.82	3.353	0	0	0	0		
J170	2263704.629	275282.644	OJunct	NO	NO	956.31	957.895	1.585	0	0	0	0		
J171	2263771.329	275285.499	Inlet	NO	NO	963.54	964.1	0.56	0	0	0	0		
J172	2263632.115	275276.059	Inlet	NO	NO	950.01	951.51	1.5	0	1	30	0		
J173	2263511.672	275257.722	Outlet	NO	NO	946.71	948.26	1.55	0	0	0	0		
J174	2263688.916	275554.917	OJunct	NO	NO	966.85	968.577	1.727	0	0	0	0		
J175	2263671.364	275595.126	Inlet	NO	NO	970.34	971.14	0.8	0	0	0	0		
J177	2262649.929	275865.37	Junct	NO	NO	867.85	882.96	15.11	0	0	0	0		
J179	2263072.121	274265.406	Outlet	NO	NO	976.793	977.793	1	0	0	0	0		

Table 2A: Junctions (continued...)

Name	X-Coordinate	Y-Coordinate	Tag	Inflows	Treatment	Invert Elev. (ft)	Rim Elev. (ft)	Depth (ft)	Initial Depth (ft)	Surcharge Depth (ft)	Ponded Area (ft²)	Baseline (cfs)	Baseline Pattern	Time Series
J18	2262572.113	275936.511	Outlet	NO	NO	860.437	872.52	12.083	0	0	0	0		
J180	2263151.234	275669.078	Inlet	NO	NO	907.77	908.27	0.5	0	0	0	0		
J182	2262918.118	275150.642	OJunct	NO	NO	942.74	943.84	1.1	0	0	0	0		
J183	2263169.392	275167.911	Outlet	NO	NO	941.38	941.88	0.5	0	0	0	0		
J19	2262723.473	275957.761	Junct	NO	NO	878.5	890.674	12.174	0	0	0	0		
J2	2263883	276339	Inlet	NO	NO	941.46	943.46	2	0	0	0	0		
J2.	2262029.955	276270.21	INLET	NO	NO	855.48	858.83	3.35	0	0	0	0		
J20	2262934.031	276024.44	Junct	NO	NO	931.17	939.1	7.93	0	0	0	0		
J21	2263182.989	276160.547	Junct	NO	NO	936.78	950.03	13.25	0	0	0	0		
J22	2262933.614	276027.622	Junct	NO	NO	932.68	940.081	7.401	0	0	0	0		
J23	2262921.622	276032.174	Junct	NO	NO	932.58	939.871	7.291	0	0	0	0		
J24	2262909.076	276025.845	Junct	NO	NO	929.5	940.355	10.855	0	0	0	0		
J25	2262741.879	275973.186	Junct	NO	NO	881	890.831	9.831	0	0	0	0		
J27	2262767.209	275989.941	Junct	NO	NO	881	898.921	17.921	0	0	0	0		
J28	2262735.392	275939.897	Junct	NO	NO	878.5	887.447	8.947	0	0	0	0		
J29	2262765.948	275977.84	Inlet	NO	NO	894.5	896.5	2	0	0	0	0		
J2-S	2262029.316	276266.961	OJunct	NO	NO	858.83	859.83	1	0	0	0	0		
J3	2263360.144	276673.22	Inlet	NO	NO	852.32	856.69	4.37	0	1.5	500	0		
J30	2262757.326	275953.262	Junct	NO	NO	880.78	895.563	14.783	0	0	0	0		
J31	2263339.475	275767.244	Inlet	NO	NO	948.103	948.77	0.667	0	0	0	0		
J32	2263318.401	275761.449	OJunct	NO	NO	944.803	945.903	1.1	0	0	0	0		
J33	2263173.848	275856.557	Inlet	NO	NO	941.663	942.163	0.5	0	1	10	0		
J34	2262874	275008	Junct	NO	NO	928.85	936.426	7.576	0	0	0	0		
J35	2262600.238	275891.408	OJunct	NO	NO	865.44	873	7.56	0	0	0	0		
J36	2262862.813	276002.988	OJunct	NO	NO	919.444	929.14	9.696	0	0	0	0		
J37	2262664.069	275799.013	OJunct	NO	NO	889.376	890.476	1.1	0	0	0	0		

Table 2A: Junctions (continued...)

Name	X-Coordinate	Y-Coordinate	Tag	Inflows	Treatment	Invert Elev. (ft)	Rim Elev. (ft)	Depth (ft)	Initial Depth (ft)	Surcharge Depth (ft)	Ponded Area (ft²)	Baseline (cfs)	Baseline Pattern	Time Series
J39	2263042.229	275159.172	OJunct	NO	NO	942.068	943.436	1.368	0	0	0	0		
J4	2262458.026	275744.358	Inlet	NO	NO	891.609	894	2.391	0	1.5	9	0		
J40	2263248.217	275725.251	OJunct	NO	NO	939.972	941.072	1.1	0	0	0	0		
J41	2263170.159	275816.749	OJunct	NO	NO	940.866	941.966	1.1	0	0	0	0		
J42	2263117.738	275767.161	OJunct	NO	NO	937.461	938.561	1.1	0	0	0	0		
J43	2262527.638	276026.953	OJunct	NO	NO	856.851	870	13.149	0	0	0	0		
J44	2262653.591	275625.085	Outlet	NO	NO	900.56	901.92	1.36	0	0	0	0		
J45	2262655.1	275615.467	Inlet	NO	NO	901	902.48	1.48	0	0	0	0		
J46	2262404.521	276328.891	OJunct	NO	NO	864.9	866	1.1	0	0	0	0		
J47	2263134.012	276980.126	OJunct	NO	NO	848.575	853.43	4.855	0	0	0	0		
J48	2263395.595	275022.361	OJunct	NO	NO	953.84	954.95	1.11	0	0	0	0		
J49	2262655.217	275836.793	OJunct	NO	NO	888.46	889.56	1.1	0	0	0	0		
J4-S	2261926.055	276203.77	OJunct	NO	NO	857.11	859.11	2	0	0	0	0		
J5	2262948	274907	Inlet	NO	NO	940.1	945.85	5.75	0	1	1000	0		
J55	2262634.159	275873.596	Junct	NO	NO	867.48	880.34	12.86	0	0	0	0		
J6	2262967	274876	Inlet	NO	NO	941.2	945.903	4.703	0	1	1000	0		
J7	2263007	274889	Inlet	NO	NO	942.46	945.968	3.508	0	1	1000	0		
J74	2262900.18	276017.526	Outlet	NO	NO	930.61	935.05	4.44	0	0	0	0		
J8	2262909	274943	Junct	NO	NO	938.5	944.752	6.252	0	0	0	0		
J9	2262840	275024	Outlet	NO	NO	926.22	936.22	10	0	0	0	0		
OL-10028	2263222.429	275991.829	OJunct	NO	NO	951.67	952.77	1.1	0	0	0	0		
OL-11213	2263080.335	275914.224	OJunct	NO	NO	941.95	943.05	1.1	0	0	0	0		
OL-11560	2263189.772	275832.861	OJunct	NO	NO	941.95	943.05	1.1	0	0	0	0		
OL-11842	2263210.778	275982.255	OJunct	NO	NO	951.69	952.79	1.1	0	0	0	0		
OL-11966	2263291.595	275887.65	OJunct	NO	NO	950.57	951.67	1.1	0	0	0	0		
OL-12300	2263255.041	275685.554	OJunct	NO	NO	939.4	940.841	1.441	0	0	0	0		

Table 2A: Junctions (continued...)

Name	X-Coordinate	Y-Coordinate	Tag	Inflows	Treatment	Invert Elev. (ft)	Rim Elev. (ft)	Depth (ft)	Initial Depth (ft)	Surcharge Depth (ft)	Ponded Area (ft²)	Baseline (cfs)	Baseline Pattern	Time Series
OL-12497	2263238.668	275765.54	OJunct	NO	NO	940.2	941.938	1.738	0	0	0	0		
OL-12678	2263270.917	275719.247	OJunct	NO	NO	940.17	941.27	1.1	0	0	0	0		
OL-12709	2263269.149	275697.262	OJunct	NO	NO	939.22	940.62	1.4	0	0	0	0		
OL-12956	2263478.946	275598.813	OJunct	NO	NO	950.08	951.18	1.1	0	0	0	0		
OL-13029	2263497.327	275621.527	OJunct	NO	NO	950.21	951.362	1.152	0	0	0	0		
OL-13138	2263429.797	275672.733	OJunct	NO	NO	948.63	949.73	1.1	0	0	0	0		
OL-13349	2263346.153	275847.959	OJunct	NO	NO	950.3	951.418	1.118	0	0	0	0		
OL-13528	2263302.663	275814.414	OJunct	NO	NO	947.97	949.07	1.1	0	0	0	0		
OL-13746	2263502.614	275604.575	OJunct	NO	NO	951.3	952.4	1.1	0	0	0	0		
OL-15964	2263762.97	276143.627	OJunct	NO	NO	964.77	966.033	1.263	0	0	0	0		
OL-16610	2263771.883	275876.332	OJunct	NO	NO	972.12	973.22	1.1	0	0	0	0		
OL-16770	2263723.912	275753.388	OJunct	NO	NO	975.5	976.6	1.1	0	0	0	0		
OL-18726	2263721.16	275676.563	OJunct	NO	NO	978.21	979.31	1.1	0	0	0	0		
OL-1885	2263173.253	275612.565	OJunct	NO	NO	912.25	913.35	1.1	0	0	0	0		
OL-1896	2263152.52	275609.973	OJunct	NO	NO	911.46	912.56	1.1	0	0	0	0		
OL-20985	2263810.74	275193.917	OJunct	NO	NO	982.98	984.08	1.1	0	0	0	0		
OL-21199	2263487.128	275202.815	OJunct	NO	NO	960.02	961.12	1.1	0	0	0	0		
OL-21325	2263268.234	275204.63	OJunct	NO	NO	943.54	944.64	1.1	0	0	0	0		
OL-2249	2263015.884	275742.164	OJunct	NO	NO	897.719	898.819	1.1	0	0	0	0		
OL-2358	2262890.186	275812.113	OJunct	NO	NO	893.18	894.28	1.1	0	0	0	0		
OL-2374	2262883.376	275839.094	OJunct	NO	NO	893.02	894.12	1.1	0	0	0	0		
OL-31036	2263406.12	274995.832	OJunct	NO	NO	953.78	955.16	1.38	0	0	0	0		
OL-31036'	2263407.087	274971.189	OJunct	NO	NO	954.13	955.23	1.1	0	0	0	0		
OL-3424	2262667.994	275769.325	OJunct	NO	NO	890.2	891.3	1.1	0	0	0	0		
OL-3449	2262612.938	275775.695	OJunct	NO	NO	889.96	891.06	1.1	0	0	0	0		
OL-3596	2262582.802	275736.731	OJunct	NO	NO	891.74	892.84	1.1	0	0	0	0		

Table 2A: Junctions (continued...)

Name	X-Coordinate	Y-Coordinate	Tag	Inflows	Treatment	Invert Elev. (ft)	Rim Elev. (ft)	Depth (ft)	Initial Depth (ft)	Surcharge Depth (ft)	Ponded Area (ft²)	Baseline (cfs)	Baseline Pattern	Time Series
OL-3615	2262640.431	275758.624	OJunct	NO	NO	890.61	891.71	1.1	0	0	0	0		
OL-5172	2263223.349	275405.509	OJunct	NO	NO	927.49	928.59	1.1	0	0	0	0		
OL-5191	2263181.736	275447.674	OJunct	NO	NO	924.04	925.14	1.1	0	0	0	0		
OL-5218	2263186.536	275326.398	OJunct	NO	NO	933.14	934.24	1.1	0	0	0	0		
OL-5230	2263201.086	275259.054	OJunct	NO	NO	937.98	939.08	1.1	0	0	0	0		
OL-5246	2263158.023	275373.718	OJunct	NO	NO	929.48	930.58	1.1	0	0	0	0		
OL-5526	2262962.267	275381.991	OJunct	NO	NO	941.89	943.1	1.21	0	0	0	0		
OL-5571	2263087.184	275367.448	OJunct	NO	NO	941.89	943.321	1.431	0	0	0	0		
OL-5604	2263146.326	275285.996	OJunct	NO	NO	941.74	943.184	1.444	0	0	0	0		
OL-6088	2262469.203	275443.412	OJunct	NO	NO	900.44	901.54	1.1	0	0	0	0		
OL-6436	2262465.988	275344.559	OJunct	NO	NO	900.47	902	1.53	0	1	0	0		
OL-6452	2262457.282	275349.932	OJunct	NO	NO	900.47	902	1.53	0	1	0	0		
OL-6457	2262439.955	275358.675	OJunct	NO	NO	900.7	902	1.3	0	1	0	0		
OL-6505	2262369.28	275355.92	OJunct	NO	NO	901.35	902.5	1.15	0	0	0	0		
OL-6505a	2262384.01	275396.515	OJunct	NO	NO	901.23	902.23	1	0	0	0	0		
OL-7096	2262714.482	275934.565	OJunct	NO	NO	889.72	890.82	1.1	0	0	0	0		
OL-7592	2262522.895	276296.131	OJunct	NO	NO	867.27	868.37	1.1	0	0	0	0		
OL-7683	2262490.788	276364.805	OJunct	NO	NO	865.12	866.22	1.1	0	1	1000	0		
OL-7742	2262502.842	276273.871	OJunct	NO	NO	867.43	868.53	1.1	0	0	0	0		
OL-9253a	2263574.604	276338.363	OJunct	NO	NO	948.316	949.416	1.1	0	0	0	0		
OL-9253b	2263559.701	276413.612	OJunct	NO	NO	944.247	945.347	1.1	0	0	0	0		
OL-9253c	2263636.283	276581.094	OJunct	NO	NO	888	889.1	1.1	0	0	0	0		
OL-9253d	2263582.493	276686.931	OJunct	NO	NO	888.001	889.101	1.1	0	0	0	0		
OL-9253e	2263566.526	276720.924	OJunct	NO	NO	863.833	864.933	1.1	0	0	0	0		
OL-9264	2263574.009	276331.557	OJunct	NO	NO	948.61	949.71	1.1	0	0	0	0		
OL-9409	2263432.945	276339.222	OJunct	NO	NO	949.58	950.68	1.1	0	0	0	0		

Table 2A: Junctions (continued...)

Name	X-Coordinate	Y-Coordinate	Tag	Inflows	Treatment	Invert Elev. (ft)	Rim Elev. (ft)	Depth (ft)	Initial Depth (ft)	Surcharge Depth (ft)	Ponded Area (ft²)	Baseline (cfs)	Baseline Pattern	Time Series
OL-J1	2263205.534	276671.75	OJunct	NO	NO	855.825	856.925	1.1	0	0	0	0		
OL-J10	2263262.205	274055.562	OJunct	NO	NO	1011.6	1012.7	1.1	0	0	0	0		
OL-J10a	2263240.667	274092.987	OJunct	NO	NO	1010.1	1011.2	1.1	0	0	0	0		
OL-J10b	2263158.026	274185.404	OJunct	NO	NO	981.75	982.85	1.1	0	0	0	0		
OL-J14	2263358.081	276614.44	OJunct	NO	NO	855.9	858	2.1	0	0	0	0		
OL-J147	2263110.075	275951.692	OJunct	NO	NO	942.62	943.72	1.1	0	0	0	0		
OL-J15	2263219.775	276638.802	OJunct	NO	NO	855.896	856.996	1.1	0	0	0	0		
OL-J172	2263628.408	275279.761	OJunct	NO	NO	951	952.1	1.1	0	0	0	0		
OL-J3	2263346.069	276677.779	OJunct	NO	NO	857.09	858.19	1.1	0	0	0	0		
OL-J33	2263169.982	275856.608	OJunct	NO	NO	942.163	943.263	1.1	0	0	0	0		
OL-J37	2263196.698	275196.361	OJunct	NO	NO	941.039	942.139	1.1	0	0	0	0		
OL-J40	2263452.015	275632.514	OJunct	NO	NO	948.514	949.614	1.1	0	0	0	0		
OL-J48	2263634.823	275593.819	OJunct	NO	NO	968.322	969.422	1.1	0	0	0	0		
OL-J49	2263607.595	275598.536	OJunct	NO	NO	967.672	968.772	1.1	0	0	0	0		
OL-J4a	2262457.146	275750.607	OJunct	NO	NO	894.5	895.5	1	0	0	0	0		
OL-J4b	2262479.146	275765.966	OJunct	NO	NO	892.469	893.469	1	0	0	0	0		
OL-J4c	2262524.816	275795.91	OJunct	NO	NO	881.808	882.808	1	0	0	0	0		
OL-J4d	2262538.568	275936.418	OJunct	NO	NO	871.789	872.789	1	0	0	0	0		
OL-J5	2262952.003	274905.114	OJunct	NO	NO	945.75	946.85	1.1	0	1	500	0		
OL-J50	2263358.026	275542.817	OJunct	NO	NO	940.647	941.747	1.1	0	0	0	0		
OL-J6	2262969.854	274874.512	OJunct	NO	NO	945.803	946.903	1.1	0	1	15	0		
OL-J7	2263005.02	274885.921	OJunct	NO	NO	945.868	946.968	1.1	0	1	15	0		
OL-J72	2262530.914	275162.93	OJunct	NO	NO	905.6	906.6	1	0	1	0	0		
OL-J8	2262913.576	274948.379	OJunct	NO	NO	944.5	945.6	1.1	0	0	0	0		

Table 2B: Junctions

Name	Scale Factor	Average Value (cfs)	Time Pattern 1	Time Pattern 2	Time Pattern 3	Time Pattern 4	Hydrograph	Sewershed Area (ac)	Avg. Depth (ft)	Max. Depth (ft)	Max. HGL (ft)	Time Max. HGL (M/D/Y)	Rep. Max. Depth (ft)	Max. Lat. Inflow (cfs)
10028	1	0						0	0.04	0.4	947.87	05/01/2022 00:16 AM	0.4	0
1024	1	0						0	0.11	1.3	888.17	05/01/2022 00:18 AM	1.29	0
1038	1	0						0	0.02	0.25	896.16	05/01/2022 00:18 AM	0.25	1.28
10393	1	0						0	0.09	0.85	939.95	05/01/2022 00:15 AM	0.85	0
11213	1	0						0	0.05	1.63	937.73	05/01/2022 00:10 AM	1.63	0
11254	1	0						0	0.21	4.85	937.46	05/01/2022 00:10 AM	4.84	0
11560	1	0						0	0.08	2.45	939.25	05/01/2022 00:10 AM	2.44	1.17
11588	1	0						0	0.1	5.07	939.59	05/01/2022 00:06 AM	3.75	0
11842	1	0						0	0.04	0.56	947.73	05/01/2022 00:15 AM	0.55	0
11966	1	0						0	0.09	1.61	947.64	05/01/2022 00:15 AM	1.61	0
12000	1	0						0	0.02	0.21	838.21	05/01/2022 00:20 AM	0.21	0
12000-1	1	0						0	0.01	0.09	853.09	05/01/2022 00:24 AM	0.09	0
12000-2	1	0						0	0.1	0.98	852.69	05/01/2022 00:18 AM	0.97	1.35
12161	1	0						0	0	0.01	939	05/01/2022 00:06 AM	0	0
12275	1	0						0	0.15	5.81	939.41	05/01/2022 00:06 AM	4.65	0
12300	1	0						0	0.16	3.15	937.59	05/01/2022 00:14 AM	3.15	0
12497	1	0						0	0.2	4.24	940.47	05/01/2022 00:12 AM	4.21	0
12514	1	0						0	0.06	0.81	942.44	05/01/2022 00:13 AM	0.81	0
12678	1	0						0	0.18	3.92	939.6	05/01/2022 00:13 AM	3.91	0
12709	1	0						0	0.16	3.56	938.88	05/01/2022 00:13 AM	3.56	0
12759	1	0						0	0	0	943.02	05/01/2022 00:00 AM	0	0
12956	1	0						0	0.02	0.24	946.42	05/01/2022 00:12 AM	0.24	0
12957	1	0						0	0.98	1.55	942.57	05/01/2022 00:09 AM	1.55	0
13029	1	0						0	0.05	0.52	944.79	05/01/2022 00:12 AM	0.52	1.15
13138	1	0						0	0.04	0.48	942.81	05/01/2022 00:06 AM	0.48	1.89
13349	1	0						0	0.04	0.43	946.28	05/01/2022 00:06 AM	0.43	0.93

Table 2B: Junctions (continued...)

Name	Scale Factor	Average Value (cfs)	Time Pattern 1	Time Pattern 2	Time Pattern 3	Time Pattern 4	Hydrograph	Sewershed Area (ac)	Avg. Depth (ft)	Max. Depth (ft)	Max. HGL (ft)	Time Max. HGL (M/D/Y)	Rep. Max. Depth (ft)	Max. Lat. Inflow (cfs)
13528	1	0						0	0.05	0.61	944.77	05/01/2022 00:13 AM	0.61	0
13746	1	0						0	0.03	0.24	947.04	05/01/2022 00:12 AM	0.24	0
14383	1	0						0	0.02	0.19	971.82	05/01/2022 00:12 AM	0.19	0.63
14448	1	0						0	0.05	0.55	966.49	05/01/2022 00:12 AM	0.55	0
14608	1	0						0	0.06	0.72	969.63	05/01/2022 00:06 AM	0.72	1.47
14961	1	0						0	0.05	0.53	947.09	05/01/2022 00:12 AM	0.53	0
15025	1	0						0	0.03	0.37	956.39	05/01/2022 00:12 AM	0.37	0.27
15075	1	0						0	0.04	0.43	959.56	05/01/2022 00:12 AM	0.43	0.15
15234	1	0						0	0.05	0.61	964.6	05/01/2022 00:12 AM	0.6	0.32
15374	1	0						0	0.02	0.19	967.67	05/01/2022 00:18 AM	0.19	0.37
15469	1	0						0	0.01	0.12	969.93	05/01/2022 00:12 AM	0.12	0.15
15909	1	0						0	0.05	0.46	963.03	05/01/2022 00:17 AM	0.46	0
15964	1	0						0	0.07	0.76	960.38	05/01/2022 00:13 AM	0.76	0
16125	1	0						0	0.06	0.74	961.37	05/01/2022 00:12 AM	0.74	1.97
16610	1	0						0	0.05	0.55	968.39	05/01/2022 00:16 AM	0.55	0
16770	1	0						0	0.04	0.44	970.19	05/01/2022 00:12 AM	0.44	0
17671	1	0						0	0.03	0.31	948.55	05/01/2022 00:18 AM	0.31	0.48
18312	1	0						0	0.06	0.61	947.9	05/01/2022 00:18 AM	0.61	1.48
18356	1	0						0	0.05	0.51	943.71	05/01/2022 00:18 AM	0.51	0.55
18402	1	0						0	0.04	0.44	946.02	05/01/2022 00:13 AM	0.44	0
18726	1	0						0	0.01	0.14	974.1	05/01/2022 00:12 AM	0.14	0
1885	1	0						0	0.13	1.68	907.98	05/01/2022 00:13 AM	1.68	0
1896	1	0						0	0.08	0.99	905.35	05/01/2022 00:16 AM	0.98	0
19657	1	0						0	0.01	0.17	955.75	05/01/2022 00:06 AM	0.17	0.69
2002	1	0						0	0.11	1.27	899.15	05/01/2022 00:12 AM	1.27	1.6
2002'	1	0						0	0.01	0.24	899.06	05/01/2022 00:13 AM	0.24	0

Table 2B: Junctions (continued...)

Name	Scale Factor	Average Value (cfs)	Time Pattern 1	Time Pattern 2	Time Pattern 3	Time Pattern 4	Hydrograph	Sewershed Area (ac)	Avg. Depth (ft)	Max. Depth (ft)	Max. HGL (ft)	Time Max. HGL (M/D/Y)	Rep. Max. Depth (ft)	Max. Lat. Inflow (cfs)
20575	1	0						0	0.03	0.29	946.83	05/01/2022 00:12 AM	0.29	1.17
20974	1	0						0	0.08	0.81	976.06	05/01/2022 00:18 AM	0.81	0
20985	1	0						0	0.03	0.27	978.65	05/01/2022 00:08 AM	0.27	0
21199	1	0						0	0.08	0.81	955.11	05/01/2022 00:18 AM	0.81	0
21325	1	0						0	0.09	0.9	938.36	05/01/2022 00:18 AM	0.9	0
21426	1	0						0	0.08	0.95	933.25	05/01/2022 00:12 AM	0.95	0
21626	1	0						0	0.16	1.63	912.19	05/01/2022 00:18 AM	1.63	0.76
21678	1	0						0	0.09	0.84	927.78	05/01/2022 00:16 AM	0.84	0
21705	1	0						0	0.06	0.78	939.21	05/01/2022 00:06 AM	0.78	2.38
2249	1	0						0	0.05	0.6	887.76	05/01/2022 00:17 AM	0.6	0
23025	1	0						0	0.08	0.89	980.24	05/01/2022 00:18 AM	0.89	15.86
23037	1	0						0	0.12	1.36	977.93	05/01/2022 00:18 AM	1.36	0.93
2358	1	0						0	0.07	0.88	886.86	05/01/2022 00:18 AM	0.88	0
2374	1	0						0	0.07	0.78	886.9	05/01/2022 00:14 AM	0.78	0
2425	1	0						0	0.05	0.65	884.44	05/01/2022 00:18 AM	0.65	0
24932	1	0						0	0.1	1.03	940.35	05/01/2022 00:18 AM	1.03	0
25477	1	0						0	0.12	1.27	868.09	05/01/2022 00:20 AM	1.27	0
25478	1	0						0	1.22	15.64	853.17	05/01/2022 00:25 AM	15.64	6.9
25504	1	0						0	0.21	5.56	938.66	05/01/2022 00:06 AM	5.16	0
257	1	0						0	0.21	2.68	943.07	05/01/2022 00:08 AM	2.41	0
2732	1	0						0	0.2	2.87	879.83	05/01/2022 00:20 AM	2.87	0
3089	1	0						0	0.11	2.09	890.58	05/01/2022 00:13 AM	2.09	0.24
31036	1	0						0	0.1	1	951.51	05/01/2022 00:18 AM	0.99	0
31036'	1	0						0	0.11	0.92	952.21	05/01/2022 00:18 AM	0.92	0
3372	1	0						0	0.02	1.33	884.19	05/01/2022 00:20 AM	1.32	0
3381	1	0						0	0.12	3.48	884.02	05/01/2022 00:20 AM	3.47	0

Table 2B: Junctions (continued...)

Name	Scale Factor	Average Value (cfs)	Time Pattern 1	Time Pattern 2	Time Pattern 3	Time Pattern 4	Hydrograph	Sewershed Area (ac)	Avg. Depth (ft)	Max. Depth (ft)	Max. HGL (ft)	Time Max. HGL (M/D/Y)	Rep. Max. Depth (ft)	Max. Lat. Inflow (cfs)
3424	1	0						0	0.06	0.62	885.67	05/01/2022 00:12 AM	0.62	0
3449	1	0						0	0.59	9.34	881.06	05/01/2022 00:20 AM	9.32	0
3596	1	0						0	0.72	11.36	885.33	05/01/2022 00:23 AM	11.33	0
3615	1	0						0	0.08	0.78	886.49	05/01/2022 00:13 AM	0.78	0
3824	1	0						0	0.03	0.32	889.37	05/01/2022 00:12 AM	0.32	0.88
5172	1	0						0	0.1	1.16	921.4	05/01/2022 00:12 AM	1.16	0
5191	1	0						0	0.1	1.11	915.9	05/01/2022 00:12 AM	1.11	0
5218	1	0						0	0.06	0.61	927.95	05/01/2022 00:18 AM	0.61	0
5230	1	0						0	0.55	9.33	938.36	05/01/2022 00:15 AM	9.33	0
5246	1	0						0	0.02	0.31	924.34	05/01/2022 00:17 AM	0.31	0
5526	1	0						0	0.05	3.1	941.7	05/01/2022 00:15 AM	1.39	1.11
5571	1	0						0	0.11	4.98	941.97	05/01/2022 00:15 AM	4.96	2.48
5604	1	0						0	0.11	4.17	940.01	05/01/2022 00:15 AM	3.98	0
6078	1	0						0	0.52	8.75	895.13	05/01/2022 00:25 AM	8.7	0
6088	1	0						0	0.29	6.19	895.13	05/01/2022 00:25 AM	6.18	0
6436	1	0						0	0.54	9.11	900.75	05/01/2022 00:28 AM	9.1	0
6452	1	0						0	0.36	4.09	901.37	05/01/2022 00:29 AM	4.04	0
6457	1	0						0	0.28	3.71	901.54	05/01/2022 00:29 AM	3.67	0
6505	1	0						0	0.33	2.92	901.6	05/01/2022 00:18 AM	2.92	0
7096	1	0						0	0.02	0.22	885.29	05/01/2022 00:14 AM	0.22	0
7592	1	0						0	0.13	2.92	865.99	05/01/2022 00:15 AM	2.92	0
7683	1	0						0	0.14	2.71	864.38	05/01/2022 00:15 AM	2.71	0
7742	1	0						0	0.07	2.08	866.06	05/01/2022 00:14 AM	2.08	0
7794	1	0						0	5.73	13.38	845.87	05/01/2022 00:25 AM	13.38	0
8667-J4	1	0						0	0.12	1.19	853.95	05/01/2022 00:18 AM	1.19	2.1
8697	1	0						0	0.11	1.13	855.12	05/01/2022 00:18 AM	1.13	1.07

Table 2B: Junctions (continued...)

Name	Scale Factor	Average Value (cfs)	Time Pattern 1	Time Pattern 2	Time Pattern 3	Time Pattern 4	Hydrograph	Sewershed Area (ac)	Avg. Depth (ft)	Max. Depth (ft)	Max. HGL (ft)	Time Max. HGL (M/D/Y)	Rep. Max. Depth (ft)	Max. Lat. Inflow (cfs)
8807	1	0						0	0.11	1.11	856.59	05/01/2022 00:18 AM	1.11	5.88
8903	1	0						0	0.23	3.25	860.26	05/01/2022 00:09 AM	3.25	17.86
9095	1	0						0	0.06	0.77	953.13	05/01/2022 00:13 AM	0.77	0
9253	1	0						0	0.35	5.25	949.31	05/01/2022 00:22 AM	5.25	0
9264	1	0						0	0.48	6.59	949.29	05/01/2022 00:21 AM	6.59	0
9409	1	0						0	0.41	5.33	947.01	05/01/2022 00:18 AM	5.33	0
9627	1	0						0	0.04	0.41	946.61	05/01/2022 00:12 AM	0.4	1.65
9645	1	0						0	0.27	3.2	943.91	05/01/2022 00:15 AM	3.2	0.59
9733	1	0						0	0.04	0.41	939.05	05/01/2022 00:18 AM	0.41	0
J1	1	0						0	0.55	5.34	855.72	05/01/2022 00:20 AM	5.34	0
J10	1	0						0	0.05	0.46	1009.43	05/01/2022 00:12 AM	0.46	0
J11	1	0						0	0.03	0.33	1004.92	05/01/2022 00:12 AM	0.33	0
J12	1	0						0	0.06	0.63	981.97	05/01/2022 00:12 AM	0.63	0
J13	1	0						0	0.05	0.56	980.7	05/01/2022 00:12 AM	0.56	1.18
J147	1	0						0	0.03	0.46	942.58	05/01/2022 00:07 AM	0.46	0
J15	1	0						0	0.58	5.7	856.45	05/01/2022 00:19 AM	5.7	0
J159	1	0						0	0.41	7.2	877.42	05/01/2022 00:20 AM	7.17	0
J16	1	0						0	0.14	1.14	911.3	05/01/2022 00:19 AM	1.14	15.71
J163	1	0						0	0.07	0.68	880.27	05/01/2022 00:13 AM	0.68	0
J164	1	0						0	0.02	0.2	882.26	05/01/2022 00:14 AM	0.2	1.62
J165	1	0						0	0.01	0.14	893.92	05/01/2022 00:18 AM	0.14	0.5
J166	1	0						0	0	0	880.78	05/01/2022 00:00 AM	0	0
J167	1	0						0	0.02	0.2	894.76	05/01/2022 00:18 AM	0.2	1.88
J168	1	0						0	0.3	5.77	878.59	05/01/2022 00:20 AM	5.73	0
J169	1	0						0	0.03	0.3	960.2	05/01/2022 00:18 AM	0.3	1.87
J17	1	0						0	0.1	1.14	892.6	05/01/2022 00:13 AM	1.14	2.75

Table 2B: Junctions (continued...)

Name	Scale Factor	Average Value (cfs)	Time Pattern 1	Time Pattern 2	Time Pattern 3	Time Pattern 4	Hydrograph	Sewershed Area (ac)	Avg. Depth (ft)	Max. Depth (ft)	Max. HGL (ft)	Time Max. HGL (M/D/Y)	Rep. Max. Depth (ft)	Max. Lat. Inflow (cfs)
J170	1	0						0	0.03	0.31	956.62	05/01/2022 00:18 AM	0.31	3.48
J171	1	0						0	0	0.05	963.59	05/01/2022 00:18 AM	0.05	0.26
J172	1	0						0	0.14	1.45	951.46	05/01/2022 00:18 AM	1.45	1.92
J173	1	0						0	0.05	0.54	947.25	05/01/2022 00:18 AM	0.54	0.82
J174	1	0						0	0.01	0.09	966.94	05/01/2022 00:18 AM	0.09	0.46
J175	1	0						0	0	0.04	970.38	05/01/2022 00:18 AM	0.04	0.11
J177	1	0						0	0.9	8.06	875.91	05/01/2022 00:20 AM	8.01	0
J179	1	0						0	0.04	0.36	977.15	05/01/2022 00:15 AM	0.36	11.43
J18	1	0						0	0.17	1.66	862.1	05/01/2022 00:20 AM	1.66	0.4
J180	1	0						0	0.01	0.09	907.86	05/01/2022 00:18 AM	0.09	1.38
J182	1	0						0	0	0	942.74	05/01/2022 00:00 AM	0	0
J183	1	0						0	0.01	0.14	941.52	05/01/2022 00:12 AM	0.14	2.2
J19	1	0						0	0	0	878.5	05/01/2022 00:00 AM	0	0
J2	1	0						0	0.05	0.6	942.06	05/01/2022 00:12 AM	0.6	8.77
J2.	1	0						0	0	0	855.48	05/01/2022 00:00 AM	0	0
J20	1	0						0	0.15	1.57	932.74	05/01/2022 00:12 AM	1.57	0
J21	1	0						0	0.05	0.49	937.27	05/01/2022 00:18 AM	0.49	0
J22	1	0						0	0.06	0.61	933.29	05/01/2022 00:18 AM	0.61	0
J23	1	0						0	0.04	0.44	933.02	05/01/2022 00:18 AM	0.44	0
J24	1	0						0	0.03	0.31	929.81	05/01/2022 00:18 AM	0.31	0
J25	1	0						0	0.04	0.4	881.4	05/01/2022 00:19 AM	0.4	0
J27	1	0						0	0.07	0.72	881.72	05/01/2022 00:18 AM	0.72	0
J28	1	0						0	0	0	878.5	05/01/2022 00:00 AM	0	0
J29	1	0						0	0	0.04	894.54	05/01/2022 00:18 AM	0.04	0.09
J2-S	1	0						0	0	0	858.83	05/01/2022 00:00 AM	0	0
J3	1	0						0	0.5	5.16	857.48	05/01/2022 00:19 AM	5.16	0

Table 2B: Junctions (continued...)

Name	Scale Factor	Average Value (cfs)	Time Pattern 1	Time Pattern 2	Time Pattern 3	Time Pattern 4	Hydrograph	Sewershed Area (ac)	Avg. Depth (ft)	Max. Depth (ft)	Max. HGL (ft)	Time Max. HGL (M/D/Y)	Rep. Max. Depth (ft)	Max. Lat. Inflow (cfs)
J30	1	0						0	3.93	4.99	885.77	05/01/2022 00:13 AM	4.99	0
J31	1	0						0	0	0.06	948.16	05/01/2022 00:06 AM	0.06	0.82
J32	1	0						0	0.01	0.08	944.89	05/01/2022 00:06 AM	0.08	0
J33	1	0						0	0.09	0.73	942.39	05/01/2022 00:07 AM	0.73	0
J34	1	0						0	0.16	2.11	930.96	05/01/2022 00:18 AM	2.11	0
J35	1	0						0	0.16	1.42	866.86	05/01/2022 00:20 AM	1.42	1.56
J36	1	0						0	0.03	0.29	919.73	05/01/2022 00:12 AM	0.29	0
J37	1	0						0	0.02	0.24	889.62	05/01/2022 00:18 AM	0.24	0
J39	1	0						0	0.01	0.14	942.21	05/01/2022 00:13 AM	0.14	0.99
J4	1	0						0	0.16	3.08	894.69	05/01/2022 00:18 AM	3.08	0
J40	1	0						0	0.01	0.17	940.14	05/01/2022 00:14 AM	0.17	0
J41	1	0						0	0	0.09	940.96	05/01/2022 00:07 AM	0.09	0
J42	1	0						0	0.01	0.15	937.61	05/01/2022 00:08 AM	0.15	0
J43	1	0						0	0.1	1	857.85	05/01/2022 00:20 AM	1	0
J44	1	0						0	0.02	0.16	900.72	05/01/2022 00:12 AM	0.16	0
J45	1	0						0	0.02	0.24	901.24	05/01/2022 00:12 AM	0.24	0.43
J46	1	0						0	0.01	0.07	864.97	05/01/2022 00:17 AM	0.07	0
J47	1	0						0	0.02	0.32	848.9	05/01/2022 00:25 AM	0.32	0
J48	1	0						0	0.04	0.45	954.29	05/01/2022 00:18 AM	0.44	0
J49	1	0						0	0	0	888.46	05/01/2022 00:00 AM	0	0
J4-S	1	0						0	0	0	857.11	05/01/2022 00:00 AM	0	0
J5	1	0						0	0.23	3.79	943.89	05/01/2022 00:18 AM	3.7	0
J55	1	0						0	0.38	4.62	872.1	05/01/2022 00:20 AM	4.62	0
J6	1	0						0	0.22	4.29	945.49	05/01/2022 00:18 AM	4.07	0
J7	1	0						0	0.16	3.48	945.94	05/01/2022 00:18 AM	3.32	0
J74	1	0						0	0.03	0.3	930.91	05/01/2022 00:12 AM	0.3	0.69

Table 2B: Junctions (continued...)

Name	Scale Factor	Average Value (cfs)	Time Pattern 1	Time Pattern 2	Time Pattern 3	Time Pattern 4	Hydrograph	Sewershed Area (ac)	Avg. Depth (ft)	Max. Depth (ft)	Max. HGL (ft)	Time Max. HGL (M/D/Y)	Rep. Max. Depth (ft)	Max. Lat. Inflow (cfs)
J8	1	0						0	0.14	1.53	940.03	05/01/2022 00:18 AM	1.53	0
J9	1	0						0	0.14	1.38	927.6	05/01/2022 00:18 AM	1.38	4.47
OL-10028	1	0						0	0.01	0.12	951.79	05/01/2022 00:18 AM	0.12	0.62
OL-11213	1	0						0	0.03	0.31	942.26	05/01/2022 00:06 AM	0.31	4.91
OL-11560	1	0						0	0.01	0.19	942.14	05/01/2022 00:07 AM	0.19	0
OL-11842	1	0						0	0	0.06	951.75	05/01/2022 00:06 AM	0.06	0.21
OL-11966	1	0						0	0.04	0.58	951.15	05/01/2022 00:13 AM	0.58	4.6
OL-12300	1	0						0	0.02	0.36	939.76	05/01/2022 00:14 AM	0.36	0.82
OL-12497	1	0						0	0.01	0.2	940.4	05/01/2022 00:14 AM	0.2	0.42
OL-12678	1	0						0	0.02	0.2	940.37	05/01/2022 00:12 AM	0.2	1.14
OL-12709	1	0						0	0.32	0.54	939.76	05/01/2022 00:14 AM	0.54	2.81
OL-12956	1	0						0	0.02	0.23	950.31	05/01/2022 00:12 AM	0.23	0.66
OL-13029	1	0						0	0.01	0.1	950.31	05/01/2022 00:12 AM	0.1	0.3
OL-13138	1	0						0	0.01	0.15	948.78	05/01/2022 00:06 AM	0.15	1.08
OL-13349	1	0						0	0	0.05	950.35	05/01/2022 00:06 AM	0.05	0.16
OL-13528	1	0						0	0.01	0.13	948.1	05/01/2022 00:07 AM	0.13	0.66
OL-13746	1	0						0	0.02	0.18	951.48	05/01/2022 00:12 AM	0.18	0.46
OL-15964	1	0						0	0.01	0.17	964.94	05/01/2022 00:07 AM	0.17	4.11
OL-16610	1	0						0	0.02	0.2	972.32	05/01/2022 00:18 AM	0.2	2
OL-16770	1	0						0	0.02	0.18	975.68	05/01/2022 00:12 AM	0.18	1.62
OL-18726	1	0						0	0.01	0.07	978.28	05/01/2022 00:12 AM	0.07	0.33
OL-1885	1	0						0	0.02	0.24	912.49	05/01/2022 00:13 AM	0.24	1.8
OL-1896	1	0						0	0.03	0.3	911.76	05/01/2022 00:17 AM	0.3	8.16
OL-20985	1	0						0	0.02	0.18	983.16	05/01/2022 00:08 AM	0.18	2.15
OL-21199	1	0						0	0.01	0.13	960.15	05/01/2022 00:07 AM	0.13	0.85
OL-21325	1	0						0	0.02	0.19	943.73	05/01/2022 00:09 AM	0.19	1.55

Table 2B: Junctions (continued...)

Name	Scale Factor	Average Value (cfs)	Time Pattern 1	Time Pattern 2	Time Pattern 3	Time Pattern 4	Hydrograph	Sewershed Area (ac)	Avg. Depth (ft)	Max. Depth (ft)	Max. HGL (ft)	Time Max. HGL (M/D/Y)	Rep. Max. Depth (ft)	Max. Lat. Inflow (cfs)
OL-2249	1	0						0	0.02	0.3	898.02	05/01/2022 00:17 AM	0.3	0.6
OL-2358	1	0						0	0.02	0.3	893.48	05/01/2022 00:18 AM	0.3	1.49
OL-2374	1	0						0	0.02	0.34	893.36	05/01/2022 00:14 AM	0.34	0.81
OL-31036	1	0						0	0.08	0.89	954.67	05/01/2022 00:18 AM	0.88	1.91
OL-31036'	1	0						0	0.05	0.45	954.58	05/01/2022 00:18 AM	0.45	40.38
OL-3424	1	0						0	0.02	0.2	890.4	05/01/2022 00:12 AM	0.2	2.06
OL-3449	1	0						0	0.01	0.12	890.08	05/01/2022 00:06 AM	0.12	0.62
OL-3596	1	0						0	0.04	0.36	892.1	05/01/2022 00:18 AM	0.36	9.72
OL-3615	1	0						0	0.03	0.28	890.89	05/01/2022 00:18 AM	0.28	4.93
OL-5172	1	0						0	0.02	0.19	927.68	05/01/2022 00:12 AM	0.19	2.33
OL-5191	1	0						0	0.02	0.25	924.29	05/01/2022 00:12 AM	0.25	0.79
OL-5218	1	0						0	0.01	0.16	933.3	05/01/2022 00:12 AM	0.16	1.3
OL-5230	1	0						0	0.01	0.26	938.24	05/01/2022 00:16 AM	0.26	0.79
OL-5246	1	0						0	0.01	0.23	929.71	05/01/2022 00:16 AM	0.23	0.7
OL-5526	1	0						0	0.01	0.16	942.05	05/01/2022 00:06 AM	0.16	1.24
OL-5571	1	0						0	0.01	0.19	942.08	05/01/2022 00:08 AM	0.19	1.75
OL-5604	1	0						0	0.01	0.09	941.83	05/01/2022 00:07 AM	0.09	0.47
OL-6088	1	0						0	0.01	0.18	900.62	05/01/2022 00:12 AM	0.18	1.66
OL-6436	1	0						0	0.06	0.9	901.37	05/01/2022 00:31 AM	0.9	0
OL-6452	1	0						0	0.06	0.9	901.37	05/01/2022 00:31 AM	0.9	0
OL-6457	1	0						0	0.03	0.68	901.38	05/01/2022 00:29 AM	0.67	0
OL-6505	1	0						0	0.02	0.25	901.6	05/01/2022 00:18 AM	0.25	5.6
OL-6505a	1	0						0	0.01	0.18	901.41	05/01/2022 00:29 AM	0.18	0
OL-7096	1	0						0	0.02	0.27	889.99	05/01/2022 00:14 AM	0.27	1.13
OL-7592	1	0						0	0.03	0.33	867.6	05/01/2022 00:16 AM	0.33	4.1
OL-7683	1	0						0	0.02	0.35	865.47	05/01/2022 00:15 AM	0.35	0.93

Table 2B: Junctions (continued...)

Name	Scale Factor	Average Value (cfs)	Time Pattern 1	Time Pattern 2	Time Pattern 3	Time Pattern 4	Hydrograph	Sewershed Area (ac)	Avg. Depth (ft)	Max. Depth (ft)	Max. HGL (ft)	Time Max. HGL (M/D/Y)	Rep. Max. Depth (ft)	Max. Lat. Inflow (cfs)
OL-7742	1	0						0	0.01	0.18	867.61	05/01/2022 00:06 AM	0.18	1.6
OL-9253a	1	0						0	0	0.08	948.39	05/01/2022 00:22 AM	0.08	0
OL-9253b	1	0						0	0	0.1	944.35	05/01/2022 00:23 AM	0.1	0
OL-9253c	1	0						0	0.03	0.58	888.58	05/01/2022 00:26 AM	0.58	0
OL-9253d	1	0						0	0	0.07	888.07	05/01/2022 00:26 AM	0.07	0
OL-9253e	1	0						0	0.01	0.13	863.97	05/01/2022 00:27 AM	0.13	0
OL-9264	1	0						0	0.04	0.7	949.31	05/01/2022 00:22 AM	0.7	0.92
OL-9409	1	0						0	0.01	0.09	949.67	05/01/2022 00:06 AM	0.09	0.48
OL-J1	1	0						0	0.04	0.42	856.24	05/01/2022 00:18 AM	0.42	4.89
OL-J10	1	0						0	0.04	0.39	1011.99	05/01/2022 00:12 AM	0.39	15.72
OL-J10a	1	0						0	0.02	0.3	1010.4	05/01/2022 00:12 AM	0.3	0
OL-J10b	1	0						0	0.04	0.53	982.28	05/01/2022 00:12 AM	0.53	0
OL-J14	1	0						0	0.15	1.9	857.8	05/01/2022 00:19 AM	1.9	22.86
OL-J147	1	0						0	0	0.05	942.67	05/01/2022 00:06 AM	0.05	0.58
OL-J15	1	0						0	0.05	0.59	856.48	05/01/2022 00:18 AM	0.59	14.34
OL-J172	1	0						0	0.02	0.42	951.42	05/01/2022 00:18 AM	0.42	0
OL-J3	1	0						0	0.05	0.56	857.65	05/01/2022 00:18 AM	0.56	18.75
OL-J33	1	0						0	0.02	0.22	942.39	05/01/2022 00:07 AM	0.22	1.99
OL-J37	1	0						0	0.02	0.19	941.23	05/01/2022 00:12 AM	0.19	1.65
OL-J40	1	0						0	0	0.05	948.57	05/01/2022 00:07 AM	0.05	0.2
OL-J48	1	0						0	0.01	0.07	968.39	05/01/2022 00:18 AM	0.07	0.73
OL-J49	1	0						0	0.01	0.11	967.79	05/01/2022 00:06 AM	0.11	2.72
OL-J4a	1	0						0	0	0.15	894.65	05/01/2022 00:18 AM	0.15	0
OL-J4b	1	0						0	0	0.11	892.58	05/01/2022 00:18 AM	0.11	0
OL-J4c	1	0						0	0	0.17	881.97	05/01/2022 00:18 AM	0.17	0
OL-J4d	1	0						0	0	0.09	871.88	05/01/2022 00:19 AM	0.09	0

Table 2B: Junctions (continued...)

Name	Scale Factor	Average Value (cfs)	Time Pattern 1	Time Pattern 2	Time Pattern 3	Time Pattern 4	Hydrograph	Sewershed Area (ac)	Avg. Depth (ft)	Max. Depth (ft)	Max. HGL (ft)	Time Max. HGL (M/D/Y)	Rep. Max. Depth (ft)	Max. Lat. Inflow (cfs)
OL-J5	1	0						0	0.07	0.8	946.55	05/01/2022 00:18 AM	0.8	13.43
OL-J50	1	0						0	0.01	0.09	940.73	05/01/2022 00:08 AM	0.09	0.64
OL-J6	1	0						0	0.07	0.81	946.61	05/01/2022 00:17 AM	0.79	17.21
OL-J7	1	0						0	0.08	0.95	946.82	05/01/2022 00:19 AM	0.95	19.24
OL-J72	1	0						0	0	0	905.6	05/01/2022 00:00 AM	0	0
OL-J8	1	0						0	0.05	0.62	945.12	05/01/2022 00:18 AM	0.62	0

Table 2C: Junctions

Name	Max. Total Inflow (cfs)	Total Lat. Inflow (MG)	Total inflow (MG)	Flow Error (%)	Hours Surcharged (h)	Max. Surcharge (ft)	Min. Freeboard (ft)	Hours Flooded (h)	Max. Flood Rate (cfs)	Total Flood Vol. (MG)	Max. Ponded Depth (ft)	Contributing Area (ac)	Contributing Imp. Area (ac)	Max. Unit Flow (cfs/ac)
10028	0.62	0	0.01	-0.009	0	0	3.9	0	0	0	0	0	0	0
1024	118.78	0	2.03	-0.011	0	0	17.45	0	0	0	0	0	0	0
1038	1.28	0.02	0.02	0	0	0	3	0	0	0	0	0	0	0
10393	13.59	0	0.273	0	0	0	7.72	0	0	0	0	0	0	0
11213	2.69	0	0.042	0.021	0.13	0.632	4.318	0	0	0	0	0	0	0
11254	5.43	0	0.082	0.218	0.43	3.522	4.428	0	0	0	0	0	0	0
11560	2.79	0.015	0.04	0.056	0	0	2.8	0	0	0	0	0	0	0
11588	1.06	0	0	-1.117	0.28	4.283	0	0.01	0.81	0	0	0	0	0
11842	0.78	0	0.012	-0.076	0	0	4.06	0	0	0	0	0	0	0
11966	5.18	0	0.075	0.01	0	0	3.03	0	0	0	0	0	0	0
12000	32.32	0	0.589	0	0	0	4.79	0	0	0	0	0	0	0
12000-1	8.99	0	0.155	-0.01	0	0	4.91	0	0	0	0	0	0	0
12000-2	24.37	0.022	0.433	0	0	0	5.84	0	0	0	0	0	0	0
12161	0.05	0	0	0.021	0	0	2.34	0	0	0	0	0	0	0

Table 2C: Junctions (continued...)

Name	Max. Total Inflow (cfs)	Total Lat. Inflow (MG)	Total inflow (MG)	Flow Error (%)	Hours Surcharged (h)	Max. Surcharge (ft)	Min. Freeboard (ft)	Hours Flooded (h)	Max. Flood Rate (cfs)	Total Flood Vol. (MG)	Max. Ponded Depth (ft)	Contributing Area (ac)	Contributing Imp. Area (ac)	Max. Unit Flow (cfs/ac)
12275	1.06	0	0	-0.052	0.38	4.812	1.048	0	0	0	0	0	0	0
12300	12.28	0	0.175	-0.003	0.26	1.647	2.593	0	0	0	0	0	0	0
12497	6.69	0	0.1	-0.119	0.31	2.752	0.818	0	0	0	0	0	0	0
12514	6.7	0	0.097	0.007	0	0	4.72	0	0	0	0	0	0	0
12678	7.83	0	0.12	0.027	0.3	2.485	1.105	0	0	0	0	0	0	0
12709	9.25	0	0.148	0.018	0.29	2.208	1.342	0	0	0	0	0	0	0
12759	0	0	0	0	0	0	6.3	0	0	0	0	0	0	0
12956	1.12	0	0.02	0.002	0	0	3.76	0	0	0	0	0	0	0
12957	6.08	0	0.09	0.411	0	0	6.53	0	0	0	0	0	0	0
13029	2.17	0.014	0.034	0	0	0	5.52	0	0	0	0	0	0	0
13138	2.89	0.023	0.036	-0.075	0	0	5.92	0	0	0	0	0	0	0
13349	1.09	0.011	0.013	0	0	0	4.97	0	0	0	0	0	0	0
13528	6.71	0	0.097	0	0	0	4.04	0	0	0	0	0	0	0
13746	0.77	0	0.016	0.002	0	0	4.36	0	0	0	0	0	0	0
14383	0.63	0.008	0.008	0.001	0	0	3.13	0	0	0	0	0	0	0
14448	2.58	0	0.034	0	0	0	5.43	0	0	0	0	0	0	0
14608	1.6	0.018	0.02	-0.005	0	0	1.73	0	0	0	0	0	0	0
14961	3.19	0	0.046	-0.001	0	0	10.32	0	0	0	0	0	0	0
15025	3.2	0.004	0.046	-0.001	0	0	7.25	0	0	0	0	0	0	0
15075	2.99	0.002	0.041	-0.001	0	0	9.52	0	0	0	0	0	0	0
15234	2.85	0.005	0.039	-0.001	0	0	5.39	0	0	0	0	0	0	0
15374	0.37	0.006	0.006	0.002	0	0	2.41	0	0	0	0	0	0	0
15469	0.15	0.002	0.002	0.008	0	0	0.83	0	0	0	0	0	0	0
15909	2.98	0	0.052	-0.03	0	0	3.44	0	0	0	0	0	0	0
15964	8.48	0	0.131	-0.004	0	0	4.49	0	0	0	0	0	0	0
16125	1.97	0.028	0.028	-0.004	0	0	1.22	0	0	0	0	0	0	0

Table 2C: Junctions (continued...)

Name	Max. Total Inflow (cfs)	Total Lat. Inflow (MG)	Total inflow (MG)	Flow Error (%)	Hours Surcharged (h)	Max. Surcharge (ft)	Min. Freeboard (ft)	Hours Flooded (h)	Max. Flood Rate (cfs)	Total Flood Vol. (MG)	Max. Ponded Depth (ft)	Contributing Area (ac)	Contributing Imp. Area (ac)	Max. Unit Flow (cfs/ac)
16610	2.98	0	0.052	-0.052	0	0	3.83	0	0	0	0	0	0	0
16770	1.55	0	0.026	0.236	0	0	5.41	0	0	0	0	0	0	0
17671	0.48	0.008	0.008	0.001	0	0	4.94	0	0	0	0	0	0	0
18312	1.48	0.023	0.023	-0.002	0	0	4.77	0	0	0	0	0	0	0
18356	5.43	0.009	0.086	-0.001	0	0	8.52	0	0	0	0	0	0	0
18402	3.54	0	0.053	0	0	0	7.3	0	0	0	0	0	0	0
18726	0.33	0	0.004	0.017	0	0	4.21	0	0	0	0	0	0	0
1885	26.36	0	0.391	-0.006	0	0	4.37	0	0	0	0	0	0	0
1896	28.87	0	0.439	0	0	0	6.21	0	0	0	0	0	0	0
19657	0.69	0.008	0.008	-0.015	0	0	4.18	0	0	0	0	0	0	0
2002	5.76	0.021	0.067	0.139	0	0	0.63	0	0	0	0	0	0	0
2002'	7.42	0	0.059	-0.002	0	0	1.76	0	0	0	0	0	0	0
20575	1.83	0.016	0.024	0.006	0	0	3.25	0	0	0	0	0	0	0
20974	17.66	0	0.297	-0.002	0	0	7.04	0	0	0	0	0	0	0
20985	1.3	0	0.02	0.02	0	0	4.43	0	0	0	0	0	0	0
21199	18.24	0	0.307	0.002	0	0	5.01	0	0	0	0	0	0	0
21325	19.4	0	0.326	-0.002	0	0	5.284	0	0	0	0	0	0	0
21426	20.01	0	0.289	-0.002	0	0	10.05	0	0	0	0	0	0	0
21626	89.92	0.012	1.57	0.006	0	0	15.27	0	0	0	0	0	0	0
21678	9.47	0	0.189	0	0	0	10.36	0	0	0	0	0	0	0
21705	2.38	0.03	0.03	-0.001	0	0	2.77	0	0	0	0	0	0	0
2249	2.23	0	0.033	0.018	0	0	12.2	0	0	0	0	0	0	0
23025	15.86	0.266	0.266	0	0	0	4.59	0	0	0	0	0	0	0
23037	16.54	0.011	0.277	-0.001	0	0	7.16	0	0	0	0	0	0	0
2358	4.44	0	0.062	-0.01	0	0	6.42	0	0	0	0	0	0	0
2374	3.8	0	0.06	0.001	0	0	6.22	0	0	0	0	0	0	0

Table 2C: Junctions (continued...)

Name	Max. Total Inflow (cfs)	Total Lat. Inflow (MG)	Total inflow (MG)	Flow Error (%)	Hours Surcharged (h)	Max. Surcharge (ft)	Min. Freeboard (ft)	Hours Flooded (h)	Max. Flood Rate (cfs)	Total Flood Vol. (MG)	Max. Ponded Depth (ft)	Contributing Area (ac)	Contributing Imp. Area (ac)	Max. Unit Flow (cfs/ac)
2425	8.08	0	0.123	0.049	0	0	10.15	0	0	0	0	0	0	0
24932	22.18	0	0.41	0.003	0	0	6.12	0	0	0	0	0	0	0
25477	275.3	0	5.09	0	0	0	12.41	0	0	0	0	0	0	0
25478	290.34	0.111	5.34	0.008	0	0	16.33	0	0	0	0	0	0	0
25504	2.78	0	0.04	-0.443	0.3	3.486	2.001	0	0	0	0	0	0	0
257	13.59	0	0.273	-0.008	0.52	0.831	8.249	0	0	0	0	0	0	0
2732	126.88	0	2.15	-0.02	0	0	13.56	0	0	0	0	0	0	0
3089	24.37	0.004	0.436	0.014	0	0	4.561	0	0	0	0	0	0	0
31036	22.18	0	0.41	0	0	0	2.64	0	0	0	0	0	0	0
31036'	6.04	0	0.139	-0.002	0	0	2.03	0	0	0	0	0	0	0
3372	3.26	0	0.022	0	0	0	4.57	0	0	0	0	0	0	0
3381	20.73	0	0.311	0.009	0	0	4.57	0	0	0	0	0	0	0
3424	4.39	0	0.08	0.009	0	0	4.63	0	0	0	0	0	0	0
3449	104.66	0	2.08	-0.002	0.53	6.296	9.004	0	0	0	0	0	0	0
3596	104.47	0	2.07	0.024	0.53	8.316	6.514	0	0	0	0	0	0	0
3615	3.21	0	0.06	-0.001	0	0	4.22	0	0	0	0	0	0	0
3824	1.31	0.012	0.018	-0.001	0	0	10.8	0	0	0	0	0	0	0
5172	21.44	0	0.316	0	0	0	6.19	0	0	0	0	0	0	0
5191	24.43	0	0.36	0.013	0	0	8.24	0	0	0	0	0	0	0
5218	20.25	0	0.341	0.007	0	0	5.29	0	0	0	0	0	0	0
5230	12.62	0	0.164	0.108	0	0	0.72	0	0	0	0	0	0	0
5246	1.89	0	0.015	0.001	0	0	5.24	0	0	0	0	0	0	0
5526	2.35	0.014	0.029	0.15	0.06	2.104	0.186	0	0	0	0	0	0	0
5571	6.42	0.03	0.079	0.21	0.17	3.629	0.021	0	0	0	0	0	0	0
5604	6.96	0	0.085	-0.096	0.21	2.716	1.834	0	0	0	0	0	0	0
6078	101.89	0	2.01	-0.022	0.46	5.4	5.45	0	0	0	0	0	0	0

Table 2C: Junctions (continued...)

Name	Max. Total Inflow (cfs)	Total Lat. Inflow (MG)	Total inflow (MG)	Flow Error (%)	Hours Surcharged (h)	Max. Surcharge (ft)	Min. Freeboard (ft)	Hours Flooded (h)	Max. Flood Rate (cfs)	Total Flood Vol. (MG)	Max. Ponded Depth (ft)	Contributing Area (ac)	Contributing Imp. Area (ac)	Max. Unit Flow (cfs/ac)
6088	2.9	0	0.024	0.126	0.45	4.939	5.411	0	0	0	0	0	0	0
6436	101.13	0	1.99	0.008	0.39	2.951	0	0	0	0	0	0	0	0
6452	11.64	0	0.122	-28.302	0.87	3.089	0	0	0	0	0	0	0	0
6457	8.74	0	0.023	18.476	0.77	2.714	0	0	0	0	0	0	0	0
6505	1.5	0	0.034	-0.032	0.98	1.922	0	0.84	0.15	0	0.152	0	0	0
7096	1.9	0	0.023	0.001	0	0	4.53	0	0	0	0	0	0	0
7592	4.37	0	0.077	-0.029	0.26	1.77	1.38	0	0	0	0	0	0	0
7683	7.8	0	0.121	0.001	0.34	1.608	0.842	0	0	0	0	0	0	0
7742	1.29	0	0.018	0.121	0.19	1.083	1.467	0	0	0	0	0	0	0
7794	275.08	0	5.37	0.27	0.58	5.013	21.717	0	0	0	0	0	0	0
8667-J4	23.02	0.033	0.412	0	0	0	4.16	0	0	0	0	0	0	0
8697	20.91	0.016	0.379	0	0	0	3.52	0	0	0	0	0	0	0
8807	19.84	0.09	0.363	-0.001	0	0	2.94	0	0	0	0	0	0	0
8903	17.86	0.291	0.291	0	0.52	2	0	0.28	3.9	0.018	0	0	0	0
9095	8.47	0	0.131	0.045	0	0	6	0	0	0	0	0	0	0
9253	4.81	0	0.059	-0.007	0.56	3.746	0	0.51	0.73	0	0.706	0	0	0
9264	11.53	0	0.237	0.148	0.57	4.365	0	0.49	0.29	0.001	0.585	0	0	0
9409	11.77	0	0.243	-0.156	0.63	3.769	2.671	0	0	0	0	0	0	0
9627	1.65	0.023	0.023	0	0	0	3.69	0	0	0	0	0	0	0
9645	13.59	0.007	0.274	0.123	0	0	6.33	0	0	0	0	0	0	0
9733	5.43	0	0.086	-0.014	0	0	11.359	0	0	0	0	0	0	0
J1	22.48	0	0.561	-0.004	0.99	3.339	0.281	0	0	0	0	0	0	0
J10	3.98	0	0.073	-0.001	0	0	2.54	0	0	0	0	0	0	0
J11	3.98	0	0.073	-0.008	0	0	2.671	0	0	0	0	0	0	0
J12	3.98	0	0.073	0.008	0	0	4.83	0	0	0	0	0	0	0
J13	16.55	0.019	0.25	-0.002	0	0	1.439	0	0	0	0	0	0	0

Table 2C: Junctions (continued...)

Name	Max. Total Inflow (cfs)	Total Lat. Inflow (MG)	Total inflow (MG)	Flow Error (%)	Hours Surcharged (h)	Max. Surcharge (ft)	Min. Freeboard (ft)	Hours Flooded (h)	Max. Flood Rate (cfs)	Total Flood Vol. (MG)	Max. Ponded Depth (ft)	Contributing Area (ac)	Contributing Imp. Area (ac)	Max. Unit Flow (cfs/ac)
J147	0.38	0	0.005	0.001	0	0	0.54	0	0	0	0	0	0	0
J15	19.63	0	0.488	-0.005	0.97	3.697	0	0.45	1.29	0.002	0.447	0	0	0
J159	145.83	0	2.46	0	0.41	3.621	11.656	0	0	0	0	0	0	0
J16	95.33	0.272	1.54	-0.078	0	0	8.893	0	0	0	0	0	0	0
J163	26.27	0	0.459	-0.001	0	0	9.25	0	0	0	0	0	0	0
J164	6.69	0.022	0.062	0.533	0	0	1.02	0	0	0	0	0	0	0
J165	0.58	0.008	0.009	0.009	0	0	1.86	0	0	0	0	0	0	0
J166	0	0	0	0	0	0	8.62	0	0	0	0	0	0	0
J167	1.88	0.029	0.029	-0.001	0	0	4.151	0	0	0	0	0	0	0
J168	125.13	0	2.15	0.002	0.25	2.185	15.162	0	0	0	0	0	0	0
J169	2.44	0.029	0.038	0.002	0	0	0.963	0	0	0	0	0	0	0
J17	24.16	0.04	0.433	-0.001	0	0	3.218	0	0	0	0	0	0	0
J170	6.18	0.054	0.096	-0.002	0	0	1.275	0	0	0	0	0	0	0
J171	0.26	0.004	0.004	-0.009	0	0	0.51	0	0	0	0	0	0	0
J172	8.08	0.03	0.125	0.002	0	0	0.54	0	0	0	0	0	0	0
J173	8.88	0.013	0.138	-0.033	0	0	1.46	0	0	0	0	0	0	0
J174	0.57	0.007	0.009	-0.012	0	0	1.637	0	0	0	0	0	0	0
J175	0.11	0.002	0.002	0.006	0	0	0.76	0	0	0	0	0	0	0
J177	244.85	0	4.54	-0.01	0.54	4.115	7.052	0	0	0	0	0	0	0
J179	27.52	0.176	0.426	-0.249	0	0	0.643	0	0	0	0	0	0	0
J18	283.68	0.006	5.22	0	0	0	11.132	0	0	0	0	0	0	0
J180	1.38	0.021	0.021	-0.186	0	0	0.41	0	0	0	0	0	0	0
J182	0	0	0	0	0	0	1.1	0	0	0	0	0	0	0
J183	3.17	0.031	0.046	0.001	0	0	0.86	0	0	0	0	0	0	0
J19	0	0	0	0	0	0	12.174	0	0	0	0	0	0	0
J2	8.77	0.122	0.122	0	0	0	1.4	0	0	0	0	0	0	0

Table 2C: Junctions (continued...)

Name	Max. Total Inflow (cfs)	Total Lat. Inflow (MG)	Total inflow (MG)	Flow Error (%)	Hours Surcharged (h)	Max. Surcharge (ft)	Min. Freeboard (ft)	Hours Flooded (h)	Max. Flood Rate (cfs)	Total Flood Vol. (MG)	Max. Ponded Depth (ft)	Contributing Area (ac)	Contributing Imp. Area (ac)	Max. Unit Flow (cfs/ac)
J2.	0	0	0	0	0	0	3.35	0	0	0	0	0	0	0
J20	18.93	0	0.355	-0.017	0	0	6.36	0	0	0	0	0	0	0
J21	5.43	0	0.086	0.008	0	0	12.76	0	0	0	0	0	0	0
J22	5.41	0	0.086	0	0	0	6.791	0	0	0	0	0	0	0
J23	5.41	0	0.086	0	0	0	6.851	0	0	0	0	0	0	0
J24	5.41	0	0.086	0	0	0	10.545	0	0	0	0	0	0	0
J25	5.41	0	0.086	0.001	0	0	9.431	0	0	0	0	0	0	0
J27	5.41	0	0.086	-0.001	0	0	17.201	0	0	0	0	0	0	0
J28	0	0	0	0	0	0	8.947	0	0	0	0	0	0	0
J29	0.09	0.001	0.001	0.028	0	0	1.96	0	0	0	0	0	0	0
J2-S	0	0	0	0	0	0	2	0	0	0	0	0	0	0
J3	16.3	0	0.399	0	0.89	3.159	0	0.56	1.82	0.003	0.789	0	0	0
J30	24.37	0	0.436	0.069	0	0	9.793	0	0	0	0	0	0	0
J31	0.82	0.01	0.01	-0.004	0	0	0.61	0	0	0	0	0	0	0
J32	0.82	0	0.01	0	0	0	1.013	0	0	0	0	0	0	0
J33	0.58	0	0.008	1.505	0	0	0.273	1.06	0.39	0	0.227	0	0	0
J34	37.54	0	0.639	-0.001	0	0	5.466	0	0	0	0	0	0	0
J35	276.78	0.024	5.11	-0.001	0	0	10.923	0	0	0	0	0	0	0
J36	19.44	0	0.366	0.014	0	0	9.41	0	0	0	0	0	0	0
J37	10.57	0	0.144	-0.003	0	0	0.856	0	0	0	0	0	0	0
J39	0.99	0.014	0.014	0.002	0	0	1.226	0	0	0	0	0	0	0
J4	5.42	0	0.094	0.002	0.38	2.081	0	0.37	0.87	0	0.69	0	0	0
J40	1.79	0	0.007	0.4	0	0	0.932	0	0	0	0	0	0	0
J41	3.12	0	0.024	0.011	0	0	1.006	0	0	0	0	0	0	0
J42	3.12	0	0.024	-0.048	0	0	0.951	0	0	0	0	0	0	0
J43	283.67	0	5.22	-0.014	0	0	12.15	0	0	0	0	0	0	0

Table 2C: Junctions (continued...)

Name	Max. Total Inflow (cfs)	Total Lat. Inflow (MG)	Total inflow (MG)	Flow Error (%)	Hours Surcharged (h)	Max. Surcharge (ft)	Min. Freeboard (ft)	Hours Flooded (h)	Max. Flood Rate (cfs)	Total Flood Vol. (MG)	Max. Ponded Depth (ft)	Contributing Area (ac)	Contributing Imp. Area (ac)	Max. Unit Flow (cfs/ac)
J44	0.43	0	0.006	0.008	0	0	1.34	0	0	0	0	0	0	0
J45	0.43	0.006	0.006	0	0	0	1.24	0	0	0	0	0	0	0
J46	0.35	0	0.002	6.059	0	0	2.93	0	0	0	0	0	0	0
J47	24.44	0	0.271	-0.001	0	0	4.53	0	0	0	0	0	0	0
J48	19.46	0	0.286	-0.005	0	0	0.66	0	0	0	0	0	0	0
J49	0	0	0	0	0	0	1.1	0	0	0	0	0	0	0
J4-S	0	0	0	0	0	0	2	0	0	0	0	0	0	0
J5	37.74	0	0.639	0.006	0.31	1.787	1.963	0	0	0	0	0	0	0
J55	250.23	0	4.63	0	0	0	8.24	0	0	0	0	0	0	0
J6	26.2	0	0.428	-0.128	0.29	2.291	0.412	0	0	0	0	0	0	0
J7	14.32	0	0.241	0.011	0.22	1.483	0.025	0	0	0	0	0	0	0
J74	19.44	0.011	0.366	0	0	0	4.14	0	0	0	0	0	0	0
J8	37.65	0	0.639	0.001	0	0	4.722	0	0	0	0	0	0	0
J9	79.89	0.073	1.27	-0.009	0	0	8.645	0	0	0	0	0	0	0
OL-10028	0.62	0.01	0.01	-0.001	0	0	0.98	0	0	0	0	0	0	0
OL-11213	4.91	0.06	0.06	-0.022	0	0	0.79	0	0	0	0	0	0	0
OL-11560	2.28	0	0.024	0.001	0	0	0.91	0	0	0	0	0	0	0
OL-11842	0.21	0.003	0.003	-0.002	0	0	1.04	0	0	0	0	0	0	0
OL-11966	4.6	0.063	0.063	0	0	0	0.52	0	0	0	0	0	0	0
OL-12300	3.36	0.01	0.028	0.045	0	0	1.081	0	0	0	0	0	0	0
OL-12497	1.39	0.005	0.008	0.465	0	0	1.538	0	0	0	0	0	0	0
OL-12678	1.93	0.015	0.025	-0.022	0	0	1.33	0	0	0	0	0	0	0
OL-12709	4.47	0.038	0.046	-0.025	0	0	0.86	0	0	0	0	0	0	0
OL-12956	3.69	0.008	0.044	0.112	0	0	0.87	0	0	0	0	0	0	0
OL-13029	0.3	0.004	0.004	-0.001	0	0	1.052	0	0	0	0	0	0	0
OL-13138	1.08	0.013	0.013	-0.006	0	0	0.95	0	0	0	0	0	0	0

Table 2C: Junctions (continued...)

Name	Max. Total Inflow (cfs)	Total Lat. Inflow (MG)	Total inflow (MG)	Flow Error (%)	Hours Surcharged (h)	Max. Surcharge (ft)	Min. Freeboard (ft)	Hours Flooded (h)	Max. Flood Rate (cfs)	Total Flood Vol. (MG)	Max. Ponded Depth (ft)	Contributing Area (ac)	Contributing Imp. Area (ac)	Max. Unit Flow (cfs/ac)
OL-13349	0.16	0.002	0.002	-0.002	0	0	1.068	0	0	0	0	0	0	0
OL-13528	0.66	0.008	0.008	-0.002	0	0	0.97	0	0	0	0	0	0	0
OL-13746	3.11	0.007	0.04	0.043	0	0	0.92	0	0	0	0	0	0	0
OL-15964	4.11	0.052	0.052	-1.082	0	0	1.093	0	0	0	0	0	0	0
OL-16610	2.4	0.031	0.034	-0.191	0	0	0.9	0	0	0	0	0	0	0
OL-16770	1.62	0.025	0.025	0.083	0	0	0.92	0	0	0	0	0	0	0
OL-18726	0.33	0.004	0.004	-0.002	0	0	1.03	0	0	0	0	0	0	0
OL-1885	4.88	0.028	0.054	-0.452	0	0	0.86	0	0	0	0	0	0	0
OL-1896	9.86	0.108	0.115	0.167	0	0	0.8	0	0	0	0	0	0	0
OL-20985	2.15	0.026	0.026	-0.286	0	0	0.92	0	0	0	0	0	0	0
OL-21199	0.85	0.01	0.01	-0.032	0	0	0.97	0	0	0	0	0	0	0
OL-21325	2.36	0.019	0.025	0.151	0	0	0.914	0	0	0	0	0	0	0
OL-2249	7.59	0.007	0.074	0.188	0	0	0.799	0	0	0	0	0	0	0
OL-2358	6.37	0.019	0.06	-2.488	0	0	0.8	0	0	0	0	0	0	0
OL-2374	8.09	0.01	0.069	-0.084	0	0	0.76	0	0	0	0	0	0	0
OL-31036	35.74	0.023	0.557	0.007	0	0	0.49	0	0	0	0	0	0	0
OL-31036'	40.38	0.672	0.672	-0.004	0	0	0.65	0	0	0	0	0	0	0
OL-3424	2.06	0.027	0.027	-0.073	0	0	0.9	0	0	0	0	0	0	0
OL-3449	0.62	0.007	0.007	-0.142	0	0	0.98	0	0	0	0	0	0	0
OL-3596	9.87	0.149	0.165	-0.105	0	0	0.74	0	0	0	0	0	0	0
OL-3615	11.94	0.076	0.179	0	0	0	0.82	0	0	0	0	0	0	0
OL-5172	4.85	0.036	0.06	-0.033	0	0	0.91	0	0	0	0	0	0	0
OL-5191	5.38	0.01	0.055	0.293	0	0	0.85	0	0	0	0	0	0	0
OL-5218	1.36	0.017	0.017	-0.089	0	0	0.94	0	0	0	0	0	0	0
OL-5230	4.34	0.011	0.023	-0.286	0	0	0.84	0	0	0	0	0	0	0
OL-5246	4.77	0.011	0.023	0.143	0	0	0.87	0	0	0	0	0	0	0

Table 2C: Junctions (continued...)

Name	Max. Total Inflow (cfs)	Total Lat. Inflow (MG)	Total inflow (MG)	Flow Error (%)	Hours Surcharged (h)	Max. Surcharge (ft)	Min. Freeboard (ft)	Hours Flooded (h)	Max. Flood Rate (cfs)	Total Flood Vol. (MG)	Max. Ponded Depth (ft)	Contributing Area (ac)	Contributing Imp. Area (ac)	Max. Unit Flow (cfs/ac)
OL-5526	1.24	0.015	0.015	-0.003	0	0	1.05	0	0	0	0	0	0	0
OL-5571	1.75	0.021	0.021	-0.002	0	0	1.241	0	0	0	0	0	0	0
OL-5604	0.55	0.006	0.006	-0.002	0	0	1.354	0	0	0	0	0	0	0
OL-6088	1.66	0.024	0.024	-0.001	0	0	0.92	0	0	0	0	0	0	0
OL-6436	17.94	0	0.225	0.001	0	0	0.63	0	0	0	0	0	0	0
OL-6452	17.83	0	0.218	5.895	0	0	0.63	0	0	0	0	0	0	0
OL-6457	10.04	0	0.068	-1.32	0	0	0.62	0	0	0	0	0	0	0
OL-6505	5.6	0.086	0.086	0.055	0	0	0.91	0	0	0	0	0	0	0
OL-6505a	3.11	0	0.021	0.828	0	0	0.82	0	0	0	0	0	0	0
OL-7096	6.51	0.014	0.054	0.109	0	0	0.83	0	0	0	0	0	0	0
OL-7592	10.23	0.066	0.128	0.142	0	0	0.77	0	0	0	0	0	0	0
OL-7683	7.82	0.012	0.081	0.026	0	0	0.75	0	0	0	0	0	0	0
OL-7742	1.6	0.02	0.02	-0.115	0	0	0.92	0	0	0	0	0	0	0
OL-9253a	2.25	0	0.009	-0.151	0	0	1.026	0	0	0	0	0	0	0
OL-9253b	2.25	0	0.009	-0.358	0	0	0.997	0	0	0	0	0	0	0
OL-9253c	2.24	0	0.009	0.61	0	0	0.52	0	0	0	0	0	0	0
OL-9253d	1.68	0	0.009	-0.202	0	0	1.031	0	0	0	0	0	0	0
OL-9253e	1.68	0	0.009	3.601	0	0	0.963	0	0	0	0	0	0	0
OL-9264	5.22	0.012	0.056	0.091	0	0	4.05	0	0	0	0	0	0	0
OL-9409	0.48	0.006	0.006	-0.003	0	0	1.01	0	0	0	0	0	0	0
OL-J1	36.63	0.06	0.394	-0.205	0	0	0.685	0	0	0	0	0	0	0
OL-J10	15.72	0.231	0.231	-0.001	0	0	0.71	0	0	0	0	0	0	0
OL-J10a	11.73	0	0.158	-0.007	0	0	0.8	0	0	0	0	0	0	0
OL-J10b	11.71	0	0.159	0.005	0	0	0.57	0	0	0	0	0	0	0
OL-J14	26.04	0.336	0.373	-0.015	0	0	0.39	0	0	0	0	0	0	0
OL-J147	0.58	0.007	0.007	-0.001	0	0	1.05	0	0	0	0	0	0	0

Table 2C: Junctions (continued...)

Name	Max. Total Inflow (cfs)	Total Lat. Inflow (MG)	Total inflow (MG)	Flow Error (%)	Hours Surcharged (h)	Max. Surcharge (ft)	Min. Freeboard (ft)	Hours Flooded (h)	Max. Flood Rate (cfs)	Total Flood Vol. (MG)	Max. Ponded Depth (ft)	Contributing Area (ac)	Contributing Imp. Area (ac)	Max. Unit Flow (cfs/ac)
OL-J15	36.17	0.21	0.422	0.029	0	0	0.516	0	0	0	0	0	0	0
OL-J172	4.91	0	0.045	-0.005	0	0	0.68	0	0	0	0	0	0	0
OL-J3	27.76	0.266	0.347	-0.089	0	0	0.541	0	0	0	0	0	0	0
OL-J33	2.31	0.024	0.027	-0.438	0	0	0.873	0	0	0	0	0	0	0
OL-J37	4.78	0.021	0.067	0.033	0	0	0.909	0	0	0	0	0	0	0
OL-J40	0.27	0.002	0.003	-0.075	0	0	1.044	0	0	0	0	0	0	0
OL-J48	0.73	0.011	0.011	-0.224	0	0	1.032	0	0	0	0	0	0	0
OL-J49	2.72	0.034	0.034	-0.002	0	0	0.982	0	0	0	0	0	0	0
OL-J4a	1.92	0	0.01	-0.002	0	0	0.85	0	0	0	0	0	0	0
OL-J4b	1.92	0	0.01	-0.014	0	0	0.889	0	0	0	0	0	0	0
OL-J4c	1.92	0	0.01	-0.006	0	0	0.838	0	0	0	0	0	0	0
OL-J4d	1.91	0	0.01	0.032	0	0	0.909	0	0	0	0	0	0	0
OL-J5	55.65	0.204	0.77	0.131	0	0	0.3	0	0	0	0	0	0	0
OL-J50	0.91	0.008	0.011	0.381	0	0	1.017	0	0	0	0	0	0	0
OL-J6	17.21	0.267	0.267	-0.395	0	0	0.293	0	0	0	0	0	0	0
OL-J7	46.72	0.299	0.726	0.152	0	0	0.148	0	0	0	0	0	0	0
OL-J72	0	0	0	0	0	0	1	0	0	0	0	0	0	0
OL-J8	38.06	0	0.558	-0.003	0	0	0.48	0	0	0	0	0	0	0

Table 2D: Junctions

Name	GIS_LENGTH (m)	GIS_AREA (m²)	GIS_PARTS
10028	0	0	1
1024	0	0	1
1038	0	0	1
10393	0	0	1
11213	0	0	1
11254	0	0	1
11560	0	0	1
11588	0	0	1
11842	0	0	1
11966	0	0	1
12000	0	0	1
12000-1	0	0	1
12000-2	0	0	1
12161	0	0	1
12275	0	0	1
12300	0	0	1
12497	0	0	1
12514	0	0	1
12678	0	0	1
12709	0	0	1
12759	0	0	1
12956	0	0	1
12957	0	0	1
13029	0	0	1
13138	0	0	1
13349	0	0	1

Table 2D: Junctions (continued...)

Name	GIS_LENGTH (m)	GIS_AREA (m²)	GIS_PARTS
13528	0	0	1
13746	0	0	1
14383	0	0	1
14448	0	0	1
14608	0	0	1
14961	0	0	1
15025	0	0	1
15075	0	0	1
15234	0	0	1
15374	0	0	1
15469	0	0	1
15909	0	0	1
15964	0	0	1
16125	0	0	1
16610	0	0	1
16770	0	0	1
17671	0	0	1
18312	0	0	1
18356	0	0	1
18402	0	0	1
18726	0	0	1
1885	0	0	1
1896	0	0	1
19657	0	0	1
2002	0	0	1
2002'	0	0	1

Table 2D: Junctions (continued...)

Name	GIS_LENGTH (m)	GIS_AREA (m²)	GIS_PARTS
20575	0	0	1
20974	0	0	1
20985	0	0	1
21199	0	0	1
21325	0	0	1
21426	0	0	1
21626	0	0	1
21678	0	0	1
21705	0	0	1
2249	0	0	1
23025	0	0	1
23037	0	0	1
2358	0	0	1
2374	0	0	1
2425	0	0	1
24932	0	0	1
25477	0	0	1
25478	0	0	1
25504	0	0	1
257	0	0	1
2732	0	0	1
3089	0	0	1
31036	0	0	1
31036'	0	0	1
3372	0	0	1
3381	0	0	1

Table 2D: Junctions (continued...)

Name	GIS_LENGTH (m)	GIS_AREA (m²)	GIS_PARTS
3424	0	0	1
3449	0	0	1
3596	0	0	1
3615	0	0	1
3824	0	0	1
5172	0	0	1
5191	0	0	1
5218	0	0	1
5230	0	0	1
5246	0	0	1
5526	0	0	1
5571	0	0	1
5604	0	0	1
6078	0	0	1
6088	0	0	1
6436	0	0	1
6452	0	0	1
6457	0	0	1
6505	0	0	1
7096	0	0	1
7592	0	0	1
7683	0	0	1
7742	0	0	1
7794	0	0	1
8667-J4	0	0	1
8697	0	0	1

Table 2D: Junctions (continued...)

Name	GIS_LENGTH (m)	GIS_AREA (m²)	GIS_PARTS
8807	0	0	1
8903	0	0	1
9095	0	0	1
9253	0	0	1
9264	0	0	1
9409	0	0	1
9627	0	0	1
9645	0	0	1
9733	0	0	1
J1	0	0	1
J10	0	0	1
J11	0	0	1
J12	0	0	1
J13	0	0	1
J147	0	0	1
J15	0	0	1
J159	0	0	1
J16	0	0	1
J163	0	0	1
J164	0	0	1
J165	0	0	1
J166	0	0	1
J167	0	0	1
J168	0	0	1
J169	0	0	1
J17	0	0	1

Table 2D: Junctions (continued...)

Name	GIS_LENGTH (m)	GIS_AREA (m²)	GIS_PARTS
J170	0	0	1
J171	0	0	1
J172	0	0	1
J173	0	0	1
J174	0	0	1
J175	0	0	1
J177	0	0	1
J179	0	0	1
J18	0	0	1
J180	0	0	1
J182	0	0	1
J183	0	0	1
J19	0	0	1
J2	0	0	1
J2.	0	0	1
J20	0	0	1
J21	0	0	1
J22	0	0	1
J23	0	0	1
J24	0	0	1
J25	0	0	1
J27	0	0	1
J28	0	0	1
J29	0	0	1
J2-S	0	0	1
J3	0	0	1

Table 2D: Junctions (continued...)

Name	GIS_LENGTH (m)	GIS_AREA (m²)	GIS_PARTS
J30	0	0	1
J31	0	0	1
J32	0	0	1
J33	0	0	1
J34	0	0	1
J35	0	0	1
J36	0	0	1
J37	0	0	1
J39	0	0	1
J4	0	0	1
J40	0	0	1
J41	0	0	1
J42	0	0	1
J43	0	0	1
J44	0	0	1
J45	0	0	1
J46	0	0	1
J47	0	0	1
J48	0	0	1
J49	0	0	1
J4-S	0	0	1
J5	0	0	1
J55	0	0	1
J6	0	0	1
J7	0	0	1
J74	0	0	1

Table 2D: Junctions (continued...)

Name	GIS_LENGTH (m)	GIS_AREA (m²)	GIS_PARTS
J8	0	0	1
J9	0	0	1
OL-10028	0	0	1
OL-11213	0	0	1
OL-11560	0	0	1
OL-11842	0	0	1
OL-11966	0	0	1
OL-12300	0	0	1
OL-12497	0	0	1
OL-12678	0	0	1
OL-12709	0	0	1
OL-12956	0	0	1
OL-13029	0	0	1
OL-13138	0	0	1
OL-13349	0	0	1
OL-13528	0	0	1
OL-13746	0	0	1
OL-15964	0	0	1
OL-16610	0	0	1
OL-16770	0	0	1
OL-18726	0	0	1
OL-1885	0	0	1
OL-1896	0	0	1
OL-20985	0	0	1
OL-21199	0	0	1
OL-21325	0	0	1

Table 2D: Junctions (continued...)

Name	GIS_LENGTH (m)	GIS_AREA (m²)	GIS_PARTS
OL-2249	0	0	1
OL-2358	0	0	1
OL-2374	0	0	1
OL-31036	0	0	1
OL-31036'	0	0	1
OL-3424	0	0	1
OL-3449	0	0	1
OL-3596	0	0	1
OL-3615	0	0	1
OL-5172	0	0	1
OL-5191	0	0	1
OL-5218	0	0	1
OL-5230	0	0	1
OL-5246	0	0	1
OL-5526	0	0	1
OL-5571	0	0	1
OL-5604	0	0	1
OL-6088	0	0	1
OL-6436	0	0	1
OL-6452	0	0	1
OL-6457	0	0	1
OL-6505	0	0	1
OL-6505a	0	0	1
OL-7096	0	0	1
OL-7592	0	0	1
OL-7683	0	0	1

Table 2D: Junctions (continued...)

Name	GIS_LENGTH (m)	GIS_AREA (m²)	GIS_PARTS
OL-7742	0	0	1
OL-9253a	0	0	1
OL-9253b	0	0	1
OL-9253c	0	0	1
OL-9253d	0	0	1
OL-9253e	0	0	1
OL-9264	0	0	1
OL-9409	0	0	1
OL-J1	0	0	1
OL-J10	0	0	1
OL-J10a	0	0	1
OL-J10b	0	0	1
OL-J14	0	0	1
OL-J147	0	0	1
OL-J15	0	0	1
OL-J172	0	0	1
OL-J3	0	0	1
OL-J33	0	0	1
OL-J37	0	0	1
OL-J40	0	0	1
OL-J48	0	0	1
OL-J49	0	0	1
OL-J4a	0	0	1
OL-J4b	0	0	1
OL-J4c	0	0	1
OL-J4d	0	0	1

Table 2D: Junctions (continued...)

Name	GIS_LENGTH (m)	GIS_AREA (m²)	GIS_PARTS
OL-J5	0	0	1
OL-J50	0	0	1
OL-J6	0	0	1
OL-J7	0	0	1
OL-J72	0	0	1
OL-J8	0	0	1

Table 3A: Outfalls

Name	X-Coordinate	Y-Coordinate	Tag	Inflows	Treatment	Invert Elev. (ft)	Rim Elev. (ft)	Tide Gate	Route To	Type	Fixed Stage (ft)	Curve Name	Series Name	Outlet
10000	2262392.186	276400.364	Outlet	NO	NO	831.42	837.22	NO		TIMESERIES	0	*	TC_Flood_25YR	
11000	2262486.781	276384.562	Outlet	NO	NO	861.08	864	NO		TIMESERIES	0	*	TC_Flood_25YR	
11000'	2262484.196	276383.409	Overland	NO	NO	864	866	NO		TIMESERIES	0	*	TC_Flood_25YR	
12000.	2261939.436	276365.72	Outlet	NO	NO	836	841	NO		TIMESERIES	0	*	TC_Flood_25YR	
13000	2263958	276313	Outlet	NO	NO	936.2	938.2	NO		FREE	0	*	*	
14000	2263091.354	277070.708	Outlet	NO	NO	845.99	848.99	NO		TIMESERIES	0	*	TC_Flood_25YR	
14000'	2263095.852	277072.318	Overland	NO	NO	847.5	849.5	NO		TIMESERIES	0	*	TC_Flood_25YR	

Table 3B: Outfalls

Name	Baseline (cfs)	Baseline Pattern	Time Series	Scale Factor	Average Value (cfs)	Time Pattern 1	Time Pattern 2	Time Pattern 3	Time Pattern 4	Hydrograph	Sewershed Area (ac)	Avg. Depth (ft)	Max. Depth (ft)	Max. HGL (ft)
10000	0			1	0						0	6.29	6.29	837.71
11000	0			1	0						0	0.08	1	862.08
11000'	0			1	0						0	0.01	0.25	864.25
12000.	0			1	0						0	1.71	1.71	837.71
13000	0			1	0						0	0.05	0.52	936.72
14000	0			1	0						0	0.24	1.86	847.85
14000'	0			1	0						0	0.02	0.32	847.82

Table 3C: Outfalls

Name	Time Max. HGL (M/D/Y)	Rep. Max. Depth (ft)	Max. Lat. Inflow (cfs)	Max. Total Inflow (cfs)	Total Lat. Inflow (MG)	Total inflow (MG)	Flow Error (%)	Hours Surcharged (h)	Max. Surcharge (ft)	Min. Freeboard (ft)	Hours Flooded (h)	Max. Flood Rate (cfs)	Total Flood Vol. (MG)	Max. Ponded Depth (ft)
10000	05/01/2022 00:00 AM	6.29	0	275.08	0	5.39	0	0	0	0	0	0	0	0
11000	05/01/2022 00:10 AM	1	0	7.8	0	0.121	0	0	0	0	0	0	0	0
11000'	05/01/2022 00:15 AM	0.25	0	4.37	0	0.037	0	0	0	0	0	0	0	0
12000.	05/01/2022 00:00 AM	1.71	0	32.32	0	0.589	0	0	0	0	0	0	0	0
13000	05/01/2022 00:12 AM	0.52	0	8.78	0	0.122	0	0	0	0	0	0	0	0
14000	05/01/2022 00:25 AM	1.86	0	30.13	0	0.832	0	0	0	0	0	0	0	0
14000'	05/01/2022 00:25 AM	0.32	0	24.44	0	0.271	0	0	0	0	0	0	0	0

Table 3D: Outfalls

Name	Flow Frequency	Avg. Flow (cfs)	Max. Flow (cfs)	Total Flow (MG)	Contributing Area (ac)	Contributing Imp. Area (ac)	Max. Unit Flow (cfs/ac)	GIS_LENGTH (m)	GIS_AREA (m²)	GIS_PARTS
10000	69.42	33.43	275.08	5.39	0	0	0	0	0	1
11000	16.77	3.13	7.8	0.121	0	0	0	0	0	1
11000'	11.02	1.45	4.37	0.037	0	0	0	0	0	1
12000.	20.09	12.39	32.32	0.589	0	0	0	0	0	1
13000	16.39	3.23	8.78	0.122	0	0	0	0	0	1
14000	20.07	17.97	30.13	0.832	0	0	0	0	0	1
14000'	10.83	10.86	24.44	0.271	0	0	0	0	0	1

Table 4A: ARM Subcatchments

Name	X-Coordinate	Y-Coordinate	Description	Tag	Runoff Method	Rain Gage	Outlet	Area (ac)	Flow Length (ft)	Slope (%)
J10	2263191.448	273805.81			SCS Dimensionless UH	Huff_100YR_1Q_1HR_3.67in	OL-J10	3.668	660.651	5.53
J13	2263208.036	274136.841			SCS Dimensionless UH	Huff_100YR_1Q_1HR_3.67in	J13	0.395	205.795	20.579
J179	2263051.515	273990.583			SCS Dimensionless UH	Huff_100YR_1Q_1HR_3.67in	J179	2.565	615.555	14.057
J7	2263202.374	274536.232			SCS Dimensionless UH	Huff_100YR_1Q_1HR_3.67in	OL-J7	4.568	885.498	10.954
J6	2262935.371	274390.446			SCS Dimensionless UH	Huff_100YR_1Q_1HR_3.67in	OL-J6	3.945	1275.042	9.849
31036'	2263588.959	274576.169			SCS Dimensionless UH	Huff_100YR_1Q_1HR_3.67in	OL-31036'	10.887	788.077	12.171
31036	2263564.558	274994.257			SCS Dimensionless UH	Huff_100YR_1Q_1HR_3.67in	OL-31036	0.235	489.846	10.238
J5	2262847.425	274557.22			SCS Dimensionless UH	Huff_100YR_1Q_1HR_3.67in	OL-J5	2.633	1055.794	9.319
7592	2262671.695	276225.753			SCS Dimensionless UH	Huff_100YR_1Q_1HR_3.67in	OL-7592	1.335	389.585	25.869
J9	2262974.779	275010.368			SCS Dimensionless UH	Huff_100YR_1Q_1HR_3.67in	J9	1.369	428.007	8.225
J16	2262638.515	274728.755			SCS Dimensionless UH	Huff_100YR_1Q_1HR_3.67in	J16	5.022	908.899	14.03
J72	2262528.037	275044.619			SCS Dimensionless UH	Huff_100YR_1Q_1HR_3.67in	J72	1.317	377.81	21.885
21253	2263522.427	275090.994			SCS Dimensionless UH	Huff_100YR_1Q_1HR_3.67in	21253	2.869	553.3	13.427

Table 4A: ARM Subcatchments (continued...)

Name	X-Coordinate	Y-Coordinate	Description	Tag	Runoff Method	Rain Gage	Outlet	Area (ac)	Flow Length (ft)	Slope (%)
23025	2263999.464	275089.139			SCS Dimensionless UH	Huff_100YR_1Q_1HR_3.67in	23025	5.039	532.096	11.549
23037	2263866.46	275379.473			SCS Dimensionless UH	Huff_100YR_1Q_1HR_3.67in	23037	0.113	324.45	4.18
20985	2263887.721	274867.539			SCS Dimensionless UH	Huff_100YR_1Q_1HR_3.67in	OL-20985	0.263	786.416	7.361
21325	2263542.537	275190.5			SCS Dimensionless UH	Huff_100YR_1Q_1HR_3.67in	OL-21325	0.192	561.669	8.75
21199	2263678.665	275207.325			SCS Dimensionless UH	Huff_100YR_1Q_1HR_3.67in	OL-21199	0.104	385.326	8.55
J171	2263828.093	275292.848			SCS Dimensionless UH	Huff_100YR_1Q_1HR_3.67in	J171	0.071	93.737	22.714
J175	2263710.534	275610.546			SCS Dimensionless UH	Huff_100YR_1Q_1HR_3.67in	J175	0.035	97.775	17.955
J174	2263702.177	275591.896			SCS Dimensionless UH	Huff_100YR_1Q_1HR_3.67in	J174	0.104	119.901	22.45
J169	2263732.836	275527.107			SCS Dimensionless UH	Huff_100YR_1Q_1HR_3.67in	J169	0.436	226.955	15.304
J170	2263785.724	275367.789			SCS Dimensionless UH	Huff_100YR_1Q_1HR_3.67in	J170	0.905	355.538	21.163
18726	2263800.664	275610.922			SCS Dimensionless UH	Huff_100YR_1Q_1HR_3.67in	OL-18726	0.047	166.246	9.805
16770	2263780.942	275679.244			SCS Dimensionless UH	Huff_100YR_1Q_1HR_3.67in	OL-16770	0.332	189.962	12.694
16610	2263750.281	275793.849			SCS Dimensionless UH	Huff_100YR_1Q_1HR_3.67in	OL-16610	0.45	250.396	10.624
14608	2263693.896	275886.574			SCS Dimensionless UH	Huff_100YR_1Q_1HR_3.67in	14608	0.183	106.039	6.036
14383	2263624.419	275821.153			SCS Dimensionless UH	Huff_100YR_1Q_1HR_3.67in	14383	0.099	101.319	2.194
15374	2263626.261	275900.916			SCS Dimensionless UH	Huff_100YR_1Q_1HR_3.67in	15374	0.08	104.428	17.161
15469	2263666.685	275938.37			SCS Dimensionless UH	Huff_100YR_1Q_1HR_3.67in	15469	0.024	25.396	10.166
16125	2263678.587	276045.254			SCS Dimensionless UH	Huff_100YR_1Q_1HR_3.67in	16125	0.338	230.726	5.808
J3	2263674.436	276554.303			SCS Dimensionless UH	Huff_100YR_1Q_1HR_3.67in	OL-J3	3.315	808.732	21.496
J2	2263854.077	275994.364			SCS Dimensionless UH	Huff_100YR_1Q_1HR_3.67in	J2	1.381	833.162	13.739
15964	2263767.815	275996.991			SCS Dimensionless UH	Huff_100YR_1Q_1HR_3.67in	OL-15964	0.544	390.858	7.299
J172	2263671.948	275327.512			SCS Dimensionless UH	Huff_100YR_1Q_1HR_3.67in	J172	0.439	190.836	15.616
J173	2263579.421	275246.822			SCS Dimensionless UH	Huff_100YR_1Q_1HR_3.67in	J173	0.207	169.251	23.465
J26	2263472.066	275325.797			SCS Dimensionless UH	Huff_100YR_1Q_1HR_3.67in	J26	0.88	351.691	15.668
19657	2263618.594	275538.217			SCS Dimensionless UH	Huff_100YR_1Q_1HR_3.67in	19657	0.084	102.262	10.096
20575	2263526.897	275529.237			SCS Dimensionless UH	Huff_100YR_1Q_1HR_3.67in	20575	0.193	160.945	10.59

Table 4A: ARM Subcatchments (continued...)

Name	X-Coordinate	Y-Coordinate	Description	Tag	Runoff Method	Rain Gage	Outlet	Area (ac)	Flow Length (ft)	Slope (%)
OL-J48	2263702.248	275644.11			SCS Dimensionless UH	Huff_100YR_1Q_1HR_3.67in	OL-J48	0.149	199.47	10.727
OL-J49	2263619.255	275677.216			SCS Dimensionless UH	Huff_100YR_1Q_1HR_3.67in	OL-J49	0.339	172.92	6.599
12956	2263572.58	275572.762			SCS Dimensionless UH	Huff_100YR_1Q_1HR_3.67in	OL-12956	0.083	206.144	13.01
13746	2263557.442	275594.434			SCS Dimensionless UH	Huff_100YR_1Q_1HR_3.67in	OL-13746	0.096	103.604	27.397
J39	2262976.772	275151.868			SCS Dimensionless UH	Huff_100YR_1Q_1HR_3.67in	J39	0.185	154.967	13.067
5526	2262914.069	275346.455			SCS Dimensionless UH	Huff_100YR_1Q_1HR_3.67in	OL-5526	0.151	136.921	3.116
5571	2262996.23	275336.639			SCS Dimensionless UH	Huff_100YR_1Q_1HR_3.67in	OL-5571	0.212	197.015	2.088
5604	2263115.319	275322.029			SCS Dimensionless UH	Huff_100YR_1Q_1HR_3.67in	OL-5604	0.059	110.508	2.476
J183	2263092.729	275169.28			SCS Dimensionless UH	Huff_100YR_1Q_1HR_3.67in	J183	0.377	109.065	14.192
OL-J38	2263138.894	275216.995			SCS Dimensionless UH	Huff_100YR_1Q_1HR_3.67in	OL-J37	0.222	159.888	6.338
5230	2263211.709	275210.043			SCS Dimensionless UH	Huff_100YR_1Q_1HR_3.67in	OL-5230	0.142	133.332	7.294
5246	2263163.285	275298.12			SCS Dimensionless UH	Huff_100YR_1Q_1HR_3.67in	OL-5246	0.153	165.139	19.088
21705	2263348.048	275332.633			SCS Dimensionless UH	Huff_100YR_1Q_1HR_3.67in	21705	0.313	184.32	5.229
5218	2263292.852	275238.831			SCS Dimensionless UH	Huff_100YR_1Q_1HR_3.67in	OL-5218	0.175	367.623	8.695
21626	2263252.8	275346.573			SCS Dimensionless UH	Huff_100YR_1Q_1HR_3.67in	21626	0.246	113.587	17.767
5172	2263339.026	275464.142			SCS Dimensionless UH	Huff_100YR_1Q_1HR_3.67in	OL-5172	0.492	314.6	15.299
6505	2262277.607	275292.278			SCS Dimensionless UH	Huff_100YR_1Q_1HR_3.67in	OL-6505	1.218	341.636	15.174
OL-J41	2262426.055	274934.524			SCS Dimensionless UH	Huff_100YR_1Q_1HR_3.67in	OL-J41	4.028	1260.521	11.469
6088	2262528.513	275405.256			SCS Dimensionless UH	Huff_100YR_1Q_1HR_3.67in	OL-6088	0.309	223.158	15.965
J4	2262305.894	275642.421			SCS Dimensionless UH	Huff_100YR_1Q_1HR_3.67in	OL-J4	1.563	492.043	17.395
1896	2262905.332	275318.72			SCS Dimensionless UH	Huff_100YR_1Q_1HR_3.67in	OL-1896	1.249	863.527	12.535
1038	2263108.692	275532.332			SCS Dimensionless UH	Huff_100YR_1Q_1HR_3.67in	1038	0.424	116.969	23.658
2358	2262973.71	275746.75			SCS Dimensionless UH	Huff_100YR_1Q_1HR_3.67in	OL-2358	0.194	284.92	9.838
J45	2262689.338	275573.078			SCS Dimensionless UH	Huff_100YR_1Q_1HR_3.67in	J45	0.09	114.151	32.31
3824	2262684.677	275624.205			SCS Dimensionless UH	Huff_100YR_1Q_1HR_3.67in	3824	0.144	125.555	28.091
3596	2262497.2	275515.301			SCS Dimensionless UH	Huff_100YR_1Q_1HR_3.67in	OL-3596	2.021	537.471	15.133

Table 4A: ARM Subcatchments (continued...)

Name	X-Coordinate	Y-Coordinate	Description	Tag	Runoff Method	Rain Gage	Outlet	Area (ac)	Flow Length (ft)	Slope (%)
3449	2262505.583	275688.316			SCS Dimensionless UH	Huff_100YR_1Q_1HR_3.67in	OL-3449	0.075	274.068	4.947
3372	2262664.405	275833.754			SCS Dimensionless UH	Huff_100YR_1Q_1HR_3.67in	J50	0.045	82.76	4.762
3615	2262832.039	275587.432			SCS Dimensionless UH	Huff_100YR_1Q_1HR_3.67in	OL-3615	1.301	654.826	24.095
3424	2262886.097	275640.974			SCS Dimensionless UH	Huff_100YR_1Q_1HR_3.67in	OL-3424	0.295	528.446	15.515
3381	2262760.619	275813.491			SCS Dimensionless UH	Huff_100YR_1Q_1HR_3.67in	J50	0.594	121.39	4.84
15234	2263584.895	275914.449			SCS Dimensionless UH	Huff_100YR_1Q_1HR_3.67in	15234	0.085	99.725	7.707
15075	2263550.73	275986.554			SCS Dimensionless UH	Huff_100YR_1Q_1HR_3.67in	15075	0.038	49.704	5.968
15025	2263462.159	275982.815			SCS Dimensionless UH	Huff_100YR_1Q_1HR_3.67in	15025	0.096	81.018	11.919
17671	2263396.521	276063.574			SCS Dimensionless UH	Huff_100YR_1Q_1HR_3.67in	17671	0.172	154.418	8.033
18356	2263342.819	276064.714			SCS Dimensionless UH	Huff_100YR_1Q_1HR_3.67in	18356	0.204	278.578	8.974
18312	2263469.142	276108.478			SCS Dimensionless UH	Huff_100YR_1Q_1HR_3.67in	18312	0.372	320.3	10.449
9264	2263661.071	276277.669			SCS Dimensionless UH	Huff_100YR_1Q_1HR_3.67in	OL-9264	0.122	353.984	5.593
9253	2263576.891	276235.821			SCS Dimensionless UH	Huff_100YR_1Q_1HR_3.67in	OL-9253	1.194	359.447	10.715
9627	2263262.177	276180.452			SCS Dimensionless UH	Huff_100YR_1Q_1HR_3.67in	9627	0.281	235.968	6.587
10028	2263244.709	276027.749			SCS Dimensionless UH	Huff_100YR_1Q_1HR_3.67in	OL-10028	0.152	183.465	7.554
11842	2263180.261	276023.24			SCS Dimensionless UH	Huff_100YR_1Q_1HR_3.67in	OL-11842	0.026	114.839	3.754
11966	2263399.847	275903.641			SCS Dimensionless UH	Huff_100YR_1Q_1HR_3.67in	OL-11966	0.814	378.423	11.871
RD-incen	2263435.07	275753.228			SCS Dimensionless UH	Huff_100YR_1Q_1HR_3.67in	13138	0.185	125.031	2
13029	2263516.805	275640.631			SCS Dimensionless UH	Huff_100YR_1Q_1HR_3.67in	OL-13029	0.064	48.415	45.753
13138	2263465.463	275686.329			SCS Dimensionless UH	Huff_100YR_1Q_1HR_3.67in	OL-13138	0.132	97.235	6.685
OL-J40	2263473.823	275640.347			SCS Dimensionless UH	Huff_100YR_1Q_1HR_3.67in	OL-J40	0.026	66.49	5.212
OL-J50	2263408.601	275583.472			SCS Dimensionless UH	Huff_100YR_1Q_1HR_3.67in	OL-J50	0.079	172.17	6.959
5191	2263253.801	275452.294			SCS Dimensionless UH	Huff_100YR_1Q_1HR_3.67in	OL-5191	0.096	246.86	8.259
1885	2263240.98	275518.05			SCS Dimensionless UH	Huff_100YR_1Q_1HR_3.67in	OL-1885	0.497	207.187	12.96
J147	2263137.962	275989.31			SCS Dimensionless UH	Huff_100YR_1Q_1HR_3.67in	OL-J147	0.07	114.708	10.66
J33	2263182.494	275933.638			SCS Dimensionless UH	Huff_100YR_1Q_1HR_3.67in	OL-J33	0.241	199.37	11.413

Table 4A: ARM Subcatchments (continued...)

Name	X-Coordinate	Y-Coordinate	Description	Tag	Runoff Method	Rain Gage	Outlet	Area (ac)	Flow Length (ft)	Slope (%)
11560	2263235.138	275865.679			SCS Dimensionless UH	Huff_100YR_1Q_1HR_3.67in	11560	0.156	114.688	9.498
11213	2263108.341	275944.043			SCS Dimensionless UH	Huff_100YR_1Q_1HR_3.67in	OL-11213	0.604	270.074	5.196
13528	2263333.338	275827.628			SCS Dimensionless UH	Huff_100YR_1Q_1HR_3.67in	OL-13528	0.081	82.28	5.668
J31	2263373.012	275780.83			SCS Dimensionless UH	Huff_100YR_1Q_1HR_3.67in	J31	0.1	79.072	5.354
12497	2263279.504	275784.366			SCS Dimensionless UH	Huff_100YR_1Q_1HR_3.67in	OL-12497	0.059	90.615	10.782
12678	2263322.759	275734.231			SCS Dimensionless UH	Huff_100YR_1Q_1HR_3.67in	OL-12678	0.164	124.513	11.884
12709	2263328.745	275694.315			SCS Dimensionless UH	Huff_100YR_1Q_1HR_3.67in	OL-12709	0.427	246.728	9.817
12300	2263262.413	275717.51			SCS Dimensionless UH	Huff_100YR_1Q_1HR_3.67in	OL-12300	0.101	262.218	5.084
2374	2263035.555	275741.743			SCS Dimensionless UH	Huff_100YR_1Q_1HR_3.67in	OL-2374	0.099	389.074	7.015
J180	2263232.464	275645.817			SCS Dimensionless UH	Huff_100YR_1Q_1HR_3.67in	J180	0.433	232.81	30.548
2002	2263132.881	275757.479			SCS Dimensionless UH	Huff_100YR_1Q_1HR_3.67in	2002	0.244	203.432	40.274
J167	2263022.538	275832.987			SCS Dimensionless UH	Huff_100YR_1Q_1HR_3.67in	J167	0.414	216.453	39.496
3253	2262838.922	275999.766			SCS Dimensionless UH	Huff_100YR_1Q_1HR_3.67in	3253	0.075	121.105	49.323
J74	2262928.255	276046.465			SCS Dimensionless UH	Huff_100YR_1Q_1HR_3.67in	J74	0.243	170.471	16.992
J17	2262940.884	275949.476			SCS Dimensionless UH	Huff_100YR_1Q_1HR_3.67in	J17	0.621	449.865	31.68
J35	2262593.855	275817.759			SCS Dimensionless UH	Huff_100YR_1Q_1HR_3.67in	J35	0.385	255.573	20.085
25478	2262484.189	275955.44			SCS Dimensionless UH	Huff_100YR_1Q_1HR_3.67in	25478	1.892	552.101	22.892
7096	2262808.709	275888.578			SCS Dimensionless UH	Huff_100YR_1Q_1HR_3.67in	OL-7096	0.146	191.373	8.584
7742	2262583.127	276138.248			SCS Dimensionless UH	Huff_100YR_1Q_1HR_3.67in	OL-7742	0.214	456.391	5.886
3089	2262780.704	275963.748			SCS Dimensionless UH	Huff_100YR_1Q_1HR_3.67in	3089	0.059	103.959	29.173
J29	2262801.787	276011.301			SCS Dimensionless UH	Huff_100YR_1Q_1HR_3.67in	J29	0.033	115.016	43.66
J165	2262768.921	276037.475			SCS Dimensionless UH	Huff_100YR_1Q_1HR_3.67in	J165	0.135	153.727	49.791
J164	2262706.33	276021.768			SCS Dimensionless UH	Huff_100YR_1Q_1HR_3.67in	J164	0.272	179.815	21.846
J14	2263274.431	276434.608			SCS Dimensionless UH	Huff_100YR_1Q_1HR_3.67in	OL-J14	4.784	816.413	29.933
J1	2263100.491	276628.505			SCS Dimensionless UH	Huff_100YR_1Q_1HR_3.67in	OL-J1	0.614	722.059	3.794
7683	2262510.45	276345.926			SCS Dimensionless UH	Huff_100YR_1Q_1HR_3.67in	OL-7683	0.132	86.954	7.495

Table 4A: ARM Subcatchments (continued...)

Name	X-Coordinate	Y-Coordinate	Description	Tag	Runoff Method	Rain Gage	Outlet	Area (ac)	Flow Length (ft)	Slope (%)
J15	2262896.26	276417.308			SCS Dimensionless UH	Huff_100YR_1Q_1HR_3.67in	OL-J15	2.715	903.755	20.438
J38	2263184.151	276848.73			SCS Dimensionless UH	Huff_100YR_1Q_1HR_3.67in	J38	2.226	341.103	3.829
RD-auto1	2262916.586	275252.818			SCS Dimensionless UH	Huff_100YR_1Q_1HR_3.67in	5526	0.135	80.54	2
RD-auto2	2262984.571	275229.518			SCS Dimensionless UH	Huff_100YR_1Q_1HR_3.67in	5571	0.152	117.195	2
RD-auto3	2263052.569	275306.805			SCS Dimensionless UH	Huff_100YR_1Q_1HR_3.67in	5571	0.149	98.701	2
13349	2263348.355	275864.256			SCS Dimensionless UH	Huff_100YR_1Q_1HR_3.67in	OL-13349	0.019	71.191	7.721
RD-thick	2263365.431	275682.682			SCS Dimensionless UH	Huff_100YR_1Q_1HR_3.67in	13138	0.044	57.233	2
RD-sludge	2263543.883	275714.711			SCS Dimensionless UH	Huff_100YR_1Q_1HR_3.67in	13029	0.14	117.504	2
RD-admin	2263390.459	275848.141			SCS Dimensionless UH	Huff_100YR_1Q_1HR_3.67in	13349	0.113	75.316	2
J18	2262616.166	275916.711			SCS Dimensionless UH	Huff_100YR_1Q_1HR_3.67in	J18	0.137	145.702	36.779
2249	2263083.455	275696.383			SCS Dimensionless UH	Huff_100YR_1Q_1HR_3.67in	OL-2249	0.074	205.563	8.856
9645	2263267.034	276236.397			SCS Dimensionless UH	Huff_100YR_1Q_1HR_3.67in	9645	0.072	144.31	4.63
9409	2263378.056	276315.63			SCS Dimensionless UH	Huff_100YR_1Q_1HR_3.67in	OL-9409	0.058	113.675	5.682
10	2261890.811	275633.595			SCS Dimensionless UH	Huff_100YR_1Q_1HR_3.67in	8903	5.113	718.372	3.355
32	2262061.542	275982.302			SCS Dimensionless UH	Huff_100YR_1Q_1HR_3.67in	8807	1.913	441.969	5.046
R1_6	2261926.281	276092.213			SCS Dimensionless UH	Huff_100YR_1Q_1HR_3.67in	8697	0.317	172.579	1.258
81	2262026.639	276178.01			SCS Dimensionless UH	Huff_100YR_1Q_1HR_3.67in	8667-J4	0.689	256.256	1.706
33	2262027.771	276292.842			SCS Dimensionless UH	Huff_100YR_1Q_1HR_3.67in	12000-2	0.434	616.888	5.866
R5	2262296.473	276112.788			SCS Dimensionless UH	Huff_100YR_1Q_1HR_3.67in	RainGarden	3.534	1111.755	14.245

Table 4B: ARM Subcatchments

Name	Imperv. (%)	Dstore Imperv (in)	Dstore Perv (in)	Max. Infil. Rate (in/hr)	Min. Infil. Rate (in/hr)	Decay Constant (1/hr)	Drying Time (days)	Max. Volume (in)	Suction Head (in)	Conductivity (in/hr)	Initial Deficit (frac.)	TC Method	Time of Concentration (min)
J10	31.261	0.05	0.05	0	0	0	0	0	3.5	0.5	0.25	User entered value	6
J13	4.722	0.05	0.05	0	0	0	0	0	3.5	0.5	0.25	User entered value	9.261
J179	28.743	0.05	0.05	0	0	0	0	0	3.5	0.5	0.25	User entered value	9.274
J7	24.816	0.05	0.05	0	0	0	0	0	3.5	0.5	0.25	User entered value	9.648
J6	29.14	0.05	0.05	0	0	0	0	0	3.5	0.5	0.25	User entered value	10.087
31036'	25.965	0.05	0.05	0	0	0	0	0	3.5	0.5	0.25	User entered value	13.058
31036	94.691	0.05	0.05	0	0	0	0	0	3.5	0.5	0.25	User entered value	6
J5	41.747	0.05	0.05	0	0	0	0	0	3.5	0.5	0.25	User entered value	9.881
7592	6.538	0.05	0.05	0	0	0	0	0	3.5	0.5	0.25	User entered value	9.761
J9	12.067	0.05	0.05	0	0	0	0	0	3.5	0.5	0.25	User entered value	10.833
J16	13.406	0.05	0.05	0	0	0	0	0	3.5	0.5	0.25	User entered value	13.273
J72	0.22	0.05	0.05	0	0	0	0	0	3.5	0.5	0.25	User entered value	10.079
21253	6.15	0.05	0.05	0	0	0	0	0	3.5	0.5	0.25	User entered value	10.863
23025	19.835	0.05	0.05	0	0	0	0	0	3.5	0.5	0.25	User entered value	11.685
23037	99.3	0.05	0.05	0	0	0	0	0	3.5	0.5	0.25	User entered value	6
20985	96.196	0.05	0.05	0	0	0	0	0	3.5	0.5	0.25	User entered value	6
21325	92.775	0.05	0.05	0	0	0	0	0	3.5	0.5	0.25	User entered value	6
21199	95.795	0.05	0.05	0	0	0	0	0	3.5	0.5	0.25	User entered value	6
J171	15.425	0.05	0.05	0	0	0	0	0	3.5	0.5	0.25	User entered value	7.239
J175	6.871	0.05	0.05	0	0	0	0	0	3.5	0.5	0.25	User entered value	8.223
J174	27.571	0.05	0.05	0	0	0	0	0	3.5	0.5	0.25	User entered value	7.712
J169	24.955	0.05	0.05	0	0	0	0	0	3.5	0.5	0.25	User entered value	9.311
J170	16.879	0.05	0.05	0	0	0	0	0	3.5	0.5	0.25	User entered value	8.744
18726	68.715	0.05	0.05	0	0	0	0	0	3.5	0.5	0.25	User entered value	6
16770	35.014	0.05	0.05	0	0	0	0	0	3.5	0.5	0.25	User entered value	8.849
16610	27.686	0.05	0.05	0	0	0	0	0	3.5	0.5	0.25	User entered value	8.898

Table 4B: ARM Subcatchments (continued...)

Name	Imperv. (%)	Dstore Imperv (in)	Dstore Perv (in)	Max. Infil. Rate (in/hr)	Min. Infil. Rate (in/hr)	Decay Constant (1/hr)	Drying Time (days)	Max. Volume (in)	Suction Head (in)	Conductivity (in/hr)	Initial Deficit (frac.)	TC Method	Time of Concentration (min)
14608	91.223	0.05	0.05	0	0	0	0	0	3.5	0.5	0.25	User entered value	6
14383	52.77	0.05	0.05	0	0	0	0	0	3.5	0.5	0.25	User entered value	6
15374	31.263	0.05	0.05	0	0	0	0	0	3.5	0.5	0.25	User entered value	8.528
15469	52.878	0.05	0.05	0	0	0	0	0	3.5	0.5	0.25	User entered value	6
16125	52.038	0.05	0.05	0	0	0	0	0	3.5	0.5	0.25	User entered value	9.894
J3	44.937	0.05	0.05	0	0	0	0	0	3.5	0.5	0.25	User entered value	8.328
J2	58.464	0.05	0.05	0	0	0	0	0	3.5	0.5	0.25	User entered value	9.498
15964	80.749	0.05	0.05	0	0	0	0	0	3.5	0.5	0.25	User entered value	6
J172	26.391	0.05	0.05	0	0	0	0	0	3.5	0.5	0.25	User entered value	9.151
J173	18.357	0.05	0.05	0	0	0	0	0	3.5	0.5	0.25	User entered value	7.745
J26	19.601	0.05	0.05	0	0	0	0	0	3.5	0.5	0.25	User entered value	9.81
19657	100	0.05	0.05	0	0	0	0	0	3.5	0.5	0.25	User entered value	6
20575	48.458	0.05	0.05	0	0	0	0	0	3.5	0.5	0.25	User entered value	6
OL-J48	35.821	0.05	0.05	0	0	0	0	0	3.5	0.5	0.25	User entered value	9.355
OL-J49	91.623	0.05	0.05	0	0	0	0	0	3.5	0.5	0.25	User entered value	6
12956	89.718	0.05	0.05	0	0	0	0	0	3.5	0.5	0.25	User entered value	6
13746	32.246	0.05	0.05	0	0	0	0	0	3.5	0.5	0.25	User entered value	7.069
J39	42.007	0.05	0.05	0	0	0	0	0	3.5	0.5	0.25	User entered value	8.788
5526	99.354	0.05	0.05	0	0	0	0	0	3.5	0.5	0.25	User entered value	6
5571	99.987	0.05	0.05	0	0	0	0	0	3.5	0.5	0.25	User entered value	6
5604	88.793	0.05	0.05	0	0	0	0	0	3.5	0.5	0.25	User entered value	6
J183	48.168	0.05	0.05	0	0	0	0	0	3.5	0.5	0.25	User entered value	8.805
OL-J38	76.417	0.05	0.05	0	0	0	0	0	3.5	0.5	0.25	User entered value	6
5230	44.04	0.05	0.05	0	0	0	0	0	3.5	0.5	0.25	User entered value	8.889
5246	29.827	0.05	0.05	0	0	0	0	0	3.5	0.5	0.25	User entered value	8.209
21705	81.721	0.05	0.05	0	0	0	0	0	3.5	0.5	0.25	User entered value	6

Table 4B: ARM Subcatchments (continued...)

Name	Imperv. (%)	Dstore Imperv (in)	Dstore Perv (in)	Max. Infil. Rate (in/hr)	Min. Infil. Rate (in/hr)	Decay Constant (1/hr)	Drying Time (days)	Max. Volume (in)	Suction Head (in)	Conductivity (in/hr)	Initial Deficit (frac.)	TC Method	Time of Concentration (min)
5218	76.136	0.05	0.05	0	0	0	0	0	3.5	0.5	0.25	User entered value	6
21626	4.432	0.05	0.05	0	0	0	0	0	3.5	0.5	0.25	User entered value	8.446
5172	32.951	0.05	0.05	0	0	0	0	0	3.5	0.5	0.25	User entered value	8.967
6505	32.751	0.05	0.05	0	0	0	0	0	3.5	0.5	0.25	User entered value	10.022
OL-J41	33.625	0.05	0.05	0	0	0	0	0	3.5	0.5	0.25	User entered value	16.045
6088	42.711	0.05	0.05	0	0	0	0	0	3.5	0.5	0.25	User entered value	9.269
J4	27.614	0.05	0.05	0	0	0	0	0	3.5	0.5	0.25	User entered value	10.406
1896	56.591	0.05	0.05	0	0	0	0	0	3.5	0.5	0.25	User entered value	6
1038	3.113	0.05	0.05	0	0	0	0	0	3.5	0.5	0.25	User entered value	7.542
2358	83.198	0.05	0.05	0	0	0	0	0	3.5	0.5	0.25	User entered value	6
J45	30.375	0.05	0.05	0	0	0	0	0	3.5	0.5	0.25	User entered value	6.648
3824	50.971	0.05	0.05	0	0	0	0	0	3.5	0.5	0.25	User entered value	7.067
3596	34.241	0.05	0.05	0	0	0	0	0	3.5	0.5	0.25	User entered value	9.142
3449	100	0.05	0.05	0	0	0	0	0	3.5	0.5	0.25	User entered value	6
3372	100	0.05	0.05	0	0	0	0	0	3.5	0.5	0.25	User entered value	6
3615	16.151	0.05	0.05	0	0	0	0	0	3.5	0.5	0.25	User entered value	7.838
3424	65.743	0.05	0.05	0	0	0	0	0	3.5	0.5	0.25	User entered value	6
3381	60.7	0.05	0.05	0	0	0	0	0	3.5	0.5	0.25	User entered value	6
15234	14.128	0.05	0.05	0	0	0	0	0	3.5	0.5	0.25	User entered value	8.894
15075	20.527	0.05	0.05	0	0	0	0	0	3.5	0.5	0.25	User entered value	7.456
15025	0	0.05	0.05	0	0	0	0	0	3.5	0.5	0.25	User entered value	8.319
17671	0	0.05	0.05	0	0	0	0	0	3.5	0.5	0.25	User entered value	9.253
18356	0	0.05	0.05	0	0	0	0	0	3.5	0.5	0.25	User entered value	9.885
18312	20.666	0.05	0.05	0	0	0	0	0	3.5	0.5	0.25	User entered value	9.992
9264	81.17	0.05	0.05	0	0	0	0	0	3.5	0.5	0.25	User entered value	6
9253	43.048	0.05	0.05	0	0	0	0	0	3.5	0.5	0.25	User entered value	10.167

Table 4B: ARM Subcatchments (continued...)

Name	Imperv. (%)	Dstore Imperv (in)	Dstore Perv (in)	Max. Infil. Rate (in/hr)	Min. Infil. Rate (in/hr)	Decay Constant (1/hr)	Drying Time (days)	Max. Volume (in)	Suction Head (in)	Conductivity (in/hr)	Initial Deficit (frac.)	TC Method	Time of Concentration (min)
9627	48.646	0.05	0.05	0	0	0	0	0	3.5	0.5	0.25	User entered value	8.976
10028	21.581	0.05	0.05	0	0	0	0	0	3.5	0.5	0.25	User entered value	9.47
11842	100	0.05	0.05	0	0	0	0	0	3.5	0.5	0.25	User entered value	6
11966	41.45	0.05	0.05	0	0	0	0	0	3.5	0.5	0.25	User entered value	6
RD-incen	100	0.05	0.05	0	0	0	0	0	3.5	0.5	0.25	User entered value	6
13029	29.258	0.05	0.05	0	0	0	0	0	3.5	0.5	0.25	User entered value	6
13138	97.665	0.05	0.05	0	0	0	0	0	3.5	0.5	0.25	User entered value	6
OL-J40	80.428	0.05	0.05	0	0	0	0	0	3.5	0.5	0.25	User entered value	6
OL-J50	95.097	0.05	0.05	0	0	0	0	0	3.5	0.5	0.25	User entered value	6
5191	97.662	0.05	0.05	0	0	0	0	0	3.5	0.5	0.25	User entered value	6
1885	14.161	0.05	0.05	0	0	0	0	0	3.5	0.5	0.25	User entered value	9.424
J147	100	0.05	0.05	0	0	0	0	0	3.5	0.5	0.25	User entered value	6
J33	100	0.05	0.05	0	0	0	0	0	3.5	0.5	0.25	User entered value	6
11560	79.438	0.05	0.05	0	0	0	0	0	3.5	0.5	0.25	User entered value	6
11213	94.738	0.05	0.05	0	0	0	0	0	3.5	0.5	0.25	User entered value	6
13528	96.624	0.05	0.05	0	0	0	0	0	3.5	0.5	0.25	User entered value	6
J31	100	0.05	0.05	0	0	0	0	0	3.5	0.5	0.25	User entered value	6
12497	68.307	0.05	0.05	0	0	0	0	0	3.5	0.5	0.25	User entered value	6
12678	64.88	0.05	0.05	0	0	0	0	0	3.5	0.5	0.25	User entered value	6
12709	60.092	0.05	0.05	0	0	0	0	0	3.5	0.5	0.25	User entered value	8.917
12300	92.815	0.05	0.05	0	0	0	0	0	3.5	0.5	0.25	User entered value	6
2374	95.953	0.05	0.05	0	0	0	0	0	3.5	0.5	0.25	User entered value	6
J180	6.569	0.05	0.05	0	0	0	0	0	3.5	0.5	0.25	User entered value	7.154
2002	57.832	0.05	0.05	0	0	0	0	0	3.5	0.5	0.25	User entered value	6
J167	30.307	0.05	0.05	0	0	0	0	0	3.5	0.5	0.25	User entered value	8.816
3253	0	0.05	0.05	0	0	0	0	0	3.5	0.5	0.25	User entered value	7.778

Table 4B: ARM Subcatchments (continued...)

Name	Imperv. (%)	Dstore Imperv (in)	Dstore Perv (in)	Max. Infil. Rate (in/hr)	Min. Infil. Rate (in/hr)	Decay Constant (1/hr)	Drying Time (days)	Max. Volume (in)	Suction Head (in)	Conductivity (in/hr)	Initial Deficit (frac.)	TC Method	Time of Concentration (min)
J74	1.189	0.05	0.05	0	0	0	0	0	3.5	0.5	0.25	User entered value	8.826
J17	25.102	0.05	0.05	0	0	0	0	0	3.5	0.5	0.25	User entered value	6
J35	20.072	0.05	0.05	0	0	0	0	0	3.5	0.5	0.25	User entered value	8.565
25478	18.168	0.05	0.05	0	0	0	0	0	3.5	0.5	0.25	User entered value	10.813
7096	83.732	0.05	0.05	0	0	0	0	0	3.5	0.5	0.25	User entered value	6
7742	78.38	0.05	0.05	0	0	0	0	0	3.5	0.5	0.25	User entered value	6
3089	20.12	0.05	0.05	0	0	0	0	0	3.5	0.5	0.25	User entered value	8.804
J29	0.518	0.05	0.05	0	0	0	0	0	3.5	0.5	0.25	User entered value	8.149
J165	15.048	0.05	0.05	0	0	0	0	0	3.5	0.5	0.25	User entered value	7.813
J164	46.672	0.05	0.05	0	0	0	0	0	3.5	0.5	0.25	User entered value	6
J14	31.924	0.05	0.05	0	0	0	0	0	3.5	0.5	0.25	User entered value	7.285
J1	89.731	0.05	0.05	0	0	0	0	0	3.5	0.5	0.25	User entered value	6
7683	67.196	0.05	0.05	0	0	0	0	0	3.5	0.5	0.25	User entered value	6
J15	40.272	0.05	0.05	0	0	0	0	0	3.5	0.5	0.25	User entered value	8.577
J38	92.02	0.05	0.05	0	0	0	0	0	3.5	0.5	0.25	User entered value	6
RD-auto1	100	0.05	0.05	0	0	0	0	0	3.5	0.5	0.25	User entered value	6
RD-auto2	100	0.05	0.05	0	0	0	0	0	3.5	0.5	0.25	User entered value	6
RD-auto3	100	0.05	0.05	0	0	0	0	0	3.5	0.5	0.25	User entered value	6
13349	100	0.05	0.05	0	0	0	0	0	3.5	0.5	0.25	User entered value	6
RD-thick	100	0.05	0.05	0	0	0	0	0	3.5	0.5	0.25	User entered value	6
RD-sludge	100	0.05	0.05	0	0	0	0	0	3.5	0.5	0.25	User entered value	6
RD-admin	100	0.05	0.05	0	0	0	0	0	3.5	0.5	0.25	User entered value	6
J18	1.196	0.05	0.05	0	0	0	0	0	3.5	0.5	0.25	User entered value	6.398
2249	94.252	0	0	0	0	0	0	0	0	0	0	User entered value	6
9645	99.908	0.05	0.05	0	0	0	0	0	3.5	0.5	0.25	User entered value	6
9409	100	0.05	0.05	0	0	0	0	0	3.5	0.5	0.25	User entered value	6

Table 4B: ARM Subcatchments (continued...)

Name	Imperv. (%)	Dstore Imperv (in)	Dstore Perv (in)	Max. Infil. Rate (in/hr)	Min. Infil. Rate (in/hr)	Decay Constant (1/hr)	Drying Time (days)	Max. Volume (in)	Suction Head (in)	Conductivity (in/hr)	Initial Deficit (frac.)	TC Method	Time of Concentration (min)
10	0	0.05	0.05	0	0	0	0	0	3.5	0.5	0.25	SCS	11.467
32	0	0.05	0.05	0	0	0	0	0	3.5	0.5	0.25	SCS	7.503
R1_6	0	0.05	0.05	0	0	0	0	0	3.5	0.5	0.25	SCS	6.653
81	0	0.05	0.05	0	0	0	0	0	3.5	0.5	0.25	SCS	8.345
33	4.347	0.05	0.05	0	0	0	0	0	3.5	0.5	0.25	SCS	9.136
R5	0	0.05	0.05	0	0	0	0	0	3.5	0.5	0.25	User entered value	13.393

Table 4C: ARM Subcatchments

Name	Loss Method	IA Method	IA Value (in)	SCS Curve Number	Peak Rate Factor	Initial Loss (in)	Const. Rate (in/hr)	Runoff Coef.	Lag Time (min)	Peak Coef.	# Reservoirs	Storage Coef. (h)	IDF Curve	Return Period (y)	Steady Duration (mins)
J10	SCS CN	0.2 S	0.527	79.16	Standard (483.4)	0	0	0.6	30	0.6	3	0.4		5	60
J13	SCS CN	0.2 S	0.556	78.24	Standard (483.4)	0	0	0.6	30	0.6	3	0.4		5	60
J179	SCS CN	0.2 S	0.407	83.08	Standard (483.4)	0	0	0.6	30	0.6	3	0.4		5	60
J7	SCS CN	0.2 S	0.424	82.51	Standard (483.4)	0	0	0.6	30	0.6	3	0.4		5	60
J6	SCS CN	0.2 S	0.408	83.06	Standard (483.4)	0	0	0.6	30	0.6	3	0.4		5	60
31036'	SCS CN	0.2 S	0.473	80.86	Standard (483.4)	0	0	0.6	30	0.6	3	0.4		5	60
31036	SCS CN	0.2 S	0.064	96.89	Standard (483.4)	0	0	0.6	30	0.6	3	0.4		5	60
J5	SCS CN	0.2 S	0.325	86.02	Standard (483.4)	0	0	0.6	30	0.6	3	0.4		5	60
7592	SCS CN	0.2 S	0.536	78.87	Standard (483.4)	0	0	0.6	30	0.6	3	0.4		5	60
J9	SCS CN	0.2 S	0.507	79.79	Standard (483.4)	0	0	0.6	30	0.6	3	0.4		5	60
J16	SCS CN	0.2 S	0.498	80.06	Standard (483.4)	0	0	0.6	30	0.6	3	0.4		5	60
J72	SCS CN	0.2 S	0.594	77.11	Standard (483.4)	0	0	0.6	30	0.6	3	0.4		5	60
21253	SCS CN	0.2 S	0.536	78.85	Standard (483.4)	0	0	0.6	30	0.6	3	0.4		5	60
23025	SCS CN	0.2 S	0.6	76.91	Standard (483.4)	0	0	0.6	30	0.6	3	0.4		5	60

Table 4C: ARM Subcatchments (continued...)

Name	Loss Method	IA Method	IA Value (in)	SCS Curve Number	Peak Rate Factor	Initial Loss (in)	Const. Rate (in/hr)	Runoff Coef.	Lag Time (min)	Peak Coef.	# Reservoirs	Storage Coef. (h)	IDF Curve	Return Period (y)	Steady Duration (mins)
23037	SCS CN	0.2 S	0.044	97.86	Standard (483.4)	0	0	0.6	30	0.6	3	0.4		5	60
20985	SCS CN	0.2 S	0.06	97.1	Standard (483.4)	0	0	0.6	30	0.6	3	0.4		5	60
21325	SCS CN	0.2 S	0.072	96.53	Standard (483.4)	0	0	0.6	30	0.6	3	0.4		5	60
21199	SCS CN	0.2 S	0.058	97.16	Standard (483.4)	0	0	0.6	30	0.6	3	0.4		5	60
J171	SCS CN	0.2 S	0.486	80.46	Standard (483.4)	0	0	0.6	30	0.6	3	0.4		5	60
J175	SCS CN	0.2 S	0.525	79.22	Standard (483.4)	0	0	0.6	30	0.6	3	0.4		5	60
J174	SCS CN	0.2 S	0.408	83.06	Standard (483.4)	0	0	0.6	30	0.6	3	0.4		5	60
J169	SCS CN	0.2 S	0.416	82.79	Standard (483.4)	0	0	0.6	30	0.6	3	0.4		5	60
J170	SCS CN	0.2 S	0.465	81.13	Standard (483.4)	0	0	0.6	30	0.6	3	0.4		5	60
18726	SCS CN	0.2 S	0.184	91.57	Standard (483.4)	0	0	0.6	30	0.6	3	0.4		5	60
16770	SCS CN	0.2 S	0.357	84.86	Standard (483.4)	0	0	0.6	30	0.6	3	0.4		5	60
16610	SCS CN	0.2 S	0.402	83.27	Standard (483.4)	0	0	0.6	30	0.6	3	0.4		5	60
14608	SCS CN	0.2 S	0.079	96.18	Standard (483.4)	0	0	0.6	30	0.6	3	0.4		5	60
14383	SCS CN	0.2 S	0.259	88.53	Standard (483.4)	0	0	0.6	30	0.6	3	0.4		5	60
15374	SCS CN	0.2 S	0.382	83.97	Standard (483.4)	0	0	0.6	30	0.6	3	0.4		5	60
15469	SCS CN	0.2 S	0.258	88.58	Standard (483.4)	0	0	0.6	30	0.6	3	0.4		5	60
16125	SCS CN	0.2 S	0.262	88.41	Standard (483.4)	0	0	0.6	30	0.6	3	0.4		5	60
J3	SCS CN	0.2 S	0.312	86.52	Standard (483.4)	0	0	0.6	30	0.6	3	0.4		5	60
J2	SCS CN	0.2 S	0.233	89.55	Standard (483.4)	0	0	0.6	30	0.6	3	0.4		5	60
15964	SCS CN	0.2 S	0.124	94.14	Standard (483.4)	0	0	0.6	30	0.6	3	0.4		5	60
J172	SCS CN	0.2 S	0.412	82.92	Standard (483.4)	0	0	0.6	30	0.6	3	0.4		5	60
J173	SCS CN	0.2 S	0.449	81.67	Standard (483.4)	0	0	0.6	30	0.6	3	0.4		5	60
J26	SCS CN	0.2 S	0.451	81.6	Standard (483.4)	0	0	0.6	30	0.6	3	0.4		5	60
19657	SCS CN	0.2 S	0.041	98	Standard (483.4)	0	0	0.6	30	0.6	3	0.4		5	60
20575	SCS CN	0.2 S	0.287	87.45	Standard (483.4)	0	0	0.6	30	0.6	3	0.4		5	60
OL-J48	SCS CN	0.2 S	0.349	85.16	Standard (483.4)	0	0	0.6	30	0.6	3	0.4		5	60

Table 4C: ARM Subcatchments (continued...)

Name	Loss Method	IA Method	IA Value (in)	SCS Curve Number	Peak Rate Factor	Initial Loss (in)	Const. Rate (in/hr)	Runoff Coef.	Lag Time (min)	Peak Coef.	# Reservoirs	Storage Coef. (h)	IDF Curve	Return Period (y)	Steady Duration (mins)
OL-J49	SCS CN	0.2 S	0.078	96.26	Standard (483.4)	0	0	0.6	30	0.6	3	0.4		5	60
12956	SCS CN	0.2 S	0.087	95.85	Standard (483.4)	0	0	0.6	30	0.6	3	0.4		5	60
13746	SCS CN	0.2 S	0.376	84.19	Standard (483.4)	0	0	0.6	30	0.6	3	0.4		5	60
J39	SCS CN	0.2 S	0.326	85.99	Standard (483.4)	0	0	0.6	30	0.6	3	0.4		5	60
5526	SCS CN	0.2 S	0.044	97.87	Standard (483.4)	0	0	0.6	30	0.6	3	0.4		5	60
5571	SCS CN	0.2 S	0.041	98	Standard (483.4)	0	0	0.6	30	0.6	3	0.4		5	60
5604	SCS CN	0.2 S	0.089	95.72	Standard (483.4)	0	0	0.6	30	0.6	3	0.4		5	60
J183	SCS CN	0.2 S	0.285	87.53	Standard (483.4)	0	0	0.6	30	0.6	3	0.4		5	60
OL-J38	SCS CN	0.2 S	0.144	93.28	Standard (483.4)	0	0	0.6	30	0.6	3	0.4		5	60
5230	SCS CN	0.2 S	0.307	86.7	Standard (483.4)	0	0	0.6	30	0.6	3	0.4		5	60
5246	SCS CN	0.2 S	0.385	83.86	Standard (483.4)	0	0	0.6	30	0.6	3	0.4		5	60
21705	SCS CN	0.2 S	0.123	94.22	Standard (483.4)	0	0	0.6	30	0.6	3	0.4		5	60
5218	SCS CN	0.2 S	0.145	93.23	Standard (483.4)	0	0	0.6	30	0.6	3	0.4		5	60
21626	SCS CN	0.2 S	0.54	78.74	Standard (483.4)	0	0	0.6	30	0.6	3	0.4		5	60
5172	SCS CN	0.2 S	0.37	84.4	Standard (483.4)	0	0	0.6	30	0.6	3	0.4		5	60
6505	SCS CN	0.2 S	0.379	84.08	Standard (483.4)	0	0	0.6	30	0.6	3	0.4		5	60
OL-J41	SCS CN	0.2 S	0.373	84.28	Standard (483.4)	0	0	0.6	30	0.6	3	0.4		5	60
6088	SCS CN	0.2 S	0.317	86.31	Standard (483.4)	0	0	0.6	30	0.6	3	0.4		5	60
J4	SCS CN	0.2 S	0.414	82.85	Standard (483.4)	0	0	0.6	30	0.6	3	0.4		5	60
1896	SCS CN	0.2 S	0.242	89.22	Standard (483.4)	0	0	0.6	30	0.6	3	0.4		5	60
1038	SCS CN	0.2 S	0.557	78.22	Standard (483.4)	0	0	0.6	30	0.6	3	0.4		5	60
2358	SCS CN	0.2 S	0.113	94.64	Standard (483.4)	0	0	0.6	30	0.6	3	0.4		5	60
J45	SCS CN	0.2 S	0.379	84.08	Standard (483.4)	0	0	0.6	30	0.6	3	0.4		5	60
3824	SCS CN	0.2 S	0.269	88.16	Standard (483.4)	0	0	0.6	30	0.6	3	0.4		5	60
3596	SCS CN	0.2 S	0.361	84.7	Standard (483.4)	0	0	0.6	30	0.6	3	0.4		5	60
3449	SCS CN	0.2 S	0.041	98	Standard (483.4)	0	0	0.6	30	0.6	3	0.4		5	60

Table 4C: ARM Subcatchments (continued...)

Name	Loss Method	IA Method	IA Value (in)	SCS Curve Number	Peak Rate Factor	Initial Loss (in)	Const. Rate (in/hr)	Runoff Coef.	Lag Time (min)	Peak Coef.	# Reservoirs	Storage Coef. (h)	IDF Curve	Return Period (y)	Steady Duration (mins)
3372	SCS CN	0.2 S	0.041	98	Standard (483.4)	0	0	0.6	30	0.6	3	0.4		5	60
3615	SCS CN	0.2 S	0.476	80.79	Standard (483.4)	0	0	0.6	30	0.6	3	0.4		5	60
3424	SCS CN	0.2 S	0.201	90.87	Standard (483.4)	0	0	0.6	30	0.6	3	0.4		5	60
3381	SCS CN	0.2 S	0.219	90.14	Standard (483.4)	0	0	0.6	30	0.6	3	0.4		5	60
15234	SCS CN	0.2 S	0.474	80.83	Standard (483.4)	0	0	0.6	30	0.6	3	0.4		5	60
15075	SCS CN	0.2 S	0.436	82.11	Standard (483.4)	0	0	0.6	30	0.6	3	0.4		5	60
15025	SCS CN	0.2 S	0.564	78	Standard (483.4)	0	0	0.6	30	0.6	3	0.4		5	60
17671	SCS CN	0.2 S	0.564	78	Standard (483.4)	0	0	0.6	30	0.6	3	0.4		5	60
18356	SCS CN	0.2 S	0.564	78	Standard (483.4)	0	0	0.6	30	0.6	3	0.4		5	60
18312	SCS CN	0.2 S	0.435	82.13	Standard (483.4)	0	0	0.6	30	0.6	3	0.4		5	60
9264	SCS CN	0.2 S	0.125	94.12	Standard (483.4)	0	0	0.6	30	0.6	3	0.4		5	60
9253	SCS CN	0.2 S	0.309	86.61	Standard (483.4)	0	0	0.6	30	0.6	3	0.4		5	60
9627	SCS CN	0.2 S	0.28	87.73	Standard (483.4)	0	0	0.6	30	0.6	3	0.4		5	60
10028	SCS CN	0.2 S	0.43	82.32	Standard (483.4)	0	0	0.6	30	0.6	3	0.4		5	60
11842	SCS CN	0.2 S	0.041	98	Standard (483.4)	0	0	0.6	30	0.6	3	0.4		5	60
11966	SCS CN	0.2 S	0.318	86.29	Standard (483.4)	0	0	0.6	30	0.6	3	0.4		5	60
RD-incen	SCS CN	0.2 S	0.041	98	Standard (483.4)	0	0	0.6	30	0.6	3	0.4		5	60
13029	SCS CN	0.2 S	0.405	83.15	Standard (483.4)	0	0	0.6	30	0.6	3	0.4		5	60
13138	SCS CN	0.2 S	0.051	97.51	Standard (483.4)	0	0	0.6	30	0.6	3	0.4		5	60
OL-J40	SCS CN	0.2 S	0.13	93.89	Standard (483.4)	0	0	0.6	30	0.6	3	0.4		5	60
OL-J50	SCS CN	0.2 S	0.062	97	Standard (483.4)	0	0	0.6	30	0.6	3	0.4		5	60
5191	SCS CN	0.2 S	0.051	97.53	Standard (483.4)	0	0	0.6	30	0.6	3	0.4		5	60
1885	SCS CN	0.2 S	0.486	80.46	Standard (483.4)	0	0	0.6	30	0.6	3	0.4		5	60
J147	SCS CN	0.2 S	0.041	98	Standard (483.4)	0	0	0.6	30	0.6	3	0.4		5	60
J33	SCS CN	0.2 S	0.041	98	Standard (483.4)	0	0	0.6	30	0.6	3	0.4		5	60
11560	SCS CN	0.2 S	0.13	93.89	Standard (483.4)	0	0	0.6	30	0.6	3	0.4		5	60

Table 4C: ARM Subcatchments (continued...)

Name	Loss Method	IA Method	IA Value (in)	SCS Curve Number	Peak Rate Factor	Initial Loss (in)	Const. Rate (in/hr)	Runoff Coef.	Lag Time (min)	Peak Coef.	# Reservoirs	Storage Coef. (h)	IDF Curve	Return Period (y)	Steady Duration (mins)
11213	SCS CN	0.2 S	0.063	96.95	Standard (483.4)	0	0	0.6	30	0.6	3	0.4		5	60
13528	SCS CN	0.2 S	0.055	97.32	Standard (483.4)	0	0	0.6	30	0.6	3	0.4		5	60
J31	SCS CN	0.2 S	0.041	98	Standard (483.4)	0	0	0.6	30	0.6	3	0.4		5	60
12497	SCS CN	0.2 S	0.184	91.57	Standard (483.4)	0	0	0.6	30	0.6	3	0.4		5	60
12678	SCS CN	0.2 S	0.201	90.87	Standard (483.4)	0	0	0.6	30	0.6	3	0.4		5	60
12709	SCS CN	0.2 S	0.224	89.92	Standard (483.4)	0	0	0.6	30	0.6	3	0.4		5	60
12300	SCS CN	0.2 S	0.072	96.52	Standard (483.4)	0	0	0.6	30	0.6	3	0.4		5	60
2374	SCS CN	0.2 S	0.059	97.15	Standard (483.4)	0	0	0.6	30	0.6	3	0.4		5	60
J180	SCS CN	0.2 S	0.541	78.7	Standard (483.4)	0	0	0.6	30	0.6	3	0.4		5	60
2002	SCS CN	0.2 S	0.244	89.14	Standard (483.4)	0	0	0.6	30	0.6	3	0.4		5	60
J167	SCS CN	0.2 S	0.398	83.39	Standard (483.4)	0	0	0.6	30	0.6	3	0.4		5	60
3253	SCS CN	0.2 S	0.595	77.06	Standard (483.4)	0	0	0.6	30	0.6	3	0.4		5	60
J74	SCS CN	0.2 S	0.568	77.88	Standard (483.4)	0	0	0.6	30	0.6	3	0.4		5	60
J17	SCS CN	0.2 S	0.425	82.47	Standard (483.4)	0	0	0.6	30	0.6	3	0.4		5	60
J35	SCS CN	0.2 S	0.445	81.79	Standard (483.4)	0	0	0.6	30	0.6	3	0.4		5	60
25478	SCS CN	0.2 S	0.471	80.95	Standard (483.4)	0	0	0.6	30	0.6	3	0.4		5	60
7096	SCS CN	0.2 S	0.111	94.75	Standard (483.4)	0	0	0.6	30	0.6	3	0.4		5	60
7742	SCS CN	0.2 S	0.135	93.68	Standard (483.4)	0	0	0.6	30	0.6	3	0.4		5	60
3089	SCS CN	0.2 S	0.454	81.51	Standard (483.4)	0	0	0.6	30	0.6	3	0.4		5	60
J29	SCS CN	0.2 S	0.594	77.11	Standard (483.4)	0	0	0.6	30	0.6	3	0.4		5	60
J165	SCS CN	0.2 S	0.495	80.16	Standard (483.4)	0	0	0.6	30	0.6	3	0.4		5	60
J164	SCS CN	0.2 S	0.295	87.13	Standard (483.4)	0	0	0.6	30	0.6	3	0.4		5	60
J14	SCS CN	0.2 S	0.384	83.91	Standard (483.4)	0	0	0.6	30	0.6	3	0.4		5	60
J1	SCS CN	0.2 S	0.085	95.91	Standard (483.4)	0	0	0.6	30	0.6	3	0.4		5	60
7683	SCS CN	0.2 S	0.193	91.18	Standard (483.4)	0	0	0.6	30	0.6	3	0.4		5	60
J15	SCS CN	0.2 S	0.336	85.62	Standard (483.4)	0	0	0.6	30	0.6	3	0.4		5	60

Table 4C: ARM Subcatchments (continued...)

Name	Loss Method	IA Method	IA Value (in)	SCS Curve Number	Peak Rate Factor	Initial Loss (in)	Const. Rate (in/hr)	Runoff Coef.	Lag Time (min)	Peak Coef.	# Reservoirs	Storage Coef. (h)	IDF Curve	Return Period (y)	Steady Duration (mins)
J38	SCS CN	0.2 S	0.076	96.36	Standard (483.4)	0	0	0.6	30	0.6	3	0.4		5	60
RD-auto1	SCS CN	0.2 S	0.041	98	Standard (483.4)	0	0	0.6	30	0.6	3	0.4		5	60
RD-auto2	SCS CN	0.2 S	0.041	98	Standard (483.4)	0	0	0.6	30	0.6	3	0.4		5	60
RD-auto3	SCS CN	0.2 S	0.041	98	Standard (483.4)	0	0	0.6	30	0.6	3	0.4		5	60
13349	SCS CN	0.2 S	0.041	98	Standard (483.4)	0	0	0.6	30	0.6	3	0.4		5	60
RD-thick	SCS CN	0.2 S	0.041	98	Standard (483.4)	0	0	0.6	30	0.6	3	0.4		5	60
RD-sludge	SCS CN	0.2 S	0.041	98	Standard (483.4)	0	0	0.6	30	0.6	3	0.4		5	60
RD-admin	SCS CN	0.2 S	0.041	98	Standard (483.4)	0	0	0.6	30	0.6	3	0.4		5	60
J18	SCS CN	0.2 S	0.577	77.61	Standard (483.4)	0	0	0.6	30	0.6	3	0.4		5	60
2249	SCS CN	0.2 S	0.065	96.85	Standard (483.4)	0	0	0	0	0	0	0		0	0
9645	SCS CN	0.2 S	0.041	97.98	Standard (483.4)	0	0	0.6	30	0.6	3	0.4		5	60
9409	SCS CN	0.2 S	0.041	98	Standard (483.4)	0	0	0.6	30	0.6	3	0.4		5	60
10	SCS CN	0.2 S	0.365	84.549	Standard (483.4)	0	0	0.6	30	0.6	3	0.4		5	60
32	SCS CN	0.2 S	0.519	79.383	Standard (483.4)	0	0	0.6	30	0.6	3	0.4		5	60
R1_6	SCS CN	0.2 S	0.458	81.368	Standard (483.4)	0	0	0.6	30	0.6	3	0.4		5	60
81	SCS CN	0.2 S	0.52	79.379	Standard (483.4)	0	0	0.6	30	0.6	3	0.4		5	60
33	SCS CN	0.2 S	0.525	79.208	Standard (483.4)	0	0	0.6	30	0.6	3	0.4		5	60
R5	SCS CN	0.2 S	0.564	77.99	Standard (483.4)	0	0	0.6	30	0.6	3	0.4		5	60

Table 4D: ARM Subcatchments

Name	Peak Rainfall (in/hr)	Roughness	Version	Rainfall Zone	Soil Type	Hydrograph Fattening	Runoff Depth (in)	Total rainfall (in)	Fire Factor	User entered PRF	Precipitation (in)	Infiltration (in)	Runoff Depth (in)	Runoff Volume (MG)
J10	0	0.1	2017			No	0	0	0	0	3.646	1.343	2.324	0.231
J13	0	0.1	2017			No	0	0	0	0	3.646	1.924	1.764	0.019
J179	0	0.1	2017			No	0	0	0	0	3.646	1.181	2.526	0.176
J7	0	0.1	2017			No	0	0	0	0	3.646	1.28	2.407	0.299
J6	0	0.1	2017			No	0	0	0	0	3.646	1.176	2.494	0.267
31036'	0	0.1	2017			No	0	0	0	0	3.646	1.354	2.275	0.672
31036	0	0.1	2017			No	0	0	0	0	3.646	0.019	3.661	0.023
J5	0	0.1	2017			No	0	0	0	0	3.646	0.825	2.857	0.204
7592	0	0.1	2017			No	0	0	0	0	3.646	1.846	1.828	0.066
J9	0	0.1	2017			No	0	0	0	0	3.646	1.678	1.969	0.073
J16	0	0.1	2017			No	0	0	0	0	3.646	1.635	1.997	0.272
J72	0	0.1	2017			No	0	0	0	0	3.646	2.094	1.567	0.056
21253	0	0.1	2017			No	0	0	0	0	3.646	1.855	1.792	0.14
23025	0	0.1	2017			No	0	0	0	0	3.646	1.693	1.942	0.266
23037	0	0.1	2017			No	0	0	0	0	3.646	0.002	3.679	0.011
20985	0	0.1	2017			No	0	0	0	0	3.646	0.013	3.667	0.026
21325	0	0.1	2017			No	0	0	0	0	3.646	0.029	3.651	0.019
21199	0	0.1	2017			No	0	0	0	0	3.646	0.014	3.666	0.01
J171	0	0.1	2017			No	0	0	0	0	3.646	1.572	2.094	0.004
J175	0	0.1	2017			No	0	0	0	0	3.646	1.816	1.872	0.002
J174	0	0.1	2017			No	0	0	0	0	3.646	1.202	2.485	0.007
J169	0	0.1	2017			No	0	0	0	0	3.646	1.261	2.443	0.029
J170	0	0.1	2017			No	0	0	0	0	3.646	1.503	2.195	0.054
18726	0	0.1	2017			No	0	0	0	0	3.646	0.285	3.392	0.004
16770	0	0.1	2017			No	0	0	0	0	3.646	0.984	2.727	0.025
16610	0	0.1	2017			No	0	0	0	0	3.646	1.188	2.518	0.031

Table 4D: ARM Subcatchments (continued...)

Name	Peak Rainfall (in/hr)	Roughness	Version	Rainfall Zone	Soil Type	Hydrograph Fattening	Runoff Depth (in)	Total rainfall (in)	Fire Factor	User entered PRF	Precipitation (in)	Infiltration (in)	Runoff Depth (in)	Runoff Volume (MG)
14608	0	0.1	2017			No	0	0	0	0	3.646	0.038	3.641	0.018
14383	0	0.1	2017			No	0	0	0	0	3.646	0.565	3.111	0.008
15374	0	0.1	2017			No	0	0	0	0	3.646	1.09	2.617	0.006
15469	0	0.1	2017			No	0	0	0	0	3.646	0.562	3.113	0.002
16125	0	0.1	2017			No	0	0	0	0	3.646	0.579	3.106	0.029
J3	0	0.1	2017			No	0	0	0	0	3.646	0.756	2.96	0.266
J2	0	0.1	2017			No	0	0	0	0	3.646	0.458	3.253	0.122
15964	0	0.1	2017			No	0	0	0	0	3.646	0.126	3.553	0.052
J172	0	0.1	2017			No	0	0	0	0	3.646	1.229	2.477	0.03
J173	0	0.1	2017			No	0	0	0	0	3.646	1.443	2.241	0.013
J26	0	0.1	2017			No	0	0	0	0	3.646	1.425	2.253	0.054
19657	0	0.1	2017			No	0	0	0	0	3.646	0	3.68	0.008
20575	0	0.1	2017			No	0	0	0	0	3.646	0.666	3.007	0.016
OL-J48	0	0.1	2017			No	0	0	0	0	3.646	0.955	2.755	0.011
OL-J49	0	0.1	2017			No	0	0	0	0	3.646	0.036	3.644	0.034
12956	0	0.1	2017			No	0	0	0	0	3.646	0.049	3.631	0.008
13746	0	0.1	2017			No	0	0	0	0	3.646	1.063	2.602	0.007
J39	0	0.1	2017			No	0	0	0	0	3.646	0.823	2.892	0.015
5526	0	0.1	2017			No	0	0	0	0	3.646	0.002	3.678	0.015
5571	0	0.1	2017			No	0	0	0	0	3.646	0	3.68	0.021
5604	0	0.1	2017			No	0	0	0	0	3.646	0.055	3.625	0.006
J183	0	0.1	2017			No	0	0	0	0	3.646	0.666	3.053	0.031
OL-J38	0	0.1	2017			No	0	0	0	0	3.646	0.175	3.503	0.021
5230	0	0.1	2017			No	0	0	0	0	3.646	0.76	2.956	0.011
5246	0	0.1	2017			No	0	0	0	0	3.646	1.119	2.585	0.011
21705	0	0.1	2017			No	0	0	0	0	3.646	0.118	3.561	0.03

Table 4D: ARM Subcatchments (continued...)

Name	Peak Rainfall (in/hr)	Roughness	Version	Rainfall Zone	Soil Type	Hydrograph Fattening	Runoff Depth (in)	Total rainfall (in)	Fire Factor	User entered PRF	Precipitation (in)	Infiltration (in)	Runoff Depth (in)	Runoff Volume (MG)
5218	0	0.1	2017			No	0	0	0	0	3.646	0.178	3.499	0.017
21626	0	0.1	2017			No	0	0	0	0	3.646	1.896	1.792	0.012
5172	0	0.1	2017			No	0	0	0	0	3.646	1.04	2.67	0.036
6505	0	0.1	2017			No	0	0	0	0	3.646	1.061	2.612	0.086
OL-J41	0	0.1	2017			No	0	0	0	0	3.646	1.036	2.594	0.284
6088	0	0.1	2017			No	0	0	0	0	3.646	0.797	2.92	0.024
J4	0	0.1	2017			No	0	0	0	0	3.646	1.213	2.446	0.104
1896	0	0.1	2017			No	0	0	0	0	3.646	0.492	3.183	0.108
1038	0	0.1	2017			No	0	0	0	0	3.646	1.958	1.71	0.02
2358	0	0.1	2017			No	0	0	0	0	3.646	0.101	3.578	0.019
J45	0	0.1	2017			No	0	0	0	0	3.646	1.098	2.556	0.006
3824	0	0.1	2017			No	0	0	0	0	3.646	0.603	3.065	0.012
3596	0	0.1	2017			No	0	0	0	0	3.646	1.004	2.708	0.149
3449	0	0.1	2017			No	0	0	0	0	3.646	0	3.68	0.007
3372	0	0.1	2017			No	0	0	0	0	3.646	0	3.68	0.004
3615	0	0.1	2017			No	0	0	0	0	3.646	1.538	2.147	0.076
3424	0	0.1	2017			No	0	0	0	0	3.646	0.335	3.341	0.027
3381	0	0.1	2017			No	0	0	0	0	3.646	0.412	3.264	0.053
15234	0	0.1	2017			No	0	0	0	0	3.646	1.572	2.124	0.005
15075	0	0.1	2017			No	0	0	0	0	3.646	1.378	2.296	0.002
15025	0	0.1	2017			No	0	0	0	0	3.646	2.037	1.648	0.004
17671	0	0.1	2017			No	0	0	0	0	3.646	2.037	1.65	0.008
18356	0	0.1	2017			No	0	0	0	0	3.646	2.037	1.63	0.009
18312	0	0.1	2017			No	0	0	0	0	3.646	1.374	2.296	0.023
9264	0	0.1	2017			No	0	0	0	0	3.646	0.123	3.556	0.012
9253	0	0.1	2017			No	0	0	0	0	3.646	0.778	2.893	0.094

Table 4D: ARM Subcatchments (continued...)

Name	Peak Rainfall (in/hr)	Roughness	Version	Rainfall Zone	Soil Type	Hydrograph Fattening	Runoff Depth (in)	Total rainfall (in)	Fire Factor	User entered PRF	Precipitation (in)	Infiltration (in)	Runoff Depth (in)	Runoff Volume (MG)
9627	0	0.1	2017			No	0	0	0	0	3.646	0.651	3.068	0.023
10028	0	0.1	2017			No	0	0	0	0	3.646	1.347	2.349	0.01
11842	0	0.1	2017			No	0	0	0	0	3.646	0	3.68	0.003
11966	0	0.1	2017			No	0	0	0	0	3.646	0.816	2.857	0.063
RD-incen	0	0.1	2017			No	0	0	0	0	3.646	0	3.679	0.018
13029	0	0.1	2017			No	0	0	0	0	3.646	1.169	2.5	0.004
13138	0	0.1	2017			No	0	0	0	0	3.646	0.007	3.673	0.013
OL-J40	0	0.1	2017			No	0	0	0	0	3.646	0.133	3.546	0.003
OL-J50	0	0.1	2017			No	0	0	0	0	3.646	0.017	3.661	0.008
5191	0	0.1	2017			No	0	0	0	0	3.646	0.007	3.673	0.01
1885	0	0.1	2017			No	0	0	0	0	3.646	1.596	2.096	0.028
J147	0	0.1	2017			No	0	0	0	0	3.646	0	3.68	0.007
J33	0	0.1	2017			No	0	0	0	0	3.646	0	3.679	0.024
11560	0	0.1	2017			No	0	0	0	0	3.646	0.14	3.539	0.015
11213	0	0.1	2017			No	0	0	0	0	3.646	0.019	3.661	0.06
13528	0	0.1	2017			No	0	0	0	0	3.646	0.01	3.67	0.008
J31	0	0.1	2017			No	0	0	0	0	3.646	0	3.68	0.01
12497	0	0.1	2017			No	0	0	0	0	3.646	0.289	3.388	0.005
12678	0	0.1	2017			No	0	0	0	0	3.646	0.344	3.333	0.015
12709	0	0.1	2017			No	0	0	0	0	3.646	0.426	3.299	0.038
12300	0	0.1	2017			No	0	0	0	0	3.646	0.029	3.652	0.01
2374	0	0.1	2017			No	0	0	0	0	3.646	0.013	3.667	0.01
J180	0	0.1	2017			No	0	0	0	0	3.646	1.857	1.804	0.021
2002	0	0.1	2017			No	0	0	0	0	3.646	0.481	3.194	0.021
J167	0	0.1	2017			No	0	0	0	0	3.646	1.138	2.569	0.029
3253	0	0.1	2017			No	0	0	0	0	3.646	2.102	1.571	0.003

Table 4D: ARM Subcatchments (continued...)

Name	Peak Rainfall (in/hr)	Roughness	Version	Rainfall Zone	Soil Type	Hydrograph Fattening	Runoff Depth (in)	Total rainfall (in)	Fire Factor	User entered PRF	Precipitation (in)	Infiltration (in)	Runoff Depth (in)	Runoff Volume (MG)
J74	0	0.1	2017			No	0	0	0	0	3.646	2.021	1.664	0.011
J17	0	0.1	2017			No	0	0	0	0	3.646	1.277	2.391	0.04
J35	0	0.1	2017			No	0	0	0	0	3.646	1.405	2.295	0.024
25478	0	0.1	2017			No	0	0	0	0	3.646	1.491	2.156	0.111
7096	0	0.1	2017			No	0	0	0	0	3.646	0.096	3.583	0.014
7742	0	0.1	2017			No	0	0	0	0	3.646	0.152	3.527	0.02
3089	0	0.1	2017			No	0	0	0	0	3.646	1.422	2.278	0.004
J29	0	0.1	2017			No	0	0	0	0	3.646	2.088	1.593	0.001
J165	0	0.1	2017			No	0	0	0	0	3.646	1.598	2.085	0.008
J164	0	0.1	2017			No	0	0	0	0	3.646	0.704	2.969	0.022
J14	0	0.1	2017			No	0	0	0	0	3.646	1.083	2.589	0.336
J1	0	0.1	2017			No	0	0	0	0	3.646	0.048	3.631	0.061
7683	0	0.1	2017			No	0	0	0	0	3.646	0.311	3.366	0.012
J15	0	0.1	2017			No	0	0	0	0	3.646	0.866	2.847	0.21
J38	0	0.1	2017			No	0	0	0	0	3.646	0.033	3.646	0.22
RD-auto1	0	0.1	2017			No	0	0	0	0	3.646	0	3.679	0.013
RD-auto2	0	0.1	2017			No	0	0	0	0	3.646	0	3.679	0.015
RD-auto3	0	0.1	2017			No	0	0	0	0	3.646	0	3.679	0.015
13349	0	0.1	2017			No	0	0	0	0	3.646	0	3.68	0.002
RD-thick	0	0.1	2017			No	0	0	0	0	3.646	0	3.68	0.004
RD-sludge	0	0.1	2017			No	0	0	0	0	3.646	0	3.68	0.014
RD-admin	0	0.1	2017			No	0	0	0	0	3.646	0	3.679	0.011
J18	0	0.1	2017			No	0	0	0	0	3.646	2.039	1.616	0.006
2249	0	0					0	0	0	0	3.646	0.021	3.659	0.007
9645	0	0.1	2017			No	0	0	0	0	3.646	0	3.679	0.007
9409	0	0.1	2017			No	0	0	0	0	3.646	0	3.68	0.006

Table 4D: ARM Subcatchments (continued...)

Name	Peak Rainfall (in/hr)	Roughness	Version	Rainfall Zone	Soil Type	Hydrograph Fattening	Runoff Depth (in)	Total rainfall (in)	Fire Factor	User entered PRF	Precipitation (in)	Infiltration (in)	Runoff Depth (in)	Runoff Volume (MG)
10	0	0.1	2017			No	0	0	0	0	3.646	1.539	2.099	0.291
32	0	0.1	2017			No	0	0	0	0	3.646	1.938	1.729	0.09
R1_6	0	0.1	2017			No	0	0	0	0	3.646	1.791	1.861	0.016
81	0	0.1	2017			No	0	0	0	0	3.646	1.938	1.749	0.033
33	0	0.1	2017			No	0	0	0	0	3.646	1.866	1.824	0.021
R5	0	0.1	2017			No	0	0	0	0	3.646	2.037	1.596	0.153

Table 4E: ARM Subcatchments

Name	Peak Runoff (cfs)	Runoff Coefficient	GIS_LENGTH (m)	GIS_AREA (m²)	GIS_PARTS
J10	15.719	0.637	682.979	14843.168	1
J13	1.179	0.484	165.078	1600.609	1
J179	11.428	0.693	479.638	10379.214	1
J7	19.243	0.66	629.574	18487.969	1
J6	17.207	0.684	805.431	15967.079	1
31036'	40.386	0.624	926.351	44062.951	1
31036	1.91	1.004	436.341	951.522	1
J5	13.425	0.784	835.918	10657.045	1
7592	4.1	0.501	304.507	5401.627	1
J9	4.474	0.54	435.301	5542.063	1
J16	15.713	0.548	764.416	20326.722	1
J72	3.33	0.43	332.977	5329.22	1
21253	8.344	0.491	531.637	11609.452	1
23025	15.857	0.533	783.375	20393.606	1

Table 4E: ARM Subcatchments (continued...)

Name	Peak Runoff (cfs)	Runoff Coefficient	GIS_LENGTH (m)	GIS_AREA (m²)	GIS_PARTS
23037	0.93	1.009	231.734	455.329	1
20985	2.147	1.006	493.587	1066.068	1
21325	1.55	1.001	352.121	777.158	1
21199	0.848	1.005	242.841	422.117	1
J171	0.263	0.574	74.06	288.285	1
J175	0.114	0.514	69.482	143.137	1
J174	0.459	0.682	155.705	419.644	1
J169	1.874	0.67	183.002	1764.046	1
J170	3.482	0.602	314.635	3662.424	1
18726	0.334	0.93	119.741	192.01	1
16770	1.62	0.748	171.705	1343.714	1
16610	2.004	0.691	208.323	1820.172	1
14608	1.467	0.999	106.388	740.805	1
14383	0.627	0.853	117.993	399.27	1
15374	0.372	0.718	84.32	324.83	1
15469	0.152	0.854	39.789	98.33	1
16125	1.974	0.852	205.624	1369.193	1
J3	18.748	0.812	698.364	13414.814	1
J2	8.775	0.892	552.054	5587.246	1
15964	4.112	0.974	280.665	2202.943	1
J172	1.917	0.679	193.282	1776.561	1
J173	0.821	0.615	119.655	838.193	1
J26	3.434	0.618	357.16	3563.401	1
19657	0.692	1.009	79.824	340.518	1
20575	1.169	0.825	137.057	781.753	1
OL-J48	0.729	0.756	151.927	602.203	1

Table 4E: ARM Subcatchments (continued...)

Name	Peak Runoff (cfs)	Runoff Coefficient	GIS_LENGTH (m)	GIS_AREA (m²)	GIS_PARTS
OL-J49	2.723	0.999	161.01	1372.069	1
12956	0.661	0.996	130.852	337.763	1
13746	0.465	0.714	86.335	389.755	1
J39	0.995	0.793	123.134	750.256	1
5526	1.243	1.009	106.641	610.017	1
5571	1.747	1.009	143.832	857.451	1
5604	0.468	0.994	77.836	239.863	1
J183	2.204	0.837	172.576	1526.516	1
OL-J38	1.646	0.961	186.449	900.075	1
5230	0.787	0.811	128.204	576.527	1
5246	0.702	0.709	123.682	619.369	1
21705	2.379	0.977	162.084	1268.386	1
5218	1.296	0.96	235.985	708.127	1
21626	0.764	0.491	126.116	995.779	1
5172	2.331	0.732	322.993	1990.091	1
6505	5.599	0.716	280.498	4927.52	1
OL-J41	16.475	0.711	1033.923	16303.015	1
6088	1.659	0.801	192.932	1252.559	1
J4	6.654	0.671	317.321	6327.525	1
1896	8.163	0.873	600.35	5055.783	1
1038	1.277	0.469	198.826	1716.422	1
2358	1.491	0.981	387.156	784.355	1
J45	0.43	0.701	86.485	366.055	1
3824	0.884	0.841	126.26	581.693	1
3596	9.717	0.743	603.852	8178.73	1
3449	0.618	1.009	177.379	301.732	1

Table 4E: ARM Subcatchments (continued...)

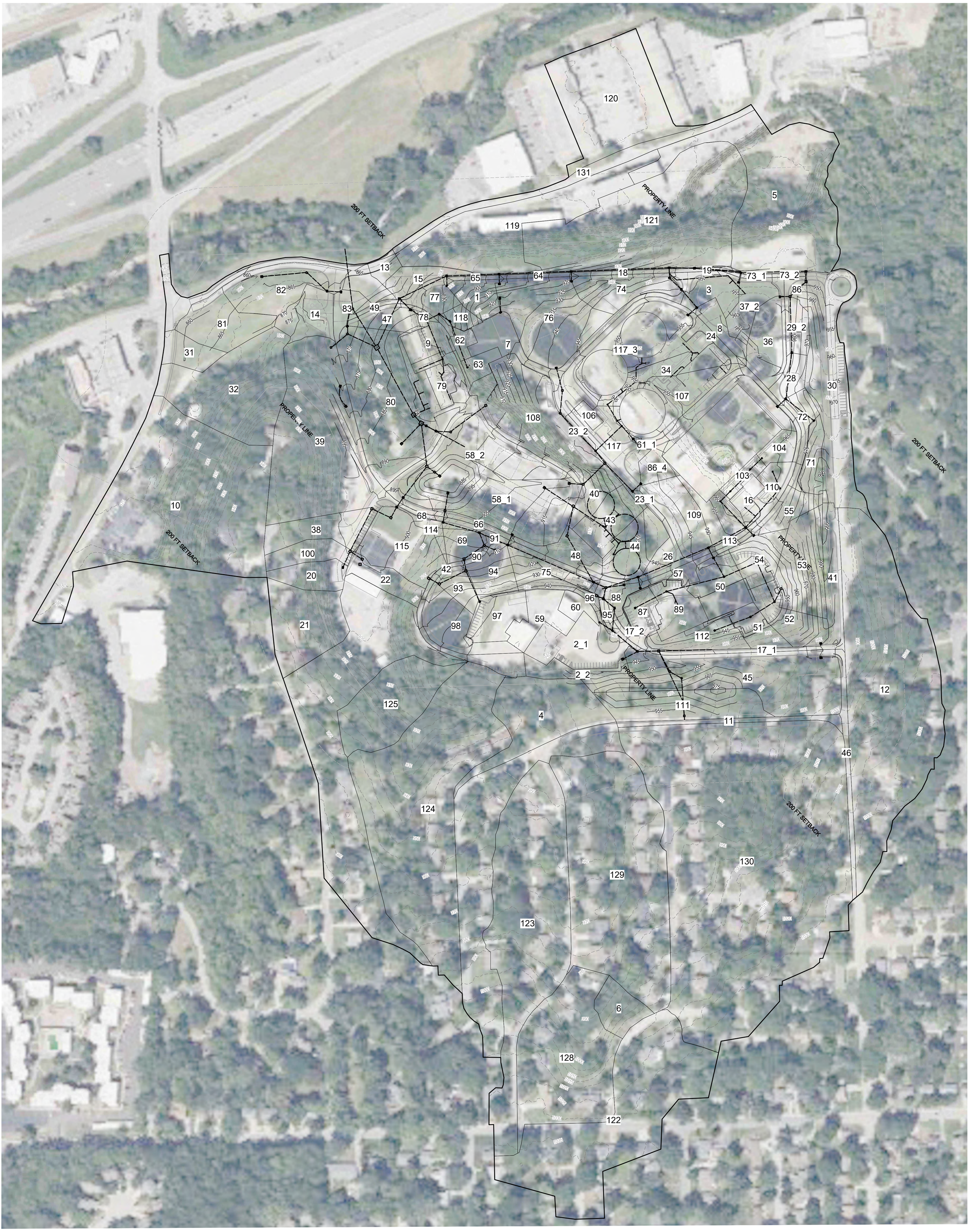
Name	Peak Runoff (cfs)	Runoff Coefficient	GIS_LENGTH (m)	GIS_AREA (m²)	GIS_PARTS
3372	0.371	1.009	120.069	181.427	1
3615	4.931	0.589	473.167	5265.415	1
3424	2.056	0.916	447.252	1192.329	1
3381	4.013	0.895	218.825	2402.409	1
15234	0.315	0.583	98.192	345.688	1
15075	0.155	0.63	53.955	155.206	1
15025	0.273	0.452	86.698	387.587	1
17671	0.476	0.452	119.323	695.156	1
18356	0.546	0.447	214.601	826.83	1
18312	1.481	0.63	321.1	1506.973	1
9264	0.924	0.975	313.319	493.809	1
9253	6.148	0.794	559.553	4833.429	2
9627	1.648	0.842	224.865	1136.28	1
10028	0.625	0.644	171.758	613.692	1
11842	0.214	1.009	72.551	105.407	1
11966	4.601	0.783	362.484	3293.346	1
RD-incen	1.524	1.009	127.686	749.647	1
13029	0.301	0.686	74.048	259.225	1
13138	1.082	1.007	107.493	534.29	1
OL-J40	0.196	0.973	52.701	103.726	1
OL-J50	0.643	1.004	130.767	320.184	1
5191	0.787	1.007	189.279	390.025	1
1885	1.799	0.575	200.457	2009.79	1
J147	0.577	1.009	77.355	281.549	1
J33	1.986	1.009	128.275	976.916	1
11560	1.172	0.971	100.916	629.931	1

Table 4E: ARM Subcatchments (continued...)

Name	Peak Runoff (cfs)	Runoff Coefficient	GIS_LENGTH (m)	GIS_AREA (m²)	GIS_PARTS
11213	4.91	1.004	305.601	2442.653	1
13528	0.662	1.006	73.676	326.79	1
J31	0.824	1.009	91.406	404.05	1
12497	0.419	0.929	70.101	239.917	1
12678	1.139	0.914	116.091	663.508	1
12709	2.813	0.905	334.634	1726.728	1
12300	0.815	1.002	250.776	409.125	1
2374	0.808	1.006	241.994	399.78	1
J180	1.385	0.495	191.249	1752.753	1
2002	1.602	0.876	161.206	985.567	1
J167	1.882	0.705	168.46	1676.18	1
3253	0.205	0.431	103.763	303.292	1
J74	0.688	0.456	156.776	982.547	1
J17	2.746	0.656	301.081	2513.319	1
J35	1.557	0.629	204.477	1557.749	1
25478	6.902	0.591	531.064	7656.938	1
7096	1.126	0.983	179.807	590.37	1
7742	1.6	0.967	294.209	867.808	1
3089	0.236	0.625	98.605	240.756	1
J29	0.091	0.437	81.215	132.658	1
J165	0.496	0.572	104.515	546.659	1
J164	1.62	0.814	169.768	1101.609	1
J14	22.856	0.71	657.638	19362.775	1
J1	4.89	0.996	720.255	2483.463	1
7683	0.929	0.923	99.607	534.105	1
J15	14.342	0.781	743.665	10988.512	1

Table 4E: ARM Subcatchments (continued...)

Name	Peak Runoff (cfs)	Runoff Coefficient	GIS_LENGTH (m)	GIS_AREA (m²)	GIS_PARTS
J38	17.909	1	469.788	9009.869	1
RD-auto1	1.112	1.009	99.217	545.321	1
RD-auto2	1.253	1.009	105.04	613.989	1
RD-auto3	1.228	1.009	102.467	605.046	2
13349	0.157	1.009	77.305	75.273	1
RD-thick	0.363	1.009	60.864	194.199	1
RD-sludge	1.154	1.009	108.769	567.93	1
RD-admin	0.931	1.009	100.039	457.023	1
J18	0.398	0.443	112.952	555.341	1
2249	0.601	1.004	144.339	297.632	1
9645	0.593	1.009	149.928	290.97	1
9409	0.478	1.009	81.795	236.292	1
10	17.859	0.576	725.102	20690.747	1
32	5.885	0.474	387.006	7742.427	1
R1_6	1.073	0.511	159.335	1281.681	1
81	2.101	0.48	235.218	2788.282	1
33	1.354	0.5	512.549	1756.394	1
R5	8.903	0.438	669.542	14302.893	1



POST-DEVELOPMENT DRAINAGE AREAS

POST-DEVELOPMENT PCSWMM MODEL RESULTS

PCSWMM Report

Post-Development 2-yr Results

Model NelsonWWTF-002YR.inp

HDR Engineering Inc.

January 19, 2024

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Summary 1: Options

Name	NelsonWWTF-002YR
Flow Units	CFS
Infiltration method	Curve Number
Flow routing method	Dynamic Wave
Link offsets defined by	Elevation
Allow ponding	Yes
Skip steady flow periods	No
Inertial dampening	Partial
Define supercritical flow by	Both
Force Main Equation	H-W
Variable time step	On
Adjustment factor (%)	75
Conduit lengthening (s)	0
Minimum surface area (ft²)	12.566
Starting date	May-1-2022 12:00:00 AM
Ending date	May-4-2022 12:00:00 AM
Duration of simulation (hours)	72
Antecedent dry days (days)	0
Rain interval (h:mm)	0:01
Report time step (h:mm:ss)	00:01:00
Wet time step (h:mm:ss)	00:00:01
Dry time step (h:mm:ss)	00:05:00
Routing time step (s)	5
Minimum time step used (s)	0.5
Average time step used (s)	0.98
Minimum conduit slope	0
Ignore rainfall/runoff	No
Ignore snow melt	No
Ignore groundwater	No
Ignore flow routing	No
Ignore water quality	No
Report average results	No

Summary 2: Model inventory

Name	NelsonWWTF-002YR
Raingages	6
Subcatchments	0
Aquifers	0
Snowpacks	0
RDII hydrographs	0
Junction nodes	310
Outfall nodes	7
Flow divider nodes	0
Storage unit nodes	6
Conduit links	308
Pump links	0
Orifice links	11
Weir links	53
Outlet links	66
Treatment units	0
Transects	6
Control rules	0
Pollutants	0
Land Uses	0
Control Curves	0
Diversion Curves	0
Pump Curves	0
Rating Curves	21
Shape Curves	0
Storage Curves	20
Tidal Curves	0
Weir Curves	0
Time Series	41
Time Patterns	0

Summary 3: Model complexity

Name	NelsonWWTF-002YR
Subcatchments	n/a
Groundwater	n/a
Aquifers	n/a
Snowpacks	n/a
RDII hydrographs	n/a
Junction nodes	750
Outfall nodes	7
Flow divider nodes	n/a
Storage unit nodes	20
Conduit links	1876
Pump links	n/a
Orifice links	40
Weir links	212
Outlet links	194
Transect	30
Pollutants	n/a
Land Uses	n/a
Model complexity (total uncertain input parameters)	3129

Summary 4: Inflows

Name	NelsonWWTF-002YR
Time series inflows	0
Dry weather	0
Groundwater	0
RDII inflows	0

Summary 5: Subcatchment statistics

Name	NelsonWWTF-002YR
Max. width (ft)	n/a
Min. width (ft)	n/a
Max. area (ac)	n/a
Min. area (ac)	n/a
Total area (ac)	n/a
Max. length of overland flow (ft)	n/a
Min. length of overland flow (ft)	n/a
Max. slope (%)	n/a

Summary 5: Subcatchment statistics (continued...)

Name	NelsonWWTF-002YR
Min. slope (%)	n/a
Max. imperviousness (%)	n/a
Min. imperviousness (%)	n/a
Max. imp. roughness	n/a
Min. imp. roughness	n/a
Max. perv. roughness	n/a
Min. perv. roughness	n/a
Max. imp. depression storage (in)	n/a
Min. imp. depression storage (in)	n/a
Max. perv. depression storage (in)	n/a
Min. perv. depression storage (in)	n/a

Summary 6: Node statistics

Name	NelsonWWTF-002YR
Max. ground elev. (ft)	1012.984
Min. ground elev. (ft)	0
Max. invert elev. (ft)	1011.884
Min. invert elev. (ft)	0
Max. depth (ft)	44.48
Min. depth (ft)	0

Summary 7: Conduit statistics

Name	NelsonWWTF-002YR
Max. roughness	0.035
Min. roughness	0.01
Max. entry loss coef.	1.5
Min. entry loss coef.	0
Max. exit loss coef.	1
Min. exit loss coef.	0
Max. avg. loss coef.	0
Min. avg. loss coef.	0
Max. length (ft)	648.835
Min. length (ft)	3.325
Total length (ft)	35555.929
Max. slope (ft/ft)	0.8406
Min. slope (ft/ft)	-0.2206

Summary 8: Conduit Inventory

Name	NelsonWWTF-002YR
Open Rectangular (ft)	440.112
Trapezoidal (ft)	4512.771
Irregular (ft)	14342.122
Circular (ft)	16198.804
Dummy (ft)	62.12

Summary 9: Pipe inventory

Name	NelsonWWTF-002YR
Max. pipe diameter (ft)	7
Min. pipe diameter (ft)	0.25
Total 12” pipe length (ft)	2331.472
Total 15” pipe length (ft)	3868.711
Total 18” pipe length (ft)	2652.966
Total 24” pipe length (ft)	2975.202
Total 30” pipe length (ft)	398.056
Total 36” pipe length (ft)	1722.847
Total 48” pipe length (ft)	502.955
Total 54” pipe length (ft)	402.52
Total 72” pipe length (ft)	47.457
Total 84” pipe length (ft)	229.206
Total other pipe length (ft)	1067.412
Total pipe length (ft)	16198.804

Summary 10: Unused objects

Name	NelsonWWTF-002YR
Rain Gages	5
Aquifers	n/a
Snow Packs	n/a
Unit Hydrographs	n/a
Transects	5
Control Curves	n/a
Diversion Curves	n/a
Pump Curves	n/a
Rating Curves	2
Shape Curves	n/a
Storage Curves	14

Summary 10: Unused objects (continued...)

Name	NelsonWWTF-002YR
Tidal Curves	n/a
Weir Curves	n/a
Time Series	35
Time Patterns	n/a

Summary 11: Flow routing continuity

Name	NelsonWWTF-002YR
Dry weather inflow (MG)	0.000
Wet weather inflow (MG)	0.000
Groundwater inflow (MG)	0.000
RDII inflow (MG)	0.000
External inflow (MG)	1.566
External outflow (MG)	1.312
Flooding loss (MG)	0.241
Evaporation loss (MG)	0.000
Exfiltration loss (MG)	0.000
Initial stored volume (MG)	0.000
Final stored volume (MG)	0.007
Continuity error (%)	0.370

Summary 12: Results statistics

Name	NelsonWWTF-002YR
Max. subcatchment total runoff (MG)	n/a
Max. subcatchment peak runoff (cfs)	n/a
Max. subcatchment runoff coefficient	n/a
Max. subcatchment total precip (in)	n/a
Min. subcatchment total precip (in)	n/a
Max. node depth (ft)	8.68
Num. nodes surcharged	3
Max. node surcharge duration (hours)	72
Max. node height above crown (ft)	5.576
Min. node depth below rim (ft)	0
Num. nodes flooded	2
Max. node flooding duration (hours)	2.05
Max. node flood volume (MG)	0.241
Max. node ponded volume or depth (acre-in/1000 ft^3/ft)	0

Summary 12: Results statistics (continued...)

Name	NelsonWWTF-002YR
Max. storage volume (1000 ft³)	15.947
Max. storage percent full (%)	30.7
Max. outfall flow frequency (%)	9.21
Max. outfall peak flow (cfs)	39.68
Max. outfall total volume (MG)	0.939
Total outfall volume (MG)	1.312
Max. link peak flow (cfs)	39.68
Max. link peak velocity (ft/s)	24.8
Min. link peak velocity (ft/s)	0
Num. conduits surcharged	13
Max. conduit surcharge duration (hours)	71.83
Max. conduit capacity limited duration (hours)	2.88

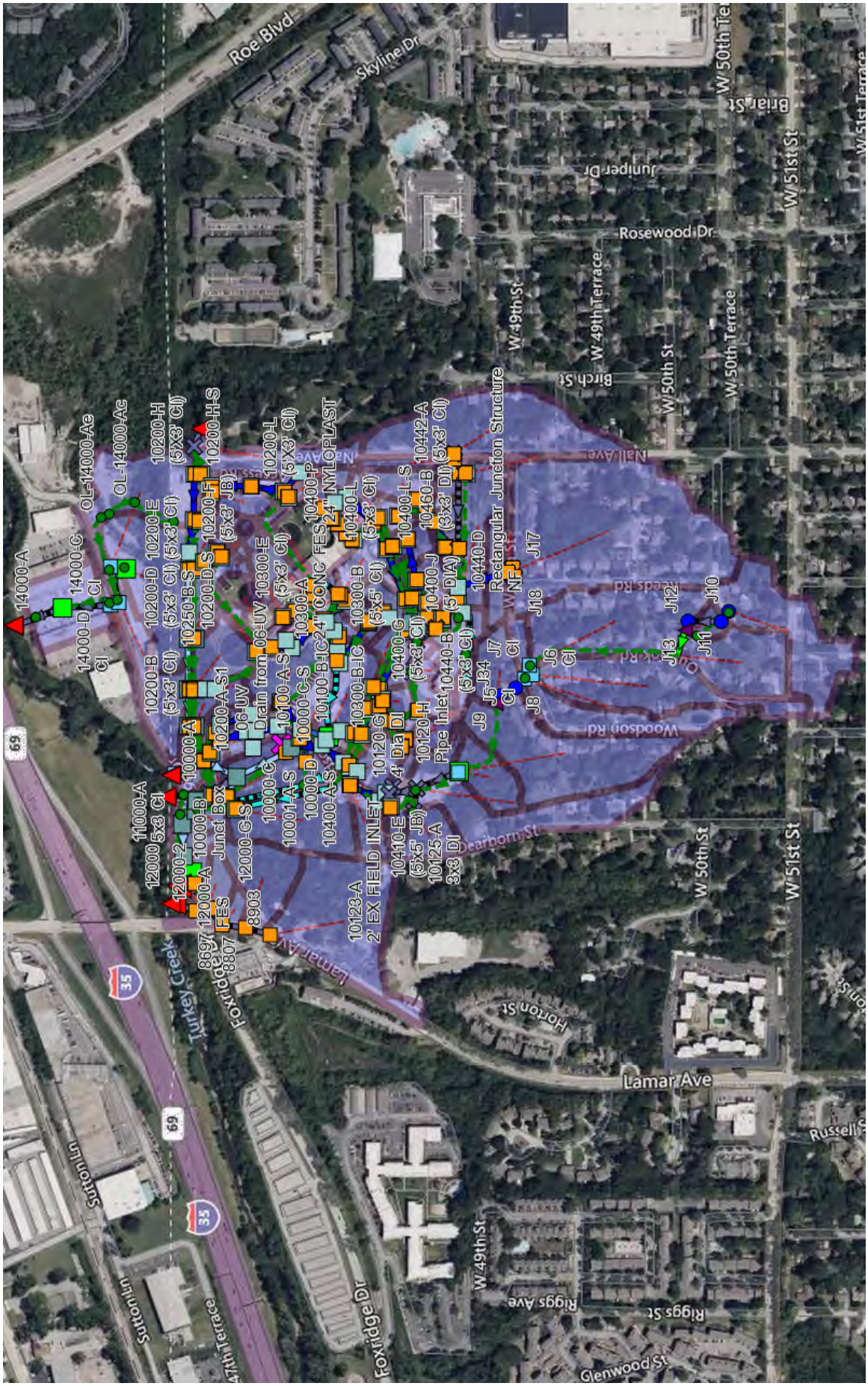


Figure 1: Map Extents

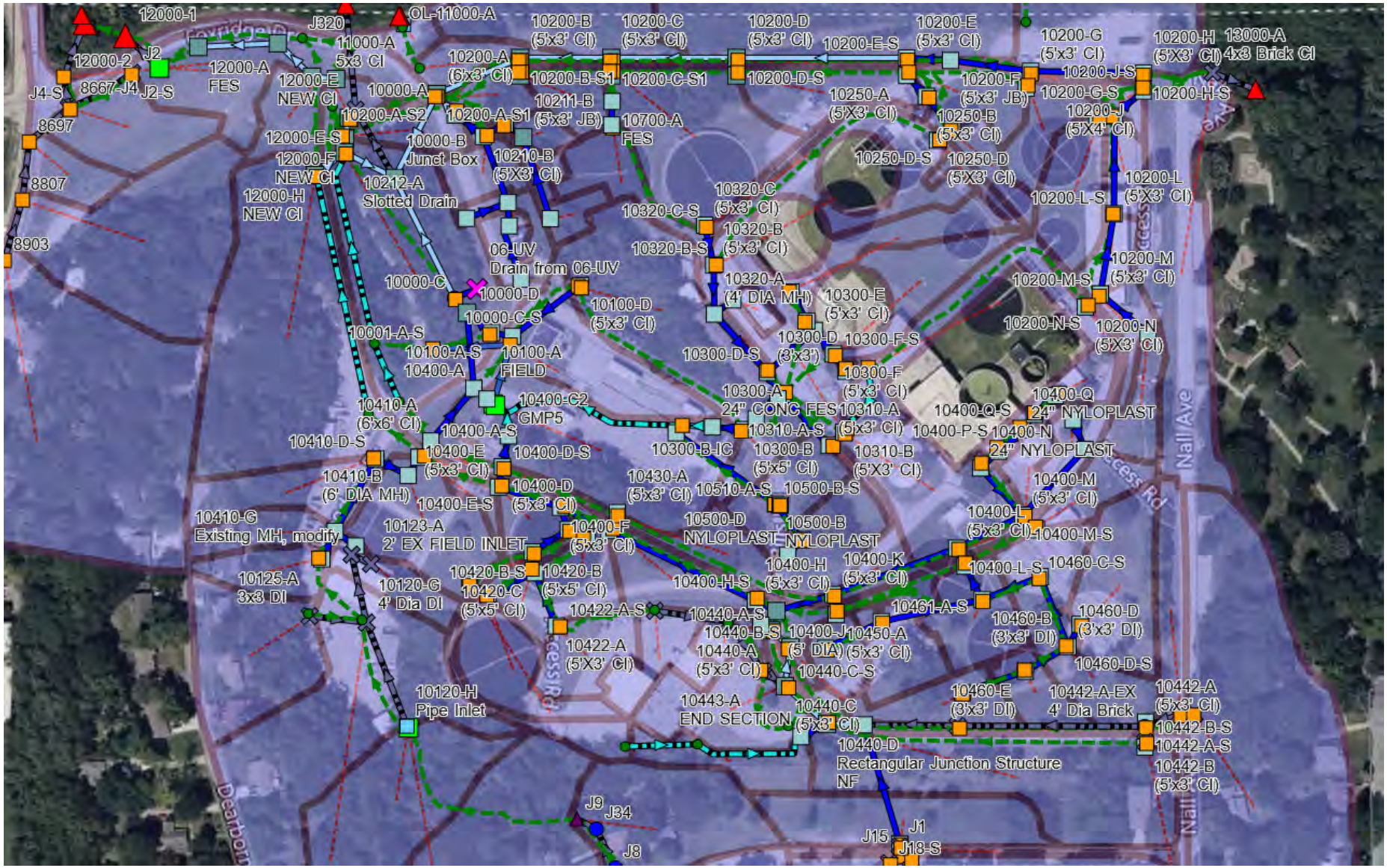


Figure 2: WWTF Site

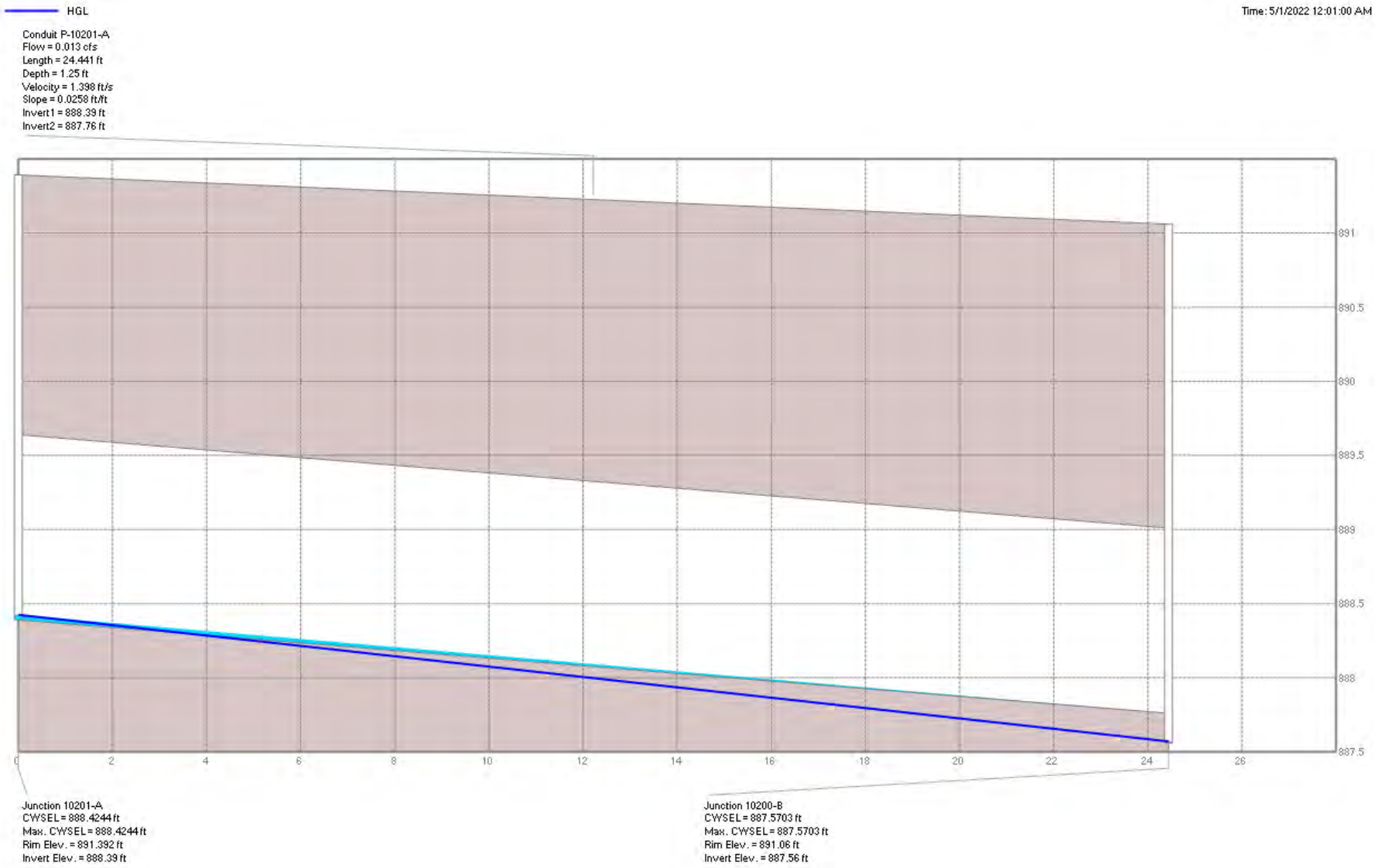


Figure 3: LINE 10201

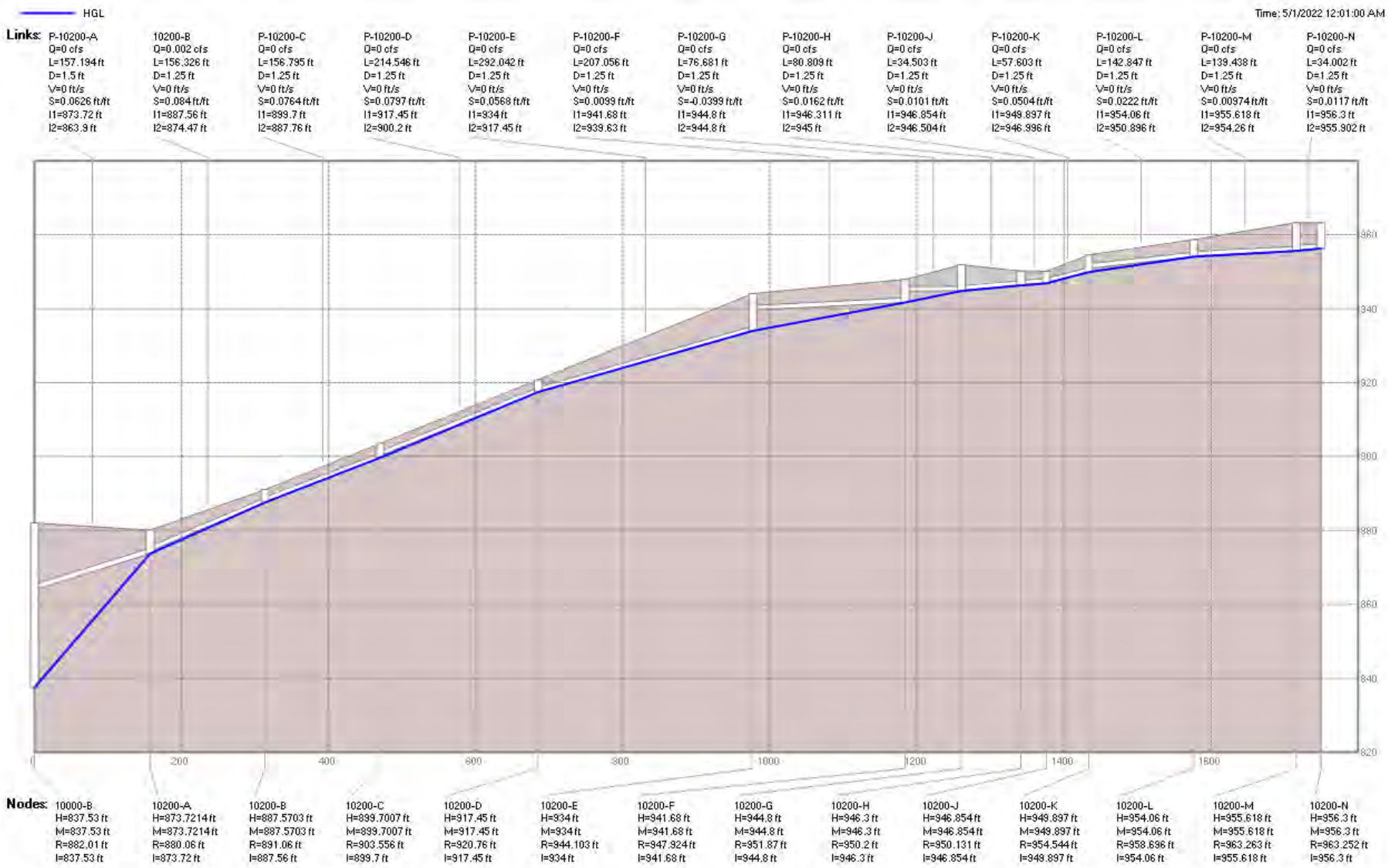


Figure 4: LINE 10200

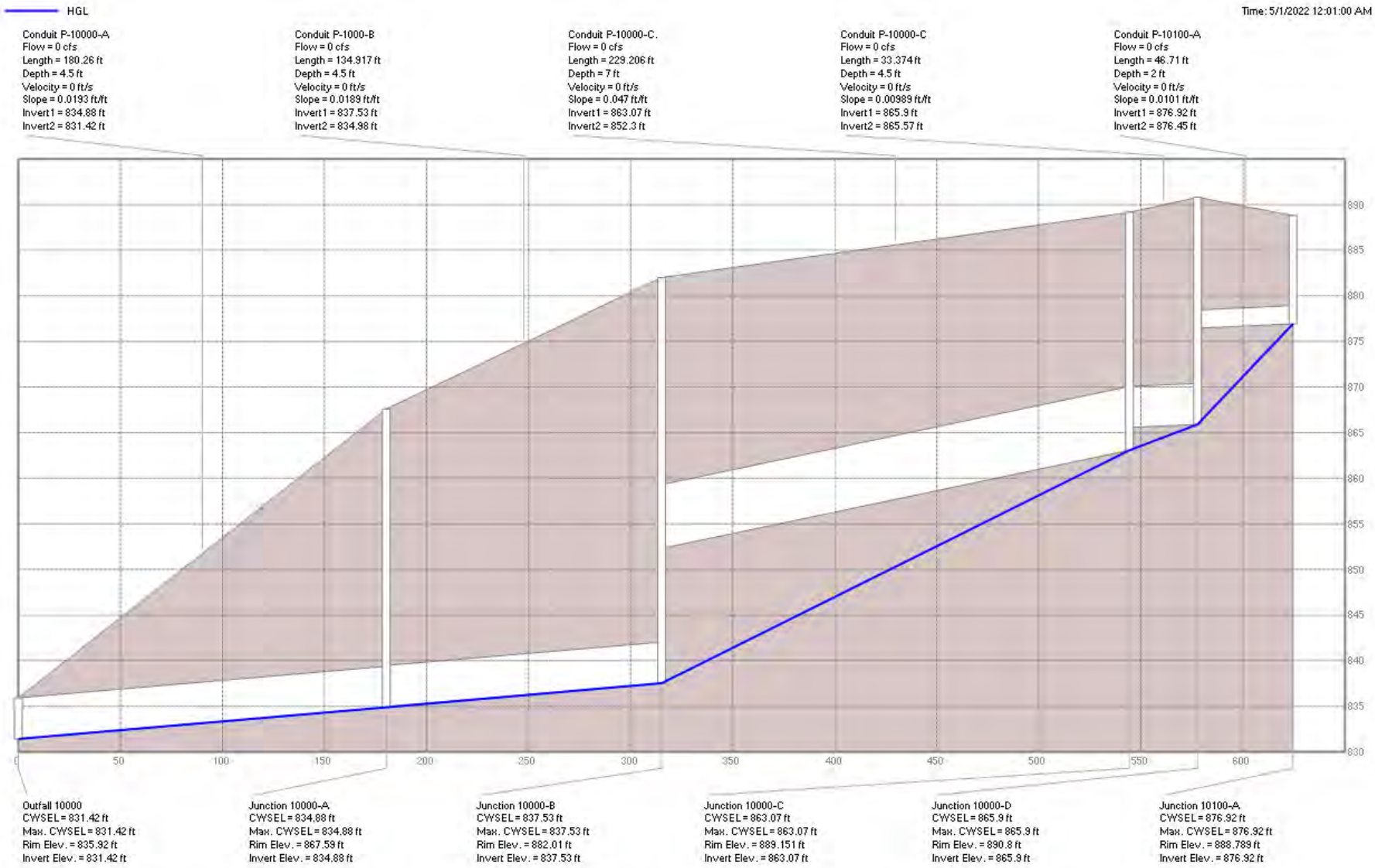


Figure 5: LINE 10000

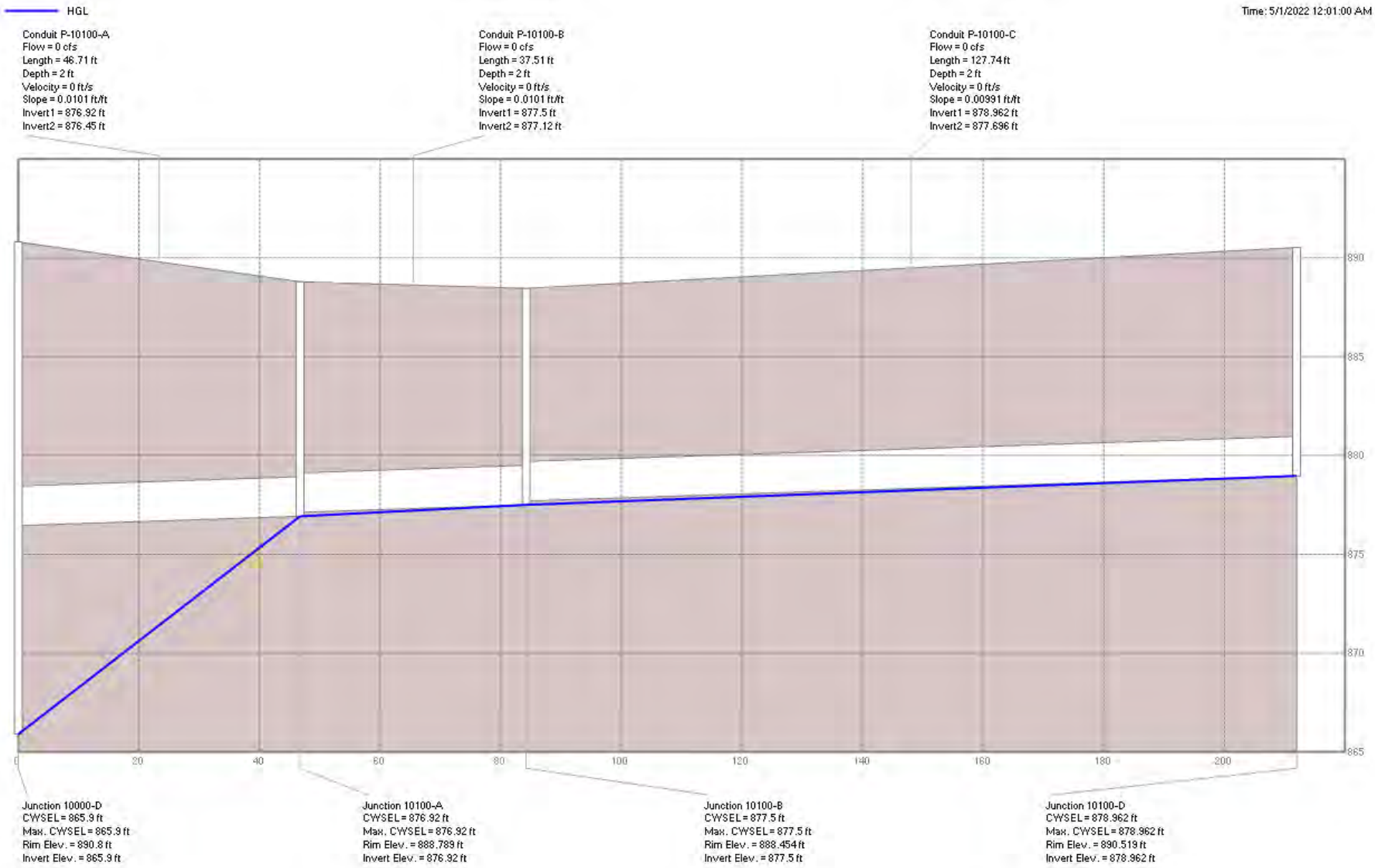


Figure 6: LINE 10100

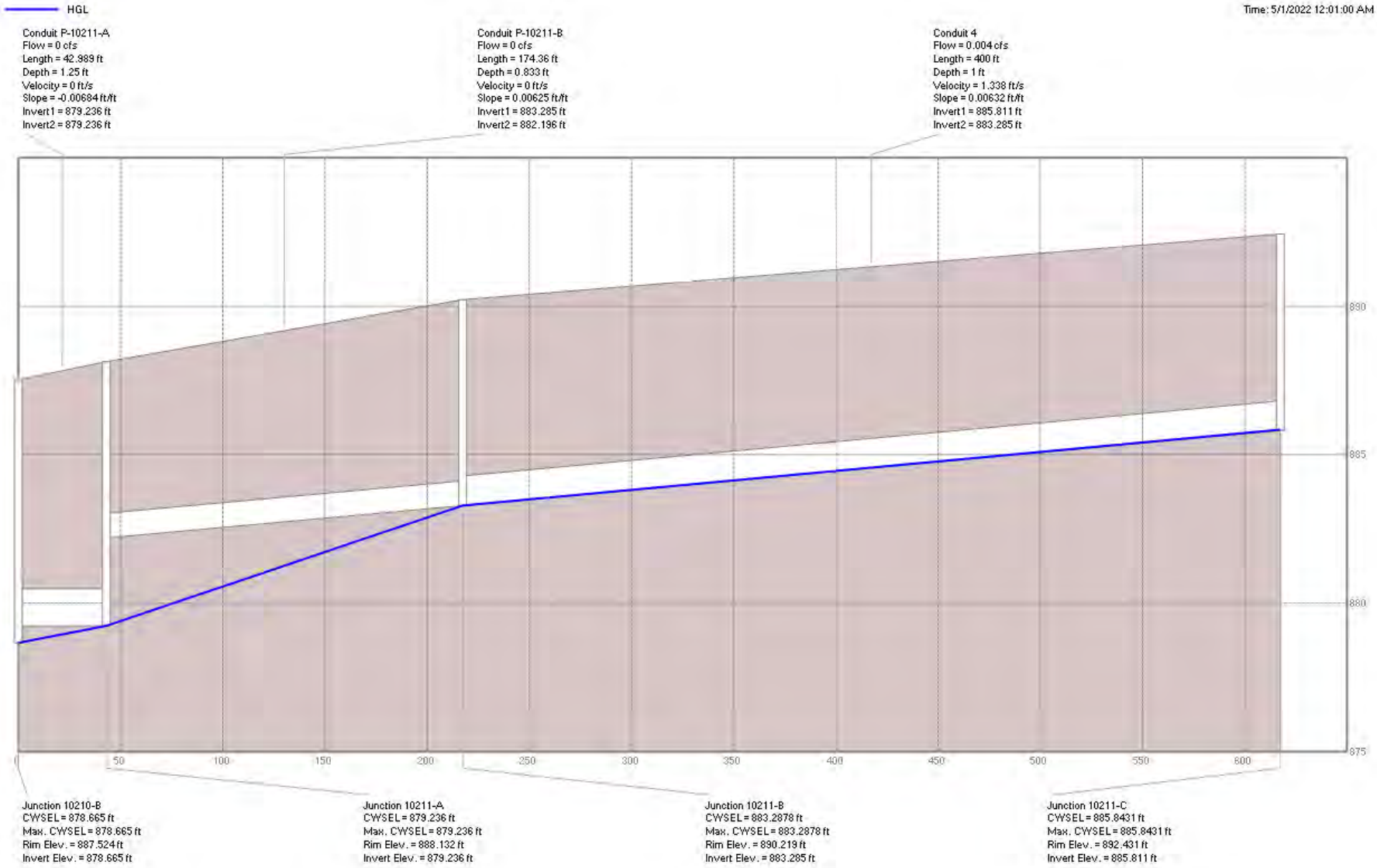


Figure 7: LINE 10211

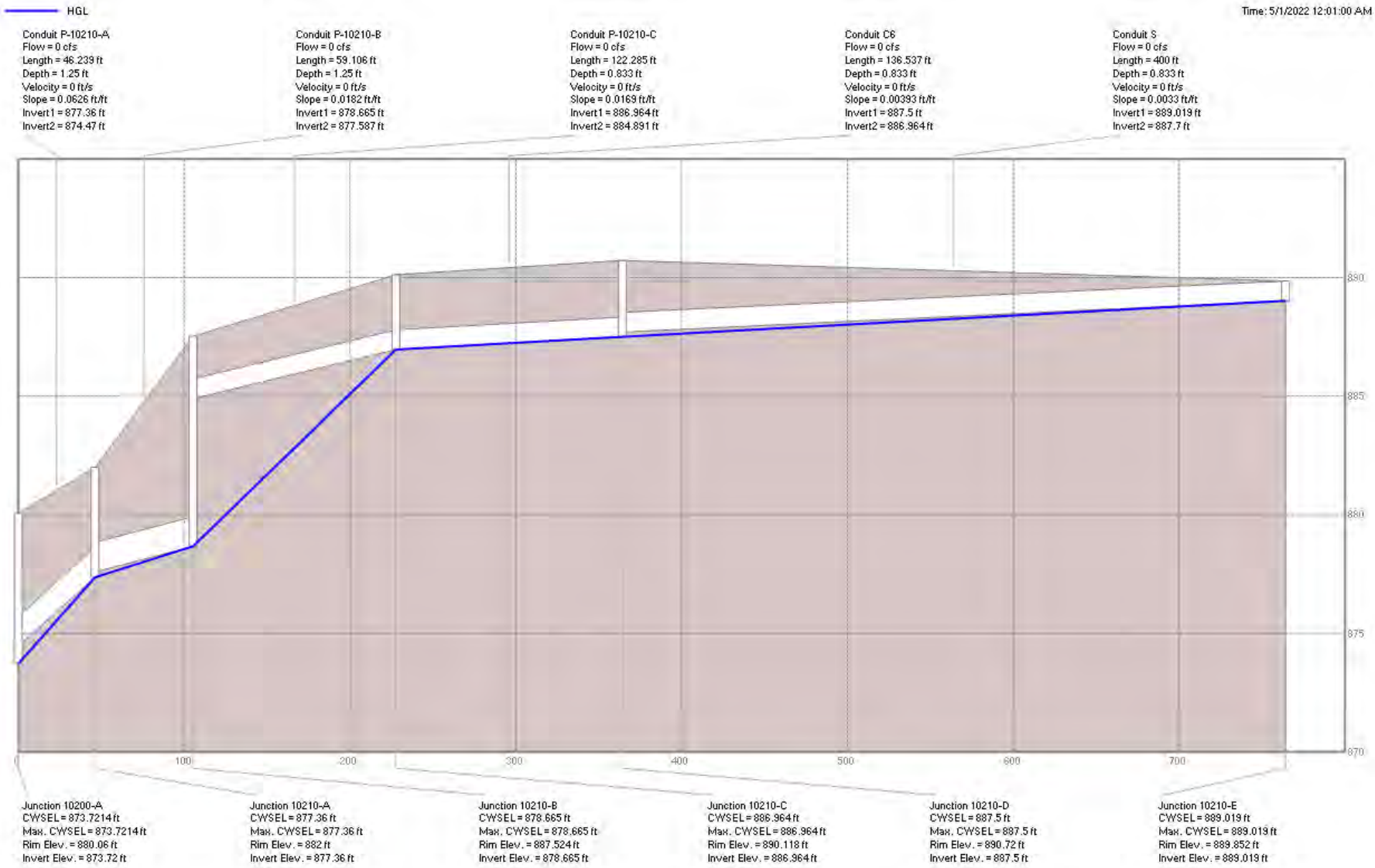


Figure 8: LINE 10210

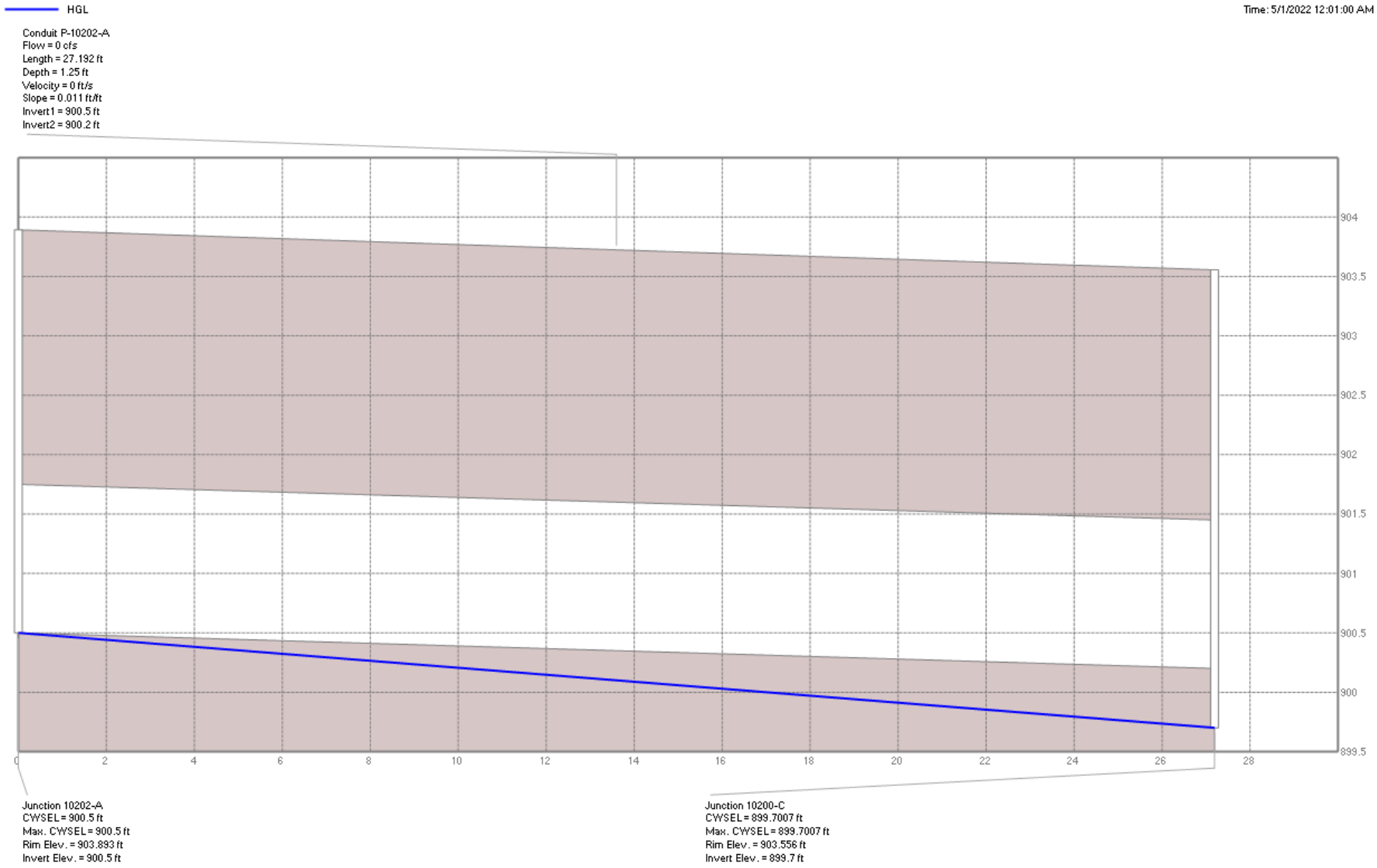


Figure 9: LINE 10202

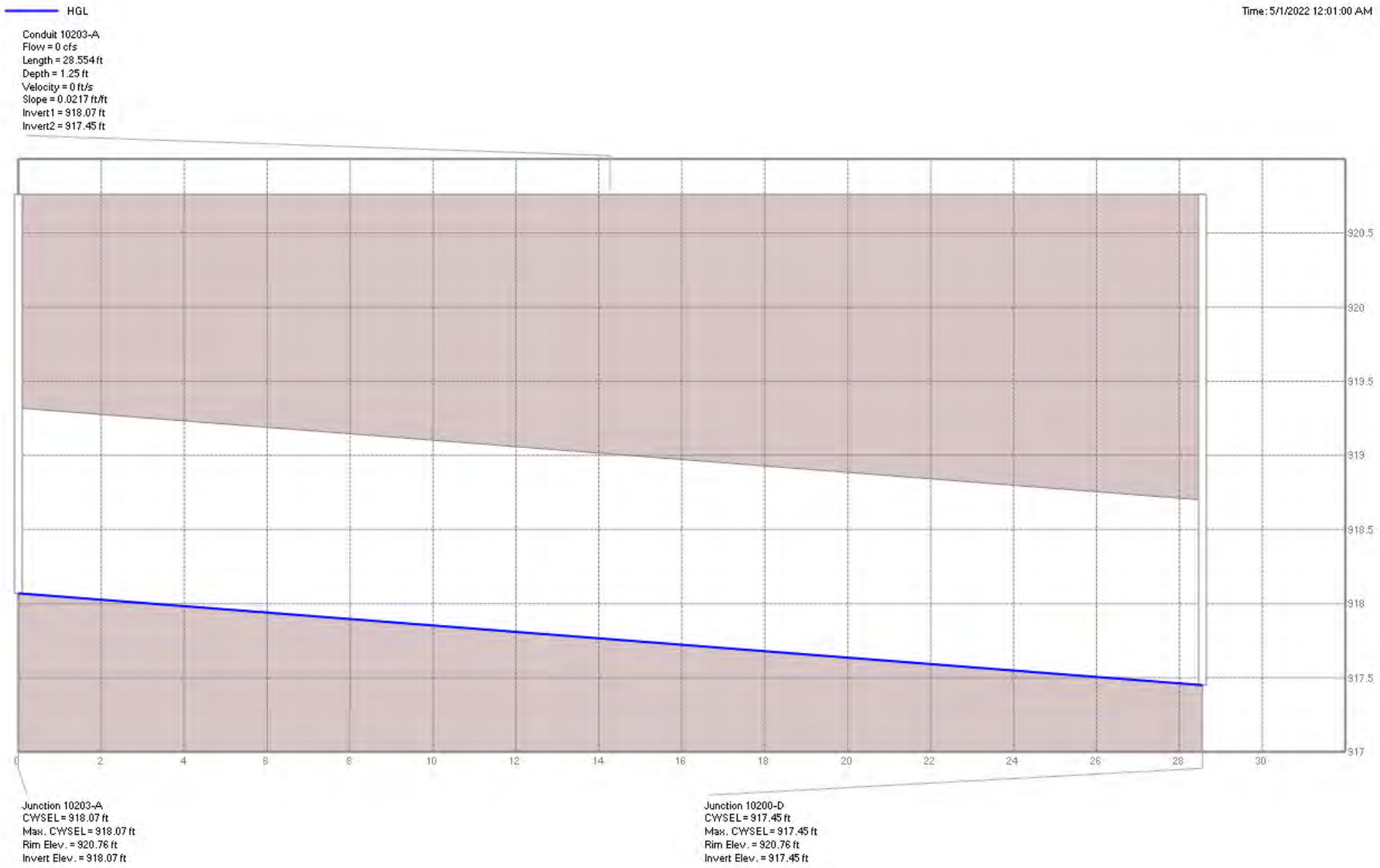
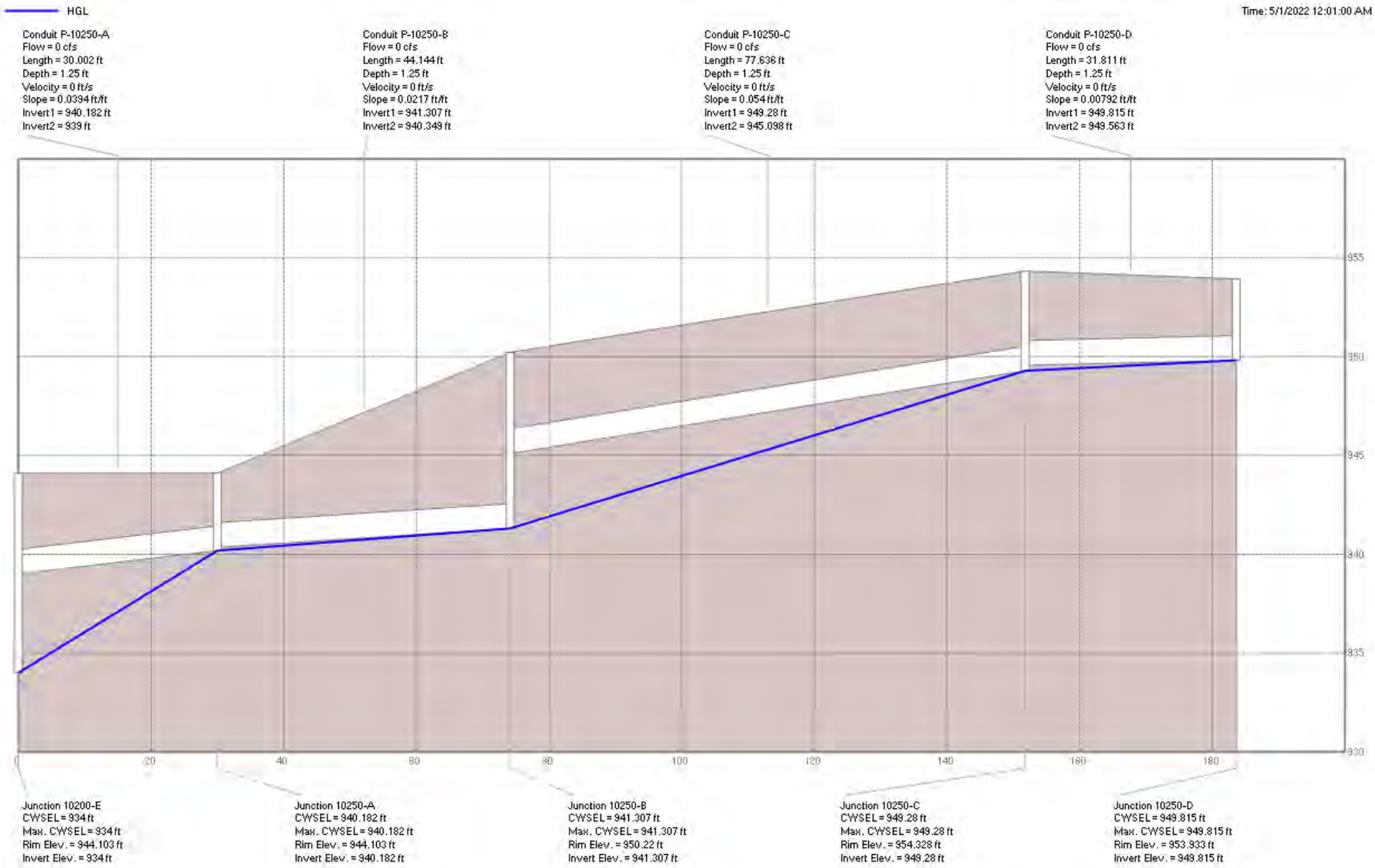


Figure 10: LINE 10203



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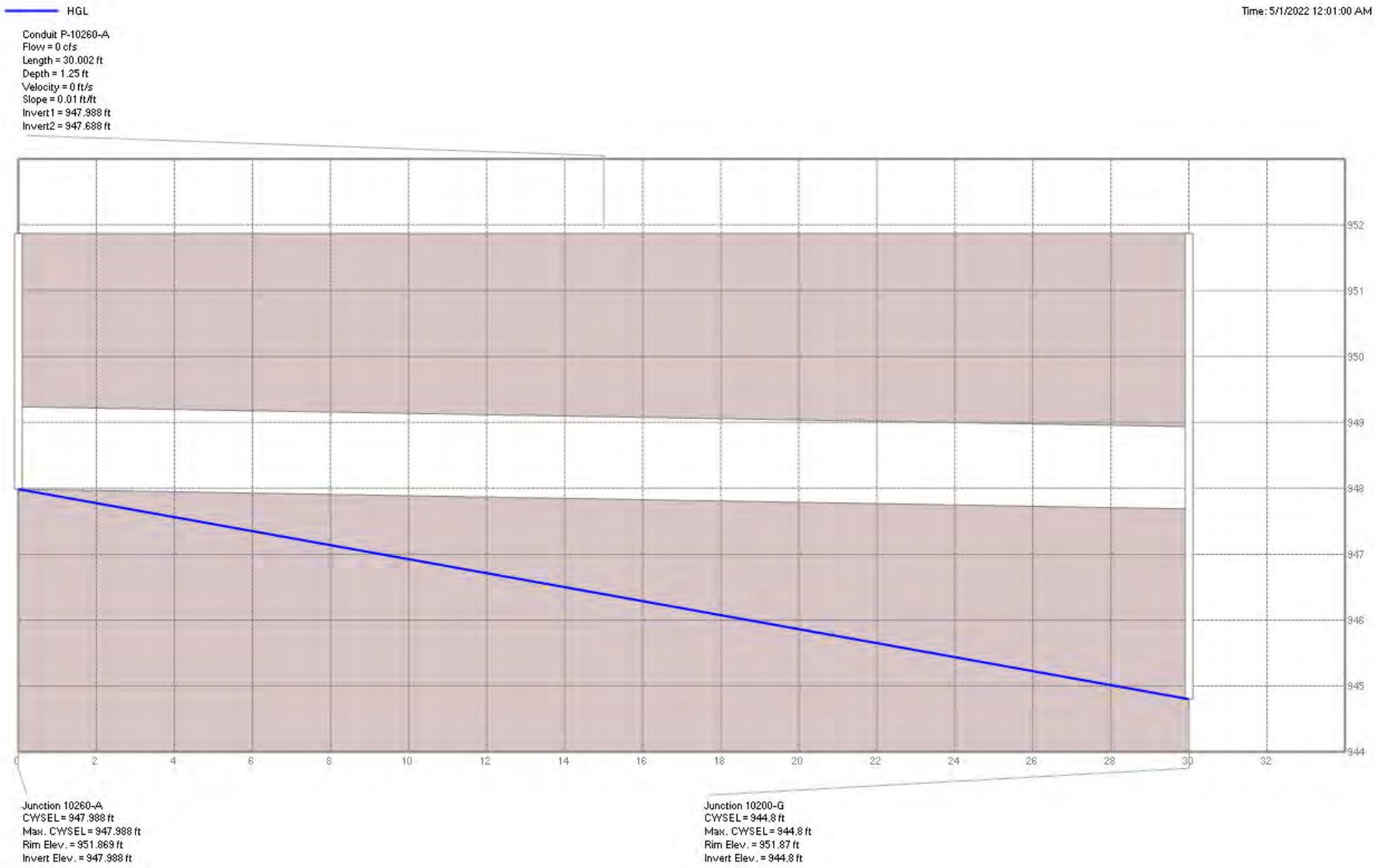

Figure 12: LINE 10260

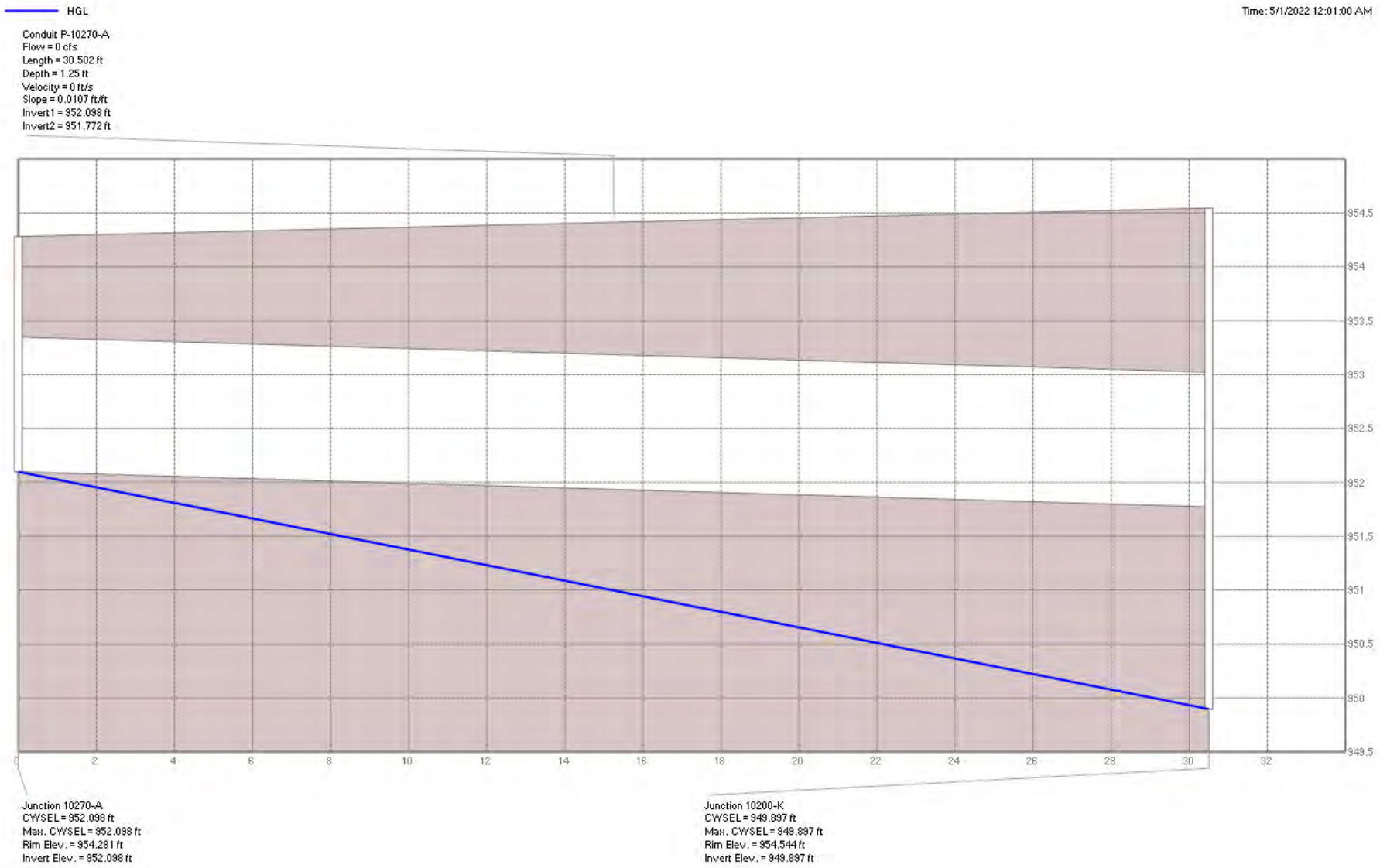

Figure 13: LINE 10270

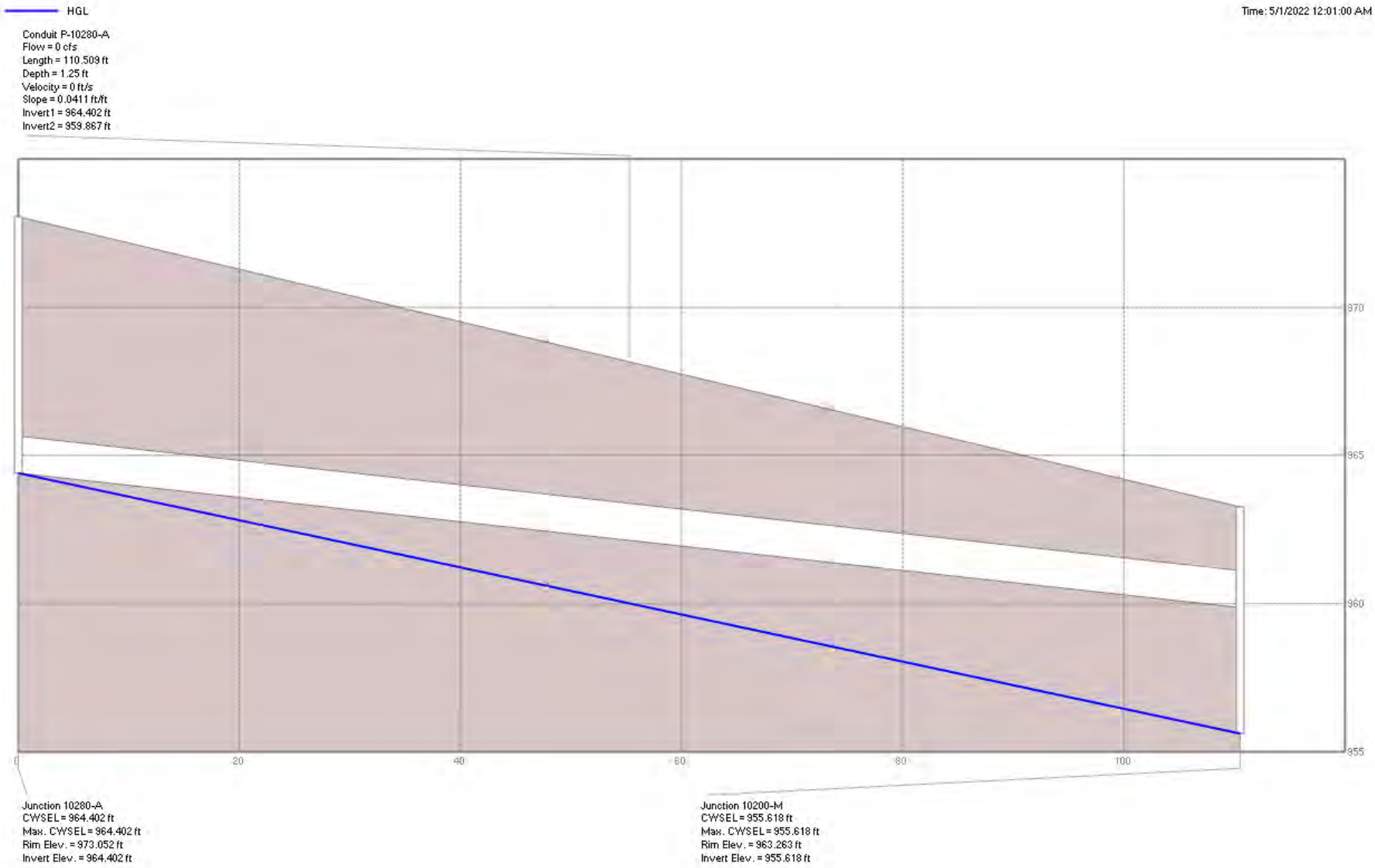

Figure 14: LINE 10280

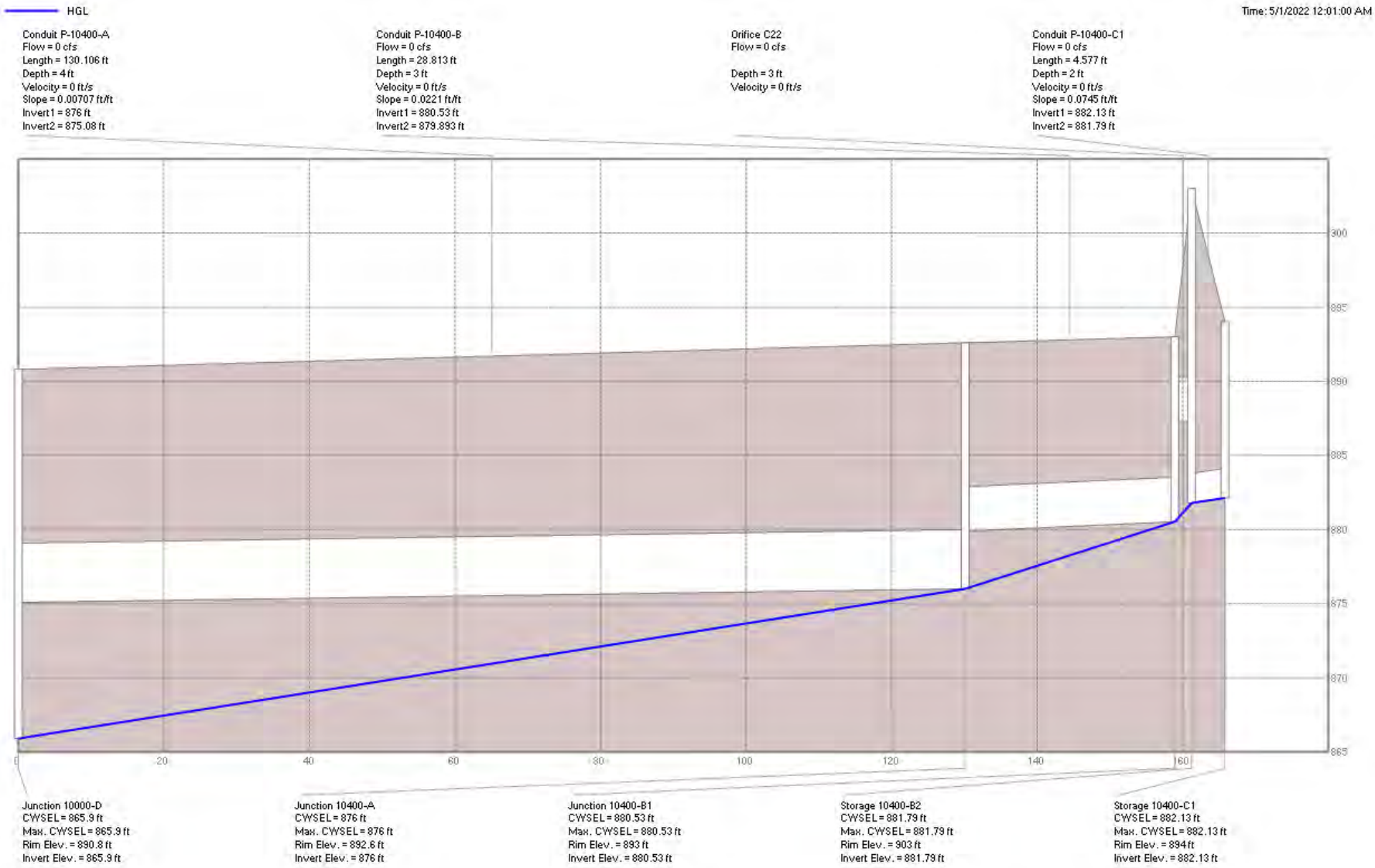

Figure 15: LINE 10400-1

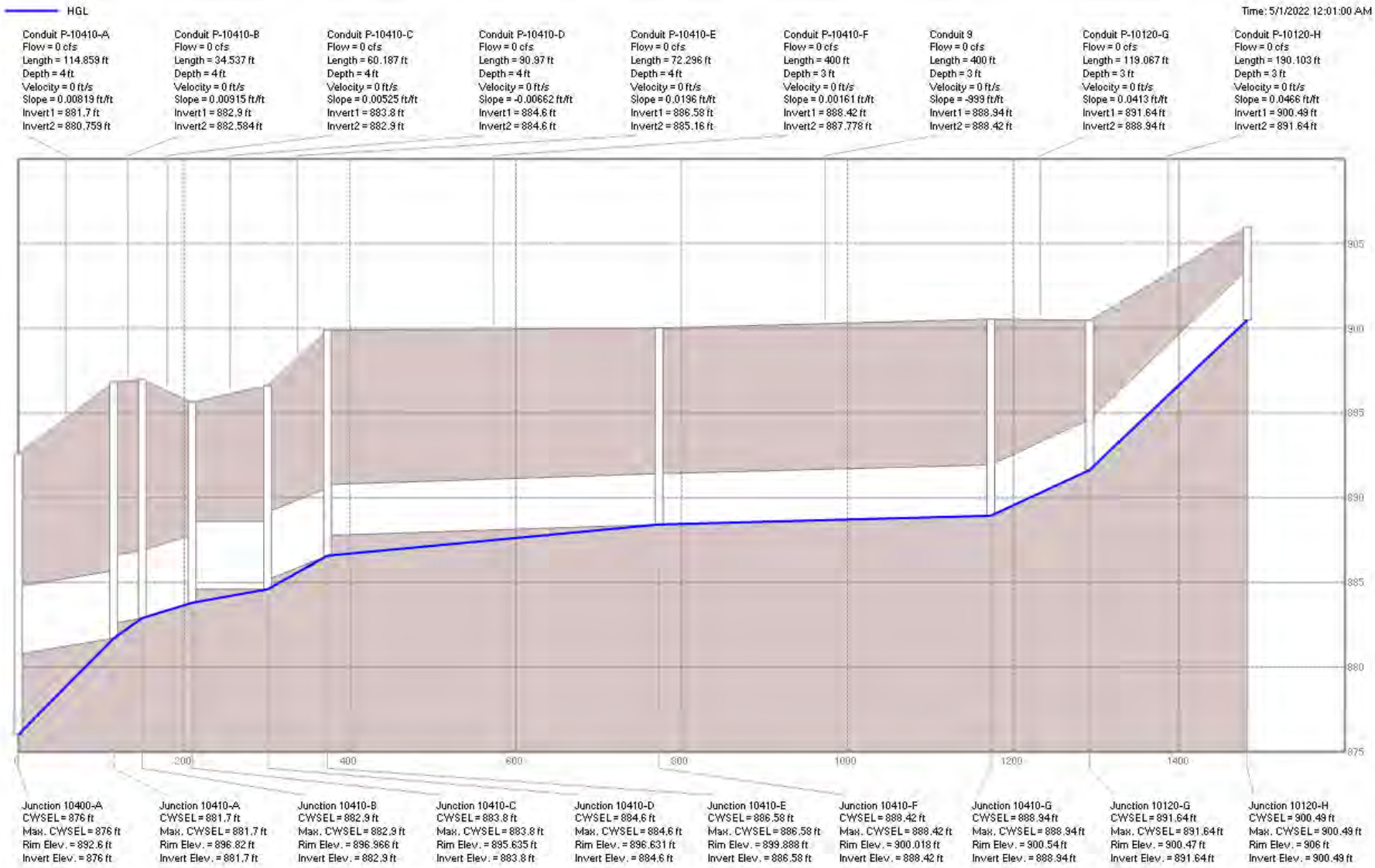

Figure 16: LINE 10410

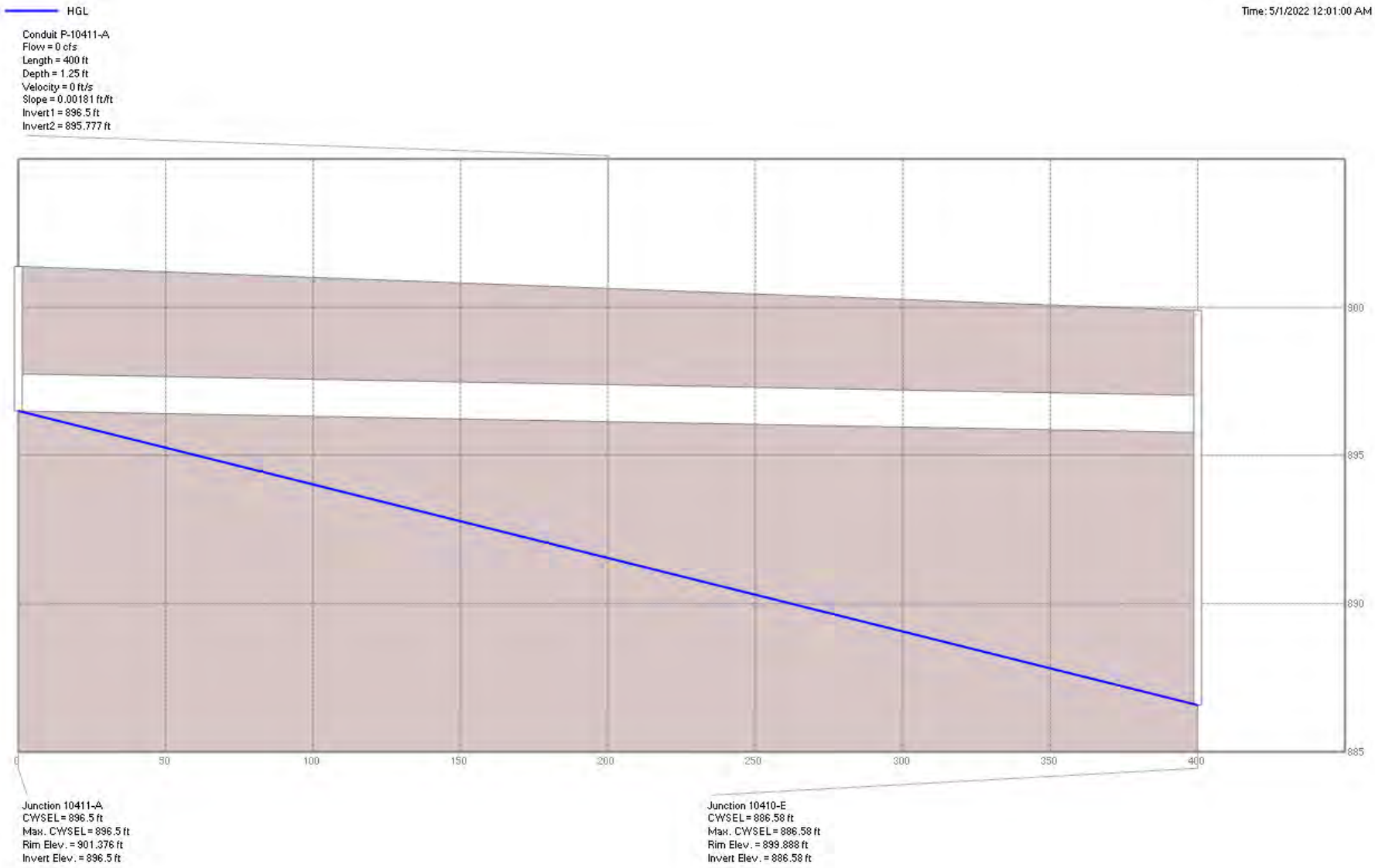

Figure 17: LINE 10411

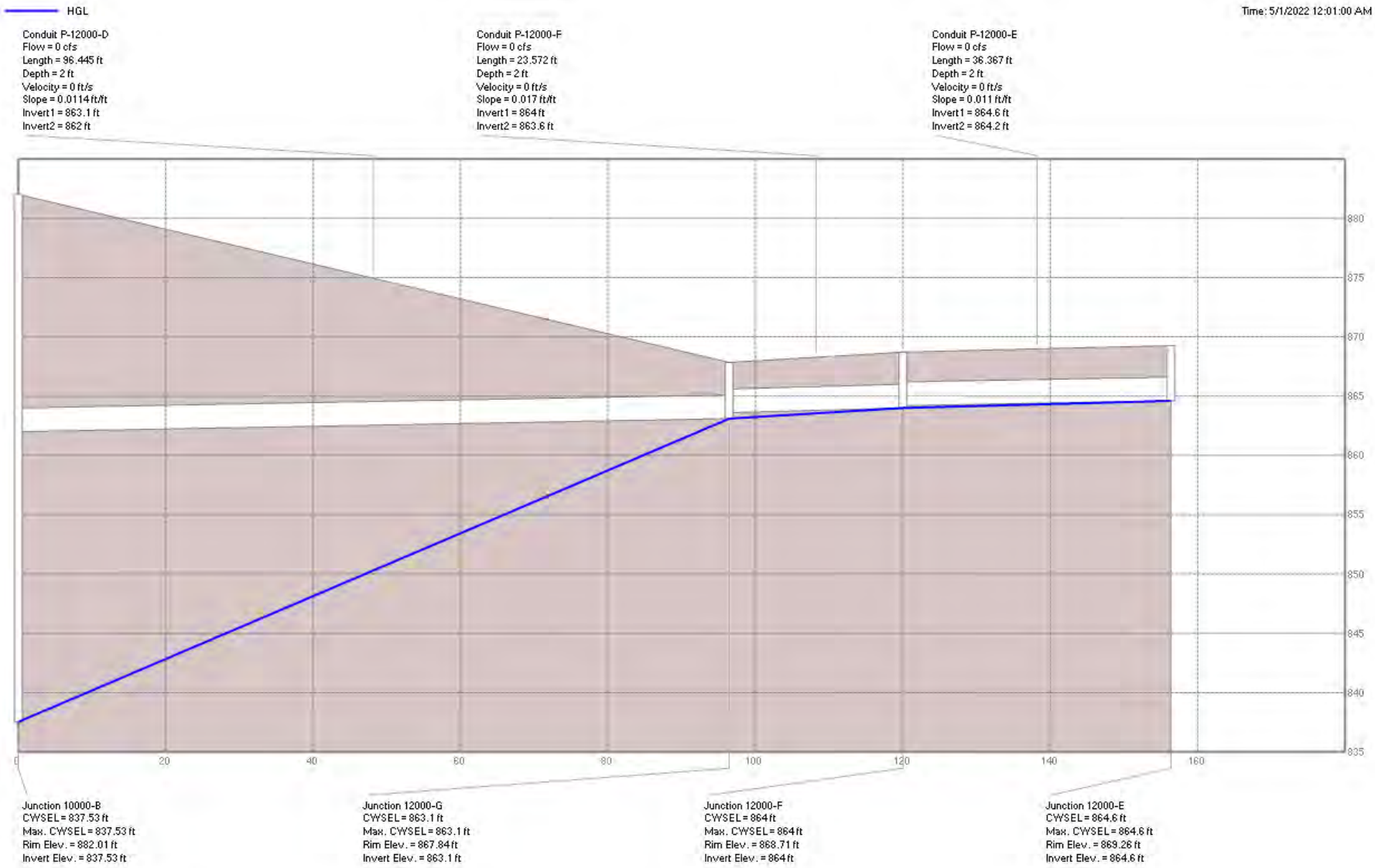

Figure 18: LINE 12000-1

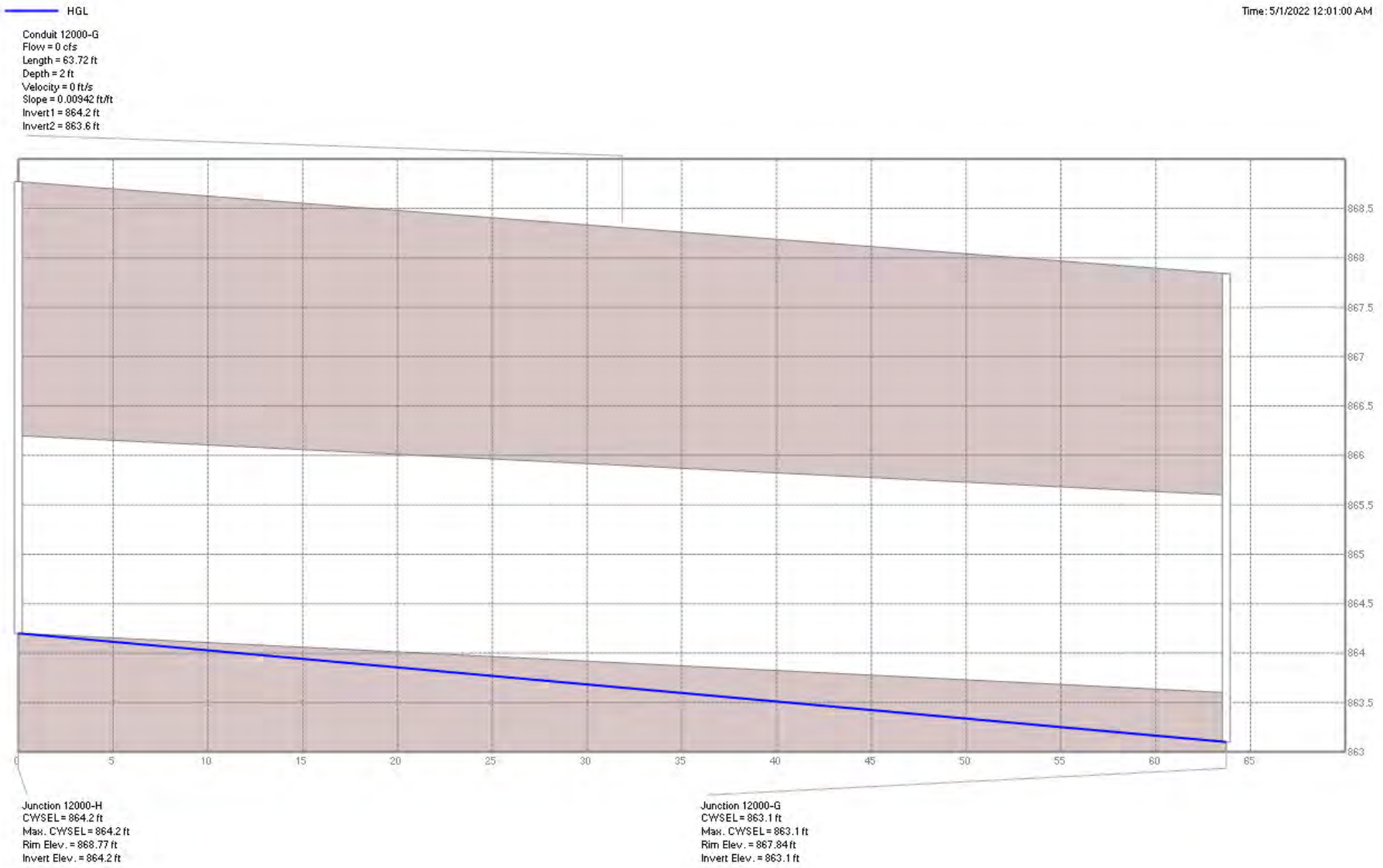

Figure 19: LINE 12000-2

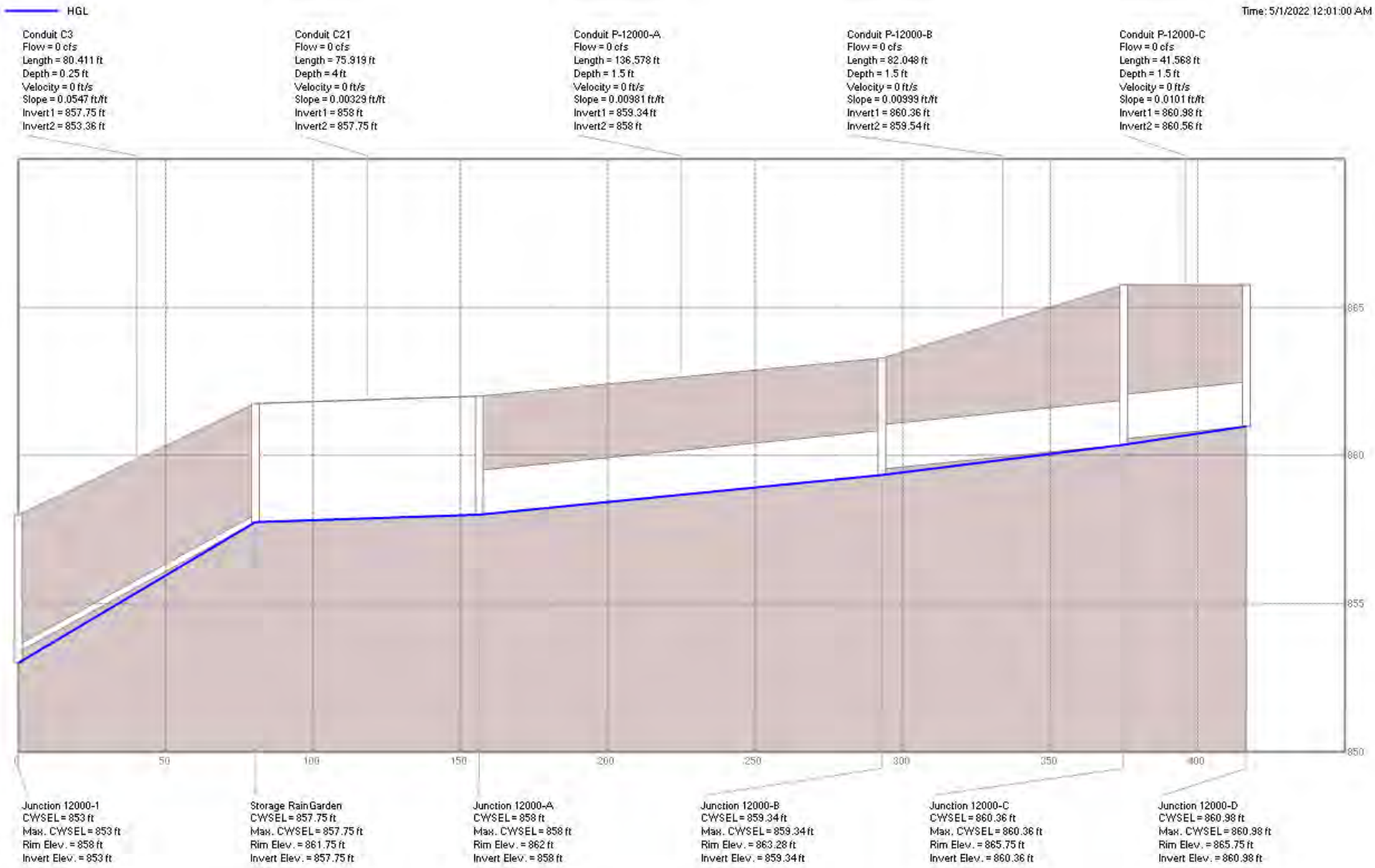

Figure 20: LINE 12000-OUTFALL

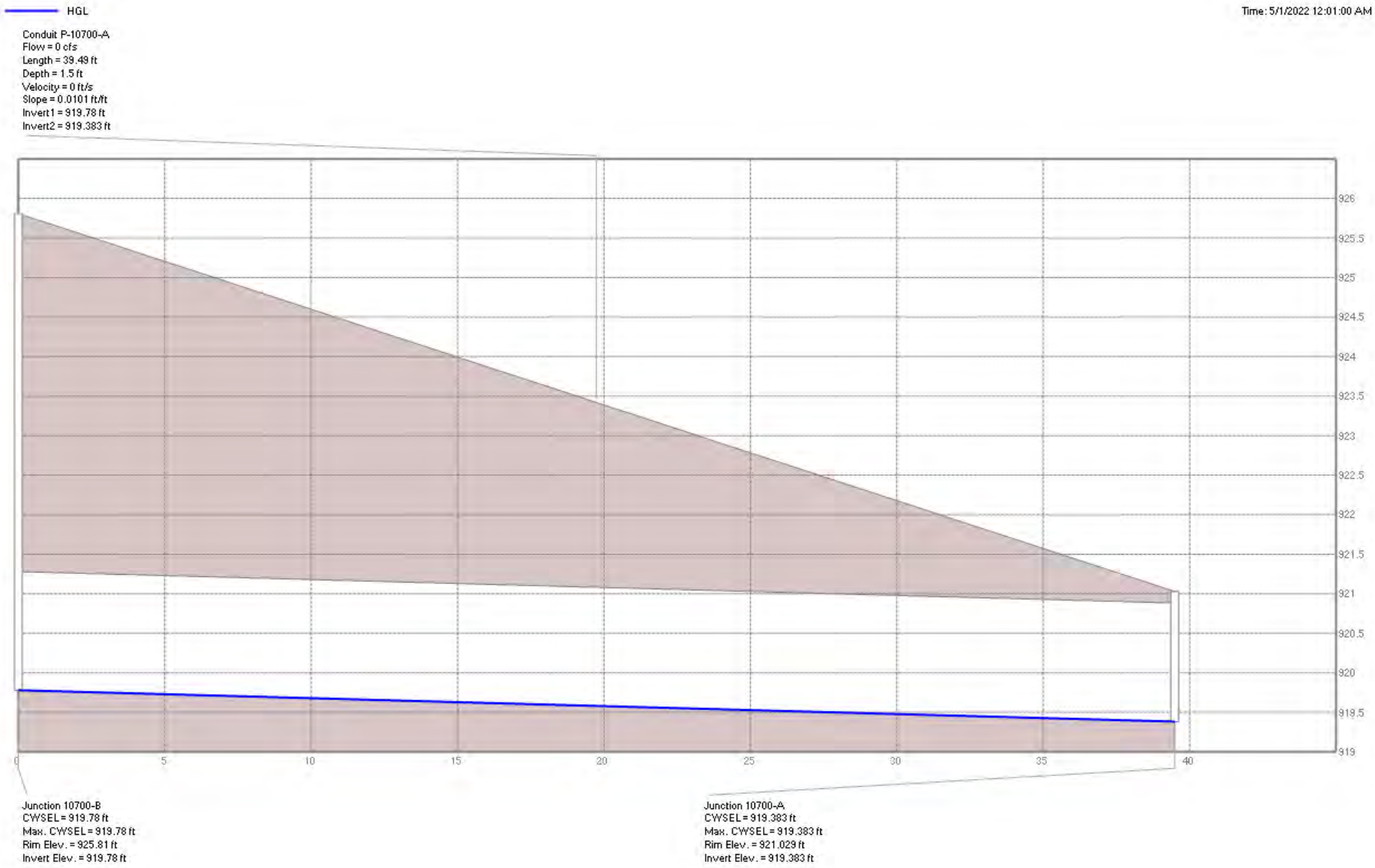

Figure 21: LINE 10700

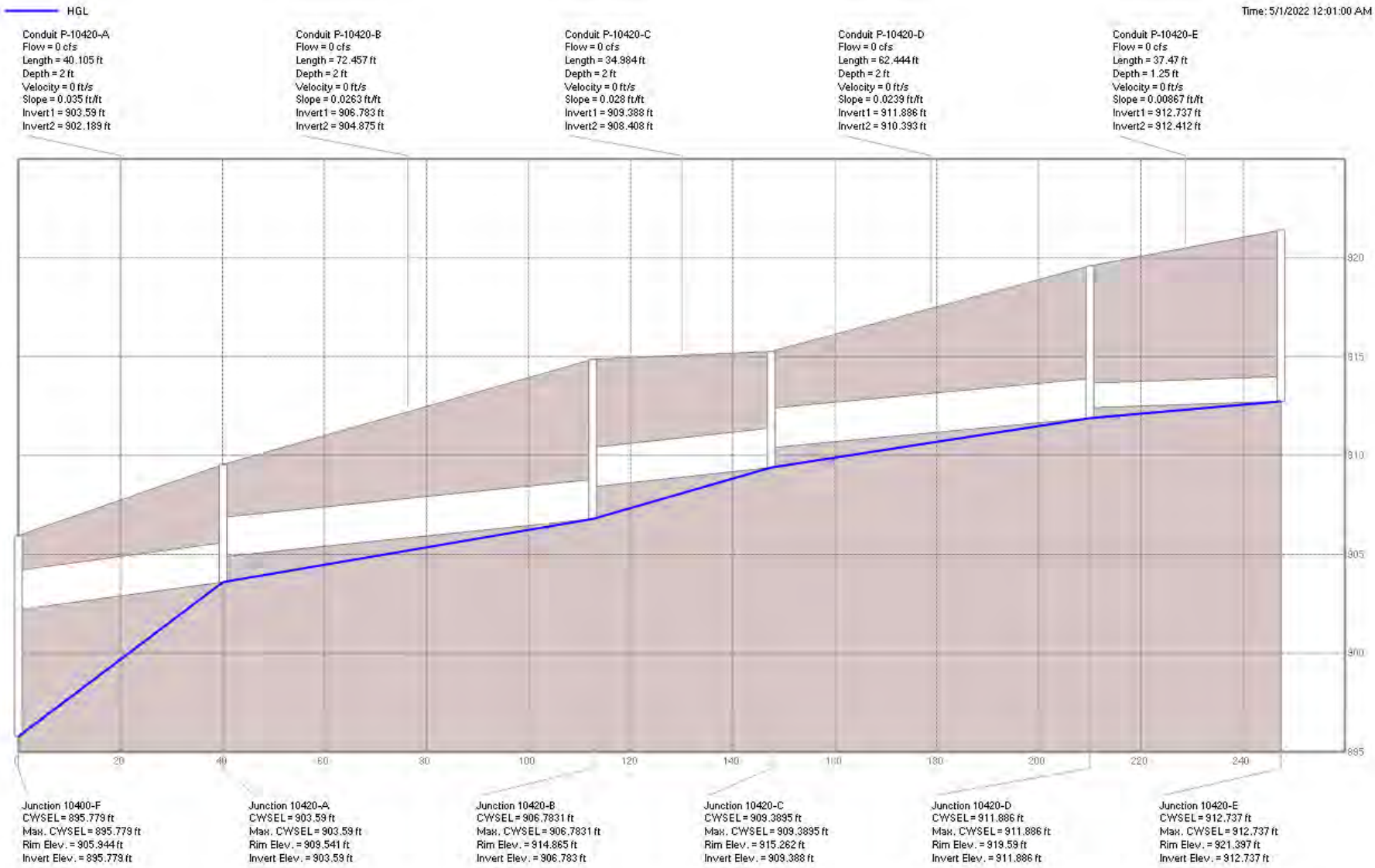

Figure 22: LINE 10420

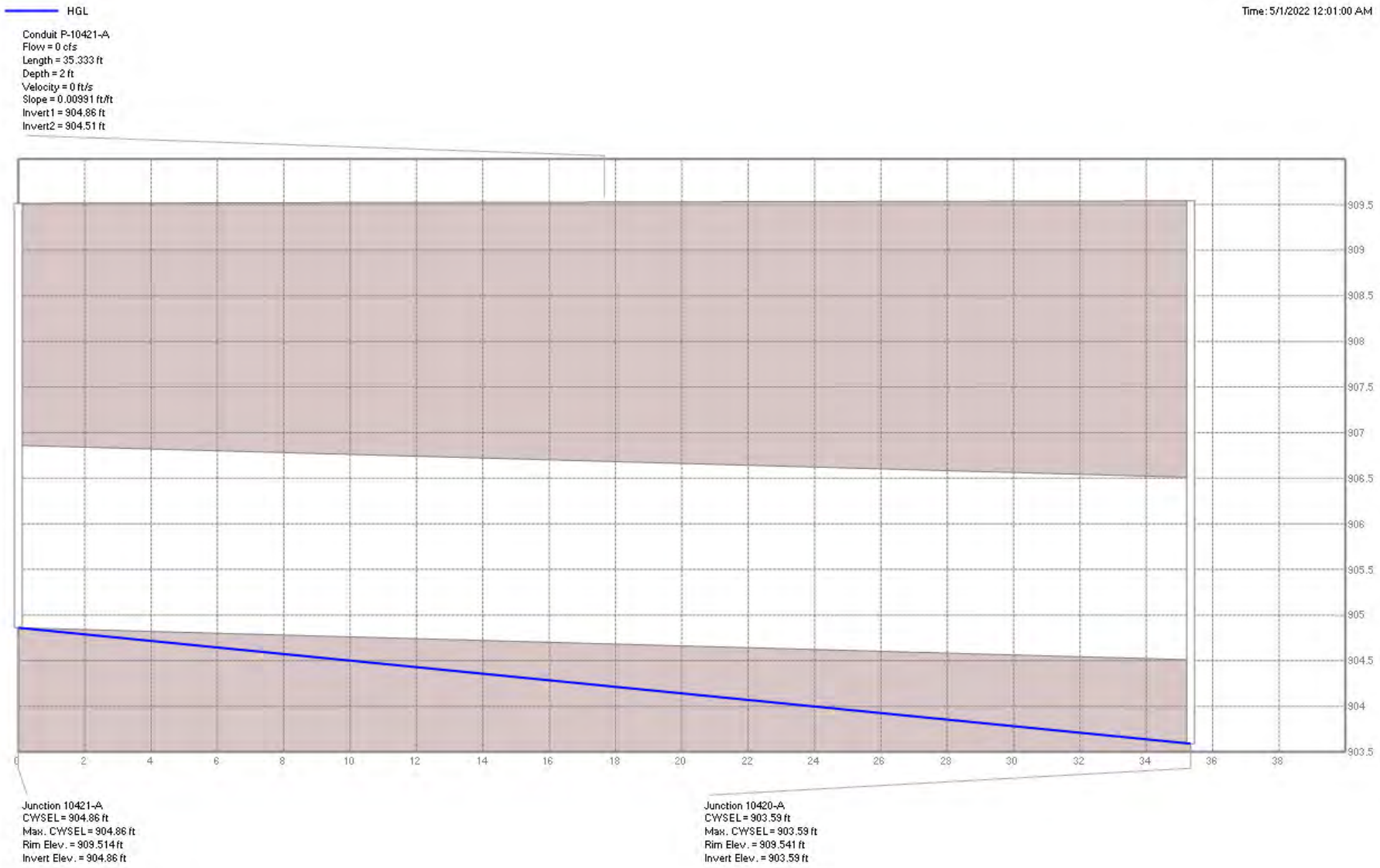

Figure 23: LINE 10421

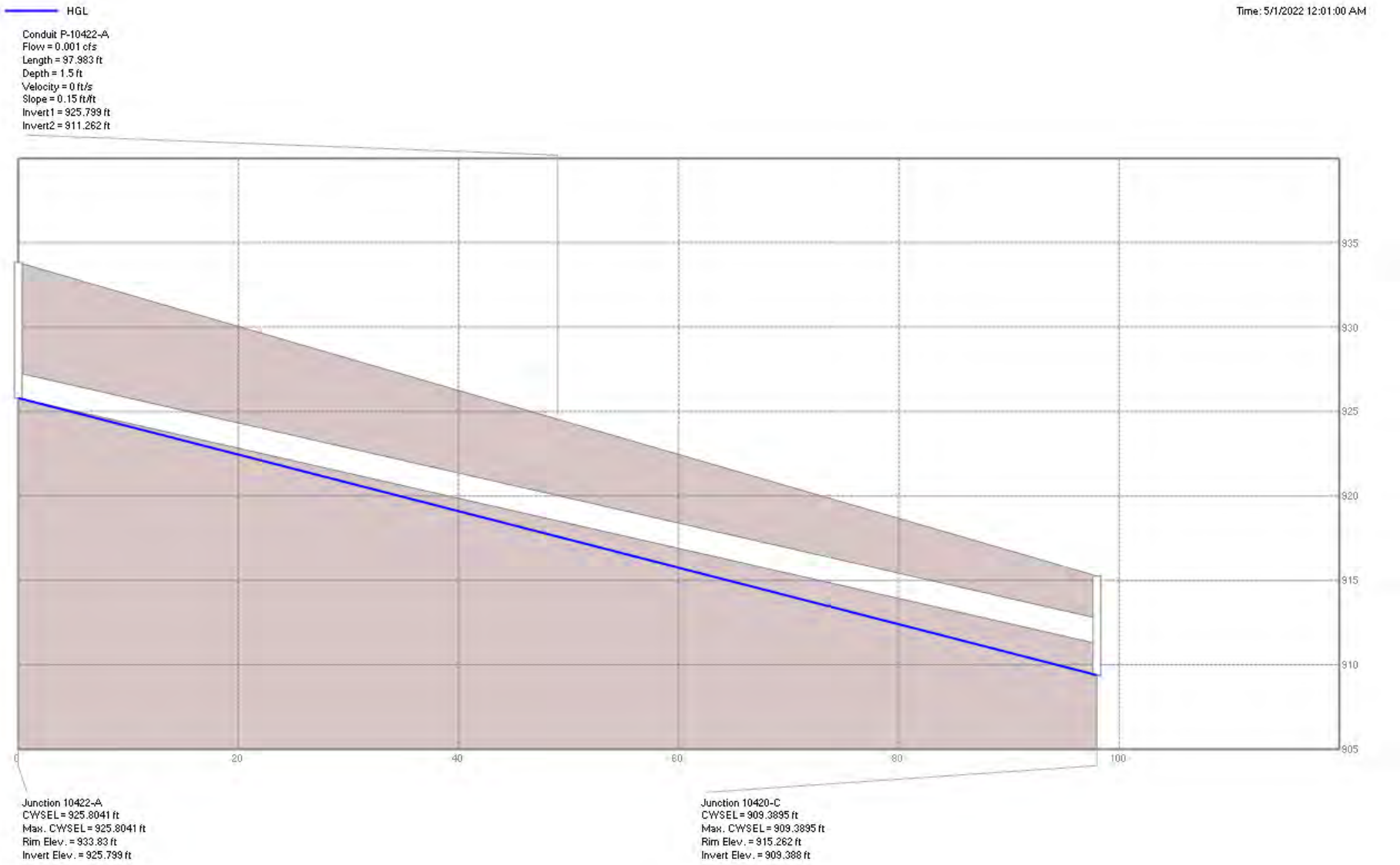

Figure 24: LINE 10422

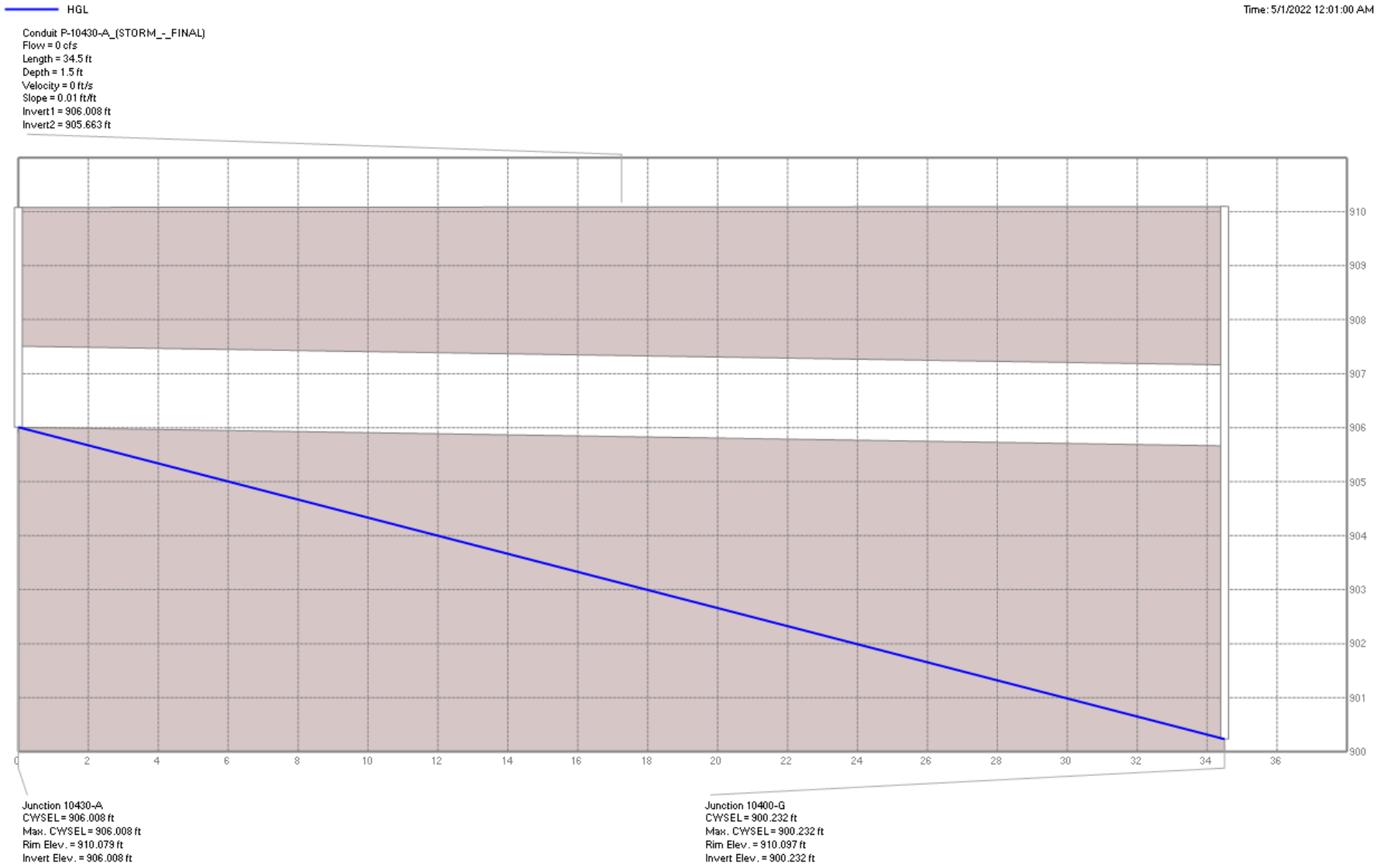

Figure 25: LINE 10430

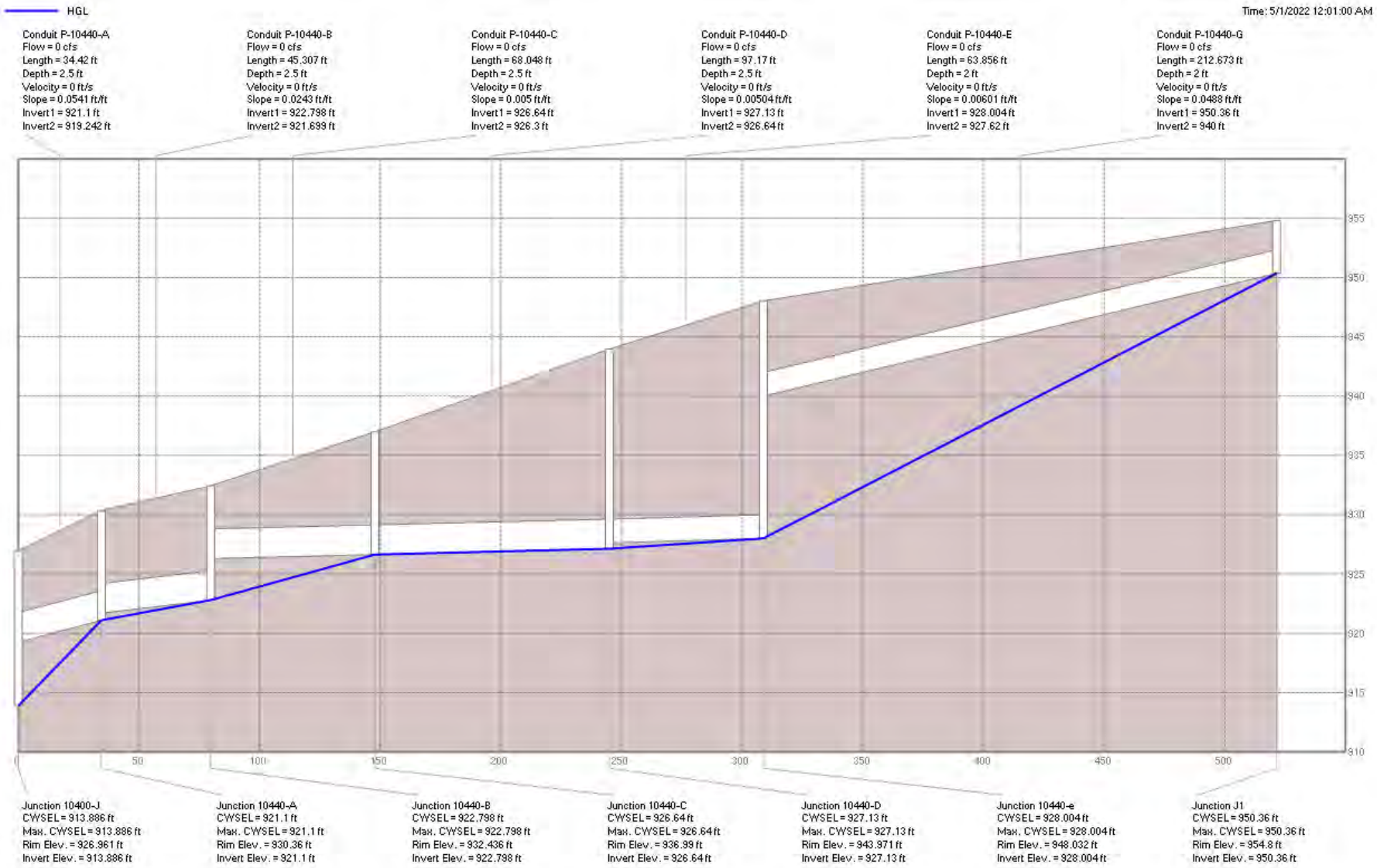

Figure 26: LINE 10440

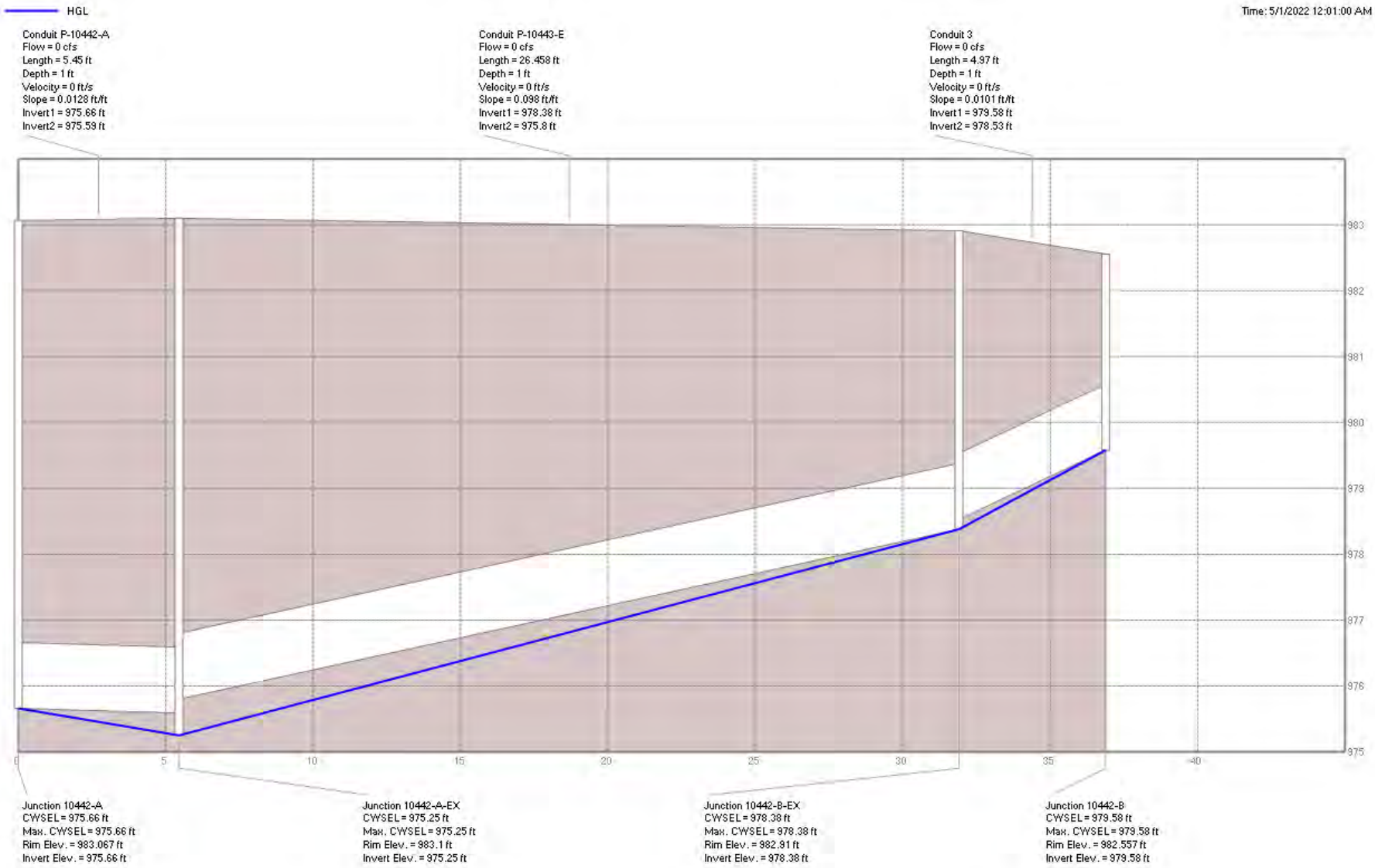

Figure 27: LINE 10442

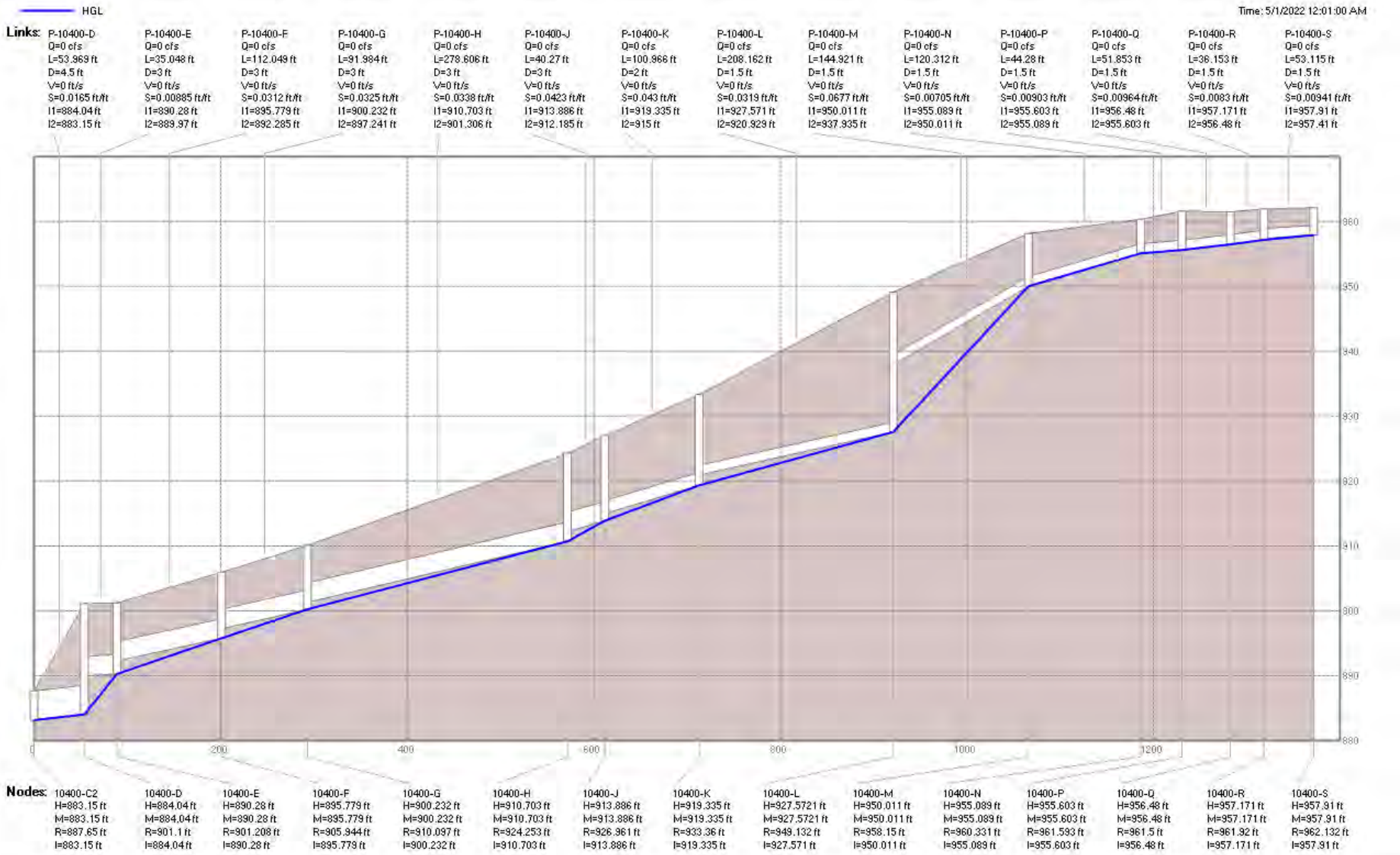

Figure 28: LINE 10400-2

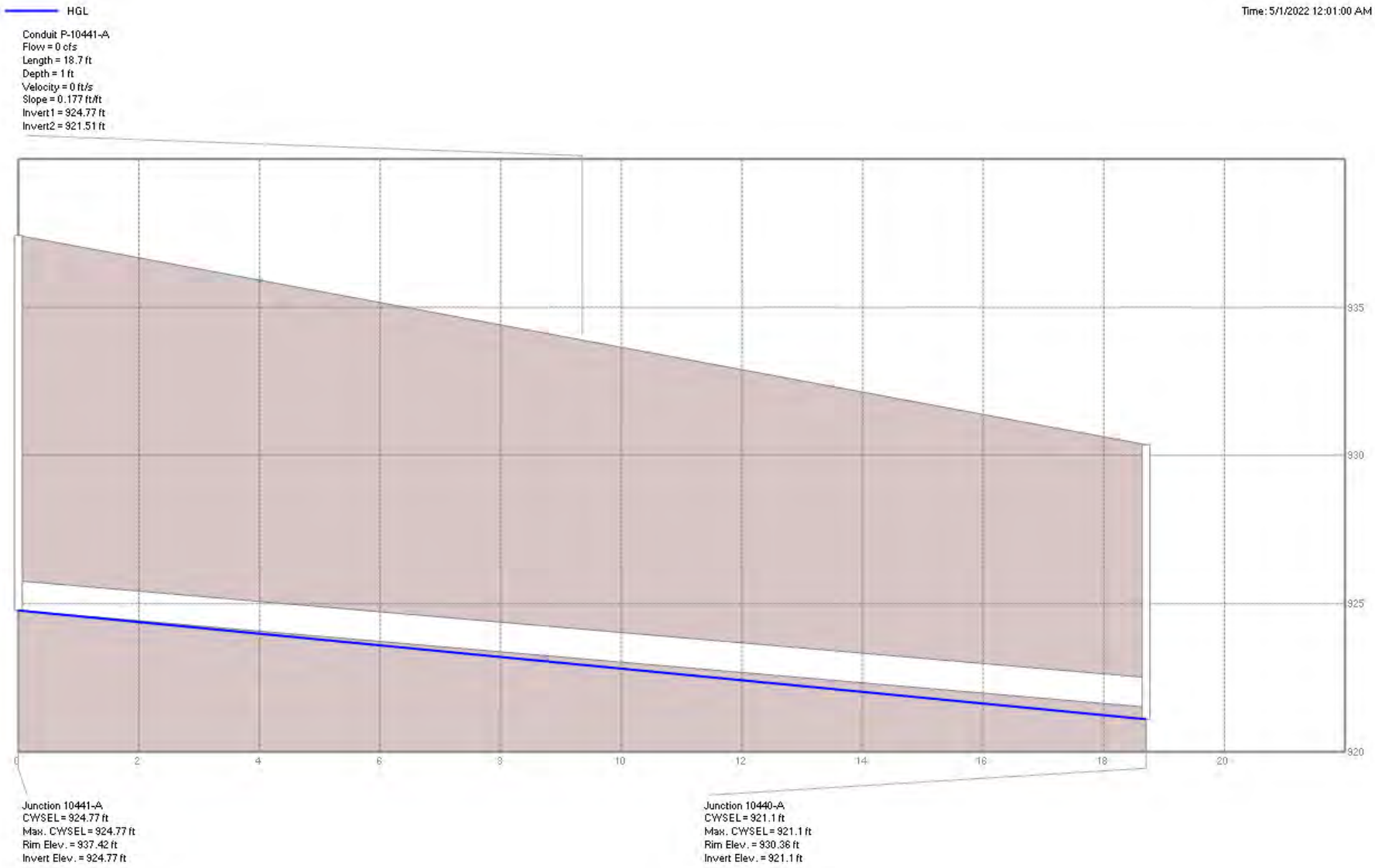

Figure 29: LINE 10441

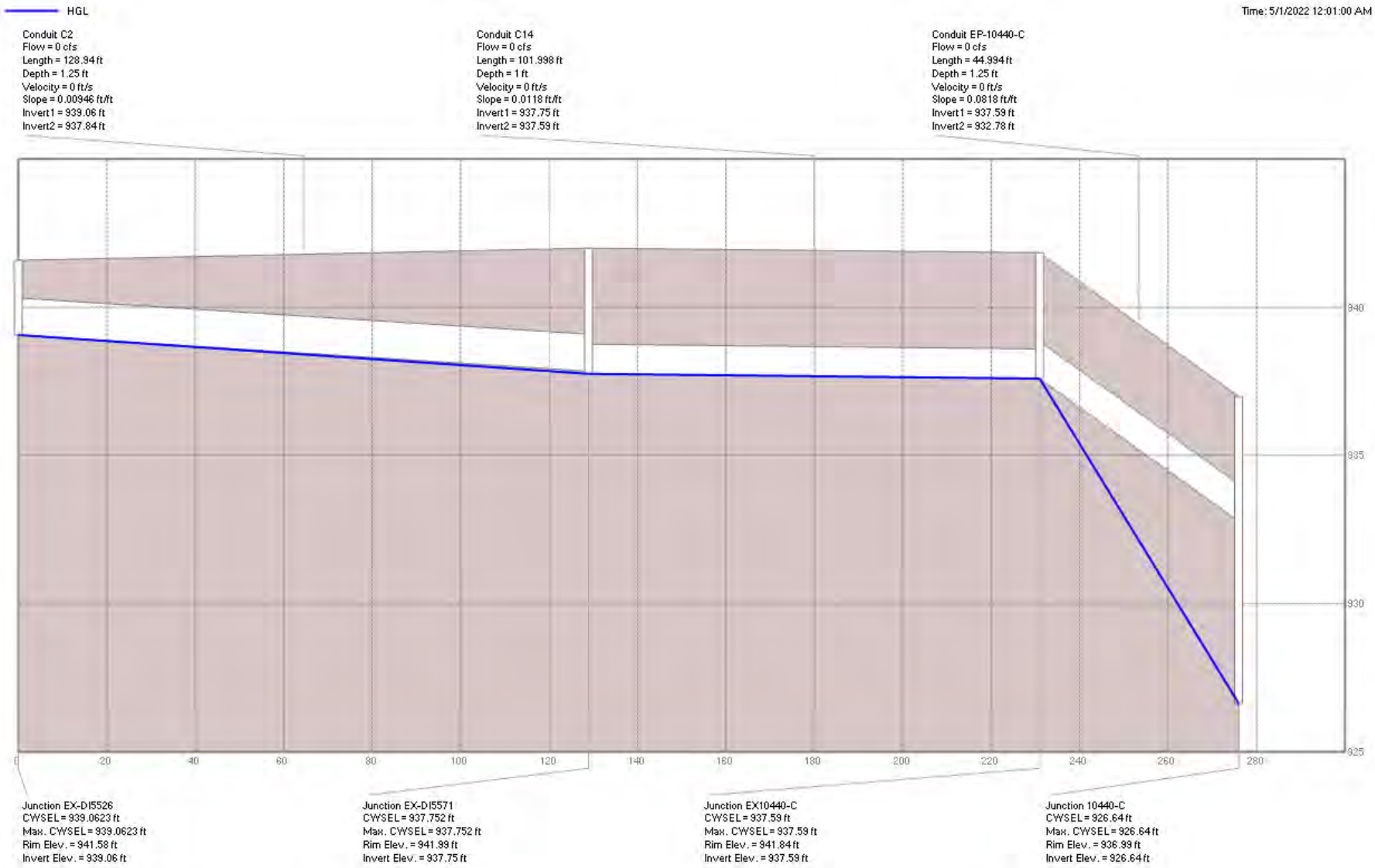

Figure 30: LINE 10440-EX

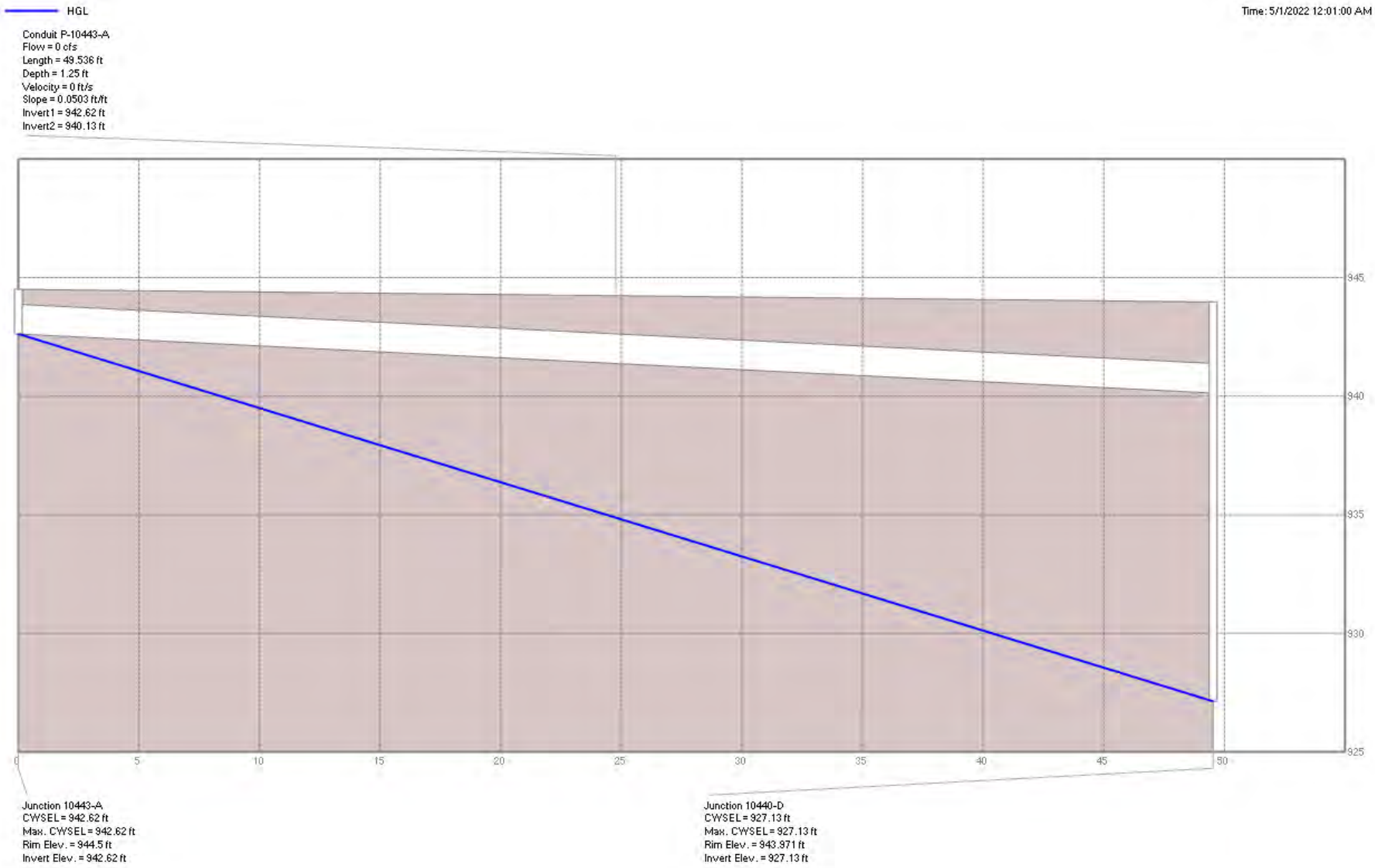

Figure 31: LINE 10443

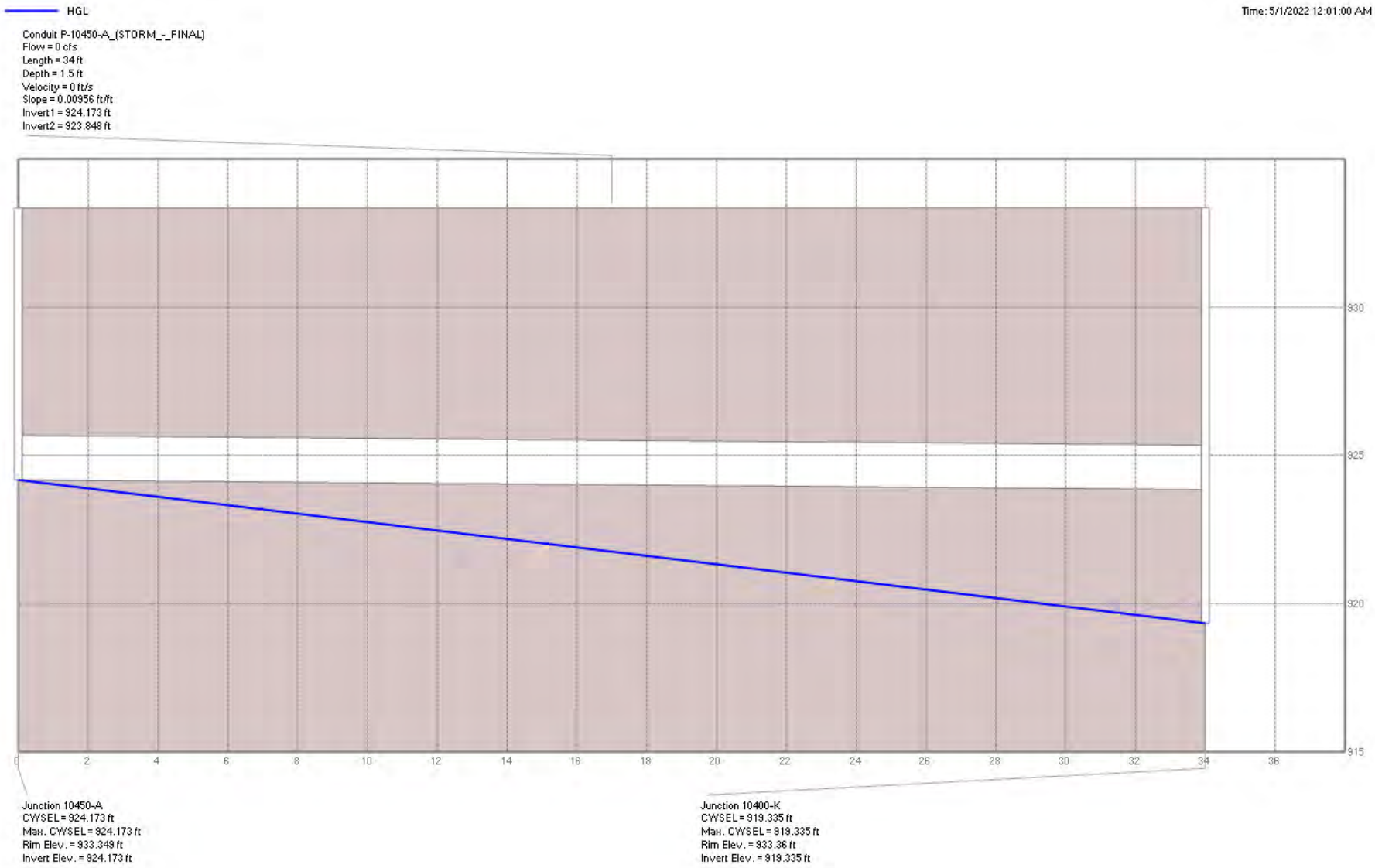

Figure 32: LINE 10450

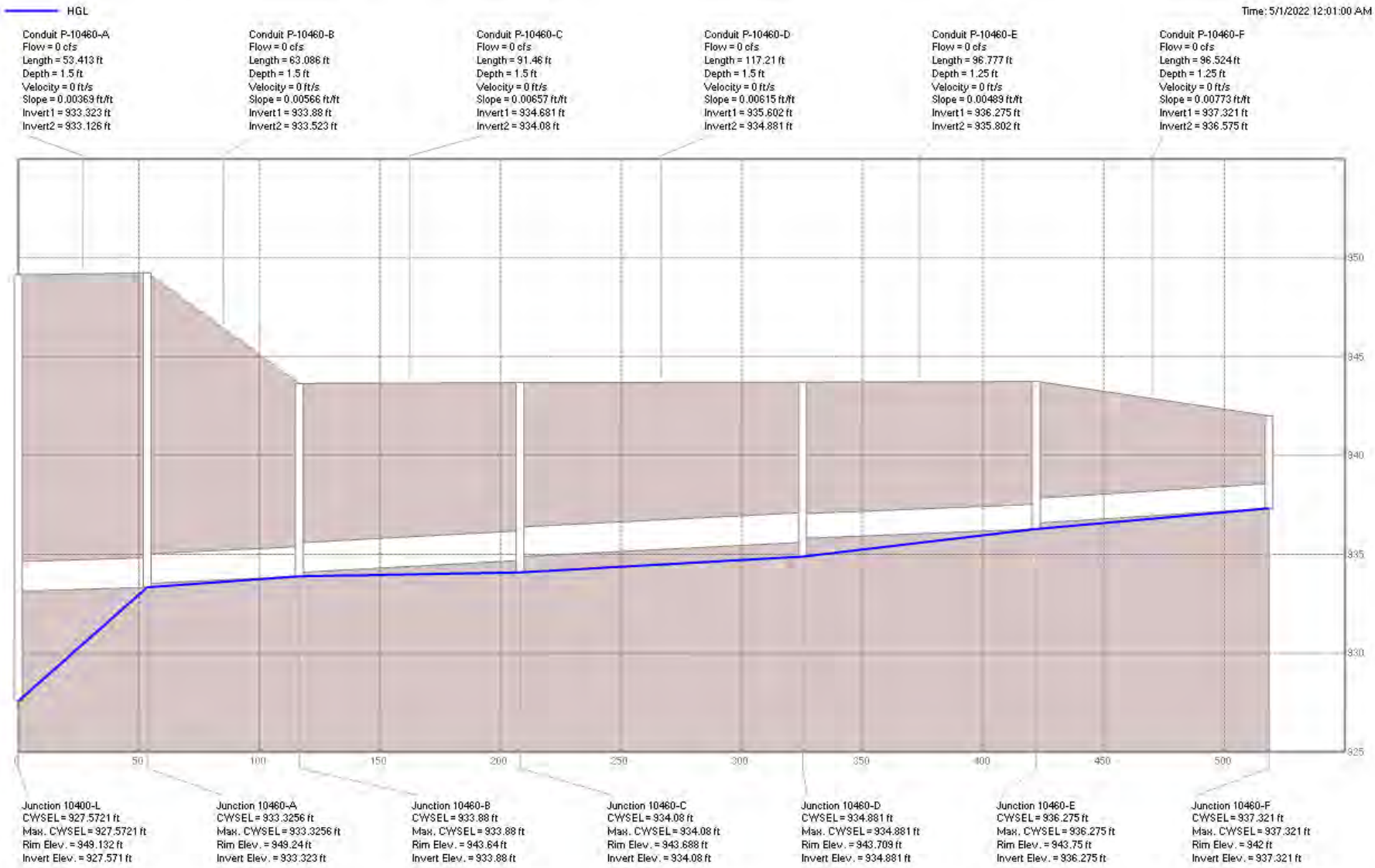

Figure 33: LINE 10460

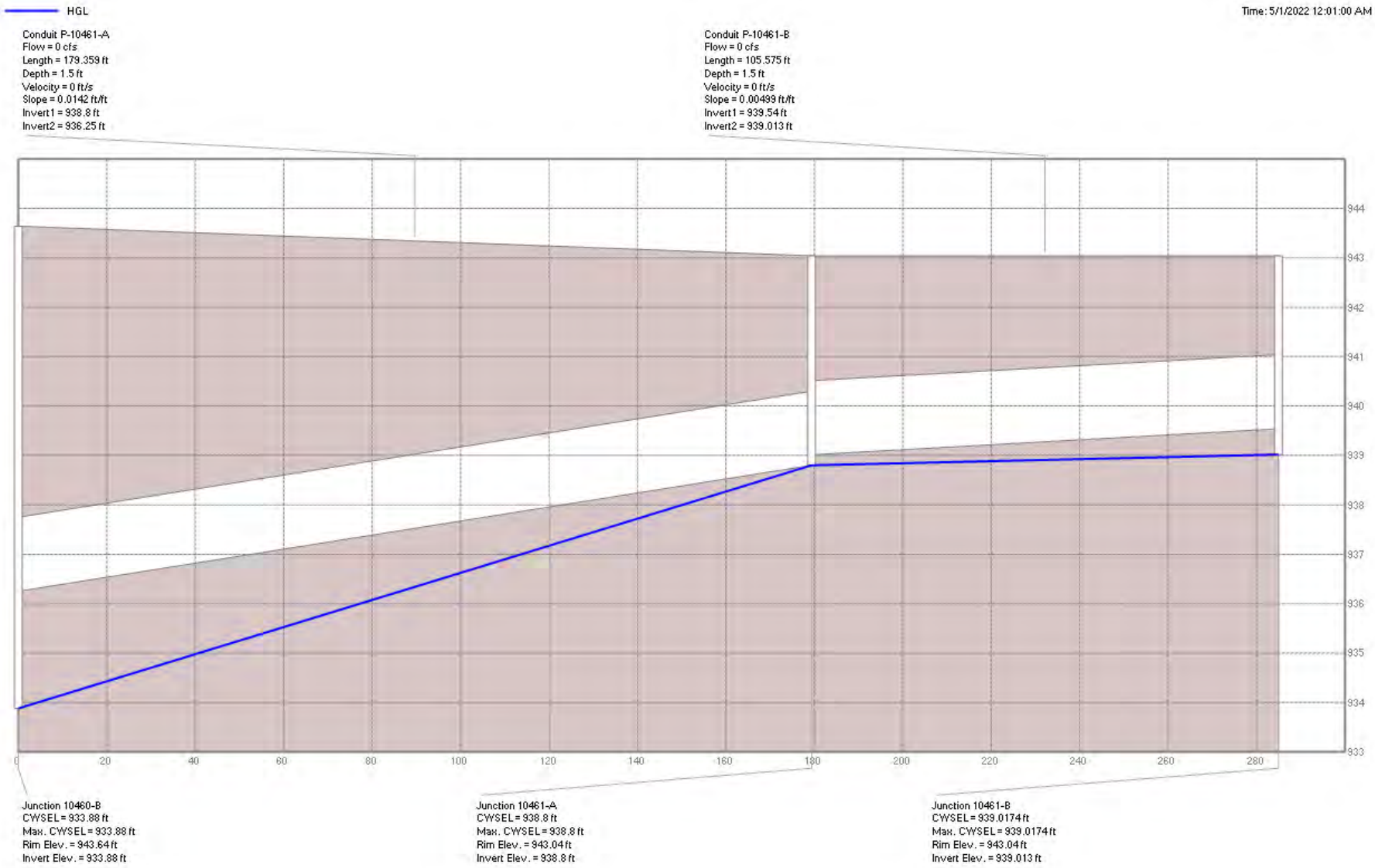

Figure 34: LINE 10461

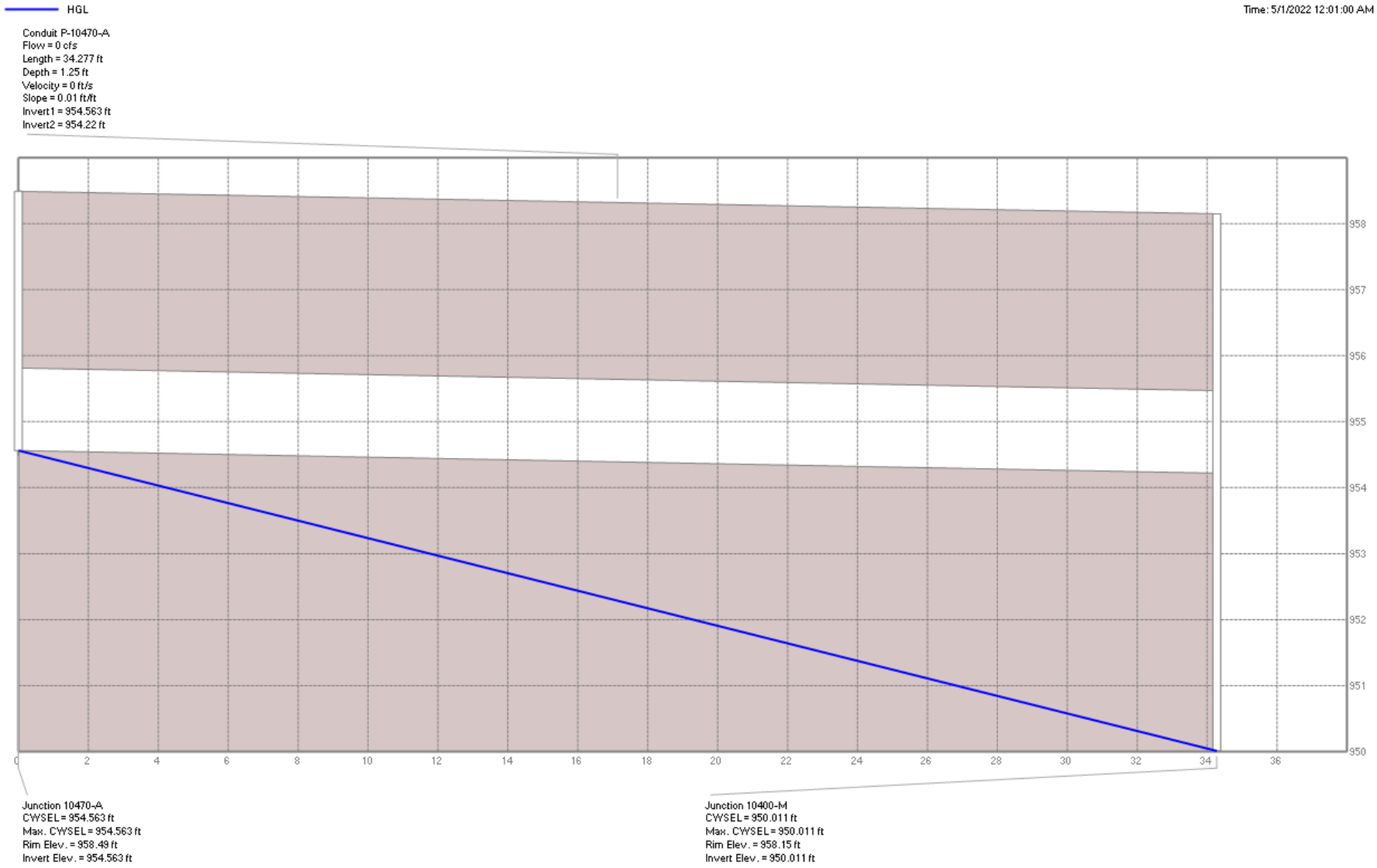

Figure 35: LINE 10470

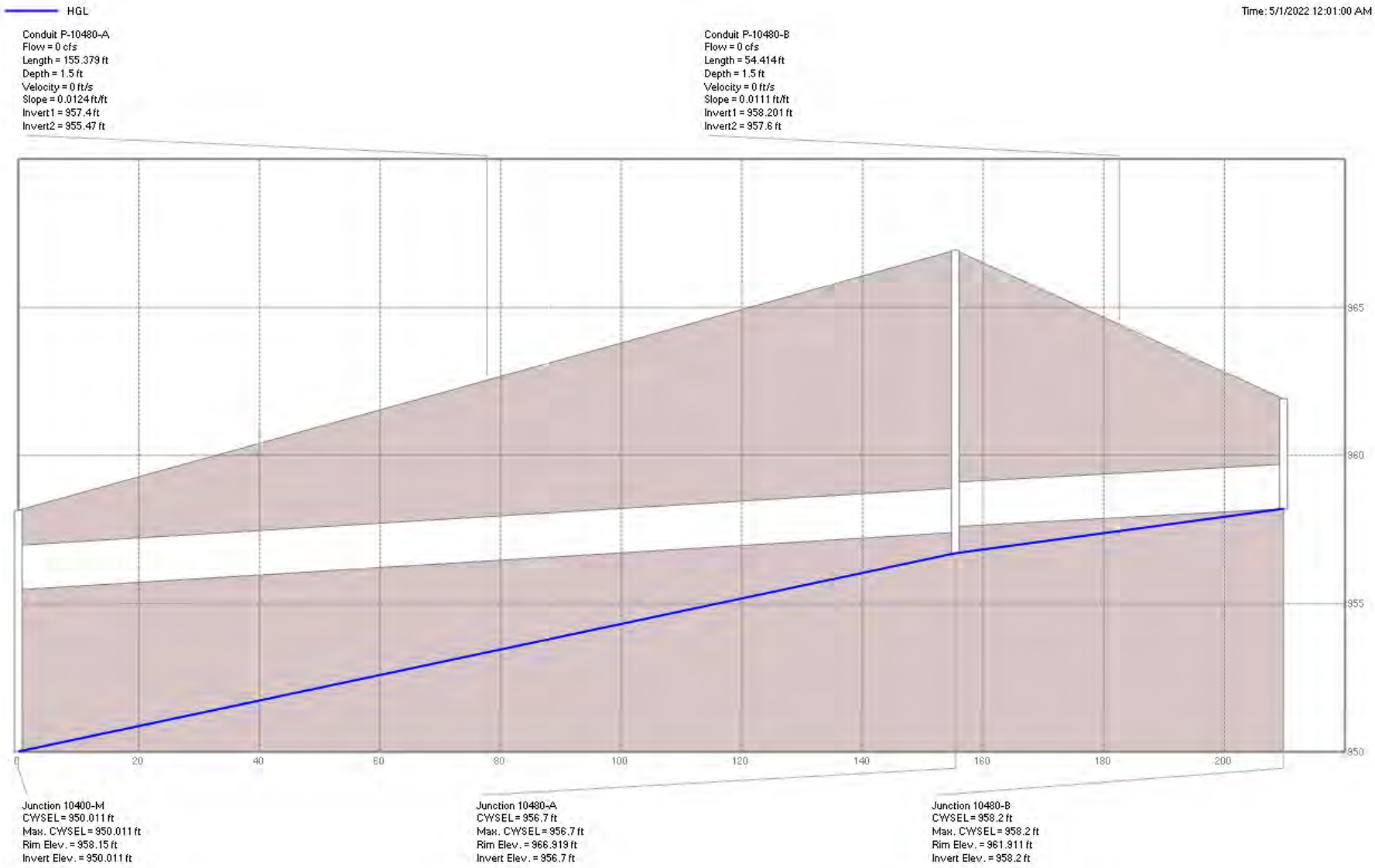

Figure 36: LINE 10480

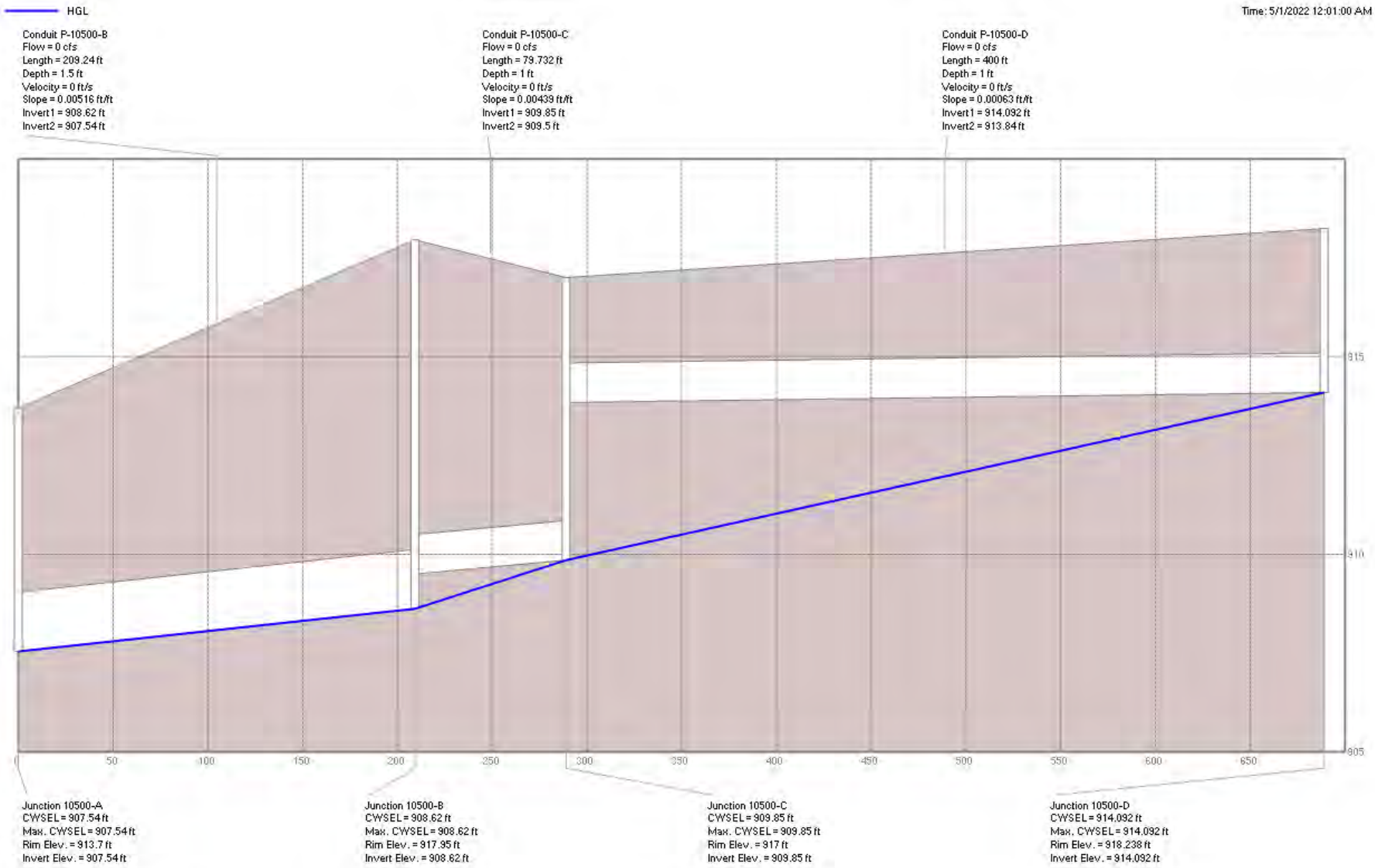

Figure 37: LINE 10500

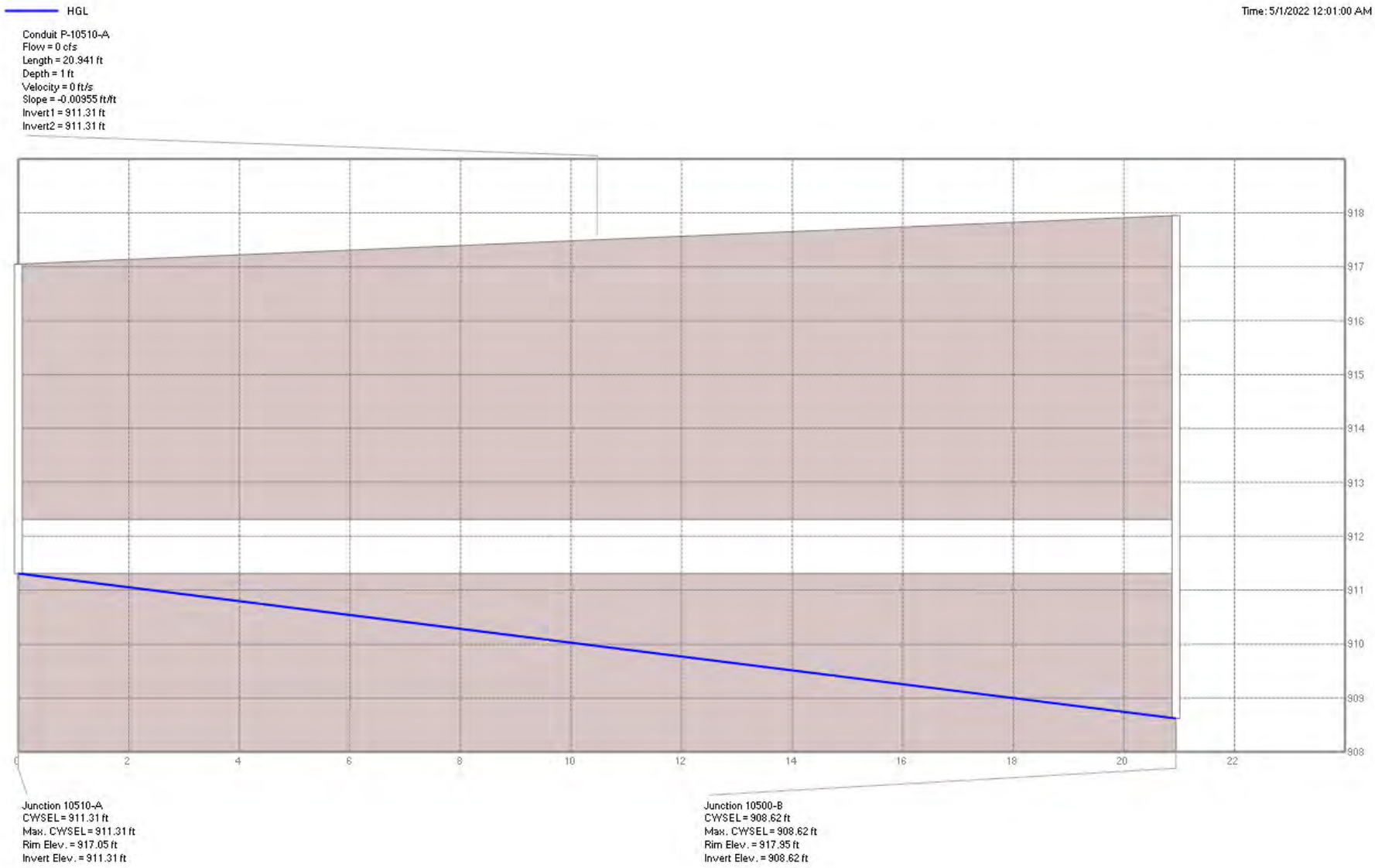

Figure 38: LINE 10510

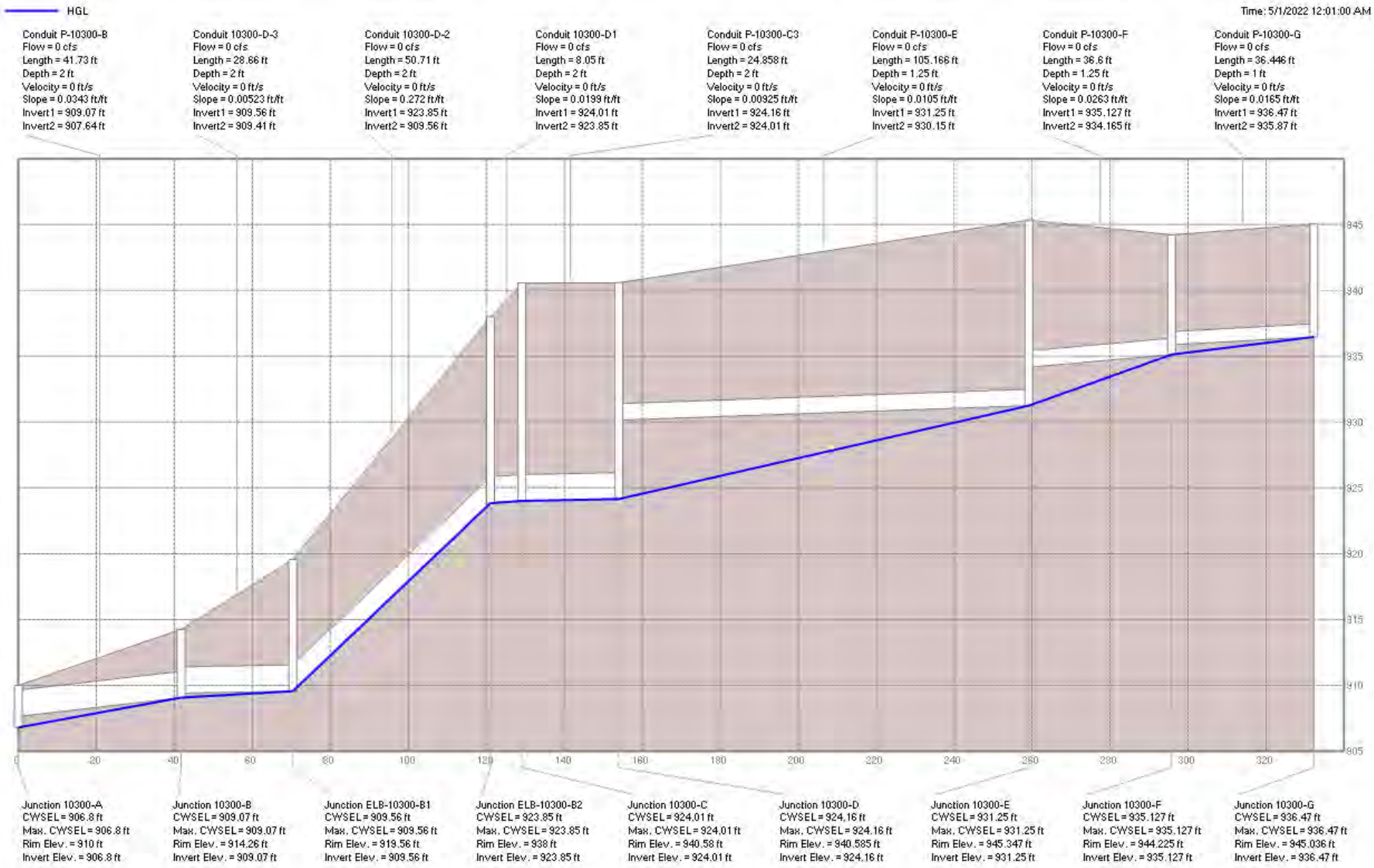

Figure 39: LINE 10300

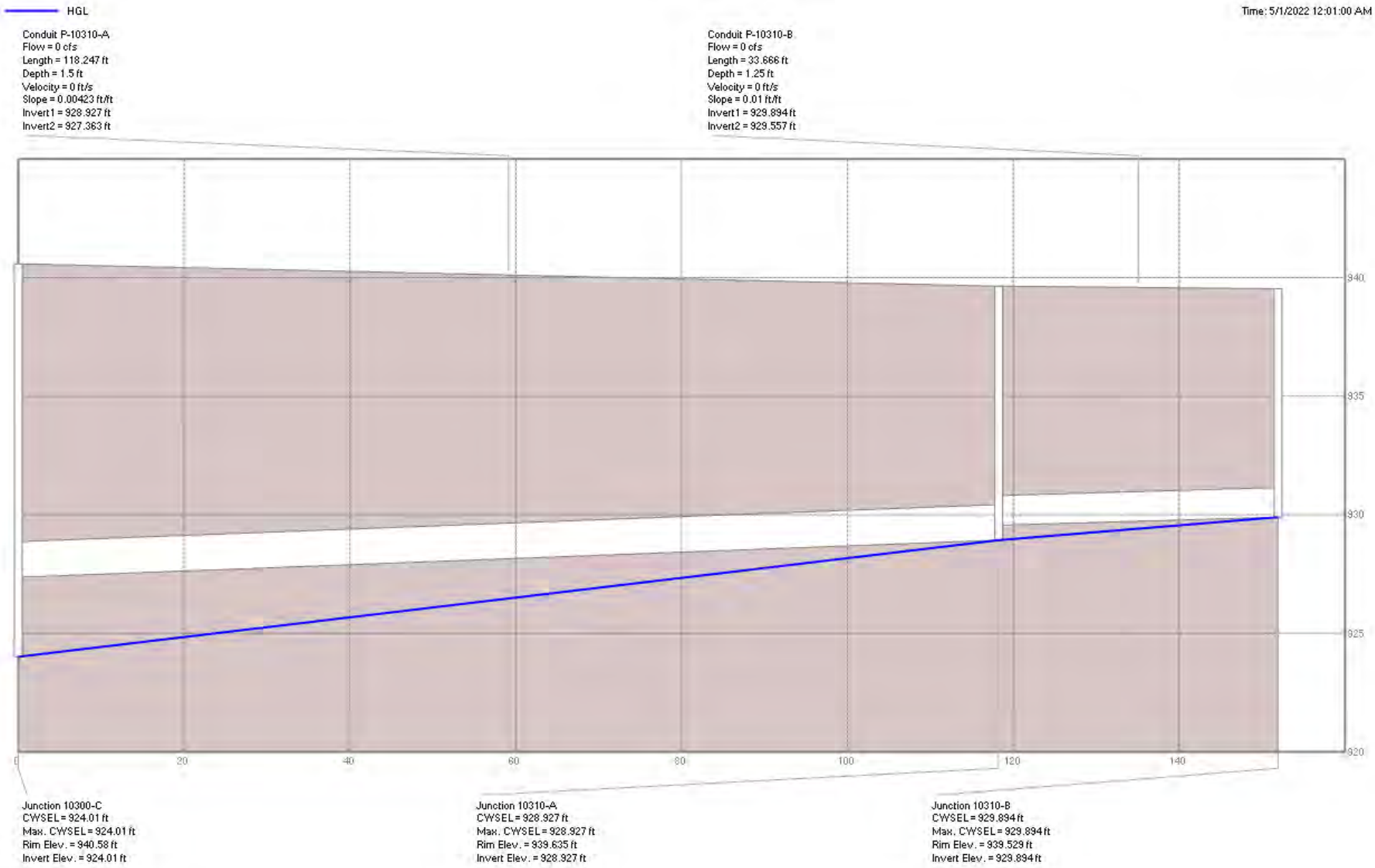

Figure 40: LINE 10310

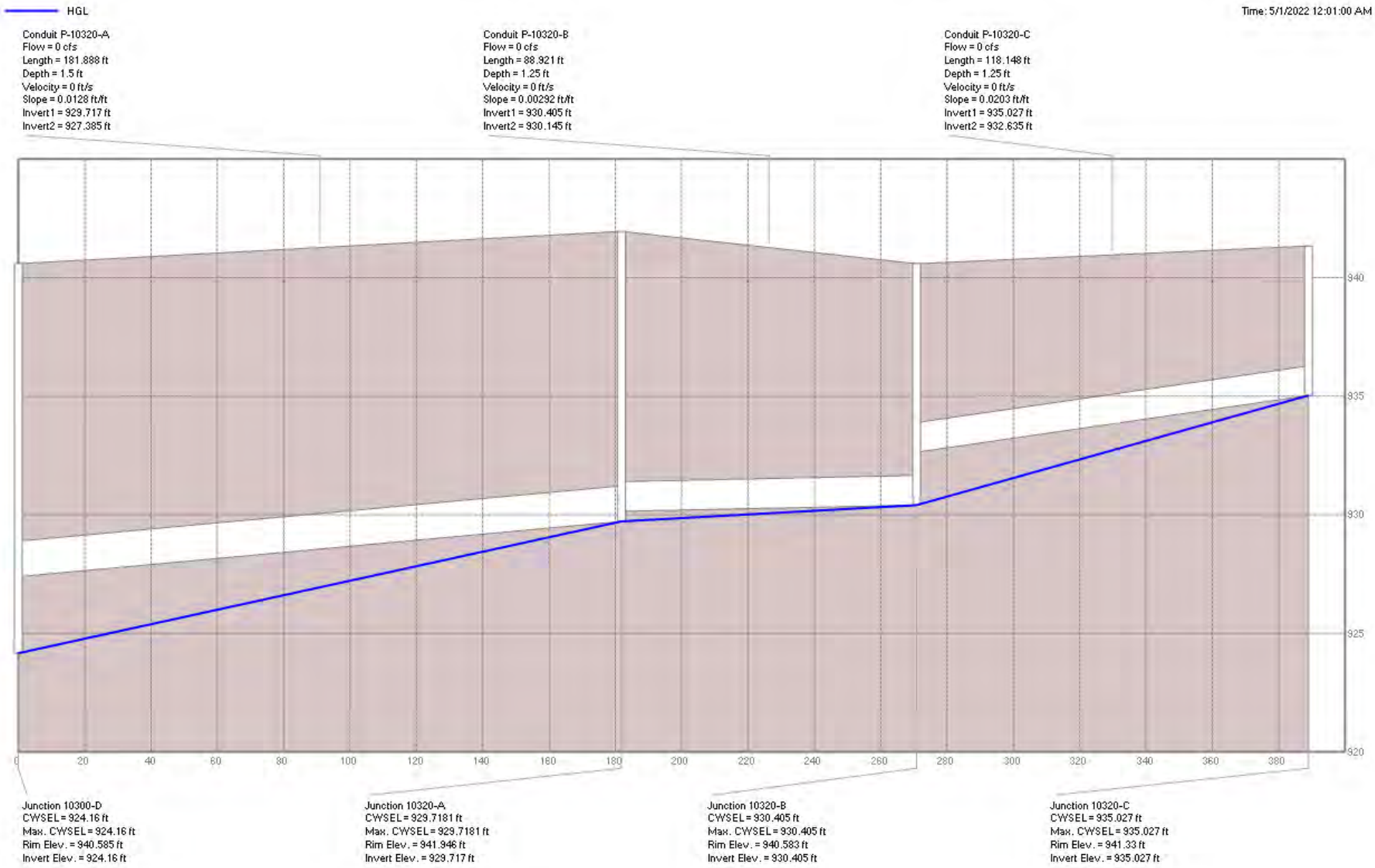

Figure 41: LINE 10320

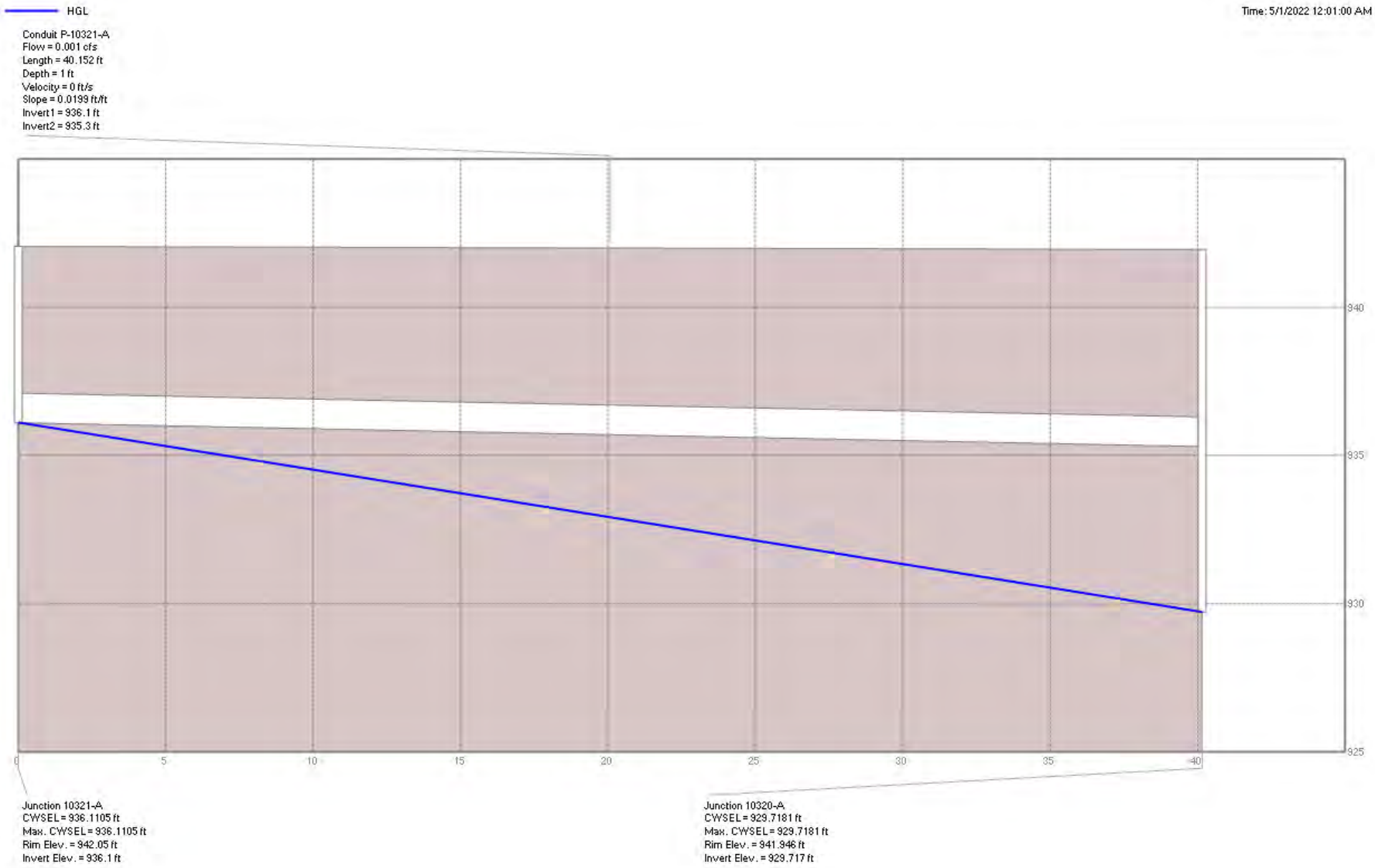

Figure 42: LINE 10321

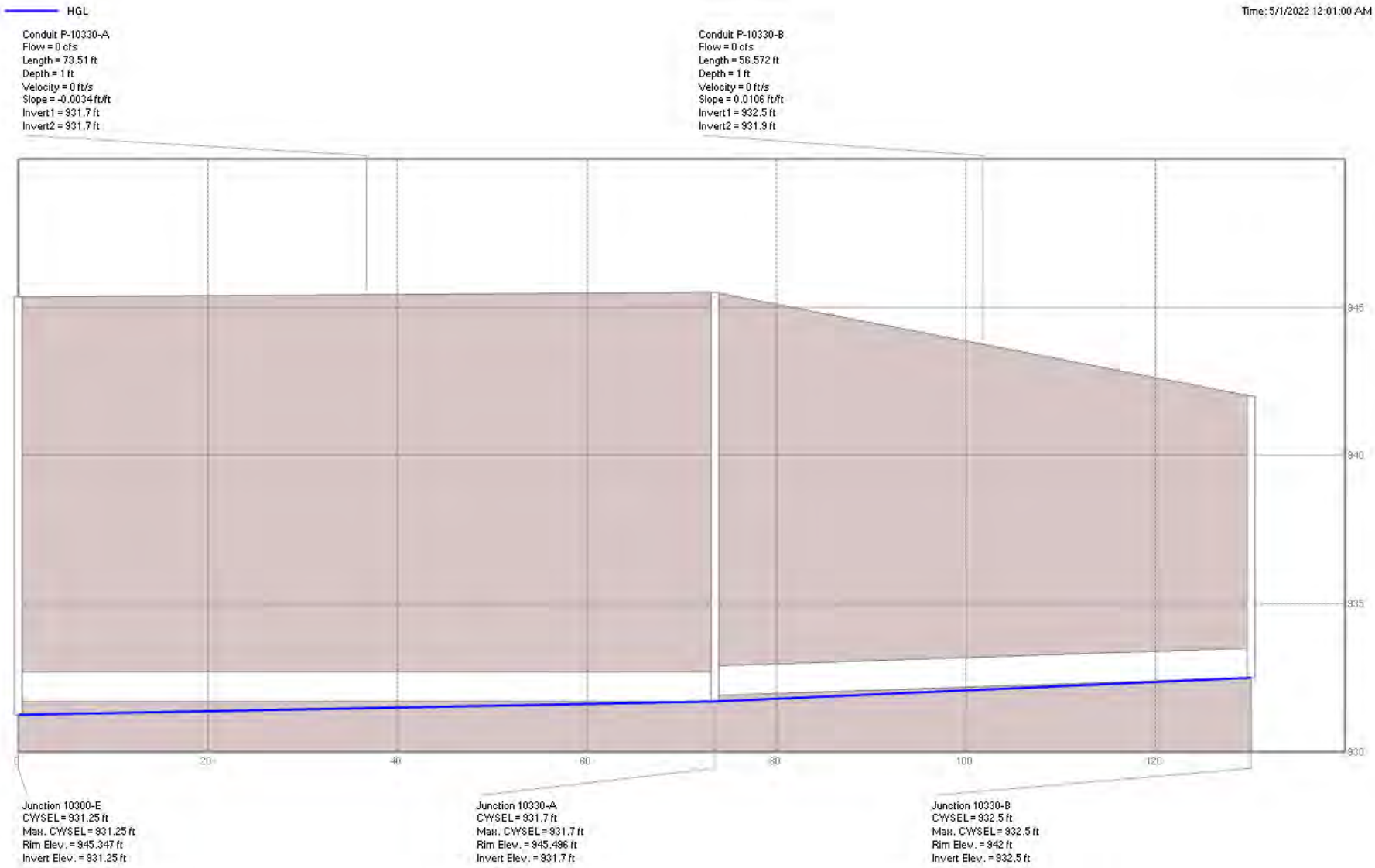

Figure 43: LINE 10330

Table 1A: Conduits

Name	Inlet Node	Outlet Node	Tag	Length (ft)	Roughness	Inlet Elev. (ft)	Outlet Elev. (ft)	Initial Flow (cfs)	Flow Limit (cfs)	Entry Loss Coeff.	Exit Loss Coeff.
1	8903	8807	ex	107.867	0.01	857.01	856.03	0	0	0	0
10	J9	10120-H-S	overland	389.564	0.01	942.74	900.49	0	0	0	0
10000-CB-S	10000-C-S	12000-G-S	Overland	312.008	0.013	889.151	880.604	0	0	0	0
10000-DC-S	10000-D	10000-C-S	Overland	31.126	0.013	890.1	889.151	0	0	0	0
10000-ED-S	10100-A-S	10001-A-S	Overland	100.916	0.013	889.312	889	0	0	0	0
10123-AF	10123-A	10410-G	EX	36.933	0.013	888.94	896.18	0	0	1	0
10125-AG	10125-A	10120-G	EX	98.171	0.013	898.68	896.12	0	0	1	0
10200-B	10200-B	10200-A	GMP3	156.326	0.013	887.56	874.47	0	0	1	0
10203-A	10203-A	10200-D	GMP3	28.554	0.013	918.07	917.45	0	0	1	0
10300-D1	10300-C	ELB-10300-B2	GMP5	8.05	0.013	924.01	923.85	0	0	0	0
10300-D-2	ELB-10300-B2	ELB-10300-B1	GMP5	50.71	0.013	922.85	909.56	0	0	0	0
10300-D-3	ELB-10300-B1	10300-B	GMP5	28.66	0.013	909.56	909.41	0	0	0	0
10310-C-S2	10310-B-S2	10310-B-S	Overland	10.096	0.013	941.37	939.529	0	0	0	0
11	OL-J10	OL-J10b	Overland	166.477	0.01	1011.884	981.726	0	0	0	0
11000-A0	11000-A	11000-0	Pipe	15.958	0.013	861.67	861.08	0	0	1	0
12	OL-J10b	J13	Overland	55.163	0.01	981.75	980.139	0	0	0	0
12000-B'B	12000-B'	12000-D-S	Overland	40.902	0.013	866.842	865.238	0	0	0	0
12000-DC-S	12000-F-S.	12000-B'	Overland	53.737	0.013	868.71	866.842	0	0	0	0
12000-FE-S	12000-H-S	12000-C-S	Overland	164.805	0.013	868.6	865.18	0	0	0	0
12000-G	12000-H	12000-G	GMP3	63.72	0.013	864.2	863.6	0	0	1	0
12000-RainGarden	12000-1	12000	Overland	72.824	0.013	853	838	0	0	0	0
13	J10	J11	EX	53.568	0.01	1008.97	1004.59	0	0	0	0
13000-A0	13000-A	13000-0	EX	79.383	0.013	941.46	936.2	0	0	1	0
14	J11	J12	EX	139.856	0.01	1004.59	981.34	0	0	0	0
14000-A0'	14000-A	14000-0'	Overland	100.128	0.013	848.575	847.5	0	0	0	0
14000-B0	14000-B	14000-0	ex	219.172	0.013	848.35	845.99	0	0	1	0

Table 1A: Conduits (continued...)

Name	Inlet Node	Outlet Node	Tag	Length (ft)	Roughness	Inlet Elev. (ft)	Outlet Elev. (ft)	Initial Flow (cfs)	Flow Limit (cfs)	Entry Loss Coeff.	Exit Loss Coeff.
14000-CB	14000-C	14000-B	ex	202.553	0.013	850.38	848.35	0	0	1	0
14000-DC	14000-D	14000-C	ex	37.439	0.013	850.75	850.38	0	0	1	0
14000-ED	14000-E	14000-D	ex	156.876	0.013	852.32	850.75	0	0	1	0
14000-FE	14000-F	14000-E	ex	67.535	0.013	853	852.32	0	0	1	0
15	J12	J13	EX	40.263	0.01	981.34	980.139	0	0	0	0
16	J13	J179	Channel	111.819	0.01	980.139	976.794	0	0	0	0
17	J179	J7	Overland	648.835	0.01	976.794	942.46	0	0	0	0
18	J7	J6	Ex	42.062	0.01	942.46	941.2	0	0	0	0
19	J8	J34	EX	73.827	0.01	938.5	928.85	0	0	0	0
20	J34	J9	Ex	37.578	0.01	928.85	926.22	0	0	0	0
21	J6	J5	EX	36.361	0.01	941.2	940.1	0	0	0	0
22	J5	J8	EX	53.078	0.01	940.1	938.5	0	0	0	0
26	OL-J5	J9	Overland	163.885	0.01	945.854	928.229	0	0	0	0
28	Curb_Cut	10310-B-S2	Swale	112.045	0.035	946.544	941.37	0	0	0	0
3	10442-B	10442-B-EX	GMP5	4.97	0.01	978.58	978.53	0	0	0	0
4	10211-C	10211-B	GMP5	400	0.01	885.811	883.285	0	0	0	0
5	8807	8697	ex	99.864	0.01	855.48	854.19	0	0	0	0
6	Curb_Cut-S	10300-G-S	Overland	38.712	0.01	0	0	0	0	0	0
8	8697	8667-J4	ex	89.36	0.01	853.99	853.26	0	0	0	0
9	10410-G	10410-F		400	0.01	886.38	0	0	0	0	0
C10	J18	J15	EX	23.258	0.013	951.46	951.35	0	0	0	0
C10-S	J18-S	J15-S	Overland	22.046	0.013	954.37	954.37	0	0	0	0
C11	J17	J15	EX	18.28	0.013	951.85	951.48	0	0	0	0
C11-S	J17-S	J15-S	Overland	20.595	0.013	954.68	954.37	0	0	0	0
C12-S	J20-S	J1-IC	Overland	5.394	0.013	954.25	953.5	0	0	0	0
C14	EX-DI5571	EX10440-C	EX	101.998	0.013	937.75	936.55	0	0	0	0

Table 1A: Conduits (continued...)

Name	Inlet Node	Outlet Node	Tag	Length (ft)	Roughness	Inlet Elev. (ft)	Outlet Elev. (ft)	Initial Flow (cfs)	Flow Limit (cfs)	Entry Loss Coeff.	Exit Loss Coeff.
C15	J15	J20	EX	15.508	0.013	951.22	950.21	0	0	0	0
C16	J15-S	J20-S	Overland	14.686	0.013	954.8	953.417	0	0	0	0
C17	10125-A-S	10120-G-S	Overland	92.921	0.013	901.45	900.47	0	0	0	0
C18	RainGarden	12000-1	Overland	89.208	0.013	860	857	0	0	0	0
C19	J4-S	12000-2	Overland	59.518	0.013	858.04	851.96	0	0	0	0
C2	EX-DI5526	EX-DI5571	EX	128.94	0.013	939.06	937.84	0	0	0	0
C20	12000-2	12000	ex	99.75	0.024	851.71	838	0	0	0	0
C21	12000-A	RainGarden	Overland	75.919	0.013	858	857.75	0	0	0	0
C23	12000	12000.	Overland	14.58	0.013	838	836	0	0	0	0
C24	10461-A-S	10450-A-S	Overland	232.361	0.013	943.04	933.349	0	0	0	0
C25	10462-A-S	10460-D-S	Overland	43.318	0.013	949	943.664	0	0	0	0
C26	J20	J1	EX	4.326	0.013	950.51	950.36	0	0	0	0
C2-S	10700-A	10202-A-S1	Overland	51.463	0.013	919.383	902.18	0	0	0	0
C3	RainGarden	12000-1	EX	80.411	0.013	857.75	853.36	0	0	0	0
C4	J2	8667-J4	ex	124.965	0.013	855.48	854.11	0	0	1	0
C4-S	J2-S	J4-S	Overland	122.015	0.013	858.93	857.11	0	0	0	0
C5	8667-J4	12000-2	ex	53.361	0.013	852.76	851.96	0	0	1	0
C6	10210-D	10210-C	GMP5	136.537	0.013	887.5	886.964	0	0	0	0
C7	10120-G-S	10411-A-S	Overland	141.044	0.013	900.47	901.452	0	0	0	0
C8	CHANNEL_12+11.04	10400-C1	SWALE	339.45	0.013	905.75	887	0	0	0	0
C9_1	10300-A	CHANNEL_12+11.04	Swale	54.75	0.035	906.8	905.71	0	0	0	0
C9_2	10500-A	CHANNEL_12+11.04	Overland	12.5	0.013	907.566	907.537	0	0	0	0
C-J182	J182	J39	Swale	124.408	0.013	942.74	942.068	0	0	0	0
C-J320	J320	RainGarden	Overland	263.099	0.013	863.281	858.02	0	0	0	0
C-J39	J39	10443-A	Swale	204.633	0.013	942.068	941.38	0	0	0	0
C-J46	J46	J320	Overland	85.351	0.013	864.9	863.281	0	0	0	0

Table 1A: Conduits (continued...)

Name	Inlet Node	Outlet Node	Tag	Length (ft)	Roughness	Inlet Elev. (ft)	Outlet Elev. (ft)	Initial Flow (cfs)	Flow Limit (cfs)	Entry Loss Coeff.	Exit Loss Coeff.
EP-10440-C	EX10440-C	10440-C	EX	44.994	0.013	936.45	932.78	0	0	0	0
EP-10440-C-S	EX10440-C-S	J38	Overland	143.322	0.013	942.38	941.031	0	0	0	0
EX10441-B-S	10442-A-S	EX-CI21199-S	Overland	320.126	0.013	982.567	959.964	0	0	0	0
EX10441-C-S	10443-C-S	10442-A-S	Overland	66.542	0.013	984.97	982.567	0	0	0	0
EX10441-D-S	10443-D-S	10443-C-S	Overland	22.271	0.013	984.97	984.97	0	0	0	0
OL-10100-AE_1	OL-10100-B	12000-G-S2	Swale	109.277	0.013	891	885	0	0	0	0
OL-10100-AE_2	12000-G-S2	12000-G-S	Swale	335.572	0.013	885	868.578	0	0	0	0
OL-10101-AF	OL-10101-A	12000-H-S	Swale	416.014	0.013	877.733	867.77	0	0	0	0
OL-10131-BA	EX-DI5571-S	EX10440-C-S	Overland	102.69	0.013	942.19	941.84	0	0	0	0
OL-10131-CB	EX-DI5526-S	10422-A-S	Overland	171.833	0.013	941.68	934.74	0	0	0	0
OL-10200-BA_1	10200-B-S1	10200-B-S2	Overland	3.763	0.013	890.56	890.36	0	0	0	0
OL-10200-BA_2	10200-B-S2	10200-A-S1	Overland	161.8	0.013	890.343	879.56	0	0	0	0
OL-10201-AA_1	10201-A-S1	10201-A-S2	Overland	4.764	0.013	890.559	890.28	0	0	0	0
OL-10201-AA_2	10201-A-S2	10200-A-S1	Overland	152.086	0.013	890.28	879.56	0	0	0	0
OL-10210-AD	10210-A-S	12000-F-S.	Overland	205.279	0.013	883.059	868.71	0	0	0	0
OL-11000-A0	OL-11000-A	11000-0'	Overland	20.552	0.013	865.3	864	0	0	0	0
OL-11000-AbAc	OL-14000-Ab	OL-14000-Ac	Overland	193.063	0.013	944.247	888	0	0	0	0
OL-11000-AcAd	OL-14000-Ac	OL-14000-Ad	Overland	129.198	0.013	888	888.001	0	0	0	0
OL-11000-AdAe	OL-14000-Ad	OL-14000-Ae	Overland	37.559	0.013	888.001	863.833	0	0	0	0
OL-11000-AeE	OL-14000-Ae	OL-14000-E	Overland	242.209	0.013	863.833	857.19	0	0	0	0
OL-11000-BA	OL-11000-B	OL-11000-A	Overland	76.657	0.013	867.351	865.3	0	0	0	0
OL-12000-B0	12000-D-S	J46	Overland	71.417	0.013	865.238	864.914	0	0	0	0
OL-14000-BC	J38	10440-C-S	Overland	79.854	0.013	941.031	937.2	0	0	0	0
OL-14000-CB	OL-14000-C	14000-B	Overland	199.437	0.013	855.925	852	0	0	0	0
OL-14000-DC	OL-14000-D	OL-14000-C	Overland	35.894	0.013	855.996	855.925	0	0	0	0
OL-14000-ED	OL-14000-E	OL-14000-D	Overland	132.178	0.013	857.191	855.996	0	0	0	0

Table 1A: Conduits (continued...)

Name	Inlet Node	Outlet Node	Tag	Length (ft)	Roughness	Inlet Elev. (ft)	Outlet Elev. (ft)	Initial Flow (cfs)	Flow Limit (cfs)	Entry Loss Coeff.	Exit Loss Coeff.
P-10000-A	10000-A	10000	EX	180.26	0.013	834.88	831.4	0	0	0	0
P-10000-C	10000-D	10000-C	GMP3	33.374	0.013	865.9	865.57	0	0	1	0
P-10000-C.	10000-C	10000-B	GMP3	229.206	0.013	863.07	852.3	0	0	1	0
P-10001-A-S	10001-A-S	12000-G-S2	Overland	101.03	0.013	889	885	0	0	0	0
P-1000-B	10000-B	10000-A	EX	134.917	0.013	837.53	834.98	0	0	0	0
P-10100-A	10100-A	10000-D	gmp5	46.71	0.013	876.92	876.45	0	0	1	0
P-10100-B	10100-B	10100-A	gmp5	37.51	0.013	877.5	877.12	0	0	0	0
P-10100-B-S	10100-D-IC	10100-B-IC	Overland	163.554	0.013	890.2	888	0	0	0	0
P-10100-C	10100-D	10100-B	GMP5	127.74	0.013	878.962	877.696	0	0	0	0
P-10120-G	10120-G	10410-G	EX	119.067	0.013	891.64	886.73	0	0	1	0
P-10120-H	10120-H	10120-G	ex	190.103	0.013	900.49	891.64	0	0	1	0
P-10120-H-S	10120-H-S	10120-G-S	Overland	215.467	0.013	905.8	900.47	0	0	0	0
P-10200-A	10200-A	10000-B	GMP3	157.194	0.013	873.72	863.9	0	0	1	0
P-10200-A-S_1	10200-A-S1	10200-A-S2	Overland	3.325	0.013	879.56	879.28	0	0	0	0
P-10200-A-S_2	10200-A-S2	12000-E-S	Overland	152.213	0.013	879.28	869.249	0	0	0	0
P-10200-C	10200-C	10200-B	GMP3	156.795	0.013	899.7	887.76	0	0	1	0
P-10200-C-S_1	10200-C-S1	10200-C-S2	Overland	4.743	0.013	903.056	903	0	0	0	0
P-10200-C-S_2	10200-C-S2	10200-B-S1	Overland	153.311	0.013	903	890.56	0	0	0	0
P-10200-D	10200-D	10200-C	GMP3	214.546	0.013	917.25	900.2	0	0	0	0
P-10200-D-S	10200-D-S	10200-C-S1	Overland	214.546	0.013	920.821	902.18	0	0	0	0
P-10200-D-S.	10200-E-S	10200-D-S	Overland	290.971	0.013	943.603	920.821	0	0	0	0
P-10200-E	10200-E	10200-D	GMP3	292.042	0.013	934	917.45	0	0	0	0
P-10200-F	10200-F	10200-E	gmp5	207.056	0.013	941.68	939.63	0	0	0	0
P-10200-F-S	10200-G-S	10200-E-S	Overland	216.226	0.013	951.37	943.603	0	0	0	0
P-10200-G	10200-G	10200-F	gmp5	76.681	0.013	941.74	944.8	0	0	0	0
P-10200-G_(STORM_-_FINAL)-S	10200-H-S	13000-A	Overland	124.054	0.013	950.568	951.734	0	0	0	0

Table 1A: Conduits (continued...)

Name	Inlet Node	Outlet Node	Tag	Length (ft)	Roughness	Inlet Elev. (ft)	Outlet Elev. (ft)	Initial Flow (cfs)	Flow Limit (cfs)	Entry Loss Coeff.	Exit Loss Coeff.
P-10200-H	10200-H	10200-G	gmp5	80.809	0.013	946.311	945	0	0	0	0
P-10200-H_(STORM_-_FINAL)-S	10200-J-S	13000-A	Overland	131.058	0.013	950.651	950.568	0	0	0	0
P-10200-J	10200-J	10200-H	gmp5	34.503	0.013	946.854	946.504	0	0	0	0
P-10200-J_(STORM_-_FINAL)-S	10200-K-S	10200-J-S	Overland	85.237	0.013	956.036	950.651	0	0	0	0
P-10200-K	10200-K	10200-J	gmp5	57.603	0.013	949.897	946.996	0	0	0	0
P-10200-K_(STORM_-_FINAL)-S	10200-L-S	10200-K-S	Overland	166.754	0.013	959.247	956.036	0	0	0	0
P-10200-L	10200-L	10200-K	gmp5	142.847	0.013	954.06	950.896	0	0	0	0
P-10200-L_(STORM_-_FINAL)-S	10200-M-S	10200-L-S	Overland	148.605	0.013	963.181	959.247	0	0	0	0
P-10200-M	10200-M	10200-L	gmp5	139.438	0.013	955.618	954.26	0	0	0	0
P-10200-M_(STORM_-_FINAL)-S	10200-N-S	Curb_Cut-S	Overland	491.286	0.013	962.752	946.891	0	0	0	0
P-10200-N	10200-N	10200-M	gmp5	34.002	0.013	956.3	955.902	0	0	0	0
P-10201-A	10201-A	10200-B	GMP3	24.441	0.013	888.39	887.76	0	0	1	0
P-102020-A-S_1	10202-A-S1	10202-A-S2	Overland	5.648	0.013	903.06	902.81	0	0	0	0
P-102020-A-S_2	10202-A-S2	10201-A-S1	Overland	151.153	0.013	902.81	890.23	0	0	0	0
P-10202-A	10202-A	10200-C	GMP3	27.192	0.013	900.5	900.2	0	0	0	0
P-10203-A-S	10203-A-S	10202-A-S1	Overland	214.581	0.013	921	902.88	0	0	0	0
P-10210-A	10210-A	10200-A	GMP3	46.239	0.013	877.36	874.47	0	0	0	0
P-10210-B	10210-B	10210-A	gmp5	59.106	0.013	878.665	877.587	0	0	0	0
P-10210-B-S	10210-B-S	10210-A-S	Overland	70.257	0.013	889.099	882	0	0	0	0
P-10210-C	10210-C	10210-B	GMP5	122.285	0.013	886.964	884.891	0	0	0	0
P-10210-C_(STORM_-_FINAL)-S	10211-A-S	10200-A-S1	Overland	127.717	0.013	889.558	889.099	0	0	0	0
P-10211-A	10211-A	10210-B	GMP5	42.989	0.013	878.942	879.236	0	0	0	0
P-10211-B	10211-B	10211-A	GMP5	174.36	0.013	883.285	882.196	0	0	0	0
P-10212-A	10212-A	10210-C	GMP5	55.648	0.013	889.46	888.712	0	0	0	0
P-10240-A_(STORM_-_FINAL)-S	10270-A-S	10200-J-S	Overland	103.804	0.013	955.907	956.036	0	0	0	0
P-10250-A	10250-A	10200-E	gmp5	30.002	0.013	940.182	939	0	0	0	0

Table 1A: Conduits (continued...)

Name	Inlet Node	Outlet Node	Tag	Length (ft)	Roughness	Inlet Elev. (ft)	Outlet Elev. (ft)	Initial Flow (cfs)	Flow Limit (cfs)	Entry Loss Coeff.	Exit Loss Coeff.
P-10250-A-S	10250-A-S	10203-A-S	Overland	293.467	0.013	944.102	944.102	0	0	0	0
P-10250-B	10250-B	10250-A	gmp5	44.144	0.013	941.307	940.349	0	0	0	0
P-10250-B-S	10250-B-S	10250-A-S	Overland	65.99	0.013	948.718	944.102	0	0	0	0
P-10250-C	10250-C	10250-B	gmp5	77.636	0.013	949.28	945.098	0	0	0	0
P-10250-C-S	10250-C-S	10250-A-S	Overland	153.692	0.013	954.088	943.603	0	0	0	0
P-10250-D	10250-D	10250-C	gmp5	31.811	0.013	949.815	949.563	0	0	0	0
P-10250-D-S	10250-D-S	10320-B-S	Overland	505.315	0.013	953.814	954.088	0	0	0	0
P-10260-A	10260-A	10200-G	gmp5	30.002	0.013	947.988	947.688	0	0	0	0
P-10260-A-S	10260-A-S	10250-A-S	Overland	208.549	0.013	951.734	944.102	0	0	0	0
P-10270-A	10270-A	10200-K	gmp5	30.502	0.013	952.098	951.772	0	0	0	0
P-10280-A	10280-A	10200-M	GMP5	110.509	0.013	964.402	959.867	0	0	0	0
P-10300-B	10300-B	10300-A	gmp5	41.73	0.013	909.07	907.64	0	0	0	0
P-10300-B-S	10300-B-IC	10100-D-IC	Overland	387.976	0.013	910.473	909	0	0	0	0
P-10300-C3	10300-D	10300-C	GMP5	24.858	0.013	924.16	923.93	0	0	0	0
P-10300-D-S	10300-C-S	10300-B-IC	Overland	125.287	0.013	940.2	935.818	0	0	0	0
P-10300-E	10300-E	10300-D	gmp5	105.166	0.013	931.25	930.15	0	0	0	0
P-10300-E-S.	10300-F-S	10300-C-S	Overland	108.1	0.013	945.854	939.2	0	0	0	0
P-10300-F	10300-F	10300-E	GMP5	36.6	0.013	935.127	934.165	0	0	0	0
P-10300-G	10300-G	10300-F	GMP5	36.446	0.01	936.47	935.87	0	0	0	0
P-10310-A	10310-A	10300-C	GMP5	118.247	0.013	927.863	927.363	0	0	0	0
P-10310-B	10310-B	10310-A	GMP5	33.666	0.013	929.894	929.557	0	0	0	0
P-10310-B-S	10310-A-S	10300-C-S	Overland	122.969	0.013	939.635	939.2	0	0	0	0
P-10310-C-S	10310-B-S	10300-C-S	Overland	124.705	0.013	939.529	939.2	0	0	0	0
P-10320-A	10320-A	10300-D	GMP5	181.888	0.013	929.717	927.385	0	0	0	0
P-10320-A-S	10300-D-S	10300-C-S	Overland	48.395	0.013	940.9	939.2	0	0	0	0
P-10320-B	10320-B	10320-A	GMP5	88.921	0.013	930.405	930.145	0	0	0	0

Table 1A: Conduits (continued...)

Name	Inlet Node	Outlet Node	Tag	Length (ft)	Roughness	Inlet Elev. (ft)	Outlet Elev. (ft)	Initial Flow (cfs)	Flow Limit (cfs)	Entry Loss Coeff.	Exit Loss Coeff.
P-10320-C	10320-C	10320-B	GMP5	118.148	0.013	935.027	932.635	0	0	0	0
P-10320-D-S	10320-C-S	10700-A-S	Overland	256.144	0.013	944.417	925.31	0	0	0	0
P-10321-A	10321-A	10320-A	GMP5	40.152	0.01	936.1	935.3	0	0	0	0
P-10330-A	10330-A	10300-E	GMP5	73.51	0.013	931.45	931.7	0	0	0	0
P-10330-A-S	10330-A-S	10300-C-S	Overland	124.911	0.013	945.48	945.165	0	0	0	0
P-10330-B	10330-B	10330-A	GMP5	56.572	0.013	932.5	931.9	0	0	0	0
P-10330-B-S	10330-B-S	10330-A-S	Overland	58.41	0.013	945	945.48	0	0	0	0
P-10400-A	10400-A	10000-D	GMP5	130.106	0.013	876	875.08	0	0	0	0
P-10400-A-S	10400-A	10100-B-IC	Overland	99.312	0.013	891.9	889	0	0	0	0
P-10400-B	10400-B1	10400-A	GMP5	28.813	0.013	880.53	879.893	0	0	0	0
P-10400-C1	10400-C1	10400-B2	GMP5	4.577	0.013	882.13	881.79	0	0	0	0
P-10400-C2-S	10400-C2	10400-C1	Swale	62.12	0.01	883.15	882.13	0	0	0	0
P-10400-C-S	10400-A-S	OL-10100-B	Overland	97.931	0.013	896.585	894.169	0	0	0	0
P-10400-D	10400-D	10400-C2	gmp5	53.969	0.013	884.04	883.147	0	0	0	0
P-10400-D-S	10400-D-S	10400-A-S	Overland	128.712	0.013	900.714	896.585	0	0	0	0
P-10400-E	10400-E	10400-D	gmp5	35.048	0.013	890.28	889.97	0	0	0	0
P-10400-E-S	10400-E-S	10410-B-S	Overland	143.687	0.013	901.292	896.952	0	0	0	0
P-10400-F	10400-F	10400-E	gmp5	112.049	0.013	895.779	892.285	0	0	0	0
P-10400-F_(STORM_-_FINAL)-S	10400-F-S	10400-E-S	Overland	113.915	0.013	905.974	901.292	0	0	0	0
P-10400-G	10400-G	10400-F	gmp5	91.984	0.013	900.232	897.241	0	0	0	0
P-10400-G-S	10400-G-S	10400-F-S	Overland	90.859	0.013	910.091	905.974	0	0	0	0
P-10400-H	10400-H	10400-G	gmp5	278.606	0.013	910.703	901.306	0	0	0	0
P-10400-H-S	10400-H-S	10400-G-S	Overland	274.514	0.013	924.25	910.091	0	0	0	0
P-10400-J	10400-J	10400-H	gmp5	40.27	0.013	913.886	912.185	0	0	0	0
P-10400-K	10400-K	10400-J	gmp5	100.966	0.013	919.335	915	0	0	0	0
P-10400-K-S	10400-K-S	10430-A-S	Overland	402.357	0.013	933.34	926.954	0	0	0	0

Table 1A: Conduits (continued...)

Name	Inlet Node	Outlet Node	Tag	Length (ft)	Roughness	Inlet Elev. (ft)	Outlet Elev. (ft)	Initial Flow (cfs)	Flow Limit (cfs)	Entry Loss Coeff.	Exit Loss Coeff.
P-10400-L	10400-L	10400-K	gmp5	208.162	0.013	927.571	920.929	0	0	0	0
P-10400-L-S	10400-L-S	10400-K-S	Overland	227.988	0.013	947.883	933.34	0	0	0	0
P-10400-M	10400-M	10400-L	gmp5	144.921	0.013	947.72	937.935	0	0	0	0
P-10400-M-S	10400-M-S	10400-L-S	Overland	126.916	0.013	961.71	947.883	0	0	0	0
P-10400-N	10400-N	10400-M	gmp5	120.312	0.013	948.71	947.862	0	0	0	0
P-10400-N_(STORM_-_FINAL)-S	10400-N-S	10400-M-S	Overland	117.78	0.013	960.05	961.71	0	0	0	0
P-10400-P	10400-P	10400-N	gmp5	44.28	0.013	953.621	953.221	0	0	0	0
P-10400-P_(STORM_-_FINAL)-S	10400-P-S	10400-N-S	Overland	37.609	0.013	962.7	960.05	0	0	0	0
P-10400-Q	10400-Q	10400-P	gmp5	51.853	0.013	954.5	954	0	0	0	0
P-10400-Q_(STORM_-_FINAL)-S	10400-Q-S	10400-P-S	Overland	52.595	0.013	962.7	962.7	0	0	0	0
P-10400-R	10400-R	10400-Q	gmp5	36.153	0.013	955.331	955.031	0	0	0	0
P-10400-R_(STORM_-_FINAL)-S	10400-R-S	10400-Q-S	Overland	35.096	0.013	962.7	962.7	0	0	0	0
P-10400-S	10400-S	10400-R	gmp5	53.115	0.013	957.91	957.41	0	0	0	0
P-10400-S_(STORM_-_FINAL)-S	10400-S-S	10400-R-S	Overland	53.965	0.013	958.324	957.824	0	0	0	0
P-10410-A	10410-A	10400-A	gmp5	114.859	0.013	881.7	880.759	0	0	0	0
P-10410-A-S	10410-B-S	OL-10101-A	Overland	119.607	0.013	896.952	896.585	0	0	0	0
P-10410-B	10410-B	10410-A	GMP5	34.537	0.01	882.9	882.584	0	0	0	0
P-10410-C	10410-C	10410-B	GMP5	60.187	0.013	882.9	882.584	0	0	0	0
P-10410-D	10410-D	10410-C	GMP5	90.97	0.013	883.998	884.6	0	0	0	0
P-10410-E	10410-E	10410-D	GMP5	72.296	0.013	886.58	885.16	0	0	0	0
P-10410-F	10410-F	10410-E	GMP5	400	0.01	888.42	887.778	0	0	0	0
P-10411-A	10411-A	10410-E	GMP5	400	0.01	896.5	895.777	0	0	0	0
P-10411-A-S	10411-A-S	10410-D-S	Overland	195.119	0.013	901.452	900.92	0	0	0	0
P-10420-A	10420-A	10400-F	gmp5	40.105	0.013	903.59	902.189	0	0	0	0
P-10420-A_(STORM_-_FINAL)-S	10420-A-S	10400-F-S	Overland	50.527	0.013	909.547	905.974	0	0	0	0
P-10420-B	10420-B	10420-A	gmp5	72.457	0.013	906.783	904.875	0	0	0	0

Table 1A: Conduits (continued...)

Name	Inlet Node	Outlet Node	Tag	Length (ft)	Roughness	Inlet Elev. (ft)	Outlet Elev. (ft)	Initial Flow (cfs)	Flow Limit (cfs)	Entry Loss Coeff.	Exit Loss Coeff.
P-10420-B_(STORM_-_FINAL)-S	10420-B-S	10420-A-S	Overland	76.07	0.013	914.896	909.547	0	0	0	0
P-10420-C	10420-C	10420-B	gmp5	34.984	0.013	909.388	908.408	0	0	0	0
P-10420-C-S	10420-C-S	10421-A-S	Overland	106.894	0.013	915.089	914.896	0	0	0	0
P-10420-D	10420-D	10420-C	gmp5	62.444	0.013	911.886	910.393	0	0	0	0
P-10420-D-S	10420-D-S	10420-C-S	Overland	58.156	0.013	919.59	915.089	0	0	0	0
P-10420-E	10420-E	10420-D	gmp5	37.47	0.013	912.737	912.412	0	0	0	0
P-10420-E-S	10420-E-S	10420-B-S	Overland	94.779	0.013	920.08	919.59	0	0	0	0
P-10421-A	10421-A	10420-A	gmp5	35.333	0.013	904.86	904.51	0	0	0	0
P-10421-A_(STORM_-_FINAL)-S	10421-A-S	10400-F-S	Overland	76.321	0.013	909.419	909.547	0	0	0	0
P-10422-A	10422-A	10420-C	gmp5	97.983	0.013	925.799	911.262	0	0	0	0
P-10422-A-S	10422-A-S	10420-C-S	Overland	109.951	0.013	934.74	915.089	0	0	0	0
P-10430-A_(STORM_-_FINAL)	10430-A	10400-G	gmp5	34.5	0.013	906.008	905.663	0	0	0	0
P-10430-A-S	10430-A-S	10400-D-S	Overland	211.705	0.013	910.064	900.714	0	0	0	0
P-10440-A	10440-A	10400-J	gmp3	34.42	0.013	921.1	919.242	0	0	0	0
P-10440-A_(STORM_-_FINAL)-S	10440-A-S	10400-H-S	Overland	69.855	0.013	930.47	926.954	0	0	0	0
P-10440-B	10440-B	10440-A	gmp3	45.307	0.013	922.798	921.699	0	0	0	0
P-10440-B_(STORM_-_FINAL)-S	10440-B-S	10400-H-S	Overland	116.908	0.013	932.47	930.47	0	0	0	0
P-10440-C	10440-C	10440-B	gmp3	68.048	0.013	926.64	926.3	0	0	0	0
P-10440-C_(STORM_-_FINAL)-S	10440-C-S	10440-A-S	Overland	102.662	0.013	937.3	932.47	0	0	0	0
P-10440-D	10440-D	10440-C	gmp3	97.17	0.013	927.13	926.64	0	0	0	0
P-10440-D-S	10440-D-S	10440-C-S	Overland	90.639	0.013	943.95	937.2	0	0	0	0
P-10440-E	10440-e	10440-D	GMP3	63.856	0.013	928.004	927.62	0	0	0	0
P-10440-G	J1	10440-e	GMP5	212.673	0.013	950.36	940	0	0	0	0
P-10441-A	10441-A	10440-A	GMP5	18.7	0.013	924.77	921.51	0	0	0	0
P-10442-A	10442-A	10442-A-EX	GMP5	5.45	0.01	975.66	975.59	0	0	0	0
P-10442-A-EX	10442-A-EX	EX-CI21199	EX	321.203	0.013	975.25	954.3	0	0	0	0

Table 1A: Conduits (continued...)

Name	Inlet Node	Outlet Node	Tag	Length (ft)	Roughness	Inlet Elev. (ft)	Outlet Elev. (ft)	Initial Flow (cfs)	Flow Limit (cfs)	Entry Loss Coeff.	Exit Loss Coeff.
P-10443-A	10443-A	10440-D	GMP5	49.536	0.013	942.62	940.13	0	0	0.5	1
P-10443-C	10443-C	10442-A-EX	EX	61.997	0.013	976.57	975.25	0	0	0	0
P-10443-D	10443-D	10443-C	EX	26.907	0.013	979.35	977.69	0	0	0	0
P-10443-E	10442-B-EX	10442-A-EX	EX	26.458	0.013	978.38	975.8	0	0	0	0
P-10443-E-S	10442-B-S	10440-D-S	Overland	550.792	0.013	982.91	983.1	0	0	0	0
P-10450-A_(STORM_-_FINAL)	10450-A	10400-K	gmp5	34	0.013	924.173	923.848	0	0	0	0
P-10450-A-S	10450-A-S	10400-H-S	Overland	141.494	0.013	933.349	924.25	0	0	0	0
P-10460-A	10460-A	10400-L	gmp5	53.413	0.013	933.323	933.126	0	0	0	0
P-10460-A-S	10460-A-S	10450-A-S	Overland	235.327	0.013	949.32	933.349	0	0	0	0
P-10460-B	10460-B	10460-A	gmp5	63.086	0.013	933.88	933.523	0	0	0	0
P-10460-B_(STORM_-_FINAL)-S	10460-B-S	10450-A-S	Overland	265.739	0.013	943.793	933.349	0	0	0	0
P-10460-C	10460-C	10460-B	GMP5	91.46	0.013	934.681	934.08	0	0	0	0
P-10460-C_(STORM_-_FINAL)-S	10460-C-S	10460-B-S	Overland	104.4	0.013	943.793	943.793	0	0	0	0
P-10460-D	10460-D	10460-C	GMP5	117.21	0.013	935.602	934.881	0	0	0	0
P-10460-D_(STORM_-_FINAL)-S	10460-D-S	10460-C-S	Overland	124.197	0.013	943.664	943.793	0	0	0	0
P-10460-E	10460-E	10460-D	GMP5	96.777	0.013	936.275	935.802	0	0	0	0
P-10460-E_(STORM_-_FINAL)-S	10460-E-S	10460-D-S	Overland	82.515	0.013	943.766	943.664	0	0	0	0
P-10460-F	10460-F	10460-E	GMP5	96.524	0.013	937.321	936.575	0	0	0	0
P-10460-F_(STORM_-_FINAL)-S	10460-F-S	10460-E-S	Overland	113.73	0.013	943.405	943.766	0	0	0	0
P-10461-A	10461-A	10460-B	GMP5	179.359	0.013	938.8	936.25	0	0	0	0
P-10461-B	10461-B	10461-A	gmp5	105.575	0.013	939.54	939.013	0	0	0	0
P-10461-B_(STORM_-_FINAL)-S	10461-B-S	10461-A-S	Overland	105.575	0.013	943.04	943.04	0	0	0	0
P-10462-A	10462-A	10460-D	GMP5	43.43	0.013	943.039	941.575	0	0	0	0
P-10470-A	10470-A	10400-M	gmp5	34.277	0.013	954.563	954.22	0	0	0	0
P-10470-A-S	10470-A-S	10460-A-S	Overland	135.437	0.013	958.453	961.71	0	0	0	0
P-10480-A	10480-A	10400-M	GMP5	155.379	0.01	957.4	955.47	0	0	0	0

Table 1A: Conduits (continued...)

Name	Inlet Node	Outlet Node	Tag	Length (ft)	Roughness	Inlet Elev. (ft)	Outlet Elev. (ft)	Initial Flow (cfs)	Flow Limit (cfs)	Entry Loss Coeff.	Exit Loss Coeff.
P-10480-B	10480-B	10480-A	GMP5	54.414	0.01	958.201	957.6	0	0	0	0
P-10500-B	10500-B	10500-A	GMP5	209.24	0.013	908.62	907.54	0	0	0	0
P-10500-B_(STORM_-_FINAL)-S	10500-B-S	10500-A	Overland	209.467	0.013	918.59	913	0	0	0	0
P-10500-C	10500-C	10500-B	gmp5	79.732	0.013	909.85	909.5	0	0	0	0
P-10500-C_(STORM_-_FINAL)-S	10500-C-S	10500-B-S	Overland	75.931	0.013	917	918.59	0	0	0	0
P-10500-D	10500-D	10500-C	GMP5	400	0.01	914.092	913.84	0	0	0	0
P-10510-A	10510-A	10500-B	GMP5	20.941	0.013	911.11	911.31	0	0	0	0
P-10510-A_(STORM_-_FINAL)-S	10510-A-S	10500-B-S	Overland	9.466	0.013	916.551	918.59	0	0	0	0
P-10700-A	10700-B	10700-A	GMP5	39.49	0.013	919.78	919.38	0	0	0	0
P-12000-A	12000-B	12000-A	GMP3	136.578	0.013	859.34	858	0	0	0	0
P-12000-B	12000-C	12000-B	GMP3	82.048	0.013	860.36	859.54	0	0	0	0
P-12000-C	12000-D	12000-C	GMP3	41.568	0.013	860.98	860.56	0	0	1	0
P-12000-C-S	12000-C-S	J320	Overland	80.231	0.013	865.18	863.281	0	0	0	0
P-12000-D	12000-G	10000-B	GMP3	96.445	0.013	863.1	862	0	0	1	0
P-12000-E	12000-E	12000-F	GMP3	36.367	0.013	864.6	864.2	0	0	1	0
P-12000-E-S	12000-E-S	12000-B'	Overland	40.217	0.013	869.249	866.842	0	0	0	0
P-12000-F	12000-F	12000-G	GMP3	23.572	0.013	864	863.6	0	0	1	0
P-12000-G-S	12000-G-S	12000-B'	Overland	111.547	0.013	868.4	866.842	0	0	0	0
P-21199_1	EX-CI21199	10440-e	EX	163.613	0.013	954.3	942.028	0	0	0	0
P-21199-S	EX-CI21199-S	10440-B-S	Overland	357.023	0.013	959.964	943.95	0	0	0	0
S	10210-E	10210-D	GMP5	400	0.01	889.019	887.7	0	0	0	0
UV-Outlet	06-UV	10000-C	GMP5	47.457	0.013	876.25	875.17	0	0	1.5	0

Table 1B: Conduits

Name	Avg. Loss Coeff.	Seepage Rate (in/hr)	Flap Gate	Cross-Section	Geom1 (ft)	Geom2 (ft)	Geom3	Geom4	Barrels	Transect	Shape Curve	Culvert Code	Control Rules
1	0	0	NO	CIRCULAR	1.25	0	0	0	1				NO
10	0	0	NO	CIRCULAR	1	0	0	0	1				NO
10000-CB-S	0	0	NO	IRREGULAR	0	0	0	0	1	HalfSectionRd			NO
10000-DC-S	0	0	NO	IRREGULAR	0	0	0	0	1	HalfSectionRd			NO
10000-ED-S	0	0	NO	IRREGULAR	0	0	0	0	1	HalfSectionRd			NO
10123-AF	0	0	NO	CIRCULAR	1.25	0	0	0	1				NO
10125-AG	0	0	NO	CIRCULAR	0.5	0	0	0	1				NO
10200-B	0	0	NO	CIRCULAR	1.25	0	0	0	1				NO
10203-A	0	0	NO	CIRCULAR	1.25	0	0	0	1				NO
10300-D1	0	0	NO	CIRCULAR	2	0	0	0	1				NO
10300-D-2	0	0	NO	CIRCULAR	2	0	0	0	1				NO
10300-D-3	0	0	NO	CIRCULAR	2	0	0	0	1				NO
10310-C-S2	0	0	NO	IRREGULAR	0	0	0	0	1	HalfSectionRd			NO
11	0	0	NO	CIRCULAR	1	0	0	0	1				NO
11000-A0	0	0	NO	CIRCULAR	1	0	0	0	1				NO
12	0	0	NO	CIRCULAR	1	0	0	0	1				NO
12000-B'B	0	0	NO	IRREGULAR	0	0	0	0	1	HalfSectionRd			NO
12000-DC-S	0	0	NO	IRREGULAR	0	0	0	0	1	HalfSectionRd			NO
12000-FE-S	0	0	NO	IRREGULAR	0	0	0	0	1	HalfSectionRd			NO
12000-G	0	0	NO	CIRCULAR	2	0	0	0	1				NO
12000-RainGarden	0	0	NO	TRAPEZOIDAL	5	10	4	4	1				NO
13	0	0	NO	CIRCULAR	1.25	0	0	0	1				NO
13000-A0	0	0	NO	CIRCULAR	2	0	0	0	1				NO
14	0	0	NO	CIRCULAR	1.25	0	0	0	1				NO
14000-A0'	0	0	NO	TRAPEZOIDAL	1	4	50	50	1				NO
14000-B0	0	0	NO	CIRCULAR	2	0	0	0	1				NO

Table 1B: Conduits (continued...)

Name	Avg. Loss Coeff.	Seepage Rate (in/hr)	Flap Gate	Cross-Section	Geom1 (ft)	Geom2 (ft)	Geom3	Geom4	Barrels	Transect	Shape Curve	Culvert Code	Control Rules
14000-CB	0	0	NO	CIRCULAR	2	0	0	0	1				NO
14000-DC	0	0	NO	CIRCULAR	2	0	0	0	1				NO
14000-ED	0	0	NO	CIRCULAR	2	0	0	0	1				NO
14000-FE	0	0	NO	CIRCULAR	2	0	0	0	1				NO
15	0	0	NO	CIRCULAR	1.25	0	0	0	1				NO
16	0	0	NO	CIRCULAR	1	0	0	0	1				NO
17	0	0	NO	TRAPEZOIDAL	1	0.5	0.25	0.25	1				NO
18	0	0	NO	CIRCULAR	2	0	0	0	1				NO
19	0	0	NO	CIRCULAR	2	0	0	0	1				NO
20	0	0	NO	CIRCULAR	2	0	0	0	1				NO
21	0	0	NO	CIRCULAR	2	0	0	0	1				NO
22	0	0	NO	CIRCULAR	2	0	0	0	1				NO
26	0	0	NO	CIRCULAR	1	0	0	0	1				NO
28	0	0	NO	TRAPEZOIDAL	1	5	4	4	1				NO
3	0	0	NO	CIRCULAR	1	0	0	0	1				NO
4	0	0	NO	CIRCULAR	1	0	0	0	1				NO
5	0	0	NO	CIRCULAR	2	0	0	0	1				NO
6	0	0	NO	CIRCULAR	1	0	0	0	1				NO
8	0	0	NO	CIRCULAR	2	0	0	0	1				NO
9	0	0	NO	CIRCULAR	3	0	0	0	1				NO
C10	0	0	NO	CIRCULAR	1.5	0	0	0	1				NO
C10-S	0	0	NO	IRREGULAR	0	0	0	0	1	HalfSectionRd			NO
C11	0	0	NO	CIRCULAR	1.5	0	0	0	1				NO
C11-S	0	0	NO	TRAPEZOIDAL	10	10	1	1	1				NO
C12-S	0	0	NO	TRAPEZOIDAL	10	10	3	3	1				NO
C14	0	0	NO	CIRCULAR	1	0	0	0	1				NO

Table 1B: Conduits (continued...)

Name	Avg. Loss Coeff.	Seepage Rate (in/hr)	Flap Gate	Cross-Section	Geom1 (ft)	Geom2 (ft)	Geom3	Geom4	Barrels	Transect	Shape Curve	Culvert Code	Control Rules
C15	0	0	NO	CIRCULAR	2	0	0	0	1				NO
C16	0	0	NO	TRAPEZOIDAL	10	20	10	10	1				NO
C17	0	0	NO	TRAPEZOIDAL	1	10	50	50	1				NO
C18	0	0	NO	RECT_OPEN	1	10	0	0	1				NO
C19	0	0	NO	RECT_OPEN	1	10	0	0	1				NO
C2	0	0	NO	CIRCULAR	1.25	0	0	0	1				NO
C20	0	0	NO	CIRCULAR	2.5	0	0	0	1				NO
C21	0	0	NO	RECT_OPEN	4	3	2	0	1				NO
C23	0	0	NO	TRAPEZOIDAL	5	10	4	4	1				NO
C24	0	0	NO	IRREGULAR	0	0	0	0	1	HalfSectionRd			NO
C25	0	0	NO	TRAPEZOIDAL	1	5	3	3	1				NO
C26	0	0	NO	CIRCULAR	2	0	0	0	1				NO
C2-S	0	0	NO	IRREGULAR	0	0	0	0	1	HalfSectionRd			NO
C3	0	0	NO	CIRCULAR	0.25	0	0	0	1				NO
C4	0	0	NO	CIRCULAR	1	0	0	0	1				NO
C4-S	0	0	NO	IRREGULAR	0	0	0	0	1	HalfSectionRd			NO
C5	0	0	NO	CIRCULAR	2.5	0	0	0	1				NO
C6	0	0	NO	CIRCULAR	0.833	0	0	0	1				NO
C7	0	0	NO	TRAPEZOIDAL	5	10	10	10	1				NO
C8	0	0	NO	TRAPEZOIDAL	2.5	4	3	3	1				NO
C9_1	0	0	NO	TRAPEZOIDAL	2.5	4	3	3	1				NO
C9_2	0	0	NO	TRAPEZOIDAL	2.5	5	3	3	1				NO
C-J182	0	0	NO	TRAPEZOIDAL	0.5	3	1	1	1				NO
C-J320	0	0	NO	IRREGULAR	0	0	0	0	1	HalfSectionRd			NO
C-J39	0	0	NO	TRAPEZOIDAL	0.5	3	1	1	1				NO
C-J46	0	0	NO	TRAPEZOIDAL	1	0.5	50	0.25	1				NO

Table 1B: Conduits (continued...)

Name	Avg. Loss Coeff.	Seepage Rate (in/hr)	Flap Gate	Cross-Section	Geom1 (ft)	Geom2 (ft)	Geom3	Geom4	Barrels	Transect	Shape Curve	Culvert Code	Control Rules
EP-10440-C	0	0	NO	CIRCULAR	1.25	0	0	0	1				NO
EP-10440-C-S	0	0	NO	TRAPEZOIDAL	1	0.5	50	0.25	1				NO
EX10441-B-S	0	0	NO	IRREGULAR	0	0	0	0	1	HalfSectionRd			NO
EX10441-C-S	0	0	NO	IRREGULAR	0	0	0	0	1	HalfSectionRd			NO
EX10441-D-S	0	0	NO	IRREGULAR	0	0	0	0	1	HalfSectionRd			NO
OL-10100-AE_1	0	0	NO	TRAPEZOIDAL	1	0.5	50	0.25	1				NO
OL-10100-AE_2	0	0	NO	TRAPEZOIDAL	1	0.5	50	0.25	1				NO
OL-10101-AF	0	0	NO	TRAPEZOIDAL	1	0.5	50	0.25	1				NO
OL-10131-BA	0	0	NO	TRAPEZOIDAL	1	0.5	50	0.25	1				NO
OL-10131-CB	0	0	NO	TRAPEZOIDAL	1	0.5	50	0.25	1				NO
OL-10200-BA_1	0	0	NO	IRREGULAR	0	0	0	0	1	HalfSectionRd			NO
OL-10200-BA_2	0	0	NO	IRREGULAR	0	0	0	0	1	HalfSectionRd			NO
OL-10201-AA_1	0	0	NO	IRREGULAR	0	0	0	0	1	HalfSectionRd			NO
OL-10201-AA_2	0	0	NO	IRREGULAR	0	0	0	0	1	HalfSectionRd			NO
OL-10210-AD	0	0	NO	IRREGULAR	0	0	0	0	1	HalfSectionRd			NO
OL-11000-A0	0	0	NO	TRAPEZOIDAL	1	4	3	3	1				NO
OL-11000-AbAc	0	0	NO	TRAPEZOIDAL	1	4	3	3	1				NO
OL-11000-AcAd	0	0	NO	TRAPEZOIDAL	1	4	3	3	1				NO
OL-11000-AdAe	0	0	NO	TRAPEZOIDAL	1	4	3	3	1				NO
OL-11000-AeE	0	0	NO	TRAPEZOIDAL	1	0.5	50	0.25	1				NO
OL-11000-BA	0	0	NO	TRAPEZOIDAL	1	0.5	50	0.25	1				NO
OL-12000-B0	0	0	NO	IRREGULAR	0	0	0	0	1	HalfSectionRd			NO
OL-14000-BC	0	0	NO	TRAPEZOIDAL	1	0.5	50	0.25	1				NO
OL-14000-CB	0	0	NO	TRAPEZOIDAL	1	4	50	50	1				NO
OL-14000-DC	0	0	NO	TRAPEZOIDAL	1	4	50	50	1				NO
OL-14000-ED	0	0	NO	TRAPEZOIDAL	1	0.5	50	0.25	1				NO

Table 1B: Conduits (continued...)

Name	Avg. Loss Coeff.	Seepage Rate (in/hr)	Flap Gate	Cross-Section	Geom1 (ft)	Geom2 (ft)	Geom3	Geom4	Barrels	Transect	Shape Curve	Culvert Code	Control Rules
P-10000-A	0	0	NO	CIRCULAR	4.5	0	0	0	1				NO
P-10000-C	0	0	NO	CIRCULAR	4.5	0	0	0	1				NO
P-10000-C.	0	0	NO	CIRCULAR	7	0	0	0	1				NO
P-10001-A-S	0	0	NO	IRREGULAR	0	0	0	0	1	HalfSectionRd			NO
P-1000-B	0	0	NO	CIRCULAR	4.5	0	0	0	1				NO
P-10100-A	0	0	NO	CIRCULAR	2	0	0	0	1				NO
P-10100-B	0	0	NO	CIRCULAR	2	0	0	0	1				NO
P-10100-B-S	0	0	NO	IRREGULAR	0	0	0	0	1	HalfSectionRd			NO
P-10100-C	0	0	NO	CIRCULAR	2	0	0	0	1				NO
P-10120-G	0	0	NO	CIRCULAR	3	0	0	0	1				NO
P-10120-H	0	0	NO	CIRCULAR	3	0	0	0	1				NO
P-10120-H-S	0	0	NO	RECT_OPEN	2	10	2	0	1				NO
P-10200-A	0	0	NO	CIRCULAR	1.5	0	0	0	1				NO
P-10200-A-S_1	0	0	NO	IRREGULAR	0	0	0	0	1	HalfSectionRd			NO
P-10200-A-S_2	0	0	NO	IRREGULAR	0	0	0	0	1	HalfSectionRd			NO
P-10200-C	0	0	NO	CIRCULAR	1.25	0	0	0	1				NO
P-10200-C-S_1	0	0	NO	IRREGULAR	0	0	0	0	1	HalfSectionRd			NO
P-10200-C-S_2	0	0	NO	IRREGULAR	0	0	0	0	1	HalfSectionRd			NO
P-10200-D	0	0	NO	CIRCULAR	1.25	0	0	0	1				NO
P-10200-D-S	0	0	NO	IRREGULAR	0	0	0	0	1	HalfSectionRd			NO
P-10200-D-S.	0	0	NO	IRREGULAR	0	0	0	0	1	HalfSectionRd			NO
P-10200-E	0	0	NO	CIRCULAR	1.25	0	0	0	1				NO
P-10200-F	0	0	NO	CIRCULAR	1.25	0	0	0	1				NO
P-10200-F-S	0	0	NO	IRREGULAR	0	0	0	0	1	HalfSectionRd			NO
P-10200-G	0	0	NO	CIRCULAR	1.25	0	0	0	1				NO
P-10200-G_(STORM_-_FINAL)-S	0	0	NO	IRREGULAR	0	0	0	0	1	HalfSectionRd			NO

Table 1B: Conduits (continued...)

Name	Avg. Loss Coeff.	Seepage Rate (in/hr)	Flap Gate	Cross-Section	Geom1 (ft)	Geom2 (ft)	Geom3	Geom4	Barrels	Transect	Shape Curve	Culvert Code	Control Rules
P-10200-H	0	0	NO	CIRCULAR	1.25	0	0	0	1				NO
P-10200-H_(STORM_-_FINAL)-S	0	0	NO	IRREGULAR	0	0	0	0	1	HalfSectionRd			NO
P-10200-J	0	0	NO	CIRCULAR	1.25	0	0	0	1				NO
P-10200-J_(STORM_-_FINAL)-S	0	0	NO	IRREGULAR	0	0	0	0	1	HalfSectionRd			NO
P-10200-K	0	0	NO	CIRCULAR	1.25	0	0	0	1				NO
P-10200-K_(STORM_-_FINAL)-S	0	0	NO	IRREGULAR	0	0	0	0	1	HalfSectionRd			NO
P-10200-L	0	0	NO	CIRCULAR	1.25	0	0	0	1				NO
P-10200-L_(STORM_-_FINAL)-S	0	0	NO	IRREGULAR	0	0	0	0	1	HalfSectionRd			NO
P-10200-M	0	0	NO	CIRCULAR	1.25	0	0	0	1				NO
P-10200-M_(STORM_-_FINAL)-S	0	0	NO	IRREGULAR	0	0	0	0	1	HalfSectionRd			NO
P-10200-N	0	0	NO	CIRCULAR	1.25	0	0	0	1				NO
P-10201-A	0	0	NO	CIRCULAR	1.25	0	0	0	1				NO
P-102020-A-S_1	0	0	NO	IRREGULAR	0	0	0	0	1	HalfSectionRd			NO
P-102020-A-S_2	0	0	NO	IRREGULAR	0	0	0	0	1	HalfSectionRd			NO
P-10202-A	0	0	NO	CIRCULAR	1.25	0	0	0	1				NO
P-10203-A-S	0	0	NO	IRREGULAR	0	0	0	0	1	HalfSectionRd			NO
P-10210-A	0	0	NO	CIRCULAR	1.25	0	0	0	1				NO
P-10210-B	0	0	NO	CIRCULAR	1.25	0	0	0	1				NO
P-10210-B-S	0	0	NO	IRREGULAR	0	0	0	0	1	HalfSectionRd			NO
P-10210-C	0	0	NO	CIRCULAR	0.833	0	0	0	1				NO
P-10210-C_(STORM_-_FINAL)-S	0	0	NO	IRREGULAR	0	0	0	0	1	HalfSectionRd			NO
P-10211-A	0	0	NO	CIRCULAR	1.25	0	0	0	1				NO
P-10211-B	0	0	NO	CIRCULAR	0.833	0	0	0	1				NO
P-10212-A	0	0	NO	CIRCULAR	0.833	0	0	0	1				NO
P-10240-A_(STORM_-_FINAL)-S	0	0	NO	IRREGULAR	0	0	0	0	1	HalfSectionRd			NO
P-10250-A	0	0	NO	CIRCULAR	1.25	0	0	0	1				NO

Table 1B: Conduits (continued...)

Name	Avg. Loss Coeff.	Seepage Rate (in/hr)	Flap Gate	Cross-Section	Geom1 (ft)	Geom2 (ft)	Geom3	Geom4	Barrels	Transect	Shape Curve	Culvert Code	Control Rules
P-10250-A-S	0	0	NO	IRREGULAR	0	0	0	0	1	HalfSectionRd			NO
P-10250-B	0	0	NO	CIRCULAR	1.25	0	0	0	1				NO
P-10250-B-S	0	0	NO	IRREGULAR	0	0	0	0	1	HalfSectionRd			NO
P-10250-C	0	0	NO	CIRCULAR	1.25	0	0	0	1				NO
P-10250-C-S	0	0	NO	IRREGULAR	0	0	0	0	1	HalfSectionRd			NO
P-10250-D	0	0	NO	CIRCULAR	1.25	0	0	0	1				NO
P-10250-D-S	0	0	NO	IRREGULAR	0	0	0	0	1	HalfSectionRd			NO
P-10260-A	0	0	NO	CIRCULAR	1.25	0	0	0	1				NO
P-10260-A-S	0	0	NO	IRREGULAR	0	0	0	0	1	HalfSectionRd			NO
P-10270-A	0	0	NO	CIRCULAR	1.25	0	0	0	1				NO
P-10280-A	0	0	NO	CIRCULAR	1.25	0	0	0	1				NO
P-10300-B	0	0	NO	CIRCULAR	2	0	0	0	1				NO
P-10300-B-S	0	0	NO	IRREGULAR	0	0	0	0	1	HalfSectionRd			NO
P-10300-C3	0	0	NO	CIRCULAR	2	0	0	0	1				NO
P-10300-D-S	0	0	NO	IRREGULAR	0	0	0	0	1	HalfSectionRd			NO
P-10300-E	0	0	NO	CIRCULAR	1.25	0	0	0	1				NO
P-10300-E-S.	0	0	NO	IRREGULAR	0	0	0	0	1	HalfSectionRd			NO
P-10300-F	0	0	NO	CIRCULAR	1.25	0	0	0	1				NO
P-10300-G	0	0	NO	CIRCULAR	1	0	0	0	1				NO
P-10310-A	0	0	NO	CIRCULAR	1.5	0	0	0	1				NO
P-10310-B	0	0	NO	CIRCULAR	1.25	0	0	0	1				NO
P-10310-B-S	0	0	NO	IRREGULAR	0	0	0	0	1	HalfSectionRd			NO
P-10310-C-S	0	0	NO	IRREGULAR	0	0	0	0	1	HalfSectionRd			NO
P-10320-A	0	0	NO	CIRCULAR	1.5	0	0	0	1				NO
P-10320-A-S	0	0	NO	IRREGULAR	0	0	0	0	1	HalfSectionRd			NO
P-10320-B	0	0	NO	CIRCULAR	1.25	0	0	0	1				NO

Table 1B: Conduits (continued...)

Name	Avg. Loss Coeff.	Seepage Rate (in/hr)	Flap Gate	Cross-Section	Geom1 (ft)	Geom2 (ft)	Geom3	Geom4	Barrels	Transect	Shape Curve	Culvert Code	Control Rules
P-10320-C	0	0	NO	CIRCULAR	1.25	0	0	0	1				NO
P-10320-D-S	0	0	NO	IRREGULAR	0	0	0	0	1	HalfSectionRd			NO
P-10321-A	0	0	NO	CIRCULAR	1	0	0	0	1				NO
P-10330-A	0	0	NO	CIRCULAR	1	0	0	0	1				NO
P-10330-A-S	0	0	NO	IRREGULAR	0	0	0	0	1	HalfSectionRd			NO
P-10330-B	0	0	NO	CIRCULAR	1	0	0	0	1				NO
P-10330-B-S	0	0	NO	IRREGULAR	0	0	0	0	1	HalfSectionRd			NO
P-10400-A	0	0	NO	CIRCULAR	4	0	0	0	1				NO
P-10400-A-S	0	0	NO	IRREGULAR	0	0	0	0	1	HalfSectionRd			NO
P-10400-B	0	0	NO	CIRCULAR	3	0	0	0	1				NO
P-10400-C1	0	0	NO	CIRCULAR	2	0	0	0	1				NO
P-10400-C2-S	0	0	NO	DUMMY	0	0	0	0	1				NO
P-10400-C-S	0	0	NO	IRREGULAR	0	0	0	0	1	HalfSectionRd			NO
P-10400-D	0	0	NO	CIRCULAR	4.5	0	0	0	1				NO
P-10400-D-S	0	0	NO	IRREGULAR	0	0	0	0	1	HalfSectionRd			NO
P-10400-E	0	0	NO	CIRCULAR	3	0	0	0	1				NO
P-10400-E-S	0	0	NO	IRREGULAR	0	0	0	0	1	HalfSectionRd			NO
P-10400-F	0	0	NO	CIRCULAR	3	0	0	0	1				NO
P-10400-F_(STORM_-_FINAL)-S	0	0	NO	IRREGULAR	0	0	0	0	1	HalfSectionRd			NO
P-10400-G	0	0	NO	CIRCULAR	3	0	0	0	1				NO
P-10400-G-S	0	0	NO	IRREGULAR	0	0	0	0	1	HalfSectionRd			NO
P-10400-H	0	0	NO	CIRCULAR	3	0	0	0	1				NO
P-10400-H-S	0	0	NO	IRREGULAR	0	0	0	0	1	HalfSectionRd			NO
P-10400-J	0	0	NO	CIRCULAR	3	0	0	0	1				NO
P-10400-K	0	0	NO	CIRCULAR	2	0	0	0	1				NO
P-10400-K-S	0	0	NO	IRREGULAR	0	0	0	0	1	HalfSectionRd			NO

Table 1B: Conduits (continued...)

Name	Avg. Loss Coeff.	Seepage Rate (in/hr)	Flap Gate	Cross-Section	Geom1 (ft)	Geom2 (ft)	Geom3	Geom4	Barrels	Transect	Shape Curve	Culvert Code	Control Rules
P-10400-L	0	0	NO	CIRCULAR	1.5	0	0	0	1				NO
P-10400-L-S	0	0	NO	IRREGULAR	0	0	0	0	1	HalfSectionRd			NO
P-10400-M	0	0	NO	CIRCULAR	1.5	0	0	0	1				NO
P-10400-M-S	0	0	NO	IRREGULAR	0	0	0	0	1	HalfSectionRd			NO
P-10400-N	0	0	NO	CIRCULAR	1.5	0	0	0	1				NO
P-10400-N_(STORM_-_FINAL)-S	0	0	NO	IRREGULAR	0	0	0	0	1	HalfSectionRd			NO
P-10400-P	0	0	NO	CIRCULAR	1.5	0	0	0	1				NO
P-10400-P_(STORM_-_FINAL)-S	0	0	NO	IRREGULAR	0	0	0	0	1	HalfSectionRd			NO
P-10400-Q	0	0	NO	CIRCULAR	1.5	0	0	0	1				NO
P-10400-Q_(STORM_-_FINAL)-S	0	0	NO	IRREGULAR	0	0	0	0	1	HalfSectionRd			NO
P-10400-R	0	0	NO	CIRCULAR	1.5	0	0	0	1				NO
P-10400-R_(STORM_-_FINAL)-S	0	0	NO	IRREGULAR	0	0	0	0	1	HalfSectionRd			NO
P-10400-S	0	0	NO	CIRCULAR	1.5	0	0	0	1				NO
P-10400-S_(STORM_-_FINAL)-S	0	0	NO	IRREGULAR	0	0	0	0	1	HalfSectionRd			NO
P-10410-A	0	0	NO	CIRCULAR	4	0	0	0	1				NO
P-10410-A-S	0	0	NO	IRREGULAR	0	0	0	0	1	HalfSectionRd			NO
P-10410-B	0	0	NO	CIRCULAR	4	0	0	0	1				NO
P-10410-C	0	0	NO	CIRCULAR	4	0	0	0	1				NO
P-10410-D	0	0	NO	CIRCULAR	4	0	0	0	1				NO
P-10410-E	0	0	NO	CIRCULAR	4	0	0	0	1				NO
P-10410-F	0	0	NO	CIRCULAR	3	0	0	0	1				NO
P-10411-A	0	0	NO	CIRCULAR	1.25	0	0	0	1				NO
P-10411-A-S	0	0	NO	IRREGULAR	0	0	0	0	1	HalfSectionRd			NO
P-10420-A	0	0	NO	CIRCULAR	2	0	0	0	1				NO
P-10420-A_(STORM_-_FINAL)-S	0	0	NO	IRREGULAR	0	0	0	0	1	HalfSectionRd			NO
P-10420-B	0	0	NO	CIRCULAR	2	0	0	0	1				NO

Table 1B: Conduits (continued...)

Name	Avg. Loss Coeff.	Seepage Rate (in/hr)	Flap Gate	Cross-Section	Geom1 (ft)	Geom2 (ft)	Geom3	Geom4	Barrels	Transect	Shape Curve	Culvert Code	Control Rules
P-10420-B_(STORM_-_FINAL)-S	0	0	NO	IRREGULAR	0	0	0	0	1	HalfSectionRd			NO
P-10420-C	0	0	NO	CIRCULAR	2	0	0	0	1				NO
P-10420-C-S	0	0	NO	IRREGULAR	0	0	0	0	1	HalfSectionRd			NO
P-10420-D	0	0	NO	CIRCULAR	2	0	0	0	1				NO
P-10420-D-S	0	0	NO	IRREGULAR	0	0	0	0	1	HalfSectionRd			NO
P-10420-E	0	0	NO	CIRCULAR	1.25	0	0	0	1				NO
P-10420-E-S	0	0	NO	IRREGULAR	0	0	0	0	1	HalfSectionRd			NO
P-10421-A	0	0	NO	CIRCULAR	2	0	0	0	1				NO
P-10421-A_(STORM_-_FINAL)-S	0	0	NO	IRREGULAR	0	0	0	0	1	HalfSectionRd			NO
P-10422-A	0	0	NO	CIRCULAR	1.5	0	0	0	1				NO
P-10422-A-S	0	0	NO	IRREGULAR	0	0	0	0	1	HalfSectionRd			NO
P-10430-A_(STORM_-_FINAL)	0	0	NO	CIRCULAR	1.5	0	0	0	1				NO
P-10430-A-S	0	0	NO	IRREGULAR	0	0	0	0	1	HalfSectionRd			NO
P-10440-A	0	0	NO	CIRCULAR	2.5	0	0	0	1				NO
P-10440-A_(STORM_-_FINAL)-S	0	0	NO	IRREGULAR	0	0	0	0	1	HalfSectionRd			NO
P-10440-B	0	0	NO	CIRCULAR	2.5	0	0	0	1				NO
P-10440-B_(STORM_-_FINAL)-S	0	0	NO	IRREGULAR	0	0	0	0	1	HalfSectionRd			NO
P-10440-C	0	0	NO	CIRCULAR	2.5	0	0	0	1				NO
P-10440-C_(STORM_-_FINAL)-S	0	0	NO	IRREGULAR	0	0	0	0	1	HalfSectionRd			NO
P-10440-D	0	0	NO	CIRCULAR	2.5	0	0	0	1				NO
P-10440-D-S	0	0	NO	IRREGULAR	0	0	0	0	1	HalfSectionRd			NO
P-10440-E	0	0	NO	CIRCULAR	2	0	0	0	1				NO
P-10440-G	0	0	NO	CIRCULAR	2	0	0	0	1				NO
P-10441-A	0	0	NO	CIRCULAR	1	0	0	0	1				NO
P-10442-A	0	0	NO	CIRCULAR	1	0	0	0	1				NO
P-10442-A-EX	0	0	NO	CIRCULAR	2	0	0	0	1				NO

Table 1B: Conduits (continued...)

Name	Avg. Loss Coeff.	Seepage Rate (in/hr)	Flap Gate	Cross-Section	Geom1 (ft)	Geom2 (ft)	Geom3	Geom4	Barrels	Transect	Shape Curve	Culvert Code	Control Rules
P-10443-A	0	0	NO	CIRCULAR	1.25	0	0	0	1				NO
P-10443-C	0	0	NO	CIRCULAR	2	0	0	0	1				NO
P-10443-D	0	0	NO	CIRCULAR	3	0	0	0	1				NO
P-10443-E	0	0	NO	CIRCULAR	1	0	0	0	1				NO
P-10443-E-S	0	0	NO	IRREGULAR	0	0	0	0	1	HalfSectionRd			NO
P-10450-A_(STORM_-_FINAL)	0	0	NO	CIRCULAR	1.5	0	0	0	1				NO
P-10450-A-S	0	0	NO	IRREGULAR	0	0	0	0	1	HalfSectionRd			NO
P-10460-A	0	0	NO	CIRCULAR	1.5	0	0	0	1				NO
P-10460-A-S	0	0	NO	IRREGULAR	0	0	0	0	1	HalfSectionRd			NO
P-10460-B	0	0	NO	CIRCULAR	1.5	0	0	0	1				NO
P-10460-B_(STORM_-_FINAL)-S	0	0	NO	IRREGULAR	0	0	0	0	1	HalfSectionRd			NO
P-10460-C	0	0	NO	CIRCULAR	1.5	0	0	0	1				NO
P-10460-C_(STORM_-_FINAL)-S	0	0	NO	IRREGULAR	0	0	0	0	1	HalfSectionRd			NO
P-10460-D	0	0	NO	CIRCULAR	1.5	0	0	0	1				NO
P-10460-D_(STORM_-_FINAL)-S	0	0	NO	IRREGULAR	0	0	0	0	1	HalfSectionRd			NO
P-10460-E	0	0	NO	CIRCULAR	1.25	0	0	0	1				NO
P-10460-E_(STORM_-_FINAL)-S	0	0	NO	IRREGULAR	0	0	0	0	1	HalfSectionRd			NO
P-10460-F	0	0	NO	CIRCULAR	1.25	0	0	0	1				NO
P-10460-F_(STORM_-_FINAL)-S	0	0	NO	IRREGULAR	0	0	0	0	1	HalfSectionRd			NO
P-10461-A	0	0	NO	CIRCULAR	1.5	0	0	0	1				NO
P-10461-B	0	0	NO	CIRCULAR	1.5	0	0	0	1				NO
P-10461-B_(STORM_-_FINAL)-S	0	0	NO	IRREGULAR	0	0	0	0	1	HalfSectionRd			NO
P-10462-A	0	0	NO	CIRCULAR	1.25	0	0	0	1				NO
P-10470-A	0	0	NO	CIRCULAR	1.25	0	0	0	1				NO
P-10470-A-S	0	0	NO	IRREGULAR	0	0	0	0	1	HalfSectionRd			NO
P-10480-A	0	0	NO	CIRCULAR	1.5	0	0	0	1				NO

Table 1B: Conduits (continued...)

Name	Avg. Loss Coeff.	Seepage Rate (in/hr)	Flap Gate	Cross-Section	Geom1 (ft)	Geom2 (ft)	Geom3	Geom4	Barrels	Transect	Shape Curve	Culvert Code	Control Rules
P-10480-B	0	0	NO	CIRCULAR	1.5	0	0	0	1				NO
P-10500-B	0	0	NO	CIRCULAR	1.5	0	0	0	1				NO
P-10500-B_(STORM_-_FINAL)-S	0	0	NO	IRREGULAR	0	0	0	0	1	HalfSectionRd			NO
P-10500-C	0	0	NO	CIRCULAR	1	0	0	0	1				NO
P-10500-C_(STORM_-_FINAL)-S	0	0	NO	IRREGULAR	0	0	0	0	1	HalfSectionRd			NO
P-10500-D	0	0	NO	CIRCULAR	1	0	0	0	1				NO
P-10510-A	0	0	NO	CIRCULAR	1	0	0	0	1				NO
P-10510-A_(STORM_-_FINAL)-S	0	0	NO	IRREGULAR	0	0	0	0	1	HalfSectionRd			NO
P-10700-A	0	0	NO	CIRCULAR	1.5	0	0	0	1				NO
P-12000-A	0	0	NO	CIRCULAR	1.5	0	0	0	1				NO
P-12000-B	0	0	NO	CIRCULAR	1.5	0	0	0	1				NO
P-12000-C	0	0	NO	CIRCULAR	1.5	0	0	0	1				NO
P-12000-C-S	0	0	NO	IRREGULAR	0	0	0	0	1	HalfSectionRd			NO
P-12000-D	0	0	NO	CIRCULAR	2	0	0	0	1				NO
P-12000-E	0	0	NO	CIRCULAR	2	0	0	0	1				NO
P-12000-E-S	0	0	NO	IRREGULAR	0	0	0	0	1	HalfSectionRd			NO
P-12000-F	0	0	NO	CIRCULAR	2	0	0	0	1				NO
P-12000-G-S	0	0	NO	IRREGULAR	0	0	0	0	1	HalfSectionRd			NO
P-21199_1	0	0	NO	CIRCULAR	2	0	0	0	1				NO
P-21199-S	0	0	NO	IRREGULAR	0	0	0	0	1	HalfSectionRd			NO
S	0	0	NO	CIRCULAR	0.833	0	0	0	1				NO
UV-Outlet	0	0	NO	CIRCULAR	6	0	0	0	1				NO

Table 1C: Conduits

Name	Slope (ft/ft)	Max. |Flow| (cfs)	Time Max. Flow (M/D/Y)	Max. |Velocity| (ft/s)	Max/Full Flow	Max/Full Depth	Max. Volume (ft^3)	Full Both Ends (h)	Full Upstream (h)	Full Downstream (h)	Above Full Normal (h)
1	0.00909	4.15	05/01/2022 00:22 AM	6.58	0.52	0.51	0	0	0	0	0
10	0.1091	0	05/01/2022 00:00 AM	0	0	0.29	0	0	0	0	0
10000-CB-S	0.0274	0	05/01/2022 00:00 AM	0	0	0	0	0	0	0	0
10000-DC-S	0.0305	0	05/01/2022 00:00 AM	0	0	0	0	0	0	0	0
10000-ED-S	0.00309	0	05/01/2022 00:00 AM	0	0	0	0	0	0	0	0
10123-AF	-0.19991	0	05/01/2022 00:00 AM	0	0	0	0	0	0	0	0
10125-AG	0.02609	0.8	05/01/2022 00:21 AM	5	0.88	0.76	0	0	0	0	0
10200-B	0.08403	6.25	05/01/2022 00:18 AM	13.1	0.33	0.41	0	0	0	0	0
10203-A	0.02172	0.39	05/01/2022 00:20 AM	1.94	0.04	0.22	0	0	0	0	0
10300-D1	0.01988	4.02	05/01/2022 00:22 AM	10.3	0.13	0.18	0	0	0	0	0
10300-D-2	0.27157	4.02	05/01/2022 00:22 AM	7.32	0.03	0.23	0	0	0	0	0
10300-D-3	0.00523	4.02	05/01/2022 00:22 AM	4.31	0.25	0.34	0	0	0	0	0
10310-C-S2	0.18546	0.34	05/01/2022 00:22 AM	5.79	0	0.17	0	0	0	0	0
11	0.1842	0	05/01/2022 00:00 AM	0	0	0	0	0	0	0	0
11000-A0	0.037	0.19	05/01/2022 00:16 AM	3.55	0.03	0.12	0	0	0	0	0
12	0.02922	0	05/01/2022 00:00 AM	0	0	0.24	0	0	0	0	0
12000-B'B	0.03925	0.02	05/01/2022 00:19 AM	2.92	0	0.06	0	0	0	0	0
12000-DC-S	0.03478	0.01	05/01/2022 00:22 AM	1.28	0	0.06	0	0	0	0	0
12000-FE-S	0.02076	0	05/01/2022 00:00 AM	0	0	0.03	0	0	0	0	0
12000-G	0.00942	1.84	05/01/2022 00:23 AM	3.94	0.08	0.21	0	0	0	0	0
12000-RainGarden	0.21049	0.22	05/01/2022 01:05 AM	2.21	0	0.01	0	0	0	0	0
13	0.08204	3.54	05/01/2022 00:17 AM	15.43	0.15	0.24	0	0	0	0	0
13000-A0	0.06641	2.02	05/01/2022 00:19 AM	8.3	0.03	0.13	0	0	0	0	0
14	0.16859	3.54	05/01/2022 00:17 AM	12.82	0.1	0.28	0	0	0	0	0
14000-A0'	0.01074	0	05/01/2022 00:00 AM	0	0	0	0	0	0	0	0
14000-B0	0.01077	14.88	05/01/2022 00:17 AM	7.35	0.63	0.61	0	0	0	0	0

Table 1C: Conduits (continued...)

Name	Slope (ft/ft)	Max. |Flow| (cfs)	Time Max. Flow (M/D/Y)	Max. |Velocity| (ft/s)	Max/Full Flow	Max/Full Depth	Max. Volume (ft³)	Full Both Ends (h)	Full Upstream (h)	Full Downstream (h)	Above Full Normal (h)
14000-CB	0.01002	10.04	05/01/2022 00:18 AM	5.35	0.44	0.58	0	0	0	0	0
14000-DC	0.00988	8.89	05/01/2022 00:19 AM	5.02	0.4	0.55	0	0	0	0	0
14000-ED	0.01001	6.25	05/01/2022 00:19 AM	4.19	0.28	0.48	0	0	0	0	0
14000-FE	0.01007	2.8	05/01/2022 00:18 AM	3.21	0.12	0.32	0	0	0	0	0
15	0.02984	3.53	05/01/2022 00:17 AM	8.92	0.24	0.36	0	0	0	0	0
16	0.02993	3.7	05/01/2022 00:17 AM	8.19	0.46	0.57	0	0	0	0	0
17	0.05299	5.53	05/01/2022 00:19 AM	13.65	0.49	0.62	0	0	0	0	0
18	0.02997	9.23	05/01/2022 00:20 AM	10.98	0.18	0.31	0	0	0	0	0
19	0.13184	15.57	05/01/2022 00:20 AM	9.22	0.15	0.64	0	0.01	0.01	71.82	0.01
20	0.07016	6.77	05/01/2022 00:11 AM	2.48	0.18	1	0	71.82	71.82	71.83	0.01
21	0.03027	12.57	05/01/2022 00:20 AM	12.22	0.25	0.36	0	0	0	0	0
22	0.03016	15.57	05/01/2022 00:20 AM	17.26	0.3	0.33	0	0	0	0	0
26	0.10817	0	05/01/2022 00:00 AM	0	0	0.5	0	0	0	0	0
28	0.04623	0.59	05/01/2022 00:22 AM	1.31	0.01	0.08	0	0	0	0	0
3	0.01006	0.85	05/01/2022 00:10 AM	13.24	0.04	0.14	0	0	0	0	0
4	0.00632	0.73	05/01/2022 00:06 AM	4.07	0.2	0.31	0	0	0	0	0
5	0.01292	5.13	05/01/2022 00:22 AM	7.7	0.15	0.26	0	0	0	0	0
6	0	0.1	05/01/2022 00:22 AM	7.33	0.01	0.05	0	0	0	0	0
8	0.00817	5.33	05/01/2022 00:22 AM	6.61	0.2	0.3	0	0	0	0	0
9	-999	6.95	05/01/2022 00:27 AM	3.68	0.22	0.31	0	0	0	0	0
C10	0.00473	2.16	05/01/2022 00:24 AM	3.62	0.3	0.37	0	0	0	0	0
C10-S	0	2.16	05/01/2022 00:24 AM	1.19	0.83	0.57	0	0	0	0	0
C11	0.02024	0.92	05/01/2022 00:24 AM	4.1	0.06	0.18	0	0	0	0	0
C11-S	0.01505	0.92	05/01/2022 00:24 AM	0.36	0	0.02	0	0	0	0	0
C12-S	0.14041	0	05/01/2022 00:00 AM	0	0	0	0	0	0	0	0
C14	0.01177	2.2	05/01/2022 00:08 AM	5.25	1.56	0.53	0	0.01	0.01	0.01	0.19

Table 1C: Conduits (continued...)

Name	Slope (ft/ft)	Max. |Flow| (cfs)	Time Max. Flow (M/D/Y)	Max. |Velocity| (ft/s)	Max/Full Flow	Max/Full Depth	Max. Volume (ft³)	Full Both Ends (h)	Full Upstream (h)	Full Downstream (h)	Above Full Normal (h)
C15	0.06527	8.24	05/01/2022 00:24 AM	10.73	0.17	0.29	0	0	0	0	0
C16	0.09459	0	05/01/2022 00:00 AM	0	0	0	0	0	0	0	0
C17	0.01055	0	05/01/2022 00:00 AM	0	0	0.04	0	0	0	0	0
C18	0.03365	0	05/01/2022 00:00 AM	0	0	0	0	0	0	0	0
C19	0.10269	0	05/01/2022 00:00 AM	0	0	0.16	0	0	0	0	0
C2	0.00946	1.65	05/01/2022 00:08 AM	3.06	0.26	0.45	0	0	0	0	0
C20	0.13876	6.45	05/01/2022 00:23 AM	16.99	0.08	0.13	0	0	0	0	0
C21	0.00329	0.53	05/01/2022 00:21 AM	0.46	0	0.23	0	0	0	0	0
C23	0.13848	6.67	05/01/2022 00:23 AM	7.85	0	0.02	0	0	0	0	0
C24	0.04174	0.85	05/01/2022 00:07 AM	6.13	0.01	0.21	0	0	0	0	0
C25	0.12413	0.37	05/01/2022 00:22 AM	0.65	0	0.11	0	0	0	0	0
C26	0.03469	8.59	05/01/2022 00:24 AM	10.99	0.2	0.3	0	0	0	0	0
C2-S	0.35468	1.46	05/01/2022 00:09 AM	12.85	0.01	0.21	0	0	0	0	0
C3	0.05468	0.22	05/01/2022 01:05 AM	4.88	1.09	1	0	2.88	2.88	2.91	2.91
C4	0.01096	0	05/01/2022 00:00 AM	0	0	0	0	0	0	0	0
C4-S	0.01492	0	05/01/2022 00:00 AM	0	0	0	0	0	0	0	0
C5	0.01499	5.68	05/01/2022 00:22 AM	5.99	0.11	0.25	0	0	0	0	0
C6	0.00393	0.56	05/01/2022 00:10 AM	2.43	0.41	0.44	0	0	0	0	0
C7	-0.00696	0.26	05/01/2022 00:20 AM	0.94	0	0.01	0	0	0	0	0
C8	0.05532	5.46	05/01/2022 00:21 AM	7.44	0.01	0.07	0	0	0	0	0
C9_1	0.01991	4.29	05/01/2022 00:22 AM	3.42	0.02	0.11	0	0	0	0	0
C9_2	0.00232	1.41	05/01/2022 00:15 AM	1.85	0.01	0.06	0	0	0	0	0
C-J182	0.0054	0.16	05/01/2022 01:00 AM	0.2	0.02	0.51	0	0.01	0.01	71.44	0.01
C-J320	0.02	0.01	05/01/2022 00:30 AM	0.43	0	0.53	0	0.01	0.01	0.67	0.01
C-J39	0.00336	0.19	05/01/2022 00:33 AM	0.23	0.03	0.58	0	0.01	0.01	71.45	0.01
C-J46	0.01897	0	05/01/2022 00:23 AM	0.16	0	0.02	0	0	0	0	0

Table 1C: Conduits (continued...)

Name	Slope (ft/ft)	Max. |Flow| (cfs)	Time Max. Flow (M/D/Y)	Max. |Velocity| (ft/s)	Max/Full Flow	Max/Full Depth	Max. Volume (ft^3)	Full Both Ends (h)	Full Upstream (h)	Full Downstream (h)	Above Full Normal (h)
EP-10440-C	0.08184	2.2	05/01/2022 00:08 AM	11.15	0.1	0.22	0	0	0	0	0
EP-10440-C-S	0.00941	0	05/01/2022 00:00 AM	0	0	0	0	0	0	0	0
EX10441-B-S	0.07078	0	05/01/2022 00:25 AM	1.2	0	0.02	0	0	0	0	0
EX10441-C-S	0.03614	0.12	05/01/2022 00:26 AM	5.3	0	0.09	0	0	0	0	0
EX10441-D-S	0	0.44	05/01/2022 00:23 AM	2.24	0.17	0.24	0	0	0	0	0
OL-10100-AE_1	0.05499	0	05/01/2022 00:13 AM	0	0	0	0	0	0	0	0
OL-10100-AE_2	0.049	0	05/01/2022 00:20 AM	0	0	0	0	0	0	0	0
OL-10101-AF	0.02396	0.11	05/01/2022 00:14 AM	2.15	0	0.04	0	0	0	0	0
OL-10131-BA	0.00341	0	05/01/2022 00:00 AM	0	0	0	0	0	0	0	0
OL-10131-CB	0.04042	0	05/01/2022 00:00 AM	0	0	0	0	0	0	0	0
OL-10200-BA_1	0.05322	0.19	05/01/2022 00:06 AM	3.13	0	0.15	0	0	0	0	0
OL-10200-BA_2	0.06679	0.2	05/01/2022 00:06 AM	5.95	0	0.12	0	0	0	0	0
OL-10201-AA_1	0.05866	0.02	05/01/2022 00:18 AM	2.17	0	0.05	0	0	0	0	0
OL-10201-AA_2	0.07066	0.02	05/01/2022 00:19 AM	1.28	0	0.07	0	0	0	0	0
OL-10210-AD	0.07007	0	05/01/2022 00:00 AM	0	0	0.03	0	0	0	0	0
OL-11000-A0	0.06338	0.1	05/01/2022 00:21 AM	1.68	0	0.01	0	0	0	0	0
OL-11000-AbAc	0.30455	0	05/01/2022 00:00 AM	0	0	0	0	0	0	0	0
OL-11000-AcAd	-1E-05	0	05/01/2022 00:00 AM	0	0	0	0	0	0	0	0
OL-11000-AdAe	0.84061	0	05/01/2022 00:00 AM	0	0	0	0	0	0	0	0
OL-11000-AeE	0.02744	0	05/01/2022 00:00 AM	0	0	0	0	0	0	0	0
OL-11000-BA	0.02677	0.13	05/01/2022 00:21 AM	2.72	0	0.03	0	0	0	0	0
OL-12000-B0	0.00454	0	05/01/2022 00:22 AM	0.54	0	0.05	0	0	0	0	0
OL-14000-BC	0.04803	0	05/01/2022 00:00 AM	0	0	0	0	0	0	0	0
OL-14000-CB	0.01968	0	05/01/2022 00:00 AM	0	0	0	0	0	0	0	0
OL-14000-DC	0.00198	0	05/01/2022 00:00 AM	0	0	0	0	0	0	0	0
OL-14000-ED	0.00904	0	05/01/2022 00:00 AM	0	0	0	0	0	0	0	0

Table 1C: Conduits (continued...)

Name	Slope (ft/ft)	Max. |Flow| (cfs)	Time Max. Flow (M/D/Y)	Max. |Velocity| (ft/s)	Max/Full Flow	Max/Full Depth	Max. Volume (ft^3)	Full Both Ends (h)	Full Upstream (h)	Full Downstream (h)	Above Full Normal (h)
P-10000-A	0.01931	39.68	05/01/2022 00:29 AM	12.22	0.15	0.26	0	0	0	0	0
P-10000-C	0.00989	30.7	05/01/2022 00:32 AM	7.29	0.16	0.31	0	0	0	0	0
P-10000-C.	0.04704	30.69	05/01/2022 00:32 AM	13.88	0.02	0.11	0	0	0	0	0
P-10001-A-S	0.03962	0	05/01/2022 00:00 AM	0	0	0	0	0	0	0	0
P-1000-B	0.0189	39.68	05/01/2022 00:29 AM	12.15	0.15	0.26	0	0	0	0	0
P-10100-A	0.01006	1.46	05/01/2022 00:26 AM	3.75	0.06	0.18	0	0	0	0	0
P-10100-B	0.01013	1.46	05/01/2022 00:26 AM	4.07	0.06	0.17	0	0	0	0	0
P-10100-B-S	0.01345	0	05/01/2022 00:15 AM	0.1	0	0.06	0	0	0	0	0
P-10100-C	0.00991	1.06	05/01/2022 00:21 AM	3.67	0.05	0.15	0	0	0	0	0
P-10120-G	0.04127	6.95	05/01/2022 00:26 AM	4.92	0.07	0.25	0	0	0	0	0
P-10120-H	0.0466	3.13	05/01/2022 00:27 AM	4.96	0.02	0.14	0	0	0	0	0
P-10120-H-S	0.02474	0	05/01/2022 00:00 AM	0	0	0.02	0	0	0	0	0
P-10200-A	0.06259	8.54	05/01/2022 00:17 AM	12.55	0.32	0.41	0	0	0	0	0
P-10200-A-S_1	0.08451	0.09	05/01/2022 00:15 AM	2.79	0	0.11	0	0	0	0	0
P-10200-A-S_2	0.06604	0.09	05/01/2022 00:15 AM	4.5	0	0.08	0	0	0	0	0
P-10200-C	0.07637	5.6	05/01/2022 00:18 AM	12.3	0.31	0.4	0	0	0	0	0
P-10200-C-S_1	0.01181	0	05/01/2022 00:07 AM	1.35	0	0.02	0	0	0	0	0
P-10200-C-S_2	0.08141	0	05/01/2022 00:08 AM	0.01	0	0.07	0	0	0	0	0
P-10200-D	0.07972	3.63	05/01/2022 00:19 AM	11.62	0.2	0.3	0	0	0	0	0
P-10200-D-S	0.08722	0.02	05/01/2022 00:08 AM	3.25	0	0.05	0	0	0	0	0
P-10200-D-S.	0.07854	0.22	05/01/2022 00:10 AM	3.98	0	0.14	0	0	0	0	0
P-10200-E	0.05676	2.94	05/01/2022 00:19 AM	9.55	0.19	0.3	0	0	0	0	0
P-10200-F	0.0099	1.67	05/01/2022 00:22 AM	4.4	0.26	0.35	0	0	0	0	0
P-10200-F-S	0.03594	0	05/01/2022 00:09 AM	0.03	0	0.08	0	0	0	0	0
P-10200-G	-0.03994	1.67	05/01/2022 00:22 AM	2.68	7.16	0.51	0	0.01	0.01	0.01	1.04
P-10200-G_(STORM_-_FINAL)-S	-0.0094	0	05/01/2022 00:00 AM	0	0	0.01	0	0	0	0	0

Table 1C: Conduits (continued...)

Name	Slope (ft/ft)	Max. |Flow| (cfs)	Time Max. Flow (M/D/Y)	Max. |Velocity| (ft/s)	Max/Full Flow	Max/Full Depth	Max. Volume (ft^3)	Full Both Ends (h)	Full Upstream (h)	Full Downstream (h)	Above Full Normal (h)
P-10200-H	0.01623	1.31	05/01/2022 00:22 AM	3.37	0.16	0.36	0	0	0	0	0
P-10200-H_(STORM_-_FINAL)-S	0.00063	0	05/01/2022 00:18 AM	0	0	0.01	0	0	0	0	0
P-10200-J	0.01014	1.26	05/01/2022 00:22 AM	4.1	0.19	0.3	0	0	0	0	0
P-10200-J_(STORM_-_FINAL)-S	0.0633	0.01	05/01/2022 00:19 AM	1.62	0	0.04	0	0	0	0	0
P-10200-K	0.05043	1.15	05/01/2022 00:23 AM	7.06	0.08	0.19	0	0	0	0	0
P-10200-K_(STORM_-_FINAL)-S	0.01926	0	05/01/2022 00:21 AM	0.78	0	0.04	0	0	0	0	0
P-10200-L	0.02216	0.5	05/01/2022 00:21 AM	4.13	0.05	0.16	0	0	0	0	0
P-10200-L_(STORM_-_FINAL)-S	0.02648	0	05/01/2022 00:19 AM	1.14	0	0.04	0	0	0	0	0
P-10200-M	0.00974	0.33	05/01/2022 00:21 AM	2.75	0.05	0.16	0	0	0	0	0
P-10200-M_(STORM_-_FINAL)-S	0.0323	0.19	05/01/2022 00:10 AM	5.01	0	0.13	0	0	0	0	0
P-10200-N	0.01171	0	05/01/2022 00:00 AM	0	0	0	0	0	0	0	0
P-10201-A	0.02578	0.68	05/01/2022 00:16 AM	4.17	0.07	0.23	0	0	0	0	0
P-102020-A-S_1	0.04431	0.38	05/01/2022 00:18 AM	3.21	0	0.2	0	0	0	0	0
P-102020-A-S_2	0.08352	0.38	05/01/2022 00:18 AM	7.77	0	0.13	0	0	0	0	0
P-10202-A	0.01103	1.86	05/01/2022 00:18 AM	4.71	0.27	0.36	0	0	0	0	0
P-10203-A-S	0.08475	0	05/01/2022 00:00 AM	0	0	0.1	0	0	0	0	0
P-10210-A	0.06262	2.55	05/01/2022 00:10 AM	9.61	0.16	0.27	0	0	0	0	0
P-10210-B	0.01824	2.07	05/01/2022 00:10 AM	5.83	0.24	0.33	0	0	0	0	0
P-10210-B-S	0.10156	0.59	05/01/2022 00:07 AM	5.32	0	0.2	0	0	0	0	0
P-10210-C	0.01695	1.11	05/01/2022 00:10 AM	4.9	0.39	0.43	0	0	0	0	0
P-10210-C_(STORM_-_FINAL)-S	0.00359	0.02	05/01/2022 00:15 AM	0.7	0	0.09	0	0	0	0	0
P-10211-A	-0.00684	0.61	05/01/2022 00:10 AM	2.03	1.97	0.29	0	0.01	0.01	0.01	0.4
P-10211-B	0.00625	0.58	05/01/2022 00:07 AM	2.86	0.34	0.4	0	0	0	0	0
P-10212-A	0.01344	0	05/01/2022 00:00 AM	0	0	0	0	0	0	0	0
P-10240-A_(STORM_-_FINAL)-S	-0.00124	0	05/01/2022 00:00 AM	0	0	0.06	0	0	0	0	0
P-10250-A	0.03943	1.48	05/01/2022 00:16 AM	6.97	0.12	0.23	0	0	0	0	0

Table 1C: Conduits (continued...)

Name	Slope (ft/ft)	Max. |Flow| (cfs)	Time Max. Flow (M/D/Y)	Max. |Velocity| (ft/s)	Max/Full Flow	Max/Full Depth	Max. Volume (ft³)	Full Both Ends (h)	Full Upstream (h)	Full Downstream (h)	Above Full Normal (h)
P-10250-A-S	0	0	05/01/2022 00:17 AM	0.14	0	0.08	0	0	0	0	0
P-10250-B	0.02171	0.93	05/01/2022 00:07 AM	4.92	0.1	0.21	0	0	0	0	0
P-10250-B-S	0.07012	0	05/01/2022 00:00 AM	0	0	0.06	0	0	0	0	0
P-10250-C	0.05395	0.93	05/01/2022 00:07 AM	6.79	0.06	0.17	0	0	0	0	0
P-10250-C-S	0.06838	0.04	05/01/2022 00:08 AM	0.21	0	0.45	0	0	0	0	0
P-10250-D	0.00792	0.54	05/01/2022 00:07 AM	2.94	0.09	0.21	0	0	0	0	0
P-10250-D-S	-0.00054	0	05/01/2022 00:00 AM	0	0	0.05	0	0	0	0	0
P-10260-A	0.01	0.41	05/01/2022 00:16 AM	2.95	0.06	0.17	0	0	0	0	0
P-10260-A-S	0.03662	0.06	05/01/2022 00:16 AM	2.19	0	0.11	0	0	0	0	0
P-10270-A	0.01069	0.5	05/01/2022 00:25 AM	3.19	0.07	0.18	0	0	0	0	0
P-10280-A	0.04107	0.16	05/01/2022 00:22 AM	3.61	0.01	0.08	0	0	0	0	0
P-10300-B	0.03429	4.3	05/01/2022 00:22 AM	8.59	0.1	0.22	0	0	0	0	0
P-10300-B-S	0.0038	0.01	05/01/2022 00:15 AM	0.91	0	0.06	0	0	0	0	0
P-10300-C3	0.00925	1.99	05/01/2022 00:24 AM	3.58	0.11	0.24	0	0	0	0	0
P-10300-D-S	0.035	0	05/01/2022 00:00 AM	0	0	0	0	0	0	0	0
P-10300-E	0.01046	1.06	05/01/2022 00:21 AM	3.95	0.16	0.27	0	0	0	0	0
P-10300-E-S.	0.06167	0.06	05/01/2022 00:19 AM	4.71	0	0.07	0	0	0	0	0
P-10300-F	0.02629	0.78	05/01/2022 00:19 AM	5.02	0.07	0.19	0	0	0	0	0
P-10300-G	0.01646	0.12	05/01/2022 00:22 AM	3.05	0.02	0.1	0	0	0	0	0
P-10310-A	0.00423	2.04	05/01/2022 00:19 AM	5.09	0.17	0.28	0	0	0	0	0
P-10310-B	0.01001	1.97	05/01/2022 00:19 AM	4.63	0.31	0.38	0	0	0	0	0
P-10310-B-S	0.00354	0	05/01/2022 00:19 AM	0.13	0	0.03	0	0	0	0	0
P-10310-C-S	0.00264	0	05/01/2022 00:19 AM	0.01	0	0.11	0	0	0	0	0
P-10320-A	0.01282	0.96	05/01/2022 00:27 AM	4.04	0.08	0.19	0	0	0	0	0
P-10320-A-S	0.03515	0.02	05/01/2022 00:07 AM	2.79	0	0.05	0	0	0	0	0
P-10320-B	0.00292	0.87	05/01/2022 00:28 AM	2.62	0.25	0.31	0	0	0	0	0

Table 1C: Conduits (continued...)

Name	Slope (ft/ft)	Max. |Flow| (cfs)	Time Max. Flow (M/D/Y)	Max. |Velocity| (ft/s)	Max/Full Flow	Max/Full Depth	Max. Volume (ft³)	Full Both Ends (h)	Full Upstream (h)	Full Downstream (h)	Above Full Normal (h)
P-10320-C	0.02025	0	05/01/2022 00:00 AM	0	0	0	0	0	0	0	0
P-10320-D-S	0.0748	0.37	05/01/2022 00:22 AM	2.79	0	0.23	0	0	0	0	0
P-10321-A	0.01993	0.37	05/01/2022 00:06 AM	4.51	0.06	0.16	0	0	0	0	0
P-10330-A	-0.0034	0.31	05/01/2022 00:24 AM	1.5	2.36	0.31	0	0.01	0.01	0.01	0.73
P-10330-A-S	0.00252	0	05/01/2022 00:00 AM	0	0	0	0	0	0	0	0
P-10330-B	0.01061	0.31	05/01/2022 00:23 AM	2.84	0.08	0.2	0	0	0	0	0
P-10330-B-S	-0.00822	0	05/01/2022 00:00 AM	0	0	0.08	0	0	0	0	0
P-10400-A	0.00707	29.28	05/01/2022 00:32 AM	7.92	0.24	0.34	0	0	0	0	0
P-10400-A-S	0.02921	0	05/01/2022 00:00 AM	0	0	0	0	0	0	0	0
P-10400-B	0.02211	21.26	05/01/2022 00:36 AM	11.17	0.21	0.31	0	0	0	0	0
P-10400-C1	0.07449	21.26	05/01/2022 00:36 AM	6.77	0.34	1	0	0.83	0.83	0.94	0.01
P-10400-C2-S	0.01642	24.26	05/01/2022 00:22 AM	0	0	0	0	0	0	0	0
P-10400-C-S	0.02468	0	05/01/2022 00:07 AM	0.69	0	0.02	0	0	0	0	0
P-10400-D	0.01655	24.26	05/01/2022 00:22 AM	24.8	0.1	0.11	0	0	0	0	0
P-10400-D-S	0.0321	0	05/01/2022 00:15 AM	0.98	0	0.03	0	0	0	0	0
P-10400-E	0.00885	24.06	05/01/2022 00:22 AM	8.29	0.38	0.43	0	0	0	0	0
P-10400-E-S	0.03022	0	05/01/2022 00:00 AM	0	0	0.11	0	0	0	0	0
P-10400-F	0.0312	23.89	05/01/2022 00:22 AM	13.06	0.2	0.31	0	0	0	0	0
P-10400-F_(STORM_-_FINAL)-S	0.04114	0	05/01/2022 00:00 AM	0	0	0	0	0	0	0	0
P-10400-G	0.03253	21.88	05/01/2022 00:23 AM	12.93	0.18	0.29	0	0	0	0	0
P-10400-G-S	0.04536	0.02	05/01/2022 00:23 AM	1.7	0	0.06	0	0	0	0	0
P-10400-H	0.03375	20.96	05/01/2022 00:23 AM	12.94	0.17	0.28	0	0	0	0	0
P-10400-H-S	0.05165	0.01	05/01/2022 00:16 AM	1.65	0	0.05	0	0	0	0	0
P-10400-J	0.04228	20.73	05/01/2022 00:23 AM	13.98	0.15	0.26	0	0	0	0	0
P-10400-K	0.04297	4.79	05/01/2022 00:17 AM	9.6	0.1	0.22	0	0	0	0	0
P-10400-K-S	0.01587	0	05/01/2022 00:18 AM	0.83	0	0.04	0	0	0	0	0

Table 1C: Conduits (continued...)

Name	Slope (ft/ft)	Max. |Flow| (cfs)	Time Max. Flow (M/D/Y)	Max. |Velocity| (ft/s)	Max/Full Flow	Max/Full Depth	Max. Volume (ft^3)	Full Both Ends (h)	Full Upstream (h)	Full Downstream (h)	Above Full Normal (h)
P-10400-L	0.03192	3.84	05/01/2022 00:18 AM	8.34	0.2	0.31	0	0	0	0	0
P-10400-L-S	0.06392	0	05/01/2022 00:06 AM	2.49	0	0.03	0	0	0	0	0
P-10400-M	0.06767	0.85	05/01/2022 00:19 AM	7.51	0.03	0.11	0	0	0	0	0
P-10400-M-S	0.1096	0.01	05/01/2022 00:15 AM	2.82	0	0.03	0	0	0	0	0
P-10400-N	0.00705	0.15	05/01/2022 00:27 AM	2.19	0.01	0.09	0	0	0	0	0
P-10400-N_(STORM_-_FINAL)-S	-0.0141	0	05/01/2022 00:16 AM	1.22	0	0.02	0	0	0	0	0
P-10400-P	0.00903	0.15	05/01/2022 00:27 AM	2.67	0.01	0.07	0	0	0	0	0
P-10400-P_(STORM_-_FINAL)-S	0.07064	0	05/01/2022 00:00 AM	0	0	0	0	0	0	0	0
P-10400-Q	0.00964	0.09	05/01/2022 00:25 AM	1.64	0.01	0.07	0	0	0	0	0
P-10400-Q_(STORM_-_FINAL)-S	0	0	05/01/2022 00:00 AM	0	0	0	0	0	0	0	0
P-10400-R	0.0083	0.09	05/01/2022 00:25 AM	2.21	0.01	0.06	0	0	0	0	0
P-10400-R_(STORM_-_FINAL)-S	0	0	05/01/2022 00:00 AM	0	0	0	0	0	0	0	0
P-10400-S	0.00941	0.09	05/01/2022 00:25 AM	1.76	0.01	0.07	0	0	0	0	0
P-10400-S_(STORM_-_FINAL)-S	0.00927	0	05/01/2022 00:00 AM	0	0	0	0	0	0	0	0
P-10410-A	0.00819	8.7	05/01/2022 00:28 AM	5.88	0.07	0.18	0	0	0	0	0
P-10410-A-S	0.00307	0.11	05/01/2022 00:10 AM	1	0.01	0.19	0	0	0	0	0
P-10410-B	0.00915	8.65	05/01/2022 00:28 AM	7.35	0.05	0.15	0	0	0	0	0
P-10410-C	0.00525	8.6	05/01/2022 00:28 AM	7.26	0.05	0.15	0	0	0	0	0
P-10410-D	-0.00662	7.93	05/01/2022 00:28 AM	3.59	1.67	0.23	0	0.01	0.01	0.01	0.47
P-10410-E	0.01965	7.52	05/01/2022 00:29 AM	7.65	0.04	0.13	0	0	0	0	0
P-10410-F	0.00161	7.18	05/01/2022 00:29 AM	4.14	0.21	0.29	0	0	0	0	0
P-10411-A	0.00181	0.1	05/01/2022 00:25 AM	1.37	0.03	0.11	0	0	0	0	0
P-10411-A-S	0.00273	0	05/01/2022 00:20 AM	0.19	0	0.1	0	0	0	0	0
P-10420-A	0.03495	2.16	05/01/2022 00:15 AM	7.06	0.05	0.15	0	0	0	0	0
P-10420-A_(STORM_-_FINAL)-S	0.07089	0	05/01/2022 00:23 AM	0	0	0.01	0	0	0	0	0
P-10420-B	0.02634	2.13	05/01/2022 00:06 AM	6.37	0.06	0.16	0	0	0	0	0

Table 1C: Conduits (continued...)

Name	Slope (ft/ft)	Max. |Flow| (cfs)	Time Max. Flow (M/D/Y)	Max. |Velocity| (ft/s)	Max/Full Flow	Max/Full Depth	Max. Volume (ft³)	Full Both Ends (h)	Full Upstream (h)	Full Downstream (h)	Above Full Normal (h)
P-10420-B_(STORM_-_FINAL)-S	0.07049	0	05/01/2022 00:06 AM	1.33	0	0.03	0	0	0	0	0
P-10420-C	0.02802	1.96	05/01/2022 00:06 AM	6.35	0.05	0.15	0	0	0	0	0
P-10420-C-S	0.00181	0	05/01/2022 00:34 AM	0	0	0.01	0	0	0	0	0
P-10420-D	0.02392	0.98	05/01/2022 00:19 AM	4.88	0.03	0.11	0	0	0	0	0
P-10420-D-S	0.07763	0.04	05/01/2022 00:22 AM	2.61	0	0.07	0	0	0	0	0
P-10420-E	0.00867	0.56	05/01/2022 00:16 AM	3.07	0.09	0.21	0	0	0	0	0
P-10420-E-S	0.00517	0.03	05/01/2022 00:16 AM	1.3	0	0.09	0	0	0	0	0
P-10421-A	0.00991	0.2	05/01/2022 00:28 AM	2.2	0.01	0.07	0	0	0	0	0
P-10421-A_(STORM_-_FINAL)-S	-0.00168	0	05/01/2022 00:00 AM	0	0	0.02	0	0	0	0	0
P-10422-A	0.15002	1.9	05/01/2022 00:06 AM	11.74	0.05	0.15	0	0	0	0	0
P-10422-A-S	0.18165	0	05/01/2022 00:00 AM	0	0	0.01	0	0	0	0	0
P-10430-A_(STORM_-_FINAL)	0.01	0.73	05/01/2022 00:15 AM	3.41	0.07	0.18	0	0	0	0	0
P-10430-A-S	0.04421	0.15	05/01/2022 00:15 AM	2.94	0	0.13	0	0	0	0	0
P-10440-A	0.05406	16.31	05/01/2022 00:23 AM	14.5	0.17	0.28	0	0	0	0	0
P-10440-A_(STORM_-_FINAL)-S	0.0504	0	05/01/2022 00:13 AM	0	0	0.01	0	0	0	0	0
P-10440-B	0.02426	16.24	05/01/2022 00:23 AM	10.87	0.25	0.34	0	0	0	0	0
P-10440-B_(STORM_-_FINAL)-S	0.01711	0.01	05/01/2022 00:12 AM	0.99	0	0.05	0	0	0	0	0
P-10440-C	0.005	15.99	05/01/2022 00:23 AM	6.05	0.55	0.53	0	0	0	0	0
P-10440-C_(STORM_-_FINAL)-S	0.0471	0	05/01/2022 00:00 AM	0	0	0	0	0	0	0	0
P-10440-D	0.00504	14.21	05/01/2022 00:24 AM	5.55	0.49	0.52	0	0	0	0	0
P-10440-D-S	0.07468	0	05/01/2022 00:00 AM	0	0	0	0	0	0	0	0
P-10440-E	0.00601	13.29	05/01/2022 00:23 AM	6.14	0.76	0.65	0	0	0	0	0
P-10440-G	0.04877	9.01	05/01/2022 00:24 AM	12.05	0.18	0.29	0	0	0	0	0
P-10441-A	0.17704	0.03	05/01/2022 00:16 AM	2.49	0	0.16	0	0	0	0	0
P-10442-A	0.01285	0.12	05/01/2022 00:27 AM	2.78	0.02	0.11	0	0	0	0	0
P-10442-A-EX	0.06536	4.14	05/01/2022 00:23 AM	10.76	0.07	0.18	0	0	0	0	0

Table 1C: Conduits (continued...)

Name	Slope (ft/ft)	Max. |Flow| (cfs)	Time Max. Flow (M/D/Y)	Max. |Velocity| (ft/s)	Max/Full Flow	Max/Full Depth	Max. Volume (ft^3)	Full Both Ends (h)	Full Upstream (h)	Full Downstream (h)	Above Full Normal (h)
P-10443-A	0.05033	0.12	05/01/2022 00:51 AM	3.52	0.01	0.07	0	0	0	0	0
P-10443-C	0.0213	3.57	05/01/2022 00:24 AM	7.75	0.11	0.2	0	0	0	0	0
P-10443-D	0.06181	3.03	05/01/2022 00:23 AM	9.07	0.02	0.09	0	0	0	0	0
P-10443-E	0.09798	0.85	05/01/2022 00:10 AM	8.38	0.08	0.19	0	0	0	0	0
P-10443-E-S	-0.00034	0	05/01/2022 00:00 AM	0	0	0.07	0	0	0	0	0
P-10450-A_(STORM_-_FINAL)	0.00956	0.99	05/01/2022 00:08 AM	3.68	0.1	0.21	0	0	0	0	0
P-10450-A-S	0.06444	0.15	05/01/2022 00:08 AM	5.97	0	0.09	0	0	0	0	0
P-10460-A	0.00369	2.91	05/01/2022 00:17 AM	3.83	0.46	0.44	0	0	0	0	0
P-10460-A-S	0.06802	0	05/01/2022 00:06 AM	1.1	0	0.08	0	0	0	0	0
P-10460-B	0.00566	2.84	05/01/2022 00:17 AM	4.1	0.36	0.41	0	0	0	0	0
P-10460-B_(STORM_-_FINAL)-S	0.03933	0.23	05/01/2022 00:37 AM	5.23	0	0.13	0	0	0	0	0
P-10460-C	0.00657	1.63	05/01/2022 00:20 AM	3.71	0.19	0.3	0	0	0	0	0
P-10460-C_(STORM_-_FINAL)-S	0	0.02	05/01/2022 00:36 AM	0.34	0.02	0.16	0	0	0	0	0
P-10460-D	0.00615	1.28	05/01/2022 00:21 AM	3.38	0.16	0.27	0	0	0	0	0
P-10460-D_(STORM_-_FINAL)-S	-0.00104	0.05	05/01/2022 00:17 AM	0.36	0	0.23	0	0	0	0	0
P-10460-E	0.00489	0.46	05/01/2022 00:22 AM	2.4	0.1	0.21	0	0	0	0	0
P-10460-E_(STORM_-_FINAL)-S	0.00124	0.03	05/01/2022 00:16 AM	0.48	0	0.21	0	0	0	0	0
P-10460-F	0.00773	0.27	05/01/2022 00:28 AM	2.37	0.05	0.15	0	0	0	0	0
P-10460-F_(STORM_-_FINAL)-S	-0.00317	0.04	05/01/2022 00:15 AM	1.28	0	0.13	0	0	0	0	0
P-10461-A	0.01422	1.82	05/01/2022 00:07 AM	5.05	0.15	0.26	0	0	0	0	0
P-10461-B	0.00499	0.99	05/01/2022 00:06 AM	2.93	0.13	0.25	0	0	0	0	0
P-10461-B_(STORM_-_FINAL)-S	0	0.12	05/01/2022 00:06 AM	0.41	0.1	0.29	0	0	0	0	0
P-10462-A	0.03373	0.01	05/01/2022 00:22 AM	1.52	0	0.02	0	0	0	0	0
P-10470-A	0.01001	0.22	05/01/2022 00:18 AM	2.45	0.03	0.13	0	0	0	0	0
P-10470-A-S	-0.02406	0	05/01/2022 00:00 AM	0	0	0.02	0	0	0	0	0
P-10480-A	0.01242	0.28	05/01/2022 00:19 AM	3.32	0.02	0.09	0	0	0	0	0

Table 1C: Conduits (continued...)

Name	Slope (ft/ft)	Max. |Flow| (cfs)	Time Max. Flow (M/D/Y)	Max. |Velocity| (ft/s)	Max/Full Flow	Max/Full Depth	Max. Volume (ft^3)	Full Both Ends (h)	Full Upstream (h)	Full Downstream (h)	Above Full Normal (h)
P-10480-B	0.01105	0.28	05/01/2022 00:19 AM	3.19	0.02	0.1	0	0	0	0	0
P-10500-B	0.00516	1.41	05/01/2022 00:15 AM	5.01	0.19	0.22	0	0	0	0	0
P-10500-B_(STORM_-_FINAL)-S	0.0267	0	05/01/2022 00:00 AM	0	0	0	0	0	0	0	0
P-10500-C	0.00439	0.64	05/01/2022 00:18 AM	2.68	0.27	0.34	0	0	0	0	0
P-10500-C_(STORM_-_FINAL)-S	-0.02094	0	05/01/2022 00:00 AM	0	0	0.12	0	0	0	0	0
P-10500-D	0.00063	0	05/01/2022 00:00 AM	0	0	0	0	0	0	0	0
P-10510-A	-0.00955	0.86	05/01/2022 00:07 AM	2.64	3.51	0.43	0	0.01	0.01	0.01	0.8
P-10510-A_(STORM_-_FINAL)-S	-0.22058	0	05/01/2022 00:00 AM	0	0	0.46	0	0	0	0	0
P-10700-A	0.01013	1.46	05/01/2022 00:09 AM	6.6	0.14	0.18	0	0	0	0	0
P-12000-A	0.00981	0.45	05/01/2022 00:20 AM	3.74	0.04	0.31	0	0	0	0	0
P-12000-B	0.00999	0.45	05/01/2022 00:20 AM	2.97	0.04	0.14	0	0	0	0	0
P-12000-C	0.0101	0.21	05/01/2022 00:22 AM	2.3	0.02	0.1	0	0	0	0	0
P-12000-C-S	0.02368	0.02	05/01/2022 00:18 AM	1.96	0	0.06	0	0	0	0	0
P-12000-D	0.01141	3.31	05/01/2022 00:25 AM	5.03	0.14	0.26	0	0	0	0	0
P-12000-E	0.011	0.2	05/01/2022 00:13 AM	2.23	0.01	0.07	0	0	0	0	0
P-12000-E-S	0.05996	0.01	05/01/2022 00:13 AM	1.89	0	0.06	0	0	0	0	0
P-12000-F	0.01697	0.33	05/01/2022 00:17 AM	2.93	0.01	0.08	0	0	0	0	0
P-12000-G-S	0.01397	0	05/01/2022 00:00 AM	0	0	0.03	0	0	0	0	0
P-21199_1	0.07522	4.29	05/01/2022 00:23 AM	11.32	0.07	0.18	0	0	0	0	0
P-21199-S	0.0449	0	05/01/2022 00:12 AM	1.24	0	0.04	0	0	0	0	0
S	0.0033	0.56	05/01/2022 00:09 AM	2.76	0.35	0.4	0	0	0	0	0
UV-Outlet	0.02276	0	05/01/2022 00:00 AM	0	0	0	0	0	0	0	0

Table 1D: Conduits

Name	Capacity Limited (h)	Length Factor (fraction)	Dry (fraction)	Subcritical (fraction)	Supercritical (fraction)	Normal Limited (fraction)	Inlet Control (fraction)	Max. Spread (ft)	Contributing Area (ac)	Contributing Imp. Area (ac)
1	0	1	0	0	0	0	0	0	0	0
10	0	1	0.98	0	0	0	0	0	0	0
10000-CB-S	0	1	1	0	0	0	0	0	0	0
10000-DC-S	0	1	1	0	0	0	0	0	0	0
10000-ED-S	0	1	1	0	0	0	0	0	0	0
10123-AF	0	1	1	0	0	0	0	0	0	0
10125-AG	0	1	0	0	0	0	0	0	0	0
10200-B	0	1	0	0	0	0	0	0	0	0
10203-A	0	1	0	0.02	0	1	0	0	0	0
10300-D1	0	1	0	0.95	0.05	0.02	0	0	0	0
10300-D-2	0	1	0	0.04	0.03	1	0	0	0	0
10300-D-3	0	1	0	0	0	0	0	0	0	0
10310-C-S2	0	1	0.92	0.06	0.02	0.01	0	1.434	0	0
11	0	1	1	0	0	0	0	0	0	0
11000-A0	0	1	0	0.98	0.02	0	0	0	0	0
12	0	1	0	0	0	0	0	0	0	0
12000-B'B	0	1	0	0.98	0.02	0	0	0.506	0	0
12000-DC-S	0	1	0	0.01	0.01	1	0	0.506	0	0
12000-FE-S	0	1	0.98	0	0	0	0	0.253	0	0
12000-G	0	1	0	0	0	0	0	0	0	0
12000-RainGarden	0	1	0.93	0.01	0.05	0.06	0	0	0	0
13	0	1	0	0.98	0.02	0.98	0	0	0	0
13000-A0	0	1	0	0.98	0.02	0	0	0	0	0
14	0	1	0	0	0.02	1	0	0	0	0
14000-A0'	0	1	1	0	0	0	0	0	0	0
14000-B0	0	1	0	0.98	0.02	0	0	0	0	0

Table 1D: Conduits (continued...)

Name	Capacity Limited (h)	Length Factor (fraction)	Dry (fraction)	Subcritical (fraction)	Supercritical (fraction)	Normal Limited (fraction)	Inlet Control (fraction)	Max. Spread (ft)	Contributing Area (ac)	Contributing Imp. Area (ac)
14000-CB	0	1	0	0.01	0.01	0.99	0	0	0	0
14000-DC	0	1	0	0.99	0.01	0.98	0	0	0	0
14000-ED	0	1	0	1	0	0.99	0	0	0	0
14000-FE	0	1	0	1	0	0.99	0	0	0	0
15	0	1	0	0.98	0.02	1	0	0	0	0
16	0	1	0	0.98	0.02	1	0	0	0	0
17	0	1	0	0.03	0.02	0.99	0	0	0	0
18	0	1	0	0.97	0.03	1	0	0	0	0
19	0.01	1	0	0.03	0.01	0.99	0	0	0	0
20	0.01	1	0	1	0	0	0	0	0	0
21	0	1	0	0.97	0.03	1	0	0	0	0
22	0	1	0	0.97	0.03	0	0	0	0	0
26	0	1	0	0	0	0	0	0	0	0
28	0	1	0.92	0.04	0	1	0	0	0	0
3	0	1	0	0	0	0	0	0	0	0
4	0	1	0	0.02	0	1	0	0	0	0
5	0	1	0	0	0	0	0	0	0	0
6	0	1	0.98	0	0.02	0	0	0	0	0
8	0	1	0	0	0	0	0	0	0	0
9	0	1	0	0.26	0	0.25	0	0	0	0
C10	0	1	0	0	0	0	0	0	0	0
C10-S	0	1	0.98	0.02	0	0	0	13.5	0	0
C11	0	1	0.99	0	0.01	0.99	0	0	0	0
C11-S	0	1	0.98	0	0	0	0	0	0	0
C12-S	0	1	0.98	0	0	0	0	0	0	0
C14	0.01	1	0	0.99	0.01	0.97	0	0	0	0

Table 1D: Conduits (continued...)

Name	Capacity Limited (h)	Length Factor (fraction)	Dry (fraction)	Subcritical (fraction)	Supercritical (fraction)	Normal Limited (fraction)	Inlet Control (fraction)	Max. Spread (ft)	Contributing Area (ac)	Contributing Imp. Area (ac)
C15	0	1	0	0.98	0.02	0.99	0	0	0	0
C16	0	1	1	0	0	0	0	0	0	0
C17	0	1	0.74	0	0	0	0	0	0	0
C18	0	1	1	0	0	0	0	0	0	0
C19	0	1	0.99	0	0	0	0	0	0	0
C2	0	1	0	0.01	0	0.01	0	0	0	0
C20	0	1	0.93	0	0.02	0.98	0	0	0	0
C21	0	1	0	0.06	0	0.96	0	0	0	0
C23	0	1	0.93	0	0.07	0	0	0	0	0
C24	0	1	0.97	0.01	0.02	0.98	0	2.625	0	0
C25	0	1	0.96	0.02	0	1	0	0	0	0
C26	0	1	0	0.98	0.02	1	0	0	0	0
C2-S	0	1	0	0.97	0.03	0	0	2.625	0	0
C3	2.88	1	0	0	0	0	0	0	0	0
C4	0	1	1	0	0	0	0	0	0	0
C4-S	0	1	1	0	0	0	0	0	0	0
C5	0	1	0	0	0	0	0	0	0	0
C6	0	1	0	1	0	0.96	0	0	0	0
C7	0	1	0.74	0.02	0	1	0	0	0	0
C8	0	1	0.93	0	0	0	0	0	0	0
C9_1	0	1	0.91	0.07	0.02	0	0	0	0	0
C9_2	0	1	0.95	0	0	0	0	0	0	0
C-J182	0.01	1	0	0.03	0	0.99	0	0	0	0
C-J320	0.01	1	0	0.04	0	0.04	0	13.5	0	0
C-J39	0.01	1	0	0.99	0	0	0	0	0	0
C-J46	0	1	0	0.02	0	1	0	0	0	0

Table 1D: Conduits (continued...)

Name	Capacity Limited (h)	Length Factor (fraction)	Dry (fraction)	Subcritical (fraction)	Supercritical (fraction)	Normal Limited (fraction)	Inlet Control (fraction)	Max. Spread (ft)	Contributing Area (ac)	Contributing Imp. Area (ac)
EP-10440-C	0	1	0	0	0	0	0	0	0	0
EP-10440-C-S	0	1	1	0	0	0	0	0	0	0
EX10441-B-S	0	1	0.98	0.01	0.01	0.99	0	0.169	0	0
EX10441-C-S	0	1	0.97	0.01	0.02	0	0	0.759	0	0
EX10441-D-S	0	1	0.97	0.01	0.01	0	0	3.675	0	0
OL-10100-AE_1	0	1	0.98	0.01	0.01	1	0	0	0	0
OL-10100-AE_2	0	1	0.98	0	0	0	0	0	0	0
OL-10101-AF	0	1	0	0.95	0.05	0	0	0	0	0
OL-10131-BA	0	1	1	0	0	0	0	0	0	0
OL-10131-CB	0	1	1	0	0	0	0	0	0	0
OL-10200-BA_1	0	1	0	0.99	0.01	1	0	1.265	0	0
OL-10200-BA_2	0	1	0	0.98	0.02	0	0	1.012	0	0
OL-10201-AA_1	0	1	0	0	0.01	0.99	0	0.422	0	0
OL-10201-AA_2	0	1	0	0.99	0.01	0.01	0	0.59	0	0
OL-10210-AD	0	1	0.98	0	0	0	0	0.253	0	0
OL-11000-A0	0	1	0.98	0	0.02	0	0	0	0	0
OL-11000-AbAc	0	1	1	0	0	0	0	0	0	0
OL-11000-AcAd	0	1	1	0	0	0	0	0	0	0
OL-11000-AdAe	0	1	1	0	0	0	0	0	0	0
OL-11000-AeE	0	1	1	0	0	0	0	0	0	0
OL-11000-BA	0	1	0	0.98	0.02	0	0	0	0	0
OL-12000-B0	0	1	0.98	0	0	0	0	0.422	0	0
OL-14000-BC	0	1	1	0	0	0	0	0	0	0
OL-14000-CB	0	1	1	0	0	0	0	0	0	0
OL-14000-DC	0	1	1	0	0	0	0	0	0	0
OL-14000-ED	0	1	1	0	0	0	0	0	0	0

Table 1D: Conduits (continued...)

Name	Capacity Limited (h)	Length Factor (fraction)	Dry (fraction)	Subcritical (fraction)	Supercritical (fraction)	Normal Limited (fraction)	Inlet Control (fraction)	Max. Spread (ft)	Contributing Area (ac)	Contributing Imp. Area (ac)
P-10000-A	0	1	0	0.87	0.13	0.01	0	0	0	0
P-10000-C	0	1	0	0	0	0	0	0	0	0
P-10000-C.	0	1	0	0	0	0	0	0	0	0
P-10001-A-S	0	1	0.98	0	0	0	0	0	0	0
P-1000-B	0	1	0	0	0	0	0	0	0	0
P-10100-A	0	1	0	0	0	0	0	0	0	0
P-10100-B	0	1	0	0	0	0	0	0	0	0
P-10100-B-S	0	1	0.97	0.01	0	1	0	0.506	0	0
P-10100-C	0	1	0	0	0	0	0	0	0	0
P-10120-G	0	1	0	0.98	0.02	0.18	0	0	0	0
P-10120-H	0	1	0	0.01	0.02	1	0	0	0	0
P-10120-H-S	0	1	0.74	0	0	0	0	0	0	0
P-10200-A	0	1	0	0	0	0	0	0	0	0
P-10200-A-S_1	0	1	0	0	0.01	1	0	0.928	0	0
P-10200-A-S_2	0	1	0	0.98	0.02	0.99	0	0.675	0	0
P-10200-C	0	1	0	0	0	0	0	0	0	0
P-10200-C-S_1	0	1	0.98	0.01	0.01	0	0	0.169	0	0
P-10200-C-S_2	0	1	0	0.01	0	1	0	0.59	0	0
P-10200-D	0	1	0	0	0	0	0	0	0	0
P-10200-D-S	0	1	0.98	0.01	0.01	0	0	0.422	0	0
P-10200-D-S.	0	1	0	0	0	0	0	1.181	0	0
P-10200-E	0	1	0	0.96	0.04	1	0	0	0	0
P-10200-F	0	1	0	0	0	0	0	0	0	0
P-10200-F-S	0	1	0	0.02	0	1	0	0.675	0	0
P-10200-G	0.01	1	0	0	0	0	0	0	0	0
P-10200-G_(STORM_-_FINAL)-S	0	1	0.99	0	0	0	0	0.084	0	0

Table 1D: Conduits (continued...)

Name	Capacity Limited (h)	Length Factor (fraction)	Dry (fraction)	Subcritical (fraction)	Supercritical (fraction)	Normal Limited (fraction)	Inlet Control (fraction)	Max. Spread (ft)	Contributing Area (ac)	Contributing Imp. Area (ac)
P-10200-H	0	1	0	0	0.01	0.01	0	0	0	0
P-10200-H_(STORM_-_FINAL)-S	0	1	0.99	0	0	0	0	0.084	0	0
P-10200-J	0	1	0	0	0	0	0	0	0	0
P-10200-J_(STORM_-_FINAL)-S	0	1	0.99	0	0	0	0	0.337	0	0
P-10200-K	0	1	0	0	0	0	0	0	0	0
P-10200-K_(STORM_-_FINAL)-S	0	1	0.98	0.01	0.01	0.01	0	0.337	0	0
P-10200-L	0	1	0	0	0	0	0	0	0	0
P-10200-L_(STORM_-_FINAL)-S	0	1	0.98	0	0.01	0.99	0	0.337	0	0
P-10200-M	0	1	0	0	0	0	0	0	0	0
P-10200-M_(STORM_-_FINAL)-S	0	1	0	0.98	0.02	0	0	1.096	0	0
P-10200-N	0	1	1	0	0	0	0	0	0	0
P-10201-A	0	1	0	0	0.01	0	0	0	0	0
P-102020-A-S_1	0	1	0	0.01	0.01	1	0	2.275	0	0
P-102020-A-S_2	0	1	0	0.98	0.02	0	0	1.096	0	0
P-10202-A	0	1	0	0	0	0	0	0	0	0
P-10203-A-S	0	1	0.97	0	0	0	0	0.843	0	0
P-10210-A	0	1	0	0	0	0	0	0	0	0
P-10210-B	0	1	0	0	0	0	0	0	0	0
P-10210-B-S	0	1	0.98	0	0	0	0	2.275	0	0
P-10210-C	0	1	0	0	0	0	0	0	0	0
P-10210-C_(STORM_-_FINAL)-S	0	1	0.98	0	0	0	0	0.759	0	0
P-10211-A	0.01	1	0	0	0	0	0	0	0	0
P-10211-B	0	1	0	0	0	0	0	0	0	0
P-10212-A	0	1	1	0	0	0	0	0	0	0
P-10240-A_(STORM_-_FINAL)-S	0	1	0.98	0	0	0	0	0.506	0	0
P-10250-A	0	1	0	0	0	0	0	0	0	0

Table 1D: Conduits (continued...)

Name	Capacity Limited (h)	Length Factor (fraction)	Dry (fraction)	Subcritical (fraction)	Supercritical (fraction)	Normal Limited (fraction)	Inlet Control (fraction)	Max. Spread (ft)	Contributing Area (ac)	Contributing Imp. Area (ac)
P-10250-A-S	0	1	0.99	0	0	0	0	0.675	0	0
P-10250-B	0	1	0	0	0	0	0	0	0	0
P-10250-B-S	0	1	0.99	0	0	0	0	0.506	0	0
P-10250-C	0	1	0	0	0	0	0	0	0	0
P-10250-C-S	0	1	0	0.01	0	1	0	11.025	0	0
P-10250-D	0	1	0	0	0	0	0	0	0	0
P-10250-D-S	0	1	0.99	0	0	0	0	0.422	0	0
P-10260-A	0	1	0	0	0	0	0	0	0	0
P-10260-A-S	0	1	0.98	0	0.01	0.99	0	0.928	0	0
P-10270-A	0	1	0	0	0	0	0	0	0	0
P-10280-A	0	1	0	0	0	0	0	0	0	0
P-10300-B	0	1	0	0	0	0	0	0	0	0
P-10300-B-S	0	1	0.99	0	0	0	0	0.506	0	0
P-10300-C3	0	1	0	0.98	0.02	0.98	0	0	0	0
P-10300-D-S	0	1	1	0	0	0	0	0	0	0
P-10300-E	0	1	0	0	0	0	0	0	0	0
P-10300-E-S.	0	1	0.98	0	0.01	0	0	0.59	0	0
P-10300-F	0	1	0	0	0	0	0	0	0	0
P-10300-G	0	1	0	0	0	0	0	0	0	0
P-10310-A	0	1	0	0	0	0	0	0	0	0
P-10310-B	0	1	0	0	0	0	0	0	0	0
P-10310-B-S	0	1	0.98	0.01	0	1	0	0.253	0	0
P-10310-C-S	0	1	0.98	0.01	0	1	0	0.928	0	0
P-10320-A	0	1	0	0	0	0	0	0	0	0
P-10320-A-S	0	1	0.99	0	0.01	0	0	0.422	0	0
P-10320-B	0	1	0	0	0	0	0	0	0	0

Table 1D: Conduits (continued...)

Name	Capacity Limited (h)	Length Factor (fraction)	Dry (fraction)	Subcritical (fraction)	Supercritical (fraction)	Normal Limited (fraction)	Inlet Control (fraction)	Max. Spread (ft)	Contributing Area (ac)	Contributing Imp. Area (ac)
P-10320-C	0	1	1	0	0	0	0	0	0	0
P-10320-D-S	0	1	0	0.98	0.02	1	0	3.325	0	0
P-10321-A	0	1	0	0	0	0	0	0	0	0
P-10330-A	0.01	1	0	0	0	0	0	0	0	0
P-10330-A-S	0	1	1	0	0	0	0	0	0	0
P-10330-B	0	1	0	0	0	0	0	0	0	0
P-10330-B-S	0	1	0.98	0	0	0	0	0.675	0	0
P-10400-A	0	1	0	0	0	0	0	0	0	0
P-10400-A-S	0	1	1	0	0	0	0	0	0	0
P-10400-B	0	1	0	0	0	0	0	0	0	0
P-10400-C1	0.01	1	0	0.95	0.05	0.05	0	0	0	0
P-10400-C2-S	0	0	0	0	0	0	0	0	0	0
P-10400-C-S	0	1	0.99	0	0	0	0	0.169	0	0
P-10400-D	0	1	0	0.95	0.05	0	0	0	0	0
P-10400-D-S	0	1	0.99	0.01	0	0.99	0	0.253	0	0
P-10400-E	0	1	0	0	0	0	0	0	0	0
P-10400-E-S	0	1	0	0	0	0	0	0.928	0	0
P-10400-F	0	1	0	0	0	0	0	0	0	0
P-10400-F_(STORM_-_FINAL)-S	0	1	0.99	0	0	0	0	0	0	0
P-10400-G	0	1	0	0	0	0	0	0	0	0
P-10400-G-S	0	1	0.98	0	0	0	0	0.506	0	0
P-10400-H	0	1	0	0	0	0	0	0	0	0
P-10400-H-S	0	1	0.98	0.01	0	1	0	0.422	0	0
P-10400-J	0	1	0	0	0	0	0	0	0	0
P-10400-K	0	1	0	0	0	0	0	0	0	0
P-10400-K-S	0	1	0.98	0	0	0	0	0.337	0	0

Table 1D: Conduits (continued...)

Name	Capacity Limited (h)	Length Factor (fraction)	Dry (fraction)	Subcritical (fraction)	Supercritical (fraction)	Normal Limited (fraction)	Inlet Control (fraction)	Max. Spread (ft)	Contributing Area (ac)	Contributing Imp. Area (ac)
P-10400-L	0	1	0	0	0	0	0	0	0	0
P-10400-L-S	0	1	0.98	0.01	0	1	0	0.253	0	0
P-10400-M	0	1	0	0	0	0	0	0	0	0
P-10400-M-S	0	1	0.98	0	0.01	0	0	0.253	0	0
P-10400-N	0	1	0	0.98	0.02	1	0	0	0	0
P-10400-N_(STORM_-_FINAL)-S	0	1	0.98	0	0.01	0	0	0.169	0	0
P-10400-P	0	1	0	0.98	0.02	0	0	0	0	0
P-10400-P_(STORM_-_FINAL)-S	0	1	0.99	0	0	0	0	0	0	0
P-10400-Q	0	1	0	0.99	0.01	1	0	0	0	0
P-10400-Q_(STORM_-_FINAL)-S	0	1	1	0	0	0	0	0	0	0
P-10400-R	0	1	0	0.98	0.02	1	0	0	0	0
P-10400-R_(STORM_-_FINAL)-S	0	1	1	0	0	0	0	0	0	0
P-10400-S	0	1	0	0	0	0	0	0	0	0
P-10400-S_(STORM_-_FINAL)-S	0	1	1	0	0	0	0	0	0	0
P-10410-A	0	1	0	0	0	0	0	0	0	0
P-10410-A-S	0	1	0	0	0	0	0	1.925	0	0
P-10410-B	0	1	0	0	0	0	0	0	0	0
P-10410-C	0	1	0	0.94	0.03	0.99	0	0	0	0
P-10410-D	0.01	1	0	0	0	0	0	0	0	0
P-10410-E	0	1	0	0	0	0	0	0	0	0
P-10410-F	0	1	0	0	0	0	0	0	0	0
P-10411-A	0	1	0	0	0	0	0	0	0	0
P-10411-A-S	0	1	0.98	0.02	0	0.01	0	0.843	0	0
P-10420-A	0	1	0	0	0	0	0	0	0	0
P-10420-A_(STORM_-_FINAL)-S	0	1	0.98	0.01	0	0	0	0.084	0	0
P-10420-B	0	1	0	0	0	0	0	0	0	0

Table 1D: Conduits (continued...)

Name	Capacity Limited (h)	Length Factor (fraction)	Dry (fraction)	Subcritical (fraction)	Supercritical (fraction)	Normal Limited (fraction)	Inlet Control (fraction)	Max. Spread (ft)	Contributing Area (ac)	Contributing Imp. Area (ac)
P-10420-B_(STORM_-_FINAL)-S	0	1	0.98	0.01	0	0.99	0	0.253	0	0
P-10420-C	0	1	0	0	0	0	0	0	0	0
P-10420-C-S	0	1	0.97	0	0	0	0	0.084	0	0
P-10420-D	0	1	0	0	0	0	0	0	0	0
P-10420-D-S	0	1	0.97	0	0	0.98	0	0.59	0	0
P-10420-E	0	1	0	0	0	0	0	0	0	0
P-10420-E-S	0	1	0.98	0	0	0	0	0.759	0	0
P-10421-A	0	1	0	0	0	0	0	0	0	0
P-10421-A_(STORM_-_FINAL)-S	0	1	0.98	0	0	0	0	0.169	0	0
P-10422-A	0	1	0	0	0	0	0	0	0	0
P-10422-A-S	0	1	0.97	0	0	0	0	0.084	0	0
P-10430-A_(STORM_-_FINAL)	0	1	0	0	0	0	0	0	0	0
P-10430-A-S	0	1	0.98	0	0	0	0	1.096	0	0
P-10440-A	0	1	0	0	0	0	0	0	0	0
P-10440-A_(STORM_-_FINAL)-S	0	1	0.99	0	0	0	0	0.084	0	0
P-10440-B	0	1	0	0	0	0	0	0	0	0
P-10440-B_(STORM_-_FINAL)-S	0	1	0.98	0	0	0	0	0.422	0	0
P-10440-C	0	1	0	0	0	0	0	0	0	0
P-10440-C_(STORM_-_FINAL)-S	0	1	1	0	0	0	0	0	0	0
P-10440-D	0	1	0	0.05	0.01	0.99	0	0	0	0
P-10440-D-S	0	1	1	0	0	0	0	0	0	0
P-10440-E	0	1	0	0	0	0	0	0	0	0
P-10440-G	0	1	0	0	0	0	0	0	0	0
P-10441-A	0	1	0	0.01	0	0.01	0	0	0	0
P-10442-A	0	1	0	0	0	0	0	0	0	0
P-10442-A-EX	0	1	0	0.97	0.03	0.98	0	0	0	0

Table 1D: Conduits (continued...)

Name	Capacity Limited (h)	Length Factor (fraction)	Dry (fraction)	Subcritical (fraction)	Supercritical (fraction)	Normal Limited (fraction)	Inlet Control (fraction)	Max. Spread (ft)	Contributing Area (ac)	Contributing Imp. Area (ac)
P-10443-A	0	1	0.01	0	0	0	0	0	0	0
P-10443-C	0	1	0	0.97	0.02	0	0	0	0	0
P-10443-D	0	1	0	0	0	0	0	0	0	0
P-10443-E	0	1	0	0	0	0	0	0	0	0
P-10443-E-S	0	1	0.98	0	0	0	0	0.59	0	0
P-10450-A_(STORM_-_FINAL)	0	1	0	0	0	0	0	0	0	0
P-10450-A-S	0	1	0.97	0.01	0.02	0	0	0.759	0	0
P-10460-A	0	1	0	0	0	0	0	0	0	0
P-10460-A-S	0	1	0.97	0.01	0	1	0	0.675	0	0
P-10460-B	0	1	0	0	0	0	0	0	0	0
P-10460-B_(STORM_-_FINAL)-S	0	1	0.96	0.02	0.03	0	0	1.096	0	0
P-10460-C	0	1	0	0	0	0	0	0	0	0
P-10460-C_(STORM_-_FINAL)-S	0	1	0.96	0.04	0	0	0	1.349	0	0
P-10460-D	0	1	0	0	0	0	0	0	0	0
P-10460-D_(STORM_-_FINAL)-S	0	1	0.96	0.03	0	0.02	0	3.325	0	0
P-10460-E	0	1	0	0	0	0	0	0	0	0
P-10460-E_(STORM_-_FINAL)-S	0	1	0.96	0.02	0	0.99	0	2.625	0	0
P-10460-F	0	1	0	0	0	0	0	0	0	0
P-10460-F_(STORM_-_FINAL)-S	0	1	0.97	0.02	0	0.99	0	1.096	0	0
P-10461-A	0	1	0	0	0	0	0	0	0	0
P-10461-B	0	1	0	0	0	0	0	0	0	0
P-10461-B_(STORM_-_FINAL)-S	0	1	0.98	0.02	0	0	0	5.425	0	0
P-10462-A	0	1	0	0	0	0	0	0	0	0
P-10470-A	0	1	0	0	0	0	0	0	0	0
P-10470-A-S	0	1	0.98	0	0	0	0	0.169	0	0
P-10480-A	0	1	0	0	0	0	0	0	0	0

Table 1D: Conduits (continued...)

Name	Capacity Limited (h)	Length Factor (fraction)	Dry (fraction)	Subcritical (fraction)	Supercritical (fraction)	Normal Limited (fraction)	Inlet Control (fraction)	Max. Spread (ft)	Contributing Area (ac)	Contributing Imp. Area (ac)
P-10480-B	0	1	0	0	0	0	0	0	0	0
P-10500-B	0	1	0	0.05	0.02	0.98	0	0	0	0
P-10500-B_(STORM_-_FINAL)-S	0	1	1	0	0	0	0	0	0	0
P-10500-C	0	1	0	0	0	0	0	0	0	0
P-10500-C_(STORM_-_FINAL)-S	0	1	0.98	0	0	0	0	1.012	0	0
P-10500-D	0	1	1	0	0	0	0	0	0	0
P-10510-A	0.01	1	0	0	0	0	0	0	0	0
P-10510-A_(STORM_-_FINAL)-S	0	1	0	0	0	0	0	11.375	0	0
P-10700-A	0	1	0	0.07	0.02	0.98	0	0	0	0
P-12000-A	0	1	0	0.99	0	0.26	0	0	0	0
P-12000-B	0	1	0	0	0	0	0	0	0	0
P-12000-C	0	1	0	0	0	0	0	0	0	0
P-12000-C-S	0	1	0	0.01	0.01	0.99	0	0.506	0	0
P-12000-D	0	1	0	0	0	0	0	0	0	0
P-12000-E	0	1	0	0	0	0	0	0	0	0
P-12000-E-S	0	1	0	0.99	0.01	1	0	0.506	0	0
P-12000-F	0	1	0	0	0	0	0	0	0	0
P-12000-G-S	0	1	0	0	0	0	0	0.253	0	0
P-21199_1	0	1	0	0	0	0	0	0	0	0
P-21199-S	0	1	0.98	0	0	0	0	0.337	0	0
S	0	1	0	0	0	0	0	0	0	0
UV-Outlet	0	1	1	0	0	0	0	0	0	0

Table 1E: Conduits

Name	Max. Unit Flow (cfs/ac)	GIS_LENGTH (m)	GIS_AREA (m²)	GIS_PARTS
1	0	32.878	0	1
10	0	118.739	0	1
10000-CB-S	0	95.1	0	1
10000-DC-S	0	9.482	0	1
10000-ED-S	0	30.759	0	1
10123-AF	0	11.257	0	1
10125-AG	0	29.923	0	1
10200-B	0	47.471	0	1
10203-A	0	9.143	0	1
10300-D1	0	3.306	0	1
10300-D-2	0	15.521	0	1
10300-D-3	0	8.626	0	1
10310-C-S2	0	3.079	0	1
11	0	50.742	0	1
11000-A0	0	4.863	0	1
12	0	16.814	0	1
12000-B'B	0	12.467	0	1
12000-DC-S	0	16.379	0	1
12000-FE-S	0	50.233	0	1
12000-G	0	19.422	0	1
12000-RainGarden	0	22.197	0	1
13	0	16.328	0	1
13000-A0	0	24.196	0	1
14	0	42.628	0	1
14000-A0'	0	30.413	0	1
14000-B0	0	66.804	0	1

Table 1E: Conduits (continued...)

Name	Max. Unit Flow (cfs/ac)	GIS_LENGTH (m)	GIS_AREA (m²)	GIS_PARTS
14000-CB	0	61.738	0	1
14000-DC	0	11.412	0	1
14000-ED	0	47.816	0	1
14000-FE	0	20.584	0	1
15	0	12.272	0	1
16	0	34.083	0	1
17	0	197.765	0	1
18	0	12.82	0	1
19	0	22.503	0	1
20	0	11.454	0	1
21	0	11.083	0	1
22	0	16.178	0	1
26	0	49.952	0	1
28	0	34.15	0	1
3	0	2.744	0	1
4	0	44.673	0	1
5	0	30.439	0	1
6	0	11.799	0	1
8	0	27.237	0	1
9	0	5.04	0	1
C10	0	7.09	0	1
C10-S	0	6.72	0	1
C11	0	5.573	0	1
C11-S	0	6.277	0	1
C12-S	0	1.644	0	1
C14	0	31.089	0	1

Table 1E: Conduits (continued...)

Name	Max. Unit Flow (cfs/ac)	GIS_LENGTH (m)	GIS_AREA (m²)	GIS_PARTS
C15	0	4.728	0	1
C16	0	4.477	0	1
C17	0	28.323	0	1
C18	0	27.192	0	1
C19	0	18.143	0	1
C2	0	39.301	0	1
C20	0	30.404	0	1
C21	0	23.14	0	1
C23	0	4.444	0	1
C24	0	70.823	0	1
C25	0	13.203	0	1
C26	0	1.319	0	1
C2-S	0	15.686	0	1
C3	0	24.509	0	1
C4	0	38.09	0	1
C4-S	0	37.19	0	1
C5	0	16.265	0	1
C6	0	12.126	0	1
C7	0	42.991	0	1
C8	0	103.477	0	1
C9_1	0	15.783	0	1
C9_2	0	5.058	0	1
C-J182	0	37.92	0	1
C-J320	0	80.193	0	1
C-J39	0	62.392	0	1
C-J46	0	26.017	0	1

Table 1E: Conduits (continued...)

Name	Max. Unit Flow (cfs/ac)	GIS_LENGTH (m)	GIS_AREA (m²)	GIS_PARTS
EP-10440-C	0	13.788	0	1
EP-10440-C-S	0	43.685	0	1
EX10441-B-S	0	97.574	0	1
EX10441-C-S	0	20.279	0	1
EX10441-D-S	0	6.788	0	1
OL-10100-AE_1	0	33.294	0	1
OL-10100-AE_2	0	102.283	0	1
OL-10101-AF	0	126.801	0	1
OL-10131-BA	0	31.301	0	1
OL-10131-CB	0	52.389	0	1
OL-10200-BA_1	0	1.151	0	1
OL-10200-BA_2	0	49.32	0	1
OL-10201-AA_1	0	1.458	0	1
OL-10201-AA_2	0	46.351	0	1
OL-10210-AD	0	62.569	0	1
OL-11000-A0	0	6.017	0	1
OL-11000-AbAc	0	58.847	0	1
OL-11000-AcAd	0	39.378	0	1
OL-11000-AdAe	0	11.448	0	1
OL-11000-AeE	0	73.826	0	1
OL-11000-BA	0	23.365	0	1
OL-12000-B0	0	21.768	0	1
OL-14000-BC	0	24.339	0	1
OL-14000-CB	0	64.322	0	1
OL-14000-DC	0	10.941	0	1
OL-14000-ED	0	40.288	0	1

Table 1E: Conduits (continued...)

Name	Max. Unit Flow (cfs/ac)	GIS_LENGTH (m)	GIS_AREA (m²)	GIS_PARTS
P-10000-A	0	54.943	0	1
P-10000-C	0	10.172	0	1
P-10000-C.	0	69.862	0	1
P-10001-A-S	0	30.794	0	1
P-1000-B	0	41.123	0	1
P-10100-A	0	16.488	0	1
P-10100-B	0	11.145	0	1
P-10100-B-S	0	49.851	0	1
P-10100-C	0	44.365	0	1
P-10120-G	0	36.291	0	1
P-10120-H	0	57.944	0	1
P-10120-H-S	0	65.679	0	1
P-10200-A	0	49.012	0	1
P-10200-A-S_1	0	1.018	0	1
P-10200-A-S_2	0	46.398	0	1
P-10200-C	0	47.619	0	1
P-10200-C-S_1	0	1.446	0	1
P-10200-C-S_2	0	46.729	0	1
P-10200-D	0	65.54	0	1
P-10200-D-S	0	65.394	0	1
P-10200-D-S.	0	88.688	0	1
P-10200-E	0	89.011	0	1
P-10200-F	0	22.943	0	1
P-10200-F-S	0	65.904	0	1
P-10200-G	0	42.332	0	1
P-10200-G_(STORM_-_FINAL)-S	0	37.818	0	1

Table 1E: Conduits (continued...)

Name	Max. Unit Flow (cfs/ac)	GIS_LENGTH (m)	GIS_AREA (m²)	GIS_PARTS
P-10200-H	0	59.13	0	1
P-10200-H_(STORM_-_FINAL)-S	0	39.948	0	1
P-10200-J	0	9.452	0	1
P-10200-J_(STORM_-_FINAL)-S	0	25.982	0	1
P-10200-K	0	19.748	0	1
P-10200-K_(STORM_-_FINAL)-S	0	50.827	0	1
P-10200-L	0	51.017	0	1
P-10200-L_(STORM_-_FINAL)-S	0	46.509	0	1
P-10200-M	0	42.369	0	1
P-10200-M_(STORM_-_FINAL)-S	0	149.754	0	1
P-10200-N	0	10.417	0	1
P-10201-A	0	9.145	0	1
P-102020-A-S_1	0	1.724	0	1
P-102020-A-S_2	0	46.071	0	1
P-10202-A	0	9.144	0	1
P-10203-A-S	0	65.404	0	1
P-10210-A	0	14.482	0	1
P-10210-B	0	18.46	0	1
P-10210-B-S	0	21.417	0	1
P-10210-C	0	36.796	0	1
P-10210-C_(STORM_-_FINAL)-S	0	38.928	0	1
P-10211-A	0	13.158	0	1
P-10211-B	0	11.77	0	1
P-10212-A	0	23.117	0	1
P-10240-A_(STORM_-_FINAL)-S	0	31.633	0	1
P-10250-A	0	9.145	0	1

Table 1E: Conduits (continued...)

Name	Max. Unit Flow (cfs/ac)	GIS_LENGTH (m)	GIS_AREA (m²)	GIS_PARTS
P-10250-A-S	0	89.449	0	1
P-10250-B	0	14.923	0	1
P-10250-B-S	0	20.113	0	1
P-10250-C	0	21.781	0	1
P-10250-C-S	0	46.849	0	1
P-10250-D	0	9.696	0	1
P-10250-D-S	0	154.025	0	1
P-10260-A	0	9.142	0	1
P-10260-A-S	0	63.566	0	1
P-10270-A	0	9.3	0	1
P-10280-A	0	32.407	0	1
P-10300-B	0	16.315	0	1
P-10300-B-S	0	118.257	0	1
P-10300-C3	0	14.003	0	1
P-10300-D-S	0	38.187	0	1
P-10300-E	0	32.933	0	1
P-10300-E-S.	0	32.948	0	1
P-10300-F	0	15.729	0	1
P-10300-G	0	11.109	0	1
P-10310-A	0	36.042	0	1
P-10310-B	0	10.262	0	1
P-10310-B-S	0	37.481	0	1
P-10310-C-S	0	38.01	0	1
P-10320-A	0	41.075	0	1
P-10320-A-S	0	14.757	0	1
P-10320-B	0	25.669	0	1

Table 1E: Conduits (continued...)

Name	Max. Unit Flow (cfs/ac)	GIS_LENGTH (m)	GIS_AREA (m²)	GIS_PARTS
P-10320-C	0	21.285	0	1
P-10320-D-S	0	78.077	0	1
P-10321-A	0	12.234	0	1
P-10330-A	0	6.325	0	1
P-10330-A-S	0	38.073	0	1
P-10330-B	0	17.204	0	1
P-10330-B-S	0	17.803	0	1
P-10400-A	0	39.644	0	1
P-10400-A-S	0	30.271	0	1
P-10400-B	0	8.782	0	1
P-10400-C1	0	1.395	0	1
P-10400-C2-S	0	18.934	0	1
P-10400-C-S	0	29.849	0	1
P-10400-D	0	16.45	0	1
P-10400-D-S	0	39.231	0	1
P-10400-E	0	10.702	0	1
P-10400-E-S	0	43.795	0	1
P-10400-F	0	34.195	0	1
P-10400-F_(STORM_-_FINAL)-S	0	34.721	0	1
P-10400-G	0	28.056	0	1
P-10400-G-S	0	27.694	0	1
P-10400-H	0	84.919	0	1
P-10400-H-S	0	83.672	0	1
P-10400-J	0	12.275	0	1
P-10400-K	0	30.778	0	1
P-10400-K-S	0	122.642	0	1

Table 1E: Conduits (continued...)

Name	Max. Unit Flow (cfs/ac)	GIS_LENGTH (m)	GIS_AREA (m²)	GIS_PARTS
P-10400-L	0	69.133	0	1
P-10400-L-S	0	69.491	0	1
P-10400-M	0	38.497	0	1
P-10400-M-S	0	38.684	0	1
P-10400-N	0	32.972	0	1
P-10400-N_(STORM_-_FINAL)-S	0	35.899	0	1
P-10400-P	0	12.779	0	1
P-10400-P_(STORM_-_FINAL)-S	0	11.463	0	1
P-10400-Q	0	16.497	0	1
P-10400-Q_(STORM_-_FINAL)-S	0	16.031	0	1
P-10400-R	0	10.434	0	1
P-10400-R_(STORM_-_FINAL)-S	0	10.697	0	1
P-10400-S	0	14.739	0	1
P-10400-S_(STORM_-_FINAL)-S	0	16.449	0	1
P-10410-A	0	35.448	0	1
P-10410-A-S	0	36.456	0	1
P-10410-B	0	10.527	0	1
P-10410-C	0	11.037	0	1
P-10410-D	0	19.108	0	1
P-10410-E	0	43.345	0	1
P-10410-F	0	13.208	0	1
P-10411-A	0	16.036	0	1
P-10411-A-S	0	59.475	0	1
P-10420-A	0	12.333	0	1
P-10420-A_(STORM_-_FINAL)-S	0	15.401	0	1
P-10420-B	0	22.119	0	1

Table 1E: Conduits (continued...)

Name	Max. Unit Flow (cfs/ac)	GIS_LENGTH (m)	GIS_AREA (m²)	GIS_PARTS
P-10420-B_(STORM_-_FINAL)-S	0	23.188	0	1
P-10420-C	0	10.981	0	1
P-10420-C-S	0	32.581	0	1
P-10420-D	0	26.825	0	1
P-10420-D-S	0	27.23	0	1
P-10420-E	0	11.005	0	1
P-10420-E-S	0	38.221	0	1
P-10421-A	0	11.025	0	1
P-10421-A_(STORM_-_FINAL)-S	0	23.262	0	1
P-10422-A	0	29.865	0	1
P-10422-A-S	0	33.513	0	1
P-10430-A_(STORM_-_FINAL)	0	10.364	0	1
P-10430-A-S	0	64.527	0	1
P-10440-A	0	10.444	0	1
P-10440-A_(STORM_-_FINAL)-S	0	21.3	0	1
P-10440-B	0	13.268	0	1
P-10440-B_(STORM_-_FINAL)-S	0	35.633	0	1
P-10440-C	0	20.5	0	1
P-10440-C_(STORM_-_FINAL)-S	0	31.291	0	1
P-10440-D	0	29.617	0	1
P-10440-D-S	0	27.627	0	1
P-10440-E	0	19.463	0	1
P-10440-G	0	64.823	0	1
P-10441-A	0	6.035	0	1
P-10442-A	0	2.348	0	1
P-10442-A-EX	0	97.903	0	1

Table 1E: Conduits (continued...)

Name	Max. Unit Flow (cfs/ac)	GIS_LENGTH (m)	GIS_AREA (m^2)	GIS_PARTS
P-10443-A	0	15.099	0	1
P-10443-C	0	18.897	0	1
P-10443-D	0	8.201	0	1
P-10443-E	0	8.065	0	1
P-10443-E-S	0	167.881	0	1
P-10450-A_(STORM_-_FINAL)	0	10.391	0	1
P-10450-A-S	0	43.128	0	1
P-10460-A	0	10.377	0	1
P-10460-A-S	0	71.728	0	1
P-10460-B	0	19.594	0	1
P-10460-B_(STORM_-_FINAL)-S	0	80.997	0	1
P-10460-C	0	32.71	0	1
P-10460-C_(STORM_-_FINAL)-S	0	31.821	0	1
P-10460-D	0	39.221	0	1
P-10460-D_(STORM_-_FINAL)-S	0	37.855	0	1
P-10460-E	0	25.761	0	1
P-10460-E_(STORM_-_FINAL)-S	0	25.151	0	1
P-10460-F	0	34.82	0	1
P-10460-F_(STORM_-_FINAL)-S	0	34.665	0	1
P-10461-A	0	54.033	0	1
P-10461-B	0	32.179	0	1
P-10461-B_(STORM_-_FINAL)-S	0	32.179	0	1
P-10462-A	0	13.237	0	1
P-10470-A	0	10.448	0	1
P-10470-A-S	0	41.281	0	1
P-10480-A	0	47.36	0	1

Table 1E: Conduits (continued...)

Name	Max. Unit Flow (cfs/ac)	GIS_LENGTH (m)	GIS_AREA (m²)	GIS_PARTS
P-10480-B	0	16.585	0	1
P-10500-B	0	63.779	0	1
P-10500-B_(STORM_-_FINAL)-S	0	63.846	0	1
P-10500-C	0	23.272	0	1
P-10500-C_(STORM_-_FINAL)-S	0	23.143	0	1
P-10500-D	0	10.973	0	1
P-10510-A	0	2.536	0	1
P-10510-A_(STORM_-_FINAL)-S	0	2.885	0	1
P-10700-A	0	12.206	0	1
P-12000-A	0	41.629	0	1
P-12000-B	0	25.008	0	1
P-12000-C	0	12.67	0	1
P-12000-C-S	0	24.455	0	1
P-12000-D	0	29.397	0	1
P-12000-E	0	11.084	0	1
P-12000-E-S	0	12.258	0	1
P-12000-F	0	7.185	0	1
P-12000-G-S	0	34	0	1
P-21199_1	0	48.881	0	1
P-21199-S	0	108.814	0	1
S	0	30.349	0	1
UV-Outlet	0	12.7	0	1

Table 2A: Junctions

Name	X-Coordinate	Y-Coordinate	Tag	Inflows	Treatment	Invert Elev. (ft)	Rim Elev. (ft)	Depth (ft)	Initial Depth (ft)	Surcharge Depth (ft)	Ponded Area (ft²)	Baseline (cfs)
06-UV	2262634.954	275922.679		NO	NO	876	882	6	0	0.7	0	0
1	2262674	2757724		NO	NO	0	0	0	0	0	0	0
10000-A	2262415.487	276221.624	EX	NO	NO	834.88	867.59	32.71	0	0	0	0
10000-B	2262486.892	276107.158	GMP3	NO	NO	837.53	882.01	44.48	0	3	1000	0
10000-C	2262596.767	275906.015	Junct	NO	NO	863.07	889.151	26.081	0	0.7	0	0
10000-C-S	2262599.381	275903.401	Major_System	NO	NO	889.151	889.851	0.7	0	0	0	0
10000-D	2262619.645	275881.716	GMP3	NO	NO	865.9	889.37	23.47	0	0.7	0	0
10001-A-S	2262563.057	275817.676	Major_System	NO	NO	889	890	1	0	0	0	0
10100-A	2262662.885	275849.214	gmp5	NO	NO	876.92	888.789	11.869	0	0.7	0	0
10100-A-S	2262660.004	275845.683	Major_System	NO	NO	889.312	890.012	0.7	0	0	0	0
10100-B	2262699.076	275844.03	GMP5	NO	NO	877.5	888.454	10.954	0	0.7	0	0
10100-B-IC	2262695.571	275829.305	Major_System	NO	NO	888	888.7	0.7	0	0	0	0
10100-D	2262812.397	275935.369	GMP5	NO	NO	878.962	890.519	11.557	0	0.7	0	0
10100-D-IC	2262808.467	275934.139	Major_System	NO	NO	890.2	890.9	0.7	0	0	0	0
10100-D-IC2	2262814.164	275931.174	Major_System	NO	NO	890.4	890.9	0.5	0	0	0	0
10120-G	2262466.841	275345.818	EX	NO	NO	891.64	900.47	8.83	0	2.43	0	0
10120-G-S	2262459.073	275350.148	OJunct	NO	NO	900.47	901.47	1	0	1	0	0
10120-H	2262542.796	275171.556	Inlet	NO	NO	900.49	906	5.51	0	1.6	0	0
10123-A	2262470.748	275446.295	EX	NO	NO	888.94	900.54	11.6	0	0.7	0	0
10125-A	2262368.968	275353.414	ex	NO	NO	898.68	902.45	3.77	0	1	200	0
10125-A-S	2262366.451	275357.564	ojunct	NO	NO	901.45	902.45	1	0	0	0	0
10200-A	2262554.241	276253.166	GMP3	NO	NO	873.72	880.06	6.34	0	0.7	0	0
10200-A-S1	2262554.195	276248.72	Major_System	NO	NO	879.56	880.06	0.5	0	0	0	0
10200-A-S2	2262550.852	276248.772	Major_System	NO	NO	879.28	879.78	0.5	0	0	0	0
10200-B	2262694.822	276320.183	GMP3	NO	NO	887.56	891.06	3.5	0	0.7	0	0
10200-B-S1	2262696.156	276315.72	Major_System	NO	NO	890.56	891.06	0.5	0	0	0	0

Table 2A: Junctions (continued...)

Name	X-Coordinate	Y-Coordinate	Tag	Inflows	Treatment	Invert Elev. (ft)	Rim Elev. (ft)	Depth (ft)	Initial Depth (ft)	Surcharge Depth (ft)	Ponded Area (ft²)	Baseline (cfs)
10200-B-S2	2262692.405	276315.467	Major_System	NO	NO	890.36	891.36	1	0	0	0	0
10200-C	2262850.937	276325.945	GMP3	NO	NO	899.7	903.556	3.856	0	0.7	0	0
10200-C-S1	2262854.123	276320.787	Major_System	NO	NO	903.056	903.556	0.5	0	0	0	0
10200-C-S2	2262849.381	276320.635	Major_System	NO	NO	903	903.5	0.5	0	0	0	0
10200-D	2263065.809	276333.875	GMP3	NO	NO	917.45	920.76	3.31	0	0.7	0	0
10200-D-S	2263068.468	276329.838	Major_System	NO	NO	920.26	920.76	0.5	0	0	0	0
10200-E	2263357.628	276344.652	gmp5	NO	NO	934	944.103	10.103	0	0.7	0	0
10200-E-S	2263359.219	276340.793	Major_System	NO	NO	943.603	944.103	0.5	0	0	0	0
10200-F	2263432.881	276343.1	gmp5	NO	NO	941.68	947.924	6.244	0	0.7	0	0
10200-G	2263571.124	276329.836	GMP5	NO	NO	944.8	951.87	7.07	0	0	0	0
10200-G-S	2263571.919	276325.377	Major_System	NO	NO	951.37	951.87	0.5	0	0	0	0
10200-H	2263765.065	276334.034	gmp5	NO	NO	946.3	950.2	3.9	0	0.7	0	0
10200-H-S	2263764.241	276330.276	Major_System	NO	NO	949.7	950.2	0.5	0	0	0	0
10200-J	2263765.329	276303.026	gmp5	NO	NO	946.854	950.131	3.277	0	0.7	0	0
10200-J-S	2263764.803	276308.682	Major_System	NO	NO	949.631	950.131	0.5	0	0	0	0
10200-K	2263717.777	276259.026	gmp5	NO	NO	949.897	954.544	4.647	0	0.7	0	0
10200-K-S	2263712.882	276257.693	Major_System	NO	NO	954.044	954.544	0.5	0	0	0	0
10200-L	2263722.946	276091.735	gmp5	NO	NO	954.06	958.696	4.636	0	0.7	0	0
10200-L-S	2263721.463	276091.166	Major_System	NO	NO	959.247	959.947	0.7	0	0	0	0
10200-M	2263704.821	275953.922	gmp5	NO	NO	955.618	963.263	7.645	0	0.7	0	0
10200-M-S	2263702.625	275949.969	Major_System	NO	NO	962.763	963.263	0.5	0	0	0	0
10200-N	2263679.8	275930.643	gmp5	NO	NO	956.3	963.252	6.952	0	0.7	0	0
10200-N-S	2263684.293	275933.445	Major_System	NO	NO	962.752	963.252	0.5	0	0	0	0
10201-A	2262695.928	276290.204	GMP3	NO	NO	888.39	891.059	2.669	0	0.7	0	0
10201-A-S1	2262697.892	276295.981	Major_System	NO	NO	890.559	891.059	0.5	0	0	0	0
10201-A-S2	2262693.144	276295.47	Major_System	NO	NO	890.28	890.78	0.5	0	0	0	0

Table 2A: Junctions (continued...)

Name	X-Coordinate	Y-Coordinate	Tag	Inflows	Treatment	Invert Elev. (ft)	Rim Elev. (ft)	Depth (ft)	Initial Depth (ft)	Surcharge Depth (ft)	Ponded Area (ft²)	Baseline (cfs)
10202-A	2262852.038	276295.968	GMP3	NO	NO	900.5	903.56	3.06	0	0.7	0	0
10202-A-S1	2262854.526	276302.996	Major_System	NO	NO	903.06	903.56	0.5	0	0	0	0
10202-A-S2	2262848.886	276302.743	Major_System	NO	NO	902.81	903.31	0.5	0	0	0	0
10203-A	2263066.92	276303.9	GMP3	NO	NO	918.07	920.76	2.69	0	0.7	0	0
10203-A-S	2263069.015	276308.929	Major_System	NO	NO	920.26	920.76	0.5	0	0	0	0
10210-A	2262587.45	276219.189	GMP3	NO	NO	877.36	882	4.64	0	0.7	0	0
10210-A-S	2262589.267	276225.318	Major_System	NO	NO	881.5	882	0.5	0	0	0	0
10210-B	2262636.483	276183.645	gmp5	NO	NO	878.665	887.524	8.859	0	0.7	0	0
10210-B-S	2262642.946	276185.486	Major_System	NO	NO	887.024	887.524	0.5	0	0	0	0
10210-C	2262682.787	276072.162	GMP5	NO	NO	886.964	890.118	3.154	0	0.7	0	0
10210-D	2262686.28	276032.54	GMP5	NO	NO	887.5	890.72	3.22	0	0	0	0
10210-E	2262710.204	275942.263	gmp5	NO	NO	889.019	889.461	0.442	0	0.7	0	0
10211-A	2262673.073	276206.552	GMP5	NO	NO	879.236	888.132	8.896	0	0.7	0	0
10211-A-S	2262670.795	276203.368	Major_System	NO	NO	887.632	888.132	0.5	0	0	0	0
10211-B	2262704.948	276184.761	GMP3	NO	NO	883.285	890.219	6.934	0	0.7	0	0
10211-C	2262756.326	276047.502	GMP5	NO	NO	885.811	892.431	6.62	0	0	0	0
10212-A	2262612.914	276042.678	GMP5	NO	NO	889.46	890.385	0.925	0	0.7	0	0
10250-A	2263358.734	276314.672	gmp5	NO	NO	940.182	944.103	3.921	0	0.7	0	0
10250-A-S	2263362.248	276320.307	Major_System	NO	NO	943.603	944.103	0.5	0	0	0	0
10250-B	2263393.606	276280.31	gmp5	NO	NO	941.307	950.22	8.913	0	0.7	0	0
10250-B-S	2263398.536	276278.053	Major_System	NO	NO	948.718	949.418	0.7	0	0	0	0
10250-C	2263440.111	276226.057	gmp5	NO	NO	949.28	954.328	5.048	0	0.7	0	0
10250-C-S	2263438.111	276223.339	Major_System	NO	NO	953.828	954.329	0.501	0	0	0	0
10250-D	2263415.573	276205.815	gmp5	NO	NO	949.815	953.933	4.118	0	0.7	0	0
10250-D-S	2263419.297	276206.507	Major_System	NO	NO	953.433	953.933	0.5	0	0	0	0
10260-A	2263564.399	276300.608	gmp5	NO	NO	947.988	951.869	3.881	0	0.7	0	0

Table 2A: Junctions (continued...)

Name	X-Coordinate	Y-Coordinate	Tag	Inflows	Treatment	Invert Elev. (ft)	Rim Elev. (ft)	Depth (ft)	Initial Depth (ft)	Surcharge Depth (ft)	Ponded Area (ft²)	Baseline (cfs)
10260-A-S	2263567.355	276305.366	Major_System	NO	NO	951.369	951.869	0.5	0	0	0	0
10270-A	2263687.285	276257.959	gmp5	NO	NO	952.098	954.281	2.183	0	0.7	0	0
10270-A-S	2263692.357	276255.673	Major_System	NO	NO	953.781	954.281	0.5	0	0	0	0
10280-A	2263789.041	275889.034	GMP5	NO	NO	964.402	973.052	8.65	0	0	0	0
10300-A	2263047.92	275701.991	gmp5	NO	NO	906.8	910	3.2	0	0.7	0	0
10300-B	2263101.384	275699.469	gmp5	NO	NO	909.07	914.26	5.19	0	0.7	0	0
10300-B-IC	2263097.181	275696.573	Major_System	NO	NO	913.76	914.26	0.5	0	0	0	0
10300-C	2263166.077	275762.105	GMP5	NO	NO	924.01	940.58	16.57	0	0.7	0	0
10300-C-S	2263170.683	275765.598	Major_System	NO	NO	940.08	940.58	0.5	0	0	0	0
10300-D	2263138.343	275798.728	gmp5	NO	NO	924.16	940.585	16.425	0	0.7	0	0
10300-D-S	2263138.974	275802.184	Major_System	NO	NO	940.085	940.585	0.5	0	0	0	0
10300-E	2263216.534	275873.292	gmp5	NO	NO	931.25	945.347	14.097	0	0.7	0	0
10300-F	2263250.581	275834.517	GMP5	NO	NO	935.127	944.225	9.098	0	0.7	0	0
10300-F-S	2263254.252	275831.557	Major_System	NO	NO	945.854	946.554	0.7	0	0	0	0
10300-G	2263272.888	275805.696	GMP5	NO	NO	936.47	945.036	8.566	0	0	0	0
10300-G-S	2263272.717	275809.663	Major_System	NO	NO	944.536	945.036	0.5	0	0	0	0
10310-A	2263249.053	275677.866	GMP5	NO	NO	928.927	939.635	10.708	0	0.7	0	0
10310-A-S	2263255.89	275676.941	Major_System	NO	NO	939.635	940.335	0.7	0	0	0	0
10310-B	2263273.268	275701.254	GMP5	NO	NO	929.894	939.529	9.635	0	0.7	0	0
10310-B-S	2263275.882	275698.64	Major_System	NO	NO	939.529	940.229	0.7	0	0	0	0
10310-B-S2	2263278.58	275708.368	Major_System	NO	NO	941.37	942.07	0.7	0	0	0	0
10320-A	2263043.923	275894.871	GMP5	NO	NO	929.717	941.946	12.229	0	0.7	0	0
10320-B	2263039.642	275978.975	GMP5	NO	NO	930.405	940.583	10.178	0	0.7	0	0
10320-B-S	2263043.771	275978.934	Major_System	NO	NO	940.083	940.583	0.5	0	0	0	0
10320-C	2263021.406	276046.384	GMP5	NO	NO	935.027	941.33	6.303	0	0.7	0	0
10320-C-S	2263024.628	276042.615	Major_System	NO	NO	940.83	941.33	0.5	0	0	0	0

Table 2A: Junctions (continued...)

Name	X-Coordinate	Y-Coordinate	Tag	Inflows	Treatment	Invert Elev. (ft)	Rim Elev. (ft)	Depth (ft)	Initial Depth (ft)	Surcharge Depth (ft)	Ponded Area (ft²)	Baseline (cfs)
10321-A	2263074.932	275920.349	GMP5	NO	NO	936.1	942.05	5.95	0	0.7	0	0
10330-A	2263202.859	275888.896	GMP5	NO	NO	931.7	945.496	13.796	0	0.7	0	0
10330-A-S	2263199.712	275887.084	Major_System	NO	NO	945.48	946.18	0.7	0	0	0	0
10330-B	2263174.031	275937.42	GMP5	NO	NO	932.5	942	9.5	0	0.7	0	0
10330-B-S	2263170.969	275937.93	Major_System	NO	NO	945	945.7	0.7	0	0	0	0
10400-A	2262636.108	275752.7	GMP5	NO	NO	876	891.207	15.207	0	0.7	0	0
10400-A-S	2262568.125	275650.265	Major_System	NO	NO	896.32	896.82	0.5	0	0	0	0
10400-B1	2262659.241	275735.523	GMP5	NO	NO	880.53	893	12.47	0	0	0	0
10400-C2	2262698.65	275673.82	GMP5	NO	NO	883.15	886.65	3.5	0	0	0	0
10400-D	2262689.97	275620.556	gmp5	NO	NO	884.04	901.1	17.06	0	0.7	0	0
10400-D-S	2262692.572	275617.428	Major_System	NO	NO	900.6	901.1	0.5	0	0	0	0
10400-E	2262684.228	275585.92	gmp5	NO	NO	890.28	901.208	10.928	0	0.7	0	0
10400-E-S	2262690.161	275587.936	Major_System	NO	NO	900.708	901.208	0.5	0	0	0	0
10400-F	2262792.12	275555.19	gmp5	NO	NO	895.779	905.944	10.165	0	0.7	0	0
10400-F-S	2262799.834	275557.158	Major_System	NO	NO	905.444	905.944	0.5	0	0	0	0
10400-G	2262876.588	275518.626	gmp5	NO	NO	900.232	910.097	9.865	0	0.7	0	0
10400-G-S	2262883.565	275521.89	Major_System	NO	NO	909.597	910.097	0.5	0	0	0	0
10400-H	2263132.274	275407.994	gmp5	NO	NO	910.703	924.253	13.55	0	0.7	0	0
10400-H-S	2263135.19	275412.182	Major_System	NO	NO	924.25	924.95	0.7	0	0	0	0
10400-J	2263169.062	275391.613	GMP3	NO	NO	913.886	926.961	13.075	0	0.7	0	0
10400-K	2263264.91	275423.38	gmp5	NO	NO	919.335	933.36	14.025	0	0.7	0	0
10400-K-S	2263267.539	275420.678	Major_System	NO	NO	933.34	934.04	0.7	0	0	0	0
10400-L	2263474.29	275510.56	gmp5	NO	NO	927.571	949.132	21.561	0	0.7	0	0
10400-L-S	2263477.895	275508.566	Major_System	NO	NO	947.883	948.583	0.7	0	0	0	0
10400-M	2263585.24	275570.901	gmp5	NO	NO	950.011	958.15	8.139	0	0.7	0	0
10400-M-S	2263589.37	275569.225	Major_System	NO	NO	961.71	962.41	0.7	0	0	0	0

Table 2A: Junctions (continued...)

Name	X-Coordinate	Y-Coordinate	Tag	Inflows	Treatment	Invert Elev. (ft)	Rim Elev. (ft)	Depth (ft)	Initial Depth (ft)	Surcharge Depth (ft)	Ponded Area (ft²)	Baseline (cfs)
10400-N	2263510.27	275648.88	gmp5	NO	NO	955.089	960.331	5.242	0	0.7	0	0
10400-N-S	2263511.332	275657.435	Major_System	NO	NO	960.05	960.75	0.7	0	0	0	0
10400-P	2263539.8	275678.64	gmp5	NO	NO	955.603	961.593	5.99	0	0.7	0	0
10400-P-S	2263537.192	275684.742	Major_System	NO	NO	962.7	962.7	0	0	0	0	0
10400-Q	2263578.16	275716.82	gmp5	NO	NO	956.48	961.5	5.02	0	0.7	0	0
10400-Q-S	2263575.364	275720.921	Major_System	NO	NO	962.7	962.7	0	0	0	0	0
10400-R	2263599.02	275743.96	gmp5	NO	NO	957.171	961.92	4.749	0	0.7	0	0
10400-R-S	2263599.341	275746.545	Major_System	NO	NO	962.7	962.7	0	0	0	0	0
10400-S	2263633.894	275777.454	gmp5	NO	NO	957.91	962.132	4.222	0	0.7	0	0
10400-S-S	2263640.4	275781.562	Major_System	NO	NO	962.07	962.77	0.7	0	0	0	0
10410-A	2262565.606	275660.213	gmp5	NO	NO	881.7	896.82	15.12	0	0.7	0	0
10410-B	2262546.21	275631.64	GMP5	NO	NO	882.9	896.966	14.066	0	0.7	0	0
10410-B-S	2262555.706	275634.058	Major_System	NO	NO	896.466	896.966	0.5	0	0	0	0
10410-C	2262528.93	275599.82	GMP5	NO	NO	883.8	895.635	11.835	0	0.7	0	0
10410-D	2262472.13	275626.34	GMP5	NO	NO	884.6	896.631	12.031	0	0.7	0	0
10410-D-S	2262468.767	275626.823	Major_System	NO	NO	900.92	901.62	0.7	0	0	0	0
10410-E	2262407.215	275499.821	GMP5	NO	NO	886.58	899.888	13.308	0	0	0	0
10410-F	2262443.538	275476.193	GMP5	NO	NO	888.42	900.018	11.598	0	0	0	0
10410-G	2262436.893	275461.052	EX	NO	NO	888.94	900.54	11.6	0	0.7	0	0
10411-A	2262386.138	275451.62	GMP5	NO	NO	896.5	901.376	4.876	0	0.7	0	0
10411-A-S	2262380.8	275453.089	Major_System	NO	NO	901.323	901.5	0.177	0	0	0	0
10420-A	2262806.947	275517.544	GMP5	NO	NO	903.59	909.541	5.951	0	0.7	0	0
10420-A-S	2262809.758	275514.913	Major_System	NO	NO	909.041	909.541	0.5	0	0	0	0
10420-B	2262746.642	275477.182	gmp5	NO	NO	906.783	914.865	8.082	0	0.7	0	0
10420-B-S	2262749.811	275474.219	Major_System	NO	NO	914.365	914.865	0.5	0	0	0	0
10420-C	2262752.379	275441.615	gmp5	NO	NO	909.388	915.262	5.874	0	0.7	0	0

Table 2A: Junctions (continued...)

Name	X-Coordinate	Y-Coordinate	Tag	Inflows	Treatment	Invert Elev. (ft)	Rim Elev. (ft)	Depth (ft)	Initial Depth (ft)	Surcharge Depth (ft)	Ponded Area (ft²)	Baseline (cfs)
10420-C-S	2262747.068	275447.669	Major_System	NO	NO	914.762	915.262	0.5	0	0	0	0
10420-D	2262673.522	275402.549	gmp5	NO	NO	911.886	919.59	7.704	0	0.7	0	0
10420-D-S	2262671.617	275399.839	Major_System	NO	NO	919.09	919.59	0.5	0	0	0	0
10420-E	2262641.506	275419.232	gmp5	NO	NO	912.737	921.397	8.66	0	0.7	0	0
10420-E-S	2262641.538	275415.653	Major_System	NO	NO	920.897	921.397	0.5	0	0	0	0
10421-A	2262840.062	275502.991	gmp5	NO	NO	904.86	909.514	4.654	0	0.7	0	0
10421-A-S	2262833.483	275502.561	Major_System	NO	NO	909.014	909.514	0.5	0	0	0	0
10422-A	2262792.53	275352.24	gmp5	NO	NO	925.799	933.83	8.031	0	0.7	0	0
10422-A-S	2262799.456	275351.005	Major_System	NO	NO	934.74	935.44	0.7	0	0	0	0
10430-A	2262890.093	275549.829	gmp5	NO	NO	906.008	910.079	4.071	0	0.7	0	0
10430-A-S	2262891.218	275544.254	Major_System	NO	NO	909.579	910.079	0.5	0	0	0	0
10440-A	2263161.348	275358.229	gmp3	NO	NO	921.1	930.36	9.26	0	0.7	0	0
10440-A-S	2263165.038	275357.169	Major_System	NO	NO	930.47	931.17	0.7	0	0	0	0
10440-B	2263195.299	275330.988	GMP3	NO	NO	922.798	932.436	9.638	0	0.7	0	0
10440-B-S	2263191.791	275327.15	Major_System	NO	NO	931.936	932.436	0.5	0	0	0	0
10440-C	2263188.285	275264.101	GMP3	NO	NO	926.64	936.99	10.35	0	0.7	0	0
10440-C-S	2263194.944	275261.174	Major_System	NO	NO	936.49	936.99	0.5	0	0	0	0
10440-D	2263262.846	275201.797	GMP3	NO	NO	927.13	943.971	16.841	0	0.7	0	0
10440-D-S	2263265.762	275204.609	Major_System	NO	NO	943.95	944.65	0.7	0	0	0	0
10440-e	2263326.69	275202.85	gmp5	NO	NO	928.004	948.032	20.028	0	0	0	0
10441-A	2263143.364	275366.506	GMP5	NO	NO	924.77	937.42	12.65	0	0	0	0
10442-A	2263809.237	275225.598	GMP5	NO	NO	975.66	983.067	7.407	0	0	0	0
10442-A-EX	2263808	275218	JUNCT	NO	NO	975.25	983.1	7.85	0	0.7	0	0
10442-A-S	2263810.614	275215.386	Major_System	NO	NO	982.567	983.067	0.5	0	0	0	0
10442-B	2263809.815	275182.616	GMP5	NO	NO	979.58	982.557	2.977	0	0	0	0
10442-B-EX	2263810.046	275191.621	EX	NO	NO	978.38	982.91	4.53	0	0.7	0	0

Table 2A: Junctions (continued...)

Name	X-Coordinate	Y-Coordinate	Tag	Inflows	Treatment	Invert Elev. (ft)	Rim Elev. (ft)	Depth (ft)	Initial Depth (ft)	Surcharge Depth (ft)	Ponded Area (ft²)	Baseline (cfs)
10442-B-S	2263812.66	275189.007	Major_System	NO	NO	982.057	982.557	0.5	0	0	0	0
10443-A	2263219.08	275178.6	GMP5	NO	NO	942.62	944.5	1.88	0	0	0	0
10443-C	2263865.974	275239.963	EX	NO	NO	976.57	984.97	8.4	0	0.7	0	0
10443-C-S	2263869.258	275238.534	Major_System	NO	NO	984.97	985.67	0.7	0	0	0	0
10443-D	2263892.803	275242.027	EX	NO	NO	979.35	984.97	5.62	0	0.7	0	0
10443-D-S	2263891.45	275240.392	Major_System	NO	NO	984.97	985.67	0.7	0	0	0	0
10450-A	2263271.653	275389.964	gmp5	NO	NO	924.173	933.349	9.176	0	0.7	0	0
10450-A-S	2263272.955	275394.944	Major_System	NO	NO	933.349	934.049	0.7	0	0	0	0
10460-A	2263489.73	275480.22	gmp5	NO	NO	933.323	949.24	15.917	0	0.7	0	0
10460-A-S	2263490.176	275485.438	Major_System	NO	NO	949.32	950.02	0.7	0	0	0	0
10460-B	2263521.17	275424.15	GMP5	NO	NO	933.88	943.64	9.76	0	0.7	0	0
10460-B-S	2263522.57	275421.154	Major_System	NO	NO	943.793	944.493	0.7	0	0	0	0
10460-C	2263619.48	275467.17	GMP5	NO	NO	934.08	943.688	9.608	0	0.7	0	0
10460-C-S	2263617.935	275463.625	Major_System	NO	NO	943.793	944.493	0.7	0	0	0	0
10460-D	2263671.45	275349.46	GMP5	NO	NO	934.881	943.709	8.828	0	0.7	0	0
10460-D-S	2263668.606	275350.241	Major_System	NO	NO	943.664	944.364	0.7	0	0	0	0
10460-E	2263599.81	275304.62	GMP5	NO	NO	936.275	943.75	7.475	0	0.7	0	0
10460-E-S	2263598.573	275306.611	Major_System	NO	NO	943.766	944.466	0.7	0	0	0	0
10460-F	2263493.06	275263.95	GMP5	NO	NO	937.321	942	4.679	0	0.7	0	0
10460-F-S	2263494.05	275261.797	Major_System	NO	NO	943.405	947	3.595	0	0	0	0
10461-A	2263349.463	275380.107	GMP5	NO	NO	938.8	943.04	4.24	0	0.7	0	0
10461-A-S	2263352.077	275377.493	Major_System	NO	NO	943.04	943.74	0.7	0	0	0	0
10461-B	2263256.021	275330.977	gmp5	NO	NO	939.013	943.04	4.027	0	0.7	0	0
10461-B-S	2263258.635	275328.363	Major_System	NO	NO	943.04	943.74	0.7	0	0	0	0
10462-A	2263690.859	275388.31	GMP5	NO	NO	943.039	945.911	2.872	0	0	0	0
10462-A-S	2263693.501	275385.686	Major_System	NO	NO	949	950	1	0	0	0	0

Table 2A: Junctions (continued...)

Name	X-Coordinate	Y-Coordinate	Tag	Inflows	Treatment	Invert Elev. (ft)	Rim Elev. (ft)	Depth (ft)	Initial Depth (ft)	Surcharge Depth (ft)	Ponded Area (ft²)	Baseline (cfs)
10470-A	2263609.757	275546.945	GMP5	NO	NO	954.563	958.49	3.927	0	0.7	0	0
10470-A-S	2263608.368	275551.561	Major_System	NO	NO	958.453	959.153	0.7	0	0	0	0
10480-A	2263688.014	275687.426	GMP5	NO	NO	956.7	966.919	10.219	0	0	0	0
10480-B	2263665.795	275737.094	GMP5	NO	NO	958.2	961.911	3.711	0	0	0	0
10500-A	2262985.928	275689.685	GMP5	NO	NO	907.54	913	5.46	0	0.7	0	0
10500-B	2263160.666	275574.585	GMP5	NO	NO	908.62	917.95	9.33	0	0.7	0	0
10500-B-S	2263159.746	275573.581	Major_System	NO	NO	917.45	917.45	0	0	0	0	0
10500-C	2263208.368	275514.973	GMP5	NO	NO	909.85	917	7.15	0	0.7	0	0
10500-C-S	2263206.671	275513.89	Major_System	NO	NO	917	917.833	0.833	0	0	0	0
10500-D	2263185.188	275487.429	GMP5	NO	NO	914.092	918.238	4.146	0	0	0	0
10510-A	2263168.787	275572.773	gmp5	NO	NO	911.31	917.05	5.74	0	0.7	0	0
10510-A-S	2263169.037	275571.768	Major_System	NO	NO	916.55	917.05	0.5	0	0	0	0
10700-A	2262855.132	276251.54	GMP5	NO	NO	919.383	921.029	1.646	0	0.7	0	0
10700-A-S	2262857.743	276206.656	Major_System	NO	NO	925.31	925.81	0.5	0	0	0	0
10700-B	2262855.69	276211.5	GMP5	NO	NO	919.78	925.81	6.03	0	0	0	0
11000-A	2262492.349	276369.609	Inlet	NO	NO	861.67	865.079	3.409	0	1	500	0
12000	2261946.099	276352.754	Outfall	NO	NO	838	843	5	0	0	0	0
12000-1	2262016.165	276332.914	Outfall	NO	NO	853	858	5	0	0	0	0
12000-2	2261912.904	276258.693	Major_System	NO	NO	851.71	858.53	6.82	0	0	0	0
12000-A	2262141.878	276318.469	GMP3	NO	NO	858	859.792	1.792	0	0	0	0
12000-B	2262277.974	276329.865	GMP3	NO	NO	859.34	863.28	3.94	0	0	0	0
12000-B'	2262375.815	276225.597	OJunct	NO	NO	866.842	867.942	1.1	0	0	0	0
12000-C	2262338.822	276274.831	GMP3	NO	NO	860.36	865.75	5.39	0	0.7	0	0
12000-C-S	2262344.8	276269.03	OJunct	NO	NO	865.18	866.18	1	0	0	0	0
12000-D	2262380.324	276272.52	GMP3	NO	NO	860.98	865.75	4.77	0	1.1	8	0
12000-D-S	2262375.277	276266.336	OJunct	NO	NO	865.238	866.238	1	0	0	0	0

Table 2A: Junctions (continued...)

Name	X-Coordinate	Y-Coordinate	Tag	Inflows	Treatment	Invert Elev. (ft)	Rim Elev. (ft)	Depth (ft)	Initial Depth (ft)	Surcharge Depth (ft)	Ponded Area (ft²)	Baseline (cfs)
12000-E	2262404.385	276207.212	GMP3	NO	NO	864.6	869.26	4.66	0	3	8	0
12000-E-S	2262406.999	276204.598	Major_System	NO	NO	869.249	869.96	0.711	0	0	0	0
12000-F	2262399.573	276171.169	GMP3	NO	NO	864	868.71	4.71	0	3	755	0
12000-F-S.	2262394.51	276175.218	Major_System	NO	NO	868.71	869.41	0.7	0	0	0	0
12000-G	2262399.34	276147.6	GMP3	NO	NO	863.1	867.84	4.74	0	1.1	8	0
12000-G-S	2262401.954	276144.986	Major_System	NO	NO	866.84	869.55	2.71	0	0	0	0
12000-G-S2	2262462.189	275823.309	OJunct	NO	NO	885	886	1	0	0	0	0
12000-H	2262350.2	276107.04	GMP3	NO	NO	864.2	868.77	4.57	0	0.7	0	0
12000-H-S	2262352.814	276104.426	Major_System	NO	NO	867.77	869.3	1.53	0	0	0	0
13000-A	2263883	276339	EX	NO	NO	941.46	943.467	2.007	0	0	0	0
14000-A	2263134.012	276980.126	OJunct	NO	NO	848.575	853.544	4.969	0	0	0	0
14000-C	2263196.658	276667.451	Inlet	NO	NO	850.38	855.998	5.618	0	1.5	500	0
14000-D	2263208.78	276632.029	Inlet	NO	NO	850.75	855.997	5.247	0	1.5	500	0
14000-E	2263360.144	276673.22	Inlet	NO	NO	852.32	856.728	4.408	0	1.5	500	0
8667-J4	2261923.441	276206.384	ex	NO	NO	852.76	858.11	5.35	0	0.7	0	0
8697	2261857.98	276145.56	Major_System	NO	NO	853.99	858.64	4.65	0	0	0	0
8807	2261849.953	276046.023	Major_System	NO	NO	855.48	859.53	4.05	0	0	0	0
8903	2261822.661	275941.67	Major_System	NO	NO	857.01	860.26	3.25	0	0	0	0
CHANNEL_12+11.04	2262996.146	275702.756	Major_System	NO	NO	905.75	908.25	2.5	0	0	0	0
Curb_Cut	2263311.938	275806.413	Major_System	NO	NO	946.544	947.544	1	0	0	0	0
Curb_Cut-S	2263311.195	275812.992	Major_System	NO	NO	946.891	947.591	0.7	0	0	0	0
ELB-10300-B1	2263122.22	275718.62	GMP5	NO	NO	909.56	919.56	10	0	0	0	0
ELB-10300-B2	2263158.51	275754.34	GMP5	NO	NO	923.85	938	14.15	0	0	0	0
EX10440-C	2263150.046	275288.262	EX	NO	NO	937.59	941.84	4.25	0	0.7	0	0
EX10440-C-S	2263146.042	275289.371	Major_System	NO	NO	941.84	943.84	2	0	0	0	0
EX-CI21199	2263487	275207	EX	NO	NO	954.3	959.964	5.664	0	0.7	0	0

Table 2A: Junctions (continued...)

Name	X-Coordinate	Y-Coordinate	Tag	Inflows	Treatment	Invert Elev. (ft)	Rim Elev. (ft)	Depth (ft)	Initial Depth (ft)	Surcharge Depth (ft)	Ponded Area (ft²)	Baseline (cfs)
EX-CI21199-S	2263490.749	275202.825	Major_System	NO	NO	959.964	960.664	0.7	0	0	0	0
EX-DI5526	2262960.692	275384.358	EX	NO	NO	939.06	941.58	2.52	0	0	0	0
EX-DI5526-S	2262960.118	275385.695	OJunct	NO	NO	941.58	942.58	1	0	0	0	0
EX-DI5571	2263088.804	275369.823	EX	NO	NO	937.75	941.99	4.24	0	0	0	0
EX-DI5571-S	2263087.184	275367.448	OJunct	NO	NO	941.99	942.99	1	0	0	0	0
J1	2263395.7	275001.694	GMP5	NO	NO	950.36	954.8	4.44	0	0	0	0
J10	2263266	274056	Junct	NO	NO	1008.97	1011.966	2.996	0	0	0	0
J11	2263221.743	274086.177	Junct	NO	NO	1004.59	1007.591	3.001	0	0	0	0
J12	2263219	274226	Junct	NO	NO	981.34	985.817	4.477	0	0	0	0
J13	2263180	274236	Outlet	NO	NO	980.139	982.139	2	0	0	0	0
J15	2263396.881	274981.932	EX	NO	NO	951.22	954.37	3.15	0	0.7	0	0
J15-S	2263397.307	274980.084	Major_System	NO	NO	954.37	955.8	1.43	0	0	0	0
J17	2263414.469	274976.96	EX	NO	NO	951.85	955.58	3.73	0	0.7	0	0
J179	2263072.121	274265.406	Oulet	NO	NO	976.794	977.793	0.999	0	0	0	0
J17-S	2263417.083	274974.346	Major_System	NO	NO	954.58	955.58	1	0	0	0	0
J18	2263378.207	274968.066	EX	NO	NO	951.46	954.87	3.41	0	0.7	0	0
J182	2262918.118	275150.642	OJunct	NO	NO	942.74	943.854	1.114	0	0	0	0
J18-S	2263380.821	274965.452	Major_System	NO	NO	954.37	955.3	0.93	0	0	0	0
J1-IC	2263397.346	275000.105	Major_System	NO	NO	953.8	954.8	1	0	0	0	0
J2	2262029.955	276270.21	ex	NO	NO	855.48	858.83	3.35	0	0.7	0	0
J20	2263395.378	274997.368	EX	NO	NO	950.51	954.25	3.74	0	0.7	0	0
J20-S	2263397.992	274994.754	Major_System	NO	NO	953.25	955	1.75	0	0	0	0
J2-S	2262029.316	276266.961	Major_System	NO	NO	858.83	859.83	1	0	0	0	0
J320	2262320.045	276340.366	OJunct	NO	NO	863.281	864.381	1.1	0	0	0	0
J34	2262874	275008	Junct	NO	NO	928.85	936.426	7.576	0	0	0	0
J38	2263196.698	275196.361	OJunct	NO	NO	941.031	942.131	1.1	0	0	0	0

Table 2A: Junctions (continued...)

Name	X-Coordinate	Y-Coordinate	Tag	Inflows	Treatment	Invert Elev. (ft)	Rim Elev. (ft)	Depth (ft)	Initial Depth (ft)	Surcharge Depth (ft)	Ponded Area (ft²)	Baseline (cfs)
J39	2263042.229	275159.172	OJunct	NO	NO	942.068	943.565	1.497	0	0	0	0
J46	2262404.521	276328.891	OJunct	NO	NO	864.9	866.014	1.114	0	0	0	0
J4-S	2261926.055	276203.77	Major_System	NO	NO	857.11	859.11	2	0	0	0	0
J5	2262948	274907	Inlet	NO	NO	940.1	945.85	5.75	0	0	0	0
J6	2262967	274876	Inlet	NO	NO	941.2	945.903	4.703	0	0	0	0
J7	2263007	274889	Inlet	NO	NO	942.46	945.968	3.508	0	0	0	0
J8	2262909	274943	Junct	NO	NO	938.5	944.752	6.252	0	0	0	0
J9	2262840	275024	Outlet	NO	NO	928.229	936.22	7.991	0	0	0	0
OL-10100-B	2262509.181	275724.722	OJunct	NO	NO	891	892	1	0	0	0	0
OL-10101-A	2262457.074	275701.706	OJunct	NO	NO	877.733	878.733	1	0	0	0	0
OL-11000-A	2262490.788	276364.805	OJunct	NO	NO	865.3	866.3	1	0	1	1000	0
OL-11000-B	2262522.895	276296.131	OJunct	NO	NO	867.351	868.351	1	0	0	0	0
OL-14000-Ab	2263559.701	276413.612	OJunct	NO	NO	944.247	945.347	1.1	0	0	0	0
OL-14000-Ac	2263636.283	276581.094	OJunct	NO	NO	888	889.1	1.1	0	0	0	0
OL-14000-Ad	2263582.493	276686.931	OJunct	NO	NO	888.001	889.101	1.1	0	0	0	0
OL-14000-Ae	2263566.526	276720.924	OJunct	NO	NO	863.833	864.933	1.1	0	0	0	0
OL-14000-C	2263205.534	276671.75	OJunct	NO	NO	855.925	857.025	1.1	0	0	0	0
OL-14000-D	2263219.775	276638.802	OJunct	NO	NO	855.996	857.096	1.1	0	0	0	0
OL-14000-E	2263346.069	276677.779	OJunct	NO	NO	857.19	858.206	1.016	0	0	0	0
OL-14000-F	2263358.081	276614.44	OJunct	NO	NO	856	857.1	1.1	0	0	0	0
OL-J10	2263262.205	274055.562	OJunct	NO	NO	1011.884	1012.984	1.1	0	0	0	0
OL-J10b	2263158.026	274185.404	OJunct	NO	NO	981.726	982.826	1.1	0	0	0	0
OL-J5	2262952.003	274905.114	OJunct	NO	NO	945.854	946.954	1.1	0	0	0	0
OL-J7	2263005.02	274885.921	OJunct	NO	NO	945.964	947.064	1.1	0	0	0	0

Table 2B: Junctions

Name	Baseline Pattern	Time Series	Scale Factor	Average Value (cfs)	Time Pattern 1	Time Pattern 2	Time Pattern 3	Time Pattern 4	Hydrograph	Sewershed Area (ac)	Avg. Depth (ft)	Max. Depth (ft)	Max. HGL (ft)
06-UV			1	0						0	0	0	876
1			1	0						0	0	0	0
10000-A			1	0						0	0.04	1.16	836.04
10000-B			1	0						0	0.04	1.16	838.69
10000-C			1	0						0	0.02	0.78	863.85
10000-C-S			1	0						0	0	0	889.15
10000-D			1	0						0	0.05	1.59	867.49
10001-A-S			1	0						0	0	0	889
10100-A			1	0						0	0.01	0.38	877.3
10100-A-S			1	0						0	0	0	889.31
10100-B			1	0						0	0.01	0.34	877.84
10100-B-IC			1	0						0	0	0.08	888.08
10100-D			1	0						0	0.01	0.3	879.26
10100-D-IC			1	0						0	0	0.01	890.21
10100-D-IC2			1	0						0	0.01	0.29	890.69
10120-G			1	0						0	0.01	0.56	892.2
10120-G-S			1	0						0	0	0.07	900.54
10120-H			1	0						0	0.01	0.31	900.8
10123-A			1	0						0	0	0	888.94
10125-A			1	0						0	0.01	0.4	899.08
10125-A-S			1	0						0	0	0	901.45
10200-A			1	0						0	0.01	0.64	874.36
10200-A-S1			1	0						0	0	0.07	879.63
10200-A-S2			1	0						0	0	0.08	879.36
10200-B			1	0						0	0.01	0.53	888.09
10200-B-S1			1	0						0	0	0.1	890.66

Table 2B: Junctions (continued...)

Name	Baseline Pattern	Time Series	Scale Factor	Average Value (cfs)	Time Pattern 1	Time Pattern 2	Time Pattern 3	Time Pattern 4	Hydrograph	Sewershed Area (ac)	Avg. Depth (ft)	Max. Depth (ft)	Max. HGL (ft)
10200-B-S2			1	0						0	0.01	0.11	890.47
10200-C			1	0						0	0.01	0.51	900.21
10200-C-S1			1	0						0	0	0.03	903.08
10200-C-S2			1	0						0	0	0.01	903.01
10200-D			1	0						0	0.01	0.38	917.83
10200-D-S			1	0						0	0.56	0.61	920.87
10200-E			1	0						0	0.01	0.37	934.37
10200-E-S			1	0						0	0.01	0.1	943.7
10200-F			1	0						0	0.01	0.43	942.11
10200-G			1	0						0	0.02	0.75	945.55
10200-G-S			1	0						0	0	0.01	951.38
10200-H			1	0						0	0.02	0.35	946.65
10200-H-S			1	0						0	0.87	0.88	950.58
10200-J			1	0						0	0.01	0.37	947.23
10200-J-S			1	0						0	1.02	1.03	950.66
10200-K			1	0						0	0.01	0.24	950.14
10200-K-S			1	0						0	1.98	2.02	956.07
10200-L			1	0						0	0.01	0.19	954.25
10200-L-S			1	0						0	0	0.03	959.27
10200-M			1	0						0	0.01	0.19	955.81
10200-M-S			1	0						0	0.42	0.45	963.21
10200-N			1	0						0	0	0	956.3
10200-N-S			1	0						0	0.01	0.13	962.88
10201-A			1	0						0	0.01	0.25	888.64
10201-A-S1			1	0						0	0	0.04	890.6
10201-A-S2			1	0						0	0.01	0.04	890.32

Table 2B: Junctions (continued...)

Name	Baseline Pattern	Time Series	Scale Factor	Average Value (cfs)	Time Pattern 1	Time Pattern 2	Time Pattern 3	Time Pattern 4	Hydrograph	Sewershed Area (ac)	Avg. Depth (ft)	Max. Depth (ft)	Max. HGL (ft)
10202-A			1	0						0	0.01	0.45	900.95
10202-A-S1			1	0						0	0	0.14	903.2
10202-A-S2			1	0						0	0.01	0.15	902.96
10203-A			1	0						0	0	0.17	918.24
10203-A-S			1	0						0	0.12	0.12	920.38
10210-A			1	0						0	0.01	0.34	877.7
10210-A-S			1	0						0	0.5	0.57	882.07
10210-B			1	0						0	0.01	0.41	879.08
10210-B-S			1	0						0	2.08	2.21	889.24
10210-C			1	0						0	0.01	0.36	887.33
10210-D			1	0						0	0.01	0.37	887.87
10210-E			1	0						0	0.01	0.34	889.36
10211-A			1	0						0	0.01	0.43	879.67
10211-A-S			1	0						0	1.92	2	889.63
10211-B			1	0						0	0.01	0.33	883.62
10211-C			1	0						0	0	0.3	886.11
10212-A			1	0						0	0	0	889.46
10250-A			1	0						0	0.01	0.29	940.47
10250-A-S			1	0						0	0.5	0.58	944.18
10250-B			1	0						0	0.01	0.26	941.57
10250-B-S			1	0						0	0	0	948.72
10250-C			1	0						0	0	0.21	949.49
10250-C-S			1	0						0	0.26	0.31	954.14
10250-D			1	0						0	0.01	0.26	950.07
10250-D-S			1	0						0	0.38	0.45	953.88
10260-A			1	0						0	0.01	0.21	948.2

Table 2B: Junctions (continued...)

Name	Baseline Pattern	Time Series	Scale Factor	Average Value (cfs)	Time Pattern 1	Time Pattern 2	Time Pattern 3	Time Pattern 4	Hydrograph	Sewershed Area (ac)	Avg. Depth (ft)	Max. Depth (ft)	Max. HGL (ft)
10260-A-S			1	0						0	0.37	0.43	951.8
10270-A			1	0						0	0.01	0.23	952.33
10270-A-S			1	0						0	2.12	2.21	955.99
10280-A			1	0						0	0	0.1	964.5
10300-A			1	0						0	0.01	0.36	907.16
10300-B			1	0						0	0.01	0.43	909.5
10300-B-IC			1	0						0	0	0.04	913.8
10300-C			1	0						0	0.01	0.48	924.49
10300-C-S			1	0						0	0	0.02	940.1
10300-D			1	0						0	0.01	0.46	924.62
10300-D-S			1	0						0	0.82	0.88	940.97
10300-E			1	0						0	0.01	0.34	931.59
10300-F			1	0						0	0.01	0.23	935.36
10300-F-S			1	0						0	0	0.08	945.93
10300-G			1	0						0	0	0.1	936.57
10300-G-S			1	0						0	0	0.02	944.55
10310-A			1	0						0	0.01	0.42	929.34
10310-A-S			1	0						0	0	0.03	939.67
10310-B			1	0						0	0.01	0.47	930.37
10310-B-S			1	0						0	0	0.14	939.67
10310-B-S2			1	0						0	0	0.1	941.47
10320-A			1	0						0	0.01	0.29	930
10320-B			1	0						0	0.01	0.42	930.83
10320-B-S			1	0						0	2.36	2.48	942.56
10320-C			1	0						0	0	0	935.03
10320-C-S			1	0						0	3.58	3.7	944.53

Table 2B: Junctions (continued...)

Name	Baseline Pattern	Time Series	Scale Factor	Average Value (cfs)	Time Pattern 1	Time Pattern 2	Time Pattern 3	Time Pattern 4	Hydrograph	Sewershed Area (ac)	Avg. Depth (ft)	Max. Depth (ft)	Max. HGL (ft)
10321-A			1	0						0	0	0.16	936.26
10330-A			1	0						0	0.01	0.39	932.09
10330-A-S			1	0						0	0	0	945.48
10330-B			1	0						0	0.01	0.2	932.7
10330-B-S			1	0						0	0	0.11	945.11
10400-A			1	0						0	0.04	1.34	877.34
10400-A-S			1	0						0	0.26	0.28	896.6
10400-B1			1	0						0	0.03	0.94	881.47
10400-C2			1	0						0	0	0.01	883.16
10400-D			1	0						0	0.03	1	885.04
10400-D-S			1	0						0	0.11	0.14	900.74
10400-E			1	0						0	0.03	1.29	891.57
10400-E-S			1	0						0	0	0	900.71
10400-F			1	0						0	0.02	0.92	896.7
10400-F-S			1	0						0	0.53	0.53	905.98
10400-G			1	0						0	0.02	0.87	901.1
10400-G-S			1	0						0	0.49	0.53	910.13
10400-H			1	0						0	0.02	0.84	911.54
10400-H-S			1	0						0	0	0.03	924.28
10400-J			1	0						0	0.02	0.79	914.67
10400-K			1	0						0	0.01	0.43	919.77
10400-K-S			1	0						0	0	0.03	933.37
10400-L			1	0						0	0.01	0.46	928.03
10400-L-S			1	0						0	0	0.02	947.9
10400-M			1	0						0	0	0.17	950.18
10400-M-S			1	0						0	0	0.03	961.74

Table 2B: Junctions (continued...)

Name	Baseline Pattern	Time Series	Scale Factor	Average Value (cfs)	Time Pattern 1	Time Pattern 2	Time Pattern 3	Time Pattern 4	Hydrograph	Sewershed Area (ac)	Avg. Depth (ft)	Max. Depth (ft)	Max. HGL (ft)
10400-N			1	0						0	0	0.09	955.18
10400-N-S			1	0						0	0	0.01	960.06
10400-P			1	0						0	0	0.13	955.73
10400-P-S			1	0						0	0	0	962.7
10400-Q			1	0						0	0	0.09	956.57
10400-Q-S			1	0						0	0	0	962.7
10400-R			1	0						0	0	0.08	957.25
10400-R-S			1	0						0	0	0	962.7
10400-S			1	0						0	0	0.1	958.01
10400-S-S			1	0						0	0	0	962.07
10410-A			1	0						0	0.02	0.7	882.4
10410-B			1	0						0	0.02	0.6	883.5
10410-B-S			1	0						0	0.49	0.64	897.1
10410-C			1	0						0	0.02	0.6	884.4
10410-D			1	0						0	0.03	1.04	885.64
10410-D-S			1	0						0	0	0.12	901.04
10410-E			1	0						0	0.01	0.53	887.11
10410-F			1	0						0	0.03	0.92	889.34
10410-G			1	0						0	0.02	0.96	889.9
10411-A			1	0						0	0.01	0.15	896.65
10411-A-S			1	0						0	0.13	0.16	901.48
10420-A			1	0						0	0.01	0.31	903.9
10420-A-S			1	0						0	0.5	0.51	909.55
10420-B			1	0						0	0.01	0.33	907.11
10420-B-S			1	0						0	0.53	0.55	914.92
10420-C			1	0						0	0.01	0.31	909.7

Table 2B: Junctions (continued...)

Name	Baseline Pattern	Time Series	Scale Factor	Average Value (cfs)	Time Pattern 1	Time Pattern 2	Time Pattern 3	Time Pattern 4	Hydrograph	Sewershed Area (ac)	Avg. Depth (ft)	Max. Depth (ft)	Max. HGL (ft)
10420-C-S			1	0						0	0.33	0.34	915.1
10420-D			1	0						0	0.01	0.23	912.12
10420-D-S			1	0						0	0.5	0.55	919.64
10420-E			1	0						0	0.01	0.26	912.99
10420-E-S			1	0						0	0	0.07	920.96
10421-A			1	0						0	0	0.13	904.99
10421-A-S			1	0						0	0.4	0.43	909.44
10422-A			1	0						0	0	0.22	926.02
10422-A-S			1	0						0	0	0	934.74
10430-A			1	0						0	0.01	0.27	906.28
10430-A-S			1	0						0	0.49	0.58	910.16
10440-A			1	0						0	0.02	0.7	921.8
10440-A-S			1	0						0	0	0.01	930.48
10440-B			1	0						0	0.02	0.86	923.66
10440-B-S			1	0						0	0.53	0.57	932.51
10440-C			1	0						0	0.03	1.33	927.97
10440-C-S			1	0						0	0	0	936.49
10440-D			1	0						0	0.03	1.27	928.4
10440-D-S			1	0						0	0	0	943.95
10440-e			1	0						0	0.03	1.3	929.31
10441-A			1	0						0	0	0.03	924.8
10442-A			1	0						0	0	0.11	975.77
10442-A-EX			1	0						0	0.01	0.36	975.61
10442-A-S			1	0						0	0	0.01	982.58
10442-B			1	0						0	0	0.14	979.72
10442-B-EX			1	0						0	0	0.19	978.57

Table 2B: Junctions (continued...)

Name	Baseline Pattern	Time Series	Scale Factor	Average Value (cfs)	Time Pattern 1	Time Pattern 2	Time Pattern 3	Time Pattern 4	Hydrograph	Sewershed Area (ac)	Avg. Depth (ft)	Max. Depth (ft)	Max. HGL (ft)
10442-B-S			1	0						0	0.85	0.95	983.01
10443-A			1	0						0	0	0.08	942.7
10443-C			1	0						0	0.01	0.45	977.02
10443-C-S			1	0						0	0	0.11	985.08
10443-D			1	0						0	0.01	0.28	979.63
10443-D-S			1	0						0	0.01	0.22	985.19
10450-A			1	0						0	0.01	0.31	924.49
10450-A-S			1	0						0	0	0.1	933.45
10460-A			1	0						0	0.02	0.69	934.01
10460-A-S			1	0						0	0	0.02	949.34
10460-B			1	0						0	0.02	0.62	934.5
10460-B-S			1	0						0	0	0.14	943.93
10460-C			1	0						0	0.61	1.05	935.13
10460-C-S			1	0						0	0	0.12	943.91
10460-D			1	0						0	0.73	1.12	936
10460-D-S			1	0						0	0	0.2	943.86
10460-E			1	0						0	0.01	0.27	936.54
10460-E-S			1	0						0	0	0.1	943.87
10460-F			1	0						0	0.01	0.18	937.51
10460-F-S			1	0						0	0	0.1	943.5
10461-A			1	0						0	0.01	0.39	939.19
10461-A-S			1	0						0	0	0.2	943.24
10461-B			1	0						0	0.53	0.9	939.91
10461-B-S			1	0						0	0	0.22	943.26
10462-A			1	0						0	0	0.03	943.07
10462-A-S			1	0						0	0	0.02	949.02

Table 2B: Junctions (continued...)

Name	Baseline Pattern	Time Series	Scale Factor	Average Value (cfs)	Time Pattern 1	Time Pattern 2	Time Pattern 3	Time Pattern 4	Hydrograph	Sewershed Area (ac)	Avg. Depth (ft)	Max. Depth (ft)	Max. HGL (ft)
10470-A			1	0						0	0	0.16	954.72
10470-A-S			1	0						0	0	0.02	958.48
10480-A			1	0						0	0.7	0.84	957.54
10480-B			1	0						0	0.01	0.15	958.35
10500-A			1	0						0	0.03	0.18	907.72
10500-B			1	0						0	0.01	0.47	909.09
10500-B-S			1	0						0	0	0	917.45
10500-C			1	0						0	0.01	0.36	910.21
10500-C-S			1	0						0	0	0.17	917.17
10500-D			1	0						0	0	0	914.09
10510-A			1	0						0	0.01	0.48	911.79
10510-A-S			1	0						0	0.45	0.65	917.2
10700-A			1	0						0	0.01	0.17	919.55
10700-A-S			1	0						0	0.05	0.22	925.53
10700-B			1	0						0	0.01	0.38	920.16
11000-A			1	0						0	0	0.12	861.79
12000			1	0						0	0	0.08	838.08
12000-1			1	0						0	0	0.01	853.01
12000-2			1	0						0	0.01	0.57	852.28
12000-A			1	0						0	0.03	0.8	858.8
12000-B			1	0						0	0.01	0.21	859.55
12000-B'			1	0						0	0.01	0.05	866.89
12000-C			1	0						0	0.01	0.21	860.57
12000-C-S			1	0						0	0	0.05	865.23
12000-D			1	0						0	0	0.16	861.14
12000-D-S			1	0						0	0	0.04	865.28

Table 2B: Junctions (continued...)

Name	Baseline Pattern	Time Series	Scale Factor	Average Value (cfs)	Time Pattern 1	Time Pattern 2	Time Pattern 3	Time Pattern 4	Hydrograph	Sewershed Area (ac)	Avg. Depth (ft)	Max. Depth (ft)	Max. HGL (ft)
12000-E			1	0						0	0	0.14	864.74
12000-E-S			1	0						0	0	0.04	869.28
12000-F			1	0						0	0	0.16	864.16
12000-F-S.			1	0						0	0	0.04	868.75
12000-G			1	0						0	0.01	0.55	863.65
12000-G-S			1	0						0	0	0.12	866.96
12000-G-S2			1	0						0	0	0	885
12000-H			1	0						0	0.01	0.43	864.63
12000-H-S			1	0						0	0	0.02	867.79
13000-A			1	0						0	0.01	0.27	941.73
14000-A			1	0						0	0	0	848.58
14000-C			1	0						0	0.02	1.03	851.41
14000-D			1	0						0	0.02	1.17	851.92
14000-E			1	0						0	0.02	0.75	853.07
8667-J4			1	0						0	0.01	0.67	853.43
8697			1	0						0	0.01	0.61	854.6
8807			1	0						0	0.01	0.53	856.01
8903			1	0						0	0.01	0.64	857.65
CHANNEL_12+11.04			1	0						0	0	0.16	905.91
Curb_Cut			1	0						0	0	0.07	946.62
Curb_Cut-S			1	0						0	0	0.08	946.97
ELB-10300-B1			1	0						0	0.02	0.68	910.24
ELB-10300-B2			1	0						0	0.01	0.25	924.1
EX10440-C			1	0						0	0.01	0.27	937.86
EX10440-C-S			1	0						0	0	0	941.84
EX-CI21199			1	0						0	0.01	0.36	954.66

Table 2B: Junctions (continued...)

Name	Baseline Pattern	Time Series	Scale Factor	Average Value (cfs)	Time Pattern 1	Time Pattern 2	Time Pattern 3	Time Pattern 4	Hydrograph	Sewershed Area (ac)	Avg. Depth (ft)	Max. Depth (ft)	Max. HGL (ft)
EX-CI21199-S			1	0						0	0	0.02	959.99
EX-DI5526			1	0						0	0.01	0.44	939.5
EX-DI5526-S			1	0						0	0	0	941.58
EX-DI5571			1	0						0	0.01	0.78	938.53
EX-DI5571-S			1	0						0	0	0	941.99
J1			1	0						0	0.01	0.58	950.94
J10			1	0						0	0.01	0.34	1009.31
J11			1	0						0	0.01	0.27	1004.86
J12			1	0						0	0.01	0.42	981.76
J13			1	0						0	0.01	0.48	980.62
J15			1	0						0	0.01	0.56	951.78
J15-S			1	0						0	0.01	0.41	954.78
J17			1	0						0	0	0.25	952.1
J179			1	0						0	0.01	0.66	977.46
J17-S			1	0						0	0	0.19	954.77
J18			1	0						0	0.01	0.56	952.02
J182			1	0						0	0	0.01	942.75
J18-S			1	0						0	0.01	0.39	954.76
J1-IC			1	0						0	0	0.05	953.85
J2			1	0						0	0	0	855.48
J20			1	0						0	0.01	0.61	951.12
J20-S			1	0						0	0	0.18	953.43
J2-S			1	0						0	0	0	858.83
J320			1	0						0	0.01	0.04	863.32
J34			1	0						0	7.54	7.58	936.43
J38			1	0						0	0	0	941.03

Table 2B: Junctions (continued...)

Name	Baseline Pattern	Time Series	Scale Factor	Average Value (cfs)	Time Pattern 1	Time Pattern 2	Time Pattern 3	Time Pattern 4	Hydrograph	Sewershed Area (ac)	Avg. Depth (ft)	Max. Depth (ft)	Max. HGL (ft)
J39			1	0						0	0.55	1.5	943.56
J46			1	0						0	0	0.01	864.91
J4-S			1	0						0	0	0	857.11
J5			1	0						0	0.02	0.78	940.88
J6			1	0						0	0.01	0.68	941.88
J7			1	0						0	0.01	0.58	943.04
J8			1	0						0	0.01	0.54	939.04
J9			1	0						0	8.16	8.68	936.91
OL-10100-B			1	0						0	0	0	891
OL-10101-A			1	0						0	0	0.05	877.78
OL-11000-A			1	0						0	0	0.01	865.31
OL-11000-B			1	0						0	0	0.05	867.4
OL-14000-Ab			1	0						0	0	0	944.25
OL-14000-Ac			1	0						0	0	0	888
OL-14000-Ad			1	0						0	0	0	888
OL-14000-Ae			1	0						0	0	0	863.83
OL-14000-C			1	0						0	0	0	855.92
OL-14000-D			1	0						0	0	0	856
OL-14000-E			1	0						0	0	0	857.19
OL-14000-F			1	0						0	0	0	856
OL-J10			1	0						0	0	0	1011.88
OL-J10b			1	0						0	0	0	981.73
OL-J5			1	0						0	0	0	945.85
OL-J7			1	0						0	0	0	945.96

Table 2C: Junctions

Name	Time Max. HGL (M/D/Y)	Rep. Max. Depth (ft)	Max. Lat. Inflow (cfs)	Max. Total Inflow (cfs)	Total Lat. Inflow (MG)	Total inflow (MG)	Flow Error (%)	Hours Surcharged (h)	Max. Surcharge (ft)	Min. Freeboard (ft)	Hours Flooded (h)	Max. Flood Rate (cfs)	Total Flood Vol. (MG)
06-UV	05/01/2022 00:00 AM	0	0	0	0	0	0	0	0	6.25	0	0	0
1	05/01/2022 00:00 AM	0	0	0	0	0	0	72	0	0	0	0	0
10000-A	05/01/2022 00:29 AM	1.16	0	39.68	0	0.939	0.002	0	0	31.55	0	0	0
10000-B	05/01/2022 00:29 AM	1.16	0	39.68	0	0.939	-0.001	0	0	43.32	0	0	0
10000-C	05/01/2022 00:32 AM	0.78	0	30.7	0	0.745	-0.001	0	0	25.301	0	0	0
10000-C-S	05/01/2022 00:00 AM	0	0	0	0	0	0	0	0	0.834	0	0	0
10000-D	05/01/2022 00:32 AM	1.59	0	30.7	0	0.745	0	0	0	23.31	0	0	0
10001-A-S	05/01/2022 00:00 AM	0	0	0	0	0	0	0	0	1	0	0	0
10100-A	05/01/2022 00:26 AM	0.38	0	1.46	0	0.027	-0.001	0	0	11.489	0	0	0
10100-A-S	05/01/2022 00:00 AM	0	0	0	0	0	0	0	0	0.835	0	0	0
10100-B	05/01/2022 00:26 AM	0.34	0	1.46	0	0.027	0	0	0	10.614	0	0	0
10100-B-IC	05/01/2022 00:33 AM	0.08	0.56	0.56	0.011	0.011	0.003	0	0	1.62	0	0	0
10100-D	05/01/2022 00:21 AM	0.3	0	1.06	0	0.016	-0.004	0	0	11.259	0	0	0
10100-D-IC	05/01/2022 00:15 AM	0.01	0	0.01	0	0	-0.485	0	0	19.49	0	0	0
10100-D-IC2	05/01/2022 00:21 AM	0.29	1.06	1.06	0.016	0.016	0	0	0	0.71	0	0	0
10120-G	05/01/2022 00:26 AM	0.56	2.98	6.95	0.051	0.121	-0.023	0	0	8.27	0	0	0
10120-G-S	05/01/2022 00:35 AM	0.07	0	0.26	0	0.003	0.125	0	0	4.93	0	0	0
10120-H	05/01/2022 00:27 AM	0.31	0	3.13	0	0.054	0.051	0	0	5.2	0	0	0
10123-A	05/01/2022 00:00 AM	0	0	0	0	0	0	0	0	11.6	0	0	0
10125-A	05/01/2022 00:21 AM	0.4	0.8	0.8	0.012	0.012	0.002	0	0	3.37	0	0	0
10125-A-S	05/01/2022 00:00 AM	0	0	0	0	0	0	0	0	1	0	0	0
10200-A	05/01/2022 00:17 AM	0.64	0	8.54	0	0.136	-0.001	0	0	5.7	0	0	0
10200-A-S1	05/01/2022 00:15 AM	0.07	0.31	0.45	0.004	0.006	0.04	0	0	10.169	0	0	0
10200-A-S2	05/01/2022 00:15 AM	0.08	0	0.09	0	0.001	0.087	0	0	0.62	0	0	0
10200-B	05/01/2022 00:18 AM	0.53	0	6.25	0	0.1	-0.005	0	0	2.97	0	0	0
10200-B-S1	05/01/2022 00:06 AM	0.1	0.2	0.2	0.002	0.002	-0.018	0	0	0.6	0	0	0

Table 2C: Junctions (continued...)

Name	Time Max. HGL (M/D/Y)	Rep. Max. Depth (ft)	Max. Lat. Inflow (cfs)	Max. Total Inflow (cfs)	Total Lat. Inflow (MG)	Total inflow (MG)	Flow Error (%)	Hours Surcharged (h)	Max. Surcharge (ft)	Min. Freeboard (ft)	Hours Flooded (h)	Max. Flood Rate (cfs)	Total Flood Vol. (MG)
10200-B-S2	05/01/2022 00:06 AM	0.11	0	0.19	0	0.002	-0.226	0	0	0.89	0	0	0
10200-C	05/01/2022 00:18 AM	0.51	0	5.6	0	0.09	0	0	0	3.346	0	0	0
10200-C-S1	05/01/2022 00:07 AM	0.03	0.25	0.27	0.002	0.002	-0.027	0	0	0.676	0	0	0
10200-C-S2	05/01/2022 00:08 AM	0.01	0	0	0	0	0.038	0	0	0.99	0	0	0
10200-D	05/01/2022 00:19 AM	0.38	0	3.63	0	0.058	0.001	0	0	2.93	0	0	0
10200-D-S	05/01/2022 00:08 AM	0.6	0.33	0.46	0.003	0.005	1.019	0	0	0.651	0	0	0
10200-E	05/01/2022 00:19 AM	0.37	0	2.94	0	0.047	-0.003	0	0	9.733	0	0	0
10200-E-S	05/01/2022 00:10 AM	0.1	0.23	0.23	0.002	0.002	0.111	0	0	0.603	0	0	0
10200-F	05/01/2022 00:22 AM	0.43	0	1.67	0	0.028	-0.005	0	0	5.814	0	0	0
10200-G	05/01/2022 00:21 AM	0.75	0	1.67	0	0.028	0.127	0	0	6.32	0	0	0
10200-G-S	05/01/2022 00:09 AM	0.01	0.09	0.09	0.001	0.001	-0.076	0	0	0.69	0	0	0
10200-H	05/01/2022 00:22 AM	0.35	0	1.31	0	0.021	-0.074	0	0	3.55	0	0	0
10200-H-S	05/01/2022 00:09 AM	0.88	0.1	0.1	0.001	0.001	8.411	0	0	0.688	0	0	0
10200-J	05/01/2022 00:22 AM	0.37	0	1.26	0	0.02	0	0	0	2.901	0	0	0
10200-J-S	05/01/2022 00:18 AM	1.03	0.12	0.13	0.002	0.002	5.726	0	0	6.076	0	0	0
10200-K	05/01/2022 00:23 AM	0.24	0	1.15	0	0.018	0	0	0	4.404	0	0	0
10200-K-S	05/01/2022 00:19 AM	2.02	0.18	0.18	0.003	0.003	7.551	0	0	0.666	0	0	0
10200-L	05/01/2022 00:21 AM	0.19	0	0.5	0	0.008	0	0	0	4.446	0	0	0
10200-L-S	05/01/2022 00:21 AM	0.03	0.17	0.17	0.003	0.003	0.044	0	0	0.677	0	0	0
10200-M	05/01/2022 00:21 AM	0.19	0	0.33	0	0.005	-0.005	0	0	7.453	0	0	0
10200-M-S	05/01/2022 00:19 AM	0.45	0.19	0.19	0.003	0.003	1.43	0	0	0.671	0	0	0
10200-N	05/01/2022 00:00 AM	0	0	0	0	0	0	0	0	6.952	0	0	0
10200-N-S	05/01/2022 00:09 AM	0.13	0.21	0.21	0.002	0.002	-1.148	0	0	0.572	0	0	0
10201-A	05/01/2022 00:16 AM	0.25	0.38	0.68	0.005	0.01	0.072	0	0	2.752	0	0	0
10201-A-S1	05/01/2022 00:18 AM	0.04	0	0.38	0	0.005	0.001	0	0	0.659	0	0	0
10201-A-S2	05/01/2022 00:19 AM	0.04	0	0.02	0	0	2.117	0	0	0.793	0	0	0

Table 2C: Junctions (continued...)

Name	Time Max. HGL (M/D/Y)	Rep. Max. Depth (ft)	Max. Lat. Inflow (cfs)	Max. Total Inflow (cfs)	Total Lat. Inflow (MG)	Total inflow (MG)	Flow Error (%)	Hours Surcharged (h)	Max. Surcharge (ft)	Min. Freeboard (ft)	Hours Flooded (h)	Max. Flood Rate (cfs)	Total Flood Vol. (MG)
10202-A	05/01/2022 00:18 AM	0.45	0	1.86	0	0.03	0.001	0	0	2.943	0	0	0
10202-A-S1	05/01/2022 00:18 AM	0.14	0.95	2.24	0.014	0.034	0.011	0	0	0.56	0	0	0
10202-A-S2	05/01/2022 00:18 AM	0.15	0	0.38	0	0.005	0.015	0	0	0.683	0	0	0
10203-A	05/01/2022 00:20 AM	0.17	0.39	0.39	0.006	0.006	0.001	0	0	2.52	0	0	0
10203-A-S	05/01/2022 01:06 AM	0.12	0	0	0	0	244.652	0	0	24.422	0	0	0
10210-A	05/01/2022 00:10 AM	0.34	0	2.55	0	0.031	0	0	0	4.3	0	0	0
10210-A-S	05/01/2022 00:07 AM	0.56	0.07	0.64	0.001	0.005	0.901	0	0	1.689	0	0	0
10210-B	05/01/2022 00:10 AM	0.41	0	2.07	0	0.026	-0.003	0	0	8.444	0	0	0
10210-B-S	05/01/2022 00:07 AM	2.21	1.07	1.07	0.009	0.009	2.115	0	0	0.692	0	0	0
10210-C	05/01/2022 00:09 AM	0.36	0.59	1.11	0.006	0.013	-0.023	0	0	2.788	0	0	0
10210-D	05/01/2022 00:10 AM	0.37	0	0.56	0	0.006	0.039	0	0	2.85	0	0	0
10210-E	05/01/2022 00:09 AM	0.34	0.65	0.65	0.006	0.006	-0.056	0	0	0.492	0	0	0
10211-A	05/01/2022 00:10 AM	0.43	0	0.61	0	0.008	-0.003	0	0	8.462	0	0	0
10211-A-S	05/01/2022 00:15 AM	2	0.16	0.16	0.002	0.002	9.227	0	0	0.761	0	0	0
10211-B	05/01/2022 00:07 AM	0.33	0.06	0.73	0.001	0.006	0.612	0	0	6.599	0	0	0
10211-C	05/01/2022 00:05 AM	0.3	0.72	0.72	0.005	0.005	-0.725	0	0	6.321	0	0	0
10212-A	05/01/2022 00:00 AM	0	0	0	0	0	0	0	0	0.925	0	0	0
10250-A	05/01/2022 00:16 AM	0.29	0	1.48	0	0.019	-0.001	0	0	3.633	0	0	0
10250-A-S	05/01/2022 00:17 AM	0.58	0.77	0.86	0.01	0.011	16.867	0	0	0.622	0	0	0
10250-B	05/01/2022 00:07 AM	0.26	0	0.93	0	0.01	-0.002	0	0	8.65	0	0	0
10250-B-S	05/01/2022 00:00 AM	0	0	0	0	0	0	0	0	0.698	0	0	0
10250-C	05/01/2022 00:07 AM	0.21	0	0.93	0	0.01	-0.001	0	0	4.838	0	0	0
10250-C-S	05/01/2022 00:08 AM	0.31	0.44	0.44	0.006	0.006	-1.655	0	0	0.648	0	0	0
10250-D	05/01/2022 00:07 AM	0.26	0	0.54	0	0.005	-0.006	0	0	3.863	0	0	0
10250-D-S	05/01/2022 00:07 AM	0.45	0.55	0.55	0.005	0.005	0.773	0	0	0.634	0	0	0
10260-A	05/01/2022 00:16 AM	0.21	0	0.41	0	0.006	-0.004	0	0	3.669	0	0	0

Table 2C: Junctions (continued...)

Name	Time Max. HGL (M/D/Y)	Rep. Max. Depth (ft)	Max. Lat. Inflow (cfs)	Max. Total Inflow (cfs)	Total Lat. Inflow (MG)	Total inflow (MG)	Flow Error (%)	Hours Surcharged (h)	Max. Surcharge (ft)	Min. Freeboard (ft)	Hours Flooded (h)	Max. Flood Rate (cfs)	Total Flood Vol. (MG)
10260-A-S	05/01/2022 00:16 AM	0.43	0.48	0.48	0.006	0.006	0.903	0	0	0.634	0	0	0
10270-A	05/01/2022 00:25 AM	0.23	0	0.5	0	0.008	-0.004	0	0	1.951	0	0	0
10270-A-S	05/01/2022 00:25 AM	2.21	0.5	0.5	0.008	0.008	2.474	0	0	0.617	0	0	0
10280-A	05/01/2022 00:22 AM	0.1	0.16	0.16	0.003	0.003	0.004	0	0	8.552	0	0	0
10300-A	05/01/2022 00:22 AM	0.36	0	4.3	0	0.077	-0.001	0	0	2.84	0	0	0
10300-B	05/01/2022 00:22 AM	0.43	0	4.3	0	0.077	0	0	0	4.76	0	0	0
10300-B-IC	05/01/2022 00:15 AM	0.04	0.41	0.41	0.005	0.005	-0.002	0	0	22.718	0	0	0
10300-C	05/01/2022 00:22 AM	0.48	0	4.02	0	0.072	0	0	0	16.09	0	0	0
10300-C-S	05/01/2022 00:19 AM	0.02	0	0.06	0	0.001	-0.166	0	0	5.765	0	0	0
10300-D	05/01/2022 00:23 AM	0.46	0	1.99	0	0.036	0.001	0	0	15.965	0	0	0
10300-D-S	05/01/2022 00:07 AM	0.88	0.2	0.2	0.002	0.002	4.795	0	0	0.63	0	0	0
10300-E	05/01/2022 00:21 AM	0.34	0	1.07	0	0.016	-0.002	0	0	13.757	0	0	0
10300-F	05/01/2022 00:19 AM	0.23	0	0.78	0	0.012	0.001	0	0	8.865	0	0	0
10300-F-S	05/01/2022 00:19 AM	0.08	0.73	0.73	0.01	0.01	0.001	0	0	0.624	0	0	0
10300-G	05/01/2022 00:22 AM	0.1	0	0.12	0	0.001	0.017	0	0	8.466	0	0	0
10300-G-S	05/01/2022 00:22 AM	0.02	0.02	0.12	0	0.001	-0.006	0	0	0.986	0	0	0
10310-A	05/01/2022 00:19 AM	0.42	0	2.04	0	0.035	-0.002	0	0	10.295	0	0	0
10310-A-S	05/01/2022 00:14 AM	0.03	0.08	0.08	0.001	0.001	-0.012	0	0	0.665	0	0	0
10310-B	05/01/2022 00:19 AM	0.47	1.11	1.97	0.016	0.034	0	0	0	9.159	0	0	0
10310-B-S	05/01/2022 00:23 AM	0.14	0.49	0.82	0.008	0.013	0.01	0	0	0.559	0	0	0
10310-B-S2	05/01/2022 00:22 AM	0.1	0	0.59	0	0.01	0.008	0	0	0.9	0	0	0
10320-A	05/01/2022 00:27 AM	0.29	0	0.96	0	0.018	-0.004	0	0	11.946	0	0	0
10320-B	05/01/2022 00:28 AM	0.42	0	0.87	0	0.015	-0.011	0	0	9.753	0	0	0
10320-B-S	05/01/2022 00:28 AM	2.48	0.87	0.87	0.015	0.015	1.476	0	0	12.228	0	0	0
10320-C	05/01/2022 00:00 AM	0	0	0	0	0	0	0	0	6.3	0	0	0
10320-C-S	05/01/2022 00:22 AM	3.7	0.37	0.37	0.006	0.006	7.432	0	0	0.587	0	0	0

Table 2C: Junctions (continued...)

Name	Time Max. HGL (M/D/Y)	Rep. Max. Depth (ft)	Max. Lat. Inflow (cfs)	Max. Total Inflow (cfs)	Total Lat. Inflow (MG)	Total inflow (MG)	Flow Error (%)	Hours Surcharged (h)	Max. Surcharge (ft)	Min. Freeboard (ft)	Hours Flooded (h)	Max. Flood Rate (cfs)	Total Flood Vol. (MG)
10321-A	05/01/2022 00:06 AM	0.16	0.37	0.37	0.003	0.003	0	0	0	5.79	0	0	0
10330-A	05/01/2022 00:24 AM	0.39	0	0.31	0	0.005	0.001	0	0	13.406	0	0	0
10330-A-S	05/01/2022 00:00 AM	0	0	0	0	0	0	0	0	0.833	0	0	0
10330-B	05/01/2022 00:23 AM	0.2	0	0.31	0	0.005	0.002	0	0	9.3	0	0	0
10330-B-S	05/01/2022 00:23 AM	0.11	0.31	0.31	0.005	0.005	0	0	0	0.723	0	0	0
10400-A	05/01/2022 00:32 AM	1.34	0	29.28	0	0.718	-0.002	0	0	15.26	0	0	0
10400-A-S	05/01/2022 00:07 AM	0.28	0.11	0.11	0.001	0.001	1.922	0	0	0.685	0	0	0
10400-B1	05/01/2022 00:36 AM	0.94	0	21.26	0	0.559	0	0	0	11.53	0	0	0
10400-C2	05/01/2022 00:22 AM	0.01	0	24.26	0	0.447	0	0	0	4.49	0	0	0
10400-D	05/01/2022 00:22 AM	1	0.15	24.26	0.002	0.447	0	0	0	16.06	0	0	0
10400-D-S	05/01/2022 00:15 AM	0.14	0	0.15	0	0.001	0.864	0	0	0.674	0	0	0
10400-E	05/01/2022 00:22 AM	1.29	0.19	24.06	0.003	0.444	-0.001	0	0	9.638	0	0	0
10400-E-S	05/01/2022 00:00 AM	0	0	0	0	0	0	0	0	1.282	0	0	0
10400-F	05/01/2022 00:22 AM	0.92	0.18	23.89	0.002	0.441	-0.001	0	0	9.244	0	0	0
10400-F-S	05/01/2022 00:23 AM	0.53	0	0.02	0	0	45.207	0	0	4.267	0	0	0
10400-G	05/01/2022 00:22 AM	0.87	0	21.88	0	0.4	-0.001	0	0	8.997	0	0	0
10400-G-S	05/01/2022 00:23 AM	0.53	0.33	0.33	0.005	0.005	0.728	0	0	0.661	0	0	0
10400-H	05/01/2022 00:23 AM	0.84	0	20.96	0	0.385	-0.002	0	0	12.713	0	0	0
10400-H-S	05/01/2022 00:16 AM	0.03	0.25	0.34	0.003	0.004	0.2	0	0	6.89	0	0	0
10400-J	05/01/2022 00:23 AM	0.79	0	20.73	0	0.38	0	0	0	12.291	0	0	0
10400-K	05/01/2022 00:17 AM	0.43	0	4.79	0	0.09	-0.001	0	0	13.59	0	0	0
10400-K-S	05/01/2022 00:18 AM	0.03	0.29	0.29	0.004	0.004	0.001	0	0	0.67	0	0	0
10400-L	05/01/2022 00:18 AM	0.46	0	3.84	0	0.073	-0.001	0	0	21.102	0	0	0
10400-L-S	05/01/2022 00:06 AM	0.02	0.2	0.2	0.002	0.002	-0.032	0	0	0.683	0	0	0
10400-M	05/01/2022 00:19 AM	0.17	0	0.85	0	0.013	-0.023	0	0	7.97	0	0	0
10400-M-S	05/01/2022 00:16 AM	0.03	0.26	0.26	0.003	0.003	0.005	0	0	0.67	0	0	0

Table 2C: Junctions (continued...)

Name	Time Max. HGL (M/D/Y)	Rep. Max. Depth (ft)	Max. Lat. Inflow (cfs)	Max. Total Inflow (cfs)	Total Lat. Inflow (MG)	Total inflow (MG)	Flow Error (%)	Hours Surcharged (h)	Max. Surcharge (ft)	Min. Freeboard (ft)	Hours Flooded (h)	Max. Flood Rate (cfs)	Total Flood Vol. (MG)
10400-N	05/01/2022 00:27 AM	0.09	0	0.15	0	0.003	0.114	0	0	5.151	0	0	0
10400-N-S	05/01/2022 00:16 AM	0.01	0	0	0	0	0.072	0	0	0.823	0	0	0
10400-P	05/01/2022 00:27 AM	0.13	0.08	0.15	0.001	0.003	-0.05	0	0	5.863	0	0	0
10400-P-S	05/01/2022 00:00 AM	0	0	0	0	0	0	0	0	0.7	0	0	0
10400-Q	05/01/2022 00:25 AM	0.09	0	0.09	0	0.001	0.057	0	0	4.93	0	0	0
10400-Q-S	05/01/2022 00:00 AM	0	0	0	0	0	0	0	0	1	0	0	0
10400-R	05/01/2022 00:25 AM	0.08	0	0.09	0	0.001	0.004	0	0	4.67	0	0	0
10400-R-S	05/01/2022 00:00 AM	0	0	0	0	0	0	0	0	0.833	0	0	0
10400-S	05/01/2022 00:25 AM	0.1	0.09	0.09	0.001	0.001	0.006	0	0	4.122	0	0	0
10400-S-S	05/01/2022 00:00 AM	0	0	0	0	0	0	0	0	0.833	0	0	0
10410-A	05/01/2022 00:28 AM	0.7	0	8.7	0	0.159	-0.002	0	0	14.42	0	0	0
10410-B	05/01/2022 00:28 AM	0.6	0.06	8.65	0.001	0.158	-0.001	0	0	13.466	0	0	0
10410-B-S	05/01/2022 00:10 AM	0.64	0.17	0.17	0.001	0.001	3.356	0	0	2.57	0	0	0
10410-C	05/01/2022 00:28 AM	0.6	1.04	8.6	0.014	0.157	0.001	0	0	11.235	0	0	0
10410-D	05/01/2022 00:28 AM	1.04	0	7.93	0	0.143	-0.003	0	0	10.991	0	0	0
10410-D-S	05/01/2022 00:15 AM	0.12	0.76	0.76	0.01	0.01	-0.041	0	0	0.58	0	0	0
10410-E	05/01/2022 00:29 AM	0.53	0.29	7.52	0.004	0.133	0	0	0	12.778	0	0	0
10410-F	05/01/2022 00:28 AM	0.92	0.42	7.22	0.006	0.126	0.028	0	0	10.678	0	0	0
10410-G	05/01/2022 00:27 AM	0.96	0	6.95	0	0.121	-0.041	0	0	10.64	0	0	0
10411-A	05/01/2022 00:25 AM	0.15	0	0.11	0	0.002	-0.048	0	0	4.726	0	0	0
10411-A-S	05/01/2022 00:20 AM	0.16	0.36	0.36	0.005	0.005	0.17	0	0	4.972	0	0	0
10420-A	05/01/2022 00:15 AM	0.31	0	2.16	0	0.039	0	0	0	5.641	0	0	0
10420-A-S	05/01/2022 00:21 AM	0.51	0.06	0.06	0.001	0.001	5.634	0	0	0.697	0	0	0
10420-B	05/01/2022 00:06 AM	0.32	0	2.13	0	0.035	-0.002	0	0	7.755	0	0	0
10420-B-S	05/01/2022 00:06 AM	0.55	0.17	0.17	0.001	0.002	3.234	0	0	5.37	0	0	0
10420-C	05/01/2022 00:06 AM	0.31	0	1.96	0	0.033	0	0	0	5.562	0	0	0

Table 2C: Junctions (continued...)

Name	Time Max. HGL (M/D/Y)	Rep. Max. Depth (ft)	Max. Lat. Inflow (cfs)	Max. Total Inflow (cfs)	Total Lat. Inflow (MG)	Total inflow (MG)	Flow Error (%)	Hours Surcharged (h)	Max. Surcharge (ft)	Min. Freeboard (ft)	Hours Flooded (h)	Max. Flood Rate (cfs)	Total Flood Vol. (MG)
10420-C-S	05/01/2022 00:34 AM	0.34	0.1	0.11	0.002	0.002	1.265	0	0	0.689	0	0	0
10420-D	05/01/2022 00:19 AM	0.23	0	0.98	0	0.015	0	0	0	7.47	0	0	0
10420-D-S	05/01/2022 00:22 AM	0.55	0.51	0.51	0.008	0.008	0.594	0	0	0.65	0	0	0
10420-E	05/01/2022 00:16 AM	0.26	0	0.56	0	0.008	0	0	0	8.407	0	0	0
10420-E-S	05/01/2022 00:16 AM	0.07	0.59	0.59	0.008	0.008	0	0	0	0.637	0	0	0
10421-A	05/01/2022 00:28 AM	0.13	0	0.2	0	0.003	0.001	0	0	4.524	0	0	0
10421-A-S	05/01/2022 00:28 AM	0.43	0.2	0.2	0.003	0.003	1.116	0	0	6.156	0	0	0
10422-A	05/01/2022 00:06 AM	0.22	1.91	1.91	0.016	0.016	-0.002	0	0	7.81	0	0	0
10422-A-S	05/01/2022 00:00 AM	0	0	0	0	0	0	0	0	1	0	0	0
10430-A	05/01/2022 00:15 AM	0.27	0	0.73	0	0.01	-0.003	0	0	3.799	0	0	0
10430-A-S	05/01/2022 00:15 AM	0.58	0.88	0.88	0.012	0.012	0.391	0	0	17.494	0	0	0
10440-A	05/01/2022 00:23 AM	0.7	0	16.31	0	0.29	0	0	0	8.56	0	0	0
10440-A-S	05/01/2022 00:13 AM	0.01	0.08	0.08	0.001	0.001	0	0	0	2.69	0	0	0
10440-B	05/01/2022 00:23 AM	0.86	0	16.24	0	0.289	0	0	0	8.776	0	0	0
10440-B-S	05/01/2022 00:12 AM	0.57	0.38	0.38	0.005	0.005	1.084	0	0	12.14	0	0	0
10440-C	05/01/2022 00:23 AM	1.33	1.8	15.99	0.021	0.284	-0.017	0	0	9.02	0	0	0
10440-C-S	05/01/2022 00:00 AM	0	0	0	0	0	0	0	0	1.71	0	0	0
10440-D	05/01/2022 00:23 AM	1.26	0.99	14.2	0.018	0.242	0.018	0	0	15.571	0	0	0
10440-D-S	05/01/2022 00:00 AM	0	0	0	0	0	0	0	0	39.85	0	0	0
10440-e	05/01/2022 00:23 AM	1.3	0	13.29	0	0.224	-0.001	0	0	18.722	0	0	0
10441-A	05/01/2022 00:16 AM	0.03	0.03	0.03	0	0	0.03	0	0	12.62	0	0	0
10442-A	05/01/2022 00:27 AM	0.11	0	0.12	0	0.002	0.01	0	0	7.297	0	0	0
10442-A-EX	05/01/2022 00:23 AM	0.36	0	4.14	0	0.071	-0.017	0	0	7.49	0	0	0
10442-A-S	05/01/2022 00:27 AM	0.01	0	0.12	0	0.002	0.01	0	0	0.687	0	0	0
10442-B	05/01/2022 00:10 AM	0.14	0	0.85	0	0.009	0.002	0	0	2.837	0	0	0
10442-B-EX	05/01/2022 00:10 AM	0.19	0	0.85	0	0.009	0.001	0	0	4.34	0	0	0

Table 2C: Junctions (continued...)

Name	Time Max. HGL (M/D/Y)	Rep. Max. Depth (ft)	Max. Lat. Inflow (cfs)	Max. Total Inflow (cfs)	Total Lat. Inflow (MG)	Total inflow (MG)	Flow Error (%)	Hours Surcharged (h)	Max. Surcharge (ft)	Min. Freeboard (ft)	Hours Flooded (h)	Max. Flood Rate (cfs)	Total Flood Vol. (MG)
10442-B-S	05/01/2022 00:10 AM	0.95	0.85	0.85	0.009	0.009	0.851	0	0	0.6	0	0	0
10443-A	05/01/2022 00:51 AM	0.08	0	0.19	0	0.001	0.231	0	0	1.8	0	0	0
10443-C	05/01/2022 00:24 AM	0.45	0	3.57	0	0.06	0.009	0	0	7.95	0	0	0
10443-C-S	05/01/2022 00:26 AM	0.11	0.29	0.68	0.005	0.011	0.016	0	0	0.59	0	0	0
10443-D	05/01/2022 00:23 AM	0.28	0	3.03	0	0.051	0	0	0	5.34	0	0	0
10443-D-S	05/01/2022 00:23 AM	0.22	3.47	3.47	0.056	0.056	-0.003	0	0	0.48	0	0	0
10450-A	05/01/2022 00:08 AM	0.31	0	0.99	0	0.013	0	0	0	8.859	0	0	0
10450-A-S	05/01/2022 00:08 AM	0.1	0.32	1.16	0.004	0.014	-0.027	0	0	0.599	0	0	0
10460-A	05/01/2022 00:16 AM	0.69	0	2.91	0	0.058	-0.002	0	0	15.23	0	0	0
10460-A-S	05/01/2022 00:06 AM	0.02	0.18	0.18	0.001	0.001	-0.174	0	0	13.07	0	0	0
10460-B	05/01/2022 00:17 AM	0.62	0	2.84	0	0.057	0.2	0	0	9.14	0	0	0
10460-B-S	05/01/2022 00:37 AM	0.14	0.71	0.71	0.015	0.015	0.226	0	0	0.696	0	0	0
10460-C	05/01/2022 00:20 AM	1.05	0	1.63	0	0.028	-0.249	0	0	8.558	0	0	0
10460-C-S	05/01/2022 00:17 AM	0.12	0.44	0.44	0.006	0.006	-0.304	0	0	0.716	0	0	0
10460-D	05/01/2022 00:21 AM	1.12	0	1.28	0	0.022	0.302	0	0	7.709	0	0	0
10460-D-S	05/01/2022 00:19 AM	0.2	0.47	0.86	0.006	0.013	0.16	0	0	0.804	0	0	0
10460-E	05/01/2022 00:22 AM	0.27	0	0.46	0	0.009	-0.005	0	0	7.21	0	0	0
10460-E-S	05/01/2022 00:16 AM	0.1	0.35	0.35	0.005	0.005	-0.45	0	0	0.729	0	0	0
10460-F	05/01/2022 00:28 AM	0.18	0	0.27	0	0.005	0.001	0	0	4.49	0	0	0
10460-F-S	05/01/2022 00:27 AM	0.1	0.24	0.27	0.004	0.005	0.156	0	0	3.5	0	0	0
10461-A	05/01/2022 00:07 AM	0.39	0	1.84	0	0.019	-0.012	0	0	3.85	0	0	0
10461-A-S	05/01/2022 00:07 AM	0.2	1.66	1.75	0.015	0.016	0.119	0	0	0.633	0	0	0
10461-B	05/01/2022 00:06 AM	0.89	0	1	0	0.009	0.506	0	0	3.13	0	0	0
10461-B-S	05/01/2022 00:06 AM	0.22	1.16	1.16	0.009	0.009	-0.396	0	0	0.613	0	0	0
10462-A	05/01/2022 00:22 AM	0.03	0	0.01	0	0	0.065	0	0	2.841	0	0	0
10462-A-S	05/01/2022 00:22 AM	0.02	0.38	0.38	0.006	0.006	0.006	0	0	0.98	0	0	0

Table 2C: Junctions (continued...)

Name	Time Max. HGL (M/D/Y)	Rep. Max. Depth (ft)	Max. Lat. Inflow (cfs)	Max. Total Inflow (cfs)	Total Lat. Inflow (MG)	Total inflow (MG)	Flow Error (%)	Hours Surcharged (h)	Max. Surcharge (ft)	Min. Freeboard (ft)	Hours Flooded (h)	Max. Flood Rate (cfs)	Total Flood Vol. (MG)
10470-A	05/01/2022 00:18 AM	0.16	0	0.22	0	0.003	0.003	0	0	3.77	0	0	0
10470-A-S	05/01/2022 00:18 AM	0.02	0.22	0.22	0.003	0.003	0	0	0	0.673	0	0	0
10480-A	05/01/2022 00:19 AM	0.84	0	0.28	0	0.004	1.659	0	0	9.379	0	0	0
10480-B	05/01/2022 00:19 AM	0.15	0.28	0.28	0.004	0.004	0.003	0	0	3.561	0	0	0
10500-A	05/01/2022 00:15 AM	0.18	0	1.41	0	0.02	0.077	0	0	5.98	0	0	0
10500-B	05/01/2022 00:15 AM	0.47	0	1.41	0	0.02	-0.059	0	0	8.86	0	0	0
10500-B-S	05/01/2022 00:00 AM	0	0	0	0	0	0	0	0	1.973	0	0	0
10500-C	05/01/2022 00:17 AM	0.36	0	0.64	0	0.009	-0.005	0	0	6.79	0	0	0
10500-C-S	05/01/2022 00:17 AM	0.17	0.64	0.64	0.009	0.009	0	0	0	0.663	0	0	0
10500-D	05/01/2022 00:00 AM	0	0	0	0	0	0	0	0	4.148	0	0	0
10510-A	05/01/2022 00:07 AM	0.48	0	0.86	0	0.011	-0.003	0	0	5.26	0	0	0
10510-A-S	05/01/2022 00:07 AM	0.65	0.87	0.87	0.011	0.011	0.77	0	0	0.633	0	0	0
10700-A	05/01/2022 00:08 AM	0.17	0	1.46	0	0.02	-0.019	0	0	1.479	0	0	0
10700-A-S	05/01/2022 00:09 AM	0.22	1.5	1.5	0.015	0.02	-0.241	0	0	0.663	0	0	0
10700-B	05/01/2022 00:09 AM	0.38	0	1.46	0	0.02	0.001	0	0	5.65	0	0	0
11000-A	05/01/2022 00:16 AM	0.12	0.17	0.19	0.002	0.003	0.006	0	0	3.289	0	0	0
12000	05/01/2022 00:23 AM	0.08	0	6.67	0	0.122	0.001	0	0	4.92	0	0	0
12000-1	05/01/2022 01:05 AM	0.01	0	0.22	0	0.018	0.002	0	0	4.99	0	0	0
12000-2	05/01/2022 00:23 AM	0.57	0.84	6.46	0.015	0.105	-0.001	0	0	6.25	0	0	0
12000-A	05/01/2022 01:06 AM	0.79	0	0.45	0	0.008	0.52	0	0	3.2	0	0	0
12000-B	05/01/2022 00:20 AM	0.21	0	0.45	0	0.007	-0.564	0	0	3.73	0	0	0
12000-B'	05/01/2022 00:17 AM	0.05	0	0.02	0	0	0.248	0	0	1.052	0	0	0
12000-C	05/01/2022 00:20 AM	0.21	0	0.46	0	0.007	-0.002	0	0	5.18	0	0	0
12000-C-S	05/01/2022 00:17 AM	0.05	0.28	0.28	0.004	0.004	-0.026	0	0	0.95	0	0	0
12000-D	05/01/2022 00:22 AM	0.16	0	0.21	0	0.003	0.005	0	0	4.61	0	0	0
12000-D-S	05/01/2022 00:22 AM	0.04	0.2	0.22	0.003	0.003	0.007	0	0	0.958	0	0	0

Table 2C: Junctions (continued...)

Name	Time Max. HGL (M/D/Y)	Rep. Max. Depth (ft)	Max. Lat. Inflow (cfs)	Max. Total Inflow (cfs)	Total Lat. Inflow (MG)	Total inflow (MG)	Flow Error (%)	Hours Surcharged (h)	Max. Surcharge (ft)	Min. Freeboard (ft)	Hours Flooded (h)	Max. Flood Rate (cfs)	Total Flood Vol. (MG)
12000-E	05/01/2022 00:13 AM	0.14	0	0.2	0	0.002	0.001	0	0	4.52	0	0	0
12000-E-S	05/01/2022 00:13 AM	0.04	0.15	0.22	0.002	0.002	-0.024	0	0	0.68	0	0	0
12000-F	05/01/2022 00:17 AM	0.16	0	0.33	0	0.005	0.001	0	0	4.55	0	0	0
12000-F-S.	05/01/2022 00:22 AM	0.04	0.19	0.19	0.003	0.003	0.013	0	0	0.66	0	0	0
12000-G	05/01/2022 00:25 AM	0.55	0	3.31	0	0.058	-0.001	0	0	4.19	0	0	0
12000-G-S	05/01/2022 00:29 AM	0.12	1.29	1.29	0.023	0.023	0.001	0	0	14.344	0	0	0
12000-G-S2	05/01/2022 00:20 AM	0	0	0	0	0	-0.01	0	0	1	0	0	0
12000-H	05/01/2022 00:23 AM	0.43	1.75	1.84	0.028	0.03	-0.001	0	0	4.14	0	0	0
12000-H-S	05/01/2022 00:15 AM	0.02	0	0.11	0	0.001	0.283	0	0	1.51	0	0	0
13000-A	05/01/2022 00:19 AM	0.27	2.02	2.02	0.029	0.029	0	0	0	10.704	0	0	0
14000-A	05/01/2022 00:00 AM	0	0	0	0	0	0	0	0	4.964	0	0	0
14000-C	05/01/2022 00:18 AM	1.03	1.39	10.05	0.017	0.146	0.033	0	0	4.588	0	0	0
14000-D	05/01/2022 00:18 AM	1.17	2.65	8.89	0.038	0.128	0.001	0	0	4.077	0	0	0
14000-E	05/01/2022 00:18 AM	0.75	3.44	6.25	0.05	0.091	0.003	0	0	3.658	0	0	0
8667-J4	05/01/2022 00:22 AM	0.67	0.35	5.68	0.006	0.09	-0.001	0	0	4.68	0	0	0
8697	05/01/2022 00:22 AM	0.61	0.21	5.33	0.003	0.084	-0.002	0	0	4.04	0	0	0
8807	05/01/2022 00:22 AM	0.53	0.98	5.13	0.016	0.081	-0.002	0	0	3.52	0	0	0
8903	05/01/2022 00:22 AM	0.64	4.15	4.15	0.066	0.066	-0.002	0	0	2.61	0	0	0
CHANNEL_12+11.04	05/01/2022 00:21 AM	0.16	0	5.46	0	0.097	0	0	0	4.127	0	0	0
Curb_Cut	05/01/2022 00:22 AM	0.07	0	0.59	0	0.01	-0.007	0	0	0.924	0	0	0
Curb_Cut-S	05/01/2022 00:22 AM	0.08	0.59	0.69	0.009	0.011	0.226	0	0	0.921	0	0	0
ELB-10300-B1	05/01/2022 00:22 AM	0.67	0	4.02	0	0.072	0.001	0	0	9.32	0	0	0
ELB-10300-B2	05/01/2022 00:22 AM	0.25	0	4.02	0	0.072	-0.001	0	0	13.9	0	0	0
EX10440-C	05/01/2022 00:08 AM	0.27	0	2.2	0	0.021	0.011	0	0	3.98	0	0	0
EX10440-C-S	05/01/2022 00:00 AM	0	0	0	0	0	0	0	0	2	0	0	0
EX-CI21199	05/01/2022 00:23 AM	0.36	0	4.29	0	0.074	0.007	0	0	5.304	0	0	0

Table 2C: Junctions (continued...)

Name	Time Max. HGL (M/D/Y)	Rep. Max. Depth (ft)	Max. Lat. Inflow (cfs)	Max. Total Inflow (cfs)	Total Lat. Inflow (MG)	Total inflow (MG)	Flow Error (%)	Hours Surcharged (h)	Max. Surcharge (ft)	Min. Freeboard (ft)	Hours Flooded (h)	Max. Flood Rate (cfs)	Total Flood Vol. (MG)
EX-CI21199-S	05/01/2022 00:12 AM	0.02	0.23	0.23	0.003	0.003	-0.016	0	0	0.674	0	0	0
EX-DI5526	05/01/2022 00:08 AM	0.44	1.66	1.66	0.016	0.016	-0.019	0	0	2.08	0	0	0
EX-DI5526-S	05/01/2022 00:00 AM	0	0	0	0	0	0	0	0	1.1	0	0	0
EX-DI5571	05/01/2022 00:08 AM	0.78	0.62	2.22	0.005	0.021	-0.071	0	0	3.46	0	0	0
EX-DI5571-S	05/01/2022 00:00 AM	0	0	0	0	0	0	0	0	1.2	0	0	0
J1	05/01/2022 00:24 AM	0.58	0	9.01	0	0.15	-0.001	0	0	3.86	0	0	0
J10	05/01/2022 00:17 AM	0.34	3.54	3.54	0.05	0.05	0	0	0	2.656	0	0	0
J11	05/01/2022 00:17 AM	0.27	0	3.54	0	0.05	-0.002	0	0	2.731	0	0	0
J12	05/01/2022 00:17 AM	0.42	0	3.54	0	0.05	0.004	0	0	4.057	0	0	0
J13	05/01/2022 00:17 AM	0.48	0.18	3.7	0.003	0.052	-0.016	0	0	1.519	0	0	0
J15	05/01/2022 00:24 AM	0.56	0	8.24	0	0.135	0.004	0	0	2.59	0	0	0
J15-S	05/01/2022 00:24 AM	0.41	8.24	8.24	0.135	0.135	0	0	0	10.02	0	0	0
J17	05/01/2022 00:24 AM	0.25	0	0.92	0	0.007	0.004	0	0	3.48	0	0	0
J179	05/01/2022 00:19 AM	0.66	1.93	5.52	0.03	0.082	-0.001	0	0	0.334	0	0	0
J17-S	05/01/2022 00:24 AM	0.19	0	0.92	0	0.007	-0.016	0	0	9.91	0	0	0
J18	05/01/2022 00:24 AM	0.56	0	2.16	0	0.029	-0.012	0	0	2.85	0	0	0
J182	05/01/2022 01:01 AM	0.01	0	0.16	0	0	-0.392	0	0	1.104	0	0	0
J18-S	05/01/2022 00:24 AM	0.39	0	2.16	0	0.029	0.008	0	0	0.54	0	0	0
J1-IC	05/01/2022 00:22 AM	0.05	0.43	0.43	0.007	0.007	0	0	0	9.95	0	0	0
J2	05/01/2022 00:00 AM	0	0	0	0	0	0	0	0	3.35	0	0	0
J20	05/01/2022 00:24 AM	0.61	0	8.59	0	0.143	-0.001	0	0	3.13	0	0	0
J20-S	05/01/2022 00:09 AM	0.18	0.74	0.74	0.008	0.008	-0.001	0	0	10.82	0	0	0
J2-S	05/01/2022 00:00 AM	0	0	0	0	0	0	0	0	2	0	0	0
J320	05/01/2022 00:30 AM	0.04	0	0.02	0	0	-38.595	0	0	1.061	0	0	0
J34	05/01/2022 00:10 AM	7.58	0	18.8	0	0.254	0.53	71.82	5.576	0	2.05	18.8	0.241
J38	05/01/2022 00:00 AM	0	0	0	0	0	0	0	0	1.101	0	0	0

Table 2C: Junctions (continued...)

Name	Time Max. HGL (M/D/Y)	Rep. Max. Depth (ft)	Max. Lat. Inflow (cfs)	Max. Total Inflow (cfs)	Total Lat. Inflow (MG)	Total inflow (MG)	Flow Error (%)	Hours Surcharged (h)	Max. Surcharge (ft)	Min. Freeboard (ft)	Hours Flooded (h)	Max. Flood Rate (cfs)	Total Flood Vol. (MG)
J39	05/01/2022 00:38 AM	0.64	0.26	0.31	0.004	0.004	172.48	71.47	0.997	0	0.01	0.3	0
J46	05/01/2022 00:23 AM	0.01	0	0	0	0	-1.592	0	0	1.104	0	0	0
J4-S	05/01/2022 00:00 AM	0	0	0	0	0	0	0	0	2	0	0	0
J5	05/01/2022 00:20 AM	0.78	3	15.56	0.044	0.235	-0.003	0	0	4.97	0	0	0
J6	05/01/2022 00:20 AM	0.68	3.36	12.57	0.052	0.191	0.002	0	0	4.023	0	0	0
J7	05/01/2022 00:20 AM	0.58	3.76	9.23	0.057	0.139	0.009	0	0	2.928	0	0	0
J8	05/01/2022 00:20 AM	0.54	0	15.57	0	0.235	-0.013	0	0	5.712	0	0	0
J9	05/01/2022 00:11 AM	8.66	0.76	6.89	0.012	0.024	24.775	0	0	6.83	0	0	0
OL-10100-B	05/01/2022 00:13 AM	0	0	0	0	0	-0.003	0	0	3.869	0	0	0
OL-10101-A	05/01/2022 00:13 AM	0.05	0	0.11	0	0.001	-0.264	0	0	19.505	0	0	0
OL-11000-A	05/01/2022 00:21 AM	0.01	0	0.13	0	0.002	0.004	0	0	0.99	0	0	0
OL-11000-B	05/01/2022 00:21 AM	0.05	0.13	0.13	0.002	0.002	-0.003	0	0	0.951	0	0	0
OL-14000-Ab	05/01/2022 00:00 AM	0	0	0	0	0	0	0	0	1.097	0	0	0
OL-14000-Ac	05/01/2022 00:00 AM	0	0	0	0	0	0	0	0	1.1	0	0	0
OL-14000-Ad	05/01/2022 00:00 AM	0	0	0	0	0	0	0	0	1.101	0	0	0
OL-14000-Ae	05/01/2022 00:00 AM	0	0	0	0	0	0	0	0	1.103	0	0	0
OL-14000-C	05/01/2022 00:00 AM	0	0	0	0	0	0	0	0	1.105	0	0	0
OL-14000-D	05/01/2022 00:00 AM	0	0	0	0	0	0	0	0	1.096	0	0	0
OL-14000-E	05/01/2022 00:00 AM	0	0	0	0	0	0	0	0	1.016	0	0	0
OL-14000-F	05/01/2022 00:00 AM	0	0	0	0	0	0	0	0	2.19	0	0	0
OL-J10	05/01/2022 00:00 AM	0	0	0	0	0	0	0	0	1.104	0	0	0
OL-J10b	05/01/2022 00:00 AM	0	0	0	0	0	0	0	0	1.096	0	0	0
OL-J5	05/01/2022 00:00 AM	0	0	0	0	0	0	0	0	1.104	0	0	0
OL-J7	05/01/2022 00:00 AM	0	0	0	0	0	0	0	0	1.104	0	0	0

Table 2D: Junctions

Name	Max. Ponded Depth (ft)	Contributing Area (ac)	Contributing Imp. Area (ac)	Max. Unit Flow (cfs/ac)	GIS_LENGTH (m)	GIS_AREA (m²)	GIS_PARTS
06-UV	0	0	0	0	0	0	1
1	0	0	0	0	0	0	1
10000-A	0	0	0	0	0	0	1
10000-B	0	0	0	0	0	0	1
10000-C	0	0	0	0	0	0	1
10000-C-S	0	0	0	0	0	0	1
10000-D	0	0	0	0	0	0	1
10001-A-S	0	0	0	0	0	0	1
10100-A	0	0	0	0	0	0	1
10100-A-S	0	0	0	0	0	0	1
10100-B	0	0	0	0	0	0	1
10100-B-IC	0	0	0	0	0	0	1
10100-D	0	0	0	0	0	0	1
10100-D-IC	0	0	0	0	0	0	1
10100-D-IC2	0	0	0	0	0	0	1
10120-G	0	0	0	0	0	0	1
10120-G-S	0	0	0	0	0	0	1
10120-H	0	0	0	0	0	0	1
10123-A	0	0	0	0	0	0	1
10125-A	0	0	0	0	0	0	1
10125-A-S	0	0	0	0	0	0	1
10200-A	0	0	0	0	0	0	1
10200-A-S1	0	0	0	0	0	0	1
10200-A-S2	0	0	0	0	0	0	1
10200-B	0	0	0	0	0	0	1
10200-B-S1	0	0	0	0	0	0	1

Table 2D: Junctions (continued...)

Name	Max. Ponded Depth (ft)	Contributing Area (ac)	Contributing Imp. Area (ac)	Max. Unit Flow (cfs/ac)	GIS_LENGTH (m)	GIS_AREA (m²)	GIS_PARTS
10200-B-S2	0	0	0	0	0	0	1
10200-C	0	0	0	0	0	0	1
10200-C-S1	0	0	0	0	0	0	1
10200-C-S2	0	0	0	0	0	0	1
10200-D	0	0	0	0	0	0	1
10200-D-S	0	0	0	0	0	0	1
10200-E	0	0	0	0	0	0	1
10200-E-S	0	0	0	0	0	0	1
10200-F	0	0	0	0	0	0	1
10200-G	0	0	0	0	0	0	1
10200-G-S	0	0	0	0	0	0	1
10200-H	0	0	0	0	0	0	1
10200-H-S	0	0	0	0	0	0	1
10200-J	0	0	0	0	0	0	1
10200-J-S	0	0	0	0	0	0	1
10200-K	0	0	0	0	0	0	1
10200-K-S	0	0	0	0	0	0	1
10200-L	0	0	0	0	0	0	1
10200-L-S	0	0	0	0	0	0	1
10200-M	0	0	0	0	0	0	1
10200-M-S	0	0	0	0	0	0	1
10200-N	0	0	0	0	0	0	1
10200-N-S	0	0	0	0	0	0	1
10201-A	0	0	0	0	0	0	1
10201-A-S1	0	0	0	0	0	0	1
10201-A-S2	0	0	0	0	0	0	1

Table 2D: Junctions (continued...)

Name	Max. Ponded Depth (ft)	Contributing Area (ac)	Contributing Imp. Area (ac)	Max. Unit Flow (cfs/ac)	GIS_LENGTH (m)	GIS_AREA (m²)	GIS_PARTS
10202-A	0	0	0	0	0	0	1
10202-A-S1	0	0	0	0	0	0	1
10202-A-S2	0	0	0	0	0	0	1
10203-A	0	0	0	0	0	0	1
10203-A-S	0	0	0	0	0	0	1
10210-A	0	0	0	0	0	0	1
10210-A-S	0	0	0	0	0	0	1
10210-B	0	0	0	0	0	0	1
10210-B-S	0	0	0	0	0	0	1
10210-C	0	0	0	0	0	0	1
10210-D	0	0	0	0	0	0	1
10210-E	0	0	0	0	0	0	1
10211-A	0	0	0	0	0	0	1
10211-A-S	0	0	0	0	0	0	1
10211-B	0	0	0	0	0	0	1
10211-C	0	0	0	0	0	0	1
10212-A	0	0	0	0	0	0	1
10250-A	0	0	0	0	0	0	1
10250-A-S	0	0	0	0	0	0	1
10250-B	0	0	0	0	0	0	1
10250-B-S	0	0	0	0	0	0	1
10250-C	0	0	0	0	0	0	1
10250-C-S	0	0	0	0	0	0	1
10250-D	0	0	0	0	0	0	1
10250-D-S	0	0	0	0	0	0	1
10260-A	0	0	0	0	0	0	1

Table 2D: Junctions (continued...)

Name	Max. Ponded Depth (ft)	Contributing Area (ac)	Contributing Imp. Area (ac)	Max. Unit Flow (cfs/ac)	GIS_LENGTH (m)	GIS_AREA (m²)	GIS_PARTS
10260-A-S	0	0	0	0	0	0	1
10270-A	0	0	0	0	0	0	1
10270-A-S	0	0	0	0	0	0	1
10280-A	0	0	0	0	0	0	1
10300-A	0	0	0	0	0	0	1
10300-B	0	0	0	0	0	0	1
10300-B-IC	0	0	0	0	0	0	1
10300-C	0	0	0	0	0	0	1
10300-C-S	0	0	0	0	0	0	1
10300-D	0	0	0	0	0	0	1
10300-D-S	0	0	0	0	0	0	1
10300-E	0	0	0	0	0	0	1
10300-F	0	0	0	0	0	0	1
10300-F-S	0	0	0	0	0	0	1
10300-G	0	0	0	0	0	0	1
10300-G-S	0	0	0	0	0	0	1
10310-A	0	0	0	0	0	0	1
10310-A-S	0	0	0	0	0	0	1
10310-B	0	0	0	0	0	0	1
10310-B-S	0	0	0	0	0	0	1
10310-B-S2	0	0	0	0	0	0	1
10320-A	0	0	0	0	0	0	1
10320-B	0	0	0	0	0	0	1
10320-B-S	0	0	0	0	0	0	1
10320-C	0	0	0	0	0	0	1
10320-C-S	0	0	0	0	0	0	1

Table 2D: Junctions (continued...)

Name	Max. Ponded Depth (ft)	Contributing Area (ac)	Contributing Imp. Area (ac)	Max. Unit Flow (cfs/ac)	GIS_LENGTH (m)	GIS_AREA (m²)	GIS_PARTS
10321-A	0	0	0	0	0	0	1
10330-A	0	0	0	0	0	0	1
10330-A-S	0	0	0	0	0	0	1
10330-B	0	0	0	0	0	0	1
10330-B-S	0	0	0	0	0	0	1
10400-A	0	0	0	0	0	0	1
10400-A-S	0	0	0	0	0	0	1
10400-B1	0	0	0	0	0	0	1
10400-C2	0	0	0	0	0	0	1
10400-D	0	0	0	0	0	0	1
10400-D-S	0	0	0	0	0	0	1
10400-E	0	0	0	0	0	0	1
10400-E-S	0	0	0	0	0	0	1
10400-F	0	0	0	0	0	0	1
10400-F-S	0	0	0	0	0	0	1
10400-G	0	0	0	0	0	0	1
10400-G-S	0	0	0	0	0	0	1
10400-H	0	0	0	0	0	0	1
10400-H-S	0	0	0	0	0	0	1
10400-J	0	0	0	0	0	0	1
10400-K	0	0	0	0	0	0	1
10400-K-S	0	0	0	0	0	0	1
10400-L	0	0	0	0	0	0	1
10400-L-S	0	0	0	0	0	0	1
10400-M	0	0	0	0	0	0	1
10400-M-S	0	0	0	0	0	0	1

Table 2D: Junctions (continued...)

Name	Max. Ponded Depth (ft)	Contributing Area (ac)	Contributing Imp. Area (ac)	Max. Unit Flow (cfs/ac)	GIS_LENGTH (m)	GIS_AREA (m²)	GIS_PARTS
10400-N	0	0	0	0	0	0	1
10400-N-S	0	0	0	0	0	0	1
10400-P	0	0	0	0	0	0	1
10400-P-S	0	0	0	0	0	0	1
10400-Q	0	0	0	0	0	0	1
10400-Q-S	0	0	0	0	0	0	1
10400-R	0	0	0	0	0	0	1
10400-R-S	0	0	0	0	0	0	1
10400-S	0	0	0	0	0	0	1
10400-S-S	0	0	0	0	0	0	1
10410-A	0	0	0	0	0	0	1
10410-B	0	0	0	0	0	0	1
10410-B-S	0	0	0	0	0	0	1
10410-C	0	0	0	0	0	0	1
10410-D	0	0	0	0	0	0	1
10410-D-S	0	0	0	0	0	0	1
10410-E	0	0	0	0	0	0	1
10410-F	0	0	0	0	0	0	1
10410-G	0	0	0	0	0	0	1
10411-A	0	0	0	0	0	0	1
10411-A-S	0	0	0	0	0	0	1
10420-A	0	0	0	0	0	0	1
10420-A-S	0	0	0	0	0	0	1
10420-B	0	0	0	0	0	0	1
10420-B-S	0	0	0	0	0	0	1
10420-C	0	0	0	0	0	0	1

Table 2D: Junctions (continued...)

Name	Max. Ponded Depth (ft)	Contributing Area (ac)	Contributing Imp. Area (ac)	Max. Unit Flow (cfs/ac)	GIS_LENGTH (m)	GIS_AREA (m²)	GIS_PARTS
10420-C-S	0	0	0	0	0	0	1
10420-D	0	0	0	0	0	0	1
10420-D-S	0	0	0	0	0	0	1
10420-E	0	0	0	0	0	0	1
10420-E-S	0	0	0	0	0	0	1
10421-A	0	0	0	0	0	0	1
10421-A-S	0	0	0	0	0	0	1
10422-A	0	0	0	0	0	0	1
10422-A-S	0	0	0	0	0	0	1
10430-A	0	0	0	0	0	0	1
10430-A-S	0	0	0	0	0	0	1
10440-A	0	0	0	0	0	0	1
10440-A-S	0	0	0	0	0	0	1
10440-B	0	0	0	0	0	0	1
10440-B-S	0	0	0	0	0	0	1
10440-C	0	0	0	0	0	0	1
10440-C-S	0	0	0	0	0	0	1
10440-D	0	0	0	0	0	0	1
10440-D-S	0	0	0	0	0	0	1
10440-e	0	0	0	0	0	0	1
10441-A	0	0	0	0	0	0	1
10442-A	0	0	0	0	0	0	1
10442-A-EX	0	0	0	0	0	0	1
10442-A-S	0	0	0	0	0	0	1
10442-B	0	0	0	0	0	0	1
10442-B-EX	0	0	0	0	0	0	1

Table 2D: Junctions (continued...)

Name	Max. Ponded Depth (ft)	Contributing Area (ac)	Contributing Imp. Area (ac)	Max. Unit Flow (cfs/ac)	GIS_LENGTH (m)	GIS_AREA (m²)	GIS_PARTS
10442-B-S	0	0	0	0	0	0	1
10443-A	0	0	0	0	0	0	1
10443-C	0	0	0	0	0	0	1
10443-C-S	0	0	0	0	0	0	1
10443-D	0	0	0	0	0	0	1
10443-D-S	0	0	0	0	0	0	1
10450-A	0	0	0	0	0	0	1
10450-A-S	0	0	0	0	0	0	1
10460-A	0	0	0	0	0	0	1
10460-A-S	0	0	0	0	0	0	1
10460-B	0	0	0	0	0	0	1
10460-B-S	0	0	0	0	0	0	1
10460-C	0	0	0	0	0	0	1
10460-C-S	0	0	0	0	0	0	1
10460-D	0	0	0	0	0	0	1
10460-D-S	0	0	0	0	0	0	1
10460-E	0	0	0	0	0	0	1
10460-E-S	0	0	0	0	0	0	1
10460-F	0	0	0	0	0	0	1
10460-F-S	0	0	0	0	0	0	1
10461-A	0	0	0	0	0	0	1
10461-A-S	0	0	0	0	0	0	1
10461-B	0	0	0	0	0	0	1
10461-B-S	0	0	0	0	0	0	1
10462-A	0	0	0	0	0	0	1
10462-A-S	0	0	0	0	0	0	1

Table 2D: Junctions (continued...)

Name	Max. Ponded Depth (ft)	Contributing Area (ac)	Contributing Imp. Area (ac)	Max. Unit Flow (cfs/ac)	GIS_LENGTH (m)	GIS_AREA (m²)	GIS_PARTS
10470-A	0	0	0	0	0	0	1
10470-A-S	0	0	0	0	0	0	1
10480-A	0	0	0	0	0	0	1
10480-B	0	0	0	0	0	0	1
10500-A	0	0	0	0	0	0	1
10500-B	0	0	0	0	0	0	1
10500-B-S	0	0	0	0	0	0	1
10500-C	0	0	0	0	0	0	1
10500-C-S	0	0	0	0	0	0	1
10500-D	0	0	0	0	0	0	1
10510-A	0	0	0	0	0	0	1
10510-A-S	0	0	0	0	0	0	1
10700-A	0	0	0	0	0	0	1
10700-A-S	0	0	0	0	0	0	1
10700-B	0	0	0	0	0	0	1
11000-A	0	0	0	0	0	0	1
12000	0	0	0	0	0	0	1
12000-1	0	0	0	0	0	0	1
12000-2	0	0	0	0	0	0	1
12000-A	0	0	0	0	0	0	1
12000-B	0	0	0	0	0	0	1
12000-B'	0	0	0	0	0	0	1
12000-C	0	0	0	0	0	0	1
12000-C-S	0	0	0	0	0	0	1
12000-D	0	0	0	0	0	0	1
12000-D-S	0	0	0	0	0	0	1

Table 2D: Junctions (continued...)

Name	Max. Ponded Depth (ft)	Contributing Area (ac)	Contributing Imp. Area (ac)	Max. Unit Flow (cfs/ac)	GIS_LENGTH (m)	GIS_AREA (m²)	GIS_PARTS
12000-E	0	0	0	0	0	0	1
12000-E-S	0	0	0	0	0	0	1
12000-F	0	0	0	0	0	0	1
12000-F-S.	0	0	0	0	0	0	1
12000-G	0	0	0	0	0	0	1
12000-G-S	0	0	0	0	0	0	1
12000-G-S2	0	0	0	0	0	0	1
12000-H	0	0	0	0	0	0	1
12000-H-S	0	0	0	0	0	0	1
13000-A	0	0	0	0	0	0	1
14000-A	0	0	0	0	0	0	1
14000-C	0	0	0	0	0	0	1
14000-D	0	0	0	0	0	0	1
14000-E	0	0	0	0	0	0	1
8667-J4	0	0	0	0	0	0	1
8697	0	0	0	0	0	0	1
8807	0	0	0	0	0	0	1
8903	0	0	0	0	0	0	1
CHANNEL_12+11.04	0	0	0	0	0	0	1
Curb_Cut	0	0	0	0	0	0	1
Curb_Cut-S	0	0	0	0	0	0	1
ELB-10300-B1	0	0	0	0	0	0	1
ELB-10300-B2	0	0	0	0	0	0	1
EX10440-C	0	0	0	0	0	0	1
EX10440-C-S	0	0	0	0	0	0	1
EX-CI21199	0	0	0	0	0	0	1

Table 2D: Junctions (continued...)

Name	Max. Ponded Depth (ft)	Contributing Area (ac)	Contributing Imp. Area (ac)	Max. Unit Flow (cfs/ac)	GIS_LENGTH (m)	GIS_AREA (m²)	GIS_PARTS
EX-CI21199-S	0	0	0	0	0	0	1
EX-DI5526	0	0	0	0	0	0	1
EX-DI5526-S	0	0	0	0	0	0	1
EX-DI5571	0	0	0	0	0	0	1
EX-DI5571-S	0	0	0	0	0	0	1
J1	0	0	0	0	0	0	1
J10	0	0	0	0	0	0	1
J11	0	0	0	0	0	0	1
J12	0	0	0	0	0	0	1
J13	0	0	0	0	0	0	1
J15	0	0	0	0	0	0	1
J15-S	0	0	0	0	0	0	1
J17	0	0	0	0	0	0	1
J179	0	0	0	0	0	0	1
J17-S	0	0	0	0	0	0	1
J18	0	0	0	0	0	0	1
J182	0	0	0	0	0	0	1
J18-S	0	0	0	0	0	0	1
J1-IC	0	0	0	0	0	0	1
J2	0	0	0	0	0	0	1
J20	0	0	0	0	0	0	1
J20-S	0	0	0	0	0	0	1
J2-S	0	0	0	0	0	0	1
J320	0	0	0	0	0	0	1
J34	0	0	0	0	0	0	1
J38	0	0	0	0	0	0	1

Table 2D: Junctions (continued...)

Name	Max. Ponded Depth (ft)	Contributing Area (ac)	Contributing Imp. Area (ac)	Max. Unit Flow (cfs/ac)	GIS_LENGTH (m)	GIS_AREA (m²)	GIS_PARTS
J39	0	0	0	0	0	0	1
J46	0	0	0	0	0	0	1
J4-S	0	0	0	0	0	0	1
J5	0	0	0	0	0	0	1
J6	0	0	0	0	0	0	1
J7	0	0	0	0	0	0	1
J8	0	0	0	0	0	0	1
J9	0	0	0	0	0	0	1
OL-10100-B	0	0	0	0	0	0	1
OL-10101-A	0	0	0	0	0	0	1
OL-11000-A	0	0	0	0	0	0	1
OL-11000-B	0	0	0	0	0	0	1
OL-14000-Ab	0	0	0	0	0	0	1
OL-14000-Ac	0	0	0	0	0	0	1
OL-14000-Ad	0	0	0	0	0	0	1
OL-14000-Ae	0	0	0	0	0	0	1
OL-14000-C	0	0	0	0	0	0	1
OL-14000-D	0	0	0	0	0	0	1
OL-14000-E	0	0	0	0	0	0	1
OL-14000-F	0	0	0	0	0	0	1
OL-J10	0	0	0	0	0	0	1
OL-J10b	0	0	0	0	0	0	1
OL-J5	0	0	0	0	0	0	1
OL-J7	0	0	0	0	0	0	1

Table 3A: Outfalls

Name	X-Coordinate	Y-Coordinate	Tag	Inflows	Treatment	Invert Elev. (ft)	Rim Elev. (ft)	Tide Gate	Route To	Type	Fixed Stage (ft)	Curve Name	Series Name	Outlet	Baseline (cfs)
10000	2262392.186	276400.364	Outfall	NO	NO	831.42	831.42	NO		FREE	0	*	*		0
11000-0	2262486.781	276384.562	Outlet	NO	NO	861.08	861.08	NO		FREE	0	*	*		0
11000-0'	2262484.196	276383.409	Overland	NO	NO	864	864	NO		FREE	0	*	*		0
12000.	2261939.436	276365.72	Outfall	NO	NO	836	841	NO		FREE	0	*	*		0
13000-0	2263958	276313	Outlet	NO	NO	936.2	936.2	NO		FREE	0	*	*		0
14000-0	2263091.354	277070.708	Outlet	NO	NO	845.99	845.99	NO		FREE	0	*	*		0
14000-0'	2263095.852	277072.318	Overland	NO	NO	847.5	847.5	NO		FREE	0	*	*		0

Table 3B: Outfalls

Name	Baseline Pattern	Time Series	Scale Factor	Average Value (cfs)	Time Pattern 1	Time Pattern 2	Time Pattern 3	Time Pattern 4	Hydrograph	Sewershed Area (ac)	Avg. Depth (ft)	Max. Depth (ft)	Max. HGL (ft)	Time Max. HGL (M/D/Y)
10000			1	0						0	0.03	1.16	832.58	05/01/2022 00:29 AM
11000-0			1	0						0	0	0.11	861.19	05/01/2022 00:16 AM
11000-0'			1	0						0	0	0.01	864.01	05/01/2022 00:21 AM
12000.			1	0						0	0	0.08	836.08	05/01/2022 00:23 AM
13000-0			1	0						0	0.01	0.25	936.45	05/01/2022 00:19 AM
14000-0			1	0						0	0.02	1.16	847.15	05/01/2022 00:17 AM
14000-0'			1	0						0	0	0	847.5	05/01/2022 00:00 AM

Table 3C: Outfalls

Name	Rep. Max. Depth (ft)	Max. Lat. Inflow (cfs)	Max. Total Inflow (cfs)	Total Lat. Inflow (MG)	Total inflow (MG)	Flow Error (%)	Hours Surcharged (h)	Max. Surcharge (ft)	Min. Freeboard (ft)	Hours Flooded (h)	Max. Flood Rate (cfs)	Total Flood Vol. (MG)	Max. Ponded Depth (ft)	Flow Frequency	Avg. Flow (cfs)	Max. Flow (cfs)
10000	1.16	0	39.68	0	0.939	0	0	0	0	0	0	0	0	9.21	10.27	39.68
11000-0	0.11	0	0.19	0	0.003	0	0	0	0	0	0	0	0	3.02	0.09	0.19
11000-0'	0.01	0	0.1	0	0.002	0	0	0	0	0	0	0	0	2.82	0.05	0.1
12000.	0.08	0	6.67	0	0.122	0	0	0	0	0	0	0	0	6.96	1.71	6.67
13000-0	0.25	0	2.02	0	0.029	0	0	0	0	0	0	0	0	3.69	0.81	2.02
14000-0	1.16	0	14.88	0	0.217	0	0	0	0	0	0	0	0	4.25	5.16	14.88
14000-0'	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

Table 3D: Outfalls

Name	Total Flow (MG)	Contributing Area (ac)	Contributing Imp. Area (ac)	Max. Unit Flow (cfs/ac)	GIS_LENGTH (m)	GIS_AREA (m^2)	GIS_PARTS
10000	0.939	0	0	0	0	0	1
11000-0	0.003	0	0	0	0	0	1
11000-0'	0.002	0	0	0	0	0	1
12000.	0.122	0	0	0	0	0	1
13000-0	0.029	0	0	0	0	0	1
14000-0	0.217	0	0	0	0	0	1
14000-0'	0	0	0	0	0	0	1

Table 4A: ARM Subcatchments

Name	X-Coordinate	Y-Coordinate	Description	Tag	Runoff Method	Rain Gage	Outlet	Area (ac)	Flow Length (ft)	Slope (%)	Imperv. (%)
1	2262787.206	276258.571			SCS Dimensionless UH	Huff_002YR_1Q_1HR_1.56in	10201-A	0.299	164.405	4.292	25
4	2262974.336	275011.757			SCS Dimensionless UH	Huff_002YR_1Q_1HR_1.56in	J9	1.376	402.975	2.024	0
5	2263672.562	276560.152			SCS Dimensionless UH	Huff_002YR_1Q_1HR_1.56in	14000-E	3.242	744.624	22.202	0
6	2263208.255	274137.586			SCS Dimensionless UH	Huff_002YR_1Q_1HR_1.56in	J13	0.396	206.792	20.594	0
7	2262876.164	276115.451			SCS Dimensionless UH	Huff_002YR_1Q_1HR_1.56in	10700-A-S	0.423	286.333	1.301	0
9	2262637.513	276122.087			SCS Dimensionless UH	Huff_002YR_1Q_1HR_1.56in	10210-B-S	0.284	167.781	2.48	0
10	2261890.691	275633.56			SCS Dimensionless UH	Huff_002YR_1Q_1HR_1.56in	8903	5.115	718.372	3.355	0
11	2263564.555	274994.286			SCS Dimensionless UH	Huff_002YR_1Q_1HR_1.56in	J20-S	0.235	459.225	10.285	0
12	2263999.448	275089.187			SCS Dimensionless UH	Huff_002YR_1Q_1HR_1.56in	10443-D-S	5.04	587.061	11.548	0
13	2262510.448	276345.954			SCS Dimensionless UH	Huff_002YR_1Q_1HR_1.56in	11000-A	0.132	73.051	0.858	0
14	2262301.699	276204.913			SCS Dimensionless UH	Huff_002YR_1Q_1HR_1.56in	12000-C-S	0.362	166.842	1.696	0
15	2262609.808	276311.216			SCS Dimensionless UH	Huff_002YR_1Q_1HR_1.56in	OL-11000-B	0.281	247.088	3.687	0
16	2263593.524	275652.692			SCS Dimensionless UH	Huff_002YR_1Q_1HR_1.56in	10400-M-S	0.19	149.99	2.001	0
18	2263217.709	276330.378			SCS Dimensionless UH	Huff_002YR_1Q_1HR_1.56in	10200-D-S	0.08	273.974	3.143	0
19	2263471.815	276336.78			SCS Dimensionless UH	Huff_002YR_1Q_1HR_1.56in	10200-E-S	0.067	300	0.839	0
20	2262296.263	275427.671			SCS Dimensionless UH	Huff_002YR_1Q_1HR_1.56in	10411-A-S	0.372	218.179	19.197	0
21	2262270.811	275282.974			SCS Dimensionless UH	Huff_002YR_1Q_1HR_1.56in	10125-A	1.078	265.791	15.19	0
22	2262513.032	275415.278			SCS Dimensionless UH	Huff_002YR_1Q_1HR_1.56in	10410-F	0.336	199.658	3.366	0
24	2263477.881	276135.856			SCS Dimensionless UH	Huff_002YR_1Q_1HR_1.56in	10250-D-S	0.128	198.085	1.802	0
26	2263354.26	275481.529			SCS Dimensionless UH	Huff_002YR_1Q_1HR_1.56in	10400-K-S	0.244	251.875	1.31	0
28	2263720.234	276016.989			SCS Dimensionless UH	Huff_002YR_1Q_1HR_1.56in	10200-L-S	0.222	179.073	0.515	0
30	2263836.597	276011.285			SCS Dimensionless UH	Huff_002YR_1Q_1HR_1.56in	13000-A	1.725	717.066	13.822	0
31	2261926.333	276092.194			SCS Dimensionless UH	Huff_002YR_1Q_1HR_1.56in	8697	0.317	172.579	1.258	0
32	2262061.525	275982.336			SCS Dimensionless UH	Huff_002YR_1Q_1HR_1.56in	8807	1.913	441.969	5.046	0
33	2262164.104	276291.949			SCS Dimensionless UH	Huff_002YR_1Q_1HR_1.56in	12000-2	0.636	681.594	0.458	0
34	2263355.059	276036.202			SCS Dimensionless UH	Huff_002YR_1Q_1HR_1.56in	10330-B-S	0.442	375.684	1.211	0

Table 4A: ARM Subcatchments (continued...)

Name	X-Coordinate	Y-Coordinate	Description	Tag	Runoff Method	Rain Gage	Outlet	Area (ac)	Flow Length (ft)	Slope (%)	Imperv. (%)
36	2263652.602	276122.842			SCS Dimensionless UH	Huff_002YR_1Q_1HR_1.56in	10270-A-S	0.568	396.012	0.665	0
38	2262321.353	275563.471			SCS Dimensionless UH	Huff_002YR_1Q_1HR_1.56in	10410-D-S	0.6	319.835	4.254	0
39	2262313.406	275826.489			SCS Dimensionless UH	Huff_002YR_1Q_1HR_1.56in	12000-H	2.993	482.918	22	0
40	2263134.142	275669.13			SCS Dimensionless UH	Huff_002YR_1Q_1HR_1.56in	10300-B-IC	0.304	132.317	6.127	0
41	2263845.363	275420.553			SCS Dimensionless UH	Huff_002YR_1Q_1HR_1.56in	10443-C-S	0.507	395.938	0.425	0
42	2262694.324	275446.325			SCS Dimensionless UH	Huff_002YR_1Q_1HR_1.56in	10420-B-S	0.037	103.926	3.963	0
43	2263182.049	275594.325			SCS Dimensionless UH	Huff_002YR_1Q_1HR_1.56in	10510-A-S	0.506	132.688	5.8	0
44	2263256.429	275512.642			SCS Dimensionless UH	Huff_002YR_1Q_1HR_1.56in	10500-C-S	0.562	306.017	2.012	0
45	2263590.344	275123.459			SCS Dimensionless UH	Huff_002YR_1Q_1HR_1.56in	10440-D	2.013	693.796	2.288	0
46	2263885.262	274889.374			SCS Dimensionless UH	Huff_002YR_1Q_1HR_1.56in	10442-B-S	0.287	779.332	7.306	0
47	2262522.769	276192.242			SCS Dimensionless UH	Huff_002YR_1Q_1HR_1.56in	12000-F-S.	0.293	247.025	1.043	0
48	2263080.459	275486.695			SCS Dimensionless UH	Huff_002YR_1Q_1HR_1.56in	10430-A-S	0.392	400.191	0.758	0
49	2262479.789	276225.595			SCS Dimensionless UH	Huff_002YR_1Q_1HR_1.56in	12000-E-S	0.053	148.222	0.472	0
50	2263509.48	275395.119			SCS Dimensionless UH	Huff_002YR_1Q_1HR_1.56in	10460-B-S	0.542	123.802	0.009	0
51	2263619.098	275269.327			SCS Dimensionless UH	Huff_002YR_1Q_1HR_1.56in	10460-E-S	0.301	130.264	4.307	0
52	2263715.573	275299.292			SCS Dimensionless UH	Huff_002YR_1Q_1HR_1.56in	10460-D-S	0.503	189.321	2.41	0
53	2263757.09	275455.29			SCS Dimensionless UH	Huff_002YR_1Q_1HR_1.56in	10462-A-S	0.865	261.415	3.154	0
54	2263626.032	275481.34			SCS Dimensionless UH	Huff_002YR_1Q_1HR_1.56in	10460-C-S	0.437	194.439	1.384	0
55	2263710.816	275621.207			SCS Dimensionless UH	Huff_002YR_1Q_1HR_1.56in	10470-A-S	0.316	265.68	3.06	0
56	2263544.766	275518.272			SCS Dimensionless UH	Huff_002YR_1Q_1HR_1.56in	10460-A-S	0.039	129.542	2.986	0
57	2263387.654	275432.591			SCS Dimensionless UH	Huff_002YR_1Q_1HR_1.56in	10450-A-S	0.161	221.648	2.606	0
59	2262971.078	275302.975			SCS Dimensionless UH	Huff_002YR_1Q_1HR_1.56in	EX-DI5526	0.434	177.747	0.59	0
60	2263081.41	275334.62			SCS Dimensionless UH	Huff_002YR_1Q_1HR_1.56in	EX-DI5571	0.148	93.37	0.443	0
62	2262735.26	276131.054			SCS Dimensionless UH	Huff_002YR_1Q_1HR_1.56in	10211-A-S	0.134	147.683	6.504	0
63	2262795.11	276055.645			SCS Dimensionless UH	Huff_002YR_1Q_1HR_1.56in	10211-C	0.153	83.356	10.152	0
64	2262969.303	276320.889			SCS Dimensionless UH	Huff_002YR_1Q_1HR_1.56in	10200-C-S1	0.06	214.307	1.633	0

Table 4A: ARM Subcatchments (continued...)

Name	X-Coordinate	Y-Coordinate	Description	Tag	Runoff Method	Rain Gage	Outlet	Area (ac)	Flow Length (ft)	Slope (%)	Imperv. (%)
65	2262781.053	276314.071			SCS Dimensionless UH	Huff_002YR_1Q_1HR_1.56in	10200-B-S1	0.044	151.302	2.502	0
66	2262790.196	275580.373			SCS Dimensionless UH	Huff_002YR_1Q_1HR_1.56in	10400-D	0.083	213.049	2.495	0
67	2262629.458	275624.727			SCS Dimensionless UH	Huff_002YR_1Q_1HR_1.56in	10400-A-S	0.057	141.794	2.606	0
68	2262625.884	275609.425			SCS Dimensionless UH	Huff_002YR_1Q_1HR_1.56in	10410-B-S	0.042	144.058	2.703	0
69	2262741.238	275533.329			SCS Dimensionless UH	Huff_002YR_1Q_1HR_1.56in	10400-E	0.297	181.796	3.502	0
70	2263729.514	275858.634			SCS Dimensionless UH	Huff_002YR_1Q_1HR_1.56in	10200-N-S	0.055	189.97	0.601	0
71	2263780.185	275763.281			SCS Dimensionless UH	Huff_002YR_1Q_1HR_1.56in	10280-A	0.316	272.427	1.99	0
72	2263754.424	275898.436			SCS Dimensionless UH	Huff_002YR_1Q_1HR_1.56in	10200-M-S	0.222	208.125	1.105	0
74	2263216.408	276281.006			SCS Dimensionless UH	Huff_002YR_1Q_1HR_1.56in	10203-A	0.554	330.241	2.735	0
76	2262999.55	276196.168			SCS Dimensionless UH	Huff_002YR_1Q_1HR_1.56in	10202-A-S1	1.342	374.909	3.35	0
77	2262657.392	276256.575			SCS Dimensionless UH	Huff_002YR_1Q_1HR_1.56in	10200-A-S1	0.269	174.685	7.552	0
78	2262626.555	276197.728			SCS Dimensionless UH	Huff_002YR_1Q_1HR_1.56in	10210-A-S	0.052	85.647	7.572	0
79	2262683.299	275999.361			SCS Dimensionless UH	Huff_002YR_1Q_1HR_1.56in	10210-E	0.189	105.366	0.516	0
80	2262527.505	275945.331			SCS Dimensionless UH	Huff_002YR_1Q_1HR_1.56in	12000-G-S	2.283	510.771	1.144	0
81	2262026.602	276177.997			SCS Dimensionless UH	Huff_002YR_1Q_1HR_1.56in	8667-J4	0.689	256.256	1.706	0
82	2262203.323	276278.43			SCS Dimensionless UH	Huff_002YR_1Q_1HR_1.56in	RainGarden	0.959	264.714	1.868	0
83	2262397.445	276222.223			SCS Dimensionless UH	Huff_002YR_1Q_1HR_1.56in	12000-D-S	0.203	132.258	0.16	0
87	2263279.653	275318.946			SCS Dimensionless UH	Huff_002YR_1Q_1HR_1.56in	10461-B-S	0.262	88.823	3.092	0
88	2263198.906	275361.38			SCS Dimensionless UH	Huff_002YR_1Q_1HR_1.56in	10400-H-S	0.225	200.242	2.465	0
89	2263380.873	275328.799			SCS Dimensionless UH	Huff_002YR_1Q_1HR_1.56in	10461-A-S	0.441	107.714	0.492	0
90	2262784.148	275483.655			SCS Dimensionless UH	Huff_002YR_1Q_1HR_1.56in	10420-A-S	0.028	78.93	0.017	0
91	2262836.892	275537.354			SCS Dimensionless UH	Huff_002YR_1Q_1HR_1.56in	10400-F	0.055	300	2.035	0
93	2262733.374	275393.48			SCS Dimensionless UH	Huff_002YR_1Q_1HR_1.56in	10420-C-S	0.227	192.024	0.09	0
94	2262833.603	275437.031			SCS Dimensionless UH	Huff_002YR_1Q_1HR_1.56in	10421-A-S	0.386	165.806	0.244	0
95	2263173.051	275310.699			SCS Dimensionless UH	Huff_002YR_1Q_1HR_1.56in	10440-A-S	0.054	91.166	1.981	0
96	2263120.827	275359.794			SCS Dimensionless UH	Huff_002YR_1Q_1HR_1.56in	10441-A	0.054	66.847	2.556	0

Table 4A: ARM Subcatchments (continued...)

Name	X-Coordinate	Y-Coordinate	Description	Tag	Runoff Method	Rain Gage	Outlet	Area (ac)	Flow Length (ft)	Slope (%)	Imperv. (%)
97	2262845.672	275305.454			SCS Dimensionless UH	Huff_002YR_1Q_1HR_1.56in	10422-A	0.451	125.156	2.184	0
98	2262720.732	275277.444			SCS Dimensionless UH	Huff_002YR_1Q_1HR_1.56in	10420-D-S	0.602	385.674	1.234	0
99	2262788.679	275203.909			SCS Dimensionless UH	Huff_002YR_1Q_1HR_1.56in	10420-E-S	0.306	477.352	1.456	0
100	2262282.934	275492.475			SCS Dimensionless UH	Huff_002YR_1Q_1HR_1.56in	10410-E	0.346	232.053	13.644	0
101	2262701.195	276030.737			SCS Dimensionless UH	Huff_002YR_1Q_1HR_1.56in	10210-C	0.215	151.341	0.811	0
102	2263207.742	276181.896			SCS Dimensionless UH	Huff_002YR_1Q_1HR_1.56in	10320-C-S	0.16	469.47	0.184	0
103	2263577.981	275722.141			SCS Dimensionless UH	Huff_002YR_1Q_1HR_1.56in	10400-P	0.144	93.758	5.129	0
104	2263686.754	275806.69			SCS Dimensionless UH	Huff_002YR_1Q_1HR_1.56in	10400-S	0.192	120.997	0.328	0
107	2263394.577	275963.562			SCS Dimensionless UH	Huff_002YR_1Q_1HR_1.56in	10300-F-S	0.576	394.991	1.452	0
108	2262952.313	275898.738			SCS Dimensionless UH	Huff_002YR_1Q_1HR_1.56in	10100-D-IC2	1.593	446.72	3.396	0
109	2263432.159	275608.056			SCS Dimensionless UH	Huff_002YR_1Q_1HR_1.56in	10310-B-S	0.944	406.497	2.099	0
110	2263665.05	275690.296			SCS Dimensionless UH	Huff_002YR_1Q_1HR_1.56in	10480-B	0.279	255.379	1.253	0
111	2263398.626	275042.112			SCS Dimensionless UH	Huff_002YR_1Q_1HR_1.56in	J1-IC	0.951	273.593	3.11	0
112	2263461.479	275244.034			SCS Dimensionless UH	Huff_002YR_1Q_1HR_1.56in	10460-F-S	0.429	204.784	0.289	0
113	2263539.307	275530.926			SCS Dimensionless UH	Huff_002YR_1Q_1HR_1.56in	10400-L-S	0.047	130.411	3.221	0
114	2262647.566	275564.309			SCS Dimensionless UH	Huff_002YR_1Q_1HR_1.56in	10410-B	0.109	247.118	3.822	0
115	2262561.739	275513.909			SCS Dimensionless UH	Huff_002YR_1Q_1HR_1.56in	10410-C	0.865	217.074	2.385	0
118	2262737.061	276193.902			SCS Dimensionless UH	Huff_002YR_1Q_1HR_1.56in	10211-B	0.129	94.764	7.646	0
119	2262890.82	276469.617			SCS Dimensionless UH	Huff_002YR_1Q_1HR_1.56in	14000-D	2.064	683.195	19.363	0
120	2263184.441	276849.474			SCS Dimensionless UH	Huff_002YR_1Q_1HR_1.56in	14000-B	2.226	342	3.83	0
121	2263306.295	276485.911			SCS Dimensionless UH	Huff_002YR_1Q_1HR_1.56in	14000-F	3.723	468.233	34.007	0
122	2263191.735	273806.551			SCS Dimensionless UH	Huff_002YR_1Q_1HR_1.56in	J10	3.668	631.508	5.534	0
123	2262935.659	274391.188			SCS Dimensionless UH	Huff_002YR_1Q_1HR_1.56in	J6	3.946	1267.219	9.844	0
124	2262639.532	274731.317			SCS Dimensionless UH	Huff_002YR_1Q_1HR_1.56in	10120-H-S	5.045	958.781	14.035	0
125	2262528.325	275045.362			SCS Dimensionless UH	Huff_002YR_1Q_1HR_1.56in	10120-H-S	1.317	345.59	21.903	0
126	2262420.763	274937.413			SCS Dimensionless UH	Huff_002YR_1Q_1HR_1.56in	10120-G	4.032	1260.992	12.064	0

Table 4A: ARM Subcatchments (continued...)

Name	X-Coordinate	Y-Coordinate	Description	Tag	Runoff Method	Rain Gage	Outlet	Area (ac)	Flow Length (ft)	Slope (%)	Imperv. (%)
127	2262847.588	274557.827			SCS Dimensionless UH	Huff_002YR_1Q_1HR_1.56in	J5	2.632	1016.101	9.316	0
128	2263051.802	273991.324			SCS Dimensionless UH	Huff_002YR_1Q_1HR_1.56in	J179	2.565	597.837	14.066	0
129	2263202.661	274536.973			SCS Dimensionless UH	Huff_002YR_1Q_1HR_1.56in	J7	4.568	884.884	10.952	0
130	2263588.997	274576.227			SCS Dimensionless UH	Huff_002YR_1Q_1HR_1.56in	J15-S	10.887	765.848	12.171	0
131	2263100.781	276629.25			SCS Dimensionless UH	Huff_002YR_1Q_1HR_1.56in	14000-C	0.614	723	0.349	0
3	2263475.65	276280.149			SCS Dimensionless UH	Huff_002YR_1Q_1HR_1.56in	10250-A-S	0.426	202.771	1.034	0
8	2263512.302	276165.378			SCS Dimensionless UH	Huff_002YR_1Q_1HR_1.56in	10250-C-S	0.231	162.331	2.052	0
86_4	2263316.734	275748.45			SCS Dimensionless UH	Huff_002YR_1Q_1HR_1.56in	10310-B	0.184	647.431	1.469	0
61_1	2263291.374	275817.878			SCS Dimensionless UH	Huff_002YR_1Q_1HR_1.56in	10300-G-S	0.021	602.845	1.422	0
61_2	2263532.504	275933.607			SCS Dimensionless UH	Huff_002YR_1Q_1HR_1.56in	Curb_Cut-S	0.562	602.845	1.422	0
58_1	2262858.105	275655.313			SCS Dimensionless UH	Huff_002YR_1Q_1HR_1.56in	10400-C1	1.742	410.108	0.601	0
58_2	2262779.425	275785.881			SCS Dimensionless UH	Huff_002YR_1Q_1HR_1.56in	10100-B-IC	1.178	410.108	0.601	0
23_1	2263299.649	275636.541			SCS Dimensionless UH	Huff_002YR_1Q_1HR_1.56in	10310-A-S	0.043	260.484	1.37	0
17_1	2263646.699	275206.046			SCS Dimensionless UH	Huff_002YR_1Q_1HR_1.56in	EX-CI21199-S	0.088	673.716	2.158	0
17_2	2263313.212	275227.619			SCS Dimensionless UH	Huff_002YR_1Q_1HR_1.56in	10440-B-S	0.144	673.716	2.158	0
75	2262989.169	275439.128			SCS Dimensionless UH	Huff_002YR_1Q_1HR_1.56in	10400-G-S	0.513	253.127	0.839	0
29_2	2263736.957	276166.755			SCS Dimensionless UH	Huff_002YR_1Q_1HR_1.56in	10200-K-S	0.252	203.61	1.528	0
37_2	2263596.491	276231.005			SCS Dimensionless UH	Huff_002YR_1Q_1HR_1.56in	10260-A-S	0.359	136.903	2.716	0
86	2263726.435	276282.77			SCS Dimensionless UH	Huff_002YR_1Q_1HR_1.56in	10200-J-S	0.145	188.672	1.794	0
73_1	2263617.188	276319.908			SCS Dimensionless UH	Huff_002YR_1Q_1HR_1.56in	10200-G-S	0.026	193.403	0.501	0
73_2	2263715.678	276323.306			SCS Dimensionless UH	Huff_002YR_1Q_1HR_1.56in	10200-H-S	0.029	193.403	0.501	0
2_1	2263096.103	275221.038			SCS Dimensionless UH	Huff_002YR_1Q_1HR_1.56in	10440-C	0.791	349.054	6.413	0
2_2	2263099.601	275132.158			SCS Dimensionless UH	Huff_002YR_1Q_1HR_1.56in	J39	0.418	349.054	27.51	0
106	2263117.871	275905.09			SCS Dimensionless UH	Huff_002YR_1Q_1HR_1.56in	10321-A	0.079	50	1.048	0
23_2	2263091.803	275856.556			SCS Dimensionless UH	Huff_002YR_1Q_1HR_1.56in	10300-D-S	0.046	140	1.37	0
117_3	2263241.429	276100.328			SCS Dimensionless UH	Huff_002YR_1Q_1HR_1.56in	10320-B-S	1.006	622.074	0.845	0

Table 4A: ARM Subcatchments (continued...)

Name	X-Coordinate	Y-Coordinate	Description	Tag	Runoff Method	Rain Gage	Outlet	Area (ac)	Flow Length (ft)	Slope (%)	Imperv. (%)
117	2263196.19	275817.149			SCS Dimensionless UH	Huff_002YR_1Q_1HR_1.56in	10310-B	0.572	267.315	1.36	0

Table 4B: ARM Subcatchments

Name	Dstore Imperv (in)	Dstore Perv (in)	Max. Infil. Rate (in/hr)	Min. Infil. Rate (in/hr)	Decay Constant (1/hr)	Drying Time (days)	Max. Volume (in)	Suction Head (in)	Conductivity (in/hr)	Initial Deficit (frac.)	TC Method	Time of Concentration (min)	Loss Method	IA Method
1	0.05	0.05	3	0.5	4	7	0	3.5	0.5	0.25	SCS	3.541	SCS CN	0.2 S
4	0.05	0.05	0	0	0	0	0	3.5	0.5	0.25	SCS	10.6	SCS CN	0.2 S
5	0.05	0.05	0	0	0	0	0	3.5	0.5	0.25	User entered value	8.22	SCS CN	0.2 S
6	0.05	0.05	0	0	0	0	0	3.5	0.5	0.25	User entered value	1.568	SCS CN	0.2 S
7	0.05	0.05	0	0	0	0	0	3.5	0.5	0.25	SCS	4.999	SCS CN	0.2 S
9	0.05	0.05	0	0	0	0	0	3.5	0.5	0.25	SCS	2.47	SCS CN	0.2 S
10	0.05	0.05	0	0	0	0	0	3.5	0.5	0.25	SCS	11.467	SCS CN	0.2 S
11	0.05	0.05	0	0	0	0	0	3.5	0.5	0.25	User entered value	6	SCS CN	0.2 S
12	0.05	0.05	0	0	0	0	0	3.5	0.5	0.25	User entered value	11.69	SCS CN	0.2 S
13	0.05	0.05	0	0	0	0	0	3.5	0.5	0.25	SCS	3.262	SCS CN	0.2 S
14	0.05	0.05	0	0	0	0	0	3.5	0.5	0.25	SCS	5.349	SCS CN	0.2 S
15	0.05	0.05	0	0	0	0	0	3.5	0.5	0.25	SCS	5.757	SCS CN	0.2 S
16	0.05	0.05	0	0	0	0	0	3.5	0.5	0.25	SCS	3.636	SCS CN	0.2 S
18	0.05	0.05	0	0	0	0	0	3.5	0.5	0.25	SCS	3.095	SCS CN	0.2 S
19	0.05	0.05	0	0	0	0	0	3.5	0.5	0.25	SCS	6.32	SCS CN	0.2 S
20	0.05	0.05	0	0	0	0	0	3.5	0.5	0.25	User entered value	8.93	SCS CN	0.2 S
21	0.05	0.05	0	0	0	0	0	3.5	0.5	0.25	User entered value	9.76	SCS CN	0.2 S
22	0.05	0.05	0	0	0	0	0	3.5	0.5	0.25	SCS	3.664	SCS CN	0.2 S
24	0.05	0.05	0	0	0	0	0	3.5	0.5	0.25	SCS	3.085	SCS CN	0.2 S

Table 4B: ARM Subcatchments (continued...)

Name	Dstore Imperv (in)	Dstore Perv (in)	Max. Infil. Rate (in/hr)	Min. Infil. Rate (in/hr)	Decay Constant (1/hr)	Drying Time (days)	Max. Volume (in)	Suction Head (in)	Conductivity (in/hr)	Initial Deficit (frac.)	TC Method	Time of Concentration (min)	Loss Method	IA Method
26	0.05	0.05	0	0	0	0	0	3.5	0.5	0.25	SCS	7.097	SCS CN	0.2 S
28	0.05	0.05	0	0	0	0	0	3.5	0.5	0.25	SCS	10.003	SCS CN	0.2 S
30	0.05	0.05	0	0	0	0	0	3.5	0.5	0.25	User entered value	9.48	SCS CN	0.2 S
31	0.05	0.05	0	0	0	0	0	3.5	0.5	0.25	SCS	6.653	SCS CN	0.2 S
32	0.05	0.05	0	0	0	0	0	3.5	0.5	0.25	SCS	7.503	SCS CN	0.2 S
33	0.05	0.05	0	0	0	0	0	3.5	0.5	0.25	SCS	22.183	SCS CN	0.2 S
34	0.05	0.05	0	0	0	0	0	3.5	0.5	0.25	SCS	11.921	SCS CN	0.2 S
36	0.05	0.05	0	0	0	0	0	3.5	0.5	0.25	SCS	15.146	SCS CN	0.2 S
38	0.05	0.05	0	0	0	0	0	3.5	0.5	0.25	User entered value	2.233	SCS CN	0.2 S
39	0.05	0.05	0	0	0	0	0	3.5	0.5	0.25	User entered value	10.4	SCS CN	0.2 S
40	0.05	0.05	0	0	0	0	0	3.5	0.5	0.25	SCS	1.913	SCS CN	0.2 S
41	0.05	0.05	0	0	0	0	0	3.5	0.5	0.25	SCS	21.429	SCS CN	0.2 S
42	0.05	0.05	0	0	0	0	0	3.5	0.5	0.25	SCS	1.236	SCS CN	0.2 S
43	0.05	0.05	0	0	0	0	0	3.5	0.5	0.25	SCS	1.775	SCS CN	0.2 S
44	0.05	0.05	0	0	0	0	0	3.5	0.5	0.25	SCS	6.804	SCS CN	0.2 S
45	0.05	0.05	0	0	0	0	0	3.5	0.5	0.25	SCS	15.578	SCS CN	0.2 S
46	0.05	0.05	0	0	0	0	0	3.5	0.5	0.25	User entered value	6	SCS CN	0.2 S
47	0.05	0.05	0	0	0	0	0	3.5	0.5	0.25	SCS	9.586	SCS CN	0.2 S
48	0.05	0.05	0	0	0	0	0	3.5	0.5	0.25	SCS	9.662	SCS CN	0.2 S
49	0.05	0.05	0	0	0	0	0	3.5	0.5	0.25	SCS	5.379	SCS CN	0.2 S
50	0.05	0.05	0	0	0	0	0	3.5	0.5	0.25	SCS	36.09	SCS CN	0.2 S
51	0.05	0.05	0	0	0	0	0	3.5	0.5	0.25	SCS	2.403	SCS CN	0.2 S
52	0.05	0.05	0	0	0	0	0	3.5	0.5	0.25	SCS	4.663	SCS CN	0.2 S
53	0.05	0.05	0	0	0	0	0	3.5	0.5	0.25	SCS	6.525	SCS CN	0.2 S
54	0.05	0.05	0	0	0	0	0	3.5	0.5	0.25	SCS	6.05	SCS CN	0.2 S
55	0.05	0.05	0	0	0	0	0	3.5	0.5	0.25	SCS	5.925	SCS CN	0.2 S

Table 4B: ARM Subcatchments (continued...)

Name	Dstore Imperv (in)	Dstore Perv (in)	Max. Infil. Rate (in/hr)	Min. Infil. Rate (in/hr)	Decay Constant (1/hr)	Drying Time (days)	Max. Volume (in)	Suction Head (in)	Conductivity (in/hr)	Initial Deficit (frac.)	TC Method	Time of Concentration (min)	Loss Method	IA Method
56	0.05	0.05	0	0	0	0	0	3.5	0.5	0.25	SCS	1.705	SCS CN	0.2 S
57	0.05	0.05	0	0	0	0	0	3.5	0.5	0.25	SCS	3.668	SCS CN	0.2 S
59	0.05	0.05	0	0	0	0	0	3.5	0.5	0.25	SCS	4.922	SCS CN	0.2 S
60	0.05	0.05	0	0	0	0	0	3.5	0.5	0.25	SCS	3.398	SCS CN	0.2 S
62	0.05	0.05	0	0	0	0	0	3.5	0.5	0.25	SCS	2.11	SCS CN	0.2 S
63	0.05	0.05	0	0	0	0	0	3.5	0.5	0.25	SCS	0.653	SCS CN	0.2 S
64	0.05	0.05	0	0	0	0	0	3.5	0.5	0.25	SCS	3.436	SCS CN	0.2 S
65	0.05	0.05	0	0	0	0	0	3.5	0.5	0.25	SCS	2.108	SCS CN	0.2 S
66	0.05	0.05	0	0	0	0	0	3.5	0.5	0.25	SCS	3.699	SCS CN	0.2 S
67	0.05	0.05	0	0	0	0	0	3.5	0.5	0.25	SCS	2.633	SCS CN	0.2 S
68	0.05	0.05	0	0	0	0	0	3.5	0.5	0.25	SCS	2.047	SCS CN	0.2 S
69	0.05	0.05	0	0	0	0	0	3.5	0.5	0.25	SCS	4.26	SCS CN	0.2 S
70	0.05	0.05	0	0	0	0	0	3.5	0.5	0.25	SCS	5.153	SCS CN	0.2 S
71	0.05	0.05	0	0	0	0	0	3.5	0.5	0.25	SCS	8.162	SCS CN	0.2 S
72	0.05	0.05	0	0	0	0	0	3.5	0.5	0.25	SCS	7.496	SCS CN	0.2 S
74	0.05	0.05	0	0	0	0	0	3.5	0.5	0.25	SCS	7.367	SCS CN	0.2 S
76	0.05	0.05	0	0	0	0	0	3.5	0.5	0.25	SCS	7.338	SCS CN	0.2 S
77	0.05	0.05	0	0	0	0	0	3.5	0.5	0.25	SCS	2.285	SCS CN	0.2 S
78	0.05	0.05	0	0	0	0	0	3.5	0.5	0.25	SCS	1.26	SCS CN	0.2 S
79	0.05	0.05	0	0	0	0	0	3.5	0.5	0.25	SCS	3.722	SCS CN	0.2 S
80	0.05	0.05	0	0	0	0	0	3.5	0.5	0.25	SCS	16.446	SCS CN	0.2 S
81	0.05	0.05	0	0	0	0	0	3.5	0.5	0.25	SCS	8.345	SCS CN	0.2 S
82	0.05	0.05	0	0	0	0	0	3.5	0.5	0.25	SCS	7.419	SCS CN	0.2 S
83	0.05	0.05	0	0	0	0	0	3.5	0.5	0.25	SCS	12.561	SCS CN	0.2 S
87	0.05	0.05	0	0	0	0	0	3.5	0.5	0.25	SCS	1.276	SCS CN	0.2 S
88	0.05	0.05	0	0	0	0	0	3.5	0.5	0.25	SCS	4.477	SCS CN	0.2 S

Table 4B: ARM Subcatchments (continued...)

Name	Dstore Imperv (in)	Dstore Perv (in)	Max. Infil. Rate (in/hr)	Min. Infil. Rate (in/hr)	Decay Constant (1/hr)	Drying Time (days)	Max. Volume (in)	Suction Head (in)	Conductivity (in/hr)	Initial Deficit (frac.)	TC Method	Time of Concentration (min)	Loss Method	IA Method
89	0.05	0.05	0	0	0	0	0	3.5	0.5	0.25	SCS	3.744	SCS CN	0.2 S
90	0.05	0.05	0	0	0	0	0	3.5	0.5	0.25	SCS	16.954	SCS CN	0.2 S
91	0.05	0.05	0	0	0	0	0	3.5	0.5	0.25	SCS	4.395	SCS CN	0.2 S
93	0.05	0.05	0	0	0	0	0	3.5	0.5	0.25	SCS	27.905	SCS CN	0.2 S
94	0.05	0.05	0	0	0	0	0	3.5	0.5	0.25	SCS	15.075	SCS CN	0.2 S
95	0.05	0.05	0	0	0	0	0	3.5	0.5	0.25	SCS	2.392	SCS CN	0.2 S
96	0.05	0.05	0	0	0	0	0	3.5	0.5	0.25	SCS	2.367	SCS CN	0.2 S
97	0.05	0.05	0	0	0	0	0	3.5	0.5	0.25	SCS	1.994	SCS CN	0.2 S
98	0.05	0.05	0	0	0	0	0	3.5	0.5	0.25	SCS	11.355	SCS CN	0.2 S
99	0.05	0.05	0	0	0	0	0	3.5	0.5	0.25	SCS	8.773	SCS CN	0.2 S
100	0.05	0.05	0	0	0	0	0	3.5	0.5	0.25	User entered value	9.07	SCS CN	0.2 S
101	0.05	0.05	0	0	0	0	0	3.5	0.5	0.25	SCS	4.284	SCS CN	0.2 S
102	0.05	0.05	0	0	0	0	0	3.5	0.5	0.25	SCS	19.428	SCS CN	0.2 S
103	0.05	0.05	0	0	0	0	0	3.5	0.5	0.25	SCS	2.168	SCS CN	0.2 S
104	0.05	0.05	0	0	0	0	0	3.5	0.5	0.25	SCS	10.64	SCS CN	0.2 S
107	0.05	0.05	0	0	0	0	0	3.5	0.5	0.25	SCS	9.218	SCS CN	0.2 S
108	0.05	0.05	0	0	0	0	0	3.5	0.5	0.25	SCS	8.506	SCS CN	0.2 S
109	0.05	0.05	0	0	0	0	0	3.5	0.5	0.25	SCS	10.67	SCS CN	0.2 S
110	0.05	0.05	0	0	0	0	0	3.5	0.5	0.25	SCS	7.824	SCS CN	0.2 S
111	0.05	0.05	0	0	0	0	0	3.5	0.5	0.25	SCS	6.767	SCS CN	0.2 S
112	0.05	0.05	0	0	0	0	0	3.5	0.5	0.25	SCS	15.852	SCS CN	0.2 S
113	0.05	0.05	0	0	0	0	0	3.5	0.5	0.25	SCS	1.695	SCS CN	0.2 S
114	0.05	0.05	0	0	0	0	0	3.5	0.5	0.25	SCS	5.262	SCS CN	0.2 S
115	0.05	0.05	0	0	0	0	0	3.5	0.5	0.25	SCS	4.725	SCS CN	0.2 S
118	0.05	0.05	0	0	0	0	0	3.5	0.5	0.25	SCS	1.855	SCS CN	0.2 S
119	0.05	0.05	0	0	0	0	0	3.5	0.5	0.25	User entered value	8.6	SCS CN	0.2 S

Table 4B: ARM Subcatchments (continued...)

Name	Dstore Imperv (in)	Dstore Perv (in)	Max. Infil. Rate (in/hr)	Min. Infil. Rate (in/hr)	Decay Constant (1/hr)	Drying Time (days)	Max. Volume (in)	Suction Head (in)	Conductivity (in/hr)	Initial Deficit (frac.)	TC Method	Time of Concentration (min)	Loss Method	IA Method
120	0.05	0.05	0	0	0	0	0	3.5	0.5	0.25	User entered value	6	SCS CN	0.2 S
121	0.05	0.05	0	0	0	0	0	3.5	0.5	0.25	User entered value	6.5	SCS CN	0.2 S
122	0.05	0.05	0	0	0	0	0	3.5	0.5	0.25	User entered value	6	SCS CN	0.2 S
123	0.05	0.05	0	0	0	0	0	3.5	0.5	0.25	User entered value	10.09	SCS CN	0.2 S
124	0.05	0.05	0	0	0	0	0	3.5	0.5	0.25	User entered value	13.27	SCS CN	0.2 S
125	0.05	0.05	0	0	0	0	0	3.5	0.5	0.25	User entered value	10.08	SCS CN	0.2 S
126	0.05	0.05	0	0	0	0	0	3.5	0.5	0.25	User entered value	15.92	SCS CN	0.2 S
127	0.05	0.05	0	0	0	0	0	3.5	0.5	0.25	User entered value	9.88	SCS CN	0.2 S
128	0.05	0.05	0	0	0	0	0	3.5	0.5	0.25	User entered value	9.27	SCS CN	0.2 S
129	0.05	0.05	0	0	0	0	0	3.5	0.5	0.25	User entered value	9.65	SCS CN	0.2 S
130	0.05	0.05	0	0	0	0	0	3.5	0.5	0.25	User entered value	13.06	SCS CN	0.2 S
131	0.05	0.05	0	0	0	0	0	3.5	0.5	0.25	User entered value	6	SCS CN	0.2 S
3	0.05	0.05	0	0	0	0	0	3.5	0.5	0.25	SCS	5.562	SCS CN	0.2 S
8	0.05	0.05	0	0	0	0	0	3.5	0.5	0.25	SCS	3.278	SCS CN	0.2 S
86_4	0.05	0.05	0	0	0	0	0	3.5	0.5	0.25	SCS	17.76	SCS CN	0.2 S
61_1	0.05	0.05	0	0	0	0	0	3.5	0.5	0.25	SCS	13.672	SCS CN	0.2 S
61_2	0.05	0.05	0	0	0	0	0	3.5	0.5	0.25	SCS	13.672	SCS CN	0.2 S
58_1	0.05	0.05	0	0	0	0	0	3.5	0.5	0.25	SCS	19.797	SCS CN	0.2 S
58_2	0.05	0.05	0	0	0	0	0	3.5	0.5	0.25	SCS	19.797	SCS CN	0.2 S
23_1	0.05	0.05	0	0	0	0	0	3.5	0.5	0.25	SCS	5.807	SCS CN	0.2 S
17_1	0.05	0.05	0	0	0	0	0	3.5	0.5	0.25	SCS	8.193	SCS CN	0.2 S
17_2	0.05	0.05	0	0	0	0	0	3.5	0.5	0.25	SCS	8.193	SCS CN	0.2 S
75	0.05	0.05	0	0	0	0	0	3.5	0.5	0.25	SCS	10.865	SCS CN	0.2 S
29_2	0.05	0.05	0	0	0	0	0	3.5	0.5	0.25	SCS	6.707	SCS CN	0.2 S
37_2	0.05	0.05	0	0	0	0	0	3.5	0.5	0.25	SCS	2.95	SCS CN	0.2 S
86	0.05	0.05	0	0	0	0	0	3.5	0.5	0.25	SCS	5.565	SCS CN	0.2 S

Table 4B: ARM Subcatchments (continued...)

Name	Dstore Imperv (in)	Dstore Perv (in)	Max. Infil. Rate (in/hr)	Min. Infil. Rate (in/hr)	Decay Constant (1/hr)	Drying Time (days)	Max. Volume (in)	Suction Head (in)	Conductivity (in/hr)	Initial Deficit (frac.)	TC Method	Time of Concentration (min)	Loss Method	IA Method
73_1	0.05	0.05	0	0	0	0	0	3.5	0.5	0.25	SCS	5.732	SCS CN	0.2 S
73_2	0.05	0.05	0	0	0	0	0	3.5	0.5	0.25	SCS	5.732	SCS CN	0.2 S
2_1	0.05	0.05	3	0.5	4	7	0	3.5	0.5	0.25	SCS	3.239	SCS CN	0.2 S
2_2	0.05	0.05	3	0.5	4	7	0	3.5	0.5	0.25	SCS	2.617	SCS CN	0.2 S
106	0.05	0.05	0	0	0	0	0	3.5	0.5	0.25	SCS	1.339	SCS CN	0.2 S
23_2	0.05	0.05	0	0	0	0	0	3.5	0.5	0.25	SCS	2.668	SCS CN	0.2 S
117_3	0.05	0.05	0	0	0	0	0	3.5	0.5	0.25	SCS	18.904	SCS CN	0.2 S
117	0.05	0.05	0	0	0	0	0	3.5	0.5	0.25	SCS	5.853	SCS CN	0.2 S

Table 4C: ARM Subcatchments

Name	IA Value (in)	SCS Curve Number	Peak Rate Factor	Initial Loss (in)	Const. Rate (in/hr)	Runoff Coef.	Lag Time (min)	Peak Coef.	# Reservoirs	Storage Coef. (h)	IDF Curve	Return Period (y)	Steady Duration (mins)	Peak Rainfall (in/hr)	Roughness
1	0.479	80.689	Standard (483.4)	0	0	0.6	30	0.6	3	0.4		5	60	0	0.1
4	0.482	80.579	Standard (483.4)	0	0	0.6	30	0.6	3	0.4		5	60	0	0.1
5	0.307	86.698	Standard (483.4)	0	0	0.6	30	0.6	3	0.4		5	60	0	0.1
6	0.579	77.536	Standard (483.4)	0	0	0.6	30	0.6	3	0.4		5	60	0	0.1
7	0.051	97.504	Standard (483.4)	0	0	0.6	30	0.6	3	0.4		5	60	0	0.1
9	0.068	96.713	Standard (483.4)	0	0	0.6	30	0.6	3	0.4		5	60	0	0.1
10	0.365	84.549	Standard (483.4)	0	0	0.6	30	0.6	3	0.4		5	60	0	0.1
11	0.059	97.12	Standard (483.4)	0	0	0.6	30	0.6	3	0.4		5	60	0	0.1
12	0.412	82.906	Standard (483.4)	0	0	0.6	30	0.6	3	0.4		5	60	0	0.1
13	0.283	87.599	Standard (483.4)	0	0	0.6	30	0.6	3	0.4		5	60	0	0.1
14	0.42	82.648	Standard (483.4)	0	0	0.6	30	0.6	3	0.4		5	60	0	0.1
15	0.565	77.961	Standard (483.4)	0	0	0.6	30	0.6	3	0.4		5	60	0	0.1

Table 4C: ARM Subcatchments (continued...)

Name	IA Value (in)	SCS Curve Number	Peak Rate Factor	Initial Loss (in)	Const. Rate (in/hr)	Runoff Coef.	Lag Time (min)	Peak Coef.	# Reservoirs	Storage Coef. (h)	IDF Curve	Return Period (y)	Steady Duration (mins)	Peak Rainfall (in/hr)	Roughness
16	0.254	88.735	Standard (483.4)	0	0	0.6	30	0.6	3	0.4		5	60	0	0.1
18	0.05	97.556	Standard (483.4)	0	0	0.6	30	0.6	3	0.4		5	60	0	0.1
19	0.043	97.878	Standard (483.4)	0	0	0.6	30	0.6	3	0.4		5	60	0	0.1
20	0.325	86.012	Standard (483.4)	0	0	0.6	30	0.6	3	0.4		5	60	0	0.1
21	0.4	83.319	Standard (483.4)	0	0	0.6	30	0.6	3	0.4		5	60	0	0.1
22	0.28	87.729	Standard (483.4)	0	0	0.6	30	0.6	3	0.4		5	60	0	0.1
24	0.042	97.926	Standard (483.4)	0	0	0.6	30	0.6	3	0.4		5	60	0	0.1
26	0.282	87.636	Standard (483.4)	0	0	0.6	30	0.6	3	0.4		5	60	0	0.1
28	0.397	83.444	Standard (483.4)	0	0	0.6	30	0.6	3	0.4		5	60	0	0.1
30	0.271	88.051	Standard (483.4)	0	0	0.6	30	0.6	3	0.4		5	60	0	0.1
31	0.458	81.368	Standard (483.4)	0	0	0.6	30	0.6	3	0.4		5	60	0	0.1
32	0.519	79.383	Standard (483.4)	0	0	0.6	30	0.6	3	0.4		5	60	0	0.1
33	0.172	92.095	Standard (483.4)	0	0	0.6	30	0.6	3	0.4		5	60	0	0.1
34	0.406	83.142	Standard (483.4)	0	0	0.6	30	0.6	3	0.4		5	60	0	0.1
36	0.323	86.091	Standard (483.4)	0	0	0.6	30	0.6	3	0.4		5	60	0	0.1
38	0.283	87.6	Standard (483.4)	0	0	0.6	30	0.6	3	0.4		5	60	0	0.1
39	0.467	81.082	Standard (483.4)	0	0	0.6	30	0.6	3	0.4		5	60	0	0.1
40	0.265	88.286	Standard (483.4)	0	0	0.6	30	0.6	3	0.4		5	60	0	0.1
41	0.424	82.512	Standard (483.4)	0	0	0.6	30	0.6	3	0.4		5	60	0	0.1
42	0.041	98	Standard (483.4)	0	0	0.6	30	0.6	3	0.4		5	60	0	0.1
43	0.201	90.87	Standard (483.4)	0	0	0.6	30	0.6	3	0.4		5	60	0	0.1
44	0.294	87.195	Standard (483.4)	0	0	0.6	30	0.6	3	0.4		5	60	0	0.1
45	0.494	80.208	Standard (483.4)	0	0	0.6	30	0.6	3	0.4		5	60	0	0.1
46	0.068	96.69	Standard (483.4)	0	0	0.6	30	0.6	3	0.4		5	60	0	0.1
47	0.444	81.843	Standard (483.4)	0	0	0.6	30	0.6	3	0.4		5	60	0	0.1
48	0.099	95.301	Standard (483.4)	0	0	0.6	30	0.6	3	0.4		5	60	0	0.1

Table 4C: ARM Subcatchments (continued...)

Name	IA Value (in)	SCS Curve Number	Peak Rate Factor	Initial Loss (in)	Const. Rate (in/hr)	Runoff Coef.	Lag Time (min)	Peak Coef.	# Reservoirs	Storage Coef. (h)	IDF Curve	Return Period (y)	Steady Duration (mins)	Peak Rainfall (in/hr)	Roughness
49	0.087	95.837	Standard (483.4)	0	0	0.6	30	0.6	3	0.4		5	60	0	0.1
50	0.116	94.517	Standard (483.4)	0	0	0.6	30	0.6	3	0.4		5	60	0	0.1
51	0.31	86.575	Standard (483.4)	0	0	0.6	30	0.6	3	0.4		5	60	0	0.1
52	0.367	84.501	Standard (483.4)	0	0	0.6	30	0.6	3	0.4		5	60	0	0.1
53	0.568	77.893	Standard (483.4)	0	0	0.6	30	0.6	3	0.4		5	60	0	0.1
54	0.337	85.592	Standard (483.4)	0	0	0.6	30	0.6	3	0.4		5	60	0	0.1
55	0.443	81.88	Standard (483.4)	0	0	0.6	30	0.6	3	0.4		5	60	0	0.1
56	0.042	97.934	Standard (483.4)	0	0	0.6	30	0.6	3	0.4		5	60	0	0.1
57	0.155	92.795	Standard (483.4)	0	0	0.6	30	0.6	3	0.4		5	60	0	0.1
59	0.041	98	Standard (483.4)	0	0	0.6	30	0.6	3	0.4		5	60	0	0.1
60	0.041	97.979	Standard (483.4)	0	0	0.6	30	0.6	3	0.4		5	60	0	0.1
62	0.293	87.228	Standard (483.4)	0	0	0.6	30	0.6	3	0.4		5	60	0	0.1
63	0.044	97.858	Standard (483.4)	0	0	0.6	30	0.6	3	0.4		5	60	0	0.1
64	0.041	98	Standard (483.4)	0	0	0.6	30	0.6	3	0.4		5	60	0	0.1
65	0.042	97.947	Standard (483.4)	0	0	0.6	30	0.6	3	0.4		5	60	0	0.1
66	0.165	92.394	Standard (483.4)	0	0	0.6	30	0.6	3	0.4		5	60	0	0.1
67	0.169	92.229	Standard (483.4)	0	0	0.6	30	0.6	3	0.4		5	60	0	0.1
68	0.059	97.12	Standard (483.4)	0	0	0.6	30	0.6	3	0.4		5	60	0	0.1
69	0.481	80.597	Standard (483.4)	0	0	0.6	30	0.6	3	0.4		5	60	0	0.1
70	0.042	97.967	Standard (483.4)	0	0	0.6	30	0.6	3	0.4		5	60	0	0.1
71	0.526	79.187	Standard (483.4)	0	0	0.6	30	0.6	3	0.4		5	60	0	0.1
72	0.374	84.241	Standard (483.4)	0	0	0.6	30	0.6	3	0.4		5	60	0	0.1
74	0.431	82.258	Standard (483.4)	0	0	0.6	30	0.6	3	0.4		5	60	0	0.1
76	0.428	82.383	Standard (483.4)	0	0	0.6	30	0.6	3	0.4		5	60	0	0.1
77	0.307	86.692	Standard (483.4)	0	0	0.6	30	0.6	3	0.4		5	60	0	0.1
78	0.29	87.325	Standard (483.4)	0	0	0.6	30	0.6	3	0.4		5	60	0	0.1

Table 4C: ARM Subcatchments (continued...)

Name	IA Value (in)	SCS Curve Number	Peak Rate Factor	Initial Loss (in)	Const. Rate (in/hr)	Runoff Coef.	Lag Time (min)	Peak Coef.	# Reservoirs	Storage Coef. (h)	IDF Curve	Return Period (y)	Steady Duration (mins)	Peak Rainfall (in/hr)	Roughness
79	0.067	96.766	Standard (483.4)	0	0	0.6	30	0.6	3	0.4		5	60	0	0.1
80	0.448	81.695	Standard (483.4)	0	0	0.6	30	0.6	3	0.4		5	60	0	0.1
81	0.52	79.379	Standard (483.4)	0	0	0.6	30	0.6	3	0.4		5	60	0	0.1
82	0.425	82.461	Standard (483.4)	0	0	0.6	30	0.6	3	0.4		5	60	0	0.1
83	0.307	86.697	Standard (483.4)	0	0	0.6	30	0.6	3	0.4		5	60	0	0.1
87	0.052	97.446	Standard (483.4)	0	0	0.6	30	0.6	3	0.4		5	60	0	0.1
88	0.31	86.593	Standard (483.4)	0	0	0.6	30	0.6	3	0.4		5	60	0	0.1
89	0.054	97.385	Standard (483.4)	0	0	0.6	30	0.6	3	0.4		5	60	0	0.1
90	0.083	96.019	Standard (483.4)	0	0	0.6	30	0.6	3	0.4		5	60	0	0.1
91	0.073	96.489	Standard (483.4)	0	0	0.6	30	0.6	3	0.4		5	60	0	0.1
93	0.486	80.438	Standard (483.4)	0	0	0.6	30	0.6	3	0.4		5	60	0	0.1
94	0.487	80.428	Standard (483.4)	0	0	0.6	30	0.6	3	0.4		5	60	0	0.1
95	0.238	89.382	Standard (483.4)	0	0	0.6	30	0.6	3	0.4		5	60	0	0.1
96	0.537	78.821	Standard (483.4)	0	0	0.6	30	0.6	3	0.4		5	60	0	0.1
97	0.052	97.473	Standard (483.4)	0	0	0.6	30	0.6	3	0.4		5	60	0	0.1
98	0.356	84.904	Standard (483.4)	0	0	0.6	30	0.6	3	0.4		5	60	0	0.1
99	0.139	93.503	Standard (483.4)	0	0	0.6	30	0.6	3	0.4		5	60	0	0.1
100	0.365	84.565	Standard (483.4)	0	0	0.6	30	0.6	3	0.4		5	60	0	0.1
101	0.098	95.334	Standard (483.4)	0	0	0.6	30	0.6	3	0.4		5	60	0	0.1
102	0.045	97.776	Standard (483.4)	0	0	0.6	30	0.6	3	0.4		5	60	0	0.1
103	0.527	79.151	Standard (483.4)	0	0	0.6	30	0.6	3	0.4		5	60	0	0.1
104	0.539	78.764	Standard (483.4)	0	0	0.6	30	0.6	3	0.4		5	60	0	0.1
107	0.251	88.856	Standard (483.4)	0	0	0.6	30	0.6	3	0.4		5	60	0	0.1
108	0.441	81.945	Standard (483.4)	0	0	0.6	30	0.6	3	0.4		5	60	0	0.1
109	0.5	80.012	Standard (483.4)	0	0	0.6	30	0.6	3	0.4		5	60	0	0.1
110	0.329	85.892	Standard (483.4)	0	0	0.6	30	0.6	3	0.4		5	60	0	0.1

Table 4C: ARM Subcatchments (continued...)

Name	IA Value (in)	SCS Curve Number	Peak Rate Factor	Initial Loss (in)	Const. Rate (in/hr)	Runoff Coef.	Lag Time (min)	Peak Coef.	# Reservoirs	Storage Coef. (h)	IDF Curve	Return Period (y)	Steady Duration (mins)	Peak Rainfall (in/hr)	Roughness
111	0.56	78.126	Standard (483.4)	0	0	0.6	30	0.6	3	0.4		5	60	0	0.1
112	0.454	81.494	Standard (483.4)	0	0	0.6	30	0.6	3	0.4		5	60	0	0.1
113	0.052	97.485	Standard (483.4)	0	0	0.6	30	0.6	3	0.4		5	60	0	0.1
114	0.491	80.304	Standard (483.4)	0	0	0.6	30	0.6	3	0.4		5	60	0	0.1
115	0.29	87.326	Standard (483.4)	0	0	0.6	30	0.6	3	0.4		5	60	0	0.1
118	0.564	78.001	Standard (483.4)	0	0	0.6	30	0.6	3	0.4		5	60	0	0.1
119	0.25	88.87	Standard (483.4)	0	0	0.6	30	0.6	3	0.4		5	60	0	0.1
120	0.075	96.4	Standard (483.4)	0	0	0.6	30	0.6	3	0.4		5	60	0	0.1
121	0.415	82.8	Standard (483.4)	0	0	0.6	30	0.6	3	0.4		5	60	0	0.1
122	0.348	85.169	Standard (483.4)	0	0	0.6	30	0.6	3	0.4		5	60	0	0.1
123	0.36	84.757	Standard (483.4)	0	0	0.6	30	0.6	3	0.4		5	60	0	0.1
124	0.486	80.456	Standard (483.4)	0	0	0.6	30	0.6	3	0.4		5	60	0	0.1
125	0.596	77.044	Standard (483.4)	0	0	0.6	30	0.6	3	0.4		5	60	0	0.1
126	0.368	84.449	Standard (483.4)	0	0	0.6	30	0.6	3	0.4		5	60	0	0.1
127	0.277	87.828	Standard (483.4)	0	0	0.6	30	0.6	3	0.4		5	60	0	0.1
128	0.4	83.32	Standard (483.4)	0	0	0.6	30	0.6	3	0.4		5	60	0	0.1
129	0.372	84.308	Standard (483.4)	0	0	0.6	30	0.6	3	0.4		5	60	0	0.1
130	0.377	84.137	Standard (483.4)	0	0	0.6	30	0.6	3	0.4		5	60	0	0.1
131	0.114	94.611	Standard (483.4)	0	0	0.6	30	0.6	3	0.4		5	60	0	0.1
3	0.168	92.236	Standard (483.4)	0	0	0.6	30	0.6	3	0.4		5	60	0	0.1
8	0.164	92.417	Standard (483.4)	0	0	0.6	30	0.6	3	0.4		5	60	0	0.1
86_4	0.46	81.316	Standard (483.4)	0	0	0.6	30	0.6	3	0.4		5	60	0	0.1
61_1	0.281	87.676	Standard (483.4)	0	0	0.6	30	0.6	3	0.4		5	60	0	0.1
61_2	0.281	87.676	Standard (483.4)	0	0	0.6	30	0.6	3	0.4		5	60	0	0.1
58_1	0.485	80.467	Standard (483.4)	0	0	0.6	30	0.6	3	0.4		5	60	0	0.1
58_2	0.485	80.467	Standard (483.4)	0	0	0.6	30	0.6	3	0.4		5	60	0	0.1

Table 4C: ARM Subcatchments (continued...)

Name	IA Value (in)	SCS Curve Number	Peak Rate Factor	Initial Loss (in)	Const. Rate (in/hr)	Runoff Coef.	Lag Time (min)	Peak Coef.	# Reservoirs	Storage Coef. (h)	IDF Curve	Return Period (y)	Steady Duration (mins)	Peak Rainfall (in/hr)	Roughness
23_1	0.16	92.604	Standard (483.4)	0	0	0.6	30	0.6	3	0.4		5	60	0	0.1
17_1	0.075	96.402	Standard (483.4)	0	0	0.6	30	0.6	3	0.4		5	60	0	0.1
17_2	0.075	96.402	Standard (483.4)	0	0	0.6	30	0.6	3	0.4		5	60	0	0.1
75	0.441	81.94	Standard (483.4)	0	0	0.6	30	0.6	3	0.4		5	60	0	0.1
29_2	0.433	82.202	Standard (483.4)	0	0	0.6	30	0.6	3	0.4		5	60	0	0.1
37_2	0.265	88.304	Standard (483.4)	0	0	0.6	30	0.6	3	0.4		5	60	0	0.1
86	0.393	83.568	Standard (483.4)	0	0	0.6	30	0.6	3	0.4		5	60	0	0.1
73_1	0.042	97.948	Standard (483.4)	0	0	0.6	30	0.6	3	0.4		5	60	0	0.1
73_2	0.042	97.948	Standard (483.4)	0	0	0.6	30	0.6	3	0.4		5	60	0	0.1
2_1	0.137	93.598	Standard (483.4)	0	0	0.6	30	0.6	3	0.4		5	60	0	0.1
2_2	0.503	79.917	Standard (483.4)	0	0	0.6	30	0.6	3	0.4		5	60	0	0.1
106	0.041	98	Standard (483.4)	0	0	0.6	30	0.6	3	0.4		5	60	0	0.1
23_2	0.041	98	Standard (483.4)	0	0	0.6	30	0.6	3	0.4		5	60	0	0.1
117_3	0.308	86.638	Standard (483.4)	0	0	0.6	30	0.6	3	0.4		5	60	0	0.1
117	0.151	92.966	Standard (483.4)	0	0	0.6	30	0.6	3	0.4		5	60	0	0.1

Table 4D: ARM Subcatchments

Name	Version	Rainfall Zone	Soil Type	Hydrograph Fattening	Runoff Depth (in)	Total rainfall (in)	Fire Factor	User entered PRF	Precipitation (in)	Infiltration (in)	Runoff Depth (in)	Runoff Volume (MG)	Peak Runoff (cfs)	Runoff Coefficient
1	2017			No	0	0	0	0	1.56	0.918	0.643	0.005	0.386	0.412
4	2017			No	0	0	0	0	1.56	1.227	0.333	0.012	0.762	0.214
5	2017			No	0	0	0	0	1.56	0.997	0.564	0.05	3.448	0.361
6	2017			No	0	0	0	0	1.56	1.312	0.248	0.003	0.188	0.159
7	2017			No	0	0	0	0	1.56	0.27	1.291	0.015	1.501	0.827
9	2017			No	0	0	0	0	1.56	0.345	1.216	0.009	1.082	0.78
10	2017			No	0	0	0	0	1.56	1.088	0.472	0.066	4.155	0.303
11	2017			No	0	0	0	0	1.56	0.307	1.254	0.008	0.744	0.804
12	2017			No	0	0	0	0	1.56	1.15	0.411	0.056	3.471	0.263
13	2017			No	0	0	0	0	1.56	0.954	0.606	0.002	0.166	0.388
14	2017			No	0	0	0	0	1.56	1.159	0.401	0.004	0.276	0.257
15	2017			No	0	0	0	0	1.56	1.301	0.259	0.002	0.126	0.166
16	2017			No	0	0	0	0	1.56	0.898	0.663	0.003	0.261	0.425
18	2017			No	0	0	0	0	1.56	0.265	1.296	0.003	0.326	0.831
19	2017			No	0	0	0	0	1.56	0.233	1.328	0.002	0.231	0.851
20	2017			No	0	0	0	0	1.56	1.027	0.533	0.005	0.365	0.342
21	2017			No	0	0	0	0	1.56	1.135	0.425	0.012	0.803	0.273
22	2017			No	0	0	0	0	1.56	0.948	0.612	0.006	0.425	0.392
24	2017			No	0	0	0	0	1.56	0.228	1.333	0.005	0.547	0.854
26	2017			No	0	0	0	0	1.56	0.953	0.608	0.004	0.29	0.39
28	2017			No	0	0	0	0	1.56	1.13	0.43	0.003	0.167	0.276
30	2017			No	0	0	0	0	1.56	0.932	0.628	0.029	2.024	0.403
31	2017			No	0	0	0	0	1.56	1.202	0.358	0.003	0.205	0.23
32	2017			No	0	0	0	0	1.56	1.262	0.298	0.015	0.981	0.191
33	2017			No	0	0	0	0	1.56	0.702	0.858	0.015	0.838	0.55
34	2017			No	0	0	0	0	1.56	1.141	0.419	0.005	0.31	0.269

Table 4D: ARM Subcatchments (continued...)

Name	Version	Rainfall Zone	Soil Type	Hydrograph Fattening	Runoff Depth (in)	Total rainfall (in)	Fire Factor	User entered PRF	Precipitation (in)	Infiltration (in)	Runoff Depth (in)	Runoff Volume (MG)	Peak Runoff (cfs)	Runoff Coefficient
36	2017			No	0	0	0	0	1.56	1.024	0.537	0.008	0.497	0.344
38	2017			No	0	0	0	0	1.56	0.954	0.606	0.01	0.764	0.388
39	2017			No	0	0	0	0	1.56	1.211	0.349	0.028	1.754	0.224
40	2017			No	0	0	0	0	1.56	0.921	0.64	0.005	0.41	0.41
41	2017			No	0	0	0	0	1.56	1.164	0.397	0.005	0.288	0.254
42	2017			No	0	0	0	0	1.56	0.221	1.34	0.001	0.175	0.859
43	2017			No	0	0	0	0	1.56	0.779	0.782	0.011	0.9	0.501
44	2017			No	0	0	0	0	1.56	0.974	0.587	0.009	0.645	0.376
45	2017			No	0	0	0	0	1.56	1.238	0.322	0.018	0.991	0.206
46	2017			No	0	0	0	0	1.56	0.347	1.214	0.009	0.857	0.778
47	2017			No	0	0	0	0	1.56	1.186	0.374	0.003	0.189	0.24
48	2017			No	0	0	0	0	1.56	0.467	1.093	0.012	0.88	0.701
49	2017			No	0	0	0	0	1.56	0.422	1.138	0.002	0.146	0.73
50	2017			No	0	0	0	0	1.56	0.53	1.031	0.015	0.707	0.661
51	2017			No	0	0	0	0	1.56	1.002	0.558	0.005	0.352	0.358
52	2017			No	0	0	0	0	1.56	1.09	0.471	0.006	0.469	0.302
53	2017			No	0	0	0	0	1.56	1.303	0.257	0.006	0.38	0.165
54	2017			No	0	0	0	0	1.56	1.045	0.515	0.006	0.439	0.33
55	2017			No	0	0	0	0	1.56	1.185	0.375	0.003	0.219	0.241
56	2017			No	0	0	0	0	1.56	0.227	1.334	0.001	0.18	0.855
57	2017			No	0	0	0	0	1.56	0.655	0.905	0.004	0.32	0.58
59	2017			No	0	0	0	0	1.56	0.221	1.34	0.016	1.658	0.859
60	2017			No	0	0	0	0	1.56	0.223	1.338	0.005	0.624	0.858
62	2017			No	0	0	0	0	1.56	0.972	0.588	0.002	0.166	0.377
63	2017			No	0	0	0	0	1.56	0.235	1.326	0.006	0.725	0.85
64	2017			No	0	0	0	0	1.56	0.221	1.34	0.002	0.253	0.859

Table 4D: ARM Subcatchments (continued...)

Name	Version	Rainfall Zone	Soil Type	Hydrograph Fattening	Runoff Depth (in)	Total rainfall (in)	Fire Factor	User entered PRF	Precipitation (in)	Infiltration (in)	Runoff Depth (in)	Runoff Volume (MG)	Peak Runoff (cfs)	Runoff Coefficient
65	2017			No	0	0	0	0	1.56	0.226	1.335	0.002	0.199	0.856
66	2017			No	0	0	0	0	1.56	0.682	0.878	0.002	0.155	0.563
67	2017			No	0	0	0	0	1.56	0.693	0.867	0.001	0.114	0.556
68	2017			No	0	0	0	0	1.56	0.307	1.254	0.001	0.173	0.804
69	2017			No	0	0	0	0	1.56	1.226	0.334	0.003	0.186	0.214
70	2017			No	0	0	0	0	1.56	0.224	1.337	0.002	0.206	0.857
71	2017			No	0	0	0	0	1.56	1.268	0.292	0.003	0.157	0.187
72	2017			No	0	0	0	0	1.56	1.1	0.46	0.003	0.19	0.295
74	2017			No	0	0	0	0	1.56	1.172	0.388	0.006	0.388	0.249
76	2017			No	0	0	0	0	1.56	1.168	0.392	0.014	0.953	0.251
77	2017			No	0	0	0	0	1.56	0.997	0.563	0.004	0.318	0.361
78	2017			No	0	0	0	0	1.56	0.968	0.593	0.001	0.066	0.38
79	2017			No	0	0	0	0	1.56	0.34	1.221	0.006	0.661	0.783
80	2017			No	0	0	0	0	1.56	1.191	0.369	0.023	1.287	0.237
81	2017			No	0	0	0	0	1.56	1.262	0.298	0.006	0.348	0.191
82	2017			No	0	0	0	0	1.56	1.165	0.395	0.01	0.686	0.253
83	2017			No	0	0	0	0	1.56	0.997	0.564	0.003	0.198	0.361
87	2017			No	0	0	0	0	1.56	0.276	1.285	0.009	1.167	0.824
88	2017			No	0	0	0	0	1.56	1.001	0.559	0.003	0.255	0.358
89	2017			No	0	0	0	0	1.56	0.282	1.279	0.015	1.677	0.82
90	2017			No	0	0	0	0	1.56	0.407	1.154	0.001	0.058	0.74
91	2017			No	0	0	0	0	1.56	0.365	1.196	0.002	0.176	0.766
93	2017			No	0	0	0	0	1.56	1.231	0.329	0.002	0.096	0.211
94	2017			No	0	0	0	0	1.56	1.231	0.329	0.003	0.196	0.211
95	2017			No	0	0	0	0	1.56	0.863	0.697	0.001	0.079	0.447
96	2017			No	0	0	0	0	1.56	1.278	0.282	0	0.029	0.181

Table 4D: ARM Subcatchments (continued...)

Name	Version	Rainfall Zone	Soil Type	Hydrograph Fattening	Runoff Depth (in)	Total rainfall (in)	Fire Factor	User entered PRF	Precipitation (in)	Infiltration (in)	Runoff Depth (in)	Runoff Volume (MG)	Peak Runoff (cfs)	Runoff Coefficient
97	2017			No	0	0	0	0	1.56	0.273	1.288	0.016	1.947	0.825
98	2017			No	0	0	0	0	1.56	1.074	0.487	0.008	0.507	0.312
99	2017			No	0	0	0	0	1.56	0.606	0.955	0.008	0.591	0.612
100	2017			No	0	0	0	0	1.56	1.087	0.473	0.004	0.295	0.303
101	2017			No	0	0	0	0	1.56	0.465	1.096	0.006	0.589	0.703
102	2017			No	0	0	0	0	1.56	0.243	1.318	0.006	0.374	0.845
103	2017			No	0	0	0	0	1.56	1.269	0.291	0.001	0.082	0.187
104	2017			No	0	0	0	0	1.56	1.28	0.28	0.001	0.087	0.18
107	2017			No	0	0	0	0	1.56	0.891	0.669	0.01	0.731	0.429
108	2017			No	0	0	0	0	1.56	1.183	0.377	0.016	1.057	0.242
109	2017			No	0	0	0	0	1.56	1.244	0.316	0.008	0.491	0.203
110	2017			No	0	0	0	0	1.56	1.032	0.528	0.004	0.277	0.338
111	2017			No	0	0	0	0	1.56	1.297	0.263	0.007	0.428	0.169
112	2017			No	0	0	0	0	1.56	1.198	0.362	0.004	0.239	0.232
113	2017			No	0	0	0	0	1.56	0.272	1.289	0.002	0.206	0.826
114	2017			No	0	0	0	0	1.56	1.235	0.325	0.001	0.064	0.208
115	2017			No	0	0	0	0	1.56	0.968	0.593	0.014	1.042	0.38
118	2017			No	0	0	0	0	1.56	1.3	0.26	0.001	0.064	0.167
119	2017			No	0	0	0	0	1.56	0.891	0.67	0.038	2.656	0.429
120	2017			No	0	0	0	0	1.56	0.373	1.188	0.072	6.391	0.761
121	2017			No	0	0	0	0	1.56	1.153	0.407	0.041	2.809	0.261
122	2017			No	0	0	0	0	1.56	1.063	0.498	0.05	3.541	0.319
123	2017			No	0	0	0	0	1.56	1.08	0.481	0.052	3.359	0.308
124	2017			No	0	0	0	0	1.56	1.231	0.33	0.045	2.634	0.211
125	2017			No	0	0	0	0	1.56	1.324	0.236	0.008	0.497	0.151
126	2017			No	0	0	0	0	1.56	1.092	0.469	0.051	2.986	0.3

Table 4D: ARM Subcatchments (continued...)

Name	Version	Rainfall Zone	Soil Type	Hydrograph Fattening	Runoff Depth (in)	Total rainfall (in)	Fire Factor	User entered PRF	Precipitation (in)	Infiltration (in)	Runoff Depth (in)	Runoff Volume (MG)	Peak Runoff (cfs)	Runoff Coefficient
127	2017			No	0	0	0	0	1.56	0.943	0.617	0.044	3.001	0.396
128	2017			No	0	0	0	0	1.56	1.135	0.426	0.03	1.929	0.273
129	2017			No	0	0	0	0	1.56	1.097	0.463	0.057	3.756	0.297
130	2017			No	0	0	0	0	1.56	1.104	0.456	0.135	8.241	0.293
131	2017			No	0	0	0	0	1.56	0.523	1.038	0.017	1.395	0.665
3	2017			No	0	0	0	0	1.56	0.693	0.868	0.01	0.767	0.556
8	2017			No	0	0	0	0	1.56	0.681	0.88	0.006	0.447	0.564
86_4	2017			No	0	0	0	0	1.56	1.204	0.357	0.002	0.098	0.229
61_1	2017			No	0	0	0	0	1.56	0.951	0.61	0	0.022	0.391
61_2	2017			No	0	0	0	0	1.56	0.951	0.61	0.009	0.585	0.391
58_1	2017			No	0	0	0	0	1.56	1.23	0.33	0.016	0.83	0.211
58_2	2017			No	0	0	0	0	1.56	1.23	0.33	0.011	0.561	0.212
23_1	2017			No	0	0	0	0	1.56	0.668	0.892	0.001	0.08	0.572
17_1	2017			No	0	0	0	0	1.56	0.373	1.188	0.003	0.231	0.762
17_2	2017			No	0	0	0	0	1.56	0.373	1.188	0.005	0.379	0.762
75	2017			No	0	0	0	0	1.56	1.183	0.377	0.005	0.326	0.242
29_2	2017			No	0	0	0	0	1.56	1.174	0.386	0.003	0.178	0.247
37_2	2017			No	0	0	0	0	1.56	0.92	0.641	0.006	0.479	0.411
86	2017			No	0	0	0	0	1.56	1.126	0.435	0.002	0.121	0.279
73_1	2017			No	0	0	0	0	1.56	0.226	1.335	0.001	0.094	0.856
73_2	2017			No	0	0	0	0	1.56	0.226	1.335	0.001	0.105	0.856
2_1	2017			No	0	0	0	0	1.56	0.599	0.962	0.021	1.828	0.617
2_2	2017			No	0	0	0	0	1.56	1.247	0.313	0.004	0.256	0.201
106	2017			No	0	0	0	0	1.56	0.221	1.34	0.003	0.372	0.859
23_2	2017			No	0	0	0	0	1.56	0.221	1.34	0.002	0.204	0.859
117_3	2017			No	0	0	0	0	1.56	0.999	0.561	0.015	0.866	0.36

Table 4D: ARM Subcatchments (continued...)

Name	Version	Rainfall Zone	Soil Type	Hydrograph Fattening	Runoff Depth (in)	Total rainfall (in)	Fire Factor	User entered PRF	Precipitation (in)	Infiltration (in)	Runoff Depth (in)	Runoff Volume (MG)	Peak Runoff (cfs)	Runoff Coefficient
117	2017			No	0	0	0	0	1.56	0.644	0.917	0.014	1.095	0.588

Table 4E: ARM Subcatchments

Name	GIS_LENGTH (m)	GIS_AREA (m²)	GIS_PARTS
1	154.635	1209.716	1
4	434.721	5569.987	1
5	688.333	13121.813	1
6	165.063	1601.158	1
7	279.25	1712.989	1
9	145.093	1147.337	1
10	727.402	20700.107	1
11	436.343	951.474	1
12	783.379	20396.177	1
13	99.61	534.105	1
14	177.182	1465.324	1
15	189.585	1135.504	1
16	133.068	770.993	1
18	183.5	325.11	1
19	143.802	270.912	1
20	175.612	1505.936	1
21	279.741	4361.183	1
22	192.897	1360.363	1
24	179.027	517.277	1

Table 4E: ARM Subcatchments (continued...)

Name	GIS_LENGTH (m)	GIS_AREA (m²)	GIS_PARTS
26	209.899	989.457	1
28	133.356	899.506	1
30	566.214	6979.555	1
31	160.561	1282.14	1
32	387.181	7740.839	1
33	610.326	2572.139	1
34	295.461	1790.773	1
36	200.856	2297.748	1
38	260.733	2428.257	1
39	511.372	12113.382	1
40	173.988	1228.935	1
41	308.193	2052.56	1
42	78.271	149.092	1
43	211.497	2046.641	1
44	197.086	2275.293	1
45	503.393	8148.033	1
46	494.218	1162.365	1
47	166.804	1186.109	1
48	290.409	1587.144	1
49	120.582	213.414	1
50	197.959	2193.81	1
51	157.435	1218.811	1
52	215.819	2034.061	1
53	264.725	3500.663	1
54	173.227	1769.134	1
55	177.091	1277.85	1

Table 4E: ARM Subcatchments (continued...)

Name	GIS_LENGTH (m)	GIS_AREA (m²)	GIS_PARTS
56	93.382	158.742	1
57	187.499	650.423	1
59	240.785	1756.087	1
60	120.699	599.578	1
62	129.536	543.378	1
63	117.844	619.088	1
64	146.056	242.937	1
65	108.643	178.189	1
66	143.632	334.954	1
67	96.67	231.479	1
68	98.065	169.191	1
69	148.884	1202.844	1
70	124.871	222.306	1
71	185.512	1279.816	1
72	169.503	898.545	1
74	234.392	2242.732	1
76	317.561	5429.396	1
77	162.069	1089.275	1
78	76.534	212.043	1
79	122.027	763.989	1
80	451.441	9238.774	1
81	234.875	2788.332	1
82	322.969	3879.722	1
83	143.137	820.256	1
87	134.117	1062.128	1
88	188.52	909.309	1

Table 4E: ARM Subcatchments (continued...)

Name	GIS_LENGTH (m)	GIS_AREA (m²)	GIS_PARTS
89	211.162	1783.753	1
90	61.449	111.419	1
91	88.846	222.123	1
93	124.946	919.535	1
94	168.582	1564.08	1
95	74.626	218.669	1
96	73.082	217.43	1
97	193.216	1826.758	1
98	271.175	2435.024	1
99	331.561	1238.602	1
100	192.415	1401.965	1
101	196.124	870.626	1
102	301.184	648.628	1
103	128.07	582.207	1
104	113.592	777.471	1
107	319.546	2332.389	1
108	371.427	6445.474	1
109	277.119	3820.374	1
110	184.797	1130.521	1
111	359.166	3850.194	1
112	236.277	1736.221	1
113	92.939	190.339	1
114	162.431	442.021	1
115	241.755	3501.085	1
118	96.054	520.308	1
119	633.992	8353.201	1

Table 4E: ARM Subcatchments (continued...)

Name	GIS_LENGTH (m)	GIS_AREA (m²)	GIS_PARTS
120	469.788	9009.88	1
121	569.668	15066.692	1
122	682.991	14843.188	1
123	805.428	15967.1	1
124	763.206	20415.068	1
125	332.976	5329.227	1
126	989.837	16316.516	1
127	835.79	10653.399	1
128	479.641	10379.228	1
129	629.568	18487.993	1
130	926.178	44056.568	1
131	720.254	2483.466	1
3	205.501	1724.603	1
8	166.072	935.258	1
86_4	117.016	744.554	1
61_1	45.333	84.239	1
61_2	439.43	2274.453	1
58_1	380.449	7047.44	1
58_2	494.728	4767.467	1
23_1	83.264	173.214	1
17_1	204.508	356.135	1
17_2	232.834	583.669	1
75	220.685	2076.895	1
29_2	144.074	1018.803	1
37_2	182.599	1453.502	1
86	150.621	587.308	2

Table 4E: ARM Subcatchments (continued...)

Name	GIS_LENGTH (m)	GIS_AREA (m²)	GIS_PARTS
73_1	65.47	106.591	1
73_2	70.628	116.35	1
2_1	343.725	3202.245	3
2_2	259.584	1692.125	1
106	77.019	321.49	1
23_2	87.846	185.137	1
117_3	656.555	4071.625	1
117	294.386	2312.945	1

PCSWMM Report

Post-Development 10-yr Results

Model NelsonWWTF-010YR.inp

HDR Engineering Inc.

January 19, 2024

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Summary 1: Options

Name	NelsonWWTF-010YR
Flow Units	CFS
Infiltration method	Curve Number
Flow routing method	Dynamic Wave
Link offsets defined by	Elevation
Allow ponding	Yes
Skip steady flow periods	No
Inertial dampening	Partial
Define supercritical flow by	Both
Force Main Equation	H-W
Variable time step	On
Adjustment factor (%)	75
Conduit lengthening (s)	0
Minimum surface area (ft²)	12.566
Starting date	May-1-2022 12:00:00 AM
Ending date	May-1-2022 01:50:00 AM
Duration of simulation (hours)	1.83333333333333
Antecedent dry days (days)	0
Rain interval (h:mm)	0:01
Report time step (h:mm:ss)	00:01:00
Wet time step (h:mm:ss)	00:00:01
Dry time step (h:mm:ss)	00:05:00
Routing time step (s)	5
Minimum time step used (s)	0.11
Average time step used (s)	0.53
Minimum conduit slope	0
Ignore rainfall/runoff	No
Ignore snow melt	No
Ignore groundwater	No
Ignore flow routing	No
Ignore water quality	No
Report average results	No

Summary 2: Model inventory

Name	NelsonWWTF-010YR
Raingages	6
Subcatchments	0
Aquifers	0
Snowpacks	0
RDII hydrographs	0
Junction nodes	310
Outfall nodes	7
Flow divider nodes	0
Storage unit nodes	6
Conduit links	308
Pump links	0
Orifice links	11
Weir links	53
Outlet links	66
Treatment units	0
Transects	6
Control rules	0
Pollutants	0
Land Uses	0
Control Curves	0
Diversion Curves	0
Pump Curves	0
Rating Curves	21
Shape Curves	0
Storage Curves	20
Tidal Curves	0
Weir Curves	0
Time Series	41
Time Patterns	0

Summary 3: Model complexity

Name	NelsonWWTF-010YR
Subcatchments	n/a
Groundwater	n/a
Aquifers	n/a
Snowpacks	n/a
RDII hydrographs	n/a
Junction nodes	750
Outfall nodes	7
Flow divider nodes	n/a
Storage unit nodes	20
Conduit links	1876
Pump links	n/a
Orifice links	40
Weir links	212
Outlet links	194
Transect	30
Pollutants	n/a
Land Uses	n/a
Model complexity (total uncertain input parameters)	3129

Summary 4: Inflows

Name	NelsonWWTF-010YR
Time series inflows	0
Dry weather	0
Groundwater	0
RDII inflows	0

Summary 5: Subcatchment statistics

Name	NelsonWWTF-010YR
Max. width (ft)	n/a
Min. width (ft)	n/a
Max. area (ac)	n/a
Min. area (ac)	n/a
Total area (ac)	n/a
Max. length of overland flow (ft)	n/a
Min. length of overland flow (ft)	n/a
Max. slope (%)	n/a

Summary 5: Subcatchment statistics (continued...)

Name	NelsonWWTF-010YR
Min. slope (%)	n/a
Max. imperviousness (%)	n/a
Min. imperviousness (%)	n/a
Max. imp. roughness	n/a
Min. imp. roughness	n/a
Max. perv. roughness	n/a
Min. perv. roughness	n/a
Max. imp. depression storage (in)	n/a
Min. imp. depression storage (in)	n/a
Max. perv. depression storage (in)	n/a
Min. perv. depression storage (in)	n/a

Summary 6: Node statistics

Name	NelsonWWTF-010YR
Max. ground elev. (ft)	1012.984
Min. ground elev. (ft)	0
Max. invert elev. (ft)	1011.884
Min. invert elev. (ft)	0
Max. depth (ft)	44.48
Min. depth (ft)	0

Summary 7: Conduit statistics

Name	NelsonWWTF-010YR
Max. roughness	0.035
Min. roughness	0.01
Max. entry loss coef.	1.5
Min. entry loss coef.	0
Max. exit loss coef.	1
Min. exit loss coef.	0
Max. avg. loss coef.	0
Min. avg. loss coef.	0
Max. length (ft)	648.835
Min. length (ft)	3.325
Total length (ft)	35555.929
Max. slope (ft/ft)	0.8406
Min. slope (ft/ft)	-0.2206

Summary 8: Conduit Inventory

Name	NelsonWWTF-010YR
Open Rectangular (ft)	440.112
Trapezoidal (ft)	4512.771
Irregular (ft)	14342.122
Circular (ft)	16198.804
Dummy (ft)	62.12

Summary 9: Pipe inventory

Name	NelsonWWTF-010YR
Max. pipe diameter (ft)	7
Min. pipe diameter (ft)	0.25
Total 12” pipe length (ft)	2331.472
Total 15” pipe length (ft)	3868.711
Total 18” pipe length (ft)	2652.966
Total 24” pipe length (ft)	2975.202
Total 30” pipe length (ft)	398.056
Total 36” pipe length (ft)	1722.847
Total 48” pipe length (ft)	502.955
Total 54” pipe length (ft)	402.52
Total 72” pipe length (ft)	47.457
Total 84” pipe length (ft)	229.206
Total other pipe length (ft)	1067.412
Total pipe length (ft)	16198.804

Summary 10: Unused objects

Name	NelsonWWTF-010YR
Rain Gages	5
Aquifers	n/a
Snow Packs	n/a
Unit Hydrographs	n/a
Transects	5
Control Curves	n/a
Diversion Curves	n/a
Pump Curves	n/a
Rating Curves	2
Shape Curves	n/a
Storage Curves	14

Summary 10: Unused objects (continued...)

Name	NelsonWWTF-010YR
Tidal Curves	n/a
Weir Curves	n/a
Time Series	34
Time Patterns	n/a

Summary 11: Flow routing continuity

Name	NelsonWWTF-010YR
Dry weather inflow (MG)	0.000
Wet weather inflow (MG)	0.000
Groundwater inflow (MG)	0.000
RDII inflow (MG)	0.000
External inflow (MG)	3.280
External outflow (MG)	2.711
Flooding loss (MG)	0.521
Evaporation loss (MG)	0.000
Exfiltration loss (MG)	0.000
Initial stored volume (MG)	0.011
Final stored volume (MG)	0.043
Continuity error (%)	0.499

Summary 12: Results statistics

Name	NelsonWWTF-010YR
Max. subcatchment total runoff (MG)	n/a
Max. subcatchment peak runoff (cfs)	n/a
Max. subcatchment runoff coefficient	n/a
Max. subcatchment total precip (in)	n/a
Min. subcatchment total precip (in)	n/a
Max. node depth (ft)	8.94
Num. nodes surcharged	11
Max. node surcharge duration (hours)	1.83
Max. node height above crown (ft)	5.576
Min. node depth below rim (ft)	0
Num. nodes flooded	3
Max. node flooding duration (hours)	1.64
Max. node flood volume (MG)	0.516
Max. node ponded volume or depth (acre-in/1000 ft^3/ft)	0

Summary 12: Results statistics (continued...)

Name	NelsonWWTF-010YR
Max. storage volume (1000 ft³)	42.638
Max. storage percent full (%)	55.4
Max. outfall flow frequency (%)	100
Max. outfall peak flow (cfs)	80.66
Max. outfall total volume (MG)	2.066
Total outfall volume (MG)	2.780
Max. link peak flow (cfs)	80.66
Max. link peak velocity (ft/s)	33.01
Min. link peak velocity (ft/s)	0
Num. conduits surcharged	29
Max. conduit surcharge duration (hours)	1.83
Max. conduit capacity limited duration (hours)	1.68

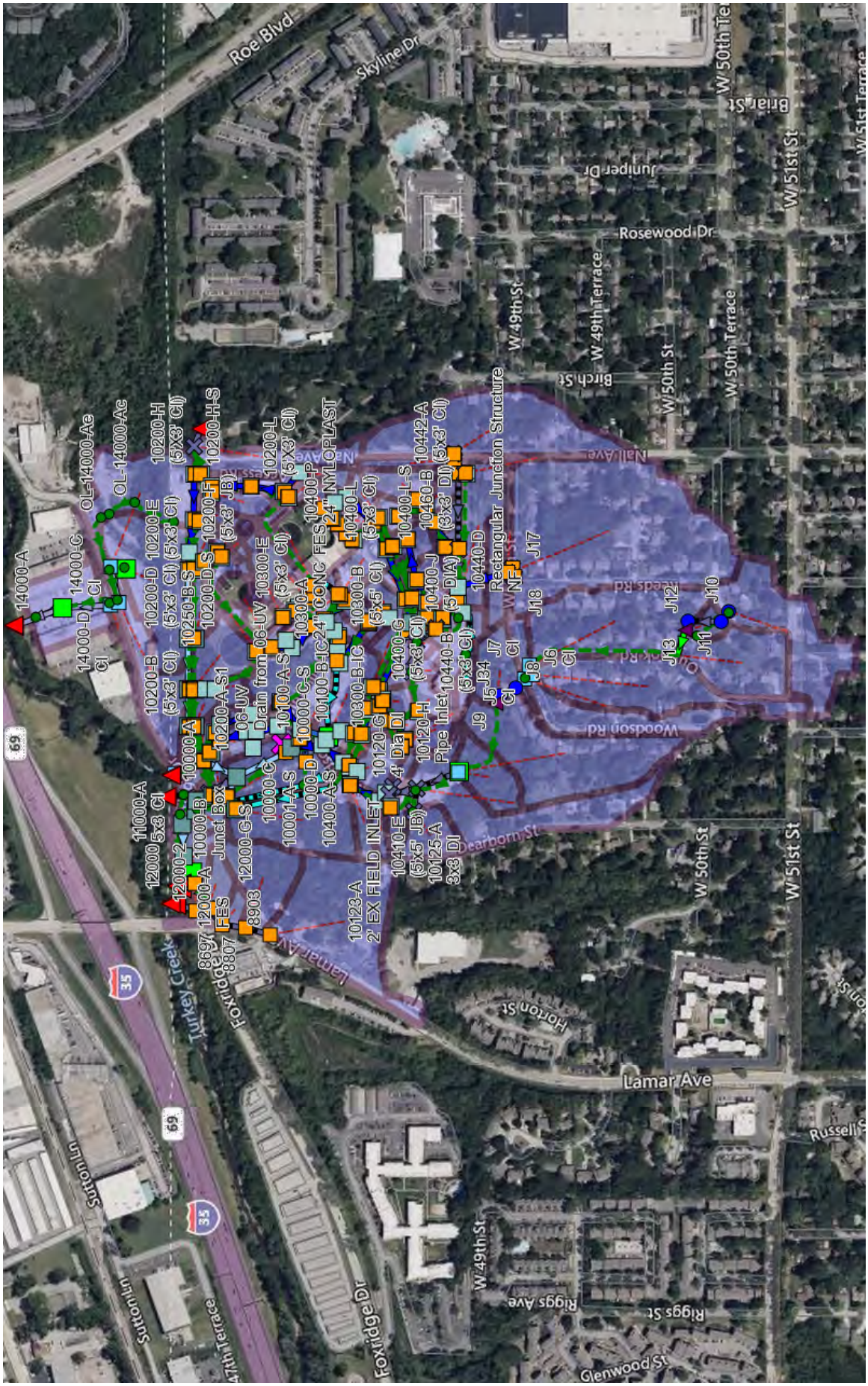

Figure 1: Map Extents

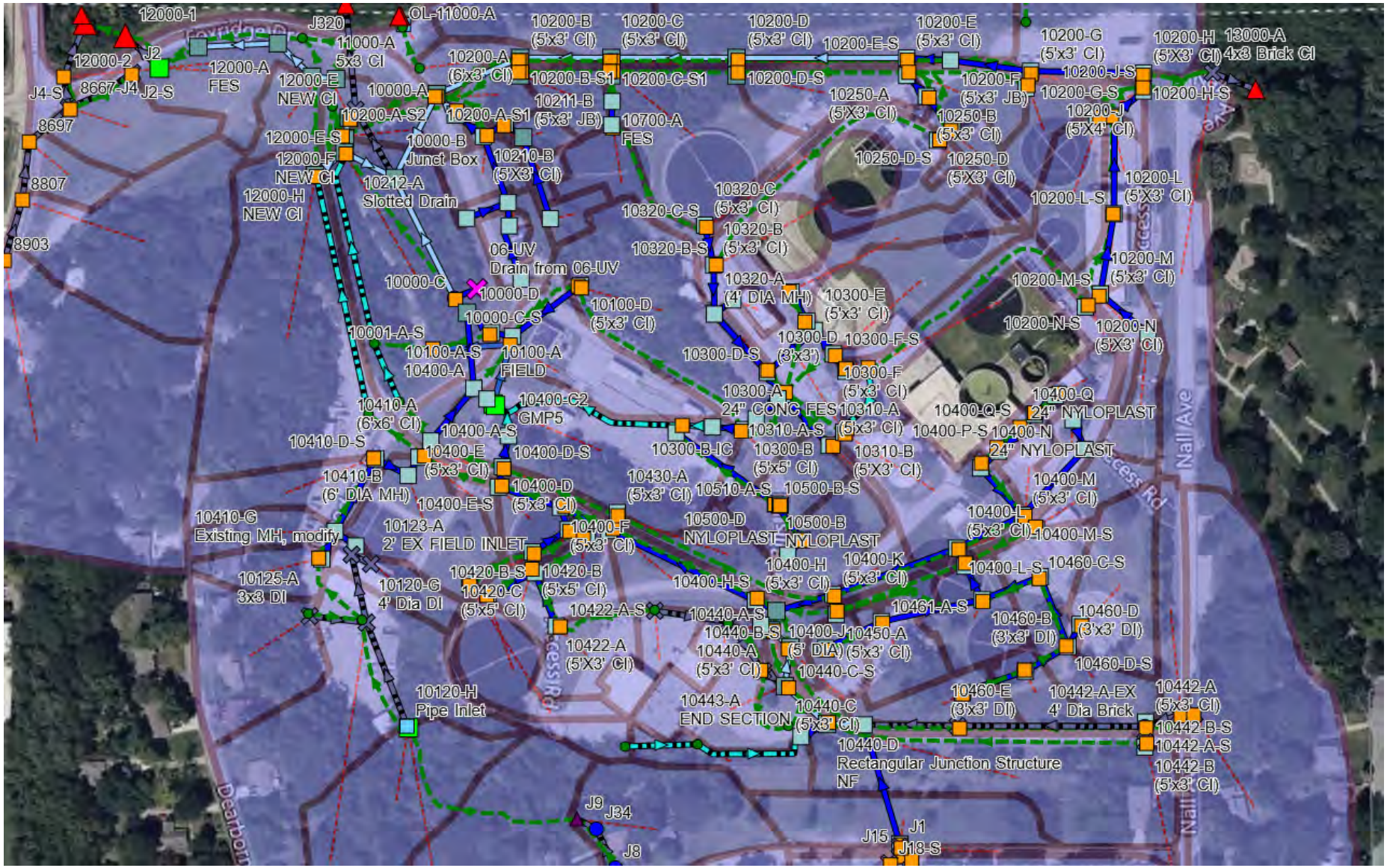

Figure 2: WWTF Site

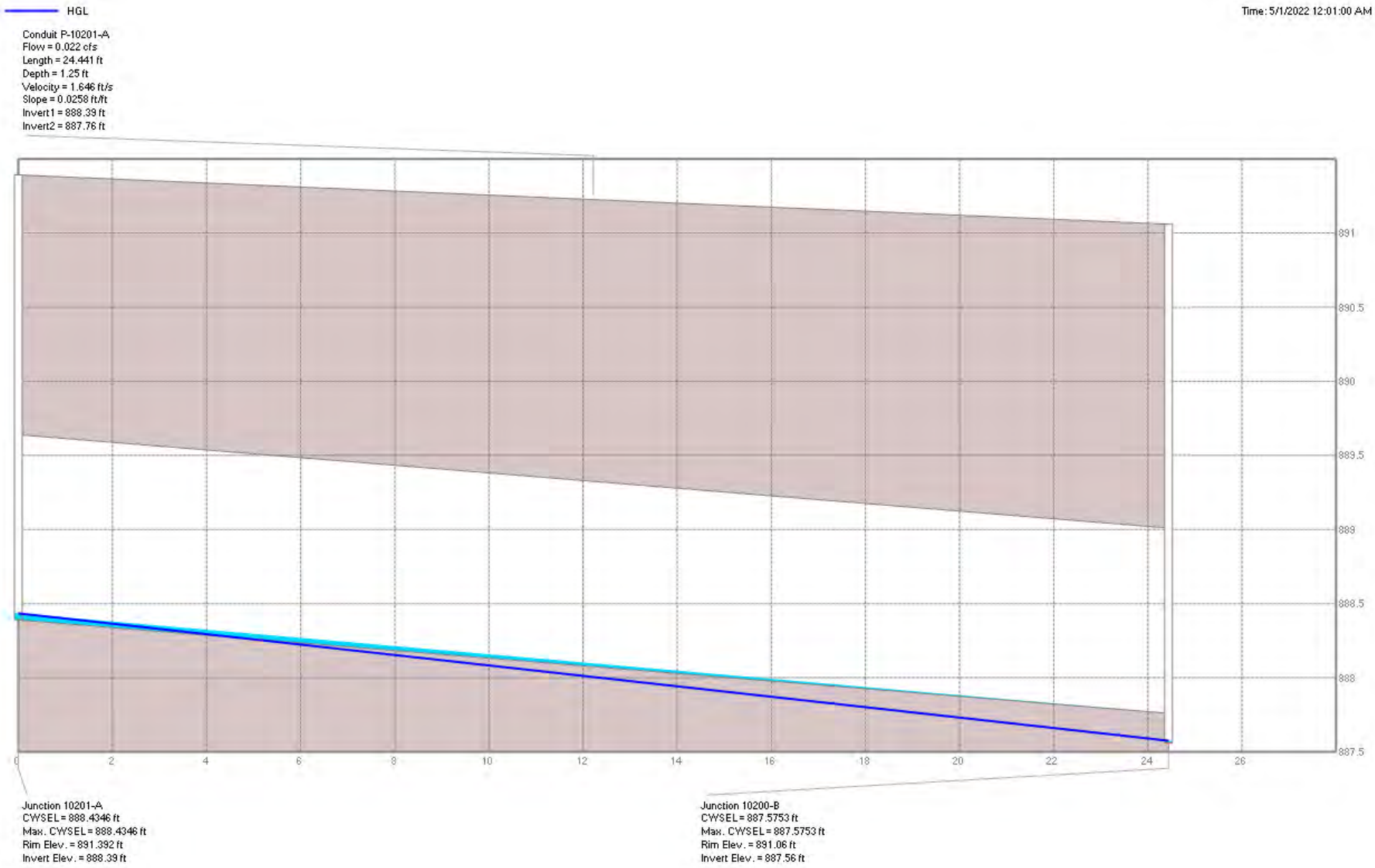

Figure 3: LINE 10201

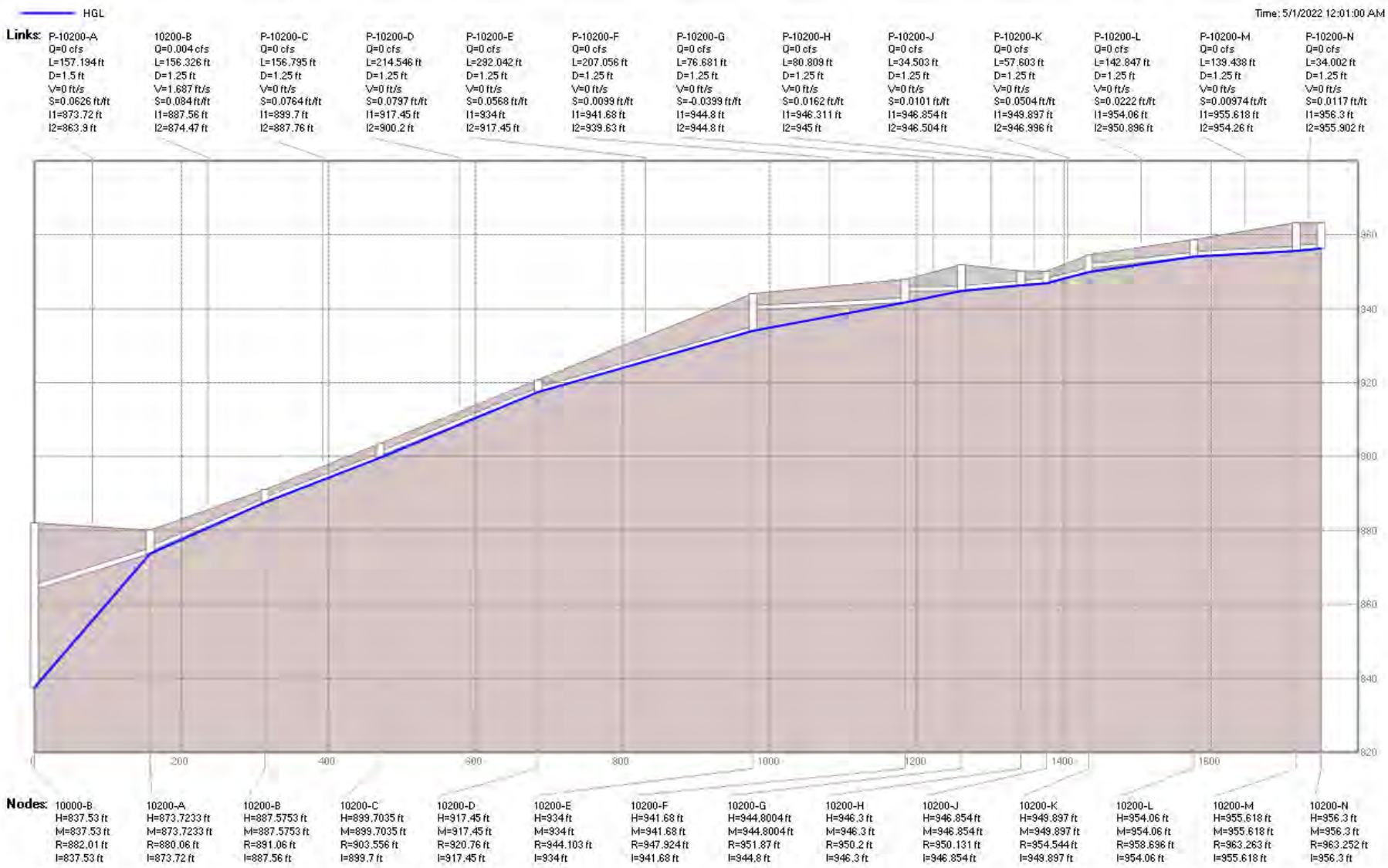

Figure 4: LINE 10200

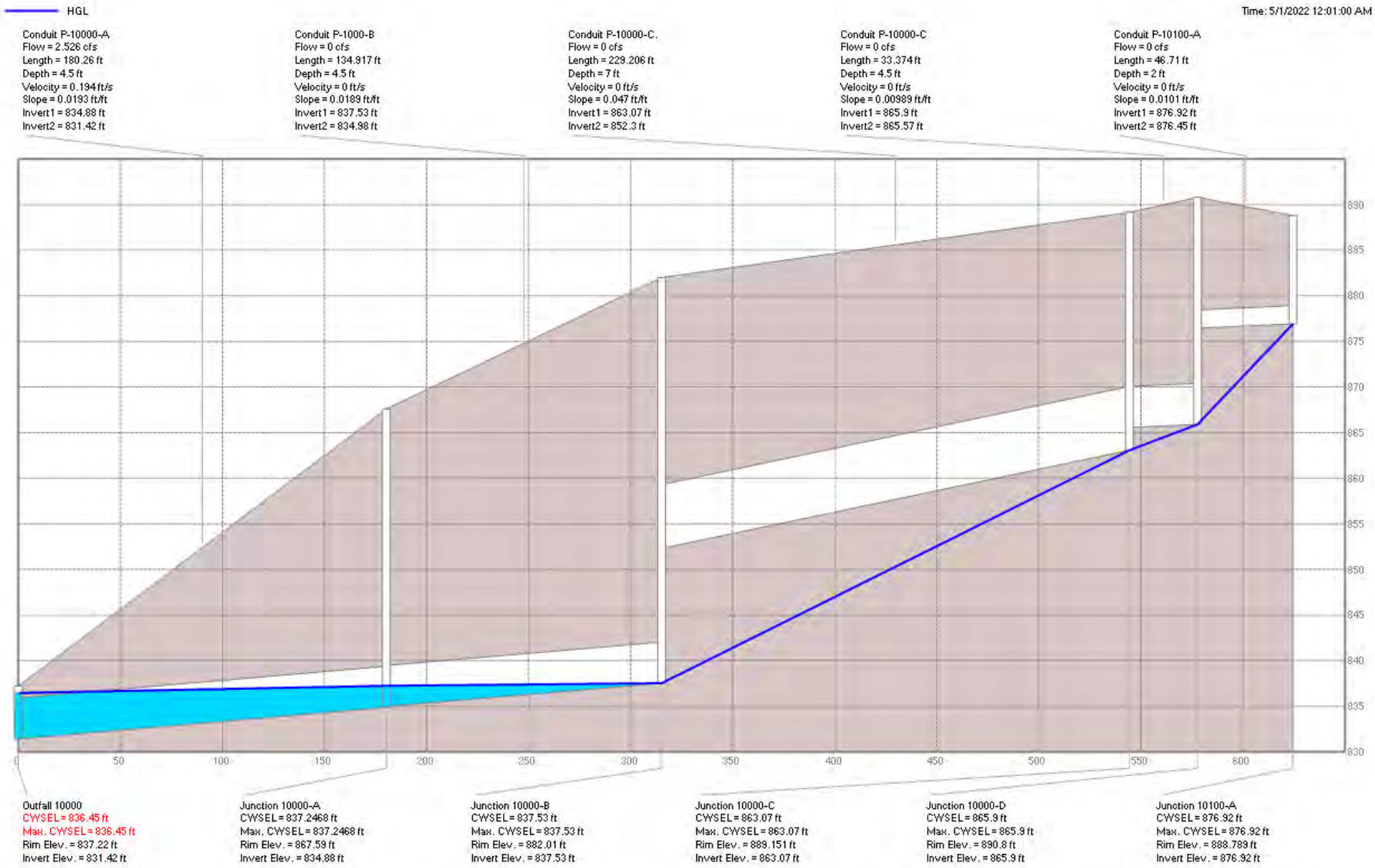

Figure 5: LINE 10000

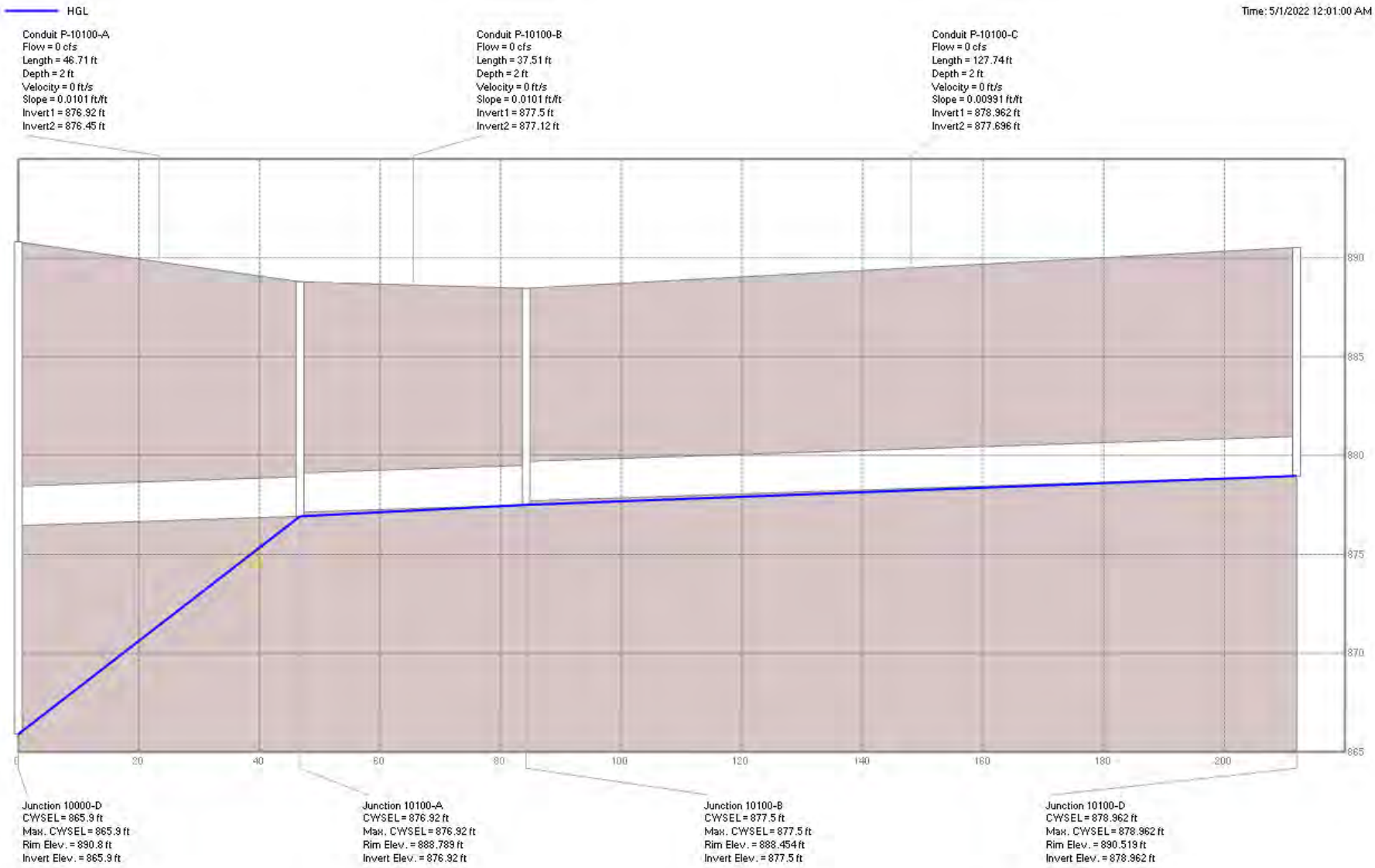

Figure 6: LINE 10100

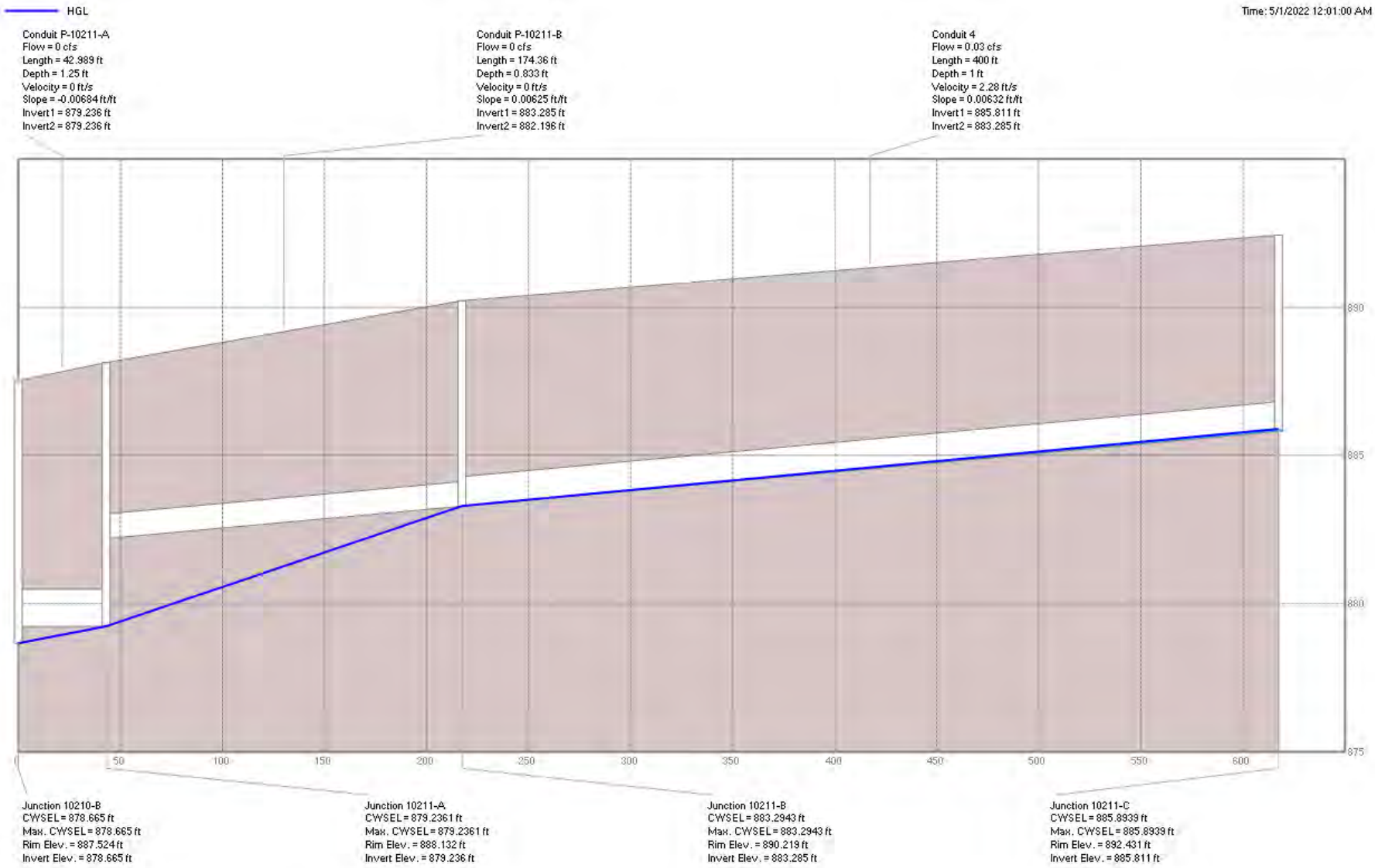

Figure 7: LINE 10211

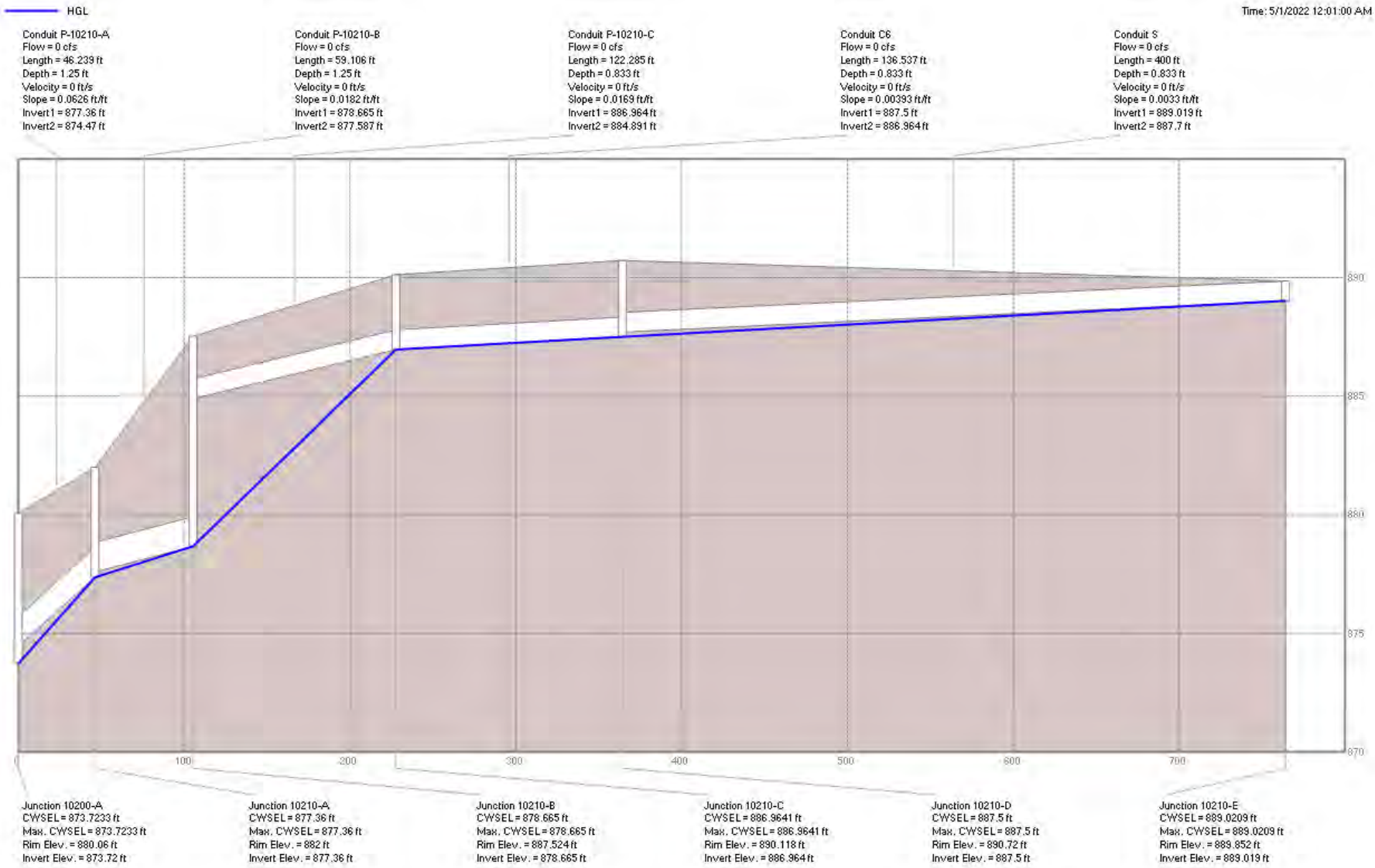

Figure 8: LINE 10210

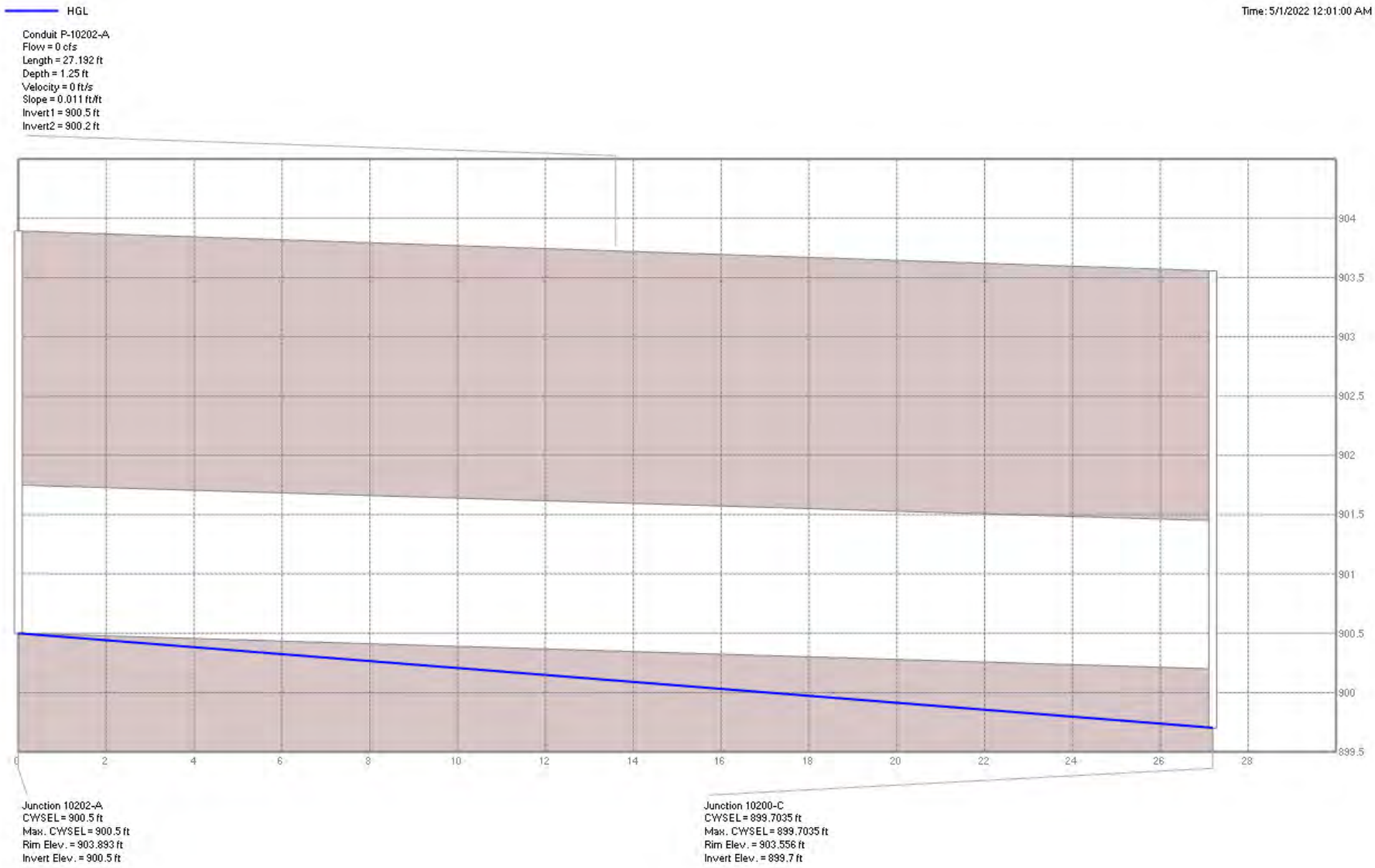

Figure 9: LINE 10202

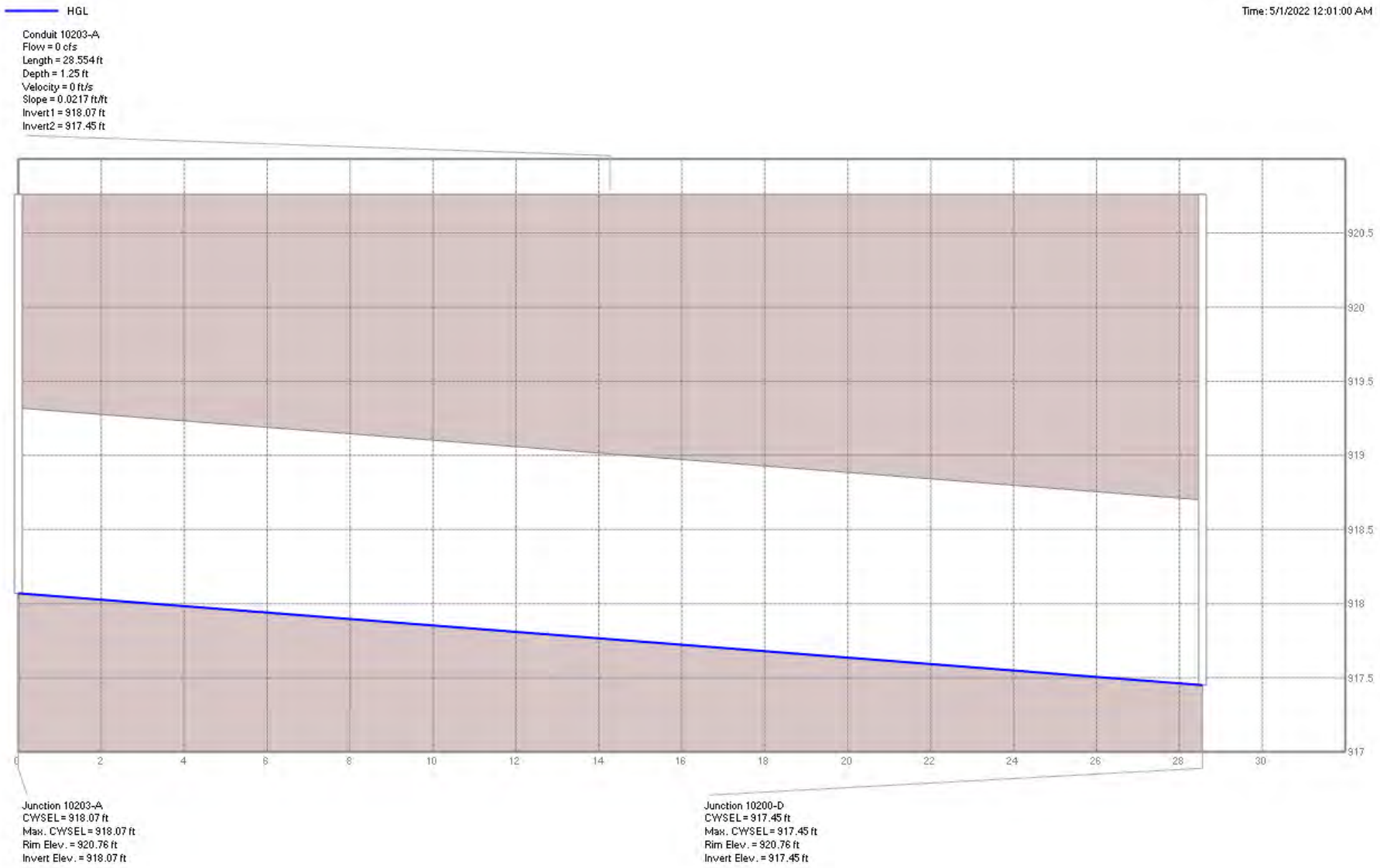

Figure 10: LINE 10203

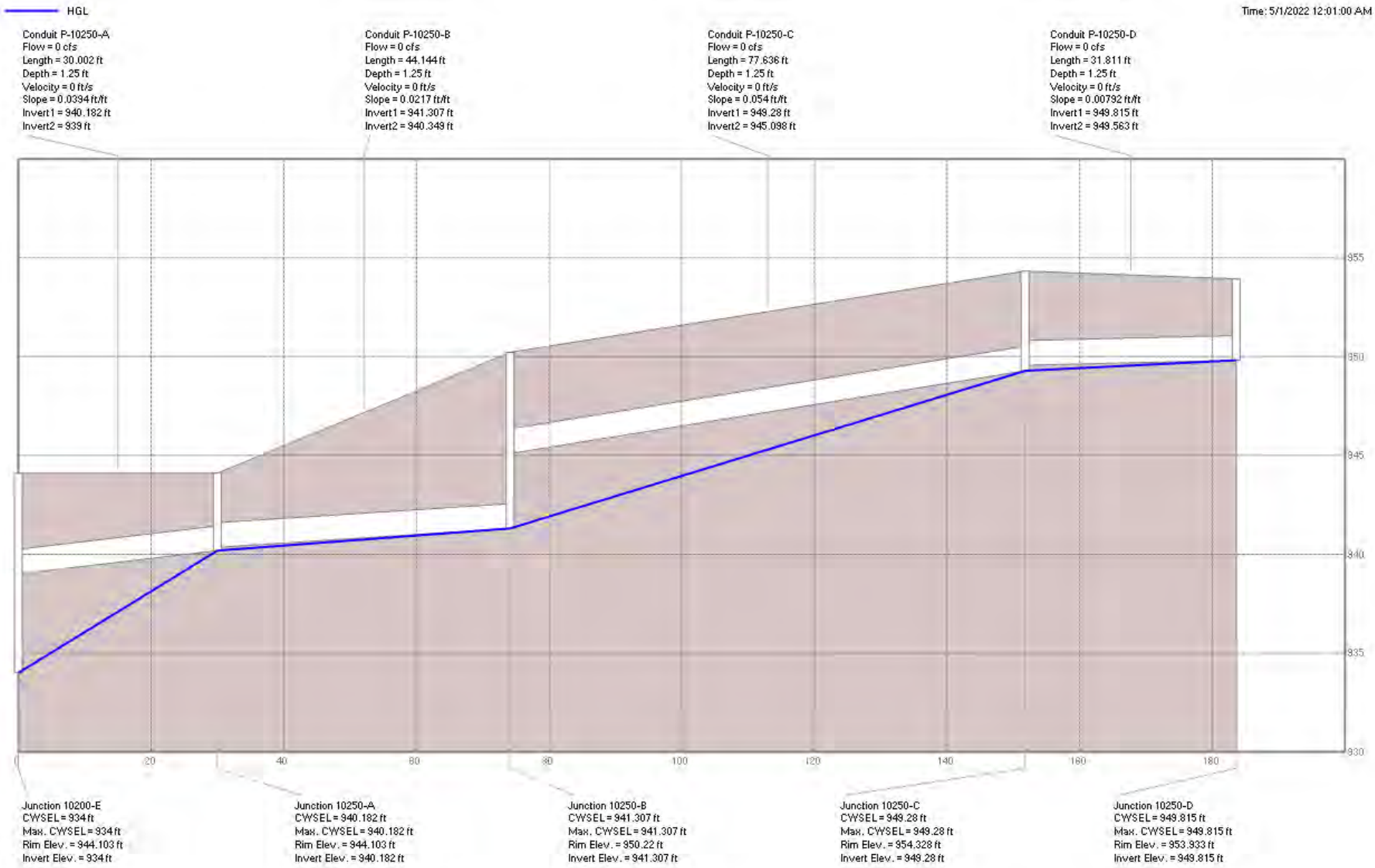

Figure 11: LINE 10250

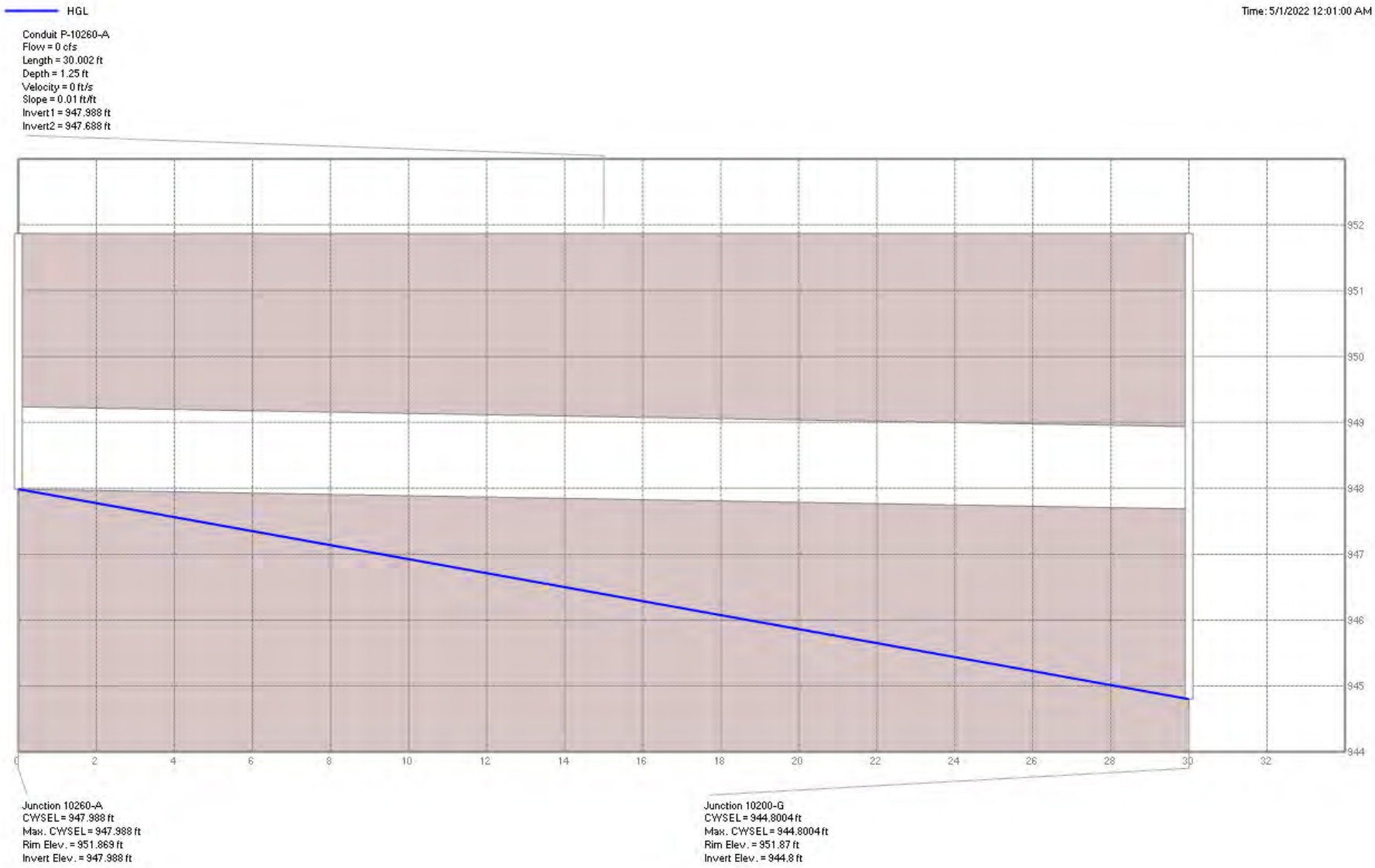

Figure 12: LINE 10260

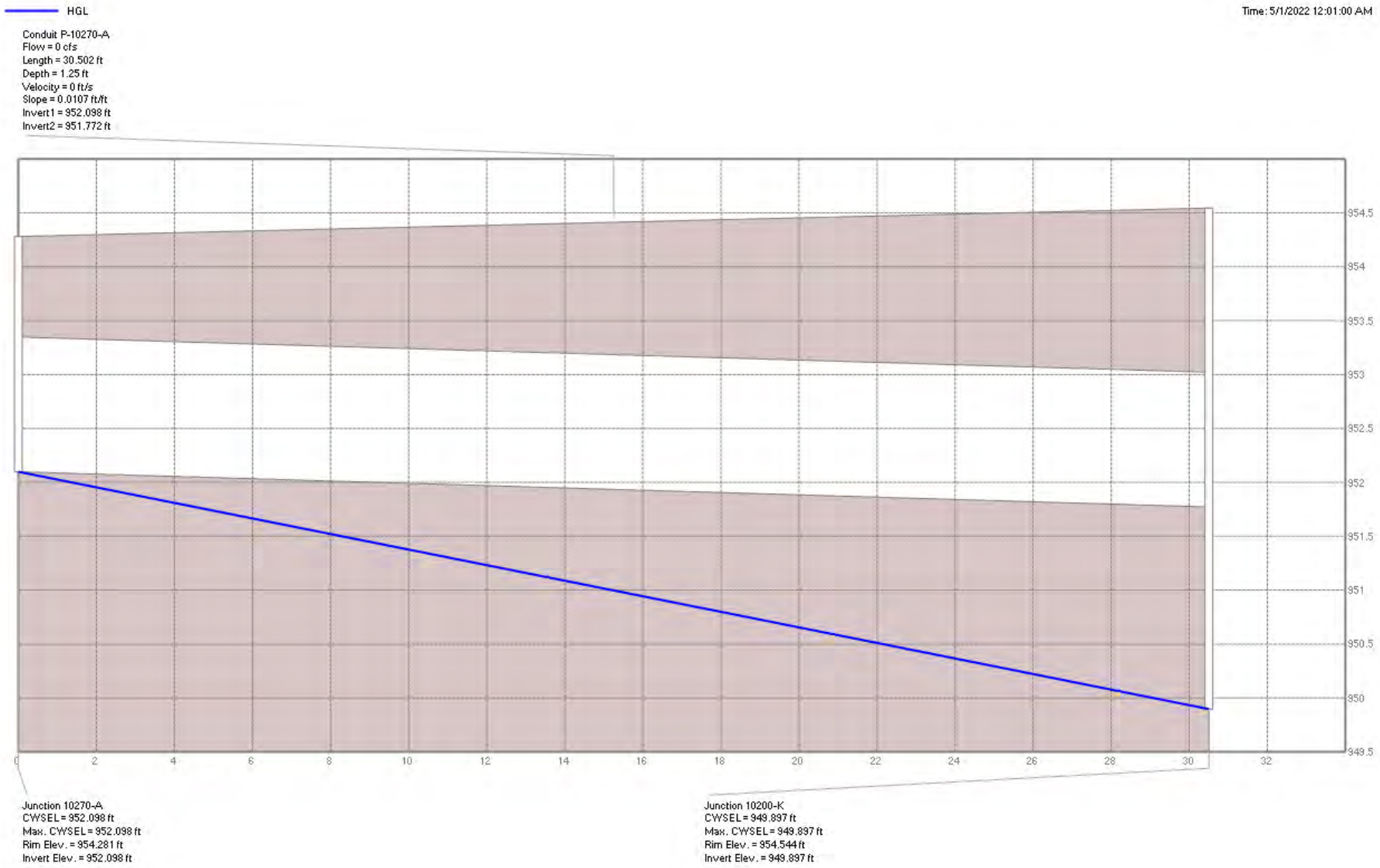

Figure 13: LINE 10270

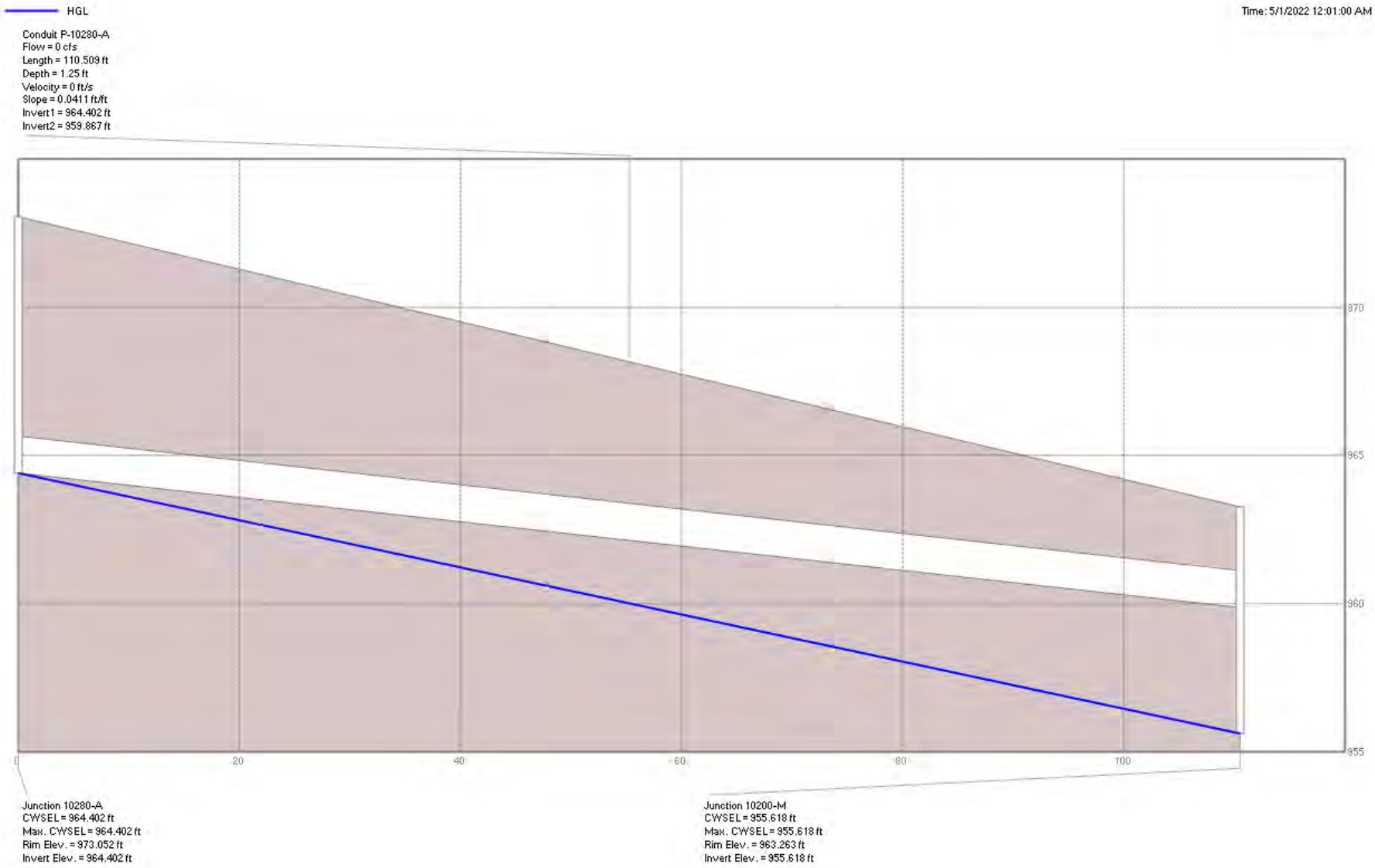

Figure 14: LINE 10280

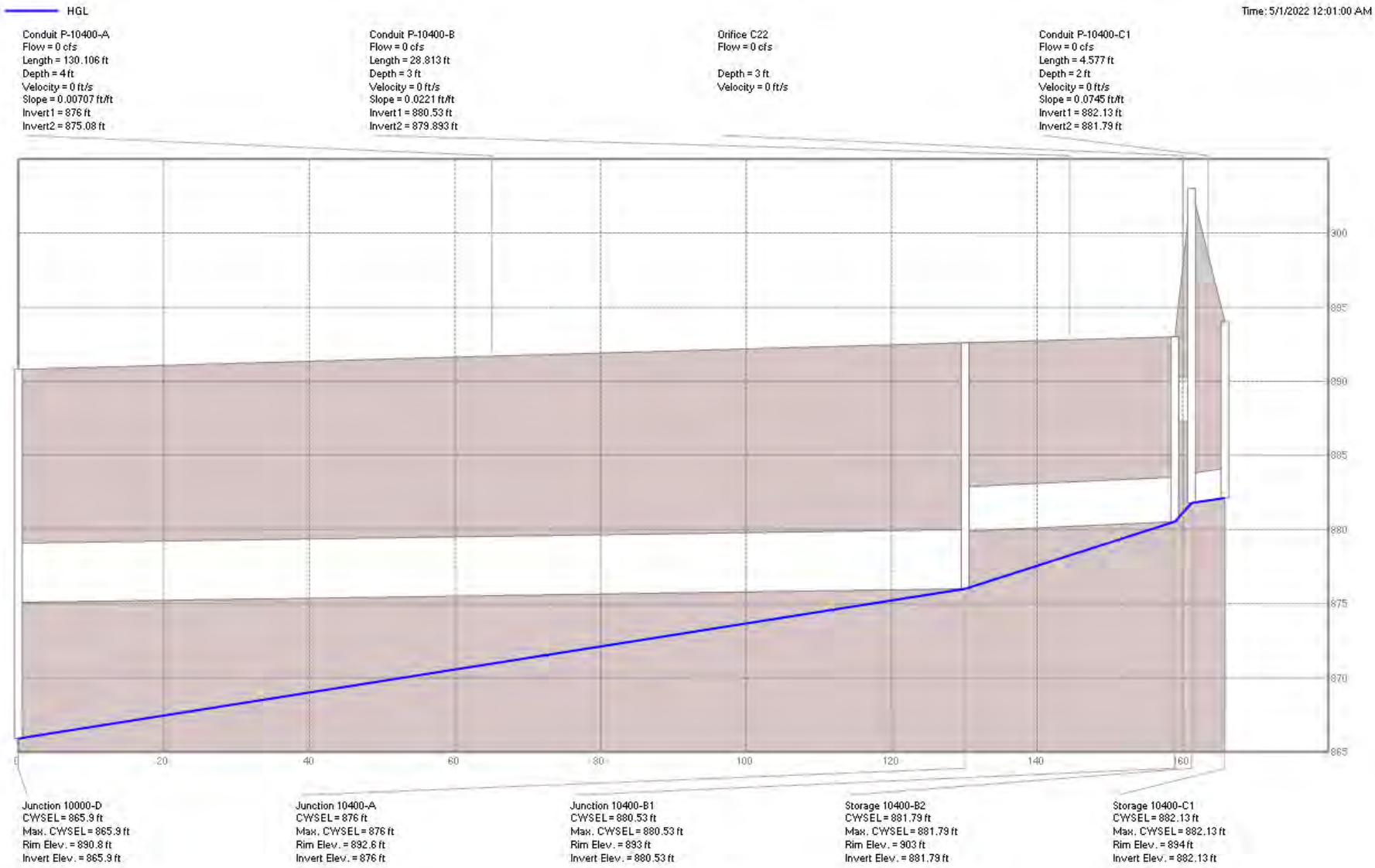

Figure 15: LINE 10400-1

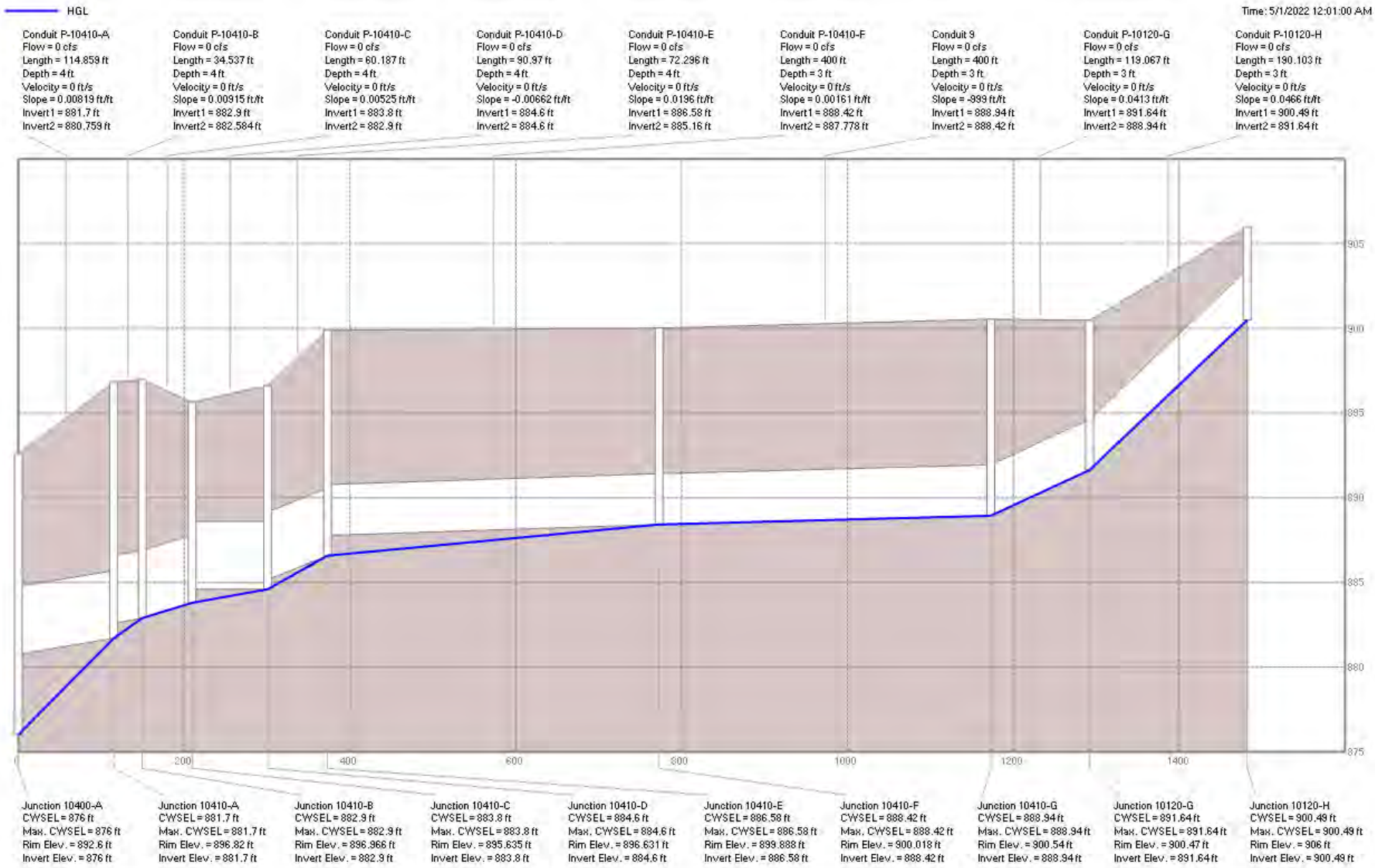

Figure 16: LINE 10410

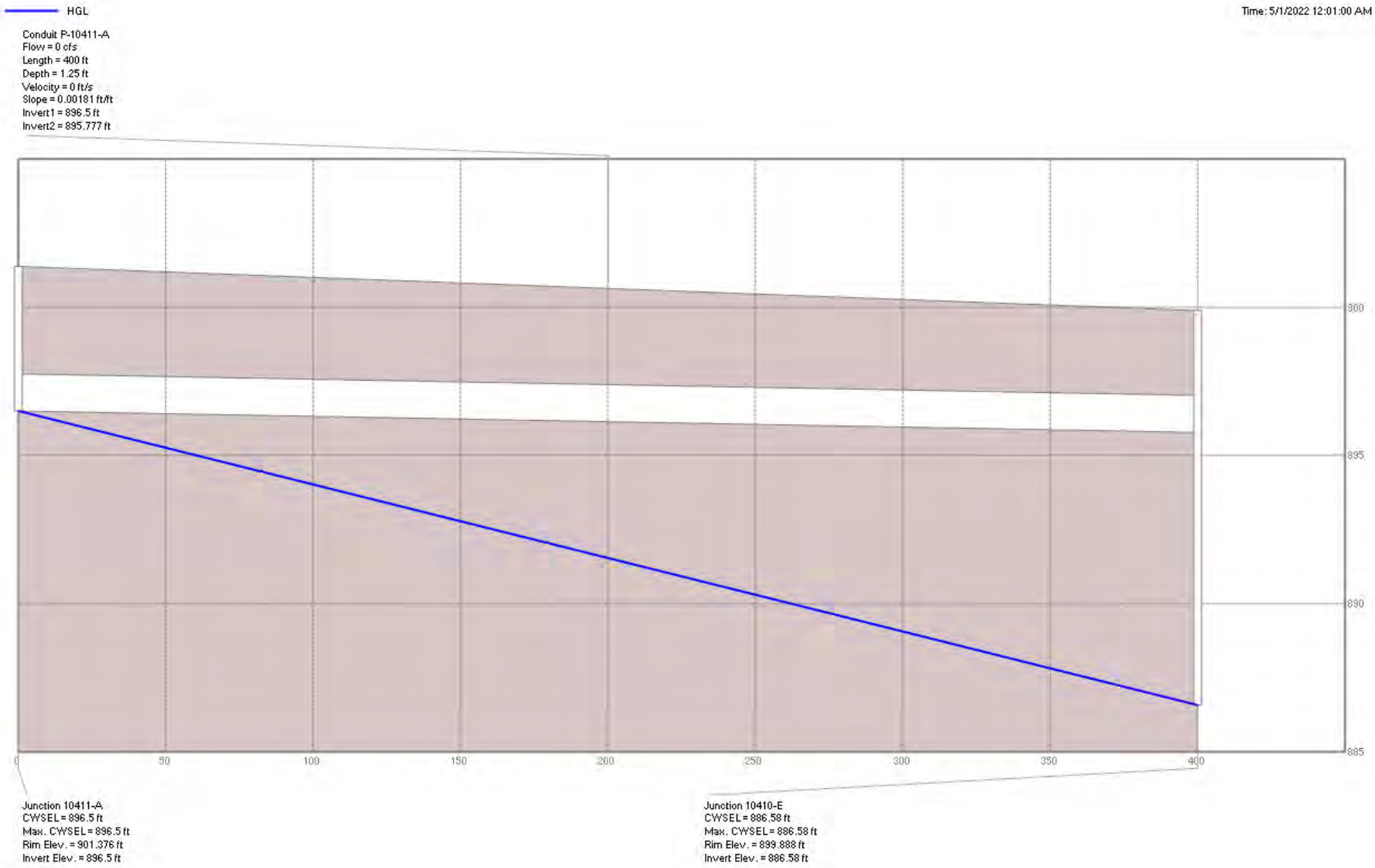

Figure 17: LINE 10411

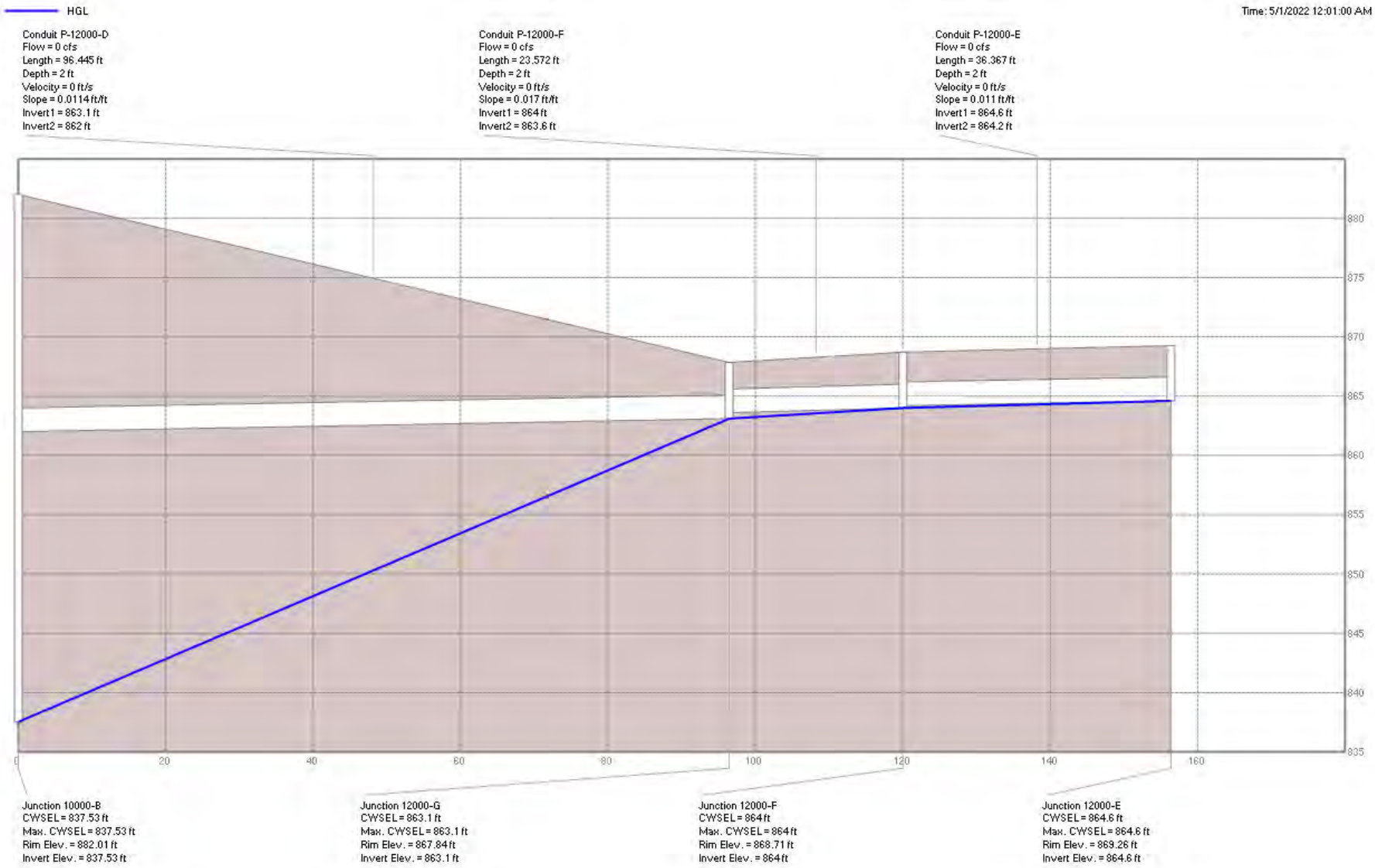

Figure 18: LINE 12000-1

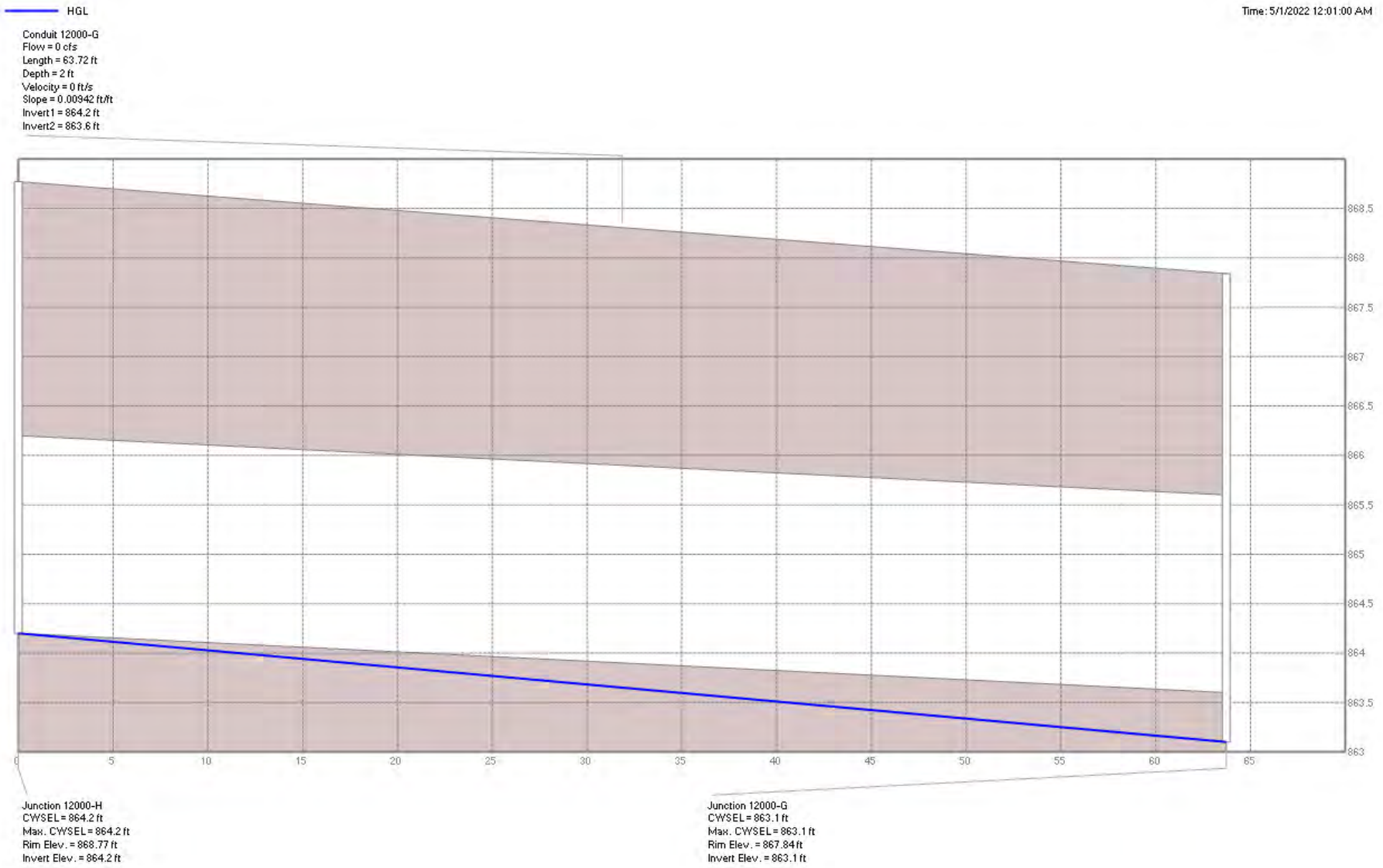

Figure 19: LINE 12000-2

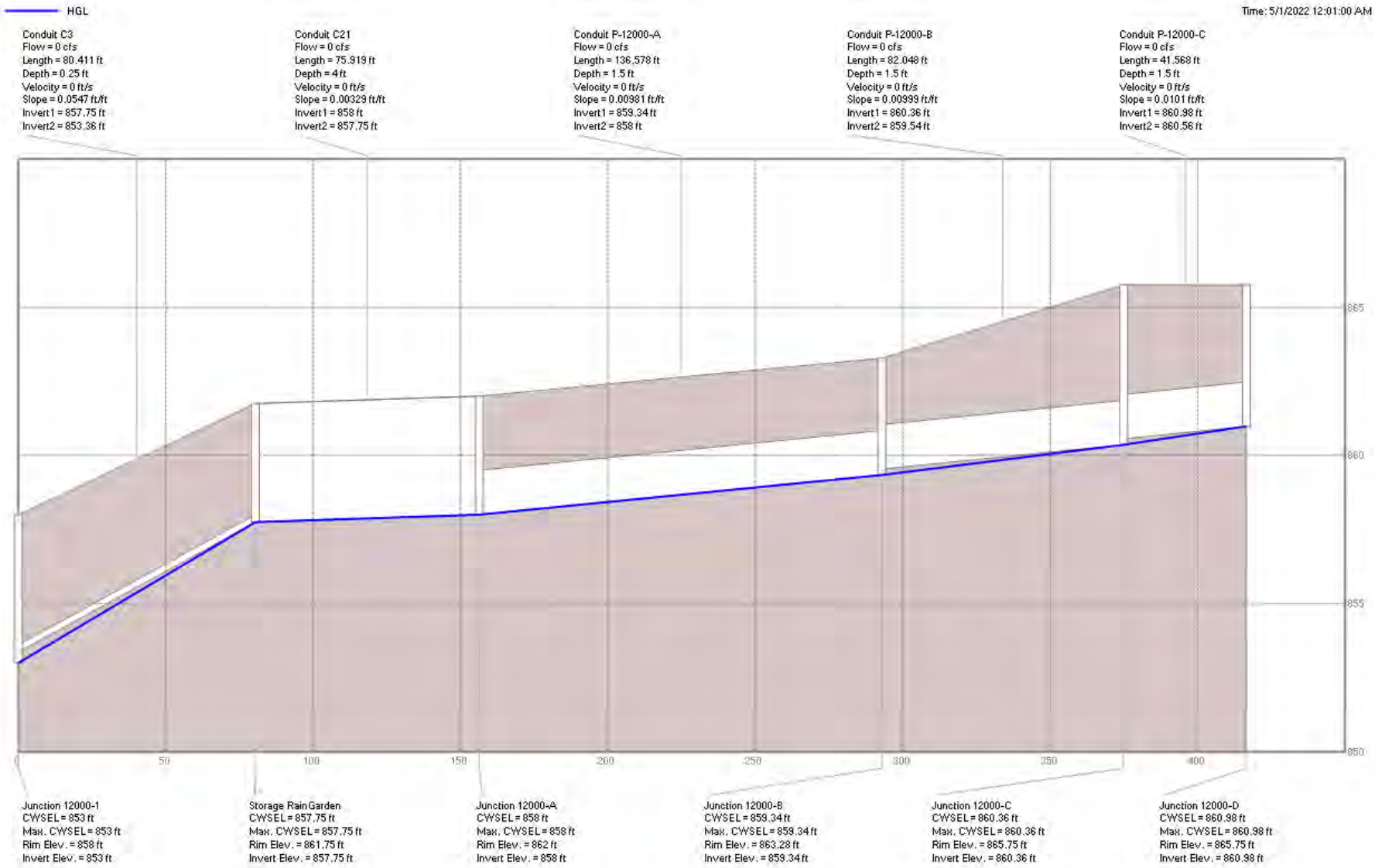

Figure 20: LINE 12000-OUTFALL

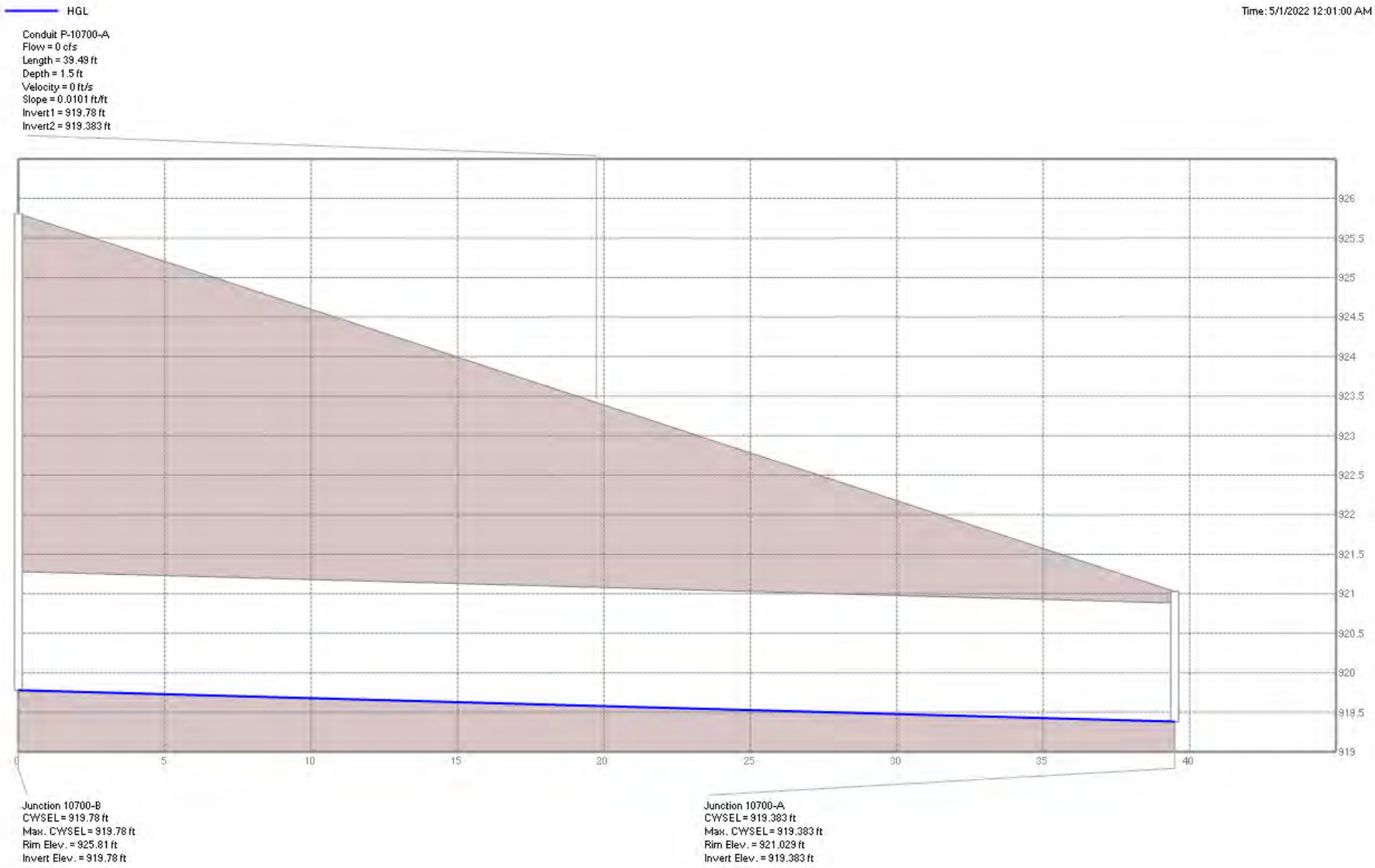

Figure 21: LINE 10700

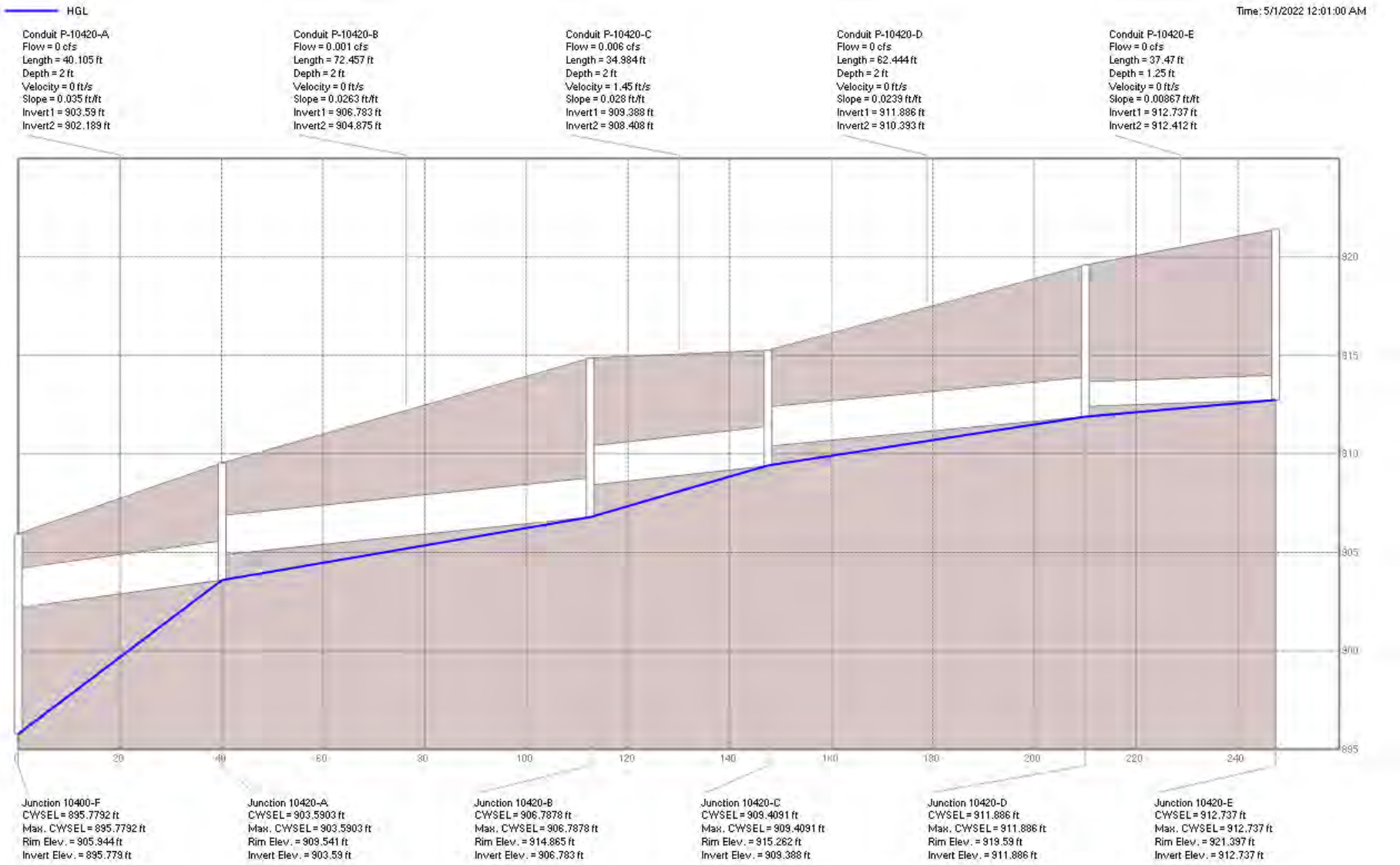

Figure 22: LINE 10420

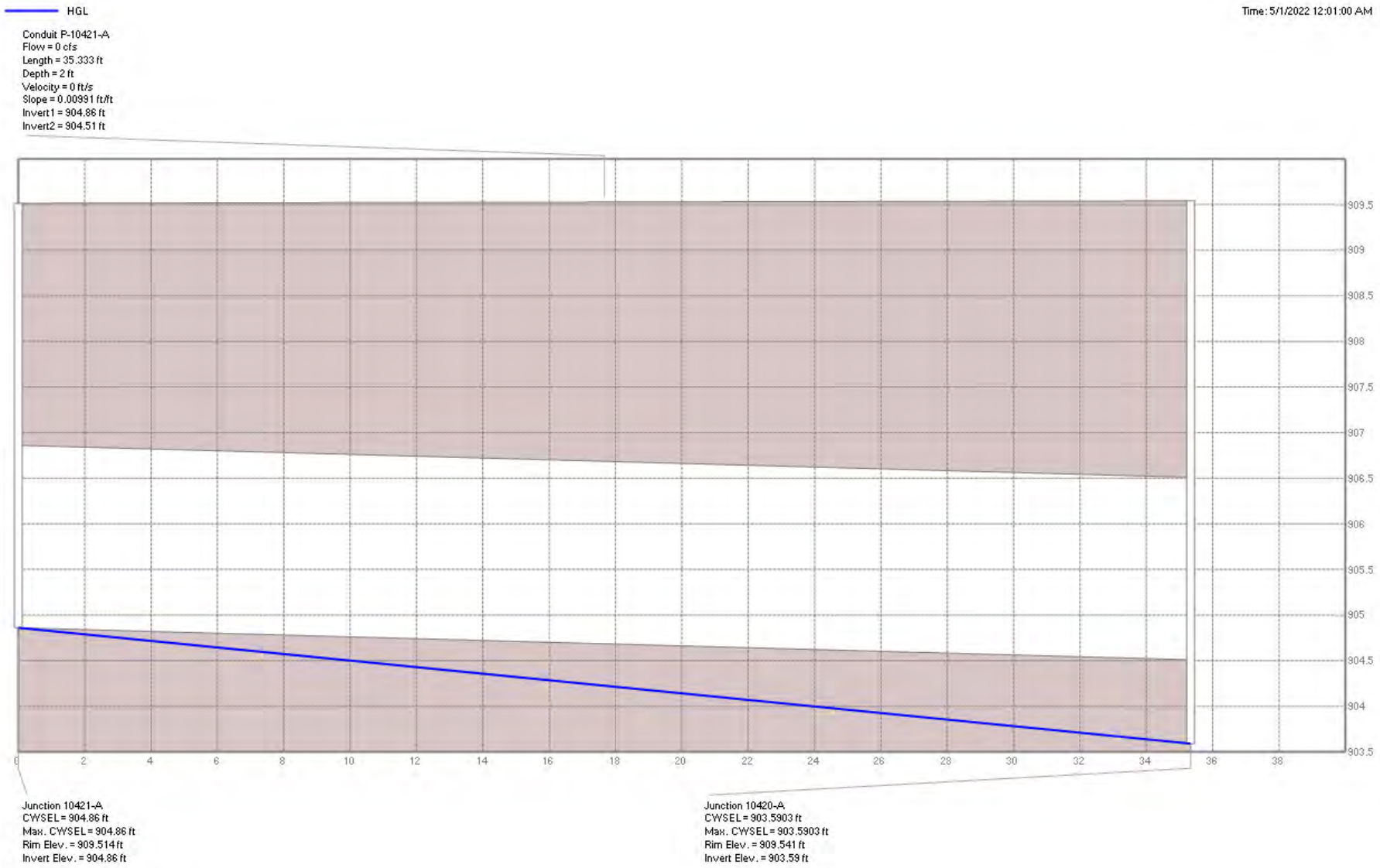

Figure 23: LINE 10421

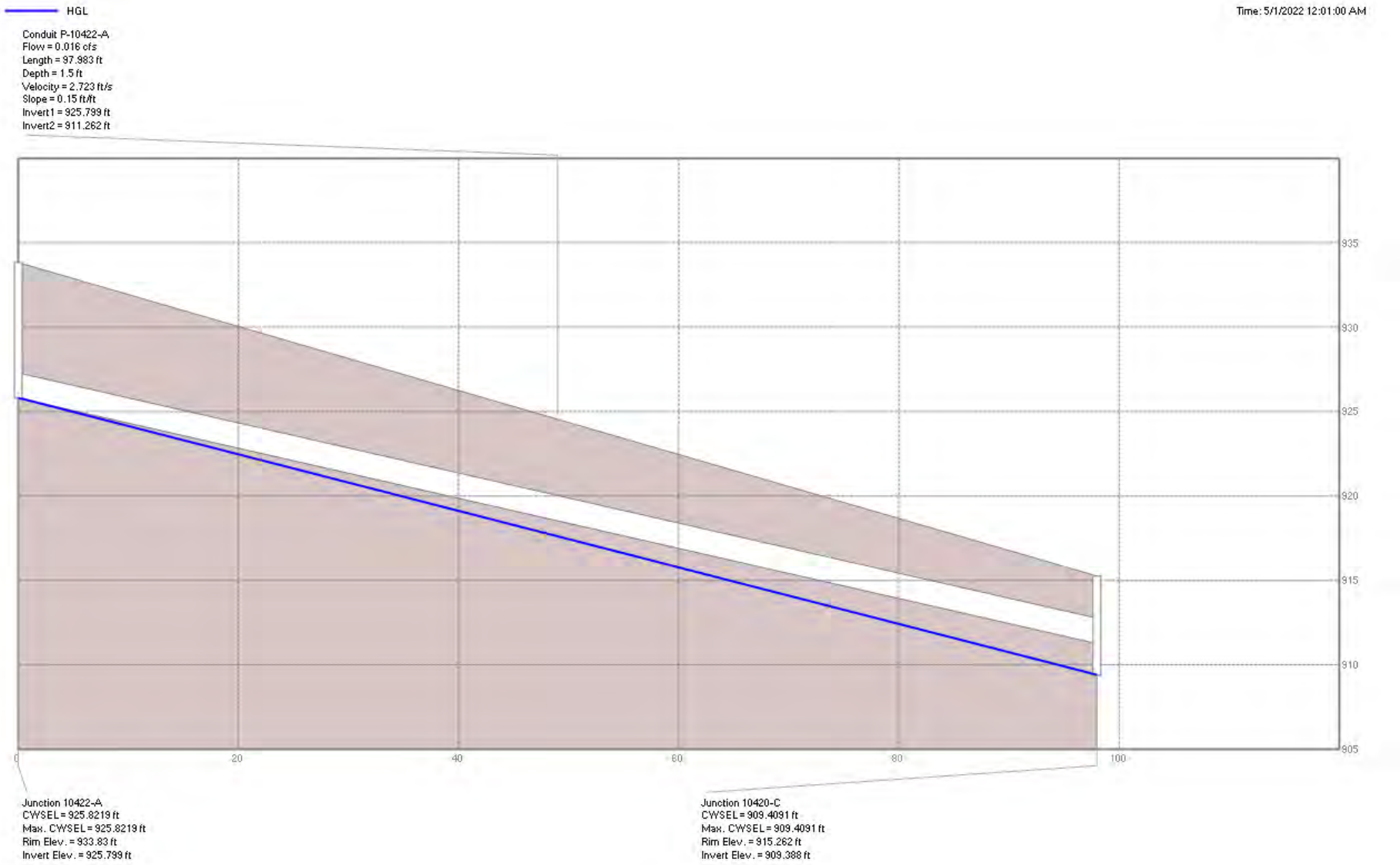

Figure 24: LINE 10422

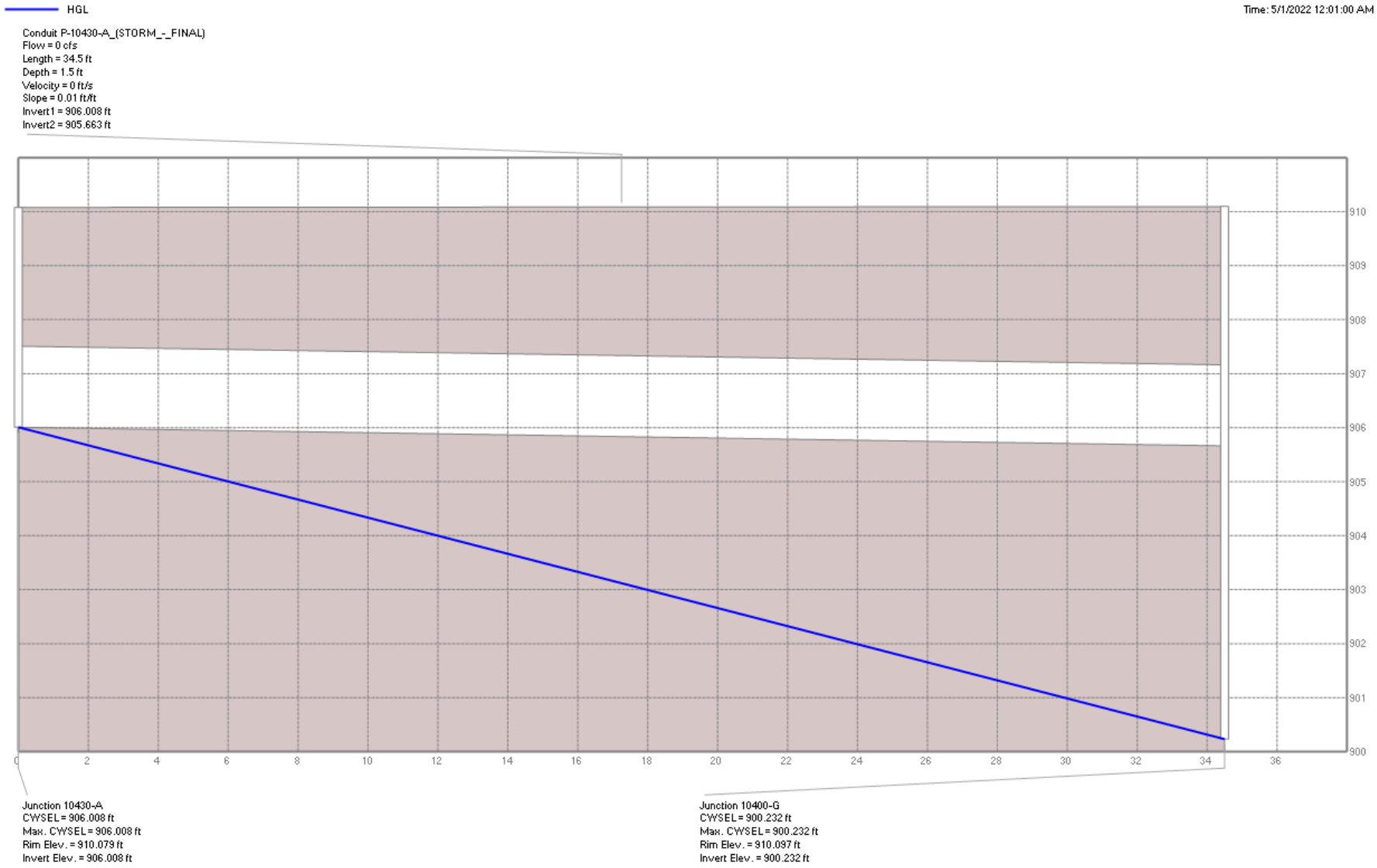

Figure 25: LINE 10430

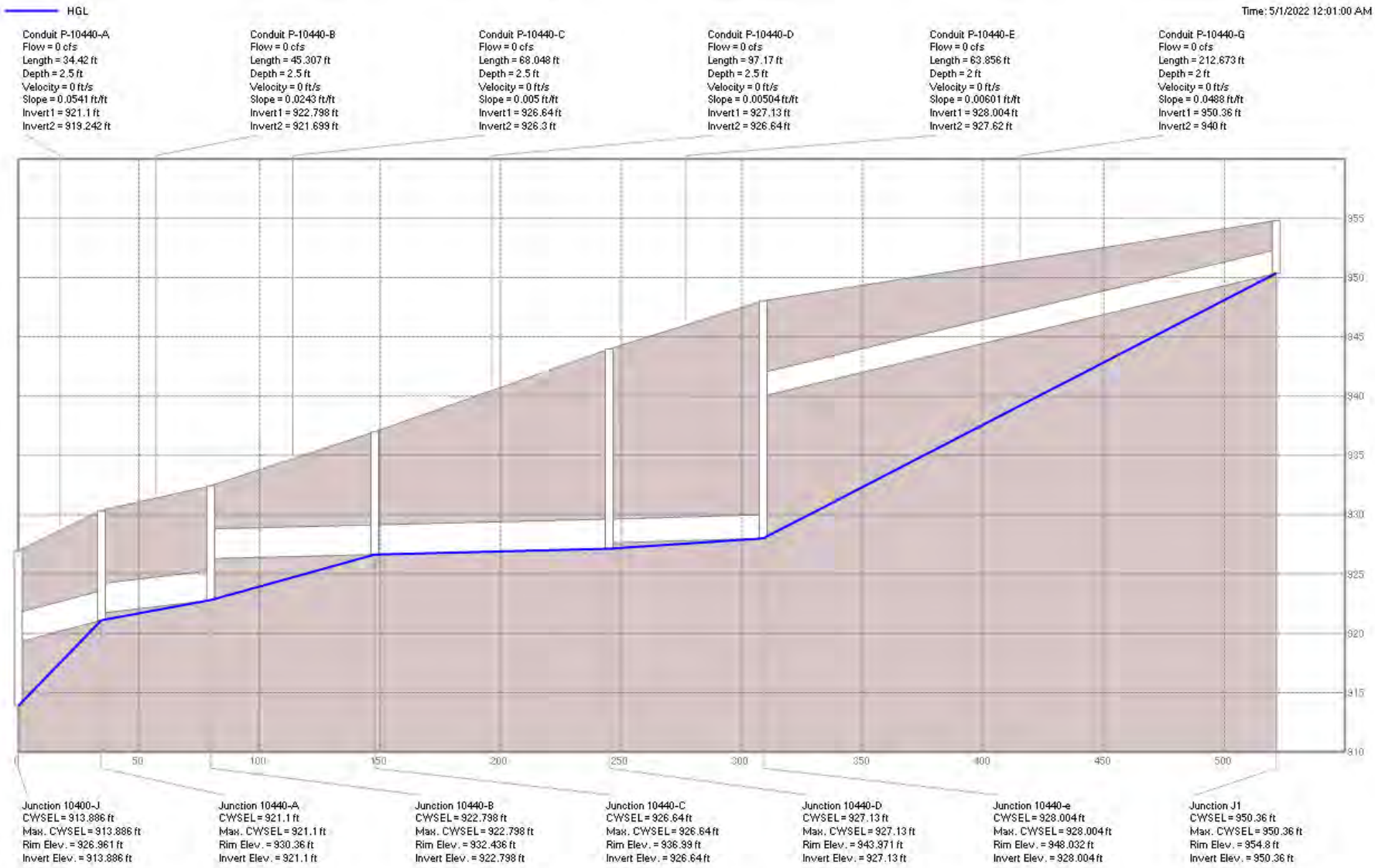

Figure 26: LINE 10440

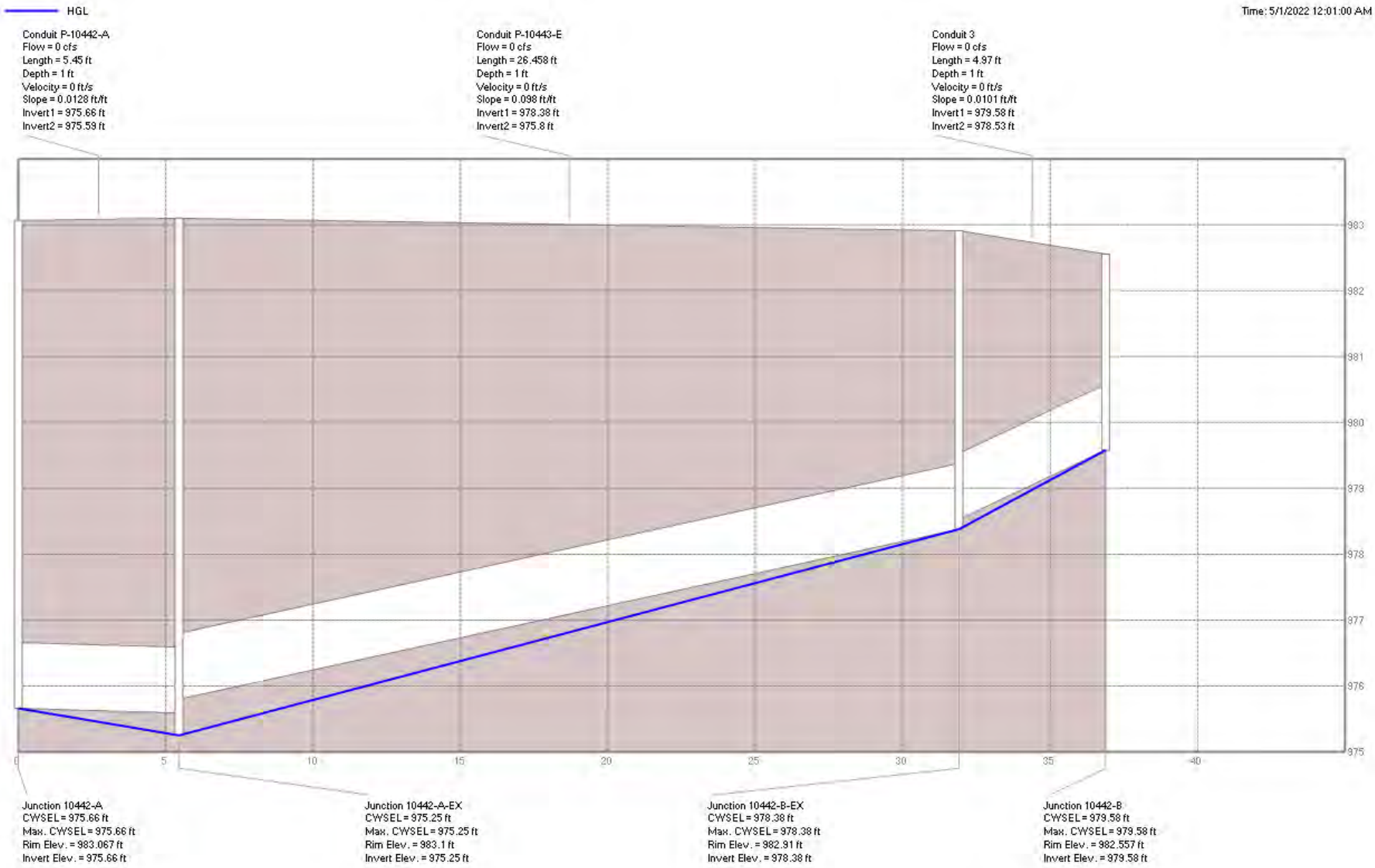

Figure 27: LINE 10442

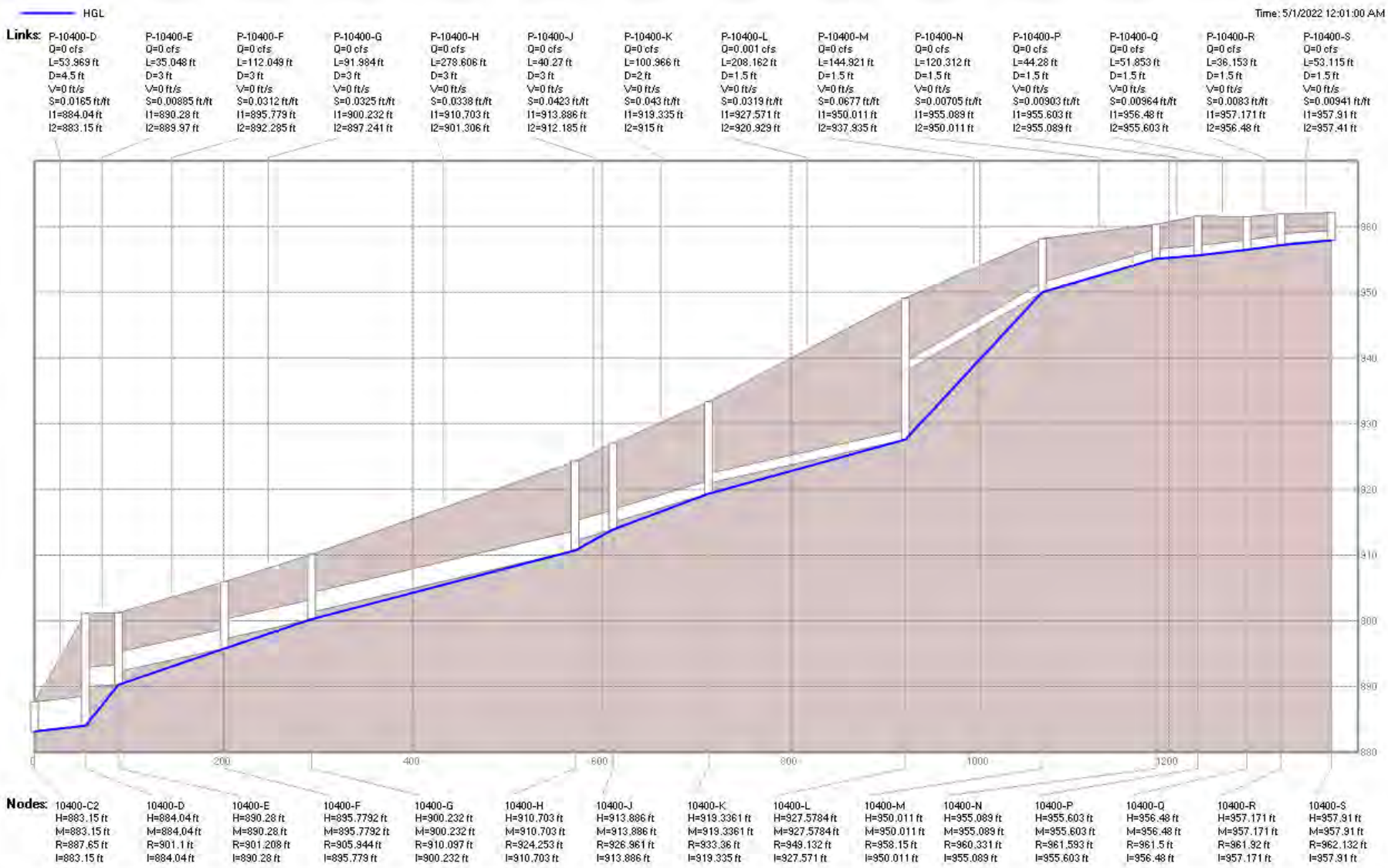

Figure 28: LINE 10400-2

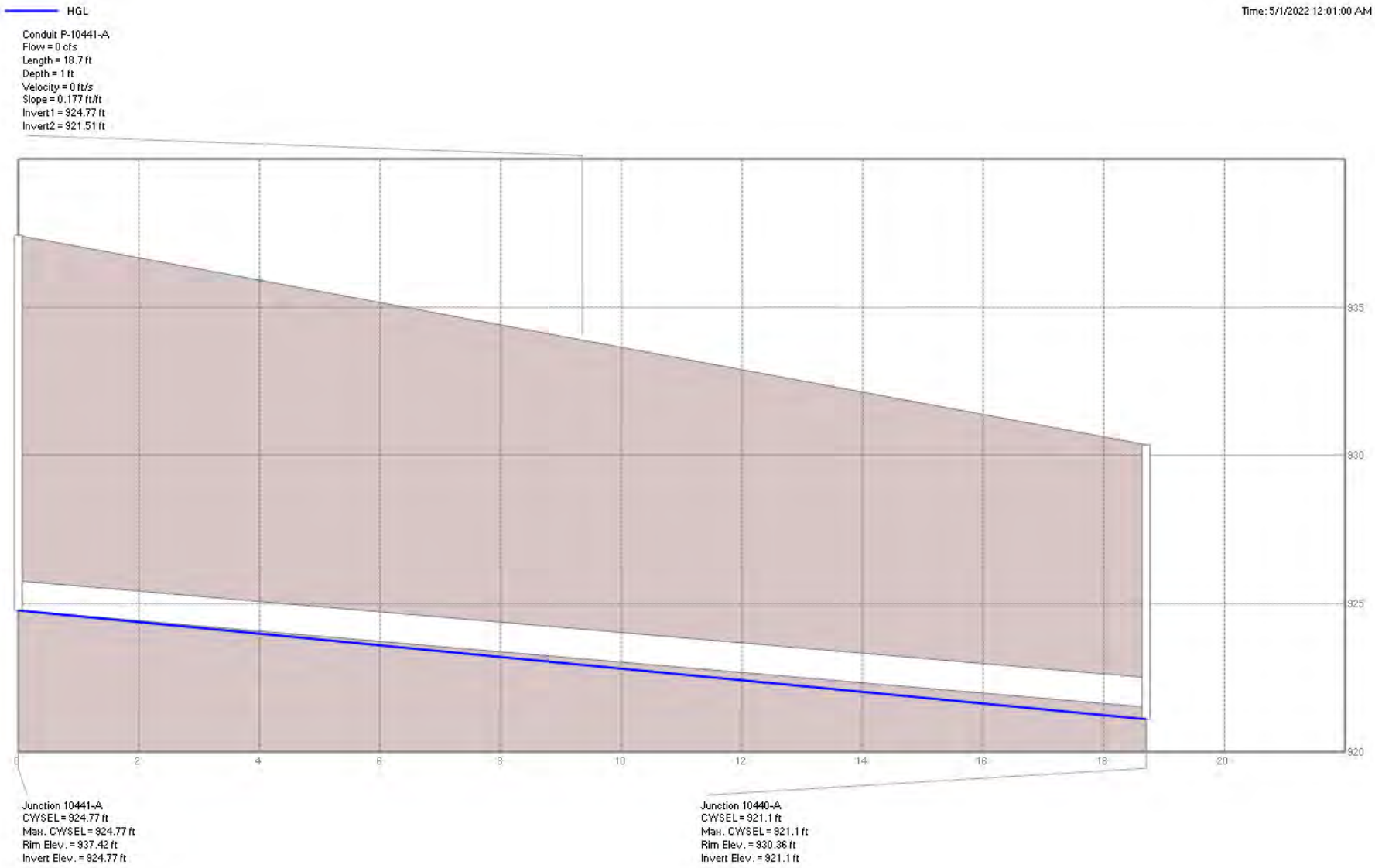

Figure 29: LINE 10441

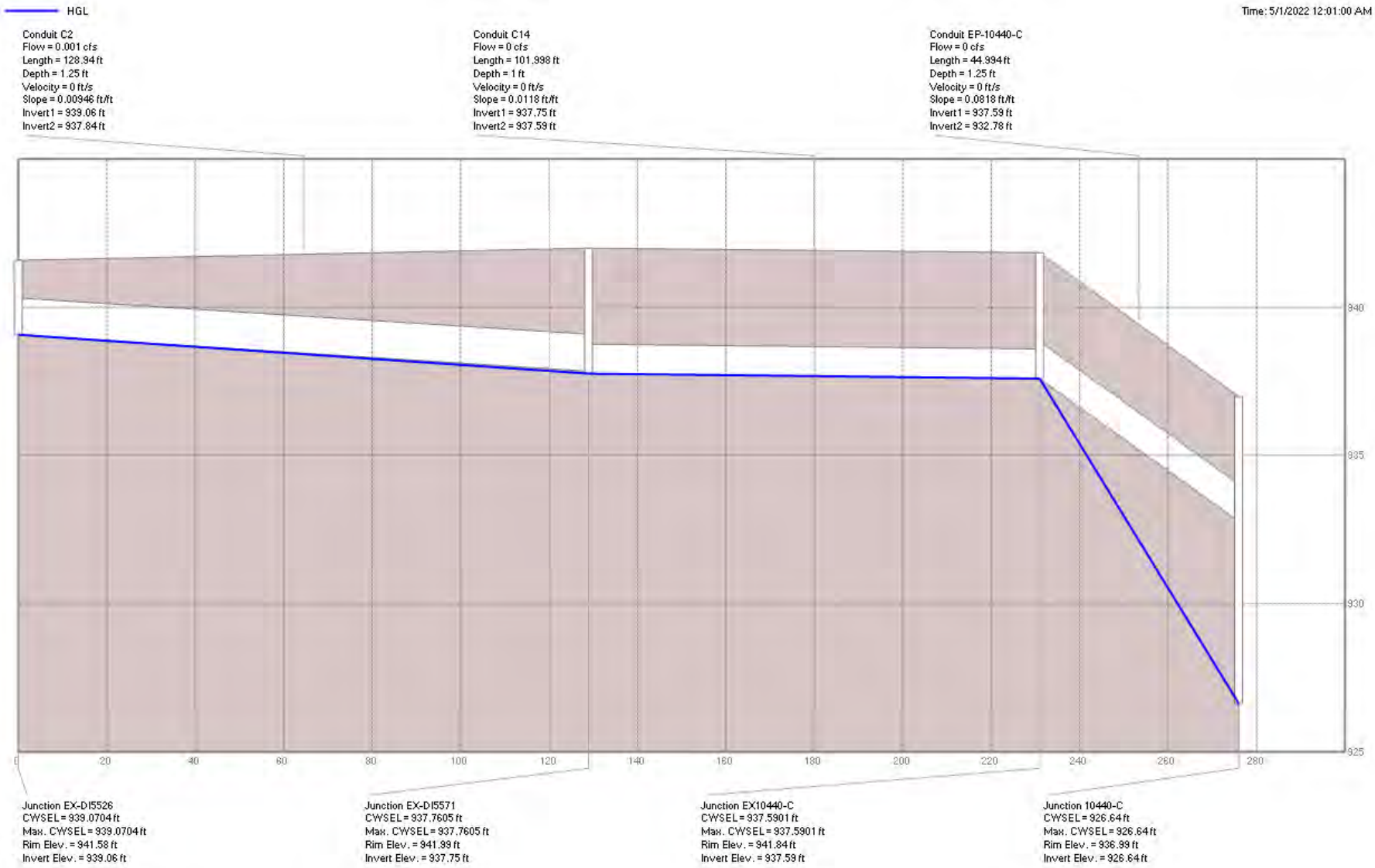

Figure 30: LINE 10440-EX

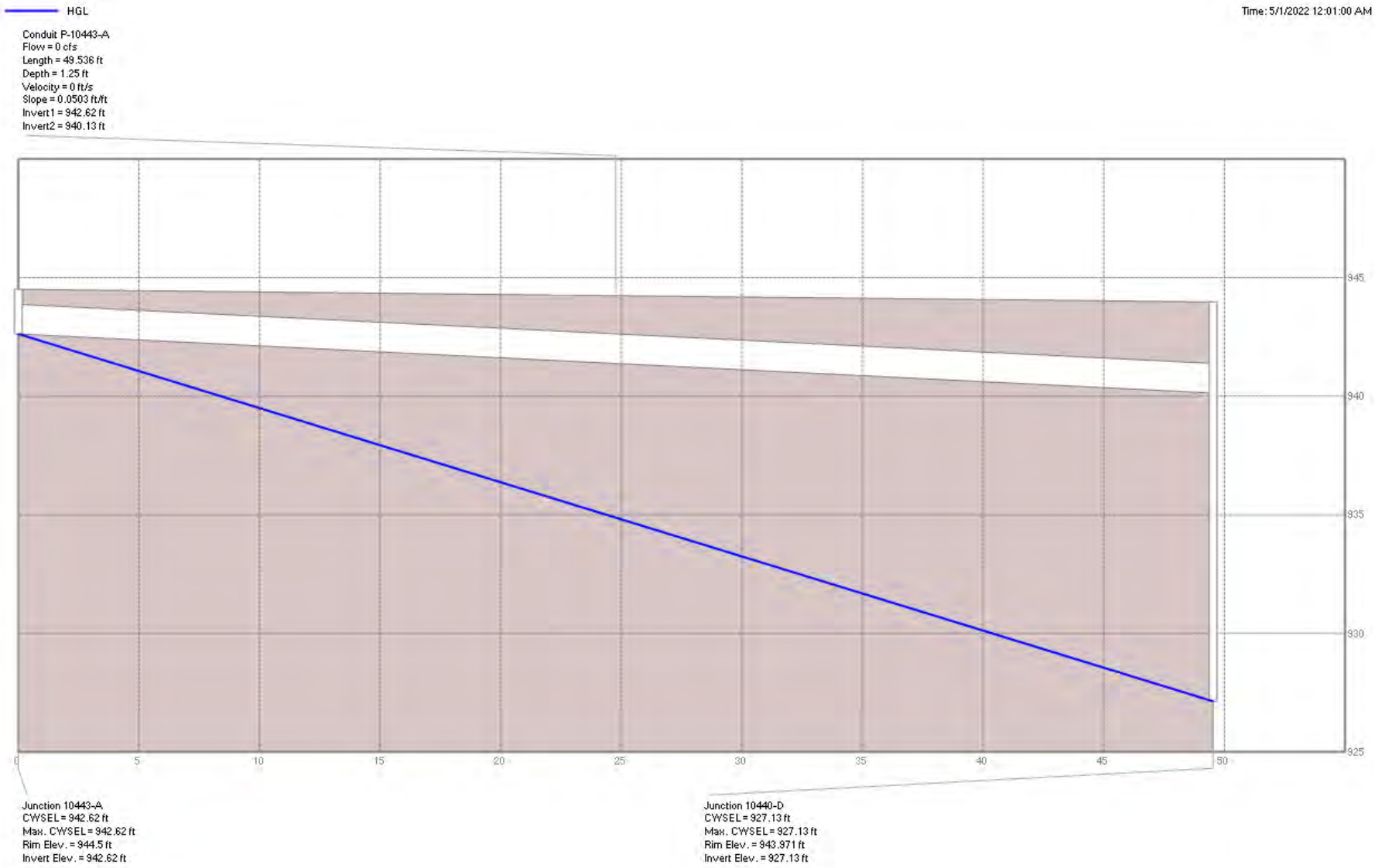

Figure 31: LINE 10443

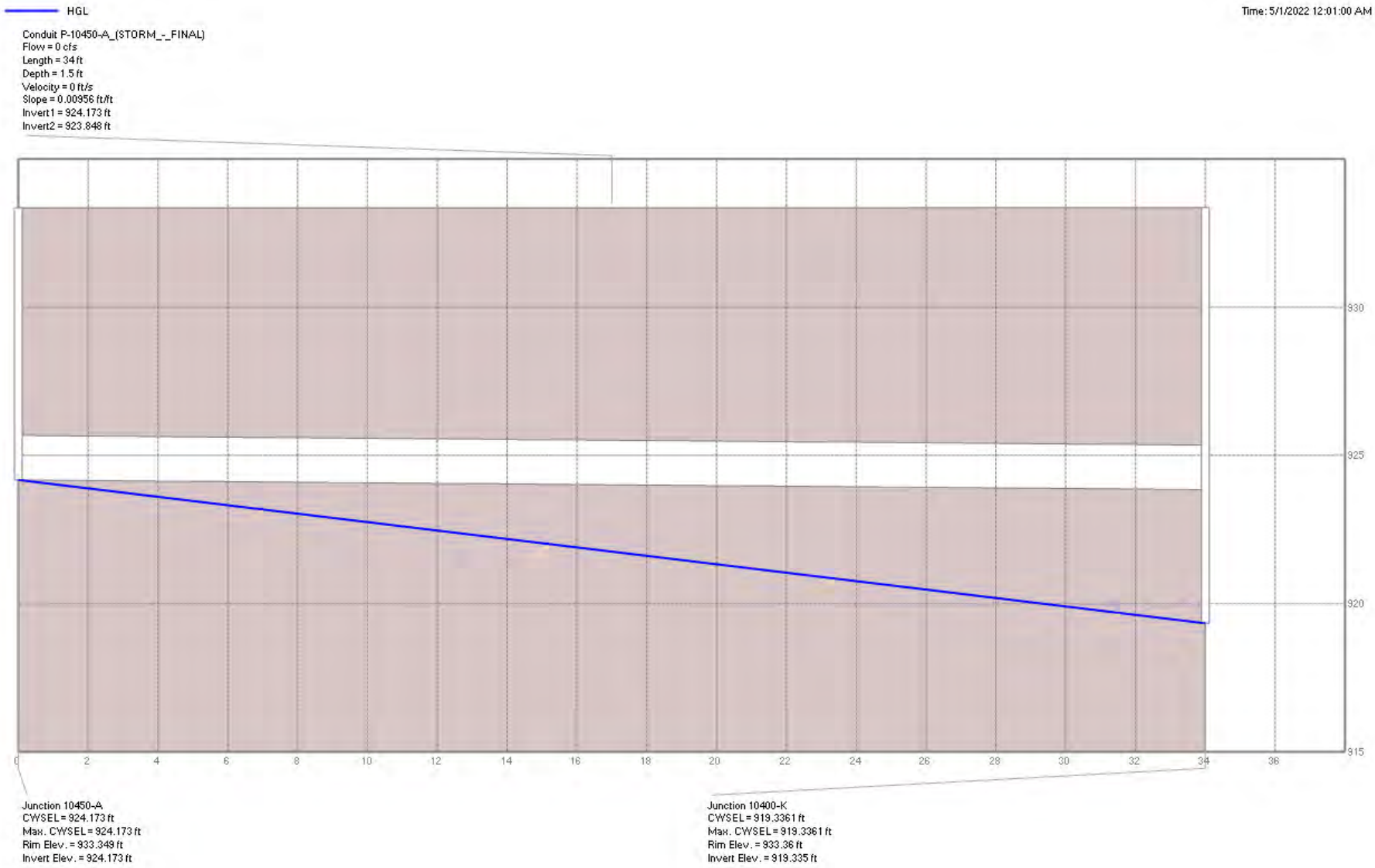

Figure 32: LINE 10450

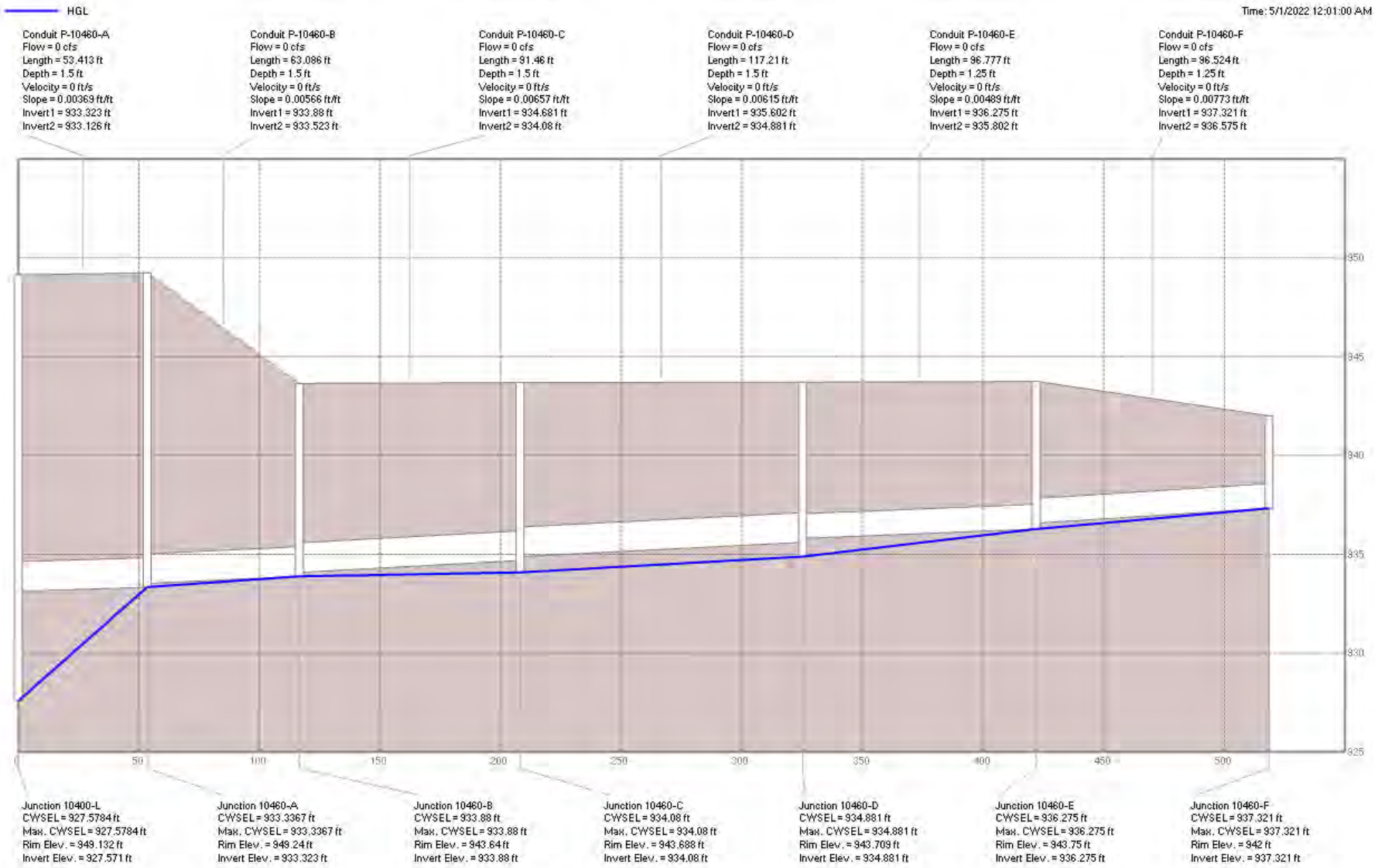

Figure 33: LINE 10460

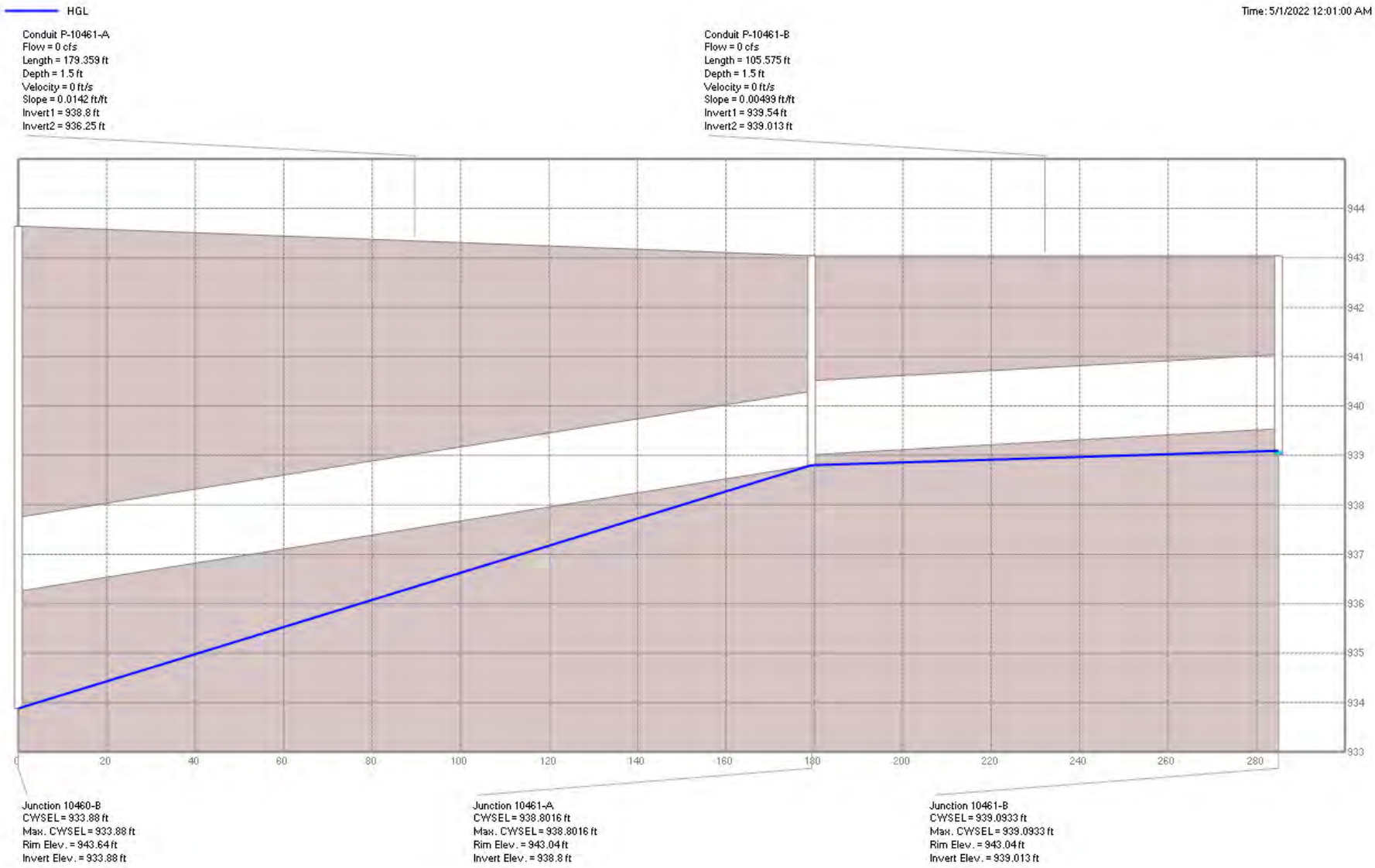

Figure 34: LINE 10461

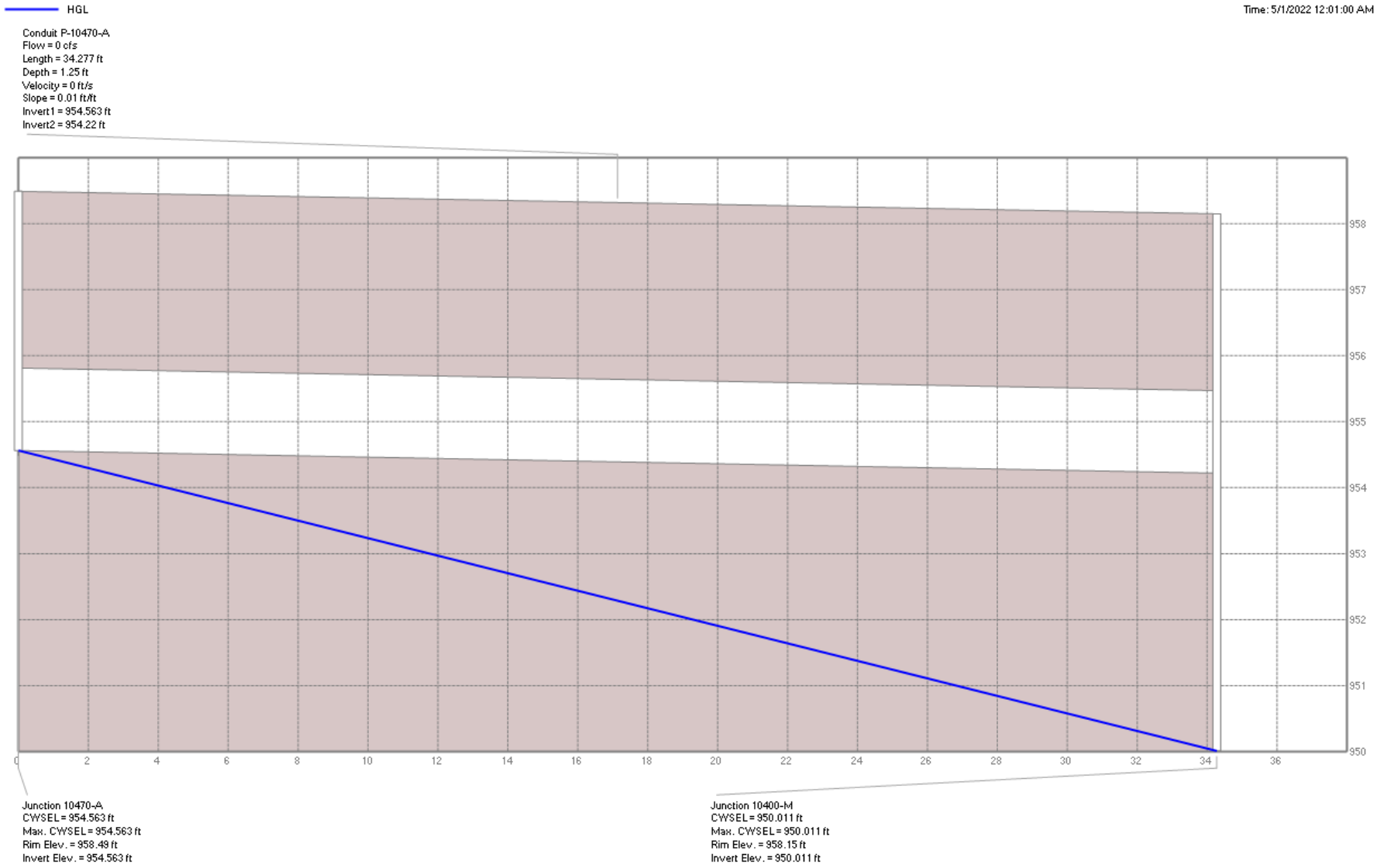

Figure 35: LINE 10470

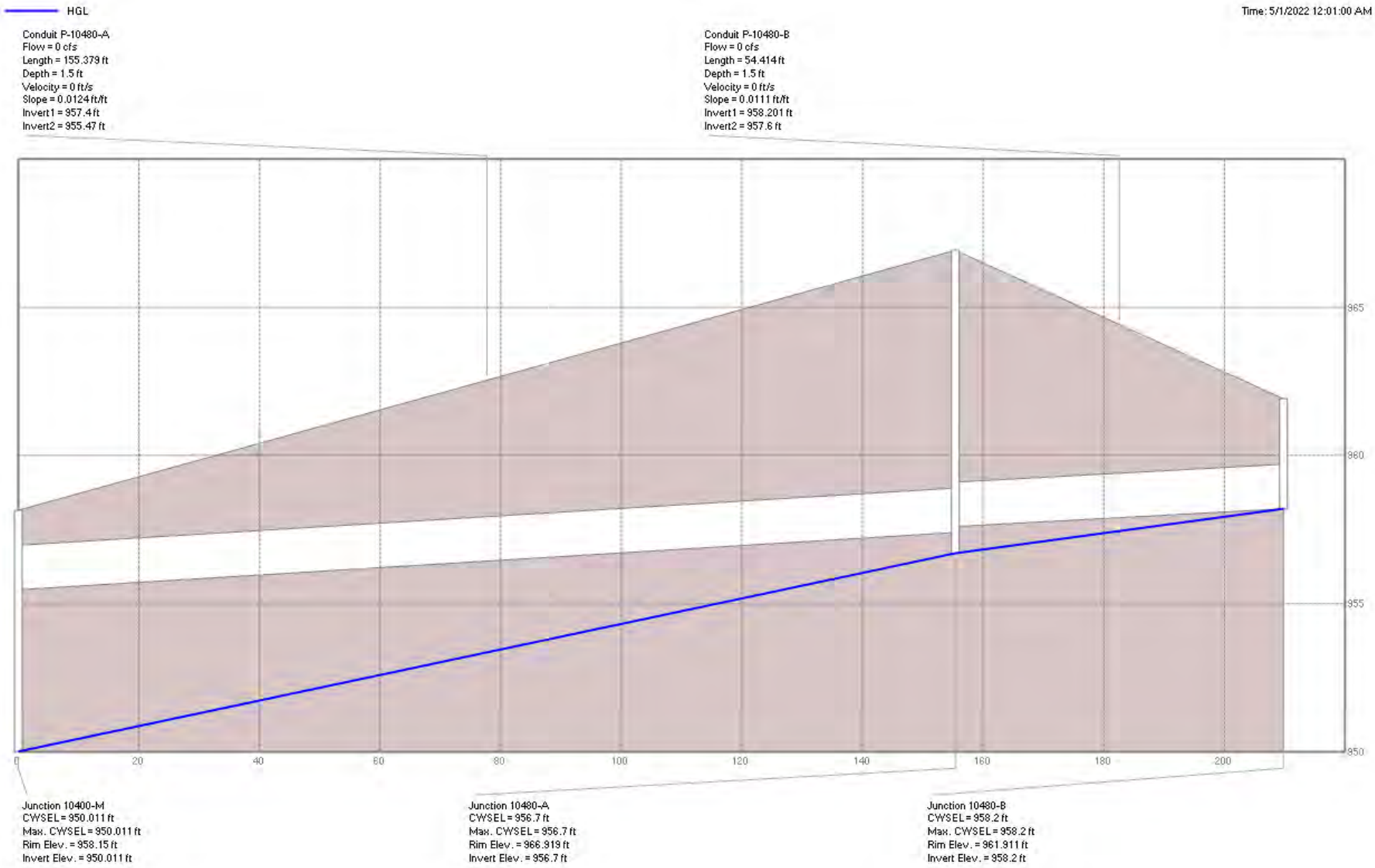

Figure 36: LINE 10480

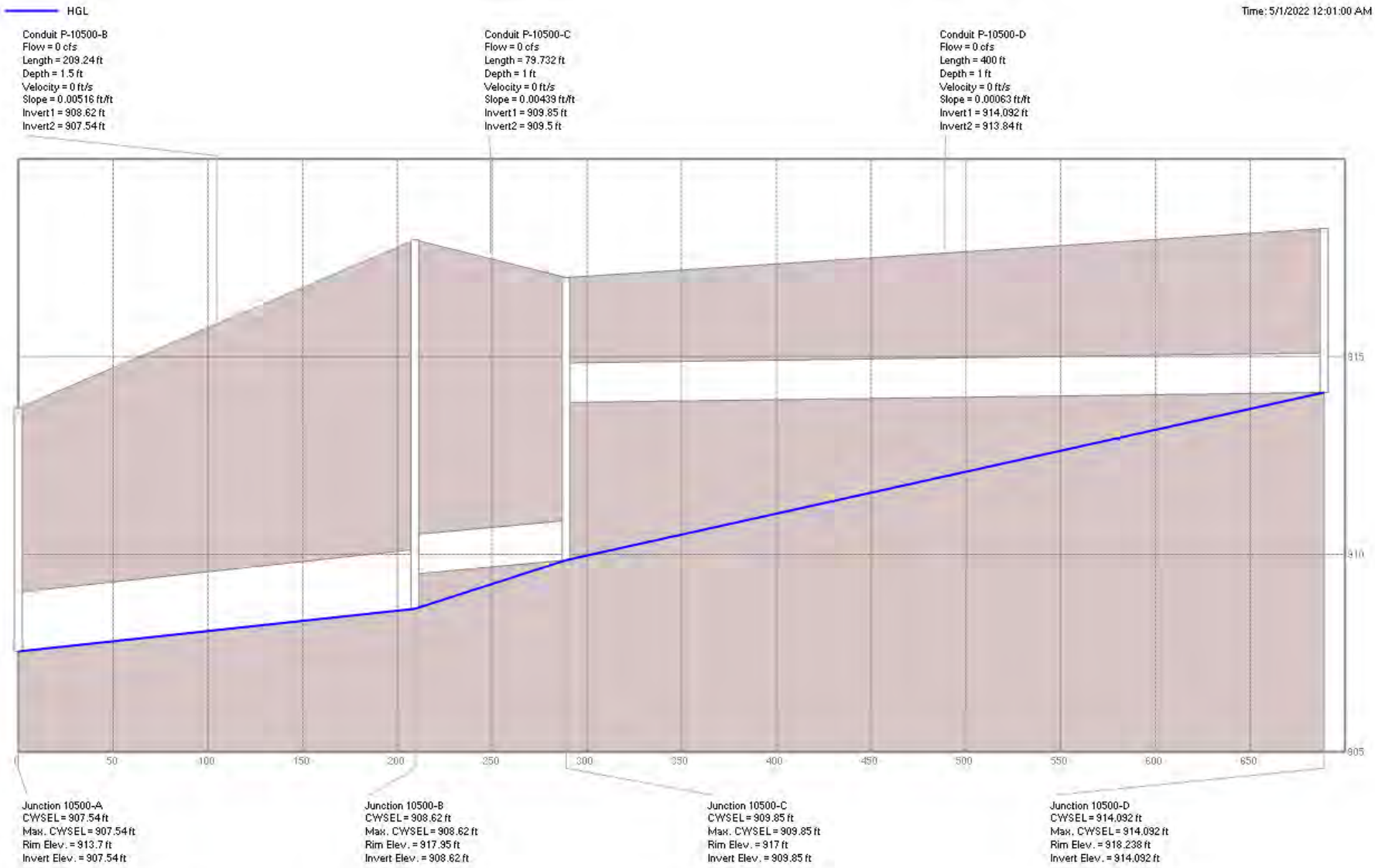

Figure 37: LINE 10500

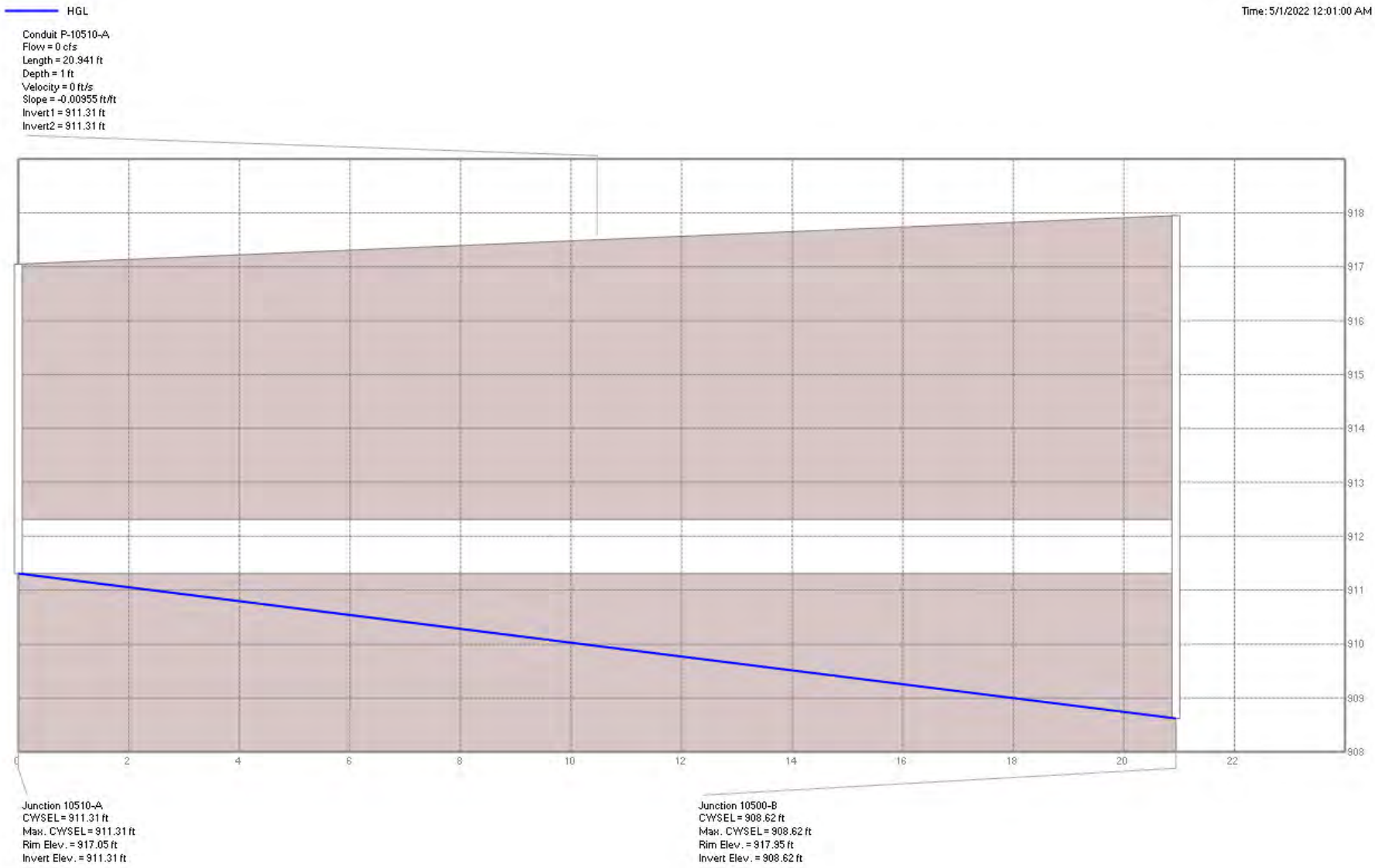

Figure 38: LINE 10510

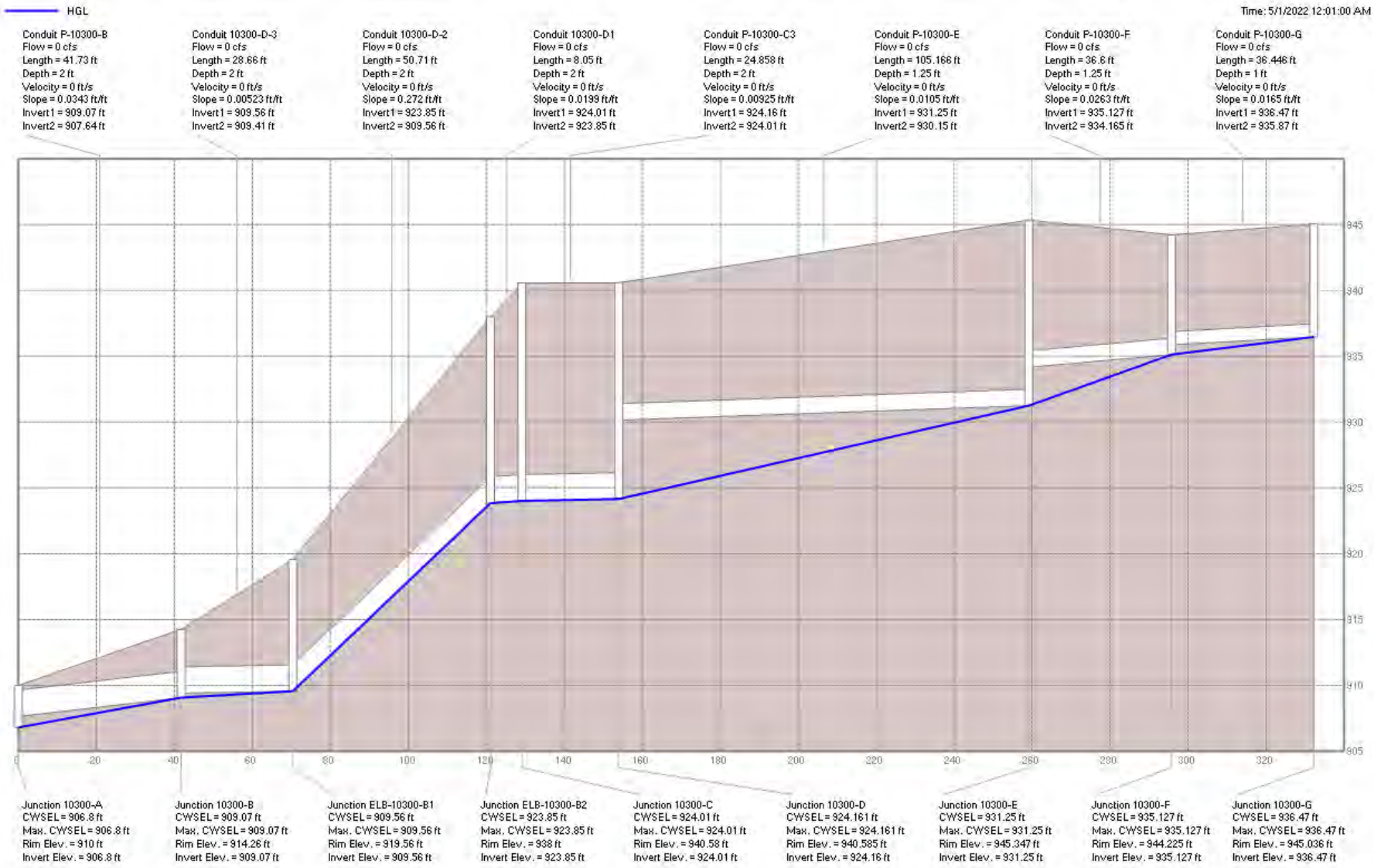

Figure 39: LINE 10300

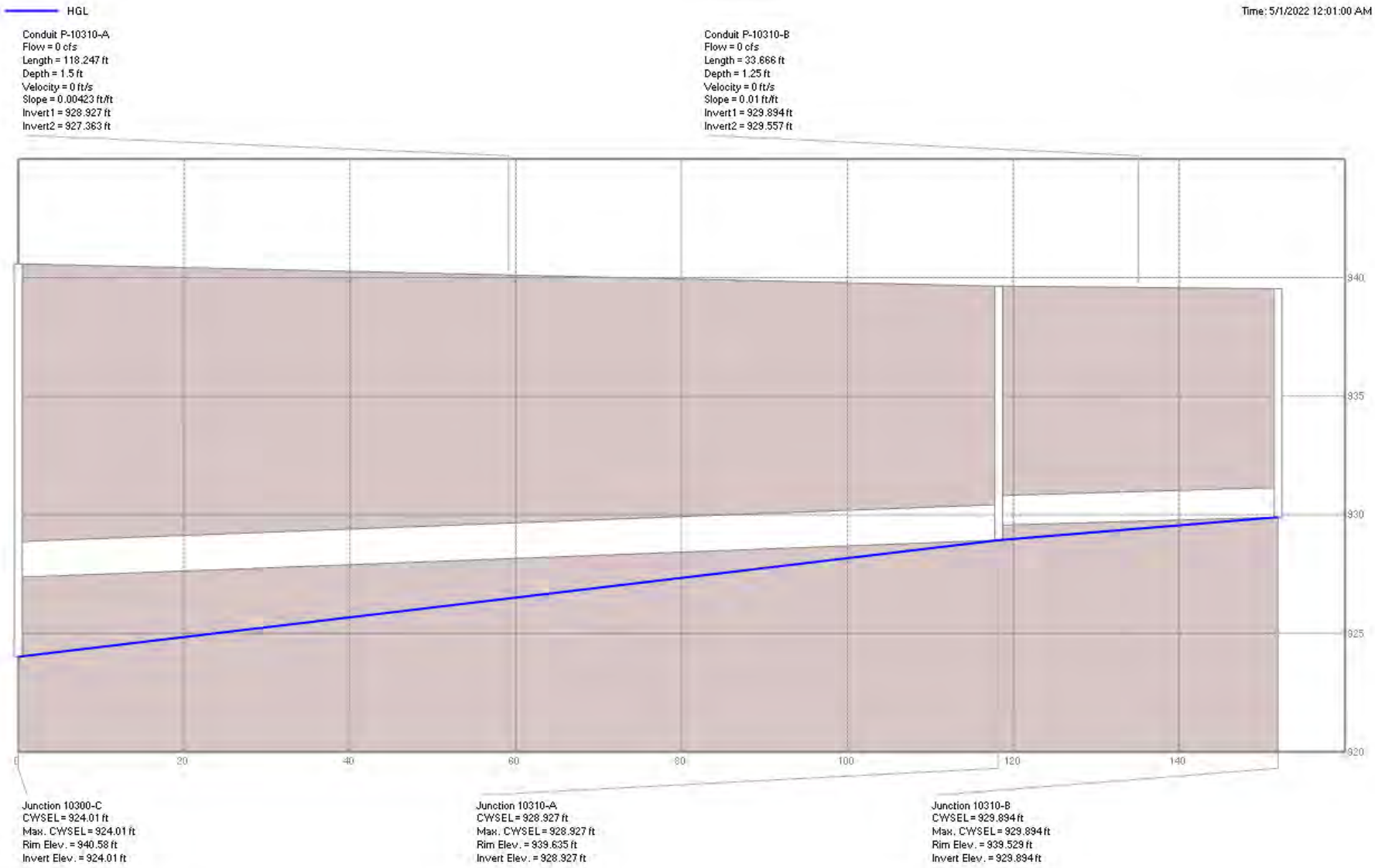

Figure 40: LINE 10310

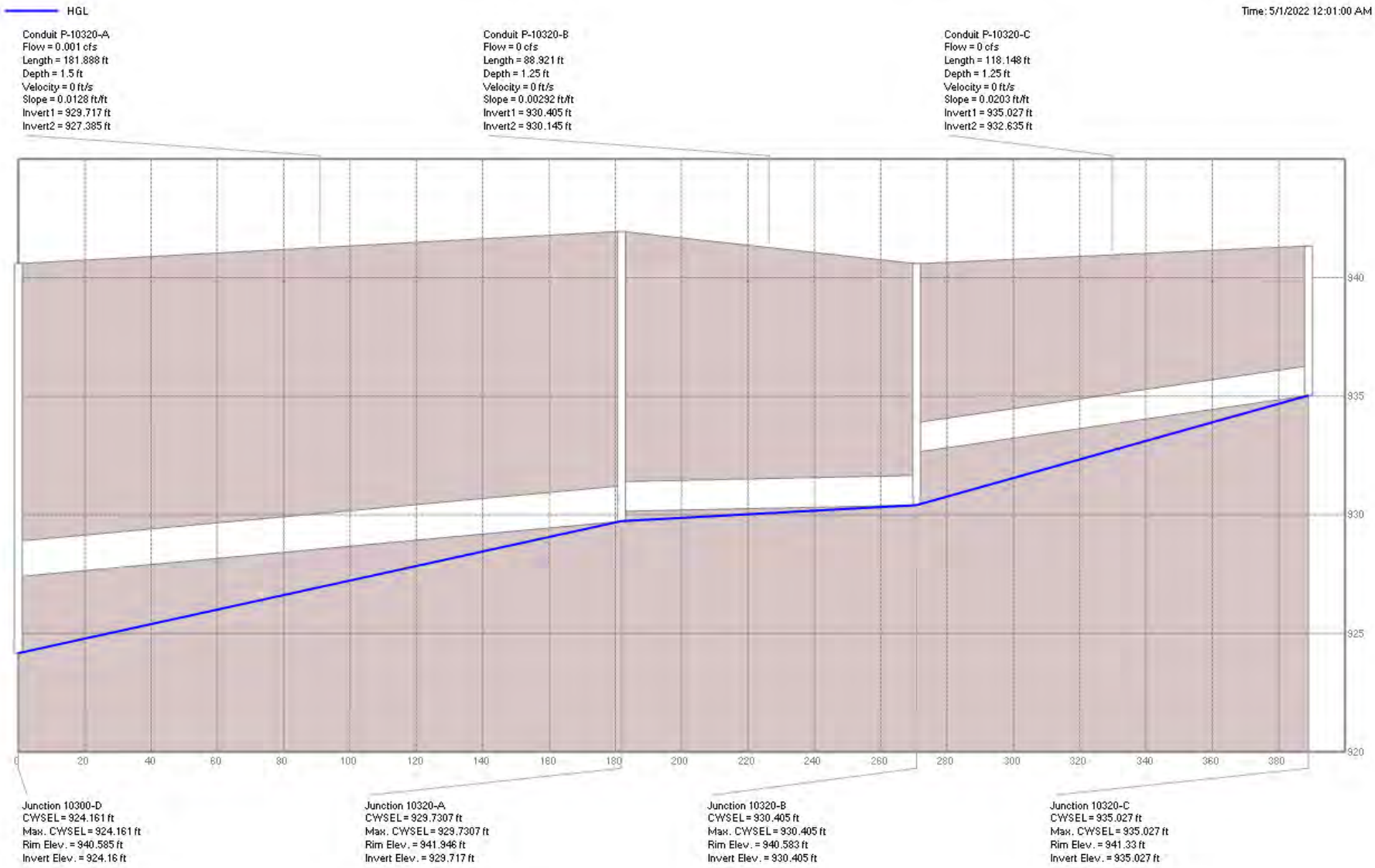

Figure 41: LINE 10320

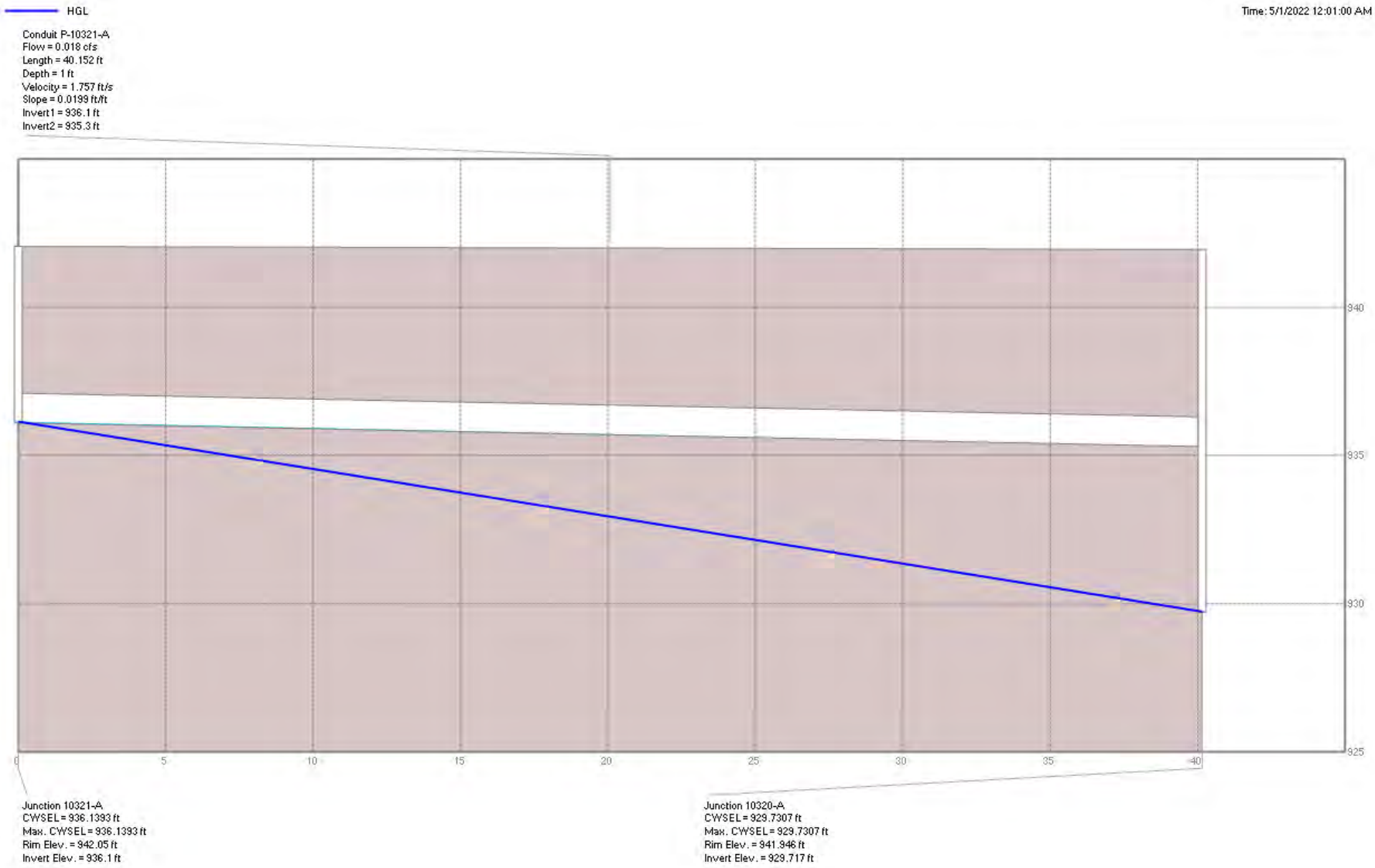

Figure 42: LINE 10321

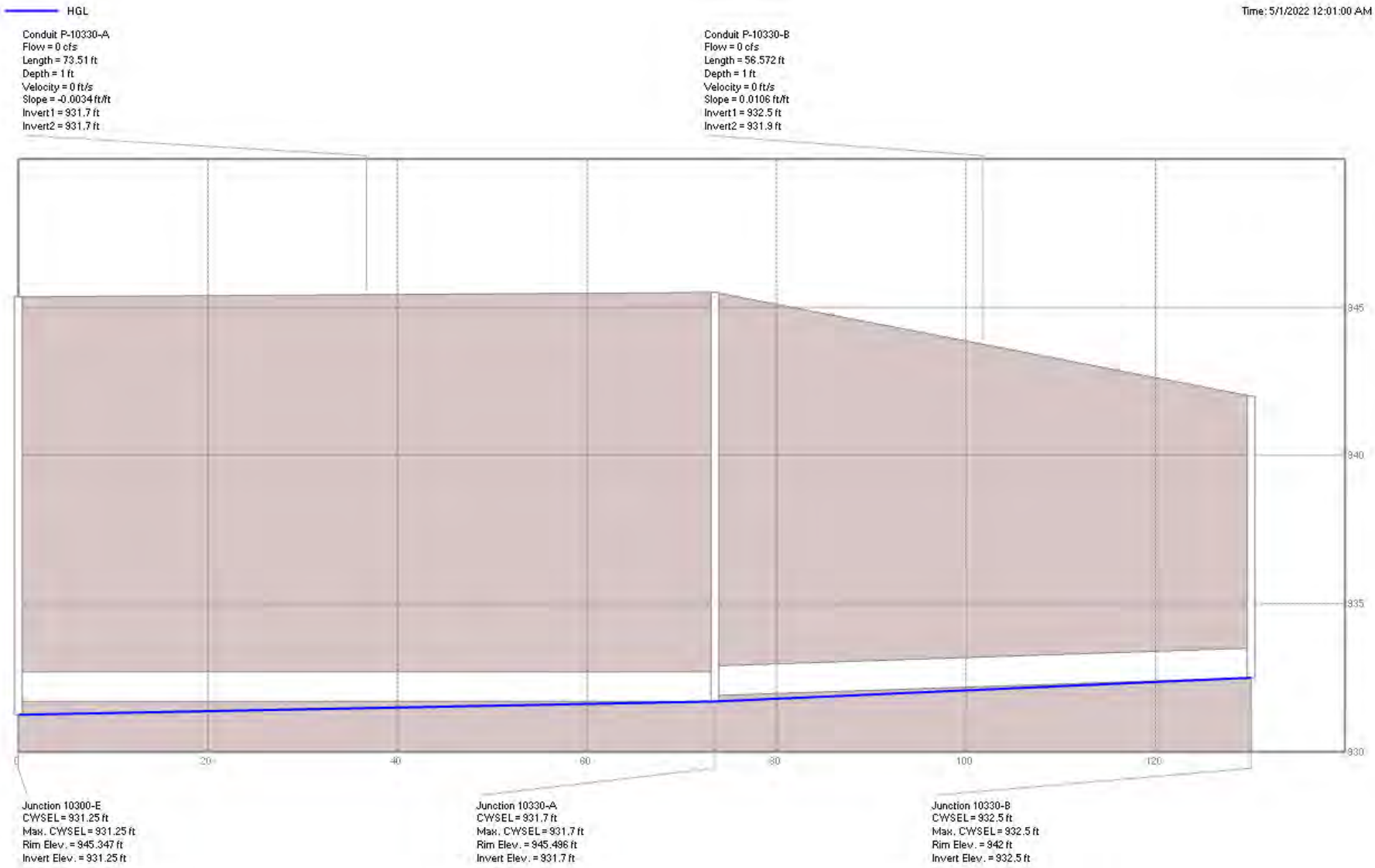

Figure 43: LINE 10330

Table 1A: Conduits

Name	Inlet Node	Outlet Node	Tag	Length (ft)	Roughness	Inlet Elev. (ft)	Outlet Elev. (ft)	Initial Flow (cfs)	Flow Limit (cfs)	Entry Loss Coeff.	Exit Loss Coeff.
1	8903	8807	ex	107.867	0.01	857.01	856.03	0	0	0	0
10	J9	10120-H-S	overland	389.564	0.01	942.74	900.49	0	0	0	0
10000-CB-S	10000-C-S	12000-G-S	Overland	312.008	0.013	889.151	880.604	0	0	0	0
10000-DC-S	10000-D	10000-C-S	Overland	31.126	0.013	890.1	889.151	0	0	0	0
10000-ED-S	10100-A-S	10001-A-S	Overland	100.916	0.013	889.312	889	0	0	0	0
10123-AF	10123-A	10410-G	EX	36.933	0.013	888.94	896.18	0	0	1	0
10125-AG	10125-A	10120-G	EX	98.171	0.013	898.68	896.12	0	0	1	0
10200-B	10200-B	10200-A	GMP3	156.326	0.013	887.56	874.47	0	0	1	0
10203-A	10203-A	10200-D	GMP3	28.554	0.013	918.07	917.45	0	0	1	0
10300-D1	10300-C	ELB-10300-B2	GMP5	8.05	0.013	924.01	923.85	0	0	0	0
10300-D-2	ELB-10300-B2	ELB-10300-B1	GMP5	50.71	0.013	922.85	909.56	0	0	0	0
10300-D-3	ELB-10300-B1	10300-B	GMP5	28.66	0.013	909.56	909.41	0	0	0	0
10310-C-S2	10310-B-S2	10310-B-S	Overland	10.096	0.013	941.37	939.529	0	0	0	0
11	OL-J10	OL-J10b	Overland	166.477	0.01	1011.884	981.726	0	0	0	0
11000-A0	11000-A	11000-0	Pipe	15.958	0.013	861.67	861.08	0	0	1	0
12	OL-J10b	J13	Overland	55.163	0.01	981.75	980.139	0	0	0	0
12000-B'B	12000-B'	12000-D-S	Overland	40.902	0.013	866.842	865.238	0	0	0	0
12000-DC-S	12000-F-S.	12000-B'	Overland	53.737	0.013	868.71	866.842	0	0	0	0
12000-FE-S	12000-H-S	12000-C-S	Overland	164.805	0.013	868.6	865.18	0	0	0	0
12000-G	12000-H	12000-G	GMP3	63.72	0.013	864.2	863.6	0	0	1	0
12000-RainGarden	12000-1	12000	Overland	72.824	0.013	853	838	0	0	0	0
13	J10	J11	EX	53.568	0.01	1008.97	1004.59	0	0	0	0
13000-A0	13000-A	13000-0	EX	79.383	0.013	941.46	936.2	0	0	1	0
14	J11	J12	EX	139.856	0.01	1004.59	981.34	0	0	0	0
14000-A0'	14000-A	14000-0'	Overland	100.128	0.013	848.575	847.5	0	0	0	0
14000-B0	14000-B	14000-0	Pipe	219.172	0.013	848.35	845.99	0	0	1	0

Table 1A: Conduits (continued...)

Name	Inlet Node	Outlet Node	Tag	Length (ft)	Roughness	Inlet Elev. (ft)	Outlet Elev. (ft)	Initial Flow (cfs)	Flow Limit (cfs)	Entry Loss Coeff.	Exit Loss Coeff.
14000-CB	14000-C	14000-B	Pipe	202.553	0.013	850.38	848.35	0	0	1	0
14000-DC	14000-D	14000-C	Pipe	37.439	0.013	850.75	850.38	0	0	1	0
14000-ED	14000-E	14000-D	Pipe	156.876	0.013	852.32	850.75	0	0	1	0
14000-FE	14000-F	14000-E	Pipe	67.535	0.013	853	852.32	0	0	1	0
15	J12	J13	EX	40.263	0.01	981.34	980.139	0	0	0	0
16	J13	J179	Channel	111.819	0.01	980.139	976.794	0	0	0	0
17	J179	J7	Overland	648.835	0.01	976.794	942.46	0	0	0	0
18	J7	J6	Ex	42.062	0.01	942.46	941.2	0	0	0	0
19	J8	J34	EX	73.827	0.01	938.5	928.85	0	0	0	0
20	J34	J9	Ex	37.578	0.01	928.85	926.22	0	0	0	0
21	J6	J5	EX	36.361	0.01	941.2	940.1	0	0	0	0
22	J5	J8	EX	53.078	0.01	940.1	938.5	0	0	0	0
26	OL-J5	J9	Overland	163.885	0.01	945.854	928.229	0	0	0	0
28	Curb_Cut	10310-B-S2	Swale	112.045	0.035	946.544	941.37	0	0	0	0
3	10442-B	10442-B-EX	GMP5	4.97	0.01	978.58	978.53	0	0	0	0
4	10211-C	10211-B	GMP5	400	0.01	885.811	883.285	0	0	0	0
5	8807	8697	ex	99.864	0.01	855.48	854.19	0	0	0	0
6	Curb_Cut-S	10300-G-S	Overland	38.712	0.01	0	0	0	0	0	0
8	8697	8667-J4	ex	89.36	0.01	853.99	853.26	0	0	0	0
9	10410-G	10410-F		400	0.01	886.38	0	0	0	0	0
C10	J18	J15	EX	23.258	0.013	951.46	951.35	0	0	0	0
C10-S	J18-S	J15-S	Overland	22.046	0.013	954.37	954.37	0	0	0	0
C11	J17	J15	EX	18.28	0.013	951.85	951.48	0	0	0	0
C11-S	J17-S	J15-S	Overland	20.595	0.013	954.68	954.37	0	0	0	0
C12-S	J20-S	J1-IC	Overland	5.394	0.013	954.25	953.5	0	0	0	0
C14	EX-DI5571	EX10440-C	EX	101.998	0.013	937.75	936.55	0	0	0	0

Table 1A: Conduits (continued...)

Name	Inlet Node	Outlet Node	Tag	Length (ft)	Roughness	Inlet Elev. (ft)	Outlet Elev. (ft)	Initial Flow (cfs)	Flow Limit (cfs)	Entry Loss Coeff.	Exit Loss Coeff.
C15	J15	J20	EX	15.508	0.013	951.22	950.21	0	0	0	0
C16	J15-S	J20-S	Overland	14.686	0.013	954.8	953.417	0	0	0	0
C17	10125-A-S	10120-G-S	Overland	92.921	0.013	901.45	900.47	0	0	0	0
C18	RainGarden	12000-1	Overland	89.208	0.013	860	857	0	0	0	0
C19	J4-S	12000-2	Overland	59.518	0.013	858.04	851.96	0	0	0	0
C2	EX-DI5526	EX-DI5571	EX	128.94	0.013	939.06	937.84	0	0	0	0
C20	12000-2	12000	ex	99.75	0.024	851.71	838	0	0	0	0
C21	12000-A	RainGarden	Overland	75.919	0.013	858	857.75	0	0	0	0
C23	12000	12000.	Overland	14.58	0.013	838	836	0	0	0	0
C24	10461-A-S	10450-A-S	Overland	232.361	0.013	943.04	933.349	0	0	0	0
C25	10462-A-S	10460-D-S	Overland	43.318	0.013	949	943.664	0	0	0	0
C26	J20	J1	EX	4.326	0.013	950.51	950.36	0	0	0	0
C2-S	10700-A	10202-A-S1	Overland	51.463	0.013	919.383	902.18	0	0	0	0
C3	RainGarden	12000-1	EX	80.411	0.013	857.75	853.36	0	0	0	0
C4	J2	8667-J4	ex	124.965	0.013	855.48	854.11	0	0	1	0
C4-S	J2-S	J4-S	Overland	122.015	0.013	858.93	857.11	0	0	0	0
C5	8667-J4	12000-2	ex	53.361	0.013	852.76	851.96	0	0	1	0
C6	10210-D	10210-C	GMP5	136.537	0.013	887.5	886.964	0	0	0	0
C7	10120-G-S	10411-A-S	Overland	141.044	0.013	900.47	901.452	0	0	0	0
C8	CHANNEL_12+11.04	10400-C1	SWALE	339.45	0.013	905.75	887	0	0	0	0
C9_1	10300-A	CHANNEL_12+11.04	Swale	54.75	0.035	906.8	905.71	0	0	0	0
C9_2	10500-A	CHANNEL_12+11.04	Overland	12.5	0.013	907.566	907.537	0	0	0	0
C-J182	J182	J39	Swale	124.408	0.013	942.74	942.068	0	0	0	0
C-J320	J320	RainGarden	Overland	263.099	0.013	863.281	858.02	0	0	0	0
C-J39	J39	10443-A	Swale	204.633	0.013	942.068	941.38	0	0	0	0
C-J46	J46	J320	Overland	85.351	0.013	864.9	863.281	0	0	0	0

Table 1A: Conduits (continued...)

Name	Inlet Node	Outlet Node	Tag	Length (ft)	Roughness	Inlet Elev. (ft)	Outlet Elev. (ft)	Initial Flow (cfs)	Flow Limit (cfs)	Entry Loss Coeff.	Exit Loss Coeff.
EP-10440-C	EX10440-C	10440-C	EX	44.994	0.013	936.45	932.78	0	0	0	0
EP-10440-C-S	EX10440-C-S	J38	Overland	143.322	0.013	942.38	941.031	0	0	0	0
EX10441-B-S	10442-A-S	EX-CI21199-S	Overland	320.126	0.013	982.567	959.964	0	0	0	0
EX10441-C-S	10443-C-S	10442-A-S	Overland	66.542	0.013	984.97	982.567	0	0	0	0
EX10441-D-S	10443-D-S	10443-C-S	Overland	22.271	0.013	984.97	984.97	0	0	0	0
OL-10100-AE_1	OL-10100-B	12000-G-S2	Swale	109.277	0.013	891	885	0	0	0	0
OL-10100-AE_2	12000-G-S2	12000-G-S	Swale	335.572	0.013	885	868.578	0	0	0	0
OL-10101-AF	OL-10101-A	12000-H-S	Swale	416.014	0.013	877.733	867.77	0	0	0	0
OL-10131-BA	EX-DI5571-S	EX10440-C-S	Overland	102.69	0.013	942.19	941.84	0	0	0	0
OL-10131-CB	EX-DI5526-S	10422-A-S	Overland	171.833	0.013	941.68	934.74	0	0	0	0
OL-10200-BA_1	10200-B-S1	10200-B-S2	Overland	3.763	0.013	890.56	890.36	0	0	0	0
OL-10200-BA_2	10200-B-S2	10200-A-S1	Overland	161.8	0.013	890.343	879.56	0	0	0	0
OL-10201-AA_1	10201-A-S1	10201-A-S2	Overland	4.764	0.013	890.559	890.28	0	0	0	0
OL-10201-AA_2	10201-A-S2	10200-A-S1	Overland	152.086	0.013	890.28	879.56	0	0	0	0
OL-10210-AD	10210-A-S	12000-F-S.	Overland	205.279	0.013	883.059	868.71	0	0	0	0
OL-11000-A0	OL-11000-A	11000-0'	Overland	20.552	0.013	865.3	864	0	0	0	0
OL-11000-AbAc	OL-14000-Ab	OL-14000-Ac	Overland	193.063	0.013	944.247	888	0	0	0	0
OL-11000-AcAd	OL-14000-Ac	OL-14000-Ad	Overland	129.198	0.013	888	888.001	0	0	0	0
OL-11000-AdAe	OL-14000-Ad	OL-14000-Ae	Overland	37.559	0.013	888.001	863.833	0	0	0	0
OL-11000-AeE	OL-14000-Ae	OL-14000-E	Overland	242.209	0.013	863.833	857.19	0	0	0	0
OL-11000-BA	OL-11000-B	OL-11000-A	Overland	76.657	0.013	867.351	865.3	0	0	0	0
OL-12000-B0	12000-D-S	J46	Overland	71.417	0.013	865.238	864.914	0	0	0	0
OL-14000-BC	J38	10440-C-S	Overland	79.854	0.013	941.031	937.2	0	0	0	0
OL-14000-CB	OL-14000-C	14000-B	Overland	199.437	0.013	855.925	852	0	0	0	0
OL-14000-DC	OL-14000-D	OL-14000-C	Overland	35.894	0.013	855.996	855.925	0	0	0	0
OL-14000-ED	OL-14000-E	OL-14000-D	Overland	132.178	0.013	857.191	855.996	0	0	0	0

Table 1A: Conduits (continued...)

Name	Inlet Node	Outlet Node	Tag	Length (ft)	Roughness	Inlet Elev. (ft)	Outlet Elev. (ft)	Initial Flow (cfs)	Flow Limit (cfs)	Entry Loss Coeff.	Exit Loss Coeff.
P-10000-A	10000-A	10000	EX	180.26	0.013	834.88	831.4	0	0	0	0
P-10000-C	10000-D	10000-C	GMP3	33.374	0.013	865.9	865.57	0	0	1	0
P-10000-C.	10000-C	10000-B	GMP3	229.206	0.013	863.07	852.3	0	0	1	0
P-10001-A-S	10001-A-S	12000-G-S2	Overland	101.03	0.013	889	885	0	0	0	0
P-1000-B	10000-B	10000-A	EX	134.917	0.013	837.53	834.98	0	0	0	0
P-10100-A	10100-A	10000-D	gmp5	46.71	0.013	876.92	876.45	0	0	1	0
P-10100-B	10100-B	10100-A	gmp5	37.51	0.013	877.5	877.12	0	0	0	0
P-10100-B-S	10100-D-IC	10100-B-IC	Overland	163.554	0.013	890.2	888	0	0	0	0
P-10100-C	10100-D	10100-B	GMP5	127.74	0.013	878.962	877.696	0	0	0	0
P-10120-G	10120-G	10410-G	EX	119.067	0.013	891.64	886.73	0	0	1	0
P-10120-H	10120-H	10120-G	ex	190.103	0.013	900.49	891.64	0	0	1	0
P-10120-H-S	10120-H-S	10120-G-S	Overland	215.467	0.013	905.8	900.47	0	0	0	0
P-10200-A	10200-A	10000-B	GMP3	157.194	0.013	873.72	863.9	0	0	1	0
P-10200-A-S_1	10200-A-S1	10200-A-S2	Overland	3.325	0.013	879.56	879.28	0	0	0	0
P-10200-A-S_2	10200-A-S2	12000-E-S	Overland	152.213	0.013	879.28	869.249	0	0	0	0
P-10200-C	10200-C	10200-B	GMP3	156.795	0.013	899.7	887.76	0	0	1	0
P-10200-C-S_1	10200-C-S1	10200-C-S2	Overland	4.743	0.013	903.056	903	0	0	0	0
P-10200-C-S_2	10200-C-S2	10200-B-S1	Overland	153.311	0.013	903	890.56	0	0	0	0
P-10200-D	10200-D	10200-C	GMP3	214.546	0.013	917.25	900.2	0	0	0	0
P-10200-D-S	10200-D-S	10200-C-S1	Overland	214.546	0.013	920.821	902.18	0	0	0	0
P-10200-D-S.	10200-E-S	10200-D-S	Overland	290.971	0.013	943.603	920.821	0	0	0	0
P-10200-E	10200-E	10200-D	GMP3	292.042	0.013	934	917.45	0	0	0	0
P-10200-F	10200-F	10200-E	gmp5	207.056	0.013	941.68	939.63	0	0	0	0
P-10200-F-S	10200-G-S	10200-E-S	Overland	216.226	0.013	951.37	943.603	0	0	0	0
P-10200-G	10200-G	10200-F	gmp5	76.681	0.013	941.74	944.8	0	0	0	0
P-10200-G_(STORM_-_FINAL)-S	10200-H-S	13000-A	Overland	124.054	0.013	950.568	951.734	0	0	0	0

Table 1A: Conduits (continued...)

Name	Inlet Node	Outlet Node	Tag	Length (ft)	Roughness	Inlet Elev. (ft)	Outlet Elev. (ft)	Initial Flow (cfs)	Flow Limit (cfs)	Entry Loss Coeff.	Exit Loss Coeff.
P-10200-H	10200-H	10200-G	gmp5	80.809	0.013	946.311	945	0	0	0	0
P-10200-H_(STORM_-_FINAL)-S	10200-J-S	13000-A	Overland	131.058	0.013	950.651	950.568	0	0	0	0
P-10200-J	10200-J	10200-H	gmp5	34.503	0.013	946.854	946.504	0	0	0	0
P-10200-J_(STORM_-_FINAL)-S	10200-K-S	10200-J-S	Overland	85.237	0.013	956.036	950.651	0	0	0	0
P-10200-K	10200-K	10200-J	gmp5	57.603	0.013	949.897	946.996	0	0	0	0
P-10200-K_(STORM_-_FINAL)-S	10200-L-S	10200-K-S	Overland	166.754	0.013	959.247	956.036	0	0	0	0
P-10200-L	10200-L	10200-K	gmp5	142.847	0.013	954.06	950.896	0	0	0	0
P-10200-L_(STORM_-_FINAL)-S	10200-M-S	10200-L-S	Overland	148.605	0.013	963.181	959.247	0	0	0	0
P-10200-M	10200-M	10200-L	gmp5	139.438	0.013	955.618	954.26	0	0	0	0
P-10200-M_(STORM_-_FINAL)-S	10200-N-S	Curb_Cut-S	Overland	491.286	0.013	962.752	946.891	0	0	0	0
P-10200-N	10200-N	10200-M	gmp5	34.002	0.013	956.3	955.902	0	0	0	0
P-10201-A	10201-A	10200-B	GMP3	24.441	0.013	888.39	887.76	0	0	1	0
P-102020-A-S_1	10202-A-S1	10202-A-S2	Overland	5.648	0.013	903.06	902.81	0	0	0	0
P-102020-A-S_2	10202-A-S2	10201-A-S1	Overland	151.153	0.013	902.81	890.23	0	0	0	0
P-10202-A	10202-A	10200-C	GMP3	27.192	0.013	900.5	900.2	0	0	0	0
P-10203-A-S	10203-A-S	10202-A-S1	Overland	214.581	0.013	921	902.88	0	0	0	0
P-10210-A	10210-A	10200-A	GMP3	46.239	0.013	877.36	874.47	0	0	0	0
P-10210-B	10210-B	10210-A	gmp5	59.106	0.013	878.665	877.587	0	0	0	0
P-10210-B-S	10210-B-S	10210-A-S	Overland	70.257	0.013	889.099	882	0	0	0	0
P-10210-C	10210-C	10210-B	GMP5	122.285	0.013	886.964	884.891	0	0	0	0
P-10210-C_(STORM_-_FINAL)-S	10211-A-S	10200-A-S1	Overland	127.717	0.013	889.558	889.099	0	0	0	0
P-10211-A	10211-A	10210-B	GMP5	42.989	0.013	878.942	879.236	0	0	0	0
P-10211-B	10211-B	10211-A	GMP5	174.36	0.013	883.285	882.196	0	0	0	0
P-10212-A	10212-A	10210-C	GMP5	55.648	0.013	889.46	888.712	0	0	0	0
P-10240-A_(STORM_-_FINAL)-S	10270-A-S	10200-J-S	Overland	103.804	0.013	955.907	956.036	0	0	0	0
P-10250-A	10250-A	10200-E	gmp5	30.002	0.013	940.182	939	0	0	0	0

Table 1A: Conduits (continued...)

Name	Inlet Node	Outlet Node	Tag	Length (ft)	Roughness	Inlet Elev. (ft)	Outlet Elev. (ft)	Initial Flow (cfs)	Flow Limit (cfs)	Entry Loss Coeff.	Exit Loss Coeff.
P-10250-A-S	10250-A-S	10203-A-S	Overland	293.467	0.013	944.102	944.102	0	0	0	0
P-10250-B	10250-B	10250-A	gmp5	44.144	0.013	941.307	940.349	0	0	0	0
P-10250-B-S	10250-B-S	10250-A-S	Overland	65.99	0.013	948.718	944.102	0	0	0	0
P-10250-C	10250-C	10250-B	gmp5	77.636	0.013	949.28	945.098	0	0	0	0
P-10250-C-S	10250-C-S	10250-A-S	Overland	153.692	0.013	954.088	943.603	0	0	0	0
P-10250-D	10250-D	10250-C	gmp5	31.811	0.013	949.815	949.563	0	0	0	0
P-10250-D-S	10250-D-S	10320-B-S	Overland	505.315	0.013	953.814	954.088	0	0	0	0
P-10260-A	10260-A	10200-G	gmp5	30.002	0.013	947.988	947.688	0	0	0	0
P-10260-A-S	10260-A-S	10250-A-S	Overland	208.549	0.013	951.734	944.102	0	0	0	0
P-10270-A	10270-A	10200-K	gmp5	30.502	0.013	952.098	951.772	0	0	0	0
P-10280-A	10280-A	10200-M	GMP5	110.509	0.013	964.402	959.867	0	0	0	0
P-10300-B	10300-B	10300-A	gmp5	41.73	0.013	909.07	907.64	0	0	0	0
P-10300-B-S	10300-B-IC	10100-D-IC	Overland	387.976	0.013	910.473	909	0	0	0	0
P-10300-C3	10300-D	10300-C	GMP5	24.858	0.013	924.16	923.93	0	0	0	0
P-10300-D-S	10300-C-S	10300-B-IC	Overland	125.287	0.013	940.2	935.818	0	0	0	0
P-10300-E	10300-E	10300-D	gmp5	105.166	0.013	931.25	930.15	0	0	0	0
P-10300-E-S.	10300-F-S	10300-C-S	Overland	108.1	0.013	945.854	939.2	0	0	0	0
P-10300-F	10300-F	10300-E	GMP5	36.6	0.013	935.127	934.165	0	0	0	0
P-10300-G	10300-G	10300-F	GMP5	36.446	0.01	936.47	935.87	0	0	0	0
P-10310-A	10310-A	10300-C	GMP5	118.247	0.013	927.863	927.363	0	0	0	0
P-10310-B	10310-B	10310-A	GMP5	33.666	0.013	929.894	929.557	0	0	0	0
P-10310-B-S	10310-A-S	10300-C-S	Overland	122.969	0.013	939.635	939.2	0	0	0	0
P-10310-C-S	10310-B-S	10300-C-S	Overland	124.705	0.013	939.529	939.2	0	0	0	0
P-10320-A	10320-A	10300-D	GMP5	181.888	0.013	929.717	927.385	0	0	0	0
P-10320-A-S	10300-D-S	10300-C-S	Overland	48.395	0.013	940.9	939.2	0	0	0	0
P-10320-B	10320-B	10320-A	GMP5	88.921	0.013	930.405	930.145	0	0	0	0

Table 1A: Conduits (continued...)

Name	Inlet Node	Outlet Node	Tag	Length (ft)	Roughness	Inlet Elev. (ft)	Outlet Elev. (ft)	Initial Flow (cfs)	Flow Limit (cfs)	Entry Loss Coeff.	Exit Loss Coeff.
P-10320-C	10320-C	10320-B	GMP5	118.148	0.013	935.027	932.635	0	0	0	0
P-10320-D-S	10320-C-S	10700-A-S	Overland	256.144	0.013	944.417	925.31	0	0	0	0
P-10321-A	10321-A	10320-A	GMP5	40.152	0.01	936.1	935.3	0	0	0	0
P-10330-A	10330-A	10300-E	GMP5	73.51	0.013	931.45	931.7	0	0	0	0
P-10330-A-S	10330-A-S	10300-C-S	Overland	124.911	0.013	945.48	945.165	0	0	0	0
P-10330-B	10330-B	10330-A	GMP5	56.572	0.013	932.5	931.9	0	0	0	0
P-10330-B-S	10330-B-S	10330-A-S	Overland	58.41	0.013	945	945.48	0	0	0	0
P-10400-A	10400-A	10000-D	GMP5	130.106	0.013	876	875.08	0	0	0	0
P-10400-A-S	10400-A	10100-B-IC	Overland	99.312	0.013	891.9	889	0	0	0	0
P-10400-B	10400-B1	10400-A	GMP5	28.813	0.013	880.53	879.893	0	0	0	0
P-10400-C1	10400-C1	10400-B2	GMP5	4.577	0.013	882.13	881.79	0	0	0	0
P-10400-C2-S	10400-C2	10400-C1	Swale	62.12	0.01	883.15	882.13	0	0	0	0
P-10400-C-S	10400-A-S	OL-10100-B	Overland	97.931	0.013	896.585	894.169	0	0	0	0
P-10400-D	10400-D	10400-C2	gmp5	53.969	0.013	884.04	883.147	0	0	0	0
P-10400-D-S	10400-D-S	10400-A-S	Overland	128.712	0.013	900.714	896.585	0	0	0	0
P-10400-E	10400-E	10400-D	gmp5	35.048	0.013	890.28	889.97	0	0	0	0
P-10400-E-S	10400-E-S	10410-B-S	Overland	143.687	0.013	901.292	896.952	0	0	0	0
P-10400-F	10400-F	10400-E	gmp5	112.049	0.013	895.779	892.285	0	0	0	0
P-10400-F_(STORM_-_FINAL)-S	10400-F-S	10400-E-S	Overland	113.915	0.013	905.974	901.292	0	0	0	0
P-10400-G	10400-G	10400-F	gmp5	91.984	0.013	900.232	897.241	0	0	0	0
P-10400-G-S	10400-G-S	10400-F-S	Overland	90.859	0.013	910.091	905.974	0	0	0	0
P-10400-H	10400-H	10400-G	gmp5	278.606	0.013	910.703	901.306	0	0	0	0
P-10400-H-S	10400-H-S	10400-G-S	Overland	274.514	0.013	924.25	910.091	0	0	0	0
P-10400-J	10400-J	10400-H	gmp5	40.27	0.013	913.886	912.185	0	0	0	0
P-10400-K	10400-K	10400-J	gmp5	100.966	0.013	919.335	915	0	0	0	0
P-10400-K-S	10400-K-S	10430-A-S	Overland	402.357	0.013	933.34	926.954	0	0	0	0

Table 1A: Conduits (continued...)

Name	Inlet Node	Outlet Node	Tag	Length (ft)	Roughness	Inlet Elev. (ft)	Outlet Elev. (ft)	Initial Flow (cfs)	Flow Limit (cfs)	Entry Loss Coeff.	Exit Loss Coeff.
P-10400-L	10400-L	10400-K	gmp5	208.162	0.013	927.571	920.929	0	0	0	0
P-10400-L-S	10400-L-S	10400-K-S	Overland	227.988	0.013	947.883	933.34	0	0	0	0
P-10400-M	10400-M	10400-L	gmp5	144.921	0.013	947.72	937.935	0	0	0	0
P-10400-M-S	10400-M-S	10400-L-S	Overland	126.916	0.013	961.71	947.883	0	0	0	0
P-10400-N	10400-N	10400-M	gmp5	120.312	0.013	948.71	947.862	0	0	0	0
P-10400-N_(STORM_-_FINAL)-S	10400-N-S	10400-M-S	Overland	117.78	0.013	960.05	961.71	0	0	0	0
P-10400-P	10400-P	10400-N	gmp5	44.28	0.013	953.621	953.221	0	0	0	0
P-10400-P_(STORM_-_FINAL)-S	10400-P-S	10400-N-S	Overland	37.609	0.013	962.7	960.05	0	0	0	0
P-10400-Q	10400-Q	10400-P	gmp5	51.853	0.013	954.5	954	0	0	0	0
P-10400-Q_(STORM_-_FINAL)-S	10400-Q-S	10400-P-S	Overland	52.595	0.013	962.7	962.7	0	0	0	0
P-10400-R	10400-R	10400-Q	gmp5	36.153	0.013	955.331	955.031	0	0	0	0
P-10400-R_(STORM_-_FINAL)-S	10400-R-S	10400-Q-S	Overland	35.096	0.013	962.7	962.7	0	0	0	0
P-10400-S	10400-S	10400-R	gmp5	53.115	0.013	957.91	957.41	0	0	0	0
P-10400-S_(STORM_-_FINAL)-S	10400-S-S	10400-R-S	Overland	53.965	0.013	958.324	957.824	0	0	0	0
P-10410-A	10410-A	10400-A	gmp5	114.859	0.013	881.7	880.759	0	0	0	0
P-10410-A-S	10410-B-S	OL-10101-A	Overland	119.607	0.013	896.952	896.585	0	0	0	0
P-10410-B	10410-B	10410-A	GMP5	34.537	0.01	882.9	882.584	0	0	0	0
P-10410-C	10410-C	10410-B	GMP5	60.187	0.013	882.9	882.584	0	0	0	0
P-10410-D	10410-D	10410-C	GMP5	90.97	0.013	883.998	884.6	0	0	0	0
P-10410-E	10410-E	10410-D	GMP5	72.296	0.013	886.58	885.16	0	0	0	0
P-10410-F	10410-F	10410-E	GMP5	400	0.01	888.42	887.778	0	0	0	0
P-10411-A	10411-A	10410-E	GMP5	400	0.01	896.5	895.777	0	0	0	0
P-10411-A-S	10411-A-S	10410-D-S	Overland	195.119	0.013	901.452	900.92	0	0	0	0
P-10420-A	10420-A	10400-F	gmp5	40.105	0.013	903.59	902.189	0	0	0	0
P-10420-A_(STORM_-_FINAL)-S	10420-A-S	10400-F-S	Overland	50.527	0.013	909.547	905.974	0	0	0	0
P-10420-B	10420-B	10420-A	gmp5	72.457	0.013	906.783	904.875	0	0	0	0

Table 1A: Conduits (continued...)

Name	Inlet Node	Outlet Node	Tag	Length (ft)	Roughness	Inlet Elev. (ft)	Outlet Elev. (ft)	Initial Flow (cfs)	Flow Limit (cfs)	Entry Loss Coeff.	Exit Loss Coeff.
P-10420-B_(STORM_-_FINAL)-S	10420-B-S	10420-A-S	Overland	76.07	0.013	914.896	909.547	0	0	0	0
P-10420-C	10420-C	10420-B	gmp5	34.984	0.013	909.388	908.408	0	0	0	0
P-10420-C-S	10420-C-S	10421-A-S	Overland	106.894	0.013	915.089	914.896	0	0	0	0
P-10420-D	10420-D	10420-C	gmp5	62.444	0.013	911.886	910.393	0	0	0	0
P-10420-D-S	10420-D-S	10420-C-S	Overland	58.156	0.013	919.59	915.089	0	0	0	0
P-10420-E	10420-E	10420-D	gmp5	37.47	0.013	912.737	912.412	0	0	0	0
P-10420-E-S	10420-E-S	10420-B-S	Overland	94.779	0.013	920.08	919.59	0	0	0	0
P-10421-A	10421-A	10420-A	gmp5	35.333	0.013	904.86	904.51	0	0	0	0
P-10421-A_(STORM_-_FINAL)-S	10421-A-S	10400-F-S	Overland	76.321	0.013	909.419	909.547	0	0	0	0
P-10422-A	10422-A	10420-C	gmp5	97.983	0.013	925.799	911.262	0	0	0	0
P-10422-A-S	10422-A-S	10420-C-S	Overland	109.951	0.013	934.74	915.089	0	0	0	0
P-10430-A_(STORM_-_FINAL)	10430-A	10400-G	gmp5	34.5	0.013	906.008	905.663	0	0	0	0
P-10430-A-S	10430-A-S	10400-D-S	Overland	211.705	0.013	910.064	900.714	0	0	0	0
P-10440-A	10440-A	10400-J	gmp3	34.42	0.013	921.1	919.242	0	0	0	0
P-10440-A_(STORM_-_FINAL)-S	10440-A-S	10400-H-S	Overland	69.855	0.013	930.47	926.954	0	0	0	0
P-10440-B	10440-B	10440-A	gmp3	45.307	0.013	922.798	921.699	0	0	0	0
P-10440-B_(STORM_-_FINAL)-S	10440-B-S	10400-H-S	Overland	116.908	0.013	932.47	930.47	0	0	0	0
P-10440-C	10440-C	10440-B	gmp3	68.048	0.013	926.64	926.3	0	0	0	0
P-10440-C_(STORM_-_FINAL)-S	10440-C-S	10440-A-S	Overland	102.662	0.013	937.3	932.47	0	0	0	0
P-10440-D	10440-D	10440-C	gmp3	97.17	0.013	927.13	926.64	0	0	0	0
P-10440-D-S	10440-D-S	10440-C-S	Overland	90.639	0.013	943.95	937.2	0	0	0	0
P-10440-E	10440-e	10440-D	GMP3	63.856	0.013	928.004	927.62	0	0	0	0
P-10440-G	J1	10440-e	GMP5	212.673	0.013	950.36	940	0	0	0	0
P-10441-A	10441-A	10440-A	GMP5	18.7	0.013	924.77	921.51	0	0	0	0
P-10442-A	10442-A	10442-A-EX	GMP5	5.45	0.01	975.66	975.59	0	0	0	0
P-10442-A-EX	10442-A-EX	EX-CI21199	EX	321.203	0.013	975.25	954.3	0	0	0	0

Table 1A: Conduits (continued...)

Name	Inlet Node	Outlet Node	Tag	Length (ft)	Roughness	Inlet Elev. (ft)	Outlet Elev. (ft)	Initial Flow (cfs)	Flow Limit (cfs)	Entry Loss Coeff.	Exit Loss Coeff.
P-10443-A	10443-A	10440-D	GMP5	49.536	0.013	942.62	940.13	0	0	0.5	1
P-10443-C	10443-C	10442-A-EX	EX	61.997	0.013	976.57	975.25	0	0	0	0
P-10443-D	10443-D	10443-C	EX	26.907	0.013	979.35	977.69	0	0	0	0
P-10443-E	10442-B-EX	10442-A-EX	EX	26.458	0.013	978.38	975.8	0	0	0	0
P-10443-E-S	10442-B-S	10440-D-S	Overland	550.792	0.013	982.91	983.1	0	0	0	0
P-10450-A_(STORM_-_FINAL)	10450-A	10400-K	gmp5	34	0.013	924.173	923.848	0	0	0	0
P-10450-A-S	10450-A-S	10400-H-S	Overland	141.494	0.013	933.349	924.25	0	0	0	0
P-10460-A	10460-A	10400-L	gmp5	53.413	0.013	933.323	933.126	0	0	0	0
P-10460-A-S	10460-A-S	10450-A-S	Overland	235.327	0.013	949.32	933.349	0	0	0	0
P-10460-B	10460-B	10460-A	gmp5	63.086	0.013	933.88	933.523	0	0	0	0
P-10460-B_(STORM_-_FINAL)-S	10460-B-S	10450-A-S	Overland	265.739	0.013	943.793	933.349	0	0	0	0
P-10460-C	10460-C	10460-B	GMP5	91.46	0.013	934.681	934.08	0	0	0	0
P-10460-C_(STORM_-_FINAL)-S	10460-C-S	10460-B-S	Overland	104.4	0.013	943.793	943.793	0	0	0	0
P-10460-D	10460-D	10460-C	GMP5	117.21	0.013	935.602	934.881	0	0	0	0
P-10460-D_(STORM_-_FINAL)-S	10460-D-S	10460-C-S	Overland	124.197	0.013	943.664	943.793	0	0	0	0
P-10460-E	10460-E	10460-D	GMP5	96.777	0.013	936.275	935.802	0	0	0	0
P-10460-E_(STORM_-_FINAL)-S	10460-E-S	10460-D-S	Overland	82.515	0.013	943.766	943.664	0	0	0	0
P-10460-F	10460-F	10460-E	GMP5	96.524	0.013	937.321	936.575	0	0	0	0
P-10460-F_(STORM_-_FINAL)-S	10460-F-S	10460-E-S	Overland	113.73	0.013	943.405	943.766	0	0	0	0
P-10461-A	10461-A	10460-B	GMP5	179.359	0.013	938.8	936.25	0	0	0	0
P-10461-B	10461-B	10461-A	gmp5	105.575	0.013	939.54	939.013	0	0	0	0
P-10461-B_(STORM_-_FINAL)-S	10461-B-S	10461-A-S	Overland	105.575	0.013	943.04	943.04	0	0	0	0
P-10462-A	10462-A	10460-D	GMP5	43.43	0.013	943.039	941.575	0	0	0	0
P-10470-A	10470-A	10400-M	gmp5	34.277	0.013	954.563	954.22	0	0	0	0
P-10470-A-S	10470-A-S	10460-A-S	Overland	135.437	0.013	958.453	961.71	0	0	0	0
P-10480-A	10480-A	10400-M	GMP5	155.379	0.01	957.4	955.47	0	0	0	0

Table 1A: Conduits (continued...)

Name	Inlet Node	Outlet Node	Tag	Length (ft)	Roughness	Inlet Elev. (ft)	Outlet Elev. (ft)	Initial Flow (cfs)	Flow Limit (cfs)	Entry Loss Coeff.	Exit Loss Coeff.
P-10480-B	10480-B	10480-A	GMP5	54.414	0.01	958.201	957.6	0	0	0	0
P-10500-B	10500-B	10500-A	GMP5	209.24	0.013	908.62	907.54	0	0	0	0
P-10500-B_(STORM_-_FINAL)-S	10500-B-S	10500-A	Overland	209.467	0.013	918.59	913	0	0	0	0
P-10500-C	10500-C	10500-B	gmp5	79.732	0.013	909.85	909.5	0	0	0	0
P-10500-C_(STORM_-_FINAL)-S	10500-C-S	10500-B-S	Overland	75.931	0.013	917	918.59	0	0	0	0
P-10500-D	10500-D	10500-C	GMP5	400	0.01	914.092	913.84	0	0	0	0
P-10510-A	10510-A	10500-B	GMP5	20.941	0.013	911.11	911.31	0	0	0	0
P-10510-A_(STORM_-_FINAL)-S	10510-A-S	10500-B-S	Overland	9.466	0.013	916.551	918.59	0	0	0	0
P-10700-A	10700-B	10700-A	GMP5	39.49	0.013	919.78	919.38	0	0	0	0
P-12000-A	12000-B	12000-A	GMP3	136.578	0.013	859.34	858	0	0	0	0
P-12000-B	12000-C	12000-B	GMP3	82.048	0.013	860.36	859.54	0	0	0	0
P-12000-C	12000-D	12000-C	GMP3	41.568	0.013	860.98	860.56	0	0	1	0
P-12000-C-S	12000-C-S	J320	Overland	80.231	0.013	865.18	863.281	0	0	0	0
P-12000-D	12000-G	10000-B	GMP3	96.445	0.013	863.1	862	0	0	1	0
P-12000-E	12000-E	12000-F	GMP3	36.367	0.013	864.6	864.2	0	0	1	0
P-12000-E-S	12000-E-S	12000-B'	Overland	40.217	0.013	869.249	866.842	0	0	0	0
P-12000-F	12000-F	12000-G	GMP3	23.572	0.013	864	863.6	0	0	1	0
P-12000-G-S	12000-G-S	12000-B'	Overland	111.547	0.013	868.4	866.842	0	0	0	0
P-21199_1	EX-CI21199	10440-e	EX	163.613	0.013	954.3	942.028	0	0	0	0
P-21199-S	EX-CI21199-S	10440-B-S	Overland	357.023	0.013	959.964	943.95	0	0	0	0
S	10210-E	10210-D	GMP5	400	0.01	889.019	887.7	0	0	0	0
UV-Outlet	06-UV	10000-C	GMP5	47.457	0.013	876.25	875.17	0	0	1.5	0

Table 1B: Conduits

Name	Avg. Loss Coeff.	Seepage Rate (in/hr)	Flap Gate	Cross-Section	Geom1 (ft)	Geom2 (ft)	Geom3	Geom4	Barrels	Transect	Shape Curve	Culvert Code	Control Rules
1	0	0	NO	CIRCULAR	1.25	0	0	0	1				NO
10	0	0	NO	CIRCULAR	1	0	0	0	1				NO
10000-CB-S	0	0	NO	IRREGULAR	0	0	0	0	1	HalfSectionRd			NO
10000-DC-S	0	0	NO	IRREGULAR	0	0	0	0	1	HalfSectionRd			NO
10000-ED-S	0	0	NO	IRREGULAR	0	0	0	0	1	HalfSectionRd			NO
10123-AF	0	0	NO	CIRCULAR	1.25	0	0	0	1				NO
10125-AG	0	0	NO	CIRCULAR	0.5	0	0	0	1				NO
10200-B	0	0	NO	CIRCULAR	1.25	0	0	0	1				NO
10203-A	0	0	NO	CIRCULAR	1.25	0	0	0	1				NO
10300-D1	0	0	NO	CIRCULAR	2	0	0	0	1				NO
10300-D-2	0	0	NO	CIRCULAR	2	0	0	0	1				NO
10300-D-3	0	0	NO	CIRCULAR	2	0	0	0	1				NO
10310-C-S2	0	0	NO	IRREGULAR	0	0	0	0	1	HalfSectionRd			NO
11	0	0	NO	CIRCULAR	1	0	0	0	1				NO
11000-A0	0	0	NO	CIRCULAR	1	0	0	0	1				NO
12	0	0	NO	CIRCULAR	1	0	0	0	1				NO
12000-B'B	0	0	NO	IRREGULAR	0	0	0	0	1	HalfSectionRd			NO
12000-DC-S	0	0	NO	IRREGULAR	0	0	0	0	1	HalfSectionRd			NO
12000-FE-S	0	0	NO	IRREGULAR	0	0	0	0	1	HalfSectionRd			NO
12000-G	0	0	NO	CIRCULAR	2	0	0	0	1				NO
12000-RainGarden	0	0	NO	TRAPEZOIDAL	5	10	4	4	1				NO
13	0	0	NO	CIRCULAR	1.25	0	0	0	1				NO
13000-A0	0	0	NO	CIRCULAR	2	0	0	0	1				NO
14	0	0	NO	CIRCULAR	1.25	0	0	0	1				NO
14000-A0'	0	0	NO	TRAPEZOIDAL	1	4	50	50	1				NO
14000-B0	0	0	NO	CIRCULAR	2	0	0	0	1				NO

Table 1B: Conduits (continued...)

Name	Avg. Loss Coeff.	Seepage Rate (in/hr)	Flap Gate	Cross-Section	Geom1 (ft)	Geom2 (ft)	Geom3	Geom4	Barrels	Transect	Shape Curve	Culvert Code	Control Rules
14000-CB	0	0	NO	CIRCULAR	2	0	0	0	1				NO
14000-DC	0	0	NO	CIRCULAR	2	0	0	0	1				NO
14000-ED	0	0	NO	CIRCULAR	2	0	0	0	1				NO
14000-FE	0	0	NO	CIRCULAR	2	0	0	0	1				NO
15	0	0	NO	CIRCULAR	1.25	0	0	0	1				NO
16	0	0	NO	CIRCULAR	1	0	0	0	1				NO
17	0	0	NO	TRAPEZOIDAL	1	0.5	0.25	0.25	1				NO
18	0	0	NO	CIRCULAR	2	0	0	0	1				NO
19	0	0	NO	CIRCULAR	2	0	0	0	1				NO
20	0	0	NO	CIRCULAR	2	0	0	0	1				NO
21	0	0	NO	CIRCULAR	2	0	0	0	1				NO
22	0	0	NO	CIRCULAR	2	0	0	0	1				NO
26	0	0	NO	CIRCULAR	1	0	0	0	1				NO
28	0	0	NO	TRAPEZOIDAL	1	5	4	4	1				NO
3	0	0	NO	CIRCULAR	1	0	0	0	1				NO
4	0	0	NO	CIRCULAR	1	0	0	0	1				NO
5	0	0	NO	CIRCULAR	2	0	0	0	1				NO
6	0	0	NO	CIRCULAR	1	0	0	0	1				NO
8	0	0	NO	CIRCULAR	2	0	0	0	1				NO
9	0	0	NO	CIRCULAR	3	0	0	0	1				NO
C10	0	0	NO	CIRCULAR	1.5	0	0	0	1				NO
C10-S	0	0	NO	IRREGULAR	0	0	0	0	1	HalfSectionRd			NO
C11	0	0	NO	CIRCULAR	1.5	0	0	0	1				NO
C11-S	0	0	NO	TRAPEZOIDAL	10	10	1	1	1				NO
C12-S	0	0	NO	TRAPEZOIDAL	10	10	3	3	1				NO
C14	0	0	NO	CIRCULAR	1	0	0	0	1				NO

Table 1B: Conduits (continued...)

Name	Avg. Loss Coeff.	Seepage Rate (in/hr)	Flap Gate	Cross-Section	Geom1 (ft)	Geom2 (ft)	Geom3	Geom4	Barrels	Transect	Shape Curve	Culvert Code	Control Rules
C15	0	0	NO	CIRCULAR	2	0	0	0	1				NO
C16	0	0	NO	TRAPEZOIDAL	10	20	10	10	1				NO
C17	0	0	NO	TRAPEZOIDAL	1	10	50	50	1				NO
C18	0	0	NO	RECT_OPEN	1	10	0	0	1				NO
C19	0	0	NO	RECT_OPEN	1	10	0	0	1				NO
C2	0	0	NO	CIRCULAR	1.25	0	0	0	1				NO
C20	0	0	NO	CIRCULAR	2.5	0	0	0	1				NO
C21	0	0	NO	RECT_OPEN	4	3	2	0	1				NO
C23	0	0	NO	TRAPEZOIDAL	5	10	4	4	1				NO
C24	0	0	NO	IRREGULAR	0	0	0	0	1	HalfSectionRd			NO
C25	0	0	NO	TRAPEZOIDAL	1	5	3	3	1				NO
C26	0	0	NO	CIRCULAR	2	0	0	0	1				NO
C2-S	0	0	NO	IRREGULAR	0	0	0	0	1	HalfSectionRd			NO
C3	0	0	NO	CIRCULAR	0.25	0	0	0	1				NO
C4	0	0	NO	CIRCULAR	1	0	0	0	1				NO
C4-S	0	0	NO	IRREGULAR	0	0	0	0	1	HalfSectionRd			NO
C5	0	0	NO	CIRCULAR	2.5	0	0	0	1				NO
C6	0	0	NO	CIRCULAR	0.833	0	0	0	1				NO
C7	0	0	NO	TRAPEZOIDAL	5	10	10	10	1				NO
C8	0	0	NO	TRAPEZOIDAL	2.5	4	3	3	1				NO
C9_1	0	0	NO	TRAPEZOIDAL	2.5	4	3	3	1				NO
C9_2	0	0	NO	TRAPEZOIDAL	2.5	5	3	3	1				NO
C-J182	0	0	NO	TRAPEZOIDAL	0.5	3	1	1	1				NO
C-J320	0	0	NO	IRREGULAR	0	0	0	0	1	HalfSectionRd			NO
C-J39	0	0	NO	TRAPEZOIDAL	0.5	3	1	1	1				NO
C-J46	0	0	NO	TRAPEZOIDAL	1	0.5	50	0.25	1				NO

Table 1B: Conduits (continued...)

Name	Avg. Loss Coeff.	Seepage Rate (in/hr)	Flap Gate	Cross-Section	Geom1 (ft)	Geom2 (ft)	Geom3	Geom4	Barrels	Transect	Shape Curve	Culvert Code	Control Rules
EP-10440-C	0	0	NO	CIRCULAR	1.25	0	0	0	1				NO
EP-10440-C-S	0	0	NO	TRAPEZOIDAL	1	0.5	50	0.25	1				NO
EX10441-B-S	0	0	NO	IRREGULAR	0	0	0	0	1	HalfSectionRd			NO
EX10441-C-S	0	0	NO	IRREGULAR	0	0	0	0	1	HalfSectionRd			NO
EX10441-D-S	0	0	NO	IRREGULAR	0	0	0	0	1	HalfSectionRd			NO
OL-10100-AE_1	0	0	NO	TRAPEZOIDAL	1	0.5	50	0.25	1				NO
OL-10100-AE_2	0	0	NO	TRAPEZOIDAL	1	0.5	50	0.25	1				NO
OL-10101-AF	0	0	NO	TRAPEZOIDAL	1	0.5	50	0.25	1				NO
OL-10131-BA	0	0	NO	TRAPEZOIDAL	1	0.5	50	0.25	1				NO
OL-10131-CB	0	0	NO	TRAPEZOIDAL	1	0.5	50	0.25	1				NO
OL-10200-BA_1	0	0	NO	IRREGULAR	0	0	0	0	1	HalfSectionRd			NO
OL-10200-BA_2	0	0	NO	IRREGULAR	0	0	0	0	1	HalfSectionRd			NO
OL-10201-AA_1	0	0	NO	IRREGULAR	0	0	0	0	1	HalfSectionRd			NO
OL-10201-AA_2	0	0	NO	IRREGULAR	0	0	0	0	1	HalfSectionRd			NO
OL-10210-AD	0	0	NO	IRREGULAR	0	0	0	0	1	HalfSectionRd			NO
OL-11000-A0	0	0	NO	TRAPEZOIDAL	1	4	3	3	1				NO
OL-11000-AbAc	0	0	NO	TRAPEZOIDAL	1	4	3	3	1				NO
OL-11000-AcAd	0	0	NO	TRAPEZOIDAL	1	4	3	3	1				NO
OL-11000-AdAe	0	0	NO	TRAPEZOIDAL	1	4	3	3	1				NO
OL-11000-AeE	0	0	NO	TRAPEZOIDAL	1	0.5	50	0.25	1				NO
OL-11000-BA	0	0	NO	TRAPEZOIDAL	1	0.5	50	0.25	1				NO
OL-12000-B0	0	0	NO	IRREGULAR	0	0	0	0	1	HalfSectionRd			NO
OL-14000-BC	0	0	NO	TRAPEZOIDAL	1	0.5	50	0.25	1				NO
OL-14000-CB	0	0	NO	TRAPEZOIDAL	1	4	50	50	1				NO
OL-14000-DC	0	0	NO	TRAPEZOIDAL	1	4	50	50	1				NO
OL-14000-ED	0	0	NO	TRAPEZOIDAL	1	0.5	50	0.25	1				NO

Table 1B: Conduits (continued...)

Name	Avg. Loss Coeff.	Seepage Rate (in/hr)	Flap Gate	Cross-Section	Geom1 (ft)	Geom2 (ft)	Geom3	Geom4	Barrels	Transect	Shape Curve	Culvert Code	Control Rules
P-10000-A	0	0	NO	CIRCULAR	4.5	0	0	0	1				NO
P-10000-C	0	0	NO	CIRCULAR	4.5	0	0	0	1				NO
P-10000-C.	0	0	NO	CIRCULAR	7	0	0	0	1				NO
P-10001-A-S	0	0	NO	IRREGULAR	0	0	0	0	1	HalfSectionRd			NO
P-1000-B	0	0	NO	CIRCULAR	4.5	0	0	0	1				NO
P-10100-A	0	0	NO	CIRCULAR	2	0	0	0	1				NO
P-10100-B	0	0	NO	CIRCULAR	2	0	0	0	1				NO
P-10100-B-S	0	0	NO	IRREGULAR	0	0	0	0	1	HalfSectionRd			NO
P-10100-C	0	0	NO	CIRCULAR	2	0	0	0	1				NO
P-10120-G	0	0	NO	CIRCULAR	3	0	0	0	1				NO
P-10120-H	0	0	NO	CIRCULAR	3	0	0	0	1				NO
P-10120-H-S	0	0	NO	RECT_OPEN	2	10	2	0	1				NO
P-10200-A	0	0	NO	CIRCULAR	1.5	0	0	0	1				NO
P-10200-A-S_1	0	0	NO	IRREGULAR	0	0	0	0	1	HalfSectionRd			NO
P-10200-A-S_2	0	0	NO	IRREGULAR	0	0	0	0	1	HalfSectionRd			NO
P-10200-C	0	0	NO	CIRCULAR	1.25	0	0	0	1				NO
P-10200-C-S_1	0	0	NO	IRREGULAR	0	0	0	0	1	HalfSectionRd			NO
P-10200-C-S_2	0	0	NO	IRREGULAR	0	0	0	0	1	HalfSectionRd			NO
P-10200-D	0	0	NO	CIRCULAR	1.25	0	0	0	1				NO
P-10200-D-S	0	0	NO	IRREGULAR	0	0	0	0	1	HalfSectionRd			NO
P-10200-D-S.	0	0	NO	IRREGULAR	0	0	0	0	1	HalfSectionRd			NO
P-10200-E	0	0	NO	CIRCULAR	1.25	0	0	0	1				NO
P-10200-F	0	0	NO	CIRCULAR	1.25	0	0	0	1				NO
P-10200-F-S	0	0	NO	IRREGULAR	0	0	0	0	1	HalfSectionRd			NO
P-10200-G	0	0	NO	CIRCULAR	1.25	0	0	0	1				NO
P-10200-G_(STORM_-_FINAL)-S	0	0	NO	IRREGULAR	0	0	0	0	1	HalfSectionRd			NO

Table 1B: Conduits (continued...)

Name	Avg. Loss Coeff.	Seepage Rate (in/hr)	Flap Gate	Cross-Section	Geom1 (ft)	Geom2 (ft)	Geom3	Geom4	Barrels	Transect	Shape Curve	Culvert Code	Control Rules
P-10200-H	0	0	NO	CIRCULAR	1.25	0	0	0	1				NO
P-10200-H_(STORM_-_FINAL)-S	0	0	NO	IRREGULAR	0	0	0	0	1	HalfSectionRd			NO
P-10200-J	0	0	NO	CIRCULAR	1.25	0	0	0	1				NO
P-10200-J_(STORM_-_FINAL)-S	0	0	NO	IRREGULAR	0	0	0	0	1	HalfSectionRd			NO
P-10200-K	0	0	NO	CIRCULAR	1.25	0	0	0	1				NO
P-10200-K_(STORM_-_FINAL)-S	0	0	NO	IRREGULAR	0	0	0	0	1	HalfSectionRd			NO
P-10200-L	0	0	NO	CIRCULAR	1.25	0	0	0	1				NO
P-10200-L_(STORM_-_FINAL)-S	0	0	NO	IRREGULAR	0	0	0	0	1	HalfSectionRd			NO
P-10200-M	0	0	NO	CIRCULAR	1.25	0	0	0	1				NO
P-10200-M_(STORM_-_FINAL)-S	0	0	NO	IRREGULAR	0	0	0	0	1	HalfSectionRd			NO
P-10200-N	0	0	NO	CIRCULAR	1.25	0	0	0	1				NO
P-10201-A	0	0	NO	CIRCULAR	1.25	0	0	0	1				NO
P-102020-A-S_1	0	0	NO	IRREGULAR	0	0	0	0	1	HalfSectionRd			NO
P-102020-A-S_2	0	0	NO	IRREGULAR	0	0	0	0	1	HalfSectionRd			NO
P-10202-A	0	0	NO	CIRCULAR	1.25	0	0	0	1				NO
P-10203-A-S	0	0	NO	IRREGULAR	0	0	0	0	1	HalfSectionRd			NO
P-10210-A	0	0	NO	CIRCULAR	1.25	0	0	0	1				NO
P-10210-B	0	0	NO	CIRCULAR	1.25	0	0	0	1				NO
P-10210-B-S	0	0	NO	IRREGULAR	0	0	0	0	1	HalfSectionRd			NO
P-10210-C	0	0	NO	CIRCULAR	0.833	0	0	0	1				NO
P-10210-C_(STORM_-_FINAL)-S	0	0	NO	IRREGULAR	0	0	0	0	1	HalfSectionRd			NO
P-10211-A	0	0	NO	CIRCULAR	1.25	0	0	0	1				NO
P-10211-B	0	0	NO	CIRCULAR	0.833	0	0	0	1				NO
P-10212-A	0	0	NO	CIRCULAR	0.833	0	0	0	1				NO
P-10240-A_(STORM_-_FINAL)-S	0	0	NO	IRREGULAR	0	0	0	0	1	HalfSectionRd			NO
P-10250-A	0	0	NO	CIRCULAR	1.25	0	0	0	1				NO

Table 1B: Conduits (continued...)

Name	Avg. Loss Coeff.	Seepage Rate (in/hr)	Flap Gate	Cross-Section	Geom1 (ft)	Geom2 (ft)	Geom3	Geom4	Barrels	Transect	Shape Curve	Culvert Code	Control Rules
P-10250-A-S	0	0	NO	IRREGULAR	0	0	0	0	1	HalfSectionRd			NO
P-10250-B	0	0	NO	CIRCULAR	1.25	0	0	0	1				NO
P-10250-B-S	0	0	NO	IRREGULAR	0	0	0	0	1	HalfSectionRd			NO
P-10250-C	0	0	NO	CIRCULAR	1.25	0	0	0	1				NO
P-10250-C-S	0	0	NO	IRREGULAR	0	0	0	0	1	HalfSectionRd			NO
P-10250-D	0	0	NO	CIRCULAR	1.25	0	0	0	1				NO
P-10250-D-S	0	0	NO	IRREGULAR	0	0	0	0	1	HalfSectionRd			NO
P-10260-A	0	0	NO	CIRCULAR	1.25	0	0	0	1				NO
P-10260-A-S	0	0	NO	IRREGULAR	0	0	0	0	1	HalfSectionRd			NO
P-10270-A	0	0	NO	CIRCULAR	1.25	0	0	0	1				NO
P-10280-A	0	0	NO	CIRCULAR	1.25	0	0	0	1				NO
P-10300-B	0	0	NO	CIRCULAR	2	0	0	0	1				NO
P-10300-B-S	0	0	NO	IRREGULAR	0	0	0	0	1	HalfSectionRd			NO
P-10300-C3	0	0	NO	CIRCULAR	2	0	0	0	1				NO
P-10300-D-S	0	0	NO	IRREGULAR	0	0	0	0	1	HalfSectionRd			NO
P-10300-E	0	0	NO	CIRCULAR	1.25	0	0	0	1				NO
P-10300-E-S.	0	0	NO	IRREGULAR	0	0	0	0	1	HalfSectionRd			NO
P-10300-F	0	0	NO	CIRCULAR	1.25	0	0	0	1				NO
P-10300-G	0	0	NO	CIRCULAR	1	0	0	0	1				NO
P-10310-A	0	0	NO	CIRCULAR	1.5	0	0	0	1				NO
P-10310-B	0	0	NO	CIRCULAR	1.25	0	0	0	1				NO
P-10310-B-S	0	0	NO	IRREGULAR	0	0	0	0	1	HalfSectionRd			NO
P-10310-C-S	0	0	NO	IRREGULAR	0	0	0	0	1	HalfSectionRd			NO
P-10320-A	0	0	NO	CIRCULAR	1.5	0	0	0	1				NO
P-10320-A-S	0	0	NO	IRREGULAR	0	0	0	0	1	HalfSectionRd			NO
P-10320-B	0	0	NO	CIRCULAR	1.25	0	0	0	1				NO

Table 1B: Conduits (continued...)

Name	Avg. Loss Coeff.	Seepage Rate (in/hr)	Flap Gate	Cross-Section	Geom1 (ft)	Geom2 (ft)	Geom3	Geom4	Barrels	Transect	Shape Curve	Culvert Code	Control Rules
P-10320-C	0	0	NO	CIRCULAR	1.25	0	0	0	1				NO
P-10320-D-S	0	0	NO	IRREGULAR	0	0	0	0	1	HalfSectionRd			NO
P-10321-A	0	0	NO	CIRCULAR	1	0	0	0	1				NO
P-10330-A	0	0	NO	CIRCULAR	1	0	0	0	1				NO
P-10330-A-S	0	0	NO	IRREGULAR	0	0	0	0	1	HalfSectionRd			NO
P-10330-B	0	0	NO	CIRCULAR	1	0	0	0	1				NO
P-10330-B-S	0	0	NO	IRREGULAR	0	0	0	0	1	HalfSectionRd			NO
P-10400-A	0	0	NO	CIRCULAR	4	0	0	0	1				NO
P-10400-A-S	0	0	NO	IRREGULAR	0	0	0	0	1	HalfSectionRd			NO
P-10400-B	0	0	NO	CIRCULAR	3	0	0	0	1				NO
P-10400-C1	0	0	NO	CIRCULAR	2	0	0	0	1				NO
P-10400-C2-S	0	0	NO	DUMMY	0	0	0	0	1				NO
P-10400-C-S	0	0	NO	IRREGULAR	0	0	0	0	1	HalfSectionRd			NO
P-10400-D	0	0	NO	CIRCULAR	4.5	0	0	0	1				NO
P-10400-D-S	0	0	NO	IRREGULAR	0	0	0	0	1	HalfSectionRd			NO
P-10400-E	0	0	NO	CIRCULAR	3	0	0	0	1				NO
P-10400-E-S	0	0	NO	IRREGULAR	0	0	0	0	1	HalfSectionRd			NO
P-10400-F	0	0	NO	CIRCULAR	3	0	0	0	1				NO
P-10400-F_(STORM_-_FINAL)-S	0	0	NO	IRREGULAR	0	0	0	0	1	HalfSectionRd			NO
P-10400-G	0	0	NO	CIRCULAR	3	0	0	0	1				NO
P-10400-G-S	0	0	NO	IRREGULAR	0	0	0	0	1	HalfSectionRd			NO
P-10400-H	0	0	NO	CIRCULAR	3	0	0	0	1				NO
P-10400-H-S	0	0	NO	IRREGULAR	0	0	0	0	1	HalfSectionRd			NO
P-10400-J	0	0	NO	CIRCULAR	3	0	0	0	1				NO
P-10400-K	0	0	NO	CIRCULAR	2	0	0	0	1				NO
P-10400-K-S	0	0	NO	IRREGULAR	0	0	0	0	1	HalfSectionRd			NO

Table 1B: Conduits (continued...)

Name	Avg. Loss Coeff.	Seepage Rate (in/hr)	Flap Gate	Cross-Section	Geom1 (ft)	Geom2 (ft)	Geom3	Geom4	Barrels	Transect	Shape Curve	Culvert Code	Control Rules
P-10400-L	0	0	NO	CIRCULAR	1.5	0	0	0	1				NO
P-10400-L-S	0	0	NO	IRREGULAR	0	0	0	0	1	HalfSectionRd			NO
P-10400-M	0	0	NO	CIRCULAR	1.5	0	0	0	1				NO
P-10400-M-S	0	0	NO	IRREGULAR	0	0	0	0	1	HalfSectionRd			NO
P-10400-N	0	0	NO	CIRCULAR	1.5	0	0	0	1				NO
P-10400-N_(STORM_-_FINAL)-S	0	0	NO	IRREGULAR	0	0	0	0	1	HalfSectionRd			NO
P-10400-P	0	0	NO	CIRCULAR	1.5	0	0	0	1				NO
P-10400-P_(STORM_-_FINAL)-S	0	0	NO	IRREGULAR	0	0	0	0	1	HalfSectionRd			NO
P-10400-Q	0	0	NO	CIRCULAR	1.5	0	0	0	1				NO
P-10400-Q_(STORM_-_FINAL)-S	0	0	NO	IRREGULAR	0	0	0	0	1	HalfSectionRd			NO
P-10400-R	0	0	NO	CIRCULAR	1.5	0	0	0	1				NO
P-10400-R_(STORM_-_FINAL)-S	0	0	NO	IRREGULAR	0	0	0	0	1	HalfSectionRd			NO
P-10400-S	0	0	NO	CIRCULAR	1.5	0	0	0	1				NO
P-10400-S_(STORM_-_FINAL)-S	0	0	NO	IRREGULAR	0	0	0	0	1	HalfSectionRd			NO
P-10410-A	0	0	NO	CIRCULAR	4	0	0	0	1				NO
P-10410-A-S	0	0	NO	IRREGULAR	0	0	0	0	1	HalfSectionRd			NO
P-10410-B	0	0	NO	CIRCULAR	4	0	0	0	1				NO
P-10410-C	0	0	NO	CIRCULAR	4	0	0	0	1				NO
P-10410-D	0	0	NO	CIRCULAR	4	0	0	0	1				NO
P-10410-E	0	0	NO	CIRCULAR	4	0	0	0	1				NO
P-10410-F	0	0	NO	CIRCULAR	3	0	0	0	1				NO
P-10411-A	0	0	NO	CIRCULAR	1.25	0	0	0	1				NO
P-10411-A-S	0	0	NO	IRREGULAR	0	0	0	0	1	HalfSectionRd			NO
P-10420-A	0	0	NO	CIRCULAR	2	0	0	0	1				NO
P-10420-A_(STORM_-_FINAL)-S	0	0	NO	IRREGULAR	0	0	0	0	1	HalfSectionRd			NO
P-10420-B	0	0	NO	CIRCULAR	2	0	0	0	1				NO

Table 1B: Conduits (continued...)

Name	Avg. Loss Coeff.	Seepage Rate (in/hr)	Flap Gate	Cross-Section	Geom1 (ft)	Geom2 (ft)	Geom3	Geom4	Barrels	Transect	Shape Curve	Culvert Code	Control Rules
P-10420-B_(STORM_-_FINAL)-S	0	0	NO	IRREGULAR	0	0	0	0	1	HalfSectionRd			NO
P-10420-C	0	0	NO	CIRCULAR	2	0	0	0	1				NO
P-10420-C-S	0	0	NO	IRREGULAR	0	0	0	0	1	HalfSectionRd			NO
P-10420-D	0	0	NO	CIRCULAR	2	0	0	0	1				NO
P-10420-D-S	0	0	NO	IRREGULAR	0	0	0	0	1	HalfSectionRd			NO
P-10420-E	0	0	NO	CIRCULAR	1.25	0	0	0	1				NO
P-10420-E-S	0	0	NO	IRREGULAR	0	0	0	0	1	HalfSectionRd			NO
P-10421-A	0	0	NO	CIRCULAR	2	0	0	0	1				NO
P-10421-A_(STORM_-_FINAL)-S	0	0	NO	IRREGULAR	0	0	0	0	1	HalfSectionRd			NO
P-10422-A	0	0	NO	CIRCULAR	1.5	0	0	0	1				NO
P-10422-A-S	0	0	NO	IRREGULAR	0	0	0	0	1	HalfSectionRd			NO
P-10430-A_(STORM_-_FINAL)	0	0	NO	CIRCULAR	1.5	0	0	0	1				NO
P-10430-A-S	0	0	NO	IRREGULAR	0	0	0	0	1	HalfSectionRd			NO
P-10440-A	0	0	NO	CIRCULAR	2.5	0	0	0	1				NO
P-10440-A_(STORM_-_FINAL)-S	0	0	NO	IRREGULAR	0	0	0	0	1	HalfSectionRd			NO
P-10440-B	0	0	NO	CIRCULAR	2.5	0	0	0	1				NO
P-10440-B_(STORM_-_FINAL)-S	0	0	NO	IRREGULAR	0	0	0	0	1	HalfSectionRd			NO
P-10440-C	0	0	NO	CIRCULAR	2.5	0	0	0	1				NO
P-10440-C_(STORM_-_FINAL)-S	0	0	NO	IRREGULAR	0	0	0	0	1	HalfSectionRd			NO
P-10440-D	0	0	NO	CIRCULAR	2.5	0	0	0	1				NO
P-10440-D-S	0	0	NO	IRREGULAR	0	0	0	0	1	HalfSectionRd			NO
P-10440-E	0	0	NO	CIRCULAR	2	0	0	0	1				NO
P-10440-G	0	0	NO	CIRCULAR	2	0	0	0	1				NO
P-10441-A	0	0	NO	CIRCULAR	1	0	0	0	1				NO
P-10442-A	0	0	NO	CIRCULAR	1	0	0	0	1				NO
P-10442-A-EX	0	0	NO	CIRCULAR	2	0	0	0	1				NO

Table 1B: Conduits (continued...)

Name	Avg. Loss Coeff.	Seepage Rate (in/hr)	Flap Gate	Cross-Section	Geom1 (ft)	Geom2 (ft)	Geom3	Geom4	Barrels	Transect	Shape Curve	Culvert Code	Control Rules
P-10443-A	0	0	NO	CIRCULAR	1.25	0	0	0	1				NO
P-10443-C	0	0	NO	CIRCULAR	2	0	0	0	1				NO
P-10443-D	0	0	NO	CIRCULAR	3	0	0	0	1				NO
P-10443-E	0	0	NO	CIRCULAR	1	0	0	0	1				NO
P-10443-E-S	0	0	NO	IRREGULAR	0	0	0	0	1	HalfSectionRd			NO
P-10450-A_(STORM_-_FINAL)	0	0	NO	CIRCULAR	1.5	0	0	0	1				NO
P-10450-A-S	0	0	NO	IRREGULAR	0	0	0	0	1	HalfSectionRd			NO
P-10460-A	0	0	NO	CIRCULAR	1.5	0	0	0	1				NO
P-10460-A-S	0	0	NO	IRREGULAR	0	0	0	0	1	HalfSectionRd			NO
P-10460-B	0	0	NO	CIRCULAR	1.5	0	0	0	1				NO
P-10460-B_(STORM_-_FINAL)-S	0	0	NO	IRREGULAR	0	0	0	0	1	HalfSectionRd			NO
P-10460-C	0	0	NO	CIRCULAR	1.5	0	0	0	1				NO
P-10460-C_(STORM_-_FINAL)-S	0	0	NO	IRREGULAR	0	0	0	0	1	HalfSectionRd			NO
P-10460-D	0	0	NO	CIRCULAR	1.5	0	0	0	1				NO
P-10460-D_(STORM_-_FINAL)-S	0	0	NO	IRREGULAR	0	0	0	0	1	HalfSectionRd			NO
P-10460-E	0	0	NO	CIRCULAR	1.25	0	0	0	1				NO
P-10460-E_(STORM_-_FINAL)-S	0	0	NO	IRREGULAR	0	0	0	0	1	HalfSectionRd			NO
P-10460-F	0	0	NO	CIRCULAR	1.25	0	0	0	1				NO
P-10460-F_(STORM_-_FINAL)-S	0	0	NO	IRREGULAR	0	0	0	0	1	HalfSectionRd			NO
P-10461-A	0	0	NO	CIRCULAR	1.5	0	0	0	1				NO
P-10461-B	0	0	NO	CIRCULAR	1.5	0	0	0	1				NO
P-10461-B_(STORM_-_FINAL)-S	0	0	NO	IRREGULAR	0	0	0	0	1	HalfSectionRd			NO
P-10462-A	0	0	NO	CIRCULAR	1.25	0	0	0	1				NO
P-10470-A	0	0	NO	CIRCULAR	1.25	0	0	0	1				NO
P-10470-A-S	0	0	NO	IRREGULAR	0	0	0	0	1	HalfSectionRd			NO
P-10480-A	0	0	NO	CIRCULAR	1.5	0	0	0	1				NO

Table 1B: Conduits (continued...)

Name	Avg. Loss Coeff.	Seepage Rate (in/hr)	Flap Gate	Cross-Section	Geom1 (ft)	Geom2 (ft)	Geom3	Geom4	Barrels	Transect	Shape Curve	Culvert Code	Control Rules
P-10480-B	0	0	NO	CIRCULAR	1.5	0	0	0	1				NO
P-10500-B	0	0	NO	CIRCULAR	1.5	0	0	0	1				NO
P-10500-B_(STORM_-_FINAL)-S	0	0	NO	IRREGULAR	0	0	0	0	1	HalfSectionRd			NO
P-10500-C	0	0	NO	CIRCULAR	1	0	0	0	1				NO
P-10500-C_(STORM_-_FINAL)-S	0	0	NO	IRREGULAR	0	0	0	0	1	HalfSectionRd			NO
P-10500-D	0	0	NO	CIRCULAR	1	0	0	0	1				NO
P-10510-A	0	0	NO	CIRCULAR	1	0	0	0	1				NO
P-10510-A_(STORM_-_FINAL)-S	0	0	NO	IRREGULAR	0	0	0	0	1	HalfSectionRd			NO
P-10700-A	0	0	NO	CIRCULAR	1.5	0	0	0	1				NO
P-12000-A	0	0	NO	CIRCULAR	1.5	0	0	0	1				NO
P-12000-B	0	0	NO	CIRCULAR	1.5	0	0	0	1				NO
P-12000-C	0	0	NO	CIRCULAR	1.5	0	0	0	1				NO
P-12000-C-S	0	0	NO	IRREGULAR	0	0	0	0	1	HalfSectionRd			NO
P-12000-D	0	0	NO	CIRCULAR	2	0	0	0	1				NO
P-12000-E	0	0	NO	CIRCULAR	2	0	0	0	1				NO
P-12000-E-S	0	0	NO	IRREGULAR	0	0	0	0	1	HalfSectionRd			NO
P-12000-F	0	0	NO	CIRCULAR	2	0	0	0	1				NO
P-12000-G-S	0	0	NO	IRREGULAR	0	0	0	0	1	HalfSectionRd			NO
P-21199_1	0	0	NO	CIRCULAR	2	0	0	0	1				NO
P-21199-S	0	0	NO	IRREGULAR	0	0	0	0	1	HalfSectionRd			NO
S	0	0	NO	CIRCULAR	0.833	0	0	0	1				NO
UV-Outlet	0	0	NO	CIRCULAR	6	0	0	0	1				NO

Table 1C: Conduits

Name	Slope (ft/ft)	Max. |Flow| (cfs)	Time Max. Flow (M/D/Y)	Max. |Velocity| (ft/s)	Max/Full Flow	Max/Full Depth	Max. Volume (ft³)	Full Both Ends (h)	Full Upstream (h)	Full Downstream (h)	Above Full Normal (h)
1	0.00909	9.38	05/01/2022 00:20 AM	7.73	1.17	0.97	0	0.01	0.12	0.01	0.19
10	0.1091	0	05/01/2022 00:00 AM	0	0	0.5	0	0	0	0	0
10000-CB-S	0.0274	0	05/01/2022 00:00 AM	0	0	0	0	0	0	0	0
10000-DC-S	0.0305	0	05/01/2022 00:00 AM	0	0	0	0	0	0	0	0
10000-ED-S	0.00309	0	05/01/2022 00:00 AM	0	0	0	0	0	0	0	0
10123-AF	-0.19991	0	05/01/2022 00:00 AM	0	0	0	0	0	0	0	0
10125-AG	0.02609	1.19	05/01/2022 00:19 AM	6.05	1.31	1	0	0.36	0.49	0.36	0.46
10200-B	0.08403	12.62	05/01/2022 00:17 AM	15.26	0.67	0.64	0	0	0	0	0
10203-A	0.02172	0.94	05/01/2022 00:18 AM	2.59	0.1	0.34	0	0	0	0	0
10300-D1	0.01988	8.47	05/01/2022 00:20 AM	12.71	0.27	0.26	0	0	0	0	0
10300-D-2	0.27157	8.47	05/01/2022 00:20 AM	8.84	0.07	0.34	0	0	0	0	0
10300-D-3	0.00523	8.47	05/01/2022 00:20 AM	5.25	0.52	0.51	0	0	0	0	0
10310-C-S2	0.18546	0.72	05/01/2022 00:20 AM	4.65	0	0.24	0	0	0	0	0
11	0.1842	0	05/01/2022 00:00 AM	0	0	0	0	0	0	0	0
11000-A0	0.037	0.4	05/01/2022 00:16 AM	4.3	0.06	0.17	0	0	0	0	0
12	0.02922	0	05/01/2022 00:00 AM	0	0	0.43	0	0	0	0	0
12000-B'B	0.03925	0.15	05/01/2022 00:17 AM	4.04	0	0.14	0	0	0	0	0
12000-DC-S	0.03478	0.1	05/01/2022 00:20 AM	2.12	0	0.12	0	0	0	0	0
12000-FE-S	0.02076	0	05/01/2022 00:00 AM	0	0	0.07	0	0	0	0	0
12000-G	0.00942	4.55	05/01/2022 00:20 AM	4.97	0.21	0.33	0	0	0	0	0
12000-RainGarden	0.21049	0.24	05/01/2022 01:08 AM	2.24	0	0.01	0	0	0	0	0
13	0.08204	7.78	05/01/2022 00:16 AM	19.28	0.32	0.36	0	0	0	0	0
13000-A0	0.06641	4.15	05/01/2022 00:18 AM	10.06	0.07	0.19	0	0	0	0	0
14	0.16859	7.77	05/01/2022 00:16 AM	15.76	0.23	0.42	0	0	0	0	0
14000-A0'	0.01074	0	05/01/2022 00:00 AM	0	0	0	0	0	0	0	0
14000-B0	0.01077	27.25	05/01/2022 00:19 AM	8.83	1.16	0.95	0	0.01	0.29	0.01	0.23

Table 1C: Conduits (continued...)

Name	Slope (ft/ft)	Max. |Flow| (cfs)	Time Max. Flow (M/D/Y)	Max. |Velocity| (ft/s)	Max/Full Flow	Max/Full Depth	Max. Volume (ft^3)	Full Both Ends (h)	Full Upstream (h)	Full Downstream (h)	Above Full Normal (h)
14000-CB	0.01002	20.5	05/01/2022 00:16 AM	6.53	0.91	1	0	0.23	0.23	0.29	0.01
14000-DC	0.00988	18.48	05/01/2022 00:19 AM	5.88	0.82	1	0	0.23	0.24	0.23	0.01
14000-ED	0.01001	13.79	05/01/2022 00:22 AM	4.54	0.61	1	0	0.19	0.19	0.24	0.01
14000-FE	0.01007	7.58	05/01/2022 00:22 AM	3.63	0.33	1	0	0.16	0.16	0.19	0.01
15	0.02984	7.78	05/01/2022 00:16 AM	10.14	0.54	0.6	0	0	0	0	0
16	0.02993	8.27	05/01/2022 00:16 AM	10.89	1.03	0.93	0	0.01	0.01	0.17	0.07
17	0.05299	10.8	05/01/2022 00:19 AM	16.23	0.95	0.93	0	0.01	0.17	0.01	0.01
18	0.02997	19.36	05/01/2022 00:19 AM	13.11	0.38	0.48	0	0	0	0	0
19	0.13184	33.07	05/01/2022 00:19 AM	13.53	0.31	0.73	0	0.01	0.01	1.7	0.01
20	0.07016	10.56	05/01/2022 00:08 AM	3.36	0.28	1	0	1.7	1.7	1.7	0.01
21	0.03027	26.91	05/01/2022 00:19 AM	15.06	0.53	0.55	0	0	0	0	0
22	0.03016	33.06	05/01/2022 00:19 AM	20.07	0.65	0.52	0	0	0	0	0
26	0.10817	0	05/01/2022 00:00 AM	0	0	0.5	0	0	0	0	0
28	0.04623	1.14	05/01/2022 00:20 AM	1.76	0.02	0.12	0	0	0	0	0
3	0.01006	1.47	05/01/2022 00:09 AM	15.59	0.07	0.18	0	0	0	0	0
4	0.00632	1.13	05/01/2022 00:06 AM	4.58	0.31	0.41	0	0	0	0	0
5	0.01292	11.99	05/01/2022 00:20 AM	9.76	0.36	0.41	0	0	0	0	0
6	0	0.24	05/01/2022 00:20 AM	8.7	0.02	0.08	0	0	0	0	0
8	0.00817	12.47	05/01/2022 00:20 AM	8.33	0.47	0.48	0	0	0	0	0
9	-999	16.68	05/01/2022 00:24 AM	4.74	0.53	0.5	0	0	0	0	0
C10	0.00473	3.13	05/01/2022 00:22 AM	4.05	0.43	0.45	0	0	0	0	0
C10-S	0	3.13	05/01/2022 00:22 AM	1.23	1.2	0.7	0	0.01	0.01	0.01	0.42
C11	0.02024	1.69	05/01/2022 00:22 AM	4.52	0.11	0.27	0	0	0	0	0
C11-S	0.01505	1.69	05/01/2022 00:22 AM	0.49	0	0.03	0	0	0	0	0
C12-S	0.14041	0	05/01/2022 00:00 AM	0	0	0.01	0	0	0	0	0
C14	0.01177	3.62	05/01/2022 00:07 AM	6.43	2.57	0.68	0	0.01	0.11	0.01	0.31

Table 1C: Conduits (continued...)

Name	Slope (ft/ft)	Max. |Flow| (cfs)	Time Max. Flow (M/D/Y)	Max. |Velocity| (ft/s)	Max/Full Flow	Max/Full Depth	Max. Volume (ft³)	Full Both Ends (h)	Full Upstream (h)	Full Downstream (h)	Above Full Normal (h)
C15	0.06527	11.73	05/01/2022 00:22 AM	11.15	0.24	0.42	0	0	0	0	0
C16	0.09459	7.08	05/01/2022 00:22 AM	1.74	0	0.03	0	0	0	0	0
C17	0.01055	0.69	05/01/2022 00:20 AM	0.68	0	0.12	0	0	0	0	0
C18	0.03365	0	05/01/2022 00:00 AM	0	0	0	0	0	0	0	0
C19	0.10269	0	05/01/2022 00:00 AM	0	0	0.31	0	0	0	0	0
C2	0.00946	2.68	05/01/2022 00:08 AM	3.16	0.43	0.73	0	0.01	0.01	0.04	0.01
C20	0.13876	14.76	05/01/2022 00:20 AM	21.22	0.18	0.2	0	0	0	0	0
C21	0.00329	1.16	05/01/2022 00:18 AM	0.64	0.01	0.41	0	0	0	0	0
C23	0.13848	14.98	05/01/2022 00:20 AM	4.6	0	0.06	0	0	0	0	0
C24	0.04174	1.85	05/01/2022 00:07 AM	6.56	0.02	0.27	0	0	0	0	0
C25	0.12413	1.06	05/01/2022 00:18 AM	1.07	0	0.18	0	0	0	0	0
C26	0.03469	19.43	05/01/2022 00:22 AM	13.69	0.46	0.46	0	0	0	0	0
C2-S	0.35468	2.4	05/01/2022 00:09 AM	12.92	0.01	0.26	0	0	0	0	0
C3	0.05468	0.24	05/01/2022 01:08 AM	4.88	1.16	1	0	1.68	1.68	1.69	1.69
C4	0.01096	0	05/01/2022 00:00 AM	0	0	0	0	0	0	0	0
C4-S	0.01492	0	05/01/2022 00:00 AM	0	0	0	0	0	0	0	0
C5	0.01499	13.41	05/01/2022 00:20 AM	7.35	0.27	0.4	0	0	0	0	0
C6	0.00393	0.99	05/01/2022 00:09 AM	2.78	0.73	0.63	0	0	0	0	0
C7	-0.00696	0.61	05/01/2022 00:18 AM	1.26	0	0.03	0	0	0	0	0
C8	0.05532	11.39	05/01/2022 00:19 AM	9.58	0.01	0.38	0	0	0	0	0
C9_1	0.01991	9	05/01/2022 00:19 AM	4.43	0.04	0.16	0	0	0	0	0
C9_2	0.00232	2.78	05/01/2022 00:15 AM	2.32	0.01	0.08	0	0	0	0	0
C-J182	0.0054	0.38	05/01/2022 00:15 AM	0.47	0.05	0.58	0	0.01	0.01	1.58	0.01
C-J320	0.02	0.12	05/01/2022 00:23 AM	0.7	0	0.57	0	0.01	0.01	1.51	0.01
C-J39	0.00336	0.64	05/01/2022 00:17 AM	0.64	0.11	0.68	0	0.01	0.01	1.58	0.01
C-J46	0.01897	0.05	05/01/2022 00:20 AM	0.36	0	0.07	0	0	0	0	0

Table 1C: Conduits (continued...)

Name	Slope (ft/ft)	Max. |Flow| (cfs)	Time Max. Flow (M/D/Y)	Max. |Velocity| (ft/s)	Max/Full Flow	Max/Full Depth	Max. Volume (ft^3)	Full Both Ends (h)	Full Upstream (h)	Full Downstream (h)	Above Full Normal (h)
EP-10440-C	0.08184	3.63	05/01/2022 00:07 AM	12.88	0.17	0.28	0	0	0	0	0
EP-10440-C-S	0.00941	0	05/01/2022 00:00 AM	0	0	0	0	0	0	0	0
EX10441-B-S	0.07078	0.04	05/01/2022 00:22 AM	3.55	0	0.06	0	0	0	0	0
EX10441-C-S	0.03614	0.54	05/01/2022 00:22 AM	5.97	0.01	0.17	0	0	0	0	0
EX10441-D-S	0	2.03	05/01/2022 00:21 AM	2.95	0.78	0.36	0	0	0	0	0
OL-10100-AE_1	0.05499	0.01	05/01/2022 00:08 AM	0	0	0.01	0	0	0	0	0
OL-10100-AE_2	0.049	0	05/01/2022 00:16 AM	0	0	0.01	0	0	0	0	0
OL-10101-AF	0.02396	0.19	05/01/2022 00:11 AM	2.45	0	0.05	0	0	0	0	0
OL-10131-BA	0.00341	0	05/01/2022 00:00 AM	0	0	0	0	0	0	0	0
OL-10131-CB	0.04042	0	05/01/2022 00:00 AM	0	0	0	0	0	0	0	0
OL-10200-BA_1	0.05322	0.31	05/01/2022 00:06 AM	3.78	0	0.17	0	0	0	0	0
OL-10200-BA_2	0.06679	0.32	05/01/2022 00:06 AM	6.06	0	0.16	0	0	0	0	0
OL-10201-AA_1	0.05866	0.2	05/01/2022 00:17 AM	3.58	0	0.14	0	0	0	0	0
OL-10201-AA_2	0.07066	0.2	05/01/2022 00:17 AM	3.36	0	0.14	0	0	0	0	0
OL-10210-AD	0.07007	0	05/01/2022 00:00 AM	0	0	0.06	0	0	0	0	0
OL-11000-A0	0.06338	0.29	05/01/2022 00:17 AM	2.57	0	0.03	0	0	0	0	0
OL-11000-AbAc	0.30455	0	05/01/2022 00:00 AM	0	0	0	0	0	0	0	0
OL-11000-AcAd	-1E-05	0	05/01/2022 00:00 AM	0	0	0	0	0	0	0	0
OL-11000-AdAe	0.84061	0	05/01/2022 00:00 AM	0	0	0	0	0	0	0	0
OL-11000-AeE	0.02744	0	05/01/2022 00:00 AM	0	0	0	0	0	0	0	0
OL-11000-BA	0.02677	0.36	05/01/2022 00:17 AM	3.47	0	0.06	0	0	0	0	0
OL-12000-B0	0.00454	0.05	05/01/2022 00:20 AM	1	0	0.13	0	0	0	0	0
OL-14000-BC	0.04803	0	05/01/2022 00:00 AM	0	0	0	0	0	0	0	0
OL-14000-CB	0.01968	0	05/01/2022 00:00 AM	0	0	0.03	0	0	0	0	0
OL-14000-DC	0.00198	0	05/01/2022 00:00 AM	0	0	0	0	0	0	0	0
OL-14000-ED	0.00904	0	05/01/2022 00:00 AM	0	0	0	0	0	0	0	0

Table 1C: Conduits (continued...)

Name	Slope (ft/ft)	Max. |Flow| (cfs)	Time Max. Flow (M/D/Y)	Max. |Velocity| (ft/s)	Max/Full Flow	Max/Full Depth	Max. Volume (ft³)	Full Both Ends (h)	Full Upstream (h)	Full Downstream (h)	Above Full Normal (h)
P-10000-A	0.01931	80.66	05/01/2022 00:30 AM	6.93	0.3	0.76	0	0.01	0.01	1.83	0.01
P-10000-C	0.00989	63.72	05/01/2022 00:32 AM	8.82	0.33	0.46	0	0	0	0	0
P-10000-C.	0.04704	63.72	05/01/2022 00:32 AM	16.78	0.05	0.15	0	0	0	0	0
P-10001-A-S	0.03962	0	05/01/2022 00:00 AM	0	0	0.01	0	0	0	0	0
P-1000-B	0.0189	80.66	05/01/2022 00:30 AM	14.83	0.3	0.37	0	0	0	0	0
P-10100-A	0.01006	3.63	05/01/2022 00:22 AM	4.72	0.16	0.29	0	0	0	0	0
P-10100-B	0.01013	3.63	05/01/2022 00:22 AM	5.3	0.16	0.27	0	0	0	0	0
P-10100-B-S	0.01345	0	05/01/2022 00:13 AM	0.92	0	0.1	0	0	0	0	0
P-10100-C	0.00991	2.62	05/01/2022 00:19 AM	4.79	0.12	0.23	0	0	0	0	0
P-10120-G	0.04127	16.68	05/01/2022 00:24 AM	5.97	0.17	0.42	0	0	0	0	0
P-10120-H	0.0466	8.15	05/01/2022 00:23 AM	6.19	0.06	0.24	0	0	0	0	0
P-10120-H-S	0.02474	0	05/01/2022 00:00 AM	0	0	0.05	0	0	0	0	0
P-10200-A	0.06259	16.79	05/01/2022 00:16 AM	14.52	0.64	0.62	0	0	0	0	0
P-10200-A-S_1	0.08451	0.31	05/01/2022 00:15 AM	3.84	0	0.17	0	0	0	0	0
P-10200-A-S_2	0.06604	0.31	05/01/2022 00:15 AM	5.67	0	0.14	0	0	0	0	0
P-10200-C	0.07637	11.08	05/01/2022 00:17 AM	14.34	0.62	0.6	0	0	0	0	0
P-10200-C-S_1	0.01181	0.01	05/01/2022 00:07 AM	1.82	0	0.05	0	0	0	0	0
P-10200-C-S_2	0.08141	0	05/01/2022 00:07 AM	0.1	0	0.09	0	0	0	0	0
P-10200-D	0.07972	7.61	05/01/2022 00:17 AM	14.24	0.41	0.45	0	0	0	0	0
P-10200-D-S	0.08722	0.08	05/01/2022 00:07 AM	4.21	0	0.08	0	0	0	0	0
P-10200-D-S.	0.07854	0.36	05/01/2022 00:10 AM	4.49	0	0.17	0	0	0	0	0
P-10200-E	0.05676	6.18	05/01/2022 00:17 AM	11.7	0.4	0.45	0	0	0	0	0
P-10200-F	0.0099	3.66	05/01/2022 00:20 AM	5.41	0.57	0.54	0	0	0	0	0
P-10200-F-S	0.03594	0	05/01/2022 00:08 AM	0.07	0	0.09	0	0	0	0	0
P-10200-G	-0.03994	3.66	05/01/2022 00:19 AM	3.63	15.7	0.77	0	0.01	0.01	0.01	1.12
P-10200-G_(STORM_-_FINAL)-S	-0.0094	0	05/01/2022 00:00 AM	0	0	0.01	0	0	0	0	0

Table 1C: Conduits (continued...)

Name	Slope (ft/ft)	Max. |Flow| (cfs)	Time Max. Flow (M/D/Y)	Max. |Velocity| (ft/s)	Max/Full Flow	Max/Full Depth	Max. Volume (ft^3)	Full Both Ends (h)	Full Upstream (h)	Full Downstream (h)	Above Full Normal (h)
P-10200-H	0.01623	3.01	05/01/2022 00:20 AM	4.04	0.37	0.59	0	0	0	0	0
P-10200-H_(STORM_-_FINAL)-S	0.00063	0	05/01/2022 00:17 AM	0.16	0	0.03	0	0	0	0	0
P-10200-J	0.01014	2.92	05/01/2022 00:20 AM	5.16	0.45	0.47	0	0	0	0	0
P-10200-J_(STORM_-_FINAL)-S	0.0633	0.07	05/01/2022 00:18 AM	2.79	0	0.09	0	0	0	0	0
P-10200-K	0.05043	2.61	05/01/2022 00:20 AM	7.68	0.18	0.32	0	0	0	0	0
P-10200-K_(STORM_-_FINAL)-S	0.01926	0.03	05/01/2022 00:19 AM	1.41	0	0.09	0	0	0	0	0
P-10200-L	0.02216	1.2	05/01/2022 00:19 AM	5.35	0.13	0.24	0	0	0	0	0
P-10200-L_(STORM_-_FINAL)-S	0.02648	0.04	05/01/2022 00:18 AM	1.78	0	0.09	0	0	0	0	0
P-10200-M	0.00974	0.81	05/01/2022 00:19 AM	3.56	0.13	0.24	0	0	0	0	0
P-10200-M_(STORM_-_FINAL)-S	0.0323	0.32	05/01/2022 00:10 AM	5.04	0	0.17	0	0	0	0	0
P-10200-N	0.01171	0	05/01/2022 00:00 AM	0	0	0.01	0	0	0	0	0
P-10201-A	0.02578	1.57	05/01/2022 00:16 AM	4.72	0.15	0.42	0	0	0	0	0
P-102020-A-S_1	0.04431	1.14	05/01/2022 00:17 AM	3.53	0.01	0.28	0	0	0	0	0
P-102020-A-S_2	0.08352	1.14	05/01/2022 00:17 AM	8.12	0.01	0.21	0	0	0	0	0
P-10202-A	0.01103	3.24	05/01/2022 00:17 AM	5.47	0.48	0.49	0	0	0	0	0
P-10203-A-S	0.08475	0	05/01/2022 00:55 AM	0	0	0.14	0	0	0	0	0
P-10210-A	0.06262	4.79	05/01/2022 00:07 AM	11.47	0.3	0.37	0	0	0	0	0
P-10210-B	0.01824	3.75	05/01/2022 00:08 AM	6.84	0.43	0.46	0	0	0	0	0
P-10210-B-S	0.10156	1.13	05/01/2022 00:07 AM	5.32	0.01	0.24	0	0	0	0	0
P-10210-C	0.01695	2	05/01/2022 00:09 AM	5.66	0.7	0.62	0	0	0	0	0
P-10210-C_(STORM_-_FINAL)-S	0.00359	0.05	05/01/2022 00:13 AM	0.92	0	0.13	0	0	0	0	0
P-10211-A	-0.00684	1.29	05/01/2022 00:07 AM	2.65	4.14	0.42	0	0.01	0.01	0.01	0.55
P-10211-B	0.00625	1.02	05/01/2022 00:07 AM	3.35	0.59	0.55	0	0	0	0	0
P-10212-A	0.01344	0	05/01/2022 00:00 AM	0	0	0	0	0	0	0	0
P-10240-A_(STORM_-_FINAL)-S	-0.00124	0	05/01/2022 00:00 AM	0	0	0.09	0	0	0	0	0
P-10250-A	0.03943	2.89	05/01/2022 00:12 AM	8.44	0.23	0.32	0	0	0	0	0

Table 1C: Conduits (continued...)

Name	Slope (ft/ft)	Max. |Flow| (cfs)	Time Max. Flow (M/D/Y)	Max. |Velocity| (ft/s)	Max/Full Flow	Max/Full Depth	Max. Volume (ft³)	Full Both Ends (h)	Full Upstream (h)	Full Downstream (h)	Above Full Normal (h)
P-10250-A-S	0	0.01	05/01/2022 00:13 AM	0.22	0.01	0.12	0	0	0	0	0
P-10250-B	0.02171	1.59	05/01/2022 00:07 AM	5.76	0.17	0.28	0	0	0	0	0
P-10250-B-S	0.07012	0	05/01/2022 00:00 AM	0	0	0.09	0	0	0	0	0
P-10250-C	0.05395	1.59	05/01/2022 00:07 AM	7.96	0.11	0.22	0	0	0	0	0
P-10250-C-S	0.06838	0.17	05/01/2022 00:08 AM	0.4	0	0.51	0	0	0	0	0
P-10250-D	0.00792	0.87	05/01/2022 00:07 AM	3.39	0.15	0.26	0	0	0	0	0
P-10250-D-S	-0.00054	0	05/01/2022 00:00 AM	0	0	0.07	0	0	0	0	0
P-10260-A	0.01	0.75	05/01/2022 00:08 AM	3.52	0.12	0.23	0	0	0	0	0
P-10260-A-S	0.03662	0.2	05/01/2022 00:08 AM	2.92	0	0.17	0	0	0	0	0
P-10270-A	0.01069	1.07	05/01/2022 00:23 AM	3.99	0.16	0.27	0	0	0	0	0
P-10280-A	0.04107	0.42	05/01/2022 00:19 AM	4.89	0.03	0.12	0	0	0	0	0
P-10300-B	0.03429	9	05/01/2022 00:19 AM	10.62	0.21	0.31	0	0	0	0	0
P-10300-B-S	0.0038	0.06	05/01/2022 00:07 AM	1.44	0	0.12	0	0	0	0	0
P-10300-C3	0.00925	4.1	05/01/2022 00:22 AM	4.34	0.23	0.35	0	0	0	0	0
P-10300-D-S	0.035	0	05/01/2022 00:00 AM	0	0	0	0	0	0	0	0
P-10300-E	0.01046	2.21	05/01/2022 00:19 AM	4.85	0.33	0.4	0	0	0	0	0
P-10300-E-S.	0.06167	0.21	05/01/2022 00:17 AM	5.16	0	0.12	0	0	0	0	0
P-10300-F	0.02629	1.53	05/01/2022 00:18 AM	6.09	0.15	0.26	0	0	0	0	0
P-10300-G	0.01646	0.29	05/01/2022 00:20 AM	3.91	0.05	0.15	0	0	0	0	0
P-10310-A	0.00423	4.31	05/01/2022 00:18 AM	6.26	0.36	0.41	0	0	0	0	0
P-10310-B	0.01001	4.17	05/01/2022 00:18 AM	5.6	0.65	0.59	0	0	0	0	0
P-10310-B-S	0.00354	0.01	05/01/2022 00:16 AM	0.54	0	0.08	0	0	0	0	0
P-10310-C-S	0.00264	0.01	05/01/2022 00:16 AM	0.43	0	0.19	0	0	0	0	0
P-10320-A	0.01282	1.98	05/01/2022 00:26 AM	4.98	0.17	0.28	0	0	0	0	0
P-10320-A-S	0.03515	0.07	05/01/2022 00:07 AM	3.39	0	0.08	0	0	0	0	0
P-10320-B	0.00292	1.83	05/01/2022 00:26 AM	3.28	0.52	0.46	0	0	0	0	0

Table 1C: Conduits (continued...)

Name	Slope (ft/ft)	Max. |Flow| (cfs)	Time Max. Flow (M/D/Y)	Max. |Velocity| (ft/s)	Max/Full Flow	Max/Full Depth	Max. Volume (ft³)	Full Both Ends (h)	Full Upstream (h)	Full Downstream (h)	Above Full Normal (h)
P-10320-C	0.02025	0	05/01/2022 00:00 AM	0	0	0	0	0	0	0	0
P-10320-D-S	0.0748	0.59	05/01/2022 00:21 AM	2.85	0.01	0.29	0	0	0	0	0
P-10321-A	0.01993	0.58	05/01/2022 00:06 AM	5.16	0.09	0.2	0	0	0	0	0
P-10330-A	-0.0034	0.73	05/01/2022 00:22 AM	2.08	5.54	0.46	0	0.01	0.01	0.01	0.97
P-10330-A-S	0.00252	0	05/01/2022 00:00 AM	0	0	0	0	0	0	0	0
P-10330-B	0.01061	0.73	05/01/2022 00:21 AM	3.22	0.2	0.33	0	0	0	0	0
P-10330-B-S	-0.00822	0	05/01/2022 00:00 AM	0	0	0.13	0	0	0	0	0
P-10400-A	0.00707	60.61	05/01/2022 00:32 AM	9.62	0.5	0.5	0	0	0	0	0
P-10400-A-S	0.02921	0	05/01/2022 00:00 AM	0	0	0	0	0	0	0	0
P-10400-B	0.02211	43.39	05/01/2022 00:35 AM	13.56	0.44	0.46	0	0	0	0	0
P-10400-C1	0.07449	43.39	05/01/2022 00:35 AM	13.81	0.7	1	0	1.28	1.28	1.35	0.01
P-10400-C2-S	0.01642	53.39	05/01/2022 00:20 AM	0	0	0	0	0	0	0	0
P-10400-C-S	0.02468	0.01	05/01/2022 00:07 AM	1.11	0	0.05	0	0	0	0	0
P-10400-D	0.01655	53.39	05/01/2022 00:20 AM	33.01	0.21	0.16	0	0	0	0	0
P-10400-D-S	0.0321	0.01	05/01/2022 00:13 AM	1.42	0	0.06	0	0	0	0	0
P-10400-E	0.00885	52.97	05/01/2022 00:21 AM	9.95	0.84	0.7	0	0	0	0	0
P-10400-E-S	0.03022	0	05/01/2022 00:00 AM	0	0	0.13	0	0	0	0	0
P-10400-F	0.0312	52.57	05/01/2022 00:21 AM	16.19	0.45	0.47	0	0	0	0	0
P-10400-F_(STORM_-_FINAL)-S	0.04114	0	05/01/2022 00:20 AM	0.98	0	0.03	0	0	0	0	0
P-10400-G	0.03253	48.46	05/01/2022 00:21 AM	16.1	0.4	0.44	0	0	0	0	0
P-10400-G-S	0.04536	0.15	05/01/2022 00:20 AM	2.92	0	0.13	0	0	0	0	0
P-10400-H	0.03375	46.71	05/01/2022 00:21 AM	16.16	0.38	0.43	0	0	0	0	0
P-10400-H-S	0.05165	0.11	05/01/2022 00:10 AM	2.85	0	0.11	0	0	0	0	0
P-10400-J	0.04228	46.15	05/01/2022 00:21 AM	17.49	0.34	0.4	0	0	0	0	0
P-10400-K	0.04297	9.75	05/01/2022 00:17 AM	11.78	0.21	0.31	0	0	0	0	0
P-10400-K-S	0.01587	0.03	05/01/2022 00:16 AM	1.32	0	0.09	0	0	0	0	0

Table 1C: Conduits (continued...)

Name	Slope (ft/ft)	Max. |Flow| (cfs)	Time Max. Flow (M/D/Y)	Max. |Velocity| (ft/s)	Max/Full Flow	Max/Full Depth	Max. Volume (ft^3)	Full Both Ends (h)	Full Upstream (h)	Full Downstream (h)	Above Full Normal (h)
P-10400-L	0.03192	7.99	05/01/2022 00:17 AM	10.19	0.43	0.46	0	0	0	0	0
P-10400-L-S	0.06392	0.01	05/01/2022 00:06 AM	3.23	0	0.06	0	0	0	0	0
P-10400-M	0.06767	1.97	05/01/2022 00:16 AM	9.67	0.06	0.17	0	0	0	0	0
P-10400-M-S	0.1096	0.03	05/01/2022 00:08 AM	4.21	0	0.06	0	0	0	0	0
P-10400-N	0.00705	0.41	05/01/2022 00:19 AM	3.07	0.02	0.13	0	0	0	0	0
P-10400-N_(STORM_-_FINAL)-S	-0.0141	0.01	05/01/2022 00:13 AM	1.7	0	0.05	0	0	0	0	0
P-10400-P	0.00903	0.4	05/01/2022 00:19 AM	3.61	0.04	0.11	0	0	0	0	0
P-10400-P_(STORM_-_FINAL)-S	0.07064	0	05/01/2022 00:00 AM	0	0	0.01	0	0	0	0	0
P-10400-Q	0.00964	0.24	05/01/2022 00:22 AM	2.21	0.02	0.11	0	0	0	0	0
P-10400-Q_(STORM_-_FINAL)-S	0	0	05/01/2022 00:00 AM	0	0	0	0	0	0	0	0
P-10400-R	0.0083	0.24	05/01/2022 00:22 AM	2.99	0.02	0.09	0	0	0	0	0
P-10400-R_(STORM_-_FINAL)-S	0	0	05/01/2022 00:00 AM	0	0	0	0	0	0	0	0
P-10400-S	0.00941	0.24	05/01/2022 00:22 AM	2.4	0.02	0.11	0	0	0	0	0
P-10400-S_(STORM_-_FINAL)-S	0.00927	0	05/01/2022 00:00 AM	0	0	0	0	0	0	0	0
P-10410-A	0.00819	20.18	05/01/2022 00:26 AM	7.51	0.16	0.27	0	0	0	0	0
P-10410-A-S	0.00307	0.2	05/01/2022 00:08 AM	1.01	0.01	0.24	0	0	0	0	0
P-10410-B	0.00915	20.09	05/01/2022 00:26 AM	9.41	0.11	0.23	0	0	0	0	0
P-10410-C	0.00525	19.97	05/01/2022 00:26 AM	9.31	0.11	0.23	0	0	0	0	0
P-10410-D	-0.00662	18.71	05/01/2022 00:26 AM	4.79	3.93	0.35	0	0.01	0.01	0.01	0.94
P-10410-E	0.01965	17.85	05/01/2022 00:26 AM	8.67	0.09	0.22	0	0	0	0	0
P-10410-F	0.00161	17.16	05/01/2022 00:26 AM	5.36	0.49	0.46	0	0	0	0	0
P-10411-A	0.00181	0.17	05/01/2022 00:22 AM	1.6	0.05	0.14	0	0	0	0	0
P-10411-A-S	0.00273	0.01	05/01/2022 00:18 AM	0.25	0	0.15	0	0	0	0	0
P-10420-A	0.03495	4.14	05/01/2022 00:15 AM	8.56	0.1	0.21	0	0	0	0	0
P-10420-A_(STORM_-_FINAL)-S	0.07089	0	05/01/2022 00:19 AM	0.79	0	0.02	0	0	0	0	0
P-10420-B	0.02634	3.8	05/01/2022 00:15 AM	7.55	0.1	0.22	0	0	0	0	0

Table 1C: Conduits (continued...)

Name	Slope (ft/ft)	Max. |Flow| (cfs)	Time Max. Flow (M/D/Y)	Max. |Velocity| (ft/s)	Max/Full Flow	Max/Full Depth	Max. Volume (ft³)	Full Both Ends (h)	Full Upstream (h)	Full Downstream (h)	Above Full Normal (h)
P-10420-B_(STORM_-_FINAL)-S	0.07049	0.01	05/01/2022 00:06 AM	1.76	0	0.04	0	0	0	0	0
P-10420-C	0.02802	3.56	05/01/2022 00:15 AM	7.57	0.09	0.21	0	0	0	0	0
P-10420-C-S	0.00181	0	05/01/2022 00:25 AM	0.3	0	0.04	0	0	0	0	0
P-10420-D	0.02392	1.78	05/01/2022 00:18 AM	5.83	0.05	0.15	0	0	0	0	0
P-10420-D-S	0.07763	0.24	05/01/2022 00:20 AM	4.04	0	0.14	0	0	0	0	0
P-10420-E	0.00867	0.95	05/01/2022 00:13 AM	3.58	0.16	0.27	0	0	0	0	0
P-10420-E-S	0.00517	0.11	05/01/2022 00:13 AM	1.76	0	0.15	0	0	0	0	0
P-10421-A	0.00991	0.5	05/01/2022 00:25 AM	2.94	0.02	0.1	0	0	0	0	0
P-10421-A_(STORM_-_FINAL)-S	-0.00168	0	05/01/2022 00:00 AM	0	0	0.05	0	0	0	0	0
P-10422-A	0.15002	3.13	05/01/2022 00:06 AM	13.61	0.08	0.19	0	0	0	0	0
P-10422-A-S	0.18165	0	05/01/2022 00:00 AM	0	0	0.03	0	0	0	0	0
P-10430-A_(STORM_-_FINAL)	0.01	1.27	05/01/2022 00:13 AM	4.02	0.12	0.23	0	0	0	0	0
P-10430-A-S	0.04421	0.29	05/01/2022 00:13 AM	3.41	0	0.17	0	0	0	0	0
P-10440-A	0.05406	37.1	05/01/2022 00:21 AM	18.2	0.39	0.43	0	0	0	0	0
P-10440-A_(STORM_-_FINAL)-S	0.0504	0	05/01/2022 00:07 AM	1.07	0	0.03	0	0	0	0	0
P-10440-B	0.02426	36.94	05/01/2022 00:21 AM	13.48	0.58	0.55	0	0	0	0	0
P-10440-B_(STORM_-_FINAL)-S	0.01711	0.03	05/01/2022 00:11 AM	1.4	0	0.09	0	0	0	0	0
P-10440-C	0.005	36.51	05/01/2022 00:21 AM	8.17	1.26	0.86	0	0.01	0.01	0.01	0.26
P-10440-C_(STORM_-_FINAL)-S	0.0471	0	05/01/2022 00:00 AM	0	0	0	0	0	0	0	0
P-10440-D	0.00504	33.28	05/01/2022 00:22 AM	7.11	1.14	0.91	0	0.01	0.01	0.01	0.19
P-10440-D-S	0.07468	0	05/01/2022 00:00 AM	0	0	0	0	0	0	0	0
P-10440-E	0.00601	30.37	05/01/2022 00:21 AM	9.78	1.73	0.97	0	0.01	0.29	0.01	0.41
P-10440-G	0.04877	20.56	05/01/2022 00:22 AM	15.12	0.41	0.45	0	0	0	0	0
P-10441-A	0.17704	0.08	05/01/2022 00:16 AM	2.56	0.01	0.36	0	0	0	0	0
P-10442-A	0.01285	0.5	05/01/2022 00:22 AM	4.21	0.09	0.21	0	0	0	0	0
P-10442-A-EX	0.06536	9.51	05/01/2022 00:21 AM	13.73	0.16	0.27	0	0	0	0	0

Table 1C: Conduits (continued...)

Name	Slope (ft/ft)	Max. |Flow| (cfs)	Time Max. Flow (M/D/Y)	Max. |Velocity| (ft/s)	Max/Full Flow	Max/Full Depth	Max. Volume (ft^3)	Full Both Ends (h)	Full Upstream (h)	Full Downstream (h)	Above Full Normal (h)
P-10443-A	0.05033	0.52	05/01/2022 00:21 AM	5.24	0.04	0.13	0	0	0	0	0
P-10443-C	0.0213	8.2	05/01/2022 00:21 AM	9.91	0.25	0.31	0	0	0	0	0
P-10443-D	0.06181	6.2	05/01/2022 00:21 AM	11.2	0.04	0.13	0	0	0	0	0
P-10443-E	0.09798	1.47	05/01/2022 00:09 AM	9.83	0.13	0.25	0	0	0	0	0
P-10443-E-S	-0.00034	0	05/01/2022 00:00 AM	0	0	0.09	0	0	0	0	0
P-10450-A_(STORM_-_FINAL)	0.00956	2.07	05/01/2022 00:08 AM	4.54	0.2	0.3	0	0	0	0	0
P-10450-A-S	0.06444	0.39	05/01/2022 00:08 AM	6.41	0	0.16	0	0	0	0	0
P-10460-A	0.00369	5.88	05/01/2022 00:17 AM	4.81	0.92	0.65	0	0	0	0	0
P-10460-A-S	0.06802	0.01	05/01/2022 00:06 AM	1.5	0	0.12	0	0	0	0	0
P-10460-B	0.00566	5.76	05/01/2022 00:17 AM	4.99	0.73	0.62	0	0	0	0	0
P-10460-B_(STORM_-_FINAL)-S	0.03933	0.48	05/01/2022 00:36 AM	5.71	0.01	0.18	0	0	0	0	0
P-10460-C	0.00657	3.94	05/01/2022 00:18 AM	4.64	0.46	0.49	0	0	0	0	0
P-10460-C_(STORM_-_FINAL)-S	0	0.06	05/01/2022 00:18 AM	0.49	0.05	0.22	0	0	0	0	0
P-10460-D	0.00615	3.15	05/01/2022 00:19 AM	4.35	0.38	0.43	0	0	0	0	0
P-10460-D_(STORM_-_FINAL)-S	-0.00104	0.13	05/01/2022 00:13 AM	0.36	0.01	0.36	0	0	0	0	0
P-10460-E	0.00489	1.3	05/01/2022 00:20 AM	3.23	0.29	0.36	0	0	0	0	0
P-10460-E_(STORM_-_FINAL)-S	0.00124	0.27	05/01/2022 00:18 AM	0.66	0.02	0.35	0	0	0	0	0
P-10460-F	0.00773	0.71	05/01/2022 00:23 AM	3.16	0.12	0.24	0	0	0	0	0
P-10460-F_(STORM_-_FINAL)-S	-0.00317	0.2	05/01/2022 00:16 AM	1.57	0.01	0.24	0	0	0	0	0
P-10461-A	0.01422	2.63	05/01/2022 00:07 AM	5.61	0.21	0.31	0	0	0	0	0
P-10461-B	0.00499	1.49	05/01/2022 00:06 AM	3.29	0.2	0.3	0	0	0	0	0
P-10461-B_(STORM_-_FINAL)-S	0	0.33	05/01/2022 00:06 AM	0.48	0.28	0.37	0	0	0	0	0
P-10462-A	0.03373	0.03	05/01/2022 00:18 AM	2.03	0	0.04	0	0	0	0	0
P-10470-A	0.01001	0.54	05/01/2022 00:17 AM	3.2	0.08	0.2	0	0	0	0	0
P-10470-A-S	-0.02406	0	05/01/2022 00:00 AM	0	0	0.04	0	0	0	0	0
P-10480-A	0.01242	0.6	05/01/2022 00:17 AM	4.18	0.04	0.14	0	0	0	0	0

Table 1C: Conduits (continued...)

Name	Slope (ft/ft)	Max. |Flow| (cfs)	Time Max. Flow (M/D/Y)	Max. |Velocity| (ft/s)	Max/Full Flow	Max/Full Depth	Max. Volume (ft^3)	Full Both Ends (h)	Full Upstream (h)	Full Downstream (h)	Above Full Normal (h)
P-10480-B	0.01105	0.6	05/01/2022 00:17 AM	4.02	0.04	0.14	0	0	0	0	0
P-10500-B	0.00516	2.78	05/01/2022 00:15 AM	6.14	0.37	0.3	0	0	0	0	0
P-10500-B_(STORM_-_FINAL)-S	0.0267	0	05/01/2022 00:00 AM	0	0	0	0	0	0	0	0
P-10500-C	0.00439	1.34	05/01/2022 00:16 AM	3.31	0.57	0.51	0	0	0	0	0
P-10500-C_(STORM_-_FINAL)-S	-0.02094	0	05/01/2022 00:00 AM	0	0	0.19	0	0	0	0	0
P-10500-D	0.00063	0	05/01/2022 00:00 AM	0	0	0	0	0	0	0	0
P-10510-A	-0.00955	1.9	05/01/2022 00:07 AM	3.53	7.72	0.65	0	0.01	0.01	0.01	0.88
P-10510-A_(STORM_-_FINAL)-S	-0.22058	0	05/01/2022 00:00 AM	0	0	0.5	0	0	0	0	0
P-10700-A	0.01013	2.4	05/01/2022 00:08 AM	8.14	0.23	0.22	0	0	0	0	0
P-12000-A	0.00981	1.02	05/01/2022 00:18 AM	4.34	0.1	0.56	0	0.01	0.01	0.3	0.01
P-12000-B	0.00999	1.02	05/01/2022 00:18 AM	3.77	0.1	0.21	0	0	0	0	0
P-12000-C	0.0101	0.51	05/01/2022 00:20 AM	2.92	0.05	0.16	0	0	0	0	0
P-12000-C-S	0.02368	0.13	05/01/2022 00:17 AM	2.68	0	0.13	0	0	0	0	0
P-12000-D	0.01141	8.16	05/01/2022 00:22 AM	6.28	0.34	0.43	0	0	0	0	0
P-12000-E	0.011	0.47	05/01/2022 00:08 AM	2.83	0.02	0.1	0	0	0	0	0
P-12000-E-S	0.05996	0.08	05/01/2022 00:08 AM	2.63	0	0.11	0	0	0	0	0
P-12000-F	0.01697	0.77	05/01/2022 00:16 AM	3.62	0.03	0.16	0	0	0	0	0
P-12000-G-S	0.01397	0	05/01/2022 00:00 AM	0	0	0.07	0	0	0	0	0
P-21199_1	0.07522	9.81	05/01/2022 00:21 AM	14.41	0.16	0.27	0	0	0	0	0
P-21199-S	0.0449	0.02	05/01/2022 00:11 AM	1.72	0	0.06	0	0	0	0	0
S	0.0033	1	05/01/2022 00:09 AM	3.24	0.61	0.55	0	0	0	0	0
UV-Outlet	0.02276	0	05/01/2022 00:00 AM	0	0	0	0	0	0	0	0

Table 1D: Conduits

Name	Capacity Limited (h)	Length Factor (fraction)	Dry (fraction)	Subcritical (fraction)	Supercritical (fraction)	Normal Limited (fraction)	Inlet Control (fraction)	Max. Spread (ft)	Contributing Area (ac)	Contributing Imp. Area (ac)
1	0.01	1	0.03	0	0	0	0	0	0	0
10	0	1	0.06	0	0	0	0	0	0	0
10000-CB-S	0	1	1	0	0	0	0	0	0	0
10000-DC-S	0	1	1	0	0	0	0	0	0	0
10000-ED-S	0	1	1	0	0	0	0	0	0	0
10123-AF	0	1	1	0	0	0	0	0	0	0
10125-AG	0.36	1	0.03	0	0	0	0	0	0	0
10200-B	0	1	0	0	0	0	0	0	0	0
10203-A	0	1	0.03	0.84	0	0.8	0	0	0	0
10300-D1	0	1	0.01	0	0.98	0.67	0	0	0	0
10300-D-2	0	1	0.02	0	0.98	0.98	0	0	0	0
10300-D-3	0	1	0.02	0	0	0	0	0	0	0
10310-C-S2	0	1	0.04	0.14	0.82	0.58	0	3.675	0	0
11	0	1	1	0	0	0	0	0	0	0
11000-A0	0	1	0.02	0.24	0.74	0	0	0	0	0
12	0	1	0.04	0	0	0	0	0	0	0
12000-B'B	0	1	0.02	0.22	0.76	0.12	0	1.181	0	0
12000-DC-S	0	1	0.02	0.25	0.49	0.96	0	1.012	0	0
12000-FE-S	0	1	0.36	0	0	0	0	0.59	0	0
12000-G	0	1	0.04	0	0	0	0	0	0	0
12000-RainGarden	0	1	0.03	0.57	0.37	0.95	0	0	0	0
13	0	1	0.02	0.27	0.7	0.31	0	0	0	0
13000-A0	0	1	0.02	0.19	0.79	0	0	0	0	0
14	0	1	0.03	0.03	0.69	0.96	0	0	0	0
14000-A0'	0	1	1	0	0	0	0	0	0	0
14000-B0	0.01	1	0	0.24	0.76	0.04	0	0	0	0

Table 1D: Conduits (continued...)

Name	Capacity Limited (h)	Length Factor (fraction)	Dry (fraction)	Subcritical (fraction)	Supercritical (fraction)	Normal Limited (fraction)	Inlet Control (fraction)	Max. Spread (ft)	Contributing Area (ac)	Contributing Imp. Area (ac)
14000-CB	0.15	1	0	0.55	0.41	0.45	0	0	0	0
14000-DC	0.23	1	0.01	0.58	0.4	0.32	0	0	0	0
14000-ED	0.01	1	0.02	0.97	0.01	0.43	0	0	0	0
14000-FE	0.01	1	0.02	0.97	0	0.43	0	0	0	0
15	0	1	0.03	0.28	0.68	0.84	0	0	0	0
16	0.01	1	0.03	0.28	0.69	0.92	0	0	0	0
17	0.01	1	0.03	0.27	0.7	0.47	0	0	0	0
18	0	1	0.03	0.02	0.95	0.8	0	0	0	0
19	0.01	1	0.02	0.52	0.46	0.55	0	0	0	0
20	0.01	1	0.03	0.95	0.03	0.01	0	0	0	0
21	0	1	0.02	0.01	0.96	0.73	0	0	0	0
22	0	1	0.02	0	0.98	0.06	0	0	0	0
26	0	1	0.03	0	0	0	0	0	0	0
28	0	1	0.02	0.95	0.03	0.94	0	0	0	0
3	0	1	0.03	0	0	0	0	0	0	0
4	0	1	0	0.94	0.06	0.95	0	0	0	0
5	0	1	0.03	0	0	0	0	0	0	0
6	0	1	0.14	0.14	0.72	0	0	0	0	0
8	0	1	0.04	0	0	0	0	0	0	0
9	0	1	0.02	0.97	0	0.44	0	0	0	0
C10	0	1	0.05	0.07	0.01	0.04	0	0	0	0
C10-S	0.01	1	0.03	0.97	0	0	0	13.5	0	0
C11	0	1	0.08	0.07	0.5	0.24	0	0	0	0
C11-S	0	1	0.03	0.44	0	0	0	0	0	0
C12-S	0	1	0.31	0	0	0	0	0	0	0
C14	0.01	1	0	0.4	0.6	0	0	0	0	0

Table 1D: Conduits (continued...)

Name	Capacity Limited (h)	Length Factor (fraction)	Dry (fraction)	Subcritical (fraction)	Supercritical (fraction)	Normal Limited (fraction)	Inlet Control (fraction)	Max. Spread (ft)	Contributing Area (ac)	Contributing Imp. Area (ac)
C15	0	1	0.01	0.1	0.87	0.53	0	0	0	0
C16	0	1	0.67	0.23	0.01	0.24	0	0	0	0
C17	0	1	0.06	0.47	0	0.88	0	0	0	0
C18	0	1	1	0	0	0	0	0	0	0
C19	0	1	0.42	0	0	0	0	0	0	0
C2	0.01	1	0	0.56	0.02	0.57	0	0	0	0
C20	0	1	0.02	0.01	0.98	0.02	0	0	0	0
C21	0	1	0.03	0.95	0	0.04	0	0	0	0
C23	0	1	0	0.75	0.22	0.97	0	0	0	0
C24	0	1	0	0.25	0.6	0.4	0	4.725	0	0
C25	0	1	0.03	0.7	0	0.95	0	0	0	0
C26	0	1	0.01	0.1	0.89	0.95	0	0	0	0
C2-S	0	1	0.02	0	0.98	0.18	0	4.375	0	0
C3	1.68	1	0.03	0	0	0	0	0	0	0
C4	0	1	1	0	0	0	0	0	0	0
C4-S	0	1	1	0	0	0	0	0	0	0
C5	0	1	0.04	0	0	0	0	0	0	0
C6	0	1	0.01	0.99	0	0.19	0	0	0	0
C7	0	1	0.05	0.67	0.07	0.87	0	0	0	0
C8	0	1	0.03	0.4	0.04	0.44	0	0	0	0
C9_1	0	1	0.02	0.3	0.68	0	0	0	0	0
C9_2	0	1	0.04	0	0	0	0	0	0	0
C-J182	0.01	1	0.04	0.86	0	0.53	0	0	0	0
C-J320	0.01	1	0.05	0.92	0	0.92	0	13.5	0	0
C-J39	0.01	1	0.04	0.86	0	0	0	0	0	0
C-J46	0	1	0.05	0.94	0	0.94	0	0	0	0

Table 1D: Conduits (continued...)

Name	Capacity Limited (h)	Length Factor (fraction)	Dry (fraction)	Subcritical (fraction)	Supercritical (fraction)	Normal Limited (fraction)	Inlet Control (fraction)	Max. Spread (ft)	Contributing Area (ac)	Contributing Imp. Area (ac)
EP-10440-C	0	1	0.01	0	0	0	0	0	0	0
EP-10440-C-S	0	1	1	0	0	0	0	0	0	0
EX10441-B-S	0	1	0.25	0.21	0.48	0.09	0	0.506	0	0
EX10441-C-S	0	1	0.04	0.23	0.73	0	0	1.434	0	0
EX10441-D-S	0	1	0.03	0.43	0.54	0	0	7.875	0	0
OL-10100-AE_1	0	1	0.07	0.38	0.23	0.85	0	0	0	0
OL-10100-AE_2	0	1	0.07	0	0	0	0	0	0	0
OL-10101-AF	0	1	0.03	0	0.97	0	0	0	0	0
OL-10131-BA	0	1	1	0	0	0	0	0	0	0
OL-10131-CB	0	1	1	0	0	0	0	0	0	0
OL-10200-BA_1	0	1	0	0.43	0.57	0.55	0	1.434	0	0
OL-10200-BA_2	0	1	0.01	0.33	0.66	0.21	0	1.349	0	0
OL-10201-AA_1	0	1	0.03	0.12	0.54	0.55	0	1.181	0	0
OL-10201-AA_2	0	1	0.01	0.51	0.44	0.52	0	1.181	0	0
OL-10210-AD	0	1	0.26	0	0	0	0	0.506	0	0
OL-11000-A0	0	1	0.29	0.01	0.71	0.04	0	0	0	0
OL-11000-AbAc	0	1	1	0	0	0	0	0	0	0
OL-11000-AcAd	0	1	1	0	0	0	0	0	0	0
OL-11000-AdAe	0	1	1	0	0	0	0	0	0	0
OL-11000-AeE	0	1	1	0	0	0	0	0	0	0
OL-11000-BA	0	1	0.04	0.2	0.75	0	0	0	0	0
OL-12000-B0	0	1	0.18	0	0	0	0	1.096	0	0
OL-14000-BC	0	1	1	0	0	0	0	0	0	0
OL-14000-CB	0	1	0.91	0	0	0	0	0	0	0
OL-14000-DC	0	1	1	0	0	0	0	0	0	0
OL-14000-ED	0	1	1	0	0	0	0	0	0	0

Table 1D: Conduits (continued...)

Name	Capacity Limited (h)	Length Factor (fraction)	Dry (fraction)	Subcritical (fraction)	Supercritical (fraction)	Normal Limited (fraction)	Inlet Control (fraction)	Max. Spread (ft)	Contributing Area (ac)	Contributing Imp. Area (ac)
P-10000-A	0.01	1	0	1	0	0.51	0	0	0	0
P-10000-C	0	1	0.03	0	0	0	0	0	0	0
P-10000-C.	0	1	0.03	0	0	0	0	0	0	0
P-10001-A-S	0	1	0.07	0	0	0	0	0.084	0	0
P-1000-B	0	1	0	0.22	0.24	0.43	0	0	0	0
P-10100-A	0	1	0.04	0	0	0	0	0	0	0
P-10100-B	0	1	0.04	0	0	0	0	0	0	0
P-10100-B-S	0	1	0.03	0.51	0.04	0.91	0	0.843	0	0
P-10100-C	0	1	0.03	0	0	0	0	0	0	0
P-10120-G	0	1	0.03	0.32	0.65	0.38	0	0	0	0
P-10120-H	0	1	0.03	0.24	0.68	0.96	0	0	0	0
P-10120-H-S	0	1	0.06	0	0	0	0	0	0	0
P-10200-A	0	1	0.01	0	0	0	0	0	0	0
P-10200-A-S_1	0	1	0.01	0.12	0.54	0.95	0	1.434	0	0
P-10200-A-S_2	0	1	0.01	0.34	0.63	0.43	0	1.181	0	0
P-10200-C	0	1	0	0	0	0	0	0	0	0
P-10200-C-S_1	0	1	0.39	0.34	0.27	0	0	0.422	0	0
P-10200-C-S_2	0	1	0	0.39	0	0.97	0	0.759	0	0
P-10200-D	0	1	0.03	0	0	0	0	0	0	0
P-10200-D-S	0	1	0.18	0.25	0.54	0	0	0.675	0	0
P-10200-D-S.	0	1	0	0	0	0	0	1.434	0	0
P-10200-E	0	1	0.03	0	0.97	0.88	0	0	0	0
P-10200-F	0	1	0.02	0	0	0	0	0	0	0
P-10200-F-S	0	1	0	0.64	0	0.98	0	0.759	0	0
P-10200-G	0.01	1	0.01	0	0	0	0	0	0	0
P-10200-G_(STORM_-_FINAL)-S	0	1	0.4	0	0	0	0	0.084	0	0

Table 1D: Conduits (continued...)

Name	Capacity Limited (h)	Length Factor (fraction)	Dry (fraction)	Subcritical (fraction)	Supercritical (fraction)	Normal Limited (fraction)	Inlet Control (fraction)	Max. Spread (ft)	Contributing Area (ac)	Contributing Imp. Area (ac)
P-10200-H	0	1	0.04	0.24	0.37	0.61	0	0	0	0
P-10200-H_(STORM_-_FINAL)-S	0	1	0.41	0	0	0	0	0.253	0	0
P-10200-J	0	1	0.05	0	0	0	0	0	0	0
P-10200-J_(STORM_-_FINAL)-S	0	1	0.37	0.06	0	0	0	0.759	0	0
P-10200-K	0	1	0.04	0	0.26	0.26	0	0	0	0
P-10200-K_(STORM_-_FINAL)-S	0	1	0.26	0.13	0.35	0.39	0	0.759	0	0
P-10200-L	0	1	0.03	0	0	0	0	0	0	0
P-10200-L_(STORM_-_FINAL)-S	0	1	0.26	0.13	0.52	0.78	0	0.759	0	0
P-10200-M	0	1	0.05	0	0	0	0	0	0	0
P-10200-M_(STORM_-_FINAL)-S	0	1	0	0.15	0.84	0.24	0	1.434	0	0
P-10200-N	0	1	0.92	0	0	0	0	0	0	0
P-10201-A	0	1	0	0.19	0.36	0.03	0	0	0	0
P-102020-A-S_1	0	1	0.02	0.35	0.62	0.94	0	5.075	0	0
P-102020-A-S_2	0	1	0.03	0.29	0.69	0	0	2.625	0	0
P-10202-A	0	1	0.02	0	0	0	0	0	0	0
P-10203-A-S	0	1	0.03	0.02	0	0.5	0	1.181	0	0
P-10210-A	0	1	0.02	0	0	0	0	0	0	0
P-10210-B	0	1	0.01	0	0	0	0	0	0	0
P-10210-B-S	0	1	0.33	0	0	0	0	3.675	0	0
P-10210-C	0	1	0.01	0	0	0	0	0	0	0
P-10210-C_(STORM_-_FINAL)-S	0	1	0.3	0	0	0	0	1.096	0	0
P-10211-A	0.01	1	0.01	0	0	0	0	0	0	0
P-10211-B	0	1	0	0	0	0	0	0	0	0
P-10212-A	0	1	1	0	0	0	0	0	0	0
P-10240-A_(STORM_-_FINAL)-S	0	1	0.17	0	0	0	0	0.759	0	0
P-10250-A	0	1	0.02	0	0	0	0	0	0	0

Table 1D: Conduits (continued...)

Name	Capacity Limited (h)	Length Factor (fraction)	Dry (fraction)	Subcritical (fraction)	Supercritical (fraction)	Normal Limited (fraction)	Inlet Control (fraction)	Max. Spread (ft)	Contributing Area (ac)	Contributing Imp. Area (ac)
P-10250-A-S	0	1	0.38	0	0	0	0	1.012	0	0
P-10250-B	0	1	0.02	0	0	0	0	0	0	0
P-10250-B-S	0	1	0.38	0	0	0	0	0.759	0	0
P-10250-C	0	1	0.02	0	0	0	0	0	0	0
P-10250-C-S	0	1	0.01	0.59	0	0.97	0	13.125	0	0
P-10250-D	0	1	0.02	0	0	0	0	0	0	0
P-10250-D-S	0	1	0.41	0	0	0	0	0.59	0	0
P-10260-A	0	1	0.04	0	0	0	0	0	0	0
P-10260-A-S	0	1	0.34	0.05	0.32	0.75	0	1.434	0	0
P-10270-A	0	1	0.09	0	0	0	0	0	0	0
P-10280-A	0	1	0.04	0	0	0	0	0	0	0
P-10300-B	0	1	0.02	0	0	0	0	0	0	0
P-10300-B-S	0	1	0.43	0	0	0	0	1.012	0	0
P-10300-C3	0	1	0.01	0.29	0.7	0.23	0	0	0	0
P-10300-D-S	0	1	1	0	0	0	0	0	0	0
P-10300-E	0	1	0.03	0	0	0	0	0	0	0
P-10300-E-S.	0	1	0.25	0.16	0.59	0.02	0	1.012	0	0
P-10300-F	0	1	0.02	0	0	0	0	0	0	0
P-10300-G	0	1	0.03	0	0	0	0	0	0	0
P-10310-A	0	1	0.02	0	0	0	0	0	0	0
P-10310-B	0	1	0.01	0	0	0	0	0	0	0
P-10310-B-S	0	1	0.34	0.6	0	0.87	0	0.675	0	0
P-10310-C-S	0	1	0.16	0.58	0.02	0.94	0	1.925	0	0
P-10320-A	0	1	0	0	0	0	0	0	0	0
P-10320-A-S	0	1	0.4	0.07	0.51	0.15	0	0.675	0	0
P-10320-B	0	1	0.09	0	0	0	0	0	0	0

Table 1D: Conduits (continued...)

Name	Capacity Limited (h)	Length Factor (fraction)	Dry (fraction)	Subcritical (fraction)	Supercritical (fraction)	Normal Limited (fraction)	Inlet Control (fraction)	Max. Spread (ft)	Contributing Area (ac)	Contributing Imp. Area (ac)
P-10320-C	0	1	1	0	0	0	0	0	0	0
P-10320-D-S	0	1	0	0.27	0.63	0.9	0	5.425	0	0
P-10321-A	0	1	0	0	0	0	0	0	0	0
P-10330-A	0.01	1	0.05	0	0	0	0	0	0	0
P-10330-A-S	0	1	1	0	0	0	0	0	0	0
P-10330-B	0	1	0.04	0	0.27	0.24	0	0	0	0
P-10330-B-S	0	1	0.09	0	0	0	0	1.096	0	0
P-10400-A	0	1	0.03	0	0	0	0	0	0	0
P-10400-A-S	0	1	1	0	0	0	0	0	0	0
P-10400-B	0	1	0.02	0	0	0	0	0	0	0
P-10400-C1	0.01	1	0.02	0.86	0.13	0.04	0	0	0	0
P-10400-C2-S	0	0	0	0	0	0	0	0	0	0
P-10400-C-S	0	1	0.44	0	0	0	0	0.422	0	0
P-10400-D	0	1	0.01	0	0.99	0	0	0	0	0
P-10400-D-S	0	1	0.4	0.26	0.04	0.69	0	0.506	0	0
P-10400-E	0	1	0.01	0	0	0	0	0	0	0
P-10400-E-S	0	1	0.03	0	0	0	0	1.096	0	0
P-10400-F	0	1	0.01	0	0	0	0	0	0	0
P-10400-F_(STORM_-_FINAL)-S	0	1	0.48	0	0	0	0	0.253	0	0
P-10400-G	0	1	0.02	0	0	0	0	0	0	0
P-10400-G-S	0	1	0.26	0	0	0	0	1.096	0	0
P-10400-H	0	1	0.01	0	0	0	0	0	0	0
P-10400-H-S	0	1	0.21	0.41	0.14	0.86	0	0.928	0	0
P-10400-J	0	1	0.01	0	0	0	0	0	0	0
P-10400-K	0	1	0	0	0	0	0	0	0	0
P-10400-K-S	0	1	0.31	0	0	0	0	0.759	0	0

Table 1D: Conduits (continued...)

Name	Capacity Limited (h)	Length Factor (fraction)	Dry (fraction)	Subcritical (fraction)	Supercritical (fraction)	Normal Limited (fraction)	Inlet Control (fraction)	Max. Spread (ft)	Contributing Area (ac)	Contributing Imp. Area (ac)
P-10400-L	0	1	0	0	0	0	0	0	0	0
P-10400-L-S	0	1	0.29	0.5	0.07	0.93	0	0.506	0	0
P-10400-M	0	1	0.02	0	0	0	0	0	0	0
P-10400-M-S	0	1	0.37	0.09	0.52	0.04	0	0.506	0	0
P-10400-N	0	1	0.02	0.05	0.9	0.96	0	0	0	0
P-10400-N_(STORM_-_FINAL)-S	0	1	0.36	0.08	0.53	0	0	0.422	0	0
P-10400-P	0	1	0.04	0.22	0.74	0	0	0	0	0
P-10400-P_(STORM_-_FINAL)-S	0	1	0.38	0	0	0	0	0.084	0	0
P-10400-Q	0	1	0.04	0.39	0.55	0.94	0	0	0	0
P-10400-Q_(STORM_-_FINAL)-S	0	1	1	0	0	0	0	0	0	0
P-10400-R	0	1	0.06	0.26	0.69	0.85	0	0	0	0
P-10400-R_(STORM_-_FINAL)-S	0	1	1	0	0	0	0	0	0	0
P-10400-S	0	1	0.04	0	0	0	0	0	0	0
P-10400-S_(STORM_-_FINAL)-S	0	1	1	0	0	0	0	0	0	0
P-10410-A	0	1	0.03	0	0	0	0	0	0	0
P-10410-A-S	0	1	0.03	0	0	0	0	3.675	0	0
P-10410-B	0	1	0.02	0	0	0	0	0	0	0
P-10410-C	0	1	0.02	0.01	0.97	0.76	0	0	0	0
P-10410-D	0.01	1	0.02	0	0	0	0	0	0	0
P-10410-E	0	1	0.02	0	0.27	0.21	0	0	0	0
P-10410-F	0	1	0.02	0	0	0	0	0	0	0
P-10411-A	0	1	0.05	0	0	0	0	0	0	0
P-10411-A-S	0	1	0.22	0.71	0.03	0.52	0	1.265	0	0
P-10420-A	0	1	0.01	0	0	0	0	0	0	0
P-10420-A_(STORM_-_FINAL)-S	0	1	0.23	0.26	0.19	0.18	0	0.169	0	0
P-10420-B	0	1	0	0	0	0	0	0	0	0

Table 1D: Conduits (continued...)

Name	Capacity Limited (h)	Length Factor (fraction)	Dry (fraction)	Subcritical (fraction)	Supercritical (fraction)	Normal Limited (fraction)	Inlet Control (fraction)	Max. Spread (ft)	Contributing Area (ac)	Contributing Imp. Area (ac)
P-10420-B_(STORM_-_FINAL)-S	0	1	0.17	0.19	0.14	0.1	0	0.337	0	0
P-10420-C	0	1	0	0	0	0	0	0	0	0
P-10420-C-S	0	1	0.1	0	0	0	0	0.337	0	0
P-10420-D	0	1	0.02	0	0	0	0	0	0	0
P-10420-D-S	0	1	0.07	0.16	0.02	0.36	0	1.181	0	0
P-10420-E	0	1	0.01	0	0	0	0	0	0	0
P-10420-E-S	0	1	0.26	0	0	0	0	1.265	0	0
P-10421-A	0	1	0.09	0	0	0	0	0	0	0
P-10421-A_(STORM_-_FINAL)-S	0	1	0.19	0	0	0	0	0.422	0	0
P-10422-A	0	1	0	0	0	0	0	0	0	0
P-10422-A-S	0	1	0.1	0	0	0	0	0.253	0	0
P-10430-A_(STORM_-_FINAL)	0	1	0.04	0	0	0	0	0	0	0
P-10430-A-S	0	1	0.26	0	0	0	0	1.434	0	0
P-10440-A	0	1	0.02	0	0	0	0	0	0	0
P-10440-A_(STORM_-_FINAL)-S	0	1	0.43	0	0	0	0	0.253	0	0
P-10440-B	0	1	0.01	0	0	0	0	0	0	0
P-10440-B_(STORM_-_FINAL)-S	0	1	0.32	0	0	0	0	0.759	0	0
P-10440-C	0.01	1	0.01	0	0	0	0	0	0	0
P-10440-C_(STORM_-_FINAL)-S	0	1	1	0	0	0	0	0	0	0
P-10440-D	0.01	1	0.01	0.74	0.24	0.46	0	0	0	0
P-10440-D-S	0	1	1	0	0	0	0	0	0	0
P-10440-E	0.01	1	0.01	0	0	0	0	0	0	0
P-10440-G	0	1	0.01	0	0	0	0	0	0	0
P-10441-A	0	1	0.04	0.57	0.01	0.95	0	0	0	0
P-10442-A	0	1	0.07	0	0.08	0	0	0	0	0
P-10442-A-EX	0	1	0.01	0	0.96	0.4	0	0	0	0

Table 1D: Conduits (continued...)

Name	Capacity Limited (h)	Length Factor (fraction)	Dry (fraction)	Subcritical (fraction)	Supercritical (fraction)	Normal Limited (fraction)	Inlet Control (fraction)	Max. Spread (ft)	Contributing Area (ac)	Contributing Imp. Area (ac)
P-10443-A	0	1	0.14	0	0	0	0	0	0	0
P-10443-C	0	1	0.03	0.03	0.94	0.04	0	0	0	0
P-10443-D	0	1	0.03	0	0	0	0	0	0	0
P-10443-E	0	1	0.03	0	0	0	0	0	0	0
P-10443-E-S	0	1	0.34	0	0	0	0	0.759	0	0
P-10450-A_(STORM_-_FINAL)	0	1	0.01	0	0	0	0	0	0	0
P-10450-A-S	0	1	0.01	0.27	0.72	0	0	1.349	0	0
P-10460-A	0	1	0	0	0	0	0	0	0	0
P-10460-A-S	0	1	0	0.56	0.02	0.97	0	1.012	0	0
P-10460-B	0	1	0.01	0	0	0	0	0	0	0
P-10460-B_(STORM_-_FINAL)-S	0	1	0.01	0.11	0.88	0.14	0	1.575	0	0
P-10460-C	0	1	0.03	0.04	0.17	0.08	0	0	0	0
P-10460-C_(STORM_-_FINAL)-S	0	1	0.02	0.98	0	0	0	2.975	0	0
P-10460-D	0	1	0.05	0	0	0	0	0	0	0
P-10460-D_(STORM_-_FINAL)-S	0	1	0.03	0.97	0	0.48	0	7.875	0	0
P-10460-E	0	1	0.02	0	0	0	0	0	0	0
P-10460-E_(STORM_-_FINAL)-S	0	1	0.02	0.74	0	0.46	0	7.525	0	0
P-10460-F	0	1	0.03	0	0	0	0	0	0	0
P-10460-F_(STORM_-_FINAL)-S	0	1	0.02	0.67	0.07	0.83	0	3.675	0	0
P-10461-A	0	1	0	0	0	0	0	0	0	0
P-10461-B	0	1	0.01	0	0	0	0	0	0	0
P-10461-B_(STORM_-_FINAL)-S	0	1	0.15	0.85	0	0	0	8.225	0	0
P-10462-A	0	1	0.05	0	0	0	0	0	0	0
P-10470-A	0	1	0.04	0	0	0	0	0	0	0
P-10470-A-S	0	1	0.35	0	0	0	0	0.337	0	0
P-10480-A	0	1	0.07	0	0	0	0	0	0	0

Table 1D: Conduits (continued...)

Name	Capacity Limited (h)	Length Factor (fraction)	Dry (fraction)	Subcritical (fraction)	Supercritical (fraction)	Normal Limited (fraction)	Inlet Control (fraction)	Max. Spread (ft)	Contributing Area (ac)	Contributing Imp. Area (ac)
P-10480-B	0	1	0.03	0	0	0	0	0	0	0
P-10500-B	0	1	0.03	0.34	0.63	0.31	0	0	0	0
P-10500-B_(STORM_-_FINAL)-S	0	1	1	0	0	0	0	0	0	0
P-10500-C	0	1	0.03	0	0	0	0	0	0	0
P-10500-C_(STORM_-_FINAL)-S	0	1	0.21	0	0	0	0	1.925	0	0
P-10500-D	0	1	1	0	0	0	0	0	0	0
P-10510-A	0.01	1	0.03	0	0	0	0	0	0	0
P-10510-A_(STORM_-_FINAL)-S	0	1	0.01	0	0	0	0	12.775	0	0
P-10700-A	0	1	0.02	0.13	0.85	0.22	0	0	0	0
P-12000-A	0.01	1	0.04	0.89	0.07	0.47	0	0	0	0
P-12000-B	0	1	0.03	0	0	0	0	0	0	0
P-12000-C	0	1	0.03	0	0	0	0	0	0	0
P-12000-C-S	0	1	0.03	0.41	0.23	0.83	0	1.096	0	0
P-12000-D	0	1	0.03	0	0	0	0	0	0	0
P-12000-E	0	1	0.02	0	0	0	0	0	0	0
P-12000-E-S	0	1	0.01	0.75	0.24	0.94	0	0.928	0	0
P-12000-F	0	1	0.02	0.18	0.07	0.09	0	0	0	0
P-12000-G-S	0	1	0.02	0	0	0	0	0.59	0	0
P-21199_1	0	1	0.01	0	0	0	0	0	0	0
P-21199-S	0	1	0.29	0	0	0	0	0.506	0	0
S	0	1	0	0	0	0	0	0	0	0
UV-Outlet	0	1	1	0	0	0	0	0	0	0

Table 1E: Conduits

Name	Max. Unit Flow (cfs/ac)	GIS_LENGTH (m)	GIS_AREA (m²)	GIS_PARTS
1	0	32.878	0	1
10	0	118.739	0	1
10000-CB-S	0	95.1	0	1
10000-DC-S	0	9.482	0	1
10000-ED-S	0	30.759	0	1
10123-AF	0	11.257	0	1
10125-AG	0	29.923	0	1
10200-B	0	47.471	0	1
10203-A	0	9.143	0	1
10300-D1	0	3.306	0	1
10300-D-2	0	15.521	0	1
10300-D-3	0	8.626	0	1
10310-C-S2	0	3.079	0	1
11	0	50.742	0	1
11000-A0	0	4.863	0	1
12	0	16.814	0	1
12000-B'B	0	12.467	0	1
12000-DC-S	0	16.379	0	1
12000-FE-S	0	50.233	0	1
12000-G	0	19.422	0	1
12000-RainGarden	0	22.197	0	1
13	0	16.328	0	1
13000-A0	0	24.196	0	1
14	0	42.628	0	1
14000-A0'	0	30.413	0	1
14000-B0	0	66.804	0	1

Table 1E: Conduits (continued...)

Name	Max. Unit Flow (cfs/ac)	GIS_LENGTH (m)	GIS_AREA (m²)	GIS_PARTS
14000-CB	0	61.738	0	1
14000-DC	0	11.412	0	1
14000-ED	0	47.816	0	1
14000-FE	0	20.584	0	1
15	0	12.272	0	1
16	0	34.083	0	1
17	0	197.765	0	1
18	0	12.82	0	1
19	0	22.503	0	1
20	0	11.454	0	1
21	0	11.083	0	1
22	0	16.178	0	1
26	0	49.952	0	1
28	0	34.15	0	1
3	0	2.744	0	1
4	0	44.673	0	1
5	0	30.439	0	1
6	0	11.799	0	1
8	0	27.237	0	1
9	0	5.04	0	1
C10	0	7.09	0	1
C10-S	0	6.72	0	1
C11	0	5.573	0	1
C11-S	0	6.277	0	1
C12-S	0	1.644	0	1
C14	0	31.089	0	1

Table 1E: Conduits (continued...)

Name	Max. Unit Flow (cfs/ac)	GIS_LENGTH (m)	GIS_AREA (m²)	GIS_PARTS
C15	0	4.728	0	1
C16	0	4.477	0	1
C17	0	28.323	0	1
C18	0	27.192	0	1
C19	0	18.143	0	1
C2	0	39.301	0	1
C20	0	30.404	0	1
C21	0	23.14	0	1
C23	0	4.444	0	1
C24	0	70.823	0	1
C25	0	13.203	0	1
C26	0	1.319	0	1
C2-S	0	15.686	0	1
C3	0	24.509	0	1
C4	0	38.09	0	1
C4-S	0	37.19	0	1
C5	0	16.265	0	1
C6	0	12.126	0	1
C7	0	42.991	0	1
C8	0	103.477	0	1
C9_1	0	15.783	0	1
C9_2	0	5.058	0	1
C-J182	0	37.92	0	1
C-J320	0	80.193	0	1
C-J39	0	62.392	0	1
C-J46	0	26.017	0	1

Table 1E: Conduits (continued...)

Name	Max. Unit Flow (cfs/ac)	GIS_LENGTH (m)	GIS_AREA (m^2)	GIS_PARTS
EP-10440-C	0	13.788	0	1
EP-10440-C-S	0	43.685	0	1
EX10441-B-S	0	97.574	0	1
EX10441-C-S	0	20.279	0	1
EX10441-D-S	0	6.788	0	1
OL-10100-AE_1	0	33.294	0	1
OL-10100-AE_2	0	102.283	0	1
OL-10101-AF	0	126.801	0	1
OL-10131-BA	0	31.301	0	1
OL-10131-CB	0	52.389	0	1
OL-10200-BA_1	0	1.151	0	1
OL-10200-BA_2	0	49.32	0	1
OL-10201-AA_1	0	1.458	0	1
OL-10201-AA_2	0	46.351	0	1
OL-10210-AD	0	62.569	0	1
OL-11000-A0	0	6.017	0	1
OL-11000-AbAc	0	58.847	0	1
OL-11000-AcAd	0	39.378	0	1
OL-11000-AdAe	0	11.448	0	1
OL-11000-AeE	0	73.826	0	1
OL-11000-BA	0	23.365	0	1
OL-12000-B0	0	21.768	0	1
OL-14000-BC	0	24.339	0	1
OL-14000-CB	0	64.322	0	1
OL-14000-DC	0	10.941	0	1
OL-14000-ED	0	40.288	0	1

Table 1E: Conduits (continued...)

Name	Max. Unit Flow (cfs/ac)	GIS_LENGTH (m)	GIS_AREA (m²)	GIS_PARTS
P-10000-A	0	54.943	0	1
P-10000-C	0	10.172	0	1
P-10000-C.	0	69.862	0	1
P-10001-A-S	0	30.794	0	1
P-1000-B	0	41.123	0	1
P-10100-A	0	16.488	0	1
P-10100-B	0	11.145	0	1
P-10100-B-S	0	49.851	0	1
P-10100-C	0	44.365	0	1
P-10120-G	0	36.291	0	1
P-10120-H	0	57.944	0	1
P-10120-H-S	0	65.679	0	1
P-10200-A	0	49.012	0	1
P-10200-A-S_1	0	1.018	0	1
P-10200-A-S_2	0	46.398	0	1
P-10200-C	0	47.619	0	1
P-10200-C-S_1	0	1.446	0	1
P-10200-C-S_2	0	46.729	0	1
P-10200-D	0	65.54	0	1
P-10200-D-S	0	65.394	0	1
P-10200-D-S.	0	88.688	0	1
P-10200-E	0	89.011	0	1
P-10200-F	0	22.943	0	1
P-10200-F-S	0	65.904	0	1
P-10200-G	0	42.332	0	1
P-10200-G_(STORM_-_FINAL)-S	0	37.818	0	1

Table 1E: Conduits (continued...)

Name	Max. Unit Flow (cfs/ac)	GIS_LENGTH (m)	GIS_AREA (m²)	GIS_PARTS
P-10200-H	0	59.13	0	1
P-10200-H_(STORM_-_FINAL)-S	0	39.948	0	1
P-10200-J	0	9.452	0	1
P-10200-J_(STORM_-_FINAL)-S	0	25.982	0	1
P-10200-K	0	19.748	0	1
P-10200-K_(STORM_-_FINAL)-S	0	50.827	0	1
P-10200-L	0	51.017	0	1
P-10200-L_(STORM_-_FINAL)-S	0	46.509	0	1
P-10200-M	0	42.369	0	1
P-10200-M_(STORM_-_FINAL)-S	0	149.754	0	1
P-10200-N	0	10.417	0	1
P-10201-A	0	9.145	0	1
P-102020-A-S_1	0	1.724	0	1
P-102020-A-S_2	0	46.071	0	1
P-10202-A	0	9.144	0	1
P-10203-A-S	0	65.404	0	1
P-10210-A	0	14.482	0	1
P-10210-B	0	18.46	0	1
P-10210-B-S	0	21.417	0	1
P-10210-C	0	36.796	0	1
P-10210-C_(STORM_-_FINAL)-S	0	38.928	0	1
P-10211-A	0	13.158	0	1
P-10211-B	0	11.77	0	1
P-10212-A	0	23.117	0	1
P-10240-A_(STORM_-_FINAL)-S	0	31.633	0	1
P-10250-A	0	9.145	0	1

Table 1E: Conduits (continued...)

Name	Max. Unit Flow (cfs/ac)	GIS_LENGTH (m)	GIS_AREA (m^2)	GIS_PARTS
P-10250-A-S	0	89.449	0	1
P-10250-B	0	14.923	0	1
P-10250-B-S	0	20.113	0	1
P-10250-C	0	21.781	0	1
P-10250-C-S	0	46.849	0	1
P-10250-D	0	9.696	0	1
P-10250-D-S	0	154.025	0	1
P-10260-A	0	9.142	0	1
P-10260-A-S	0	63.566	0	1
P-10270-A	0	9.3	0	1
P-10280-A	0	32.407	0	1
P-10300-B	0	16.315	0	1
P-10300-B-S	0	118.257	0	1
P-10300-C3	0	14.003	0	1
P-10300-D-S	0	38.187	0	1
P-10300-E	0	32.933	0	1
P-10300-E-S.	0	32.948	0	1
P-10300-F	0	15.729	0	1
P-10300-G	0	11.109	0	1
P-10310-A	0	36.042	0	1
P-10310-B	0	10.262	0	1
P-10310-B-S	0	37.481	0	1
P-10310-C-S	0	38.01	0	1
P-10320-A	0	41.075	0	1
P-10320-A-S	0	14.757	0	1
P-10320-B	0	25.669	0	1

Table 1E: Conduits (continued...)

Name	Max. Unit Flow (cfs/ac)	GIS_LENGTH (m)	GIS_AREA (m²)	GIS_PARTS
P-10320-C	0	21.285	0	1
P-10320-D-S	0	78.077	0	1
P-10321-A	0	12.234	0	1
P-10330-A	0	6.325	0	1
P-10330-A-S	0	38.073	0	1
P-10330-B	0	17.204	0	1
P-10330-B-S	0	17.803	0	1
P-10400-A	0	39.644	0	1
P-10400-A-S	0	30.271	0	1
P-10400-B	0	8.782	0	1
P-10400-C1	0	1.395	0	1
P-10400-C2-S	0	18.934	0	1
P-10400-C-S	0	29.849	0	1
P-10400-D	0	16.45	0	1
P-10400-D-S	0	39.231	0	1
P-10400-E	0	10.702	0	1
P-10400-E-S	0	43.795	0	1
P-10400-F	0	34.195	0	1
P-10400-F_(STORM_-_FINAL)-S	0	34.721	0	1
P-10400-G	0	28.056	0	1
P-10400-G-S	0	27.694	0	1
P-10400-H	0	84.919	0	1
P-10400-H-S	0	83.672	0	1
P-10400-J	0	12.275	0	1
P-10400-K	0	30.778	0	1
P-10400-K-S	0	122.642	0	1

Table 1E: Conduits (continued...)

Name	Max. Unit Flow (cfs/ac)	GIS_LENGTH (m)	GIS_AREA (m²)	GIS_PARTS
P-10400-L	0	69.133	0	1
P-10400-L-S	0	69.491	0	1
P-10400-M	0	38.497	0	1
P-10400-M-S	0	38.684	0	1
P-10400-N	0	32.972	0	1
P-10400-N_(STORM_-_FINAL)-S	0	35.899	0	1
P-10400-P	0	12.779	0	1
P-10400-P_(STORM_-_FINAL)-S	0	11.463	0	1
P-10400-Q	0	16.497	0	1
P-10400-Q_(STORM_-_FINAL)-S	0	16.031	0	1
P-10400-R	0	10.434	0	1
P-10400-R_(STORM_-_FINAL)-S	0	10.697	0	1
P-10400-S	0	14.739	0	1
P-10400-S_(STORM_-_FINAL)-S	0	16.449	0	1
P-10410-A	0	35.448	0	1
P-10410-A-S	0	36.456	0	1
P-10410-B	0	10.527	0	1
P-10410-C	0	11.037	0	1
P-10410-D	0	19.108	0	1
P-10410-E	0	43.345	0	1
P-10410-F	0	13.208	0	1
P-10411-A	0	16.036	0	1
P-10411-A-S	0	59.475	0	1
P-10420-A	0	12.333	0	1
P-10420-A_(STORM_-_FINAL)-S	0	15.401	0	1
P-10420-B	0	22.119	0	1

Table 1E: Conduits (continued...)

Name	Max. Unit Flow (cfs/ac)	GIS_LENGTH (m)	GIS_AREA (m²)	GIS_PARTS
P-10420-B_(STORM_-_FINAL)-S	0	23.188	0	1
P-10420-C	0	10.981	0	1
P-10420-C-S	0	32.581	0	1
P-10420-D	0	26.825	0	1
P-10420-D-S	0	27.23	0	1
P-10420-E	0	11.005	0	1
P-10420-E-S	0	38.221	0	1
P-10421-A	0	11.025	0	1
P-10421-A_(STORM_-_FINAL)-S	0	23.262	0	1
P-10422-A	0	29.865	0	1
P-10422-A-S	0	33.513	0	1
P-10430-A_(STORM_-_FINAL)	0	10.364	0	1
P-10430-A-S	0	64.527	0	1
P-10440-A	0	10.444	0	1
P-10440-A_(STORM_-_FINAL)-S	0	21.3	0	1
P-10440-B	0	13.268	0	1
P-10440-B_(STORM_-_FINAL)-S	0	35.633	0	1
P-10440-C	0	20.5	0	1
P-10440-C_(STORM_-_FINAL)-S	0	31.291	0	1
P-10440-D	0	29.617	0	1
P-10440-D-S	0	27.627	0	1
P-10440-E	0	19.463	0	1
P-10440-G	0	64.823	0	1
P-10441-A	0	6.035	0	1
P-10442-A	0	2.348	0	1
P-10442-A-EX	0	97.903	0	1

Table 1E: Conduits (continued...)

Name	Max. Unit Flow (cfs/ac)	GIS_LENGTH (m)	GIS_AREA (m²)	GIS_PARTS
P-10443-A	0	15.099	0	1
P-10443-C	0	18.897	0	1
P-10443-D	0	8.201	0	1
P-10443-E	0	8.065	0	1
P-10443-E-S	0	167.881	0	1
P-10450-A_(STORM_-_FINAL)	0	10.391	0	1
P-10450-A-S	0	43.128	0	1
P-10460-A	0	10.377	0	1
P-10460-A-S	0	71.728	0	1
P-10460-B	0	19.594	0	1
P-10460-B_(STORM_-_FINAL)-S	0	80.997	0	1
P-10460-C	0	32.71	0	1
P-10460-C_(STORM_-_FINAL)-S	0	31.821	0	1
P-10460-D	0	39.221	0	1
P-10460-D_(STORM_-_FINAL)-S	0	37.855	0	1
P-10460-E	0	25.761	0	1
P-10460-E_(STORM_-_FINAL)-S	0	25.151	0	1
P-10460-F	0	34.82	0	1
P-10460-F_(STORM_-_FINAL)-S	0	34.665	0	1
P-10461-A	0	54.033	0	1
P-10461-B	0	32.179	0	1
P-10461-B_(STORM_-_FINAL)-S	0	32.179	0	1
P-10462-A	0	13.237	0	1
P-10470-A	0	10.448	0	1
P-10470-A-S	0	41.281	0	1
P-10480-A	0	47.36	0	1

Table 1E: Conduits (continued...)

Name	Max. Unit Flow (cfs/ac)	GIS_LENGTH (m)	GIS_AREA (m²)	GIS_PARTS
P-10480-B	0	16.585	0	1
P-10500-B	0	63.779	0	1
P-10500-B_(STORM_-_FINAL)-S	0	63.846	0	1
P-10500-C	0	23.272	0	1
P-10500-C_(STORM_-_FINAL)-S	0	23.143	0	1
P-10500-D	0	10.973	0	1
P-10510-A	0	2.536	0	1
P-10510-A_(STORM_-_FINAL)-S	0	2.885	0	1
P-10700-A	0	12.206	0	1
P-12000-A	0	41.629	0	1
P-12000-B	0	25.008	0	1
P-12000-C	0	12.67	0	1
P-12000-C-S	0	24.455	0	1
P-12000-D	0	29.397	0	1
P-12000-E	0	11.084	0	1
P-12000-E-S	0	12.258	0	1
P-12000-F	0	7.185	0	1
P-12000-G-S	0	34	0	1
P-21199_1	0	48.881	0	1
P-21199-S	0	108.814	0	1
S	0	30.349	0	1
UV-Outlet	0	12.7	0	1

Table 2A: Junctions

Name	X-Coordinate	Y-Coordinate	Tag	Inflows	Treatment	Invert Elev. (ft)	Rim Elev. (ft)	Depth (ft)	Initial Depth (ft)	Surcharge Depth (ft)	Ponded Area (ft^2)	Baseline (cfs)
06-UV	2262634.954	275922.679		NO	NO	876	882	6	0	0.7	0	0
1	2262674	2757724		NO	NO	0	0	0	0	0	0	0
10000-A	2262415.487	276221.624	EX	NO	NO	834.88	867.59	32.71	0	0	0	0
10000-B	2262486.892	276107.158	GMP3	NO	NO	837.53	882.01	44.48	0	3	1000	0
10000-C	2262596.767	275906.015	Junct	NO	NO	863.07	889.151	26.081	0	0.7	0	0
10000-C-S	2262599.381	275903.401	Major_System	NO	NO	889.151	889.851	0.7	0	0	0	0
10000-D	2262619.645	275881.716	GMP3	NO	NO	865.9	889.37	23.47	0	0.7	0	0
10001-A-S	2262563.057	275817.676	Major_System	NO	NO	889	890	1	0	0	0	0
10100-A	2262662.885	275849.214	gmp5	NO	NO	876.92	888.789	11.869	0	0.7	0	0
10100-A-S	2262660.004	275845.683	Major_System	NO	NO	889.312	890.012	0.7	0	0	0	0
10100-B	2262699.076	275844.03	GMP5	NO	NO	877.5	888.454	10.954	0	0.7	0	0
10100-B-IC	2262695.571	275829.305	Major_System	NO	NO	888	888.7	0.7	0	0	0	0
10100-D	2262812.397	275935.369	GMP5	NO	NO	878.962	890.519	11.557	0	0.7	0	0
10100-D-IC	2262808.467	275934.139	Major_System	NO	NO	890.2	890.9	0.7	0	0	0	0
10100-D-IC2	2262814.164	275931.174	Major_System	NO	NO	890.4	890.9	0.5	0	0	0	0
10120-G	2262466.841	275345.818	EX	NO	NO	891.64	900.47	8.83	0	2.43	0	0
10120-G-S	2262459.073	275350.148	OJunct	NO	NO	900.47	901.47	1	0	1	0	0
10120-H	2262542.796	275171.556	Inlet	NO	NO	900.49	906	5.51	0	1.6	0	0
10123-A	2262470.748	275446.295	EX	NO	NO	888.94	900.54	11.6	0	0.7	0	0
10125-A	2262368.968	275353.414	ex	NO	NO	898.68	902.45	3.77	0	1	200	0
10125-A-S	2262366.451	275357.564	ojunct	NO	NO	901.45	902.45	1	0	0	0	0
10200-A	2262554.241	276253.166	GMP3	NO	NO	873.72	880.06	6.34	0	0.7	0	0
10200-A-S1	2262554.195	276248.72	Major_System	NO	NO	879.56	880.06	0.5	0	0	0	0
10200-A-S2	2262550.852	276248.772	Major_System	NO	NO	879.28	879.78	0.5	0	0	0	0
10200-B	2262694.822	276320.183	GMP3	NO	NO	887.56	891.06	3.5	0	0.7	0	0
10200-B-S1	2262696.156	276315.72	Major_System	NO	NO	890.56	891.06	0.5	0	0	0	0

Table 2A: Junctions (continued...)

Name	X-Coordinate	Y-Coordinate	Tag	Inflows	Treatment	Invert Elev. (ft)	Rim Elev. (ft)	Depth (ft)	Initial Depth (ft)	Surcharge Depth (ft)	Ponded Area (ft²)	Baseline (cfs)
10200-B-S2	2262692.405	276315.467	Major_System	NO	NO	890.36	891.36	1	0	0	0	0
10200-C	2262850.937	276325.945	GMP3	NO	NO	899.7	903.556	3.856	0	0.7	0	0
10200-C-S1	2262854.123	276320.787	Major_System	NO	NO	903.056	903.556	0.5	0	0	0	0
10200-C-S2	2262849.381	276320.635	Major_System	NO	NO	903	903.5	0.5	0	0	0	0
10200-D	2263065.809	276333.875	GMP3	NO	NO	917.45	920.76	3.31	0	0.7	0	0
10200-D-S	2263068.468	276329.838	Major_System	NO	NO	920.26	920.76	0.5	0	0	0	0
10200-E	2263357.628	276344.652	gmp5	NO	NO	934	944.103	10.103	0	0.7	0	0
10200-E-S	2263359.219	276340.793	Major_System	NO	NO	943.603	944.103	0.5	0	0	0	0
10200-F	2263432.881	276343.1	gmp5	NO	NO	941.68	947.924	6.244	0	0.7	0	0
10200-G	2263571.124	276329.836	GMP5	NO	NO	944.8	951.87	7.07	0	0	0	0
10200-G-S	2263571.919	276325.377	Major_System	NO	NO	951.37	951.87	0.5	0	0	0	0
10200-H	2263765.065	276334.034	gmp5	NO	NO	946.3	950.2	3.9	0	0.7	0	0
10200-H-S	2263764.241	276330.276	Major_System	NO	NO	949.7	950.2	0.5	0	0	0	0
10200-J	2263765.329	276303.026	gmp5	NO	NO	946.854	950.131	3.277	0	0.7	0	0
10200-J-S	2263764.803	276308.682	Major_System	NO	NO	949.631	950.131	0.5	0	0	0	0
10200-K	2263717.777	276259.026	gmp5	NO	NO	949.897	954.544	4.647	0	0.7	0	0
10200-K-S	2263712.882	276257.693	Major_System	NO	NO	954.044	954.544	0.5	0	0	0	0
10200-L	2263722.946	276091.735	gmp5	NO	NO	954.06	958.696	4.636	0	0.7	0	0
10200-L-S	2263721.463	276091.166	Major_System	NO	NO	959.247	959.947	0.7	0	0	0	0
10200-M	2263704.821	275953.922	gmp5	NO	NO	955.618	963.263	7.645	0	0.7	0	0
10200-M-S	2263702.625	275949.969	Major_System	NO	NO	962.763	963.263	0.5	0	0	0	0
10200-N	2263679.8	275930.643	gmp5	NO	NO	956.3	963.252	6.952	0	0.7	0	0
10200-N-S	2263684.293	275933.445	Major_System	NO	NO	962.752	963.252	0.5	0	0	0	0
10201-A	2262695.928	276290.204	GMP3	NO	NO	888.39	891.059	2.669	0	0.7	0	0
10201-A-S1	2262697.892	276295.981	Major_System	NO	NO	890.559	891.059	0.5	0	0	0	0
10201-A-S2	2262693.144	276295.47	Major_System	NO	NO	890.28	890.78	0.5	0	0	0	0

Table 2A: Junctions (continued...)

Name	X-Coordinate	Y-Coordinate	Tag	Inflows	Treatment	Invert Elev. (ft)	Rim Elev. (ft)	Depth (ft)	Initial Depth (ft)	Surcharge Depth (ft)	Ponded Area (ft²)	Baseline (cfs)
10202-A	2262852.038	276295.968	GMP3	NO	NO	900.5	903.56	3.06	0	0.7	0	0
10202-A-S1	2262854.526	276302.996	Major_System	NO	NO	903.06	903.56	0.5	0	0	0	0
10202-A-S2	2262848.886	276302.743	Major_System	NO	NO	902.81	903.31	0.5	0	0	0	0
10203-A	2263066.92	276303.9	GMP3	NO	NO	918.07	920.76	2.69	0	0.7	0	0
10203-A-S	2263069.015	276308.929	Major_System	NO	NO	920.26	920.76	0.5	0	0	0	0
10210-A	2262587.45	276219.189	GMP3	NO	NO	877.36	882	4.64	0	0.7	0	0
10210-A-S	2262589.267	276225.318	Major_System	NO	NO	881.5	882	0.5	0	0	0	0
10210-B	2262636.483	276183.645	gmp5	NO	NO	878.665	887.524	8.859	0	0.7	0	0
10210-B-S	2262642.946	276185.486	Major_System	NO	NO	887.024	887.524	0.5	0	0	0	0
10210-C	2262682.787	276072.162	GMP5	NO	NO	886.964	890.118	3.154	0	0.7	0	0
10210-D	2262686.28	276032.54	GMP5	NO	NO	887.5	890.72	3.22	0	0	0	0
10210-E	2262710.204	275942.263	gmp5	NO	NO	889.019	889.461	0.442	0	0.7	0	0
10211-A	2262673.073	276206.552	GMP5	NO	NO	879.236	888.132	8.896	0	0.7	0	0
10211-A-S	2262670.795	276203.368	Major_System	NO	NO	887.632	888.132	0.5	0	0	0	0
10211-B	2262704.948	276184.761	GMP3	NO	NO	883.285	890.219	6.934	0	0.7	0	0
10211-C	2262756.326	276047.502	GMP5	NO	NO	885.811	892.431	6.62	0	0	0	0
10212-A	2262612.914	276042.678	GMP5	NO	NO	889.46	890.385	0.925	0	0.7	0	0
10250-A	2263358.734	276314.672	gmp5	NO	NO	940.182	944.103	3.921	0	0.7	0	0
10250-A-S	2263362.248	276320.307	Major_System	NO	NO	943.603	944.103	0.5	0	0	0	0
10250-B	2263393.606	276280.31	gmp5	NO	NO	941.307	950.22	8.913	0	0.7	0	0
10250-B-S	2263398.536	276278.053	Major_System	NO	NO	948.718	949.418	0.7	0	0	0	0
10250-C	2263440.111	276226.057	gmp5	NO	NO	949.28	954.328	5.048	0	0.7	0	0
10250-C-S	2263438.111	276223.339	Major_System	NO	NO	953.828	954.329	0.501	0	0	0	0
10250-D	2263415.573	276205.815	gmp5	NO	NO	949.815	953.933	4.118	0	0.7	0	0
10250-D-S	2263419.297	276206.507	Major_System	NO	NO	953.433	953.933	0.5	0	0	0	0
10260-A	2263564.399	276300.608	gmp5	NO	NO	947.988	951.869	3.881	0	0.7	0	0

Table 2A: Junctions (continued...)

Name	X-Coordinate	Y-Coordinate	Tag	Inflows	Treatment	Invert Elev. (ft)	Rim Elev. (ft)	Depth (ft)	Initial Depth (ft)	Surcharge Depth (ft)	Ponded Area (ft²)	Baseline (cfs)
10260-A-S	2263567.355	276305.366	Major_System	NO	NO	951.369	951.869	0.5	0	0	0	0
10270-A	2263687.285	276257.959	gmp5	NO	NO	952.098	954.281	2.183	0	0.7	0	0
10270-A-S	2263692.357	276255.673	Major_System	NO	NO	953.781	954.281	0.5	0	0	0	0
10280-A	2263789.041	275889.034	GMP5	NO	NO	964.402	973.052	8.65	0	0	0	0
10300-A	2263047.92	275701.991	gmp5	NO	NO	906.8	910	3.2	0	0.7	0	0
10300-B	2263101.384	275699.469	gmp5	NO	NO	909.07	914.26	5.19	0	0.7	0	0
10300-B-IC	2263097.181	275696.573	Major_System	NO	NO	913.76	914.26	0.5	0	0	0	0
10300-C	2263166.077	275762.105	GMP5	NO	NO	924.01	940.58	16.57	0	0.7	0	0
10300-C-S	2263170.683	275765.598	Major_System	NO	NO	940.08	940.58	0.5	0	0	0	0
10300-D	2263138.343	275798.728	gmp5	NO	NO	924.16	940.585	16.425	0	0.7	0	0
10300-D-S	2263138.974	275802.184	Major_System	NO	NO	940.085	940.585	0.5	0	0	0	0
10300-E	2263216.534	275873.292	gmp5	NO	NO	931.25	945.347	14.097	0	0.7	0	0
10300-F	2263250.581	275834.517	GMP5	NO	NO	935.127	944.225	9.098	0	0.7	0	0
10300-F-S	2263254.252	275831.557	Major_System	NO	NO	945.854	946.554	0.7	0	0	0	0
10300-G	2263272.888	275805.696	GMP5	NO	NO	936.47	945.036	8.566	0	0	0	0
10300-G-S	2263272.717	275809.663	Major_System	NO	NO	944.536	945.036	0.5	0	0	0	0
10310-A	2263249.053	275677.866	GMP5	NO	NO	928.927	939.635	10.708	0	0.7	0	0
10310-A-S	2263255.89	275676.941	Major_System	NO	NO	939.635	940.335	0.7	0	0	0	0
10310-B	2263273.268	275701.254	GMP5	NO	NO	929.894	939.529	9.635	0	0.7	0	0
10310-B-S	2263275.882	275698.64	Major_System	NO	NO	939.529	940.229	0.7	0	0	0	0
10310-B-S2	2263278.58	275708.368	Major_System	NO	NO	941.37	942.07	0.7	0	0	0	0
10320-A	2263043.923	275894.871	GMP5	NO	NO	929.717	941.946	12.229	0	0.7	0	0
10320-B	2263039.642	275978.975	GMP5	NO	NO	930.405	940.583	10.178	0	0.7	0	0
10320-B-S	2263043.771	275978.934	Major_System	NO	NO	940.083	940.583	0.5	0	0	0	0
10320-C	2263021.406	276046.384	GMP5	NO	NO	935.027	941.33	6.303	0	0.7	0	0
10320-C-S	2263024.628	276042.615	Major_System	NO	NO	940.83	941.33	0.5	0	0	0	0

Table 2A: Junctions (continued...)

Name	X-Coordinate	Y-Coordinate	Tag	Inflows	Treatment	Invert Elev. (ft)	Rim Elev. (ft)	Depth (ft)	Initial Depth (ft)	Surcharge Depth (ft)	Ponded Area (ft²)	Baseline (cfs)
10321-A	2263074.932	275920.349	GMP5	NO	NO	936.1	942.05	5.95	0	0.7	0	0
10330-A	2263202.859	275888.896	GMP5	NO	NO	931.7	945.496	13.796	0	0.7	0	0
10330-A-S	2263199.712	275887.084	Major_System	NO	NO	945.48	946.18	0.7	0	0	0	0
10330-B	2263174.031	275937.42	GMP5	NO	NO	932.5	942	9.5	0	0.7	0	0
10330-B-S	2263170.969	275937.93	Major_System	NO	NO	945	945.7	0.7	0	0	0	0
10400-A	2262636.108	275752.7	GMP5	NO	NO	876	891.207	15.207	0	0.7	0	0
10400-A-S	2262568.125	275650.265	Major_System	NO	NO	896.32	896.82	0.5	0	0	0	0
10400-B1	2262659.241	275735.523	GMP5	NO	NO	880.53	893	12.47	0	0	0	0
10400-C2	2262698.65	275673.82	GMP5	NO	NO	883.15	886.65	3.5	0	0	0	0
10400-D	2262689.97	275620.556	gmp5	NO	NO	884.04	901.1	17.06	0	0.7	0	0
10400-D-S	2262692.572	275617.428	Major_System	NO	NO	900.6	901.1	0.5	0	0	0	0
10400-E	2262684.228	275585.92	gmp5	NO	NO	890.28	901.208	10.928	0	0.7	0	0
10400-E-S	2262690.161	275587.936	Major_System	NO	NO	900.708	901.208	0.5	0	0	0	0
10400-F	2262792.12	275555.19	gmp5	NO	NO	895.779	905.944	10.165	0	0.7	0	0
10400-F-S	2262799.834	275557.158	Major_System	NO	NO	905.444	905.944	0.5	0	0	0	0
10400-G	2262876.588	275518.626	gmp5	NO	NO	900.232	910.097	9.865	0	0.7	0	0
10400-G-S	2262883.565	275521.89	Major_System	NO	NO	909.597	910.097	0.5	0	0	0	0
10400-H	2263132.274	275407.994	gmp5	NO	NO	910.703	924.253	13.55	0	0.7	0	0
10400-H-S	2263135.19	275412.182	Major_System	NO	NO	924.25	924.95	0.7	0	0	0	0
10400-J	2263169.062	275391.613	GMP3	NO	NO	913.886	926.961	13.075	0	0.7	0	0
10400-K	2263264.91	275423.38	gmp5	NO	NO	919.335	933.36	14.025	0	0.7	0	0
10400-K-S	2263267.539	275420.678	Major_System	NO	NO	933.34	934.04	0.7	0	0	0	0
10400-L	2263474.29	275510.56	gmp5	NO	NO	927.571	949.132	21.561	0	0.7	0	0
10400-L-S	2263477.895	275508.566	Major_System	NO	NO	947.883	948.583	0.7	0	0	0	0
10400-M	2263585.24	275570.901	gmp5	NO	NO	950.011	958.15	8.139	0	0.7	0	0
10400-M-S	2263589.37	275569.225	Major_System	NO	NO	961.71	962.41	0.7	0	0	0	0

Table 2A: Junctions (continued...)

Name	X-Coordinate	Y-Coordinate	Tag	Inflows	Treatment	Invert Elev. (ft)	Rim Elev. (ft)	Depth (ft)	Initial Depth (ft)	Surcharge Depth (ft)	Ponded Area (ft²)	Baseline (cfs)
10400-N	2263510.27	275648.88	gmp5	NO	NO	955.089	960.331	5.242	0	0.7	0	0
10400-N-S	2263511.332	275657.435	Major_System	NO	NO	960.05	960.75	0.7	0	0	0	0
10400-P	2263539.8	275678.64	gmp5	NO	NO	955.603	961.593	5.99	0	0.7	0	0
10400-P-S	2263537.192	275684.742	Major_System	NO	NO	962.7	962.7	0	0	0	0	0
10400-Q	2263578.16	275716.82	gmp5	NO	NO	956.48	961.5	5.02	0	0.7	0	0
10400-Q-S	2263575.364	275720.921	Major_System	NO	NO	962.7	962.7	0	0	0	0	0
10400-R	2263599.02	275743.96	gmp5	NO	NO	957.171	961.92	4.749	0	0.7	0	0
10400-R-S	2263599.341	275746.545	Major_System	NO	NO	962.7	962.7	0	0	0	0	0
10400-S	2263633.894	275777.454	gmp5	NO	NO	957.91	962.132	4.222	0	0.7	0	0
10400-S-S	2263640.4	275781.562	Major_System	NO	NO	962.07	962.77	0.7	0	0	0	0
10410-A	2262565.606	275660.213	gmp5	NO	NO	881.7	896.82	15.12	0	0.7	0	0
10410-B	2262546.21	275631.64	GMP5	NO	NO	882.9	896.966	14.066	0	0.7	0	0
10410-B-S	2262555.706	275634.058	Major_System	NO	NO	896.466	896.966	0.5	0	0	0	0
10410-C	2262528.93	275599.82	GMP5	NO	NO	883.8	895.635	11.835	0	0.7	0	0
10410-D	2262472.13	275626.34	GMP5	NO	NO	884.6	896.631	12.031	0	0.7	0	0
10410-D-S	2262468.767	275626.823	Major_System	NO	NO	900.92	901.62	0.7	0	0	0	0
10410-E	2262407.215	275499.821	GMP5	NO	NO	886.58	899.888	13.308	0	0	0	0
10410-F	2262443.538	275476.193	GMP5	NO	NO	888.42	900.018	11.598	0	0	0	0
10410-G	2262436.893	275461.052	EX	NO	NO	888.94	900.54	11.6	0	0.7	0	0
10411-A	2262386.138	275451.62	GMP5	NO	NO	896.5	901.376	4.876	0	0.7	0	0
10411-A-S	2262380.8	275453.089	Major_System	NO	NO	901.323	901.5	0.177	0	0	0	0
10420-A	2262806.947	275517.544	GMP5	NO	NO	903.59	909.541	5.951	0	0.7	0	0
10420-A-S	2262809.758	275514.913	Major_System	NO	NO	909.041	909.541	0.5	0	0	0	0
10420-B	2262746.642	275477.182	gmp5	NO	NO	906.783	914.865	8.082	0	0.7	0	0
10420-B-S	2262749.811	275474.219	Major_System	NO	NO	914.365	914.865	0.5	0	0	0	0
10420-C	2262752.379	275441.615	gmp5	NO	NO	909.388	915.262	5.874	0	0.7	0	0

Table 2A: Junctions (continued...)

Name	X-Coordinate	Y-Coordinate	Tag	Inflows	Treatment	Invert Elev. (ft)	Rim Elev. (ft)	Depth (ft)	Initial Depth (ft)	Surcharge Depth (ft)	Ponded Area (ft²)	Baseline (cfs)
10420-C-S	2262747.068	275447.669	Major_System	NO	NO	914.762	915.262	0.5	0	0	0	0
10420-D	2262673.522	275402.549	gmp5	NO	NO	911.886	919.59	7.704	0	0.7	0	0
10420-D-S	2262671.617	275399.839	Major_System	NO	NO	919.09	919.59	0.5	0	0	0	0
10420-E	2262641.506	275419.232	gmp5	NO	NO	912.737	921.397	8.66	0	0.7	0	0
10420-E-S	2262641.538	275415.653	Major_System	NO	NO	920.897	921.397	0.5	0	0	0	0
10421-A	2262840.062	275502.991	gmp5	NO	NO	904.86	909.514	4.654	0	0.7	0	0
10421-A-S	2262833.483	275502.561	Major_System	NO	NO	909.014	909.514	0.5	0	0	0	0
10422-A	2262792.53	275352.24	gmp5	NO	NO	925.799	933.83	8.031	0	0.7	0	0
10422-A-S	2262799.456	275351.005	Major_System	NO	NO	934.74	935.44	0.7	0	0	0	0
10430-A	2262890.093	275549.829	gmp5	NO	NO	906.008	910.079	4.071	0	0.7	0	0
10430-A-S	2262891.218	275544.254	Major_System	NO	NO	909.579	910.079	0.5	0	0	0	0
10440-A	2263161.348	275358.229	gmp3	NO	NO	921.1	930.36	9.26	0	0.7	0	0
10440-A-S	2263165.038	275357.169	Major_System	NO	NO	930.47	931.17	0.7	0	0	0	0
10440-B	2263195.299	275330.988	GMP3	NO	NO	922.798	932.436	9.638	0	0.7	0	0
10440-B-S	2263191.791	275327.15	Major_System	NO	NO	931.936	932.436	0.5	0	0	0	0
10440-C	2263188.285	275264.101	GMP3	NO	NO	926.64	936.99	10.35	0	0.7	0	0
10440-C-S	2263194.944	275261.174	Major_System	NO	NO	936.49	936.99	0.5	0	0	0	0
10440-D	2263262.846	275201.797	GMP3	NO	NO	927.13	943.971	16.841	0	0.7	0	0
10440-D-S	2263265.762	275204.609	Major_System	NO	NO	943.95	944.65	0.7	0	0	0	0
10440-e	2263326.69	275202.85	gmp5	NO	NO	928.004	948.032	20.028	0	0	0	0
10441-A	2263143.364	275366.506	GMP5	NO	NO	924.77	937.42	12.65	0	0	0	0
10442-A	2263809.237	275225.598	GMP5	NO	NO	975.66	983.067	7.407	0	0	0	0
10442-A-EX	2263808	275218	JUNCT	NO	NO	975.25	983.1	7.85	0	0.7	0	0
10442-A-S	2263810.614	275215.386	Major_System	NO	NO	982.567	983.067	0.5	0	0	0	0
10442-B	2263809.815	275182.616	GMP5	NO	NO	979.58	982.557	2.977	0	0	0	0
10442-B-EX	2263810.046	275191.621	EX	NO	NO	978.38	982.91	4.53	0	0.7	0	0

Table 2A: Junctions (continued...)

Name	X-Coordinate	Y-Coordinate	Tag	Inflows	Treatment	Invert Elev. (ft)	Rim Elev. (ft)	Depth (ft)	Initial Depth (ft)	Surcharge Depth (ft)	Ponded Area (ft²)	Baseline (cfs)
10442-B-S	2263812.66	275189.007	Major_System	NO	NO	982.057	982.557	0.5	0	0	0	0
10443-A	2263219.08	275178.6	GMP5	NO	NO	942.62	944.5	1.88	0	0	0	0
10443-C	2263865.974	275239.963	EX	NO	NO	976.57	984.97	8.4	0	0.7	0	0
10443-C-S	2263869.258	275238.534	Major_System	NO	NO	984.97	985.67	0.7	0	0	0	0
10443-D	2263892.803	275242.027	EX	NO	NO	979.35	984.97	5.62	0	0.7	0	0
10443-D-S	2263891.45	275240.392	Major_System	NO	NO	984.97	985.67	0.7	0	0	0	0
10450-A	2263271.653	275389.964	gmp5	NO	NO	924.173	933.349	9.176	0	0.7	0	0
10450-A-S	2263272.955	275394.944	Major_System	NO	NO	933.349	934.049	0.7	0	0	0	0
10460-A	2263489.73	275480.22	gmp5	NO	NO	933.323	949.24	15.917	0	0.7	0	0
10460-A-S	2263490.176	275485.438	Major_System	NO	NO	949.32	950.02	0.7	0	0	0	0
10460-B	2263521.17	275424.15	GMP5	NO	NO	933.88	943.64	9.76	0	0.7	0	0
10460-B-S	2263522.57	275421.154	Major_System	NO	NO	943.793	944.493	0.7	0	0	0	0
10460-C	2263619.48	275467.17	GMP5	NO	NO	934.08	943.688	9.608	0	0.7	0	0
10460-C-S	2263617.935	275463.625	Major_System	NO	NO	943.793	944.493	0.7	0	0	0	0
10460-D	2263671.45	275349.46	GMP5	NO	NO	934.881	943.709	8.828	0	0.7	0	0
10460-D-S	2263668.606	275350.241	Major_System	NO	NO	943.664	944.364	0.7	0	0	0	0
10460-E	2263599.81	275304.62	GMP5	NO	NO	936.275	943.75	7.475	0	0.7	0	0
10460-E-S	2263598.573	275306.611	Major_System	NO	NO	943.766	944.466	0.7	0	0	0	0
10460-F	2263493.06	275263.95	GMP5	NO	NO	937.321	942	4.679	0	0.7	0	0
10460-F-S	2263494.05	275261.797	Major_System	NO	NO	943.405	947	3.595	0	0	0	0
10461-A	2263349.463	275380.107	GMP5	NO	NO	938.8	943.04	4.24	0	0.7	0	0
10461-A-S	2263352.077	275377.493	Major_System	NO	NO	943.04	943.74	0.7	0	0	0	0
10461-B	2263256.021	275330.977	gmp5	NO	NO	939.013	943.04	4.027	0	0.7	0	0
10461-B-S	2263258.635	275328.363	Major_System	NO	NO	943.04	943.74	0.7	0	0	0	0
10462-A	2263690.859	275388.31	GMP5	NO	NO	943.039	945.911	2.872	0	0	0	0
10462-A-S	2263693.501	275385.686	Major_System	NO	NO	949	950	1	0	0	0	0

Table 2A: Junctions (continued...)

Name	X-Coordinate	Y-Coordinate	Tag	Inflows	Treatment	Invert Elev. (ft)	Rim Elev. (ft)	Depth (ft)	Initial Depth (ft)	Surcharge Depth (ft)	Ponded Area (ft²)	Baseline (cfs)
10470-A	2263609.757	275546.945	GMP5	NO	NO	954.563	958.49	3.927	0	0.7	0	0
10470-A-S	2263608.368	275551.561	Major_System	NO	NO	958.453	959.153	0.7	0	0	0	0
10480-A	2263688.014	275687.426	GMP5	NO	NO	956.7	966.919	10.219	0	0	0	0
10480-B	2263665.795	275737.094	GMP5	NO	NO	958.2	961.911	3.711	0	0	0	0
10500-A	2262985.928	275689.685	GMP5	NO	NO	907.54	913	5.46	0	0.7	0	0
10500-B	2263160.666	275574.585	GMP5	NO	NO	908.62	917.95	9.33	0	0.7	0	0
10500-B-S	2263159.746	275573.581	Major_System	NO	NO	917.45	917.45	0	0	0	0	0
10500-C	2263208.368	275514.973	GMP5	NO	NO	909.85	917	7.15	0	0.7	0	0
10500-C-S	2263206.671	275513.89	Major_System	NO	NO	917	917.833	0.833	0	0	0	0
10500-D	2263185.188	275487.429	GMP5	NO	NO	914.092	918.238	4.146	0	0	0	0
10510-A	2263168.787	275572.773	gmp5	NO	NO	911.31	917.05	5.74	0	0.7	0	0
10510-A-S	2263169.037	275571.768	Major_System	NO	NO	916.55	917.05	0.5	0	0	0	0
10700-A	2262855.132	276251.54	GMP5	NO	NO	919.383	921.029	1.646	0	0.7	0	0
10700-A-S	2262857.743	276206.656	Major_System	NO	NO	925.31	925.81	0.5	0	0	0	0
10700-B	2262855.69	276211.5	GMP5	NO	NO	919.78	925.81	6.03	0	0	0	0
11000-A	2262492.349	276369.609	Inlet	NO	NO	861.67	865.079	3.409	0	1	500	0
12000	2261946.099	276352.754	Outfall	NO	NO	838	843	5	0	0	0	0
12000-1	2262016.165	276332.914	Outfall	NO	NO	853	858	5	0	0	0	0
12000-2	2261912.904	276258.693	Major_System	NO	NO	851.71	858.53	6.82	0	0	0	0
12000-A	2262141.878	276318.469	GMP3	NO	NO	858	859.792	1.792	0	0	0	0
12000-B	2262277.974	276329.865	GMP3	NO	NO	859.34	863.28	3.94	0	0	0	0
12000-B'	2262375.815	276225.597	OJunct	NO	NO	866.842	867.942	1.1	0	0	0	0
12000-C	2262338.822	276274.831	GMP3	NO	NO	860.36	865.75	5.39	0	0.7	0	0
12000-C-S	2262344.8	276269.03	OJunct	NO	NO	865.18	866.18	1	0	0	0	0
12000-D	2262380.324	276272.52	GMP3	NO	NO	860.98	865.75	4.77	0	1.1	8	0
12000-D-S	2262375.277	276266.336	OJunct	NO	NO	865.238	866.238	1	0	0	0	0

Table 2A: Junctions (continued...)

Name	X-Coordinate	Y-Coordinate	Tag	Inflows	Treatment	Invert Elev. (ft)	Rim Elev. (ft)	Depth (ft)	Initial Depth (ft)	Surcharge Depth (ft)	Ponded Area (ft^2)	Baseline (cfs)
12000-E	2262404.385	276207.212	GMP3	NO	NO	864.6	869.26	4.66	0	3	8	0
12000-E-S	2262406.999	276204.598	Major_System	NO	NO	869.249	869.96	0.711	0	0	0	0
12000-F	2262399.573	276171.169	GMP3	NO	NO	864	868.71	4.71	0	3	755	0
12000-F-S.	2262394.51	276175.218	Major_System	NO	NO	868.71	869.41	0.7	0	0	0	0
12000-G	2262399.34	276147.6	GMP3	NO	NO	863.1	867.84	4.74	0	1.1	8	0
12000-G-S	2262401.954	276144.986	Major_System	NO	NO	866.84	869.55	2.71	0	0	0	0
12000-G-S2	2262462.189	275823.309	OJunct	NO	NO	885	886	1	0	0	0	0
12000-H	2262350.2	276107.04	GMP3	NO	NO	864.2	868.77	4.57	0	0.7	0	0
12000-H-S	2262352.814	276104.426	Major_System	NO	NO	867.77	869.3	1.53	0	0	0	0
13000-A	2263883	276339	EX	NO	NO	941.46	943.467	2.007	0	0	0	0
14000-A	2263134.012	276980.126	OJunct	NO	NO	848.575	853.544	4.969	0	0	0	0
14000-C	2263196.658	276667.451	Inlet	NO	NO	850.38	855.998	5.618	0	1.5	500	0
14000-D	2263208.78	276632.029	Inlet	NO	NO	850.75	855.997	5.247	0	1.5	500	0
14000-E	2263360.144	276673.22	Inlet	NO	NO	852.32	856.728	4.408	0	1.5	500	0
8667-J4	2261923.441	276206.384	ex	NO	NO	852.76	858.11	5.35	0	0.7	0	0
8697	2261857.98	276145.56	Major_System	NO	NO	853.99	858.64	4.65	0	0	0	0
8807	2261849.953	276046.023	Major_System	NO	NO	855.48	859.53	4.05	0	0	0	0
8903	2261822.661	275941.67	Major_System	NO	NO	857.01	860.26	3.25	0	0	0	0
CHANNEL_12+11.04	2262996.146	275702.756	Major_System	NO	NO	905.75	908.25	2.5	0	0	0	0
Curb_Cut	2263311.938	275806.413	Major_System	NO	NO	946.544	947.544	1	0	0	0	0
Curb_Cut-S	2263311.195	275812.992	Major_System	NO	NO	946.891	947.591	0.7	0	0	0	0
ELB-10300-B1	2263122.22	275718.62	GMP5	NO	NO	909.56	919.56	10	0	0	0	0
ELB-10300-B2	2263158.51	275754.34	GMP5	NO	NO	923.85	938	14.15	0	0	0	0
EX10440-C	2263150.046	275288.262	EX	NO	NO	937.59	941.84	4.25	0	0.7	0	0
EX10440-C-S	2263146.042	275289.371	Major_System	NO	NO	941.84	943.84	2	0	0	0	0
EX-CI21199	2263487	275207	EX	NO	NO	954.3	959.964	5.664	0	0.7	0	0

Table 2A: Junctions (continued...)

Name	X-Coordinate	Y-Coordinate	Tag	Inflows	Treatment	Invert Elev. (ft)	Rim Elev. (ft)	Depth (ft)	Initial Depth (ft)	Surcharge Depth (ft)	Ponded Area (ft²)	Baseline (cfs)
EX-CI21199-S	2263490.749	275202.825	Major_System	NO	NO	959.964	960.664	0.7	0	0	0	0
EX-DI5526	2262960.692	275384.358	EX	NO	NO	939.06	941.58	2.52	0	0	0	0
EX-DI5526-S	2262960.118	275385.695	OJunct	NO	NO	941.58	942.58	1	0	0	0	0
EX-DI5571	2263088.804	275369.823	EX	NO	NO	937.75	941.99	4.24	0	0	0	0
EX-DI5571-S	2263087.184	275367.448	OJunct	NO	NO	941.99	942.99	1	0	0	0	0
J1	2263395.7	275001.694	GMP5	NO	NO	950.36	954.8	4.44	0	0	0	0
J10	2263266	274056	Junct	NO	NO	1008.97	1011.966	2.996	0	0	0	0
J11	2263221.743	274086.177	Junct	NO	NO	1004.59	1007.591	3.001	0	0	0	0
J12	2263219	274226	Junct	NO	NO	981.34	985.817	4.477	0	0	0	0
J13	2263180	274236	Outlet	NO	NO	980.139	982.139	2	0	0	0	0
J15	2263396.881	274981.932	EX	NO	NO	951.22	954.37	3.15	0	0.7	0	0
J15-S	2263397.307	274980.084	Major_System	NO	NO	954.37	955.8	1.43	0	0	0	0
J17	2263414.469	274976.96	EX	NO	NO	951.85	955.58	3.73	0	0.7	0	0
J179	2263072.121	274265.406	Oulet	NO	NO	976.794	977.793	0.999	0	0	0	0
J17-S	2263417.083	274974.346	Major_System	NO	NO	954.58	955.58	1	0	0	0	0
J18	2263378.207	274968.066	EX	NO	NO	951.46	954.87	3.41	0	0.7	0	0
J182	2262918.118	275150.642	OJunct	NO	NO	942.74	943.854	1.114	0	0	0	0
J18-S	2263380.821	274965.452	Major_System	NO	NO	954.37	955.3	0.93	0	0	0	0
J1-IC	2263397.346	275000.105	Major_System	NO	NO	953.8	954.8	1	0	0	0	0
J2	2262029.955	276270.21	ex	NO	NO	855.48	858.83	3.35	0	0.7	0	0
J20	2263395.378	274997.368	EX	NO	NO	950.51	954.25	3.74	0	0.7	0	0
J20-S	2263397.992	274994.754	Major_System	NO	NO	953.25	955	1.75	0	0	0	0
J2-S	2262029.316	276266.961	Major_System	NO	NO	858.83	859.83	1	0	0	0	0
J320	2262320.045	276340.366	OJunct	NO	NO	863.281	864.381	1.1	0	0	0	0
J34	2262874	275008	Junct	NO	NO	928.85	936.426	7.576	0	0	0	0
J38	2263196.698	275196.361	OJunct	NO	NO	941.031	942.131	1.1	0	0	0	0

Table 2A: Junctions (continued...)

Name	X-Coordinate	Y-Coordinate	Tag	Inflows	Treatment	Invert Elev. (ft)	Rim Elev. (ft)	Depth (ft)	Initial Depth (ft)	Surcharge Depth (ft)	Ponded Area (ft²)	Baseline (cfs)
J39	2263042.229	275159.172	OJunct	NO	NO	942.068	943.565	1.497	0	0	0	0
J46	2262404.521	276328.891	OJunct	NO	NO	864.9	866.014	1.114	0	0	0	0
J4-S	2261926.055	276203.77	Major_System	NO	NO	857.11	859.11	2	0	0	0	0
J5	2262948	274907	Inlet	NO	NO	940.1	945.85	5.75	0	0	0	0
J6	2262967	274876	Inlet	NO	NO	941.2	945.903	4.703	0	0	0	0
J7	2263007	274889	Inlet	NO	NO	942.46	945.968	3.508	0	0	0	0
J8	2262909	274943	Junct	NO	NO	938.5	944.752	6.252	0	0	0	0
J9	2262840	275024	Outlet	NO	NO	928.229	936.22	7.991	0	0	0	0
OL-10100-B	2262509.181	275724.722	OJunct	NO	NO	891	892	1	0	0	0	0
OL-10101-A	2262457.074	275701.706	OJunct	NO	NO	877.733	878.733	1	0	0	0	0
OL-11000-A	2262490.788	276364.805	OJunct	NO	NO	865.3	866.3	1	0	1	1000	0
OL-11000-B	2262522.895	276296.131	OJunct	NO	NO	867.351	868.351	1	0	0	0	0
OL-14000-Ab	2263559.701	276413.612	OJunct	NO	NO	944.247	945.347	1.1	0	0	0	0
OL-14000-Ac	2263636.283	276581.094	OJunct	NO	NO	888	889.1	1.1	0	0	0	0
OL-14000-Ad	2263582.493	276686.931	OJunct	NO	NO	888.001	889.101	1.1	0	0	0	0
OL-14000-Ae	2263566.526	276720.924	OJunct	NO	NO	863.833	864.933	1.1	0	0	0	0
OL-14000-C	2263205.534	276671.75	OJunct	NO	NO	855.925	857.025	1.1	0	0	0	0
OL-14000-D	2263219.775	276638.802	OJunct	NO	NO	855.996	857.096	1.1	0	0	0	0
OL-14000-E	2263346.069	276677.779	OJunct	NO	NO	857.19	858.206	1.016	0	0	0	0
OL-14000-F	2263358.081	276614.44	OJunct	NO	NO	856	857.1	1.1	0	0	0	0
OL-J10	2263262.205	274055.562	OJunct	NO	NO	1011.884	1012.984	1.1	0	0	0	0
OL-J10b	2263158.026	274185.404	OJunct	NO	NO	981.726	982.826	1.1	0	0	0	0
OL-J5	2262952.003	274905.114	OJunct	NO	NO	945.854	946.954	1.1	0	0	0	0
OL-J7	2263005.02	274885.921	OJunct	NO	NO	945.964	947.064	1.1	0	0	0	0

Table 2B: Junctions

Name	Baseline Pattern	Time Series	Scale Factor	Average Value (cfs)	Time Pattern 1	Time Pattern 2	Time Pattern 3	Time Pattern 4	Hydrograph	Sewershed Area (ac)	Avg. Depth (ft)	Max. Depth (ft)	Max. HGL (ft)
06-UV			1	0						0	0	0	876
1			1	0						0	0	0	0
10000-A			1	0						0	1.46	2.37	837.25
10000-B			1	0						0	1.1	1.68	839.21
10000-C			1	0						0	0.75	1.15	864.22
10000-C-S			1	0						0	0	0	889.15
10000-D			1	0						0	1.53	2.41	868.31
10001-A-S			1	0						0	0	0	889
10100-A			1	0						0	0.31	0.63	877.55
10100-A-S			1	0						0	0	0	889.31
10100-B			1	0						0	0.27	0.54	878.04
10100-B-IC			1	0						0	0.06	0.14	888.14
10100-D			1	0						0	0.2	0.46	879.42
10100-D-IC			1	0						0	0	0.02	890.22
10100-D-IC2			1	0						0	0.2	0.53	890.93
10120-G			1	0						0	0.44	0.97	892.61
10120-G-S			1	0						0	0.09	0.21	900.68
10120-H			1	0						0	0.23	0.48	900.97
10123-A			1	0						0	0	0	888.94
10125-A			1	0						0	0.78	2.91	901.59
10125-A-S			1	0						0	0.01	0.04	901.49
10200-A			1	0						0	0.42	1	874.72
10200-A-S1			1	0						0	0.04	0.11	879.67
10200-A-S2			1	0						0	0.04	0.13	879.41
10200-B			1	0						0	0.36	0.84	888.4
10200-B-S1			1	0						0	0.04	0.12	890.68

Table 2B: Junctions (continued...)

Name	Baseline Pattern	Time Series	Scale Factor	Average Value (cfs)	Time Pattern 1	Time Pattern 2	Time Pattern 3	Time Pattern 4	Hydrograph	Sewershed Area (ac)	Avg. Depth (ft)	Max. Depth (ft)	Max. HGL (ft)
10200-B-S2			1	0						0	0.04	0.12	890.48
10200-C			1	0						0	0.34	0.79	900.49
10200-C-S1			1	0						0	0.01	0.05	903.1
10200-C-S2			1	0						0	0	0.02	903.02
10200-D			1	0						0	0.25	0.56	918.01
10200-D-S			1	0						0	0.57	0.63	920.89
10200-E			1	0						0	0.25	0.55	934.55
10200-E-S			1	0						0	0.05	0.12	943.72
10200-F			1	0						0	0.31	0.68	942.36
10200-G			1	0						0	0.55	1.15	945.95
10200-G-S			1	0						0	0	0.02	951.39
10200-H			1	0						0	0.25	0.53	946.83
10200-H-S			1	0						0	0.85	0.89	950.59
10200-J			1	0						0	0.26	0.59	947.44
10200-J-S			1	0						0	0.97	1.06	950.69
10200-K			1	0						0	0.16	0.36	950.26
10200-K-S			1	0						0	1.88	2.06	956.1
10200-L			1	0						0	0.13	0.3	954.36
10200-L-S			1	0						0	0.02	0.06	959.31
10200-M			1	0						0	0.13	0.3	955.92
10200-M-S			1	0						0	0.42	0.48	963.24
10200-N			1	0						0	0	0	956.3
10200-N-S			1	0						0	0.06	0.16	962.91
10201-A			1	0						0	0.15	0.41	888.8
10201-A-S1			1	0						0	0.03	0.1	890.66
10201-A-S2			1	0						0	0.03	0.09	890.37

Table 2B: Junctions (continued...)

Name	Baseline Pattern	Time Series	Scale Factor	Average Value (cfs)	Time Pattern 1	Time Pattern 2	Time Pattern 3	Time Pattern 4	Hydrograph	Sewershed Area (ac)	Avg. Depth (ft)	Max. Depth (ft)	Max. HGL (ft)
10202-A			1	0						0	0.28	0.61	901.11
10202-A-S1			1	0						0	0.08	0.19	903.25
10202-A-S2			1	0						0	0.09	0.2	903.01
10203-A			1	0						0	0.11	0.28	918.35
10203-A-S			1	0						0	0.61	0.74	921
10210-A			1	0						0	0.17	0.47	877.83
10210-A-S			1	0						0	0.51	0.61	882.11
10210-B			1	0						0	0.21	0.57	879.24
10210-B-S			1	0						0	2.1	2.25	889.27
10210-C			1	0						0	0.18	0.51	887.48
10210-D			1	0						0	0.18	0.53	888.03
10210-E			1	0						0	0.16	0.48	889.49
10211-A			1	0						0	0.26	0.6	879.83
10211-A-S			1	0						0	1.89	2.03	889.66
10211-B			1	0						0	0.16	0.46	883.75
10211-C			1	0						0	0.11	0.38	886.19
10212-A			1	0						0	0	0	889.46
10250-A			1	0						0	0.16	0.4	940.59
10250-A-S			1	0						0	0.52	0.63	944.23
10250-B			1	0						0	0.12	0.35	941.65
10250-B-S			1	0						0	0	0	948.72
10250-C			1	0						0	0.1	0.28	949.56
10250-C-S			1	0						0	0.28	0.35	954.18
10250-D			1	0						0	0.1	0.33	950.14
10250-D-S			1	0						0	0.4	0.48	953.92
10260-A			1	0						0	0.12	0.29	948.28

Table 2B: Junctions (continued...)

Name	Baseline Pattern	Time Series	Scale Factor	Average Value (cfs)	Time Pattern 1	Time Pattern 2	Time Pattern 3	Time Pattern 4	Hydrograph	Sewershed Area (ac)	Avg. Depth (ft)	Max. Depth (ft)	Max. HGL (ft)
10260-A-S			1	0						0	0.39	0.47	951.84
10270-A			1	0						0	0.16	0.34	952.44
10270-A-S			1	0						0	2.03	2.25	956.03
10280-A			1	0						0	0.07	0.15	964.56
10300-A			1	0						0	0.26	0.54	907.34
10300-B			1	0						0	0.32	0.63	909.7
10300-B-IC			1	0						0	0.02	0.08	913.84
10300-C			1	0						0	0.35	0.7	924.71
10300-C-S			1	0						0	0.01	0.05	940.13
10300-D			1	0						0	0.35	0.68	924.84
10300-D-S			1	0						0	0.82	0.91	941
10300-E			1	0						0	0.22	0.5	931.75
10300-F			1	0						0	0.14	0.32	935.45
10300-F-S			1	0						0	0.04	0.11	945.97
10300-G			1	0						0	0.06	0.15	936.62
10300-G-S			1	0						0	0.01	0.04	944.57
10310-A			1	0						0	0.29	0.62	929.55
10310-A-S			1	0						0	0.02	0.06	939.69
10310-B			1	0						0	0.34	0.73	930.63
10310-B-S			1	0						0	0.1	0.21	939.74
10310-B-S2			1	0						0	0.06	0.13	941.5
10320-A			1	0						0	0.22	0.41	930.13
10320-B			1	0						0	0.31	0.62	931.03
10320-B-S			1	0						0	2.27	2.52	942.6
10320-C			1	0						0	0	0	935.03
10320-C-S			1	0						0	3.4	3.73	944.56

Table 2B: Junctions (continued...)

Name	Baseline Pattern	Time Series	Scale Factor	Average Value (cfs)	Time Pattern 1	Time Pattern 2	Time Pattern 3	Time Pattern 4	Hydrograph	Sewershed Area (ac)	Avg. Depth (ft)	Max. Depth (ft)	Max. HGL (ft)
10321-A			1	0						0	0.06	0.2	936.3
10330-A			1	0						0	0.28	0.56	932.26
10330-A-S			1	0						0	0	0	945.48
10330-B			1	0						0	0.14	0.3	932.8
10330-B-S			1	0						0	0.08	0.18	945.18
10400-A			1	0						0	1.3	2	878
10400-A-S			1	0						0	0.27	0.3	896.62
10400-B1			1	0						0	0.94	1.39	881.92
10400-C2			1	0						0	0	0.01	883.16
10400-D			1	0						0	0.75	1.41	885.45
10400-D-S			1	0						0	0.12	0.15	900.75
10400-E			1	0						0	0.99	2.11	892.39
10400-E-S			1	0						0	0.08	0.1	900.81
10400-F			1	0						0	0.7	1.4	897.18
10400-F-S			1	0						0	0.48	0.55	905.99
10400-G			1	0						0	0.65	1.33	901.56
10400-G-S			1	0						0	0.5	0.58	910.18
10400-H			1	0						0	0.64	1.28	911.99
10400-H-S			1	0						0	0.02	0.08	924.33
10400-J			1	0						0	0.6	1.2	915.09
10400-K			1	0						0	0.32	0.62	919.95
10400-K-S			1	0						0	0.02	0.06	933.4
10400-L			1	0						0	0.35	0.68	928.25
10400-L-S			1	0						0	0.01	0.04	947.92
10400-M			1	0						0	0.11	0.26	950.27
10400-M-S			1	0						0	0.01	0.05	961.76

Table 2B: Junctions (continued...)

Name	Baseline Pattern	Time Series	Scale Factor	Average Value (cfs)	Time Pattern 1	Time Pattern 2	Time Pattern 3	Time Pattern 4	Hydrograph	Sewershed Area (ac)	Avg. Depth (ft)	Max. Depth (ft)	Max. HGL (ft)
10400-N			1	0						0	0.07	0.14	955.23
10400-N-S			1	0						0	0	0.01	960.06
10400-P			1	0						0	0.1	0.2	955.8
10400-P-S			1	0						0	0	0	962.7
10400-Q			1	0						0	0.06	0.14	956.62
10400-Q-S			1	0						0	0	0	962.7
10400-R			1	0						0	0.06	0.13	957.3
10400-R-S			1	0						0	0	0	962.7
10400-S			1	0						0	0.07	0.16	958.07
10400-S-S			1	0						0	0	0	962.07
10410-A			1	0						0	0.56	1.07	882.77
10410-B			1	0						0	0.48	0.91	883.81
10410-B-S			1	0						0	0.56	0.67	897.13
10410-C			1	0						0	0.48	0.91	884.71
10410-D			1	0						0	0.84	1.52	886.12
10410-D-S			1	0						0	0.07	0.16	901.08
10410-E			1	0						0	0.41	0.8	887.38
10410-F			1	0						0	0.72	1.45	889.87
10410-G			1	0						0	0.74	1.54	890.48
10411-A			1	0						0	0.11	0.19	896.69
10411-A-S			1	0						0	0.14	0.18	901.5
10420-A			1	0						0	0.22	0.42	904.01
10420-A-S			1	0						0	0.48	0.52	909.56
10420-B			1	0						0	0.22	0.43	907.22
10420-B-S			1	0						0	0.53	0.56	914.93
10420-C			1	0						0	0.21	0.41	909.8

Table 2B: Junctions (continued...)

Name	Baseline Pattern	Time Series	Scale Factor	Average Value (cfs)	Time Pattern 1	Time Pattern 2	Time Pattern 3	Time Pattern 4	Hydrograph	Sewershed Area (ac)	Avg. Depth (ft)	Max. Depth (ft)	Max. HGL (ft)
10420-C-S			1	0						0	0.32	0.37	915.13
10420-D			1	0						0	0.14	0.31	912.19
10420-D-S			1	0						0	0.51	0.6	919.69
10420-E			1	0						0	0.14	0.34	913.07
10420-E-S			1	0						0	0.03	0.1	921
10421-A			1	0						0	0.1	0.21	905.07
10421-A-S			1	0						0	0.4	0.47	909.48
10422-A			1	0						0	0.08	0.28	926.08
10422-A-S			1	0						0	0	0	934.74
10430-A			1	0						0	0.15	0.35	906.36
10430-A-S			1	0						0	0.51	0.6	910.18
10440-A			1	0						0	0.52	1.08	922.18
10440-A-S			1	0						0	0	0.02	930.49
10440-B			1	0						0	0.64	1.36	924.16
10440-B-S			1	0						0	0.54	0.6	932.53
10440-C			1	0						0	1	2.23	928.87
10440-C-S			1	0						0	0	0	936.49
10440-D			1	0						0	0.96	2.33	929.46
10440-D-S			1	0						0	0	0	943.95
10440-e			1	0						0	1.01	2.62	930.62
10441-A			1	0						0	0.02	0.05	924.82
10442-A			1	0						0	0.08	0.21	975.87
10442-A-EX			1	0						0	0.26	0.55	975.8
10442-A-S			1	0						0	0.01	0.06	982.63
10442-B			1	0						0	0.06	0.18	979.76
10442-B-EX			1	0						0	0.09	0.25	978.63

Table 2B: Junctions (continued...)

Name	Baseline Pattern	Time Series	Scale Factor	Average Value (cfs)	Time Pattern 1	Time Pattern 2	Time Pattern 3	Time Pattern 4	Hydrograph	Sewershed Area (ac)	Avg. Depth (ft)	Max. Depth (ft)	Max. HGL (ft)
10442-B-S			1	0						0	0.87	0.98	983.03
10443-A			1	0						0	0.07	0.18	942.8
10443-C			1	0						0	0.33	0.69	977.26
10443-C-S			1	0						0	0.08	0.19	985.16
10443-D			1	0						0	0.19	0.4	979.75
10443-D-S			1	0						0	0.15	0.32	985.29
10450-A			1	0						0	0.2	0.46	924.63
10450-A-S			1	0						0	0.05	0.14	933.49
10460-A			1	0						0	0.53	1.02	934.35
10460-A-S			1	0						0	0	0.03	949.35
10460-B			1	0						0	0.48	0.94	934.82
10460-B-S			1	0						0	0.11	0.17	943.97
10460-C			1	0						0	0.9	1.32	935.4
10460-C-S			1	0						0	0.08	0.19	943.98
10460-D			1	0						0	0.99	1.36	936.25
10460-D-S			1	0						0	0.13	0.32	943.98
10460-E			1	0						0	0.22	0.46	936.73
10460-E-S			1	0						0	0.06	0.18	943.95
10460-F			1	0						0	0.15	0.3	937.62
10460-F-S			1	0						0	0.08	0.18	943.58
10461-A			1	0						0	0.16	0.47	939.27
10461-A-S			1	0						0	0.08	0.24	943.28
10461-B			1	0						0	0.67	0.98	940
10461-B-S			1	0						0	0.08	0.28	943.32
10462-A			1	0						0	0.02	0.05	943.08
10462-A-S			1	0						0	0.02	0.04	949.04

Table 2B: Junctions (continued...)

Name	Baseline Pattern	Time Series	Scale Factor	Average Value (cfs)	Time Pattern 1	Time Pattern 2	Time Pattern 3	Time Pattern 4	Hydrograph	Sewershed Area (ac)	Avg. Depth (ft)	Max. Depth (ft)	Max. HGL (ft)
10470-A			1	0						0	0.1	0.24	954.81
10470-A-S			1	0						0	0.02	0.06	958.51
10480-A			1	0						0	0.75	0.9	957.6
10480-B			1	0						0	0.09	0.21	958.41
10500-A			1	0						0	0.11	0.25	907.79
10500-B			1	0						0	0.28	0.66	909.28
10500-B-S			1	0						0	0	0	917.45
10500-C			1	0						0	0.21	0.53	910.38
10500-C-S			1	0						0	0.1	0.26	917.26
10500-D			1	0						0	0	0	914.09
10510-A			1	0						0	0.25	0.71	912.02
10510-A-S			1	0						0	0.54	0.77	917.32
10700-A			1	0						0	0.09	0.18	919.57
10700-A-S			1	0						0	0.14	0.29	925.6
10700-B			1	0						0	0.21	0.49	920.27
11000-A			1	0						0	0.07	0.19	861.86
12000			1	0						0	0.06	0.13	838.13
12000-1			1	0						0	0.01	0.01	853.01
12000-2			1	0						0	0.4	0.86	852.57
12000-A			1	0						0	1.16	1.54	859.54
12000-B			1	0						0	0.18	0.32	859.66
12000-B'			1	0						0	0.04	0.09	866.94
12000-C			1	0						0	0.14	0.32	860.68
12000-C-S			1	0						0	0.03	0.1	865.28
12000-D			1	0						0	0.11	0.24	861.22
12000-D-S			1	0						0	0.03	0.1	865.33

Table 2B: Junctions (continued...)

Name	Baseline Pattern	Time Series	Scale Factor	Average Value (cfs)	Time Pattern 1	Time Pattern 2	Time Pattern 3	Time Pattern 4	Hydrograph	Sewershed Area (ac)	Avg. Depth (ft)	Max. Depth (ft)	Max. HGL (ft)
12000-E			1	0						0	0.07	0.21	864.81
12000-E-S			1	0						0	0.02	0.07	869.32
12000-F			1	0						0	0.11	0.26	864.26
12000-F-S.			1	0						0	0.03	0.08	868.79
12000-G			1	0						0	0.42	0.93	864.03
12000-G-S			1	0						0	0.1	0.22	867.06
12000-G-S2			1	0						0	0	0.01	885.01
12000-H			1	0						0	0.31	0.71	864.91
12000-H-S			1	0						0	0.01	0.03	867.8
13000-A			1	0						0	0.16	0.39	941.85
14000-A			1	0						0	0	0	848.58
14000-C			1	0						0	0.91	4.21	854.59
14000-D			1	0						0	1	4.4	855.15
14000-E			1	0						0	0.73	3.96	856.28
8667-J4			1	0						0	0.47	1.11	853.87
8697			1	0						0	0.42	0.97	854.96
8807			1	0						0	0.36	0.83	856.31
8903			1	0						0	0.48	3.04	860.05
CHANNEL_12+11.04			1	0						0	0.12	0.25	906
Curb_Cut			1	0						0	0.05	0.11	946.65
Curb_Cut-S			1	0						0	0.05	0.11	947.01
ELB-10300-B1			1	0						0	0.5	1.02	910.58
ELB-10300-B2			1	0						0	0.18	0.36	924.21
EX10440-C			1	0						0	0.12	0.35	937.94
EX10440-C-S			1	0						0	0	0	941.84
EX-CI21199			1	0						0	0.26	0.54	954.84

Table 2B: Junctions (continued...)

Name	Baseline Pattern	Time Series	Scale Factor	Average Value (cfs)	Time Pattern 1	Time Pattern 2	Time Pattern 3	Time Pattern 4	Hydrograph	Sewershed Area (ac)	Avg. Depth (ft)	Max. Depth (ft)	Max. HGL (ft)
EX-CI21199-S			1	0						0	0.01	0.04	960.01
EX-DI5526			1	0						0	0.18	0.57	939.63
EX-DI5526-S			1	0						0	0	0	941.58
EX-DI5571			1	0						0	0.36	3.58	941.33
EX-DI5571-S			1	0						0	0	0	941.99
J1			1	0						0	0.41	0.89	951.25
J10			1	0						0	0.2	0.51	1009.48
J11			1	0						0	0.16	0.4	1004.99
J12			1	0						0	0.25	0.65	981.99
J13			1	0						0	0.3	0.85	980.99
J15			1	0						0	0.37	0.71	951.93
J15-S			1	0						0	0.26	0.49	954.86
J17			1	0						0	0.14	0.35	952.2
J179			1	0						0	0.41	1	977.79
J17-S			1	0						0	0.11	0.27	954.85
J18			1	0						0	0.34	0.68	952.14
J182			1	0						0	0.01	0.08	942.82
J18-S			1	0						0	0.23	0.48	954.85
J1-IC			1	0						0	0.04	0.1	953.9
J2			1	0						0	0	0	855.48
J20			1	0						0	0.44	0.95	951.46
J20-S			1	0						0	0.18	0.74	953.99
J2-S			1	0						0	0	0	858.83
J320			1	0						0	0.05	0.1	863.38
J34			1	0						0	7.08	7.58	936.43
J38			1	0						0	0	0	941.03

Table 2B: Junctions (continued...)

Name	Baseline Pattern	Time Series	Scale Factor	Average Value (cfs)	Time Pattern 1	Time Pattern 2	Time Pattern 3	Time Pattern 4	Hydrograph	Sewershed Area (ac)	Avg. Depth (ft)	Max. Depth (ft)	Max. HGL (ft)
J39			1	0						0	0.57	1.5	943.56
J46			1	0						0	0.01	0.03	864.93
J4-S			1	0						0	0	0	857.11
J5			1	0						0	0.5	1.17	941.27
J6			1	0						0	0.45	1.05	942.25
J7			1	0						0	0.38	0.86	943.32
J8			1	0						0	0.36	0.91	939.41
J9			1	0						0	7.67	8.94	937.17
OL-10100-B			1	0						0	0	0.01	891.01
OL-10101-A			1	0						0	0.03	0.06	877.8
OL-11000-A			1	0						0	0.01	0.03	865.33
OL-11000-B			1	0						0	0.04	0.08	867.43
OL-14000-Ab			1	0						0	0	0	944.25
OL-14000-Ac			1	0						0	0	0	888
OL-14000-Ad			1	0						0	0	0	888
OL-14000-Ae			1	0						0	0	0	863.83
OL-14000-C			1	0						0	0	0	855.92
OL-14000-D			1	0						0	0	0	856
OL-14000-E			1	0						0	0	0	857.19
OL-14000-F			1	0						0	0	0.08	856.08
OL-J10			1	0						0	0	0	1011.88
OL-J10b			1	0						0	0	0	981.73
OL-J5			1	0						0	0	0	945.85
OL-J7			1	0						0	0	0	945.96

Table 2C: Junctions

Name	Time Max. HGL (M/D/Y)	Rep. Max. Depth (ft)	Max. Lat. Inflow (cfs)	Max. Total Inflow (cfs)	Total Lat. Inflow (MG)	Total inflow (MG)	Flow Error (%)	Hours Surcharged (h)	Max. Surcharge (ft)	Min. Freeboard (ft)	Hours Flooded (h)	Max. Flood Rate (cfs)	Total Flood Vol. (MG)
06-UV	05/01/2022 00:00 AM	0	0	0	0	0	0	0	0	6.25	0	0	0
1	05/01/2022 00:00 AM	0	0	0	0	0	0	1.83	0	0	0	0	0
10000-A	05/01/2022 00:00 AM	2.37	0	80.66	0	2	0.283	0	0	30.34	0	0	0
10000-B	05/01/2022 00:29 AM	1.68	0	80.65	0	1.93	0.006	0	0	42.8	0	0	0
10000-C	05/01/2022 00:32 AM	1.15	0	63.72	0	1.55	0.005	0	0	24.931	0	0	0
10000-C-S	05/01/2022 00:00 AM	0	0	0	0	0	0	0	0	0.834	0	0	0
10000-D	05/01/2022 00:32 AM	2.41	0	63.72	0	1.55	0.002	0	0	22.49	0	0	0
10001-A-S	05/01/2022 00:00 AM	0	0	0	0	0	0	0	0	1	0	0	0
10100-A	05/01/2022 00:22 AM	0.63	0	3.63	0	0.063	0.002	0	0	11.239	0	0	0
10100-A-S	05/01/2022 00:00 AM	0	0	0	0	0	0	0	0	0.835	0	0	0
10100-B	05/01/2022 00:22 AM	0.54	0	3.63	0	0.063	0.001	0	0	10.414	0	0	0
10100-B-IC	05/01/2022 00:29 AM	0.14	1.4	1.4	0.025	0.025	0.013	0	0	1.56	0	0	0
10100-D	05/01/2022 00:19 AM	0.46	0	2.63	0	0.038	-0.004	0	0	11.099	0	0	0
10100-D-IC	05/01/2022 00:07 AM	0.02	0	0.06	0	0	-0.783	0	0	19.48	0	0	0
10100-D-IC2	05/01/2022 00:19 AM	0.53	2.6	2.6	0.037	0.037	0.001	0	0	0.47	0	0	0
10120-G	05/01/2022 00:24 AM	0.97	6.72	16.69	0.11	0.276	-0.009	0	0	7.86	0	0	0
10120-G-S	05/01/2022 00:28 AM	0.21	0	1.29	0	0.012	4.055	0	0	4.79	0	0	0
10120-H	05/01/2022 00:23 AM	0.48	0	8.15	0	0.131	0.03	0	0	5.03	0	0	0
10123-A	05/01/2022 00:00 AM	0	0	0	0	0	0	0	0	11.6	0	0	0
10125-A	05/01/2022 00:22 AM	2.91	1.88	1.88	0.028	0.028	-0.008	0.36	0.913	0.857	0	0	0
10125-A-S	05/01/2022 00:20 AM	0.04	0	2.63	0	0.004	-1.47	0	0	0.96	0	0	0
10200-A	05/01/2022 00:16 AM	0.99	0	16.8	0	0.252	0.001	0	0	5.34	0	0	0
10200-A-S1	05/01/2022 00:15 AM	0.11	0.65	1.01	0.008	0.012	0.011	0	0	10.129	0	0	0
10200-A-S2	05/01/2022 00:15 AM	0.13	0	0.31	0	0.003	0.024	0	0	0.57	0	0	0
10200-B	05/01/2022 00:17 AM	0.84	0	12.62	0	0.19	-0.007	0	0	2.66	0	0	0
10200-B-S1	05/01/2022 00:06 AM	0.12	0.32	0.32	0.002	0.002	-0.028	0	0	0.58	0	0	0

Table 2C: Junctions (continued...)

Name	Time Max. HGL (M/D/Y)	Rep. Max. Depth (ft)	Max. Lat. Inflow (cfs)	Max. Total Inflow (cfs)	Total Lat. Inflow (MG)	Total inflow (MG)	Flow Error (%)	Hours Surcharged (h)	Max. Surcharge (ft)	Min. Freeboard (ft)	Hours Flooded (h)	Max. Flood Rate (cfs)	Total Flood Vol. (MG)
10200-B-S2	05/01/2022 00:05 AM	0.12	0	0.31	0	0.002	-0.319	0	0	0.88	0	0	0
10200-C	05/01/2022 00:17 AM	0.79	0	11.08	0	0.169	0.001	0	0	3.066	0	0	0
10200-C-S1	05/01/2022 00:07 AM	0.05	0.41	0.49	0.003	0.004	-0.042	0	0	0.656	0	0	0
10200-C-S2	05/01/2022 00:07 AM	0.02	0	0.01	0	0	2.444	0	0	0.98	0	0	0
10200-D	05/01/2022 00:17 AM	0.56	0	7.62	0	0.114	0.001	0	0	2.75	0	0	0
10200-D-S	05/01/2022 00:08 AM	0.63	0.53	0.77	0.004	0.008	0.656	0	0	0.631	0	0	0
10200-E	05/01/2022 00:17 AM	0.55	0	6.18	0	0.093	0.002	0	0	9.553	0	0	0
10200-E-S	05/01/2022 00:10 AM	0.12	0.38	0.38	0.004	0.004	0.088	0	0	0.583	0	0	0
10200-F	05/01/2022 00:19 AM	0.68	0	3.66	0	0.058	0.002	0	0	5.564	0	0	0
10200-G	05/01/2022 00:19 AM	1.14	0	3.66	0	0.058	0.085	0	0	5.92	0	0	0
10200-G-S	05/01/2022 00:08 AM	0.02	0.15	0.15	0.001	0.001	-0.087	0	0	0.68	0	0	0
10200-H	05/01/2022 00:20 AM	0.53	0	3.01	0	0.046	-0.024	0	0	3.37	0	0	0
10200-H-S	05/01/2022 00:08 AM	0.89	0.17	0.17	0.002	0.002	5.22	0	0	0.678	0	0	0
10200-J	05/01/2022 00:20 AM	0.59	0	2.92	0	0.044	0.012	0	0	2.691	0	0	0
10200-J-S	05/01/2022 00:17 AM	1.06	0.28	0.35	0.004	0.004	2.299	0	0	6.046	0	0	0
10200-K	05/01/2022 00:20 AM	0.36	0	2.61	0	0.04	-0.018	0	0	4.284	0	0	0
10200-K-S	05/01/2022 00:18 AM	2.06	0.43	0.46	0.006	0.006	3.13	0	0	0.636	0	0	0
10200-L	05/01/2022 00:19 AM	0.3	0	1.2	0	0.018	-0.001	0	0	4.336	0	0	0
10200-L-S	05/01/2022 00:19 AM	0.06	0.39	0.43	0.006	0.006	-0.033	0	0	0.637	0	0	0
10200-M	05/01/2022 00:19 AM	0.3	0	0.81	0	0.012	-0.006	0	0	7.343	0	0	0
10200-M-S	05/01/2022 00:17 AM	0.48	0.43	0.43	0.006	0.006	0.64	0	0	0.641	0	0	0
10200-N	05/01/2022 00:00 AM	0	0	0	0	0	0	0	0	6.952	0	0	0
10200-N-S	05/01/2022 00:09 AM	0.16	0.34	0.34	0.003	0.003	-1.583	0	0	0.542	0	0	0
10201-A	05/01/2022 00:16 AM	0.41	0.71	1.57	0.01	0.021	0.066	0	0	2.592	0	0	0
10201-A-S1	05/01/2022 00:17 AM	0.1	0	1.14	0	0.013	0.003	0	0	0.599	0	0	0
10201-A-S2	05/01/2022 00:17 AM	0.09	0	0.2	0	0.001	0.68	0	0	0.743	0	0	0

Table 2C: Junctions (continued...)

Name	Time Max. HGL (M/D/Y)	Rep. Max. Depth (ft)	Max. Lat. Inflow (cfs)	Max. Total Inflow (cfs)	Total Lat. Inflow (MG)	Total inflow (MG)	Flow Error (%)	Hours Surcharged (h)	Max. Surcharge (ft)	Min. Freeboard (ft)	Hours Flooded (h)	Max. Flood Rate (cfs)	Total Flood Vol. (MG)
10202-A	05/01/2022 00:17 AM	0.61	0	3.24	0	0.052	0.001	0	0	2.783	0	0	0
10202-A-S1	05/01/2022 00:17 AM	0.19	2.31	4.38	0.032	0.064	0.015	0	0	0.51	0	0	0
10202-A-S2	05/01/2022 00:17 AM	0.2	0	1.14	0	0.013	0.003	0	0	0.633	0	0	0
10203-A	05/01/2022 00:18 AM	0.28	0.95	0.95	0.013	0.013	0.002	0	0	2.41	0	0	0
10203-A-S	05/01/2022 00:55 AM	0.74	0	0.01	0	0	182.202	0	0	23.802	0	0	0
10210-A	05/01/2022 00:07 AM	0.47	0	4.79	0	0.052	0	0	0	4.17	0	0	0
10210-A-S	05/01/2022 00:06 AM	0.61	0.14	1.26	0.002	0.01	0.493	0	0	1.649	0	0	0
10210-B	05/01/2022 00:08 AM	0.57	0	3.74	0	0.042	0	0	0	8.284	0	0	0
10210-B-S	05/01/2022 00:07 AM	2.25	1.79	1.79	0.015	0.015	1.304	0	0	0.662	0	0	0
10210-C	05/01/2022 00:09 AM	0.51	1.08	2.01	0.011	0.021	-0.016	0	0	2.638	0	0	0
10210-D	05/01/2022 00:09 AM	0.53	0	1	0	0.01	0.044	0	0	2.69	0	0	0
10210-E	05/01/2022 00:08 AM	0.47	1.13	1.13	0.01	0.01	-0.034	0	0	0.362	0	0	0
10211-A	05/01/2022 00:07 AM	0.59	0	1.29	0	0.015	0.014	0	0	8.302	0	0	0
10211-A-S	05/01/2022 00:13 AM	2.03	0.35	0.35	0.004	0.004	4.38	0	0	0.731	0	0	0
10211-B	05/01/2022 00:06 AM	0.46	0.18	1.16	0.002	0.011	0.491	0	0	6.469	0	0	0
10211-C	05/01/2022 00:06 AM	0.38	1.14	1.14	0.009	0.009	-0.624	0	0	6.241	0	0	0
10212-A	05/01/2022 00:00 AM	0	0	0	0	0	0	0	0	0.925	0	0	0
10250-A	05/01/2022 00:12 AM	0.4	0	2.89	0	0.035	-0.001	0	0	3.513	0	0	0
10250-A-S	05/01/2022 00:13 AM	0.63	1.47	1.81	0.018	0.021	8.643	0	0	0.572	0	0	0
10250-B	05/01/2022 00:07 AM	0.34	0	1.59	0	0.016	-0.002	0	0	8.57	0	0	0
10250-B-S	05/01/2022 00:00 AM	0	0	0	0	0	0	0	0	0.698	0	0	0
10250-C	05/01/2022 00:07 AM	0.27	0	1.59	0	0.016	-0.001	0	0	4.768	0	0	0
10250-C-S	05/01/2022 00:08 AM	0.35	0.92	0.92	0.01	0.01	-1.942	0	0	0.608	0	0	0
10250-D	05/01/2022 00:07 AM	0.33	0	0.87	0	0.007	-0.006	0	0	3.793	0	0	0
10250-D-S	05/01/2022 00:07 AM	0.48	0.88	0.88	0.007	0.007	0.49	0	0	0.594	0	0	0
10260-A	05/01/2022 00:08 AM	0.29	0	0.75	0	0.01	-0.003	0	0	3.589	0	0	0

Table 2C: Junctions (continued...)

Name	Time Max. HGL (M/D/Y)	Rep. Max. Depth (ft)	Max. Lat. Inflow (cfs)	Max. Total Inflow (cfs)	Total Lat. Inflow (MG)	Total inflow (MG)	Flow Error (%)	Hours Surcharged (h)	Max. Surcharge (ft)	Min. Freeboard (ft)	Hours Flooded (h)	Max. Flood Rate (cfs)	Total Flood Vol. (MG)
10260-A-S	05/01/2022 00:08 AM	0.47	0.95	0.95	0.012	0.012	0.68	0	0	0.594	0	0	0
10270-A	05/01/2022 00:23 AM	0.34	0	1.07	0	0.017	-0.003	0	0	1.841	0	0	0
10270-A-S	05/01/2022 00:23 AM	2.25	1.07	1.07	0.017	0.017	1.187	0	0	0.577	0	0	0
10280-A	05/01/2022 00:19 AM	0.15	0.43	0.43	0.006	0.006	0.001	0	0	8.492	0	0	0
10300-A	05/01/2022 00:19 AM	0.54	0	9	0	0.152	0.006	0	0	2.66	0	0	0
10300-B	05/01/2022 00:19 AM	0.63	0	9	0	0.152	0.001	0	0	4.56	0	0	0
10300-B-IC	05/01/2022 00:07 AM	0.08	0.89	0.89	0.01	0.01	-0.006	0	0	22.678	0	0	0
10300-C	05/01/2022 00:20 AM	0.7	0	8.47	0	0.142	0.001	0	0	15.87	0	0	0
10300-C-S	05/01/2022 00:16 AM	0.05	0	0.23	0	0.002	-0.247	0	0	5.735	0	0	0
10300-D	05/01/2022 00:21 AM	0.68	0	4.1	0	0.071	0.004	0	0	15.745	0	0	0
10300-D-S	05/01/2022 00:06 AM	0.91	0.32	0.32	0.003	0.003	2.993	0	0	0.6	0	0	0
10300-E	05/01/2022 00:19 AM	0.5	0	2.21	0	0.033	0	0	0	13.597	0	0	0
10300-F	05/01/2022 00:18 AM	0.32	0	1.53	0	0.022	0	0	0	8.775	0	0	0
10300-F-S	05/01/2022 00:17 AM	0.11	1.46	1.46	0.02	0.02	0.005	0	0	0.584	0	0	0
10300-G	05/01/2022 00:20 AM	0.15	0	0.29	0	0.004	0.005	0	0	8.416	0	0	0
10300-G-S	05/01/2022 00:20 AM	0.04	0.05	0.29	0.001	0.004	-0.002	0	0	0.966	0	0	0
10310-A	05/01/2022 00:18 AM	0.62	0	4.31	0	0.069	0	0	0	10.085	0	0	0
10310-A-S	05/01/2022 00:11 AM	0.06	0.15	0.15	0.002	0.002	-0.064	0	0	0.645	0	0	0
10310-B	05/01/2022 00:18 AM	0.73	2.1	4.17	0.029	0.067	0.001	0	0	8.899	0	0	0
10310-B-S	05/01/2022 00:21 AM	0.21	1.28	2.01	0.02	0.03	0.025	0	0	0.489	0	0	0
10310-B-S2	05/01/2022 00:20 AM	0.13	0	1.14	0	0.018	0.046	0	0	0.87	0	0	0
10320-A	05/01/2022 00:26 AM	0.41	0	1.98	0	0.035	0.007	0	0	11.816	0	0	0
10320-B	05/01/2022 00:26 AM	0.62	0	1.83	0	0.031	0.002	0	0	9.553	0	0	0
10320-B-S	05/01/2022 00:26 AM	2.52	1.83	1.83	0.031	0.031	0.722	0	0	12.188	0	0	0
10320-C	05/01/2022 00:00 AM	0	0	0	0	0	0	0	0	6.3	0	0	0
10320-C-S	05/01/2022 00:21 AM	3.73	0.6	0.6	0.009	0.009	5.941	0	0	0.557	0	0	0

Table 2C: Junctions (continued...)

Name	Time Max. HGL (M/D/Y)	Rep. Max. Depth (ft)	Max. Lat. Inflow (cfs)	Max. Total Inflow (cfs)	Total Lat. Inflow (MG)	Total inflow (MG)	Flow Error (%)	Hours Surcharged (h)	Max. Surcharge (ft)	Min. Freeboard (ft)	Hours Flooded (h)	Max. Flood Rate (cfs)	Total Flood Vol. (MG)
10321-A	05/01/2022 00:06 AM	0.2	0.59	0.59	0.004	0.004	-0.001	0	0	5.75	0	0	0
10330-A	05/01/2022 00:22 AM	0.56	0	0.73	0	0.011	0.008	0	0	13.236	0	0	0
10330-A-S	05/01/2022 00:00 AM	0	0	0	0	0	0	0	0	0.833	0	0	0
10330-B	05/01/2022 00:21 AM	0.3	0	0.73	0	0.011	0.05	0	0	9.2	0	0	0
10330-B-S	05/01/2022 00:21 AM	0.18	0.73	0.73	0.011	0.011	0.001	0	0	0.653	0	0	0
10400-A	05/01/2022 00:32 AM	2	0	60.6	0	1.48	0.005	0	0	14.6	0	0	0
10400-A-S	05/01/2022 00:07 AM	0.3	0.24	0.24	0.002	0.002	1.094	0	0	0.665	0	0	0
10400-B1	05/01/2022 00:35 AM	1.39	0	43.39	0	1.13	0.001	0	0	11.08	0	0	0
10400-C2	05/01/2022 00:20 AM	0.01	0	53.39	0	0.905	0	0	0	4.49	0	0	0
10400-D	05/01/2022 00:20 AM	1.41	0.32	53.38	0.004	0.905	0.001	0	0	15.65	0	0	0
10400-D-S	05/01/2022 00:13 AM	0.15	0	0.29	0	0.003	0.313	0	0	0.664	0	0	0
10400-E	05/01/2022 00:20 AM	2.11	0.48	52.96	0.006	0.898	0.001	0	0	8.818	0	0	0
10400-E-S	05/01/2022 00:36 AM	0.1	0	0	0	0	0	0	0	1.182	0	0	0
10400-F	05/01/2022 00:21 AM	1.4	0.31	52.57	0.003	0.892	0.002	0	0	8.764	0	0	0
10400-F-S	05/01/2022 00:20 AM	0.55	0	0.15	0	0.001	3.866	0	0	4.257	0	0	0
10400-G	05/01/2022 00:21 AM	1.33	0	48.45	0	0.816	0.001	0	0	8.537	0	0	0
10400-G-S	05/01/2022 00:20 AM	0.58	0.8	0.85	0.012	0.013	0.08	0	0	0.611	0	0	0
10400-H	05/01/2022 00:21 AM	1.28	0	46.71	0	0.788	0.004	0	0	12.263	0	0	0
10400-H-S	05/01/2022 00:10 AM	0.08	0.53	0.85	0.007	0.01	0.349	0	0	6.84	0	0	0
10400-J	05/01/2022 00:20 AM	1.2	0	46.14	0	0.778	0.001	0	0	11.871	0	0	0
10400-K	05/01/2022 00:16 AM	0.62	0	9.75	0	0.17	0.007	0	0	13.41	0	0	0
10400-K-S	05/01/2022 00:16 AM	0.06	0.59	0.6	0.008	0.008	0.031	0	0	0.64	0	0	0
10400-L	05/01/2022 00:17 AM	0.68	0	7.99	0	0.138	0.019	0	0	20.882	0	0	0
10400-L-S	05/01/2022 00:06 AM	0.04	0.33	0.35	0.003	0.003	-0.142	0	0	0.663	0	0	0
10400-M	05/01/2022 00:16 AM	0.26	0	1.97	0	0.028	-0.013	0	0	7.88	0	0	0
10400-M-S	05/01/2022 00:13 AM	0.05	0.51	0.51	0.007	0.007	0.018	0	0	0.65	0	0	0

Table 2C: Junctions (continued...)

Name	Time Max. HGL (M/D/Y)	Rep. Max. Depth (ft)	Max. Lat. Inflow (cfs)	Max. Total Inflow (cfs)	Total Lat. Inflow (MG)	Total inflow (MG)	Flow Error (%)	Hours Surcharged (h)	Max. Surcharge (ft)	Min. Freeboard (ft)	Hours Flooded (h)	Max. Flood Rate (cfs)	Total Flood Vol. (MG)
10400-N	05/01/2022 00:19 AM	0.14	0	0.41	0	0.007	0.061	0	0	5.101	0	0	0
10400-N-S	05/01/2022 00:13 AM	0.01	0	0.01	0	0	0.097	0	0	0.823	0	0	0
10400-P	05/01/2022 00:19 AM	0.2	0.22	0.41	0.003	0.007	-0.039	0	0	5.793	0	0	0
10400-P-S	05/01/2022 00:00 AM	0	0	0	0	0	0	0	0	0.7	0	0	0
10400-Q	05/01/2022 00:22 AM	0.14	0	0.24	0	0.004	0.047	0	0	4.88	0	0	0
10400-Q-S	05/01/2022 00:00 AM	0	0	0	0	0	0	0	0	1	0	0	0
10400-R	05/01/2022 00:22 AM	0.13	0	0.24	0	0.004	0.003	0	0	4.62	0	0	0
10400-R-S	05/01/2022 00:00 AM	0	0	0	0	0	0	0	0	0.833	0	0	0
10400-S	05/01/2022 00:22 AM	0.16	0.24	0.24	0.004	0.004	0.001	0	0	4.062	0	0	0
10400-S-S	05/01/2022 00:00 AM	0	0	0	0	0	0	0	0	0.833	0	0	0
10410-A	05/01/2022 00:26 AM	1.07	0	20.18	0	0.351	0.009	0	0	14.05	0	0	0
10410-B	05/01/2022 00:26 AM	0.91	0.17	20.08	0.002	0.349	0.002	0	0	13.156	0	0	0
10410-B-S	05/01/2022 00:08 AM	0.67	0.28	0.28	0.002	0.002	2.137	0	0	2.54	0	0	0
10410-C	05/01/2022 00:26 AM	0.91	2.12	19.97	0.028	0.347	0.004	0	0	10.925	0	0	0
10410-D	05/01/2022 00:26 AM	1.52	0	18.7	0	0.319	0.045	0	0	10.511	0	0	0
10410-D-S	05/01/2022 00:07 AM	0.16	1.61	1.61	0.02	0.02	-0.046	0	0	0.54	0	0	0
10410-E	05/01/2022 00:26 AM	0.8	0.67	17.85	0.01	0.299	-0.009	0	0	12.508	0	0	0
10410-F	05/01/2022 00:25 AM	1.45	0.85	17.18	0.011	0.287	0.104	0	0	10.148	0	0	0
10410-G	05/01/2022 00:24 AM	1.54	0	16.68	0	0.276	0.01	0	0	10.06	0	0	0
10411-A	05/01/2022 00:22 AM	0.19	0	0.18	0	0.003	0.262	0	0	4.686	0	0	0
10411-A-S	05/01/2022 00:18 AM	0.18	0.79	0.79	0.011	0.011	0.047	0	0	4.952	0	0	0
10420-A	05/01/2022 00:15 AM	0.42	0	4.14	0	0.072	0.001	0	0	5.531	0	0	0
10420-A-S	05/01/2022 00:19 AM	0.52	0.1	0.1	0.001	0.001	3.275	0	0	0.687	0	0	0
10420-B	05/01/2022 00:15 AM	0.43	0	3.8	0	0.062	0	0	0	7.645	0	0	0
10420-B-S	05/01/2022 00:06 AM	0.56	0.27	0.28	0.002	0.003	1.675	0	0	5.36	0	0	0
10420-C	05/01/2022 00:15 AM	0.41	0	3.56	0	0.059	0.002	0	0	5.462	0	0	0

Table 2C: Junctions (continued...)

Name	Time Max. HGL (M/D/Y)	Rep. Max. Depth (ft)	Max. Lat. Inflow (cfs)	Max. Total Inflow (cfs)	Total Lat. Inflow (MG)	Total inflow (MG)	Flow Error (%)	Hours Surcharged (h)	Max. Surcharge (ft)	Min. Freeboard (ft)	Hours Flooded (h)	Max. Flood Rate (cfs)	Total Flood Vol. (MG)
10420-C-S	05/01/2022 00:25 AM	0.37	0.24	0.36	0.005	0.007	0.434	0	0	0.659	0	0	0
10420-D	05/01/2022 00:18 AM	0.31	0	1.78	0	0.028	-0.001	0	0	7.4	0	0	0
10420-D-S	05/01/2022 00:20 AM	0.6	1.13	1.13	0.017	0.017	0.28	0	0	0.6	0	0	0
10420-E	05/01/2022 00:13 AM	0.34	0	0.95	0	0.013	-0.001	0	0	8.327	0	0	0
10420-E-S	05/01/2022 00:13 AM	0.1	1.07	1.07	0.014	0.014	0	0	0	0.597	0	0	0
10421-A	05/01/2022 00:25 AM	0.21	0	0.5	0	0.008	-0.001	0	0	4.444	0	0	0
10421-A-S	05/01/2022 00:25 AM	0.47	0.5	0.5	0.008	0.008	0.462	0	0	6.116	0	0	0
10422-A	05/01/2022 00:06 AM	0.28	3.14	3.14	0.025	0.025	-0.002	0	0	7.75	0	0	0
10422-A-S	05/01/2022 00:00 AM	0	0	0	0	0	0	0	0	1	0	0	0
10430-A	05/01/2022 00:13 AM	0.35	0	1.27	0	0.017	-0.003	0	0	3.719	0	0	0
10430-A-S	05/01/2022 00:13 AM	0.6	1.53	1.56	0.019	0.02	0.233	0	0	17.474	0	0	0
10440-A	05/01/2022 00:21 AM	1.08	0	37.1	0	0.608	0	0	0	8.18	0	0	0
10440-A-S	05/01/2022 00:07 AM	0.02	0.17	0.17	0.002	0.002	0	0	0	2.68	0	0	0
10440-B	05/01/2022 00:21 AM	1.36	0	36.94	0	0.605	0	0	0	8.276	0	0	0
10440-B-S	05/01/2022 00:11 AM	0.6	0.65	0.67	0.008	0.008	0.658	0	0	12.12	0	0	0
10440-C	05/01/2022 00:21 AM	2.23	3.6	36.51	0.036	0.597	-0.009	0	0	8.12	0	0	0
10440-C-S	05/01/2022 00:00 AM	0	0	0	0	0	0	0	0	1.71	0	0	0
10440-D	05/01/2022 00:21 AM	2.33	2.52	33.27	0.042	0.528	0.01	0	0	14.511	0	0	0
10440-D-S	05/01/2022 00:00 AM	0	0	0	0	0	0	0	0	39.85	0	0	0
10440-e	05/01/2022 00:21 AM	2.61	0	30.37	0	0.48	0.001	0	0	17.412	0	0	0
10441-A	05/01/2022 00:16 AM	0.05	0.08	0.08	0.001	0.001	0.003	0	0	12.6	0	0	0
10442-A	05/01/2022 00:22 AM	0.21	0	0.5	0	0.006	0.003	0	0	7.197	0	0	0
10442-A-EX	05/01/2022 00:21 AM	0.55	0	9.51	0	0.153	-0.009	0	0	7.3	0	0	0
10442-A-S	05/01/2022 00:22 AM	0.06	0	0.54	0	0.006	0.071	0	0	0.637	0	0	0
10442-B	05/01/2022 00:09 AM	0.18	0	1.47	0	0.015	0.001	0	0	2.797	0	0	0
10442-B-EX	05/01/2022 00:09 AM	0.24	0	1.47	0	0.015	0	0	0	4.28	0	0	0

Table 2C: Junctions (continued...)

Name	Time Max. HGL (M/D/Y)	Rep. Max. Depth (ft)	Max. Lat. Inflow (cfs)	Max. Total Inflow (cfs)	Total Lat. Inflow (MG)	Total inflow (MG)	Flow Error (%)	Hours Surcharged (h)	Max. Surcharge (ft)	Min. Freeboard (ft)	Hours Flooded (h)	Max. Flood Rate (cfs)	Total Flood Vol. (MG)
10442-B-S	05/01/2022 00:09 AM	0.98	1.47	1.47	0.015	0.015	0.527	0	0	0.58	0	0	0
10443-A	05/01/2022 00:21 AM	0.17	0	0.64	0	0.006	0.334	0	0	1.7	0	0	0
10443-C	05/01/2022 00:21 AM	0.69	0	8.2	0	0.132	0.006	0	0	7.71	0	0	0
10443-C-S	05/01/2022 00:22 AM	0.19	0.67	2.56	0.012	0.034	0.013	0	0	0.51	0	0	0
10443-D	05/01/2022 00:21 AM	0.4	0	6.2	0	0.104	0	0	0	5.22	0	0	0
10443-D-S	05/01/2022 00:21 AM	0.32	8.23	8.23	0.126	0.126	-0.003	0	0	0.38	0	0	0
10450-A	05/01/2022 00:07 AM	0.46	0	2.06	0	0.024	0.008	0	0	8.719	0	0	0
10450-A-S	05/01/2022 00:07 AM	0.14	0.65	2.49	0.007	0.028	0.007	0	0	0.559	0	0	0
10460-A	05/01/2022 00:17 AM	1.02	0	5.87	0	0.107	0.013	0	0	14.89	0	0	0
10460-A-S	05/01/2022 00:06 AM	0.03	0.28	0.28	0.002	0.002	-0.293	0	0	13.06	0	0	0
10460-B	05/01/2022 00:17 AM	0.94	0	5.76	0	0.105	0.214	0	0	8.82	0	0	0
10460-B-S	05/01/2022 00:36 AM	0.17	1.22	1.22	0.026	0.026	0.368	0	0	0.656	0	0	0
10460-C	05/01/2022 00:18 AM	1.32	0	3.94	0	0.062	-0.26	0	0	8.288	0	0	0
10460-C-S	05/01/2022 00:17 AM	0.19	0.95	0.95	0.013	0.013	-0.481	0	0	0.646	0	0	0
10460-D	05/01/2022 00:18 AM	1.36	0	3.15	0	0.05	0.131	0	0	7.459	0	0	0
10460-D-S	05/01/2022 00:17 AM	0.32	1.04	2.15	0.014	0.031	0.246	0	0	0.684	0	0	0
10460-E	05/01/2022 00:19 AM	0.46	0	1.3	0	0.021	-0.007	0	0	7.02	0	0	0
10460-E-S	05/01/2022 00:16 AM	0.18	0.72	0.93	0.009	0.011	-0.788	0	0	0.649	0	0	0
10460-F	05/01/2022 00:23 AM	0.3	0	0.71	0	0.012	0.001	0	0	4.38	0	0	0
10460-F-S	05/01/2022 00:22 AM	0.18	0.59	0.71	0.01	0.012	0.326	0	0	3.42	0	0	0
10461-A	05/01/2022 00:06 AM	0.47	0	2.64	0	0.027	-0.012	0	0	3.77	0	0	0
10461-A-S	05/01/2022 00:07 AM	0.24	2.78	3.05	0.024	0.025	0.088	0	0	0.593	0	0	0
10461-B	05/01/2022 00:06 AM	0.98	0	1.5	0	0.014	0.324	0	0	3.04	0	0	0
10461-B-S	05/01/2022 00:06 AM	0.28	1.88	1.88	0.014	0.015	-0.471	0	0	0.553	0	0	0
10462-A	05/01/2022 00:18 AM	0.05	0	0.03	0	0	0.026	0	0	2.831	0	0	0
10462-A-S	05/01/2022 00:18 AM	0.04	1.09	1.09	0.016	0.016	0.004	0	0	0.96	0	0	0

Table 2C: Junctions (continued...)

Name	Time Max. HGL (M/D/Y)	Rep. Max. Depth (ft)	Max. Lat. Inflow (cfs)	Max. Total Inflow (cfs)	Total Lat. Inflow (MG)	Total inflow (MG)	Flow Error (%)	Hours Surcharged (h)	Max. Surcharge (ft)	Min. Freeboard (ft)	Hours Flooded (h)	Max. Flood Rate (cfs)	Total Flood Vol. (MG)
10470-A	05/01/2022 00:17 AM	0.24	0	0.54	0	0.007	0	0	0	3.68	0	0	0
10470-A-S	05/01/2022 00:17 AM	0.06	0.54	0.54	0.007	0.007	0.001	0	0	0.643	0	0	0
10480-A	05/01/2022 00:17 AM	0.9	0	0.6	0	0.008	0.79	0	0	9.319	0	0	0
10480-B	05/01/2022 00:17 AM	0.21	0.6	0.6	0.008	0.008	0.001	0	0	3.501	0	0	0
10500-A	05/01/2022 00:15 AM	0.25	0	2.78	0	0.038	0.05	0	0	5.91	0	0	0
10500-B	05/01/2022 00:15 AM	0.66	0	2.78	0	0.038	-0.038	0	0	8.67	0	0	0
10500-B-S	05/01/2022 00:00 AM	0	0	0	0	0	0	0	0	1.973	0	0	0
10500-C	05/01/2022 00:16 AM	0.53	0	1.34	0	0.018	-0.004	0	0	6.62	0	0	0
10500-C-S	05/01/2022 00:16 AM	0.26	1.34	1.34	0.018	0.018	0.001	0	0	0.573	0	0	0
10500-D	05/01/2022 00:00 AM	0	0	0	0	0	0	0	0	4.148	0	0	0
10510-A	05/01/2022 00:07 AM	0.71	0	1.9	0	0.02	0.001	0	0	5.03	0	0	0
10510-A-S	05/01/2022 00:07 AM	0.77	1.91	1.91	0.02	0.02	0.417	0	0	0.513	0	0	0
10700-A	05/01/2022 00:08 AM	0.18	0	2.4	0	0.032	-0.027	0	0	1.459	0	0	0
10700-A-S	05/01/2022 00:08 AM	0.29	2.5	2.5	0.023	0.032	-0.491	0	0	0.593	0	0	0
10700-B	05/01/2022 00:08 AM	0.49	0	2.4	0	0.032	0.003	0	0	5.54	0	0	0
11000-A	05/01/2022 00:16 AM	0.19	0.33	0.4	0.004	0.005	0.003	0	0	3.219	0	0	0
12000	05/01/2022 00:20 AM	0.13	0	14.98	0	0.237	0.017	0	0	4.87	0	0	0
12000-1	05/01/2022 01:08 AM	0.01	0	0.24	0	0.011	0.252	0	0	4.99	0	0	0
12000-2	05/01/2022 00:20 AM	0.86	1.55	14.76	0.026	0.226	0	0	0	5.96	0	0	0
12000-A	05/01/2022 01:06 AM	1.53	0	1.02	0	0.016	14.964	0	0	2.46	0	0	0
12000-B	05/01/2022 00:18 AM	0.32	0	1.02	0	0.015	-0.229	0	0	3.62	0	0	0
12000-B'	05/01/2022 00:17 AM	0.09	0	0.15	0	0.001	-0.05	0	0	1.002	0	0	0
12000-C	05/01/2022 00:18 AM	0.32	0	1.02	0	0.015	-0.002	0	0	5.07	0	0	0
12000-C-S	05/01/2022 00:16 AM	0.1	0.66	0.66	0.009	0.009	-0.053	0	0	0.9	0	0	0
12000-D	05/01/2022 00:20 AM	0.24	0	0.51	0	0.007	0	0	0	4.53	0	0	0
12000-D-S	05/01/2022 00:20 AM	0.1	0.42	0.56	0.006	0.008	0.015	0	0	0.908	0	0	0

Table 2C: Junctions (continued...)

Name	Time Max. HGL (M/D/Y)	Rep. Max. Depth (ft)	Max. Lat. Inflow (cfs)	Max. Total Inflow (cfs)	Total Lat. Inflow (MG)	Total inflow (MG)	Flow Error (%)	Hours Surcharged (h)	Max. Surcharge (ft)	Min. Freeboard (ft)	Hours Flooded (h)	Max. Flood Rate (cfs)	Total Flood Vol. (MG)
12000-E	05/01/2022 00:08 AM	0.21	0	0.47	0	0.005	-0.001	0	0	4.45	0	0	0
12000-E-S	05/01/2022 00:08 AM	0.07	0.26	0.55	0.003	0.006	-0.023	0	0	0.64	0	0	0
12000-F	05/01/2022 00:17 AM	0.26	0	0.77	0	0.011	0.09	0	0	4.45	0	0	0
12000-F-S.	05/01/2022 00:20 AM	0.08	0.46	0.46	0.007	0.007	0.026	0	0	0.62	0	0	0
12000-G	05/01/2022 00:22 AM	0.93	0	8.16	0	0.133	-0.009	0	0	3.81	0	0	0
12000-G-S	05/01/2022 00:26 AM	0.22	3.12	3.13	0.053	0.053	0.001	0	0	14.244	0	0	0
12000-G-S2	05/01/2022 00:16 AM	0.01	0	0.01	0	0	0.513	0	0	0.99	0	0	0
12000-H	05/01/2022 00:20 AM	0.71	4.41	4.55	0.067	0.069	-0.001	0	0	3.86	0	0	0
12000-H-S	05/01/2022 00:12 AM	0.03	0	0.19	0	0.002	0.34	0	0	1.5	0	0	0
13000-A	05/01/2022 00:18 AM	0.39	4.15	4.15	0.058	0.058	0	0	0	10.584	0	0	0
14000-A	05/01/2022 00:00 AM	0	0	0	0	0	0	0	0	4.964	0	0	0
14000-C	05/01/2022 00:11 AM	3.99	2.58	20.5	0.029	0.294	-0.005	0.23	2.206	1.412	0	0	0
14000-D	05/01/2022 00:18 AM	4.4	5.31	18.48	0.072	0.265	-0.013	0.24	2.402	0.845	0	0	0
14000-E	05/01/2022 00:13 AM	3.64	7.31	13.79	0.101	0.193	-0.018	0.19	1.956	0.452	0	0	0
8667-J4	05/01/2022 00:19 AM	1.11	0.94	13.4	0.014	0.2	-0.001	0	0	4.24	0	0	0
8697	05/01/2022 00:18 AM	0.96	0.51	12.47	0.007	0.186	-0.002	0	0	3.68	0	0	0
8807	05/01/2022 00:20 AM	0.83	2.64	11.99	0.038	0.179	-0.002	0	0	3.22	0	0	0
8903	05/01/2022 00:17 AM	1.5	9.38	9.38	0.14	0.14	0.005	0.12	1.787	0.213	0	0	0
CHANNEL_12+11.04	05/01/2022 00:19 AM	0.25	0	11.4	0	0.19	0.451	0	0	4.037	0	0	0
Curb_Cut	05/01/2022 00:20 AM	0.11	0	1.14	0	0.018	-0.001	0	0	0.894	0	0	0
Curb_Cut-S	05/01/2022 00:20 AM	0.11	1.21	1.38	0.018	0.022	0.244	0	0	0.881	0	0	0
ELB-10300-B1	05/01/2022 00:20 AM	1.02	0	8.47	0	0.142	0.003	0	0	8.98	0	0	0
ELB-10300-B2	05/01/2022 00:20 AM	0.36	0	8.47	0	0.142	0	0	0	13.79	0	0	0
EX10440-C	05/01/2022 00:07 AM	0.35	0	3.62	0	0.033	0.008	0	0	3.9	0	0	0
EX10440-C-S	05/01/2022 00:00 AM	0	0	0	0	0	0	0	0	2	0	0	0
EX-CI21199	05/01/2022 00:21 AM	0.54	0	9.82	0	0.158	0.006	0	0	5.124	0	0	0

Table 2C: Junctions (continued...)

Name	Time Max. HGL (M/D/Y)	Rep. Max. Depth (ft)	Max. Lat. Inflow (cfs)	Max. Total Inflow (cfs)	Total Lat. Inflow (MG)	Total inflow (MG)	Flow Error (%)	Hours Surcharged (h)	Max. Surcharge (ft)	Min. Freeboard (ft)	Hours Flooded (h)	Max. Flood Rate (cfs)	Total Flood Vol. (MG)
EX-CI21199-S	05/01/2022 00:11 AM	0.04	0.4	0.4	0.005	0.005	-0.093	0	0	0.654	0	0	0
EX-DI5526	05/01/2022 00:08 AM	0.57	2.69	2.69	0.025	0.025	-0.013	0	0	1.95	0	0	0
EX-DI5526-S	05/01/2022 00:00 AM	0	0	0	0	0	0	0	0	1.1	0	0	0
EX-DI5571	05/01/2022 00:07 AM	1.63	1.01	3.62	0.008	0.033	-0.062	0.04	2.245	0.655	0	0	0
EX-DI5571-S	05/01/2022 00:00 AM	0	0	0	0	0	0	0	0	1.2	0	0	0
J1	05/01/2022 00:21 AM	0.89	0	20.56	0	0.322	-0.001	0	0	3.55	0	0	0
J10	05/01/2022 00:16 AM	0.51	7.77	7.77	0.104	0.104	0	0	0	2.486	0	0	0
J11	05/01/2022 00:16 AM	0.4	0	7.78	0	0.104	-0.001	0	0	2.601	0	0	0
J12	05/01/2022 00:16 AM	0.65	0	7.77	0	0.104	0.004	0	0	3.827	0	0	0
J13	05/01/2022 00:16 AM	0.85	0.54	8.27	0.007	0.111	-0.008	0	0	1.149	0	0	0
J15	05/01/2022 00:22 AM	0.71	0	11.73	0	0.241	0.003	0	0	2.44	0	0	0
J15-S	05/01/2022 00:22 AM	0.49	18.81	18.81	0.292	0.292	-0.004	0	0	9.94	0	0	0
J17	05/01/2022 00:22 AM	0.35	0	1.69	0	0.027	0.001	0	0	3.38	0	0	0
J179	05/01/2022 00:12 AM	1	4.53	12.63	0.066	0.177	-0.01	0.17	0	0	0.17	1.85	0.005
J17-S	05/01/2022 00:22 AM	0.27	0	1.69	0	0.027	-0.006	0	0	9.83	0	0	0
J18	05/01/2022 00:22 AM	0.68	0	3.13	0	0.061	-0.012	0	0	2.73	0	0	0
J182	05/01/2022 00:20 AM	0.08	0	0.38	0	0	0.295	0	0	1.034	0	0	0
J18-S	05/01/2022 00:22 AM	0.48	0	3.13	0	0.061	0.008	0	0	0.45	0	0	0
J1-IC	05/01/2022 00:18 AM	0.1	1.22	1.22	0.018	0.018	0.001	0	0	9.9	0	0	0
J2	05/01/2022 00:00 AM	0	0	0	0	0	0	0	0	3.35	0	0	0
J20	05/01/2022 00:22 AM	0.95	0	19.43	0	0.304	-0.001	0	0	2.79	0	0	0
J20-S	05/01/2022 00:22 AM	0.74	1.26	7.71	0.013	0.064	0.029	0	0	10.26	0	0	0
J2-S	05/01/2022 00:00 AM	0	0	0	0	0	0	0	0	2	0	0	0
J320	05/01/2022 00:23 AM	0.1	0	0.17	0	0.001	-14.577	0	0	1.001	0	0	0
J34	05/01/2022 00:08 AM	7.58	0	37.09	0	0.526	0.255	1.7	5.576	0	1.64	37.09	0.516
J38	05/01/2022 00:00 AM	0	0	0	0	0	0	0	0	1.101	0	0	0

Table 2C: Junctions (continued...)

Name	Time Max. HGL (M/D/Y)	Rep. Max. Depth (ft)	Max. Lat. Inflow (cfs)	Max. Total Inflow (cfs)	Total Lat. Inflow (MG)	Total inflow (MG)	Flow Error (%)	Hours Surcharged (h)	Max. Surcharge (ft)	Min. Freeboard (ft)	Hours Flooded (h)	Max. Flood Rate (cfs)	Total Flood Vol. (MG)
J39	05/01/2022 00:15 AM	0.75	0.66	0.7	0.009	0.009	33.25	1.58	0.997	0	0.01	0.62	0
J46	05/01/2022 00:20 AM	0.03	0	0.05	0	0	-0.659	0	0	1.084	0	0	0
J4-S	05/01/2022 00:00 AM	0	0	0	0	0	0	0	0	2	0	0	0
J5	05/01/2022 00:19 AM	1.17	6.19	33.06	0.087	0.492	-0.002	0	0	4.58	0	0	0
J6	05/01/2022 00:19 AM	1.05	7.55	26.91	0.11	0.405	0	0	0	3.653	0	0	0
J7	05/01/2022 00:19 AM	0.86	8.56	19.36	0.124	0.295	0.012	0	0	2.648	0	0	0
J8	05/01/2022 00:19 AM	0.91	0	33.06	0	0.492	-0.007	0	0	5.342	0	0	0
J9	05/01/2022 00:08 AM	8.93	1.95	10.8	0.03	0.039	13.739	0	0	6.57	0	0	0
OL-10100-B	05/01/2022 00:07 AM	0.01	0	0.01	0	0	-0.692	0	0	3.859	0	0	0
OL-10101-A	05/01/2022 00:10 AM	0.06	0	0.2	0	0.002	-0.243	0	0	19.485	0	0	0
OL-11000-A	05/01/2022 00:17 AM	0.03	0	0.36	0	0.005	0.004	0	0	0.97	0	0	0
OL-11000-B	05/01/2022 00:17 AM	0.08	0.36	0.36	0.005	0.005	-0.004	0	0	0.921	0	0	0
OL-14000-Ab	05/01/2022 00:00 AM	0	0	0	0	0	0	0	0	1.097	0	0	0
OL-14000-Ac	05/01/2022 00:00 AM	0	0	0	0	0	0	0	0	1.1	0	0	0
OL-14000-Ad	05/01/2022 00:00 AM	0	0	0	0	0	0	0	0	1.101	0	0	0
OL-14000-Ae	05/01/2022 00:00 AM	0	0	0	0	0	0	0	0	1.103	0	0	0
OL-14000-C	05/01/2022 00:00 AM	0	0	0	0	0	0	0	0	1.105	0	0	0
OL-14000-D	05/01/2022 00:00 AM	0	0	0	0	0	0	0	0	1.096	0	0	0
OL-14000-E	05/01/2022 00:00 AM	0	0	0	0	0	0	0	0	1.016	0	0	0
OL-14000-F	05/01/2022 00:19 AM	0.08	0	0.01	0	0	-0.168	0	0	2.11	0	0	0
OL-J10	05/01/2022 00:00 AM	0	0	0	0	0	0	0	0	1.104	0	0	0
OL-J10b	05/01/2022 00:00 AM	0	0	0	0	0	0	0	0	1.096	0	0	0
OL-J5	05/01/2022 00:00 AM	0	0	0	0	0	0	0	0	1.104	0	0	0
OL-J7	05/01/2022 00:00 AM	0	0	0	0	0	0	0	0	1.104	0	0	0

Table 2D: Junctions

Name	Max. Ponded Depth (ft)	Contributing Area (ac)	Contributing Imp. Area (ac)	Max. Unit Flow (cfs/ac)	GIS_LENGTH (m)	GIS_AREA (m²)	GIS_PARTS
06-UV	0	0	0	0	0	0	1
1	0	0	0	0	0	0	1
10000-A	0	0	0	0	0	0	1
10000-B	0	0	0	0	0	0	1
10000-C	0	0	0	0	0	0	1
10000-C-S	0	0	0	0	0	0	1
10000-D	0	0	0	0	0	0	1
10001-A-S	0	0	0	0	0	0	1
10100-A	0	0	0	0	0	0	1
10100-A-S	0	0	0	0	0	0	1
10100-B	0	0	0	0	0	0	1
10100-B-IC	0	0	0	0	0	0	1
10100-D	0	0	0	0	0	0	1
10100-D-IC	0	0	0	0	0	0	1
10100-D-IC2	0	0	0	0	0	0	1
10120-G	0	0	0	0	0	0	1
10120-G-S	0	0	0	0	0	0	1
10120-H	0	0	0	0	0	0	1
10123-A	0	0	0	0	0	0	1
10125-A	0	0	0	0	0	0	1
10125-A-S	0	0	0	0	0	0	1
10200-A	0	0	0	0	0	0	1
10200-A-S1	0	0	0	0	0	0	1
10200-A-S2	0	0	0	0	0	0	1
10200-B	0	0	0	0	0	0	1
10200-B-S1	0	0	0	0	0	0	1

Table 2D: Junctions (continued...)

Name	Max. Ponded Depth (ft)	Contributing Area (ac)	Contributing Imp. Area (ac)	Max. Unit Flow (cfs/ac)	GIS_LENGTH (m)	GIS_AREA (m²)	GIS_PARTS
10200-B-S2	0	0	0	0	0	0	1
10200-C	0	0	0	0	0	0	1
10200-C-S1	0	0	0	0	0	0	1
10200-C-S2	0	0	0	0	0	0	1
10200-D	0	0	0	0	0	0	1
10200-D-S	0	0	0	0	0	0	1
10200-E	0	0	0	0	0	0	1
10200-E-S	0	0	0	0	0	0	1
10200-F	0	0	0	0	0	0	1
10200-G	0	0	0	0	0	0	1
10200-G-S	0	0	0	0	0	0	1
10200-H	0	0	0	0	0	0	1
10200-H-S	0	0	0	0	0	0	1
10200-J	0	0	0	0	0	0	1
10200-J-S	0	0	0	0	0	0	1
10200-K	0	0	0	0	0	0	1
10200-K-S	0	0	0	0	0	0	1
10200-L	0	0	0	0	0	0	1
10200-L-S	0	0	0	0	0	0	1
10200-M	0	0	0	0	0	0	1
10200-M-S	0	0	0	0	0	0	1
10200-N	0	0	0	0	0	0	1
10200-N-S	0	0	0	0	0	0	1
10201-A	0	0	0	0	0	0	1
10201-A-S1	0	0	0	0	0	0	1
10201-A-S2	0	0	0	0	0	0	1

Table 2D: Junctions (continued...)

Name	Max. Ponded Depth (ft)	Contributing Area (ac)	Contributing Imp. Area (ac)	Max. Unit Flow (cfs/ac)	GIS_LENGTH (m)	GIS_AREA (m²)	GIS_PARTS
10202-A	0	0	0	0	0	0	1
10202-A-S1	0	0	0	0	0	0	1
10202-A-S2	0	0	0	0	0	0	1
10203-A	0	0	0	0	0	0	1
10203-A-S	0	0	0	0	0	0	1
10210-A	0	0	0	0	0	0	1
10210-A-S	0	0	0	0	0	0	1
10210-B	0	0	0	0	0	0	1
10210-B-S	0	0	0	0	0	0	1
10210-C	0	0	0	0	0	0	1
10210-D	0	0	0	0	0	0	1
10210-E	0	0	0	0	0	0	1
10211-A	0	0	0	0	0	0	1
10211-A-S	0	0	0	0	0	0	1
10211-B	0	0	0	0	0	0	1
10211-C	0	0	0	0	0	0	1
10212-A	0	0	0	0	0	0	1
10250-A	0	0	0	0	0	0	1
10250-A-S	0	0	0	0	0	0	1
10250-B	0	0	0	0	0	0	1
10250-B-S	0	0	0	0	0	0	1
10250-C	0	0	0	0	0	0	1
10250-C-S	0	0	0	0	0	0	1
10250-D	0	0	0	0	0	0	1
10250-D-S	0	0	0	0	0	0	1
10260-A	0	0	0	0	0	0	1

Table 2D: Junctions (continued...)

Name	Max. Ponded Depth (ft)	Contributing Area (ac)	Contributing Imp. Area (ac)	Max. Unit Flow (cfs/ac)	GIS_LENGTH (m)	GIS_AREA (m²)	GIS_PARTS
10260-A-S	0	0	0	0	0	0	1
10270-A	0	0	0	0	0	0	1
10270-A-S	0	0	0	0	0	0	1
10280-A	0	0	0	0	0	0	1
10300-A	0	0	0	0	0	0	1
10300-B	0	0	0	0	0	0	1
10300-B-IC	0	0	0	0	0	0	1
10300-C	0	0	0	0	0	0	1
10300-C-S	0	0	0	0	0	0	1
10300-D	0	0	0	0	0	0	1
10300-D-S	0	0	0	0	0	0	1
10300-E	0	0	0	0	0	0	1
10300-F	0	0	0	0	0	0	1
10300-F-S	0	0	0	0	0	0	1
10300-G	0	0	0	0	0	0	1
10300-G-S	0	0	0	0	0	0	1
10310-A	0	0	0	0	0	0	1
10310-A-S	0	0	0	0	0	0	1
10310-B	0	0	0	0	0	0	1
10310-B-S	0	0	0	0	0	0	1
10310-B-S2	0	0	0	0	0	0	1
10320-A	0	0	0	0	0	0	1
10320-B	0	0	0	0	0	0	1
10320-B-S	0	0	0	0	0	0	1
10320-C	0	0	0	0	0	0	1
10320-C-S	0	0	0	0	0	0	1

Table 2D: Junctions (continued...)

Name	Max. Ponded Depth (ft)	Contributing Area (ac)	Contributing Imp. Area (ac)	Max. Unit Flow (cfs/ac)	GIS_LENGTH (m)	GIS_AREA (m²)	GIS_PARTS
10321-A	0	0	0	0	0	0	1
10330-A	0	0	0	0	0	0	1
10330-A-S	0	0	0	0	0	0	1
10330-B	0	0	0	0	0	0	1
10330-B-S	0	0	0	0	0	0	1
10400-A	0	0	0	0	0	0	1
10400-A-S	0	0	0	0	0	0	1
10400-B1	0	0	0	0	0	0	1
10400-C2	0	0	0	0	0	0	1
10400-D	0	0	0	0	0	0	1
10400-D-S	0	0	0	0	0	0	1
10400-E	0	0	0	0	0	0	1
10400-E-S	0	0	0	0	0	0	1
10400-F	0	0	0	0	0	0	1
10400-F-S	0	0	0	0	0	0	1
10400-G	0	0	0	0	0	0	1
10400-G-S	0	0	0	0	0	0	1
10400-H	0	0	0	0	0	0	1
10400-H-S	0	0	0	0	0	0	1
10400-J	0	0	0	0	0	0	1
10400-K	0	0	0	0	0	0	1
10400-K-S	0	0	0	0	0	0	1
10400-L	0	0	0	0	0	0	1
10400-L-S	0	0	0	0	0	0	1
10400-M	0	0	0	0	0	0	1
10400-M-S	0	0	0	0	0	0	1

Table 2D: Junctions (continued...)

Name	Max. Ponded Depth (ft)	Contributing Area (ac)	Contributing Imp. Area (ac)	Max. Unit Flow (cfs/ac)	GIS_LENGTH (m)	GIS_AREA (m²)	GIS_PARTS
10400-N	0	0	0	0	0	0	1
10400-N-S	0	0	0	0	0	0	1
10400-P	0	0	0	0	0	0	1
10400-P-S	0	0	0	0	0	0	1
10400-Q	0	0	0	0	0	0	1
10400-Q-S	0	0	0	0	0	0	1
10400-R	0	0	0	0	0	0	1
10400-R-S	0	0	0	0	0	0	1
10400-S	0	0	0	0	0	0	1
10400-S-S	0	0	0	0	0	0	1
10410-A	0	0	0	0	0	0	1
10410-B	0	0	0	0	0	0	1
10410-B-S	0	0	0	0	0	0	1
10410-C	0	0	0	0	0	0	1
10410-D	0	0	0	0	0	0	1
10410-D-S	0	0	0	0	0	0	1
10410-E	0	0	0	0	0	0	1
10410-F	0	0	0	0	0	0	1
10410-G	0	0	0	0	0	0	1
10411-A	0	0	0	0	0	0	1
10411-A-S	0	0	0	0	0	0	1
10420-A	0	0	0	0	0	0	1
10420-A-S	0	0	0	0	0	0	1
10420-B	0	0	0	0	0	0	1
10420-B-S	0	0	0	0	0	0	1
10420-C	0	0	0	0	0	0	1

Table 2D: Junctions (continued...)

Name	Max. Ponded Depth (ft)	Contributing Area (ac)	Contributing Imp. Area (ac)	Max. Unit Flow (cfs/ac)	GIS_LENGTH (m)	GIS_AREA (m²)	GIS_PARTS
10420-C-S	0	0	0	0	0	0	1
10420-D	0	0	0	0	0	0	1
10420-D-S	0	0	0	0	0	0	1
10420-E	0	0	0	0	0	0	1
10420-E-S	0	0	0	0	0	0	1
10421-A	0	0	0	0	0	0	1
10421-A-S	0	0	0	0	0	0	1
10422-A	0	0	0	0	0	0	1
10422-A-S	0	0	0	0	0	0	1
10430-A	0	0	0	0	0	0	1
10430-A-S	0	0	0	0	0	0	1
10440-A	0	0	0	0	0	0	1
10440-A-S	0	0	0	0	0	0	1
10440-B	0	0	0	0	0	0	1
10440-B-S	0	0	0	0	0	0	1
10440-C	0	0	0	0	0	0	1
10440-C-S	0	0	0	0	0	0	1
10440-D	0	0	0	0	0	0	1
10440-D-S	0	0	0	0	0	0	1
10440-e	0	0	0	0	0	0	1
10441-A	0	0	0	0	0	0	1
10442-A	0	0	0	0	0	0	1
10442-A-EX	0	0	0	0	0	0	1
10442-A-S	0	0	0	0	0	0	1
10442-B	0	0	0	0	0	0	1
10442-B-EX	0	0	0	0	0	0	1

Table 2D: Junctions (continued...)

Name	Max. Ponded Depth (ft)	Contributing Area (ac)	Contributing Imp. Area (ac)	Max. Unit Flow (cfs/ac)	GIS_LENGTH (m)	GIS_AREA (m²)	GIS_PARTS
10442-B-S	0	0	0	0	0	0	1
10443-A	0	0	0	0	0	0	1
10443-C	0	0	0	0	0	0	1
10443-C-S	0	0	0	0	0	0	1
10443-D	0	0	0	0	0	0	1
10443-D-S	0	0	0	0	0	0	1
10450-A	0	0	0	0	0	0	1
10450-A-S	0	0	0	0	0	0	1
10460-A	0	0	0	0	0	0	1
10460-A-S	0	0	0	0	0	0	1
10460-B	0	0	0	0	0	0	1
10460-B-S	0	0	0	0	0	0	1
10460-C	0	0	0	0	0	0	1
10460-C-S	0	0	0	0	0	0	1
10460-D	0	0	0	0	0	0	1
10460-D-S	0	0	0	0	0	0	1
10460-E	0	0	0	0	0	0	1
10460-E-S	0	0	0	0	0	0	1
10460-F	0	0	0	0	0	0	1
10460-F-S	0	0	0	0	0	0	1
10461-A	0	0	0	0	0	0	1
10461-A-S	0	0	0	0	0	0	1
10461-B	0	0	0	0	0	0	1
10461-B-S	0	0	0	0	0	0	1
10462-A	0	0	0	0	0	0	1
10462-A-S	0	0	0	0	0	0	1

Table 2D: Junctions (continued...)

Name	Max. Ponded Depth (ft)	Contributing Area (ac)	Contributing Imp. Area (ac)	Max. Unit Flow (cfs/ac)	GIS_LENGTH (m)	GIS_AREA (m²)	GIS_PARTS
10470-A	0	0	0	0	0	0	1
10470-A-S	0	0	0	0	0	0	1
10480-A	0	0	0	0	0	0	1
10480-B	0	0	0	0	0	0	1
10500-A	0	0	0	0	0	0	1
10500-B	0	0	0	0	0	0	1
10500-B-S	0	0	0	0	0	0	1
10500-C	0	0	0	0	0	0	1
10500-C-S	0	0	0	0	0	0	1
10500-D	0	0	0	0	0	0	1
10510-A	0	0	0	0	0	0	1
10510-A-S	0	0	0	0	0	0	1
10700-A	0	0	0	0	0	0	1
10700-A-S	0	0	0	0	0	0	1
10700-B	0	0	0	0	0	0	1
11000-A	0	0	0	0	0	0	1
12000	0	0	0	0	0	0	1
12000-1	0	0	0	0	0	0	1
12000-2	0	0	0	0	0	0	1
12000-A	0	0	0	0	0	0	1
12000-B	0	0	0	0	0	0	1
12000-B'	0	0	0	0	0	0	1
12000-C	0	0	0	0	0	0	1
12000-C-S	0	0	0	0	0	0	1
12000-D	0	0	0	0	0	0	1
12000-D-S	0	0	0	0	0	0	1

Table 2D: Junctions (continued...)

Name	Max. Ponded Depth (ft)	Contributing Area (ac)	Contributing Imp. Area (ac)	Max. Unit Flow (cfs/ac)	GIS_LENGTH (m)	GIS_AREA (m²)	GIS_PARTS
12000-E	0	0	0	0	0	0	1
12000-E-S	0	0	0	0	0	0	1
12000-F	0	0	0	0	0	0	1
12000-F-S.	0	0	0	0	0	0	1
12000-G	0	0	0	0	0	0	1
12000-G-S	0	0	0	0	0	0	1
12000-G-S2	0	0	0	0	0	0	1
12000-H	0	0	0	0	0	0	1
12000-H-S	0	0	0	0	0	0	1
13000-A	0	0	0	0	0	0	1
14000-A	0	0	0	0	0	0	1
14000-C	0	0	0	0	0	0	1
14000-D	0	0	0	0	0	0	1
14000-E	0	0	0	0	0	0	1
8667-J4	0	0	0	0	0	0	1
8697	0	0	0	0	0	0	1
8807	0	0	0	0	0	0	1
8903	0	0	0	0	0	0	1
CHANNEL_12+11.04	0	0	0	0	0	0	1
Curb_Cut	0	0	0	0	0	0	1
Curb_Cut-S	0	0	0	0	0	0	1
ELB-10300-B1	0	0	0	0	0	0	1
ELB-10300-B2	0	0	0	0	0	0	1
EX10440-C	0	0	0	0	0	0	1
EX10440-C-S	0	0	0	0	0	0	1
EX-CI21199	0	0	0	0	0	0	1

Table 2D: Junctions (continued...)

Name	Max. Ponded Depth (ft)	Contributing Area (ac)	Contributing Imp. Area (ac)	Max. Unit Flow (cfs/ac)	GIS_LENGTH (m)	GIS_AREA (m²)	GIS_PARTS
EX-CI21199-S	0	0	0	0	0	0	1
EX-DI5526	0	0	0	0	0	0	1
EX-DI5526-S	0	0	0	0	0	0	1
EX-DI5571	0	0	0	0	0	0	1
EX-DI5571-S	0	0	0	0	0	0	1
J1	0	0	0	0	0	0	1
J10	0	0	0	0	0	0	1
J11	0	0	0	0	0	0	1
J12	0	0	0	0	0	0	1
J13	0	0	0	0	0	0	1
J15	0	0	0	0	0	0	1
J15-S	0	0	0	0	0	0	1
J17	0	0	0	0	0	0	1
J179	0	0	0	0	0	0	1
J17-S	0	0	0	0	0	0	1
J18	0	0	0	0	0	0	1
J182	0	0	0	0	0	0	1
J18-S	0	0	0	0	0	0	1
J1-IC	0	0	0	0	0	0	1
J2	0	0	0	0	0	0	1
J20	0	0	0	0	0	0	1
J20-S	0	0	0	0	0	0	1
J2-S	0	0	0	0	0	0	1
J320	0	0	0	0	0	0	1
J34	0	0	0	0	0	0	1
J38	0	0	0	0	0	0	1

Table 2D: Junctions (continued...)

Name	Max. Ponded Depth (ft)	Contributing Area (ac)	Contributing Imp. Area (ac)	Max. Unit Flow (cfs/ac)	GIS_LENGTH (m)	GIS_AREA (m²)	GIS_PARTS
J39	0	0	0	0	0	0	1
J46	0	0	0	0	0	0	1
J4-S	0	0	0	0	0	0	1
J5	0	0	0	0	0	0	1
J6	0	0	0	0	0	0	1
J7	0	0	0	0	0	0	1
J8	0	0	0	0	0	0	1
J9	0	0	0	0	0	0	1
OL-10100-B	0	0	0	0	0	0	1
OL-10101-A	0	0	0	0	0	0	1
OL-11000-A	0	0	0	0	0	0	1
OL-11000-B	0	0	0	0	0	0	1
OL-14000-Ab	0	0	0	0	0	0	1
OL-14000-Ac	0	0	0	0	0	0	1
OL-14000-Ad	0	0	0	0	0	0	1
OL-14000-Ae	0	0	0	0	0	0	1
OL-14000-C	0	0	0	0	0	0	1
OL-14000-D	0	0	0	0	0	0	1
OL-14000-E	0	0	0	0	0	0	1
OL-14000-F	0	0	0	0	0	0	1
OL-J10	0	0	0	0	0	0	1
OL-J10b	0	0	0	0	0	0	1
OL-J5	0	0	0	0	0	0	1
OL-J7	0	0	0	0	0	0	1

Table 3A: Outfalls

Name	X-Coordinate	Y-Coordinate	Tag	Inflows	Treatment	Invert Elev. (ft)	Rim Elev. (ft)	Tide Gate	Route To	Type	Fixed Stage (ft)	Curve Name	Series Name	Outlet
10000	2262392.186	276400.364	Outfall	NO	NO	831.42	837.22	NO		TIMESERIES	0	*	TC_Flood_10Y	
11000-0	2262486.781	276384.562	Outlet	NO	NO	861.08	864	NO		TIMESERIES	0	*	TC_Flood_10Y	
11000-0'	2262484.196	276383.409	Overland	NO	NO	864	866	NO		TIMESERIES	0	*	TC_Flood_10Y	
12000.	2261939.436	276365.72	Outfall	NO	NO	836	841	NO		TIMESERIES	0	*	TC_Flood_10Y	
13000-0	2263958	276313	Outlet	NO	NO	936.2	938.2	NO		FREE	0	*	*	
14000-0	2263091.354	277070.708	Outlet	NO	NO	845.99	848.99	NO		TIMESERIES	0	*	TC_Flood_10Y	
14000-0'	2263095.852	277072.318	Overland	NO	NO	847.5	849.5	NO		TIMESERIES	0	*	TC_Flood_10Y	

Table 3B: Outfalls

Name	Baseline (cfs)	Baseline Pattern	Time Series	Scale Factor	Average Value (cfs)	Time Pattern 1	Time Pattern 2	Time Pattern 3	Time Pattern 4	Hydrograph	Sewershed Area (ac)	Avg. Depth (ft)	Max. Depth (ft)	Max. HGL (ft)
10000	0			1	0						0	5.03	5.03	836.45
11000-0	0			1	0						0	0.07	0.16	861.24
11000-0'	0			1	0						0	0.01	0.03	864.03
12000.	0			1	0						0	0.45	0.45	836.45
13000-0	0			1	0						0	0.15	0.36	936.56
14000-0	0			1	0						0	0.72	1.81	847.8
14000-0'	0			1	0						0	0	0	847.5

Table 3C: Outfalls

Name	Time Max. HGL (M/D/Y)	Rep. Max. Depth (ft)	Max. Lat. Inflow (cfs)	Max. Total Inflow (cfs)	Total Lat. Inflow (MG)	Total inflow (MG)	Flow Error (%)	Hours Surcharged (h)	Max. Surcharge (ft)	Min. Freeboard (ft)	Hours Flooded (h)	Max. Flood Rate (cfs)	Total Flood Vol. (MG)	Max. Ponded Depth (ft)
10000	05/01/2022 00:00 AM	5.03	0	80.66	0	2.07	0	0	0	0	0	0	0	0
11000-0	05/01/2022 00:16 AM	0.16	0	0.4	0	0.005	0	0	0	0	0	0	0	0
11000-0'	05/01/2022 00:17 AM	0.03	0	0.29	0	0.004	0	0	0	0	0	0	0	0
12000.	05/01/2022 00:00 AM	0.45	0	14.98	0	0.237	0	0	0	0	0	0	0	0
13000-0	05/01/2022 00:18 AM	0.36	0	4.15	0	0.058	0	0	0	0	0	0	0	0
14000-0	05/01/2022 00:19 AM	1.81	0	27.25	0	0.411	0	0	0	0	0	0	0	0
14000-0'	05/01/2022 00:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0

Table 3D: Outfalls

Name	Flow Frequency	Avg. Flow (cfs)	Max. Flow (cfs)	Total Flow (MG)	Contributing Area (ac)	Contributing Imp. Area (ac)	Max. Unit Flow (cfs/ac)	GIS_LENGTH (m)	GIS_AREA (m^2)	GIS_PARTS
10000	100	43.08	80.66	2.066	0	0	0	0	0	1
11000-0	66.38	0.17	0.4	0.005	0	0	0	0	0	1
11000-0'	64.25	0.13	0.29	0.004	0	0	0	0	0	1
12000.	97	5.19	14.98	0.237	0	0	0	0	0	1
13000-0	77.96	1.58	4.15	0.058	0	0	0	0	0	1
14000-0	90.55	9.67	27.25	0.411	0	0	0	0	0	1
14000-0'	0	0	0	0	0	0	0	0	0	1

Table 4A: ARM Subcatchments

Name	X-Coordinate	Y-Coordinate	Description	Tag	Runoff Method	Rain Gage	Outlet	Area (ac)	Flow Length (ft)	Slope (%)	Imperv. (%)
1	2262787.206	276258.571			SCS Dimensionless UH	Huff_010YR_1Q_1HR_2.32in	10201-A	0.299	164.405	4.292	25
4	2262974.336	275011.757			SCS Dimensionless UH	Huff_010YR_1Q_1HR_2.32in	J9	1.376	402.975	2.024	0
5	2263672.562	276560.152			SCS Dimensionless UH	Huff_010YR_1Q_1HR_2.32in	14000-E	3.242	744.624	22.202	0
6	2263208.255	274137.586			SCS Dimensionless UH	Huff_010YR_1Q_1HR_2.32in	J13	0.396	206.792	20.594	0
7	2262876.164	276115.451			SCS Dimensionless UH	Huff_010YR_1Q_1HR_2.32in	10700-A-S	0.423	286.333	1.301	0
9	2262637.513	276122.087			SCS Dimensionless UH	Huff_010YR_1Q_1HR_2.32in	10210-B-S	0.284	167.781	2.48	0
10	2261890.691	275633.56			SCS Dimensionless UH	Huff_010YR_1Q_1HR_2.32in	8903	5.115	718.372	3.355	0
11	2263564.555	274994.286			SCS Dimensionless UH	Huff_010YR_1Q_1HR_2.32in	J20-S	0.235	459.225	10.285	0
12	2263999.448	275089.187			SCS Dimensionless UH	Huff_010YR_1Q_1HR_2.32in	10443-D-S	5.04	587.061	11.548	0
13	2262510.448	276345.954			SCS Dimensionless UH	Huff_010YR_1Q_1HR_2.32in	11000-A	0.132	73.051	0.858	0
14	2262301.699	276204.913			SCS Dimensionless UH	Huff_010YR_1Q_1HR_2.32in	12000-C-S	0.362	166.842	1.696	0
15	2262609.808	276311.216			SCS Dimensionless UH	Huff_010YR_1Q_1HR_2.32in	OL-11000-B	0.281	247.088	3.687	0
16	2263593.524	275652.692			SCS Dimensionless UH	Huff_010YR_1Q_1HR_2.32in	10400-M-S	0.19	149.99	2.001	0
18	2263217.709	276330.378			SCS Dimensionless UH	Huff_010YR_1Q_1HR_2.32in	10200-D-S	0.08	273.974	3.143	0
19	2263471.815	276336.78			SCS Dimensionless UH	Huff_010YR_1Q_1HR_2.32in	10200-E-S	0.067	300	0.839	0
20	2262296.263	275427.671			SCS Dimensionless UH	Huff_010YR_1Q_1HR_2.32in	10411-A-S	0.372	218.179	19.197	0
21	2262270.811	275282.974			SCS Dimensionless UH	Huff_010YR_1Q_1HR_2.32in	10125-A	1.078	265.791	15.19	0
22	2262513.032	275415.278			SCS Dimensionless UH	Huff_010YR_1Q_1HR_2.32in	10410-F	0.336	199.658	3.366	0
24	2263477.881	276135.856			SCS Dimensionless UH	Huff_010YR_1Q_1HR_2.32in	10250-D-S	0.128	198.085	1.802	0
26	2263354.26	275481.529			SCS Dimensionless UH	Huff_010YR_1Q_1HR_2.32in	10400-K-S	0.244	251.875	1.31	0
28	2263720.234	276016.989			SCS Dimensionless UH	Huff_010YR_1Q_1HR_2.32in	10200-L-S	0.222	179.073	0.515	0
30	2263836.597	276011.285			SCS Dimensionless UH	Huff_010YR_1Q_1HR_2.32in	13000-A	1.725	717.066	13.822	0
31	2261926.333	276092.194			SCS Dimensionless UH	Huff_010YR_1Q_1HR_2.32in	8697	0.317	172.579	1.258	0
32	2262061.525	275982.336			SCS Dimensionless UH	Huff_010YR_1Q_1HR_2.32in	8807	1.913	441.969	5.046	0
33	2262164.104	276291.949			SCS Dimensionless UH	Huff_010YR_1Q_1HR_2.32in	12000-2	0.636	681.594	0.458	0
34	2263355.059	276036.202			SCS Dimensionless UH	Huff_010YR_1Q_1HR_2.32in	10330-B-S	0.442	375.684	1.211	0

Table 4A: ARM Subcatchments (continued...)

Name	X-Coordinate	Y-Coordinate	Description	Tag	Runoff Method	Rain Gage	Outlet	Area (ac)	Flow Length (ft)	Slope (%)	Imperv. (%)
36	2263652.602	276122.842			SCS Dimensionless UH	Huff_010YR_1Q_1HR_2.32in	10270-A-S	0.568	396.012	0.665	0
38	2262321.353	275563.471			SCS Dimensionless UH	Huff_010YR_1Q_1HR_2.32in	10410-D-S	0.6	319.835	4.254	0
39	2262313.406	275826.489			SCS Dimensionless UH	Huff_010YR_1Q_1HR_2.32in	12000-H	2.993	482.918	22	0
40	2263134.142	275669.13			SCS Dimensionless UH	Huff_010YR_1Q_1HR_2.32in	10300-B-IC	0.304	132.317	6.127	0
41	2263845.363	275420.553			SCS Dimensionless UH	Huff_010YR_1Q_1HR_2.32in	10443-C-S	0.507	395.938	0.425	0
42	2262694.324	275446.325			SCS Dimensionless UH	Huff_010YR_1Q_1HR_2.32in	10420-B-S	0.037	103.926	3.963	0
43	2263182.049	275594.325			SCS Dimensionless UH	Huff_010YR_1Q_1HR_2.32in	10510-A-S	0.506	132.688	5.8	0
44	2263256.429	275512.642			SCS Dimensionless UH	Huff_010YR_1Q_1HR_2.32in	10500-C-S	0.562	306.017	2.012	0
45	2263590.344	275123.459			SCS Dimensionless UH	Huff_010YR_1Q_1HR_2.32in	10440-D	2.013	693.796	2.288	0
46	2263885.262	274889.374			SCS Dimensionless UH	Huff_010YR_1Q_1HR_2.32in	10442-B-S	0.287	779.332	7.306	0
47	2262522.769	276192.242			SCS Dimensionless UH	Huff_010YR_1Q_1HR_2.32in	12000-F-S.	0.293	247.025	1.043	0
48	2263080.459	275486.695			SCS Dimensionless UH	Huff_010YR_1Q_1HR_2.32in	10430-A-S	0.392	400.191	0.758	0
49	2262479.789	276225.595			SCS Dimensionless UH	Huff_010YR_1Q_1HR_2.32in	12000-E-S	0.053	148.222	0.472	0
50	2263509.48	275395.119			SCS Dimensionless UH	Huff_010YR_1Q_1HR_2.32in	10460-B-S	0.542	123.802	0.009	0
51	2263619.098	275269.327			SCS Dimensionless UH	Huff_010YR_1Q_1HR_2.32in	10460-E-S	0.301	130.264	4.307	0
52	2263715.573	275299.292			SCS Dimensionless UH	Huff_010YR_1Q_1HR_2.32in	10460-D-S	0.503	189.321	2.41	0
53	2263757.09	275455.29			SCS Dimensionless UH	Huff_010YR_1Q_1HR_2.32in	10462-A-S	0.865	261.415	3.154	0
54	2263626.032	275481.34			SCS Dimensionless UH	Huff_010YR_1Q_1HR_2.32in	10460-C-S	0.437	194.439	1.384	0
55	2263710.816	275621.207			SCS Dimensionless UH	Huff_010YR_1Q_1HR_2.32in	10470-A-S	0.316	265.68	3.06	0
56	2263544.766	275518.272			SCS Dimensionless UH	Huff_010YR_1Q_1HR_2.32in	10460-A-S	0.039	129.542	2.986	0
57	2263387.654	275432.591			SCS Dimensionless UH	Huff_010YR_1Q_1HR_2.32in	10450-A-S	0.161	221.648	2.606	0
59	2262971.078	275302.975			SCS Dimensionless UH	Huff_010YR_1Q_1HR_2.32in	EX-DI5526	0.434	177.747	0.59	0
60	2263081.41	275334.62			SCS Dimensionless UH	Huff_010YR_1Q_1HR_2.32in	EX-DI5571	0.148	93.37	0.443	0
62	2262735.26	276131.054			SCS Dimensionless UH	Huff_010YR_1Q_1HR_2.32in	10211-A-S	0.134	147.683	6.504	0
63	2262795.11	276055.645			SCS Dimensionless UH	Huff_010YR_1Q_1HR_2.32in	10211-C	0.153	83.356	10.152	0
64	2262969.303	276320.889			SCS Dimensionless UH	Huff_010YR_1Q_1HR_2.32in	10200-C-S1	0.06	214.307	1.633	0

Table 4A: ARM Subcatchments (continued...)

Name	X-Coordinate	Y-Coordinate	Description	Tag	Runoff Method	Rain Gage	Outlet	Area (ac)	Flow Length (ft)	Slope (%)	Imperv. (%)
65	2262781.053	276314.071			SCS Dimensionless UH	Huff_010YR_1Q_1HR_2.32in	10200-B-S1	0.044	151.302	2.502	0
66	2262790.196	275580.373			SCS Dimensionless UH	Huff_010YR_1Q_1HR_2.32in	10400-D	0.083	213.049	2.495	0
67	2262629.458	275624.727			SCS Dimensionless UH	Huff_010YR_1Q_1HR_2.32in	10400-A-S	0.057	141.794	2.606	0
68	2262625.884	275609.425			SCS Dimensionless UH	Huff_010YR_1Q_1HR_2.32in	10410-B-S	0.042	144.058	2.703	0
69	2262741.238	275533.329			SCS Dimensionless UH	Huff_010YR_1Q_1HR_2.32in	10400-E	0.297	181.796	3.502	0
70	2263729.514	275858.634			SCS Dimensionless UH	Huff_010YR_1Q_1HR_2.32in	10200-N-S	0.055	189.97	0.601	0
71	2263780.185	275763.281			SCS Dimensionless UH	Huff_010YR_1Q_1HR_2.32in	10280-A	0.316	272.427	1.99	0
72	2263754.424	275898.436			SCS Dimensionless UH	Huff_010YR_1Q_1HR_2.32in	10200-M-S	0.222	208.125	1.105	0
74	2263216.408	276281.006			SCS Dimensionless UH	Huff_010YR_1Q_1HR_2.32in	10203-A	0.554	330.241	2.735	0
76	2262999.55	276196.168			SCS Dimensionless UH	Huff_010YR_1Q_1HR_2.32in	10202-A-S1	1.342	374.909	3.35	0
77	2262657.392	276256.575			SCS Dimensionless UH	Huff_010YR_1Q_1HR_2.32in	10200-A-S1	0.269	174.685	7.552	0
78	2262626.555	276197.728			SCS Dimensionless UH	Huff_010YR_1Q_1HR_2.32in	10210-A-S	0.052	85.647	7.572	0
79	2262683.299	275999.361			SCS Dimensionless UH	Huff_010YR_1Q_1HR_2.32in	10210-E	0.189	105.366	0.516	0
80	2262527.505	275945.331			SCS Dimensionless UH	Huff_010YR_1Q_1HR_2.32in	12000-G-S	2.283	510.771	1.144	0
81	2262026.602	276177.997			SCS Dimensionless UH	Huff_010YR_1Q_1HR_2.32in	8667-J4	0.689	256.256	1.706	0
82	2262203.323	276278.43			SCS Dimensionless UH	Huff_010YR_1Q_1HR_2.32in	RainGarden	0.959	264.714	1.868	0
83	2262397.445	276222.223			SCS Dimensionless UH	Huff_010YR_1Q_1HR_2.32in	12000-D-S	0.203	132.258	0.16	0
87	2263279.653	275318.946			SCS Dimensionless UH	Huff_010YR_1Q_1HR_2.32in	10461-B-S	0.262	88.823	3.092	0
88	2263198.906	275361.38			SCS Dimensionless UH	Huff_010YR_1Q_1HR_2.32in	10400-H-S	0.225	200.242	2.465	0
89	2263380.873	275328.799			SCS Dimensionless UH	Huff_010YR_1Q_1HR_2.32in	10461-A-S	0.441	107.714	0.492	0
90	2262784.148	275483.655			SCS Dimensionless UH	Huff_010YR_1Q_1HR_2.32in	10420-A-S	0.028	78.93	0.017	0
91	2262836.892	275537.354			SCS Dimensionless UH	Huff_010YR_1Q_1HR_2.32in	10400-F	0.055	300	2.035	0
93	2262733.374	275393.48			SCS Dimensionless UH	Huff_010YR_1Q_1HR_2.32in	10420-C-S	0.227	192.024	0.09	0
94	2262833.603	275437.031			SCS Dimensionless UH	Huff_010YR_1Q_1HR_2.32in	10421-A-S	0.386	165.806	0.244	0
95	2263173.051	275310.699			SCS Dimensionless UH	Huff_010YR_1Q_1HR_2.32in	10440-A-S	0.054	91.166	1.981	0
96	2263120.827	275359.794			SCS Dimensionless UH	Huff_010YR_1Q_1HR_2.32in	10441-A	0.054	66.847	2.556	0

Table 4A: ARM Subcatchments (continued...)

Name	X-Coordinate	Y-Coordinate	Description	Tag	Runoff Method	Rain Gage	Outlet	Area (ac)	Flow Length (ft)	Slope (%)	Imperv. (%)
97	2262845.672	275305.454			SCS Dimensionless UH	Huff_010YR_1Q_1HR_2.32in	10422-A	0.451	125.156	2.184	0
98	2262720.732	275277.444			SCS Dimensionless UH	Huff_010YR_1Q_1HR_2.32in	10420-D-S	0.602	385.674	1.234	0
99	2262788.679	275203.909			SCS Dimensionless UH	Huff_010YR_1Q_1HR_2.32in	10420-E-S	0.306	477.352	1.456	0
100	2262282.934	275492.475			SCS Dimensionless UH	Huff_010YR_1Q_1HR_2.32in	10410-E	0.346	232.053	13.644	0
101	2262701.195	276030.737			SCS Dimensionless UH	Huff_010YR_1Q_1HR_2.32in	10210-C	0.215	151.341	0.811	0
102	2263207.742	276181.896			SCS Dimensionless UH	Huff_010YR_1Q_1HR_2.32in	10320-C-S	0.16	469.47	0.184	0
103	2263577.981	275722.141			SCS Dimensionless UH	Huff_010YR_1Q_1HR_2.32in	10400-P	0.144	93.758	5.129	0
104	2263686.754	275806.69			SCS Dimensionless UH	Huff_010YR_1Q_1HR_2.32in	10400-S	0.192	120.997	0.328	0
107	2263394.577	275963.562			SCS Dimensionless UH	Huff_010YR_1Q_1HR_2.32in	10300-F-S	0.576	394.991	1.452	0
108	2262952.313	275898.738			SCS Dimensionless UH	Huff_010YR_1Q_1HR_2.32in	10100-D-IC2	1.593	446.72	3.396	0
109	2263432.159	275608.056			SCS Dimensionless UH	Huff_010YR_1Q_1HR_2.32in	10310-B-S	0.944	406.497	2.099	0
110	2263665.05	275690.296			SCS Dimensionless UH	Huff_010YR_1Q_1HR_2.32in	10480-B	0.279	255.379	1.253	0
111	2263398.626	275042.112			SCS Dimensionless UH	Huff_010YR_1Q_1HR_2.32in	J1-IC	0.951	273.593	3.11	0
112	2263461.479	275244.034			SCS Dimensionless UH	Huff_010YR_1Q_1HR_2.32in	10460-F-S	0.429	204.784	0.289	0
113	2263539.307	275530.926			SCS Dimensionless UH	Huff_010YR_1Q_1HR_2.32in	10400-L-S	0.047	130.411	3.221	0
114	2262647.566	275564.309			SCS Dimensionless UH	Huff_010YR_1Q_1HR_2.32in	10410-B	0.109	247.118	3.822	0
115	2262561.739	275513.909			SCS Dimensionless UH	Huff_010YR_1Q_1HR_2.32in	10410-C	0.865	217.074	2.385	0
118	2262737.061	276193.902			SCS Dimensionless UH	Huff_010YR_1Q_1HR_2.32in	10211-B	0.129	94.764	7.646	0
119	2262890.82	276469.617			SCS Dimensionless UH	Huff_010YR_1Q_1HR_2.32in	14000-D	2.064	683.195	19.363	0
120	2263184.441	276849.474			SCS Dimensionless UH	Huff_010YR_1Q_1HR_2.32in	14000-B	2.226	342	3.83	0
121	2263306.295	276485.911			SCS Dimensionless UH	Huff_010YR_1Q_1HR_2.32in	14000-F	3.723	468.233	34.007	0
122	2263191.735	273806.551			SCS Dimensionless UH	Huff_010YR_1Q_1HR_2.32in	J10	3.668	631.508	5.534	0
123	2262935.659	274391.188			SCS Dimensionless UH	Huff_010YR_1Q_1HR_2.32in	J6	3.946	1267.219	9.844	0
124	2262639.532	274731.317			SCS Dimensionless UH	Huff_010YR_1Q_1HR_2.32in	10120-H-S	5.045	958.781	14.035	0
125	2262528.325	275045.362			SCS Dimensionless UH	Huff_010YR_1Q_1HR_2.32in	10120-H-S	1.317	345.59	21.903	0
126	2262420.763	274937.413			SCS Dimensionless UH	Huff_010YR_1Q_1HR_2.32in	10120-G	4.032	1260.992	12.064	0

Table 4A: ARM Subcatchments (continued...)

Name	X-Coordinate	Y-Coordinate	Description	Tag	Runoff Method	Rain Gage	Outlet	Area (ac)	Flow Length (ft)	Slope (%)	Imperv. (%)
127	2262847.588	274557.827			SCS Dimensionless UH	Huff_010YR_1Q_1HR_2.32in	J5	2.632	1016.101	9.316	0
128	2263051.802	273991.324			SCS Dimensionless UH	Huff_010YR_1Q_1HR_2.32in	J179	2.565	597.837	14.066	0
129	2263202.661	274536.973			SCS Dimensionless UH	Huff_010YR_1Q_1HR_2.32in	J7	4.568	884.884	10.952	0
130	2263588.997	274576.227			SCS Dimensionless UH	Huff_010YR_1Q_1HR_2.32in	J15-S	10.887	765.848	12.171	0
131	2263100.781	276629.25			SCS Dimensionless UH	Huff_010YR_1Q_1HR_2.32in	14000-C	0.614	723	0.349	0
3	2263475.65	276280.149			SCS Dimensionless UH	Huff_010YR_1Q_1HR_2.32in	10250-A-S	0.426	202.771	1.034	0
8	2263512.302	276165.378			SCS Dimensionless UH	Huff_010YR_1Q_1HR_2.32in	10250-C-S	0.231	162.331	2.052	0
86_4	2263316.734	275748.45			SCS Dimensionless UH	Huff_010YR_1Q_1HR_2.32in	10310-B	0.184	647.431	1.469	0
61_1	2263291.374	275817.878			SCS Dimensionless UH	Huff_010YR_1Q_1HR_2.32in	10300-G-S	0.021	602.845	1.422	0
61_2	2263532.504	275933.607			SCS Dimensionless UH	Huff_010YR_1Q_1HR_2.32in	Curb_Cut-S	0.562	602.845	1.422	0
58_1	2262858.105	275655.313			SCS Dimensionless UH	Huff_010YR_1Q_1HR_2.32in	10400-C1	1.742	410.108	0.601	0
58_2	2262779.425	275785.881			SCS Dimensionless UH	Huff_010YR_1Q_1HR_2.32in	10100-B-IC	1.178	410.108	0.601	0
23_1	2263299.649	275636.541			SCS Dimensionless UH	Huff_010YR_1Q_1HR_2.32in	10310-A-S	0.043	260.484	1.37	0
17_1	2263646.699	275206.046			SCS Dimensionless UH	Huff_010YR_1Q_1HR_2.32in	EX-CI21199-S	0.088	673.716	2.158	0
17_2	2263313.212	275227.619			SCS Dimensionless UH	Huff_010YR_1Q_1HR_2.32in	10440-B-S	0.144	673.716	2.158	0
75	2262989.169	275439.128			SCS Dimensionless UH	Huff_010YR_1Q_1HR_2.32in	10400-G-S	0.513	253.127	0.839	0
29_2	2263736.957	276166.755			SCS Dimensionless UH	Huff_010YR_1Q_1HR_2.32in	10200-K-S	0.252	203.61	1.528	0
37_2	2263596.491	276231.005			SCS Dimensionless UH	Huff_010YR_1Q_1HR_2.32in	10260-A-S	0.359	136.903	2.716	0
86	2263726.435	276282.77			SCS Dimensionless UH	Huff_010YR_1Q_1HR_2.32in	10200-J-S	0.145	188.672	1.794	0
73_1	2263617.188	276319.908			SCS Dimensionless UH	Huff_010YR_1Q_1HR_2.32in	10200-G-S	0.026	193.403	0.501	0
73_2	2263715.678	276323.306			SCS Dimensionless UH	Huff_010YR_1Q_1HR_2.32in	10200-H-S	0.029	193.403	0.501	0
2_1	2263096.103	275221.038			SCS Dimensionless UH	Huff_010YR_1Q_1HR_2.32in	10440-C	0.791	349.054	6.413	0
2_2	2263099.601	275132.158			SCS Dimensionless UH	Huff_010YR_1Q_1HR_2.32in	J39	0.418	349.054	27.51	0
106	2263117.871	275905.09			SCS Dimensionless UH	Huff_010YR_1Q_1HR_2.32in	10321-A	0.079	50	1.048	0
23_2	2263091.803	275856.556			SCS Dimensionless UH	Huff_010YR_1Q_1HR_2.32in	10300-D-S	0.046	140	1.37	0
117_3	2263241.429	276100.328			SCS Dimensionless UH	Huff_010YR_1Q_1HR_2.32in	10320-B-S	1.006	622.074	0.845	0

Table 4A: ARM Subcatchments (continued...)

Name	X-Coordinate	Y-Coordinate	Description	Tag	Runoff Method	Rain Gage	Outlet	Area (ac)	Flow Length (ft)	Slope (%)	Imperv. (%)
117	2263196.19	275817.149			SCS Dimensionless UH	Huff_010YR_1Q_1HR_2.32in	10310-B	0.572	267.315	1.36	0

Table 4B: ARM Subcatchments

Name	Dstore Imperv (in)	Dstore Perv (in)	Max. Infil. Rate (in/hr)	Min. Infil. Rate (in/hr)	Decay Constant (1/hr)	Drying Time (days)	Max. Volume (in)	Suction Head (in)	Conductivity (in/hr)	Initial Deficit (frac.)	TC Method	Time of Concentration (min)	Loss Method	IA Method
1	0.05	0.05	3	0.5	4	7	0	3.5	0.5	0.25	SCS	3.541	SCS CN	0.2 S
4	0.05	0.05	0	0	0	0	0	3.5	0.5	0.25	SCS	10.6	SCS CN	0.2 S
5	0.05	0.05	0	0	0	0	0	3.5	0.5	0.25	User entered value	8.22	SCS CN	0.2 S
6	0.05	0.05	0	0	0	0	0	3.5	0.5	0.25	User entered value	1.568	SCS CN	0.2 S
7	0.05	0.05	0	0	0	0	0	3.5	0.5	0.25	SCS	4.999	SCS CN	0.2 S
9	0.05	0.05	0	0	0	0	0	3.5	0.5	0.25	SCS	2.47	SCS CN	0.2 S
10	0.05	0.05	0	0	0	0	0	3.5	0.5	0.25	SCS	11.467	SCS CN	0.2 S
11	0.05	0.05	0	0	0	0	0	3.5	0.5	0.25	User entered value	6	SCS CN	0.2 S
12	0.05	0.05	0	0	0	0	0	3.5	0.5	0.25	User entered value	11.69	SCS CN	0.2 S
13	0.05	0.05	0	0	0	0	0	3.5	0.5	0.25	SCS	3.262	SCS CN	0.2 S
14	0.05	0.05	0	0	0	0	0	3.5	0.5	0.25	SCS	5.349	SCS CN	0.2 S
15	0.05	0.05	0	0	0	0	0	3.5	0.5	0.25	SCS	5.757	SCS CN	0.2 S
16	0.05	0.05	0	0	0	0	0	3.5	0.5	0.25	SCS	3.636	SCS CN	0.2 S
18	0.05	0.05	0	0	0	0	0	3.5	0.5	0.25	SCS	3.095	SCS CN	0.2 S
19	0.05	0.05	0	0	0	0	0	3.5	0.5	0.25	SCS	6.32	SCS CN	0.2 S
20	0.05	0.05	0	0	0	0	0	3.5	0.5	0.25	User entered value	8.93	SCS CN	0.2 S
21	0.05	0.05	0	0	0	0	0	3.5	0.5	0.25	User entered value	9.76	SCS CN	0.2 S
22	0.05	0.05	0	0	0	0	0	3.5	0.5	0.25	SCS	3.664	SCS CN	0.2 S
24	0.05	0.05	0	0	0	0	0	3.5	0.5	0.25	SCS	3.085	SCS CN	0.2 S

Table 4B: ARM Subcatchments (continued...)

Name	Dstore Imperv (in)	Dstore Perv (in)	Max. Infil. Rate (in/hr)	Min. Infil. Rate (in/hr)	Decay Constant (1/hr)	Drying Time (days)	Max. Volume (in)	Suction Head (in)	Conductivity (in/hr)	Initial Deficit (frac.)	TC Method	Time of Concentration (min)	Loss Method	IA Method
26	0.05	0.05	0	0	0	0	0	3.5	0.5	0.25	SCS	7.097	SCS CN	0.2 S
28	0.05	0.05	0	0	0	0	0	3.5	0.5	0.25	SCS	10.003	SCS CN	0.2 S
30	0.05	0.05	0	0	0	0	0	3.5	0.5	0.25	User entered value	9.48	SCS CN	0.2 S
31	0.05	0.05	0	0	0	0	0	3.5	0.5	0.25	SCS	6.653	SCS CN	0.2 S
32	0.05	0.05	0	0	0	0	0	3.5	0.5	0.25	SCS	7.503	SCS CN	0.2 S
33	0.05	0.05	0	0	0	0	0	3.5	0.5	0.25	SCS	22.183	SCS CN	0.2 S
34	0.05	0.05	0	0	0	0	0	3.5	0.5	0.25	SCS	11.921	SCS CN	0.2 S
36	0.05	0.05	0	0	0	0	0	3.5	0.5	0.25	SCS	15.146	SCS CN	0.2 S
38	0.05	0.05	0	0	0	0	0	3.5	0.5	0.25	User entered value	2.233	SCS CN	0.2 S
39	0.05	0.05	0	0	0	0	0	3.5	0.5	0.25	User entered value	10.4	SCS CN	0.2 S
40	0.05	0.05	0	0	0	0	0	3.5	0.5	0.25	SCS	1.913	SCS CN	0.2 S
41	0.05	0.05	0	0	0	0	0	3.5	0.5	0.25	SCS	21.429	SCS CN	0.2 S
42	0.05	0.05	0	0	0	0	0	3.5	0.5	0.25	SCS	1.236	SCS CN	0.2 S
43	0.05	0.05	0	0	0	0	0	3.5	0.5	0.25	SCS	1.775	SCS CN	0.2 S
44	0.05	0.05	0	0	0	0	0	3.5	0.5	0.25	SCS	6.804	SCS CN	0.2 S
45	0.05	0.05	0	0	0	0	0	3.5	0.5	0.25	SCS	15.578	SCS CN	0.2 S
46	0.05	0.05	0	0	0	0	0	3.5	0.5	0.25	User entered value	6	SCS CN	0.2 S
47	0.05	0.05	0	0	0	0	0	3.5	0.5	0.25	SCS	9.586	SCS CN	0.2 S
48	0.05	0.05	0	0	0	0	0	3.5	0.5	0.25	SCS	9.662	SCS CN	0.2 S
49	0.05	0.05	0	0	0	0	0	3.5	0.5	0.25	SCS	5.379	SCS CN	0.2 S
50	0.05	0.05	0	0	0	0	0	3.5	0.5	0.25	SCS	36.09	SCS CN	0.2 S
51	0.05	0.05	0	0	0	0	0	3.5	0.5	0.25	SCS	2.403	SCS CN	0.2 S
52	0.05	0.05	0	0	0	0	0	3.5	0.5	0.25	SCS	4.663	SCS CN	0.2 S
53	0.05	0.05	0	0	0	0	0	3.5	0.5	0.25	SCS	6.525	SCS CN	0.2 S
54	0.05	0.05	0	0	0	0	0	3.5	0.5	0.25	SCS	6.05	SCS CN	0.2 S
55	0.05	0.05	0	0	0	0	0	3.5	0.5	0.25	SCS	5.925	SCS CN	0.2 S

Table 4B: ARM Subcatchments (continued...)

Name	Dstore Imperv (in)	Dstore Perv (in)	Max. Infil. Rate (in/hr)	Min. Infil. Rate (in/hr)	Decay Constant (1/hr)	Drying Time (days)	Max. Volume (in)	Suction Head (in)	Conductivity (in/hr)	Initial Deficit (frac.)	TC Method	Time of Concentration (min)	Loss Method	IA Method
56	0.05	0.05	0	0	0	0	0	3.5	0.5	0.25	SCS	1.705	SCS CN	0.2 S
57	0.05	0.05	0	0	0	0	0	3.5	0.5	0.25	SCS	3.668	SCS CN	0.2 S
59	0.05	0.05	0	0	0	0	0	3.5	0.5	0.25	SCS	4.922	SCS CN	0.2 S
60	0.05	0.05	0	0	0	0	0	3.5	0.5	0.25	SCS	3.398	SCS CN	0.2 S
62	0.05	0.05	0	0	0	0	0	3.5	0.5	0.25	SCS	2.11	SCS CN	0.2 S
63	0.05	0.05	0	0	0	0	0	3.5	0.5	0.25	SCS	0.653	SCS CN	0.2 S
64	0.05	0.05	0	0	0	0	0	3.5	0.5	0.25	SCS	3.436	SCS CN	0.2 S
65	0.05	0.05	0	0	0	0	0	3.5	0.5	0.25	SCS	2.108	SCS CN	0.2 S
66	0.05	0.05	0	0	0	0	0	3.5	0.5	0.25	SCS	3.699	SCS CN	0.2 S
67	0.05	0.05	0	0	0	0	0	3.5	0.5	0.25	SCS	2.633	SCS CN	0.2 S
68	0.05	0.05	0	0	0	0	0	3.5	0.5	0.25	SCS	2.047	SCS CN	0.2 S
69	0.05	0.05	0	0	0	0	0	3.5	0.5	0.25	SCS	4.26	SCS CN	0.2 S
70	0.05	0.05	0	0	0	0	0	3.5	0.5	0.25	SCS	5.153	SCS CN	0.2 S
71	0.05	0.05	0	0	0	0	0	3.5	0.5	0.25	SCS	8.162	SCS CN	0.2 S
72	0.05	0.05	0	0	0	0	0	3.5	0.5	0.25	SCS	7.496	SCS CN	0.2 S
74	0.05	0.05	0	0	0	0	0	3.5	0.5	0.25	SCS	7.367	SCS CN	0.2 S
76	0.05	0.05	0	0	0	0	0	3.5	0.5	0.25	SCS	7.338	SCS CN	0.2 S
77	0.05	0.05	0	0	0	0	0	3.5	0.5	0.25	SCS	2.285	SCS CN	0.2 S
78	0.05	0.05	0	0	0	0	0	3.5	0.5	0.25	SCS	1.26	SCS CN	0.2 S
79	0.05	0.05	0	0	0	0	0	3.5	0.5	0.25	SCS	3.722	SCS CN	0.2 S
80	0.05	0.05	0	0	0	0	0	3.5	0.5	0.25	SCS	16.446	SCS CN	0.2 S
81	0.05	0.05	0	0	0	0	0	3.5	0.5	0.25	SCS	8.345	SCS CN	0.2 S
82	0.05	0.05	0	0	0	0	0	3.5	0.5	0.25	SCS	7.419	SCS CN	0.2 S
83	0.05	0.05	0	0	0	0	0	3.5	0.5	0.25	SCS	12.561	SCS CN	0.2 S
87	0.05	0.05	0	0	0	0	0	3.5	0.5	0.25	SCS	1.276	SCS CN	0.2 S
88	0.05	0.05	0	0	0	0	0	3.5	0.5	0.25	SCS	4.477	SCS CN	0.2 S

Table 4B: ARM Subcatchments (continued...)

Name	Dstore Imperv (in)	Dstore Perv (in)	Max. Infil. Rate (in/hr)	Min. Infil. Rate (in/hr)	Decay Constant (1/hr)	Drying Time (days)	Max. Volume (in)	Suction Head (in)	Conductivity (in/hr)	Initial Deficit (frac.)	TC Method	Time of Concentration (min)	Loss Method	IA Method
89	0.05	0.05	0	0	0	0	0	3.5	0.5	0.25	SCS	3.744	SCS CN	0.2 S
90	0.05	0.05	0	0	0	0	0	3.5	0.5	0.25	SCS	16.954	SCS CN	0.2 S
91	0.05	0.05	0	0	0	0	0	3.5	0.5	0.25	SCS	4.395	SCS CN	0.2 S
93	0.05	0.05	0	0	0	0	0	3.5	0.5	0.25	SCS	27.905	SCS CN	0.2 S
94	0.05	0.05	0	0	0	0	0	3.5	0.5	0.25	SCS	15.075	SCS CN	0.2 S
95	0.05	0.05	0	0	0	0	0	3.5	0.5	0.25	SCS	2.392	SCS CN	0.2 S
96	0.05	0.05	0	0	0	0	0	3.5	0.5	0.25	SCS	2.367	SCS CN	0.2 S
97	0.05	0.05	0	0	0	0	0	3.5	0.5	0.25	SCS	1.994	SCS CN	0.2 S
98	0.05	0.05	0	0	0	0	0	3.5	0.5	0.25	SCS	11.355	SCS CN	0.2 S
99	0.05	0.05	0	0	0	0	0	3.5	0.5	0.25	SCS	8.773	SCS CN	0.2 S
100	0.05	0.05	0	0	0	0	0	3.5	0.5	0.25	User entered value	9.07	SCS CN	0.2 S
101	0.05	0.05	0	0	0	0	0	3.5	0.5	0.25	SCS	4.284	SCS CN	0.2 S
102	0.05	0.05	0	0	0	0	0	3.5	0.5	0.25	SCS	19.428	SCS CN	0.2 S
103	0.05	0.05	0	0	0	0	0	3.5	0.5	0.25	SCS	2.168	SCS CN	0.2 S
104	0.05	0.05	0	0	0	0	0	3.5	0.5	0.25	SCS	10.64	SCS CN	0.2 S
107	0.05	0.05	0	0	0	0	0	3.5	0.5	0.25	SCS	9.218	SCS CN	0.2 S
108	0.05	0.05	0	0	0	0	0	3.5	0.5	0.25	SCS	8.506	SCS CN	0.2 S
109	0.05	0.05	0	0	0	0	0	3.5	0.5	0.25	SCS	10.67	SCS CN	0.2 S
110	0.05	0.05	0	0	0	0	0	3.5	0.5	0.25	SCS	7.824	SCS CN	0.2 S
111	0.05	0.05	0	0	0	0	0	3.5	0.5	0.25	SCS	6.767	SCS CN	0.2 S
112	0.05	0.05	0	0	0	0	0	3.5	0.5	0.25	SCS	15.852	SCS CN	0.2 S
113	0.05	0.05	0	0	0	0	0	3.5	0.5	0.25	SCS	1.695	SCS CN	0.2 S
114	0.05	0.05	0	0	0	0	0	3.5	0.5	0.25	SCS	5.262	SCS CN	0.2 S
115	0.05	0.05	0	0	0	0	0	3.5	0.5	0.25	SCS	4.725	SCS CN	0.2 S
118	0.05	0.05	0	0	0	0	0	3.5	0.5	0.25	SCS	1.855	SCS CN	0.2 S
119	0.05	0.05	0	0	0	0	0	3.5	0.5	0.25	User entered value	8.6	SCS CN	0.2 S

Table 4B: ARM Subcatchments (continued...)

Name	Dstore Imperv (in)	Dstore Perv (in)	Max. Infil. Rate (in/hr)	Min. Infil. Rate (in/hr)	Decay Constant (1/hr)	Drying Time (days)	Max. Volume (in)	Suction Head (in)	Conductivity (in/hr)	Initial Deficit (frac.)	TC Method	Time of Concentration (min)	Loss Method	IA Method
120	0.05	0.05	0	0	0	0	0	3.5	0.5	0.25	User entered value	6	SCS CN	0.2 S
121	0.05	0.05	0	0	0	0	0	3.5	0.5	0.25	User entered value	6.5	SCS CN	0.2 S
122	0.05	0.05	0	0	0	0	0	3.5	0.5	0.25	User entered value	6	SCS CN	0.2 S
123	0.05	0.05	0	0	0	0	0	3.5	0.5	0.25	User entered value	10.09	SCS CN	0.2 S
124	0.05	0.05	0	0	0	0	0	3.5	0.5	0.25	User entered value	13.27	SCS CN	0.2 S
125	0.05	0.05	0	0	0	0	0	3.5	0.5	0.25	User entered value	10.08	SCS CN	0.2 S
126	0.05	0.05	0	0	0	0	0	3.5	0.5	0.25	User entered value	15.92	SCS CN	0.2 S
127	0.05	0.05	0	0	0	0	0	3.5	0.5	0.25	User entered value	9.88	SCS CN	0.2 S
128	0.05	0.05	0	0	0	0	0	3.5	0.5	0.25	User entered value	9.27	SCS CN	0.2 S
129	0.05	0.05	0	0	0	0	0	3.5	0.5	0.25	User entered value	9.65	SCS CN	0.2 S
130	0.05	0.05	0	0	0	0	0	3.5	0.5	0.25	User entered value	13.06	SCS CN	0.2 S
131	0.05	0.05	0	0	0	0	0	3.5	0.5	0.25	User entered value	6	SCS CN	0.2 S
3	0.05	0.05	0	0	0	0	0	3.5	0.5	0.25	SCS	5.562	SCS CN	0.2 S
8	0.05	0.05	0	0	0	0	0	3.5	0.5	0.25	SCS	3.278	SCS CN	0.2 S
86_4	0.05	0.05	0	0	0	0	0	3.5	0.5	0.25	SCS	17.76	SCS CN	0.2 S
61_1	0.05	0.05	0	0	0	0	0	3.5	0.5	0.25	SCS	13.672	SCS CN	0.2 S
61_2	0.05	0.05	0	0	0	0	0	3.5	0.5	0.25	SCS	13.672	SCS CN	0.2 S
58_1	0.05	0.05	0	0	0	0	0	3.5	0.5	0.25	SCS	19.797	SCS CN	0.2 S
58_2	0.05	0.05	0	0	0	0	0	3.5	0.5	0.25	SCS	19.797	SCS CN	0.2 S
23_1	0.05	0.05	0	0	0	0	0	3.5	0.5	0.25	SCS	5.807	SCS CN	0.2 S
17_1	0.05	0.05	0	0	0	0	0	3.5	0.5	0.25	SCS	8.193	SCS CN	0.2 S
17_2	0.05	0.05	0	0	0	0	0	3.5	0.5	0.25	SCS	8.193	SCS CN	0.2 S
75	0.05	0.05	0	0	0	0	0	3.5	0.5	0.25	SCS	10.865	SCS CN	0.2 S
29_2	0.05	0.05	0	0	0	0	0	3.5	0.5	0.25	SCS	6.707	SCS CN	0.2 S
37_2	0.05	0.05	0	0	0	0	0	3.5	0.5	0.25	SCS	2.95	SCS CN	0.2 S
86	0.05	0.05	0	0	0	0	0	3.5	0.5	0.25	SCS	5.565	SCS CN	0.2 S

Table 4B: ARM Subcatchments (continued...)

Name	Dstore Imperv (in)	Dstore Perv (in)	Max. Infil. Rate (in/hr)	Min. Infil. Rate (in/hr)	Decay Constant (1/hr)	Drying Time (days)	Max. Volume (in)	Suction Head (in)	Conductivity (in/hr)	Initial Deficit (frac.)	TC Method	Time of Concentration (min)	Loss Method	IA Method
73_1	0.05	0.05	0	0	0	0	0	3.5	0.5	0.25	SCS	5.732	SCS CN	0.2 S
73_2	0.05	0.05	0	0	0	0	0	3.5	0.5	0.25	SCS	5.732	SCS CN	0.2 S
2_1	0.05	0.05	3	0.5	4	7	0	3.5	0.5	0.25	SCS	3.239	SCS CN	0.2 S
2_2	0.05	0.05	3	0.5	4	7	0	3.5	0.5	0.25	SCS	2.617	SCS CN	0.2 S
106	0.05	0.05	0	0	0	0	0	3.5	0.5	0.25	SCS	1.339	SCS CN	0.2 S
23_2	0.05	0.05	0	0	0	0	0	3.5	0.5	0.25	SCS	2.668	SCS CN	0.2 S
117_3	0.05	0.05	0	0	0	0	0	3.5	0.5	0.25	SCS	18.904	SCS CN	0.2 S
117	0.05	0.05	0	0	0	0	0	3.5	0.5	0.25	SCS	5.853	SCS CN	0.2 S

Table 4C: ARM Subcatchments

Name	IA Value (in)	SCS Curve Number	Peak Rate Factor	Initial Loss (in)	Const. Rate (in/hr)	Runoff Coef.	Lag Time (min)	Peak Coef.	# Reservoirs	Storage Coef. (h)	IDF Curve	Return Period (y)	Steady Duration (mins)	Peak Rainfall (in/hr)	Roughness
1	0.479	80.689	Standard (483.4)	0	0	0.6	30	0.6	3	0.4		5	60	0	0.1
4	0.482	80.579	Standard (483.4)	0	0	0.6	30	0.6	3	0.4		5	60	0	0.1
5	0.307	86.698	Standard (483.4)	0	0	0.6	30	0.6	3	0.4		5	60	0	0.1
6	0.579	77.536	Standard (483.4)	0	0	0.6	30	0.6	3	0.4		5	60	0	0.1
7	0.051	97.504	Standard (483.4)	0	0	0.6	30	0.6	3	0.4		5	60	0	0.1
9	0.068	96.713	Standard (483.4)	0	0	0.6	30	0.6	3	0.4		5	60	0	0.1
10	0.365	84.549	Standard (483.4)	0	0	0.6	30	0.6	3	0.4		5	60	0	0.1
11	0.059	97.12	Standard (483.4)	0	0	0.6	30	0.6	3	0.4		5	60	0	0.1
12	0.412	82.906	Standard (483.4)	0	0	0.6	30	0.6	3	0.4		5	60	0	0.1
13	0.283	87.599	Standard (483.4)	0	0	0.6	30	0.6	3	0.4		5	60	0	0.1
14	0.42	82.648	Standard (483.4)	0	0	0.6	30	0.6	3	0.4		5	60	0	0.1
15	0.565	77.961	Standard (483.4)	0	0	0.6	30	0.6	3	0.4		5	60	0	0.1

Table 4C: ARM Subcatchments (continued...)

Name	IA Value (in)	SCS Curve Number	Peak Rate Factor	Initial Loss (in)	Const. Rate (in/hr)	Runoff Coef.	Lag Time (min)	Peak Coef.	# Reservoirs	Storage Coef. (h)	IDF Curve	Return Period (y)	Steady Duration (mins)	Peak Rainfall (in/hr)	Roughness
16	0.254	88.735	Standard (483.4)	0	0	0.6	30	0.6	3	0.4		5	60	0	0.1
18	0.05	97.556	Standard (483.4)	0	0	0.6	30	0.6	3	0.4		5	60	0	0.1
19	0.043	97.878	Standard (483.4)	0	0	0.6	30	0.6	3	0.4		5	60	0	0.1
20	0.325	86.012	Standard (483.4)	0	0	0.6	30	0.6	3	0.4		5	60	0	0.1
21	0.4	83.319	Standard (483.4)	0	0	0.6	30	0.6	3	0.4		5	60	0	0.1
22	0.28	87.729	Standard (483.4)	0	0	0.6	30	0.6	3	0.4		5	60	0	0.1
24	0.042	97.926	Standard (483.4)	0	0	0.6	30	0.6	3	0.4		5	60	0	0.1
26	0.282	87.636	Standard (483.4)	0	0	0.6	30	0.6	3	0.4		5	60	0	0.1
28	0.397	83.444	Standard (483.4)	0	0	0.6	30	0.6	3	0.4		5	60	0	0.1
30	0.271	88.051	Standard (483.4)	0	0	0.6	30	0.6	3	0.4		5	60	0	0.1
31	0.458	81.368	Standard (483.4)	0	0	0.6	30	0.6	3	0.4		5	60	0	0.1
32	0.519	79.383	Standard (483.4)	0	0	0.6	30	0.6	3	0.4		5	60	0	0.1
33	0.172	92.095	Standard (483.4)	0	0	0.6	30	0.6	3	0.4		5	60	0	0.1
34	0.406	83.142	Standard (483.4)	0	0	0.6	30	0.6	3	0.4		5	60	0	0.1
36	0.323	86.091	Standard (483.4)	0	0	0.6	30	0.6	3	0.4		5	60	0	0.1
38	0.283	87.6	Standard (483.4)	0	0	0.6	30	0.6	3	0.4		5	60	0	0.1
39	0.467	81.082	Standard (483.4)	0	0	0.6	30	0.6	3	0.4		5	60	0	0.1
40	0.265	88.286	Standard (483.4)	0	0	0.6	30	0.6	3	0.4		5	60	0	0.1
41	0.424	82.512	Standard (483.4)	0	0	0.6	30	0.6	3	0.4		5	60	0	0.1
42	0.041	98	Standard (483.4)	0	0	0.6	30	0.6	3	0.4		5	60	0	0.1
43	0.201	90.87	Standard (483.4)	0	0	0.6	30	0.6	3	0.4		5	60	0	0.1
44	0.294	87.195	Standard (483.4)	0	0	0.6	30	0.6	3	0.4		5	60	0	0.1
45	0.494	80.208	Standard (483.4)	0	0	0.6	30	0.6	3	0.4		5	60	0	0.1
46	0.068	96.69	Standard (483.4)	0	0	0.6	30	0.6	3	0.4		5	60	0	0.1
47	0.444	81.843	Standard (483.4)	0	0	0.6	30	0.6	3	0.4		5	60	0	0.1
48	0.099	95.301	Standard (483.4)	0	0	0.6	30	0.6	3	0.4		5	60	0	0.1

Table 4C: ARM Subcatchments (continued...)

Name	IA Value (in)	SCS Curve Number	Peak Rate Factor	Initial Loss (in)	Const. Rate (in/hr)	Runoff Coef.	Lag Time (min)	Peak Coef.	# Reservoirs	Storage Coef. (h)	IDF Curve	Return Period (y)	Steady Duration (mins)	Peak Rainfall (in/hr)	Roughness
49	0.087	95.837	Standard (483.4)	0	0	0.6	30	0.6	3	0.4		5	60	0	0.1
50	0.116	94.517	Standard (483.4)	0	0	0.6	30	0.6	3	0.4		5	60	0	0.1
51	0.31	86.575	Standard (483.4)	0	0	0.6	30	0.6	3	0.4		5	60	0	0.1
52	0.367	84.501	Standard (483.4)	0	0	0.6	30	0.6	3	0.4		5	60	0	0.1
53	0.568	77.893	Standard (483.4)	0	0	0.6	30	0.6	3	0.4		5	60	0	0.1
54	0.337	85.592	Standard (483.4)	0	0	0.6	30	0.6	3	0.4		5	60	0	0.1
55	0.443	81.88	Standard (483.4)	0	0	0.6	30	0.6	3	0.4		5	60	0	0.1
56	0.042	97.934	Standard (483.4)	0	0	0.6	30	0.6	3	0.4		5	60	0	0.1
57	0.155	92.795	Standard (483.4)	0	0	0.6	30	0.6	3	0.4		5	60	0	0.1
59	0.041	98	Standard (483.4)	0	0	0.6	30	0.6	3	0.4		5	60	0	0.1
60	0.041	97.979	Standard (483.4)	0	0	0.6	30	0.6	3	0.4		5	60	0	0.1
62	0.293	87.228	Standard (483.4)	0	0	0.6	30	0.6	3	0.4		5	60	0	0.1
63	0.044	97.858	Standard (483.4)	0	0	0.6	30	0.6	3	0.4		5	60	0	0.1
64	0.041	98	Standard (483.4)	0	0	0.6	30	0.6	3	0.4		5	60	0	0.1
65	0.042	97.947	Standard (483.4)	0	0	0.6	30	0.6	3	0.4		5	60	0	0.1
66	0.165	92.394	Standard (483.4)	0	0	0.6	30	0.6	3	0.4		5	60	0	0.1
67	0.169	92.229	Standard (483.4)	0	0	0.6	30	0.6	3	0.4		5	60	0	0.1
68	0.059	97.12	Standard (483.4)	0	0	0.6	30	0.6	3	0.4		5	60	0	0.1
69	0.481	80.597	Standard (483.4)	0	0	0.6	30	0.6	3	0.4		5	60	0	0.1
70	0.042	97.967	Standard (483.4)	0	0	0.6	30	0.6	3	0.4		5	60	0	0.1
71	0.526	79.187	Standard (483.4)	0	0	0.6	30	0.6	3	0.4		5	60	0	0.1
72	0.374	84.241	Standard (483.4)	0	0	0.6	30	0.6	3	0.4		5	60	0	0.1
74	0.431	82.258	Standard (483.4)	0	0	0.6	30	0.6	3	0.4		5	60	0	0.1
76	0.428	82.383	Standard (483.4)	0	0	0.6	30	0.6	3	0.4		5	60	0	0.1
77	0.307	86.692	Standard (483.4)	0	0	0.6	30	0.6	3	0.4		5	60	0	0.1
78	0.29	87.325	Standard (483.4)	0	0	0.6	30	0.6	3	0.4		5	60	0	0.1

Table 4C: ARM Subcatchments (continued...)

Name	IA Value (in)	SCS Curve Number	Peak Rate Factor	Initial Loss (in)	Const. Rate (in/hr)	Runoff Coef.	Lag Time (min)	Peak Coef.	# Reservoirs	Storage Coef. (h)	IDF Curve	Return Period (y)	Steady Duration (mins)	Peak Rainfall (in/hr)	Roughness
79	0.067	96.766	Standard (483.4)	0	0	0.6	30	0.6	3	0.4		5	60	0	0.1
80	0.448	81.695	Standard (483.4)	0	0	0.6	30	0.6	3	0.4		5	60	0	0.1
81	0.52	79.379	Standard (483.4)	0	0	0.6	30	0.6	3	0.4		5	60	0	0.1
82	0.425	82.461	Standard (483.4)	0	0	0.6	30	0.6	3	0.4		5	60	0	0.1
83	0.307	86.697	Standard (483.4)	0	0	0.6	30	0.6	3	0.4		5	60	0	0.1
87	0.052	97.446	Standard (483.4)	0	0	0.6	30	0.6	3	0.4		5	60	0	0.1
88	0.31	86.593	Standard (483.4)	0	0	0.6	30	0.6	3	0.4		5	60	0	0.1
89	0.054	97.385	Standard (483.4)	0	0	0.6	30	0.6	3	0.4		5	60	0	0.1
90	0.083	96.019	Standard (483.4)	0	0	0.6	30	0.6	3	0.4		5	60	0	0.1
91	0.073	96.489	Standard (483.4)	0	0	0.6	30	0.6	3	0.4		5	60	0	0.1
93	0.486	80.438	Standard (483.4)	0	0	0.6	30	0.6	3	0.4		5	60	0	0.1
94	0.487	80.428	Standard (483.4)	0	0	0.6	30	0.6	3	0.4		5	60	0	0.1
95	0.238	89.382	Standard (483.4)	0	0	0.6	30	0.6	3	0.4		5	60	0	0.1
96	0.537	78.821	Standard (483.4)	0	0	0.6	30	0.6	3	0.4		5	60	0	0.1
97	0.052	97.473	Standard (483.4)	0	0	0.6	30	0.6	3	0.4		5	60	0	0.1
98	0.356	84.904	Standard (483.4)	0	0	0.6	30	0.6	3	0.4		5	60	0	0.1
99	0.139	93.503	Standard (483.4)	0	0	0.6	30	0.6	3	0.4		5	60	0	0.1
100	0.365	84.565	Standard (483.4)	0	0	0.6	30	0.6	3	0.4		5	60	0	0.1
101	0.098	95.334	Standard (483.4)	0	0	0.6	30	0.6	3	0.4		5	60	0	0.1
102	0.045	97.776	Standard (483.4)	0	0	0.6	30	0.6	3	0.4		5	60	0	0.1
103	0.527	79.151	Standard (483.4)	0	0	0.6	30	0.6	3	0.4		5	60	0	0.1
104	0.539	78.764	Standard (483.4)	0	0	0.6	30	0.6	3	0.4		5	60	0	0.1
107	0.251	88.856	Standard (483.4)	0	0	0.6	30	0.6	3	0.4		5	60	0	0.1
108	0.441	81.945	Standard (483.4)	0	0	0.6	30	0.6	3	0.4		5	60	0	0.1
109	0.5	80.012	Standard (483.4)	0	0	0.6	30	0.6	3	0.4		5	60	0	0.1
110	0.329	85.892	Standard (483.4)	0	0	0.6	30	0.6	3	0.4		5	60	0	0.1

Table 4C: ARM Subcatchments (continued...)

Name	IA Value (in)	SCS Curve Number	Peak Rate Factor	Initial Loss (in)	Const. Rate (in/hr)	Runoff Coef.	Lag Time (min)	Peak Coef.	# Reservoirs	Storage Coef. (h)	IDF Curve	Return Period (y)	Steady Duration (mins)	Peak Rainfall (in/hr)	Roughness
111	0.56	78.126	Standard (483.4)	0	0	0.6	30	0.6	3	0.4		5	60	0	0.1
112	0.454	81.494	Standard (483.4)	0	0	0.6	30	0.6	3	0.4		5	60	0	0.1
113	0.052	97.485	Standard (483.4)	0	0	0.6	30	0.6	3	0.4		5	60	0	0.1
114	0.491	80.304	Standard (483.4)	0	0	0.6	30	0.6	3	0.4		5	60	0	0.1
115	0.29	87.326	Standard (483.4)	0	0	0.6	30	0.6	3	0.4		5	60	0	0.1
118	0.564	78.001	Standard (483.4)	0	0	0.6	30	0.6	3	0.4		5	60	0	0.1
119	0.25	88.87	Standard (483.4)	0	0	0.6	30	0.6	3	0.4		5	60	0	0.1
120	0.075	96.4	Standard (483.4)	0	0	0.6	30	0.6	3	0.4		5	60	0	0.1
121	0.415	82.8	Standard (483.4)	0	0	0.6	30	0.6	3	0.4		5	60	0	0.1
122	0.348	85.169	Standard (483.4)	0	0	0.6	30	0.6	3	0.4		5	60	0	0.1
123	0.36	84.757	Standard (483.4)	0	0	0.6	30	0.6	3	0.4		5	60	0	0.1
124	0.486	80.456	Standard (483.4)	0	0	0.6	30	0.6	3	0.4		5	60	0	0.1
125	0.596	77.044	Standard (483.4)	0	0	0.6	30	0.6	3	0.4		5	60	0	0.1
126	0.368	84.449	Standard (483.4)	0	0	0.6	30	0.6	3	0.4		5	60	0	0.1
127	0.277	87.828	Standard (483.4)	0	0	0.6	30	0.6	3	0.4		5	60	0	0.1
128	0.4	83.32	Standard (483.4)	0	0	0.6	30	0.6	3	0.4		5	60	0	0.1
129	0.372	84.308	Standard (483.4)	0	0	0.6	30	0.6	3	0.4		5	60	0	0.1
130	0.377	84.137	Standard (483.4)	0	0	0.6	30	0.6	3	0.4		5	60	0	0.1
131	0.114	94.611	Standard (483.4)	0	0	0.6	30	0.6	3	0.4		5	60	0	0.1
3	0.168	92.236	Standard (483.4)	0	0	0.6	30	0.6	3	0.4		5	60	0	0.1
8	0.164	92.417	Standard (483.4)	0	0	0.6	30	0.6	3	0.4		5	60	0	0.1
86_4	0.46	81.316	Standard (483.4)	0	0	0.6	30	0.6	3	0.4		5	60	0	0.1
61_1	0.281	87.676	Standard (483.4)	0	0	0.6	30	0.6	3	0.4		5	60	0	0.1
61_2	0.281	87.676	Standard (483.4)	0	0	0.6	30	0.6	3	0.4		5	60	0	0.1
58_1	0.485	80.467	Standard (483.4)	0	0	0.6	30	0.6	3	0.4		5	60	0	0.1
58_2	0.485	80.467	Standard (483.4)	0	0	0.6	30	0.6	3	0.4		5	60	0	0.1

Table 4C: ARM Subcatchments (continued...)

Name	IA Value (in)	SCS Curve Number	Peak Rate Factor	Initial Loss (in)	Const. Rate (in/hr)	Runoff Coef.	Lag Time (min)	Peak Coef.	# Reservoirs	Storage Coef. (h)	IDF Curve	Return Period (y)	Steady Duration (mins)	Peak Rainfall (in/hr)	Roughness
23_1	0.16	92.604	Standard (483.4)	0	0	0.6	30	0.6	3	0.4		5	60	0	0.1
17_1	0.075	96.402	Standard (483.4)	0	0	0.6	30	0.6	3	0.4		5	60	0	0.1
17_2	0.075	96.402	Standard (483.4)	0	0	0.6	30	0.6	3	0.4		5	60	0	0.1
75	0.441	81.94	Standard (483.4)	0	0	0.6	30	0.6	3	0.4		5	60	0	0.1
29_2	0.433	82.202	Standard (483.4)	0	0	0.6	30	0.6	3	0.4		5	60	0	0.1
37_2	0.265	88.304	Standard (483.4)	0	0	0.6	30	0.6	3	0.4		5	60	0	0.1
86	0.393	83.568	Standard (483.4)	0	0	0.6	30	0.6	3	0.4		5	60	0	0.1
73_1	0.042	97.948	Standard (483.4)	0	0	0.6	30	0.6	3	0.4		5	60	0	0.1
73_2	0.042	97.948	Standard (483.4)	0	0	0.6	30	0.6	3	0.4		5	60	0	0.1
2_1	0.137	93.598	Standard (483.4)	0	0	0.6	30	0.6	3	0.4		5	60	0	0.1
2_2	0.503	79.917	Standard (483.4)	0	0	0.6	30	0.6	3	0.4		5	60	0	0.1
106	0.041	98	Standard (483.4)	0	0	0.6	30	0.6	3	0.4		5	60	0	0.1
23_2	0.041	98	Standard (483.4)	0	0	0.6	30	0.6	3	0.4		5	60	0	0.1
117_3	0.308	86.638	Standard (483.4)	0	0	0.6	30	0.6	3	0.4		5	60	0	0.1
117	0.151	92.966	Standard (483.4)	0	0	0.6	30	0.6	3	0.4		5	60	0	0.1

Table 4D: ARM Subcatchments

Name	Version	Rainfall Zone	Soil Type	Hydrograph Fattening	Runoff Depth (in)	Total rainfall (in)	Fire Factor	User entered PRF	Precipitation (in)	Infiltration (in)	Runoff Depth (in)	Runoff Volume (MG)	Peak Runoff (cfs)	Runoff Coefficient
1	2017			No	0	0	0	0	2.32	1.139	1.181	0.01	0.716	0.509
4	2017			No	0	0	0	0	2.32	1.525	0.796	0.03	1.95	0.343
5	2017			No	0	0	0	0	2.32	1.178	1.143	0.101	7.315	0.493
6	2017			No	0	0	0	0	2.32	1.667	0.654	0.007	0.548	0.282
7	2017			No	0	0	0	0	2.32	0.281	2.04	0.023	2.495	0.879
9	2017			No	0	0	0	0	2.32	0.363	1.958	0.015	1.838	0.844
10	2017			No	0	0	0	0	2.32	1.31	1.011	0.14	9.384	0.436
11	2017			No	0	0	0	0	2.32	0.321	2	0.013	1.258	0.862
12	2017			No	0	0	0	0	2.32	1.403	0.917	0.126	8.231	0.395
13	2017			No	0	0	0	0	2.32	1.118	1.202	0.004	0.334	0.518
14	2017			No	0	0	0	0	2.32	1.417	0.903	0.009	0.659	0.389
15	2017			No	0	0	0	0	2.32	1.648	0.672	0.005	0.363	0.29
16	2017			No	0	0	0	0	2.32	1.04	1.281	0.007	0.513	0.552
18	2017			No	0	0	0	0	2.32	0.276	2.046	0.004	0.535	0.882
19	2017			No	0	0	0	0	2.32	0.241	2.08	0.004	0.378	0.897
20	2017			No	0	0	0	0	2.32	1.221	1.1	0.011	0.792	0.474
21	2017			No	0	0	0	0	2.32	1.38	0.94	0.028	1.884	0.405
22	2017			No	0	0	0	0	2.32	1.11	1.211	0.011	0.853	0.522
24	2017			No	0	0	0	0	2.32	0.236	2.085	0.007	0.883	0.899
26	2017			No	0	0	0	0	2.32	1.116	1.205	0.008	0.595	0.519
28	2017			No	0	0	0	0	2.32	1.373	0.947	0.006	0.389	0.408
30	2017			No	0	0	0	0	2.32	1.088	1.233	0.058	4.149	0.532
31	2017			No	0	0	0	0	2.32	1.485	0.836	0.007	0.516	0.36
32	2017			No	0	0	0	0	2.32	1.583	0.738	0.038	2.649	0.318
33	2017			No	0	0	0	0	2.32	0.785	1.536	0.027	1.549	0.662
34	2017			No	0	0	0	0	2.32	1.39	0.93	0.011	0.73	0.401

Table 4D: ARM Subcatchments (continued...)

Name	Version	Rainfall Zone	Soil Type	Hydrograph Fattening	Runoff Depth (in)	Total rainfall (in)	Fire Factor	User entered PRF	Precipitation (in)	Infiltration (in)	Runoff Depth (in)	Runoff Volume (MG)	Peak Runoff (cfs)	Runoff Coefficient
36	2017			No	0	0	0	0	2.32	1.216	1.105	0.017	1.072	0.476
38	2017			No	0	0	0	0	2.32	1.118	1.202	0.02	1.611	0.518
39	2017			No	0	0	0	0	2.32	1.5	0.821	0.067	4.415	0.354
40	2017			No	0	0	0	0	2.32	1.072	1.25	0.01	0.914	0.539
41	2017			No	0	0	0	0	2.32	1.425	0.896	0.012	0.675	0.386
42	2017			No	0	0	0	0	2.32	0.228	2.094	0.002	0.275	0.902
43	2017			No	0	0	0	0	2.32	0.883	1.438	0.02	2.021	0.62
44	2017			No	0	0	0	0	2.32	1.145	1.175	0.018	1.339	0.507
45	2017			No	0	0	0	0	2.32	1.543	0.777	0.042	2.523	0.335
46	2017			No	0	0	0	0	2.32	0.366	1.956	0.015	1.474	0.843
47	2017			No	0	0	0	0	2.32	1.46	0.86	0.007	0.464	0.371
48	2017			No	0	0	0	0	2.32	0.502	1.819	0.019	1.535	0.784
49	2017			No	0	0	0	0	2.32	0.451	1.871	0.003	0.26	0.806
50	2017			No	0	0	0	0	2.32	0.575	1.733	0.026	1.219	0.747
51	2017			No	0	0	0	0	2.32	1.185	1.136	0.009	0.721	0.49
52	2017			No	0	0	0	0	2.32	1.313	1.008	0.014	1.041	0.434
53	2017			No	0	0	0	0	2.32	1.651	0.669	0.016	1.092	0.289
54	2017			No	0	0	0	0	2.32	1.247	1.074	0.013	0.952	0.463
55	2017			No	0	0	0	0	2.32	1.458	0.862	0.007	0.541	0.372
56	2017			No	0	0	0	0	2.32	0.235	2.086	0.002	0.286	0.899
57	2017			No	0	0	0	0	2.32	0.727	1.594	0.007	0.658	0.687
59	2017			No	0	0	0	0	2.32	0.228	2.093	0.025	2.693	0.902
60	2017			No	0	0	0	0	2.32	0.23	2.09	0.008	1.007	0.901
62	2017			No	0	0	0	0	2.32	1.143	1.178	0.004	0.35	0.508
63	2017			No	0	0	0	0	2.32	0.243	2.078	0.009	1.141	0.896
64	2017			No	0	0	0	0	2.32	0.228	2.093	0.003	0.408	0.902

Table 4D: ARM Subcatchments (continued...)

Name	Version	Rainfall Zone	Soil Type	Hydrograph Fattening	Runoff Depth (in)	Total rainfall (in)	Fire Factor	User entered PRF	Precipitation (in)	Infiltration (in)	Runoff Depth (in)	Runoff Volume (MG)	Peak Runoff (cfs)	Runoff Coefficient
65	2017			No	0	0	0	0	2.32	0.234	2.087	0.002	0.318	0.9
66	2017			No	0	0	0	0	2.32	0.76	1.561	0.004	0.325	0.673
67	2017			No	0	0	0	0	2.32	0.774	1.547	0.002	0.24	0.667
68	2017			No	0	0	0	0	2.32	0.321	2	0.002	0.287	0.862
69	2017			No	0	0	0	0	2.32	1.524	0.797	0.006	0.48	0.343
70	2017			No	0	0	0	0	2.32	0.232	2.09	0.003	0.335	0.901
71	2017			No	0	0	0	0	2.32	1.592	0.729	0.006	0.425	0.314
72	2017			No	0	0	0	0	2.32	1.328	0.993	0.006	0.433	0.428
74	2017			No	0	0	0	0	2.32	1.438	0.882	0.013	0.946	0.38
76	2017			No	0	0	0	0	2.32	1.432	0.889	0.032	2.313	0.383
77	2017			No	0	0	0	0	2.32	1.178	1.143	0.008	0.65	0.493
78	2017			No	0	0	0	0	2.32	1.137	1.184	0.002	0.152	0.51
79	2017			No	0	0	0	0	2.32	0.358	1.963	0.01	1.133	0.846
80	2017			No	0	0	0	0	2.32	1.468	0.853	0.053	3.127	0.367
81	2017			No	0	0	0	0	2.32	1.583	0.738	0.014	0.937	0.318
82	2017			No	0	0	0	0	2.32	1.427	0.893	0.023	1.659	0.385
83	2017			No	0	0	0	0	2.32	1.178	1.143	0.006	0.42	0.493
87	2017			No	0	0	0	0	2.32	0.287	2.034	0.014	1.884	0.877
88	2017			No	0	0	0	0	2.32	1.184	1.136	0.007	0.529	0.49
89	2017			No	0	0	0	0	2.32	0.294	2.028	0.024	2.792	0.874
90	2017			No	0	0	0	0	2.32	0.433	1.889	0.001	0.098	0.814
91	2017			No	0	0	0	0	2.32	0.386	1.935	0.003	0.307	0.834
93	2017			No	0	0	0	0	2.32	1.532	0.787	0.005	0.238	0.339
94	2017			No	0	0	0	0	2.32	1.532	0.789	0.008	0.496	0.34
95	2017			No	0	0	0	0	2.32	0.994	1.327	0.002	0.174	0.572
96	2017			No	0	0	0	0	2.32	1.609	0.712	0.001	0.08	0.307

Table 4D: ARM Subcatchments (continued...)

Name	Version	Rainfall Zone	Soil Type	Hydrograph Fattening	Runoff Depth (in)	Total rainfall (in)	Fire Factor	User entered PRF	Precipitation (in)	Infiltration (in)	Runoff Depth (in)	Runoff Volume (MG)	Peak Runoff (cfs)	Runoff Coefficient
97	2017			No	0	0	0	0	2.32	0.285	2.037	0.025	3.172	0.878
98	2017			No	0	0	0	0	2.32	1.289	1.032	0.017	1.134	0.445
99	2017			No	0	0	0	0	2.32	0.666	1.656	0.014	1.066	0.714
100	2017			No	0	0	0	0	2.32	1.309	1.012	0.01	0.668	0.436
101	2017			No	0	0	0	0	2.32	0.499	1.822	0.011	1.08	0.785
102	2017			No	0	0	0	0	2.32	0.252	2.069	0.009	0.596	0.892
103	2017			No	0	0	0	0	2.32	1.594	0.727	0.003	0.219	0.313
104	2017			No	0	0	0	0	2.32	1.612	0.709	0.004	0.238	0.306
107	2017			No	0	0	0	0	2.32	1.032	1.289	0.02	1.466	0.556
108	2017			No	0	0	0	0	2.32	1.455	0.866	0.037	2.599	0.373
109	2017			No	0	0	0	0	2.32	1.553	0.768	0.02	1.282	0.331
110	2017			No	0	0	0	0	2.32	1.229	1.092	0.008	0.602	0.471
111	2017			No	0	0	0	0	2.32	1.641	0.68	0.018	1.216	0.293
112	2017			No	0	0	0	0	2.32	1.478	0.842	0.01	0.586	0.363
113	2017			No	0	0	0	0	2.32	0.283	2.038	0.003	0.335	0.878
114	2017			No	0	0	0	0	2.32	1.538	0.782	0.002	0.169	0.337
115	2017			No	0	0	0	0	2.32	1.137	1.184	0.028	2.122	0.511
118	2017			No	0	0	0	0	2.32	1.646	0.674	0.002	0.183	0.291
119	2017			No	0	0	0	0	2.32	1.031	1.29	0.072	5.314	0.556
120	2017			No	0	0	0	0	2.32	0.395	1.927	0.116	11.125	0.831
121	2017			No	0	0	0	0	2.32	1.409	0.912	0.092	6.713	0.393
122	2017			No	0	0	0	0	2.32	1.273	1.048	0.104	7.786	0.452
123	2017			No	0	0	0	0	2.32	1.298	1.023	0.11	7.554	0.441
124	2017			No	0	0	0	0	2.32	1.531	0.79	0.108	6.724	0.34
125	2017			No	0	0	0	0	2.32	1.688	0.632	0.023	1.448	0.273
126	2017			No	0	0	0	0	2.32	1.316	1.005	0.11	6.724	0.433

Table 4D: ARM Subcatchments (continued...)

Name	Version	Rainfall Zone	Soil Type	Hydrograph Fattening	Runoff Depth (in)	Total rainfall (in)	Fire Factor	User entered PRF	Precipitation (in)	Infiltration (in)	Runoff Depth (in)	Runoff Volume (MG)	Peak Runoff (cfs)	Runoff Coefficient
127	2017			No	0	0	0	0	2.32	1.103	1.218	0.087	6.193	0.525
128	2017			No	0	0	0	0	2.32	1.38	0.94	0.065	4.53	0.405
129	2017			No	0	0	0	0	2.32	1.324	0.997	0.124	8.562	0.43
130	2017			No	0	0	0	0	2.32	1.334	0.987	0.292	18.812	0.425
131	2017			No	0	0	0	0	2.32	0.567	1.755	0.029	2.59	0.756
3	2017			No	0	0	0	0	2.32	0.773	1.547	0.018	1.469	0.667
8	2017			No	0	0	0	0	2.32	0.758	1.562	0.01	0.938	0.673
86_4	2017			No	0	0	0	0	2.32	1.488	0.833	0.004	0.24	0.359
61_1	2017			No	0	0	0	0	2.32	1.113	1.208	0.001	0.045	0.521
61_2	2017			No	0	0	0	0	2.32	1.113	1.208	0.018	1.212	0.521
58_1	2017			No	0	0	0	0	2.32	1.53	0.79	0.037	2.07	0.341
58_2	2017			No	0	0	0	0	2.32	1.53	0.79	0.025	1.4	0.341
23_1	2017			No	0	0	0	0	2.32	0.743	1.579	0.002	0.152	0.68
17_1	2017			No	0	0	0	0	2.32	0.395	1.927	0.005	0.397	0.83
17_2	2017			No	0	0	0	0	2.32	0.395	1.926	0.008	0.649	0.83
75	2017			No	0	0	0	0	2.32	1.455	0.866	0.012	0.797	0.373
29_2	2017			No	0	0	0	0	2.32	1.441	0.879	0.006	0.434	0.379
37_2	2017			No	0	0	0	0	2.32	1.07	1.251	0.012	0.97	0.539
86	2017			No	0	0	0	0	2.32	1.366	0.954	0.004	0.28	0.411
73_1	2017			No	0	0	0	0	2.32	0.234	2.087	0.001	0.153	0.9
73_2	2017			No	0	0	0	0	2.32	0.234	2.088	0.002	0.17	0.9
2_1	2017			No	0	0	0	0	2.32	0.658	1.664	0.036	3.629	0.717
2_2	2017			No	0	0	0	0	2.32	1.557	0.763	0.009	0.664	0.329
106	2017			No	0	0	0	0	2.32	0.228	2.093	0.004	0.587	0.902
23_2	2017			No	0	0	0	0	2.32	0.228	2.094	0.003	0.326	0.902
117_3	2017			No	0	0	0	0	2.32	1.181	1.139	0.031	1.833	0.491

Table 4D: ARM Subcatchments (continued...)

Name	Version	Rainfall Zone	Soil Type	Hydrograph Fattening	Runoff Depth (in)	Total rainfall (in)	Fire Factor	User entered PRF	Precipitation (in)	Infiltration (in)	Runoff Depth (in)	Runoff Volume (MG)	Peak Runoff (cfs)	Runoff Coefficient
117	2017			No	0	0	0	0	2.32	0.712	1.609	0.025	2.085	0.694

Table 4E: ARM Subcatchments

Name	GIS_LENGTH (m)	GIS_AREA (m²)	GIS_PARTS
1	154.635	1209.716	1
4	434.721	5569.987	1
5	688.333	13121.813	1
6	165.063	1601.158	1
7	279.25	1712.989	1
9	145.093	1147.337	1
10	727.402	20700.107	1
11	436.343	951.474	1
12	783.379	20396.177	1
13	99.61	534.105	1
14	177.182	1465.324	1
15	189.585	1135.504	1
16	133.068	770.993	1
18	183.5	325.11	1
19	143.802	270.912	1
20	175.612	1505.936	1
21	279.741	4361.183	1
22	192.897	1360.363	1
24	179.027	517.277	1

Table 4E: ARM Subcatchments (continued...)

Name	GIS_LENGTH (m)	GIS_AREA (m²)	GIS_PARTS
26	209.899	989.457	1
28	133.356	899.506	1
30	566.214	6979.555	1
31	160.561	1282.14	1
32	387.181	7740.839	1
33	610.326	2572.139	1
34	295.461	1790.773	1
36	200.856	2297.748	1
38	260.733	2428.257	1
39	511.372	12113.382	1
40	173.988	1228.935	1
41	308.193	2052.56	1
42	78.271	149.092	1
43	211.497	2046.641	1
44	197.086	2275.293	1
45	503.393	8148.033	1
46	494.218	1162.365	1
47	166.804	1186.109	1
48	290.409	1587.144	1
49	120.582	213.414	1
50	197.959	2193.81	1
51	157.435	1218.811	1
52	215.819	2034.061	1
53	264.725	3500.663	1
54	173.227	1769.134	1
55	177.091	1277.85	1

Table 4E: ARM Subcatchments (continued...)

Name	GIS_LENGTH (m)	GIS_AREA (m²)	GIS_PARTS
56	93.382	158.742	1
57	187.499	650.423	1
59	240.785	1756.087	1
60	120.699	599.578	1
62	129.536	543.378	1
63	117.844	619.088	1
64	146.056	242.937	1
65	108.643	178.189	1
66	143.632	334.954	1
67	96.67	231.479	1
68	98.065	169.191	1
69	148.884	1202.844	1
70	124.871	222.306	1
71	185.512	1279.816	1
72	169.503	898.545	1
74	234.392	2242.732	1
76	317.561	5429.396	1
77	162.069	1089.275	1
78	76.534	212.043	1
79	122.027	763.989	1
80	451.441	9238.774	1
81	234.875	2788.332	1
82	322.969	3879.722	1
83	143.137	820.256	1
87	134.117	1062.128	1
88	188.52	909.309	1

Table 4E: ARM Subcatchments (continued...)

Name	GIS_LENGTH (m)	GIS_AREA (m²)	GIS_PARTS
89	211.162	1783.753	1
90	61.449	111.419	1
91	88.846	222.123	1
93	124.946	919.535	1
94	168.582	1564.08	1
95	74.626	218.669	1
96	73.082	217.43	1
97	193.216	1826.758	1
98	271.175	2435.024	1
99	331.561	1238.602	1
100	192.415	1401.965	1
101	196.124	870.626	1
102	301.184	648.628	1
103	128.07	582.207	1
104	113.592	777.471	1
107	319.546	2332.389	1
108	371.427	6445.474	1
109	277.119	3820.374	1
110	184.797	1130.521	1
111	359.166	3850.194	1
112	236.277	1736.221	1
113	92.939	190.339	1
114	162.431	442.021	1
115	241.755	3501.085	1
118	96.054	520.308	1
119	633.992	8353.201	1

Table 4E: ARM Subcatchments (continued...)

Name	GIS_LENGTH (m)	GIS_AREA (m²)	GIS_PARTS
120	469.788	9009.88	1
121	569.668	15066.692	1
122	682.991	14843.188	1
123	805.428	15967.1	1
124	763.206	20415.068	1
125	332.976	5329.227	1
126	989.837	16316.516	1
127	835.79	10653.399	1
128	479.641	10379.228	1
129	629.568	18487.993	1
130	926.178	44056.568	1
131	720.254	2483.466	1
3	205.501	1724.603	1
8	166.072	935.258	1
86_4	117.016	744.554	1
61_1	45.333	84.239	1
61_2	439.43	2274.453	1
58_1	380.449	7047.44	1
58_2	494.728	4767.467	1
23_1	83.264	173.214	1
17_1	204.508	356.135	1
17_2	232.834	583.669	1
75	220.685	2076.895	1
29_2	144.074	1018.803	1
37_2	182.599	1453.502	1
86	150.621	587.308	2

Table 4E: ARM Subcatchments (continued...)

Name	GIS_LENGTH (m)	GIS_AREA (m²)	GIS_PARTS
73_1	65.47	106.591	1
73_2	70.628	116.35	1
2_1	343.725	3202.245	3
2_2	259.584	1692.125	1
106	77.019	321.49	1
23_2	87.846	185.137	1
117_3	656.555	4071.625	1
117	294.386	2312.945	1

PCSWMM Report

Post-Development 100-yr Results

Model NelsonWWTF-100YR.inp

HDR Engineering Inc.

January 19, 2024

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Summary 1: Options

Name	NelsonWWTF-100YR
Flow Units	CFS
Infiltration method	Curve Number
Flow routing method	Dynamic Wave
Link offsets defined by	Elevation
Allow ponding	Yes
Skip steady flow periods	No
Inertial dampening	Partial
Define supercritical flow by	Both
Force Main Equation	H-W
Variable time step	On
Adjustment factor (%)	75
Conduit lengthening (s)	0
Minimum surface area (ft²)	12.566
Starting date	May-1-2022 12:00:00 AM
Ending date	May-1-2022 01:50:00 AM
Duration of simulation (hours)	1.83333333333333
Antecedent dry days (days)	0
Rain interval (h:mm)	0:01
Report time step (h:mm:ss)	00:01:00
Wet time step (h:mm:ss)	00:00:01
Dry time step (h:mm:ss)	00:05:00
Routing time step (s)	5
Minimum time step used (s)	0.26
Average time step used (s)	0.54
Minimum conduit slope	0
Ignore rainfall/runoff	No
Ignore snow melt	No
Ignore groundwater	No
Ignore flow routing	No
Ignore water quality	No
Report average results	No

Summary 2: Model inventory

Name	NelsonWWTF-100YR
Raingages	6
Subcatchments	0
Aquifers	0
Snowpacks	0
RDII hydrographs	0
Junction nodes	309
Outfall nodes	7
Flow divider nodes	0
Storage unit nodes	6
Conduit links	308
Pump links	0
Orifice links	11
Weir links	53
Outlet links	66
Treatment units	0
Transects	6
Control rules	0
Pollutants	0
Land Uses	0
Control Curves	0
Diversion Curves	0
Pump Curves	0
Rating Curves	21
Shape Curves	0
Storage Curves	20
Tidal Curves	0
Weir Curves	0
Time Series	41
Time Patterns	0

Summary 3: Model complexity

Name	NelsonWWTF-100YR
Subcatchments	n/a
Groundwater	n/a
Aquifers	n/a
Snowpacks	n/a
RDII hydrographs	n/a
Junction nodes	749
Outfall nodes	7
Flow divider nodes	n/a
Storage unit nodes	20
Conduit links	1877
Pump links	n/a
Orifice links	40
Weir links	212
Outlet links	194
Transect	30
Pollutants	n/a
Land Uses	n/a
Model complexity (total uncertain input parameters)	3129

Summary 4: Inflows

Name	NelsonWWTF-100YR
Time series inflows	0
Dry weather	0
Groundwater	0
RDII inflows	0

Summary 5: Subcatchment statistics

Name	NelsonWWTF-100YR
Max. width (ft)	n/a
Min. width (ft)	n/a
Max. area (ac)	n/a
Min. area (ac)	n/a
Total area (ac)	n/a
Max. length of overland flow (ft)	n/a
Min. length of overland flow (ft)	n/a
Max. slope (%)	n/a

Summary 5: Subcatchment statistics (continued...)

Name	NelsonWWTF-100YR
Min. slope (%)	n/a
Max. imperviousness (%)	n/a
Min. imperviousness (%)	n/a
Max. imp. roughness	n/a
Min. imp. roughness	n/a
Max. perv. roughness	n/a
Min. perv. roughness	n/a
Max. imp. depression storage (in)	n/a
Min. imp. depression storage (in)	n/a
Max. perv. depression storage (in)	n/a
Min. perv. depression storage (in)	n/a

Summary 6: Node statistics

Name	NelsonWWTF-100YR
Max. ground elev. (ft)	1012.984
Min. ground elev. (ft)	843
Max. invert elev. (ft)	1011.884
Min. invert elev. (ft)	831.42
Max. depth (ft)	44.48
Min. depth (ft)	0

Summary 7: Conduit statistics

Name	NelsonWWTF-100YR
Max. roughness	0.035
Min. roughness	0.01
Max. entry loss coef.	1.5
Min. entry loss coef.	0
Max. exit loss coef.	1
Min. exit loss coef.	0
Max. avg. loss coef.	0
Min. avg. loss coef.	0
Max. length (ft)	648.835
Min. length (ft)	3.325
Total length (ft)	35555.929
Max. slope (ft/ft)	0.8406
Min. slope (ft/ft)	-0.2206

Summary 8: Conduit Inventory

Name	NelsonWWTF-100YR
Open Rectangular (ft)	539.862
Trapezoidal (ft)	4512.771
Irregular (ft)	14342.122
Circular (ft)	16099.054
Dummy (ft)	62.12

Summary 9: Pipe inventory

Name	NelsonWWTF-100YR
Max. pipe diameter (ft)	7
Min. pipe diameter (ft)	0.25
Total 12” pipe length (ft)	2331.472
Total 15” pipe length (ft)	3868.711
Total 18” pipe length (ft)	2652.966
Total 24” pipe length (ft)	2975.202
Total 30” pipe length (ft)	298.306
Total 36” pipe length (ft)	1722.847
Total 48” pipe length (ft)	502.955
Total 54” pipe length (ft)	402.52
Total 72” pipe length (ft)	47.457
Total 84” pipe length (ft)	229.206
Total other pipe length (ft)	1067.412
Total pipe length (ft)	16099.054

Summary 10: Unused objects

Name	NelsonWWTF-100YR
Rain Gages	5
Aquifers	n/a
Snow Packs	n/a
Unit Hydrographs	n/a
Transects	5
Control Curves	n/a
Diversion Curves	n/a
Pump Curves	n/a
Rating Curves	2
Shape Curves	n/a
Storage Curves	14

Summary 10: Unused objects (continued...)

Name	NelsonWWTF-100YR
Tidal Curves	n/a
Weir Curves	n/a
Time Series	34
Time Patterns	n/a

Summary 11: Flow routing continuity

Name	NelsonWWTF-100YR
Dry weather inflow (MG)	0.000
Wet weather inflow (MG)	0.000
Groundwater inflow (MG)	0.000
RDII inflow (MG)	0.000
External inflow (MG)	6.634
External outflow (MG)	5.418
Flooding loss (MG)	1.137
Evaporation loss (MG)	0.000
Exfiltration loss (MG)	0.000
Initial stored volume (MG)	0.012
Final stored volume (MG)	0.067
Continuity error (%)	0.357

Summary 12: Results statistics

Name	NelsonWWTF-100YR
Max. subcatchment total runoff (MG)	n/a
Max. subcatchment peak runoff (cfs)	n/a
Max. subcatchment runoff coefficient	n/a
Max. subcatchment total precip (in)	n/a
Min. subcatchment total precip (in)	n/a
Max. node depth (ft)	12.39
Num. nodes surcharged	22
Max. node surcharge duration (hours)	1.73
Max. node height above crown (ft)	5.576
Min. node depth below rim (ft)	0
Num. nodes flooded	13
Max. node flooding duration (hours)	1.7
Max. node flood volume (MG)	0.979
Max. node ponded volume or depth (acre-in/1000 ft^3/ft)	0.928

Summary 12: Results statistics (continued...)

Name	NelsonWWTF-100YR
Max. storage volume (1000 ft³)	82.208
Max. storage percent full (%)	83.8
Max. outfall flow frequency (%)	100
Max. outfall peak flow (cfs)	183.08
Max. outfall total volume (MG)	4.018
Total outfall volume (MG)	5.447
Max. link peak flow (cfs)	183.08
Max. link peak velocity (ft/s)	36.91
Min. link peak velocity (ft/s)	0
Num. conduits surcharged	67
Max. conduit surcharge duration (hours)	1.83
Max. conduit capacity limited duration (hours)	1.72

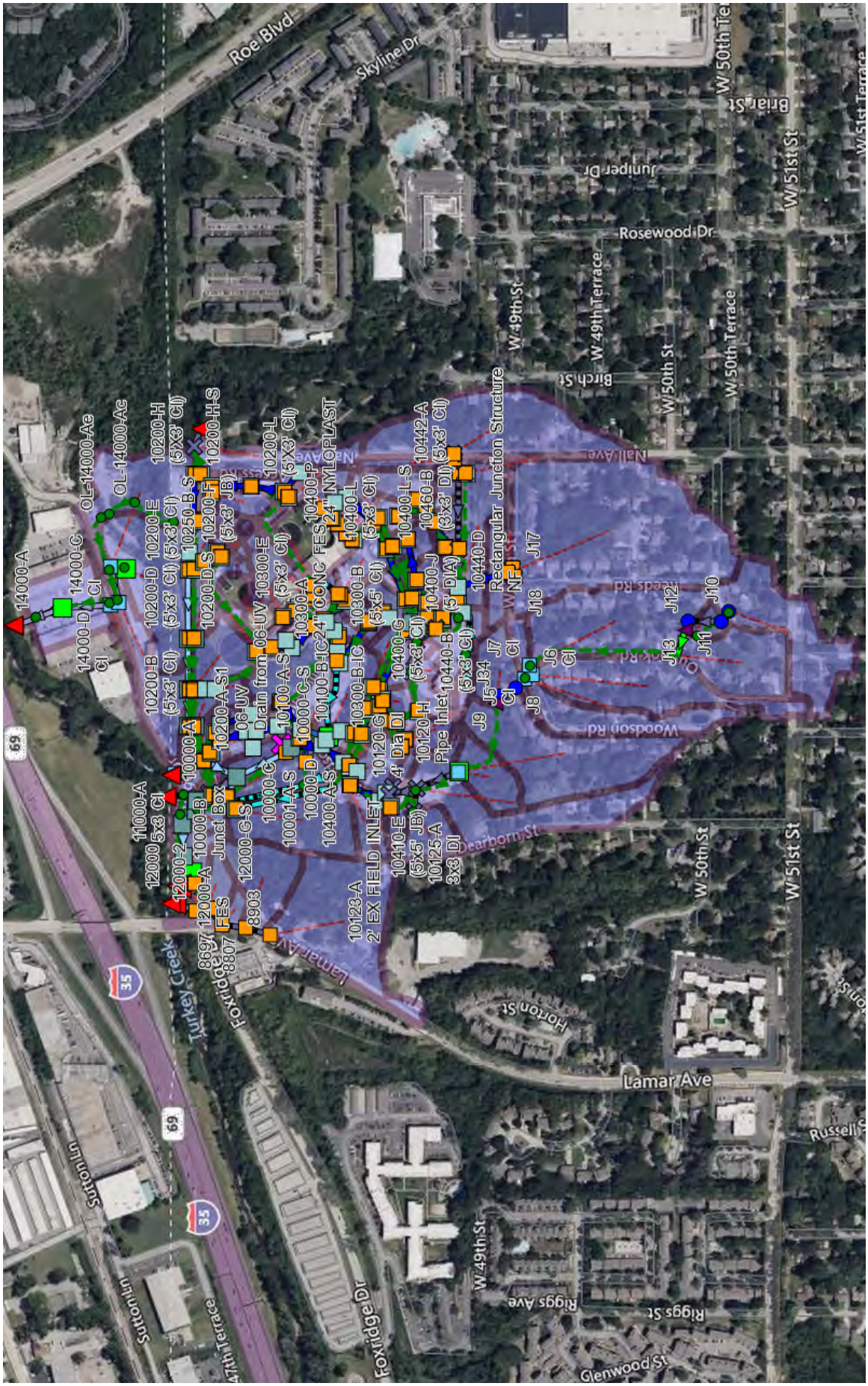


Figure 1: Map Extents

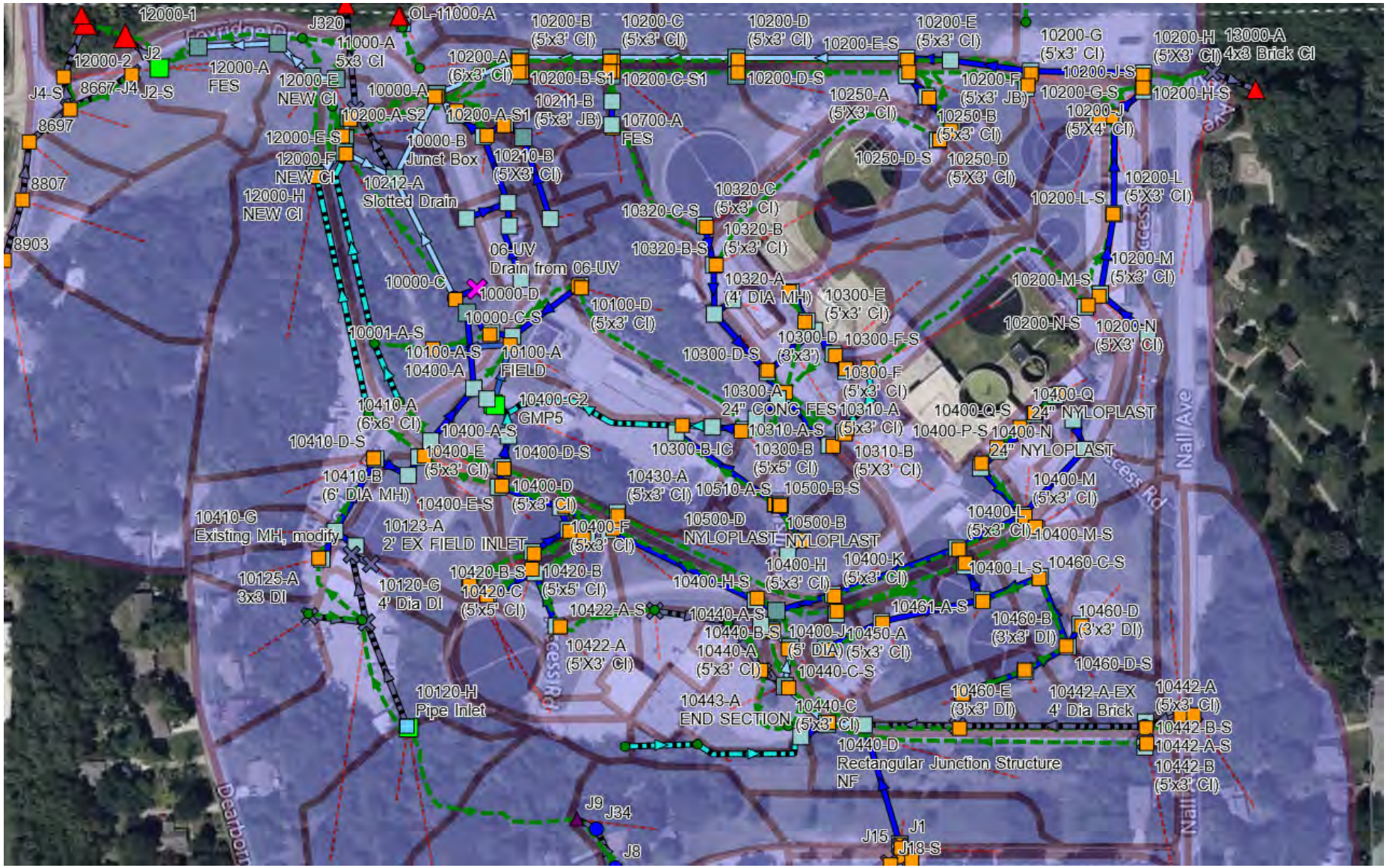


Figure 2: WWTF Site

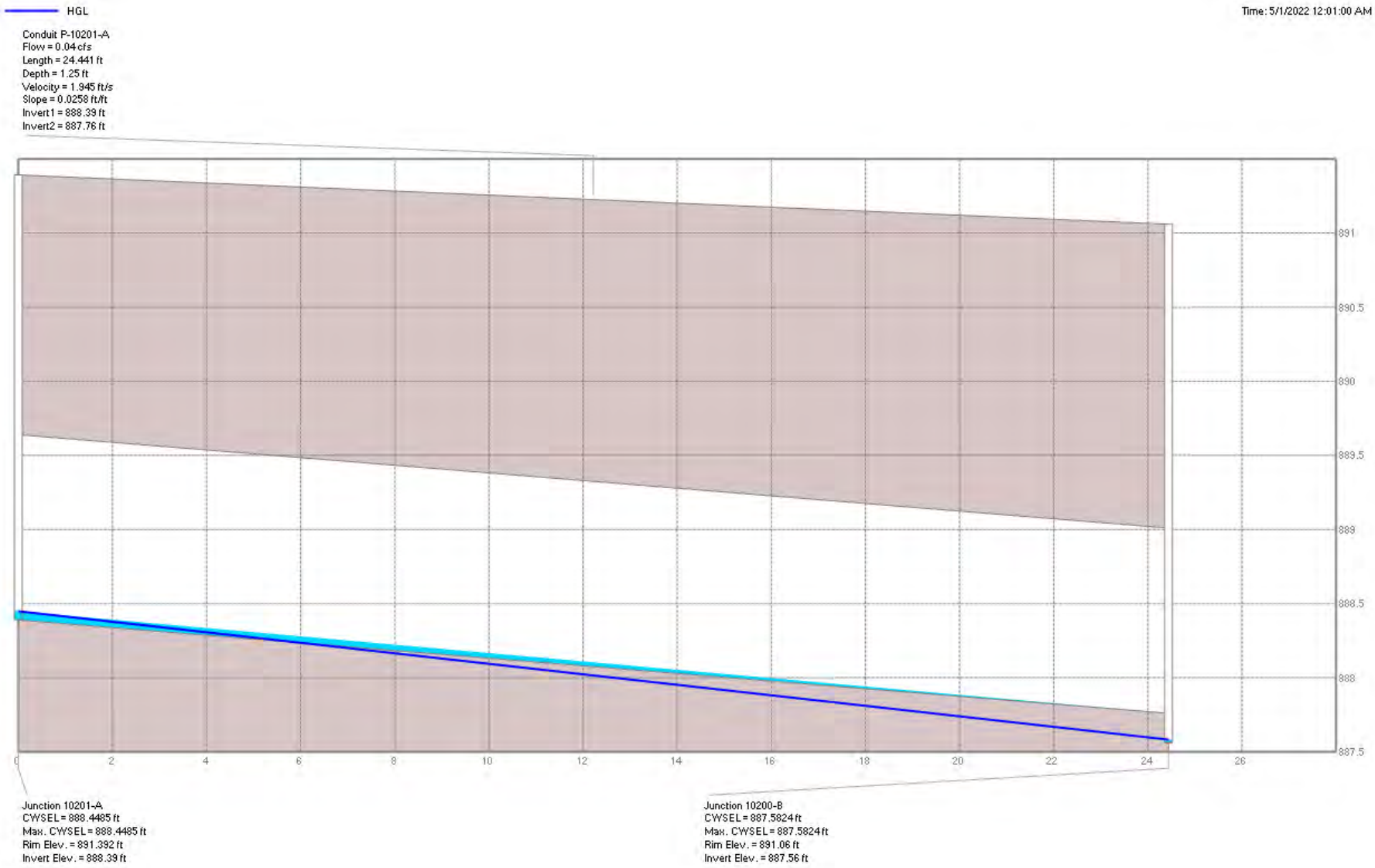


Figure 3: LINE 10201

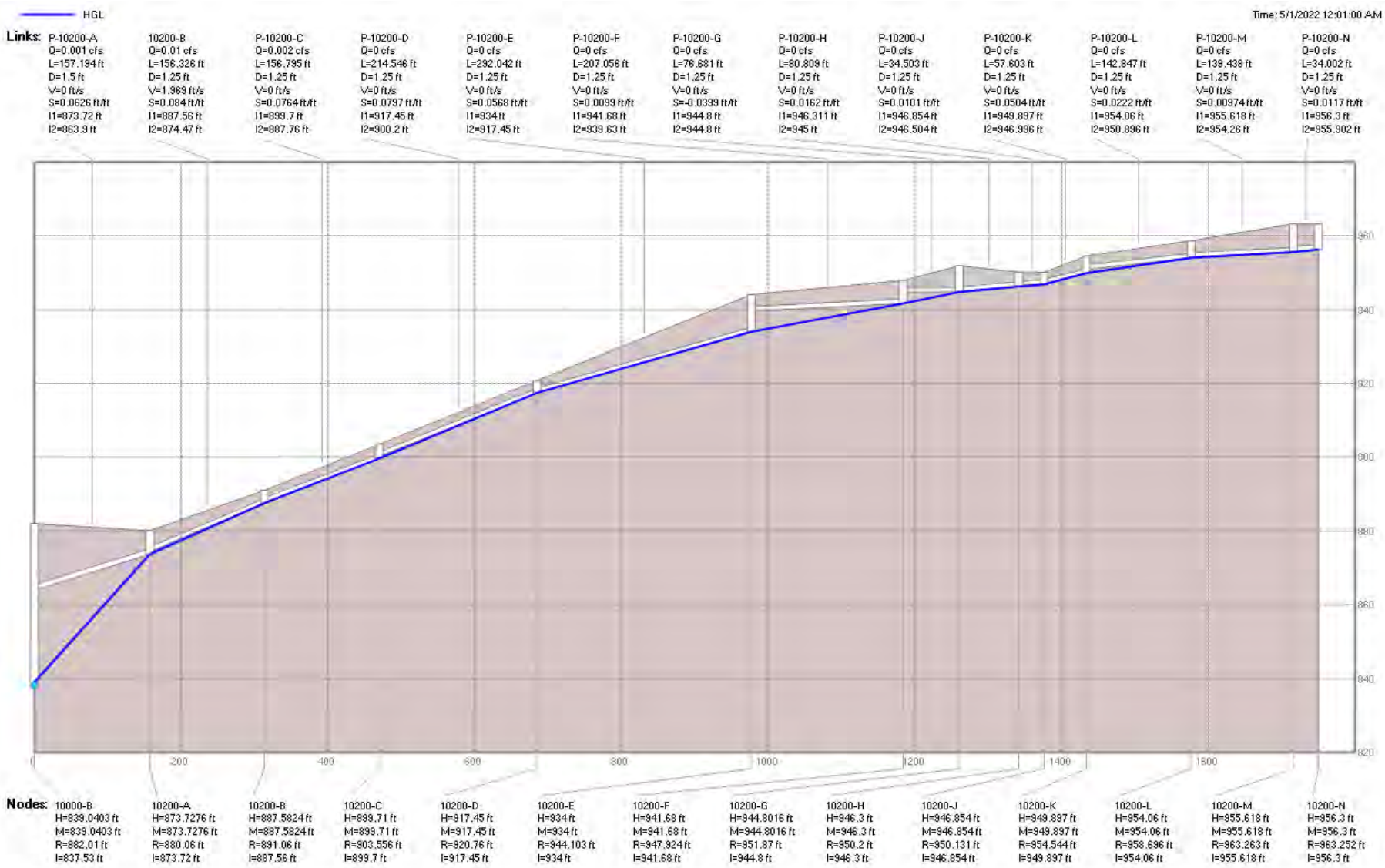


Figure 4: LINE 10200

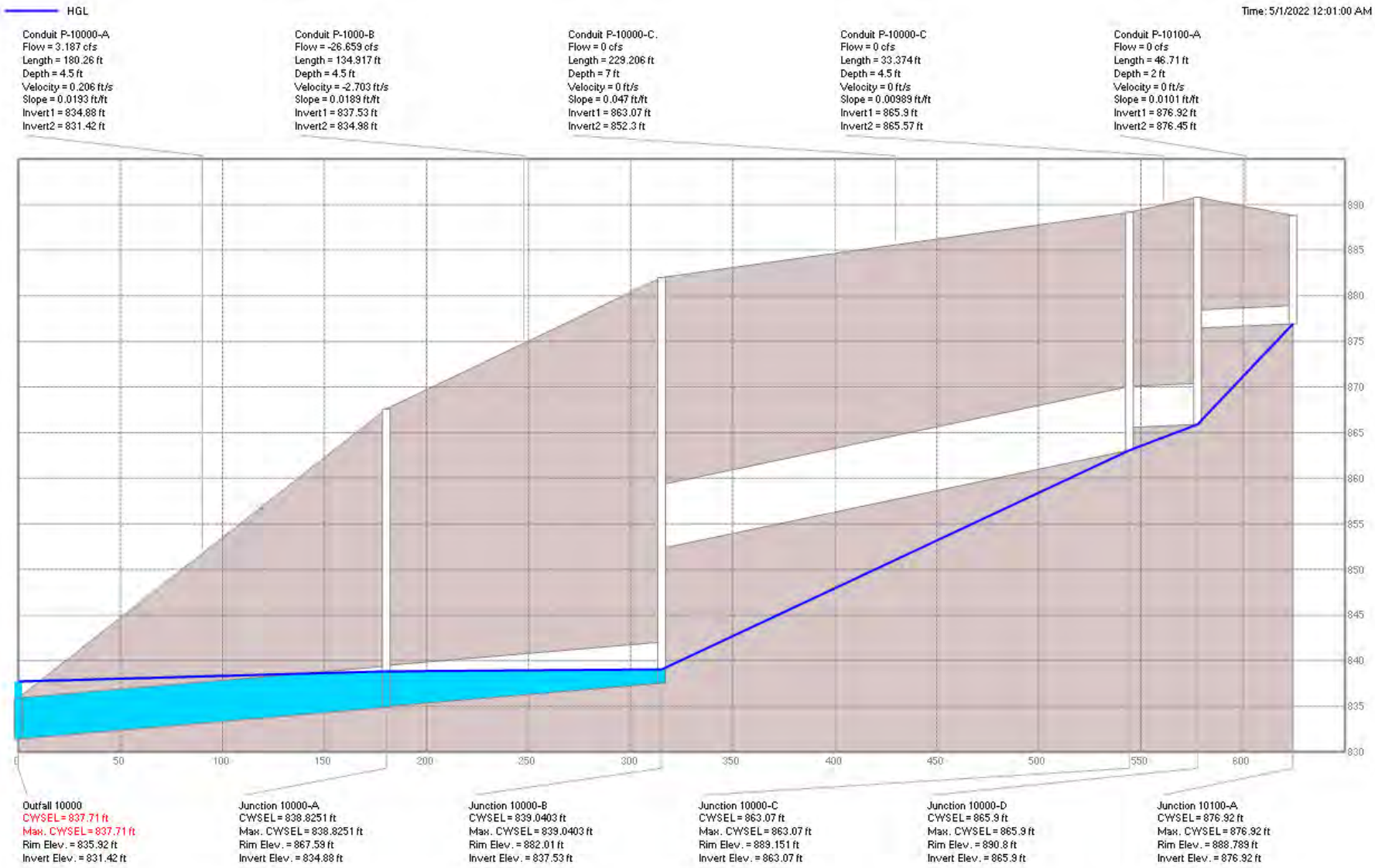


Figure 5: LINE 10000

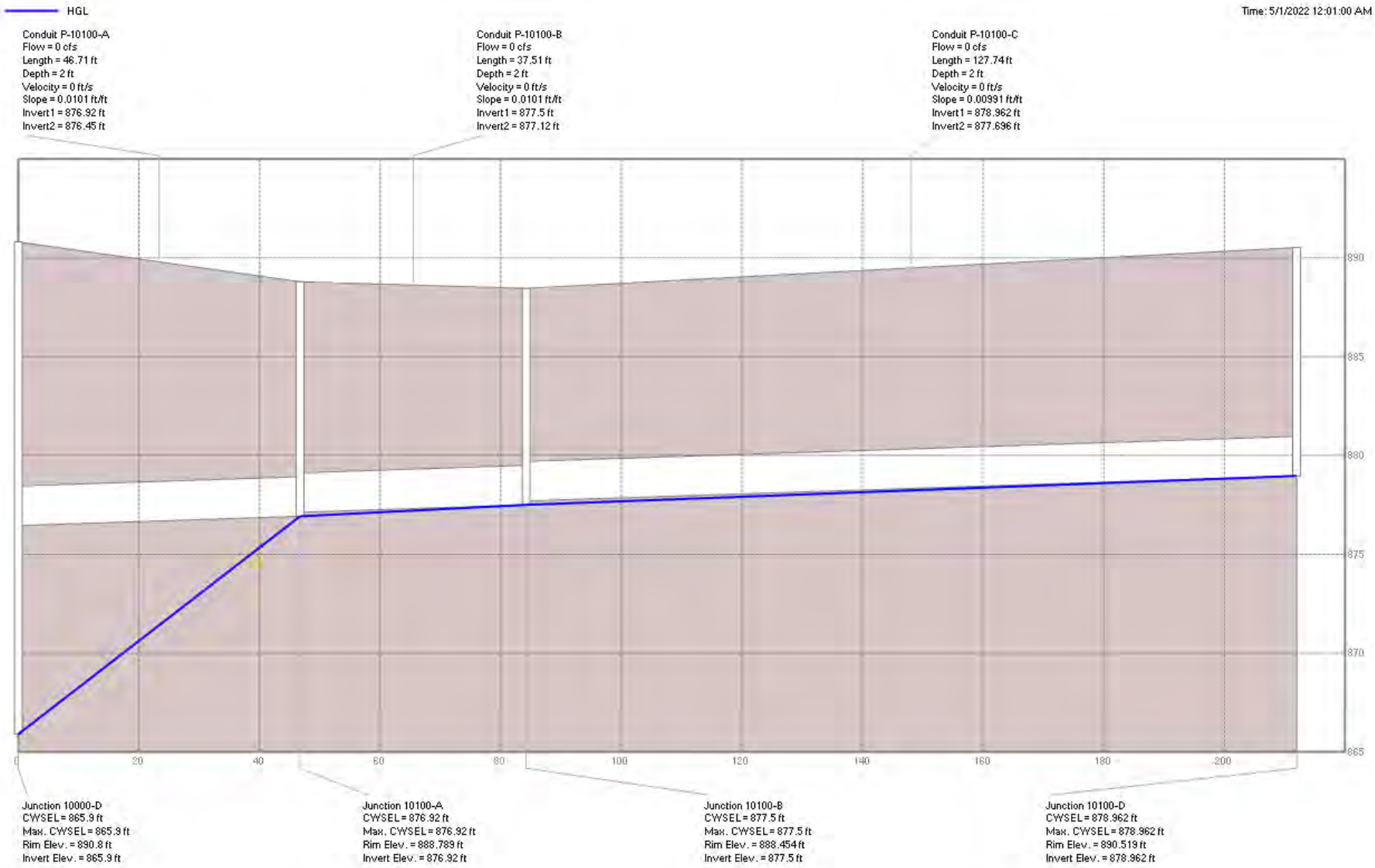


Figure 6: LINE 10100

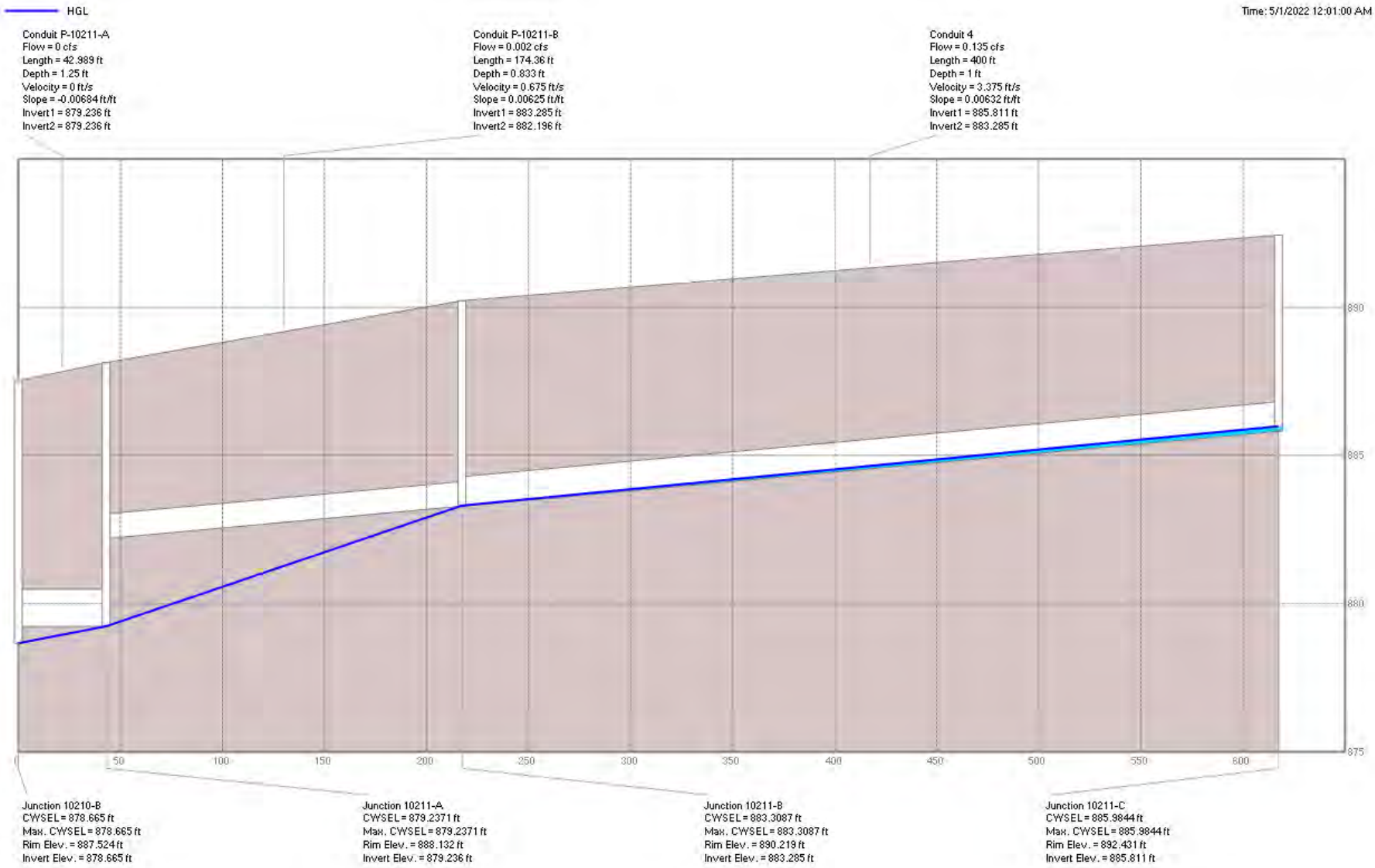


Figure 7: LINE 10211

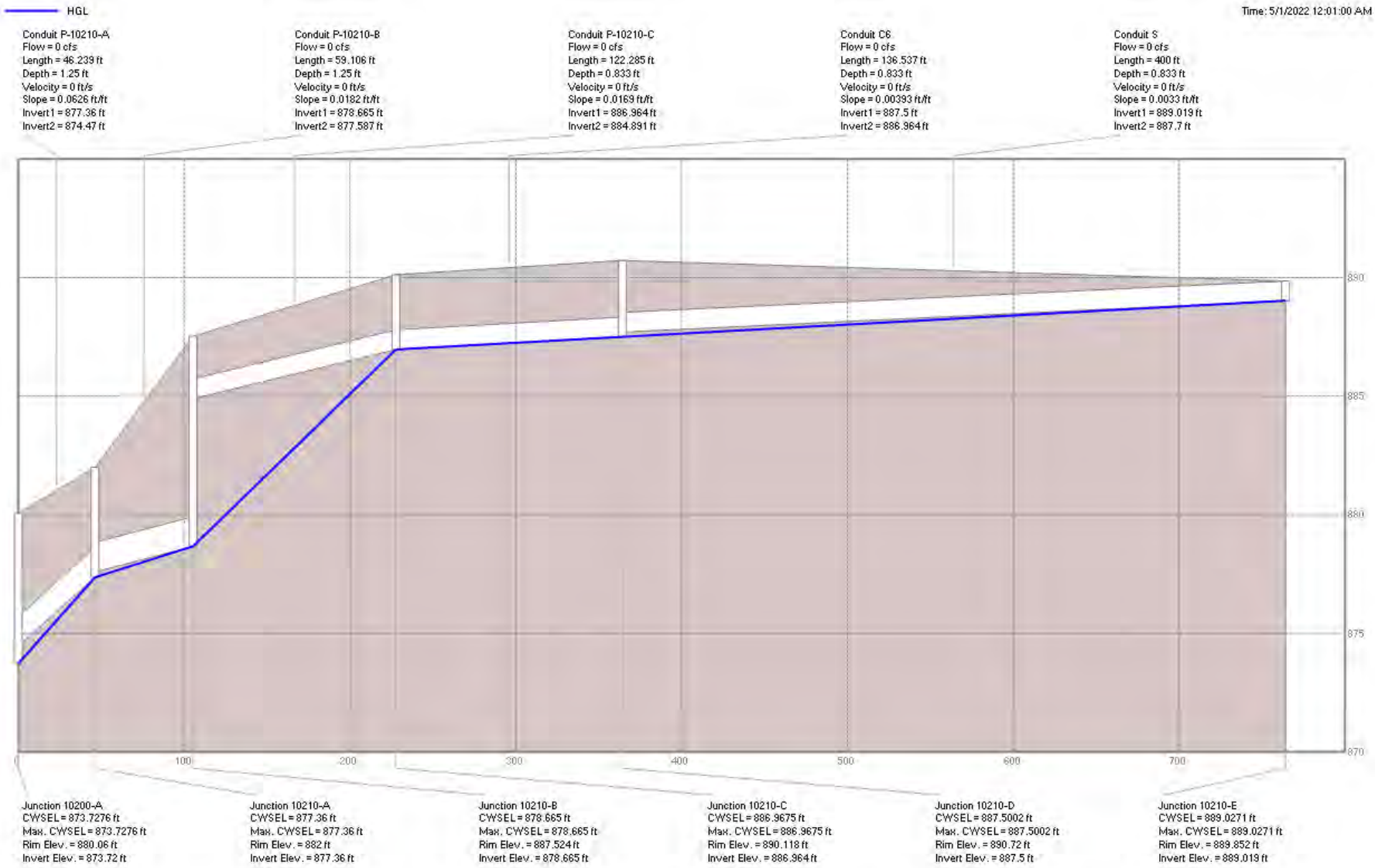


Figure 8: LINE 10210

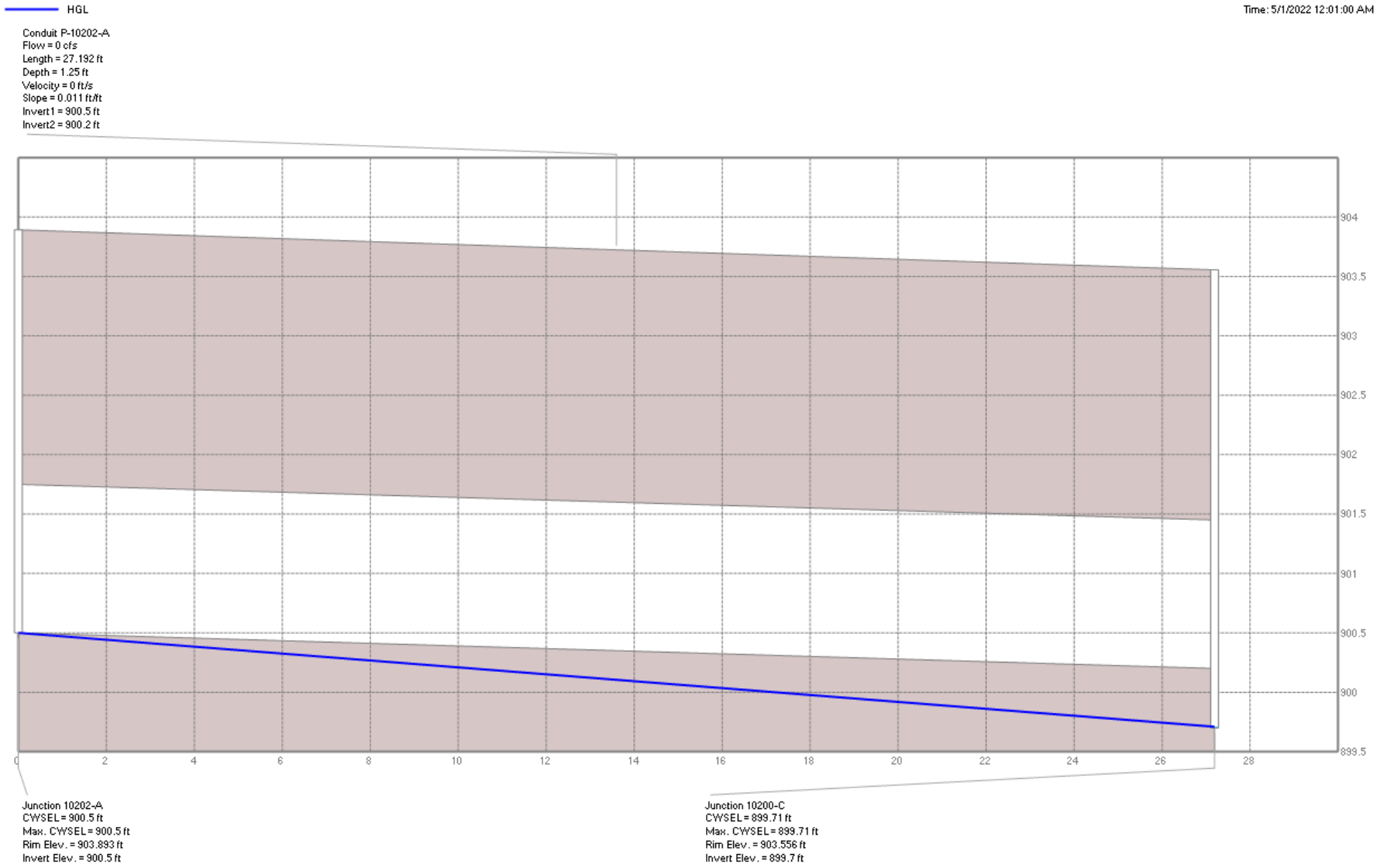


Figure 9: LINE 10202

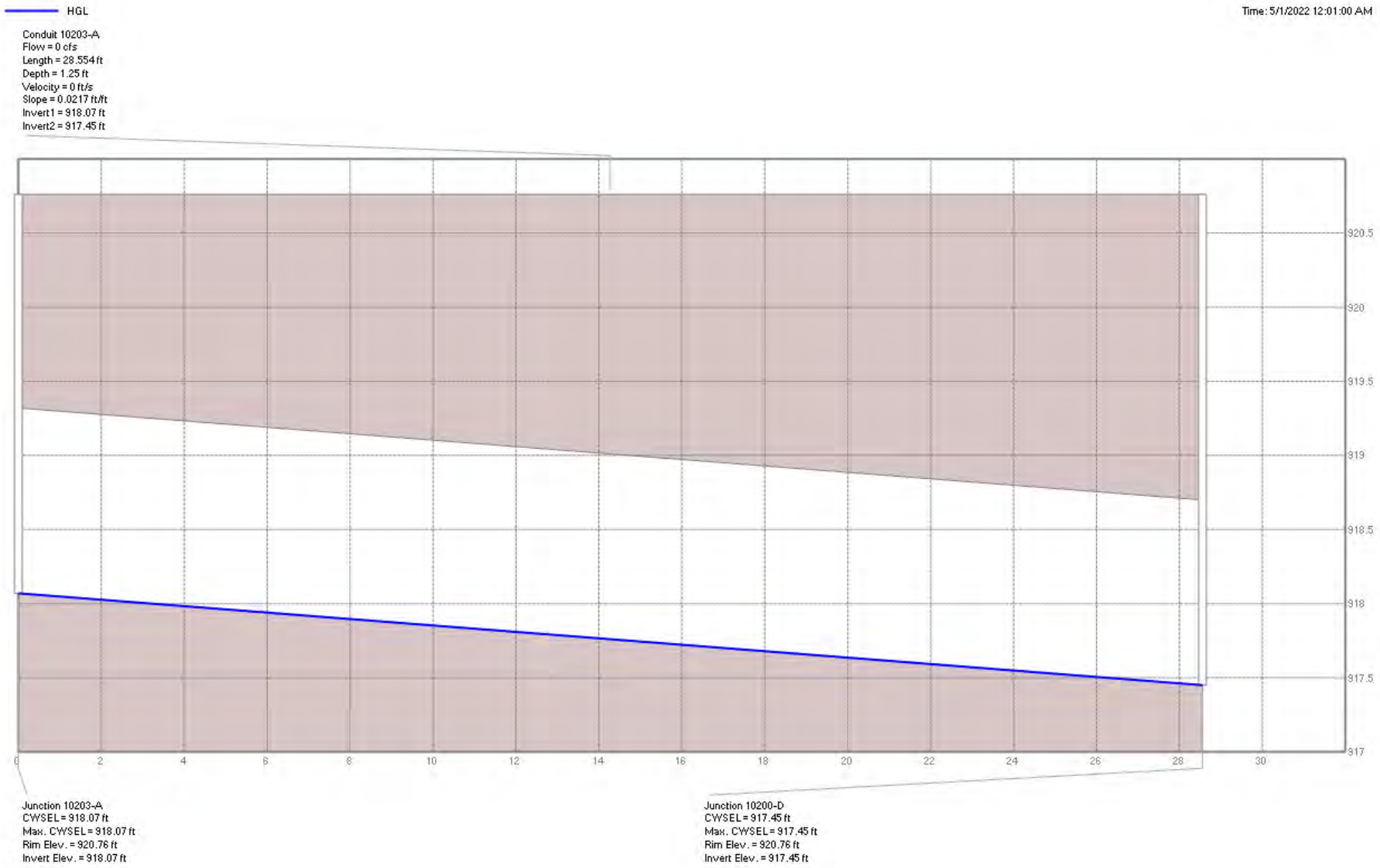


Figure 10: LINE 10203

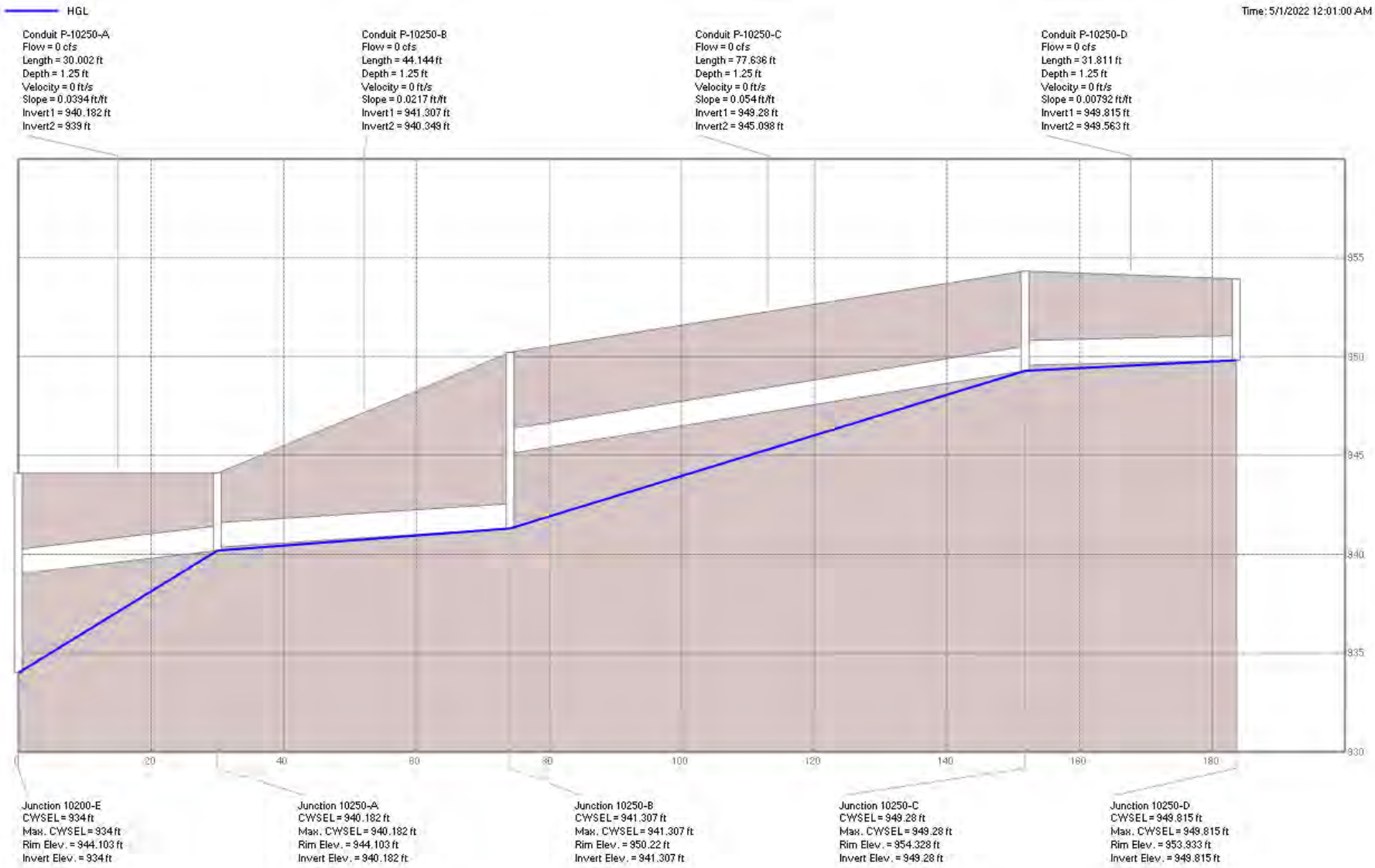


Figure 11: LINE 10250

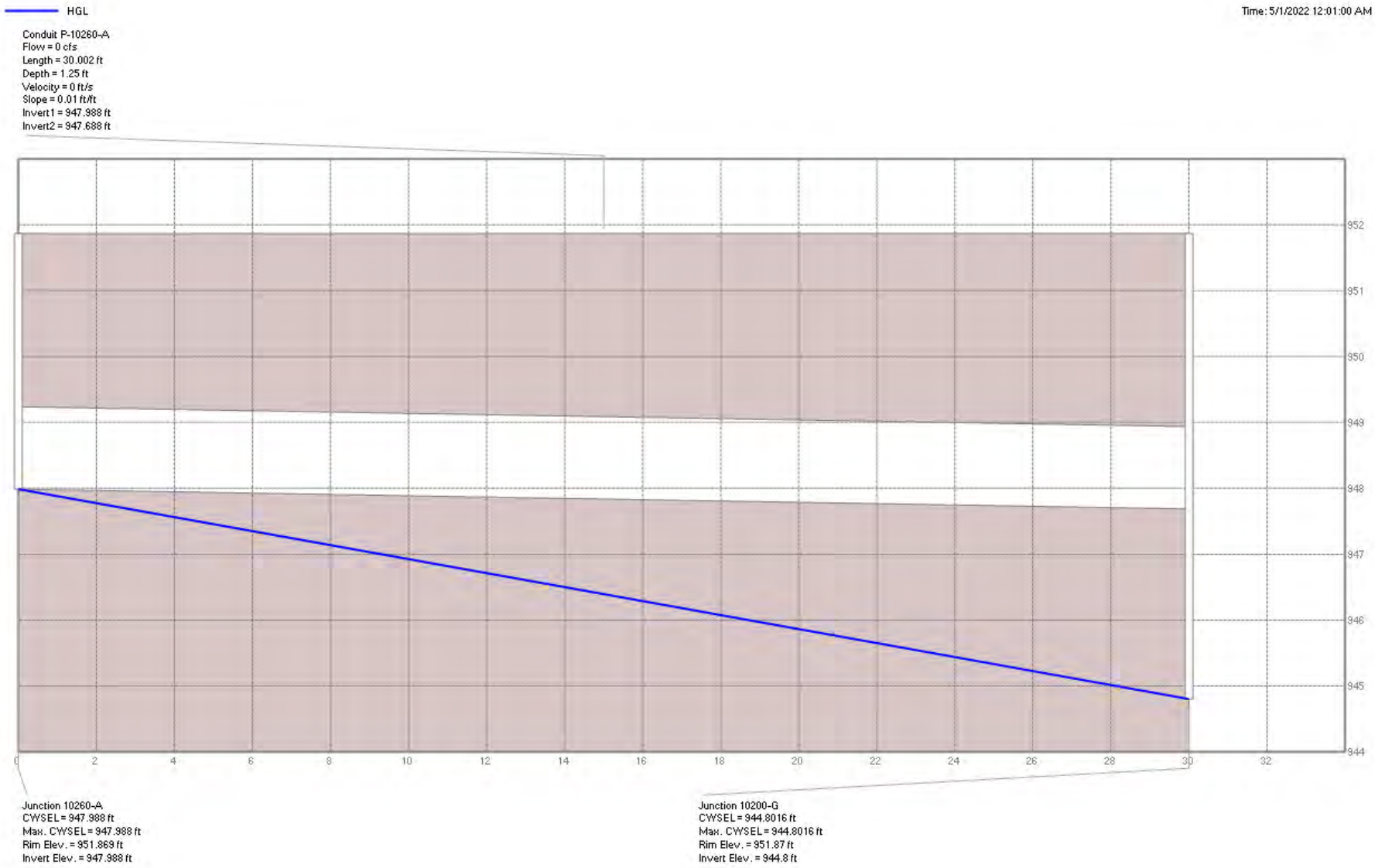


Figure 12: LINE 10260

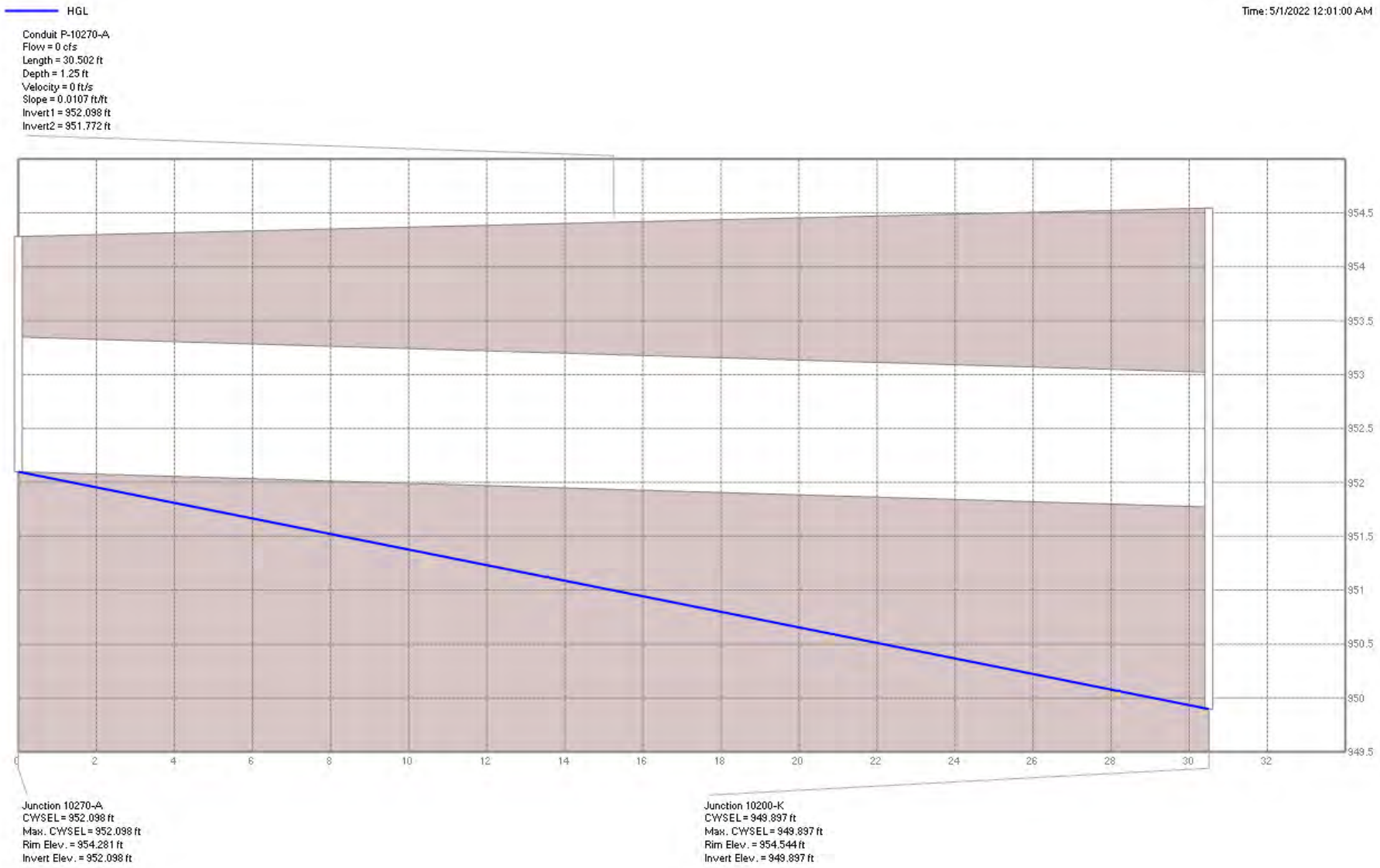


Figure 13: LINE 10270

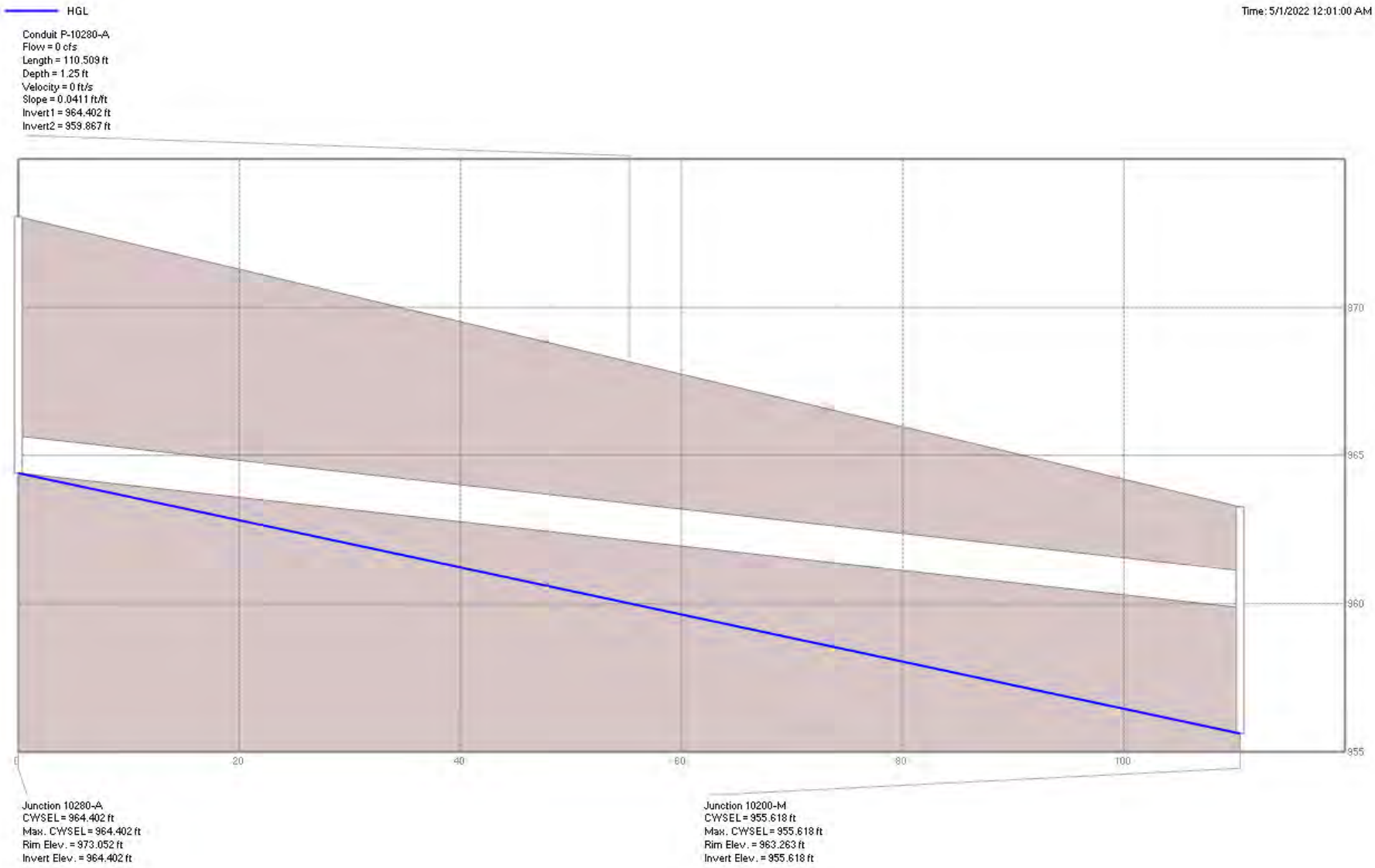


Figure 14: LINE 10280

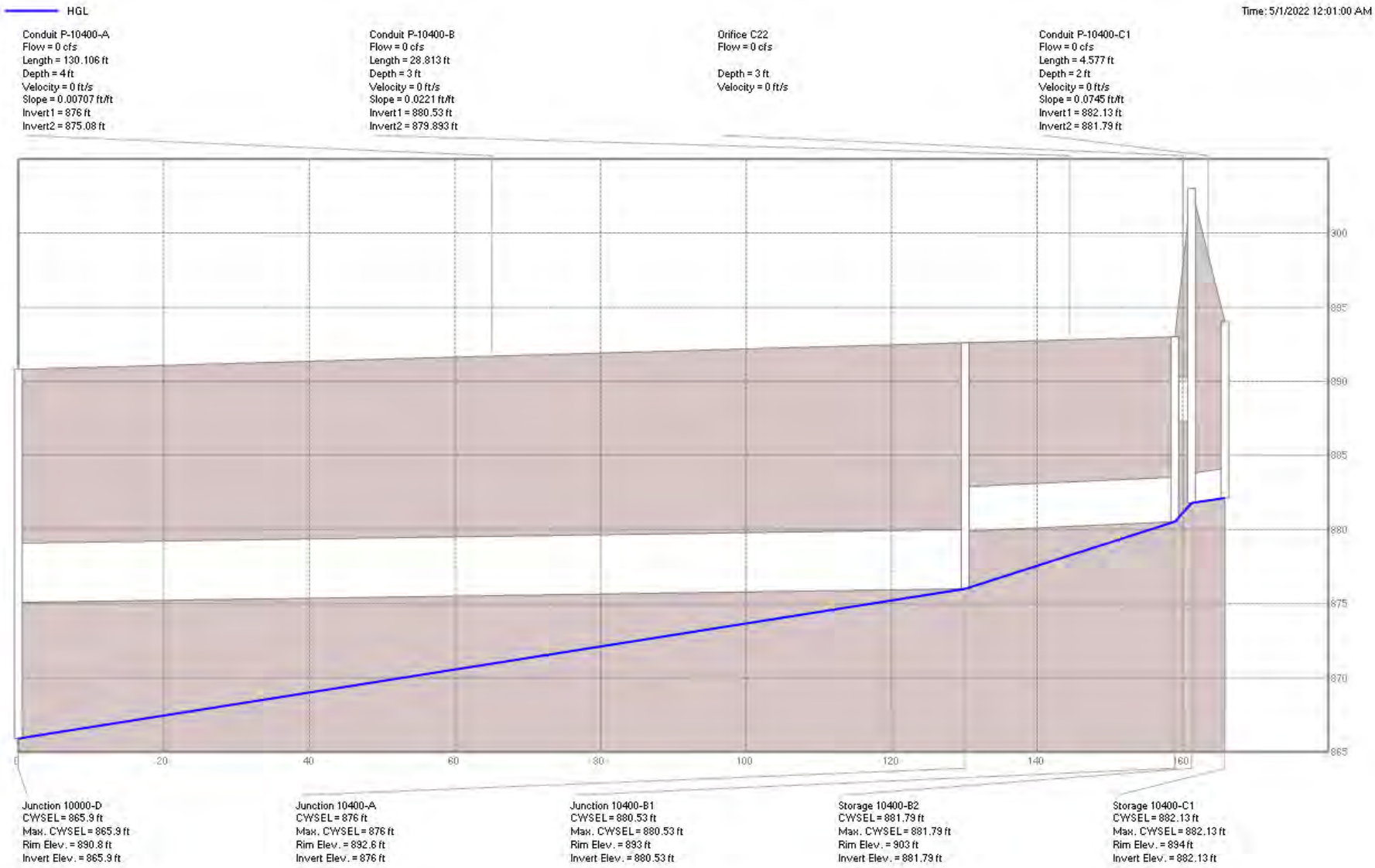


Figure 15: LINE 10400-1

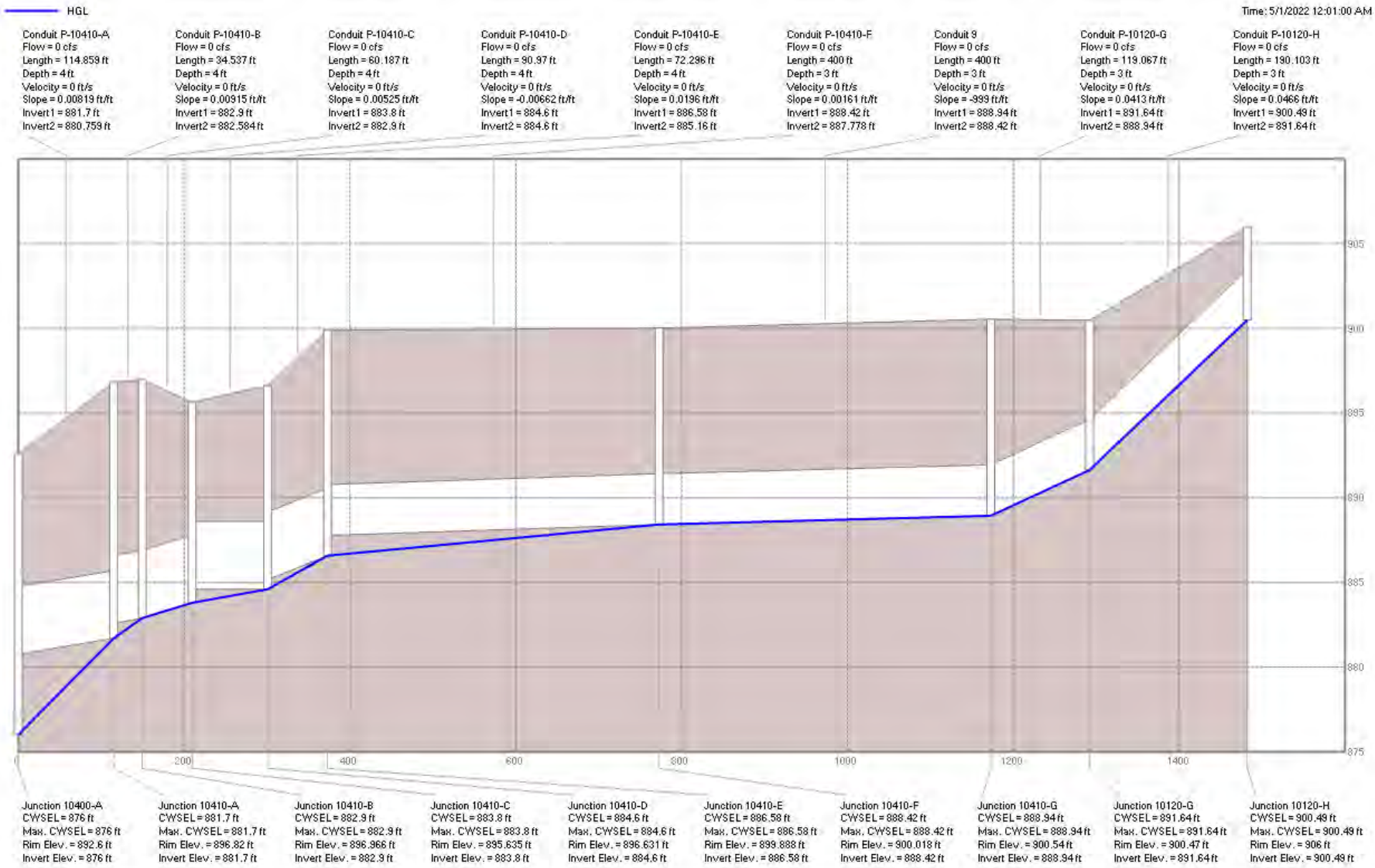


Figure 16: LINE 10410

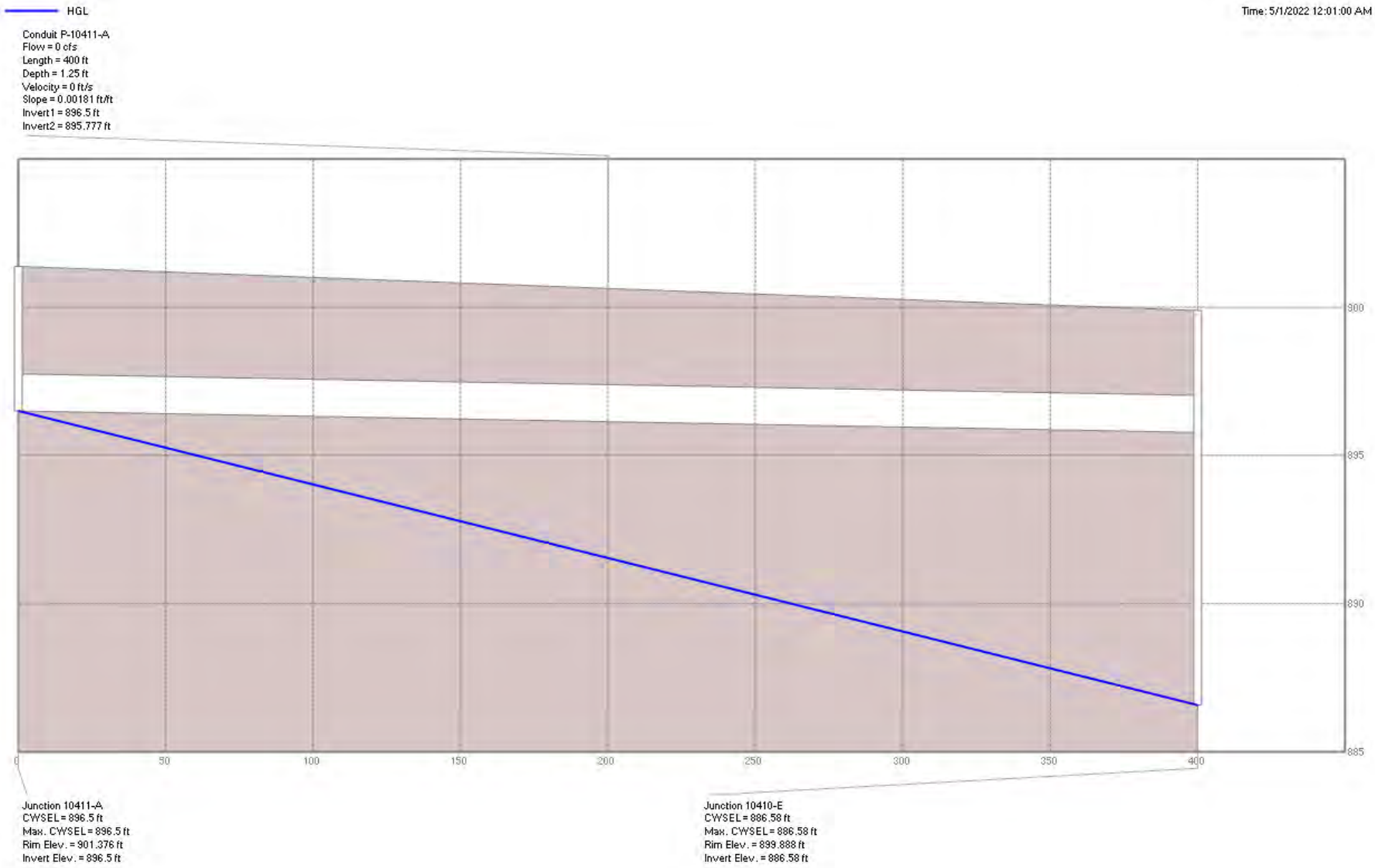


Figure 17: LINE 10411

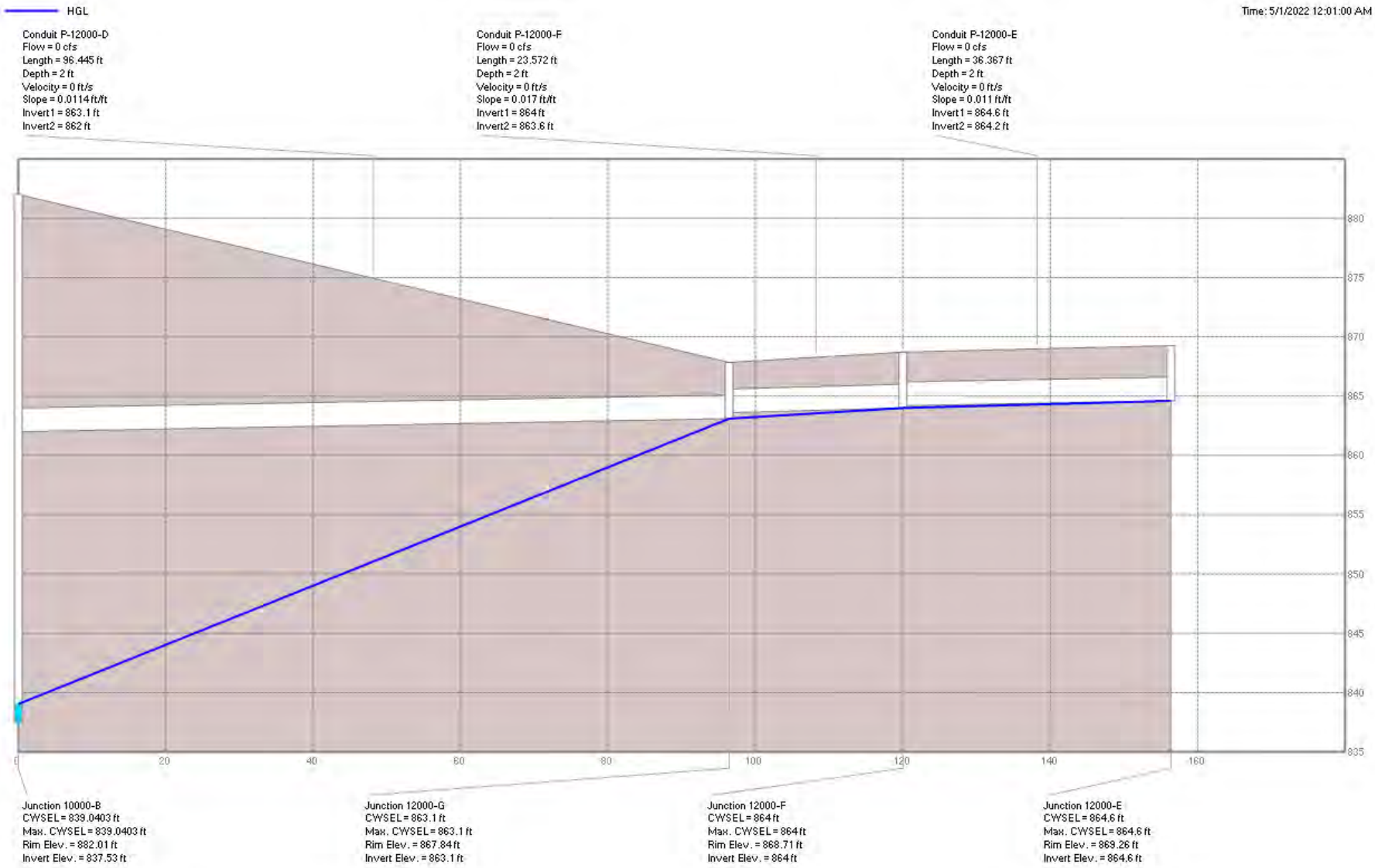


Figure 18: LINE 12000-1

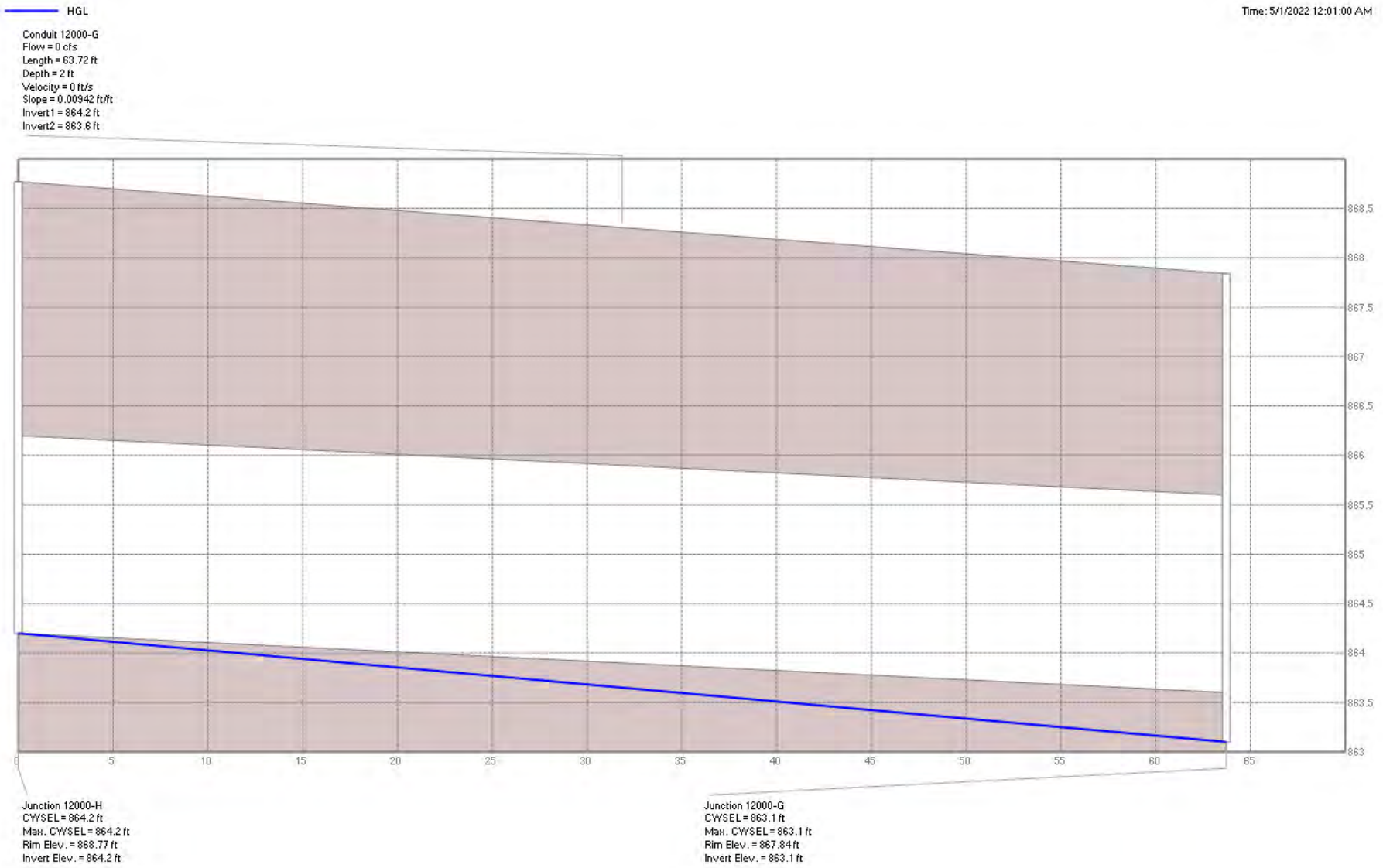


Figure 19: LINE 12000-2

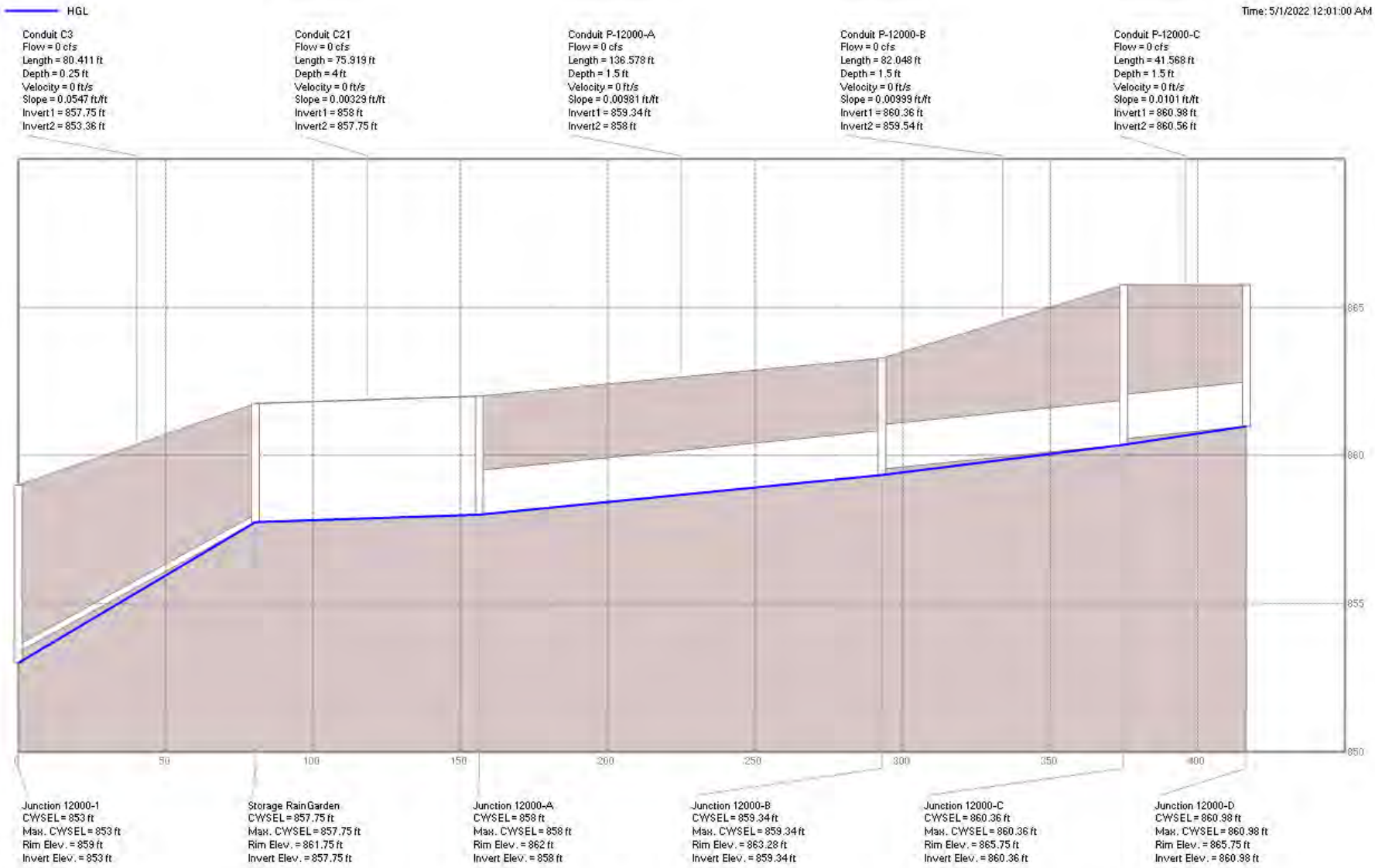


Figure 20: LINE 12000-OUTFALL

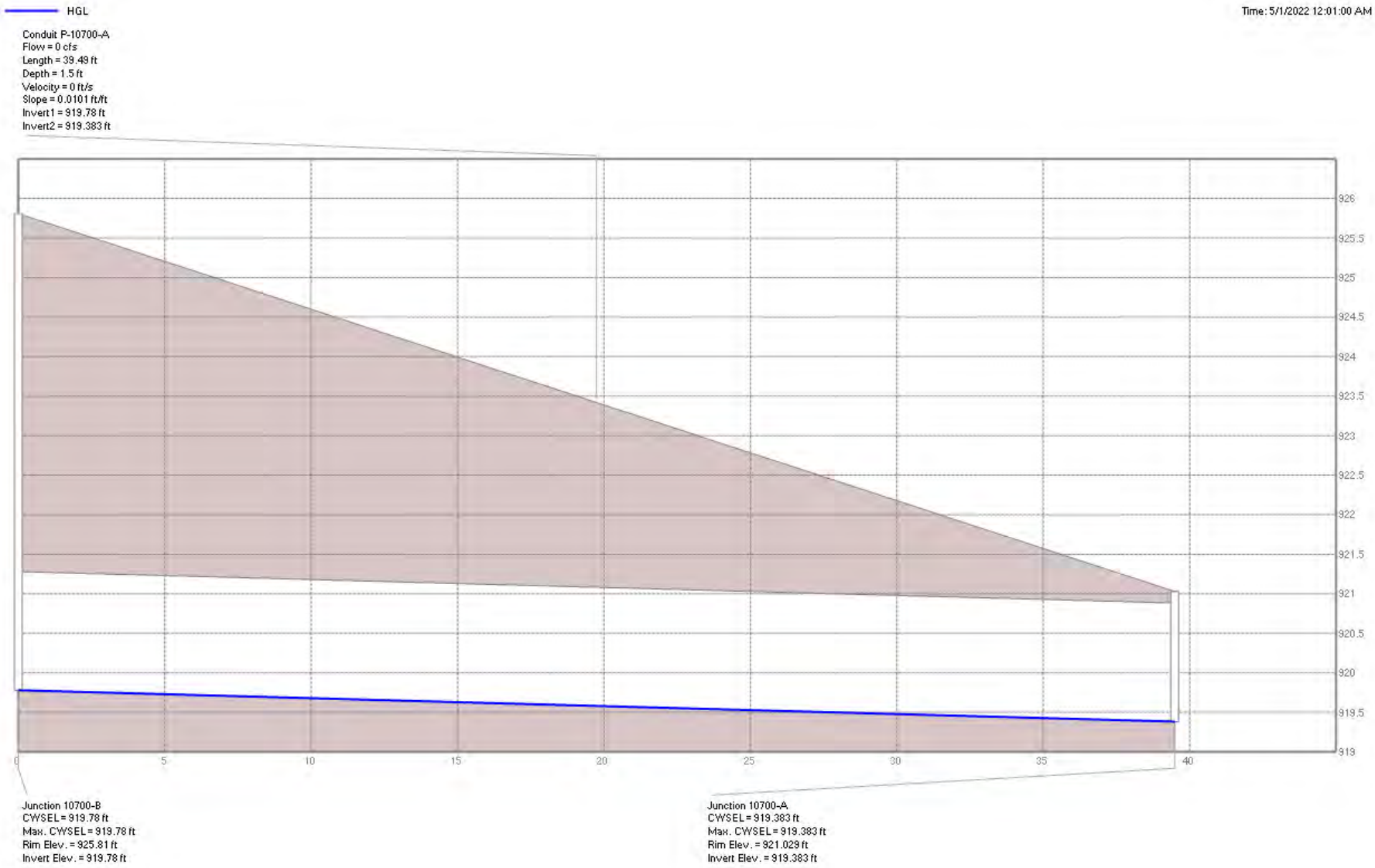


Figure 21: LINE 10700

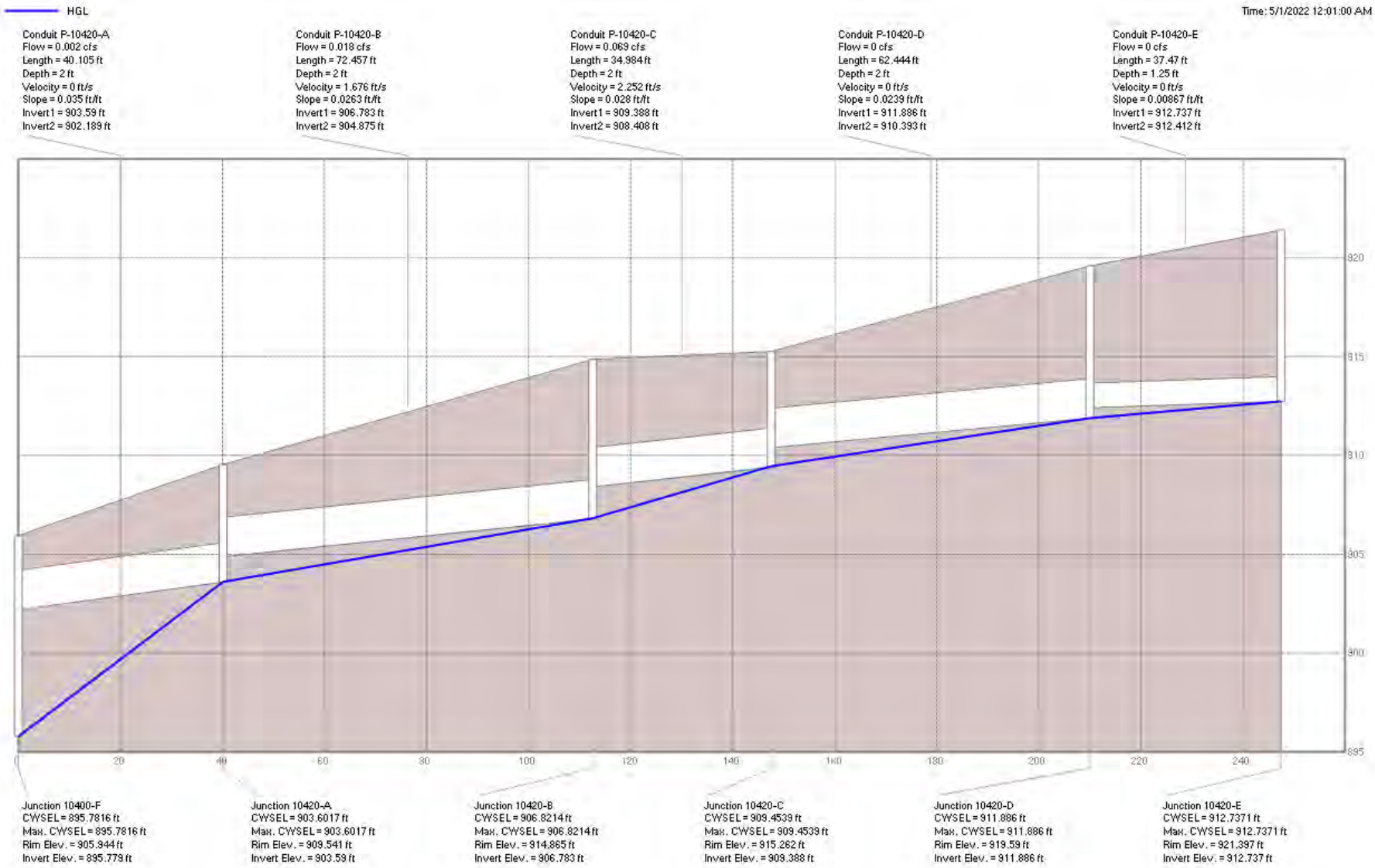


Figure 22: LINE 10420

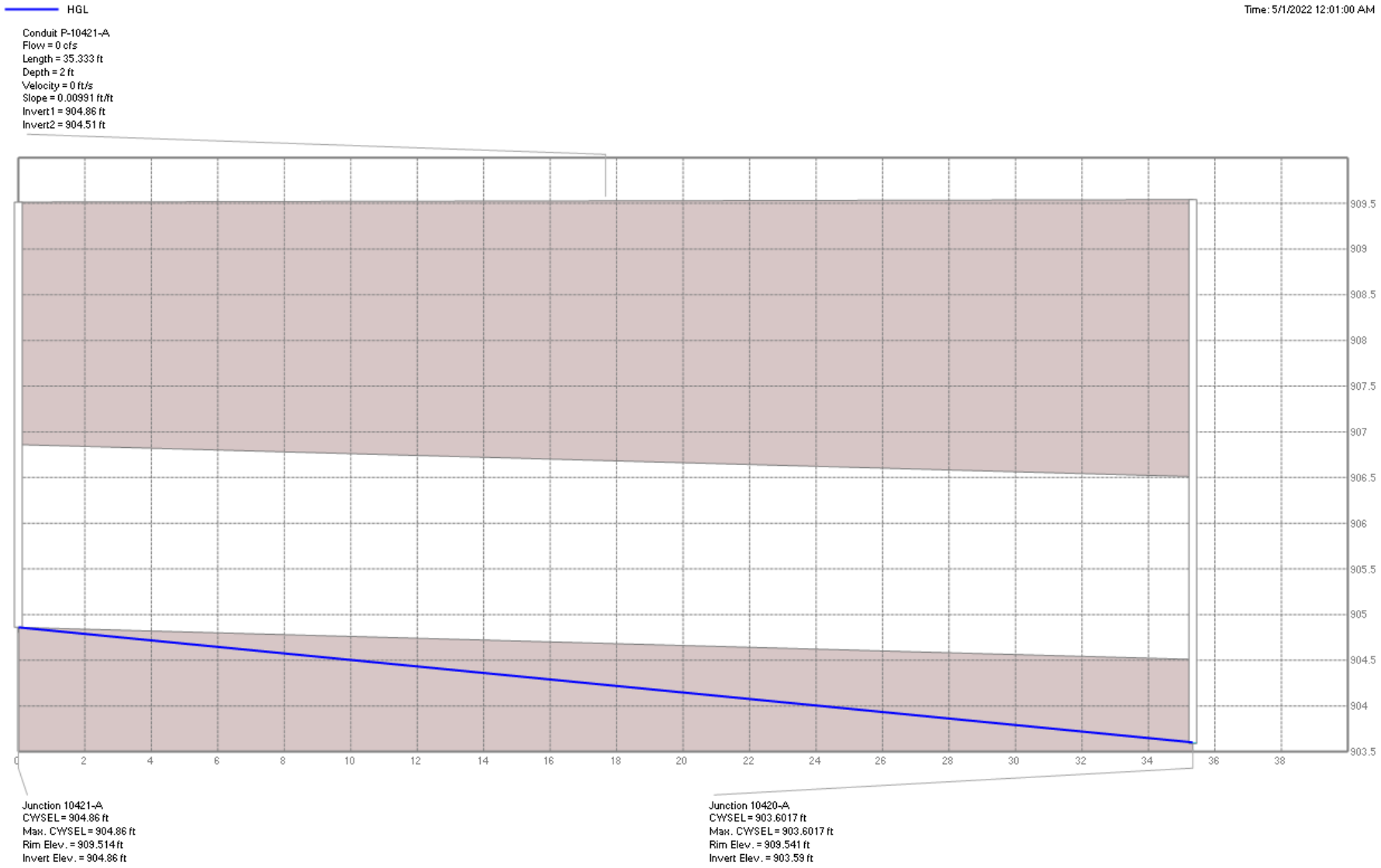


Figure 23: LINE 10421

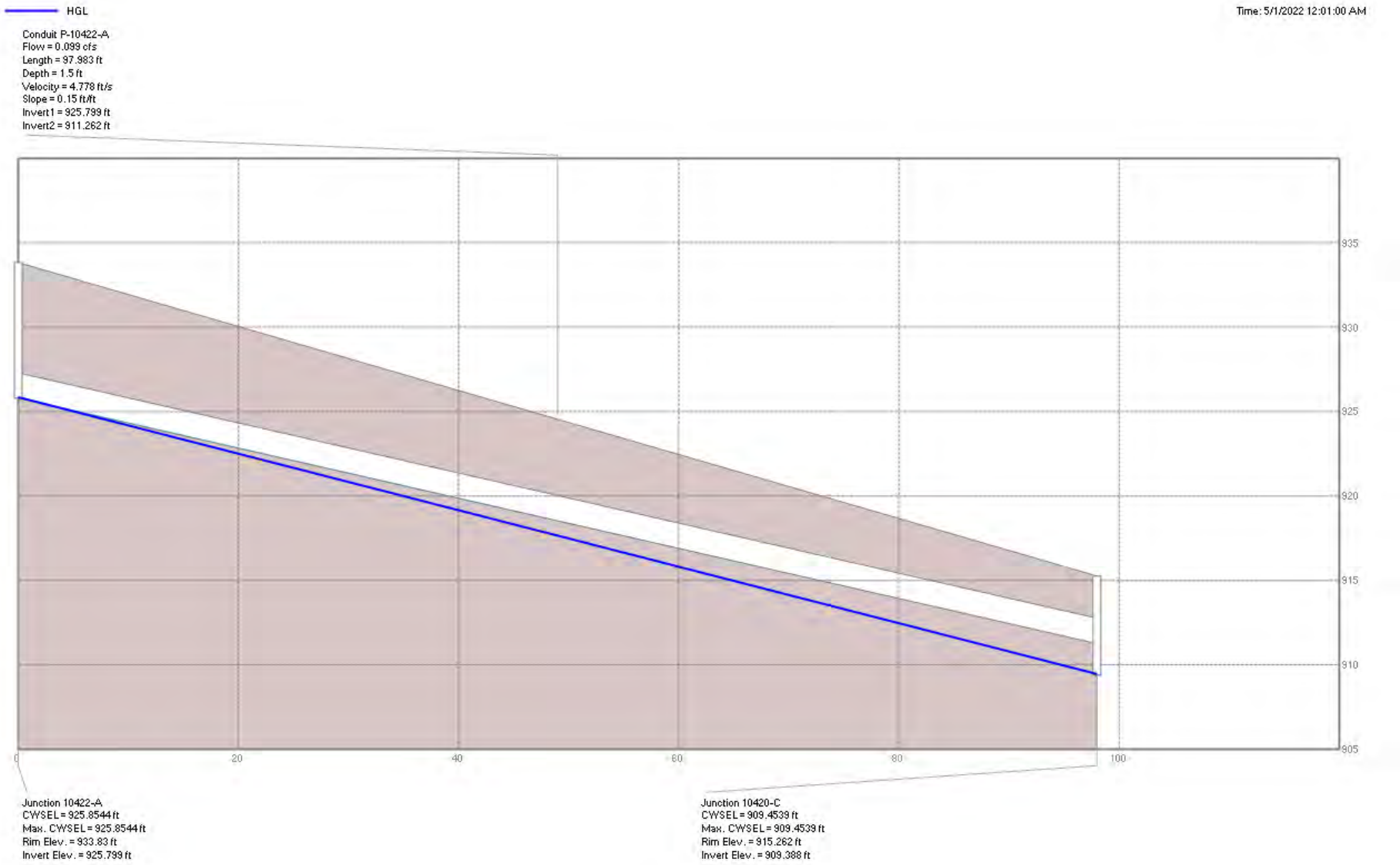


Figure 24: LINE 10422

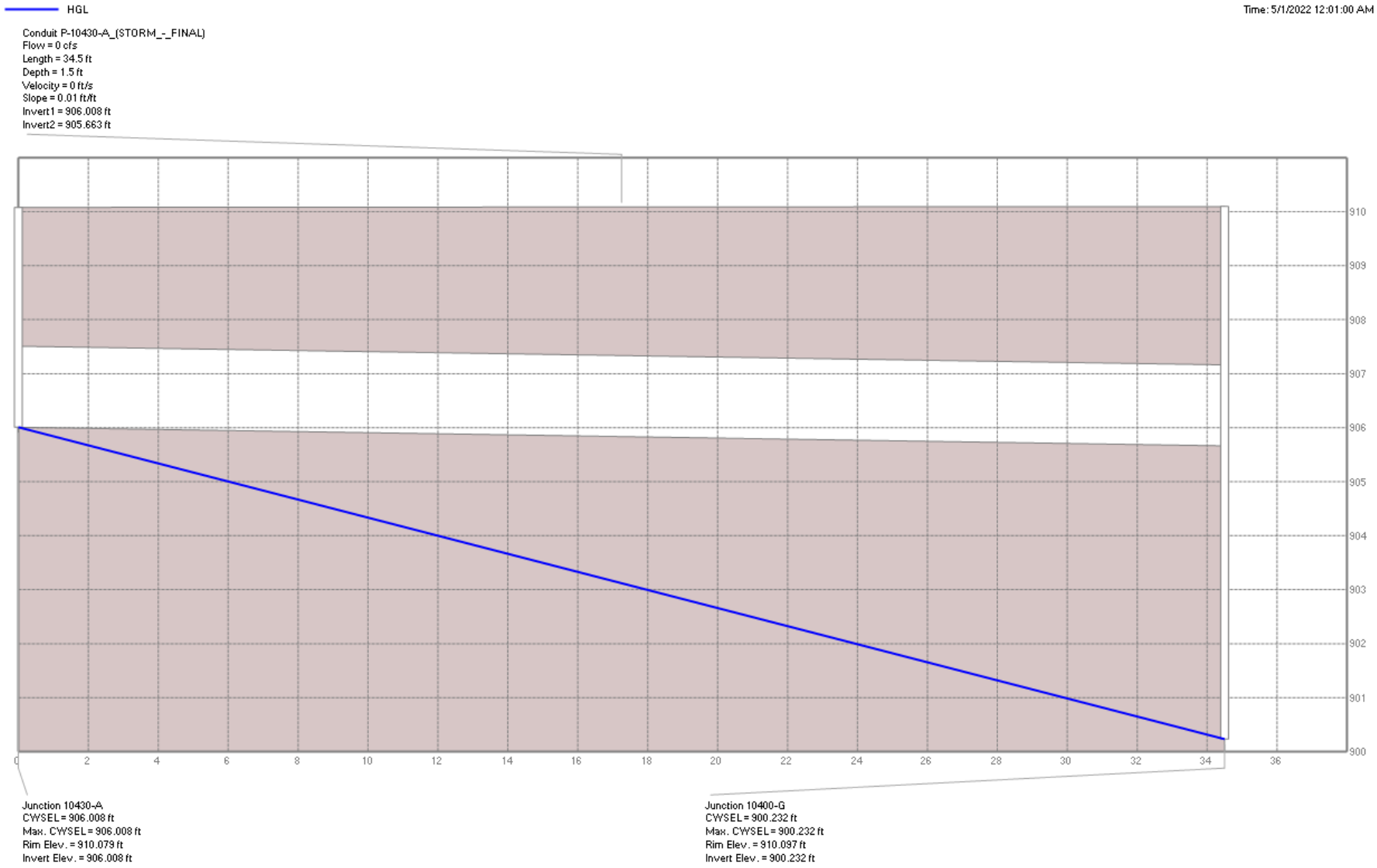


Figure 25: LINE 10430

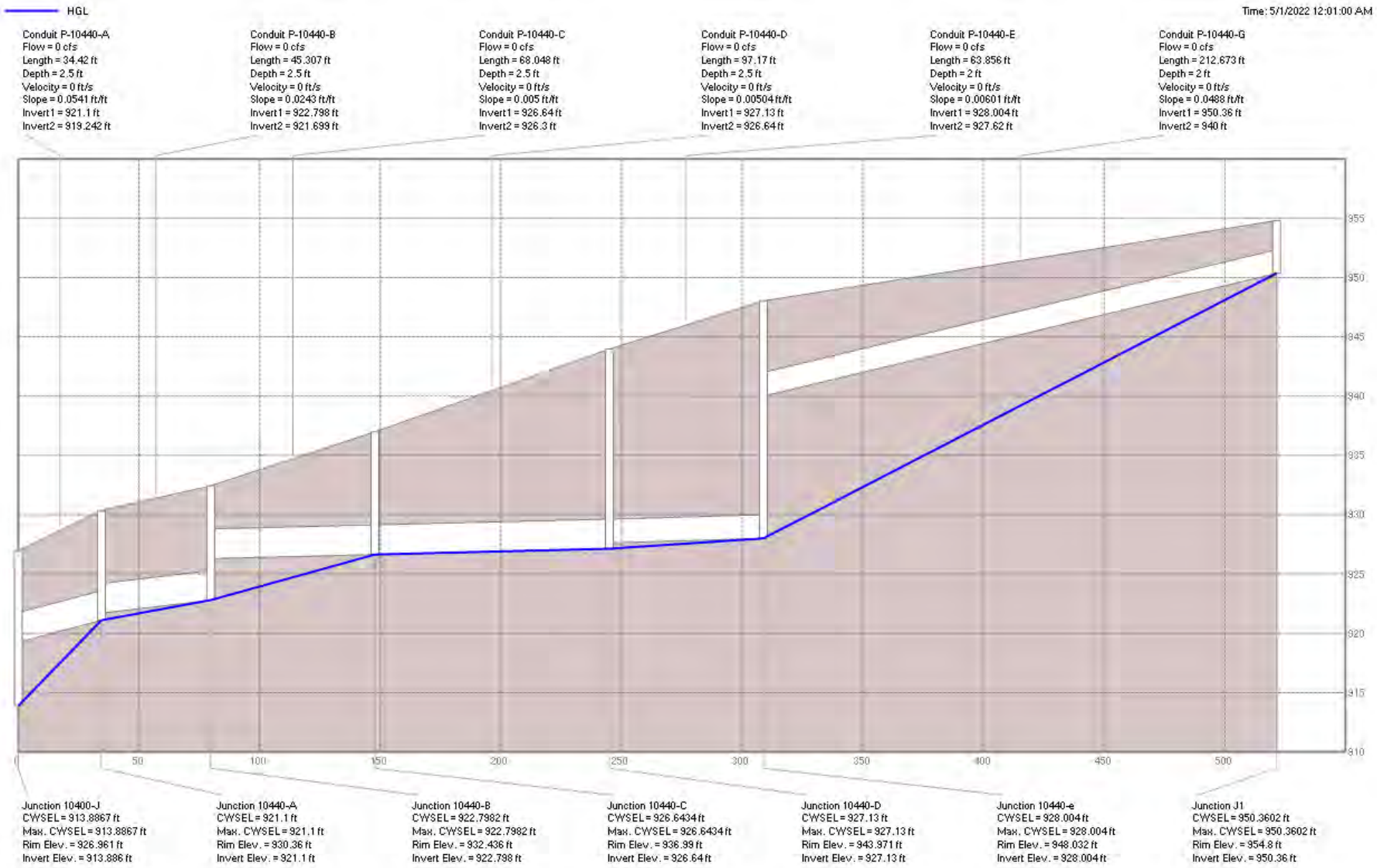


Figure 26: LINE 10440

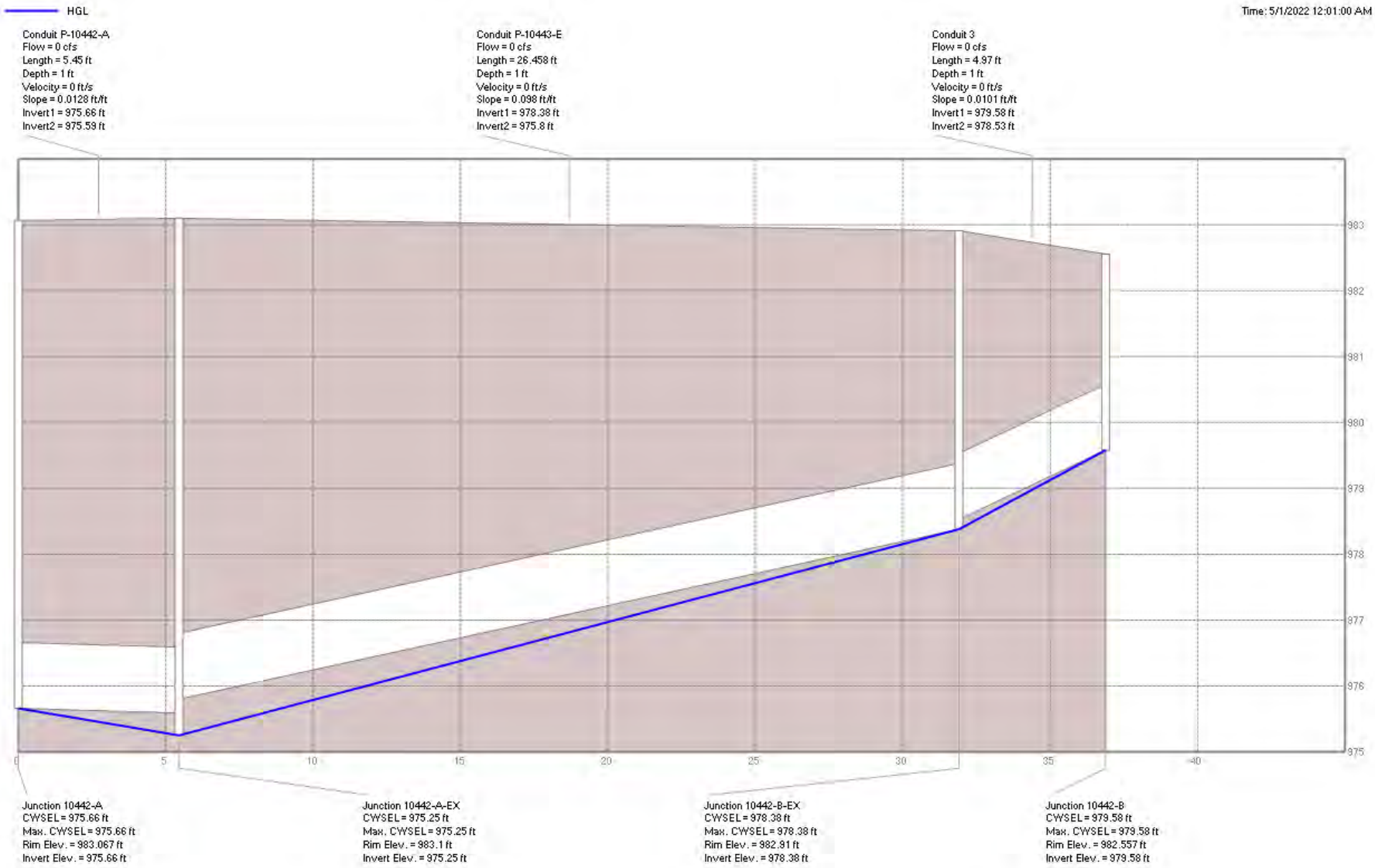


Figure 27: LINE 10442

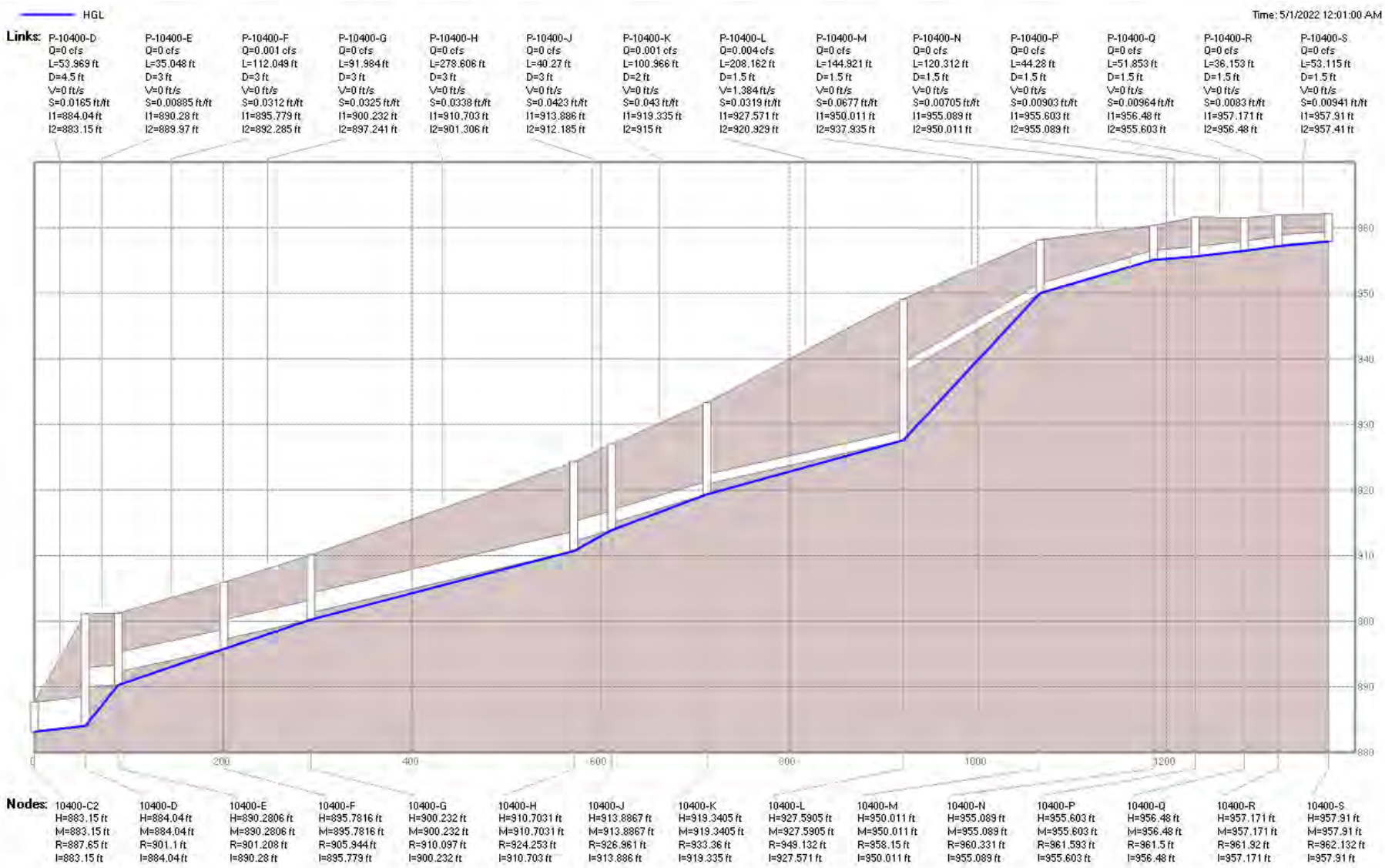


Figure 28: LINE 10400-2

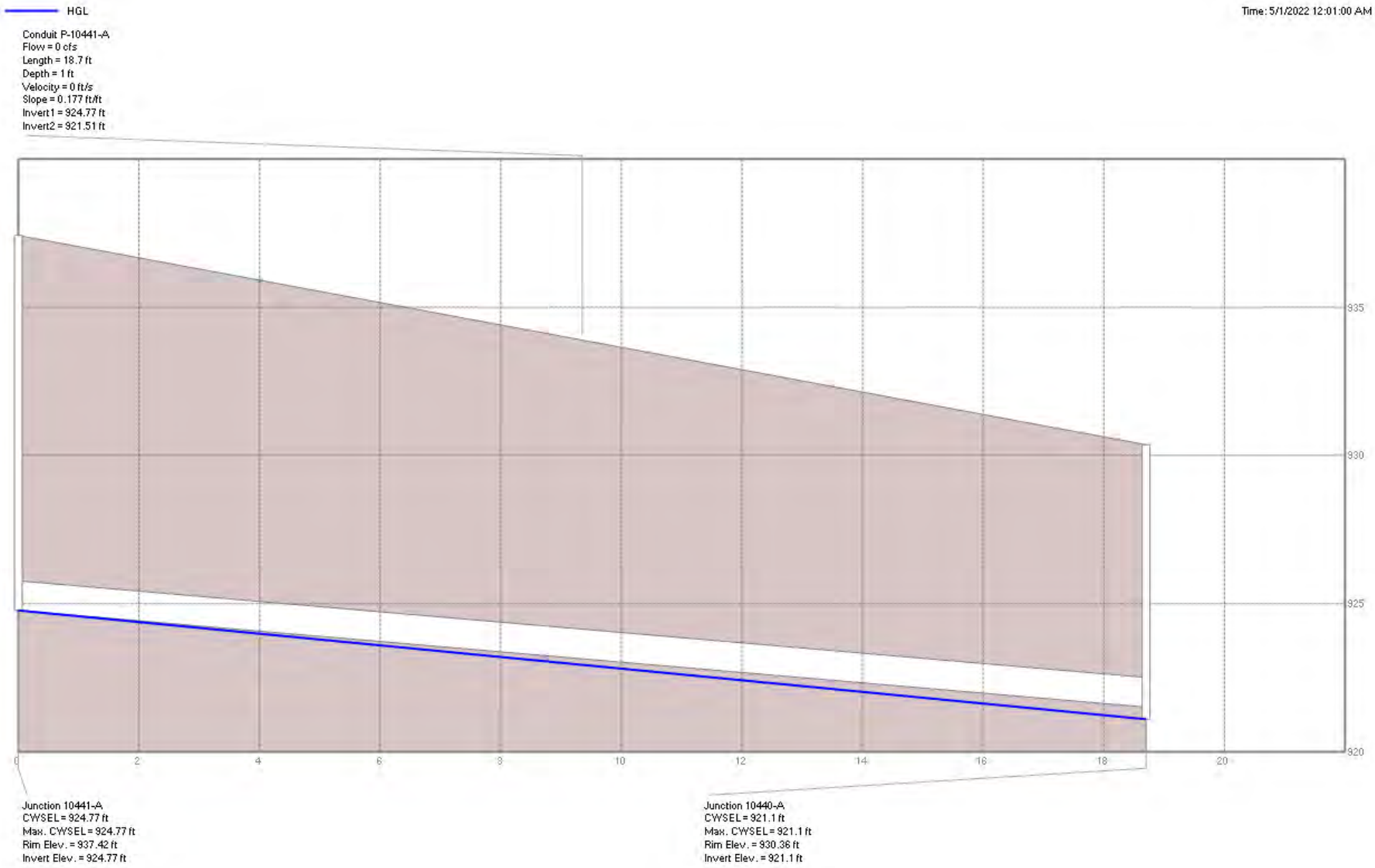


Figure 29: LINE 10441

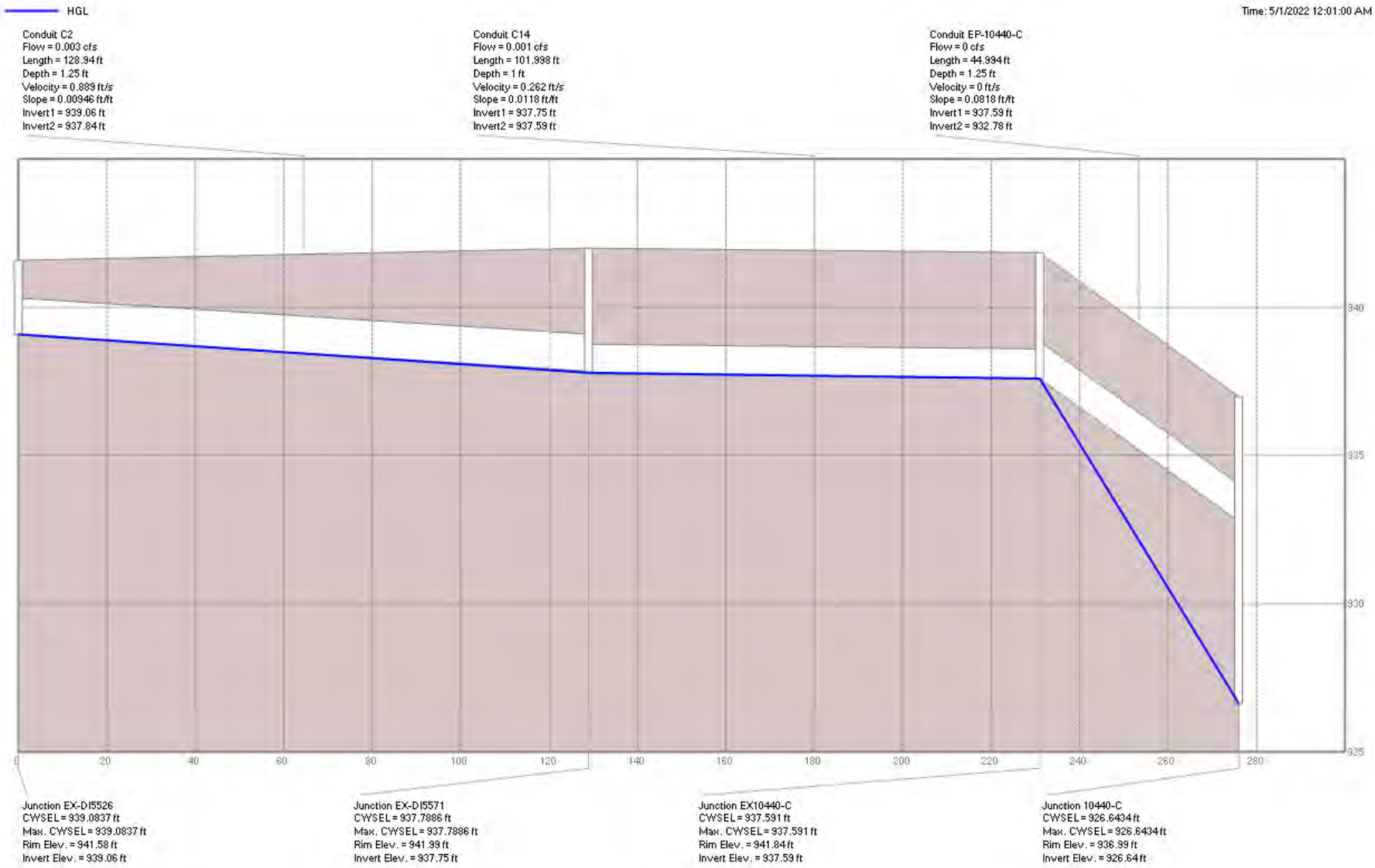


Figure 30: LINE 10440-EX

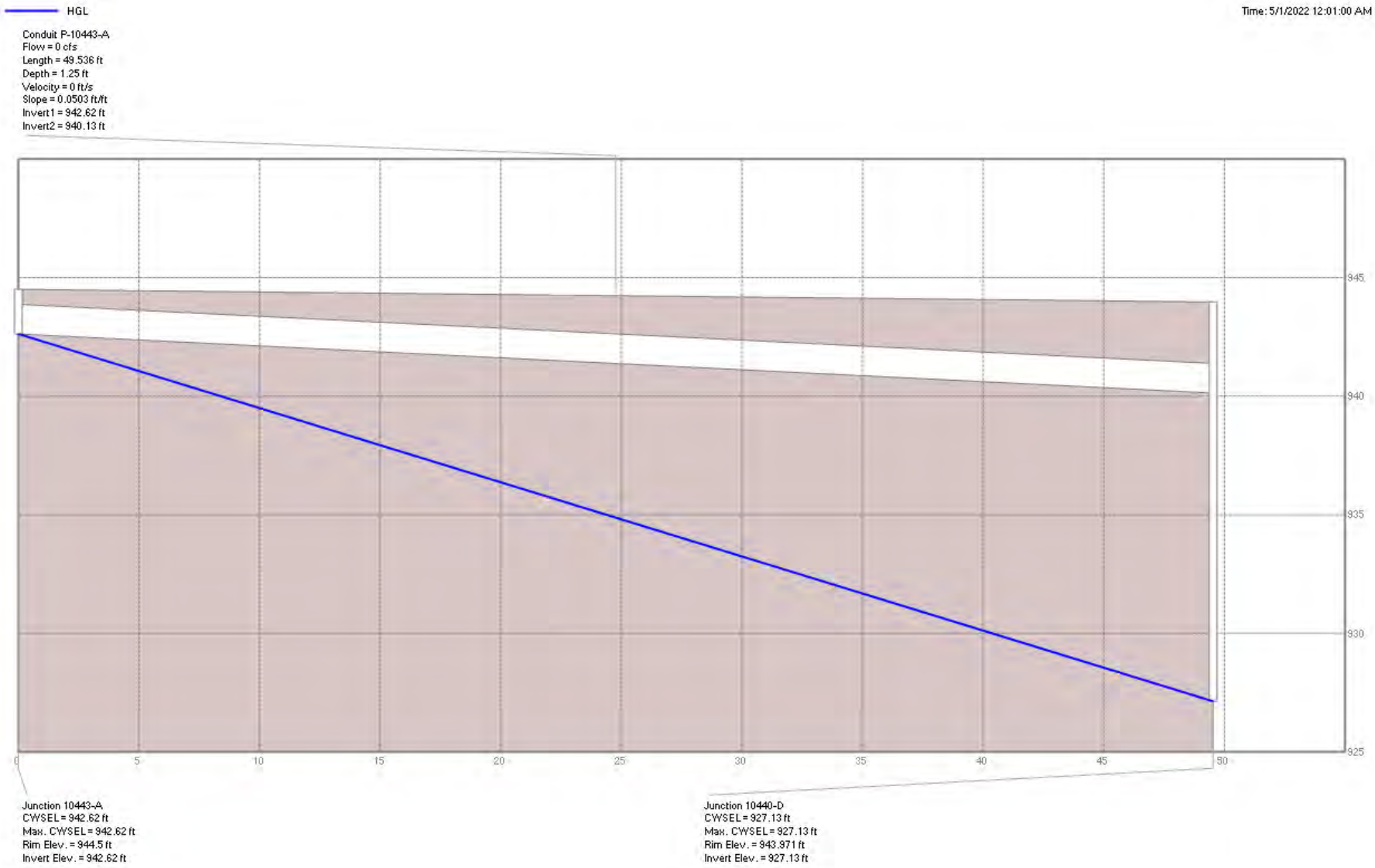


Figure 31: LINE 10443

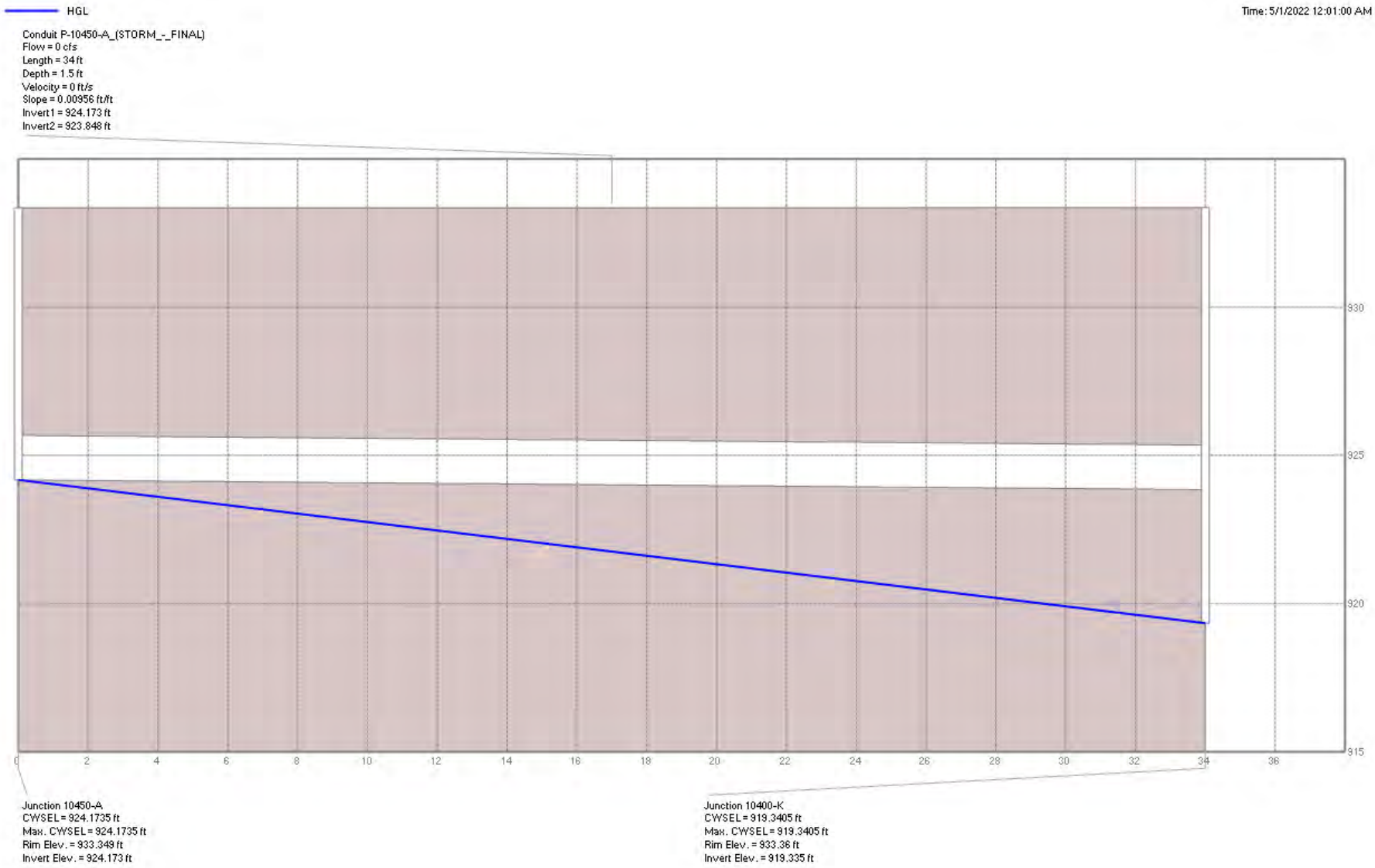


Figure 32: LINE 10450

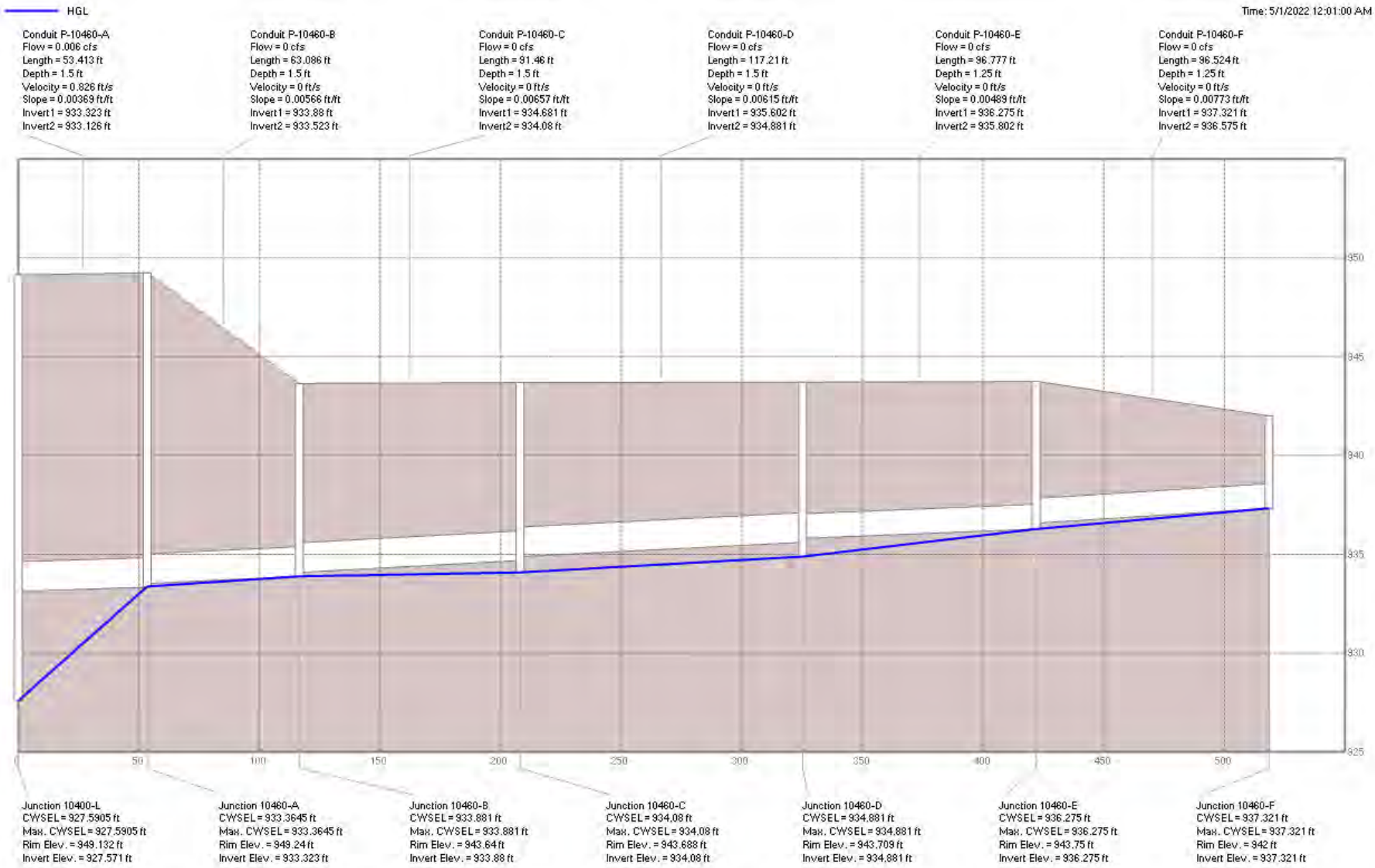


Figure 33: LINE 10460

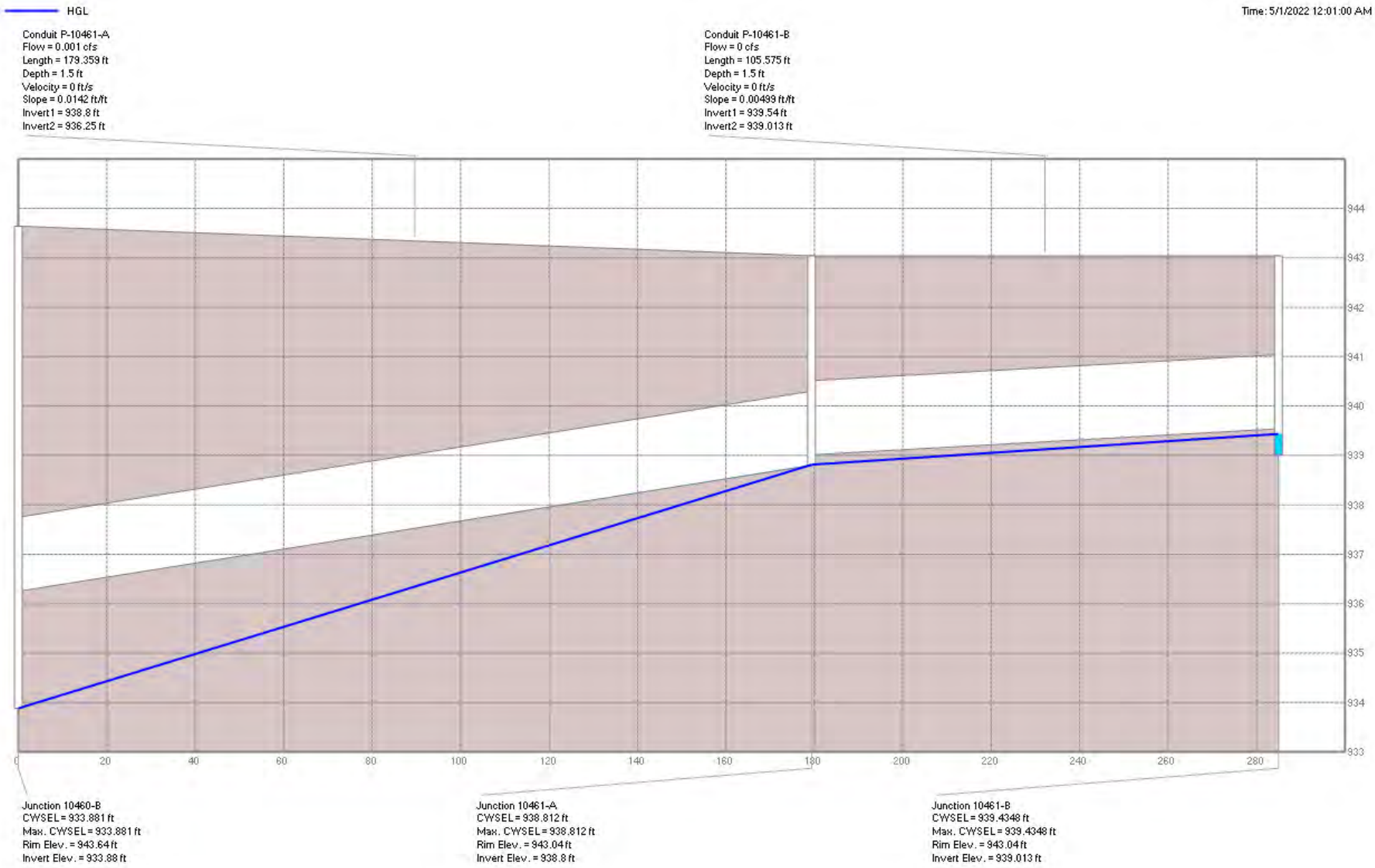


Figure 34: LINE 10461

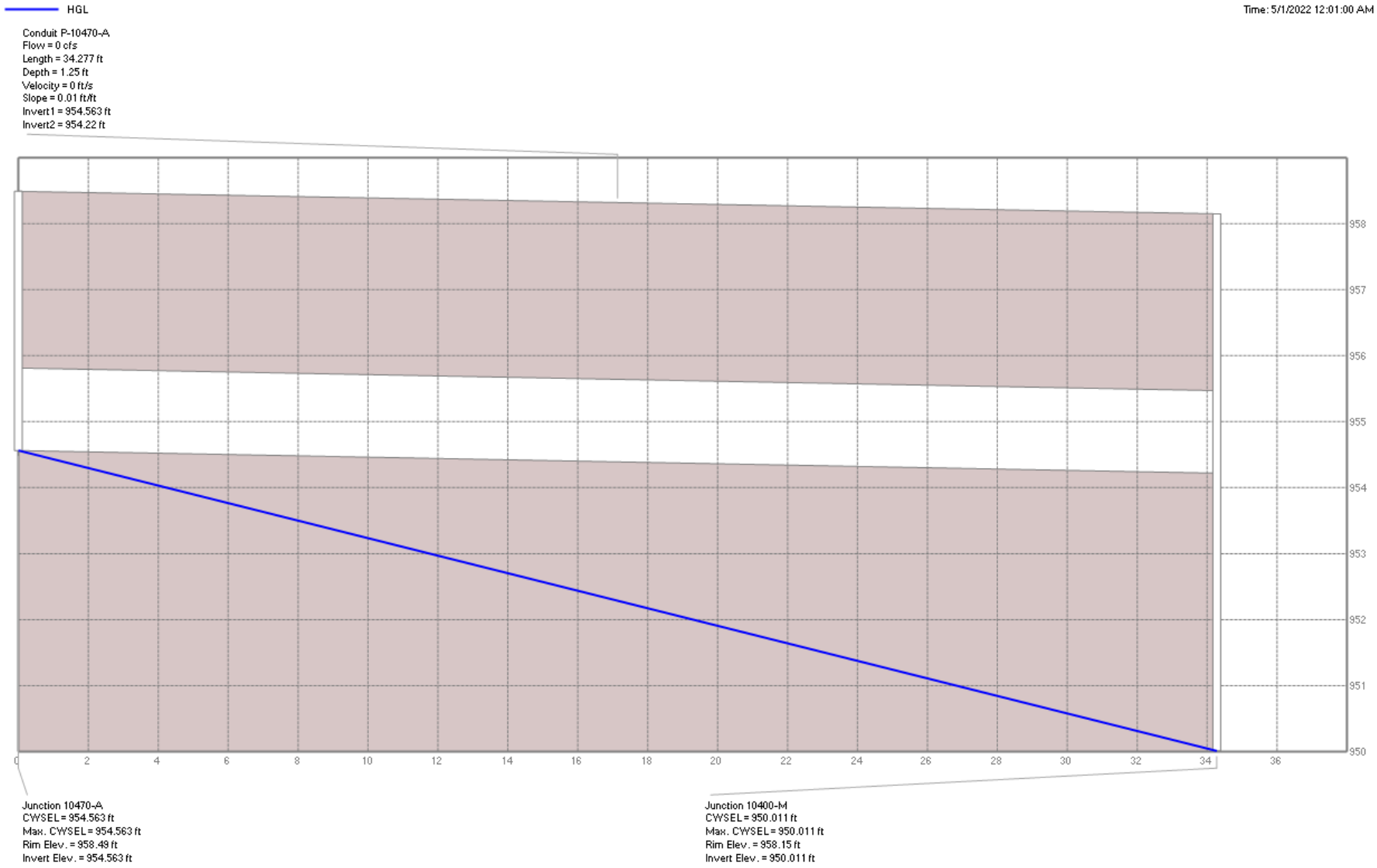


Figure 35: LINE 10470

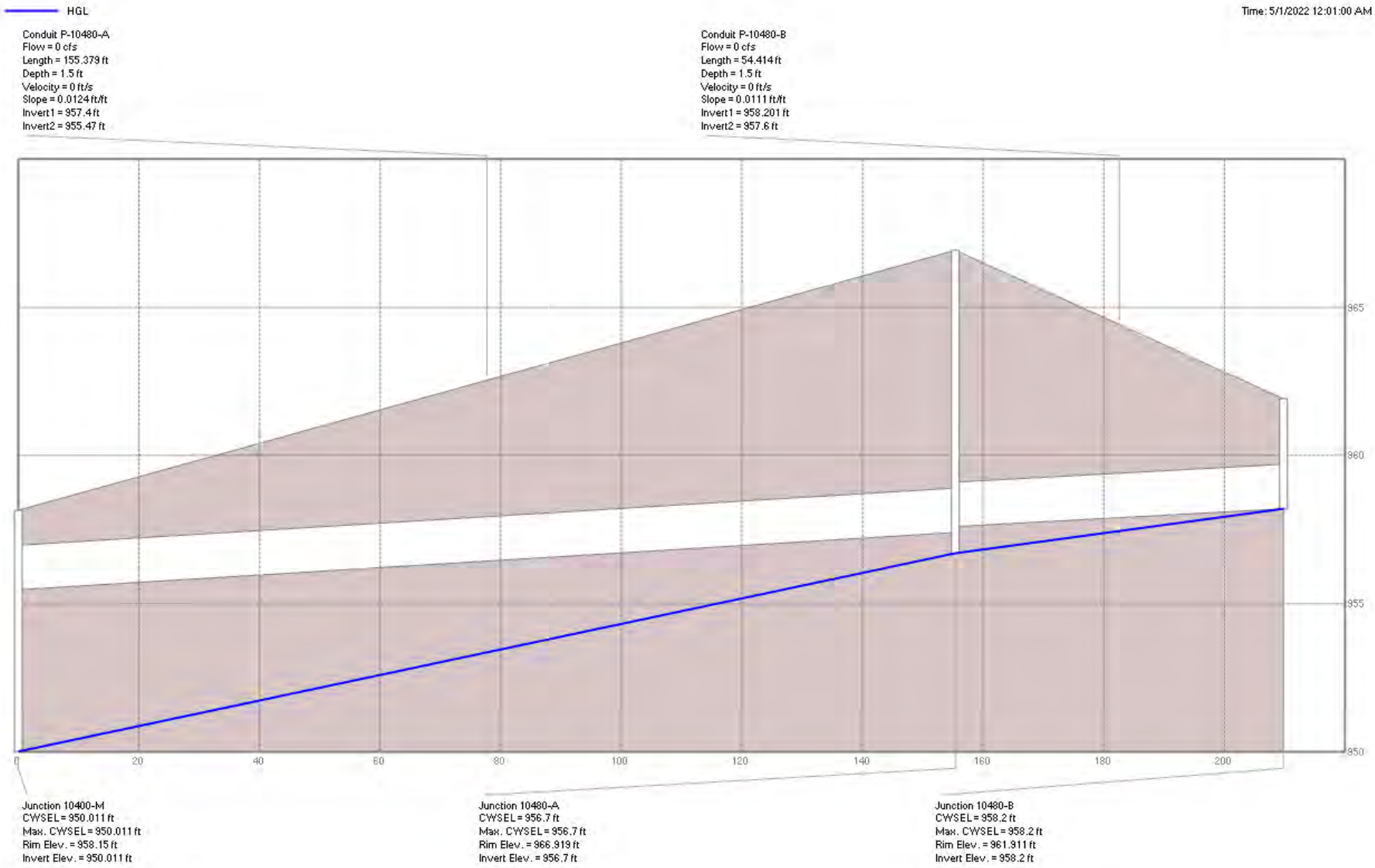


Figure 36: LINE 10480

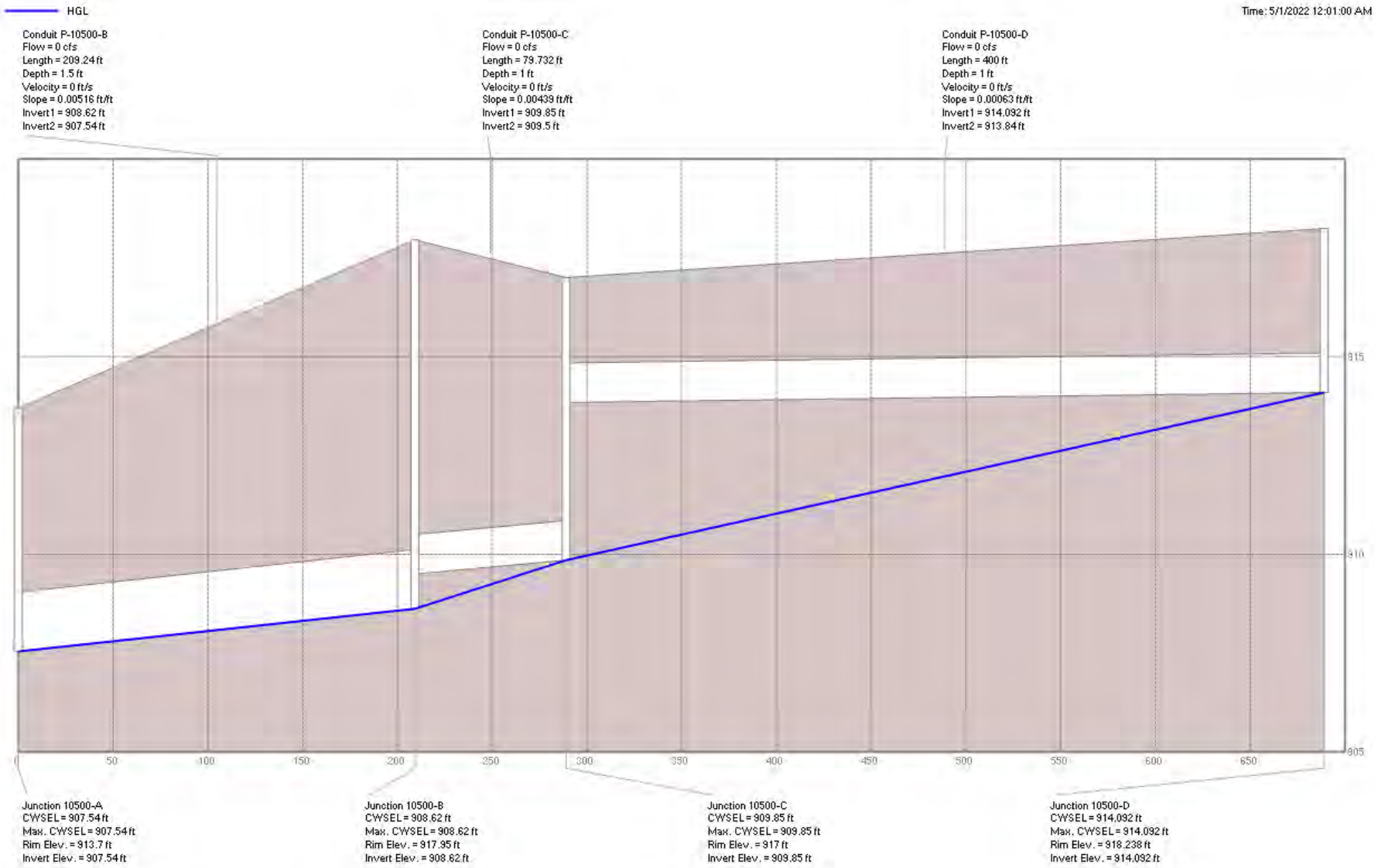


Figure 37: LINE 10500

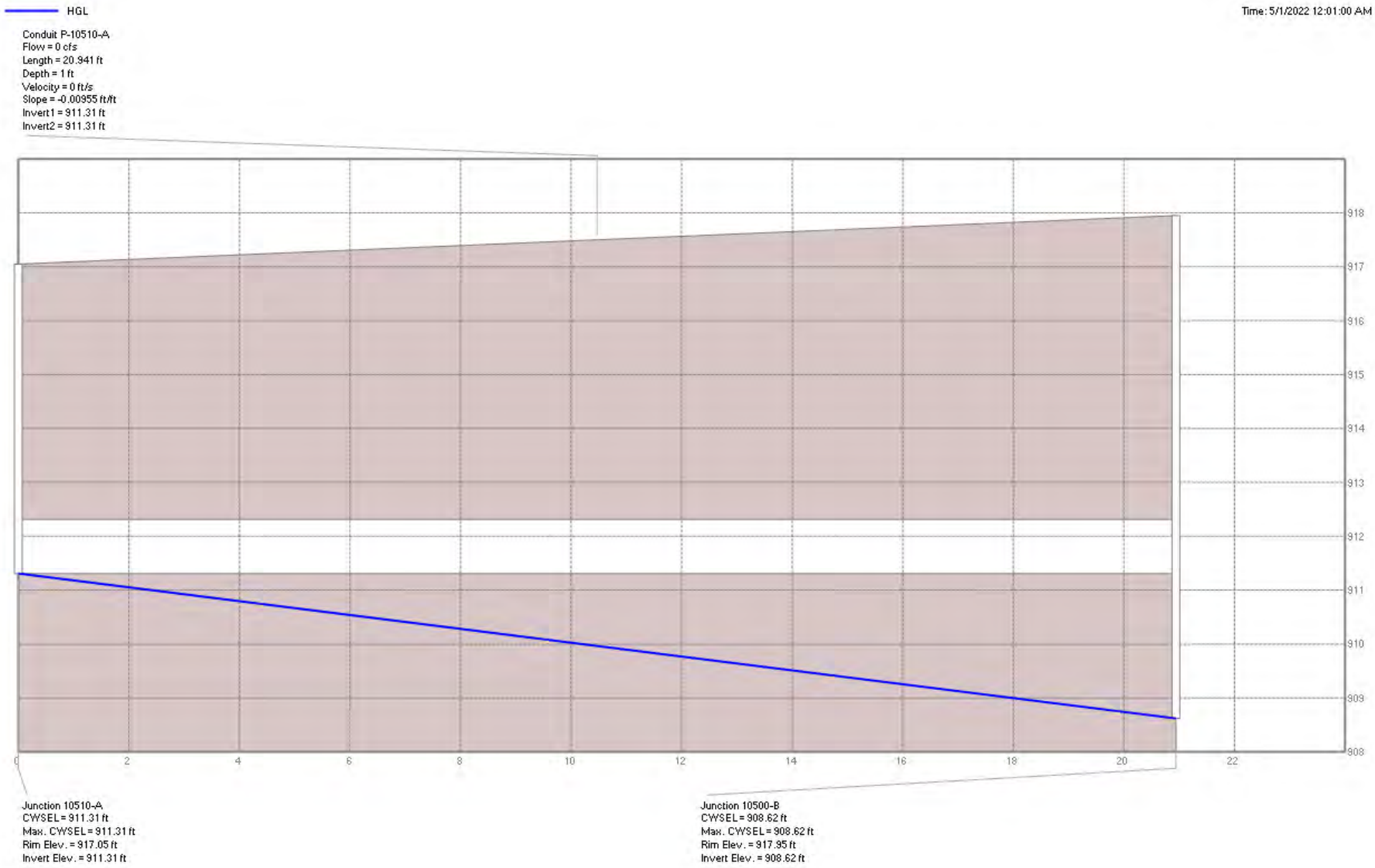


Figure 38: LINE 10510

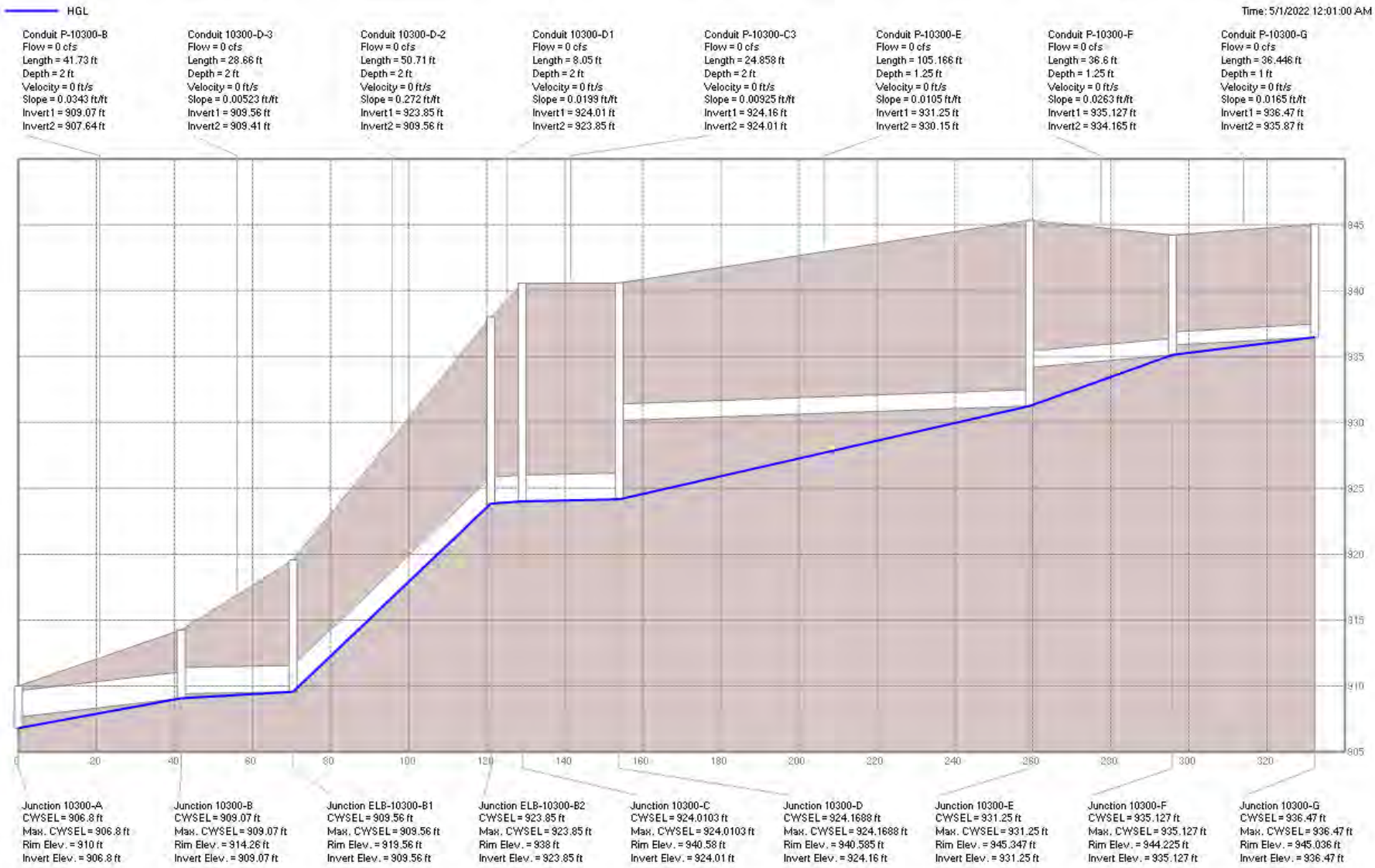


Figure 39: LINE 10300

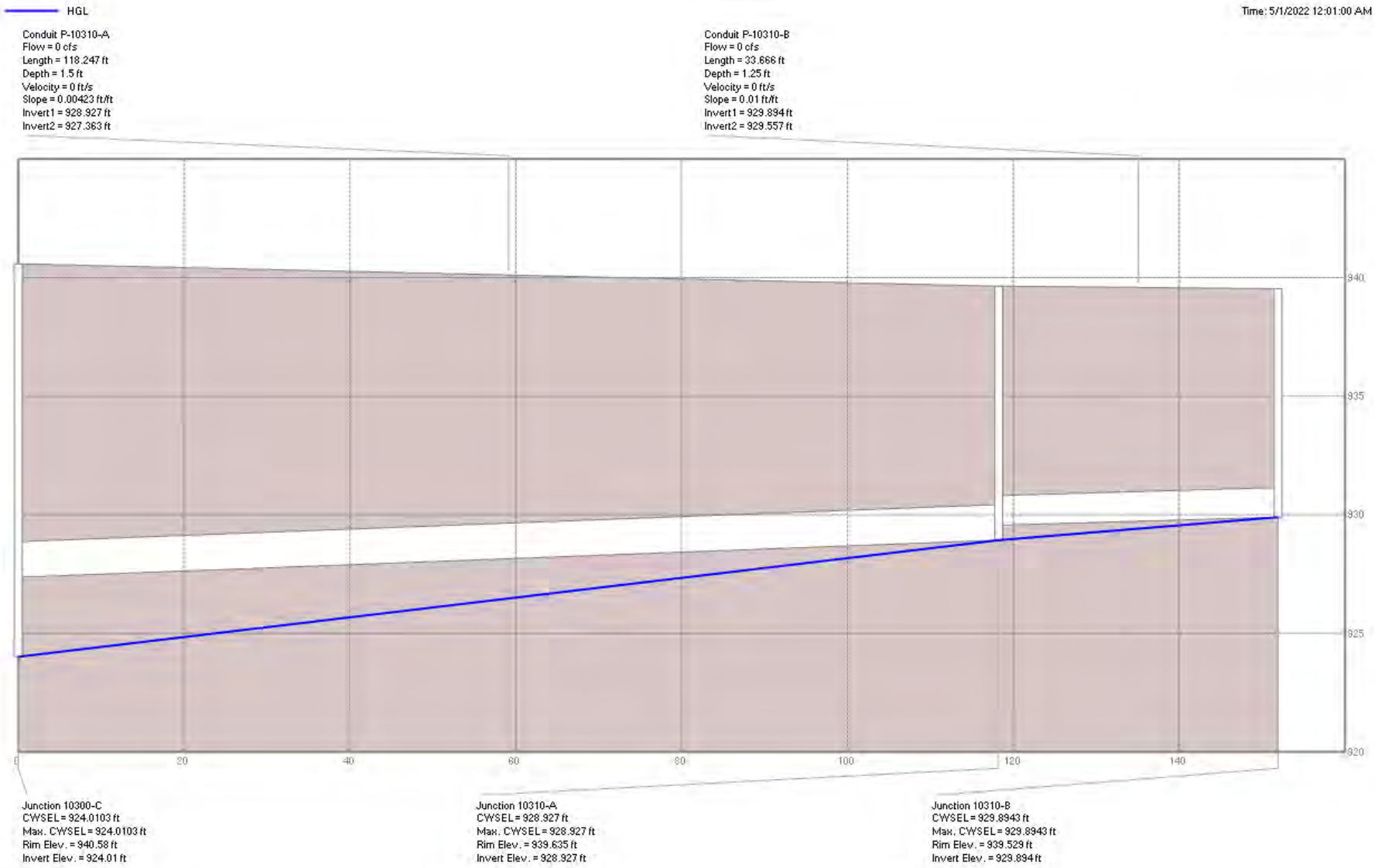


Figure 40: LINE 10310

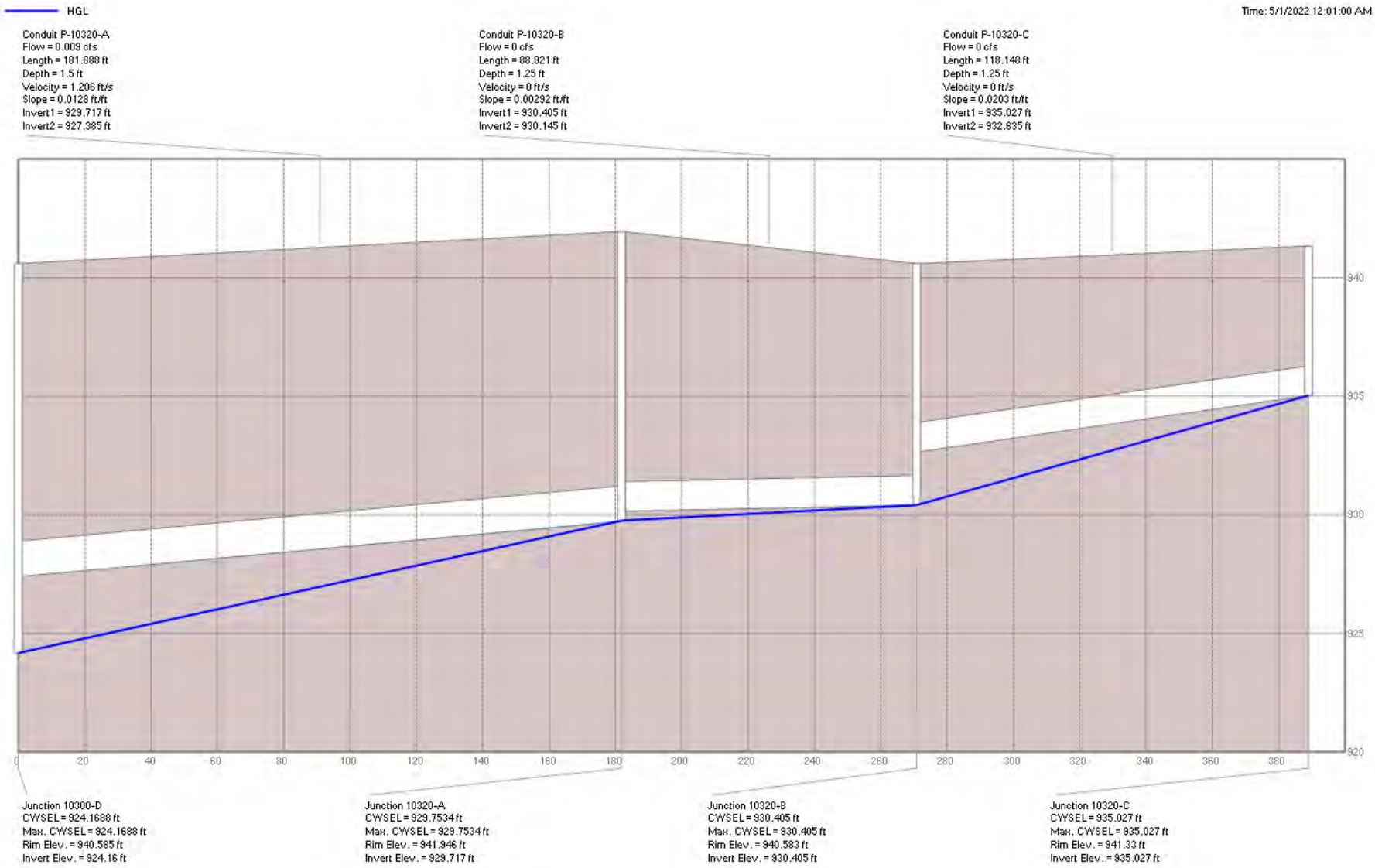


Figure 41: LINE 10320

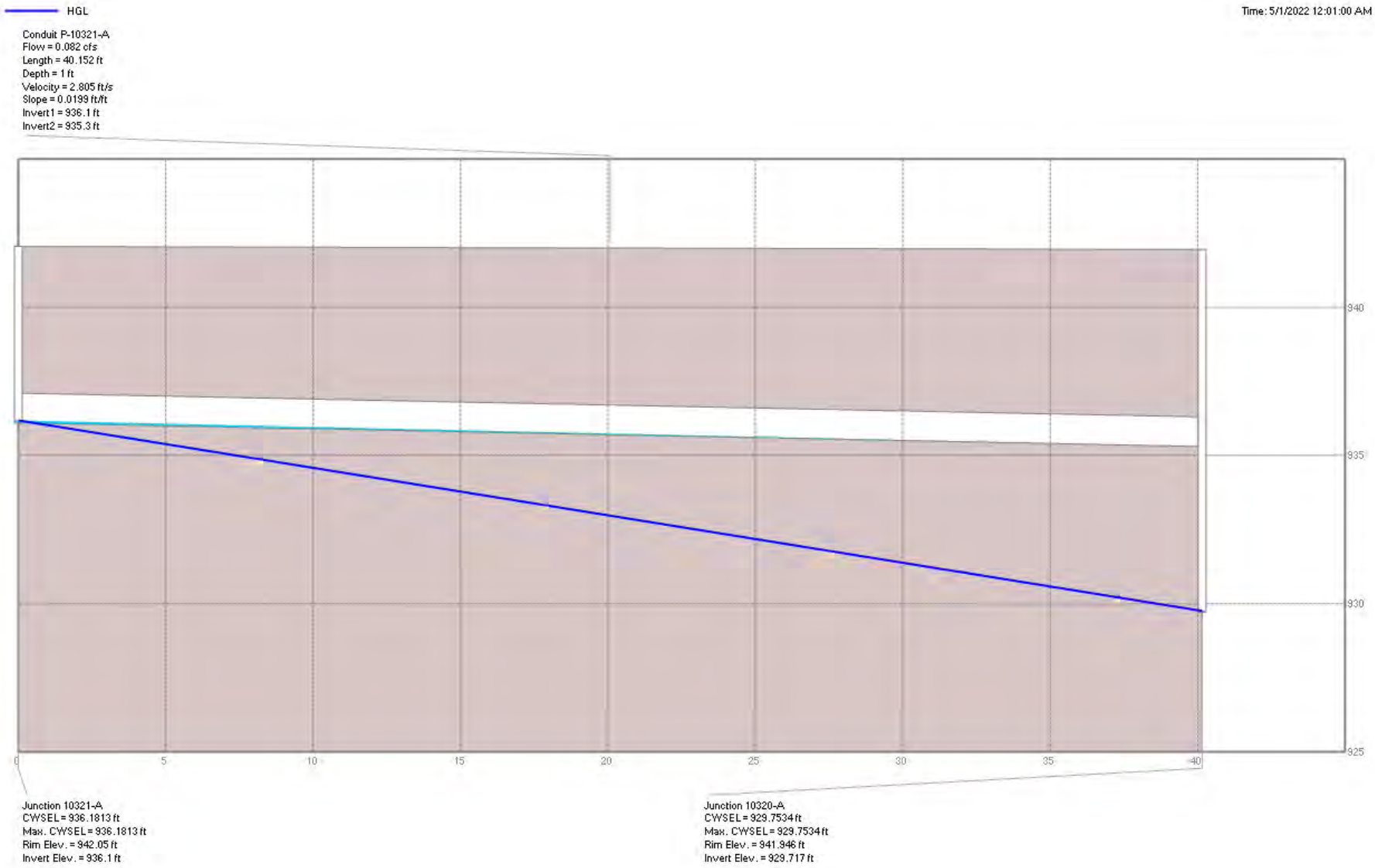


Figure 42: LINE 10321

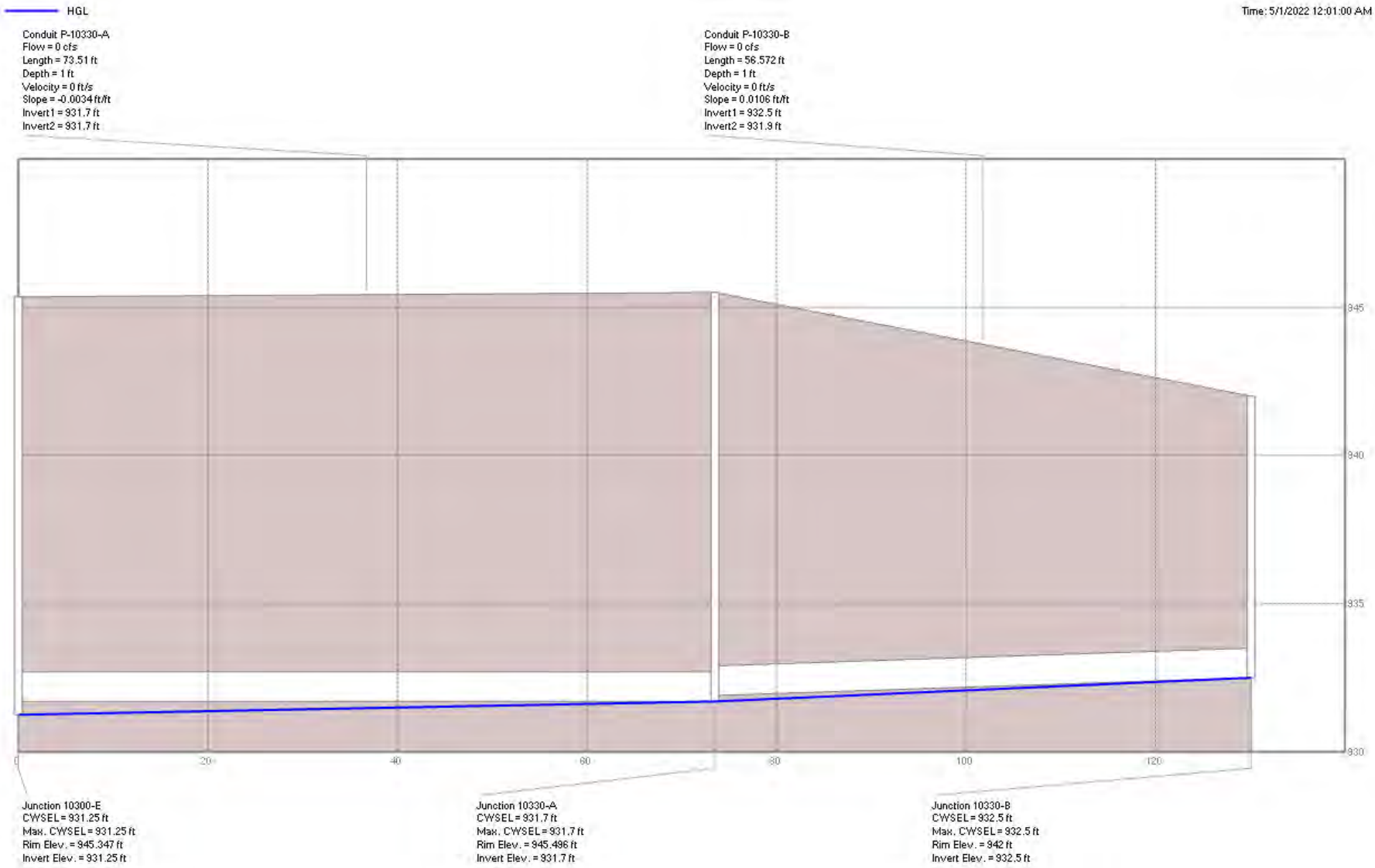


Figure 43: LINE 10330

Table 1A: Conduits

Name	Inlet Node	Outlet Node	Tag	Length (ft)	Roughness	Inlet Elev. (ft)	Outlet Elev. (ft)	Initial Flow (cfs)	Flow Limit (cfs)	Entry Loss Coeff.	Exit Loss Coeff.
1	8903	8807	ex	107.867	0.01	857.01	856.03	0	0	0	0
10	J9	10120-H-S	overland	389.564	0.01	942.74	900.49	0	0	0	0
10000-CB-S	10000-C-S	12000-G-S	Overland	312.008	0.013	889.151	880.604	0	0	0	0
10000-DC-S	10000-D	10000-C-S	Overland	31.126	0.013	890.1	889.151	0	0	0	0
10000-ED-S	10100-A-S	10001-A-S	Overland	100.916	0.013	889.312	889	0	0	0	0
10123-AF	10123-A	10410-G	EX	36.933	0.013	888.94	896.18	0	0	1	0
10125-AG	10125-A	10120-G	EX	98.171	0.013	898.68	896.12	0	0	1	0
10200-B	10200-B	10200-A	GMP3	156.326	0.013	887.56	874.47	0	0	1	0
10203-A	10203-A	10200-D	GMP3	28.554	0.013	918.07	917.45	0	0	1	0
10300-D1	10300-C	ELB-10300-B2	GMP5	8.05	0.013	924.01	923.85	0	0	0	0
10300-D-2	ELB-10300-B2	ELB-10300-B1	GMP5	50.71	0.013	922.85	909.56	0	0	0	0
10300-D-3	ELB-10300-B1	10300-B	GMP5	28.66	0.013	909.56	909.41	0	0	0	0
10310-C-S2	10310-B-S2	10310-B-S	Overland	10.096	0.013	941.37	939.529	0	0	0	0
11	OL-J10	OL-J10b	Overland	166.477	0.01	1011.884	981.726	0	0	0	0
11000-A0	11000-A	11000-0	Pipe	15.958	0.013	861.67	861.08	0	0	1	0
12	OL-J10b	J13	Overland	55.163	0.01	981.75	980.139	0	0	0	0
12000-B'B	12000-B'	12000-D-S	Overland	40.902	0.013	866.842	865.238	0	0	0	0
12000-DC-S	12000-F-S.	12000-B'	Overland	53.737	0.013	868.71	866.842	0	0	0	0
12000-FE-S	12000-H-S	12000-C-S	Overland	164.805	0.013	868.6	865.18	0	0	0	0
12000-G	12000-H	12000-G	GMP3	63.72	0.013	864.2	863.6	0	0	1	0
12000-RainGarden	12000-1	12000	Overland	72.824	0.013	853	838	0	0	0	0
13	J10	J11	EX	53.568	0.01	1008.97	1004.59	0	0	0	0
13000-A0	13000-A	13000-0	EX	79.383	0.013	941.46	936.2	0	0	1	0
14	J11	J12	EX	139.856	0.01	1004.59	981.34	0	0	0	0
14000-A0'	14000-A	14000-0'	Overland	100.128	0.013	848.575	847.5	0	0	0	0
14000-B0	14000-B	14000-0	Pipe	219.172	0.013	848.35	845.99	0	0	1	0

Table 1A: Conduits (continued...)

Name	Inlet Node	Outlet Node	Tag	Length (ft)	Roughness	Inlet Elev. (ft)	Outlet Elev. (ft)	Initial Flow (cfs)	Flow Limit (cfs)	Entry Loss Coeff.	Exit Loss Coeff.
14000-CB	14000-C	14000-B	Pipe	202.553	0.013	850.38	848.35	0	0	1	0
14000-DC	14000-D	14000-C	Pipe	37.439	0.013	850.75	850.38	0	0	1	0
14000-ED	14000-E	14000-D	Pipe	156.876	0.013	852.32	850.75	0	0	1	0
14000-FE	14000-F	14000-E	Pipe	67.535	0.013	853	852.32	0	0	1	0
15	J12	J13	EX	40.263	0.01	981.34	980.139	0	0	0	0
16	J13	J179	Channel	111.819	0.01	980.139	976.794	0	0	0	0
17	J179	J7	Overland	648.835	0.01	976.794	942.46	0	0	0	0
18	J7	J6	Ex	42.062	0.01	942.46	941.2	0	0	0	0
19	J8	J34	EX	73.827	0.01	938.5	928.85	0	0	0	0
20	J34	J9	Ex	37.578	0.01	928.85	926.22	0	0	0	0
21	J6	J5	EX	36.361	0.01	941.2	940.1	0	0	0	0
22	J5	J8	EX	53.078	0.01	940.1	938.5	0	0	0	0
26	OL-J5	J9	Overland	163.885	0.01	945.854	928.229	0	0	0	0
28	Curb_Cut	10310-B-S2	Swale	112.045	0.035	946.544	941.37	0	0	0	0
3	10442-B	10442-B-EX	GMP5	4.97	0.01	978.58	978.53	0	0	0	0
4	10211-C	10211-B	GMP5	400	0.01	885.811	883.285	0	0	0	0
5	8807	8697	ex	99.864	0.01	855.48	854.19	0	0	0	0
6	Curb_Cut-S	10300-G-S	Overland	38.712	0.01	0	0	0	0	0	0
8	8697	8667-J4	ex	89.36	0.01	853.99	853.26	0	0	0	0
9	10410-G	10410-F		400	0.01	886.38	0	0	0	0	0
C10	J18	J15	EX	23.258	0.013	951.46	951.35	0	0	0	0
C10-S	J18-S	J15-S	Overland	22.046	0.013	954.37	954.37	0	0	0	0
C11	J17	J15	EX	18.28	0.013	951.85	951.48	0	0	0	0
C11-S	J17-S	J15-S	Overland	20.595	0.013	954.68	954.37	0	0	0	0
C12-S	J20-S	J1-IC	Overland	5.394	0.013	954.25	953.5	0	0	0	0
C14	EX-DI5571	EX10440-C	EX	101.998	0.013	937.75	936.55	0	0	0	0

Table 1A: Conduits (continued...)

Name	Inlet Node	Outlet Node	Tag	Length (ft)	Roughness	Inlet Elev. (ft)	Outlet Elev. (ft)	Initial Flow (cfs)	Flow Limit (cfs)	Entry Loss Coeff.	Exit Loss Coeff.
C15	J15	J20	EX	15.508	0.013	951.22	950.21	0	0	0	0
C16	J15-S	J20-S	Overland	14.686	0.013	954.8	953.417	0	0	0	0
C17	10125-A-S	10120-G-S	Overland	92.921	0.013	901.45	900.47	0	0	0	0
C18	RainGarden	12000-1	Overland	89.208	0.013	860	858	0	0	0	0
C19	J4-S	12000-2	Overland	59.518	0.013	858.04	851.96	0	0	0	0
C2	EX-DI5526	EX-DI5571	EX	128.94	0.013	939.06	937.84	0	0	0	0
C20	12000-2	12000	ex	99.75	0.013	851.96	838	0	0	0	0
C21	12000-A	RainGarden	Overland	75.919	0.013	858	857.75	0	0	0	0
C23	12000	12000.	Overland	14.58	0.013	838	836	0	0	0	0
C24	10461-A-S	10450-A-S	Overland	232.361	0.013	943.04	933.349	0	0	0	0
C25	10462-A-S	10460-D-S	Overland	43.318	0.013	949	943.664	0	0	0	0
C26	J20	J1	EX	4.326	0.013	950.51	950.36	0	0	0	0
C2-S	10700-A	10202-A-S1	Overland	51.463	0.013	919.383	902.18	0	0	0	0
C3	RainGarden	12000-1	EX	80.411	0.013	857.75	853.36	0	0	0	0
C4	J2	8667-J4	ex	124.965	0.013	855.48	854.11	0	0	1	0
C4-S	J2-S	J4-S	Overland	122.015	0.013	858.93	857.11	0	0	0	0
C5	8667-J4	12000-2	ex	53.361	0.013	852.76	851.96	0	0	1	0
C6	10210-D	10210-C	GMP5	136.537	0.013	887.5	886.964	0	0	0	0
C7	10120-G-S	10411-A-S	Overland	141.044	0.013	900.47	901.452	0	0	0	0
C8	CHANNEL_12+11.04	10400-C1	SWALE	339.45	0.013	905.75	887	0	0	0	0
C9_1	10300-A	CHANNEL_12+11.04	Swale	54.75	0.035	906.8	905.71	0	0	0	0
C9_2	10500-A	CHANNEL_12+11.04	Overland	12.5	0.013	907.566	907.537	0	0	0	0
C-J182	J182	J39	Swale	124.408	0.013	942.74	942.068	0	0	0	0
C-J320	J320	RainGarden	Overland	263.099	0.013	863.281	858.02	0	0	0	0
C-J39	J39	10443-A	Swale	204.633	0.013	942.068	941.38	0	0	0	0
C-J46	J46	J320	Overland	85.351	0.013	864.9	863.281	0	0	0	0

Table 1A: Conduits (continued...)

Name	Inlet Node	Outlet Node	Tag	Length (ft)	Roughness	Inlet Elev. (ft)	Outlet Elev. (ft)	Initial Flow (cfs)	Flow Limit (cfs)	Entry Loss Coeff.	Exit Loss Coeff.
EP-10440-C	EX10440-C	10440-C	EX	44.994	0.013	936.45	932.78	0	0	0	0
EP-10440-C-S	EX10440-C-S	J38	Overland	143.322	0.013	942.38	941.031	0	0	0	0
EX10441-B-S	10442-A-S	EX-CI21199-S	Overland	320.126	0.013	982.567	959.964	0	0	0	0
EX10441-C-S	10443-C-S	10442-A-S	Overland	66.542	0.013	984.97	982.567	0	0	0	0
EX10441-D-S	10443-D-S	10443-C-S	Overland	22.271	0.013	984.97	984.97	0	0	0	0
OL-10100-AE_1	OL-10100-B	12000-G-S2	Swale	109.277	0.013	891	885	0	0	0	0
OL-10100-AE_2	12000-G-S2	12000-G-S	Swale	335.572	0.013	885	868.578	0	0	0	0
OL-10101-AF	OL-10101-A	12000-H-S	Swale	416.014	0.013	877.733	867.77	0	0	0	0
OL-10131-BA	EX-DI5571-S	EX10440-C-S	Overland	102.69	0.013	942.19	941.84	0	0	0	0
OL-10131-CB	EX-DI5526-S	10422-A-S	Overland	171.833	0.013	941.68	934.74	0	0	0	0
OL-10200-BA_1	10200-B-S1	10200-B-S2	Overland	3.763	0.013	890.56	890.36	0	0	0	0
OL-10200-BA_2	10200-B-S2	10200-A-S1	Overland	161.8	0.013	890.343	879.56	0	0	0	0
OL-10201-AA_1	10201-A-S1	10201-A-S2	Overland	4.764	0.013	890.559	890.28	0	0	0	0
OL-10201-AA_2	10201-A-S2	10200-A-S1	Overland	152.086	0.013	890.28	879.56	0	0	0	0
OL-10210-AD	10210-A-S	12000-F-S.	Overland	205.279	0.013	883.059	868.71	0	0	0	0
OL-11000-A0	OL-11000-A	11000-0'	Overland	20.552	0.013	865.3	864	0	0	0	0
OL-11000-AbAc	OL-14000-Ab	OL-14000-Ac	Overland	193.063	0.013	944.247	888	0	0	0	0
OL-11000-AcAd	OL-14000-Ac	OL-14000-Ad	Overland	129.198	0.013	888	888.001	0	0	0	0
OL-11000-AdAe	OL-14000-Ad	OL-14000-Ae	Overland	37.559	0.013	888.001	863.833	0	0	0	0
OL-11000-AeE	OL-14000-Ae	OL-14000-E	Overland	242.209	0.013	863.833	857.19	0	0	0	0
OL-11000-BA	OL-11000-B	OL-11000-A	Overland	76.657	0.013	867.351	865.3	0	0	0	0
OL-12000-B0	12000-D-S	J46	Overland	71.417	0.013	865.238	864.914	0	0	0	0
OL-14000-BC	J38	10440-C-S	Overland	79.854	0.013	941.031	937.2	0	0	0	0
OL-14000-CB	OL-14000-C	14000-B	Overland	199.437	0.013	855.925	852	0	0	0	0
OL-14000-DC	OL-14000-D	OL-14000-C	Overland	35.894	0.013	855.996	855.925	0	0	0	0
OL-14000-ED	OL-14000-E	OL-14000-D	Overland	132.178	0.013	857.191	855.996	0	0	0	0

Table 1A: Conduits (continued...)

Name	Inlet Node	Outlet Node	Tag	Length (ft)	Roughness	Inlet Elev. (ft)	Outlet Elev. (ft)	Initial Flow (cfs)	Flow Limit (cfs)	Entry Loss Coeff.	Exit Loss Coeff.
P-10000-A	10000-A	10000	EX	180.26	0.013	834.88	831.4	0	0	0	0
P-10000-C	10000-D	10000-C	GMP3	33.374	0.013	865.9	865.57	0	0	1	0
P-10000-C.	10000-C	10000-B	GMP3	229.206	0.013	863.07	852.3	0	0	1	0
P-10001-A-S	10001-A-S	12000-G-S2	Overland	101.03	0.013	889	885	0	0	0	0
P-1000-B	10000-B	10000-A	EX	134.917	0.013	837.53	834.98	0	0	0	0
P-10100-A	10100-A	10000-D	gmp5	46.71	0.013	876.92	876.45	0	0	1	0
P-10100-B	10100-B	10100-A	gmp5	37.51	0.013	877.5	877.12	0	0	0	0
P-10100-B-S	10100-D-IC	10100-B-IC	Overland	163.554	0.013	890.2	888	0	0	0	0
P-10100-C	10100-D	10100-B	GMP5	127.74	0.013	878.962	877.696	0	0	0	0
P-10120-G	10120-G	10410-G	EX	119.067	0.013	891.64	886.73	0	0	1	0
P-10120-H	10120-H	10120-G	ex	190.103	0.013	900.49	891.64	0	0	1	0
P-10120-H-S	10120-H-S	10120-G-S	Overland	215.467	0.013	905.8	900.47	0	0	0	0
P-10200-A	10200-A	10000-B	GMP3	157.194	0.013	873.72	863.9	0	0	1	0
P-10200-A-S_1	10200-A-S1	10200-A-S2	Overland	3.325	0.013	879.56	879.28	0	0	0	0
P-10200-A-S_2	10200-A-S2	12000-E-S	Overland	152.213	0.013	879.28	869.249	0	0	0	0
P-10200-C	10200-C	10200-B	GMP3	156.795	0.013	899.7	887.76	0	0	1	0
P-10200-C-S_1	10200-C-S1	10200-C-S2	Overland	4.743	0.013	903.056	903	0	0	0	0
P-10200-C-S_2	10200-C-S2	10200-B-S1	Overland	153.311	0.013	903	890.56	0	0	0	0
P-10200-D	10200-D	10200-C	GMP3	214.546	0.013	917.25	900.2	0	0	0	0
P-10200-D-S	10200-D-S	10200-C-S1	Overland	214.546	0.013	920.821	902.18	0	0	0	0
P-10200-D-S.	10200-E-S	10200-D-S	Overland	290.971	0.013	943.603	920.821	0	0	0	0
P-10200-E	10200-E	10200-D	GMP3	292.042	0.013	934	917.45	0	0	0	0
P-10200-F	10200-F	10200-E	gmp5	207.056	0.013	941.68	939.63	0	0	0	0
P-10200-F-S	10200-G-S	10200-E-S	Overland	216.226	0.013	951.37	943.603	0	0	0	0
P-10200-G	10200-G	10200-F	gmp5	76.681	0.013	941.74	944.8	0	0	0	0
P-10200-G_(STORM_-_FINAL)-S	10200-H-S	13000-A	Overland	124.054	0.013	950.568	951.734	0	0	0	0

Table 1A: Conduits (continued...)

Name	Inlet Node	Outlet Node	Tag	Length (ft)	Roughness	Inlet Elev. (ft)	Outlet Elev. (ft)	Initial Flow (cfs)	Flow Limit (cfs)	Entry Loss Coeff.	Exit Loss Coeff.
P-10200-H	10200-H	10200-G	gmp5	80.809	0.013	946.311	945	0	0	0	0
P-10200-H_(STORM_-_FINAL)-S	10200-J-S	13000-A	Overland	131.058	0.013	950.651	950.568	0	0	0	0
P-10200-J	10200-J	10200-H	gmp5	34.503	0.013	946.854	946.504	0	0	0	0
P-10200-J_(STORM_-_FINAL)-S	10200-K-S	10200-J-S	Overland	85.237	0.013	956.036	950.651	0	0	0	0
P-10200-K	10200-K	10200-J	gmp5	57.603	0.013	949.897	946.996	0	0	0	0
P-10200-K_(STORM_-_FINAL)-S	10200-L-S	10200-K-S	Overland	166.754	0.013	959.247	956.036	0	0	0	0
P-10200-L	10200-L	10200-K	gmp5	142.847	0.013	954.06	950.896	0	0	0	0
P-10200-L_(STORM_-_FINAL)-S	10200-M-S	10200-L-S	Overland	148.605	0.013	963.181	959.247	0	0	0	0
P-10200-M	10200-M	10200-L	gmp5	139.438	0.013	955.618	954.26	0	0	0	0
P-10200-M_(STORM_-_FINAL)-S	10200-N-S	Curb_Cut-S	Overland	491.286	0.013	962.752	946.891	0	0	0	0
P-10200-N	10200-N	10200-M	gmp5	34.002	0.013	956.3	955.902	0	0	0	0
P-10201-A	10201-A	10200-B	GMP3	24.441	0.013	888.39	887.76	0	0	1	0
P-102020-A-S_1	10202-A-S1	10202-A-S2	Overland	5.648	0.013	903.06	902.81	0	0	0	0
P-102020-A-S_2	10202-A-S2	10201-A-S1	Overland	151.153	0.013	902.81	890.23	0	0	0	0
P-10202-A	10202-A	10200-C	GMP3	27.192	0.013	900.5	900.2	0	0	0	0
P-10203-A-S	10203-A-S	10202-A-S1	Overland	214.581	0.013	921	902.88	0	0	0	0
P-10210-A	10210-A	10200-A	GMP3	46.239	0.013	877.36	874.47	0	0	0	0
P-10210-B	10210-B	10210-A	gmp5	59.106	0.013	878.665	877.587	0	0	0	0
P-10210-B-S	10210-B-S	10210-A-S	Overland	70.257	0.013	889.099	882	0	0	0	0
P-10210-C	10210-C	10210-B	GMP5	122.285	0.013	886.964	884.891	0	0	0	0
P-10210-C_(STORM_-_FINAL)-S	10211-A-S	10200-A-S1	Overland	127.717	0.013	889.558	889.099	0	0	0	0
P-10211-A	10211-A	10210-B	GMP5	42.989	0.013	878.942	879.236	0	0	0	0
P-10211-B	10211-B	10211-A	GMP5	174.36	0.013	883.285	882.196	0	0	0	0
P-10212-A	10212-A	10210-C	GMP5	55.648	0.013	889.46	888.712	0	0	0	0
P-10240-A_(STORM_-_FINAL)-S	10270-A-S	10200-J-S	Overland	103.804	0.013	955.907	956.036	0	0	0	0
P-10250-A	10250-A	10200-E	gmp5	30.002	0.013	940.182	939	0	0	0	0

Table 1A: Conduits (continued...)

Name	Inlet Node	Outlet Node	Tag	Length (ft)	Roughness	Inlet Elev. (ft)	Outlet Elev. (ft)	Initial Flow (cfs)	Flow Limit (cfs)	Entry Loss Coeff.	Exit Loss Coeff.
P-10250-A-S	10250-A-S	10203-A-S	Overland	293.467	0.013	944.102	944.102	0	0	0	0
P-10250-B	10250-B	10250-A	gmp5	44.144	0.013	941.307	940.349	0	0	0	0
P-10250-B-S	10250-B-S	10250-A-S	Overland	65.99	0.013	948.718	944.102	0	0	0	0
P-10250-C	10250-C	10250-B	gmp5	77.636	0.013	949.28	945.098	0	0	0	0
P-10250-C-S	10250-C-S	10250-A-S	Overland	153.692	0.013	954.088	943.603	0	0	0	0
P-10250-D	10250-D	10250-C	gmp5	31.811	0.013	949.815	949.563	0	0	0	0
P-10250-D-S	10250-D-S	10320-B-S	Overland	505.315	0.013	953.814	954.088	0	0	0	0
P-10260-A	10260-A	10200-G	gmp5	30.002	0.013	947.988	947.688	0	0	0	0
P-10260-A-S	10260-A-S	10250-A-S	Overland	208.549	0.013	951.734	944.102	0	0	0	0
P-10270-A	10270-A	10200-K	gmp5	30.502	0.013	952.098	951.772	0	0	0	0
P-10280-A	10280-A	10200-M	GMP5	110.509	0.013	964.402	959.867	0	0	0	0
P-10300-B	10300-B	10300-A	gmp5	41.73	0.013	909.07	907.64	0	0	0	0
P-10300-B-S	10300-B-IC	10100-D-IC	Overland	387.976	0.013	910.473	909	0	0	0	0
P-10300-C3	10300-D	10300-C	GMP5	24.858	0.013	924.16	923.93	0	0	0	0
P-10300-D-S	10300-C-S	10300-B-IC	Overland	125.287	0.013	940.2	935.818	0	0	0	0
P-10300-E	10300-E	10300-D	gmp5	105.166	0.013	931.25	930.15	0	0	0	0
P-10300-E-S.	10300-F-S	10300-C-S	Overland	108.1	0.013	945.854	939.2	0	0	0	0
P-10300-F	10300-F	10300-E	GMP5	36.6	0.013	935.127	934.165	0	0	0	0
P-10300-G	10300-G	10300-F	GMP5	36.446	0.01	936.47	935.87	0	0	0	0
P-10310-A	10310-A	10300-C	GMP5	118.247	0.013	927.863	927.363	0	0	0	0
P-10310-B	10310-B	10310-A	GMP5	33.666	0.013	929.894	929.557	0	0	0	0
P-10310-B-S	10310-A-S	10300-C-S	Overland	122.969	0.013	939.635	939.2	0	0	0	0
P-10310-C-S	10310-B-S	10300-C-S	Overland	124.705	0.013	939.529	939.2	0	0	0	0
P-10320-A	10320-A	10300-D	GMP5	181.888	0.013	929.717	927.385	0	0	0	0
P-10320-A-S	10300-D-S	10300-C-S	Overland	48.395	0.013	940.9	939.2	0	0	0	0
P-10320-B	10320-B	10320-A	GMP5	88.921	0.013	930.405	930.145	0	0	0	0

Table 1A: Conduits (continued...)

Name	Inlet Node	Outlet Node	Tag	Length (ft)	Roughness	Inlet Elev. (ft)	Outlet Elev. (ft)	Initial Flow (cfs)	Flow Limit (cfs)	Entry Loss Coeff.	Exit Loss Coeff.
P-10320-C	10320-C	10320-B	GMP5	118.148	0.013	935.027	932.635	0	0	0	0
P-10320-D-S	10320-C-S	10700-A-S	Overland	256.144	0.013	944.417	925.31	0	0	0	0
P-10321-A	10321-A	10320-A	GMP5	40.152	0.01	936.1	935.3	0	0	0	0
P-10330-A	10330-A	10300-E	GMP5	73.51	0.013	931.45	931.7	0	0	0	0
P-10330-A-S	10330-A-S	10300-C-S	Overland	124.911	0.013	945.48	945.165	0	0	0	0
P-10330-B	10330-B	10330-A	GMP5	56.572	0.013	932.5	931.9	0	0	0	0
P-10330-B-S	10330-B-S	10330-A-S	Overland	58.41	0.013	945	945.48	0	0	0	0
P-10400-A	10400-A	10000-D	GMP5	130.106	0.013	876	875.08	0	0	0	0
P-10400-A-S	10400-A	10100-B-IC	Overland	99.312	0.013	891.9	889	0	0	0	0
P-10400-B	10400-B1	10400-A	GMP5	28.813	0.013	880.53	879.893	0	0	0	0
P-10400-C1	10400-C1	10400-B2	GMP5	4.577	0.013	882.13	881.79	0	0	0	0
P-10400-C2-S	10400-C2	10400-C1	Swale	62.12	0.01	883.15	882.13	0	0	0	0
P-10400-C-S	10400-A-S	OL-10100-B	Overland	97.931	0.013	896.585	894.169	0	0	0	0
P-10400-D	10400-D	10400-C2	gmp5	53.969	0.013	884.04	883.147	0	0	0	0
P-10400-D-S	10400-D-S	10400-A-S	Overland	128.712	0.013	900.714	896.585	0	0	0	0
P-10400-E	10400-E	10400-D	gmp5	35.048	0.013	890.28	889.97	0	0	0	0
P-10400-E-S	10400-E-S	10410-B-S	Overland	143.687	0.013	901.292	896.952	0	0	0	0
P-10400-F	10400-F	10400-E	gmp5	112.049	0.013	895.779	892.285	0	0	0	0
P-10400-F_(STORM_-_FINAL)-S	10400-F-S	10400-E-S	Overland	113.915	0.013	905.974	901.292	0	0	0	0
P-10400-G	10400-G	10400-F	gmp5	91.984	0.013	900.232	897.241	0	0	0	0
P-10400-G-S	10400-G-S	10400-F-S	Overland	90.859	0.013	910.091	905.974	0	0	0	0
P-10400-H	10400-H	10400-G	gmp5	278.606	0.013	910.703	901.306	0	0	0	0
P-10400-H-S	10400-H-S	10400-G-S	Overland	274.514	0.013	924.25	910.091	0	0	0	0
P-10400-J	10400-J	10400-H	gmp5	40.27	0.013	913.886	912.185	0	0	0	0
P-10400-K	10400-K	10400-J	gmp5	100.966	0.013	919.335	915	0	0	0	0
P-10400-K-S	10400-K-S	10430-A-S	Overland	402.357	0.013	933.34	926.954	0	0	0	0

Table 1A: Conduits (continued...)

Name	Inlet Node	Outlet Node	Tag	Length (ft)	Roughness	Inlet Elev. (ft)	Outlet Elev. (ft)	Initial Flow (cfs)	Flow Limit (cfs)	Entry Loss Coeff.	Exit Loss Coeff.
P-10400-L	10400-L	10400-K	gmp5	208.162	0.013	927.571	920.929	0	0	0	0
P-10400-L-S	10400-L-S	10400-K-S	Overland	227.988	0.013	947.883	933.34	0	0	0	0
P-10400-M	10400-M	10400-L	gmp5	144.921	0.013	947.72	937.935	0	0	0	0
P-10400-M-S	10400-M-S	10400-L-S	Overland	126.916	0.013	961.71	947.883	0	0	0	0
P-10400-N	10400-N	10400-M	gmp5	120.312	0.013	948.71	947.862	0	0	0	0
P-10400-N_(STORM_-_FINAL)-S	10400-N-S	10400-M-S	Overland	117.78	0.013	960.05	961.71	0	0	0	0
P-10400-P	10400-P	10400-N	gmp5	44.28	0.013	953.621	953.221	0	0	0	0
P-10400-P_(STORM_-_FINAL)-S	10400-P-S	10400-N-S	Overland	37.609	0.013	962.7	960.05	0	0	0	0
P-10400-Q	10400-Q	10400-P	gmp5	51.853	0.013	954.5	954	0	0	0	0
P-10400-Q_(STORM_-_FINAL)-S	10400-Q-S	10400-P-S	Overland	52.595	0.013	962.7	962.7	0	0	0	0
P-10400-R	10400-R	10400-Q	gmp5	36.153	0.013	955.331	955.031	0	0	0	0
P-10400-R_(STORM_-_FINAL)-S	10400-R-S	10400-Q-S	Overland	35.096	0.013	962.7	962.7	0	0	0	0
P-10400-S	10400-S	10400-R	gmp5	53.115	0.013	957.91	957.41	0	0	0	0
P-10400-S_(STORM_-_FINAL)-S	10400-S-S	10400-R-S	Overland	53.965	0.013	958.324	957.824	0	0	0	0
P-10410-A	10410-A	10400-A	gmp5	114.859	0.013	881.7	880.759	0	0	0	0
P-10410-A-S	10410-B-S	OL-10101-A	Overland	119.607	0.013	896.952	896.585	0	0	0	0
P-10410-B	10410-B	10410-A	GMP5	34.537	0.01	882.9	882.584	0	0	0	0
P-10410-C	10410-C	10410-B	GMP5	60.187	0.013	882.9	882.584	0	0	0	0
P-10410-D	10410-D	10410-C	GMP5	90.97	0.013	883.998	884.6	0	0	0	0
P-10410-E	10410-E	10410-D	GMP5	72.296	0.013	886.58	885.16	0	0	0	0
P-10410-F	10410-F	10410-E	GMP5	400	0.01	888.42	887.778	0	0	0	0
P-10411-A	10411-A	10410-E	GMP5	400	0.01	896.5	895.777	0	0	0	0
P-10411-A-S	10411-A-S	10410-D-S	Overland	195.119	0.013	901.452	900.92	0	0	0	0
P-10420-A	10420-A	10400-F	gmp5	40.105	0.013	903.59	902.189	0	0	0	0
P-10420-A_(STORM_-_FINAL)-S	10420-A-S	10400-F-S	Overland	50.527	0.013	909.547	905.974	0	0	0	0
P-10420-B	10420-B	10420-A	gmp5	72.457	0.013	906.783	904.875	0	0	0	0

Table 1A: Conduits (continued...)

Name	Inlet Node	Outlet Node	Tag	Length (ft)	Roughness	Inlet Elev. (ft)	Outlet Elev. (ft)	Initial Flow (cfs)	Flow Limit (cfs)	Entry Loss Coeff.	Exit Loss Coeff.
P-10420-B_(STORM_-_FINAL)-S	10420-B-S	10420-A-S	Overland	76.07	0.013	914.896	909.547	0	0	0	0
P-10420-C	10420-C	10420-B	gmp5	34.984	0.013	909.388	908.408	0	0	0	0
P-10420-C-S	10420-C-S	10421-A-S	Overland	106.894	0.013	915.089	914.896	0	0	0	0
P-10420-D	10420-D	10420-C	gmp5	62.444	0.013	911.886	910.393	0	0	0	0
P-10420-D-S	10420-D-S	10420-C-S	Overland	58.156	0.013	919.59	915.089	0	0	0	0
P-10420-E	10420-E	10420-D	gmp5	37.47	0.013	912.737	912.412	0	0	0	0
P-10420-E-S	10420-E-S	10420-B-S	Overland	94.779	0.013	920.08	919.59	0	0	0	0
P-10421-A	10421-A	10420-A	gmp5	35.333	0.013	904.86	904.51	0	0	0	0
P-10421-A_(STORM_-_FINAL)-S	10421-A-S	10400-F-S	Overland	76.321	0.013	909.419	909.547	0	0	0	0
P-10422-A	10422-A	10420-C	gmp5	97.983	0.013	925.799	911.262	0	0	0	0
P-10422-A-S	10422-A-S	10420-C-S	Overland	109.951	0.013	934.74	915.089	0	0	0	0
P-10430-A_(STORM_-_FINAL)	10430-A	10400-G	gmp5	34.5	0.013	906.008	905.663	0	0	0	0
P-10430-A-S	10430-A-S	10400-D-S	Overland	211.705	0.013	910.064	900.714	0	0	0	0
P-10440-A	10440-A	10400-J	gmp3	34.42	0.013	921.1	919.242	0	0	0	0
P-10440-A_(STORM_-_FINAL)-S	10440-A-S	10400-H-S	Overland	69.855	0.013	930.47	926.954	0	0	0	0
P-10440-B	10440-B	10440-A	gmp3	45.307	0.013	922.798	921.699	0	0	0	0
P-10440-B_(STORM_-_FINAL)-S	10440-B-S	10400-H-S	Overland	116.908	0.013	932.47	930.47	0	0	0	0
P-10440-C	10440-C	10440-B	gmp3	68.048	0.013	926.64	926.3	0	0	0	0
P-10440-C_(STORM_-_FINAL)-S	10440-C-S	10440-A-S	Overland	102.662	0.013	937.3	932.47	0	0	0	0
P-10440-D	10440-D	10440-C	gmp3	97.17	0.013	927.13	926.64	0	0	0	0
P-10440-D-S	10440-D-S	10440-C-S	Overland	90.639	0.013	943.95	937.2	0	0	0	0
P-10440-E	10440-e	10440-D	GMP3	63.856	0.013	928.004	927.62	0	0	0	0
P-10440-G	J1	10440-e	GMP5	212.673	0.013	950.36	940	0	0	0	0
P-10441-A	10441-A	10440-A	GMP5	18.7	0.013	924.77	921.51	0	0	0	0
P-10442-A	10442-A	10442-A-EX	GMP5	5.45	0.01	975.66	975.59	0	0	0	0
P-10442-A-EX	10442-A-EX	EX-CI21199	EX	321.203	0.013	975.25	954.3	0	0	0	0

Table 1A: Conduits (continued...)

Name	Inlet Node	Outlet Node	Tag	Length (ft)	Roughness	Inlet Elev. (ft)	Outlet Elev. (ft)	Initial Flow (cfs)	Flow Limit (cfs)	Entry Loss Coeff.	Exit Loss Coeff.
P-10443-A	10443-A	10440-D	GMP5	49.536	0.013	942.62	940.13	0	0	0.5	1
P-10443-C	10443-C	10442-A-EX	EX	61.997	0.013	976.57	975.25	0	0	0	0
P-10443-D	10443-D	10443-C	EX	26.907	0.013	979.35	977.69	0	0	0	0
P-10443-E	10442-B-EX	10442-A-EX	EX	26.458	0.013	978.38	975.8	0	0	0	0
P-10443-E-S	10442-B-S	10440-D-S	Overland	550.792	0.013	982.91	983.1	0	0	0	0
P-10450-A_(STORM_-_FINAL)	10450-A	10400-K	gmp5	34	0.013	924.173	923.848	0	0	0	0
P-10450-A-S	10450-A-S	10400-H-S	Overland	141.494	0.013	933.349	924.25	0	0	0	0
P-10460-A	10460-A	10400-L	gmp5	53.413	0.013	933.323	933.126	0	0	0	0
P-10460-A-S	10460-A-S	10450-A-S	Overland	235.327	0.013	949.32	933.349	0	0	0	0
P-10460-B	10460-B	10460-A	gmp5	63.086	0.013	933.88	933.523	0	0	0	0
P-10460-B_(STORM_-_FINAL)-S	10460-B-S	10450-A-S	Overland	265.739	0.013	943.793	933.349	0	0	0	0
P-10460-C	10460-C	10460-B	GMP5	91.46	0.013	934.681	934.08	0	0	0	0
P-10460-C_(STORM_-_FINAL)-S	10460-C-S	10460-B-S	Overland	104.4	0.013	943.793	943.793	0	0	0	0
P-10460-D	10460-D	10460-C	GMP5	117.21	0.013	935.602	934.881	0	0	0	0
P-10460-D_(STORM_-_FINAL)-S	10460-D-S	10460-C-S	Overland	124.197	0.013	943.664	943.793	0	0	0	0
P-10460-E	10460-E	10460-D	GMP5	96.777	0.013	936.275	935.802	0	0	0	0
P-10460-E_(STORM_-_FINAL)-S	10460-E-S	10460-D-S	Overland	82.515	0.013	943.766	943.664	0	0	0	0
P-10460-F	10460-F	10460-E	GMP5	96.524	0.013	937.321	936.575	0	0	0	0
P-10460-F_(STORM_-_FINAL)-S	10460-F-S	10460-E-S	Overland	113.73	0.013	943.405	943.766	0	0	0	0
P-10461-A	10461-A	10460-B	GMP5	179.359	0.013	938.8	936.25	0	0	0	0
P-10461-B	10461-B	10461-A	gmp5	105.575	0.013	939.54	939.013	0	0	0	0
P-10461-B_(STORM_-_FINAL)-S	10461-B-S	10461-A-S	Overland	105.575	0.013	943.04	943.04	0	0	0	0
P-10462-A	10462-A	10460-D	GMP5	43.43	0.013	943.039	941.575	0	0	0	0
P-10470-A	10470-A	10400-M	gmp5	34.277	0.013	954.563	954.22	0	0	0	0
P-10470-A-S	10470-A-S	10460-A-S	Overland	135.437	0.013	958.453	961.71	0	0	0	0
P-10480-A	10480-A	10400-M	GMP5	155.379	0.01	957.4	955.47	0	0	0	0

Table 1A: Conduits (continued...)

Name	Inlet Node	Outlet Node	Tag	Length (ft)	Roughness	Inlet Elev. (ft)	Outlet Elev. (ft)	Initial Flow (cfs)	Flow Limit (cfs)	Entry Loss Coeff.	Exit Loss Coeff.
P-10480-B	10480-B	10480-A	GMP5	54.414	0.01	958.201	957.6	0	0	0	0
P-10500-B	10500-B	10500-A	GMP5	209.24	0.013	908.62	907.54	0	0	0	0
P-10500-B_(STORM_-_FINAL)-S	10500-B-S	10500-A	Overland	209.467	0.013	918.59	913	0	0	0	0
P-10500-C	10500-C	10500-B	gmp5	79.732	0.013	909.85	909.5	0	0	0	0
P-10500-C_(STORM_-_FINAL)-S	10500-C-S	10500-B-S	Overland	75.931	0.013	917	918.59	0	0	0	0
P-10500-D	10500-D	10500-C	GMP5	400	0.01	914.092	913.84	0	0	0	0
P-10510-A	10510-A	10500-B	GMP5	20.941	0.013	911.11	911.31	0	0	0	0
P-10510-A_(STORM_-_FINAL)-S	10510-A-S	10500-B-S	Overland	9.466	0.013	916.551	918.59	0	0	0	0
P-10700-A	10700-B	10700-A	GMP5	39.49	0.013	919.78	919.38	0	0	0	0
P-12000-A	12000-B	12000-A	GMP3	136.578	0.013	859.34	858	0	0	0	0
P-12000-B	12000-C	12000-B	GMP3	82.048	0.013	860.36	859.54	0	0	0	0
P-12000-C	12000-D	12000-C	GMP3	41.568	0.013	860.98	860.56	0	0	1	0
P-12000-C-S	12000-C-S	J320	Overland	80.231	0.013	865.18	863.281	0	0	0	0
P-12000-D	12000-G	10000-B	GMP3	96.445	0.013	863.1	862	0	0	1	0
P-12000-E	12000-E	12000-F	GMP3	36.367	0.013	864.6	864.2	0	0	1	0
P-12000-E-S	12000-E-S	12000-B'	Overland	40.217	0.013	869.249	866.842	0	0	0	0
P-12000-F	12000-F	12000-G	GMP3	23.572	0.013	864	863.6	0	0	1	0
P-12000-G-S	12000-G-S	12000-B'	Overland	111.547	0.013	868.4	866.842	0	0	0	0
P-21199_1	EX-CI21199	10440-e	EX	163.613	0.013	954.3	942.028	0	0	0	0
P-21199-S	EX-CI21199-S	10440-B-S	Overland	357.023	0.013	959.964	943.95	0	0	0	0
S	10210-E	10210-D	GMP5	400	0.01	889.019	887.7	0	0	0	0
UV-Outlet	06-UV	10000-C	GMP5	47.457	0.013	876.25	875.17	0	0	1.5	0

Table 1B: Conduits

Name	Avg. Loss Coeff.	Seepage Rate (in/hr)	Flap Gate	Cross-Section	Geom1 (ft)	Geom2 (ft)	Geom3	Geom4	Barrels	Transect	Shape Curve	Culvert Code	Control Rules
1	0	0	NO	CIRCULAR	1.25	0	0	0	1				NO
10	0	0	NO	CIRCULAR	1	0	0	0	1				NO
10000-CB-S	0	0	NO	IRREGULAR	0	0	0	0	1	HalfSectionRd			NO
10000-DC-S	0	0	NO	IRREGULAR	0	0	0	0	1	HalfSectionRd			NO
10000-ED-S	0	0	NO	IRREGULAR	0	0	0	0	1	HalfSectionRd			NO
10123-AF	0	0	NO	CIRCULAR	1.25	0	0	0	1				NO
10125-AG	0	0	NO	CIRCULAR	0.5	0	0	0	1				NO
10200-B	0	0	NO	CIRCULAR	1.25	0	0	0	1				NO
10203-A	0	0	NO	CIRCULAR	1.25	0	0	0	1				NO
10300-D1	0	0	NO	CIRCULAR	2	0	0	0	1				NO
10300-D-2	0	0	NO	CIRCULAR	2	0	0	0	1				NO
10300-D-3	0	0	NO	CIRCULAR	2	0	0	0	1				NO
10310-C-S2	0	0	NO	IRREGULAR	0	0	0	0	1	HalfSectionRd			NO
11	0	0	NO	CIRCULAR	1	0	0	0	1				NO
11000-A0	0	0	NO	CIRCULAR	1	0	0	0	1				NO
12	0	0	NO	CIRCULAR	1	0	0	0	1				NO
12000-B'B	0	0	NO	IRREGULAR	0	0	0	0	1	HalfSectionRd			NO
12000-DC-S	0	0	NO	IRREGULAR	0	0	0	0	1	HalfSectionRd			NO
12000-FE-S	0	0	NO	IRREGULAR	0	0	0	0	1	HalfSectionRd			NO
12000-G	0	0	NO	CIRCULAR	2	0	0	0	1				NO
12000-RainGarden	0	0	NO	TRAPEZOIDAL	5	10	4	4	1				NO
13	0	0	NO	CIRCULAR	1.25	0	0	0	1				NO
13000-A0	0	0	NO	CIRCULAR	2	0	0	0	1				NO
14	0	0	NO	CIRCULAR	1.25	0	0	0	1				NO
14000-A0'	0	0	NO	TRAPEZOIDAL	1	4	50	50	1				NO
14000-B0	0	0	NO	CIRCULAR	2	0	0	0	1				NO

Table 1B: Conduits (continued...)

Name	Avg. Loss Coeff.	Seepage Rate (in/hr)	Flap Gate	Cross-Section	Geom1 (ft)	Geom2 (ft)	Geom3	Geom4	Barrels	Transect	Shape Curve	Culvert Code	Control Rules
14000-CB	0	0	NO	CIRCULAR	2	0	0	0	1				NO
14000-DC	0	0	NO	CIRCULAR	2	0	0	0	1				NO
14000-ED	0	0	NO	CIRCULAR	2	0	0	0	1				NO
14000-FE	0	0	NO	CIRCULAR	2	0	0	0	1				NO
15	0	0	NO	CIRCULAR	1.25	0	0	0	1				NO
16	0	0	NO	CIRCULAR	1	0	0	0	1				NO
17	0	0	NO	TRAPEZOIDAL	1	0.5	0.25	0.25	1				NO
18	0	0	NO	CIRCULAR	2	0	0	0	1				NO
19	0	0	NO	CIRCULAR	2	0	0	0	1				NO
20	0	0	NO	CIRCULAR	2	0	0	0	1				NO
21	0	0	NO	CIRCULAR	2	0	0	0	1				NO
22	0	0	NO	CIRCULAR	2	0	0	0	1				NO
26	0	0	NO	CIRCULAR	1	0	0	0	1				NO
28	0	0	NO	TRAPEZOIDAL	1	5	4	4	1				NO
3	0	0	NO	CIRCULAR	1	0	0	0	1				NO
4	0	0	NO	CIRCULAR	1	0	0	0	1				NO
5	0	0	NO	CIRCULAR	2	0	0	0	1				NO
6	0	0	NO	CIRCULAR	1	0	0	0	1				NO
8	0	0	NO	CIRCULAR	2	0	0	0	1				NO
9	0	0	NO	CIRCULAR	3	0	0	0	1				NO
C10	0	0	NO	CIRCULAR	1.5	0	0	0	1				NO
C10-S	0	0	NO	IRREGULAR	0	0	0	0	1	HalfSectionRd			NO
C11	0	0	NO	CIRCULAR	1.5	0	0	0	1				NO
C11-S	0	0	NO	TRAPEZOIDAL	10	10	1	1	1				NO
C12-S	0	0	NO	TRAPEZOIDAL	10	10	3	3	1				NO
C14	0	0	NO	CIRCULAR	1	0	0	0	1				NO

Table 1B: Conduits (continued...)

Name	Avg. Loss Coeff.	Seepage Rate (in/hr)	Flap Gate	Cross-Section	Geom1 (ft)	Geom2 (ft)	Geom3	Geom4	Barrels	Transect	Shape Curve	Culvert Code	Control Rules
C15	0	0	NO	CIRCULAR	2	0	0	0	1				NO
C16	0	0	NO	TRAPEZOIDAL	10	20	10	10	1				NO
C17	0	0	NO	TRAPEZOIDAL	1	10	50	50	1				NO
C18	0	0	NO	RECT_OPEN	1	10	0	0	1				NO
C19	0	0	NO	RECT_OPEN	1	10	0	0	1				NO
C2	0	0	NO	CIRCULAR	1.25	0	0	0	1				NO
C20	0	0	NO	RECT_OPEN	10	10	0	0	1				NO
C21	0	0	NO	RECT_OPEN	4	3	2	0	1				NO
C23	0	0	NO	TRAPEZOIDAL	5	10	4	4	1				NO
C24	0	0	NO	IRREGULAR	0	0	0	0	1	HalfSectionRd			NO
C25	0	0	NO	TRAPEZOIDAL	1	5	3	3	1				NO
C26	0	0	NO	CIRCULAR	2	0	0	0	1				NO
C2-S	0	0	NO	IRREGULAR	0	0	0	0	1	HalfSectionRd			NO
C3	0	0	NO	CIRCULAR	0.25	0	0	0	1				NO
C4	0	0	NO	CIRCULAR	1	0	0	0	1				NO
C4-S	0	0	NO	IRREGULAR	0	0	0	0	1	HalfSectionRd			NO
C5	0	0	NO	CIRCULAR	2.5	0	0	0	1				NO
C6	0	0	NO	CIRCULAR	0.833	0	0	0	1				NO
C7	0	0	NO	TRAPEZOIDAL	5	10	10	10	1				NO
C8	0	0	NO	TRAPEZOIDAL	2.5	4	3	3	1				NO
C9_1	0	0	NO	TRAPEZOIDAL	2.5	4	3	3	1				NO
C9_2	0	0	NO	TRAPEZOIDAL	2.5	5	3	3	1				NO
C-J182	0	0	NO	TRAPEZOIDAL	0.5	3	1	1	1				NO
C-J320	0	0	NO	IRREGULAR	0	0	0	0	1	HalfSectionRd			NO
C-J39	0	0	NO	TRAPEZOIDAL	0.5	3	1	1	1				NO
C-J46	0	0	NO	TRAPEZOIDAL	1	0.5	50	0.25	1				NO

Table 1B: Conduits (continued...)

Name	Avg. Loss Coeff.	Seepage Rate (in/hr)	Flap Gate	Cross-Section	Geom1 (ft)	Geom2 (ft)	Geom3	Geom4	Barrels	Transect	Shape Curve	Culvert Code	Control Rules
EP-10440-C	0	0	NO	CIRCULAR	1.25	0	0	0	1				NO
EP-10440-C-S	0	0	NO	TRAPEZOIDAL	1	0.5	50	0.25	1				NO
EX10441-B-S	0	0	NO	IRREGULAR	0	0	0	0	1	HalfSectionRd			NO
EX10441-C-S	0	0	NO	IRREGULAR	0	0	0	0	1	HalfSectionRd			NO
EX10441-D-S	0	0	NO	IRREGULAR	0	0	0	0	1	HalfSectionRd			NO
OL-10100-AE_1	0	0	NO	TRAPEZOIDAL	1	0.5	50	0.25	1				NO
OL-10100-AE_2	0	0	NO	TRAPEZOIDAL	1	0.5	50	0.25	1				NO
OL-10101-AF	0	0	NO	TRAPEZOIDAL	1	0.5	50	0.25	1				NO
OL-10131-BA	0	0	NO	TRAPEZOIDAL	1	0.5	50	0.25	1				NO
OL-10131-CB	0	0	NO	TRAPEZOIDAL	1	0.5	50	0.25	1				NO
OL-10200-BA_1	0	0	NO	IRREGULAR	0	0	0	0	1	HalfSectionRd			NO
OL-10200-BA_2	0	0	NO	IRREGULAR	0	0	0	0	1	HalfSectionRd			NO
OL-10201-AA_1	0	0	NO	IRREGULAR	0	0	0	0	1	HalfSectionRd			NO
OL-10201-AA_2	0	0	NO	IRREGULAR	0	0	0	0	1	HalfSectionRd			NO
OL-10210-AD	0	0	NO	IRREGULAR	0	0	0	0	1	HalfSectionRd			NO
OL-11000-A0	0	0	NO	TRAPEZOIDAL	1	4	3	3	1				NO
OL-11000-AbAc	0	0	NO	TRAPEZOIDAL	1	4	3	3	1				NO
OL-11000-AcAd	0	0	NO	TRAPEZOIDAL	1	4	3	3	1				NO
OL-11000-AdAe	0	0	NO	TRAPEZOIDAL	1	4	3	3	1				NO
OL-11000-AeE	0	0	NO	TRAPEZOIDAL	1	0.5	50	0.25	1				NO
OL-11000-BA	0	0	NO	TRAPEZOIDAL	1	0.5	50	0.25	1				NO
OL-12000-B0	0	0	NO	IRREGULAR	0	0	0	0	1	HalfSectionRd			NO
OL-14000-BC	0	0	NO	TRAPEZOIDAL	1	0.5	50	0.25	1				NO
OL-14000-CB	0	0	NO	TRAPEZOIDAL	1	4	50	50	1				NO
OL-14000-DC	0	0	NO	TRAPEZOIDAL	1	4	50	50	1				NO
OL-14000-ED	0	0	NO	TRAPEZOIDAL	1	0.5	50	0.25	1				NO

Table 1B: Conduits (continued...)

Name	Avg. Loss Coeff.	Seepage Rate (in/hr)	Flap Gate	Cross-Section	Geom1 (ft)	Geom2 (ft)	Geom3	Geom4	Barrels	Transect	Shape Curve	Culvert Code	Control Rules
P-10000-A	0	0	NO	CIRCULAR	4.5	0	0	0	1				NO
P-10000-C	0	0	NO	CIRCULAR	4.5	0	0	0	1				NO
P-10000-C.	0	0	NO	CIRCULAR	7	0	0	0	1				NO
P-10001-A-S	0	0	NO	IRREGULAR	0	0	0	0	1	HalfSectionRd			NO
P-1000-B	0	0	NO	CIRCULAR	4.5	0	0	0	1				NO
P-10100-A	0	0	NO	CIRCULAR	2	0	0	0	1				NO
P-10100-B	0	0	NO	CIRCULAR	2	0	0	0	1				NO
P-10100-B-S	0	0	NO	IRREGULAR	0	0	0	0	1	HalfSectionRd			NO
P-10100-C	0	0	NO	CIRCULAR	2	0	0	0	1				NO
P-10120-G	0	0	NO	CIRCULAR	3	0	0	0	1				NO
P-10120-H	0	0	NO	CIRCULAR	3	0	0	0	1				NO
P-10120-H-S	0	0	NO	RECT_OPEN	2	10	2	0	1				NO
P-10200-A	0	0	NO	CIRCULAR	1.5	0	0	0	1				NO
P-10200-A-S_1	0	0	NO	IRREGULAR	0	0	0	0	1	HalfSectionRd			NO
P-10200-A-S_2	0	0	NO	IRREGULAR	0	0	0	0	1	HalfSectionRd			NO
P-10200-C	0	0	NO	CIRCULAR	1.25	0	0	0	1				NO
P-10200-C-S_1	0	0	NO	IRREGULAR	0	0	0	0	1	HalfSectionRd			NO
P-10200-C-S_2	0	0	NO	IRREGULAR	0	0	0	0	1	HalfSectionRd			NO
P-10200-D	0	0	NO	CIRCULAR	1.25	0	0	0	1				NO
P-10200-D-S	0	0	NO	IRREGULAR	0	0	0	0	1	HalfSectionRd			NO
P-10200-D-S.	0	0	NO	IRREGULAR	0	0	0	0	1	HalfSectionRd			NO
P-10200-E	0	0	NO	CIRCULAR	1.25	0	0	0	1				NO
P-10200-F	0	0	NO	CIRCULAR	1.25	0	0	0	1				NO
P-10200-F-S	0	0	NO	IRREGULAR	0	0	0	0	1	HalfSectionRd			NO
P-10200-G	0	0	NO	CIRCULAR	1.25	0	0	0	1				NO
P-10200-G_(STORM_-_FINAL)-S	0	0	NO	IRREGULAR	0	0	0	0	1	HalfSectionRd			NO

Table 1B: Conduits (continued...)

Name	Avg. Loss Coeff.	Seepage Rate (in/hr)	Flap Gate	Cross-Section	Geom1 (ft)	Geom2 (ft)	Geom3	Geom4	Barrels	Transect	Shape Curve	Culvert Code	Control Rules
P-10200-H	0	0	NO	CIRCULAR	1.25	0	0	0	1				NO
P-10200-H_(STORM_-_FINAL)-S	0	0	NO	IRREGULAR	0	0	0	0	1	HalfSectionRd			NO
P-10200-J	0	0	NO	CIRCULAR	1.25	0	0	0	1				NO
P-10200-J_(STORM_-_FINAL)-S	0	0	NO	IRREGULAR	0	0	0	0	1	HalfSectionRd			NO
P-10200-K	0	0	NO	CIRCULAR	1.25	0	0	0	1				NO
P-10200-K_(STORM_-_FINAL)-S	0	0	NO	IRREGULAR	0	0	0	0	1	HalfSectionRd			NO
P-10200-L	0	0	NO	CIRCULAR	1.25	0	0	0	1				NO
P-10200-L_(STORM_-_FINAL)-S	0	0	NO	IRREGULAR	0	0	0	0	1	HalfSectionRd			NO
P-10200-M	0	0	NO	CIRCULAR	1.25	0	0	0	1				NO
P-10200-M_(STORM_-_FINAL)-S	0	0	NO	IRREGULAR	0	0	0	0	1	HalfSectionRd			NO
P-10200-N	0	0	NO	CIRCULAR	1.25	0	0	0	1				NO
P-10201-A	0	0	NO	CIRCULAR	1.25	0	0	0	1				NO
P-102020-A-S_1	0	0	NO	IRREGULAR	0	0	0	0	1	HalfSectionRd			NO
P-102020-A-S_2	0	0	NO	IRREGULAR	0	0	0	0	1	HalfSectionRd			NO
P-10202-A	0	0	NO	CIRCULAR	1.25	0	0	0	1				NO
P-10203-A-S	0	0	NO	IRREGULAR	0	0	0	0	1	HalfSectionRd			NO
P-10210-A	0	0	NO	CIRCULAR	1.25	0	0	0	1				NO
P-10210-B	0	0	NO	CIRCULAR	1.25	0	0	0	1				NO
P-10210-B-S	0	0	NO	IRREGULAR	0	0	0	0	1	HalfSectionRd			NO
P-10210-C	0	0	NO	CIRCULAR	0.833	0	0	0	1				NO
P-10210-C_(STORM_-_FINAL)-S	0	0	NO	IRREGULAR	0	0	0	0	1	HalfSectionRd			NO
P-10211-A	0	0	NO	CIRCULAR	1.25	0	0	0	1				NO
P-10211-B	0	0	NO	CIRCULAR	0.833	0	0	0	1				NO
P-10212-A	0	0	NO	CIRCULAR	0.833	0	0	0	1				NO
P-10240-A_(STORM_-_FINAL)-S	0	0	NO	IRREGULAR	0	0	0	0	1	HalfSectionRd			NO
P-10250-A	0	0	NO	CIRCULAR	1.25	0	0	0	1				NO

Table 1B: Conduits (continued...)

Name	Avg. Loss Coeff.	Seepage Rate (in/hr)	Flap Gate	Cross-Section	Geom1 (ft)	Geom2 (ft)	Geom3	Geom4	Barrels	Transect	Shape Curve	Culvert Code	Control Rules
P-10250-A-S	0	0	NO	IRREGULAR	0	0	0	0	1	HalfSectionRd			NO
P-10250-B	0	0	NO	CIRCULAR	1.25	0	0	0	1				NO
P-10250-B-S	0	0	NO	IRREGULAR	0	0	0	0	1	HalfSectionRd			NO
P-10250-C	0	0	NO	CIRCULAR	1.25	0	0	0	1				NO
P-10250-C-S	0	0	NO	IRREGULAR	0	0	0	0	1	HalfSectionRd			NO
P-10250-D	0	0	NO	CIRCULAR	1.25	0	0	0	1				NO
P-10250-D-S	0	0	NO	IRREGULAR	0	0	0	0	1	HalfSectionRd			NO
P-10260-A	0	0	NO	CIRCULAR	1.25	0	0	0	1				NO
P-10260-A-S	0	0	NO	IRREGULAR	0	0	0	0	1	HalfSectionRd			NO
P-10270-A	0	0	NO	CIRCULAR	1.25	0	0	0	1				NO
P-10280-A	0	0	NO	CIRCULAR	1.25	0	0	0	1				NO
P-10300-B	0	0	NO	CIRCULAR	2	0	0	0	1				NO
P-10300-B-S	0	0	NO	IRREGULAR	0	0	0	0	1	HalfSectionRd			NO
P-10300-C3	0	0	NO	CIRCULAR	2	0	0	0	1				NO
P-10300-D-S	0	0	NO	IRREGULAR	0	0	0	0	1	HalfSectionRd			NO
P-10300-E	0	0	NO	CIRCULAR	1.25	0	0	0	1				NO
P-10300-E-S.	0	0	NO	IRREGULAR	0	0	0	0	1	HalfSectionRd			NO
P-10300-F	0	0	NO	CIRCULAR	1.25	0	0	0	1				NO
P-10300-G	0	0	NO	CIRCULAR	1	0	0	0	1				NO
P-10310-A	0	0	NO	CIRCULAR	1.5	0	0	0	1				NO
P-10310-B	0	0	NO	CIRCULAR	1.25	0	0	0	1				NO
P-10310-B-S	0	0	NO	IRREGULAR	0	0	0	0	1	HalfSectionRd			NO
P-10310-C-S	0	0	NO	IRREGULAR	0	0	0	0	1	HalfSectionRd			NO
P-10320-A	0	0	NO	CIRCULAR	1.5	0	0	0	1				NO
P-10320-A-S	0	0	NO	IRREGULAR	0	0	0	0	1	HalfSectionRd			NO
P-10320-B	0	0	NO	CIRCULAR	1.25	0	0	0	1				NO

Table 1B: Conduits (continued...)

Name	Avg. Loss Coeff.	Seepage Rate (in/hr)	Flap Gate	Cross-Section	Geom1 (ft)	Geom2 (ft)	Geom3	Geom4	Barrels	Transect	Shape Curve	Culvert Code	Control Rules
P-10320-C	0	0	NO	CIRCULAR	1.25	0	0	0	1				NO
P-10320-D-S	0	0	NO	IRREGULAR	0	0	0	0	1	HalfSectionRd			NO
P-10321-A	0	0	NO	CIRCULAR	1	0	0	0	1				NO
P-10330-A	0	0	NO	CIRCULAR	1	0	0	0	1				NO
P-10330-A-S	0	0	NO	IRREGULAR	0	0	0	0	1	HalfSectionRd			NO
P-10330-B	0	0	NO	CIRCULAR	1	0	0	0	1				NO
P-10330-B-S	0	0	NO	IRREGULAR	0	0	0	0	1	HalfSectionRd			NO
P-10400-A	0	0	NO	CIRCULAR	4	0	0	0	1				NO
P-10400-A-S	0	0	NO	IRREGULAR	0	0	0	0	1	HalfSectionRd			NO
P-10400-B	0	0	NO	CIRCULAR	3	0	0	0	1				NO
P-10400-C1	0	0	NO	CIRCULAR	2	0	0	0	1				NO
P-10400-C2-S	0	0	NO	DUMMY	0	0	0	0	1				NO
P-10400-C-S	0	0	NO	IRREGULAR	0	0	0	0	1	HalfSectionRd			NO
P-10400-D	0	0	NO	CIRCULAR	4.5	0	0	0	1				NO
P-10400-D-S	0	0	NO	IRREGULAR	0	0	0	0	1	HalfSectionRd			NO
P-10400-E	0	0	NO	CIRCULAR	3	0	0	0	1				NO
P-10400-E-S	0	0	NO	IRREGULAR	0	0	0	0	1	HalfSectionRd			NO
P-10400-F	0	0	NO	CIRCULAR	3	0	0	0	1				NO
P-10400-F_(STORM_-_FINAL)-S	0	0	NO	IRREGULAR	0	0	0	0	1	HalfSectionRd			NO
P-10400-G	0	0	NO	CIRCULAR	3	0	0	0	1				NO
P-10400-G-S	0	0	NO	IRREGULAR	0	0	0	0	1	HalfSectionRd			NO
P-10400-H	0	0	NO	CIRCULAR	3	0	0	0	1				NO
P-10400-H-S	0	0	NO	IRREGULAR	0	0	0	0	1	HalfSectionRd			NO
P-10400-J	0	0	NO	CIRCULAR	3	0	0	0	1				NO
P-10400-K	0	0	NO	CIRCULAR	2	0	0	0	1				NO
P-10400-K-S	0	0	NO	IRREGULAR	0	0	0	0	1	HalfSectionRd			NO

Table 1B: Conduits (continued...)

Name	Avg. Loss Coeff.	Seepage Rate (in/hr)	Flap Gate	Cross-Section	Geom1 (ft)	Geom2 (ft)	Geom3	Geom4	Barrels	Transect	Shape Curve	Culvert Code	Control Rules
P-10400-L	0	0	NO	CIRCULAR	1.5	0	0	0	1				NO
P-10400-L-S	0	0	NO	IRREGULAR	0	0	0	0	1	HalfSectionRd			NO
P-10400-M	0	0	NO	CIRCULAR	1.5	0	0	0	1				NO
P-10400-M-S	0	0	NO	IRREGULAR	0	0	0	0	1	HalfSectionRd			NO
P-10400-N	0	0	NO	CIRCULAR	1.5	0	0	0	1				NO
P-10400-N_(STORM_-_FINAL)-S	0	0	NO	IRREGULAR	0	0	0	0	1	HalfSectionRd			NO
P-10400-P	0	0	NO	CIRCULAR	1.5	0	0	0	1				NO
P-10400-P_(STORM_-_FINAL)-S	0	0	NO	IRREGULAR	0	0	0	0	1	HalfSectionRd			NO
P-10400-Q	0	0	NO	CIRCULAR	1.5	0	0	0	1				NO
P-10400-Q_(STORM_-_FINAL)-S	0	0	NO	IRREGULAR	0	0	0	0	1	HalfSectionRd			NO
P-10400-R	0	0	NO	CIRCULAR	1.5	0	0	0	1				NO
P-10400-R_(STORM_-_FINAL)-S	0	0	NO	IRREGULAR	0	0	0	0	1	HalfSectionRd			NO
P-10400-S	0	0	NO	CIRCULAR	1.5	0	0	0	1				NO
P-10400-S_(STORM_-_FINAL)-S	0	0	NO	IRREGULAR	0	0	0	0	1	HalfSectionRd			NO
P-10410-A	0	0	NO	CIRCULAR	4	0	0	0	1				NO
P-10410-A-S	0	0	NO	IRREGULAR	0	0	0	0	1	HalfSectionRd			NO
P-10410-B	0	0	NO	CIRCULAR	4	0	0	0	1				NO
P-10410-C	0	0	NO	CIRCULAR	4	0	0	0	1				NO
P-10410-D	0	0	NO	CIRCULAR	4	0	0	0	1				NO
P-10410-E	0	0	NO	CIRCULAR	4	0	0	0	1				NO
P-10410-F	0	0	NO	CIRCULAR	3	0	0	0	1				NO
P-10411-A	0	0	NO	CIRCULAR	1.25	0	0	0	1				NO
P-10411-A-S	0	0	NO	IRREGULAR	0	0	0	0	1	HalfSectionRd			NO
P-10420-A	0	0	NO	CIRCULAR	2	0	0	0	1				NO
P-10420-A_(STORM_-_FINAL)-S	0	0	NO	IRREGULAR	0	0	0	0	1	HalfSectionRd			NO
P-10420-B	0	0	NO	CIRCULAR	2	0	0	0	1				NO

Table 1B: Conduits (continued...)

Name	Avg. Loss Coeff.	Seepage Rate (in/hr)	Flap Gate	Cross-Section	Geom1 (ft)	Geom2 (ft)	Geom3	Geom4	Barrels	Transect	Shape Curve	Culvert Code	Control Rules
P-10420-B_(STORM_-_FINAL)-S	0	0	NO	IRREGULAR	0	0	0	0	1	HalfSectionRd			NO
P-10420-C	0	0	NO	CIRCULAR	2	0	0	0	1				NO
P-10420-C-S	0	0	NO	IRREGULAR	0	0	0	0	1	HalfSectionRd			NO
P-10420-D	0	0	NO	CIRCULAR	2	0	0	0	1				NO
P-10420-D-S	0	0	NO	IRREGULAR	0	0	0	0	1	HalfSectionRd			NO
P-10420-E	0	0	NO	CIRCULAR	1.25	0	0	0	1				NO
P-10420-E-S	0	0	NO	IRREGULAR	0	0	0	0	1	HalfSectionRd			NO
P-10421-A	0	0	NO	CIRCULAR	2	0	0	0	1				NO
P-10421-A_(STORM_-_FINAL)-S	0	0	NO	IRREGULAR	0	0	0	0	1	HalfSectionRd			NO
P-10422-A	0	0	NO	CIRCULAR	1.5	0	0	0	1				NO
P-10422-A-S	0	0	NO	IRREGULAR	0	0	0	0	1	HalfSectionRd			NO
P-10430-A_(STORM_-_FINAL)	0	0	NO	CIRCULAR	1.5	0	0	0	1				NO
P-10430-A-S	0	0	NO	IRREGULAR	0	0	0	0	1	HalfSectionRd			NO
P-10440-A	0	0	NO	CIRCULAR	2.5	0	0	0	1				NO
P-10440-A_(STORM_-_FINAL)-S	0	0	NO	IRREGULAR	0	0	0	0	1	HalfSectionRd			NO
P-10440-B	0	0	NO	CIRCULAR	2.5	0	0	0	1				NO
P-10440-B_(STORM_-_FINAL)-S	0	0	NO	IRREGULAR	0	0	0	0	1	HalfSectionRd			NO
P-10440-C	0	0	NO	CIRCULAR	2.5	0	0	0	1				NO
P-10440-C_(STORM_-_FINAL)-S	0	0	NO	IRREGULAR	0	0	0	0	1	HalfSectionRd			NO
P-10440-D	0	0	NO	CIRCULAR	2.5	0	0	0	1				NO
P-10440-D-S	0	0	NO	IRREGULAR	0	0	0	0	1	HalfSectionRd			NO
P-10440-E	0	0	NO	CIRCULAR	2	0	0	0	1				NO
P-10440-G	0	0	NO	CIRCULAR	2	0	0	0	1				NO
P-10441-A	0	0	NO	CIRCULAR	1	0	0	0	1				NO
P-10442-A	0	0	NO	CIRCULAR	1	0	0	0	1				NO
P-10442-A-EX	0	0	NO	CIRCULAR	2	0	0	0	1				NO

Table 1B: Conduits (continued...)

Name	Avg. Loss Coeff.	Seepage Rate (in/hr)	Flap Gate	Cross-Section	Geom1 (ft)	Geom2 (ft)	Geom3	Geom4	Barrels	Transect	Shape Curve	Culvert Code	Control Rules
P-10443-A	0	0	NO	CIRCULAR	1.25	0	0	0	1				NO
P-10443-C	0	0	NO	CIRCULAR	2	0	0	0	1				NO
P-10443-D	0	0	NO	CIRCULAR	3	0	0	0	1				NO
P-10443-E	0	0	NO	CIRCULAR	1	0	0	0	1				NO
P-10443-E-S	0	0	NO	IRREGULAR	0	0	0	0	1	HalfSectionRd			NO
P-10450-A_(STORM_-_FINAL)	0	0	NO	CIRCULAR	1.5	0	0	0	1				NO
P-10450-A-S	0	0	NO	IRREGULAR	0	0	0	0	1	HalfSectionRd			NO
P-10460-A	0	0	NO	CIRCULAR	1.5	0	0	0	1				NO
P-10460-A-S	0	0	NO	IRREGULAR	0	0	0	0	1	HalfSectionRd			NO
P-10460-B	0	0	NO	CIRCULAR	1.5	0	0	0	1				NO
P-10460-B_(STORM_-_FINAL)-S	0	0	NO	IRREGULAR	0	0	0	0	1	HalfSectionRd			NO
P-10460-C	0	0	NO	CIRCULAR	1.5	0	0	0	1				NO
P-10460-C_(STORM_-_FINAL)-S	0	0	NO	IRREGULAR	0	0	0	0	1	HalfSectionRd			NO
P-10460-D	0	0	NO	CIRCULAR	1.5	0	0	0	1				NO
P-10460-D_(STORM_-_FINAL)-S	0	0	NO	IRREGULAR	0	0	0	0	1	HalfSectionRd			NO
P-10460-E	0	0	NO	CIRCULAR	1.25	0	0	0	1				NO
P-10460-E_(STORM_-_FINAL)-S	0	0	NO	IRREGULAR	0	0	0	0	1	HalfSectionRd			NO
P-10460-F	0	0	NO	CIRCULAR	1.25	0	0	0	1				NO
P-10460-F_(STORM_-_FINAL)-S	0	0	NO	IRREGULAR	0	0	0	0	1	HalfSectionRd			NO
P-10461-A	0	0	NO	CIRCULAR	1.5	0	0	0	1				NO
P-10461-B	0	0	NO	CIRCULAR	1.5	0	0	0	1				NO
P-10461-B_(STORM_-_FINAL)-S	0	0	NO	IRREGULAR	0	0	0	0	1	HalfSectionRd			NO
P-10462-A	0	0	NO	CIRCULAR	1.25	0	0	0	1				NO
P-10470-A	0	0	NO	CIRCULAR	1.25	0	0	0	1				NO
P-10470-A-S	0	0	NO	IRREGULAR	0	0	0	0	1	HalfSectionRd			NO
P-10480-A	0	0	NO	CIRCULAR	1.5	0	0	0	1				NO

Table 1B: Conduits (continued...)

Name	Avg. Loss Coeff.	Seepage Rate (in/hr)	Flap Gate	Cross-Section	Geom1 (ft)	Geom2 (ft)	Geom3	Geom4	Barrels	Transect	Shape Curve	Culvert Code	Control Rules
P-10480-B	0	0	NO	CIRCULAR	1.5	0	0	0	1				NO
P-10500-B	0	0	NO	CIRCULAR	1.5	0	0	0	1				NO
P-10500-B_(STORM_-_FINAL)-S	0	0	NO	IRREGULAR	0	0	0	0	1	HalfSectionRd			NO
P-10500-C	0	0	NO	CIRCULAR	1	0	0	0	1				NO
P-10500-C_(STORM_-_FINAL)-S	0	0	NO	IRREGULAR	0	0	0	0	1	HalfSectionRd			NO
P-10500-D	0	0	NO	CIRCULAR	1	0	0	0	1				NO
P-10510-A	0	0	NO	CIRCULAR	1	0	0	0	1				NO
P-10510-A_(STORM_-_FINAL)-S	0	0	NO	IRREGULAR	0	0	0	0	1	HalfSectionRd			NO
P-10700-A	0	0	NO	CIRCULAR	1.5	0	0	0	1				NO
P-12000-A	0	0	NO	CIRCULAR	1.5	0	0	0	1				NO
P-12000-B	0	0	NO	CIRCULAR	1.5	0	0	0	1				NO
P-12000-C	0	0	NO	CIRCULAR	1.5	0	0	0	1				NO
P-12000-C-S	0	0	NO	IRREGULAR	0	0	0	0	1	HalfSectionRd			NO
P-12000-D	0	0	NO	CIRCULAR	2	0	0	0	1				NO
P-12000-E	0	0	NO	CIRCULAR	2	0	0	0	1				NO
P-12000-E-S	0	0	NO	IRREGULAR	0	0	0	0	1	HalfSectionRd			NO
P-12000-F	0	0	NO	CIRCULAR	2	0	0	0	1				NO
P-12000-G-S	0	0	NO	IRREGULAR	0	0	0	0	1	HalfSectionRd			NO
P-21199_1	0	0	NO	CIRCULAR	2	0	0	0	1				NO
P-21199-S	0	0	NO	IRREGULAR	0	0	0	0	1	HalfSectionRd			NO
S	0	0	NO	CIRCULAR	0.833	0	0	0	1				NO
UV-Outlet	0	0	NO	CIRCULAR	6	0	0	0	1				NO

Table 1C: Conduits

Name	Slope (ft/ft)	Max. |Flow| (cfs)	Time Max. Flow (M/D/Y)	Max. |Velocity| (ft/s)	Max/Full Flow	Max/Full Depth	Max. Volume (ft^3)	Full Both Ends (h)	Full Upstream (h)	Full Downstream (h)	Above Full Normal (h)
1	0.00909	13.96	05/01/2022 00:14 AM	11.37	1.74	1	0	0.41	0.48	0.41	0.51
10	0.1091	0	05/01/2022 00:00 AM	0	0	0.5	0	0	0	0	0
10000-CB-S	0.0274	0	05/01/2022 00:00 AM	0	0	0	0	0	0	0	0
10000-DC-S	0.0305	0	05/01/2022 00:00 AM	0	0	0	0	0	0	0	0
10000-ED-S	0.00309	0	05/01/2022 00:00 AM	0	0	0	0	0	0	0	0
10123-AF	-0.19991	0	05/01/2022 00:00 AM	0	0	0	0	0	0	0	0
10125-AG	0.02609	1.21	05/01/2022 00:17 AM	6.18	1.34	1	0	0.81	0.97	0.81	0.95
10200-B	0.08403	17.65	05/01/2022 00:28 AM	15.97	0.94	1	0	0.34	0.39	0.34	0.01
10203-A	0.02172	2.21	05/01/2022 00:16 AM	3.14	0.23	0.56	0	0	0	0	0
10300-D1	0.01988	17.92	05/01/2022 00:19 AM	15.41	0.56	0.4	0	0	0	0	0
10300-D-2	0.27157	17.92	05/01/2022 00:19 AM	10.78	0.15	0.52	0	0	0	0	0
10300-D-3	0.00523	17.92	05/01/2022 00:19 AM	6.86	1.09	0.78	0	0.01	0.01	0.01	0.16
10310-C-S2	0.18546	1.63	05/01/2022 00:19 AM	4.56	0.01	0.34	0	0	0	0	0
11	0.1842	0	05/01/2022 00:00 AM	0	0	0.26	0	0	0	0	0
11000-A0	0.037	0.86	05/01/2022 00:08 AM	5.18	0.13	0.26	0	0	0	0	0
12	0.02922	0.85	05/01/2022 00:07 AM	1.61	0.11	0.74	0	0.01	0.01	0.43	0.01
12000-B'B	0.03925	3.45	05/01/2022 00:16 AM	5.38	0.04	0.35	0	0	0	0	0
12000-DC-S	0.03478	0.25	05/01/2022 00:18 AM	2.58	0	0.28	0	0	0	0	0
12000-FE-S	0.02076	0	05/01/2022 00:00 AM	0	0	0.09	0	0	0	0	0
12000-G	0.00942	10.74	05/01/2022 00:19 AM	5.7	0.49	0.78	0	0	0	0	0
12000-RainGarden	0.21049	4.35	05/01/2022 00:28 AM	3.35	0	0.02	0	0	0	0	0
13	0.08204	16.71	05/01/2022 00:14 AM	23.44	0.69	0.56	0	0	0	0	0
13000-A0	0.06641	8.52	05/01/2022 00:16 AM	12.04	0.15	0.28	0	0	0	0	0
14	0.16859	16.71	05/01/2022 00:14 AM	17.03	0.48	0.75	0	0.01	0.01	0.36	0.01
14000-A0'	0.01074	10.25	05/01/2022 00:26 AM	3.02	0.02	0.22	0	0	0	0	0
14000-B0	0.01077	29.36	05/01/2022 00:26 AM	9.46	1.25	0.96	0	0.01	0.84	0.01	0.82

Table 1C: Conduits (continued...)

Name	Slope (ft/ft)	Max. |Flow| (cfs)	Time Max. Flow (M/D/Y)	Max. |Velocity| (ft/s)	Max/Full Flow	Max/Full Depth	Max. Volume (ft^3)	Full Both Ends (h)	Full Upstream (h)	Full Downstream (h)	Above Full Normal (h)
14000-CB	0.01002	24.01	05/01/2022 00:17 AM	7.64	1.06	1	0	0.82	0.82	0.84	0.28
14000-DC	0.00988	19.92	05/01/2022 00:35 AM	6.34	0.89	1	0	0.81	0.81	0.82	0.01
14000-ED	0.01001	15.94	05/01/2022 00:36 AM	5.07	0.7	1	0	0.72	0.72	0.81	0.01
14000-FE	0.01007	11.34	05/01/2022 00:40 AM	3.91	0.5	1	0	0.72	0.72	0.72	0.01
15	0.02984	16.71	05/01/2022 00:14 AM	13.62	1.15	1	0	0.36	0.36	0.42	0.17
16	0.02993	9.13	05/01/2022 00:09 AM	11.62	1.14	1	0	0.43	0.43	0.46	0.44
17	0.05299	11.3	05/01/2022 00:27 AM	16.44	1	1	0	0.28	0.46	0.28	0.01
18	0.02997	30.25	05/01/2022 00:18 AM	13.26	0.59	0.79	0	0	0	0	0
19	0.13184	59.43	05/01/2022 00:17 AM	20.81	0.56	0.85	0	0.01	0.01	1.73	0.01
20	0.07016	13.94	05/01/2022 00:06 AM	4.44	0.37	1	0	1.73	1.73	1.73	0.01
21	0.03027	46.82	05/01/2022 00:18 AM	15.92	0.92	0.97	0	0.01	0.01	0.11	0.01
22	0.03016	59.43	05/01/2022 00:17 AM	21.26	1.16	0.85	0	0.01	0.11	0.01	0.2
26	0.10817	0	05/01/2022 00:00 AM	0	0	0.5	0	0	0	0	0
28	0.04623	2.31	05/01/2022 00:19 AM	2.42	0.04	0.17	0	0	0	0	0
3	0.01006	2.58	05/01/2022 00:09 AM	18.4	0.12	0.23	0	0	0	0	0
4	0.00632	1.86	05/01/2022 00:06 AM	5.2	0.5	0.61	0	0	0	0	0
5	0.01292	20.53	05/01/2022 00:17 AM	10.94	0.61	0.58	0	0	0	0	0
6	0	0.52	05/01/2022 00:19 AM	9.64	0.05	0.12	0	0	0	0	0
8	0.00817	21.73	05/01/2022 00:17 AM	9.44	0.82	0.69	0	0	0	0	0
9	-999	38.68	05/01/2022 00:22 AM	5.96	1.24	0.86	0	0.01	0.01	0.01	0.25
C10	0.00473	3.72	05/01/2022 00:20 AM	4.23	0.51	0.54	0	0	0	0	0
C10-S	0	3.72	05/01/2022 00:19 AM	1.28	1.43	0.81	0	0.01	0.01	0.01	0.87
C11	0.02024	2.56	05/01/2022 00:20 AM	4.52	0.17	0.39	0	0	0	0	0
C11-S	0.01505	2.56	05/01/2022 00:20 AM	0.6	0	0.04	0	0	0	0	0
C12-S	0.14041	16.01	05/01/2022 00:20 AM	3.4	0	0.04	0	0	0	0	0
C14	0.01177	5.46	05/01/2022 00:07 AM	9.06	3.87	0.72	0	0.01	0.28	0.01	0.47

Table 1C: Conduits (continued...)

Name	Slope (ft/ft)	Max. |Flow| (cfs)	Time Max. Flow (M/D/Y)	Max. |Velocity| (ft/s)	Max/Full Flow	Max/Full Depth	Max. Volume (ft³)	Full Both Ends (h)	Full Upstream (h)	Full Downstream (h)	Above Full Normal (h)
C15	0.06527	14.17	05/01/2022 00:20 AM	11.21	0.29	0.6	0	0	0	0	0
C16	0.09459	27.77	05/01/2022 00:20 AM	1.82	0	0.06	0	0	0	0	0
C17	0.01055	3.06	05/01/2022 00:18 AM	1.56	0.01	0.31	0	0	0	0	0
C18	0.02243	4.1	05/01/2022 00:28 AM	3.81	0.03	0.11	0	0	0	0	0
C19	0.10269	0	05/01/2022 00:00 AM	0	0	0.1	0	0	0	0	0
C2	0.00946	4.11	05/01/2022 00:09 AM	3.35	0.65	1	0	0.1	0.1	0.21	0.01
C20	0.14134	26.35	05/01/2022 00:18 AM	13.94	0	0.02	0	0	0	0	0
C21	0.00329	4.59	05/01/2022 00:17 AM	1.16	0.02	0.56	0	0	0	0	0
C23	0.13848	27.89	05/01/2022 00:27 AM	2.12	0	0.19	0	0	0	0	0
C24	0.04174	3.97	05/01/2022 00:07 AM	6.88	0.05	0.35	0	0	0	0	0
C25	0.12413	2.74	05/01/2022 00:17 AM	1.82	0.01	0.26	0	0	0	0	0
C26	0.03469	27.08	05/01/2022 00:20 AM	14.38	0.64	0.74	0	0	0	0	0
C2-S	0.35468	4.05	05/01/2022 00:09 AM	12.95	0.02	0.35	0	0	0	0	0
C3	0.05468	0.25	05/01/2022 00:28 AM	5.12	1.22	1	0	1.72	1.72	1.73	1.73
C4	0.01096	0	05/01/2022 00:00 AM	0	0	0.04	0	0	0	0	0
C4-S	0.01492	0	05/01/2022 00:00 AM	0	0	0	0	0	0	0	0
C5	0.01499	24.05	05/01/2022 00:17 AM	17.38	0.48	0.33	0	0	0	0	0
C6	0.00393	1.69	05/01/2022 00:08 AM	3.1	1.23	1	0	0.1	0.12	0.11	0.14
C7	-0.00696	1.38	05/01/2022 00:17 AM	1.61	0	0.06	0	0	0	0	0
C8	0.05532	23.68	05/01/2022 00:16 AM	11.78	0.02	0.58	0	0.01	0.01	0.75	0.01
C9_1	0.01991	18.94	05/01/2022 00:18 AM	5.7	0.09	0.23	0	0	0	0	0
C9_2	0.00232	5.6	05/01/2022 00:12 AM	2.89	0.02	0.13	0	0	0	0	0
C-J182	0.0054	0.83	05/01/2022 00:08 AM	1	0.1	0.8	0	0.01	0.01	1.69	0.01
C-J320	0.02	0.68	05/01/2022 00:19 AM	0.93	0.01	0.63	0	0.01	0.01	1.63	0.01
C-J39	0.00336	1.54	05/01/2022 00:14 AM	1.11	0.27	0.82	0	0.01	0.01	1.69	0.01
C-J46	0.01897	0.62	05/01/2022 00:16 AM	1.24	0	0.14	0	0	0	0	0

Table 1C: Conduits (continued...)

Name	Slope (ft/ft)	Max. |Flow| (cfs)	Time Max. Flow (M/D/Y)	Max. |Velocity| (ft/s)	Max/Full Flow	Max/Full Depth	Max. Volume (ft^3)	Full Both Ends (h)	Full Upstream (h)	Full Downstream (h)	Above Full Normal (h)
EP-10440-C	0.08184	5.45	05/01/2022 00:07 AM	14.45	0.26	0.35	0	0	0	0	0
EP-10440-C-S	0.00941	0	05/01/2022 00:00 AM	0	0	0	0	0	0	0	0
EX10441-B-S	0.07078	0.88	05/01/2022 00:20 AM	6.35	0.01	0.21	0	0	0	0	0
EX10441-C-S	0.03614	4.06	05/01/2022 00:20 AM	6.86	0.06	0.35	0	0	0	0	0
EX10441-D-S	0	10.07	05/01/2022 00:19 AM	4.45	3.88	0.57	0	0.01	0.01	0.01	0.43
OL-10100-AE_1	0.05499	0.04	05/01/2022 00:07 AM	2.33	0	0.02	0	0	0	0	0
OL-10100-AE_2	0.049	0.03	05/01/2022 00:14 AM	1.38	0	0.02	0	0	0	0	0
OL-10101-AF	0.02396	0.36	05/01/2022 00:09 AM	2.79	0	0.06	0	0	0	0	0
OL-10131-BA	0.00341	0	05/01/2022 00:00 AM	0	0	0	0	0	0	0	0
OL-10131-CB	0.04042	0	05/01/2022 00:00 AM	0	0	0	0	0	0	0	0
OL-10200-BA_1	0.05322	2.05	05/01/2022 00:14 AM	3.94	0.02	0.33	0	0	0	0	0
OL-10200-BA_2	0.06679	3.32	05/01/2022 00:14 AM	5.98	0.03	0.37	0	0	0	0	0
OL-10201-AA_1	0.05866	5.26	05/01/2022 00:16 AM	5.1	0.06	0.42	0	0	0	0	0
OL-10201-AA_2	0.07066	7.55	05/01/2022 00:15 AM	7.36	0.07	0.41	0	0	0	0	0
OL-10210-AD	0.07007	0	05/01/2022 00:00 AM	0	0	0.08	0	0	0	0	0
OL-11000-A0	0.06338	0.75	05/01/2022 00:16 AM	3.73	0	0.05	0	0	0	0	0
OL-11000-AbAc	0.30455	0	05/01/2022 00:00 AM	0	0	0	0	0	0	0	0
OL-11000-AcAd	-1E-05	0	05/01/2022 00:00 AM	0	0	0	0	0	0	0	0
OL-11000-AdAe	0.84061	0	05/01/2022 00:00 AM	0	0	0	0	0	0	0	0
OL-11000-AeE	0.02744	0	05/01/2022 00:00 AM	0	0	0.18	0	0	0	0	0
OL-11000-BA	0.02677	0.93	05/01/2022 00:16 AM	4.2	0	0.08	0	0	0	0	0
OL-12000-B0	0.00454	0.63	05/01/2022 00:16 AM	1.4	0.02	0.31	0	0	0	0	0
OL-14000-BC	0.04803	0	05/01/2022 00:00 AM	0	0	0	0	0	0	0	0
OL-14000-CB	0.01968	15.76	05/01/2022 00:20 AM	1.33	0.03	0.49	0	0	0	0	0
OL-14000-DC	0.00198	17.74	05/01/2022 00:20 AM	3.25	0.1	0.29	0	0	0	0	0
OL-14000-ED	0.00904	11.82	05/01/2022 00:20 AM	3.54	0.07	0.36	0	0	0	0	0

Table 1C: Conduits (continued...)

Name	Slope (ft/ft)	Max. |Flow| (cfs)	Time Max. Flow (M/D/Y)	Max. |Velocity| (ft/s)	Max/Full Flow	Max/Full Depth	Max. Volume (ft^3)	Full Both Ends (h)	Full Upstream (h)	Full Downstream (h)	Above Full Normal (h)
P-10000-A	0.01931	183.08	05/01/2022 00:24 AM	11.73	0.67	0.97	0	0.01	0.01	1.83	0.01
P-10000-C	0.00989	141.13	05/01/2022 00:27 AM	10.83	0.72	0.76	0	0	0	0	0
P-10000-C.	0.04704	141.13	05/01/2022 00:28 AM	20.31	0.1	0.24	0	0	0	0	0
P-10001-A-S	0.03962	0	05/01/2022 00:00 AM	0	0	0.01	0	0	0	0	0
P-1000-B	0.0189	183	05/01/2022 00:24 AM	13.9	0.68	0.77	0	0	0	0	0
P-10100-A	0.01006	8.63	05/01/2022 00:20 AM	5.83	0.38	0.48	0	0	0	0	0
P-10100-B	0.01013	8.63	05/01/2022 00:20 AM	6.74	0.38	0.43	0	0	0	0	0
P-10100-B-S	0.01345	0.01	05/01/2022 00:07 AM	1.47	0	0.19	0	0	0	0	0
P-10100-C	0.00991	6.17	05/01/2022 00:17 AM	6.11	0.27	0.36	0	0	0	0	0
P-10120-G	0.04127	38.74	05/01/2022 00:22 AM	6.97	0.39	0.74	0	0	0	0	0
P-10120-H	0.0466	20.02	05/01/2022 00:21 AM	7.43	0.14	0.41	0	0	0	0	0
P-10120-H-S	0.02474	0	05/01/2022 00:00 AM	0	0	0.14	0	0	0	0	0
P-10200-A	0.06259	27.24	05/01/2022 00:15 AM	15.57	1.04	1	0	0.14	0.37	0.14	0.14
P-10200-A-S_1	0.08451	6.26	05/01/2022 00:15 AM	6.18	0.06	0.42	0	0	0	0	0
P-10200-A-S_2	0.06604	6.9	05/01/2022 00:15 AM	7.91	0.07	0.39	0	0	0	0	0
P-10200-C	0.07637	16.15	05/01/2022 00:13 AM	14.54	0.9	1	0	0.34	0.34	0.39	0.01
P-10200-C-S_1	0.01181	1.46	05/01/2022 00:13 AM	3.07	0.03	0.32	0	0	0	0	0
P-10200-C-S_2	0.08141	1.81	05/01/2022 00:13 AM	4.56	0.02	0.3	0	0	0	0	0
P-10200-D	0.07972	15.41	05/01/2022 00:17 AM	15.81	0.84	0.85	0	0.01	0.01	0.32	0.01
P-10200-D-S	0.08722	0.26	05/01/2022 00:07 AM	5.11	0	0.24	0	0	0	0	0
P-10200-D-S.	0.07854	0.61	05/01/2022 00:10 AM	4.68	0.01	0.21	0	0	0	0	0
P-10200-E	0.05676	12.45	05/01/2022 00:17 AM	13.75	0.81	0.69	0	0	0	0	0
P-10200-F	0.0099	8	05/01/2022 00:19 AM	6.66	1.24	0.95	0	0.01	0.19	0.01	0.24
P-10200-F-S	0.03594	0.01	05/01/2022 00:08 AM	0.17	0	0.12	0	0	0	0	0
P-10200-G	-0.03994	8.13	05/01/2022 00:17 AM	6.76	34.85	0.95	0	0.01	0.44	0.01	1.18
P-10200-G_(STORM_-_FINAL)-S	-0.0094	0	05/01/2022 00:00 AM	0	0	0.02	0	0	0	0	0

Table 1C: Conduits (continued...)

Name	Slope (ft/ft)	Max. |Flow| (cfs)	Time Max. Flow (M/D/Y)	Max. |Velocity| (ft/s)	Max/Full Flow	Max/Full Depth	Max. Volume (ft³)	Full Both Ends (h)	Full Upstream (h)	Full Downstream (h)	Above Full Normal (h)
P-10200-H	0.01623	6.76	05/01/2022 00:18 AM	5.51	0.82	1	0	0.14	0.14	0.37	0.01
P-10200-H_(STORM_-_FINAL)-S	0.00063	0.01	05/01/2022 00:13 AM	0.34	0	0.09	0	0	0	0	0
P-10200-J	0.01014	6.59	05/01/2022 00:18 AM	6.02	1.01	1	0	0.09	0.09	0.1	0.05
P-10200-J_(STORM_-_FINAL)-S	0.0633	0.29	05/01/2022 00:16 AM	3.94	0	0.16	0	0	0	0	0
P-10200-K	0.05043	5.77	05/01/2022 00:18 AM	8.06	0.4	0.72	0	0.01	0.01	0.05	0.01
P-10200-K_(STORM_-_FINAL)-S	0.01926	0.16	05/01/2022 00:18 AM	2.16	0	0.16	0	0	0	0	0
P-10200-L	0.02216	2.72	05/01/2022 00:17 AM	6.74	0.28	0.36	0	0	0	0	0
P-10200-L_(STORM_-_FINAL)-S	0.02648	0.17	05/01/2022 00:16 AM	2.62	0	0.15	0	0	0	0	0
P-10200-M	0.00974	1.84	05/01/2022 00:17 AM	4.49	0.29	0.37	0	0	0	0	0
P-10200-M_(STORM_-_FINAL)-S	0.0323	0.57	05/01/2022 00:09 AM	5.02	0.01	0.22	0	0	0	0	0
P-10200-N	0.01171	0	05/01/2022 00:00 AM	0	0	0.07	0	0	0	0	0
P-10201-A	0.02578	3.76	05/01/2022 00:08 AM	5.09	0.36	1	0	0.37	0.37	0.39	0.01
P-102020-A-S_1	0.04431	5.58	05/01/2022 00:14 AM	5.44	0.07	0.41	0	0	0	0	0
P-102020-A-S_2	0.08352	6.84	05/01/2022 00:14 AM	8.56	0.06	0.4	0	0	0	0	0
P-10202-A	0.01103	3.9	05/01/2022 00:10 AM	5.7	0.58	1	0	0.31	0.31	0.32	0.01
P-10203-A-S	0.08475	0	05/01/2022 00:13 AM	0	0	0.21	0	0	0	0	0
P-10210-A	0.06262	8.86	05/01/2022 00:07 AM	13.47	0.55	1	0	0.18	0.18	0.34	0.01
P-10210-B	0.01824	6.43	05/01/2022 00:07 AM	7.79	0.74	1	0	0.09	0.09	0.16	0.01
P-10210-B-S	0.10156	2.23	05/01/2022 00:06 AM	5.9	0.02	0.29	0	0	0	0	0
P-10210-C	0.01695	3.28	05/01/2022 00:09 AM	6.09	1.15	0.96	0	0.01	0.11	0.01	0.15
P-10210-C_(STORM_-_FINAL)-S	0.00359	0.17	05/01/2022 00:07 AM	1.06	0.01	0.22	0	0	0	0	0
P-10211-A	-0.00684	2.48	05/01/2022 00:07 AM	3.37	7.97	1	0	0.03	0.03	0.03	0.94
P-10211-B	0.00625	1.84	05/01/2022 00:07 AM	3.87	1.06	0.82	0	0.01	0.01	0.01	0.05
P-10212-A	0.01344	0	05/01/2022 00:00 AM	0	0	0	0	0	0	0	0
P-10240-A_(STORM_-_FINAL)-S	-0.00124	0.02	05/01/2022 00:16 AM	0.32	0	0.16	0	0	0	0	0
P-10250-A	0.03943	5.54	05/01/2022 00:09 AM	10.07	0.43	0.46	0	0	0	0	0

Table 1C: Conduits (continued...)

Name	Slope (ft/ft)	Max. |Flow| (cfs)	Time Max. Flow (M/D/Y)	Max. |Velocity| (ft/s)	Max/Full Flow	Max/Full Depth	Max. Volume (ft³)	Full Both Ends (h)	Full Upstream (h)	Full Downstream (h)	Above Full Normal (h)
P-10250-A-S	0	0.04	05/01/2022 00:11 AM	0.32	0.05	0.19	0	0	0	0	0
P-10250-B	0.02171	2.94	05/01/2022 00:07 AM	6.84	0.31	0.38	0	0	0	0	0
P-10250-B-S	0.07012	0	05/01/2022 00:00 AM	0	0	0.14	0	0	0	0	0
P-10250-C	0.05395	2.94	05/01/2022 00:07 AM	9.48	0.2	0.3	0	0	0	0	0
P-10250-C-S	0.06838	0.41	05/01/2022 00:07 AM	0.66	0	0.58	0	0	0	0	0
P-10250-D	0.00792	1.46	05/01/2022 00:07 AM	3.91	0.25	0.34	0	0	0	0	0
P-10250-D-S	-0.00054	0	05/01/2022 00:00 AM	0	0	0.09	0	0	0	0	0
P-10260-A	0.01	1.85	05/01/2022 00:07 AM	4.54	0.29	0.37	0	0	0	0	0
P-10260-A-S	0.03662	0.44	05/01/2022 00:07 AM	3.18	0.01	0.24	0	0	0	0	0
P-10270-A	0.01069	2.31	05/01/2022 00:21 AM	4.94	0.35	0.41	0	0	0	0	0
P-10280-A	0.04107	1.06	05/01/2022 00:18 AM	6.41	0.08	0.19	0	0	0	0	0
P-10300-B	0.03429	18.94	05/01/2022 00:18 AM	12.99	0.45	0.47	0	0	0	0	0
P-10300-B-S	0.0038	0.2	05/01/2022 00:07 AM	1.86	0	0.19	0	0	0	0	0
P-10300-C3	0.00925	8.58	05/01/2022 00:21 AM	5.21	0.49	0.53	0	0	0	0	0
P-10300-D-S	0.035	0	05/01/2022 00:00 AM	0	0	0	0	0	0	0	0
P-10300-E	0.01046	4.62	05/01/2022 00:18 AM	5.82	0.7	0.62	0	0	0	0	0
P-10300-E-S.	0.06167	0.51	05/01/2022 00:15 AM	5.16	0.01	0.19	0	0	0	0	0
P-10300-F	0.02629	3.03	05/01/2022 00:17 AM	7.38	0.29	0.37	0	0	0	0	0
P-10300-G	0.01646	0.61	05/01/2022 00:19 AM	4.88	0.1	0.22	0	0	0	0	0
P-10310-A	0.00423	9.22	05/01/2022 00:17 AM	7.53	0.76	0.65	0	0	0	0	0
P-10310-B	0.01001	8.92	05/01/2022 00:17 AM	7.37	1.38	0.96	0	0.01	0.18	0.01	0.3
P-10310-B-S	0.00354	0.06	05/01/2022 00:14 AM	0.9	0	0.15	0	0	0	0	0
P-10310-C-S	0.00264	0.07	05/01/2022 00:15 AM	0.58	0	0.29	0	0	0	0	0
P-10320-A	0.01282	4.1	05/01/2022 00:24 AM	6.11	0.34	0.41	0	0	0	0	0
P-10320-A-S	0.03515	0.11	05/01/2022 00:07 AM	3.54	0	0.13	0	0	0	0	0
P-10320-B	0.00292	3.87	05/01/2022 00:24 AM	4.14	1.11	0.71	0	0.01	0.01	0.01	0.18

Table 1C: Conduits (continued...)

Name	Slope (ft/ft)	Max. |Flow| (cfs)	Time Max. Flow (M/D/Y)	Max. |Velocity| (ft/s)	Max/Full Flow	Max/Full Depth	Max. Volume (ft^3)	Full Both Ends (h)	Full Upstream (h)	Full Downstream (h)	Above Full Normal (h)
P-10320-C	0.02025	0	05/01/2022 00:00 AM	0	0	0	0	0	0	0	0
P-10320-D-S	0.0748	0.99	05/01/2022 00:21 AM	3.29	0.01	0.38	0	0	0	0	0
P-10321-A	0.01993	0.96	05/01/2022 00:06 AM	5.97	0.15	0.26	0	0	0	0	0
P-10330-A	-0.0034	1.66	05/01/2022 00:20 AM	2.84	12.64	0.7	0	0.01	0.01	0.01	1.07
P-10330-A-S	0.00252	0	05/01/2022 00:00 AM	0	0	0	0	0	0	0	0
P-10330-B	0.01061	1.66	05/01/2022 00:19 AM	3.66	0.45	0.56	0	0	0	0	0
P-10330-B-S	-0.00822	0	05/01/2022 00:00 AM	0	0	0.21	0	0	0	0	0
P-10400-A	0.00707	133.66	05/01/2022 00:28 AM	11.47	1.11	0.87	0	0.01	0.01	0.01	0.28
P-10400-A-S	0.02921	0	05/01/2022 00:00 AM	0	0	0	0	0	0	0	0
P-10400-B	0.02211	93.21	05/01/2022 00:33 AM	15.95	0.94	0.77	0	0	0	0	0
P-10400-C1	0.07449	93.21	05/01/2022 00:33 AM	29.67	1.51	1	0	1.51	1.51	1.57	0.67
P-10400-C2-S	0.01642	116.4	05/01/2022 00:19 AM	0	0	0	0	0	0	0	0
P-10400-C-S	0.02468	0.04	05/01/2022 00:07 AM	1.72	0	0.09	0	0	0	0	0
P-10400-D	0.01655	116.4	05/01/2022 00:19 AM	36.91	0.46	0.25	0	0	0	0	0
P-10400-D-S	0.0321	0.07	05/01/2022 00:12 AM	2.13	0	0.1	0	0	0	0	0
P-10400-E	0.00885	115.64	05/01/2022 00:19 AM	16.36	1.84	1	0	0.22	0.33	0.22	0.44
P-10400-E-S	0.03022	0	05/01/2022 00:18 AM	0	0	0.15	0	0	0	0	0
P-10400-F	0.0312	114.68	05/01/2022 00:19 AM	18.99	0.97	0.8	0	0	0	0	0
P-10400-F_(STORM_-_FINAL)-S	0.04114	0.02	05/01/2022 00:18 AM	1.8	0	0.07	0	0	0	0	0
P-10400-G	0.03253	106.24	05/01/2022 00:19 AM	19.2	0.88	0.73	0	0	0	0	0
P-10400-G-S	0.04536	0.39	05/01/2022 00:18 AM	3.56	0	0.19	0	0	0	0	0
P-10400-H	0.03375	102.5	05/01/2022 00:19 AM	19.4	0.84	0.7	0	0	0	0	0
P-10400-H-S	0.05165	0.53	05/01/2022 00:08 AM	3.8	0.01	0.21	0	0	0	0	0
P-10400-J	0.04228	101.26	05/01/2022 00:19 AM	21.22	0.74	0.64	0	0	0	0	0
P-10400-K	0.04297	19.95	05/01/2022 00:16 AM	14.32	0.43	0.46	0	0	0	0	0
P-10400-K-S	0.01587	0.13	05/01/2022 00:13 AM	1.93	0	0.15	0	0	0	0	0

Table 1C: Conduits (continued...)

Name	Slope (ft/ft)	Max. |Flow| (cfs)	Time Max. Flow (M/D/Y)	Max. |Velocity| (ft/s)	Max/Full Flow	Max/Full Depth	Max. Volume (ft^3)	Full Both Ends (h)	Full Upstream (h)	Full Downstream (h)	Above Full Normal (h)
P-10400-L	0.03192	16.39	05/01/2022 00:16 AM	11.96	0.87	0.72	0	0	0	0	0
P-10400-L-S	0.06392	0.07	05/01/2022 00:07 AM	4.11	0	0.11	0	0	0	0	0
P-10400-M	0.06767	4.37	05/01/2022 00:16 AM	12.2	0.14	0.26	0	0	0	0	0
P-10400-M-S	0.1096	0.21	05/01/2022 00:08 AM	5.9	0	0.11	0	0	0	0	0
P-10400-N	0.00705	1.08	05/01/2022 00:16 AM	4.18	0.05	0.2	0	0	0	0	0
P-10400-N_(STORM_-_FINAL)-S	-0.0141	0.07	05/01/2022 00:08 AM	2.37	0	0.1	0	0	0	0	0
P-10400-P	0.00903	1.04	05/01/2022 00:16 AM	4.8	0.09	0.18	0	0	0	0	0
P-10400-P_(STORM_-_FINAL)-S	0.07064	0	05/01/2022 00:00 AM	0	0	0.03	0	0	0	0	0
P-10400-Q	0.00964	0.6	05/01/2022 00:19 AM	2.96	0.04	0.17	0	0	0	0	0
P-10400-Q_(STORM_-_FINAL)-S	0	0	05/01/2022 00:00 AM	0	0	0	0	0	0	0	0
P-10400-R	0.0083	0.6	05/01/2022 00:19 AM	3.96	0.04	0.14	0	0	0	0	0
P-10400-R_(STORM_-_FINAL)-S	0	0	05/01/2022 00:00 AM	0	0	0	0	0	0	0	0
P-10400-S	0.00941	0.6	05/01/2022 00:19 AM	3.16	0.06	0.16	0	0	0	0	0
P-10400-S_(STORM_-_FINAL)-S	0.00927	0	05/01/2022 00:00 AM	0	0	0	0	0	0	0	0
P-10410-A	0.00819	46.08	05/01/2022 00:22 AM	9.46	0.35	0.41	0	0	0	0	0
P-10410-A-S	0.00307	0.38	05/01/2022 00:07 AM	1.12	0.02	0.28	0	0	0	0	0
P-10410-B	0.00915	45.86	05/01/2022 00:22 AM	11.9	0.26	0.35	0	0	0	0	0
P-10410-C	0.00525	45.56	05/01/2022 00:22 AM	11.78	0.26	0.35	0	0	0	0	0
P-10410-D	-0.00662	42.81	05/01/2022 00:23 AM	6.38	8.99	0.53	0	0.01	0.01	0.01	1.12
P-10410-E	0.01965	41.15	05/01/2022 00:23 AM	9.7	0.2	0.37	0	0	0	0	0
P-10410-F	0.00161	39.69	05/01/2022 00:23 AM	6.99	1.14	0.75	0	0.01	0.01	0.01	0.19
P-10411-A	0.00181	0.28	05/01/2022 00:20 AM	1.85	0.08	0.18	0	0	0	0	0
P-10411-A-S	0.00273	0.02	05/01/2022 00:17 AM	0.32	0	0.21	0	0	0	0	0
P-10420-A	0.03495	8.23	05/01/2022 00:15 AM	10.43	0.19	0.3	0	0	0	0	0
P-10420-A_(STORM_-_FINAL)-S	0.07089	0	05/01/2022 00:18 AM	0.5	0	0.05	0	0	0	0	0
P-10420-B	0.02634	7.21	05/01/2022 00:15 AM	9.08	0.2	0.3	0	0	0	0	0

Table 1C: Conduits (continued...)

Name	Slope (ft/ft)	Max. |Flow| (cfs)	Time Max. Flow (M/D/Y)	Max. |Velocity| (ft/s)	Max/Full Flow	Max/Full Depth	Max. Volume (ft³)	Full Both Ends (h)	Full Upstream (h)	Full Downstream (h)	Above Full Normal (h)
P-10420-B_(STORM_-_FINAL)-S	0.07049	0.04	05/01/2022 00:06 AM	2.46	0	0.07	0	0	0	0	0
P-10420-C	0.02802	6.82	05/01/2022 00:15 AM	9.13	0.18	0.29	0	0	0	0	0
P-10420-C-S	0.00181	0.02	05/01/2022 00:27 AM	0.59	0	0.12	0	0	0	0	0
P-10420-D	0.02392	3.58	05/01/2022 00:16 AM	7.17	0.1	0.22	0	0	0	0	0
P-10420-D-S	0.07763	0.54	05/01/2022 00:19 AM	4.65	0	0.2	0	0	0	0	0
P-10420-E	0.00867	1.81	05/01/2022 00:12 AM	4.29	0.3	0.38	0	0	0	0	0
P-10420-E-S	0.00517	0.22	05/01/2022 00:12 AM	1.96	0	0.19	0	0	0	0	0
P-10421-A	0.00991	1.22	05/01/2022 00:23 AM	3.83	0.05	0.16	0	0	0	0	0
P-10421-A_(STORM_-_FINAL)-S	-0.00168	0	05/01/2022 00:00 AM	0	0	0.08	0	0	0	0	0
P-10422-A	0.15002	5.3	05/01/2022 00:06 AM	15.87	0.13	0.24	0	0	0	0	0
P-10422-A-S	0.18165	0	05/01/2022 00:00 AM	0	0	0.07	0	0	0	0	0
P-10430-A_(STORM_-_FINAL)	0.01	2.33	05/01/2022 00:12 AM	4.78	0.22	0.32	0	0	0	0	0
P-10430-A-S	0.04421	0.57	05/01/2022 00:12 AM	3.51	0.01	0.23	0	0	0	0	0
P-10440-A	0.05406	82.2	05/01/2022 00:19 AM	21.84	0.86	0.72	0	0	0	0	0
P-10440-A_(STORM_-_FINAL)-S	0.0504	0.02	05/01/2022 00:07 AM	1.78	0	0.06	0	0	0	0	0
P-10440-B	0.02426	81.86	05/01/2022 00:19 AM	16.68	1.28	1	0	0.25	0.25	0.26	0.26
P-10440-B_(STORM_-_FINAL)-S	0.01711	0.13	05/01/2022 00:11 AM	1.96	0	0.15	0	0	0	0	0
P-10440-C	0.005	80.92	05/01/2022 00:19 AM	16.48	2.79	1	0	0.28	0.46	0.28	0.65
P-10440-C_(STORM_-_FINAL)-S	0.0471	0	05/01/2022 00:00 AM	0	0	0	0	0	0	0	0
P-10440-D	0.00504	74.84	05/01/2022 00:20 AM	15.25	2.57	1	0	0.46	0.48	0.46	0.56
P-10440-D-S	0.07468	0	05/01/2022 00:00 AM	0	0	0	0	0	0	0	0
P-10440-E	0.00601	67.67	05/01/2022 00:20 AM	21.54	3.86	1	0	0.48	0.73	0.48	0.86
P-10440-G	0.04877	45.95	05/01/2022 00:20 AM	18.04	0.92	0.76	0	0	0	0	0
P-10441-A	0.17704	0.19	05/01/2022 00:13 AM	3.81	0.01	0.54	0	0.01	0.01	0.31	0.01
P-10442-A	0.01285	3.06	05/01/2022 00:20 AM	6.94	0.58	0.55	0	0	0	0	0
P-10442-A-EX	0.06536	20.62	05/01/2022 00:19 AM	16.93	0.36	0.41	0	0	0	0	0

Table 1C: Conduits (continued...)

Name	Slope (ft/ft)	Max. |Flow| (cfs)	Time Max. Flow (M/D/Y)	Max. |Velocity| (ft/s)	Max/Full Flow	Max/Full Depth	Max. Volume (ft^3)	Full Both Ends (h)	Full Upstream (h)	Full Downstream (h)	Above Full Normal (h)
P-10443-A	0.05033	1.52	05/01/2022 00:15 AM	6.85	0.11	0.24	0	0	0	0	0
P-10443-C	0.0213	16.15	05/01/2022 00:19 AM	11.67	0.49	0.45	0	0	0	0	0
P-10443-D	0.06181	10.74	05/01/2022 00:19 AM	13.27	0.06	0.17	0	0	0	0	0
P-10443-E	0.09798	2.58	05/01/2022 00:09 AM	11.54	0.23	0.33	0	0	0	0	0
P-10443-E-S	-0.00034	0	05/01/2022 00:00 AM	0	0	0.12	0	0	0	0	0
P-10450-A_(STORM_-_FINAL)	0.00956	3.58	05/01/2022 00:07 AM	5.29	0.35	0.41	0	0	0	0	0
P-10450-A-S	0.06444	1.56	05/01/2022 00:08 AM	6.56	0.02	0.26	0	0	0	0	0
P-10460-A	0.00369	11.74	05/01/2022 00:17 AM	6.84	1.84	0.93	0	0.01	0.25	0.01	0.47
P-10460-A-S	0.06802	0.03	05/01/2022 00:06 AM	2.06	0	0.18	0	0	0	0	0
P-10460-B	0.00566	11.57	05/01/2022 00:17 AM	6.55	1.46	1	0	0.12	0.23	0.12	0.38
P-10460-B_(STORM_-_FINAL)-S	0.03933	1.21	05/01/2022 00:31 AM	5.74	0.02	0.25	0	0	0	0	0
P-10460-C	0.00657	8.8	05/01/2022 00:18 AM	4.99	1.03	1	0	0.14	0.14	0.17	0.08
P-10460-C_(STORM_-_FINAL)-S	0	0.42	05/01/2022 00:17 AM	0.73	0.35	0.34	0	0	0	0	0
P-10460-D	0.00615	7.02	05/01/2022 00:19 AM	5.07	0.85	0.94	0	0.01	0.01	0.09	0.01
P-10460-D_(STORM_-_FINAL)-S	-0.00104	0.26	05/01/2022 00:17 AM	0.35	0.02	0.54	0	0	0	0	0
P-10460-E	0.00489	3.7	05/01/2022 00:19 AM	4.08	0.82	0.82	0	0	0	0	0
P-10460-E_(STORM_-_FINAL)-S	0.00124	1.36	05/01/2022 00:16 AM	0.74	0.1	0.52	0	0	0	0	0
P-10460-F	0.00773	2.3	05/01/2022 00:19 AM	4.36	0.41	0.47	0	0	0	0	0
P-10460-F_(STORM_-_FINAL)-S	-0.00317	1.23	05/01/2022 00:15 AM	1.88	0.06	0.45	0	0	0	0	0
P-10461-A	0.01422	3.75	05/01/2022 00:06 AM	6.19	0.3	0.38	0	0	0	0	0
P-10461-B	0.00499	2.22	05/01/2022 00:06 AM	3.67	0.3	0.37	0	0	0	0	0
P-10461-B_(STORM_-_FINAL)-S	0	0.87	05/01/2022 00:06 AM	0.67	0.73	0.45	0	0	0	0	0
P-10462-A	0.03373	0.07	05/01/2022 00:17 AM	2.62	0.01	0.05	0	0	0	0	0
P-10470-A	0.01001	1.24	05/01/2022 00:16 AM	4.07	0.19	0.3	0	0	0	0	0
P-10470-A-S	-0.02406	0	05/01/2022 00:00 AM	0	0	0.08	0	0	0	0	0
P-10480-A	0.01242	1.28	05/01/2022 00:16 AM	5.24	0.08	0.2	0	0	0	0	0

Table 1C: Conduits (continued...)

Name	Slope (ft/ft)	Max. |Flow| (cfs)	Time Max. Flow (M/D/Y)	Max. |Velocity| (ft/s)	Max/Full Flow	Max/Full Depth	Max. Volume (ft³)	Full Both Ends (h)	Full Upstream (h)	Full Downstream (h)	Above Full Normal (h)
P-10480-B	0.01105	1.28	05/01/2022 00:15 AM	5.03	0.09	0.2	0	0	0	0	0
P-10500-B	0.00516	5.6	05/01/2022 00:12 AM	7.43	0.74	0.44	0	0	0	0	0
P-10500-B_(STORM_-_FINAL)-S	0.0267	0	05/01/2022 00:00 AM	0	0	0	0	0	0	0	0
P-10500-C	0.00439	2.78	05/01/2022 00:14 AM	4.11	1.18	0.8	0	0.01	0.01	0.01	0.18
P-10500-C_(STORM_-_FINAL)-S	-0.02094	0	05/01/2022 00:00 AM	0	0	0.29	0	0	0	0	0
P-10500-D	0.00063	0	05/01/2022 00:00 AM	0	0	0	0	0	0	0	0
P-10510-A	-0.00955	4.14	05/01/2022 00:06 AM	5.44	16.8	0.93	0	0.01	0.05	0.01	0.98
P-10510-A_(STORM_-_FINAL)-S	-0.22058	0	05/01/2022 00:00 AM	0	0	0.5	0	0	0	0	0
P-10700-A	0.01013	4.05	05/01/2022 00:08 AM	9.83	0.38	0.28	0	0	0	0	0
P-12000-A	0.00981	4.86	05/01/2022 00:16 AM	5.01	0.47	0.76	0	0.01	0.01	1.52	0.01
P-12000-B	0.00999	4.87	05/01/2022 00:16 AM	5.83	0.46	0.48	0	0	0	0	0
P-12000-C	0.0101	3.65	05/01/2022 00:16 AM	4.8	0.35	0.44	0	0	0	0	0
P-12000-C-S	0.02368	0.26	05/01/2022 00:15 AM	3.57	0	0.22	0	0	0	0	0
P-12000-D	0.01141	21.91	05/01/2022 00:20 AM	7.59	0.91	0.87	0	0.01	0.07	0.01	0.01
P-12000-E	0.011	3.96	05/01/2022 00:15 AM	4.51	0.17	0.47	0	0	0	0	0
P-12000-E-S	0.05996	3.22	05/01/2022 00:15 AM	4.51	0.03	0.37	0	0	0	0	0
P-12000-F	0.01697	4.7	05/01/2022 00:15 AM	4.09	0.16	0.75	0	0	0	0	0
P-12000-G-S	0.01397	0	05/01/2022 00:00 AM	0	0	0.19	0	0	0	0	0
P-21199_1	0.07522	21.73	05/01/2022 00:19 AM	17.99	0.35	0.41	0	0	0	0	0
P-21199-S	0.0449	0.23	05/01/2022 00:20 AM	3.27	0	0.15	0	0	0	0	0
S	0.0033	1.83	05/01/2022 00:08 AM	3.56	1.12	1	0	0.03	0.03	0.08	0.02
UV-Outlet	0.02276	0	05/01/2022 00:00 AM	0	0	0	0	0	0	0	0

Table 1D: Conduits

Name	Capacity Limited (h)	Length Factor (fraction)	Dry (fraction)	Subcritical (fraction)	Supercritical (fraction)	Normal Limited (fraction)	Inlet Control (fraction)	Max. Spread (ft)	Contributing Area (ac)	Contributing Imp. Area (ac)
1	0.41	1	0.02	0	0	0	0	0	0	0
10	0	1	0.02	0	0	0	0	0	0	0
10000-CB-S	0	1	1	0	0	0	0	0	0	0
10000-DC-S	0	1	1	0	0	0	0	0	0	0
10000-ED-S	0	1	1	0	0	0	0	0	0	0
10123-AF	0	1	1	0	0	0	0	0	0	0
10125-AG	0.81	1	0.02	0	0	0	0	0	0	0
10200-B	0.1	1	0	0.18	0.01	0	0	0	0	0
10203-A	0	1	0.02	0.86	0	0.5	0	0	0	0
10300-D1	0	1	0.01	0	0.99	0.7	0	0	0	0
10300-D-2	0	1	0.01	0	0.99	0.98	0	0	0	0
10300-D-3	0.01	1	0.01	0	0	0	0	0	0	0
10310-C-S2	0	1	0.03	0.11	0.86	0.64	0	7.175	0	0
11	0	1	0.07	0	0	0	0	0	0	0
11000-A0	0	1	0.01	0.24	0.75	0	0	0	0	0
12	0.01	1	0.02	0.62	0	0.71	0	0	0	0
12000-B'B	0	1	0.02	0.21	0.77	0.08	0	7.525	0	0
12000-DC-S	0	1	0.02	0.33	0.43	0.97	0	5.075	0	0
12000-FE-S	0	1	0.34	0	0	0	0	0.759	0	0
12000-G	0	1	0.02	0.12	0.07	0	0	0	0	0
12000-RainGarden	0	1	0.03	0.17	0.79	0.96	0	0	0	0
13	0	1	0.01	0.27	0.71	0.31	0	0	0	0
13000-A0	0	1	0.01	0.19	0.8	0	0	0	0	0
14	0.01	1	0.02	0.03	0.7	0.97	0	0	0	0
14000-A0'	0	1	0.13	0.52	0.35	0.35	0	0	0	0
14000-B0	0.01	1	0	0.51	0.49	0.04	0	0	0	0

Table 1D: Conduits (continued...)

Name	Capacity Limited (h)	Length Factor (fraction)	Dry (fraction)	Subcritical (fraction)	Supercritical (fraction)	Normal Limited (fraction)	Inlet Control (fraction)	Max. Spread (ft)	Contributing Area (ac)	Contributing Imp. Area (ac)
14000-CB	0.61	1	0	0.8	0.2	0.43	0	0	0	0
14000-DC	0.74	1	0	0.74	0.19	0.3	0	0	0	0
14000-ED	0.01	1	0.01	0.98	0.01	0.43	0	0	0	0
14000-FE	0.01	1	0.01	0.98	0	0.41	0	0	0	0
15	0.17	1	0.02	0.5	0.48	0.7	0	0	0	0
16	0.43	1	0.02	0.52	0.45	0.7	0	0	0	0
17	0.01	1	0.02	0.26	0.72	0.43	0	0	0	0
18	0	1	0.02	0.02	0.96	0.69	0	0	0	0
19	0.01	1	0.01	0.41	0.58	0.44	0	0	0	0
20	0.01	1	0.02	0.96	0.02	0	0	0	0	0
21	0.01	1	0.01	0.01	0.97	0.5	0	0	0	0
22	0.01	1	0.01	0	0.99	0.16	0	0	0	0
26	0	1	0.02	0	0	0	0	0	0	0
28	0	1	0.02	0.79	0.2	0.94	0	0	0	0
3	0	1	0.03	0	0	0	0	0	0	0
4	0	1	0	0.95	0.05	0.96	0	0	0	0
5	0	1	0.02	0	0.15	0.05	0	0	0	0
6	0	1	0.12	0.12	0.75	0	0	0	0	0
8	0	1	0.02	0	0	0	0	0	0	0
9	0.01	1	0.01	0.98	0	0.42	0	0	0	0
C10	0	1	0.04	0.18	0.01	0.04	0	0	0	0
C10-S	0.01	1	0.02	0.98	0	0	0	16.85	0	0
C11	0	1	0.06	0.05	0.57	0.09	0	0	0	0
C11-S	0	1	0.02	0.55	0	0	0	0	0	0
C12-S	0	1	0.29	0.17	0.05	0.75	0	0	0	0
C14	0.01	1	0	0.39	0.61	0	0	0	0	0

Table 1D: Conduits (continued...)

Name	Capacity Limited (h)	Length Factor (fraction)	Dry (fraction)	Subcritical (fraction)	Supercritical (fraction)	Normal Limited (fraction)	Inlet Control (fraction)	Max. Spread (ft)	Contributing Area (ac)	Contributing Imp. Area (ac)
C15	0	1	0	0.08	0.9	0.43	0	0	0	0
C16	0	1	0.44	0.48	0.01	0.49	0	0	0	0
C17	0	1	0.04	0.7	0.02	0.91	0	0	0	0
C18	0	1	0.5	0	0	0	0	0	0	0
C19	0	1	0.01	0	0	0	0	0	0	0
C2	0.01	1	0	0.58	0.02	0.48	0	0	0	0
C20	0	1	0.01	0.14	0.85	0.77	0	0	0	0
C21	0	1	0.02	0.96	0	0.03	0	0	0	0
C23	0	1	0	0.97	0	0.97	0	0	0	0
C24	0	1	0	0.26	0.6	0.41	0	7.525	0	0
C25	0	1	0.02	0.72	0	0.97	0	0	0	0
C26	0	1	0	0.1	0.9	0.77	0	0	0	0
C2-S	0	1	0.01	0	0.98	0.53	0	7.525	0	0
C3	1.72	1	0.02	0	0	0	0	0	0	0
C4	0	1	0.88	0	0	0	0	0	0	0
C4-S	0	1	1	0	0	0	0	0	0	0
C5	0	1	0.01	0.09	0.88	0.04	0	0	0	0
C6	0.1	1	0	0.99	0	0.25	0	0	0	0
C7	0	1	0.04	0.72	0.05	0.91	0	0	0	0
C8	0.01	1	0.02	0.61	0.02	0.62	0	0	0	0
C9_1	0	1	0.01	0.27	0.72	0	0	0	0	0
C9_2	0	1	0.03	0	0	0	0	0	0	0
C-J182	0.01	1	0.02	0.92	0	0.44	0	0	0	0
C-J320	0.01	1	0.04	0.94	0	0.94	0	13.5	0	0
C-J39	0.01	1	0.02	0.92	0	0	0	0	0	0
C-J46	0	1	0.04	0.95	0	0.95	0	0	0	0

Table 1D: Conduits (continued...)

Name	Capacity Limited (h)	Length Factor (fraction)	Dry (fraction)	Subcritical (fraction)	Supercritical (fraction)	Normal Limited (fraction)	Inlet Control (fraction)	Max. Spread (ft)	Contributing Area (ac)	Contributing Imp. Area (ac)
EP-10440-C	0	1	0.01	0	0	0	0	0	0	0
EP-10440-C-S	0	1	1	0	0	0	0	0	0	0
EX10441-B-S	0	1	0.2	0.19	0.57	0.05	0	2.625	0	0
EX10441-C-S	0	1	0.03	0.19	0.79	0	0	7.525	0	0
EX10441-D-S	0.01	1	0.02	0.4	0.58	0.01	0	13.5	0	0
OL-10100-AE_1	0	1	0.03	0.36	0.36	0.88	0	0	0	0
OL-10100-AE_2	0	1	0.03	0	0	0	0	0	0	0
OL-10101-AF	0	1	0.02	0	0.98	0	0	0	0	0
OL-10131-BA	0	1	1	0	0	0	0	0	0	0
OL-10131-CB	0	1	1	0	0	0	0	0	0	0
OL-10200-BA_1	0	1	0	0.42	0.58	0.65	0	6.825	0	0
OL-10200-BA_2	0	1	0.01	0.33	0.67	0.44	0	8.225	0	0
OL-10201-AA_1	0	1	0.03	0.13	0.56	0.64	0	9.975	0	0
OL-10201-AA_2	0	1	0.01	0.39	0.57	0.3	0	9.625	0	0
OL-10210-AD	0	1	0.24	0	0	0	0	0.675	0	0
OL-11000-A0	0	1	0.26	0.01	0.73	0.1	0	0	0	0
OL-11000-AbAc	0	1	1	0	0	0	0	0	0	0
OL-11000-AcAd	0	1	1	0	0	0	0	0	0	0
OL-11000-AdAe	0	1	1	0	0	0	0	0	0	0
OL-11000-AeE	0	1	0.71	0	0	0	0	0	0	0
OL-11000-BA	0	1	0.03	0.19	0.78	0	0	0	0	0
OL-12000-B0	0	1	0.16	0	0	0	0	6.125	0	0
OL-14000-BC	0	1	1	0	0	0	0	0	0	0
OL-14000-CB	0	1	0.07	0.44	0	0.44	0	0	0	0
OL-14000-DC	0	1	0.07	0.21	0.21	0.68	0	0	0	0
OL-14000-ED	0	1	0.57	0.04	0.21	0.76	0	0	0	0

Table 1D: Conduits (continued...)

Name	Capacity Limited (h)	Length Factor (fraction)	Dry (fraction)	Subcritical (fraction)	Supercritical (fraction)	Normal Limited (fraction)	Inlet Control (fraction)	Max. Spread (ft)	Contributing Area (ac)	Contributing Imp. Area (ac)
P-10000-A	0.01	1	0	1	0	0	0	0	0	0
P-10000-C	0	1	0.02	0	0	0	0	0	0	0
P-10000-C.	0	1	0.03	0	0	0	0	0	0	0
P-10001-A-S	0	1	0.03	0	0	0	0	0.084	0	0
P-1000-B	0	1	0	0.41	0.59	0.37	0	0	0	0
P-10100-A	0	1	0.03	0	0	0	0	0	0	0
P-10100-B	0	1	0.03	0	0.02	0.01	0	0	0	0
P-10100-B-S	0	1	0.02	0.53	0.05	0.92	0	1.925	0	0
P-10100-C	0	1	0.02	0	0.13	0.13	0	0	0	0
P-10120-G	0	1	0.02	0.5	0.48	0.35	0	0	0	0
P-10120-H	0	1	0.02	0.25	0.72	0.98	0	0	0	0
P-10120-H-S	0	1	0.04	0	0	0	0	0	0	0
P-10200-A	0.14	1	0	0	0	0	0	0	0	0
P-10200-A-S_1	0	1	0.01	0.13	0.55	0.96	0	9.975	0	0
P-10200-A-S_2	0	1	0	0.33	0.65	0.42	0	8.925	0	0
P-10200-C	0.26	1	0	0.19	0.04	0	0	0	0	0
P-10200-C-S_1	0	1	0.38	0.15	0.46	0.12	0	6.475	0	0
P-10200-C-S_2	0	1	0	0.48	0.12	0.98	0	5.775	0	0
P-10200-D	0.01	1	0.02	0	0.19	0.19	0	0	0	0
P-10200-D-S	0	1	0.17	0.35	0.46	0.12	0	3.675	0	0
P-10200-D-S.	0	1	0	0	0.01	0	0	2.625	0	0
P-10200-E	0	1	0.02	0	0.98	0.89	0	0	0	0
P-10200-F	0.01	1	0.02	0	0	0	0	0	0	0
P-10200-F-S	0	1	0	0.65	0	0.98	0	1.012	0	0
P-10200-G	0.01	1	0	0	0	0	0	0	0	0
P-10200-G_(STORM_-_FINAL)-S	0	1	0.39	0	0	0	0	0.169	0	0

Table 1D: Conduits (continued...)

Name	Capacity Limited (h)	Length Factor (fraction)	Dry (fraction)	Subcritical (fraction)	Supercritical (fraction)	Normal Limited (fraction)	Inlet Control (fraction)	Max. Spread (ft)	Contributing Area (ac)	Contributing Imp. Area (ac)
P-10200-H	0.01	1	0.03	0.44	0.2	0.48	0	0	0	0
P-10200-H_(STORM_-_FINAL)-S	0	1	0.38	0	0	0	0	0.759	0	0
P-10200-J	0.05	1	0.04	0.08	0.01	0	0	0	0	0
P-10200-J_(STORM_-_FINAL)-S	0	1	0.34	0.05	0	0	0	1.349	0	0
P-10200-K	0.01	1	0.03	0	0.52	0.51	0	0	0	0
P-10200-K_(STORM_-_FINAL)-S	0	1	0.23	0.1	0.26	0.29	0	1.349	0	0
P-10200-L	0	1	0.02	0	0	0	0	0	0	0
P-10200-L_(STORM_-_FINAL)-S	0	1	0.23	0.14	0.54	0.87	0	1.265	0	0
P-10200-M	0	1	0.03	0	0	0	0	0	0	0
P-10200-M_(STORM_-_FINAL)-S	0	1	0	0.16	0.84	0.53	0	2.975	0	0
P-10200-N	0	1	0.73	0	0	0	0	0	0	0
P-10201-A	0.01	1	0	0.34	0.26	0.04	0	0	0	0
P-102020-A-S_1	0	1	0.02	0.32	0.66	0.81	0	9.625	0	0
P-102020-A-S_2	0	1	0.02	0.26	0.72	0	0	9.275	0	0
P-10202-A	0.01	1	0.02	0.18	0.01	0	0	0	0	0
P-10203-A-S	0	1	0.02	0.44	0	0.89	0	2.625	0	0
P-10210-A	0.01	1	0.02	0.17	0.06	0.08	0	0	0	0
P-10210-B	0.01	1	0.01	0.1	0.02	0.02	0	0	0	0
P-10210-B-S	0	1	0.32	0	0	0	0	5.425	0	0
P-10210-C	0.01	1	0	0	0	0	0	0	0	0
P-10210-C_(STORM_-_FINAL)-S	0	1	0.28	0	0	0	0	2.975	0	0
P-10211-A	0.03	1	0.01	0.06	0	0	0	0	0	0
P-10211-B	0.01	1	0	0	0	0	0	0	0	0
P-10212-A	0	1	1	0	0	0	0	0	0	0
P-10240-A_(STORM_-_FINAL)-S	0	1	0.14	0	0	0	0	1.349	0	0
P-10250-A	0	1	0.02	0	0	0	0	0	0	0

Table 1D: Conduits (continued...)

Name	Capacity Limited (h)	Length Factor (fraction)	Dry (fraction)	Subcritical (fraction)	Supercritical (fraction)	Normal Limited (fraction)	Inlet Control (fraction)	Max. Spread (ft)	Contributing Area (ac)	Contributing Imp. Area (ac)
P-10250-A-S	0	1	0.35	0	0	0	0	1.925	0	0
P-10250-B	0	1	0.02	0	0.08	0.08	0	0	0	0
P-10250-B-S	0	1	0.35	0	0	0	0	1.181	0	0
P-10250-C	0	1	0.02	0	0	0	0	0	0	0
P-10250-C-S	0	1	0.01	0.6	0	0.98	0	13.5	0	0
P-10250-D	0	1	0.02	0	0	0	0	0	0	0
P-10250-D-S	0	1	0.4	0	0	0	0	0.759	0	0
P-10260-A	0	1	0.03	0	0	0	0	0	0	0
P-10260-A-S	0	1	0.33	0.05	0.46	0.88	0	3.675	0	0
P-10270-A	0	1	0.07	0	0	0	0	0	0	0
P-10280-A	0	1	0.03	0	0	0	0	0	0	0
P-10300-B	0	1	0.01	0	0	0	0	0	0	0
P-10300-B-S	0	1	0.42	0	0	0	0	1.925	0	0
P-10300-C3	0	1	0	0.29	0.7	0.21	0	0	0	0
P-10300-D-S	0	1	1	0	0	0	0	0	0	0
P-10300-E	0	1	0.02	0	0	0	0	0	0	0
P-10300-E-S.	0	1	0.24	0.15	0.61	0.02	0	1.925	0	0
P-10300-F	0	1	0.01	0	0	0	0	0	0	0
P-10300-G	0	1	0.02	0	0	0	0	0	0	0
P-10310-A	0	1	0.01	0	0	0	0	0	0	0
P-10310-B	0.01	1	0.01	0	0	0	0	0	0	0
P-10310-B-S	0	1	0.33	0.62	0	0.77	0	1.265	0	0
P-10310-C-S	0	1	0.13	0.61	0.01	0.95	0	5.425	0	0
P-10320-A	0	1	0	0	0	0	0	0	0	0
P-10320-A-S	0	1	0.38	0.24	0.34	0.71	0	1.096	0	0
P-10320-B	0.01	1	0.07	0	0	0	0	0	0	0

Table 1D: Conduits (continued...)

Name	Capacity Limited (h)	Length Factor (fraction)	Dry (fraction)	Subcritical (fraction)	Supercritical (fraction)	Normal Limited (fraction)	Inlet Control (fraction)	Max. Spread (ft)	Contributing Area (ac)	Contributing Imp. Area (ac)
P-10320-C	0	1	1	0	0	0	0	0	0	0
P-10320-D-S	0	1	0	0.3	0.61	0.92	0	8.575	0	0
P-10321-A	0	1	0	0	0	0	0	0	0	0
P-10330-A	0.01	1	0.03	0	0	0	0	0	0	0
P-10330-A-S	0	1	1	0	0	0	0	0	0	0
P-10330-B	0	1	0.03	0.12	0.41	0.31	0	0	0	0
P-10330-B-S	0	1	0.07	0	0	0	0	2.625	0	0
P-10400-A	0.01	1	0.02	0	0	0	0	0	0	0
P-10400-A-S	0	1	1	0	0	0	0	0	0	0
P-10400-B	0	1	0.02	0	0	0	0	0	0	0
P-10400-C1	0.67	1	0.01	0.96	0.03	0	0	0	0	0
P-10400-C2-S	0	0	0	0	0	0	0	0	0	0
P-10400-C-S	0	1	0.42	0	0	0	0	0.759	0	0
P-10400-D	0	1	0.01	0	0.99	0.25	0	0	0	0
P-10400-D-S	0	1	0.38	0.09	0.18	0.63	0	0.843	0	0
P-10400-E	0.22	1	0.01	0	0	0	0	0	0	0
P-10400-E-S	0	1	0.02	0.32	0	0.85	0	1.265	0	0
P-10400-F	0	1	0	0	0	0	0	0	0	0
P-10400-F_(STORM_-_FINAL)-S	0	1	0.41	0	0	0	0	0.59	0	0
P-10400-G	0	1	0.01	0	0	0	0	0	0	0
P-10400-G-S	0	1	0.23	0	0	0	0	1.925	0	0
P-10400-H	0	1	0.01	0	0	0	0	0	0	0
P-10400-H-S	0	1	0.2	0.26	0.39	0.88	0	2.625	0	0
P-10400-J	0	1	0.01	0	0	0	0	0	0	0
P-10400-K	0	1	0	0	0	0	0	0	0	0
P-10400-K-S	0	1	0.3	0	0	0	0	1.265	0	0

Table 1D: Conduits (continued...)

Name	Capacity Limited (h)	Length Factor (fraction)	Dry (fraction)	Subcritical (fraction)	Supercritical (fraction)	Normal Limited (fraction)	Inlet Control (fraction)	Max. Spread (ft)	Contributing Area (ac)	Contributing Imp. Area (ac)
P-10400-L	0	1	0	0	0	0	0	0	0	0
P-10400-L-S	0	1	0.28	0.5	0.08	0.93	0	0.928	0	0
P-10400-M	0	1	0.01	0	0	0	0	0	0	0
P-10400-M-S	0	1	0.37	0.08	0.54	0.04	0	0.928	0	0
P-10400-N	0	1	0.01	0.03	0.94	0.97	0	0	0	0
P-10400-N_(STORM_-_FINAL)-S	0	1	0.34	0.07	0.55	0	0	0.843	0	0
P-10400-P	0	1	0.02	0.2	0.78	0	0	0	0	0
P-10400-P_(STORM_-_FINAL)-S	0	1	0.36	0	0	0	0	0.253	0	0
P-10400-Q	0	1	0.02	0.34	0.61	0.95	0	0	0	0
P-10400-Q_(STORM_-_FINAL)-S	0	1	1	0	0	0	0	0	0	0
P-10400-R	0	1	0.04	0.23	0.73	0.86	0	0	0	0
P-10400-R_(STORM_-_FINAL)-S	0	1	1	0	0	0	0	0	0	0
P-10400-S	0	1	0.03	0	0	0	0	0	0	0
P-10400-S_(STORM_-_FINAL)-S	0	1	1	0	0	0	0	0	0	0
P-10410-A	0	1	0.02	0	0	0	0	0	0	0
P-10410-A-S	0	1	0.02	0	0	0	0	5.075	0	0
P-10410-B	0	1	0.01	0	0	0	0	0	0	0
P-10410-C	0	1	0.01	0.01	0.98	0.8	0	0	0	0
P-10410-D	0.01	1	0.01	0	0	0	0	0	0	0
P-10410-E	0	1	0.02	0	0.56	0.27	0	0	0	0
P-10410-F	0.01	1	0.01	0	0	0	0	0	0	0
P-10411-A	0	1	0.04	0	0	0	0	0	0	0
P-10411-A-S	0	1	0.2	0.74	0.03	0.53	0	2.625	0	0
P-10420-A	0	1	0.01	0	0	0	0	0	0	0
P-10420-A_(STORM_-_FINAL)-S	0	1	0.18	0.51	0.08	0.93	0	0.422	0	0
P-10420-B	0	1	0	0	0	0	0	0	0	0

Table 1D: Conduits (continued...)

Name	Capacity Limited (h)	Length Factor (fraction)	Dry (fraction)	Subcritical (fraction)	Supercritical (fraction)	Normal Limited (fraction)	Inlet Control (fraction)	Max. Spread (ft)	Contributing Area (ac)	Contributing Imp. Area (ac)
P-10420-B_(STORM_-_FINAL)-S	0	1	0.14	0.07	0.05	0.04	0	0.59	0	0
P-10420-C	0	1	0	0	0	0	0	0	0	0
P-10420-C-S	0	1	0.07	0	0	0	0	1.012	0	0
P-10420-D	0	1	0.01	0	0	0	0	0	0	0
P-10420-D-S	0	1	0.05	0.18	0.03	0.37	0	2.275	0	0
P-10420-E	0	1	0.01	0	0	0	0	0	0	0
P-10420-E-S	0	1	0.25	0	0	0	0	1.925	0	0
P-10421-A	0	1	0.07	0	0	0	0	0	0	0
P-10421-A_(STORM_-_FINAL)-S	0	1	0.15	0	0	0	0	0.675	0	0
P-10422-A	0	1	0	0	0	0	0	0	0	0
P-10422-A-S	0	1	0.07	0	0	0	0	0.59	0	0
P-10430-A_(STORM_-_FINAL)	0	1	0.03	0	0	0	0	0	0	0
P-10430-A-S	0	1	0.24	0	0	0	0	3.325	0	0
P-10440-A	0	1	0.01	0	0	0	0	0	0	0
P-10440-A_(STORM_-_FINAL)-S	0	1	0.42	0	0	0	0	0.506	0	0
P-10440-B	0.25	1	0.01	0	0	0	0	0	0	0
P-10440-B_(STORM_-_FINAL)-S	0	1	0.3	0	0	0	0	1.265	0	0
P-10440-C	0.28	1	0	0	0	0	0	0	0	0
P-10440-C_(STORM_-_FINAL)-S	0	1	1	0	0	0	0	0	0	0
P-10440-D	0.46	1	0	0.82	0.16	0.45	0	0	0	0
P-10440-D-S	0	1	1	0	0	0	0	0	0	0
P-10440-E	0.48	1	0.01	0.27	0	0	0	0	0	0
P-10440-G	0	1	0.01	0	0	0	0	0	0	0
P-10441-A	0.01	1	0.36	0.61	0.01	0.96	0	0	0	0
P-10442-A	0	1	0.05	0	0.06	0	0	0	0	0
P-10442-A-EX	0	1	0	0	0.97	0.4	0	0	0	0

Table 1D: Conduits (continued...)

Name	Capacity Limited (h)	Length Factor (fraction)	Dry (fraction)	Subcritical (fraction)	Supercritical (fraction)	Normal Limited (fraction)	Inlet Control (fraction)	Max. Spread (ft)	Contributing Area (ac)	Contributing Imp. Area (ac)
P-10443-A	0	1	0.08	0	0	0	0	0	0	0
P-10443-C	0	1	0.02	0.02	0.96	0.06	0	0	0	0
P-10443-D	0	1	0.02	0	0	0	0	0	0	0
P-10443-E	0	1	0.03	0	0.1	0.1	0	0	0	0
P-10443-E-S	0	1	0.33	0	0	0	0	1.012	0	0
P-10450-A_(STORM_-_FINAL)	0	1	0.01	0	0	0	0	0	0	0
P-10450-A-S	0	1	0.01	0.2	0.79	0	0	4.375	0	0
P-10460-A	0.01	1	0	0	0	0	0	0	0	0
P-10460-A-S	0	1	0	0.56	0.02	0.97	0	1.575	0	0
P-10460-B	0.12	1	0.01	0.18	0	0	0	0	0	0
P-10460-B_(STORM_-_FINAL)-S	0	1	0.01	0.09	0.9	0.14	0	4.025	0	0
P-10460-C	0.09	1	0.02	0.25	0.17	0.09	0	0	0	0
P-10460-C_(STORM_-_FINAL)-S	0	1	0.01	0.99	0	0	0	7.175	0	0
P-10460-D	0.01	1	0.04	0.12	0	0	0	0	0	0
P-10460-D_(STORM_-_FINAL)-S	0	1	0.02	0.98	0	0.19	0	13.5	0	0
P-10460-E	0	1	0.01	0.2	0	0.01	0	0	0	0
P-10460-E_(STORM_-_FINAL)-S	0	1	0.01	0.77	0	0.4	0	13.475	0	0
P-10460-F	0	1	0.02	0	0.08	0.01	0	0	0	0
P-10460-F_(STORM_-_FINAL)-S	0	1	0.01	0.7	0.07	0.89	0	11.025	0	0
P-10461-A	0	1	0	0	0	0	0	0	0	0
P-10461-B	0	1	0.01	0	0	0	0	0	0	0
P-10461-B_(STORM_-_FINAL)-S	0	1	0.15	0.85	0	0	0	11.025	0	0
P-10462-A	0	1	0.03	0	0	0	0	0	0	0
P-10470-A	0	1	0.02	0	0	0	0	0	0	0
P-10470-A-S	0	1	0.34	0	0	0	0	0.675	0	0
P-10480-A	0	1	0.05	0	0	0	0	0	0	0

Table 1D: Conduits (continued...)

Name	Capacity Limited (h)	Length Factor (fraction)	Dry (fraction)	Subcritical (fraction)	Supercritical (fraction)	Normal Limited (fraction)	Inlet Control (fraction)	Max. Spread (ft)	Contributing Area (ac)	Contributing Imp. Area (ac)
P-10480-B	0	1	0.02	0	0	0	0	0	0	0
P-10500-B	0	1	0.02	0.33	0.65	0.3	0	0	0	0
P-10500-B_(STORM_-_FINAL)-S	0	1	1	0	0	0	0	0	0	0
P-10500-C	0.01	1	0.02	0	0	0	0	0	0	0
P-10500-C_(STORM_-_FINAL)-S	0	1	0.2	0	0	0	0	5.425	0	0
P-10500-D	0	1	1	0	0	0	0	0	0	0
P-10510-A	0.01	1	0.02	0	0	0	0	0	0	0
P-10510-A_(STORM_-_FINAL)-S	0	1	0.01	0	0	0	0	12.775	0	0
P-10700-A	0	1	0.01	0.1	0.89	0.32	0	0	0	0
P-12000-A	0.01	1	0.03	0.9	0.07	0.11	0	0	0	0
P-12000-B	0	1	0.02	0.75	0.04	0.78	0	0	0	0
P-12000-C	0	1	0.02	0	0	0	0	0	0	0
P-12000-C-S	0	1	0.02	0.24	0.42	0.87	0	2.975	0	0
P-12000-D	0.01	1	0.02	0	0	0	0	0	0	0
P-12000-E	0	1	0.02	0.15	0.04	0	0	0	0	0
P-12000-E-S	0	1	0	0.7	0.29	0.95	0	8.225	0	0
P-12000-F	0	1	0.02	0.45	0.07	0.19	0	0	0	0
P-12000-G-S	0	1	0.02	0	0	0	0	1.925	0	0
P-21199_1	0	1	0	0	0	0	0	0	0	0
P-21199-S	0	1	0.28	0	0	0	0	1.265	0	0
S	0.01	1	0	0.08	0	0.03	0	0	0	0
UV-Outlet	0	1	1	0	0	0	0	0	0	0

Table 1E: Conduits

Name	Max. Unit Flow (cfs/ac)	GIS_LENGTH (m)	GIS_AREA (m²)	GIS_PARTS
1	0	32.878	0	1
10	0	118.739	0	1
10000-CB-S	0	95.1	0	1
10000-DC-S	0	9.482	0	1
10000-ED-S	0	30.759	0	1
10123-AF	0	11.257	0	1
10125-AG	0	29.923	0	1
10200-B	0	47.471	0	1
10203-A	0	9.143	0	1
10300-D1	0	3.306	0	1
10300-D-2	0	15.521	0	1
10300-D-3	0	8.626	0	1
10310-C-S2	0	3.079	0	1
11	0	50.742	0	1
11000-A0	0	4.863	0	1
12	0	16.814	0	1
12000-B'B	0	12.467	0	1
12000-DC-S	0	16.379	0	1
12000-FE-S	0	50.233	0	1
12000-G	0	19.422	0	1
12000-RainGarden	0	22.197	0	1
13	0	16.328	0	1
13000-A0	0	24.196	0	1
14	0	42.628	0	1
14000-A0'	0	30.413	0	1
14000-B0	0	66.804	0	1

Table 1E: Conduits (continued...)

Name	Max. Unit Flow (cfs/ac)	GIS_LENGTH (m)	GIS_AREA (m²)	GIS_PARTS
14000-CB	0	61.738	0	1
14000-DC	0	11.412	0	1
14000-ED	0	47.816	0	1
14000-FE	0	20.584	0	1
15	0	12.272	0	1
16	0	34.083	0	1
17	0	197.765	0	1
18	0	12.82	0	1
19	0	22.503	0	1
20	0	11.454	0	1
21	0	11.083	0	1
22	0	16.178	0	1
26	0	49.952	0	1
28	0	34.15	0	1
3	0	2.744	0	1
4	0	44.673	0	1
5	0	30.439	0	1
6	0	11.799	0	1
8	0	27.237	0	1
9	0	5.04	0	1
C10	0	7.09	0	1
C10-S	0	6.72	0	1
C11	0	5.573	0	1
C11-S	0	6.277	0	1
C12-S	0	1.644	0	1
C14	0	31.089	0	1

Table 1E: Conduits (continued...)

Name	Max. Unit Flow (cfs/ac)	GIS_LENGTH (m)	GIS_AREA (m²)	GIS_PARTS
C15	0	4.728	0	1
C16	0	4.477	0	1
C17	0	28.323	0	1
C18	0	27.192	0	1
C19	0	18.143	0	1
C2	0	39.301	0	1
C20	0	30.404	0	1
C21	0	23.14	0	1
C23	0	4.444	0	1
C24	0	70.823	0	1
C25	0	13.203	0	1
C26	0	1.319	0	1
C2-S	0	15.686	0	1
C3	0	24.509	0	1
C4	0	38.09	0	1
C4-S	0	37.19	0	1
C5	0	16.265	0	1
C6	0	12.126	0	1
C7	0	42.991	0	1
C8	0	103.477	0	1
C9_1	0	15.783	0	1
C9_2	0	5.058	0	1
C-J182	0	37.92	0	1
C-J320	0	80.193	0	1
C-J39	0	62.392	0	1
C-J46	0	26.017	0	1

Table 1E: Conduits (continued...)

Name	Max. Unit Flow (cfs/ac)	GIS_LENGTH (m)	GIS_AREA (m²)	GIS_PARTS
EP-10440-C	0	13.788	0	1
EP-10440-C-S	0	43.685	0	1
EX10441-B-S	0	97.574	0	1
EX10441-C-S	0	20.279	0	1
EX10441-D-S	0	6.788	0	1
OL-10100-AE_1	0	33.294	0	1
OL-10100-AE_2	0	102.283	0	1
OL-10101-AF	0	126.801	0	1
OL-10131-BA	0	31.301	0	1
OL-10131-CB	0	52.389	0	1
OL-10200-BA_1	0	1.151	0	1
OL-10200-BA_2	0	49.32	0	1
OL-10201-AA_1	0	1.458	0	1
OL-10201-AA_2	0	46.351	0	1
OL-10210-AD	0	62.569	0	1
OL-11000-A0	0	6.017	0	1
OL-11000-AbAc	0	58.847	0	1
OL-11000-AcAd	0	39.378	0	1
OL-11000-AdAe	0	11.448	0	1
OL-11000-AeE	0	73.826	0	1
OL-11000-BA	0	23.365	0	1
OL-12000-B0	0	21.768	0	1
OL-14000-BC	0	24.339	0	1
OL-14000-CB	0	64.322	0	1
OL-14000-DC	0	10.941	0	1
OL-14000-ED	0	40.288	0	1

Table 1E: Conduits (continued...)

Name	Max. Unit Flow (cfs/ac)	GIS_LENGTH (m)	GIS_AREA (m²)	GIS_PARTS
P-10000-A	0	54.943	0	1
P-10000-C	0	10.172	0	1
P-10000-C.	0	69.862	0	1
P-10001-A-S	0	30.794	0	1
P-1000-B	0	41.123	0	1
P-10100-A	0	16.488	0	1
P-10100-B	0	11.145	0	1
P-10100-B-S	0	49.851	0	1
P-10100-C	0	44.365	0	1
P-10120-G	0	36.291	0	1
P-10120-H	0	57.944	0	1
P-10120-H-S	0	65.679	0	1
P-10200-A	0	49.012	0	1
P-10200-A-S_1	0	1.018	0	1
P-10200-A-S_2	0	46.398	0	1
P-10200-C	0	47.619	0	1
P-10200-C-S_1	0	1.446	0	1
P-10200-C-S_2	0	46.729	0	1
P-10200-D	0	65.54	0	1
P-10200-D-S	0	65.394	0	1
P-10200-D-S.	0	88.688	0	1
P-10200-E	0	89.011	0	1
P-10200-F	0	22.943	0	1
P-10200-F-S	0	65.904	0	1
P-10200-G	0	42.332	0	1
P-10200-G_(STORM_-_FINAL)-S	0	37.818	0	1

Table 1E: Conduits (continued...)

Name	Max. Unit Flow (cfs/ac)	GIS_LENGTH (m)	GIS_AREA (m²)	GIS_PARTS
P-10200-H	0	59.13	0	1
P-10200-H_(STORM_-_FINAL)-S	0	39.948	0	1
P-10200-J	0	9.452	0	1
P-10200-J_(STORM_-_FINAL)-S	0	25.982	0	1
P-10200-K	0	19.748	0	1
P-10200-K_(STORM_-_FINAL)-S	0	50.827	0	1
P-10200-L	0	51.017	0	1
P-10200-L_(STORM_-_FINAL)-S	0	46.509	0	1
P-10200-M	0	42.369	0	1
P-10200-M_(STORM_-_FINAL)-S	0	149.754	0	1
P-10200-N	0	10.417	0	1
P-10201-A	0	9.145	0	1
P-102020-A-S_1	0	1.724	0	1
P-102020-A-S_2	0	46.071	0	1
P-10202-A	0	9.144	0	1
P-10203-A-S	0	65.404	0	1
P-10210-A	0	14.482	0	1
P-10210-B	0	18.46	0	1
P-10210-B-S	0	21.417	0	1
P-10210-C	0	36.796	0	1
P-10210-C_(STORM_-_FINAL)-S	0	38.928	0	1
P-10211-A	0	13.158	0	1
P-10211-B	0	11.77	0	1
P-10212-A	0	23.117	0	1
P-10240-A_(STORM_-_FINAL)-S	0	31.633	0	1
P-10250-A	0	9.145	0	1

Table 1E: Conduits (continued...)

Name	Max. Unit Flow (cfs/ac)	GIS_LENGTH (m)	GIS_AREA (m²)	GIS_PARTS
P-10250-A-S	0	89.449	0	1
P-10250-B	0	14.923	0	1
P-10250-B-S	0	20.113	0	1
P-10250-C	0	21.781	0	1
P-10250-C-S	0	46.849	0	1
P-10250-D	0	9.696	0	1
P-10250-D-S	0	154.025	0	1
P-10260-A	0	9.142	0	1
P-10260-A-S	0	63.566	0	1
P-10270-A	0	9.3	0	1
P-10280-A	0	32.407	0	1
P-10300-B	0	16.315	0	1
P-10300-B-S	0	118.257	0	1
P-10300-C3	0	14.003	0	1
P-10300-D-S	0	38.187	0	1
P-10300-E	0	32.933	0	1
P-10300-E-S.	0	32.948	0	1
P-10300-F	0	15.729	0	1
P-10300-G	0	11.109	0	1
P-10310-A	0	36.042	0	1
P-10310-B	0	10.262	0	1
P-10310-B-S	0	37.481	0	1
P-10310-C-S	0	38.01	0	1
P-10320-A	0	41.075	0	1
P-10320-A-S	0	14.757	0	1
P-10320-B	0	25.669	0	1

Table 1E: Conduits (continued...)

Name	Max. Unit Flow (cfs/ac)	GIS_LENGTH (m)	GIS_AREA (m²)	GIS_PARTS
P-10320-C	0	21.285	0	1
P-10320-D-S	0	78.077	0	1
P-10321-A	0	12.234	0	1
P-10330-A	0	6.325	0	1
P-10330-A-S	0	38.073	0	1
P-10330-B	0	17.204	0	1
P-10330-B-S	0	17.803	0	1
P-10400-A	0	39.644	0	1
P-10400-A-S	0	30.271	0	1
P-10400-B	0	8.782	0	1
P-10400-C1	0	1.395	0	1
P-10400-C2-S	0	18.934	0	1
P-10400-C-S	0	29.849	0	1
P-10400-D	0	16.45	0	1
P-10400-D-S	0	39.231	0	1
P-10400-E	0	10.702	0	1
P-10400-E-S	0	43.795	0	1
P-10400-F	0	34.195	0	1
P-10400-F_(STORM_-_FINAL)-S	0	34.721	0	1
P-10400-G	0	28.056	0	1
P-10400-G-S	0	27.694	0	1
P-10400-H	0	84.919	0	1
P-10400-H-S	0	83.672	0	1
P-10400-J	0	12.275	0	1
P-10400-K	0	30.778	0	1
P-10400-K-S	0	122.642	0	1

Table 1E: Conduits (continued...)

Name	Max. Unit Flow (cfs/ac)	GIS_LENGTH (m)	GIS_AREA (m²)	GIS_PARTS
P-10400-L	0	69.133	0	1
P-10400-L-S	0	69.491	0	1
P-10400-M	0	38.497	0	1
P-10400-M-S	0	38.684	0	1
P-10400-N	0	32.972	0	1
P-10400-N_(STORM_-_FINAL)-S	0	35.899	0	1
P-10400-P	0	12.779	0	1
P-10400-P_(STORM_-_FINAL)-S	0	11.463	0	1
P-10400-Q	0	16.497	0	1
P-10400-Q_(STORM_-_FINAL)-S	0	16.031	0	1
P-10400-R	0	10.434	0	1
P-10400-R_(STORM_-_FINAL)-S	0	10.697	0	1
P-10400-S	0	14.739	0	1
P-10400-S_(STORM_-_FINAL)-S	0	16.449	0	1
P-10410-A	0	35.448	0	1
P-10410-A-S	0	36.456	0	1
P-10410-B	0	10.527	0	1
P-10410-C	0	11.037	0	1
P-10410-D	0	19.108	0	1
P-10410-E	0	43.345	0	1
P-10410-F	0	13.208	0	1
P-10411-A	0	16.036	0	1
P-10411-A-S	0	59.475	0	1
P-10420-A	0	12.333	0	1
P-10420-A_(STORM_-_FINAL)-S	0	15.401	0	1
P-10420-B	0	22.119	0	1

Table 1E: Conduits (continued...)

Name	Max. Unit Flow (cfs/ac)	GIS_LENGTH (m)	GIS_AREA (m²)	GIS_PARTS
P-10420-B_(STORM_-_FINAL)-S	0	23.188	0	1
P-10420-C	0	10.981	0	1
P-10420-C-S	0	32.581	0	1
P-10420-D	0	26.825	0	1
P-10420-D-S	0	27.23	0	1
P-10420-E	0	11.005	0	1
P-10420-E-S	0	38.221	0	1
P-10421-A	0	11.025	0	1
P-10421-A_(STORM_-_FINAL)-S	0	23.262	0	1
P-10422-A	0	29.865	0	1
P-10422-A-S	0	33.513	0	1
P-10430-A_(STORM_-_FINAL)	0	10.364	0	1
P-10430-A-S	0	64.527	0	1
P-10440-A	0	10.444	0	1
P-10440-A_(STORM_-_FINAL)-S	0	21.3	0	1
P-10440-B	0	13.268	0	1
P-10440-B_(STORM_-_FINAL)-S	0	35.633	0	1
P-10440-C	0	20.5	0	1
P-10440-C_(STORM_-_FINAL)-S	0	31.291	0	1
P-10440-D	0	29.617	0	1
P-10440-D-S	0	27.627	0	1
P-10440-E	0	19.463	0	1
P-10440-G	0	64.823	0	1
P-10441-A	0	6.035	0	1
P-10442-A	0	2.348	0	1
P-10442-A-EX	0	97.903	0	1

Table 1E: Conduits (continued...)

Name	Max. Unit Flow (cfs/ac)	GIS_LENGTH (m)	GIS_AREA (m^2)	GIS_PARTS
P-10443-A	0	15.099	0	1
P-10443-C	0	18.897	0	1
P-10443-D	0	8.201	0	1
P-10443-E	0	8.065	0	1
P-10443-E-S	0	167.881	0	1
P-10450-A_(STORM_-_FINAL)	0	10.391	0	1
P-10450-A-S	0	43.128	0	1
P-10460-A	0	10.377	0	1
P-10460-A-S	0	71.728	0	1
P-10460-B	0	19.594	0	1
P-10460-B_(STORM_-_FINAL)-S	0	80.997	0	1
P-10460-C	0	32.71	0	1
P-10460-C_(STORM_-_FINAL)-S	0	31.821	0	1
P-10460-D	0	39.221	0	1
P-10460-D_(STORM_-_FINAL)-S	0	37.855	0	1
P-10460-E	0	25.761	0	1
P-10460-E_(STORM_-_FINAL)-S	0	25.151	0	1
P-10460-F	0	34.82	0	1
P-10460-F_(STORM_-_FINAL)-S	0	34.665	0	1
P-10461-A	0	54.033	0	1
P-10461-B	0	32.179	0	1
P-10461-B_(STORM_-_FINAL)-S	0	32.179	0	1
P-10462-A	0	13.237	0	1
P-10470-A	0	10.448	0	1
P-10470-A-S	0	41.281	0	1
P-10480-A	0	47.36	0	1

Table 1E: Conduits (continued...)

Name	Max. Unit Flow (cfs/ac)	GIS_LENGTH (m)	GIS_AREA (m²)	GIS_PARTS
P-10480-B	0	16.585	0	1
P-10500-B	0	63.779	0	1
P-10500-B_(STORM_-_FINAL)-S	0	63.846	0	1
P-10500-C	0	23.272	0	1
P-10500-C_(STORM_-_FINAL)-S	0	23.143	0	1
P-10500-D	0	10.973	0	1
P-10510-A	0	2.536	0	1
P-10510-A_(STORM_-_FINAL)-S	0	2.885	0	1
P-10700-A	0	12.206	0	1
P-12000-A	0	41.629	0	1
P-12000-B	0	25.008	0	1
P-12000-C	0	12.67	0	1
P-12000-C-S	0	24.455	0	1
P-12000-D	0	29.397	0	1
P-12000-E	0	11.084	0	1
P-12000-E-S	0	12.258	0	1
P-12000-F	0	7.185	0	1
P-12000-G-S	0	34	0	1
P-21199_1	0	48.881	0	1
P-21199-S	0	108.814	0	1
S	0	30.349	0	1
UV-Outlet	0	12.7	0	1

Table 2A: Junctions

Name	X-Coordinate	Y-Coordinate	Tag	Inflows	Treatment	Invert Elev. (ft)	Rim Elev. (ft)	Depth (ft)	Initial Depth (ft)	Surcharge Depth (ft)	Ponded Area (ft^2)	Baseline (cfs)
06-UV	2262634.954	275922.679		NO	NO	876	882	6	0	0.7	0	0
10000-A	2262415.487	276221.624	EX	NO	NO	834.88	867.59	32.71	0	0	0	0
10000-B	2262486.892	276107.158	GMP3	NO	NO	837.53	882.01	44.48	0	3	1000	0
10000-C	2262596.767	275906.015	Junct	NO	NO	863.07	889.151	26.081	0	0.7	0	0
10000-C-S	2262599.381	275903.401	Major_System	NO	NO	889.151	889.851	0.7	0	0	0	0
10000-D	2262619.645	275881.716	GMP3	NO	NO	865.9	889.37	23.47	0	0.7	0	0
10001-A-S	2262563.057	275817.676	Major_System	NO	NO	889	890	1	0	0	0	0
10100-A	2262662.885	275849.214	gmp5	NO	NO	876.92	888.789	11.869	0	0.7	0	0
10100-A-S	2262660.004	275845.683	Major_System	NO	NO	889.312	890.012	0.7	0	0	0	0
10100-B	2262699.076	275844.03	GMP5	NO	NO	877.5	888.454	10.954	0	0.7	0	0
10100-B-IC	2262695.571	275829.305	Major_System	NO	NO	888	888.7	0.7	0	0	0	0
10100-D	2262812.397	275935.369	GMP5	NO	NO	878.962	890.519	11.557	0	0.7	0	0
10100-D-IC	2262808.467	275934.139	Major_System	NO	NO	890.2	890.9	0.7	0	0	0	0
10100-D-IC2	2262814.164	275931.174	Major_System	NO	NO	890.4	890.9	0.5	0	0	0	0
10120-G	2262466.841	275345.818	EX	NO	NO	891.64	900.47	8.83	0	2.43	0	0
10120-G-S	2262459.073	275350.148	OJunct	NO	NO	900.47	901.47	1	0	1	0	0
10120-H	2262542.796	275171.556	Inlet	NO	NO	900.49	906	5.51	0	1.6	0	0
10123-A	2262470.748	275446.295	EX	NO	NO	888.94	900.54	11.6	0	0.7	0	0
10125-A	2262368.968	275353.414	ex	NO	NO	898.68	902.45	3.77	0	1	200	0
10125-A-S	2262366.451	275357.564	ojunct	NO	NO	901.45	902.45	1	0	0	0	0
10200-A	2262554.241	276253.166	GMP3	NO	NO	873.72	880.06	6.34	0	0.7	0	0
10200-A-S1	2262554.195	276248.72	Major_System	NO	NO	879.56	880.06	0.5	0	0	0	0
10200-A-S2	2262550.852	276248.772	Major_System	NO	NO	879.28	879.78	0.5	0	0	0	0
10200-B	2262694.822	276320.183	GMP3	NO	NO	887.56	891.06	3.5	0	0.7	0	0
10200-B-S1	2262696.156	276315.72	Major_System	NO	NO	890.56	891.06	0.5	0	0	0	0
10200-B-S2	2262692.405	276315.467	Major_System	NO	NO	890.36	891.36	1	0	0	0	0

Table 2A: Junctions (continued...)

Name	X-Coordinate	Y-Coordinate	Tag	Inflows	Treatment	Invert Elev. (ft)	Rim Elev. (ft)	Depth (ft)	Initial Depth (ft)	Surcharge Depth (ft)	Ponded Area (ft²)	Baseline (cfs)
10200-C	2262850.937	276325.945	GMP3	NO	NO	899.7	903.556	3.856	0	0.7	0	0
10200-C-S1	2262854.123	276320.787	Major_System	NO	NO	903.056	903.556	0.5	0	0	0	0
10200-C-S2	2262849.381	276320.635	Major_System	NO	NO	903	903.5	0.5	0	0	0	0
10200-D	2263065.809	276333.875	GMP3	NO	NO	917.45	920.76	3.31	0	0.7	0	0
10200-D-S	2263068.468	276329.838	Major_System	NO	NO	920.26	920.76	0.5	0	0	0	0
10200-E	2263357.628	276344.652	gmp5	NO	NO	934	944.103	10.103	0	0.7	0	0
10200-E-S	2263359.219	276340.793	Major_System	NO	NO	943.603	944.103	0.5	0	0	0	0
10200-F	2263432.881	276343.1	gmp5	NO	NO	941.68	947.924	6.244	0	0.7	0	0
10200-G	2263571.124	276329.836	GMP5	NO	NO	944.8	951.87	7.07	0	0	0	0
10200-G-S	2263571.919	276325.377	Major_System	NO	NO	951.37	951.87	0.5	0	0	0	0
10200-H	2263765.065	276334.034	gmp5	NO	NO	946.3	950.2	3.9	0	0.7	0	0
10200-H-S	2263764.241	276330.276	Major_System	NO	NO	949.7	950.2	0.5	0	0	0	0
10200-J	2263765.329	276303.026	gmp5	NO	NO	946.854	950.131	3.277	0	0.7	0	0
10200-J-S	2263764.803	276308.682	Major_System	NO	NO	949.631	950.131	0.5	0	0	0	0
10200-K	2263717.777	276259.026	gmp5	NO	NO	949.897	954.544	4.647	0	0.7	0	0
10200-K-S	2263712.882	276257.693	Major_System	NO	NO	954.044	954.544	0.5	0	0	0	0
10200-L	2263722.946	276091.735	gmp5	NO	NO	954.06	958.696	4.636	0	0.7	0	0
10200-L-S	2263721.463	276091.166	Major_System	NO	NO	959.247	959.947	0.7	0	0	0	0
10200-M	2263704.821	275953.922	gmp5	NO	NO	955.618	963.263	7.645	0	0.7	0	0
10200-M-S	2263702.625	275949.969	Major_System	NO	NO	962.763	963.263	0.5	0	0	0	0
10200-N	2263679.8	275930.643	gmp5	NO	NO	956.3	963.252	6.952	0	0.7	0	0
10200-N-S	2263684.293	275933.445	Major_System	NO	NO	962.752	963.252	0.5	0	0	0	0
10201-A	2262695.928	276290.204	GMP3	NO	NO	888.39	891.059	2.669	0	0.7	0	0
10201-A-S1	2262697.892	276295.981	Major_System	NO	NO	890.559	891.059	0.5	0	0	0	0
10201-A-S2	2262693.144	276295.47	Major_System	NO	NO	890.28	890.78	0.5	0	0	0	0
10202-A	2262852.038	276295.968	GMP3	NO	NO	900.5	903.56	3.06	0	0.7	0	0

Table 2A: Junctions (continued...)

Name	X-Coordinate	Y-Coordinate	Tag	Inflows	Treatment	Invert Elev. (ft)	Rim Elev. (ft)	Depth (ft)	Initial Depth (ft)	Surcharge Depth (ft)	Ponded Area (ft²)	Baseline (cfs)
10202-A-S1	2262854.526	276302.996	Major_System	NO	NO	903.06	903.56	0.5	0	0	0	0
10202-A-S2	2262848.886	276302.743	Major_System	NO	NO	902.81	903.31	0.5	0	0	0	0
10203-A	2263066.92	276303.9	GMP3	NO	NO	918.07	920.76	2.69	0	0.7	0	0
10203-A-S	2263069.015	276308.929	Major_System	NO	NO	920.26	920.76	0.5	0	0	0	0
10210-A	2262587.45	276219.189	GMP3	NO	NO	877.36	882	4.64	0	0.7	0	0
10210-A-S	2262589.267	276225.318	Major_System	NO	NO	881.5	882	0.5	0	0	0	0
10210-B	2262636.483	276183.645	gmp5	NO	NO	878.665	887.524	8.859	0	0.7	0	0
10210-B-S	2262642.946	276185.486	Major_System	NO	NO	887.024	887.524	0.5	0	0	0	0
10210-C	2262682.787	276072.162	GMP5	NO	NO	886.964	890.118	3.154	0	0.7	0	0
10210-D	2262686.28	276032.54	GMP5	NO	NO	887.5	890.72	3.22	0	0	0	0
10210-E	2262710.204	275942.263	gmp5	NO	NO	889.019	889.461	0.442	0	0.7	0	0
10211-A	2262673.073	276206.552	GMP5	NO	NO	879.236	888.132	8.896	0	0.7	0	0
10211-A-S	2262670.795	276203.368	Major_System	NO	NO	887.632	888.132	0.5	0	0	0	0
10211-B	2262704.948	276184.761	GMP3	NO	NO	883.285	890.219	6.934	0	0.7	0	0
10211-C	2262756.326	276047.502	GMP5	NO	NO	885.811	892.431	6.62	0	0	0	0
10212-A	2262612.914	276042.678	GMP5	NO	NO	889.46	890.385	0.925	0	0.7	0	0
10250-A	2263358.734	276314.672	gmp5	NO	NO	940.182	944.103	3.921	0	0.7	0	0
10250-A-S	2263362.248	276320.307	Major_System	NO	NO	943.603	944.103	0.5	0	0	0	0
10250-B	2263393.606	276280.31	gmp5	NO	NO	941.307	950.22	8.913	0	0.7	0	0
10250-B-S	2263398.536	276278.053	Major_System	NO	NO	948.718	949.418	0.7	0	0	0	0
10250-C	2263440.111	276226.057	gmp5	NO	NO	949.28	954.328	5.048	0	0.7	0	0
10250-C-S	2263438.111	276223.339	Major_System	NO	NO	953.828	954.329	0.501	0	0	0	0
10250-D	2263415.573	276205.815	gmp5	NO	NO	949.815	953.933	4.118	0	0.7	0	0
10250-D-S	2263419.297	276206.507	Major_System	NO	NO	953.433	953.933	0.5	0	0	0	0
10260-A	2263564.399	276300.608	gmp5	NO	NO	947.988	951.869	3.881	0	0.7	0	0
10260-A-S	2263567.355	276305.366	Major_System	NO	NO	951.369	951.869	0.5	0	0	0	0

Table 2A: Junctions (continued...)

Name	X-Coordinate	Y-Coordinate	Tag	Inflows	Treatment	Invert Elev. (ft)	Rim Elev. (ft)	Depth (ft)	Initial Depth (ft)	Surcharge Depth (ft)	Ponded Area (ft²)	Baseline (cfs)
10270-A	2263687.285	276257.959	gmp5	NO	NO	952.098	954.281	2.183	0	0.7	0	0
10270-A-S	2263692.357	276255.673	Major_System	NO	NO	953.781	954.281	0.5	0	0	0	0
10280-A	2263789.041	275889.034	GMP5	NO	NO	964.402	973.052	8.65	0	0	0	0
10300-A	2263047.92	275701.991	gmp5	NO	NO	906.8	910	3.2	0	0.7	0	0
10300-B	2263101.384	275699.469	gmp5	NO	NO	909.07	914.26	5.19	0	0.7	0	0
10300-B-IC	2263097.181	275696.573	Major_System	NO	NO	913.76	914.26	0.5	0	0	0	0
10300-C	2263166.077	275762.105	GMP5	NO	NO	924.01	940.58	16.57	0	0.7	0	0
10300-C-S	2263170.683	275765.598	Major_System	NO	NO	940.08	940.58	0.5	0	0	0	0
10300-D	2263138.343	275798.728	gmp5	NO	NO	924.16	940.585	16.425	0	0.7	0	0
10300-D-S	2263138.974	275802.184	Major_System	NO	NO	940.085	940.585	0.5	0	0	0	0
10300-E	2263216.534	275873.292	gmp5	NO	NO	931.25	945.347	14.097	0	0.7	0	0
10300-F	2263250.581	275834.517	GMP5	NO	NO	935.127	944.225	9.098	0	0.7	0	0
10300-F-S	2263254.252	275831.557	Major_System	NO	NO	945.854	946.554	0.7	0	0	0	0
10300-G	2263272.888	275805.696	GMP5	NO	NO	936.47	945.036	8.566	0	0	0	0
10300-G-S	2263272.717	275809.663	Major_System	NO	NO	944.536	945.036	0.5	0	0	0	0
10310-A	2263249.053	275677.866	GMP5	NO	NO	928.927	939.635	10.708	0	0.7	0	0
10310-A-S	2263255.89	275676.941	Major_System	NO	NO	939.635	940.335	0.7	0	0	0	0
10310-B	2263273.268	275701.254	GMP5	NO	NO	929.894	939.529	9.635	0	0.7	0	0
10310-B-S	2263275.882	275698.64	Major_System	NO	NO	939.529	940.229	0.7	0	0	0	0
10310-B-S2	2263278.58	275708.368	Major_System	NO	NO	941.37	942.07	0.7	0	0	0	0
10320-A	2263043.923	275894.871	GMP5	NO	NO	929.717	941.946	12.229	0	0.7	0	0
10320-B	2263039.642	275978.975	GMP5	NO	NO	930.405	940.583	10.178	0	0.7	0	0
10320-B-S	2263043.771	275978.934	Major_System	NO	NO	940.083	940.583	0.5	0	0	0	0
10320-C	2263021.406	276046.384	GMP5	NO	NO	935.027	941.33	6.303	0	0.7	0	0
10320-C-S	2263024.628	276042.615	Major_System	NO	NO	940.83	941.33	0.5	0	0	0	0
10321-A	2263074.932	275920.349	GMP5	NO	NO	936.1	942.05	5.95	0	0.7	0	0

Table 2A: Junctions (continued...)

Name	X-Coordinate	Y-Coordinate	Tag	Inflows	Treatment	Invert Elev. (ft)	Rim Elev. (ft)	Depth (ft)	Initial Depth (ft)	Surcharge Depth (ft)	Ponded Area (ft²)	Baseline (cfs)
10330-A	2263202.859	275888.896	GMP5	NO	NO	931.7	945.496	13.796	0	0.7	0	0
10330-A-S	2263199.712	275887.084	Major_System	NO	NO	945.48	946.18	0.7	0	0	0	0
10330-B	2263174.031	275937.42	GMP5	NO	NO	932.5	942	9.5	0	0.7	0	0
10330-B-S	2263170.969	275937.93	Major_System	NO	NO	945	945.7	0.7	0	0	0	0
10400-A	2262636.108	275752.7	GMP5	NO	NO	876	891.207	15.207	0	0.7	0	0
10400-A-S	2262568.125	275650.265	Major_System	NO	NO	896.32	896.82	0.5	0	0	0	0
10400-B1	2262659.241	275735.523	GMP5	NO	NO	880.53	893	12.47	0	0	0	0
10400-C2	2262698.65	275673.82	GMP5	NO	NO	883.15	886.65	3.5	0	0	0	0
10400-D	2262689.97	275620.556	gmp5	NO	NO	884.04	901.1	17.06	0	0.7	0	0
10400-D-S	2262692.572	275617.428	Major_System	NO	NO	900.6	901.1	0.5	0	0	0	0
10400-E	2262684.228	275585.92	gmp5	NO	NO	890.28	901.208	10.928	0	0.7	0	0
10400-E-S	2262690.161	275587.936	Major_System	NO	NO	900.708	901.208	0.5	0	0	0	0
10400-F	2262792.12	275555.19	gmp5	NO	NO	895.779	905.944	10.165	0	0.7	0	0
10400-F-S	2262799.834	275557.158	Major_System	NO	NO	905.444	905.944	0.5	0	0	0	0
10400-G	2262876.588	275518.626	gmp5	NO	NO	900.232	910.097	9.865	0	0.7	0	0
10400-G-S	2262883.565	275521.89	Major_System	NO	NO	909.597	910.097	0.5	0	0	0	0
10400-H	2263132.274	275407.994	gmp5	NO	NO	910.703	924.253	13.55	0	0.7	0	0
10400-H-S	2263135.19	275412.182	Major_System	NO	NO	924.25	924.95	0.7	0	0	0	0
10400-J	2263169.062	275391.613	GMP3	NO	NO	913.886	926.961	13.075	0	0.7	0	0
10400-K	2263264.91	275423.38	gmp5	NO	NO	919.335	933.36	14.025	0	0.7	0	0
10400-K-S	2263267.539	275420.678	Major_System	NO	NO	933.34	934.04	0.7	0	0	0	0
10400-L	2263474.29	275510.56	gmp5	NO	NO	927.571	949.132	21.561	0	0.7	0	0
10400-L-S	2263477.895	275508.566	Major_System	NO	NO	947.883	948.583	0.7	0	0	0	0
10400-M	2263585.24	275570.901	gmp5	NO	NO	950.011	958.15	8.139	0	0.7	0	0
10400-M-S	2263589.37	275569.225	Major_System	NO	NO	961.71	962.41	0.7	0	0	0	0
10400-N	2263510.27	275648.88	gmp5	NO	NO	955.089	960.331	5.242	0	0.7	0	0

Table 2A: Junctions (continued...)

Name	X-Coordinate	Y-Coordinate	Tag	Inflows	Treatment	Invert Elev. (ft)	Rim Elev. (ft)	Depth (ft)	Initial Depth (ft)	Surcharge Depth (ft)	Ponded Area (ft²)	Baseline (cfs)
10400-N-S	2263511.332	275657.435	Major_System	NO	NO	960.05	960.75	0.7	0	0	0	0
10400-P	2263539.8	275678.64	gmp5	NO	NO	955.603	961.593	5.99	0	0.7	0	0
10400-P-S	2263537.192	275684.742	Major_System	NO	NO	962.7	962.7	0	0	0	0	0
10400-Q	2263578.16	275716.82	gmp5	NO	NO	956.48	961.5	5.02	0	0.7	0	0
10400-Q-S	2263575.364	275720.921	Major_System	NO	NO	962.7	962.7	0	0	0	0	0
10400-R	2263599.02	275743.96	gmp5	NO	NO	957.171	961.92	4.749	0	0.7	0	0
10400-R-S	2263599.341	275746.545	Major_System	NO	NO	962.7	962.7	0	0	0	0	0
10400-S	2263633.894	275777.454	gmp5	NO	NO	957.91	962.132	4.222	0	0.7	0	0
10400-S-S	2263640.4	275781.562	Major_System	NO	NO	962.07	962.77	0.7	0	0	0	0
10410-A	2262565.606	275660.213	gmp5	NO	NO	881.7	896.82	15.12	0	0.7	0	0
10410-B	2262546.21	275631.64	GMP5	NO	NO	882.9	896.966	14.066	0	0.7	0	0
10410-B-S	2262555.706	275634.058	Major_System	NO	NO	896.466	896.966	0.5	0	0	0	0
10410-C	2262528.93	275599.82	GMP5	NO	NO	883.8	895.635	11.835	0	0.7	0	0
10410-D	2262472.13	275626.34	GMP5	NO	NO	884.6	896.631	12.031	0	0.7	0	0
10410-D-S	2262468.767	275626.823	Major_System	NO	NO	900.92	901.62	0.7	0	0	0	0
10410-E	2262407.215	275499.821	GMP5	NO	NO	886.58	899.888	13.308	0	0	0	0
10410-F	2262443.538	275476.193	GMP5	NO	NO	888.42	900.018	11.598	0	0	0	0
10410-G	2262436.893	275461.052	EX	NO	NO	888.94	900.54	11.6	0	0.7	0	0
10411-A	2262386.138	275451.62	GMP5	NO	NO	896.5	901.376	4.876	0	0.7	0	0
10411-A-S	2262380.8	275453.089	Major_System	NO	NO	901.323	901.5	0.177	0	0	0	0
10420-A	2262806.947	275517.544	GMP5	NO	NO	903.59	909.541	5.951	0	0.7	0	0
10420-A-S	2262809.758	275514.913	Major_System	NO	NO	909.041	909.541	0.5	0	0	0	0
10420-B	2262746.642	275477.182	gmp5	NO	NO	906.783	914.865	8.082	0	0.7	0	0
10420-B-S	2262749.811	275474.219	Major_System	NO	NO	914.365	914.865	0.5	0	0	0	0
10420-C	2262752.379	275441.615	gmp5	NO	NO	909.388	915.262	5.874	0	0.7	0	0
10420-C-S	2262747.068	275447.669	Major_System	NO	NO	914.762	915.262	0.5	0	0	0	0

Table 2A: Junctions (continued...)

Name	X-Coordinate	Y-Coordinate	Tag	Inflows	Treatment	Invert Elev. (ft)	Rim Elev. (ft)	Depth (ft)	Initial Depth (ft)	Surcharge Depth (ft)	Ponded Area (ft²)	Baseline (cfs)
10420-D	2262673.522	275402.549	gmp5	NO	NO	911.886	919.59	7.704	0	0.7	0	0
10420-D-S	2262671.617	275399.839	Major_System	NO	NO	919.09	919.59	0.5	0	0	0	0
10420-E	2262641.506	275419.232	gmp5	NO	NO	912.737	921.397	8.66	0	0.7	0	0
10420-E-S	2262641.538	275415.653	Major_System	NO	NO	920.897	921.397	0.5	0	0	0	0
10421-A	2262840.062	275502.991	gmp5	NO	NO	904.86	909.514	4.654	0	0.7	0	0
10421-A-S	2262833.483	275502.561	Major_System	NO	NO	909.014	909.514	0.5	0	0	0	0
10422-A	2262792.53	275352.24	gmp5	NO	NO	925.799	933.83	8.031	0	0.7	0	0
10422-A-S	2262799.456	275351.005	Major_System	NO	NO	934.74	935.44	0.7	0	0	0	0
10430-A	2262890.093	275549.829	gmp5	NO	NO	906.008	910.079	4.071	0	0.7	0	0
10430-A-S	2262891.218	275544.254	Major_System	NO	NO	909.579	910.079	0.5	0	0	0	0
10440-A	2263161.348	275358.229	gmp3	NO	NO	921.1	930.36	9.26	0	0.7	0	0
10440-A-S	2263165.038	275357.169	Major_System	NO	NO	930.47	931.17	0.7	0	0	0	0
10440-B	2263195.299	275330.988	GMP3	NO	NO	922.798	932.436	9.638	0	0.7	0	0
10440-B-S	2263191.791	275327.15	Major_System	NO	NO	931.936	932.436	0.5	0	0	0	0
10440-C	2263188.285	275264.101	GMP3	NO	NO	926.64	936.99	10.35	0	0.7	0	0
10440-C-S	2263194.944	275261.174	Major_System	NO	NO	936.49	936.99	0.5	0	0	0	0
10440-D	2263262.846	275201.797	GMP3	NO	NO	927.13	943.971	16.841	0	0.7	0	0
10440-D-S	2263265.762	275204.609	Major_System	NO	NO	943.95	944.65	0.7	0	0	0	0
10440-e	2263326.69	275202.85	gmp5	NO	NO	928.004	948.032	20.028	0	0	0	0
10441-A	2263143.364	275366.506	GMP5	NO	NO	924.77	937.42	12.65	0	0	0	0
10442-A	2263809.237	275225.598	GMP5	NO	NO	975.66	983.067	7.407	0	0	0	0
10442-A-EX	2263808	275218	JUNCT	NO	NO	975.25	983.1	7.85	0	0.7	0	0
10442-A-S	2263810.614	275215.386	Major_System	NO	NO	982.567	983.067	0.5	0	0	0	0
10442-B	2263809.815	275182.616	GMP5	NO	NO	979.58	982.557	2.977	0	0	0	0
10442-B-EX	2263810.046	275191.621	EX	NO	NO	978.38	982.91	4.53	0	0.7	0	0
10442-B-S	2263812.66	275189.007	Major_System	NO	NO	982.057	982.557	0.5	0	0	0	0

Table 2A: Junctions (continued...)

Name	X-Coordinate	Y-Coordinate	Tag	Inflows	Treatment	Invert Elev. (ft)	Rim Elev. (ft)	Depth (ft)	Initial Depth (ft)	Surcharge Depth (ft)	Ponded Area (ft²)	Baseline (cfs)
10443-A	2263219.08	275178.6	GMP5	NO	NO	942.62	944.5	1.88	0	0	0	0
10443-C	2263865.974	275239.963	EX	NO	NO	976.57	984.97	8.4	0	0.7	0	0
10443-C-S	2263869.258	275238.534	Major_System	NO	NO	984.97	985.67	0.7	0	0	0	0
10443-D	2263892.803	275242.027	EX	NO	NO	979.35	984.97	5.62	0	0.7	0	0
10443-D-S	2263891.45	275240.392	Major_System	NO	NO	984.97	985.67	0.7	0	0	0	0
10450-A	2263271.653	275389.964	gmp5	NO	NO	924.173	933.349	9.176	0	0.7	0	0
10450-A-S	2263272.955	275394.944	Major_System	NO	NO	933.349	934.049	0.7	0	0	0	0
10460-A	2263489.73	275480.22	gmp5	NO	NO	933.323	949.24	15.917	0	0.7	0	0
10460-A-S	2263490.176	275485.438	Major_System	NO	NO	949.32	950.02	0.7	0	0	0	0
10460-B	2263521.17	275424.15	GMP5	NO	NO	933.88	943.64	9.76	0	0.7	0	0
10460-B-S	2263522.57	275421.154	Major_System	NO	NO	943.793	944.493	0.7	0	0	0	0
10460-C	2263619.48	275467.17	GMP5	NO	NO	934.08	943.688	9.608	0	0.7	0	0
10460-C-S	2263617.935	275463.625	Major_System	NO	NO	943.793	944.493	0.7	0	0	0	0
10460-D	2263671.45	275349.46	GMP5	NO	NO	934.881	943.709	8.828	0	0.7	0	0
10460-D-S	2263668.606	275350.241	Major_System	NO	NO	943.664	944.364	0.7	0	0	0	0
10460-E	2263599.81	275304.62	GMP5	NO	NO	936.275	943.75	7.475	0	0.7	0	0
10460-E-S	2263598.573	275306.611	Major_System	NO	NO	943.766	944.466	0.7	0	0	0	0
10460-F	2263493.06	275263.95	GMP5	NO	NO	937.321	942	4.679	0	0.7	0	0
10460-F-S	2263494.05	275261.797	Major_System	NO	NO	943.405	947	3.595	0	0	0	0
10461-A	2263349.463	275380.107	GMP5	NO	NO	938.8	943.04	4.24	0	0.7	0	0
10461-A-S	2263352.077	275377.493	Major_System	NO	NO	943.04	943.74	0.7	0	0	0	0
10461-B	2263256.021	275330.977	gmp5	NO	NO	939.013	943.04	4.027	0	0.7	0	0
10461-B-S	2263258.635	275328.363	Major_System	NO	NO	943.04	943.74	0.7	0	0	0	0
10462-A	2263690.859	275388.31	GMP5	NO	NO	943.039	945.911	2.872	0	0	0	0
10462-A-S	2263693.501	275385.686	Major_System	NO	NO	949	950	1	0	0	0	0
10470-A	2263609.757	275546.945	GMP5	NO	NO	954.563	958.49	3.927	0	0.7	0	0

Table 2A: Junctions (continued...)

Name	X-Coordinate	Y-Coordinate	Tag	Inflows	Treatment	Invert Elev. (ft)	Rim Elev. (ft)	Depth (ft)	Initial Depth (ft)	Surcharge Depth (ft)	Ponded Area (ft²)	Baseline (cfs)
10470-A-S	2263608.368	275551.561	Major_System	NO	NO	958.453	959.153	0.7	0	0	0	0
10480-A	2263688.014	275687.426	GMP5	NO	NO	956.7	966.919	10.219	0	0	0	0
10480-B	2263665.795	275737.094	GMP5	NO	NO	958.2	961.911	3.711	0	0	0	0
10500-A	2262985.928	275689.685	GMP5	NO	NO	907.54	913	5.46	0	0.7	0	0
10500-B	2263160.666	275574.585	GMP5	NO	NO	908.62	917.95	9.33	0	0.7	0	0
10500-B-S	2263159.746	275573.581	Major_System	NO	NO	917.45	917.45	0	0	0	0	0
10500-C	2263208.368	275514.973	GMP5	NO	NO	909.85	917	7.15	0	0.7	0	0
10500-C-S	2263206.671	275513.89	Major_System	NO	NO	917	917.833	0.833	0	0	0	0
10500-D	2263185.188	275487.429	GMP5	NO	NO	914.092	918.238	4.146	0	0	0	0
10510-A	2263168.787	275572.773	gmp5	NO	NO	911.31	917.05	5.74	0	0.7	0	0
10510-A-S	2263169.037	275571.768	Major_System	NO	NO	916.55	917.05	0.5	0	0	0	0
10700-A	2262855.132	276251.54	GMP5	NO	NO	919.383	921.029	1.646	0	0.7	0	0
10700-A-S	2262857.743	276206.656	Major_System	NO	NO	925.31	925.81	0.5	0	0	0	0
10700-B	2262855.69	276211.5	GMP5	NO	NO	919.78	925.81	6.03	0	0	0	0
11000-A	2262492.349	276369.609	Inlet	NO	NO	861.67	865.079	3.409	0	1	500	0
12000	2261946.099	276352.754	Outfall	NO	NO	838	843	5	0	0	0	0
12000-1	2262016.165	276332.914	Outfall	NO	NO	853	858	5	0	0	0	0
12000-2	2261912.904	276258.693	Major_System	NO	NO	851.96	851.96	0	0	0	0	0
12000-A	2262141.878	276318.469	GMP3	NO	NO	858	859.792	1.792	0	0	0	0
12000-B	2262277.974	276329.865	GMP3	NO	NO	859.34	863.28	3.94	0	0	0	0
12000-B'	2262375.815	276225.597	OJunct	NO	NO	866.842	867.942	1.1	0	0	0	0
12000-C	2262338.822	276274.831	GMP3	NO	NO	860.36	865.75	5.39	0	0.7	0	0
12000-C-S	2262344.8	276269.03	OJunct	NO	NO	865.18	866.18	1	0	0	0	0
12000-D	2262380.324	276272.52	GMP3	NO	NO	860.98	865.75	4.77	0	1.1	8	0
12000-D-S	2262375.277	276266.336	OJunct	NO	NO	865.238	866.238	1	0	0	0	0
12000-E	2262404.385	276207.212	GMP3	NO	NO	864.6	869.26	4.66	0	3	8	0

Table 2A: Junctions (continued...)

Name	X-Coordinate	Y-Coordinate	Tag	Inflows	Treatment	Invert Elev. (ft)	Rim Elev. (ft)	Depth (ft)	Initial Depth (ft)	Surcharge Depth (ft)	Ponded Area (ft²)	Baseline (cfs)
12000-E-S	2262406.999	276204.598	Major_System	NO	NO	869.249	869.96	0.711	0	0	0	0
12000-F	2262399.573	276171.169	GMP3	NO	NO	864	868.71	4.71	0	3	755	0
12000-F-S.	2262394.51	276175.218	Major_System	NO	NO	868.71	869.41	0.7	0	0	0	0
12000-G	2262399.34	276147.6	GMP3	NO	NO	863.1	867.84	4.74	0	1.1	8	0
12000-G-S	2262401.954	276144.986	Major_System	NO	NO	866.84	869.55	2.71	0	0	0	0
12000-G-S2	2262462.189	275823.309	OJunct	NO	NO	885	886	1	0	0	0	0
12000-H	2262350.2	276107.04	GMP3	NO	NO	864.2	868.77	4.57	0	0.7	0	0
12000-H-S	2262352.814	276104.426	Major_System	NO	NO	867.77	869.3	1.53	0	0	0	0
13000-A	2263883	276339	EX	NO	NO	941.46	943.467	2.007	0	0	0	0
14000-A	2263134.012	276980.126	OJunct	NO	NO	848.575	853.544	4.969	0	0	0	0
14000-C	2263196.658	276667.451	Inlet	NO	NO	850.38	855.998	5.618	0	1.5	500	0
14000-D	2263208.78	276632.029	Inlet	NO	NO	850.75	855.997	5.247	0	1.5	500	0
14000-E	2263360.144	276673.22	Inlet	NO	NO	852.32	856.728	4.408	0	1.5	500	0
8667-J4	2261923.441	276206.384	ex	NO	NO	852.76	858.11	5.35	0	0.7	0	0
8697	2261857.98	276145.56	Major_System	NO	NO	853.99	858.64	4.65	0	0	0	0
8807	2261849.953	276046.023	Major_System	NO	NO	855.48	859.53	4.05	0	0	0	0
8903	2261822.661	275941.67	Major_System	NO	NO	857.01	860.26	3.25	0	0	0	0
CHANNEL_12+11.04	2262996.146	275702.756	Major_System	NO	NO	905.75	908.25	2.5	0	0	0	0
Curb_Cut	2263311.938	275806.413	Major_System	NO	NO	946.544	947.544	1	0	0	0	0
Curb_Cut-S	2263311.195	275812.992	Major_System	NO	NO	946.891	947.591	0.7	0	0	0	0
ELB-10300-B1	2263122.22	275718.62	GMP5	NO	NO	909.56	919.56	10	0	0	0	0
ELB-10300-B2	2263158.51	275754.34	GMP5	NO	NO	923.85	938	14.15	0	0	0	0
EX10440-C	2263150.046	275288.262	EX	NO	NO	937.59	941.84	4.25	0	0.7	0	0
EX10440-C-S	2263146.042	275289.371	Major_System	NO	NO	941.84	943.84	2	0	0	0	0
EX-CI21199	2263487	275207	EX	NO	NO	954.3	959.964	5.664	0	0.7	0	0
EX-CI21199-S	2263490.749	275202.825	Major_System	NO	NO	959.964	960.664	0.7	0	0	0	0

Table 2A: Junctions (continued...)

Name	X-Coordinate	Y-Coordinate	Tag	Inflows	Treatment	Invert Elev. (ft)	Rim Elev. (ft)	Depth (ft)	Initial Depth (ft)	Surcharge Depth (ft)	Ponded Area (ft²)	Baseline (cfs)
EX-DI5526	2262960.692	275384.358	EX	NO	NO	939.06	941.58	2.52	0	0	0	0
EX-DI5526-S	2262960.118	275385.695	OJunct	NO	NO	941.58	942.58	1	0	0	0	0
EX-DI5571	2263088.804	275369.823	EX	NO	NO	937.75	941.99	4.24	0	0	0	0
EX-DI5571-S	2263087.184	275367.448	OJunct	NO	NO	941.99	942.99	1	0	0	0	0
J1	2263395.7	275001.694	GMP5	NO	NO	950.36	954.8	4.44	0	0	0	0
J10	2263266	274056	Junct	NO	NO	1008.97	1011.966	2.996	0	0	0	0
J11	2263221.743	274086.177	Junct	NO	NO	1004.59	1007.591	3.001	0	0	0	0
J12	2263219	274226	Junct	NO	NO	981.34	985.817	4.477	0	0	0	0
J13	2263180	274236	Outlet	NO	NO	980.139	982.139	2	0	0	0	0
J15	2263396.881	274981.932	EX	NO	NO	951.22	954.37	3.15	0	0.7	0	0
J15-S	2263397.307	274980.084	Major_System	NO	NO	954.37	955.8	1.43	0	0	0	0
J17	2263414.469	274976.96	EX	NO	NO	951.85	955.58	3.73	0	0.7	0	0
J179	2263072.121	274265.406	Oulet	NO	NO	976.794	977.793	0.999	0	0	0	0
J17-S	2263417.083	274974.346	Major_System	NO	NO	954.58	955.58	1	0	0	0	0
J18	2263378.207	274968.066	EX	NO	NO	951.46	954.87	3.41	0	0.7	0	0
J182	2262918.118	275150.642	OJunct	NO	NO	942.74	943.854	1.114	0	0	0	0
J18-S	2263380.821	274965.452	Major_System	NO	NO	954.37	955.3	0.93	0	0	0	0
J1-IC	2263397.346	275000.105	Major_System	NO	NO	953.8	954.8	1	0	0	0	0
J2	2262029.955	276270.21	ex	NO	NO	855.48	858.83	3.35	0	0.7	0	0
J20	2263395.378	274997.368	EX	NO	NO	950.51	954.25	3.74	0	0.7	0	0
J20-S	2263397.992	274994.754	Major_System	NO	NO	953.25	955	1.75	0	0	0	0
J2-S	2262029.316	276266.961	Major_System	NO	NO	858.83	859.83	1	0	0	0	0
J320	2262320.045	276340.366	OJunct	NO	NO	863.281	864.381	1.1	0	0	0	0
J34	2262874	275008	Junct	NO	NO	928.85	936.426	7.576	0	0	0	0
J38	2263196.698	275196.361	OJunct	NO	NO	941.031	942.131	1.1	0	0	0	0
J39	2263042.229	275159.172	OJunct	NO	NO	942.068	943.565	1.497	0	0	0	0

Table 2A: Junctions (continued...)

Name	X-Coordinate	Y-Coordinate	Tag	Inflows	Treatment	Invert Elev. (ft)	Rim Elev. (ft)	Depth (ft)	Initial Depth (ft)	Surcharge Depth (ft)	Ponded Area (ft²)	Baseline (cfs)
J46	2262404.521	276328.891	OJunct	NO	NO	864.9	866.014	1.114	0	0	0	0
J4-S	2261926.055	276203.77	Major_System	NO	NO	857.11	859.11	2	0	0	0	0
J5	2262948	274907	Inlet	NO	NO	940.1	945.85	5.75	0	0	0	0
J6	2262967	274876	Inlet	NO	NO	941.2	945.903	4.703	0	0	0	0
J7	2263007	274889	Inlet	NO	NO	942.46	945.968	3.508	0	0	0	0
J8	2262909	274943	Junct	NO	NO	938.5	944.752	6.252	0	0	0	0
J9	2262840	275024	Outlet	NO	NO	928.229	936.22	7.991	0	0	0	0
OL-10100-B	2262509.181	275724.722	OJunct	NO	NO	891	892	1	0	0	0	0
OL-10101-A	2262457.074	275701.706	OJunct	NO	NO	877.733	878.733	1	0	0	0	0
OL-11000-A	2262490.788	276364.805	OJunct	NO	NO	865.3	866.3	1	0	1	1000	0
OL-11000-B	2262522.895	276296.131	OJunct	NO	NO	867.351	868.351	1	0	0	0	0
OL-14000-Ab	2263559.701	276413.612	OJunct	NO	NO	944.247	945.347	1.1	0	0	0	0
OL-14000-Ac	2263636.283	276581.094	OJunct	NO	NO	888	889.1	1.1	0	0	0	0
OL-14000-Ad	2263582.493	276686.931	OJunct	NO	NO	888.001	889.101	1.1	0	0	0	0
OL-14000-Ae	2263566.526	276720.924	OJunct	NO	NO	863.833	864.933	1.1	0	0	0	0
OL-14000-C	2263205.534	276671.75	OJunct	NO	NO	855.925	857.025	1.1	0	0	0	0
OL-14000-D	2263219.775	276638.802	OJunct	NO	NO	855.996	857.096	1.1	0	0	0	0
OL-14000-E	2263346.069	276677.779	OJunct	NO	NO	857.19	858.206	1.016	0	0	0	0
OL-14000-F	2263358.081	276614.44	OJunct	NO	NO	856	857.1	1.1	0	0	0	0
OL-J10	2263262.205	274055.562	OJunct	NO	NO	1011.884	1012.984	1.1	0	0	0	0
OL-J10b	2263158.026	274185.404	OJunct	NO	NO	981.726	982.826	1.1	0	0	0	0
OL-J5	2262952.003	274905.114	OJunct	NO	NO	945.854	946.954	1.1	0	0	0	0
OL-J7	2263005.02	274885.921	OJunct	NO	NO	945.964	947.064	1.1	0	0	0	0

Table 2B: Junctions

Name	Baseline Pattern	Time Series	Scale Factor	Average Value (cfs)	Time Pattern 1	Time Pattern 2	Time Pattern 3	Time Pattern 4	Hydrograph	Sewershed Area (ac)	Avg. Depth (ft)	Max. Depth (ft)	Max. HGL (ft)
06-UV			1	0						0	0	0	876
10000-A			1	0						0	3.08	4.24	839.12
10000-B			1	0						0	1.73	3.01	840.54
10000-C			1	0						0	1.11	1.8	864.87
10000-C-S			1	0						0	0	0	889.15
10000-D			1	0						0	2.38	4.04	869.94
10001-A-S			1	0						0	0	0	889
10100-A			1	0						0	0.49	1.05	877.97
10100-A-S			1	0						0	0	0	889.31
10100-B			1	0						0	0.42	0.85	878.35
10100-B-IC			1	0						0	0.11	0.25	888.25
10100-D			1	0						0	0.3	0.72	879.68
10100-D-IC			1	0						0	0.01	0.05	890.25
10100-D-IC2			1	0						0	0.35	0.94	891.34
10120-G			1	0						0	0.74	1.69	893.33
10120-G-S			1	0						0	0.22	0.54	901.01
10120-H			1	0						0	0.35	0.76	901.25
10123-A			1	0						0	0	0	888.94
10125-A			1	0						0	1.53	3.15	901.83
10125-A-S			1	0						0	0.03	0.1	901.55
10200-A			1	0						0	1.25	5.94	879.66
10200-A-S1			1	0						0	0.07	0.28	879.84
10200-A-S2			1	0						0	0.09	0.31	879.59
10200-B			1	0						0	0.97	3.27	890.83
10200-B-S1			1	0						0	0.06	0.22	890.78
10200-B-S2			1	0						0	0.07	0.24	890.6

Table 2B: Junctions (continued...)

Name	Baseline Pattern	Time Series	Scale Factor	Average Value (cfs)	Time Pattern 1	Time Pattern 2	Time Pattern 3	Time Pattern 4	Hydrograph	Sewershed Area (ac)	Avg. Depth (ft)	Max. Depth (ft)	Max. HGL (ft)
10200-C			1	0						0	0.93	3.61	903.31
10200-C-S1			1	0						0	0.04	0.24	903.3
10200-C-S2			1	0						0	0.03	0.2	903.2
10200-D			1	0						0	0.37	0.88	918.33
10200-D-S			1	0						0	0.58	0.66	920.92
10200-E			1	0						0	0.37	0.85	934.85
10200-E-S			1	0						0	0.06	0.15	943.75
10200-F			1	0						0	0.56	2.13	943.81
10200-G			1	0						0	0.87	2.31	947.11
10200-G-S			1	0						0	0.01	0.03	951.4
10200-H			1	0						0	0.44	1.69	947.99
10200-H-S			1	0						0	0.85	0.9	950.6
10200-J			1	0						0	0.44	1.49	948.35
10200-J-S			1	0						0	1	1.11	950.74
10200-K			1	0						0	0.24	0.55	950.45
10200-K-S			1	0						0	1.93	2.1	956.15
10200-L			1	0						0	0.2	0.45	954.51
10200-L-S			1	0						0	0.04	0.11	959.36
10200-M			1	0						0	0.2	0.46	956.08
10200-M-S			1	0						0	0.44	0.52	963.29
10200-N			1	0						0	0	0	956.3
10200-N-S			1	0						0	0.07	0.18	962.93
10201-A			1	0						0	0.63	2.46	890.85
10201-A-S1			1	0						0	0.07	0.28	890.84
10201-A-S2			1	0						0	0.08	0.3	890.58
10202-A			1	0						0	0.72	2.86	903.36

Table 2B: Junctions (continued...)

Name	Baseline Pattern	Time Series	Scale Factor	Average Value (cfs)	Time Pattern 1	Time Pattern 2	Time Pattern 3	Time Pattern 4	Hydrograph	Sewershed Area (ac)	Avg. Depth (ft)	Max. Depth (ft)	Max. HGL (ft)
10202-A-S1			1	0						0	0.12	0.29	903.35
10202-A-S2			1	0						0	0.12	0.29	903.1
10203-A			1	0						0	0.19	0.52	918.59
10203-A-S			1	0						0	0.67	0.74	921
10210-A			1	0						0	0.42	2.85	880.21
10210-A-S			1	0						0	0.53	0.66	882.16
10210-B			1	0						0	0.35	1.94	880.61
10210-B-S			1	0						0	2.12	2.28	889.3
10210-C			1	0						0	0.27	1.34	888.3
10210-D			1	0						0	0.28	3.22	890.72
10210-E			1	0						0	0.23	1.53	890.55
10211-A			1	0						0	0.36	1.41	880.65
10211-A-S			1	0						0	1.93	2.09	889.73
10211-B			1	0						0	0.23	0.76	884.04
10211-C			1	0						0	0.15	0.5	886.31
10212-A			1	0						0	0	0	889.46
10250-A			1	0						0	0.22	0.57	940.76
10250-A-S			1	0						0	0.55	0.7	944.3
10250-B			1	0						0	0.16	0.48	941.78
10250-B-S			1	0						0	0	0	948.72
10250-C			1	0						0	0.13	0.38	949.66
10250-C-S			1	0						0	0.29	0.38	954.21
10250-D			1	0						0	0.13	0.43	950.24
10250-D-S			1	0						0	0.41	0.51	953.94
10260-A			1	0						0	0.16	0.46	948.45
10260-A-S			1	0						0	0.41	0.51	951.88

Table 2B: Junctions (continued...)

Name	Baseline Pattern	Time Series	Scale Factor	Average Value (cfs)	Time Pattern 1	Time Pattern 2	Time Pattern 3	Time Pattern 4	Hydrograph	Sewershed Area (ac)	Avg. Depth (ft)	Max. Depth (ft)	Max. HGL (ft)
10270-A			1	0						0	0.23	0.51	952.6
10270-A-S			1	0						0	2.08	2.29	956.07
10280-A			1	0						0	0.1	0.24	964.64
10300-A			1	0						0	0.38	0.78	907.58
10300-B			1	0						0	0.45	0.94	910.01
10300-B-IC			1	0						0	0.04	0.14	913.9
10300-C			1	0						0	0.51	1.07	925.08
10300-C-S			1	0						0	0.03	0.1	940.18
10300-D			1	0						0	0.5	1.04	925.2
10300-D-S			1	0						0	0.83	0.93	941.01
10300-E			1	0						0	0.33	0.77	932.02
10300-F			1	0						0	0.2	0.46	935.59
10300-F-S			1	0						0	0.06	0.16	946.01
10300-G			1	0						0	0.09	0.22	936.69
10300-G-S			1	0						0	0.03	0.08	944.62
10310-A			1	0						0	0.43	0.98	929.91
10310-A-S			1	0						0	0.03	0.11	939.74
10310-B			1	0						0	0.54	1.45	931.35
10310-B-S			1	0						0	0.14	0.31	939.84
10310-B-S2			1	0						0	0.09	0.17	941.54
10320-A			1	0						0	0.32	0.61	930.32
10320-B			1	0						0	0.46	0.98	931.39
10320-B-S			1	0						0	2.34	2.6	942.68
10320-C			1	0						0	0	0	935.03
10320-C-S			1	0						0	3.45	3.76	944.59
10321-A			1	0						0	0.08	0.26	936.36

Table 2B: Junctions (continued...)

Name	Baseline Pattern	Time Series	Scale Factor	Average Value (cfs)	Time Pattern 1	Time Pattern 2	Time Pattern 3	Time Pattern 4	Hydrograph	Sewershed Area (ac)	Avg. Depth (ft)	Max. Depth (ft)	Max. HGL (ft)
10330-A			1	0						0	0.4	0.85	932.55
10330-A-S			1	0						0	0	0	945.48
10330-B			1	0						0	0.21	0.48	932.98
10330-B-S			1	0						0	0.12	0.3	945.3
10400-A			1	0						0	2.04	3.55	879.55
10400-A-S			1	0						0	0.28	0.33	896.65
10400-B1			1	0						0	1.44	2.31	882.84
10400-C2			1	0						0	0.02	0.13	883.28
10400-D			1	0						0	1.06	2.15	886.19
10400-D-S			1	0						0	0.13	0.19	900.79
10400-E			1	0						0	1.61	3.74	894.02
10400-E-S			1	0						0	0.51	0.59	901.3
10400-F			1	0						0	1.05	2.39	898.17
10400-F-S			1	0						0	0.51	0.58	906.02
10400-G			1	0						0	0.98	2.19	902.42
10400-G-S			1	0						0	0.53	0.63	910.23
10400-H			1	0						0	0.95	2.1	912.8
10400-H-S			1	0						0	0.04	0.15	924.4
10400-J			1	0						0	0.89	1.92	915.81
10400-K			1	0						0	0.46	0.91	920.25
10400-K-S			1	0						0	0.03	0.11	933.45
10400-L			1	0						0	0.51	1.09	928.66
10400-L-S			1	0						0	0.01	0.07	947.95
10400-M			1	0						0	0.17	0.38	950.4
10400-M-S			1	0						0	0.03	0.1	961.81
10400-N			1	0						0	0.1	0.23	955.32

Table 2B: Junctions (continued...)

Name	Baseline Pattern	Time Series	Scale Factor	Average Value (cfs)	Time Pattern 1	Time Pattern 2	Time Pattern 3	Time Pattern 4	Hydrograph	Sewershed Area (ac)	Avg. Depth (ft)	Max. Depth (ft)	Max. HGL (ft)
10400-N-S			1	0						0	0.01	0.04	960.09
10400-P			1	0						0	0.15	0.31	955.91
10400-P-S			1	0						0	0	0	962.7
10400-Q			1	0						0	0.1	0.21	956.69
10400-Q-S			1	0						0	0	0	962.7
10400-R			1	0						0	0.09	0.21	957.38
10400-R-S			1	0						0	0	0	962.7
10400-S			1	0						0	0.11	0.25	958.16
10400-S-S			1	0						0	0	0	962.07
10410-A			1	0						0	0.83	1.65	883.35
10410-B			1	0						0	0.7	1.38	884.28
10410-B-S			1	0						0	0.58	0.7	897.16
10410-C			1	0						0	0.71	1.39	885.19
10410-D			1	0						0	1.19	2.26	886.86
10410-D-S			1	0						0	0.09	0.25	901.17
10410-E			1	0						0	0.61	1.27	887.85
10410-F			1	0						0	1.12	2.45	890.87
10410-G			1	0						0	1.18	2.74	891.68
10411-A			1	0						0	0.14	0.25	896.75
10411-A-S			1	0						0	0.15	0.21	901.53
10420-A			1	0						0	0.3	0.6	904.19
10420-A-S			1	0						0	0.5	0.53	909.57
10420-B			1	0						0	0.3	0.6	907.38
10420-B-S			1	0						0	0.54	0.58	914.95
10420-C			1	0						0	0.29	0.57	909.96
10420-C-S			1	0						0	0.35	0.43	915.19

Table 2B: Junctions (continued...)

Name	Baseline Pattern	Time Series	Scale Factor	Average Value (cfs)	Time Pattern 1	Time Pattern 2	Time Pattern 3	Time Pattern 4	Hydrograph	Sewershed Area (ac)	Avg. Depth (ft)	Max. Depth (ft)	Max. HGL (ft)
10420-D			1	0						0	0.19	0.43	912.32
10420-D-S			1	0						0	0.54	0.64	919.73
10420-E			1	0						0	0.19	0.47	913.21
10420-E-S			1	0						0	0.05	0.14	921.03
10421-A			1	0						0	0.15	0.32	905.18
10421-A-S			1	0						0	0.43	0.52	909.54
10422-A			1	0						0	0.11	0.37	926.17
10422-A-S			1	0						0	0	0	934.74
10430-A			1	0						0	0.19	0.48	906.49
10430-A-S			1	0						0	0.53	0.64	910.22
10440-A			1	0						0	0.79	1.79	922.89
10440-A-S			1	0						0	0.01	0.04	930.51
10440-B			1	0						0	1.12	3.21	926
10440-B-S			1	0						0	0.55	0.64	932.57
10440-C			1	0						0	1.77	4.81	931.45
10440-C-S			1	0						0	0	0	936.49
10440-D			1	0						0	2.18	7.55	934.68
10440-D-S			1	0						0	0	0	943.95
10440-e			1	0						0	2.98	12.39	940.39
10441-A			1	0						0	0.03	0.08	924.85
10442-A			1	0						0	0.18	0.55	976.21
10442-A-EX			1	0						0	0.39	0.83	976.08
10442-A-S			1	0						0	0.05	0.18	982.75
10442-B			1	0						0	0.08	0.24	979.82
10442-B-EX			1	0						0	0.11	0.33	978.71
10442-B-S			1	0						0	0.89	1.02	983.07

Table 2B: Junctions (continued...)

Name	Baseline Pattern	Time Series	Scale Factor	Average Value (cfs)	Time Pattern 1	Time Pattern 2	Time Pattern 3	Time Pattern 4	Hydrograph	Sewershed Area (ac)	Avg. Depth (ft)	Max. Depth (ft)	Max. HGL (ft)
10443-A			1	0						0	0.12	0.32	942.94
10443-C			1	0						0	0.48	0.99	977.56
10443-C-S			1	0						0	0.13	0.3	985.27
10443-D			1	0						0	0.26	0.52	979.87
10443-D-S			1	0						0	0.22	0.51	985.48
10450-A			1	0						0	0.28	0.61	924.78
10450-A-S			1	0						0	0.08	0.21	933.56
10460-A			1	0						0	0.8	1.79	935.11
10460-A-S			1	0						0	0.01	0.05	949.37
10460-B			1	0						0	0.77	2	935.88
10460-B-S			1	0						0	0.14	0.22	944.01
10460-C			1	0						0	1.15	2.44	936.52
10460-C-S			1	0						0	0.12	0.32	944.11
10460-D			1	0						0	1.17	2.05	936.93
10460-D-S			1	0						0	0.2	0.45	944.11
10460-E			1	0						0	0.36	0.92	937.19
10460-E-S			1	0						0	0.11	0.28	944.04
10460-F			1	0						0	0.24	0.56	937.88
10460-F-S			1	0						0	0.15	0.36	943.76
10461-A			1	0						0	0.2	0.56	939.36
10461-A-S			1	0						0	0.1	0.28	943.32
10461-B			1	0						0	0.71	1.09	940.1
10461-B-S			1	0						0	0.1	0.35	943.39
10462-A			1	0						0	0.03	0.07	943.11
10462-A-S			1	0						0	0.03	0.08	949.08
10470-A			1	0						0	0.15	0.37	954.93

Table 2B: Junctions (continued...)

Name	Baseline Pattern	Time Series	Scale Factor	Average Value (cfs)	Time Pattern 1	Time Pattern 2	Time Pattern 3	Time Pattern 4	Hydrograph	Sewershed Area (ac)	Avg. Depth (ft)	Max. Depth (ft)	Max. HGL (ft)
10470-A-S			1	0						0	0.04	0.11	958.56
10480-A			1	0						0	0.79	0.99	957.69
10480-B			1	0						0	0.13	0.3	958.5
10500-A			1	0						0	0.15	0.36	907.9
10500-B			1	0						0	0.39	0.97	909.59
10500-B-S			1	0						0	0	0	917.45
10500-C			1	0						0	0.32	0.89	910.74
10500-C-S			1	0						0	0.15	0.4	917.4
10500-D			1	0						0	0	0	914.09
10510-A			1	0						0	0.35	1.16	912.47
10510-A-S			1	0						0	0.59	0.96	917.51
10700-A			1	0						0	0.11	0.21	919.59
10700-A-S			1	0						0	0.18	0.39	925.7
10700-B			1	0						0	0.28	0.65	920.43
11000-A			1	0						0	0.11	0.29	861.96
12000			1	0						0	0.09	0.19	838.19
12000-1			1	0						0	0.02	0.06	853.06
12000-2			1	0						0	0.09	0.19	852.15
12000-A			1	0						0	1.75	2.11	860.11
12000-B			1	0						0	0.63	0.78	860.12
12000-B'			1	0						0	0.08	0.27	867.11
12000-C			1	0						0	0.23	0.72	861.08
12000-C-S			1	0						0	0.05	0.13	865.31
12000-D			1	0						0	0.19	0.73	861.71
12000-D-S			1	0						0	0.06	0.22	865.46
12000-E			1	0						0	0.16	0.78	865.38

Table 2B: Junctions (continued...)

Name	Baseline Pattern	Time Series	Scale Factor	Average Value (cfs)	Time Pattern 1	Time Pattern 2	Time Pattern 3	Time Pattern 4	Hydrograph	Sewershed Area (ac)	Avg. Depth (ft)	Max. Depth (ft)	Max. HGL (ft)
12000-E-S			1	0						0	0.05	0.24	869.49
12000-F			1	0						0	0.26	1.31	865.31
12000-F-S.			1	0						0	0.05	0.12	868.83
12000-G			1	0						0	0.74	2.17	865.27
12000-G-S			1	0						0	0.17	0.39	867.23
12000-G-S2			1	0						0	0.01	0.02	885.02
12000-H			1	0						0	0.52	1.44	865.64
12000-H-S			1	0						0	0.02	0.05	867.82
13000-A			1	0						0	0.24	0.59	942.05
14000-A			1	0						0	0.05	0.22	848.8
14000-C			1	0						0	2.33	5.62	856
14000-D			1	0						0	2.53	5.85	856.6
14000-E			1	0						0	2.17	5.34	857.66
8667-J4			1	0						0	0.68	1.43	854.19
8697			1	0						0	0.63	1.38	855.37
8807			1	0						0	0.54	1.14	856.62
8903			1	0						0	1.12	3.25	860.26
CHANNEL_12+11.04			1	0						0	0.17	0.38	906.13
Curb_Cut			1	0						0	0.07	0.16	946.71
Curb_Cut-S			1	0						0	0.07	0.16	947.05
ELB-10300-B1			1	0						0	0.73	1.58	911.14
ELB-10300-B2			1	0						0	0.26	0.52	924.37
EX10440-C			1	0						0	0.15	0.43	938.02
EX10440-C-S			1	0						0	0	0	941.84
EX-CI21199			1	0						0	0.38	0.82	955.12
EX-CI21199-S			1	0						0	0.03	0.11	960.07

Table 2B: Junctions (continued...)

Name	Baseline Pattern	Time Series	Scale Factor	Average Value (cfs)	Time Pattern 1	Time Pattern 2	Time Pattern 3	Time Pattern 4	Hydrograph	Sewershed Area (ac)	Avg. Depth (ft)	Max. Depth (ft)	Max. HGL (ft)
EX-DI5526			1	0						0	0.35	2.52	941.58
EX-DI5526-S			1	0						0	0	0	941.58
EX-DI5571			1	0						0	0.61	4.24	941.99
EX-DI5571-S			1	0						0	0	0	941.99
J1			1	0						0	0.63	1.51	951.87
J10			1	0						0	0.3	0.8	1009.77
J11			1	0						0	0.24	0.61	1005.2
J12			1	0						0	0.61	4.48	985.82
J13			1	0						0	0.7	2	982.14
J15			1	0						0	0.49	0.95	952.17
J15-S			1	0						0	0.33	0.57	954.94
J17			1	0						0	0.22	0.48	952.33
J179			1	0						0	0.55	1	977.79
J17-S			1	0						0	0.17	0.35	954.93
J18			1	0						0	0.43	0.8	952.26
J182			1	0						0	0.07	0.3	943.04
J18-S			1	0						0	0.3	0.57	954.94
J1-IC			1	0						0	0.14	0.62	954.42
J2			1	0						0	0	0	855.48
J20			1	0						0	0.65	1.44	951.95
J20-S			1	0						0	0.44	1.21	954.46
J2-S			1	0						0	0	0	858.83
J320			1	0						0	0.08	0.19	863.47
J34			1	0						0	7.18	7.58	936.43
J38			1	0						0	0	0	941.03
J39			1	0						0	0.66	1.5	943.56

Table 2B: Junctions (continued...)

Name	Baseline Pattern	Time Series	Scale Factor	Average Value (cfs)	Time Pattern 1	Time Pattern 2	Time Pattern 3	Time Pattern 4	Hydrograph	Sewershed Area (ac)	Avg. Depth (ft)	Max. Depth (ft)	Max. HGL (ft)
J46			1	0						0	0.02	0.1	865
J4-S			1	0						0	0	0	857.11
J5			1	0						0	0.78	2.33	942.43
J6			1	0						0	0.68	1.88	943.08
J7			1	0						0	0.54	1.28	943.74
J8			1	0						0	0.56	1.41	939.91
J9			1	0						0	7.78	9.18	937.41
OL-10100-B			1	0						0	0	0.03	891.03
OL-10101-A			1	0						0	0.03	0.08	877.81
OL-11000-A			1	0						0	0.02	0.05	865.35
OL-11000-B			1	0						0	0.05	0.12	867.47
OL-14000-Ab			1	0						0	0	0	944.25
OL-14000-Ac			1	0						0	0	0	888
OL-14000-Ad			1	0						0	0	0	888
OL-14000-Ae			1	0						0	0	0	863.83
OL-14000-C			1	0						0	0.04	0.24	856.16
OL-14000-D			1	0						0	0.06	0.35	856.35
OL-14000-E			1	0						0	0.06	0.36	857.55
OL-14000-F			1	0						0	0.49	1.71	857.71
OL-J10			1	0						0	0	0	1011.88
OL-J10b			1	0						0	0.12	0.51	982.24
OL-J5			1	0						0	0	0	945.85
OL-J7			1	0						0	0	0	945.96

Table 2C: Junctions

Name	Time Max. HGL (M/D/Y)	Rep. Max. Depth (ft)	Max. Lat. Inflow (cfs)	Max. Total Inflow (cfs)	Total Lat. Inflow (MG)	Total inflow (MG)	Flow Error (%)	Hours Surcharged (h)	Max. Surcharge (ft)	Min. Freeboard (ft)	Hours Flooded (h)	Max. Flood Rate (cfs)	Total Flood Vol. (MG)
06-UV	05/01/2022 00:00 AM	0	0	0	0	0	0	0	0	6.25	0	0	0
10000-A	05/01/2022 00:00 AM	4.05	0	183	0	4.01	0.305	0	0	28.47	0	0	0
10000-B	05/01/2022 00:23 AM	3.01	0	182.92	0	3.98	0.02	0	0	41.47	0	0	0
10000-C	05/01/2022 00:28 AM	1.8	0	141.13	0	3.21	0.029	0	0	24.281	0	0	0
10000-C-S	05/01/2022 00:00 AM	0	0	0	0	0	0	0	0	0.834	0	0	0
10000-D	05/01/2022 00:27 AM	4.04	0	141.13	0	3.21	0.009	0	0	20.86	0	0	0
10001-A-S	05/01/2022 00:00 AM	0	0	0	0	0	0	0	0	1	0	0	0
10100-A	05/01/2022 00:20 AM	1.05	0	8.63	0	0.142	0	0	0	10.819	0	0	0
10100-A-S	05/01/2022 00:00 AM	0	0	0	0	0	0	0	0	0.835	0	0	0
10100-B	05/01/2022 00:20 AM	0.85	0	8.63	0	0.142	-0.114	0	0	10.104	0	0	0
10100-B-IC	05/01/2022 00:26 AM	0.25	3.35	3.35	0.058	0.058	0.029	0	0	1.45	0	0	0
10100-D	05/01/2022 00:17 AM	0.72	0	6.18	0	0.084	0.203	0	0	10.839	0	0	0
10100-D-IC	05/01/2022 00:07 AM	0.05	0	0.2	0	0.001	-1.058	0	0	19.45	0	0	0
10100-D-IC2	05/01/2022 00:17 AM	0.94	6.06	6.06	0.083	0.083	0.001	0	0	0.06	0	0	0
10120-G	05/01/2022 00:22 AM	1.69	14.87	38.73	0.232	0.612	-0.004	0	0	7.14	0	0	0
10120-G-S	05/01/2022 00:26 AM	0.54	0	4.42	0	0.046	2.035	0	0	4.46	0	0	0
10120-H	05/01/2022 00:21 AM	0.76	0	20.03	0	0.303	0.016	0	0	4.75	0	0	0
10123-A	05/01/2022 00:00 AM	0	0	0	0	0	0	0	0	11.6	0	0	0
10125-A	05/01/2022 00:18 AM	3.11	4.27	4.27	0.059	0.059	-0.269	0.81	1.146	0.624	0	0	0
10125-A-S	05/01/2022 00:18 AM	0.1	0	3.15	0	0.028	-1.079	0	0	0.9	0	0	0
10200-A	05/01/2022 00:15 AM	5.93	0	27.93	0	0.456	-0.004	0	0	0.4	0	0	0
10200-A-S1	05/01/2022 00:15 AM	0.28	1.65	12.13	0.017	0.08	-0.018	0	0	9.959	0	0	0
10200-A-S2	05/01/2022 00:15 AM	0.3	0	6.89	0	0.035	0.003	0	0	0.39	0	0	0
10200-B	05/01/2022 00:18 AM	3.27	0	19.5	0	0.326	-0.347	0	0	0.23	0	0	0
10200-B-S1	05/01/2022 00:14 AM	0.22	0.53	2.08	0.004	0.011	0.051	0	0	0.48	0	0	0
10200-B-S2	05/01/2022 00:14 AM	0.24	0	3.35	0	0.019	-0.044	0	0	0.76	0	0	0

Table 2C: Junctions (continued...)

Name	Time Max. HGL (M/D/Y)	Rep. Max. Depth (ft)	Max. Lat. Inflow (cfs)	Max. Total Inflow (cfs)	Total Lat. Inflow (MG)	Total inflow (MG)	Flow Error (%)	Hours Surcharged (h)	Max. Surcharge (ft)	Min. Freeboard (ft)	Hours Flooded (h)	Max. Flood Rate (cfs)	Total Flood Vol. (MG)
10200-C	05/01/2022 00:13 AM	3.59	0	18.34	0	0.301	0.007	0	0	0.246	0	0	0
10200-C-S1	05/01/2022 00:13 AM	0.24	0.68	4.34	0.006	0.01	-0.361	0	0	0.456	0	0	0
10200-C-S2	05/01/2022 00:13 AM	0.2	0	1.85	0	0.007	-0.033	0	0	0.8	0	0	0
10200-D	05/01/2022 00:17 AM	0.88	0	15.41	0	0.226	0.045	0	0	2.43	0	0	0
10200-D-S	05/01/2022 00:07 AM	0.66	0.9	1.34	0.007	0.014	0.186	0	0	0.601	0	0	0
10200-E	05/01/2022 00:17 AM	0.85	0	12.45	0	0.185	0.001	0	0	9.253	0	0	0
10200-E-S	05/01/2022 00:10 AM	0.15	0.64	0.65	0.006	0.006	-0.019	0	0	0.553	0	0	0
10200-F	05/01/2022 00:19 AM	2.13	0	8.13	0	0.12	0.005	0	0	4.114	0	0	0
10200-G	05/01/2022 00:17 AM	2.31	0	8.17	0	0.12	0.047	0	0	4.76	0	0	0
10200-G-S	05/01/2022 00:08 AM	0.03	0.26	0.26	0.002	0.002	-0.104	0	0	0.67	0	0	0
10200-H	05/01/2022 00:17 AM	1.68	0	6.76	0	0.098	-0.005	0.1	0.237	2.209	0	0	0
10200-H-S	05/01/2022 00:08 AM	0.9	0.29	0.29	0.003	0.003	3.109	0	0	0.668	0	0	0
10200-J	05/01/2022 00:17 AM	1.49	0	6.59	0	0.095	-0.001	0.05	0.102	1.783	0	0	0
10200-J-S	05/01/2022 00:13 AM	1.11	0.62	0.91	0.008	0.011	0.892	0	0	5.996	0	0	0
10200-K	05/01/2022 00:18 AM	0.55	0	5.77	0	0.084	-0.02	0	0	4.094	0	0	0
10200-K-S	05/01/2022 00:16 AM	2.1	1	1.15	0.013	0.015	1.505	0	0	0.586	0	0	0
10200-L	05/01/2022 00:17 AM	0.45	0	2.72	0	0.038	-0.002	0	0	4.186	0	0	0
10200-L-S	05/01/2022 00:18 AM	0.11	0.88	1.04	0.012	0.014	-0.216	0	0	0.587	0	0	0
10200-M	05/01/2022 00:17 AM	0.46	0	1.84	0	0.026	-0.005	0	0	7.183	0	0	0
10200-M-S	05/01/2022 00:16 AM	0.52	0.95	0.95	0.013	0.013	0.273	0	0	0.591	0	0	0
10200-N	05/01/2022 00:00 AM	0	0	0	0	0	0	0	0	6.952	0	0	0
10200-N-S	05/01/2022 00:08 AM	0.18	0.57	0.57	0.005	0.005	-2.476	0	0	0.522	0	0	0
10201-A	05/01/2022 00:14 AM	2.44	1.58	5.38	0.019	0.046	-0.667	0	0	0.542	0	0	0
10201-A-S1	05/01/2022 00:16 AM	0.28	0	8.93	0	0.056	0.661	0	0	0.419	0	0	0
10201-A-S2	05/01/2022 00:16 AM	0.3	0	7.9	0	0.043	0.028	0	0	0.533	0	0	0
10202-A	05/01/2022 00:14 AM	2.83	0	4.07	0	0.076	-0.577	0	0	0.533	0	0	0

Table 2C: Junctions (continued...)

Name	Time Max. HGL (M/D/Y)	Rep. Max. Depth (ft)	Max. Lat. Inflow (cfs)	Max. Total Inflow (cfs)	Total Lat. Inflow (MG)	Total inflow (MG)	Flow Error (%)	Hours Surcharged (h)	Max. Surcharge (ft)	Min. Freeboard (ft)	Hours Flooded (h)	Max. Flood Rate (cfs)	Total Flood Vol. (MG)
10202-A-S1	05/01/2022 00:14 AM	0.29	5.3	8.79	0.071	0.125	0.35	0	0	0.41	0	0	0
10202-A-S2	05/01/2022 00:14 AM	0.29	0	7.15	0	0.055	0.023	0	0	0.543	0	0	0
10203-A	05/01/2022 00:16 AM	0.52	2.18	2.21	0.029	0.03	0.002	0	0	2.17	0	0	0
10203-A-S	05/01/2022 00:13 AM	0.74	0	0.04	0	0	36.086	0	0	23.802	0	0	0
10210-A	05/01/2022 00:15 AM	2.81	0	8.86	0	0.091	-0.002	0.16	1.371	1.792	0	0	0
10210-A-S	05/01/2022 00:06 AM	0.66	0.36	2.57	0.003	0.018	0.253	0	0	1.599	0	0	0
10210-B	05/01/2022 00:15 AM	1.94	0	6.42	0	0.072	0.087	0	0	6.914	0	0	0
10210-B-S	05/01/2022 00:06 AM	2.28	3.14	3.14	0.025	0.025	0.767	0	0	0.632	0	0	0
10210-C	05/01/2022 00:09 AM	1.31	1.98	3.56	0.018	0.035	0.01	0	0	1.818	0	0	0
10210-D	05/01/2022 00:08 AM	1.48	0	1.83	0	0.017	-1.265	0.08	2.187	0	0.01	0.43	0
10210-E	05/01/2022 00:08 AM	1.2	1.99	1.99	0.017	0.017	1.508	0.03	0.7	0	0.01	0.17	0
10211-A	05/01/2022 00:15 AM	1.4	0	2.48	0	0.027	0.052	0	0	7.482	0	0	0
10211-A-S	05/01/2022 00:07 AM	2.09	0.86	0.86	0.009	0.009	2.118	0	0	0.661	0	0	0
10211-B	05/01/2022 00:07 AM	0.76	0.44	2.19	0.006	0.02	0.348	0	0	6.179	0	0	0
10211-C	05/01/2022 00:06 AM	0.5	1.87	1.87	0.014	0.014	-0.488	0	0	6.121	0	0	0
10212-A	05/01/2022 00:00 AM	0	0	0	0	0	0	0	0	0.925	0	0	0
10250-A	05/01/2022 00:09 AM	0.57	0	5.54	0	0.065	-0.023	0	0	3.343	0	0	0
10250-A-S	05/01/2022 00:11 AM	0.7	3	3.75	0.033	0.04	4.418	0	0	0.502	0	0	0
10250-B	05/01/2022 00:07 AM	0.47	0	2.94	0	0.027	0.053	0	0	8.44	0	0	0
10250-B-S	05/01/2022 00:00 AM	0	0	0	0	0	0	0	0	0.698	0	0	0
10250-C	05/01/2022 00:07 AM	0.37	0	2.94	0	0.027	0	0	0	4.668	0	0	0
10250-C-S	05/01/2022 00:07 AM	0.38	1.92	1.92	0.018	0.018	-1.534	0	0	0.578	0	0	0
10250-D	05/01/2022 00:07 AM	0.43	0	1.46	0	0.012	-0.002	0	0	3.693	0	0	0
10250-D-S	05/01/2022 00:07 AM	0.51	1.46	1.46	0.012	0.012	0.295	0	0	0.574	0	0	0
10260-A	05/01/2022 00:07 AM	0.45	0	1.84	0	0.02	-0.001	0	0	3.419	0	0	0
10260-A-S	05/01/2022 00:07 AM	0.51	2.33	2.33	0.024	0.024	0.539	0	0	0.554	0	0	0

Table 2C: Junctions (continued...)

Name	Time Max. HGL (M/D/Y)	Rep. Max. Depth (ft)	Max. Lat. Inflow (cfs)	Max. Total Inflow (cfs)	Total Lat. Inflow (MG)	Total inflow (MG)	Flow Error (%)	Hours Surcharged (h)	Max. Surcharge (ft)	Min. Freeboard (ft)	Hours Flooded (h)	Max. Flood Rate (cfs)	Total Flood Vol. (MG)
10270-A	05/01/2022 00:21 AM	0.51	0	2.31	0	0.035	-0.002	0	0	1.681	0	0	0
10270-A-S	05/01/2022 00:21 AM	2.29	2.29	2.31	0.035	0.035	0.586	0	0	0.537	0	0	0
10280-A	05/01/2022 00:18 AM	0.24	1.06	1.06	0.015	0.015	0	0	0	8.412	0	0	0
10300-A	05/01/2022 00:18 AM	0.78	0	18.94	0	0.303	0.004	0	0	2.42	0	0	0
10300-B	05/01/2022 00:18 AM	0.94	0	18.94	0	0.303	0.001	0	0	4.25	0	0	0
10300-B-IC	05/01/2022 00:07 AM	0.14	2.07	2.07	0.02	0.02	-0.013	0	0	22.618	0	0	0
10300-C	05/01/2022 00:19 AM	1.07	0	17.92	0	0.284	0.001	0	0	15.5	0	0	0
10300-C-S	05/01/2022 00:15 AM	0.1	0	0.58	0	0.006	-0.553	0	0	5.685	0	0	0
10300-D	05/01/2022 00:19 AM	1.04	0	8.57	0	0.14	0.002	0	0	15.385	0	0	0
10300-D-S	05/01/2022 00:06 AM	0.93	0.54	0.54	0.004	0.004	1.744	0	0	0.59	0	0	0
10300-E	05/01/2022 00:18 AM	0.77	0	4.62	0	0.066	-0.001	0	0	13.327	0	0	0
10300-F	05/01/2022 00:17 AM	0.46	0	3.03	0	0.042	0	0	0	8.635	0	0	0
10300-F-S	05/01/2022 00:15 AM	0.16	2.96	2.96	0.039	0.039	0.006	0	0	0.544	0	0	0
10300-G	05/01/2022 00:19 AM	0.22	0	0.61	0	0.009	0.002	0	0	8.346	0	0	0
10300-G-S	05/01/2022 00:19 AM	0.08	0.09	0.61	0.001	0.009	0	0	0	0.916	0	0	0
10310-A	05/01/2022 00:17 AM	0.98	0	9.21	0	0.139	0	0	0	9.725	0	0	0
10310-A-S	05/01/2022 00:10 AM	0.11	0.31	0.33	0.003	0.004	-0.113	0	0	0.595	0	0	0
10310-B	05/01/2022 00:17 AM	1.45	4.21	8.92	0.054	0.135	0	0.18	0.203	8.182	0	0	0
10310-B-S	05/01/2022 00:19 AM	0.31	3.14	4.83	0.046	0.068	0.059	0	0	0.389	0	0	0
10310-B-S2	05/01/2022 00:19 AM	0.17	0	2.31	0	0.035	0.029	0	0	0.83	0	0	0
10320-A	05/01/2022 00:24 AM	0.61	0	4.1	0	0.07	0.005	0	0	11.626	0	0	0
10320-B	05/01/2022 00:24 AM	0.98	0	3.87	0	0.063	0.003	0	0	9.193	0	0	0
10320-B-S	05/01/2022 00:24 AM	2.6	3.87	3.87	0.063	0.063	0.356	0	0	12.108	0	0	0
10320-C	05/01/2022 00:00 AM	0	0	0	0	0	0	0	0	6.3	0	0	0
10320-C-S	05/01/2022 00:21 AM	3.76	0.99	0.99	0.015	0.015	5.151	0	0	0.527	0	0	0
10321-A	05/01/2022 00:06 AM	0.26	0.96	0.96	0.007	0.007	-0.003	0	0	5.69	0	0	0

Table 2C: Junctions (continued...)

Name	Time Max. HGL (M/D/Y)	Rep. Max. Depth (ft)	Max. Lat. Inflow (cfs)	Max. Total Inflow (cfs)	Total Lat. Inflow (MG)	Total inflow (MG)	Flow Error (%)	Hours Surcharged (h)	Max. Surcharge (ft)	Min. Freeboard (ft)	Hours Flooded (h)	Max. Flood Rate (cfs)	Total Flood Vol. (MG)
10330-A	05/01/2022 00:20 AM	0.85	0	1.66	0	0.024	-0.035	0	0	12.946	0	0	0
10330-A-S	05/01/2022 00:00 AM	0	0	0	0	0	0	0	0	0.833	0	0	0
10330-B	05/01/2022 00:19 AM	0.48	0	1.66	0	0.024	0.059	0	0	9.02	0	0	0
10330-B-S	05/01/2022 00:19 AM	0.3	1.66	1.66	0.024	0.024	0.001	0	0	0.533	0	0	0
10400-A	05/01/2022 00:28 AM	3.55	0	133.65	0	3.07	0.029	0	0	13.05	0	0	0
10400-A-S	05/01/2022 00:07 AM	0.33	0.49	0.5	0.004	0.005	0.67	0	0	0.635	0	0	0
10400-B1	05/01/2022 00:33 AM	2.31	0	93.21	0	2.3	0.004	0	0	10.16	0	0	0
10400-C2	05/01/2022 00:19 AM	0.13	0	116.4	0	1.85	0	0	0	4.37	0	0	0
10400-D	05/01/2022 00:19 AM	2.14	0.66	116.4	0.006	1.85	0.001	0	0	14.91	0	0	0
10400-D-S	05/01/2022 00:12 AM	0.19	0	0.57	0	0.006	0.074	0	0	0.624	0	0	0
10400-E	05/01/2022 00:19 AM	3.74	1.12	115.64	0.015	1.83	0.001	0	0	7.188	0	0	0
10400-E-S	05/01/2022 00:18 AM	0.59	0	0.02	0	0	39.653	0	0	0.692	0	0	0
10400-F	05/01/2022 00:19 AM	2.39	0.54	114.66	0.005	1.82	0.001	0	0	7.774	0	0	0
10400-F-S	05/01/2022 00:18 AM	0.58	0	0.39	0	0.005	0.999	0	0	4.227	0	0	0
10400-G	05/01/2022 00:19 AM	2.19	0	106.23	0	1.67	0.001	0	0	7.677	0	0	0
10400-G-S	05/01/2022 00:18 AM	0.63	1.87	2.15	0.027	0.03	-0.063	0	0	0.561	0	0	0
10400-H	05/01/2022 00:19 AM	2.1	0	102.48	0	1.62	0.003	0	0	11.453	0	0	0
10400-H-S	05/01/2022 00:08 AM	0.15	1.16	2.79	0.014	0.026	0.412	0	0	6.77	0	0	0
10400-J	05/01/2022 00:19 AM	1.92	0	101.26	0	1.6	0	0	0	11.151	0	0	0
10400-K	05/01/2022 00:16 AM	0.91	0	19.95	0	0.329	0.005	0	0	13.11	0	0	0
10400-K-S	05/01/2022 00:13 AM	0.11	1.23	1.25	0.016	0.016	0.073	0	0	0.59	0	0	0
10400-L	05/01/2022 00:16 AM	1.09	0	16.4	0	0.266	0.013	0	0	20.472	0	0	0
10400-L-S	05/01/2022 00:06 AM	0.07	0.56	0.69	0.004	0.006	-0.305	0	0	0.633	0	0	0
10400-M	05/01/2022 00:16 AM	0.38	0	4.37	0	0.06	-0.006	0	0	7.75	0	0	0
10400-M-S	05/01/2022 00:08 AM	0.1	1.19	1.19	0.013	0.013	0.03	0	0	0.6	0	0	0
10400-N	05/01/2022 00:16 AM	0.23	0	1.08	0	0.016	0.026	0	0	5.011	0	0	0

Table 2C: Junctions (continued...)

Name	Time Max. HGL (M/D/Y)	Rep. Max. Depth (ft)	Max. Lat. Inflow (cfs)	Max. Total Inflow (cfs)	Total Lat. Inflow (MG)	Total inflow (MG)	Flow Error (%)	Hours Surcharged (h)	Max. Surcharge (ft)	Min. Freeboard (ft)	Hours Flooded (h)	Max. Flood Rate (cfs)	Total Flood Vol. (MG)
10400-N-S	05/01/2022 00:08 AM	0.04	0	0.07	0	0	0.108	0	0	0.793	0	0	0
10400-P	05/01/2022 00:16 AM	0.31	0.52	1.04	0.007	0.016	-0.031	0	0	5.683	0	0	0
10400-P-S	05/01/2022 00:00 AM	0	0	0	0	0	0	0	0	0.7	0	0	0
10400-Q	05/01/2022 00:19 AM	0.21	0	0.6	0	0.009	0.043	0	0	4.81	0	0	0
10400-Q-S	05/01/2022 00:00 AM	0	0	0	0	0	0	0	0	1	0	0	0
10400-R	05/01/2022 00:19 AM	0.21	0	0.6	0	0.009	0.001	0	0	4.54	0	0	0
10400-R-S	05/01/2022 00:00 AM	0	0	0	0	0	0	0	0	0.833	0	0	0
10400-S	05/01/2022 00:19 AM	0.25	0.6	0.6	0.009	0.009	0	0	0	3.972	0	0	0
10400-S-S	05/01/2022 00:00 AM	0	0	0	0	0	0	0	0	0.833	0	0	0
10410-A	05/01/2022 00:22 AM	1.64	0	46.06	0	0.763	0.005	0	0	13.47	0	0	0
10410-B	05/01/2022 00:22 AM	1.38	0.4	45.86	0.005	0.759	0.002	0	0	12.686	0	0	0
10410-B-S	05/01/2022 00:07 AM	0.7	0.49	0.49	0.004	0.004	1.242	0	0	2.51	0	0	0
10410-C	05/01/2022 00:22 AM	1.39	4.62	45.56	0.056	0.753	0.002	0	0	10.445	0	0	0
10410-D	05/01/2022 00:22 AM	2.26	0	42.8	0	0.698	0.037	0	0	9.771	0	0	0
10410-D-S	05/01/2022 00:07 AM	0.25	3.92	3.92	0.039	0.039	-0.093	0	0	0.45	0	0	0
10410-E	05/01/2022 00:23 AM	1.27	1.47	41.15	0.02	0.659	-0.045	0	0	12.038	0	0	0
10410-F	05/01/2022 00:23 AM	2.45	1.97	39.72	0.022	0.634	0.052	0	0	9.148	0	0	0
10410-G	05/01/2022 00:22 AM	2.74	0	38.74	0	0.612	0.02	0	0	8.86	0	0	0
10411-A	05/01/2022 00:20 AM	0.25	0	0.29	0	0.005	0.162	0	0	4.626	0	0	0
10411-A-S	05/01/2022 00:17 AM	0.21	1.69	1.69	0.023	0.023	-0.082	0	0	4.922	0	0	0
10420-A	05/01/2022 00:15 AM	0.6	0	8.23	0	0.137	0.001	0	0	5.351	0	0	0
10420-A-S	05/01/2022 00:18 AM	0.53	0.17	0.19	0.002	0.003	1.783	0	0	0.677	0	0	0
10420-B	05/01/2022 00:15 AM	0.6	0	7.21	0	0.115	0	0	0	7.485	0	0	0
10420-B-S	05/01/2022 00:06 AM	0.58	0.45	0.49	0.003	0.006	0.898	0	0	5.34	0	0	0
10420-C	05/01/2022 00:15 AM	0.57	0	6.82	0	0.11	0.001	0	0	5.302	0	0	0
10420-C-S	05/01/2022 00:27 AM	0.43	0.57	0.93	0.011	0.018	0.17	0	0	0.599	0	0	0

Table 2C: Junctions (continued...)

Name	Time Max. HGL (M/D/Y)	Rep. Max. Depth (ft)	Max. Lat. Inflow (cfs)	Max. Total Inflow (cfs)	Total Lat. Inflow (MG)	Total inflow (MG)	Flow Error (%)	Hours Surcharged (h)	Max. Surcharge (ft)	Min. Freeboard (ft)	Hours Flooded (h)	Max. Flood Rate (cfs)	Total Flood Vol. (MG)
10420-D	05/01/2022 00:16 AM	0.43	0	3.58	0	0.051	-0.001	0	0	7.27	0	0	0
10420-D-S	05/01/2022 00:19 AM	0.64	2.48	2.48	0.035	0.035	0.135	0	0	0.56	0	0	0
10420-E	05/01/2022 00:12 AM	0.47	0	1.81	0	0.022	0	0	0	8.187	0	0	0
10420-E-S	05/01/2022 00:12 AM	0.14	2.03	2.03	0.024	0.024	-0.001	0	0	0.567	0	0	0
10421-A	05/01/2022 00:23 AM	0.32	0	1.22	0	0.019	-0.002	0	0	4.334	0	0	0
10421-A-S	05/01/2022 00:23 AM	0.52	1.2	1.22	0.019	0.019	0.2	0	0	6.056	0	0	0
10422-A	05/01/2022 00:06 AM	0.37	5.31	5.31	0.041	0.041	-0.002	0	0	7.66	0	0	0
10422-A-S	05/01/2022 00:00 AM	0	0	0	0	0	0	0	0	1	0	0	0
10430-A	05/01/2022 00:12 AM	0.48	0	2.33	0	0.029	-0.002	0	0	3.589	0	0	0
10430-A-S	05/01/2022 00:12 AM	0.64	2.78	2.91	0.033	0.034	0.13	0	0	17.434	0	0	0
10440-A	05/01/2022 00:19 AM	1.79	0	82.19	0	1.27	0	0	0	7.47	0	0	0
10440-A-S	05/01/2022 00:07 AM	0.04	0.39	0.39	0.004	0.004	-0.003	0	0	2.66	0	0	0
10440-B	05/01/2022 00:19 AM	3.2	0	81.86	0	1.26	0	0	0	6.436	0	0	0
10440-B-S	05/01/2022 00:11 AM	0.64	1.15	1.23	0.013	0.014	0.348	0	0	12.08	0	0	0
10440-C	05/01/2022 00:19 AM	4.81	7.13	80.91	0.064	1.25	-0.002	0	0	5.54	0	0	0
10440-C-S	05/01/2022 00:00 AM	0	0	0	0	0	0	0	0	1.71	0	0	0
10440-D	05/01/2022 00:19 AM	7.55	6.13	74.82	0.098	1.13	0.004	0	0	9.291	0	0	0
10440-D-S	05/01/2022 00:00 AM	0	0	0	0	0	0	0	0	39.85	0	0	0
10440-e	05/01/2022 00:19 AM	12.39	0	67.68	0	1.01	-0.001	0	0	7.642	0	0	0
10441-A	05/01/2022 00:13 AM	0.08	0.19	0.19	0.002	0.002	0	0	0	12.57	0	0	0
10442-A	05/01/2022 00:20 AM	0.55	0	3.06	0	0.03	0	0	0	6.857	0	0	0
10442-A-EX	05/01/2022 00:19 AM	0.83	0	20.67	0	0.32	-0.007	0	0	7.02	0	0	0
10442-A-S	05/01/2022 00:20 AM	0.18	0	4.06	0	0.036	0.089	0	0	0.517	0	0	0
10442-B	05/01/2022 00:09 AM	0.24	0	2.58	0	0.026	0.002	0	0	2.737	0	0	0
10442-B-EX	05/01/2022 00:09 AM	0.33	0	2.58	0	0.026	0.022	0	0	4.2	0	0	0
10442-B-S	05/01/2022 00:09 AM	1.02	2.6	2.6	0.026	0.026	0.309	0	0	0.54	0	0	0

Table 2C: Junctions (continued...)

Name	Time Max. HGL (M/D/Y)	Rep. Max. Depth (ft)	Max. Lat. Inflow (cfs)	Max. Total Inflow (cfs)	Total Lat. Inflow (MG)	Total inflow (MG)	Flow Error (%)	Hours Surcharged (h)	Max. Surcharge (ft)	Min. Freeboard (ft)	Hours Flooded (h)	Max. Flood Rate (cfs)	Total Flood Vol. (MG)
10443-A	05/01/2022 00:15 AM	0.32	0	1.54	0	0.018	0.126	0	0	1.56	0	0	0
10443-C	05/01/2022 00:19 AM	0.99	0	16.31	0	0.264	0.003	0	0	7.41	0	0	0
10443-C-S	05/01/2022 00:19 AM	0.3	1.54	11.28	0.027	0.112	0.004	0	0	0.4	0	0	0
10443-D	05/01/2022 00:15 AM	0.52	0	10.77	0	0.188	-0.001	0	0	5.1	0	0	0
10443-D-S	05/01/2022 00:19 AM	0.51	18.85	18.85	0.273	0.273	0.005	0	0	0.19	0	0	0
10450-A	05/01/2022 00:07 AM	0.61	0	3.58	0	0.048	0.007	0	0	8.569	0	0	0
10450-A-S	05/01/2022 00:07 AM	0.21	1.32	5.32	0.013	0.059	-0.053	0	0	0.489	0	0	0
10460-A	05/01/2022 00:17 AM	1.79	0	11.74	0	0.2	0.012	0.12	0.089	14.128	0	0	0
10460-A-S	05/01/2022 00:06 AM	0.05	0.47	0.47	0.004	0.004	-0.441	0	0	13.04	0	0	0
10460-B	05/01/2022 00:17 AM	1.99	0	11.57	0	0.197	0.144	0	0	7.76	0	0	0
10460-B-S	05/01/2022 00:32 AM	0.22	2.17	2.2	0.045	0.048	0.63	0	0	0.616	0	0	0
10460-C	05/01/2022 00:17 AM	2.43	0	8.8	0	0.133	-0.102	0.09	0.135	7.172	0	0	0
10460-C-S	05/01/2022 00:16 AM	0.32	2.03	2.24	0.026	0.029	-0.564	0	0	0.516	0	0	0
10460-D	05/01/2022 00:17 AM	2.05	0	7	0	0.107	0.126	0	0	6.779	0	0	0
10460-D-S	05/01/2022 00:16 AM	0.45	2.25	4.92	0.029	0.068	0.221	0	0	0.554	0	0	0
10460-E	05/01/2022 00:18 AM	0.92	0	3.69	0	0.052	-0.086	0	0	6.56	0	0	0
10460-E-S	05/01/2022 00:15 AM	0.28	1.82	2.74	0.019	0.031	-0.901	0	0	0.559	0	0	0
10460-F	05/01/2022 00:19 AM	0.56	0	2.3	0	0.032	-0.154	0	0	4.12	0	0	0
10460-F-S	05/01/2022 00:19 AM	0.36	1.38	2.32	0.022	0.032	0.486	0	0	3.24	0	0	0
10461-A	05/01/2022 00:06 AM	0.56	0	3.76	0	0.039	-0.011	0	0	3.68	0	0	0
10461-A-S	05/01/2022 00:06 AM	0.28	4.79	5.5	0.04	0.043	0.015	0	0	0.553	0	0	0
10461-B	05/01/2022 00:06 AM	1.09	0	2.22	0	0.021	0.208	0	0	2.94	0	0	0
10461-B-S	05/01/2022 00:06 AM	0.35	3.14	3.14	0.024	0.024	-0.505	0	0	0.483	0	0	0
10462-A	05/01/2022 00:17 AM	0.07	0	0.07	0	0.001	0.011	0	0	2.801	0	0	0
10462-A-S	05/01/2022 00:17 AM	0.08	2.81	2.81	0.038	0.038	0.003	0	0	0.92	0	0	0
10470-A	05/01/2022 00:16 AM	0.37	0	1.24	0	0.016	-0.001	0	0	3.56	0	0	0

Table 2C: Junctions (continued...)

Name	Time Max. HGL (M/D/Y)	Rep. Max. Depth (ft)	Max. Lat. Inflow (cfs)	Max. Total Inflow (cfs)	Total Lat. Inflow (MG)	Total inflow (MG)	Flow Error (%)	Hours Surcharged (h)	Max. Surcharge (ft)	Min. Freeboard (ft)	Hours Flooded (h)	Max. Flood Rate (cfs)	Total Flood Vol. (MG)
10470-A-S	05/01/2022 00:16 AM	0.11	1.24	1.24	0.016	0.016	0	0	0	0.593	0	0	0
10480-A	05/01/2022 00:15 AM	0.99	0	1.28	0	0.017	0.379	0	0	9.229	0	0	0
10480-B	05/01/2022 00:15 AM	0.3	1.28	1.28	0.017	0.017	-0.001	0	0	3.411	0	0	0
10500-A	05/01/2022 00:12 AM	0.36	0	5.6	0	0.073	0.031	0	0	5.8	0	0	0
10500-B	05/01/2022 00:12 AM	0.97	0	5.6	0	0.073	-0.025	0	0	8.36	0	0	0
10500-B-S	05/01/2022 00:00 AM	0	0	0	0	0	0	0	0	1.973	0	0	0
10500-C	05/01/2022 00:14 AM	0.89	0	2.78	0	0.036	-0.002	0	0	6.26	0	0	0
10500-C-S	05/01/2022 00:14 AM	0.4	2.78	2.78	0.036	0.036	0.001	0	0	0.433	0	0	0
10500-D	05/01/2022 00:00 AM	0	0	0	0	0	0	0	0	4.148	0	0	0
10510-A	05/01/2022 00:06 AM	1.15	0	4.13	0	0.037	0.002	0	0	4.58	0	0	0
10510-A-S	05/01/2022 00:06 AM	0.96	4.16	4.16	0.037	0.037	0.219	0	0	0.323	0	0	0
10700-A	05/01/2022 00:09 AM	0.21	0	4.05	0	0.053	-0.031	0	0	1.439	0	0	0
10700-A-S	05/01/2022 00:08 AM	0.39	4.27	4.27	0.039	0.053	-0.704	0	0	0.493	0	0	0
10700-B	05/01/2022 00:08 AM	0.65	0	4.05	0	0.053	0.003	0	0	5.38	0	0	0
11000-A	05/01/2022 00:08 AM	0.29	0.78	0.86	0.009	0.011	0.001	0	0	3.119	0	0	0
12000	05/01/2022 00:27 AM	0.19	0	27.89	0	0.501	0.016	0	0	9.81	0	0	0
12000-1	05/01/2022 00:28 AM	0.06	0	4.35	0	0.053	0.056	0	0	5.94	0	0	0
12000-2	05/01/2022 00:18 AM	0.19	2.92	26.35	0.048	0.448	0.003	0	0	9.81	0	0	0
12000-A	05/01/2022 00:28 AM	2.11	0	4.86	0	0.042	7.134	0	0	1.89	0	0	0
12000-B	05/01/2022 00:28 AM	0.78	0	4.87	0	0.042	0.567	0	0	3.16	0	0	0
12000-B'	05/01/2022 00:15 AM	0.27	0	3.46	0	0.016	-0.024	0	0	0.832	0	0	0
12000-C	05/01/2022 00:16 AM	0.71	0	4.86	0	0.042	0.329	0	0	4.67	0	0	0
12000-C-S	05/01/2022 00:15 AM	0.13	1.48	1.48	0.019	0.019	-0.065	0	0	0.87	0	0	0
12000-D	05/01/2022 00:16 AM	0.72	0	3.65	0	0.026	-0.002	0	0	4.04	0	0	0
12000-D-S	05/01/2022 00:16 AM	0.22	0.89	4.3	0.013	0.029	0.018	0	0	0.778	0	0	0
12000-E	05/01/2022 00:20 AM	0.78	0	3.97	0	0.027	0.276	0	0	3.88	0	0	0

Table 2C: Junctions (continued...)

Name	Time Max. HGL (M/D/Y)	Rep. Max. Depth (ft)	Max. Lat. Inflow (cfs)	Max. Total Inflow (cfs)	Total Lat. Inflow (MG)	Total inflow (MG)	Flow Error (%)	Hours Surcharged (h)	Max. Surcharge (ft)	Min. Freeboard (ft)	Hours Flooded (h)	Max. Flood Rate (cfs)	Total Flood Vol. (MG)
12000-E-S	05/01/2022 00:15 AM	0.24	0.47	7.24	0.005	0.04	-0.012	0	0	0.47	0	0	0
12000-F	05/01/2022 00:20 AM	1.3	0	4.77	0	0.039	-0.158	0	0	3.4	0	0	0
12000-F-S.	05/01/2022 00:18 AM	0.12	1.09	1.09	0.015	0.015	0.037	0	0	0.58	0	0	0
12000-G	05/01/2022 00:20 AM	2.16	0	21.96	0	0.311	-0.022	0	0	2.57	0	0	0
12000-G-S	05/01/2022 00:23 AM	0.39	7.33	7.34	0.118	0.118	0.001	0	0	14.074	0	0	0
12000-G-S2	05/01/2022 00:14 AM	0.02	0	0.04	0	0	0.839	0	0	0.98	0	0	0
12000-H	05/01/2022 00:20 AM	1.44	10.55	10.79	0.151	0.154	0.054	0	0	3.13	0	0	0
12000-H-S	05/01/2022 00:11 AM	0.05	0	0.36	0	0.004	0.407	0	0	1.48	0	0	0
13000-A	05/01/2022 00:16 AM	0.59	8.51	8.52	0.114	0.114	0	0	0	10.384	0	0	0
14000-A	05/01/2022 00:26 AM	0.22	0	10.25	0	0.08	0	0	0	4.744	0	0	0
14000-C	05/01/2022 00:07 AM	5.4	4.91	24.01	0.051	0.509	-0.001	0.82	3.621	0	0.01	2.77	0
14000-D	05/01/2022 00:18 AM	5.85	10.73	25.35	0.14	0.483	-0.022	0.81	3.847	0	0.46	4.32	0.003
14000-E	05/01/2022 00:19 AM	5.33	15.35	18.63	0.203	0.36	0.006	0.72	3.336	0	0.5	7.35	0.004
8667-J4	05/01/2022 00:17 AM	1.43	2.33	24.05	0.032	0.399	0	0	0	3.92	0	0	0
8697	05/01/2022 00:17 AM	1.37	1.21	21.73	0.016	0.367	0.024	0	0	3.27	0	0	0
8807	05/01/2022 00:17 AM	1.14	6.57	20.53	0.09	0.351	-0.021	0	0	2.91	0	0	0
8903	05/01/2022 00:09 AM	3.25	20.74	20.74	0.296	0.296	0.002	0.48	2	0	0.31	6.78	0.035
CHANNEL_12+11.04	05/01/2022 00:16 AM	0.38	0	23.7	0	0.375	0.253	0	0	3.907	0	0	0
Curb_Cut	05/01/2022 00:19 AM	0.16	0	2.31	0	0.035	-0.002	0	0	0.834	0	0	0
Curb_Cut-S	05/01/2022 00:19 AM	0.16	2.51	2.83	0.037	0.042	0.319	0	0	0.841	0	0	0
ELB-10300-B1	05/01/2022 00:19 AM	1.58	0	17.92	0	0.284	0.002	0	0	8.42	0	0	0
ELB-10300-B2	05/01/2022 00:19 AM	0.52	0	17.92	0	0.284	0	0	0	13.63	0	0	0
EX10440-C	05/01/2022 00:07 AM	0.43	0	5.46	0	0.054	0.005	0	0	3.82	0	0	0
EX10440-C-S	05/01/2022 00:00 AM	0	0	0	0	0	0	0	0	2	0	0	0
EX-CI21199	05/01/2022 00:19 AM	0.82	0	21.74	0	0.332	0.005	0	0	4.844	0	0	0
EX-CI21199-S	05/01/2022 00:20 AM	0.11	0.7	1.36	0.008	0.014	-0.19	0	0	0.594	0	0	0

Table 2C: Junctions (continued...)

Name	Time Max. HGL (M/D/Y)	Rep. Max. Depth (ft)	Max. Lat. Inflow (cfs)	Max. Total Inflow (cfs)	Total Lat. Inflow (MG)	Total inflow (MG)	Flow Error (%)	Hours Surcharged (h)	Max. Surcharge (ft)	Min. Freeboard (ft)	Hours Flooded (h)	Max. Flood Rate (cfs)	Total Flood Vol. (MG)
EX-DI5526	05/01/2022 00:05 AM	2.52	4.51	4.51	0.04	0.04	-0.013	0.1	1.27	0	0.06	0.87	0.001
EX-DI5526-S	05/01/2022 00:00 AM	0	0	0	0	0	0	0	0	1.1	0	0	0
EX-DI5571	05/01/2022 00:04 AM	3.39	1.68	5.46	0.014	0.054	-0.029	0.21	2.9	0	0.01	1.18	0
EX-DI5571-S	05/01/2022 00:00 AM	0	0	0	0	0	0	0	0	1.2	0	0	0
J1	05/01/2022 00:20 AM	1.51	0	45.95	0	0.683	-0.001	0	0	2.93	0	0	0
J10	05/01/2022 00:14 AM	0.8	16.71	16.71	0.217	0.217	0	0	0	2.196	0	0	0
J11	05/01/2022 00:14 AM	0.61	0	16.71	0	0.217	-0.001	0	0	2.391	0	0	0
J12	05/01/2022 00:07 AM	2.4	0	16.71	0	0.217	-0.002	0.36	3.227	0	0.01	2.1	0
J13	05/01/2022 00:07 AM	2	1.33	18.3	0.017	0.235	-0.002	0.42	0.75	0	0.38	9.17	0.054
J15	05/01/2022 00:20 AM	0.95	0	14.16	0	0.336	0.003	0	0	2.2	0	0	0
J15-S	05/01/2022 00:20 AM	0.57	41.94	41.94	0.619	0.619	0	0	0	9.86	0	0	0
J17	05/01/2022 00:20 AM	0.48	0	2.56	0	0.048	0	0	0	3.25	0	0	0
J179	05/01/2022 00:07 AM	1	10.24	19.37	0.141	0.322	-0.011	0.46	0	0	0.46	8.11	0.068
J17-S	05/01/2022 00:20 AM	0.35	0	2.56	0	0.048	-0.005	0	0	9.75	0	0	0
J18	05/01/2022 00:20 AM	0.8	0	3.72	0	0.087	-0.012	0	0	2.61	0	0	0
J182	05/01/2022 00:14 AM	0.3	0	0.83	0	0.001	0.091	0	0	0.814	0	0	0
J18-S	05/01/2022 00:20 AM	0.57	0	3.72	0	0.087	0.008	0	0	0.36	0	0	0
J1-IC	05/01/2022 00:19 AM	0.62	3.11	18.88	0.042	0.148	0	0	0	9.38	0	0	0
J2	05/01/2022 00:00 AM	0	0	0	0	0	0	0	0	3.35	0	0	0
J20	05/01/2022 00:20 AM	1.44	0	27.08	0	0.535	0	0	0	2.3	0	0	0
J20-S	05/01/2022 00:20 AM	1.21	2.18	28.93	0.021	0.304	0.006	0	0	9.79	0	0	0
J2-S	05/01/2022 00:00 AM	0	0	0	0	0	0	0	0	2	0	0	0
J320	05/01/2022 00:19 AM	0.19	0	0.87	0	0.006	-4.76	0	0	0.911	0	0	0
J34	05/01/2022 00:06 AM	7.58	0	64.86	0	0.989	0.135	1.73	5.576	0	1.7	64.86	0.979
J38	05/01/2022 00:00 AM	0	0	0	0	0	0	0	0	1.101	0	0	0
J39	05/01/2022 00:08 AM	0.98	1.55	1.55	0.02	0.021	11.295	1.69	0.997	0	0.01	1.38	0

Table 2C: Junctions (continued...)

Name	Time Max. HGL (M/D/Y)	Rep. Max. Depth (ft)	Max. Lat. Inflow (cfs)	Max. Total Inflow (cfs)	Total Lat. Inflow (MG)	Total inflow (MG)	Flow Error (%)	Hours Surcharged (h)	Max. Surcharge (ft)	Min. Freeboard (ft)	Hours Flooded (h)	Max. Flood Rate (cfs)	Total Flood Vol. (MG)
J46	05/01/2022 00:16 AM	0.1	0	0.63	0	0.003	-0.492	0	0	1.014	0	0	0
J4-S	05/01/2022 00:00 AM	0	0	0	0	0	0	0	0	2	0	0	0
J5	05/01/2022 00:21 AM	2.2	12.75	59.43	0.172	0.917	-0.001	0.11	0.332	3.418	0	0	0
J6	05/01/2022 00:17 AM	1.88	16.58	46.8	0.23	0.745	0	0	0	2.823	0	0	0
J7	05/01/2022 00:17 AM	1.28	18.95	30.21	0.262	0.515	0.009	0	0	2.228	0	0	0
J8	05/01/2022 00:17 AM	1.41	0	59.43	0	0.917	-0.004	0	0	4.842	0	0	0
J9	05/01/2022 00:06 AM	8.88	4.72	14.35	0.068	0.076	6.598	0	0	6.33	0	0	0
OL-10100-B	05/01/2022 00:07 AM	0.03	0	0.04	0	0	-0.757	0	0	3.839	0	0	0
OL-10101-A	05/01/2022 00:09 AM	0.08	0	0.38	0	0.004	-0.341	0	0	19.475	0	0	0
OL-11000-A	05/01/2022 00:16 AM	0.05	0	0.93	0	0.012	0.005	0	0	0.95	0	0	0
OL-11000-B	05/01/2022 00:16 AM	0.12	0.93	0.93	0.012	0.012	-0.004	0	0	0.881	0	0	0
OL-14000-Ab	05/01/2022 00:00 AM	0	0	0	0	0	0	0	0	1.097	0	0	0
OL-14000-Ac	05/01/2022 00:00 AM	0	0	0	0	0	0	0	0	1.1	0	0	0
OL-14000-Ad	05/01/2022 00:00 AM	0	0	0	0	0	0	0	0	1.101	0	0	0
OL-14000-Ae	05/01/2022 00:00 AM	0	0	0	0	0	0	0	0	1.103	0	0	0
OL-14000-C	05/01/2022 00:20 AM	0.24	0	17.74	0	0.1	-0.984	0	0	0.865	0	0	0
OL-14000-D	05/01/2022 00:20 AM	0.35	0	17.75	0	0.101	-0.209	0	0	0.746	0	0	0
OL-14000-E	05/01/2022 00:20 AM	0.36	0	12.11	0	0.065	0.42	0	0	0.656	0	0	0
OL-14000-F	05/01/2022 00:19 AM	1.7	0	10.25	0	0.056	1.65	0	0	0.48	0	0	0
OL-J10	05/01/2022 00:00 AM	0	0	0	0	0	0	0	0	1.104	0	0	0
OL-J10b	05/01/2022 00:08 AM	0.47	0	0.85	0	0.001	-2.762	0	0	0.586	0	0	0
OL-J5	05/01/2022 00:00 AM	0	0	0	0	0	0	0	0	1.104	0	0	0
OL-J7	05/01/2022 00:00 AM	0	0	0	0	0	0	0	0	1.104	0	0	0

Table 2D: Junctions

Name	Max. Ponded Depth (ft)	Contributing Area (ac)	Contributing Imp. Area (ac)	Max. Unit Flow (cfs/ac)	GIS_LENGTH (m)	GIS_AREA (m²)	GIS_PARTS
06-UV	0	0	0	0	0	0	1
10000-A	0	0	0	0	0	0	1
10000-B	0	0	0	0	0	0	1
10000-C	0	0	0	0	0	0	1
10000-C-S	0	0	0	0	0	0	1
10000-D	0	0	0	0	0	0	1
10001-A-S	0	0	0	0	0	0	1
10100-A	0	0	0	0	0	0	1
10100-A-S	0	0	0	0	0	0	1
10100-B	0	0	0	0	0	0	1
10100-B-IC	0	0	0	0	0	0	1
10100-D	0	0	0	0	0	0	1
10100-D-IC	0	0	0	0	0	0	1
10100-D-IC2	0	0	0	0	0	0	1
10120-G	0	0	0	0	0	0	1
10120-G-S	0	0	0	0	0	0	1
10120-H	0	0	0	0	0	0	1
10123-A	0	0	0	0	0	0	1
10125-A	0	0	0	0	0	0	1
10125-A-S	0	0	0	0	0	0	1
10200-A	0	0	0	0	0	0	1
10200-A-S1	0	0	0	0	0	0	1
10200-A-S2	0	0	0	0	0	0	1
10200-B	0	0	0	0	0	0	1
10200-B-S1	0	0	0	0	0	0	1
10200-B-S2	0	0	0	0	0	0	1

Table 2D: Junctions (continued...)

Name	Max. Ponded Depth (ft)	Contributing Area (ac)	Contributing Imp. Area (ac)	Max. Unit Flow (cfs/ac)	GIS_LENGTH (m)	GIS_AREA (m²)	GIS_PARTS
10200-C	0	0	0	0	0	0	1
10200-C-S1	0	0	0	0	0	0	1
10200-C-S2	0	0	0	0	0	0	1
10200-D	0	0	0	0	0	0	1
10200-D-S	0	0	0	0	0	0	1
10200-E	0	0	0	0	0	0	1
10200-E-S	0	0	0	0	0	0	1
10200-F	0	0	0	0	0	0	1
10200-G	0	0	0	0	0	0	1
10200-G-S	0	0	0	0	0	0	1
10200-H	0	0	0	0	0	0	1
10200-H-S	0	0	0	0	0	0	1
10200-J	0	0	0	0	0	0	1
10200-J-S	0	0	0	0	0	0	1
10200-K	0	0	0	0	0	0	1
10200-K-S	0	0	0	0	0	0	1
10200-L	0	0	0	0	0	0	1
10200-L-S	0	0	0	0	0	0	1
10200-M	0	0	0	0	0	0	1
10200-M-S	0	0	0	0	0	0	1
10200-N	0	0	0	0	0	0	1
10200-N-S	0	0	0	0	0	0	1
10201-A	0	0	0	0	0	0	1
10201-A-S1	0	0	0	0	0	0	1
10201-A-S2	0	0	0	0	0	0	1
10202-A	0	0	0	0	0	0	1

Table 2D: Junctions (continued...)

Name	Max. Ponded Depth (ft)	Contributing Area (ac)	Contributing Imp. Area (ac)	Max. Unit Flow (cfs/ac)	GIS_LENGTH (m)	GIS_AREA (m²)	GIS_PARTS
10202-A-S1	0	0	0	0	0	0	1
10202-A-S2	0	0	0	0	0	0	1
10203-A	0	0	0	0	0	0	1
10203-A-S	0	0	0	0	0	0	1
10210-A	0	0	0	0	0	0	1
10210-A-S	0	0	0	0	0	0	1
10210-B	0	0	0	0	0	0	1
10210-B-S	0	0	0	0	0	0	1
10210-C	0	0	0	0	0	0	1
10210-D	0	0	0	0	0	0	1
10210-E	0.7	0	0	0	0	0	1
10211-A	0	0	0	0	0	0	1
10211-A-S	0	0	0	0	0	0	1
10211-B	0	0	0	0	0	0	1
10211-C	0	0	0	0	0	0	1
10212-A	0	0	0	0	0	0	1
10250-A	0	0	0	0	0	0	1
10250-A-S	0	0	0	0	0	0	1
10250-B	0	0	0	0	0	0	1
10250-B-S	0	0	0	0	0	0	1
10250-C	0	0	0	0	0	0	1
10250-C-S	0	0	0	0	0	0	1
10250-D	0	0	0	0	0	0	1
10250-D-S	0	0	0	0	0	0	1
10260-A	0	0	0	0	0	0	1
10260-A-S	0	0	0	0	0	0	1

Table 2D: Junctions (continued...)

Name	Max. Ponded Depth (ft)	Contributing Area (ac)	Contributing Imp. Area (ac)	Max. Unit Flow (cfs/ac)	GIS_LENGTH (m)	GIS_AREA (m²)	GIS_PARTS
10270-A	0	0	0	0	0	0	1
10270-A-S	0	0	0	0	0	0	1
10280-A	0	0	0	0	0	0	1
10300-A	0	0	0	0	0	0	1
10300-B	0	0	0	0	0	0	1
10300-B-IC	0	0	0	0	0	0	1
10300-C	0	0	0	0	0	0	1
10300-C-S	0	0	0	0	0	0	1
10300-D	0	0	0	0	0	0	1
10300-D-S	0	0	0	0	0	0	1
10300-E	0	0	0	0	0	0	1
10300-F	0	0	0	0	0	0	1
10300-F-S	0	0	0	0	0	0	1
10300-G	0	0	0	0	0	0	1
10300-G-S	0	0	0	0	0	0	1
10310-A	0	0	0	0	0	0	1
10310-A-S	0	0	0	0	0	0	1
10310-B	0	0	0	0	0	0	1
10310-B-S	0	0	0	0	0	0	1
10310-B-S2	0	0	0	0	0	0	1
10320-A	0	0	0	0	0	0	1
10320-B	0	0	0	0	0	0	1
10320-B-S	0	0	0	0	0	0	1
10320-C	0	0	0	0	0	0	1
10320-C-S	0	0	0	0	0	0	1
10321-A	0	0	0	0	0	0	1

Table 2D: Junctions (continued...)

Name	Max. Ponded Depth (ft)	Contributing Area (ac)	Contributing Imp. Area (ac)	Max. Unit Flow (cfs/ac)	GIS_LENGTH (m)	GIS_AREA (m²)	GIS_PARTS
10330-A	0	0	0	0	0	0	1
10330-A-S	0	0	0	0	0	0	1
10330-B	0	0	0	0	0	0	1
10330-B-S	0	0	0	0	0	0	1
10400-A	0	0	0	0	0	0	1
10400-A-S	0	0	0	0	0	0	1
10400-B1	0	0	0	0	0	0	1
10400-C2	0	0	0	0	0	0	1
10400-D	0	0	0	0	0	0	1
10400-D-S	0	0	0	0	0	0	1
10400-E	0	0	0	0	0	0	1
10400-E-S	0	0	0	0	0	0	1
10400-F	0	0	0	0	0	0	1
10400-F-S	0	0	0	0	0	0	1
10400-G	0	0	0	0	0	0	1
10400-G-S	0	0	0	0	0	0	1
10400-H	0	0	0	0	0	0	1
10400-H-S	0	0	0	0	0	0	1
10400-J	0	0	0	0	0	0	1
10400-K	0	0	0	0	0	0	1
10400-K-S	0	0	0	0	0	0	1
10400-L	0	0	0	0	0	0	1
10400-L-S	0	0	0	0	0	0	1
10400-M	0	0	0	0	0	0	1
10400-M-S	0	0	0	0	0	0	1
10400-N	0	0	0	0	0	0	1

Table 2D: Junctions (continued...)

Name	Max. Ponded Depth (ft)	Contributing Area (ac)	Contributing Imp. Area (ac)	Max. Unit Flow (cfs/ac)	GIS_LENGTH (m)	GIS_AREA (m²)	GIS_PARTS
10400-N-S	0	0	0	0	0	0	1
10400-P	0	0	0	0	0	0	1
10400-P-S	0	0	0	0	0	0	1
10400-Q	0	0	0	0	0	0	1
10400-Q-S	0	0	0	0	0	0	1
10400-R	0	0	0	0	0	0	1
10400-R-S	0	0	0	0	0	0	1
10400-S	0	0	0	0	0	0	1
10400-S-S	0	0	0	0	0	0	1
10410-A	0	0	0	0	0	0	1
10410-B	0	0	0	0	0	0	1
10410-B-S	0	0	0	0	0	0	1
10410-C	0	0	0	0	0	0	1
10410-D	0	0	0	0	0	0	1
10410-D-S	0	0	0	0	0	0	1
10410-E	0	0	0	0	0	0	1
10410-F	0	0	0	0	0	0	1
10410-G	0	0	0	0	0	0	1
10411-A	0	0	0	0	0	0	1
10411-A-S	0	0	0	0	0	0	1
10420-A	0	0	0	0	0	0	1
10420-A-S	0	0	0	0	0	0	1
10420-B	0	0	0	0	0	0	1
10420-B-S	0	0	0	0	0	0	1
10420-C	0	0	0	0	0	0	1
10420-C-S	0	0	0	0	0	0	1

Table 2D: Junctions (continued...)

Name	Max. Ponded Depth (ft)	Contributing Area (ac)	Contributing Imp. Area (ac)	Max. Unit Flow (cfs/ac)	GIS_LENGTH (m)	GIS_AREA (m²)	GIS_PARTS
10420-D	0	0	0	0	0	0	1
10420-D-S	0	0	0	0	0	0	1
10420-E	0	0	0	0	0	0	1
10420-E-S	0	0	0	0	0	0	1
10421-A	0	0	0	0	0	0	1
10421-A-S	0	0	0	0	0	0	1
10422-A	0	0	0	0	0	0	1
10422-A-S	0	0	0	0	0	0	1
10430-A	0	0	0	0	0	0	1
10430-A-S	0	0	0	0	0	0	1
10440-A	0	0	0	0	0	0	1
10440-A-S	0	0	0	0	0	0	1
10440-B	0	0	0	0	0	0	1
10440-B-S	0	0	0	0	0	0	1
10440-C	0	0	0	0	0	0	1
10440-C-S	0	0	0	0	0	0	1
10440-D	0	0	0	0	0	0	1
10440-D-S	0	0	0	0	0	0	1
10440-e	0	0	0	0	0	0	1
10441-A	0	0	0	0	0	0	1
10442-A	0	0	0	0	0	0	1
10442-A-EX	0	0	0	0	0	0	1
10442-A-S	0	0	0	0	0	0	1
10442-B	0	0	0	0	0	0	1
10442-B-EX	0	0	0	0	0	0	1
10442-B-S	0	0	0	0	0	0	1

Table 2D: Junctions (continued...)

Name	Max. Ponded Depth (ft)	Contributing Area (ac)	Contributing Imp. Area (ac)	Max. Unit Flow (cfs/ac)	GIS_LENGTH (m)	GIS_AREA (m²)	GIS_PARTS
10443-A	0	0	0	0	0	0	1
10443-C	0	0	0	0	0	0	1
10443-C-S	0	0	0	0	0	0	1
10443-D	0	0	0	0	0	0	1
10443-D-S	0	0	0	0	0	0	1
10450-A	0	0	0	0	0	0	1
10450-A-S	0	0	0	0	0	0	1
10460-A	0	0	0	0	0	0	1
10460-A-S	0	0	0	0	0	0	1
10460-B	0	0	0	0	0	0	1
10460-B-S	0	0	0	0	0	0	1
10460-C	0	0	0	0	0	0	1
10460-C-S	0	0	0	0	0	0	1
10460-D	0	0	0	0	0	0	1
10460-D-S	0	0	0	0	0	0	1
10460-E	0	0	0	0	0	0	1
10460-E-S	0	0	0	0	0	0	1
10460-F	0	0	0	0	0	0	1
10460-F-S	0	0	0	0	0	0	1
10461-A	0	0	0	0	0	0	1
10461-A-S	0	0	0	0	0	0	1
10461-B	0	0	0	0	0	0	1
10461-B-S	0	0	0	0	0	0	1
10462-A	0	0	0	0	0	0	1
10462-A-S	0	0	0	0	0	0	1
10470-A	0	0	0	0	0	0	1

Table 2D: Junctions (continued...)

Name	Max. Ponded Depth (ft)	Contributing Area (ac)	Contributing Imp. Area (ac)	Max. Unit Flow (cfs/ac)	GIS_LENGTH (m)	GIS_AREA (m²)	GIS_PARTS
10470-A-S	0	0	0	0	0	0	1
10480-A	0	0	0	0	0	0	1
10480-B	0	0	0	0	0	0	1
10500-A	0	0	0	0	0	0	1
10500-B	0	0	0	0	0	0	1
10500-B-S	0	0	0	0	0	0	1
10500-C	0	0	0	0	0	0	1
10500-C-S	0	0	0	0	0	0	1
10500-D	0	0	0	0	0	0	1
10510-A	0	0	0	0	0	0	1
10510-A-S	0	0	0	0	0	0	1
10700-A	0	0	0	0	0	0	1
10700-A-S	0	0	0	0	0	0	1
10700-B	0	0	0	0	0	0	1
11000-A	0	0	0	0	0	0	1
12000	0	0	0	0	0	0	1
12000-1	0	0	0	0	0	0	1
12000-2	0	0	0	0	0	0	1
12000-A	0	0	0	0	0	0	1
12000-B	0	0	0	0	0	0	1
12000-B'	0	0	0	0	0	0	1
12000-C	0	0	0	0	0	0	1
12000-C-S	0	0	0	0	0	0	1
12000-D	0	0	0	0	0	0	1
12000-D-S	0	0	0	0	0	0	1
12000-E	0	0	0	0	0	0	1

Table 2D: Junctions (continued...)

Name	Max. Ponded Depth (ft)	Contributing Area (ac)	Contributing Imp. Area (ac)	Max. Unit Flow (cfs/ac)	GIS_LENGTH (m)	GIS_AREA (m²)	GIS_PARTS
12000-E-S	0	0	0	0	0	0	1
12000-F	0	0	0	0	0	0	1
12000-F-S.	0	0	0	0	0	0	1
12000-G	0	0	0	0	0	0	1
12000-G-S	0	0	0	0	0	0	1
12000-G-S2	0	0	0	0	0	0	1
12000-H	0	0	0	0	0	0	1
12000-H-S	0	0	0	0	0	0	1
13000-A	0	0	0	0	0	0	1
14000-A	0	0	0	0	0	0	1
14000-C	0.003	0	0	0	0	0	1
14000-D	0.6	0	0	0	0	0	1
14000-E	0.928	0	0	0	0	0	1
8667-J4	0	0	0	0	0	0	1
8697	0	0	0	0	0	0	1
8807	0	0	0	0	0	0	1
8903	0	0	0	0	0	0	1
CHANNEL_12+11.04	0	0	0	0	0	0	1
Curb_Cut	0	0	0	0	0	0	1
Curb_Cut-S	0	0	0	0	0	0	1
ELB-10300-B1	0	0	0	0	0	0	1
ELB-10300-B2	0	0	0	0	0	0	1
EX10440-C	0	0	0	0	0	0	1
EX10440-C-S	0	0	0	0	0	0	1
EX-CI21199	0	0	0	0	0	0	1
EX-CI21199-S	0	0	0	0	0	0	1

Table 2D: Junctions (continued...)

Name	Max. Ponded Depth (ft)	Contributing Area (ac)	Contributing Imp. Area (ac)	Max. Unit Flow (cfs/ac)	GIS_LENGTH (m)	GIS_AREA (m²)	GIS_PARTS
EX-DI5526	0	0	0	0	0	0	1
EX-DI5526-S	0	0	0	0	0	0	1
EX-DI5571	0	0	0	0	0	0	1
EX-DI5571-S	0	0	0	0	0	0	1
J1	0	0	0	0	0	0	1
J10	0	0	0	0	0	0	1
J11	0	0	0	0	0	0	1
J12	0	0	0	0	0	0	1
J13	0	0	0	0	0	0	1
J15	0	0	0	0	0	0	1
J15-S	0	0	0	0	0	0	1
J17	0	0	0	0	0	0	1
J179	0	0	0	0	0	0	1
J17-S	0	0	0	0	0	0	1
J18	0	0	0	0	0	0	1
J182	0	0	0	0	0	0	1
J18-S	0	0	0	0	0	0	1
J1-IC	0	0	0	0	0	0	1
J2	0	0	0	0	0	0	1
J20	0	0	0	0	0	0	1
J20-S	0	0	0	0	0	0	1
J2-S	0	0	0	0	0	0	1
J320	0	0	0	0	0	0	1
J34	0	0	0	0	0	0	1
J38	0	0	0	0	0	0	1
J39	0	0	0	0	0	0	1

Table 2D: Junctions (continued...)

Name	Max. Ponded Depth (ft)	Contributing Area (ac)	Contributing Imp. Area (ac)	Max. Unit Flow (cfs/ac)	GIS_LENGTH (m)	GIS_AREA (m²)	GIS_PARTS
J46	0	0	0	0	0	0	1
J4-S	0	0	0	0	0	0	1
J5	0	0	0	0	0	0	1
J6	0	0	0	0	0	0	1
J7	0	0	0	0	0	0	1
J8	0	0	0	0	0	0	1
J9	0	0	0	0	0	0	1
OL-10100-B	0	0	0	0	0	0	1
OL-10101-A	0	0	0	0	0	0	1
OL-11000-A	0	0	0	0	0	0	1
OL-11000-B	0	0	0	0	0	0	1
OL-14000-Ab	0	0	0	0	0	0	1
OL-14000-Ac	0	0	0	0	0	0	1
OL-14000-Ad	0	0	0	0	0	0	1
OL-14000-Ae	0	0	0	0	0	0	1
OL-14000-C	0	0	0	0	0	0	1
OL-14000-D	0	0	0	0	0	0	1
OL-14000-E	0	0	0	0	0	0	1
OL-14000-F	0	0	0	0	0	0	1
OL-J10	0	0	0	0	0	0	1
OL-J10b	0	0	0	0	0	0	1
OL-J5	0	0	0	0	0	0	1
OL-J7	0	0	0	0	0	0	1

Table 3A: Outfalls

Name	X-Coordinate	Y-Coordinate	Tag	Inflows	Treatment	Invert Elev. (ft)	Rim Elev. (ft)	Tide Gate	Route To	Type	Fixed Stage (ft)	Curve Name	Series Name	Outlet
10000	2262392.186	276400.364	Outfall	NO	NO	831.42	831.42	NO		TIMESERIES	0	*	TC_Flood_25Y	
11000-0	2262486.781	276384.562	Outlet	NO	NO	861.08	861.08	NO		TIMESERIES	0	*	TC_Flood_25Y	
11000-0'	2262484.196	276383.409	Overland	NO	NO	864	864	NO		TIMESERIES	0	*	TC_Flood_25Y	
12000.	2261939.436	276365.72	Outfall	NO	NO	836	841	NO		TIMESERIES	0	*	TC_Flood_25Y	
13000-0	2263958	276313	Outlet	NO	NO	936.2	936.2	NO		FREE	0	*	*	
14000-0	2263091.354	277070.708	Outlet	NO	NO	845.99	845.99	NO		TIMESERIES	0	*	TC_Flood_25Y	
14000-0'	2263095.852	277072.318	Overland	NO	NO	847.5	847.5	NO		TIMESERIES	0	*	TC_Flood_25Y	

Table 3B: Outfalls

Name	Baseline (cfs)	Baseline Pattern	Time Series	Scale Factor	Average Value (cfs)	Time Pattern 1	Time Pattern 2	Time Pattern 3	Time Pattern 4	Hydrograph	Sewershed Area (ac)	Avg. Depth (ft)	Max. Depth (ft)	Max. HGL (ft)
10000	0			1	0						0	6.29	6.29	837.71
11000-0	0			1	0						0	0.1	0.24	861.32
11000-0'	0			1	0						0	0.02	0.05	864.05
12000.	0			1	0						0	1.71	1.71	837.71
13000-0	0			1	0						0	0.22	0.52	936.72
14000-0	0			1	0						0	1.06	1.85	847.84
14000-0'	0			1	0						0	0.05	0.22	847.72

Table 3C: Outfalls

Name	Time Max. HGL (M/D/Y)	Rep. Max. Depth (ft)	Max. Lat. Inflow (cfs)	Max. Total Inflow (cfs)	Total Lat. Inflow (MG)	Total inflow (MG)	Flow Error (%)	Hours Surcharged (h)	Max. Surcharge (ft)	Min. Freeboard (ft)	Hours Flooded (h)	Max. Flood Rate (cfs)	Total Flood Vol. (MG)	Max. Ponded Depth (ft)
10000	05/01/2022 00:00 AM	6.29	0	183.08	0	4.02	0	0	0	0	0	0	0	0
11000-0	05/01/2022 00:08 AM	0.24	0	0.86	0	0.011	0	0	0	0	0	0	0	0
11000-0'	05/01/2022 00:16 AM	0.05	0	0.75	0	0.01	0	0	0	0	0	0	0	0
12000.	05/01/2022 00:00 AM	1.71	0	27.89	0	0.501	0	0	0	0	0	0	0	0
13000-0	05/01/2022 00:16 AM	0.52	0	8.52	0	0.114	0	0	0	0	0	0	0	0
14000-0	05/01/2022 00:26 AM	1.85	0	29.36	0	0.713	0	0	0	0	0	0	0	0
14000-0'	05/01/2022 00:26 AM	0.22	0	10.25	0	0.08	0	0	0	0	0	0	0	0

Table 3D: Outfalls

Name	Flow Frequency	Avg. Flow (cfs)	Max. Flow (cfs)	Total Flow (MG)	Contributing Area (ac)	Contributing Imp. Area (ac)	Max. Unit Flow (cfs/ac)	GIS_LENGTH (m)	GIS_AREA (m^2)	GIS_PARTS
10000	100	85.61	183.08	4.018	0	0	0	0	0	1
11000-0	70	0.34	0.86	0.011	0	0	0	0	0	1
11000-0'	68.63	0.31	0.75	0.01	0	0	0	0	0	1
12000.	96.55	11.25	27.89	0.501	0	0	0	0	0	1
13000-0	81.69	3.03	8.52	0.114	0	0	0	0	0	1
14000-0	90.6	17.09	29.36	0.713	0	0	0	0	0	1
14000-0'	38.99	4.46	10.25	0.08	0	0	0	0	0	1

Table 4A: ARM Subcatchments

Name	X-Coordinate	Y-Coordinate	Description	Tag	Runoff Method	Rain Gage	Outlet	Area (ac)	Flow Length (ft)	Slope (%)	Imperv. (%)
1	2262787.206	276258.571			SCS Dimensionless UH	Huff_100YR_1Q_1HR_3.67in	10201-A	0.299	164.405	4.292	25
4	2262974.336	275011.757			SCS Dimensionless UH	Huff_100YR_1Q_1HR_3.67in	J9	1.376	402.975	2.024	0
5	2263672.562	276560.152			SCS Dimensionless UH	Huff_100YR_1Q_1HR_3.67in	14000-E	3.242	744.624	22.202	0
6	2263208.255	274137.586			SCS Dimensionless UH	Huff_100YR_1Q_1HR_3.67in	J13	0.396	206.792	20.594	0
7	2262876.164	276115.451			SCS Dimensionless UH	Huff_100YR_1Q_1HR_3.67in	10700-A-S	0.423	286.333	1.301	0
9	2262637.513	276122.087			SCS Dimensionless UH	Huff_100YR_1Q_1HR_3.67in	10210-B-S	0.284	167.781	2.48	0
10	2261890.691	275633.56			SCS Dimensionless UH	Huff_100YR_1Q_1HR_3.67in	8903	5.115	718.372	3.355	0
11	2263564.555	274994.286			SCS Dimensionless UH	Huff_100YR_1Q_1HR_3.67in	J20-S	0.235	459.225	10.285	0
12	2263999.448	275089.187			SCS Dimensionless UH	Huff_100YR_1Q_1HR_3.67in	10443-D-S	5.04	587.061	11.548	0
13	2262510.448	276345.954			SCS Dimensionless UH	Huff_100YR_1Q_1HR_3.67in	11000-A	0.132	73.051	0.858	0
14	2262301.699	276204.913			SCS Dimensionless UH	Huff_100YR_1Q_1HR_3.67in	12000-C-S	0.362	166.842	1.696	0
15	2262609.808	276311.216			SCS Dimensionless UH	Huff_100YR_1Q_1HR_3.67in	OL-11000-B	0.281	247.088	3.687	0
16	2263593.524	275652.692			SCS Dimensionless UH	Huff_100YR_1Q_1HR_3.67in	10400-M-S	0.19	149.99	2.001	0
18	2263217.709	276330.378			SCS Dimensionless UH	Huff_100YR_1Q_1HR_3.67in	10200-D-S	0.08	273.974	3.143	0
19	2263471.815	276336.78			SCS Dimensionless UH	Huff_100YR_1Q_1HR_3.67in	10200-E-S	0.067	300	0.839	0
20	2262296.263	275427.671			SCS Dimensionless UH	Huff_100YR_1Q_1HR_3.67in	10411-A-S	0.372	218.179	19.197	0
21	2262270.811	275282.974			SCS Dimensionless UH	Huff_100YR_1Q_1HR_3.67in	10125-A	1.078	265.791	15.19	0
22	2262513.032	275415.278			SCS Dimensionless UH	Huff_100YR_1Q_1HR_3.67in	10410-F	0.336	199.658	3.366	0
24	2263477.881	276135.856			SCS Dimensionless UH	Huff_100YR_1Q_1HR_3.67in	10250-D-S	0.128	198.085	1.802	0
26	2263354.26	275481.529			SCS Dimensionless UH	Huff_100YR_1Q_1HR_3.67in	10400-K-S	0.244	251.875	1.31	0
28	2263720.234	276016.989			SCS Dimensionless UH	Huff_100YR_1Q_1HR_3.67in	10200-L-S	0.222	179.073	0.515	0
30	2263836.597	276011.285			SCS Dimensionless UH	Huff_100YR_1Q_1HR_3.67in	13000-A	1.725	717.066	13.822	0
31	2261926.333	276092.194			SCS Dimensionless UH	Huff_100YR_1Q_1HR_3.67in	8697	0.317	172.579	1.258	0
32	2262061.525	275982.336			SCS Dimensionless UH	Huff_100YR_1Q_1HR_3.67in	8807	1.913	441.969	5.046	0
33	2262164.104	276291.949			SCS Dimensionless UH	Huff_100YR_1Q_1HR_3.67in	12000-2	0.636	681.594	0.458	0
34	2263355.059	276036.202			SCS Dimensionless UH	Huff_100YR_1Q_1HR_3.67in	10330-B-S	0.442	375.684	1.211	0

Table 4A: ARM Subcatchments (continued...)

Name	X-Coordinate	Y-Coordinate	Description	Tag	Runoff Method	Rain Gage	Outlet	Area (ac)	Flow Length (ft)	Slope (%)	Imperv. (%)
36	2263652.602	276122.842			SCS Dimensionless UH	Huff_100YR_1Q_1HR_3.67in	10270-A-S	0.568	396.012	0.665	0
38	2262321.353	275563.471			SCS Dimensionless UH	Huff_100YR_1Q_1HR_3.67in	10410-D-S	0.6	319.835	4.254	0
39	2262313.406	275826.489			SCS Dimensionless UH	Huff_100YR_1Q_1HR_3.67in	12000-H	2.993	482.918	22	0
40	2263134.142	275669.13			SCS Dimensionless UH	Huff_100YR_1Q_1HR_3.67in	10300-B-IC	0.304	132.317	6.127	0
41	2263845.363	275420.553			SCS Dimensionless UH	Huff_100YR_1Q_1HR_3.67in	10443-C-S	0.507	395.938	0.425	0
42	2262694.324	275446.325			SCS Dimensionless UH	Huff_100YR_1Q_1HR_3.67in	10420-B-S	0.037	103.926	3.963	0
43	2263182.049	275594.325			SCS Dimensionless UH	Huff_100YR_1Q_1HR_3.67in	10510-A-S	0.506	132.688	5.8	0
44	2263256.429	275512.642			SCS Dimensionless UH	Huff_100YR_1Q_1HR_3.67in	10500-C-S	0.562	306.017	2.012	0
45	2263590.344	275123.459			SCS Dimensionless UH	Huff_100YR_1Q_1HR_3.67in	10440-D	2.013	693.796	2.288	0
46	2263885.262	274889.374			SCS Dimensionless UH	Huff_100YR_1Q_1HR_3.67in	10442-B-S	0.287	779.332	7.306	0
47	2262522.769	276192.242			SCS Dimensionless UH	Huff_100YR_1Q_1HR_3.67in	12000-F-S.	0.293	247.025	1.043	0
48	2263080.459	275486.695			SCS Dimensionless UH	Huff_100YR_1Q_1HR_3.67in	10430-A-S	0.392	400.191	0.758	0
49	2262479.789	276225.595			SCS Dimensionless UH	Huff_100YR_1Q_1HR_3.67in	12000-E-S	0.053	148.222	0.472	0
50	2263509.48	275395.119			SCS Dimensionless UH	Huff_100YR_1Q_1HR_3.67in	10460-B-S	0.542	123.802	0.009	0
51	2263619.098	275269.327			SCS Dimensionless UH	Huff_100YR_1Q_1HR_3.67in	10460-E-S	0.301	130.264	4.307	0
52	2263715.573	275299.292			SCS Dimensionless UH	Huff_100YR_1Q_1HR_3.67in	10460-D-S	0.503	189.321	2.41	0
53	2263757.09	275455.29			SCS Dimensionless UH	Huff_100YR_1Q_1HR_3.67in	10462-A-S	0.865	261.415	3.154	0
54	2263626.032	275481.34			SCS Dimensionless UH	Huff_100YR_1Q_1HR_3.67in	10460-C-S	0.437	194.439	1.384	0
55	2263710.816	275621.207			SCS Dimensionless UH	Huff_100YR_1Q_1HR_3.67in	10470-A-S	0.316	265.68	3.06	0
56	2263544.766	275518.272			SCS Dimensionless UH	Huff_100YR_1Q_1HR_3.67in	10460-A-S	0.039	129.542	2.986	0
57	2263387.654	275432.591			SCS Dimensionless UH	Huff_100YR_1Q_1HR_3.67in	10450-A-S	0.161	221.648	2.606	0
59	2262971.078	275302.975			SCS Dimensionless UH	Huff_100YR_1Q_1HR_3.67in	EX-DI5526	0.434	177.747	0.59	0
60	2263081.41	275334.62			SCS Dimensionless UH	Huff_100YR_1Q_1HR_3.67in	EX-DI5571	0.148	93.37	0.443	0
62	2262735.26	276131.054			SCS Dimensionless UH	Huff_100YR_1Q_1HR_3.67in	10211-A-S	0.134	147.683	6.504	0
63	2262795.11	276055.645			SCS Dimensionless UH	Huff_100YR_1Q_1HR_3.67in	10211-C	0.153	83.356	10.152	0
64	2262969.303	276320.889			SCS Dimensionless UH	Huff_100YR_1Q_1HR_3.67in	10200-C-S1	0.06	214.307	1.633	0

Table 4A: ARM Subcatchments (continued...)

Name	X-Coordinate	Y-Coordinate	Description	Tag	Runoff Method	Rain Gage	Outlet	Area (ac)	Flow Length (ft)	Slope (%)	Imperv. (%)
65	2262781.053	276314.071			SCS Dimensionless UH	Huff_100YR_1Q_1HR_3.67in	10200-B-S1	0.044	151.302	2.502	0
66	2262790.196	275580.373			SCS Dimensionless UH	Huff_100YR_1Q_1HR_3.67in	10400-D	0.083	213.049	2.495	0
67	2262629.458	275624.727			SCS Dimensionless UH	Huff_100YR_1Q_1HR_3.67in	10400-A-S	0.057	141.794	2.606	0
68	2262625.884	275609.425			SCS Dimensionless UH	Huff_100YR_1Q_1HR_3.67in	10410-B-S	0.042	144.058	2.703	0
69	2262741.238	275533.329			SCS Dimensionless UH	Huff_100YR_1Q_1HR_3.67in	10400-E	0.297	181.796	3.502	0
70	2263729.514	275858.634			SCS Dimensionless UH	Huff_100YR_1Q_1HR_3.67in	10200-N-S	0.055	189.97	0.601	0
71	2263780.185	275763.281			SCS Dimensionless UH	Huff_100YR_1Q_1HR_3.67in	10280-A	0.316	272.427	1.99	0
72	2263754.424	275898.436			SCS Dimensionless UH	Huff_100YR_1Q_1HR_3.67in	10200-M-S	0.222	208.125	1.105	0
74	2263216.408	276281.006			SCS Dimensionless UH	Huff_100YR_1Q_1HR_3.67in	10203-A	0.554	330.241	2.735	0
76	2262999.55	276196.168			SCS Dimensionless UH	Huff_100YR_1Q_1HR_3.67in	10202-A-S1	1.342	374.909	3.35	0
77	2262657.392	276256.575			SCS Dimensionless UH	Huff_100YR_1Q_1HR_3.67in	10200-A-S1	0.269	174.685	7.552	0
78	2262626.555	276197.728			SCS Dimensionless UH	Huff_100YR_1Q_1HR_3.67in	10210-A-S	0.052	85.647	7.572	0
79	2262683.299	275999.361			SCS Dimensionless UH	Huff_100YR_1Q_1HR_3.67in	10210-E	0.189	105.366	0.516	0
80	2262527.505	275945.331			SCS Dimensionless UH	Huff_100YR_1Q_1HR_3.67in	12000-G-S	2.283	510.771	1.144	0
81	2262026.602	276177.997			SCS Dimensionless UH	Huff_100YR_1Q_1HR_3.67in	8667-J4	0.689	256.256	1.706	0
82	2262203.323	276278.43			SCS Dimensionless UH	Huff_100YR_1Q_1HR_3.67in	RainGarden	0.959	264.714	1.868	0
83	2262397.445	276222.223			SCS Dimensionless UH	Huff_100YR_1Q_1HR_3.67in	12000-D-S	0.203	132.258	0.16	0
87	2263279.653	275318.946			SCS Dimensionless UH	Huff_100YR_1Q_1HR_3.67in	10461-B-S	0.262	88.823	3.092	0
88	2263198.906	275361.38			SCS Dimensionless UH	Huff_100YR_1Q_1HR_3.67in	10400-H-S	0.225	200.242	2.465	0
89	2263380.873	275328.799			SCS Dimensionless UH	Huff_100YR_1Q_1HR_3.67in	10461-A-S	0.441	107.714	0.492	0
90	2262784.148	275483.655			SCS Dimensionless UH	Huff_100YR_1Q_1HR_3.67in	10420-A-S	0.028	78.93	0.017	0
91	2262836.892	275537.354			SCS Dimensionless UH	Huff_100YR_1Q_1HR_3.67in	10400-F	0.055	300	2.035	0
93	2262733.374	275393.48			SCS Dimensionless UH	Huff_100YR_1Q_1HR_3.67in	10420-C-S	0.227	192.024	0.09	0
94	2262833.603	275437.031			SCS Dimensionless UH	Huff_100YR_1Q_1HR_3.67in	10421-A-S	0.386	165.806	0.244	0
95	2263173.051	275310.699			SCS Dimensionless UH	Huff_100YR_1Q_1HR_3.67in	10440-A-S	0.054	91.166	1.981	0
96	2263120.827	275359.794			SCS Dimensionless UH	Huff_100YR_1Q_1HR_3.67in	10441-A	0.054	66.847	2.556	0

Table 4A: ARM Subcatchments (continued...)

Name	X-Coordinate	Y-Coordinate	Description	Tag	Runoff Method	Rain Gage	Outlet	Area (ac)	Flow Length (ft)	Slope (%)	Imperv. (%)
97	2262845.672	275305.454			SCS Dimensionless UH	Huff_100YR_1Q_1HR_3.67in	10422-A	0.451	125.156	2.184	0
98	2262720.732	275277.444			SCS Dimensionless UH	Huff_100YR_1Q_1HR_3.67in	10420-D-S	0.602	385.674	1.234	0
99	2262788.679	275203.909			SCS Dimensionless UH	Huff_100YR_1Q_1HR_3.67in	10420-E-S	0.306	477.352	1.456	0
100	2262282.934	275492.475			SCS Dimensionless UH	Huff_100YR_1Q_1HR_3.67in	10410-E	0.346	232.053	13.644	0
101	2262701.195	276030.737			SCS Dimensionless UH	Huff_100YR_1Q_1HR_3.67in	10210-C	0.215	151.341	0.811	0
102	2263207.742	276181.896			SCS Dimensionless UH	Huff_100YR_1Q_1HR_3.67in	10320-C-S	0.16	469.47	0.184	0
103	2263577.981	275722.141			SCS Dimensionless UH	Huff_100YR_1Q_1HR_3.67in	10400-P	0.144	93.758	5.129	0
104	2263686.754	275806.69			SCS Dimensionless UH	Huff_100YR_1Q_1HR_3.67in	10400-S	0.192	120.997	0.328	0
107	2263394.577	275963.562			SCS Dimensionless UH	Huff_100YR_1Q_1HR_3.67in	10300-F-S	0.576	394.991	1.452	0
108	2262952.313	275898.738			SCS Dimensionless UH	Huff_100YR_1Q_1HR_3.67in	10100-D-IC2	1.593	446.72	3.396	0
109	2263432.159	275608.056			SCS Dimensionless UH	Huff_100YR_1Q_1HR_3.67in	10310-B-S	0.944	406.497	2.099	0
110	2263665.05	275690.296			SCS Dimensionless UH	Huff_100YR_1Q_1HR_3.67in	10480-B	0.279	255.379	1.253	0
111	2263398.626	275042.112			SCS Dimensionless UH	Huff_100YR_1Q_1HR_3.67in	J1-IC	0.951	273.593	3.11	0
112	2263461.479	275244.034			SCS Dimensionless UH	Huff_100YR_1Q_1HR_3.67in	10460-F-S	0.429	204.784	0.289	0
113	2263539.307	275530.926			SCS Dimensionless UH	Huff_100YR_1Q_1HR_3.67in	10400-L-S	0.047	130.411	3.221	0
114	2262647.566	275564.309			SCS Dimensionless UH	Huff_100YR_1Q_1HR_3.67in	10410-B	0.109	247.118	3.822	0
115	2262561.739	275513.909			SCS Dimensionless UH	Huff_100YR_1Q_1HR_3.67in	10410-C	0.865	217.074	2.385	0
118	2262737.061	276193.902			SCS Dimensionless UH	Huff_100YR_1Q_1HR_3.67in	10211-B	0.129	94.764	7.646	0
119	2262890.82	276469.617			SCS Dimensionless UH	Huff_100YR_1Q_1HR_3.67in	14000-D	2.064	683.195	19.363	0
120	2263184.441	276849.474			SCS Dimensionless UH	Huff_100YR_1Q_1HR_3.67in	14000-B	2.226	342	3.83	0
121	2263306.295	276485.911			SCS Dimensionless UH	Huff_100YR_1Q_1HR_3.67in	14000-F	3.723	468.233	34.007	0
122	2263191.735	273806.551			SCS Dimensionless UH	Huff_100YR_1Q_1HR_3.67in	J10	3.668	631.508	5.534	0
123	2262935.659	274391.188			SCS Dimensionless UH	Huff_100YR_1Q_1HR_3.67in	J6	3.946	1267.219	9.844	0
124	2262639.532	274731.317			SCS Dimensionless UH	Huff_100YR_1Q_1HR_3.67in	10120-H-S	5.045	958.781	14.035	0
125	2262528.325	275045.362			SCS Dimensionless UH	Huff_100YR_1Q_1HR_3.67in	10120-H-S	1.317	345.59	21.903	0
126	2262420.763	274937.413			SCS Dimensionless UH	Huff_100YR_1Q_1HR_3.67in	10120-G	4.032	1260.992	12.064	0

Table 4A: ARM Subcatchments (continued...)

Name	X-Coordinate	Y-Coordinate	Description	Tag	Runoff Method	Rain Gage	Outlet	Area (ac)	Flow Length (ft)	Slope (%)	Imperv. (%)
127	2262847.588	274557.827			SCS Dimensionless UH	Huff_100YR_1Q_1HR_3.67in	J5	2.632	1016.101	9.316	0
128	2263051.802	273991.324			SCS Dimensionless UH	Huff_100YR_1Q_1HR_3.67in	J179	2.565	597.837	14.066	0
129	2263202.661	274536.973			SCS Dimensionless UH	Huff_100YR_1Q_1HR_3.67in	J7	4.568	884.884	10.952	0
130	2263588.997	274576.227			SCS Dimensionless UH	Huff_100YR_1Q_1HR_3.67in	J15-S	10.887	765.848	12.171	0
131	2263100.781	276629.25			SCS Dimensionless UH	Huff_100YR_1Q_1HR_3.67in	14000-C	0.614	723	0.349	0
3	2263475.65	276280.149			SCS Dimensionless UH	Huff_100YR_1Q_1HR_3.67in	10250-A-S	0.426	202.771	1.034	0
8	2263512.302	276165.378			SCS Dimensionless UH	Huff_100YR_1Q_1HR_3.67in	10250-C-S	0.231	162.331	2.052	0
86_4	2263316.734	275748.45			SCS Dimensionless UH	Huff_100YR_1Q_1HR_3.67in	10310-B	0.184	647.431	1.469	0
61_1	2263291.374	275817.878			SCS Dimensionless UH	Huff_100YR_1Q_1HR_3.67in	10300-G-S	0.021	602.845	1.422	0
61_2	2263532.504	275933.607			SCS Dimensionless UH	Huff_100YR_1Q_1HR_3.67in	Curb_Cut-S	0.562	602.845	1.422	0
58_1	2262858.105	275655.313			SCS Dimensionless UH	Huff_100YR_1Q_1HR_3.67in	10400-C1	1.742	410.108	0.601	0
58_2	2262779.425	275785.881			SCS Dimensionless UH	Huff_100YR_1Q_1HR_3.67in	10100-B-IC	1.178	410.108	0.601	0
23_1	2263299.649	275636.541			SCS Dimensionless UH	Huff_100YR_1Q_1HR_3.67in	10310-A-S	0.043	260.484	1.37	0
17_1	2263646.699	275206.046			SCS Dimensionless UH	Huff_100YR_1Q_1HR_3.67in	EX-CI21199-S	0.088	673.716	2.158	0
17_2	2263313.212	275227.619			SCS Dimensionless UH	Huff_100YR_1Q_1HR_3.67in	10440-B-S	0.144	673.716	2.158	0
75	2262989.169	275439.128			SCS Dimensionless UH	Huff_100YR_1Q_1HR_3.67in	10400-G-S	0.513	253.127	0.839	0
29_2	2263736.957	276166.755			SCS Dimensionless UH	Huff_100YR_1Q_1HR_3.67in	10200-K-S	0.252	203.61	1.528	0
37_2	2263596.491	276231.005			SCS Dimensionless UH	Huff_100YR_1Q_1HR_3.67in	10260-A-S	0.359	136.903	2.716	0
86	2263726.435	276282.77			SCS Dimensionless UH	Huff_100YR_1Q_1HR_3.67in	10200-J-S	0.145	188.672	1.794	0
73_1	2263617.188	276319.908			SCS Dimensionless UH	Huff_100YR_1Q_1HR_3.67in	10200-G-S	0.026	193.403	0.501	0
73_2	2263715.678	276323.306			SCS Dimensionless UH	Huff_100YR_1Q_1HR_3.67in	10200-H-S	0.029	193.403	0.501	0
2_1	2263096.103	275221.038			SCS Dimensionless UH	Huff_100YR_1Q_1HR_3.67in	10440-C	0.791	349.054	6.413	0
2_2	2263099.601	275132.158			SCS Dimensionless UH	Huff_100YR_1Q_1HR_3.67in	J39	0.418	349.054	27.51	0
106	2263117.871	275905.09			SCS Dimensionless UH	Huff_100YR_1Q_1HR_3.67in	10321-A	0.079	50	1.048	0
23_2	2263091.803	275856.556			SCS Dimensionless UH	Huff_100YR_1Q_1HR_3.67in	10300-D-S	0.046	140	1.37	0
117_3	2263241.429	276100.328			SCS Dimensionless UH	Huff_100YR_1Q_1HR_3.67in	10320-B-S	1.006	622.074	0.845	0

Table 4A: ARM Subcatchments (continued...)

Name	X-Coordinate	Y-Coordinate	Description	Tag	Runoff Method	Rain Gage	Outlet	Area (ac)	Flow Length (ft)	Slope (%)	Imperv. (%)
117	2263196.19	275817.149			SCS Dimensionless UH	Huff_100YR_1Q_1HR_3.67in	10310-B	0.572	267.315	1.36	0

Table 4B: ARM Subcatchments

Name	Dstore Imperv (in)	Dstore Perv (in)	Max. Infil. Rate (in/hr)	Min. Infil. Rate (in/hr)	Decay Constant (1/hr)	Drying Time (days)	Max. Volume (in)	Suction Head (in)	Conductivity (in/hr)	Initial Deficit (frac.)	TC Method	Time of Concentration (min)	Loss Method	IA Method
1	0.05	0.05	3	0.5	4	7	0	3.5	0.5	0.25	SCS	3.541	SCS CN	0.2 S
4	0.05	0.05	0	0	0	0	0	3.5	0.5	0.25	SCS	10.6	SCS CN	0.2 S
5	0.05	0.05	0	0	0	0	0	3.5	0.5	0.25	User entered value	8.22	SCS CN	0.2 S
6	0.05	0.05	0	0	0	0	0	3.5	0.5	0.25	User entered value	1.568	SCS CN	0.2 S
7	0.05	0.05	0	0	0	0	0	3.5	0.5	0.25	SCS	4.999	SCS CN	0.2 S
9	0.05	0.05	0	0	0	0	0	3.5	0.5	0.25	SCS	2.47	SCS CN	0.2 S
10	0.05	0.05	0	0	0	0	0	3.5	0.5	0.25	SCS	11.467	SCS CN	0.2 S
11	0.05	0.05	0	0	0	0	0	3.5	0.5	0.25	User entered value	6	SCS CN	0.2 S
12	0.05	0.05	0	0	0	0	0	3.5	0.5	0.25	User entered value	11.69	SCS CN	0.2 S
13	0.05	0.05	0	0	0	0	0	3.5	0.5	0.25	SCS	3.262	SCS CN	0.2 S
14	0.05	0.05	0	0	0	0	0	3.5	0.5	0.25	SCS	5.349	SCS CN	0.2 S
15	0.05	0.05	0	0	0	0	0	3.5	0.5	0.25	SCS	5.757	SCS CN	0.2 S
16	0.05	0.05	0	0	0	0	0	3.5	0.5	0.25	SCS	3.636	SCS CN	0.2 S
18	0.05	0.05	0	0	0	0	0	3.5	0.5	0.25	SCS	3.095	SCS CN	0.2 S
19	0.05	0.05	0	0	0	0	0	3.5	0.5	0.25	SCS	6.32	SCS CN	0.2 S
20	0.05	0.05	0	0	0	0	0	3.5	0.5	0.25	User entered value	8.93	SCS CN	0.2 S
21	0.05	0.05	0	0	0	0	0	3.5	0.5	0.25	User entered value	9.76	SCS CN	0.2 S
22	0.05	0.05	0	0	0	0	0	3.5	0.5	0.25	SCS	3.664	SCS CN	0.2 S
24	0.05	0.05	0	0	0	0	0	3.5	0.5	0.25	SCS	3.085	SCS CN	0.2 S

Table 4B: ARM Subcatchments (continued...)

Name	Dstore Imperv (in)	Dstore Perv (in)	Max. Infil. Rate (in/hr)	Min. Infil. Rate (in/hr)	Decay Constant (1/hr)	Drying Time (days)	Max. Volume (in)	Suction Head (in)	Conductivity (in/hr)	Initial Deficit (frac.)	TC Method	Time of Concentration (min)	Loss Method	IA Method
26	0.05	0.05	0	0	0	0	0	3.5	0.5	0.25	SCS	7.097	SCS CN	0.2 S
28	0.05	0.05	0	0	0	0	0	3.5	0.5	0.25	SCS	10.003	SCS CN	0.2 S
30	0.05	0.05	0	0	0	0	0	3.5	0.5	0.25	User entered value	9.48	SCS CN	0.2 S
31	0.05	0.05	0	0	0	0	0	3.5	0.5	0.25	SCS	6.653	SCS CN	0.2 S
32	0.05	0.05	0	0	0	0	0	3.5	0.5	0.25	SCS	7.503	SCS CN	0.2 S
33	0.05	0.05	0	0	0	0	0	3.5	0.5	0.25	SCS	22.183	SCS CN	0.2 S
34	0.05	0.05	0	0	0	0	0	3.5	0.5	0.25	SCS	11.921	SCS CN	0.2 S
36	0.05	0.05	0	0	0	0	0	3.5	0.5	0.25	SCS	15.146	SCS CN	0.2 S
38	0.05	0.05	0	0	0	0	0	3.5	0.5	0.25	User entered value	2.233	SCS CN	0.2 S
39	0.05	0.05	0	0	0	0	0	3.5	0.5	0.25	User entered value	10.4	SCS CN	0.2 S
40	0.05	0.05	0	0	0	0	0	3.5	0.5	0.25	SCS	1.913	SCS CN	0.2 S
41	0.05	0.05	0	0	0	0	0	3.5	0.5	0.25	SCS	21.429	SCS CN	0.2 S
42	0.05	0.05	0	0	0	0	0	3.5	0.5	0.25	SCS	1.236	SCS CN	0.2 S
43	0.05	0.05	0	0	0	0	0	3.5	0.5	0.25	SCS	1.775	SCS CN	0.2 S
44	0.05	0.05	0	0	0	0	0	3.5	0.5	0.25	SCS	6.804	SCS CN	0.2 S
45	0.05	0.05	0	0	0	0	0	3.5	0.5	0.25	SCS	15.578	SCS CN	0.2 S
46	0.05	0.05	0	0	0	0	0	3.5	0.5	0.25	User entered value	6	SCS CN	0.2 S
47	0.05	0.05	0	0	0	0	0	3.5	0.5	0.25	SCS	9.586	SCS CN	0.2 S
48	0.05	0.05	0	0	0	0	0	3.5	0.5	0.25	SCS	9.662	SCS CN	0.2 S
49	0.05	0.05	0	0	0	0	0	3.5	0.5	0.25	SCS	5.379	SCS CN	0.2 S
50	0.05	0.05	0	0	0	0	0	3.5	0.5	0.25	SCS	36.09	SCS CN	0.2 S
51	0.05	0.05	0	0	0	0	0	3.5	0.5	0.25	SCS	2.403	SCS CN	0.2 S
52	0.05	0.05	0	0	0	0	0	3.5	0.5	0.25	SCS	4.663	SCS CN	0.2 S
53	0.05	0.05	0	0	0	0	0	3.5	0.5	0.25	SCS	6.525	SCS CN	0.2 S
54	0.05	0.05	0	0	0	0	0	3.5	0.5	0.25	SCS	6.05	SCS CN	0.2 S
55	0.05	0.05	0	0	0	0	0	3.5	0.5	0.25	SCS	5.925	SCS CN	0.2 S

Table 4B: ARM Subcatchments (continued...)

Name	Dstore Imperv (in)	Dstore Perv (in)	Max. Infil. Rate (in/hr)	Min. Infil. Rate (in/hr)	Decay Constant (1/hr)	Drying Time (days)	Max. Volume (in)	Suction Head (in)	Conductivity (in/hr)	Initial Deficit (frac.)	TC Method	Time of Concentration (min)	Loss Method	IA Method
56	0.05	0.05	0	0	0	0	0	3.5	0.5	0.25	SCS	1.705	SCS CN	0.2 S
57	0.05	0.05	0	0	0	0	0	3.5	0.5	0.25	SCS	3.668	SCS CN	0.2 S
59	0.05	0.05	0	0	0	0	0	3.5	0.5	0.25	SCS	4.922	SCS CN	0.2 S
60	0.05	0.05	0	0	0	0	0	3.5	0.5	0.25	SCS	3.398	SCS CN	0.2 S
62	0.05	0.05	0	0	0	0	0	3.5	0.5	0.25	SCS	2.11	SCS CN	0.2 S
63	0.05	0.05	0	0	0	0	0	3.5	0.5	0.25	SCS	0.653	SCS CN	0.2 S
64	0.05	0.05	0	0	0	0	0	3.5	0.5	0.25	SCS	3.436	SCS CN	0.2 S
65	0.05	0.05	0	0	0	0	0	3.5	0.5	0.25	SCS	2.108	SCS CN	0.2 S
66	0.05	0.05	0	0	0	0	0	3.5	0.5	0.25	SCS	3.699	SCS CN	0.2 S
67	0.05	0.05	0	0	0	0	0	3.5	0.5	0.25	SCS	2.633	SCS CN	0.2 S
68	0.05	0.05	0	0	0	0	0	3.5	0.5	0.25	SCS	2.047	SCS CN	0.2 S
69	0.05	0.05	0	0	0	0	0	3.5	0.5	0.25	SCS	4.26	SCS CN	0.2 S
70	0.05	0.05	0	0	0	0	0	3.5	0.5	0.25	SCS	5.153	SCS CN	0.2 S
71	0.05	0.05	0	0	0	0	0	3.5	0.5	0.25	SCS	8.162	SCS CN	0.2 S
72	0.05	0.05	0	0	0	0	0	3.5	0.5	0.25	SCS	7.496	SCS CN	0.2 S
74	0.05	0.05	0	0	0	0	0	3.5	0.5	0.25	SCS	7.367	SCS CN	0.2 S
76	0.05	0.05	0	0	0	0	0	3.5	0.5	0.25	SCS	7.338	SCS CN	0.2 S
77	0.05	0.05	0	0	0	0	0	3.5	0.5	0.25	SCS	2.285	SCS CN	0.2 S
78	0.05	0.05	0	0	0	0	0	3.5	0.5	0.25	SCS	1.26	SCS CN	0.2 S
79	0.05	0.05	0	0	0	0	0	3.5	0.5	0.25	SCS	3.722	SCS CN	0.2 S
80	0.05	0.05	0	0	0	0	0	3.5	0.5	0.25	SCS	16.446	SCS CN	0.2 S
81	0.05	0.05	0	0	0	0	0	3.5	0.5	0.25	SCS	8.345	SCS CN	0.2 S
82	0.05	0.05	0	0	0	0	0	3.5	0.5	0.25	SCS	7.419	SCS CN	0.2 S
83	0.05	0.05	0	0	0	0	0	3.5	0.5	0.25	SCS	12.561	SCS CN	0.2 S
87	0.05	0.05	0	0	0	0	0	3.5	0.5	0.25	SCS	1.276	SCS CN	0.2 S
88	0.05	0.05	0	0	0	0	0	3.5	0.5	0.25	SCS	4.477	SCS CN	0.2 S

Table 4B: ARM Subcatchments (continued...)

Name	Dstore Imperv (in)	Dstore Perv (in)	Max. Infil. Rate (in/hr)	Min. Infil. Rate (in/hr)	Decay Constant (1/hr)	Drying Time (days)	Max. Volume (in)	Suction Head (in)	Conductivity (in/hr)	Initial Deficit (frac.)	TC Method	Time of Concentration (min)	Loss Method	IA Method
89	0.05	0.05	0	0	0	0	0	3.5	0.5	0.25	SCS	3.744	SCS CN	0.2 S
90	0.05	0.05	0	0	0	0	0	3.5	0.5	0.25	SCS	16.954	SCS CN	0.2 S
91	0.05	0.05	0	0	0	0	0	3.5	0.5	0.25	SCS	4.395	SCS CN	0.2 S
93	0.05	0.05	0	0	0	0	0	3.5	0.5	0.25	SCS	27.905	SCS CN	0.2 S
94	0.05	0.05	0	0	0	0	0	3.5	0.5	0.25	SCS	15.075	SCS CN	0.2 S
95	0.05	0.05	0	0	0	0	0	3.5	0.5	0.25	SCS	2.392	SCS CN	0.2 S
96	0.05	0.05	0	0	0	0	0	3.5	0.5	0.25	SCS	2.367	SCS CN	0.2 S
97	0.05	0.05	0	0	0	0	0	3.5	0.5	0.25	SCS	1.994	SCS CN	0.2 S
98	0.05	0.05	0	0	0	0	0	3.5	0.5	0.25	SCS	11.355	SCS CN	0.2 S
99	0.05	0.05	0	0	0	0	0	3.5	0.5	0.25	SCS	8.773	SCS CN	0.2 S
100	0.05	0.05	0	0	0	0	0	3.5	0.5	0.25	User entered value	9.07	SCS CN	0.2 S
101	0.05	0.05	0	0	0	0	0	3.5	0.5	0.25	SCS	4.284	SCS CN	0.2 S
102	0.05	0.05	0	0	0	0	0	3.5	0.5	0.25	SCS	19.428	SCS CN	0.2 S
103	0.05	0.05	0	0	0	0	0	3.5	0.5	0.25	SCS	2.168	SCS CN	0.2 S
104	0.05	0.05	0	0	0	0	0	3.5	0.5	0.25	SCS	10.64	SCS CN	0.2 S
107	0.05	0.05	0	0	0	0	0	3.5	0.5	0.25	SCS	9.218	SCS CN	0.2 S
108	0.05	0.05	0	0	0	0	0	3.5	0.5	0.25	SCS	8.506	SCS CN	0.2 S
109	0.05	0.05	0	0	0	0	0	3.5	0.5	0.25	SCS	10.67	SCS CN	0.2 S
110	0.05	0.05	0	0	0	0	0	3.5	0.5	0.25	SCS	7.824	SCS CN	0.2 S
111	0.05	0.05	0	0	0	0	0	3.5	0.5	0.25	SCS	6.767	SCS CN	0.2 S
112	0.05	0.05	0	0	0	0	0	3.5	0.5	0.25	SCS	15.852	SCS CN	0.2 S
113	0.05	0.05	0	0	0	0	0	3.5	0.5	0.25	SCS	1.695	SCS CN	0.2 S
114	0.05	0.05	0	0	0	0	0	3.5	0.5	0.25	SCS	5.262	SCS CN	0.2 S
115	0.05	0.05	0	0	0	0	0	3.5	0.5	0.25	SCS	4.725	SCS CN	0.2 S
118	0.05	0.05	0	0	0	0	0	3.5	0.5	0.25	SCS	1.855	SCS CN	0.2 S
119	0.05	0.05	0	0	0	0	0	3.5	0.5	0.25	User entered value	8.6	SCS CN	0.2 S

Table 4B: ARM Subcatchments (continued...)

Name	Dstore Imperv (in)	Dstore Perv (in)	Max. Infil. Rate (in/hr)	Min. Infil. Rate (in/hr)	Decay Constant (1/hr)	Drying Time (days)	Max. Volume (in)	Suction Head (in)	Conductivity (in/hr)	Initial Deficit (frac.)	TC Method	Time of Concentration (min)	Loss Method	IA Method
120	0.05	0.05	0	0	0	0	0	3.5	0.5	0.25	User entered value	6	SCS CN	0.2 S
121	0.05	0.05	0	0	0	0	0	3.5	0.5	0.25	User entered value	6.5	SCS CN	0.2 S
122	0.05	0.05	0	0	0	0	0	3.5	0.5	0.25	User entered value	6	SCS CN	0.2 S
123	0.05	0.05	0	0	0	0	0	3.5	0.5	0.25	User entered value	10.09	SCS CN	0.2 S
124	0.05	0.05	0	0	0	0	0	3.5	0.5	0.25	User entered value	13.27	SCS CN	0.2 S
125	0.05	0.05	0	0	0	0	0	3.5	0.5	0.25	User entered value	10.08	SCS CN	0.2 S
126	0.05	0.05	0	0	0	0	0	3.5	0.5	0.25	User entered value	15.92	SCS CN	0.2 S
127	0.05	0.05	0	0	0	0	0	3.5	0.5	0.25	User entered value	9.88	SCS CN	0.2 S
128	0.05	0.05	0	0	0	0	0	3.5	0.5	0.25	User entered value	9.27	SCS CN	0.2 S
129	0.05	0.05	0	0	0	0	0	3.5	0.5	0.25	User entered value	9.65	SCS CN	0.2 S
130	0.05	0.05	0	0	0	0	0	3.5	0.5	0.25	User entered value	13.06	SCS CN	0.2 S
131	0.05	0.05	0	0	0	0	0	3.5	0.5	0.25	User entered value	6	SCS CN	0.2 S
3	0.05	0.05	0	0	0	0	0	3.5	0.5	0.25	SCS	5.562	SCS CN	0.2 S
8	0.05	0.05	0	0	0	0	0	3.5	0.5	0.25	SCS	3.278	SCS CN	0.2 S
86_4	0.05	0.05	0	0	0	0	0	3.5	0.5	0.25	SCS	17.76	SCS CN	0.2 S
61_1	0.05	0.05	0	0	0	0	0	3.5	0.5	0.25	SCS	13.672	SCS CN	0.2 S
61_2	0.05	0.05	0	0	0	0	0	3.5	0.5	0.25	SCS	13.672	SCS CN	0.2 S
58_1	0.05	0.05	0	0	0	0	0	3.5	0.5	0.25	SCS	19.797	SCS CN	0.2 S
58_2	0.05	0.05	0	0	0	0	0	3.5	0.5	0.25	SCS	19.797	SCS CN	0.2 S
23_1	0.05	0.05	0	0	0	0	0	3.5	0.5	0.25	SCS	5.807	SCS CN	0.2 S
17_1	0.05	0.05	0	0	0	0	0	3.5	0.5	0.25	SCS	8.193	SCS CN	0.2 S
17_2	0.05	0.05	0	0	0	0	0	3.5	0.5	0.25	SCS	8.193	SCS CN	0.2 S
75	0.05	0.05	0	0	0	0	0	3.5	0.5	0.25	SCS	10.865	SCS CN	0.2 S
29_2	0.05	0.05	0	0	0	0	0	3.5	0.5	0.25	SCS	6.707	SCS CN	0.2 S
37_2	0.05	0.05	0	0	0	0	0	3.5	0.5	0.25	SCS	2.95	SCS CN	0.2 S
86	0.05	0.05	0	0	0	0	0	3.5	0.5	0.25	SCS	5.565	SCS CN	0.2 S

Table 4B: ARM Subcatchments (continued...)

Name	Dstore Imperv (in)	Dstore Perv (in)	Max. Infil. Rate (in/hr)	Min. Infil. Rate (in/hr)	Decay Constant (1/hr)	Drying Time (days)	Max. Volume (in)	Suction Head (in)	Conductivity (in/hr)	Initial Deficit (frac.)	TC Method	Time of Concentration (min)	Loss Method	IA Method
73_1	0.05	0.05	0	0	0	0	0	3.5	0.5	0.25	SCS	5.732	SCS CN	0.2 S
73_2	0.05	0.05	0	0	0	0	0	3.5	0.5	0.25	SCS	5.732	SCS CN	0.2 S
2_1	0.05	0.05	3	0.5	4	7	0	3.5	0.5	0.25	SCS	3.239	SCS CN	0.2 S
2_2	0.05	0.05	3	0.5	4	7	0	3.5	0.5	0.25	SCS	2.617	SCS CN	0.2 S
106	0.05	0.05	0	0	0	0	0	3.5	0.5	0.25	SCS	1.339	SCS CN	0.2 S
23_2	0.05	0.05	0	0	0	0	0	3.5	0.5	0.25	SCS	2.668	SCS CN	0.2 S
117_3	0.05	0.05	0	0	0	0	0	3.5	0.5	0.25	SCS	18.904	SCS CN	0.2 S
117	0.05	0.05	0	0	0	0	0	3.5	0.5	0.25	SCS	5.853	SCS CN	0.2 S

Table 4C: ARM Subcatchments

Name	IA Value (in)	SCS Curve Number	Peak Rate Factor	Initial Loss (in)	Const. Rate (in/hr)	Runoff Coef.	Lag Time (min)	Peak Coef.	# Reservoirs	Storage Coef. (h)	IDF Curve	Return Period (y)	Steady Duration (mins)	Peak Rainfall (in/hr)	Roughness
1	0.479	80.689	Standard (483.4)	0	0	0.6	30	0.6	3	0.4		5	60	0	0.1
4	0.482	80.579	Standard (483.4)	0	0	0.6	30	0.6	3	0.4		5	60	0	0.1
5	0.307	86.698	Standard (483.4)	0	0	0.6	30	0.6	3	0.4		5	60	0	0.1
6	0.579	77.536	Standard (483.4)	0	0	0.6	30	0.6	3	0.4		5	60	0	0.1
7	0.051	97.504	Standard (483.4)	0	0	0.6	30	0.6	3	0.4		5	60	0	0.1
9	0.068	96.713	Standard (483.4)	0	0	0.6	30	0.6	3	0.4		5	60	0	0.1
10	0.365	84.549	Standard (483.4)	0	0	0.6	30	0.6	3	0.4		5	60	0	0.1
11	0.059	97.12	Standard (483.4)	0	0	0.6	30	0.6	3	0.4		5	60	0	0.1
12	0.412	82.906	Standard (483.4)	0	0	0.6	30	0.6	3	0.4		5	60	0	0.1
13	0.283	87.599	Standard (483.4)	0	0	0.6	30	0.6	3	0.4		5	60	0	0.1
14	0.42	82.648	Standard (483.4)	0	0	0.6	30	0.6	3	0.4		5	60	0	0.1
15	0.565	77.961	Standard (483.4)	0	0	0.6	30	0.6	3	0.4		5	60	0	0.1

Table 4C: ARM Subcatchments (continued...)

Name	IA Value (in)	SCS Curve Number	Peak Rate Factor	Initial Loss (in)	Const. Rate (in/hr)	Runoff Coef.	Lag Time (min)	Peak Coef.	# Reservoirs	Storage Coef. (h)	IDF Curve	Return Period (y)	Steady Duration (mins)	Peak Rainfall (in/hr)	Roughness
16	0.254	88.735	Standard (483.4)	0	0	0.6	30	0.6	3	0.4		5	60	0	0.1
18	0.05	97.556	Standard (483.4)	0	0	0.6	30	0.6	3	0.4		5	60	0	0.1
19	0.043	97.878	Standard (483.4)	0	0	0.6	30	0.6	3	0.4		5	60	0	0.1
20	0.325	86.012	Standard (483.4)	0	0	0.6	30	0.6	3	0.4		5	60	0	0.1
21	0.4	83.319	Standard (483.4)	0	0	0.6	30	0.6	3	0.4		5	60	0	0.1
22	0.28	87.729	Standard (483.4)	0	0	0.6	30	0.6	3	0.4		5	60	0	0.1
24	0.042	97.926	Standard (483.4)	0	0	0.6	30	0.6	3	0.4		5	60	0	0.1
26	0.282	87.636	Standard (483.4)	0	0	0.6	30	0.6	3	0.4		5	60	0	0.1
28	0.397	83.444	Standard (483.4)	0	0	0.6	30	0.6	3	0.4		5	60	0	0.1
30	0.271	88.051	Standard (483.4)	0	0	0.6	30	0.6	3	0.4		5	60	0	0.1
31	0.458	81.368	Standard (483.4)	0	0	0.6	30	0.6	3	0.4		5	60	0	0.1
32	0.519	79.383	Standard (483.4)	0	0	0.6	30	0.6	3	0.4		5	60	0	0.1
33	0.172	92.095	Standard (483.4)	0	0	0.6	30	0.6	3	0.4		5	60	0	0.1
34	0.406	83.142	Standard (483.4)	0	0	0.6	30	0.6	3	0.4		5	60	0	0.1
36	0.323	86.091	Standard (483.4)	0	0	0.6	30	0.6	3	0.4		5	60	0	0.1
38	0.283	87.6	Standard (483.4)	0	0	0.6	30	0.6	3	0.4		5	60	0	0.1
39	0.467	81.082	Standard (483.4)	0	0	0.6	30	0.6	3	0.4		5	60	0	0.1
40	0.265	88.286	Standard (483.4)	0	0	0.6	30	0.6	3	0.4		5	60	0	0.1
41	0.424	82.512	Standard (483.4)	0	0	0.6	30	0.6	3	0.4		5	60	0	0.1
42	0.041	98	Standard (483.4)	0	0	0.6	30	0.6	3	0.4		5	60	0	0.1
43	0.201	90.87	Standard (483.4)	0	0	0.6	30	0.6	3	0.4		5	60	0	0.1
44	0.294	87.195	Standard (483.4)	0	0	0.6	30	0.6	3	0.4		5	60	0	0.1
45	0.494	80.208	Standard (483.4)	0	0	0.6	30	0.6	3	0.4		5	60	0	0.1
46	0.068	96.69	Standard (483.4)	0	0	0.6	30	0.6	3	0.4		5	60	0	0.1
47	0.444	81.843	Standard (483.4)	0	0	0.6	30	0.6	3	0.4		5	60	0	0.1
48	0.099	95.301	Standard (483.4)	0	0	0.6	30	0.6	3	0.4		5	60	0	0.1

Table 4C: ARM Subcatchments (continued...)

Name	IA Value (in)	SCS Curve Number	Peak Rate Factor	Initial Loss (in)	Const. Rate (in/hr)	Runoff Coef.	Lag Time (min)	Peak Coef.	# Reservoirs	Storage Coef. (h)	IDF Curve	Return Period (y)	Steady Duration (mins)	Peak Rainfall (in/hr)	Roughness
49	0.087	95.837	Standard (483.4)	0	0	0.6	30	0.6	3	0.4		5	60	0	0.1
50	0.116	94.517	Standard (483.4)	0	0	0.6	30	0.6	3	0.4		5	60	0	0.1
51	0.31	86.575	Standard (483.4)	0	0	0.6	30	0.6	3	0.4		5	60	0	0.1
52	0.367	84.501	Standard (483.4)	0	0	0.6	30	0.6	3	0.4		5	60	0	0.1
53	0.568	77.893	Standard (483.4)	0	0	0.6	30	0.6	3	0.4		5	60	0	0.1
54	0.337	85.592	Standard (483.4)	0	0	0.6	30	0.6	3	0.4		5	60	0	0.1
55	0.443	81.88	Standard (483.4)	0	0	0.6	30	0.6	3	0.4		5	60	0	0.1
56	0.042	97.934	Standard (483.4)	0	0	0.6	30	0.6	3	0.4		5	60	0	0.1
57	0.155	92.795	Standard (483.4)	0	0	0.6	30	0.6	3	0.4		5	60	0	0.1
59	0.041	98	Standard (483.4)	0	0	0.6	30	0.6	3	0.4		5	60	0	0.1
60	0.041	97.979	Standard (483.4)	0	0	0.6	30	0.6	3	0.4		5	60	0	0.1
62	0.293	87.228	Standard (483.4)	0	0	0.6	30	0.6	3	0.4		5	60	0	0.1
63	0.044	97.858	Standard (483.4)	0	0	0.6	30	0.6	3	0.4		5	60	0	0.1
64	0.041	98	Standard (483.4)	0	0	0.6	30	0.6	3	0.4		5	60	0	0.1
65	0.042	97.947	Standard (483.4)	0	0	0.6	30	0.6	3	0.4		5	60	0	0.1
66	0.165	92.394	Standard (483.4)	0	0	0.6	30	0.6	3	0.4		5	60	0	0.1
67	0.169	92.229	Standard (483.4)	0	0	0.6	30	0.6	3	0.4		5	60	0	0.1
68	0.059	97.12	Standard (483.4)	0	0	0.6	30	0.6	3	0.4		5	60	0	0.1
69	0.481	80.597	Standard (483.4)	0	0	0.6	30	0.6	3	0.4		5	60	0	0.1
70	0.042	97.967	Standard (483.4)	0	0	0.6	30	0.6	3	0.4		5	60	0	0.1
71	0.526	79.187	Standard (483.4)	0	0	0.6	30	0.6	3	0.4		5	60	0	0.1
72	0.374	84.241	Standard (483.4)	0	0	0.6	30	0.6	3	0.4		5	60	0	0.1
74	0.431	82.258	Standard (483.4)	0	0	0.6	30	0.6	3	0.4		5	60	0	0.1
76	0.428	82.383	Standard (483.4)	0	0	0.6	30	0.6	3	0.4		5	60	0	0.1
77	0.307	86.692	Standard (483.4)	0	0	0.6	30	0.6	3	0.4		5	60	0	0.1
78	0.29	87.325	Standard (483.4)	0	0	0.6	30	0.6	3	0.4		5	60	0	0.1

Table 4C: ARM Subcatchments (continued...)

Name	IA Value (in)	SCS Curve Number	Peak Rate Factor	Initial Loss (in)	Const. Rate (in/hr)	Runoff Coef.	Lag Time (min)	Peak Coef.	# Reservoirs	Storage Coef. (h)	IDF Curve	Return Period (y)	Steady Duration (mins)	Peak Rainfall (in/hr)	Roughness
79	0.067	96.766	Standard (483.4)	0	0	0.6	30	0.6	3	0.4		5	60	0	0.1
80	0.448	81.695	Standard (483.4)	0	0	0.6	30	0.6	3	0.4		5	60	0	0.1
81	0.52	79.379	Standard (483.4)	0	0	0.6	30	0.6	3	0.4		5	60	0	0.1
82	0.425	82.461	Standard (483.4)	0	0	0.6	30	0.6	3	0.4		5	60	0	0.1
83	0.307	86.697	Standard (483.4)	0	0	0.6	30	0.6	3	0.4		5	60	0	0.1
87	0.052	97.446	Standard (483.4)	0	0	0.6	30	0.6	3	0.4		5	60	0	0.1
88	0.31	86.593	Standard (483.4)	0	0	0.6	30	0.6	3	0.4		5	60	0	0.1
89	0.054	97.385	Standard (483.4)	0	0	0.6	30	0.6	3	0.4		5	60	0	0.1
90	0.083	96.019	Standard (483.4)	0	0	0.6	30	0.6	3	0.4		5	60	0	0.1
91	0.073	96.489	Standard (483.4)	0	0	0.6	30	0.6	3	0.4		5	60	0	0.1
93	0.486	80.438	Standard (483.4)	0	0	0.6	30	0.6	3	0.4		5	60	0	0.1
94	0.487	80.428	Standard (483.4)	0	0	0.6	30	0.6	3	0.4		5	60	0	0.1
95	0.238	89.382	Standard (483.4)	0	0	0.6	30	0.6	3	0.4		5	60	0	0.1
96	0.537	78.821	Standard (483.4)	0	0	0.6	30	0.6	3	0.4		5	60	0	0.1
97	0.052	97.473	Standard (483.4)	0	0	0.6	30	0.6	3	0.4		5	60	0	0.1
98	0.356	84.904	Standard (483.4)	0	0	0.6	30	0.6	3	0.4		5	60	0	0.1
99	0.139	93.503	Standard (483.4)	0	0	0.6	30	0.6	3	0.4		5	60	0	0.1
100	0.365	84.565	Standard (483.4)	0	0	0.6	30	0.6	3	0.4		5	60	0	0.1
101	0.098	95.334	Standard (483.4)	0	0	0.6	30	0.6	3	0.4		5	60	0	0.1
102	0.045	97.776	Standard (483.4)	0	0	0.6	30	0.6	3	0.4		5	60	0	0.1
103	0.527	79.151	Standard (483.4)	0	0	0.6	30	0.6	3	0.4		5	60	0	0.1
104	0.539	78.764	Standard (483.4)	0	0	0.6	30	0.6	3	0.4		5	60	0	0.1
107	0.251	88.856	Standard (483.4)	0	0	0.6	30	0.6	3	0.4		5	60	0	0.1
108	0.441	81.945	Standard (483.4)	0	0	0.6	30	0.6	3	0.4		5	60	0	0.1
109	0.5	80.012	Standard (483.4)	0	0	0.6	30	0.6	3	0.4		5	60	0	0.1
110	0.329	85.892	Standard (483.4)	0	0	0.6	30	0.6	3	0.4		5	60	0	0.1

Table 4C: ARM Subcatchments (continued...)

Name	IA Value (in)	SCS Curve Number	Peak Rate Factor	Initial Loss (in)	Const. Rate (in/hr)	Runoff Coef.	Lag Time (min)	Peak Coef.	# Reservoirs	Storage Coef. (h)	IDF Curve	Return Period (y)	Steady Duration (mins)	Peak Rainfall (in/hr)	Roughness
111	0.56	78.126	Standard (483.4)	0	0	0.6	30	0.6	3	0.4		5	60	0	0.1
112	0.454	81.494	Standard (483.4)	0	0	0.6	30	0.6	3	0.4		5	60	0	0.1
113	0.052	97.485	Standard (483.4)	0	0	0.6	30	0.6	3	0.4		5	60	0	0.1
114	0.491	80.304	Standard (483.4)	0	0	0.6	30	0.6	3	0.4		5	60	0	0.1
115	0.29	87.326	Standard (483.4)	0	0	0.6	30	0.6	3	0.4		5	60	0	0.1
118	0.564	78.001	Standard (483.4)	0	0	0.6	30	0.6	3	0.4		5	60	0	0.1
119	0.25	88.87	Standard (483.4)	0	0	0.6	30	0.6	3	0.4		5	60	0	0.1
120	0.075	96.4	Standard (483.4)	0	0	0.6	30	0.6	3	0.4		5	60	0	0.1
121	0.415	82.8	Standard (483.4)	0	0	0.6	30	0.6	3	0.4		5	60	0	0.1
122	0.348	85.169	Standard (483.4)	0	0	0.6	30	0.6	3	0.4		5	60	0	0.1
123	0.36	84.757	Standard (483.4)	0	0	0.6	30	0.6	3	0.4		5	60	0	0.1
124	0.486	80.456	Standard (483.4)	0	0	0.6	30	0.6	3	0.4		5	60	0	0.1
125	0.596	77.044	Standard (483.4)	0	0	0.6	30	0.6	3	0.4		5	60	0	0.1
126	0.368	84.449	Standard (483.4)	0	0	0.6	30	0.6	3	0.4		5	60	0	0.1
127	0.277	87.828	Standard (483.4)	0	0	0.6	30	0.6	3	0.4		5	60	0	0.1
128	0.4	83.32	Standard (483.4)	0	0	0.6	30	0.6	3	0.4		5	60	0	0.1
129	0.372	84.308	Standard (483.4)	0	0	0.6	30	0.6	3	0.4		5	60	0	0.1
130	0.377	84.137	Standard (483.4)	0	0	0.6	30	0.6	3	0.4		5	60	0	0.1
131	0.114	94.611	Standard (483.4)	0	0	0.6	30	0.6	3	0.4		5	60	0	0.1
3	0.168	92.236	Standard (483.4)	0	0	0.6	30	0.6	3	0.4		5	60	0	0.1
8	0.164	92.417	Standard (483.4)	0	0	0.6	30	0.6	3	0.4		5	60	0	0.1
86_4	0.46	81.316	Standard (483.4)	0	0	0.6	30	0.6	3	0.4		5	60	0	0.1
61_1	0.281	87.676	Standard (483.4)	0	0	0.6	30	0.6	3	0.4		5	60	0	0.1
61_2	0.281	87.676	Standard (483.4)	0	0	0.6	30	0.6	3	0.4		5	60	0	0.1
58_1	0.485	80.467	Standard (483.4)	0	0	0.6	30	0.6	3	0.4		5	60	0	0.1
58_2	0.485	80.467	Standard (483.4)	0	0	0.6	30	0.6	3	0.4		5	60	0	0.1

Table 4C: ARM Subcatchments (continued...)

Name	IA Value (in)	SCS Curve Number	Peak Rate Factor	Initial Loss (in)	Const. Rate (in/hr)	Runoff Coef.	Lag Time (min)	Peak Coef.	# Reservoirs	Storage Coef. (h)	IDF Curve	Return Period (y)	Steady Duration (mins)	Peak Rainfall (in/hr)	Roughness
23_1	0.16	92.604	Standard (483.4)	0	0	0.6	30	0.6	3	0.4		5	60	0	0.1
17_1	0.075	96.402	Standard (483.4)	0	0	0.6	30	0.6	3	0.4		5	60	0	0.1
17_2	0.075	96.402	Standard (483.4)	0	0	0.6	30	0.6	3	0.4		5	60	0	0.1
75	0.441	81.94	Standard (483.4)	0	0	0.6	30	0.6	3	0.4		5	60	0	0.1
29_2	0.433	82.202	Standard (483.4)	0	0	0.6	30	0.6	3	0.4		5	60	0	0.1
37_2	0.265	88.304	Standard (483.4)	0	0	0.6	30	0.6	3	0.4		5	60	0	0.1
86	0.393	83.568	Standard (483.4)	0	0	0.6	30	0.6	3	0.4		5	60	0	0.1
73_1	0.042	97.948	Standard (483.4)	0	0	0.6	30	0.6	3	0.4		5	60	0	0.1
73_2	0.042	97.948	Standard (483.4)	0	0	0.6	30	0.6	3	0.4		5	60	0	0.1
2_1	0.137	93.598	Standard (483.4)	0	0	0.6	30	0.6	3	0.4		5	60	0	0.1
2_2	0.503	79.917	Standard (483.4)	0	0	0.6	30	0.6	3	0.4		5	60	0	0.1
106	0.041	98	Standard (483.4)	0	0	0.6	30	0.6	3	0.4		5	60	0	0.1
23_2	0.041	98	Standard (483.4)	0	0	0.6	30	0.6	3	0.4		5	60	0	0.1
117_3	0.308	86.638	Standard (483.4)	0	0	0.6	30	0.6	3	0.4		5	60	0	0.1
117	0.151	92.966	Standard (483.4)	0	0	0.6	30	0.6	3	0.4		5	60	0	0.1

Table 4D: ARM Subcatchments

Name	Version	Rainfall Zone	Soil Type	Hydrograph Fattening	Runoff Depth (in)	Total rainfall (in)	Fire Factor	User entered PRF	Precipitation (in)	Infiltration (in)	Runoff Depth (in)	Runoff Volume (MG)	Peak Runoff (cfs)	Runoff Coefficient
1	2017			No	0	0	0	0	3.67	1.385	2.287	0.019	1.606	0.623
4	2017			No	0	0	0	0	3.67	1.855	1.817	0.068	4.715	0.495
5	2017			No	0	0	0	0	3.67	1.36	2.311	0.203	15.367	0.63
6	2017			No	0	0	0	0	3.67	2.075	1.596	0.017	1.339	0.435
7	2017			No	0	0	0	0	3.67	0.29	3.382	0.039	4.286	0.921
9	2017			No	0	0	0	0	3.67	0.379	3.294	0.025	3.19	0.898
10	2017			No	0	0	0	0	3.67	1.542	2.129	0.296	20.745	0.58
11	2017			No	0	0	0	0	3.67	0.333	3.338	0.021	2.193	0.91
12	2017			No	0	0	0	0	3.67	1.675	1.996	0.273	18.86	0.544
13	2017			No	0	0	0	0	3.67	1.281	2.39	0.009	0.796	0.651
14	2017			No	0	0	0	0	3.67	1.695	1.976	0.019	1.482	0.538
15	2017			No	0	0	0	0	3.67	2.045	1.626	0.012	0.927	0.443
16	2017			No	0	0	0	0	3.67	1.179	2.492	0.013	1.204	0.679
18	2017			No	0	0	0	0	3.67	0.284	3.388	0.007	0.907	0.923
19	2017			No	0	0	0	0	3.67	0.248	3.424	0.006	0.642	0.933
20	2017			No	0	0	0	0	3.67	1.419	2.252	0.023	1.69	0.614
21	2017			No	0	0	0	0	3.67	1.642	2.029	0.059	4.271	0.553
22	2017			No	0	0	0	0	3.67	1.27	2.401	0.022	1.98	0.654
24	2017			No	0	0	0	0	3.67	0.242	3.43	0.012	1.477	0.935
26	2017			No	0	0	0	0	3.67	1.278	2.393	0.016	1.228	0.652
28	2017			No	0	0	0	0	3.67	1.632	2.039	0.012	0.881	0.556
30	2017			No	0	0	0	0	3.67	1.241	2.431	0.114	8.508	0.662
31	2017			No	0	0	0	0	3.67	1.795	1.876	0.016	1.209	0.511
32	2017			No	0	0	0	0	3.67	1.943	1.728	0.09	6.569	0.471
33	2017			No	0	0	0	0	3.67	0.861	2.811	0.049	2.925	0.766
34	2017			No	0	0	0	0	3.67	1.656	2.015	0.024	1.664	0.549

Table 4D: ARM Subcatchments (continued...)

Name	Version	Rainfall Zone	Soil Type	Hydrograph Fattening	Runoff Depth (in)	Total rainfall (in)	Fire Factor	User entered PRF	Precipitation (in)	Infiltration (in)	Runoff Depth (in)	Runoff Volume (MG)	Peak Runoff (cfs)	Runoff Coefficient
36	2017			No	0	0	0	0	3.67	1.413	2.259	0.035	2.294	0.615
38	2017			No	0	0	0	0	3.67	1.281	2.39	0.039	3.974	0.651
39	2017			No	0	0	0	0	3.67	1.817	1.855	0.151	10.55	0.505
40	2017			No	0	0	0	0	3.67	1.22	2.451	0.02	2.171	0.668
41	2017			No	0	0	0	0	3.67	1.706	1.965	0.027	1.543	0.535
42	2017			No	0	0	0	0	3.67	0.234	3.438	0.003	0.451	0.937
43	2017			No	0	0	0	0	3.67	0.98	2.692	0.037	4.3	0.733
44	2017			No	0	0	0	0	3.67	1.317	2.354	0.036	2.783	0.641
45	2017			No	0	0	0	0	3.67	1.882	1.789	0.098	6.126	0.487
46	2017			No	0	0	0	0	3.67	0.381	3.291	0.026	2.61	0.897
47	2017			No	0	0	0	0	3.67	1.758	1.913	0.015	1.088	0.521
48	2017			No	0	0	0	0	3.67	0.532	3.141	0.033	2.783	0.856
49	2017			No	0	0	0	0	3.67	0.474	3.198	0.005	0.475	0.871
50	2017			No	0	0	0	0	3.67	0.615	3.036	0.045	2.167	0.827
51	2017			No	0	0	0	0	3.67	1.371	2.301	0.019	1.826	0.627
52	2017			No	0	0	0	0	3.67	1.546	2.125	0.029	2.249	0.579
53	2017			No	0	0	0	0	3.67	2.05	1.621	0.038	2.812	0.442
54	2017			No	0	0	0	0	3.67	1.455	2.216	0.026	2.028	0.604
55	2017			No	0	0	0	0	3.67	1.755	1.916	0.016	1.244	0.522
56	2017			No	0	0	0	0	3.67	0.242	3.431	0.004	0.472	0.935
57	2017			No	0	0	0	0	3.67	0.791	2.881	0.013	1.337	0.785
59	2017			No	0	0	0	0	3.67	0.234	3.438	0.041	4.541	0.937
60	2017			No	0	0	0	0	3.67	0.236	3.436	0.014	1.686	0.936
62	2017			No	0	0	0	0	3.67	1.314	2.358	0.009	0.875	0.642
63	2017			No	0	0	0	0	3.67	0.25	3.423	0.014	1.87	0.933
64	2017			No	0	0	0	0	3.67	0.234	3.438	0.006	0.683	0.937

Table 4D: ARM Subcatchments (continued...)

Name	Version	Rainfall Zone	Soil Type	Hydrograph Fattening	Runoff Depth (in)	Total rainfall (in)	Fire Factor	User entered PRF	Precipitation (in)	Infiltration (in)	Runoff Depth (in)	Runoff Volume (MG)	Peak Runoff (cfs)	Runoff Coefficient
65	2017			No	0	0	0	0	3.67	0.24	3.432	0.004	0.528	0.935
66	2017			No	0	0	0	0	3.67	0.831	2.841	0.006	0.67	0.774
67	2017			No	0	0	0	0	3.67	0.848	2.824	0.004	0.494	0.77
68	2017			No	0	0	0	0	3.67	0.333	3.339	0.004	0.489	0.91
69	2017			No	0	0	0	0	3.67	1.853	1.818	0.015	1.119	0.495
70	2017			No	0	0	0	0	3.67	0.238	3.434	0.005	0.567	0.936
71	2017			No	0	0	0	0	3.67	1.957	1.714	0.015	1.062	0.467
72	2017			No	0	0	0	0	3.67	1.568	2.105	0.013	0.953	0.573
74	2017			No	0	0	0	0	3.67	1.726	1.945	0.029	2.178	0.53
76	2017			No	0	0	0	0	3.67	1.716	1.955	0.071	5.309	0.533
77	2017			No	0	0	0	0	3.67	1.361	2.31	0.017	1.664	0.63
78	2017			No	0	0	0	0	3.67	1.306	2.366	0.003	0.369	0.645
79	2017			No	0	0	0	0	3.67	0.373	3.3	0.017	1.988	0.899
80	2017			No	0	0	0	0	3.67	1.77	1.902	0.118	7.333	0.518
81	2017			No	0	0	0	0	3.67	1.943	1.728	0.032	2.329	0.471
82	2017			No	0	0	0	0	3.67	1.71	1.961	0.051	3.802	0.534
83	2017			No	0	0	0	0	3.67	1.361	2.311	0.013	0.888	0.63
87	2017			No	0	0	0	0	3.67	0.297	3.375	0.024	3.143	0.92
88	2017			No	0	0	0	0	3.67	1.37	2.302	0.014	1.157	0.627
89	2017			No	0	0	0	0	3.67	0.304	3.369	0.04	4.788	0.918
90	2017			No	0	0	0	0	3.67	0.455	3.218	0.002	0.17	0.877
91	2017			No	0	0	0	0	3.67	0.403	3.269	0.005	0.546	0.891
93	2017			No	0	0	0	0	3.67	1.865	1.802	0.011	0.566	0.491
94	2017			No	0	0	0	0	3.67	1.866	1.806	0.019	1.199	0.492
95	2017			No	0	0	0	0	3.67	1.12	2.552	0.004	0.398	0.695
96	2017			No	0	0	0	0	3.67	1.984	1.688	0.002	0.191	0.46

Table 4D: ARM Subcatchments (continued...)

Name	Version	Rainfall Zone	Soil Type	Hydrograph Fattening	Runoff Depth (in)	Total rainfall (in)	Fire Factor	User entered PRF	Precipitation (in)	Infiltration (in)	Runoff Depth (in)	Runoff Volume (MG)	Peak Runoff (cfs)	Runoff Coefficient
97	2017			No	0	0	0	0	3.67	0.294	3.378	0.041	5.331	0.921
98	2017			No	0	0	0	0	3.67	1.513	2.158	0.035	2.487	0.588
99	2017			No	0	0	0	0	3.67	0.72	2.953	0.025	2.028	0.805
100	2017			No	0	0	0	0	3.67	1.541	2.131	0.02	1.469	0.581
101	2017			No	0	0	0	0	3.67	0.528	3.144	0.018	2.006	0.857
102	2017			No	0	0	0	0	3.67	0.26	3.412	0.015	0.994	0.93
103	2017			No	0	0	0	0	3.67	1.96	1.711	0.007	0.52	0.466
104	2017			No	0	0	0	0	3.67	1.988	1.683	0.009	0.602	0.459
107	2017			No	0	0	0	0	3.67	1.168	2.503	0.039	2.961	0.682
108	2017			No	0	0	0	0	3.67	1.75	1.921	0.083	6.061	0.523
109	2017			No	0	0	0	0	3.67	1.897	1.775	0.045	3.143	0.484
110	2017			No	0	0	0	0	3.67	1.43	2.242	0.017	1.283	0.611
111	2017			No	0	0	0	0	3.67	2.033	1.638	0.042	3.114	0.446
112	2017			No	0	0	0	0	3.67	1.785	1.886	0.022	1.381	0.514
113	2017			No	0	0	0	0	3.67	0.292	3.38	0.004	0.56	0.921
114	2017			No	0	0	0	0	3.67	1.875	1.796	0.005	0.403	0.489
115	2017			No	0	0	0	0	3.67	1.306	2.366	0.056	4.617	0.645
118	2017			No	0	0	0	0	3.67	2.042	1.629	0.006	0.443	0.444
119	2017			No	0	0	0	0	3.67	1.167	2.505	0.14	10.732	0.683
120	2017			No	0	0	0	0	3.67	0.413	3.26	0.197	19.891	0.888
121	2017			No	0	0	0	0	3.67	1.683	1.988	0.201	15.173	0.542
122	2017			No	0	0	0	0	3.67	1.491	2.181	0.217	16.709	0.594
123	2017			No	0	0	0	0	3.67	1.525	2.147	0.23	16.592	0.585
124	2017			No	0	0	0	0	3.67	1.864	1.807	0.248	16.269	0.492
125	2017			No	0	0	0	0	3.67	2.109	1.562	0.056	3.829	0.426
126	2017			No	0	0	0	0	3.67	1.55	2.121	0.232	14.875	0.578

Table 4D: ARM Subcatchments (continued...)

Name	Version	Rainfall Zone	Soil Type	Hydrograph Fattening	Runoff Depth (in)	Total rainfall (in)	Fire Factor	User entered PRF	Precipitation (in)	Infiltration (in)	Runoff Depth (in)	Runoff Volume (MG)	Peak Runoff (cfs)	Runoff Coefficient
127	2017			No	0	0	0	0	3.67	1.261	2.41	0.172	12.758	0.657
128	2017			No	0	0	0	0	3.67	1.642	2.03	0.141	10.256	0.553
129	2017			No	0	0	0	0	3.67	1.562	2.109	0.262	18.975	0.575
130	2017			No	0	0	0	0	3.67	1.576	2.095	0.619	41.943	0.571
131	2017			No	0	0	0	0	3.67	0.605	3.067	0.051	4.912	0.836
3	2017			No	0	0	0	0	3.67	0.847	2.825	0.033	3.004	0.77
8	2017			No	0	0	0	0	3.67	0.829	2.843	0.018	1.928	0.775
86_4	2017			No	0	0	0	0	3.67	1.799	1.873	0.009	0.566	0.51
61_1	2017			No	0	0	0	0	3.67	1.275	2.397	0.001	0.094	0.653
61_2	2017			No	0	0	0	0	3.67	1.275	2.397	0.037	2.512	0.653
58_1	2017			No	0	0	0	0	3.67	1.863	1.807	0.086	4.958	0.493
58_2	2017			No	0	0	0	0	3.67	1.863	1.808	0.058	3.353	0.493
23_1	2017			No	0	0	0	0	3.67	0.81	2.862	0.003	0.306	0.78
17_1	2017			No	0	0	0	0	3.67	0.413	3.259	0.008	0.704	0.888
17_2	2017			No	0	0	0	0	3.67	0.413	3.26	0.013	1.151	0.888
75	2017			No	0	0	0	0	3.67	1.751	1.921	0.027	1.866	0.523
29_2	2017			No	0	0	0	0	3.67	1.73	1.941	0.013	0.998	0.529
37_2	2017			No	0	0	0	0	3.67	1.218	2.453	0.024	2.339	0.668
86	2017			No	0	0	0	0	3.67	1.622	2.05	0.008	0.617	0.559
73_1	2017			No	0	0	0	0	3.67	0.24	3.433	0.002	0.259	0.935
73_2	2017			No	0	0	0	0	3.67	0.24	3.432	0.003	0.288	0.935
2_1	2017			No	0	0	0	0	3.67	0.71	2.962	0.064	7.133	0.807
2_2	2017			No	0	0	0	0	3.67	1.904	1.768	0.02	1.552	0.482
106	2017			No	0	0	0	0	3.67	0.234	3.439	0.007	0.963	0.937
23_2	2017			No	0	0	0	0	3.67	0.234	3.439	0.004	0.542	0.937
117_3	2017			No	0	0	0	0	3.67	1.366	2.306	0.063	3.869	0.628

Table 4D: ARM Subcatchments (continued...)

Name	Version	Rainfall Zone	Soil Type	Hydrograph Fattening	Runoff Depth (in)	Total rainfall (in)	Fire Factor	User entered PRF	Precipitation (in)	Infiltration (in)	Runoff Depth (in)	Runoff Volume (MG)	Peak Runoff (cfs)	Runoff Coefficient
117	2017			No	0	0	0	0	3.67	0.774	2.898	0.045	4.159	0.79

Table 4E: ARM Subcatchments

Name	GIS_LENGTH (m)	GIS_AREA (m²)	GIS_PARTS
1	154.635	1209.716	1
4	434.721	5569.987	1
5	688.333	13121.813	1
6	165.063	1601.158	1
7	279.25	1712.989	1
9	145.093	1147.337	1
10	727.402	20700.107	1
11	436.343	951.474	1
12	783.379	20396.177	1
13	99.61	534.105	1
14	177.182	1465.324	1
15	189.585	1135.504	1
16	133.068	770.993	1
18	183.5	325.11	1
19	143.802	270.912	1
20	175.612	1505.936	1
21	279.741	4361.183	1
22	192.897	1360.363	1
24	179.027	517.277	1

Table 4E: ARM Subcatchments (continued...)

Name	GIS_LENGTH (m)	GIS_AREA (m²)	GIS_PARTS
26	209.899	989.457	1
28	133.356	899.506	1
30	566.214	6979.555	1
31	160.561	1282.14	1
32	387.181	7740.839	1
33	610.326	2572.139	1
34	295.461	1790.773	1
36	200.856	2297.748	1
38	260.733	2428.257	1
39	511.372	12113.382	1
40	173.988	1228.935	1
41	308.193	2052.56	1
42	78.271	149.092	1
43	211.497	2046.641	1
44	197.086	2275.293	1
45	503.393	8148.033	1
46	494.218	1162.365	1
47	166.804	1186.109	1
48	290.409	1587.144	1
49	120.582	213.414	1
50	197.959	2193.81	1
51	157.435	1218.811	1
52	215.819	2034.061	1
53	264.725	3500.663	1
54	173.227	1769.134	1
55	177.091	1277.85	1

Table 4E: ARM Subcatchments (continued...)

Name	GIS_LENGTH (m)	GIS_AREA (m²)	GIS_PARTS
56	93.382	158.742	1
57	187.499	650.423	1
59	240.785	1756.087	1
60	120.699	599.578	1
62	129.536	543.378	1
63	117.844	619.088	1
64	146.056	242.937	1
65	108.643	178.189	1
66	143.632	334.954	1
67	96.67	231.479	1
68	98.065	169.191	1
69	148.884	1202.844	1
70	124.871	222.306	1
71	185.512	1279.816	1
72	169.503	898.545	1
74	234.392	2242.732	1
76	317.561	5429.396	1
77	162.069	1089.275	1
78	76.534	212.043	1
79	122.027	763.989	1
80	451.441	9238.774	1
81	234.875	2788.332	1
82	322.969	3879.722	1
83	143.137	820.256	1
87	134.117	1062.128	1
88	188.52	909.309	1

Table 4E: ARM Subcatchments (continued...)

Name	GIS_LENGTH (m)	GIS_AREA (m²)	GIS_PARTS
89	211.162	1783.753	1
90	61.449	111.419	1
91	88.846	222.123	1
93	124.946	919.535	1
94	168.582	1564.08	1
95	74.626	218.669	1
96	73.082	217.43	1
97	193.216	1826.758	1
98	271.175	2435.024	1
99	331.561	1238.602	1
100	192.415	1401.965	1
101	196.124	870.626	1
102	301.184	648.628	1
103	128.07	582.207	1
104	113.592	777.471	1
107	319.546	2332.389	1
108	371.427	6445.474	1
109	277.119	3820.374	1
110	184.797	1130.521	1
111	359.166	3850.194	1
112	236.277	1736.221	1
113	92.939	190.339	1
114	162.431	442.021	1
115	241.755	3501.085	1
118	96.054	520.308	1
119	633.992	8353.201	1

Table 4E: ARM Subcatchments (continued...)

Name	GIS_LENGTH (m)	GIS_AREA (m²)	GIS_PARTS
120	469.788	9009.88	1
121	569.668	15066.692	1
122	682.991	14843.188	1
123	805.428	15967.1	1
124	763.206	20415.068	1
125	332.976	5329.227	1
126	989.837	16316.516	1
127	835.79	10653.399	1
128	479.641	10379.228	1
129	629.568	18487.993	1
130	926.178	44056.568	1
131	720.254	2483.466	1
3	205.501	1724.603	1
8	166.072	935.258	1
86_4	117.016	744.554	1
61_1	45.333	84.239	1
61_2	439.43	2274.453	1
58_1	380.449	7047.44	1
58_2	494.728	4767.467	1
23_1	83.264	173.214	1
17_1	204.508	356.135	1
17_2	232.834	583.669	1
75	220.685	2076.895	1
29_2	144.074	1018.803	1
37_2	182.599	1453.502	1
86	150.621	587.308	2

Table 4E: ARM Subcatchments (continued...)

Name	GIS_LENGTH (m)	GIS_AREA (m²)	GIS_PARTS
73_1	65.47	106.591	1
73_2	70.628	116.35	1
2_1	343.725	3202.245	3
2_2	259.584	1692.125	1
106	77.019	321.49	1
23_2	87.846	185.137	1
117_3	656.555	4071.625	1
117	294.386	2312.945	1

Appendix B. USDA Web Soil Survey

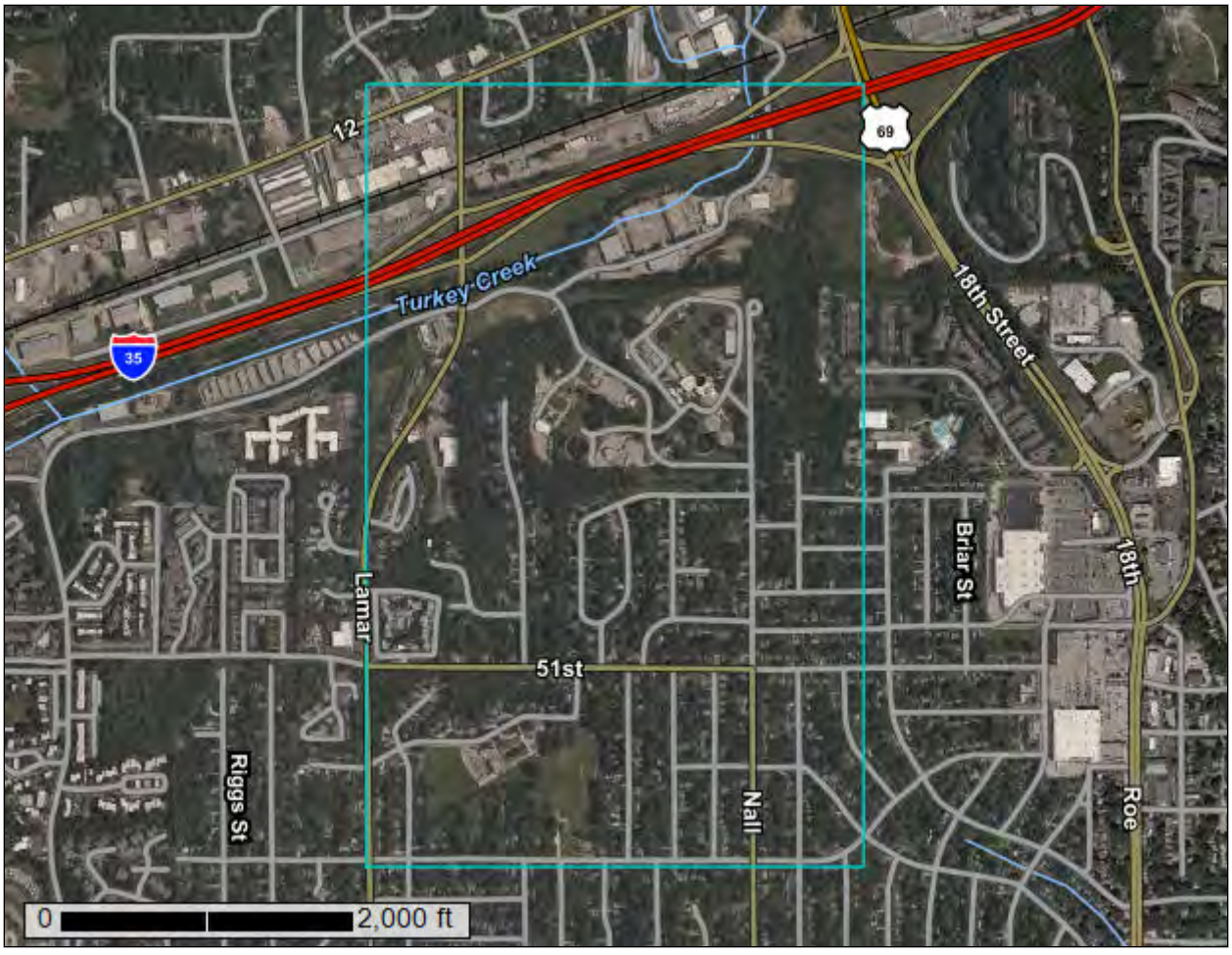
United States Department of Agriculture

NRCS

Natural Resources Conservation Service

A product of the National Cooperative Soil Survey, a joint effort of the United States Department of Agriculture and other Federal agencies, State agencies including the Agricultural Experiment Stations, and local participants

Custom Soil Resource Report for Johnson County, Kansas, and Wyandotte County, Kansas



May 25, 2022

Preface

Soil surveys contain information that affects land use planning in survey areas. They highlight soil limitations that affect various land uses and provide information about the properties of the soils in the survey areas. Soil surveys are designed for many different users, including farmers, ranchers, foresters, agronomists, urban planners, community officials, engineers, developers, builders, and home buyers. Also, conservationists, teachers, students, and specialists in recreation, waste disposal, and pollution control can use the surveys to help them understand, protect, or enhance the environment.

Various land use regulations of Federal, State, and local governments may impose special restrictions on land use or land treatment. Soil surveys identify soil properties that are used in making various land use or land treatment decisions. The information is intended to help the land users identify and reduce the effects of soil limitations on various land uses. The landowner or user is responsible for identifying and complying with existing laws and regulations.

Although soil survey information can be used for general farm, local, and wider area planning, onsite investigation is needed to supplement this information in some cases. Examples include soil quality assessments (http://www.nrcs.usda.gov/wps/portal/nrcs/main/soils/health/) and certain conservation and engineering applications. For more detailed information, contact your local USDA Service Center (https://offices.sc.egov.usda.gov/locator/app?agency=nrcs) or your NRCS State Soil Scientist (http://www.nrcs.usda.gov/wps/portal/nrcs/detail/soils/contactus/?cid=nrcs142p2_053951).

Great differences in soil properties can occur within short distances. Some soils are seasonally wet or subject to flooding. Some are too unstable to be used as a foundation for buildings or roads. Clayey or wet soils are poorly suited to use as septic tank absorption fields. A high water table makes a soil poorly suited to basements or underground installations.

The National Cooperative Soil Survey is a joint effort of the United States Department of Agriculture and other Federal agencies, State agencies including the Agricultural Experiment Stations, and local agencies. The Natural Resources Conservation Service (NRCS) has leadership for the Federal part of the National Cooperative Soil Survey.

Information about soils is updated periodically. Updated information is available through the NRCS Web Soil Survey, the site for official soil survey information.

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Contents

How Soil Surveys Are Made

Soil surveys are made to provide information about the soils and miscellaneous areas in a specific area. They include a description of the soils and miscellaneous areas and their location on the landscape and tables that show soil properties and limitations affecting various uses. Soil scientists observed the steepness, length, and shape of the slopes; the general pattern of drainage; the kinds of crops and native plants; and the kinds of bedrock. They observed and described many soil profiles. A soil profile is the sequence of natural layers, or horizons, in a soil. The profile extends from the surface down into the unconsolidated material in which the soil formed or from the surface down to bedrock. The unconsolidated material is devoid of roots and other living organisms and has not been changed by other biological activity.

Currently, soils are mapped according to the boundaries of major land resource areas (MLRAs). MLRAs are geographically associated land resource units that share common characteristics related to physiography, geology, climate, water resources, soils, biological resources, and land uses (USDA, 2006). Soil survey areas typically consist of parts of one or more MLRA.

The soils and miscellaneous areas in a survey area occur in an orderly pattern that is related to the geology, landforms, relief, climate, and natural vegetation of the area. Each kind of soil and miscellaneous area is associated with a particular kind of landform or with a segment of the landform. By observing the soils and miscellaneous areas in the survey area and relating their position to specific segments of the landform, a soil scientist develops a concept, or model, of how they were formed. Thus, during mapping, this model enables the soil scientist to predict with a considerable degree of accuracy the kind of soil or miscellaneous area at a specific location on the landscape.

Commonly, individual soils on the landscape merge into one another as their characteristics gradually change. To construct an accurate soil map, however, soil scientists must determine the boundaries between the soils. They can observe only a limited number of soil profiles. Nevertheless, these observations, supplemented by an understanding of the soil-vegetation-landscape relationship, are sufficient to verify predictions of the kinds of soil in an area and to determine the boundaries.

Soil scientists recorded the characteristics of the soil profiles that they studied. They noted soil color, texture, size and shape of soil aggregates, kind and amount of rock fragments, distribution of plant roots, reaction, and other features that enable them to identify soils. After describing the soils in the survey area and determining their properties, the soil scientists assigned the soils to taxonomic classes (units). Taxonomic classes are concepts. Each taxonomic class has a set of soil characteristics with precisely defined limits. The classes are used as a basis for comparison to classify soils systematically. Soil taxonomy, the system of taxonomic classification used in the United States, is based mainly on the kind and character of soil properties and the arrangement of horizons within the profile. After the soil

scientists classified and named the soils in the survey area, they compared the individual soils with similar soils in the same taxonomic class in other areas so that they could confirm data and assemble additional data based on experience and research.

The objective of soil mapping is not to delineate pure map unit components; the objective is to separate the landscape into landforms or landform segments that have similar use and management requirements. Each map unit is defined by a unique combination of soil components and/or miscellaneous areas in predictable proportions. Some components may be highly contrasting to the other components of the map unit. The presence of minor components in a map unit in no way diminishes the usefulness or accuracy of the data. The delineation of such landforms and landform segments on the map provides sufficient information for the development of resource plans. If intensive use of small areas is planned, onsite investigation is needed to define and locate the soils and miscellaneous areas.

Soil scientists make many field observations in the process of producing a soil map. The frequency of observation is dependent upon several factors, including scale of mapping, intensity of mapping, design of map units, complexity of the landscape, and experience of the soil scientist. Observations are made to test and refine the soil-landscape model and predictions and to verify the classification of the soils at specific locations. Once the soil-landscape model is refined, a significantly smaller number of measurements of individual soil properties are made and recorded. These measurements may include field measurements, such as those for color, depth to bedrock, and texture, and laboratory measurements, such as those for content of sand, silt, clay, salt, and other components. Properties of each soil typically vary from one point to another across the landscape.

Observations for map unit components are aggregated to develop ranges of characteristics for the components. The aggregated values are presented. Direct measurements do not exist for every property presented for every map unit component. Values for some properties are estimated from combinations of other properties.

While a soil survey is in progress, samples of some of the soils in the area generally are collected for laboratory analyses and for engineering tests. Soil scientists interpret the data from these analyses and tests as well as the field-observed characteristics and the soil properties to determine the expected behavior of the soils under different uses. Interpretations for all of the soils are field tested through observation of the soils in different uses and under different levels of management. Some interpretations are modified to fit local conditions, and some new interpretations are developed to meet local needs. Data are assembled from other sources, such as research information, production records, and field experience of specialists. For example, data on crop yields under defined levels of management are assembled from farm records and from field or plot experiments on the same kinds of soil.

Predictions about soil behavior are based not only on soil properties but also on such variables as climate and biological activity. Soil conditions are predictable over long periods of time, but they are not predictable from year to year. For example, soil scientists can predict with a fairly high degree of accuracy that a given soil will have a high water table within certain depths in most years, but they cannot predict that a high water table will always be at a specific level in the soil on a specific date.

After soil scientists located and identified the significant natural bodies of soil in the survey area, they drew the boundaries of these bodies on aerial photographs and

identified each as a specific map unit. Aerial photographs show trees, buildings, fields, roads, and rivers, all of which help in locating boundaries accurately.

Soil Map

The soil map section includes the soil map for the defined area of interest, a list of soil map units on the map and extent of each map unit, and cartographic symbols displayed on the map. Also presented are various metadata about data used to produce the map, and a description of each soil map unit.

Custom Soil Resource Report
Soil Map

Map Scale: 1:9,570 if printed on A portrait (8.5" x 11") sheet.

N

Meters: 0 100 200 400 600

Feet: 0 450 900 1800 2700

Map projection: Web Mercator Corner coordinates: WGS84 Edge tics: UTM Zone 15N WGS84

MAP LEGEND

Area of Interest (AOI)
- Area of Interest (AOI)

Soils
- Soil Map Unit Polygons
- Soil Map Unit Lines
- Soil Map Unit Points

Special Point Features
- Blowout
- Borrow Pit
- Clay Spot
- Closed Depression
- Gravel Pit
- Gravelly Spot
- Landfill
- Lava Flow
- Marsh or swamp
- Mine or Quarry
- Miscellaneous Water
- Perennial Water
- Rock Outcrop
- Saline Spot
- Sandy Spot
- Severely Eroded Spot
- Sinkhole
- Slide or Slip
- Sodic Spot
- Spoil Area
- Stony Spot
- Very Stony Spot
- Wet Spot
- Other
- Special Line Features

Water Features
- Streams and Canals

Transportation
- Rails
- Interstate Highways
- US Routes
- Major Roads
- Local Roads

Background
- Aerial Photography

MAP INFORMATION

The soil surveys that comprise your AOI were mapped at 1:24,000.

Warning: Soil Map may not be valid at this scale.

Enlargement of maps beyond the scale of mapping can cause misunderstanding of the detail of mapping and accuracy of soil line placement. The maps do not show the small areas of contrasting soils that could have been shown at a more detailed scale.

Please rely on the bar scale on each map sheet for map measurements.

Source of Map: Natural Resources Conservation Service
Web Soil Survey URL:
Coordinate System: Web Mercator (EPSG:3857)

Maps from the Web Soil Survey are based on the Web Mercator projection, which preserves direction and shape but distorts distance and area. A projection that preserves area, such as the Albers equal-area conic projection, should be used if more accurate calculations of distance or area are required.

This product is generated from the USDA-NRCS certified data as of the version date(s) listed below.

Soil Survey Area: Johnson County, Kansas
Survey Area Data: Version 20, Sep 14, 2021

Soil Survey Area: Wyandotte County, Kansas
Survey Area Data: Version 15, Sep 14, 2021

Your area of interest (AOI) includes more than one soil survey area. These survey areas may have been mapped at different scales, with a different land use in mind, at different times, or at different levels of detail. This may result in map unit symbols, soil properties, and interpretations that do not completely agree across soil survey area boundaries.

MAP LEGEND

MAP INFORMATION

Soil map units are labeled (as space allows) for map scales 1:50,000 or larger.

Date(s) aerial images were photographed: Jul 17, 2019—Sep 25, 2019

The orthophoto or other base map on which the soil lines were compiled and digitized probably differs from the background imagery displayed on these maps. As a result, some minor shifting of map unit boundaries may be evident.

Map Unit Legend

Map Unit Symbol	Map Unit Name	Acres in AOI	Percent of AOI
4752	Sogn-Vinland complex, 3 to 25 percent slopes	5.7	1.4%
7050	Kennebec silt loam, occasionally flooded	17.0	4.0%
7330	Martin-Vinland silty clay loams, 5 to 10 percent slopes	79.3	18.8%
7462	Oska-Martin silty clay loams, 4 to 8 percent slopes	23.6	5.6%
7545	Sharpsburg-Urban land complex, 4 to 8 percent slopes	136.1	32.2%
7658	Vinland-Rock outcrop complex, 15 to 45 percent slopes	53.3	12.6%
Subtotals for Soil Survey Area		**315.0**	**74.6%**
Totals for Area of Interest		**422.1**	**100.0%**

Map Unit Symbol	Map Unit Name	Acres in AOI	Percent of AOI
7050	Kennebec silt loam, occasionally flooded	20.8	4.9%
7170	Reading silt loam, rarely flooded	27.8	6.6%
7250	Gosport-Sogn complex, 7 to 35 percent slopes	0.0	0.0%
7286	Ladoga silt loam, 8 to 15 percent slopes	5.8	1.4%
7658	Vinland-Rock outcrop complex, 15 to 45 percent slopes	29.3	6.9%
9988	Orthents	23.4	5.5%
Subtotals for Soil Survey Area		**107.1**	**25.4%**
Totals for Area of Interest		**422.1**	**100.0%**

Map Unit Descriptions

The map units delineated on the detailed soil maps in a soil survey represent the soils or miscellaneous areas in the survey area. The map unit descriptions, along with the maps, can be used to determine the composition and properties of a unit.

A map unit delineation on a soil map represents an area dominated by one or more major kinds of soil or miscellaneous areas. A map unit is identified and named according to the taxonomic classification of the dominant soils. Within a taxonomic class there are precisely defined limits for the properties of the soils. On the landscape, however, the soils are natural phenomena, and they have the

characteristic variability of all natural phenomena. Thus, the range of some observed properties may extend beyond the limits defined for a taxonomic class. Areas of soils of a single taxonomic class rarely, if ever, can be mapped without including areas of other taxonomic classes. Consequently, every map unit is made up of the soils or miscellaneous areas for which it is named and some minor components that belong to taxonomic classes other than those of the major soils.

Most minor soils have properties similar to those of the dominant soil or soils in the map unit, and thus they do not affect use and management. These are called noncontrasting, or similar, components. They may or may not be mentioned in a particular map unit description. Other minor components, however, have properties and behavioral characteristics divergent enough to affect use or to require different management. These are called contrasting, or dissimilar, components. They generally are in small areas and could not be mapped separately because of the scale used. Some small areas of strongly contrasting soils or miscellaneous areas are identified by a special symbol on the maps. If included in the database for a given area, the contrasting minor components are identified in the map unit descriptions along with some characteristics of each. A few areas of minor components may not have been observed, and consequently they are not mentioned in the descriptions, especially where the pattern was so complex that it was impractical to make enough observations to identify all the soils and miscellaneous areas on the landscape.

The presence of minor components in a map unit in no way diminishes the usefulness or accuracy of the data. The objective of mapping is not to delineate pure taxonomic classes but rather to separate the landscape into landforms or landform segments that have similar use and management requirements. The delineation of such segments on the map provides sufficient information for the development of resource plans. If intensive use of small areas is planned, however, onsite investigation is needed to define and locate the soils and miscellaneous areas.

An identifying symbol precedes the map unit name in the map unit descriptions. Each description includes general facts about the unit and gives important soil properties and qualities.

Soils that have profiles that are almost alike make up a *soil series*. Except for differences in texture of the surface layer, all the soils of a series have major horizons that are similar in composition, thickness, and arrangement.

Soils of one series can differ in texture of the surface layer, slope, stoniness, salinity, degree of erosion, and other characteristics that affect their use. On the basis of such differences, a soil series is divided into *soil phases*. Most of the areas shown on the detailed soil maps are phases of soil series. The name of a soil phase commonly indicates a feature that affects use or management. For example, Alpha silt loam, 0 to 2 percent slopes, is a phase of the Alpha series.

Some map units are made up of two or more major soils or miscellaneous areas. These map units are complexes, associations, or undifferentiated groups.

A *complex* consists of two or more soils or miscellaneous areas in such an intricate pattern or in such small areas that they cannot be shown separately on the maps. The pattern and proportion of the soils or miscellaneous areas are somewhat similar in all areas. Alpha-Beta complex, 0 to 6 percent slopes, is an example.

An *association* is made up of two or more geographically associated soils or miscellaneous areas that are shown as one unit on the maps. Because of present or anticipated uses of the map units in the survey area, it was not considered

practical or necessary to map the soils or miscellaneous areas separately. The pattern and relative proportion of the soils or miscellaneous areas are somewhat similar. Alpha-Beta association, 0 to 2 percent slopes, is an example.

An *undifferentiated group* is made up of two or more soils or miscellaneous areas that could be mapped individually but are mapped as one unit because similar interpretations can be made for use and management. The pattern and proportion of the soils or miscellaneous areas in a mapped area are not uniform. An area can be made up of only one of the major soils or miscellaneous areas, or it can be made up of all of them. Alpha and Beta soils, 0 to 2 percent slopes, is an example.

Some surveys include *miscellaneous areas*. Such areas have little or no soil material and support little or no vegetation. Rock outcrop is an example.

Johnson County, Kansas

4752—Sogn-Vinland complex, 3 to 25 percent slopes

Map Unit Setting

National map unit symbol: 2wvzj
Elevation: 730 to 1,700 feet
Mean annual precipitation: 28 to 40 inches
Mean annual air temperature: 50 to 55 degrees F
Frost-free period: 158 to 203 days
Farmland classification: Not prime farmland

Map Unit Composition

Sogn and similar soils: 55 percent
Vinland and similar soils: 30 percent
Minor components: 15 percent
Estimates are based on observations, descriptions, and transects of the mapunit.

Description of Sogn

Setting

Landform: Hillslopes
Landform position (two-dimensional): Shoulder
Landform position (three-dimensional): Side slope
Down-slope shape: Convex
Across-slope shape: Linear
Parent material: Residuum weathered from limestone

Typical profile

A1 - 0 to 5 inches: silty clay loam
A2 - 5 to 7 inches: very channery silty clay loam
R - 7 to 79 inches: bedrock

Properties and qualities

Slope: 3 to 25 percent
Depth to restrictive feature: 6 to 19 inches to lithic bedrock
Drainage class: Somewhat excessively drained
Runoff class: High
Capacity of the most limiting layer to transmit water (Ksat): Very low (0.00 to 0.00 in/hr)
Depth to water table: More than 80 inches
Frequency of flooding: None
Frequency of ponding: None
Calcium carbonate, maximum content: 20 percent
Maximum salinity: Nonsaline to very slightly saline (0.0 to 2.0 mmhos/cm)
Available water supply, 0 to 60 inches: Very low (about 1.5 inches)

Interpretive groups

Land capability classification (irrigated): None specified
Land capability classification (nonirrigated): 6s
Hydrologic Soil Group: D
Ecological site: R106XY077NE - Shallow Limy
Hydric soil rating: No

Description of Vinland

Setting

Landform: Hillslopes
Landform position (two-dimensional): Backslope
Landform position (three-dimensional): Side slope
Down-slope shape: Linear
Across-slope shape: Linear
Parent material: Residuum weathered from shale

Typical profile

A - 0 to 7 inches: silty clay loam
Bw - 7 to 12 inches: silty clay loam
C - 12 to 19 inches: silty clay loam
Cr - 19 to 29 inches: bedrock

Properties and qualities

Slope: 3 to 25 percent
Depth to restrictive feature: 11 to 25 inches to paralithic bedrock
Drainage class: Somewhat excessively drained
Runoff class: Medium
Capacity of the most limiting layer to transmit water (Ksat): Very low (0.00 to 0.00 in/hr)
Depth to water table: More than 80 inches
Frequency of flooding: None
Frequency of ponding: None
Maximum salinity: Nonsaline to very slightly saline (0.0 to 2.0 mmhos/cm)
Available water supply, 0 to 60 inches: Low (about 3.6 inches)

Interpretive groups

Land capability classification (irrigated): None specified
Land capability classification (nonirrigated): 6e
Hydrologic Soil Group: D
Ecological site: R106XY075NE - Loamy Upland
Hydric soil rating: No

Minor Components

Oska

Percent of map unit: 5 percent
Landform: Hillslopes
Landform position (two-dimensional): Backslope
Landform position (three-dimensional): Side slope
Down-slope shape: Convex
Across-slope shape: Linear
Ecological site: R106XY075NE - Loamy Upland
Hydric soil rating: No

Martin

Percent of map unit: 5 percent
Landform: Hillslopes
Landform position (two-dimensional): Footslope
Landform position (three-dimensional): Base slope
Down-slope shape: Concave
Across-slope shape: Linear
Ecological site: R106XY075NE - Loamy Upland

Hydric soil rating: No

Sibleyville

Percent of map unit: 3 percent
Landform: Hillslopes
Landform position (two-dimensional): Backslope
Landform position (three-dimensional): Side slope
Down-slope shape: Convex
Across-slope shape: Linear
Ecological site: R106XY075NE - Loamy Upland
Hydric soil rating: No

Aquolls, frequently ponded

Percent of map unit: 1 percent
Landform: Depressions
Down-slope shape: Concave
Across-slope shape: Concave
Ecological site: R106XY032NE - Subirrigated
Hydric soil rating: Yes

Rock outcrop

Percent of map unit: 1 percent
Landform: Hillslopes
Landform position (two-dimensional): Backslope
Landform position (three-dimensional): Side slope
Down-slope shape: Linear
Across-slope shape: Linear
Hydric soil rating: No

7050—Kennebec silt loam, occasionally flooded

Map Unit Setting

National map unit symbol: 2lprr
Elevation: 730 to 1,700 feet
Mean annual precipitation: 29 to 39 inches
Mean annual air temperature: 52 to 55 degrees F
Frost-free period: 159 to 203 days
Farmland classification: All areas are prime farmland

Map Unit Composition

Kennebec and similar soils: 85 percent
Minor components: 15 percent
Estimates are based on observations, descriptions, and transects of the mapunit.

Description of Kennebec

Setting

Landform: Flood plains
Landform position (three-dimensional): Tread
Down-slope shape: Linear

Across-slope shape: Linear
Parent material: Alluvium

Typical profile

Ap - 0 to 8 inches: silt loam
A - 8 to 41 inches: silt loam
AC - 41 to 54 inches: silty clay loam
C - 54 to 79 inches: silty clay loam

Properties and qualities

Slope: 0 to 1 percent
Depth to restrictive feature: More than 80 inches
Drainage class: Moderately well drained
Capacity of the most limiting layer to transmit water (Ksat): Moderately high (0.20 to 0.60 in/hr)
Depth to water table: About 40 to 44 inches
Frequency of flooding: Occasional
Frequency of ponding: None
Available water supply, 0 to 60 inches: Very high (about 14.7 inches)

Interpretive groups

Land capability classification (irrigated): None specified
Land capability classification (nonirrigated): 2w
Hydrologic Soil Group: C
Ecological site: R106XY068NE - Loamy Floodplain
Forage suitability group: Overflow (G106XY500NE)
Other vegetative classification: Overflow (G106XY500NE)
Hydric soil rating: No

Minor Components

Muscotah

Percent of map unit: 5 percent
Landform: Flood plains
Landform position (three-dimensional): Tread
Down-slope shape: Linear
Across-slope shape: Linear
Ecological site: R106XY032NE - Subirrigated
Other vegetative classification: Clayey Subsoil (G106XY210NE)
Hydric soil rating: No

Wabash

Percent of map unit: 3 percent
Landform: Flood plains
Landform position (three-dimensional): Tread
Down-slope shape: Concave
Across-slope shape: Concave
Ecological site: R106XY065NE - Wet Subirrigated
Other vegetative classification: Clayey Bottomland (G106XY295NE)
Hydric soil rating: Yes

Reading

Percent of map unit: 3 percent
Landform: Terraces
Landform position (three-dimensional): Tread
Down-slope shape: Convex
Across-slope shape: Convex

Ecological site: R106XY070NE - Loamy Terrace
Other vegetative classification: Loam (G106XY100NE)
Hydric soil rating: No

Colo

Percent of map unit: 2 percent
Landform: Flood plains on river valleys
Down-slope shape: Linear
Across-slope shape: Linear
Ecological site: R106XY065NE - Wet Subirrigated
Other vegetative classification: Wet (G106XY900NE)
Hydric soil rating: Yes

Olmitz

Percent of map unit: 2 percent
Landform: Hillslopes
Landform position (two-dimensional): Footslope
Landform position (three-dimensional): Base slope
Down-slope shape: Concave
Across-slope shape: Linear
Ecological site: R106XY075NE - Loamy Upland
Other vegetative classification: Loam (G106XY100NE)
Hydric soil rating: No

7330—Martin-Vinland silty clay loams, 5 to 10 percent slopes

Map Unit Setting

National map unit symbol: 2v8zy
Elevation: 730 to 1,700 feet
Mean annual precipitation: 28 to 40 inches
Mean annual air temperature: 50 to 55 degrees F
Frost-free period: 160 to 205 days
Farmland classification: Not prime farmland

Map Unit Composition

Martin and similar soils: 45 percent
Vinland and similar soils: 40 percent
Minor components: 15 percent
Estimates are based on observations, descriptions, and transects of the mapunit.

Description of Martin

Setting

Landform: Hillslopes
Landform position (two-dimensional): Backslope
Landform position (three-dimensional): Side slope
Down-slope shape: Convex
Across-slope shape: Linear
Parent material: Colluvium derived from limestone and shale

Typical profile

A - 0 to 6 inches: silty clay loam
BA - 6 to 12 inches: silty clay loam
Bt1 - 12 to 19 inches: silty clay
Bt2 - 19 to 56 inches: silty clay
BC - 56 to 65 inches: silty clay loam
C - 65 to 79 inches: silty clay loam

Properties and qualities

Slope: 5 to 10 percent
Depth to restrictive feature: More than 80 inches
Drainage class: Moderately well drained
Runoff class: High
Capacity of the most limiting layer to transmit water (Ksat): Moderately low to moderately high (0.06 to 0.20 in/hr)
Depth to water table: About 12 to 17 inches
Frequency of flooding: None
Frequency of ponding: None
Maximum salinity: Nonsaline to very slightly saline (0.0 to 2.0 mmhos/cm)
Available water supply, 0 to 60 inches: Moderate (about 7.7 inches)

Interpretive groups

Land capability classification (irrigated): None specified
Land capability classification (nonirrigated): 4e
Hydrologic Soil Group: C/D
Ecological site: R106XY015KS - Loamy Upland (PE 30-37)
Hydric soil rating: No

Description of Vinland

Setting

Landform: Hillslopes
Landform position (two-dimensional): Backslope
Landform position (three-dimensional): Side slope
Down-slope shape: Convex
Across-slope shape: Linear
Parent material: Sandy and silty residuum weathered from shale

Typical profile

A - 0 to 8 inches: silt loam
Bw - 8 to 12 inches: silty clay loam
C - 12 to 19 inches: silty clay loam

Properties and qualities

Slope: 5 to 10 percent
Depth to restrictive feature: 17 to 20 inches to paralithic bedrock
Drainage class: Somewhat excessively drained
Runoff class: Medium
Capacity of the most limiting layer to transmit water (Ksat): Very low to moderately high (0.00 to 0.20 in/hr)
Depth to water table: More than 80 inches
Frequency of flooding: None
Frequency of ponding: None
Maximum salinity: Nonsaline to very slightly saline (0.0 to 2.0 mmhos/cm)
Available water supply, 0 to 60 inches: Low (about 3.9 inches)

Interpretive groups

Land capability classification (irrigated): None specified
Land capability classification (nonirrigated): 6e
Hydrologic Soil Group: D
Ecological site: R106XY015KS - Loamy Upland (PE 30-37)
Hydric soil rating: No

Minor Components

Clime

Percent of map unit: 5 percent
Landform: Hillslopes
Landform position (two-dimensional): Backslope
Landform position (three-dimensional): Side slope
Down-slope shape: Linear
Across-slope shape: Linear
Ecological site: R076XY112KS - Limy Hills
Hydric soil rating: No

Pawnee

Percent of map unit: 5 percent
Landform: Hillslopes
Landform position (two-dimensional): Summit
Landform position (three-dimensional): Crest
Down-slope shape: Convex
Across-slope shape: Linear
Ecological site: R106XY074NE - Clayey Upland
Hydric soil rating: No

Sogn

Percent of map unit: 5 percent
Landform: Hillslopes
Landform position (two-dimensional): Backslope
Landform position (three-dimensional): Side slope
Down-slope shape: Convex
Across-slope shape: Convex
Ecological site: R106XY028KS - Shallow Limy (PE 30-37)
Hydric soil rating: No

7462—Oska-Martin silty clay loams, 4 to 8 percent slopes

Map Unit Setting

National map unit symbol: 2v8zh
Elevation: 730 to 1,700 feet
Mean annual precipitation: 28 to 40 inches
Mean annual air temperature: 50 to 55 degrees F
Frost-free period: 160 to 205 days
Farmland classification: Farmland of statewide importance

Map Unit Composition

Oska and similar soils: 50 percent
Martin and similar soils: 30 percent
Minor components: 20 percent
Estimates are based on observations, descriptions, and transects of the mapunit.

Description of Oska

Setting

Landform: Hillslopes
Landform position (two-dimensional): Shoulder
Landform position (three-dimensional): Nose slope
Down-slope shape: Convex
Across-slope shape: Linear
Parent material: Residuum weathered from limestone and shale

Typical profile

A - 0 to 6 inches: silty clay loam
BA - 6 to 11 inches: silty clay loam
Bt1 - 11 to 15 inches: silty clay
Bt2 - 15 to 34 inches: silty clay

Properties and qualities

Slope: 4 to 8 percent
Depth to restrictive feature: 30 to 37 inches to lithic bedrock
Drainage class: Well drained
Runoff class: Medium
Capacity of the most limiting layer to transmit water (Ksat): Very low to moderately high (0.00 to 0.20 in/hr)
Depth to water table: More than 80 inches
Frequency of flooding: None
Frequency of ponding: None
Maximum salinity: Nonsaline to very slightly saline (0.0 to 2.0 mmhos/cm)
Available water supply, 0 to 60 inches: Low (about 4.8 inches)

Interpretive groups

Land capability classification (irrigated): None specified
Land capability classification (nonirrigated): 3e
Hydrologic Soil Group: D
Ecological site: R106XY015KS - Loamy Upland (PE 30-37)
Hydric soil rating: No

Description of Martin

Setting

Landform: Hillslopes
Landform position (two-dimensional): Backslope
Landform position (three-dimensional): Side slope
Down-slope shape: Convex
Across-slope shape: Linear
Parent material: Colluvium derived from limestone and shale

Typical profile

A1 - 0 to 6 inches: silty clay loam
A2 - 6 to 12 inches: silty clay loam
Bt1 - 12 to 19 inches: silty clay

Bt2 - 19 to 56 inches: silty clay
BC - 56 to 65 inches: silty clay loam
C - 65 to 79 inches: silty clay loam

Properties and qualities

Slope: 4 to 8 percent
Depth to restrictive feature: More than 80 inches
Drainage class: Moderately well drained
Runoff class: Medium
Capacity of the most limiting layer to transmit water (Ksat): Moderately low to moderately high (0.06 to 0.20 in/hr)
Depth to water table: About 12 to 17 inches
Frequency of flooding: None
Frequency of ponding: None
Maximum salinity: Nonsaline to very slightly saline (0.0 to 2.0 mmhos/cm)
Available water supply, 0 to 60 inches: Moderate (about 7.7 inches)

Interpretive groups

Land capability classification (irrigated): None specified
Land capability classification (nonirrigated): 3e
Hydrologic Soil Group: C/D
Ecological site: R106XY015KS - Loamy Upland (PE 30-37)
Hydric soil rating: No

Minor Components

Sogn

Percent of map unit: 5 percent
Landform: Hillslopes
Landform position (two-dimensional): Backslope
Landform position (three-dimensional): Side slope
Down-slope shape: Convex
Across-slope shape: Convex
Ecological site: R106XY028KS - Shallow Limy (PE 30-37)
Hydric soil rating: No

Sibleyville

Percent of map unit: 5 percent
Landform: Hillslopes
Landform position (two-dimensional): Backslope
Landform position (three-dimensional): Side slope, crest
Down-slope shape: Convex
Across-slope shape: Linear
Ecological site: R106XY015KS - Loamy Upland (PE 30-37)
Hydric soil rating: No

Vinland

Percent of map unit: 5 percent
Landform: Hillslopes
Landform position (two-dimensional): Backslope
Landform position (three-dimensional): Side slope
Down-slope shape: Convex
Across-slope shape: Linear
Ecological site: R106XY015KS - Loamy Upland (PE 30-37)
Hydric soil rating: No

Sharpsburg

Percent of map unit: 5 percent
Landform: Hillslopes
Landform position (two-dimensional): Summit
Landform position (three-dimensional): Interfluve
Down-slope shape: Convex
Across-slope shape: Linear
Ecological site: R106XY015KS - Loamy Upland (PE 30-37)
Hydric soil rating: No

7545—Sharpsburg-Urban land complex, 4 to 8 percent slopes

Map Unit Setting

National map unit symbol: tq4z
Elevation: 1,000 to 1,300 feet
Mean annual precipitation: 31 to 47 inches
Mean annual air temperature: 45 to 64 degrees F
Frost-free period: 185 to 255 days
Farmland classification: Farmland of statewide importance

Map Unit Composition

Sharpsburg and similar soils: 55 percent
Urban land: 45 percent
Estimates are based on observations, descriptions, and transects of the mapunit.

Description of Sharpsburg

Setting

Landform: Hillslopes
Down-slope shape: Convex
Across-slope shape: Convex
Parent material: Silty and clayey loess

Typical profile

A - 0 to 9 inches: silt loam
AB - 9 to 13 inches: silty clay loam
Bt - 13 to 35 inches: silty clay loam
BC - 35 to 60 inches: silty clay loam

Properties and qualities

Slope: 3 to 8 percent
Depth to restrictive feature: More than 80 inches
Drainage class: Moderately well drained
Runoff class: Medium
Capacity of the most limiting layer to transmit water (Ksat): Moderately high (0.20 to 0.60 in/hr)
Depth to water table: About 36 to 40 inches
Frequency of flooding: None
Frequency of ponding: None

Available water supply, 0 to 60 inches: High (about 11.6 inches)

Interpretive groups

Land capability classification (irrigated): None specified
Land capability classification (nonirrigated): 3e
Hydrologic Soil Group: C
Ecological site: R106XY015KS - Loamy Upland (PE 30-37)
Hydric soil rating: No

Description of Urban Land

Setting

Landform: Hillslopes
Down-slope shape: Convex
Across-slope shape: Convex

7658—Vinland-Rock outcrop complex, 15 to 45 percent slopes

Map Unit Setting

National map unit symbol: 2yrvt
Elevation: 730 to 1,700 feet
Mean annual precipitation: 28 to 40 inches
Mean annual air temperature: 50 to 55 degrees F
Frost-free period: 160 to 205 days
Farmland classification: Not prime farmland

Map Unit Composition

Vinland and similar soils: 65 percent
Rock outcrop: 20 percent
Minor components: 15 percent
Estimates are based on observations, descriptions, and transects of the mapunit.

Description of Vinland

Setting

Landform: Hillslopes
Landform position (two-dimensional): Backslope
Landform position (three-dimensional): Side slope
Down-slope shape: Convex
Across-slope shape: Linear
Parent material: Sandy and silty residuum weathered from shale

Typical profile

A - 0 to 7 inches: silt loam
Bw - 7 to 12 inches: silty clay loam
C - 12 to 16 inches: silty clay loam

Properties and qualities

Slope: 15 to 45 percent
Depth to restrictive feature: 15 to 19 inches to paralithic bedrock
Drainage class: Somewhat excessively drained

Runoff class: Very high
Capacity of the most limiting layer to transmit water (Ksat): Very low to moderately high (0.00 to 0.20 in/hr)
Depth to water table: More than 80 inches
Frequency of flooding: None
Frequency of ponding: None
Maximum salinity: Nonsaline to very slightly saline (0.0 to 2.0 mmhos/cm)
Available water supply, 0 to 60 inches: Low (about 3.3 inches)

Interpretive groups

Land capability classification (irrigated): None specified
Land capability classification (nonirrigated): 6e
Hydrologic Soil Group: D
Ecological site: R106XY031NE - Shallow Savannah
Hydric soil rating: No

Description of Rock Outcrop

Setting

Landform: Hillslopes
Landform position (two-dimensional): Backslope
Landform position (three-dimensional): Side slope
Down-slope shape: Convex
Across-slope shape: Linear
Parent material: Limestone, sandstone, and shale

Typical profile

R - 0 to 79 inches: bedrock

Properties and qualities

Slope: 15 to 45 percent
Depth to restrictive feature: 0 inches to lithic bedrock
Runoff class: Very high
Capacity of the most limiting layer to transmit water (Ksat): Very low (0.00 to 0.00 in/hr)

Minor Components

Bendena

Percent of map unit: 5 percent
Landform: Hillslopes
Landform position (two-dimensional): Backslope
Landform position (three-dimensional): Side slope
Down-slope shape: Convex
Across-slope shape: Linear
Ecological site: R106XY028KS - Shallow Limy (PE 30-37)
Hydric soil rating: No

Oska

Percent of map unit: 5 percent
Landform: Hillslopes
Landform position (two-dimensional): Shoulder
Landform position (three-dimensional): Head slope
Down-slope shape: Convex
Across-slope shape: Convex
Ecological site: R106XY015KS - Loamy Upland (PE 30-37)
Hydric soil rating: No

Wamego

Percent of map unit: 5 percent
Landform: Hillslopes
Landform position (two-dimensional): Backslope
Landform position (three-dimensional): Side slope
Down-slope shape: Convex
Across-slope shape: Linear
Ecological site: R106XY007KS - Clay Upland (PE 30-37)
Hydric soil rating: No

Wyandotte County, Kansas

7050—Kennebec silt loam, occasionally flooded

Map Unit Setting

National map unit symbol: 2lprr
Elevation: 730 to 1,700 feet
Mean annual precipitation: 29 to 39 inches
Mean annual air temperature: 52 to 55 degrees F
Frost-free period: 159 to 203 days
Farmland classification: All areas are prime farmland

Map Unit Composition

Kennebec and similar soils: 85 percent
Minor components: 15 percent
Estimates are based on observations, descriptions, and transects of the mapunit.

Description of Kennebec

Setting

Landform: Flood plains
Landform position (three-dimensional): Tread
Down-slope shape: Linear
Across-slope shape: Linear
Parent material: Alluvium

Typical profile

Ap - 0 to 8 inches: silt loam
A - 8 to 41 inches: silt loam
AC - 41 to 54 inches: silty clay loam
C - 54 to 79 inches: silty clay loam

Properties and qualities

Slope: 0 to 1 percent
Depth to restrictive feature: More than 80 inches
Drainage class: Moderately well drained
Capacity of the most limiting layer to transmit water (Ksat): Moderately high (0.20 to 0.60 in/hr)
Depth to water table: About 40 to 44 inches
Frequency of flooding: Occasional
Frequency of ponding: None
Available water supply, 0 to 60 inches: Very high (about 14.7 inches)

Interpretive groups

Land capability classification (irrigated): None specified
Land capability classification (nonirrigated): 2w
Hydrologic Soil Group: C
Ecological site: R106XY068NE - Loamy Floodplain
Forage suitability group: Overflow (G106XY500NE)
Other vegetative classification: Overflow (G106XY500NE)
Hydric soil rating: No

Minor Components

Muscotah

Percent of map unit: 5 percent

Landform: Flood plains
Landform position (three-dimensional): Tread
Down-slope shape: Linear
Across-slope shape: Linear
Ecological site: R106XY032NE - Subirrigated
Other vegetative classification: Clayey Subsoil (G106XY210NE)
Hydric soil rating: No

Wabash

Percent of map unit: 3 percent
Landform: Flood plains
Landform position (three-dimensional): Tread
Down-slope shape: Concave
Across-slope shape: Concave
Ecological site: R106XY065NE - Wet Subirrigated
Other vegetative classification: Clayey Bottomland (G106XY295NE)
Hydric soil rating: Yes

Reading

Percent of map unit: 3 percent
Landform: Terraces
Landform position (three-dimensional): Tread
Down-slope shape: Convex
Across-slope shape: Convex
Ecological site: R106XY070NE - Loamy Terrace
Other vegetative classification: Loam (G106XY100NE)
Hydric soil rating: No

Colo

Percent of map unit: 2 percent
Landform: Flood plains on river valleys
Down-slope shape: Linear
Across-slope shape: Linear
Ecological site: R106XY065NE - Wet Subirrigated
Other vegetative classification: Wet (G106XY900NE)
Hydric soil rating: Yes

Olmitz

Percent of map unit: 2 percent
Landform: Hillslopes
Landform position (two-dimensional): Footslope
Landform position (three-dimensional): Base slope
Down-slope shape: Concave
Across-slope shape: Linear
Ecological site: R106XY075NE - Loamy Upland
Other vegetative classification: Loam (G106XY100NE)
Hydric soil rating: No

7170—Reading silt loam, rarely flooded

Map Unit Setting

National map unit symbol: 2tpxl
Elevation: 730 to 1,700 feet
Mean annual precipitation: 28 to 40 inches
Mean annual air temperature: 50 to 55 degrees F
Frost-free period: 160 to 205 days
Farmland classification: All areas are prime farmland

Map Unit Composition

Reading, rarely flooded, and similar soils: 85 percent
Minor components: 15 percent
Estimates are based on observations, descriptions, and transects of the mapunit.

Description of Reading, Rarely Flooded

Setting

Landform: Stream terraces
Landform position (three-dimensional): Tread
Down-slope shape: Linear
Across-slope shape: Linear
Parent material: Alluvium

Typical profile

Ap - 0 to 8 inches: silt loam
A - 8 to 14 inches: silty clay loam
Bt1 - 14 to 39 inches: silty clay loam
Bt2 - 39 to 56 inches: silty clay loam
C - 56 to 79 inches: silty clay loam

Properties and qualities

Slope: 0 to 2 percent
Depth to restrictive feature: More than 80 inches
Drainage class: Well drained
Runoff class: Low
Capacity of the most limiting layer to transmit water (Ksat): Moderately high (0.20 to 0.60 in/hr)
Depth to water table: More than 80 inches
Frequency of flooding: Rare
Frequency of ponding: None
Calcium carbonate, maximum content: 3 percent
Maximum salinity: Nonsaline to very slightly saline (0.0 to 2.0 mmhos/cm)
Available water supply, 0 to 60 inches: Very high (about 12.6 inches)

Interpretive groups

Land capability classification (irrigated): 1
Land capability classification (nonirrigated): 1
Hydrologic Soil Group: C
Ecological site: R106XY013KS - Loamy Lowland (PE 30-37)

Hydric soil rating: No

Minor Components

Chase, rarely flooded
Percent of map unit: 5 percent
Landform: Stream terraces
Landform position (three-dimensional): Tread
Down-slope shape: Linear
Across-slope shape: Linear
Ecological site: R076XY113KS - Loamy Lowland
Hydric soil rating: No

Muscotah, occasionally flooded
Percent of map unit: 4 percent
Landform: Flood plains
Down-slope shape: Linear
Across-slope shape: Linear
Ecological site: R106XY013KS - Loamy Lowland (PE 30-37)
Hydric soil rating: No

Kennebec, occasionally flooded
Percent of map unit: 4 percent
Landform: Flood plains
Down-slope shape: Linear
Across-slope shape: Linear
Ecological site: R076XY113KS - Loamy Lowland
Hydric soil rating: No

Wabash, occasionally ponded
Percent of map unit: 1 percent
Landform: Flood plains
Down-slope shape: Concave
Across-slope shape: Concave
Ecological site: R106XY065NE - Wet Subirrigated
Hydric soil rating: Yes

Olmitz
Percent of map unit: 1 percent
Landform: Hillslopes
Landform position (two-dimensional): Footslope
Landform position (three-dimensional): Base slope
Down-slope shape: Concave
Across-slope shape: Linear
Ecological site: R106XY015KS - Loamy Upland (PE 30-37)
Hydric soil rating: No

7250—Gosport-Sogn complex, 7 to 35 percent slopes

Map Unit Setting
National map unit symbol: 20htn

Elevation: 500 to 2,000 feet
Mean annual precipitation: 31 to 47 inches
Mean annual air temperature: 43 to 66 degrees F
Frost-free period: 175 to 215 days
Farmland classification: Not prime farmland

Map Unit Composition

Gosport and similar soils: 50 percent
Sogn and similar soils: 35 percent
Minor components: 15 percent
Estimates are based on observations, descriptions, and transects of the mapunit.

Description of Gosport

Setting

Landform: Hillslopes
Down-slope shape: Convex
Across-slope shape: Convex
Parent material: Clayey residuum weathered from shale

Typical profile

A - 0 to 6 inches: silt loam
Bw - 6 to 23 inches: silty clay
C - 23 to 33 inches: silty clay
Cr - 33 to 37 inches: weathered bedrock

Properties and qualities

Slope: 7 to 35 percent
Depth to restrictive feature: 20 to 40 inches to paralithic bedrock
Drainage class: Moderately well drained
Runoff class: Very high
Capacity of the most limiting layer to transmit water (Ksat): Very low to moderately low (0.00 to 0.06 in/hr)
Depth to water table: More than 80 inches
Frequency of flooding: None
Frequency of ponding: None
Available water supply, 0 to 60 inches: Low (about 4.7 inches)

Interpretive groups

Land capability classification (irrigated): None specified
Land capability classification (nonirrigated): 7e
Hydrologic Soil Group: D
Ecological site: R106XY015KS - Loamy Upland (PE 30-37)
Hydric soil rating: No

Description of Sogn

Setting

Landform: Hillslopes
Down-slope shape: Convex
Across-slope shape: Convex
Parent material: Loamy residuum weathered from limestone

Typical profile

A - 0 to 6 inches: silty clay loam
AC - 6 to 16 inches: flaggy silty clay loam
R - 16 to 20 inches: unweathered bedrock

Properties and qualities

Slope: 7 to 20 percent
Depth to restrictive feature: 4 to 20 inches to lithic bedrock
Drainage class: Somewhat excessively drained
Runoff class: Medium
Capacity of the most limiting layer to transmit water (Ksat): Very low to moderately high (0.00 to 0.20 in/hr)
Depth to water table: More than 80 inches
Frequency of flooding: None
Frequency of ponding: None
Calcium carbonate, maximum content: 4 percent
Available water supply, 0 to 60 inches: Low (about 3.2 inches)

Interpretive groups

Land capability classification (irrigated): None specified
Hydrologic Soil Group: D
Ecological site: R106XY028KS - Shallow Limy (PE 30-37)
Hydric soil rating: No

Minor Components

Oska

Percent of map unit: 5 percent
Landform: Hillslopes
Landform position (three-dimensional): Side slope
Ecological site: R106XY015KS - Loamy Upland (PE 30-37)
Hydric soil rating: No

Elmont

Percent of map unit: 5 percent
Landform: Hillslopes
Ecological site: R106XY015KS - Loamy Upland (PE 30-37)
Hydric soil rating: No

Martin

Percent of map unit: 5 percent
Landform: Hillslopes
Ecological site: R106XY015KS - Loamy Upland (PE 30-37)
Hydric soil rating: No

7286—Ladoga silt loam, 8 to 15 percent slopes

Map Unit Setting

National map unit symbol: 20htw
Elevation: 700 to 1,600 feet
Mean annual precipitation: 31 to 47 inches
Mean annual air temperature: 45 to 64 degrees F
Frost-free period: 185 to 255 days
Farmland classification: Farmland of statewide importance

Map Unit Composition

Ladoga and similar soils: 85 percent
Minor components: 15 percent
Estimates are based on observations, descriptions, and transects of the mapunit.

Description of Ladoga

Setting

Landform: Hillslopes
Down-slope shape: Convex
Across-slope shape: Convex
Parent material: Silty and clayey loess

Typical profile

A - 0 to 8 inches: silt loam
AB - 8 to 13 inches: silt loam
Bt - 13 to 31 inches: silty clay loam
BC - 31 to 60 inches: silty clay loam

Properties and qualities

Slope: 8 to 15 percent
Depth to restrictive feature: More than 80 inches
Drainage class: Moderately well drained
Runoff class: High
Capacity of the most limiting layer to transmit water (Ksat): Moderately high (0.20 to 0.60 in/hr)
Depth to water table: About 46 to 50 inches
Frequency of flooding: None
Frequency of ponding: None
Available water supply, 0 to 60 inches: High (about 11.9 inches)

Interpretive groups

Land capability classification (irrigated): None specified
Land capability classification (nonirrigated): 4e
Hydrologic Soil Group: C
Ecological site: R106XY015KS - Loamy Upland (PE 30-37)
Hydric soil rating: No

Minor Components

Martin

Percent of map unit: 10 percent
Landform: Hillslopes
Landform position (three-dimensional): Side slope
Ecological site: R106XY015KS - Loamy Upland (PE 30-37)
Hydric soil rating: No

Vinland

Percent of map unit: 5 percent
Landform: Hillslopes
Landform position (three-dimensional): Side slope
Ecological site: R106XY015KS - Loamy Upland (PE 30-37)
Hydric soil rating: No

7658—Vinland-Rock outcrop complex, 15 to 45 percent slopes

Map Unit Setting

National map unit symbol: 2yrvt
Elevation: 730 to 1,700 feet
Mean annual precipitation: 28 to 40 inches
Mean annual air temperature: 50 to 55 degrees F
Frost-free period: 160 to 205 days
Farmland classification: Not prime farmland

Map Unit Composition

Vinland and similar soils: 65 percent
Rock outcrop: 20 percent
Minor components: 15 percent
Estimates are based on observations, descriptions, and transects of the mapunit.

Description of Vinland

Setting

Landform: Hillslopes
Landform position (two-dimensional): Backslope
Landform position (three-dimensional): Side slope
Down-slope shape: Convex
Across-slope shape: Linear
Parent material: Sandy and silty residuum weathered from shale

Typical profile

A - 0 to 7 inches: silt loam
Bw - 7 to 12 inches: silty clay loam
C - 12 to 16 inches: silty clay loam

Properties and qualities

Slope: 15 to 45 percent
Depth to restrictive feature: 15 to 19 inches to paralithic bedrock
Drainage class: Somewhat excessively drained
Runoff class: Very high
Capacity of the most limiting layer to transmit water (Ksat): Very low to moderately high (0.00 to 0.20 in/hr)
Depth to water table: More than 80 inches
Frequency of flooding: None
Frequency of ponding: None
Maximum salinity: Nonsaline to very slightly saline (0.0 to 2.0 mmhos/cm)
Available water supply, 0 to 60 inches: Low (about 3.3 inches)

Interpretive groups

Land capability classification (irrigated): None specified
Land capability classification (nonirrigated): 6e
Hydrologic Soil Group: D
Ecological site: R106XY031NE - Shallow Savannah
Hydric soil rating: No

Description of Rock Outcrop

Setting

Landform: Hillslopes
Landform position (two-dimensional): Backslope
Landform position (three-dimensional): Side slope
Down-slope shape: Convex
Across-slope shape: Linear
Parent material: Limestone, sandstone, and shale

Typical profile

R - 0 to 79 inches: bedrock

Properties and qualities

Slope: 15 to 45 percent
Depth to restrictive feature: 0 inches to lithic bedrock
Runoff class: Very high
Capacity of the most limiting layer to transmit water (Ksat): Very low (0.00 to 0.00 in/hr)

Minor Components

Bendena

Percent of map unit: 5 percent
Landform: Hillslopes
Landform position (two-dimensional): Backslope
Landform position (three-dimensional): Side slope
Down-slope shape: Convex
Across-slope shape: Linear
Ecological site: R106XY028KS - Shallow Limy (PE 30-37)
Hydric soil rating: No

Oska

Percent of map unit: 5 percent
Landform: Hillslopes
Landform position (two-dimensional): Shoulder
Landform position (three-dimensional): Head slope
Down-slope shape: Convex
Across-slope shape: Convex
Ecological site: R106XY015KS - Loamy Upland (PE 30-37)
Hydric soil rating: No

Wamego

Percent of map unit: 5 percent
Landform: Hillslopes
Landform position (two-dimensional): Backslope
Landform position (three-dimensional): Side slope
Down-slope shape: Convex
Across-slope shape: Linear
Ecological site: R106XY007KS - Clay Upland (PE 30-37)
Hydric soil rating: No

9988—Orthents

Map Unit Setting

National map unit symbol: 20hwr
Mean annual precipitation: 31 to 47 inches
Mean annual air temperature: 43 to 64 degrees F
Frost-free period: 190 to 225 days
Farmland classification: Not prime farmland

Map Unit Composition

Orthents: 100 percent
Estimates are based on observations, descriptions, and transects of the mapunit.

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TECHNICAL MEMORANDUM

Nelson Wastewater Treatment Facility Improvements Acoustical Analysis

BV PROJECT NO. 408634

PREPARED FOR

Johnson County Wastewater

UPDATED: MARCH 13, 2024

BLACK & VEATCH

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1.0 Introduction

Johnson County Wastewater (JCW) is pursuing improvements at the existing Myron K. Nelson Wastewater Treatment Facility (Project) located in the City of Mission in Johnson County, Kansas. The site is bordered by the City of Roeland Park to the east and Kansas City, Kansas (Wyandotte County), to the north. JCW retained Black & Veatch, HDR Engineering, and George Butler Associates for detailed design of the improvements. The proposed improvements are wide-ranging and include the replacement of or addition of:

- Headworks Building
- Primary Clarifiers
- Odor Control Fans
- Biological Nutrient Removal Basins
- Blower Building
- Final Clarifiers
- Filter Complex Building
- Disinfection Building
- Solids Thickening Basins
- Sludge Building
- Solids Ferric Building
- Digester Basins & Control Building
- Dewatering Building
- Administration Building
- Line Maintenance and Repair Buildings

Buildings noted above generally house pumps, blowers, or other noise-producing machinery. The Administration Building, Line Maintenance Building and Line Repair Building do not typically have heavy machinery, but do have trucks to operate and maintain the Nelson Wastewater Treatment Facility (WWTF) and the entire JCW sanitary sewer collections system.

The City of Mission and the City of Roeland Park have codified nuisance and annoyance prohibitions, described in further detail later in Section 2.0 of this report. It is necessary to evaluate the noise emissions from the completed improvements project to ensure compliance with applicable regulations and to reduce the likelihood of nuisances to the neighboring residential areas to the west, south, and east. A site plan of the proposed Nelson WWTF layout and surrounding area is shown in Figure 1-1. This Technical Memorandum will address the acoustical regulations, standards, and guidelines applicable to the project, and what, if any acoustical mitigation measures are anticipated to be necessary for the operational facility after improvements to ensure compliance with the applicable noise regulations and minimize the acoustical impact on the surrounding environment.

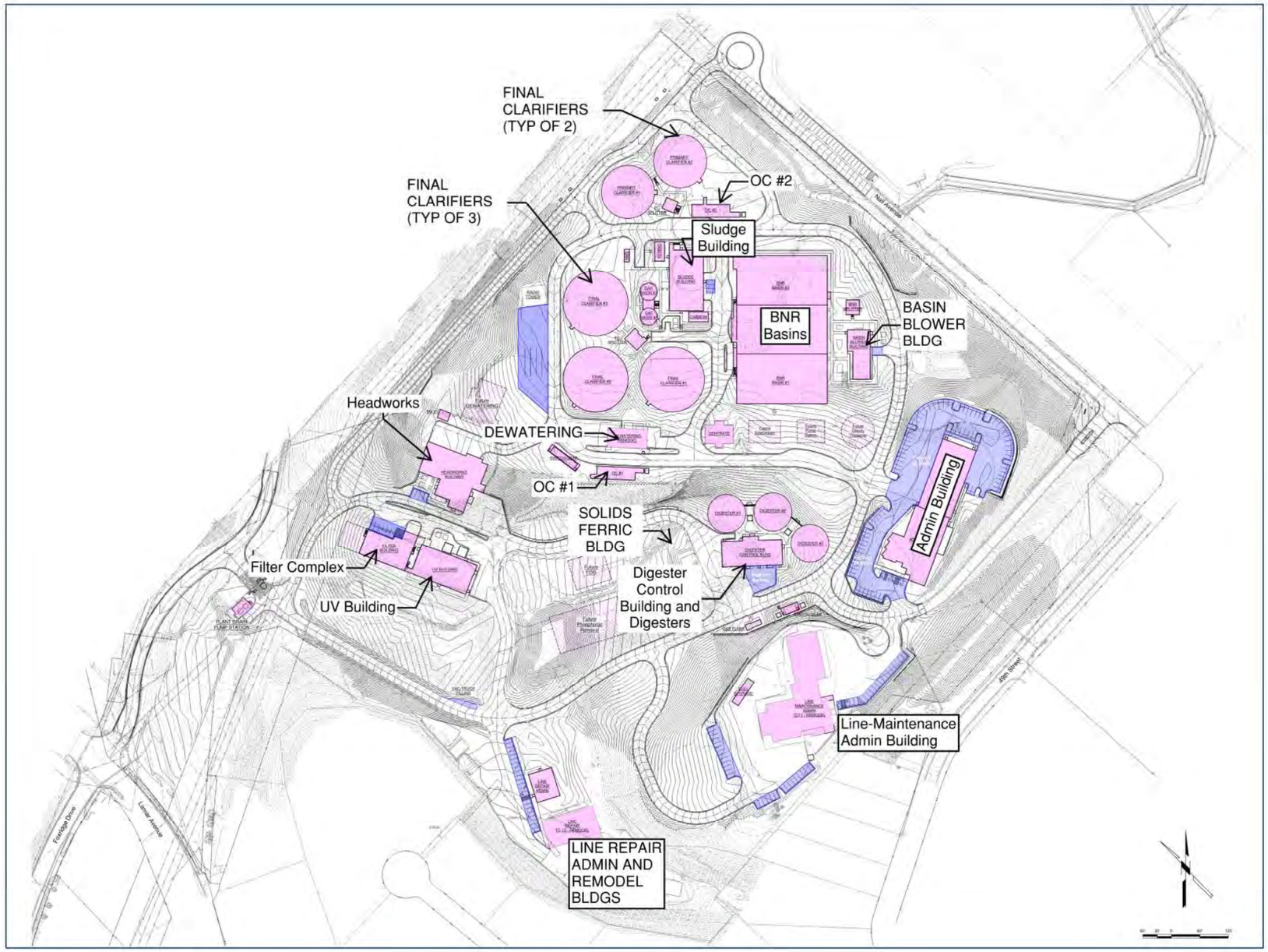

Figure 1-1 Nelson Wastewater Treatment Facility Showing Improvements Proposed Site Plan.

2.0 Regulations and Guidelines

Regulations and standards related to environmental noise were reviewed to determine applicability to the project. As depicted in Figure 1-1, the site is in the City of Mission, Kansas, and is directly adjacent to the City of Roeland Park, Kansas, to the east and the City of Kansas City, Kansas, to the north. Noise regulations for all three jurisdictions are described in this section.

2.1 City of Mission

Per the zoning map found on the City of Mission website, the site and surrounding properties are zoned R-1 (single family residential). Section 410.010(K) of the *The Code of the City of Mission, Kansas* contains the Land Use District Regulations for Single-Family Residential Districts. The code prohibits noise levels exceeding 50 dBA at repeated intervals or sustained lengths of time measured at the property line. Section 215.111 of Chapter 215, Article VI states that excessive, unnecessary, unreasonable or unusually loud noise or any noise which annoys, disturbs, injures or endangers is also prohibited. Additionally, the code prohibits disturbance of the peace and considers any noise source "plainly audible" during nighttime hours at an adjacent property line to be a *prima facie* violation.

2.2 City of Roeland Park

The City of Roeland Park does not have any quantifiable noise limits, but prohibits any "excessive, unnecessary, unusual or loud noise which creates a nuisance…or which interferes with the use and enjoyment of property".

2.3 Unified Government of Wyandotte County/Kansas City, Kansas

The Code of the Unified Government of Wyandotte County/Kansas City, Kansas prohibits any "excessive, unnecessary, unreasonable or unusually loud noise" which may "disturb, injure or endanger the comfort…of any reasonable person of normal auditory sensitivity residing in the area". Any equipment operating in such a manner as to be plainly audible across a property boundary line in a residential area between the hours of 8:00 pm and 7:00 am are consider prima facie evidence of a violation. Since the site borders an area zoned as a General Industrial District (M-2) to the north, the limits are not expected to be a limiting factor for the project.

2.4 Assessing Noise Nuisance

To gauge whether noise has the potential to cause a nuisance, the predicted increase to existing conditions (if any) can be assessed against the guidelines shown in Table 2-1, adapted from *Environmental Impact of Mining* by C.G. Down and J. Stocks (John Wiley & Sons, 1977), which are applicable to many different sources of environmental noise. Based on Table 2-1, increases to sound level that are 5 dBA or less would generally not be considered "nuisances." Changes of more than 5 dBA would start to invoke responses that could begin to be considered "nuisances," depending on individual subjective differences and sensitivities. As a general design goal, it is typically good engineering practice to keep any increases to existing conditions below 5 dBA, if possible.

Table 2-1 Typical Reactions to Increases in Existing or Ambient Sound Pressure Level

Increase	Typical Reaction
Under 5 dBA	Unnoticeable to tolerable
5 to 10 dBA	Intrusive
10 to 15 dBA	Very noticeable
15 to 20 dBA	Objectionable
Over 20 dBA	Very objectionable to intolerable

3.0 Noise Emission Modeling

3.1 Outdoor Calculation Methodology

Outdoor far-field sound levels were predicted in accordance with ISO 9613 using Cadna/A software from DataKustik™ (version 2023). The acoustical model simulates the outdoor propagation of sound from each sound source and accounts for sound wave divergence, topography, atmospheric and ground sound absorption, and sound shielding due to retaining walls and buildings. Source octave-band sound levels and directivity are input into the acoustical model to determine A-weighted sound levels emitted to the surrounding area. Sound levels are predicted over a 25 m x 25 m (82 ft x 82 ft) spaced grid at 1.5 m (5 ft) above the ground, as well as for specific receptor locations. The specific receptor locations are provided in this report and are listed in Table 3-1 and shown in Figure 3-1.

Additionally, HDR recently completed a baseline sound level survey, the results of which were included in their "Construction Noise Report," dated January 2023 (HDR report). Refer to Appendix A for additional detail. Existing noise levels were determined from this report. Any new project noise emissions can be combined with the existing background noise to determine the overall noise impact, with the main design goal to minimize any change in noise level to less than 5 dBA increase.

Table 3-1 Noise-sensitive Receptors Included in the Acoustical Model

Location	UTM Zone 15 Easting (m)	UTM Zone 15 Northing (m)	City	Regulatory Sound Level Limit
R1	357254.2	4322568.6	Mission, KS	50 dBA
R4	357079.3	4322514.9	Mission, KS	50 dBA
R5	356975.4	4322551.9	Mission, KS	50 dBA
R24	356781.5	4322700.6	Mission, KS	50 dBA
R70	357481.3	4322864.2	Roeland Park, KS	None
Gazebo	357336.4	4322765.5	Roeland Park, KS	None

3.2 Project Noise Sources

The evaluated sources for the project are listed in Table 3-2. The acoustical design basis incorporated into the noise model is based on design information, equipment data sheets, and drawings provided by the project design team. In some cases (indicated in Table 3-2), equipment sound levels were calculated empirically or assumed based on similar equipment from other projects, which is typically a conservative approach, and specified in the contract documents. The specified sound levels will be verified by upon final vendor selection to ensure the equipment does not exceed the specified sound levels. Note that the resulting noise levels associated with the plant for this nighttime study are based on reasonable worst case scenarios of all modeled noise-generating equipment operating at max capacity and will be no greater during daytime conditions.

Existing trucking noise impacts were captured during the ambient sound level survey and therefore are included in this analysis via the ambient data. Further details regarding the ambient (background) data is included at the end of this section. Therefore, noise impacts due to on site trucking activities are not included in Table 3-2 due to that fact that these activities are expected to either remain the same as current activities or in some cases decrease as described at the end of Section 3.2.

Architectural acoustical parameters included in the model for buildings housing noisy equipment are listed in Table 3-3. The parameters are based on project design drawings and design specifications. These design parameters form the basis of the predicted project noise emissions.

Table 3-2 Project Equipment Sound Levels

Equipment	Location(1)	Quantity	Expected Sound Level(2)	Anticipated Mitigation	Data Source
Turbo Blower	Blower Building	3 (1 unit backup)	L_p = 80 dBA at 3 ft	Blower enclosure, intake, inlet and blowoff silencers included in design	Vendor datasheets
Air compressor	Blower Building	2 (1 unit backup)	L_p = 75 dBA at 3 ft	As described in vendor datasheets	Vendor datasheets
Ventilation fans	Blower Building	4	Lp = 75 dBA at 5 ft, 86 dBA L_w	Fans should be selected to ensure noise specification is met	In-house
Mechanical Mixer	BNR Basin	9	81 dBA L_w	As specified	To be confirmed upon vendor selection
Fan, PRV7801-02	Dewatering Building	2	79 dBA L_w	None	Vendor datasheets

Equipment	Location[1]	Quantity	Expected Sound Level[2]	Anticipated Mitigation	Data Source
Fan, PRV7803	Dewatering Building	1	58 dBA L_w	None	Vendor datasheets
Fan, PRV7804	Dewatering Building	1	69 dBA L_w	None	Vendor datasheets
Fan, PRV7805	Dewatering Building	1	68 dBA L_w	None	Vendor datasheets
Fan, EXF7801	Dewatering Building	1	76 dBA L_w	None	Vendor datasheets
Fan, EXF7802	Dewatering Building	1	70 dBA L_w	None	Vendor datasheets
Heat Pump	Dewatering Building	1	95 dBA L_w	As specified	To be confirmed upon vendor selection
Makeup Air Unit, MAU7801	Dewatering Building	1	87 dBA L_w	None	Vendor datasheets
Makeup Air Unit, MAU7802	Dewatering Building	1	93 dBA L_w	None	Vendor datasheets
Wall Heater, HTR7801 - 7803	Dewatering Building	3	91 dBA L_w	As specified	To be confirmed upon vendor selection
Centrifugal Pump	Digester Control Building	2	106 dBA L_w	As specified	To be confirmed upon vendor selection
Recirculation Pump	Digester Control Building	4	105 dBA L_w	As specified	To be confirmed upon vendor selection
Thickened Waste Activated Sludge and Digester Transfer Pump	Digester Control Building	4	98 dBA L_w	As specified	To be confirmed upon vendor selection
Thickened Waste	Digester Control Building	3	96 dBA L_w	As specified	To be confirmed upon vendor selection

Equipment	Location[1]	Quantity	Expected Sound Level[2]	Anticipated Mitigation	Data Source
Activated Sludge Pump					
Linear Motion Mixer	Digester Control Building	3	97 dBA L_w	As specified	To be confirmed upon vendor selection
Compressed Air Filter	Digester Control Building	2	79 dBA L_w	As specified	To be confirmed upon vendor selection
Boiler	Digester Control Building	2	91 dBA L_w	As specified	To be confirmed upon vendor selection
Burner	Digester Control Building	1	101 dBA L_w	As specified	To be confirmed upon vendor selection
Makeup Air Unit	Digester Control Building	1	90 dBA L_w	As specified	To be confirmed upon vendor selection
Packaged Air Condition Unit	Digester Control Building	1	77 dBA L_w	None	Vendor datasheet
Roof Hood, RH7701	Digester Control Building	1	77 dBA L_w	None	Vendor datasheet
Fan, PRV7701	Digester Control Building	1	76 dBA L_w	None	Vendor datasheet
Fan, EXF7701	Digester Control Building	2	78 dBA v	None	Vendor datasheet
Fan, EXF7702	Digester Control Building	1	78 dBA L_w	None	Vendor datasheet
Positive Pressurization Unit	Digester Control Building	1	89 dBA L_w	As specified	To be confirmed upon vendor selection
Pump, G-R T6A71S-B	Filter Complex Building	4	97 dBA L_w	As specified	To be confirmed upon vendor selection

Equipment	Location[1]	Quantity	Expected Sound Level[2]	Anticipated Mitigation	Data Source
Roof fan	Filter Complex Building	2	74 dBA L_w	None	Vendor datasheets
Air Conditioning package	Filter Complex Building	2	98 dBA L_w	None	Vendor datasheets
Makeup Air Unit	Filter Complex Building	2	76 dBA L_w	None	Vendor datasheets
Wemco Grit Pump	Headworks Building	2	92 dBA L_w	As specified	To be confirmed upon vendor selection
4500C Pump	Headworks Building	2	94 dBA L_w	As specified	To be confirmed upon vendor selection
Makeup air Unit, MAU2001	Headworks Building	1	98 dBA L_w	As specified	To be confirmed upon vendor selection
Makeup Air Unit, MAU2002	Headworks Building	1	89 dBA L_w	As specified	To be confirmed upon vendor selection
Air Handling Unit, AHU2001-02	Headworks Building	2	57 dBA L_w	None	Vendor datasheet
Fan, EXF2001	Headworks Building	1	70 dBA L_w	As specified	To be confirmed upon vendor selection
Fan, roof	Headworks Building	1	73 dBA L_w	As specified	To be confirmed upon vendor selection
Heat Pump, ACD2001-02	Headworks Building	2	90 dBA L_w	None	Vendor datasheet
Positive Pressurization Unit	Headworks Building	1	89 dBA L_w	As specified	To be confirmed upon vendor selection
60 USGPM Pump	Sludge Building	4	92 dBA L_w	As specified	To be confirmed upon vendor selection

Equipment	Location[1]	Quantity	Expected Sound Level[2]	Anticipated Mitigation	Data Source
Primary Sludge Pump	Sludge Building	5	96 dBA L_w	As specified	To be confirmed upon vendor selection
RAS Pump	Sludge Building	1	99 dBA L_w	As specified	To be confirmed upon vendor selection
TWAS and Transfer Pump	Sludge Building	4	98 dBA L_w	As specified	To be confirmed upon vendor selection
WAS Pump	Sludge Building	4	96 dBA L_w	As specified	To be confirmed upon vendor selection
DAF Recycle Pump	Sludge Building	3	90 dBA L_w	As specified	To be confirmed upon vendor selection
AC Unit	Sludge Building	1	95 L_p dBA L_w	None	Vendor datasheets
Fan, PRV5101	Sludge Building	1	64 dBA L_w	None	Vendor datasheet
Fan, PRV5102	Sludge Building	1	72 dBA L_w	None	Vendor datasheets
Fan, PRV5103	Sludge Building	1	83 dBA L_w	None	Vendor datasheets
Fan, PRV5104	Sludge Building	1	72 dBA L_w	None	Vendor datasheets
Fan, PRV5105	Sludge Building	1	68 dBA L_w	None	Vendor datasheets
Fan, PRV5106	Sludge Building	1	58 dBA L_w	None	Vendor datasheets
Fan, PRV5107-08	Sludge Building	2	66 dBA L_w	None	Vendor datasheets
Makeup Air Unit	Sludge Building	1	90 dBA L_w	None	Vendor datasheets
Roof Hoods	Sludge Building	2	92 dBA L_w	As specified	To be confirmed upon vendor selection

Equipment	Location[1]	Quantity	Expected Sound Level[2]	Anticipated Mitigation	Data Source
Makeup Air Unit	DAF Basin	1	87 dBA L_w	None	Vendor datasheets
PEW Pump	UV Building	4	99 dBA L_w	As specified	In-house
Cabinet Fan	Solid Ferrics Building	1	57 dBA L_w	None	Vendor datasheets
Wall Exhaust Fan	Solid Ferrics Building	1	70 dBA L_w	None	Vendor datasheets
Positive Pressurization Unit	Solid Ferrics Building	1	88 dBA L_w	As specified	To be confirmed upon vendor selection
Makeup Air Unit	Solid Ferrics Building	1	85 dBA L_w	As specified	To be confirmed upon vendor selection
Heat Pump	Solid Ferrics Building	1	96 dBA L_w	As specified	To be confirmed upon vendor selection
Primary Clarifier Motor	Primary Clarifier	2	69 dBA L_w	As specified	To be confirmed upon vendor selection
Final Clarifier Motor	Final Clarifier	3	69 dBA L_w	As specified	To be confirmed upon vendor selection
Odor Control Fan	Odor Control (outdoors)	6 (4 duty, 2 standby)	L_p = 75 dBA at 3 ft	None	Vendor datasheet

Notes:

(1) See Figure 1-1, Nelson WWTF Proposed Site Plan, for building locations.

(2) Lw = sound power level re 1 pW and Lp = sound pressure level re 20 µPa.

Table 3-3 Architectural Acoustical Information

Location	Description	Acoustical Design Details
Blower Building	Exterior walls	Current design: 12-inch CMU
	Roof deck	Current design: metal deck, k-13 under roof deck, 5-inch rigid insulation between joists
	Mandoors and overhead doors	Current design: Insulated metal doors
	Ventilation louvers	Current design: Acoustical louvers. Confirm minimum insertion loss of 15 dB
All Other Equipment Buildings	Exterior walls	Current design: 12-inch CMU
	Roof deck	Current design: metal / concrete deck per design drawings
	Mandoors and overhead doors	Current design: Metal doors per design drawings
	Ventilation louvers	Current design: Standard louvers

Background noise is believed to originate from a number of sources. Interstate 35 and the BNSF railroad lie immediately north of the Nelson facility, and these are believed to be significant contributors. Noise originating within the Nelson facility fall generally within three categories:

1. The loudest activity is the unloading of sludge from trucks that haul it in from other JCW facilities. It is unloaded into tanks by pumping, and the pumps are loud. The unloading pumps will cease when the new facilities go into operation as they will allow for the sludge to flow into the storage tank by gravity with no need for pumping.
2. Noise from any motorized equipment from existing headworks, clarifiers, trickling filters, pump stations, contact basins, and solids processing facilities are scheduled for demolition and will no longer be present after construction.
3. Line Maintenance Crews mobilizing and preparing/loading equipment and trucks in preparation for the day's maintenance activities out in the collection system. This has been the practice historically for several decades. It will continue once the new facilities go into service, but JCW does plan to move the Line Maintenance operation to a new location in the future.
4. Trucks coming and going to make chemical deliveries and to haul away dewatered sludge to disposal sites. This activity will continue as part of the routine operation of the new facility.

3.3 Analysis Results

The predicted noise emissions are detailed in Figure 3-1 as contours of constant A-weighted sound pressure level. Figure 3-1 includes the overall sound pressure levels only due to the project during normal operation. The predicted noise contours do not include any existing facility or non-facility noise sources. To assess future regulatory compliance and potential for environmental noise impacts, the project noise emissions can be combined with the existing

background noise. As stated previously, HDR recently completed a baseline sound level survey, the results of which were included in their "Construction Noise Report," dated January 2023 (HDR report). Reference Appendix A for additional detail. The baseline sound levels measured during the nighttime from the HDR report are included in Table 3-4. The project-only sound levels from the acoustical model can be logarithmically added to the baseline sound levels to estimate future conditions. Any noise sources from existing facilities scheduled for demolition would not be separately accounted for in the baseline sound levels, but will not exist after project completion. By not taking credit for this noise reduction, this approach should provide conservative results.

3.3.1 Regulatory Assessment

Based on the results of the acoustical model and applicable zoning, the combined project and baseline sound levels shown in Table 3-4 are expected to comply with the regulatory limits at the receptors in Mission, KS.

3.3.2 Potential Noise Impacts

Acoustical impacts are often assessed by reviewing the potential sound level increase relative to baseline conditions. This predicted increase for each receptor is shown in Table 3-4 and, as noted above, is a conservative estimate of future sound levels. As shown, the highest expected sound level increase is 2 dBA. As noted in Table 2-1, changes in sound level of less than 5 dBA are typically unnoticeable or tolerable to most listeners. Based on this, the expected worst-case sound level increases are not expected to result in noise nuisances.

Table 3-4 Acoustical Modeling Results and Estimated Future Conditions

Location	Baseline Nighttime Sound Level (1)	Predicted Project-only Sound Level	Baseline + Predicted, Future Sound Level	Increase	Regulatory Limit
R1	49 dBA (Location 3)	44 dBA	50 dBA	1 dB	50 dBA
R4	48 dBA (Location 1)	45 dBA	50 dBA	2 dB	50 dBA
R5	48 dBA (Location 1)	46 dBA	50 dBA	2 dB	50 dBA
R24	57 dBA (2) (Location 4)	42 dBA	57 dBA	0 dB	50 dBA
R70	51 dBA (Location 2)	37 dBA	51 dBA	0 dB	None
Gazebo	51 dBA (Location 2)	41 dBA	51 dBA	0 dB	None

Notes:

(1) As measured and reported in Table 5-1 of the "Construction Noise Report" by HDR, dated January 2023. Corresponding baseline measurement locations included above in parenthesis and are representative of the nearest measured baseline location relative to the modeled receptor location.

(2) Measured baseline sound level already exceeds regulatory limit.

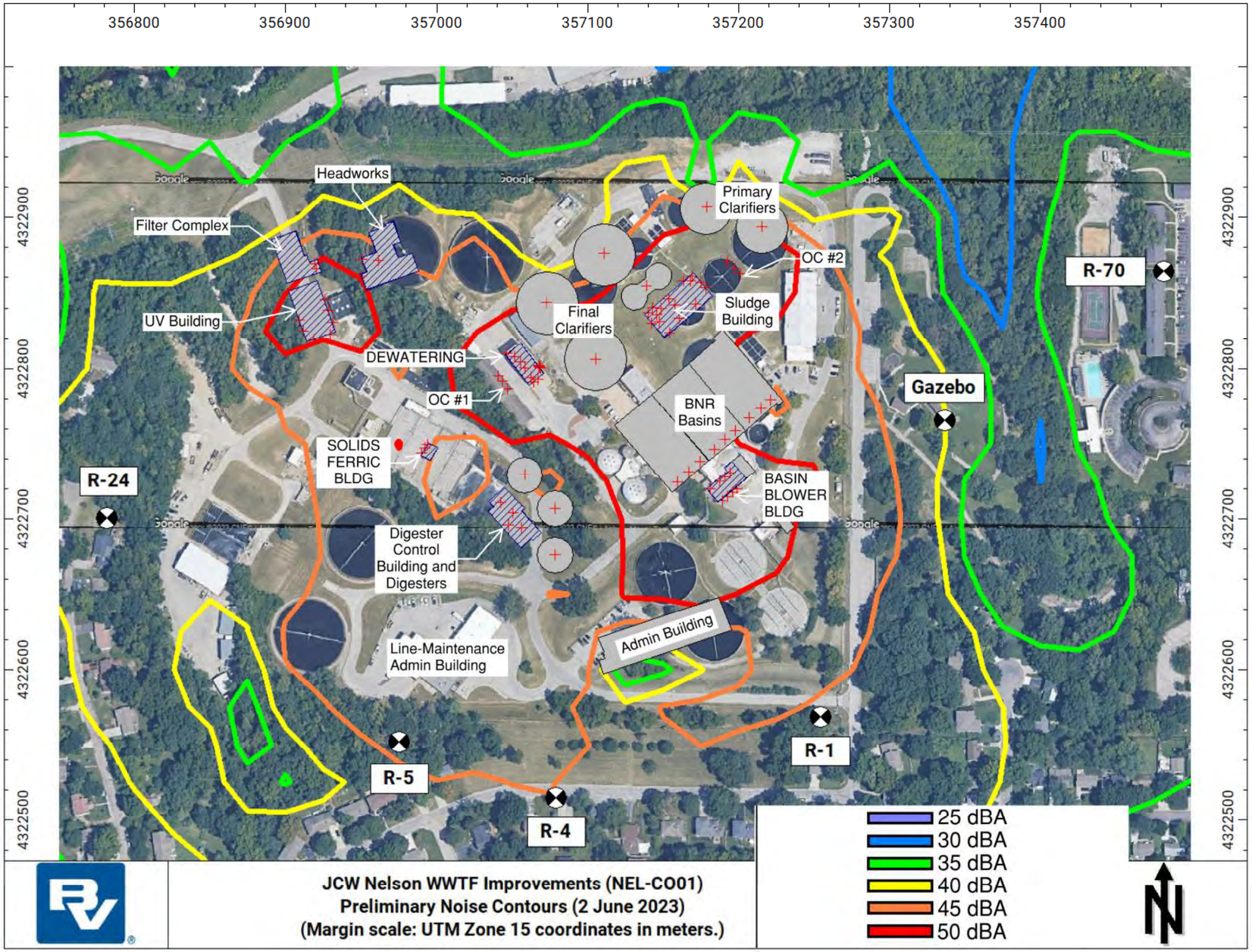

Figure 3-1 Nelson WTF Improvements Project Sound Level Contours (dBA; project-only).

Appendix A. Construction Noise Report

Construction Noise Report

Nelson Wastewater Treatment Facility

January 30, 2023

Contents

Tables

Figures

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1 Executive Summary

A study has been conducted to assess construction noise levels within the surrounding community for planned Nelson Wastewater Treatment Facility improvements. The City of Mission limits noise emissions levels to 50 dBA at repeated intervals or for a sustained length of time within residential developments, and as with the City of Roeland Park, have additional codified nuisance and annoyance prohibitions. Noise from demolition and excavation activities that utilize excavators, dump trucks, rock breakers / hoe rams, and pulverizers are calculated to generate noise levels as high as 75 dBA at Nall Park and nearby residences during some demolition phases, with all residential properties located within the local vicinity of the facility experiencing construction-related sound levels exceeding 50 dBA during major demolition and excavation operations. Additionally, C-weighted noise levels characterizing low frequency sound energy are anticipated to occasionally exceed 68 dBC during construction, a potential annoyance threshold. Further potential for annoyance may also occur due to relative noise increases above existing background noise levels. Based on noise monitoring conducted in October 2022, construction noise levels may be as high as 24 dBA and 15 dBC above typical background noise levels. Details are provided herein.

2 Introduction

HDR acousticians performed an acoustical analysis to evaluate noise emission levels from construction associated with proposed Nelson Wastewater Treatment Facility improvements to surrounding residential areas. This acoustical study accounts for the important aspects of construction noise emissions from equipment sources, propagation paths, and receiver parameters, representative of a source → path → receiver model. More specifically, the acoustical analysis includes:

- Identifying major construction equipment sound sources;
- Identifying applicable noise ordinance or project acoustical requirements;
- Evaluation of noise levels for major noise-generating construction phases;
- Calculating environmental noise propagation over intervening terrain and accounting for atmospheric effects;
- Calculating construction noise levels at noise-sensitive receiver locations.

3 Project Description

Section 3 provides a general overview of the project, including site surroundings, proposed construction activity, and acoustical analysis scenarios.

3.1 Location

The Myron K. Nelson Treatment Complex, located at 4800 Nall Avenue in Mission, KS, began operations in 1949 to serve the residents of Johnson County. The facility, for which large-scale improvements are planned to better support the community and environment, is shown in Figure 3-1, below. Single-family residential homes are located south, west, and southeast of the site. Additional noise-sensitive land-uses in the vicinity of the complex include Nall Park and multi-family dwellings (apartments) to the east. Commercial businesses are found north of the site.

Figure 3-1. Nelson Wastewater Treatment Facility Site

Source: Google Earth Pro (2022)

3.2 Acoustic Modeling Scenarios

HDR acousticians modeled noise emissions under six scenarios featuring planned construction equipment and events dispersed around the wastewater treatment complex, representative of the loudest scheduled noise-generating activity of overall improvement work. Table 3-1, below, summarizes planned construction activity, characterized by demolition and excavation operations utilizing excavators, dump trucks, rock breakers, hoe rams, and pulverizers.

Table 3-1. Proposed Construction Activities

Construction Scenario	General Activity	Location*	Approximate Start Date	Proposed Duration
Scenario 1	Demolition	MM Buildings #10 and #12	August 30, 2023	45 Days
		MM Sludge Digester #2 / Operation Building #2	September 15, 2023	30 Days
		MM Sludge Digesters #3 and #4 / Sludge Control and Filter Building	September 15, 2023	75 Days
		MM Sludge Digester #1 / Operation Building #1	October 6, 2023	30 Days
Scenario 2	Demolition	Intermediate Clarifiers #1 - #4 / Trickling Filters #3, #4, and #5	August 31, 2023	60 Days
Scenario 3	Excavation	Headworks	November 10, 2023	45 Days
Scenario 4	Excavation	BNR	December 12, 2023	90 Days
Scenario 5	Excavation	FC #1	September 25, 2025	15 Days
		FC #2	April 27, 2026	15 Days
		FC #3	May 11, 2026	15 Days
Scenario 6	Demolition	MM Main Trickling Filter #1 and #2 / Primary Clarifiers #1 and #2	March 27, 2029	45 Days

*MM denotes Mission Main
Source: McCarthy Building Companies and HDR Engineering, Inc. (2022)

Figures 3-2 through 3-7 that follow depict the construction scenario locations (shown using bold outline) of demolition and excavation operations evaluated for noise transmission to the surrounding community.

Figure 3-2. Construction Scenario 1

Figure 3-3. Construction Scenario 2

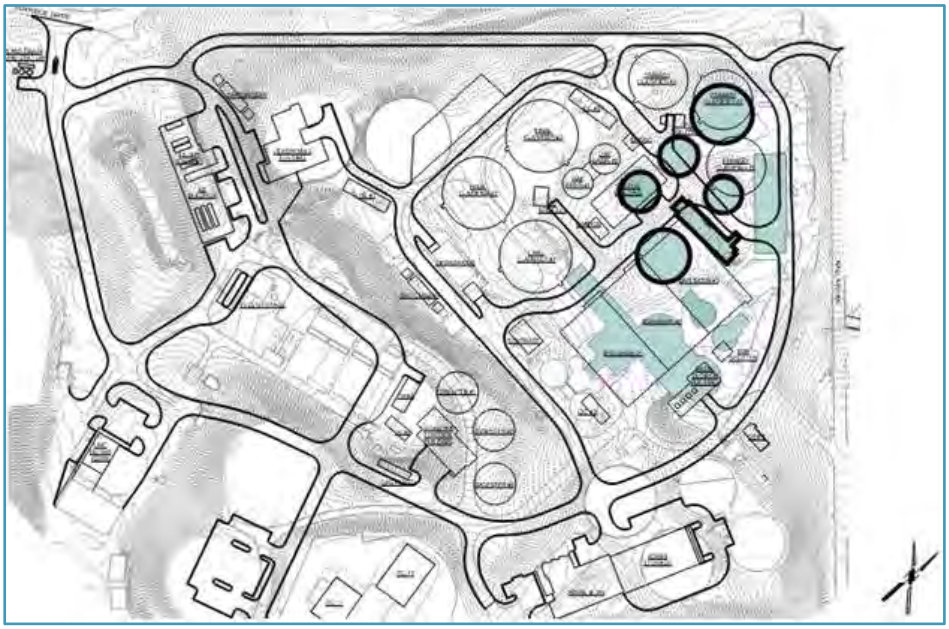


Figure 3-4. Construction Scenario 3

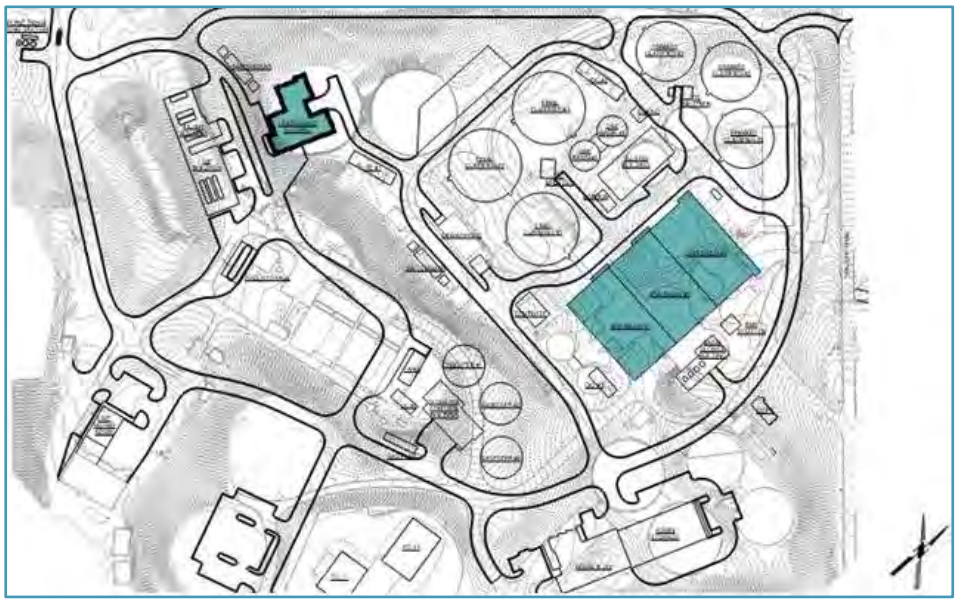


Figure 3-5. Construction Scenario 4

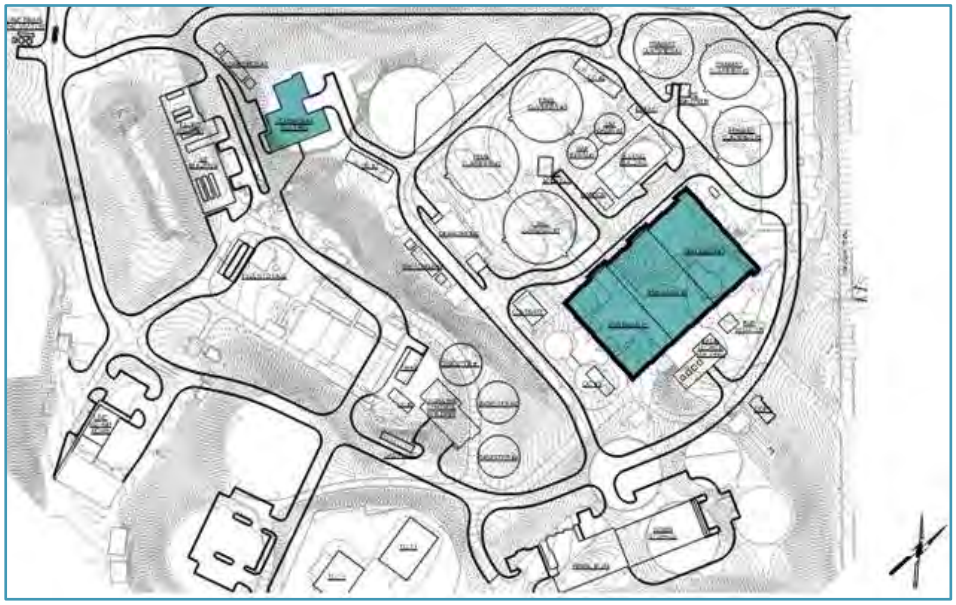


Figure 3-6. Construction Scenario 5

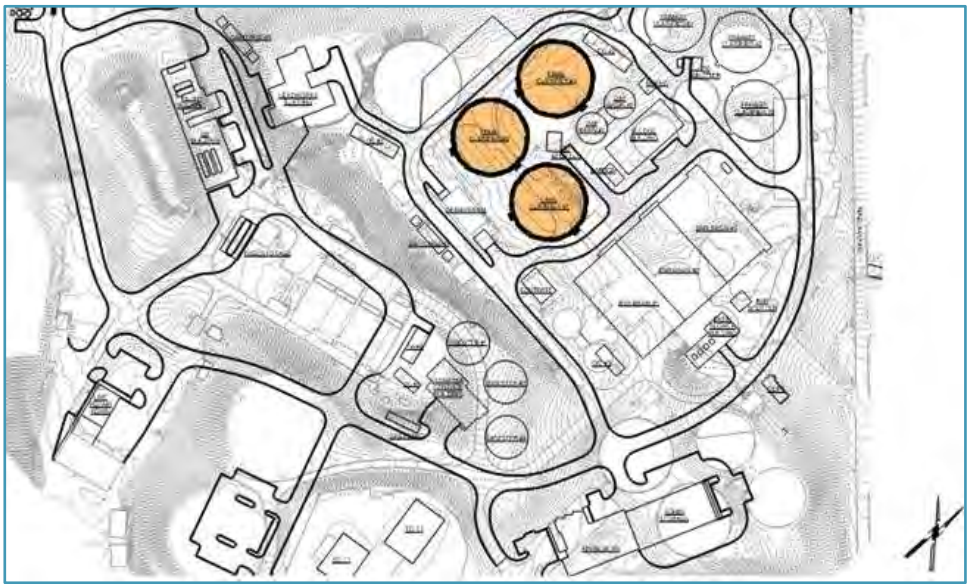
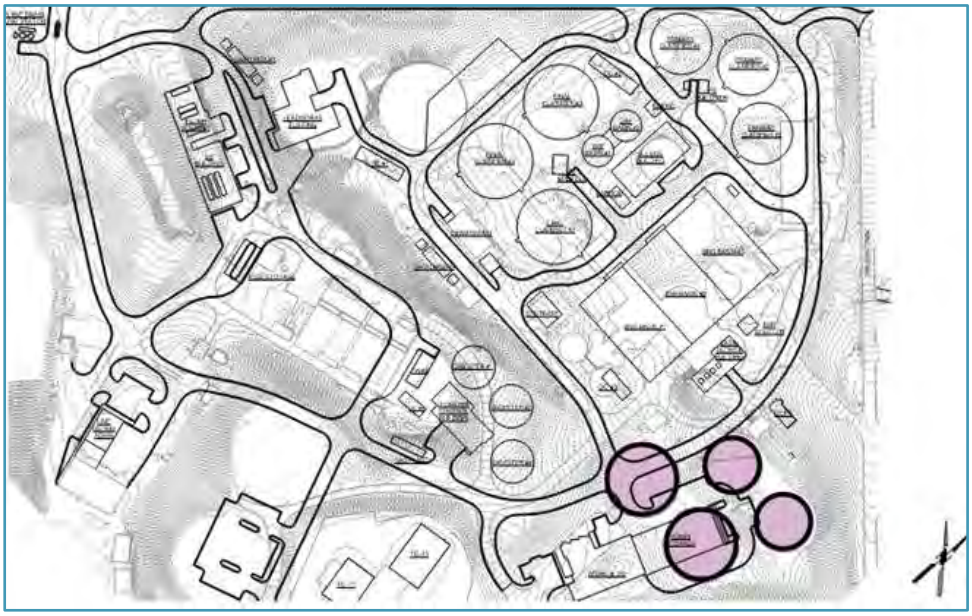


Figure 3-7. Construction Scenario 6



4 Acoustical Criteria

Noise-related requirements pertaining to site construction noise emissions at the local level are as follows. Please refer to the ordinance for specific code-related language and context.

4.1 Local Noise Ordinance Requirements

The City of Mission ordinance includes both specific A-weighted sound pressure level limits and subjective annoyance-based restrictions. The City also establishes allowable construction hours. The City of Roeland Park code provides annoyance-based limits only. Table 4-1 summarizes noise-related sections of these ordinances.

Table 4-1. Local Noise-Related Ordinance Requirements Summary

Jurisdiction	Local Ordinance Section	Summarized Requirements
City of Mission	§410.010 K of Chapter 410, Article I	Noise emissions to residential properties not to exceed 50 dBA at property lines
	§215.111 of Chapter 215, Article VI	Excessive, unnecessary, unreasonable or unusually loud noise or any noise which annoys, disturbs, injures or endangers is prohibited
	§505.010 of Chapter 505, Article I	Construction work is limited to the following hours: • Monday through Friday – 7:00 A.M. to 6:00 P.M. • Saturday – 8:00 A.M. to 6:00 P.M. • Sunday – All Work Prohibited
City of Roeland Park	Article 8 Noise	Excessive, unnecessary, unreasonable or unusually loud noise or any noise which annoys, disturbs, injures or endangers is prohibited

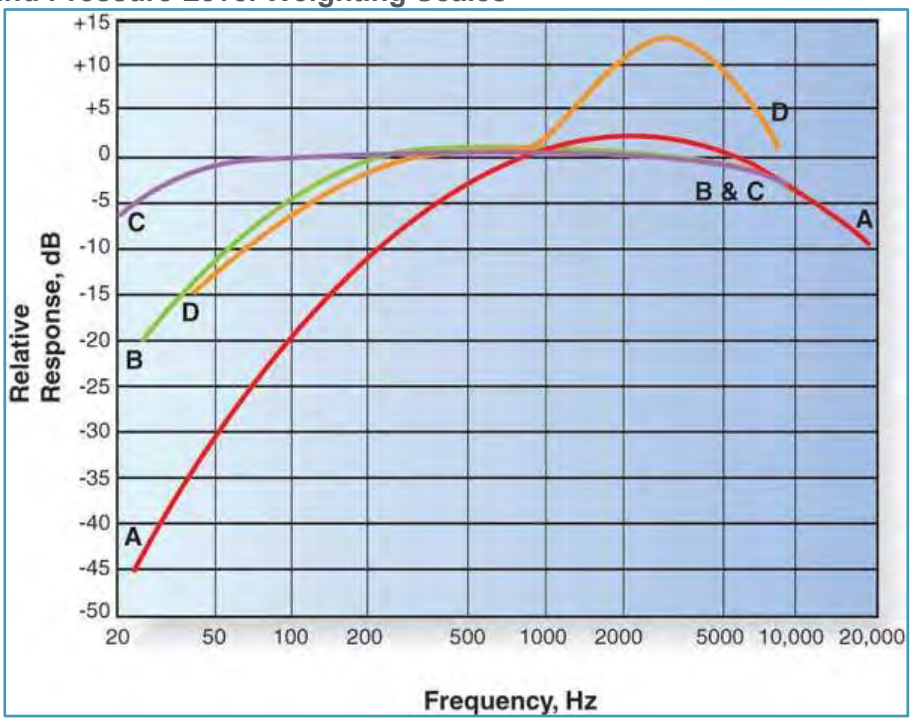
4.2 Noise-Related Annoyance

While evaluation of construction noise level emissions as they relate to the portions of the City of Mission ordinance prescribing specific A-weighted limits (50 dBA) is straightforward, assessment of subjective, nuisance-based sections of the jurisdictional ordinances are considerably less defined. Issues of acoustical annoyance, the basis of nuisance-based ordinances, are complex and can be influenced by many factors. The most salient construction-related parameters are described below. Proactive identification of potential noise issues is recommended, especially when concerning annoyance, which may not necessarily be addressed by local ordinance noise level limits.

4.2.1 A-Weighted Sound Levels

Units of A-weighted decibels, or dBA, are commonly used to characterize environmental noise and also in noise ordinances, such as those enforced by the City of Mission. A-weighting represents the loudness perception subjectively experienced by the human ear, discriminating against low frequencies (see Figure 4.1, below), with loudness itself serving as the primary cause of annoyance. Aside from loudness, tonal components, character, relative sound level increases, frequency and time of day of occurrence of noise emissions, low frequency content (C-weighted levels), and other noise phenomena can also be associated with annoyance, but are not well represented in A-weighted levels alone.

Figure 4-1. Sound Pressure Level Weighting Scales



Source: Extron USA (www.extron.com)

4.2.2 Low Frequency Noise

C-weighted levels retain low frequency sound information that is removed by A-weighting. Differences between A and C-weighted levels of 10 dB or more indicate that the noise may contain high levels of low frequency sound energy. Low frequency noise of sufficiently high amplitude may be characterized as “rumbly” or induce a sense of “pressure” that receivers perceive as annoying”, but may not necessarily find “loud”[1].

Although debate in the acoustics community exists regarding a specific C-weighted threshold for curtailing low frequency-related annoyance, a general consensus has been reached for limiting levels to the 65-70 dBC range during daytime hours. This level represents a daytime criterion prescribed by the Oregon State Noise Control Regulations[2], although some standards, professionals, and organizations recommend lower sound pressure levels and adoption of more rigorous evaluation criteria.

4.2.3 Relative Noise Level Increases

As a general reference, the Environmental Protection Agency (EPA) describes relative noise level increases as cause for annoyance. For construction noise emissions that are 0-5 dBA, 5-10 dBA, and 10+ dBA above existing background noise levels, the EPA designates these increases to be slightly, moderately, and seriously objectionable, respectively.

4.2.4 Time of Day

Humans are more sensitive to noise events that occur during nighttime because nighttime noise events have potential to interfere with sleep. Due to this increased sensitivity, noise levels that are considered acceptable at night are typically lower than noise levels considered acceptable during the daytime. Acceptable nighttime noise limits are commonly on the order of 5-10 dBA lower than acceptable daytime noise limits. Without a permit for expanded working hours, the City of Mission ordinance allows only Monday through Saturday daytime construction. HDR understands that significant noise-generating construction activity is generally planned to be limited to daytime hours.

4.2.5 Duration

While no standardized criteria exist for evaluating construction noise, including its duration, the Federal Transit Administration's (FTA) *Transit Noise and Vibration Impact Assessment Manual*[3] suggests residential daytime limits of 80 dBA $L_{eq(8hrs)}$ over a 30-day period. While no approaches are given for modifying this sound pressure level threshold for varying construction durations, this criterion does provide some general insight for assessing the influences of demolition and excavation timeframes.

4.2.6 Noise Character

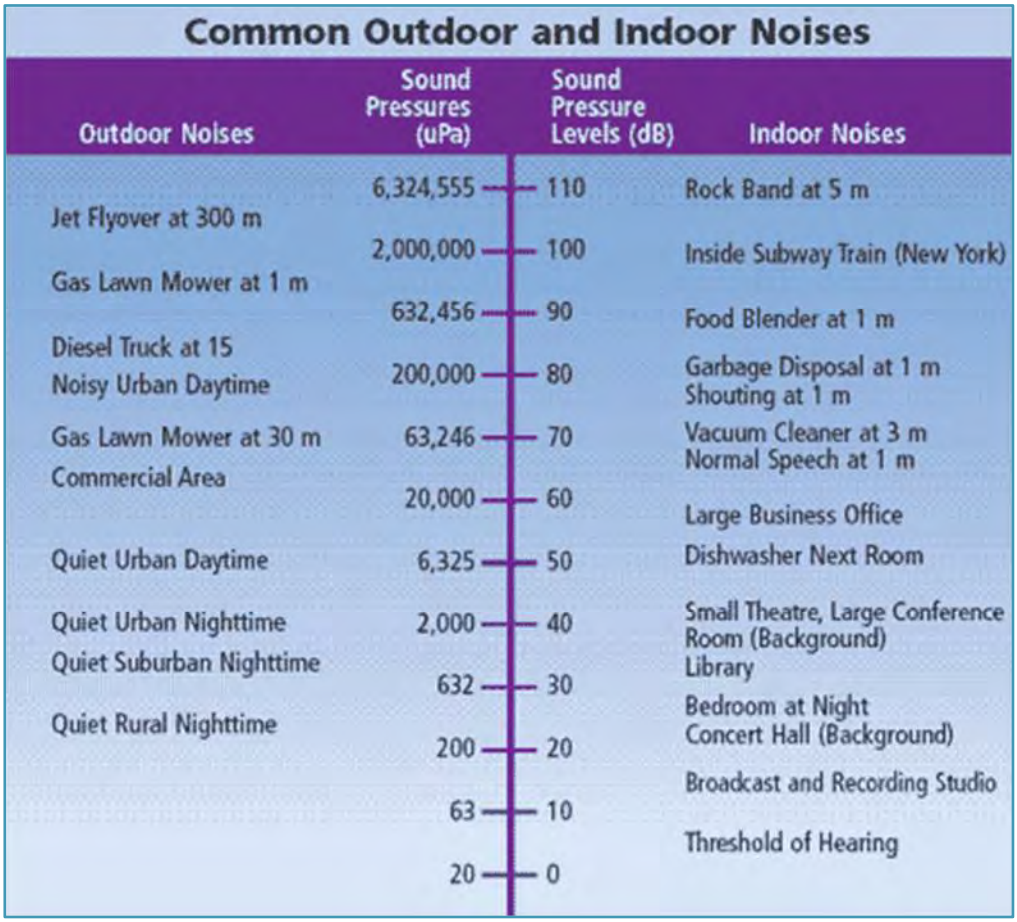
While loudness is generally considered the primary metric for evaluating noise-induced annoyance, the character of noise sources is also a consideration. Unlike loudness perception, however, quantifying sharpness, roughness, and other similar descriptive terms of acoustical nuisances is challenging and a field of acoustics (psychoacoustics) that is continually maturing. At this time, this subject is raised for awareness, but is not included in this study.

HDR measured pre-construction noise levels to better understand noise emissions from facility operations in the context of existing environmental acoustical conditions, as discussed in Section 5 below. Where applicable, comments have been included within this report regarding potential annoyance factors beyond A-weighted sound levels, as may be pertinent based on existing background noise level measurements and proposed construction activity.

4.3 Common Noise Sources and Levels

For reference, Figure 4-2 below provides approximate sound pressure levels for commonly encountered indoor and outdoor noise sources.

Figure 4-2. Common Noise Sources and Related Sound Pressure Levels



Source: Federal Highway Administration (FHWA) (https://highways.dot.gov/)

5 Existing Background Noise

As part of the construction noise study, existing background noise level measurements were performed during 24-hour periods representative of the typical acoustical environment to document both typical daytime and nighttime ambient sound levels in the general vicinity of the project site.

5.1 Noise Monitoring Locations

Existing ambient daytime (L_d) and nighttime (L_n) sound levels were field-measured in order to understand background noise levels generally associated with the area. Measurements of existing background noise levels were performed at four representative locations in the vicinity of proposed construction activities. Sound level measurements were logged in continuous one-second intervals from approximately 1 PM on October 26, 2022 through 2 PM on October 28, 2022. Logged measurements were then utilized to determine daytime (7 AM – 10 PM) and nighttime (10 PM – 7 AM) average sound levels. Figure 5-1 shows the noise measurement locations.

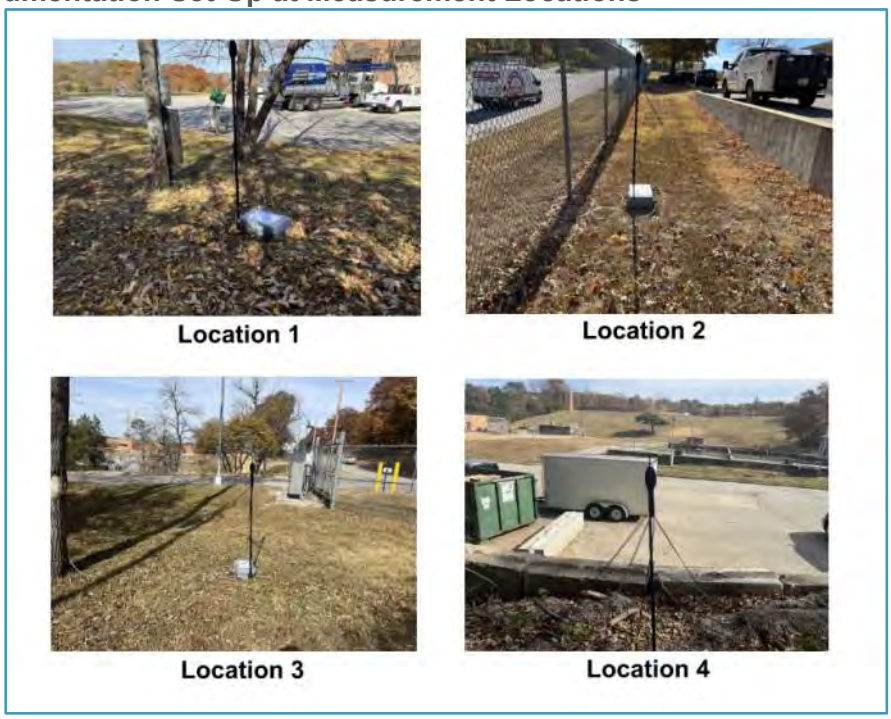
Figure 5-1. Background Noise Level Measurement Locations

Source: Google Earth Pro (2022)

5.2 Instrumentation and Set-Up

Instrumentation used during the measurements included two Larson Davis Model 831C sound level meters with microphones, preamplifiers, and systems meeting the criteria for ANSI Type I instruments. Measurements were conducted in accordance with standard industry practice, with microphone locations placed approximately 5 feet above grade. Instrument calibration was field-verified before and after measurement with a Larson Davis CAL200 calibrator. Figure 5-2 shows the instrumentation set-up at all four locations.

Figure 5-2. Instrumentation Set-Up at Measurement Locations



Source: HDR Engineering, Inc. (2022)

5.3 Environmental Conditions

Weather conditions were sunny, with daytime high and low temperature ranges of 63°F – 66°F and 37°F – 46°F, respectively. No adverse wind or rain events were noted. Ambient noise included those noise sources from buildings, truck traffic, and general facility activity representative of typical wastewater treatment campus operations and suburb residential developments. In addition, I-35 highway traffic noise was audible at Measurement Location 2.

5.4 Noise Measurement Results

Tables 5-1 and 5-2 list the measured A-weighted and C-weighted background noise levels at each of the four measurement locations, respectively. Although daytime levels provide the most pertinent information since construction operations are planned to occur during this time, nighttime levels are also offered for reference. The measured sound pressure levels are reported in terms of the Equivalent Sound Pressure Level or $L_{eq.}$ Because sound fluctuates over time, the L_{eq} is a mean energy-averaged noise level occurring during the time period of interest, representing the same sound energy as the time-varying measured sound. Figures 5-3 and 5-4 graphically depict the hourly L_{eq} levels for each 24-hour measurement period.

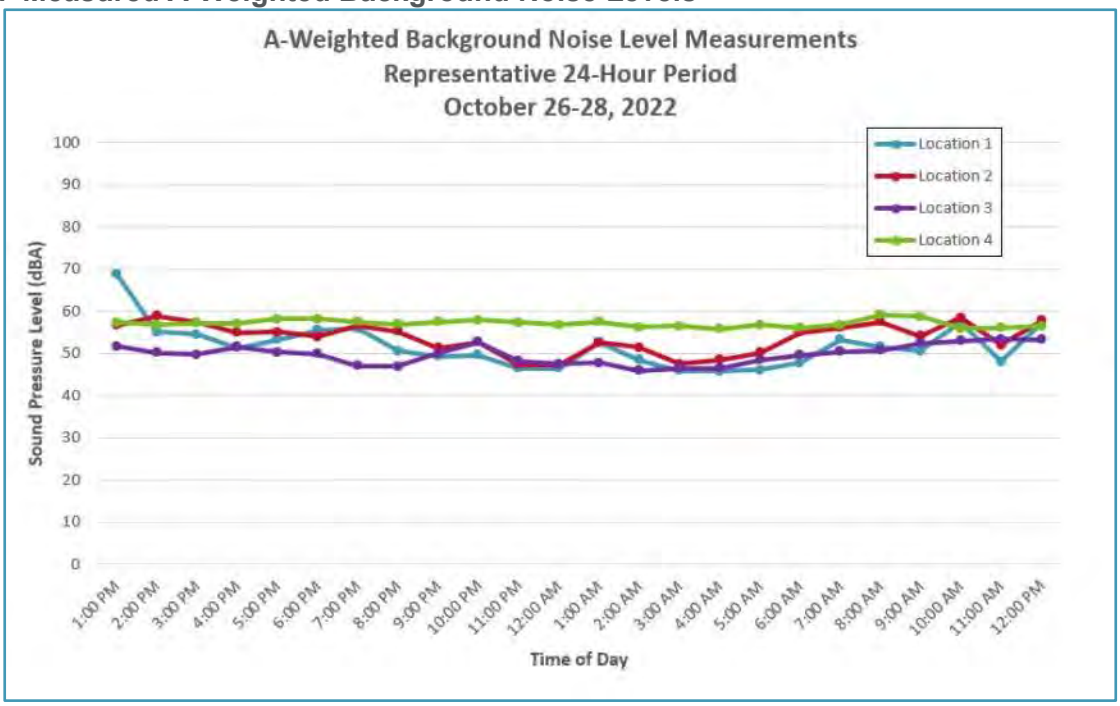
Note that there may be occasions when the maximum noise levels generated by equipment exceed reported L_{eq} levels, which are representative of full operating load conditions. These maximum noise levels are not taken to occur for sustained lengths of time.

Table 5-1. Measured A-Weighted Background Noise Levels (October 26-28, 2022)

Sound Level Meter Location	Daytime L_{eq} (dBA) (7 A.M. – 10 P.M.)	Nighttime L_{eq} (dBA)	24-Hour L_{eq} (dBA)
Location 1	59	48	57
Location 2	56	51	55
Location 3	51	49	50
Location 4	57	57	57

Source: HDR Engineering, Inc. (2022)

Figure 5-3. Measured A-Weighted Background Noise Levels



Source: HDR Engineering, Inc. (2022)

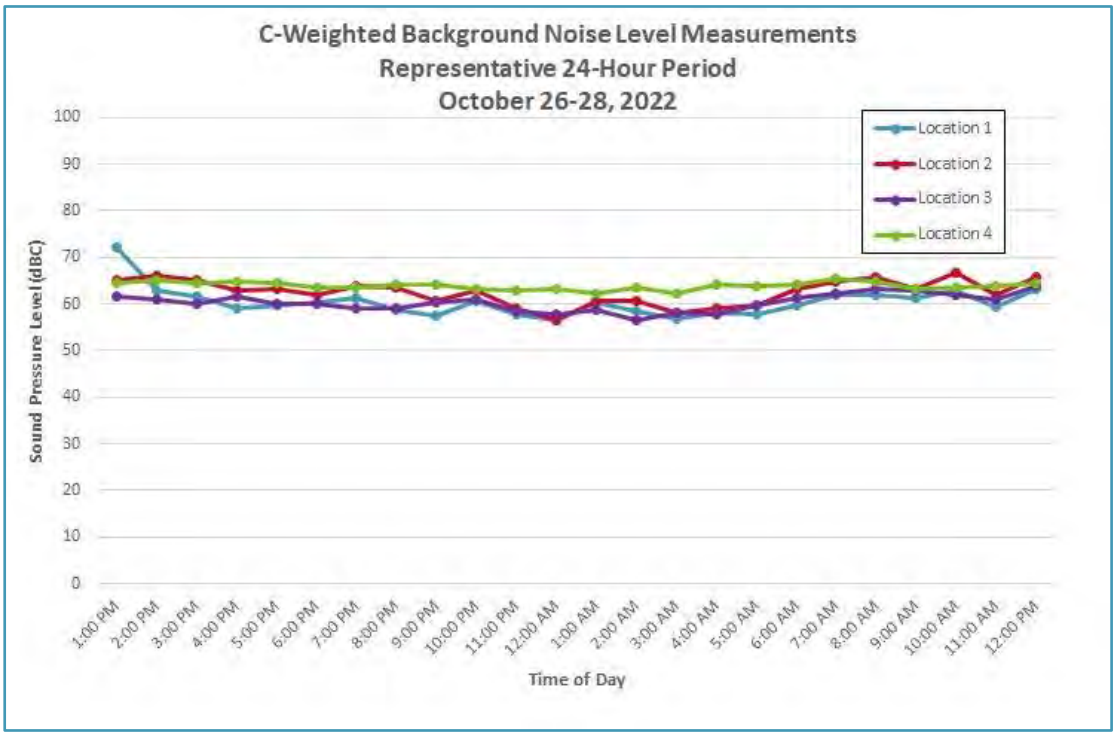
Existing A-weighted daytime background noise levels range between 51-59 dBA L_{eq}. The hourly equivalent noise levels during daytime hours at each of the four measurement locations generally exceed 50 dBA allowable ordinance limits.

Table 5-2. Measured C-Weighted Background Noise Levels (October 26-28, 2022)

Sound Level Meter Location	Daytime L_{eq} (dBC) (7 A.M. – 10 P.M.)	Nighttime L_{eq} (dBC)	24-Hour L_{eq} (dBC)
Location 1	64	59	62
Location 2	64	61	63
Location 3	63	65	61
Location 4	66	68	64

Source: HDR Engineering, Inc. (2022)

Figure 5-4. Measured C-Weighted Background Noise Levels



Source: HDR Engineering, Inc. (2022)

Existing C-weighted daytime background noise levels range between 63-66 dBC L_{eq}, and within 2-5 dBC of the potential annoyance threshold of 68 dBC L_{eq}, recommended in Section 4.2.2. As shown in Figure 5-4, the hourly equivalent C-weighted background noise levels are relatively constant. These consistent levels are commonly encountered in environmental acoustics, as low frequency noise, such as from large mechanical equipment and transportation sources, can travel long distances, making specific source identification difficult.

The background noise is believed to originate from a number of sources. Interstate 35 and the BNSF railroad lie immediately north of the Nelson facility, and these are believed to be significant contributors. Noise originating within the Nelson facility fall generally within three categories: 1) The loudest activity is the unloading of sludge from trucks that haul it in from other JCW facilities. It is unloaded into tanks by pumping, and the pumps are loud. This will cease when the new facilities go into operation as they will allow for the sludge to flow into the storage tank by gravity with no

need for pumping, 2) Line Maintenance Crews mobilizing and preparing/loading equipment and trucks in preparation for the day's maintenance activities out in the collection system. This has been the practice historically for several decades. It will continue once the new facilities go into service, but JCW does plan to move the Line Maintenance operation to a new location in the future, and 3) Trucks coming and going to make chemical deliveries and to haul away dewatered sludge to disposal sites. This activity will continue as part of the routine operation of the new facility.

6 Modeling Approach

Several environmental acoustics modeling tools and methodologies, which are discussed below, have been employed in order to complete a comprehensive sound study.

6.1 Sound Sources

Major noise-generating construction equipment has been evaluated within the acoustical analysis. A description of the principal equipment, along with the sound data associated with all equipment utilized herein, subsequently follow in Section 7.

The National Academies of Science, Engineering, and Medicine (NASEM) via the National Cooperative Highway Research Program (NCHRP)[4] has recently provided improved construction equipment sound data associated with acoustics prediction modeling. Members of the acoustics community utilize these updated data sets to provide improved accuracy[5] for prediction at receiver sound levels compared to previously available data. These one-third octave band construction equipment sound power data have been incorporated into this acoustical study.

6.2 Environmental Noise Modeling

HDR modeled construction noise emissions from the project site to surrounding residential and other noise-sensitive land uses using industry-accepted Cadna-A computer software, an environmental noise modeling program based on ISO-9613 (the international acoustical standard for outdoor sound propagation). This software calculates frequency-dependent sound propagation from the proposed construction equipment sources to surrounding receivers in the study area. Modeled receiver heights are located 5 feet above the ground. Model calculations include the factors important to sound propagation over distance, such as geometrical spreading, downwind conditions in all directions (that conservatively overestimates sound propagation), acoustical absorption characteristics of the ground surface in the propagation path, topography, temperature (50°F / 10°C), and relative humidity (70%), among others.

Specifically, acoustical modeling includes:

- Topographical and proposed grading effects;

- Ground absorption factor of G=0.5, conservatively representing soft ground coverage, such as grass or moderate vegetation;
- No shielding effects from on-site nor off-site buildings or structures were modeled.

Using the referenced information, Cadna-A calculates hourly equivalent sound pressure levels ($L_{eq(h)}$) at the receiver location of interest. The $L_{eq(h)}$ is a mean average noise level occurring in a 1-hour period. HDR has utilized octave band source sound power level data associated with full operating loads, which is reflected in reported A-weighted and C-weighted L_{eq} values.

7 Equipment Sound Sources

Section 7 of this report presents sound power level data for construction equipment modeled in this analysis.

7.1 Equipment Types

Principal construction equipment includes excavators, dump trucks, rock breakers / hoe rams, and pulverizers.

7.1.1 Excavators

Noise from excavators (Figure 7-1) includes activities such as breaking concrete, digging in dirt and sand, and scooping rock piles and dirt. The excavator source height is 6.2 feet above ground.

Figure 7-1. Excavator Equipment

Source: Caterpillar, Inc.

7.1.2 Dump Trucks

Noise generated from dump trucks accounts for driving on the work site, as well as material dumping events. Source heights for dump trucks are placed 4.8 feet above grade.

7.1.3 Rock Breakers / Hoe Rams

Noise emitted from rock and concrete breaking activity has been conservatively located 20 feet above the ground to represent demolition operations occurring at the upper stories of existing buildings. When taking place, hoe ramming events will generate comparable noise levels at ground level. Figure 7-2 shows a typical rock breaker attachment.

Figure 7-2. Rock Breaker / Hoe Ram Attachment

Source: Caterpillar, Inc.

7.1.4 Pulverizers

Because sound levels for pulverizers, as shown in Figure 7-3, are not readily available, noise emissions data for pavement scarifiers have been utilized to represent the similar milling machine type sound levels that are emitted. As with the rock breakers, pulverizer noise sources have been placed 20 feet above grade.

Figure 7-3. Pulverizer Attachment

Source: Caterpillar, Inc.

7.2 Sound Data

Construction equipment, which operate outdoors, are free to radiate sound energy directly into the environment, without obstruction. Table 7-1 contains unweighted spectral sound power level data for construction equipment. The shown sound power level is intrinsic to the amount of sound energy produced by the equipment, in much the same fashion as engine horsepower or torque. The sound pressure level depends on factors such as distance from the source, surrounding

reflective or absorptive sources, etc. The sound pressure level is analogous to vehicle speed, in that vehicle speed will be influenced by weight, traveling uphill or downhill, and other conditions.

Table 7-1. Construction Equipment Sound Power Level Data (dB)

Equipment Name	31.5 Hz	63 Hz	125 Hz	250 Hz	500 Hz	1,000 Hz	2,000 Hz	4,000 Hz	8,000 Hz	dBA	dBC
Excavator	100	103	109	110	109	101	97	94	86	**108**	**115**
Dump Truck	110	107	109	111	114	106	103	98	92	**113**	**118**
Rock Breaker / Hoe Ram	103	111	108	109	110	115	120	114	112	**123**	**123**
Pulverizer	103	114	120	122	112	110	106	103	99	**117**	**125**

Source: HDR Engineering, Inc. (2022)

As shown in Table 7-1, noise from rock breaking, hoe ramming, and pulverizer operations generating the highest noise levels of the primary construction equipment.

8 Noise-Sensitive Receiving Properties

Representative noise-sensitive residential and park receiver locations were selected around the site, as shown in the Appendix. Resultant construction noise emissions levels were then calculated using input data displayed above. Of these receivers, six representative receiving properties (R1, R4, R5, R24, Gazebo, and R70) were selected as the most-sensitive environmental acoustics scenarios, as they are expected to receive the highest amounts of construction noise due to their proximity to construction sites. Refer to Figure 8-1 for these locations.

Figure 8-1. Representative Noise-Sensitive Receiver Locations

Source: HDR Engineering, Inc. (2022)

For reference, Table 8-1, below, lists the receiver locations used in the noise model, and existing A-weighted and C-weighted daytime equivalent sound pressure levels from the nearest measurement location.

Table 8-1. Representative Receiver Applicable Daytime Background Noise Levels

Background Noise Parameter	R1	R4	R5	R24	Gazebo	R70
Location	3	1	1	4	2	2
A-Weighted L_{eq}	51	59	59	57	56	56
C-Weighted L_{eq}	63	64	64	66	64	64

Source: HDR Engineering, Inc. (2022)

9 Noise Modeling Results

Section 9 presents modeling results for all construction noise scenarios, expressed as A- and C-weighed $L_{eq(1hr)}$ values.

9.1 A-Weighted Noise Levels

Tables 9-1 provides the A-weighted sound pressure levels ($L_{eq(1hr)}$) calculated at the six representative receiving properties. The highest A-weighted sound pressure levels at any considered receiver location are also listed in this table (refer to the Appendix for specific locations). The provided noise levels are due to construction-related equipment and activity contributions only and are not combined with background noise levels.

Table 9-1. Representative Receiver A-Weighted Sound Pressure Levels (dBA)

Construction Scenario	R1	R4	R5	R24	Gazebo	R70	Highest Level
Scenario 1	70	65	60	62	68	65	73 (P3)
Scenario 2	66	62	59	61	71	66	75 (P2)
Scenario 3	59	60	58	66	55	52	69 (R21)
Scenario 4	68	64	64	61	70	64	73 (P2)
Scenario 5	61	61	58	63	60	60	64 (R21)
Scenario 6	75	70	62	62	53	53	75 (R1)

Source: HDR Engineering, Inc. (2022)

From Table 9-1, the highest A-weighted sound pressure levels expected, 75 dBA, occur with Scenario 6 (demolition of Mission Main Trickling Filter #1 and #2 / Primary Clarifiers #1 and #2) at representative location R1 and Scenario 2 (demolition of Intermediate Clarifiers #1-#4 / Trickling Filters #3, #4, and #5) at Nall Park location P2 (shown in Appendix). Construction-related noise levels at all representative receiver properties will exceed 50 dBA ordinance limits during all six construction scenarios considered in this study.

Figures 9-1 to 9-12 show modeled A-weighted construction noise contours for all six scenarios. Delineated noise contours are shown for the broader study area, as well as for more focused, representative receiver locations. A-weighted sound levels for all receivers are presented in the Appendix.

Figure 9-1. Construction Scenario 1 – A-Weighted Noise Contours (Representative Areas)

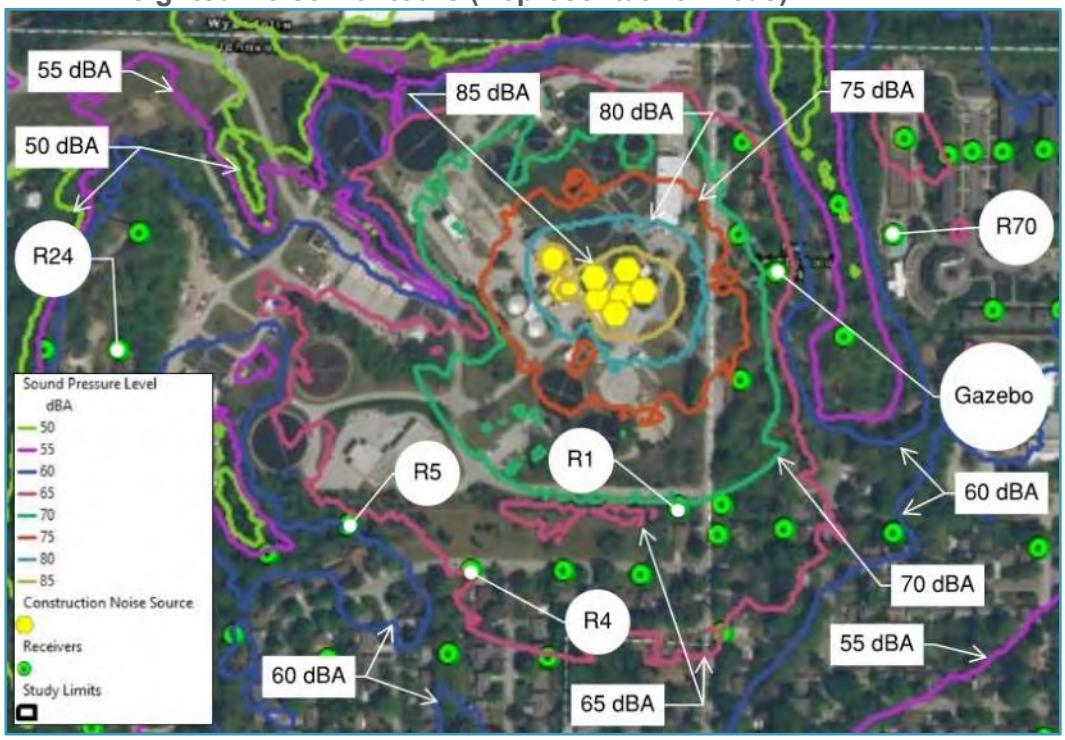


Figure 9-2. Construction Scenario 2 – A-Weighted Noise Contours (Representative Areas)

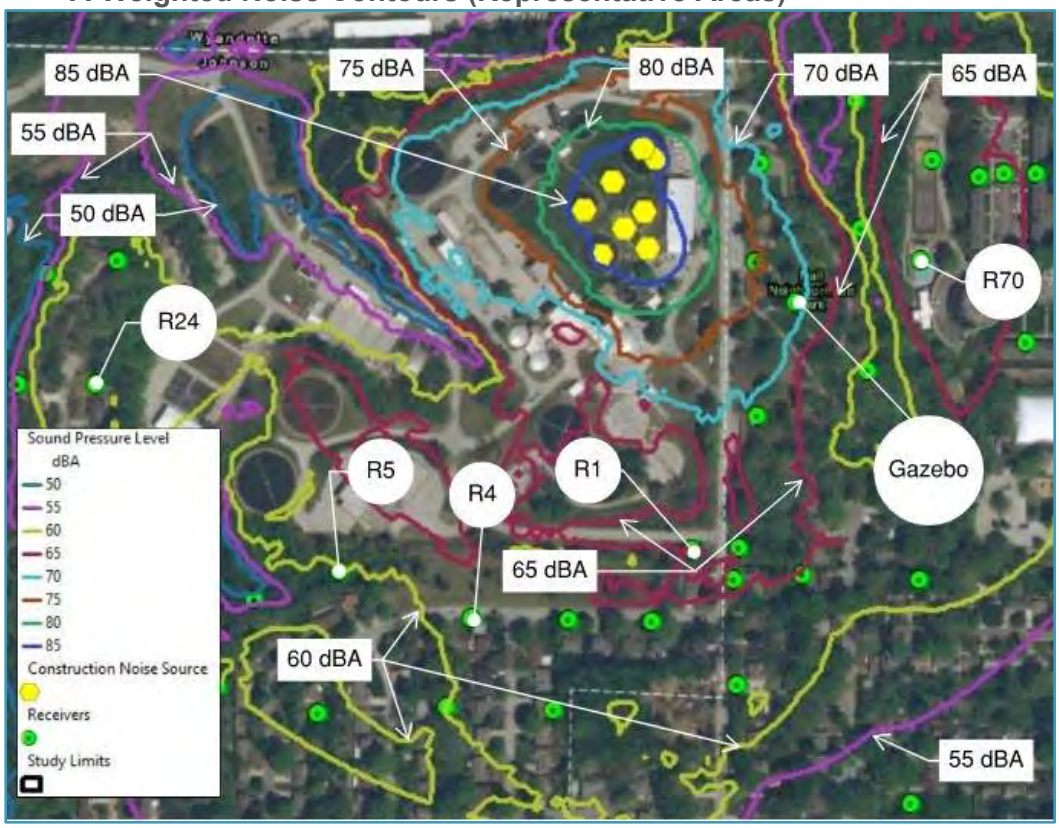


Figure 9-3. Construction Scenario 3 – A-Weighted Noise Contours (Representative Areas)

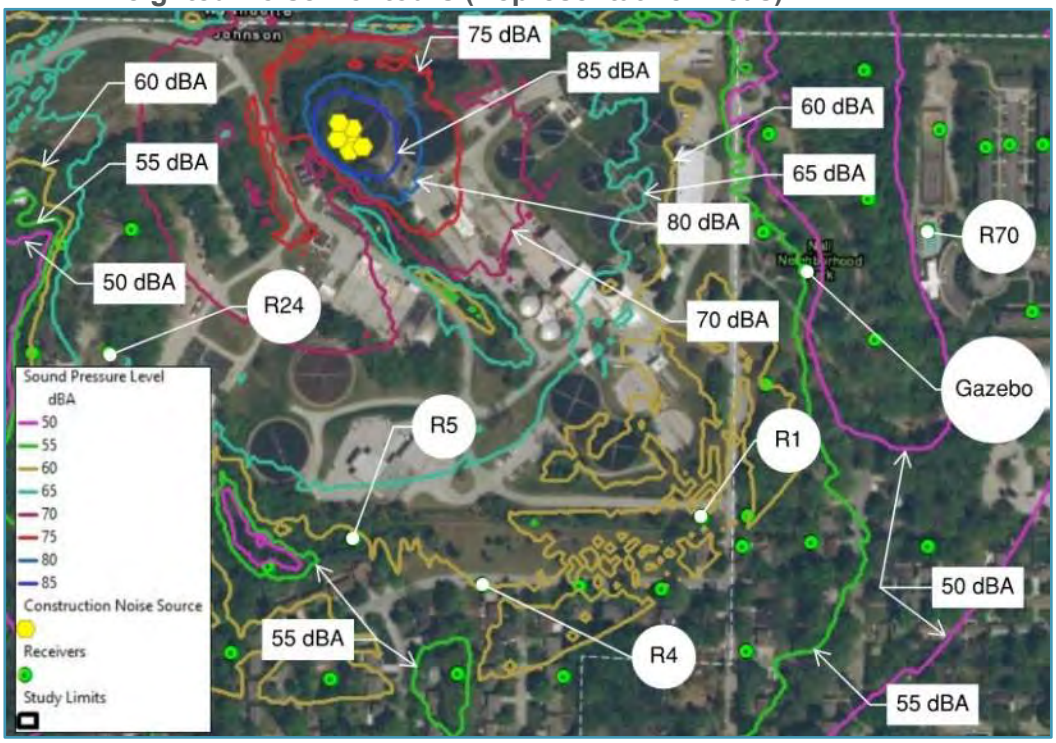


Figure 9-4. Construction Scenario 4 – A-Weighted Noise Contours (Representative Areas)

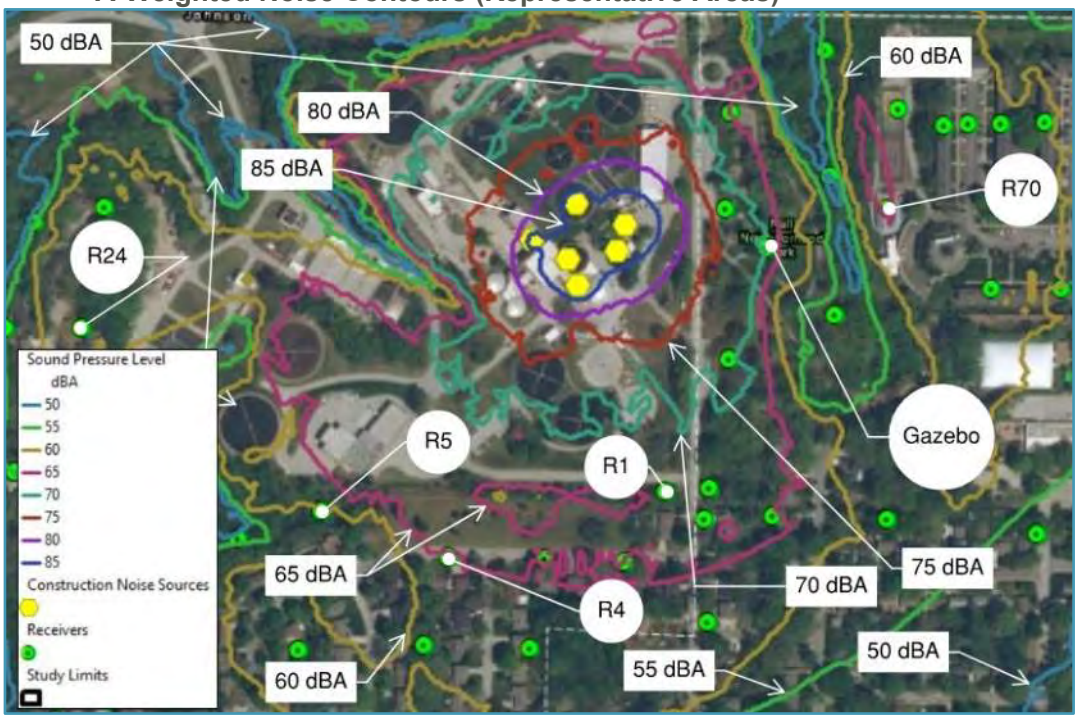


Figure 9-5. Construction Scenario 5 – A-Weighted Noise Contours (Representative Areas)

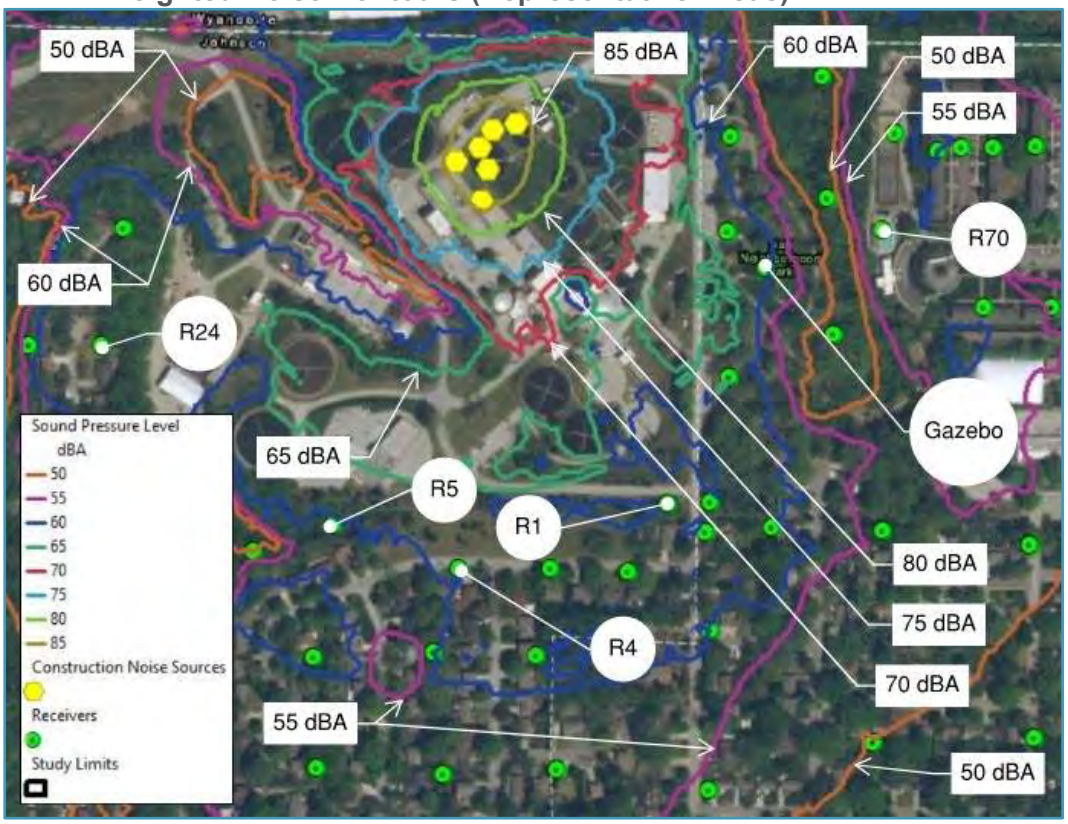
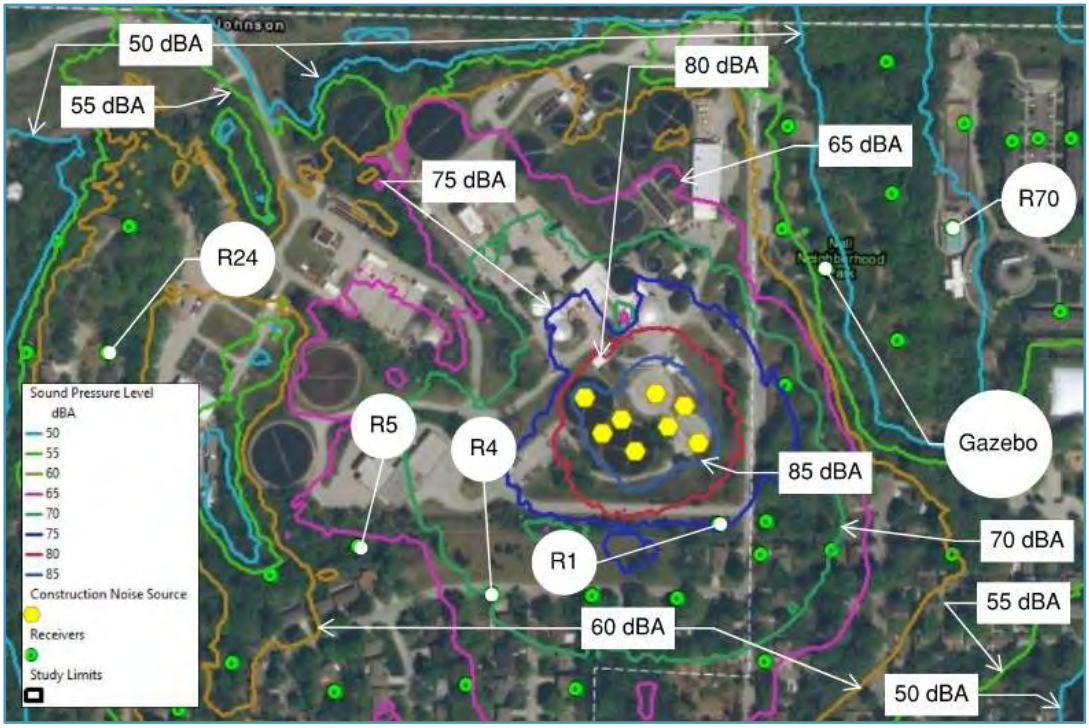


Figure 9-6. Construction Scenario 6 – A-Weighted Noise Contours (Representative Areas)



9.2 Low Frequency Noise

Table 9-2 shows the modeled C-weighted construction noise levels at the six representative receiving properties.

Table 9-2. Representative Receiver C-Weighted Sound Pressure Levels (dBC)

Construction Scenario	R1	R4	R5	R24	Gazebo	R70
Scenario 1	73	70	65	66	71	67
Scenario 2	69	66	63	66	73	67
Scenario 3	60	61	60	67	57	55
Scenario 4	68	65	65	63	69	65
Scenario 5	62	64	60	64	62	61
Scenario 6	78	73	67	66	62	60

Source: HDR Engineering, Inc. (2022)

The highest C-weighted noise level of 78 dBC is expected to occur at residential receiver R1 during demolition of Mission Main Trickling Filters #1 and #2 and Primary Clarifiers #1 and #2. Construction-related noise levels at R1, R4 and the Nall Park Gazebo will experience low frequency noise levels exceeding 68 dBC at times during demolition and excavation activities.

9.3 Relative Noise Levels

Tables 9-3 and 9-4, below, compare A-weighted and C-weighted construction noise levels versus existing daytime background noise levels, respectively. Construction noise levels that are higher than measured ambient levels are indicated as positive (+), with those that are lower shown as negative (-).

Table 9-3. The Difference Between Modeled Construction Noise and Measured Existing Noise (dBA)

Construction Scenario	R1	R4	R5	R24	Gazebo	R70
Scenario 1	+19	+8	+1	+3	+12	+9
Scenario 2	+15	+5	0	+2	+15	+7
Scenario 3	+8	+3	-1	+7	-1	-4
Scenario 4	+17	+7	+5	+2	+14	+8
Scenario 5	+10	+4	-1	+4	+4	+4
Scenario 6	+24	+13	+3	+3	-3	-3

Source: HDR Engineering, Inc. (2022)

Table 9-4. The Difference Between Modeled Construction Noise and Measured Existing Noise (dBC)

Construction Scenario	R1	R4	R5	R24	Gazebo	R70
Scenario 1	+10	+4	+1	0	+7	+3
Scenario 2	+6	0	-1	0	+9	+3
Scenario 3	-3	-5	-4	+1	+7	+9
Scenario 4	+5	-1	+1	-3	+5	+1
Scenario 5	-1	-2	-4	-2	-2	-3
Scenario 6	+15	+7	+3	0	-2	-4

Source: HDR Engineering, Inc. (2022)

During demolition of Mission Main Trickling Filters #1 and #2 and Primary Clarifiers #1 and #2 (Scenario 6), construction-related noise levels at residential receiver R1 may be as high as 24 dBA and 15 dBC above typical background noise levels. Based on the calculations, the closest noise-sensitive receivers to the site are expected to experience relative noise increases in the range of 5-10 dBA, which the community may find slightly objectionable. Additionally, construction noise levels at representative receivers R1, R4, and at the Nall Park Gazebo will exceed background noise levels by more than 10 dBA at times that may be characterized as objectionable by listeners.

A strong potential for annoyance and complaints is expected not only based on A-weighted noise levels, but also due to low frequency (dBC) and relative noise increases above existing background sound levels.

10 Conclusion

The results of this construction noise indicate that although equipment-induced vibration levels are not anticipated to cause damage to structures nor annoyance to residents, noise from demolition and excavation activities are calculated to be as high as 75 dBA at Nall Park and nearby residences during some phases of construction. All residential properties located within the local vicinity of the facility will experience construction-related sound levels exceeding 50 dBA ordinance limits during all six construction scenarios considered within this study. Potential for annoyance and complaints is expected not only based on A-weighted noise levels, but also due to low frequency (dBC) and relative noise increases above existing background sound levels. As such, noise mitigation measures should be considered as appropriate and feasible.

11 References

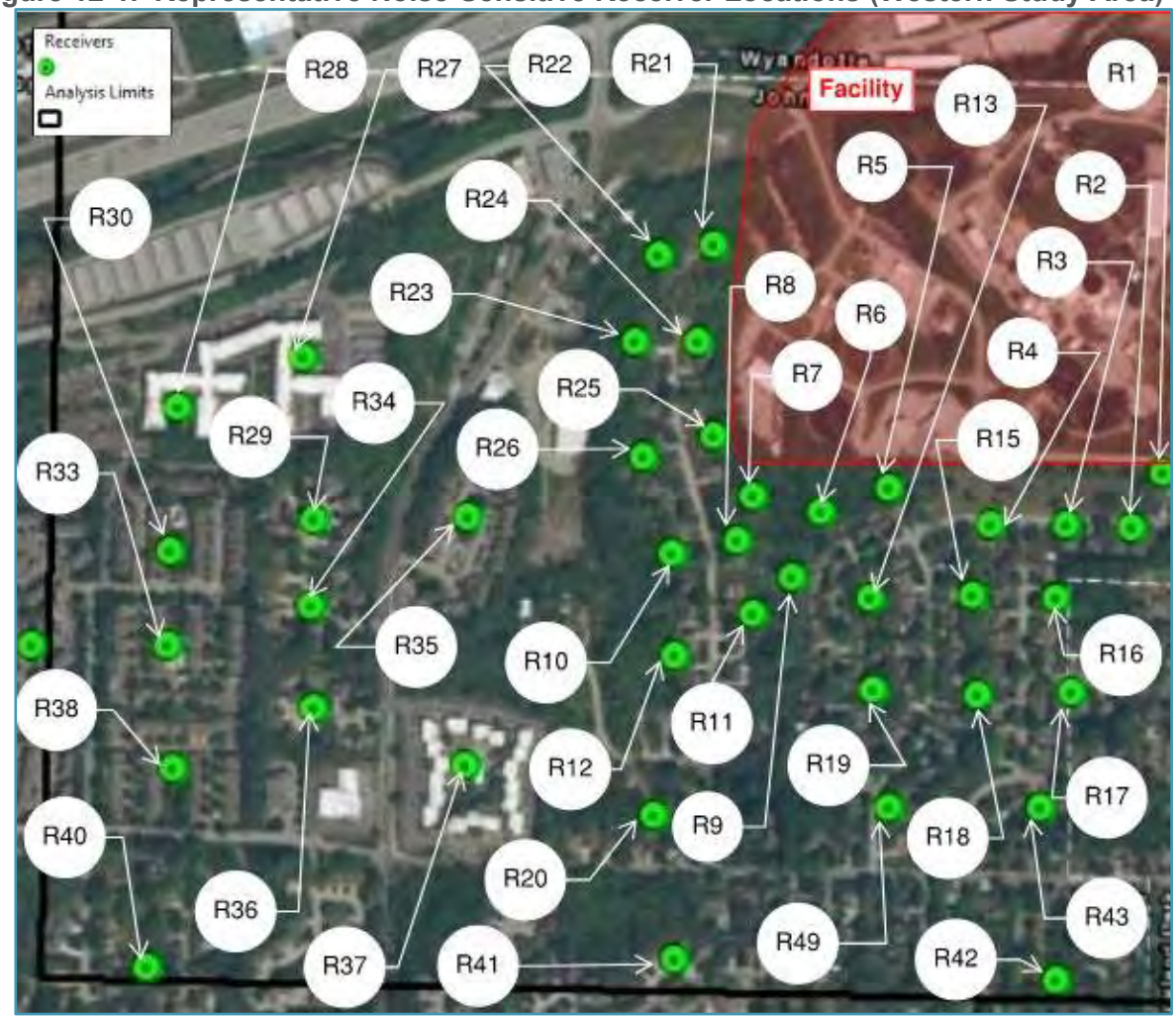
References cited within this report are listed below.

1. N. Broner, A simple outdoor criterion for assessment of low frequency noise emission, Acoustics Australia, Volume 39, April 2011 No. 1, pgs. 7-14.
2. Oregon Administrative Rules, Department of Environmental Quality, Chapter 340, Division 35 Noise Control Regulations.
3. Federal Transmit Administration, Transit Noise and Vibration Impact Assessment Manual, September 2018.
4. National Cooperative Highway Research Program (NCHRP), Transportation Research Board of The Academies of Sciences, Engineering, and Medicine, Development of a Highway Construction Noise Prediction Model Final Report, September 2018.
5. Burge, Paul, Using updated Roadway Construction Noise Model (RCNM) 2.0 acoustical noise data for simplified construction noise predictions., Noise-Con 2022, Lexington, KY, June 13-15, 2022.

12 Appendix

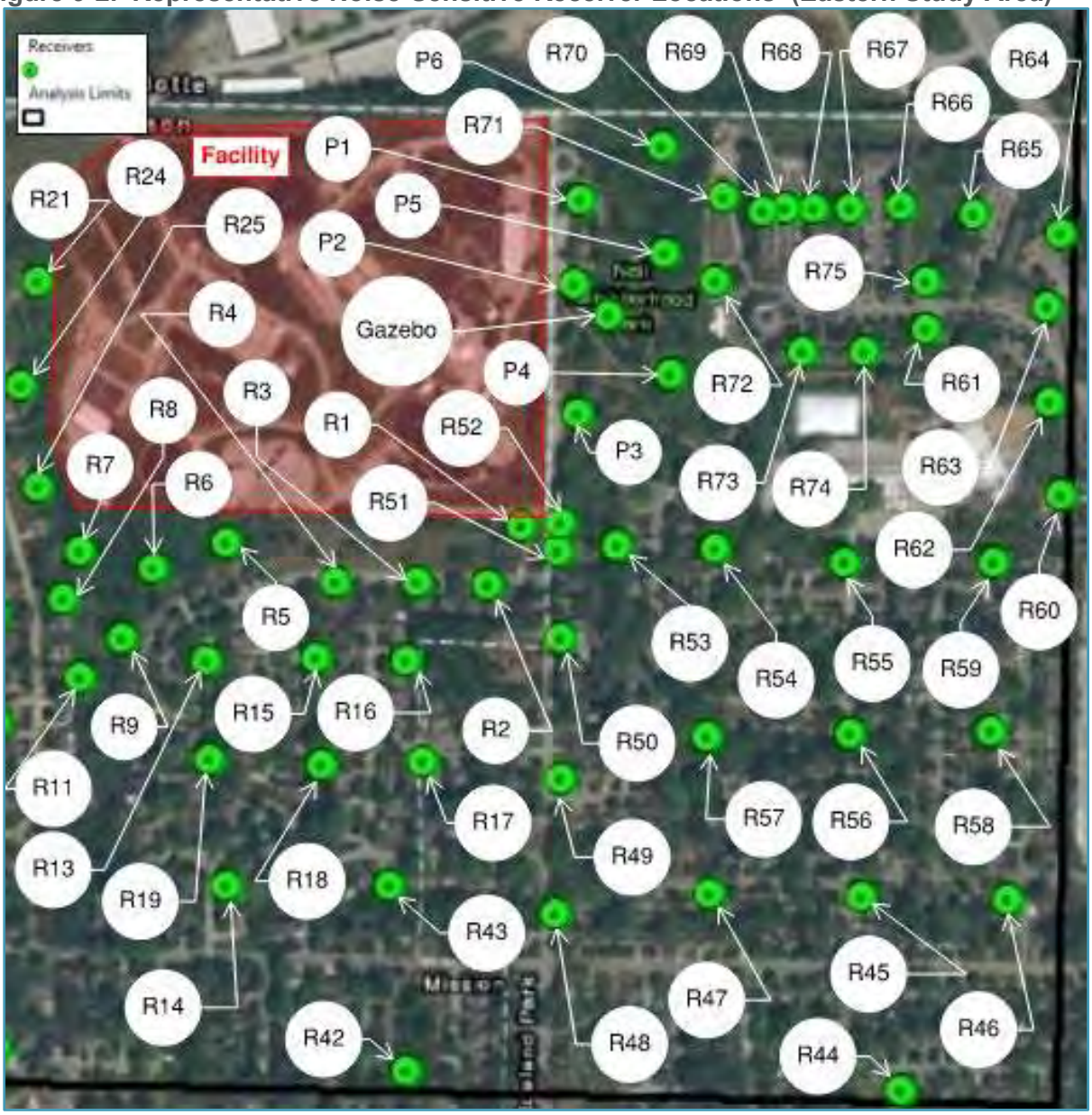
Overall construction-related A-weighted noise levels for all receiver locations evaluated in this study are listed in Table 12-1, below. Receiver locations are shown in Figures 12-1 and 12-2.

Figure 12-1. Representative Noise-Sensitive Receiver Locations (Western Study Area)



Source: HDR Engineering, Inc. (2022)

Figure 9-2. Representative Noise-Sensitive Receiver Locations (Eastern Study Area)



Source: HDR Engineering, Inc. (2022)

Table 12-1. Overall Receiver A-Weighted Sound Pressure Levels (dBA)

Location	Scenario 1	Scenario 2	Scenario 3	Scenario 4	Scenario 5	Scenario 6
P1	65	69	48	65	57	53
P2	71	75	56	73	62	55
P3	73	69	60	70	64	74
P4	53	59	42	52	48	47
P5	51	58	38	50	45	44
P6	58	61	41	58	46	46
R1	70	66	59	68	61	75
R2	66	63	58	64	61	72
R3	66	62	59	64	62	72
R4	65	62	60	64	61	70
R5	60	59	58	60	58	62
R6	56	54	50	54	50	59
R7	62	61	63	61	61	63
R8	61	60	61	60	60	62
R9	60	58	61	58	58	58
R10	54	53	54	52	52	55
R11	60	59	58	59	59	62
R12	53	51	52	51	51	54
R13	53	61	60	61	60	65
R14	59	57	56	57	56	61
R15	63	61	54	62	61	63
R16	65	62	60	63	61	69
R17	62	60	57	61	58	64
R18	62	60	58	60	59	62
R19	61	59	58	59	58	63
R20	50	49	50	48	48	52
R21	62	62	69	61	64	62
R22	56	58	64	55	60	55

R23	58	58	62	57	59	58
R24	62	61	66	61	63	62
R25	62	61	64	61	61	62
R26	57	56	60	56	57	55
R27	48	48	50	47	48	49
R28	51	52	48	50	46	49
R29	54	53	55	52	53	54
R30	49	48	49	47	48	48
R31	44	44	44	42	43	45
R33	50	49	50	48	48	50
R34	53	53	52	52	53	54
R35	56	56	58	55	56	51
R36	52	52	53	51	52	49
R37	54	53	54	53	53	50
R38	49	49	49	47	48	50
R39	43	43	43	41	41	43
R40	48	47	47	46	46	49
R41	54	53	51	53	52	53
R42	50	49	46	48	47	52
R43	59	58	55	58	56	60
R44	48	47	42	45	44	46
R45	49	49	45	47	46	47
R46	49	48	44	46	45	45
R47	51	50	45	48	47	47
R48	53	51	47	50	48	51
R49	56	54	50	54	51	59
R50	64	61	56	62	59	68
R51	69	65	60	66	62	73
R52	70	66	60	67	61	73
R53	68	65	59	66	62	70

R54	61	63	51	58	54	60
R55	56	55	49	54	51	53
R56	51	51	44	49	47	46
R57	54	53	48	52	50	51
R58	47	48	41	43	42	42
R59	51	51	43	48	46	46
R60	46	47	39	43	42	41
R61	57	58	49	55	52	51
R62	53	56	47	54	52	47
R63	58	59	47	56	54	50
R64	58	59	47	56	51	50
R65	60	61	48	59	55	50
R66	57	59	49	56	54	50
R67	62	64	50	62	58	51
R68	62	64	51	61	57	51
R69	64	65	52	64	59	51
R70	65	66	52	64	60	52
R71	66	67	53	64	57	51
R72	62	67	51	65	57	49
R73	64	64	51	62	56	53
R74	63	61	50	59	55	52
R75	56	56	49	54	52	50
Gazebo	68	71	55	70	60	53
Maximum	**73**	**75**	**69**	**73**	**64**	**75**

FINAL

NELSON IMPROVEMENTS

Technical Memorandum No. 11

Traffic Impact Study Report

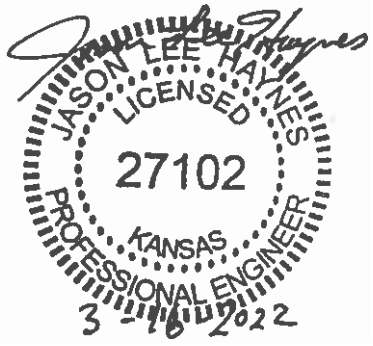
JCW NO. NEL-C001
BV PROJECT 408634

PREPARED FOR

JOHNSON COUNTY KANSAS
Wastewater

Johnson County Wastewater

16 MARCH 2022



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HDR GBA

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Acronyms and Abbreviations

Abbreviation	Meaning
A	
AA	Annual Average
AADF	Average Annual Daily Flow
ADF	Average Daily Flow
AGS	Aerobic Granular Sludge
ANSI	American National Standards Institute
AUX	Auxiliary
B	
BV	Black & Veatch
BAF	Biological Aerated Filters
BFE	Base Flood Elevation
BFP	Belt Filter Press
BioMag	Biological Flocculation System from Siemens
Bio-P	Biological Phosphorous
BLDG	Building
BNR	Biological Nutrient Removal
BOD	Biochemical Oxygen Demand
BTU	British Thermal Unit
C	
C	Hazen-Williams Equation Roughness Coefficient
CA	Calcium
CBOD	Carbonaceous Biochemical Oxygen Demand
$CBOD_5$	5-day Carbonaceous Biochemical Oxygen Demand
CEPT	Chemically Enhanced Primary Treatment
cf	Cubic Feet
CFD	Computational Fluid Dynamics
CFH	Cubic Feet per Hour
cfm	Cubic Feet per Minute
CFR	Code of Federal Regulations
cfs	Cubic Feet per Second
CFUs	Colony Forming Units
CHP	Combined Heat and Power
cm	Centimeters
CNG	Compressed Natural Gas
COD	Chemical Oxygen Demand
CSOs	Combined Sewer Overflows
CT	Concentration Time
CWA	Clean Water Act
D	
d	Day
DAF	Dissolved Air Flotation
DFM	Dry Weather Forcemain
DGC	Digester Gas Control Building
DIG	Digester
DISC	Disc Filters
DLSMB	Douglas L. Smith Middle Basin
DN	Down
DO	Dissolved Oxygen
DP	Dual Purpose
DS	Domestic Water Supply
dt	Dry Ton
DWF	Dry Weather Flow
DWS	Drinking Water Supply
E	
E. coli	Escherichia Coli
EA	Each
EFF	Effluent
EFHB	Excess Flow Holding Basin
EL	Elevation
ELA	Engineering, Legal, Administrative
ENR	Enhanced Nutrient Removal
ENR	Engineering News Record
EPA	Environmental Protection Agency
EQ	Equalization
F	
F/M	Food/Microorganism Ratio
FEMA	Federal Emergency Management Agency
ff	Flocculated and Filtered
$ffCBOD_5$	Flocculated Filtered Carbonaceous Biochemical Oxygen Demand

Abbreviation	Meaning
ffCOD	Flocculated Filtered Chemical Oxygen Demand
FFE	Furnitures, Fixtures, and Equipment
ffTKN	Flocculated Filtered Total Kjeldahl Nitrogen
FIRM	Flood Insurance Rate Map
FIS	Flood Insurance Study
FL	Flow Line
floc	Flocculent
FM	Flow Meter
ft	Feet
FTE(s)	Full Time Equivalent(s)
G	
gal	Gallons
GGE	Gallons of Gas Equivalent
GMP	Guaranteed Maximum Price
gpcd	Gallons per Capita per Day
gpd	Gallons per Day
gph	Gallons per Hour
gpm	Gallons per Minute
H	
HEX	Heat Exchanger
Hf	Friction Head
HI	Hydraulic Institute
HL	Head Loss
hp	Horsepower
hr	Hour
HRT	Hydraulic Retention Time
HVAC	Heating, Ventilation, Air Conditioning
HWE	Headworks Effluent
HWLA	High Water Level Alarm
Hypo	Sodium Hypochlorite
I	
I&C	Instrumentation and Controls
I/I	Inflow and Infiltration
IC	Internal Combustion
IFAS	Integrated Fixed-Film Activated Sludge
IMP	Integrated Management Plan
in	Inches
IND	Industrial
INF	Influent
IPS	Influent Pump Station
IW	Industrial Water Supply Use
J	
JCW	Johnson County Wastewater
K	
kcf	Thousand Cubic Feet
KCMO	Kansas City, Missouri
KDA-DWR	Kansas Department of Agriculture-Division of Water Resources
KDHE	Kansas Department of Health and Environment
KDWPT	Kansas Department of Wildlife, Parks and Tourism
kWh	Kilowatt-hour
L	
L	Length, Liter
lb	Pound
LDP	Land Disturbance Permit
LF	Linear Feet
LOX	Liquid Oxygen
LPON	Labile Particulate Organic Nitrogen
LPOP	Labile Particulate Organic Phosphorous
LS	Lump Sum
LWLA	Low Water Level Alarm
M	
MAD	Mesophilic Anaerobic Digestion
MBBR	Moving Bed Bioreactors
MBR	Membrane Bio-reactor
MCC	Motor Control Center
MCI	Mill Creek Interceptor
MCR	Mill Creek Regional
mg	Milligrams
Mg	Magnesium
MG	Million Gallons
mg/L	Milligrams per Liter
mgd	Million Gallons per Day
min	Minute, Minimum
mJ	Millijoules
MLE	Modified Ludzack-Ettinger

Abbreviation	Meaning
MLSS	Mixed Liquor Suspended Solids
MM	Maximum Month
mm	Millimeter
MMADF	Maximum Month Average Daily Flow
mmBtu	Million British Thermal Units
MOPO	Maintenance of Plant Operations
mpg	Miles per Gallon
MPN	Most Probable Number
N	
NACWA	National Association of Clean Water Agencies
NaOH	Sodium Hydroxide (Caustic)
NCAC	New Century Air Center
NDMA	N-Nitrosodimethylamine
NH3-N	Total Ammonia
NOI	Notice of Intent
NOx-N	Nitrate + Nitrite
NPDES	National Pollutant Discharge Elimination System
NPS	Nonpoint Source
NPV	Net Present Value
NTS	Not to Scale
O	
O&M	Operation and Maintenance
OMB	Office of Management and Budget
OPCC	Opinion of Probable Construction Cost
OPPC	Opinion of Probably Project Cost
Ortho-P	Orthophosphate
OUR	Oxygen Uptake Rate
P	
P	Phosphorous
PAOs	Phosphorous Accumulating Organisms
PC	Primary Clarifier
PD	Peak Day
PDF	Peak Daily Flow
PE	Primary Effluent
PEW	Plant Effluent Water
PFE	Primary Filtered Effluent
PFM	Peak Flow Forcemain
PHF	Peak Hour Flow
PLC	Programmable Logic Controller
PO_4-P	Orthophosphate Phosphorous
ppd	Pounds per Day
pph	Pounds per Hour
PPI	Producer Price Index
ppw	Pounds per Week
ppy	Pounds per Year
PS	Pump Station
psf	Pounds per Square Foot
psi	Pounds per Square Inch
PV	Present Value
PWWF	Peak Wet Weather Flow
Q	
Q	Flow
R	
RAS	Return Activated Sludge
rbCOD	Rapidly Biodegradable Chemical Oxygen Demand
RDT	Rotating Drum Thickener
RECIRC	Recirculation
RIN	Renewable Identification Number
RPM	Revolutions per Minute
R&R	Repair and Replacement
RWW	Raw Wastewater
S	
SBOD	Soluble Biochemical Oxygen Demand
SBR	Sequencing Batch Reactor
SCADA	Supervisory Control and Data Acquisition
scfm	Standard Cubic Feet per Minute
sCOD	Soluble Chemical Oxygen Demand
SCR	Secondary Contact Recreation
Sec	Second, Secondary
SF	Square Foot
SG	Specific Gravity
SHPO	State Historic Preservation

Abbreviation	Meaning
	Office
SLR	Solids Loading Rate
SMP	Stormwater Management Program
SND	Simultaneous Nitrification/ Denitrification
SOR	Surface Overflow Rate
SOURs	Specific Oxygen Uptake Rates
SPS	Sludge Pump Station
SRT	Sludge Retention Time
SS	Suspended Solids
SSOs	Sanitary Sewer Overflows
SSS	Separate Sewer System
sTP (GF)	Soluble Total Phosphorous (Glass Fiber Filtrate)
SVI	Sludge Volume Index
SWD	Side Water Depth
SWPPP	Stormwater Pollution Prevention Plan
T	
TBL	Triple Bottom Line
$TBOD_5$	Total 5-day Biochemical Oxygen Demand
TCPS	Tooley Creek Pump Station
TDH	Total Dynamic Head
Temp	Temperature
TERT	Tertiary
TF	Trickling Filters
TFE	Tertiary Filter Effluent
THC	Tomahawk Creek
THM	Trihalomethanes
TIN	Total Inorganic Nitrogen
TKN	Total Kjeldahl Nitrogen
TM	Technical Memorandum
TMDL	Total Maximum Daily Loads
TN	Total Nitrogen
TOC	Top of Concrete
TP	Total Phosphorous
TPS	Thickened Primary Solids
TS	Total Solids
TSS	Total Suspended Solids
TWAS	Thickened Waste Activated Sludge
TYP	Typical
U	
µg/L	micrograms per Liter
USACE	United States Army Corps of Engineers
USEPA	United States Environmental Protection Agency
USGS	United States Geological Survey
UV	Ultraviolet
UV LPHO	Ultraviolet Low Pressure, High Output
UV MPHO	Ultraviolet Medium Pressure, High Output
V	
VE	Value Engineering
VFA	Volatile Fatty Acids
VFAs	Volatile Fatty Acids (Speciated)
VFD	Variable Frequency Drive
VS	Volatile Solids
VSL	Volatile Solids Loading
VSr	Volatile Solids Reduction
VSS	Volatile Suspended Solids
W	
W	
WAS	Waste Activated Sludge
WASP	Water Quality Analysis Simulation Program
WBCR-A	Whole Body Contact Recreation – Category A
WBCR-B	Whole Body Contact Recreation –Category B
WET	Whole Effluent Toxicity
WFM	Wet Weather Forcemain
WK	Week
WS	Water Surface
	Wastewater Treatment Facility
WWTP	Wastewater Treatment Plant
Y	
YR	Year

1.0 Purpose

This Technical Memorandum 11 (TM 11) is one in a series of TMs intended to document the development and evaluation of preliminary design alternatives for improvements to the Johnson County Wastewater (JCW) Nelson Wastewater Treatment Facility (WWTF). Technical Memorandum 11 will evaluate the traffic impacts of construction activity during a proposed expansion of the Myron Nelson Wastewater Treatment Plant.

The overall study focuses on cost-effectively retrofitting the existing treatment facilities to provide a state-of-the-art Biological Nutrient Removal (BNR) facility while maintaining existing operations to (A) meet new nutrient removal requirements established in the current NPDES permit schedule of compliance, (B) replace aging infrastructure, (C) accommodate future expansion of auxiliary treatment facilities, and (D) enhance the nearby community. Overall project objectives are to:

- Optimize performance and ease of operations through the evaluation and selection of proven treatment processes.
- Maintain treatment and permit compliance during construction.
- Optimize site layout and safety for plant staff during construction.
- Quantify sequencing and constructability issues to achieve cost and schedule certainty.
- Proactively engage stakeholders and public to drive informed consent.
- Mitigate impacts to surrounding residences.
- Maximize the value of the CMAR process.

The Basis of Design Report will incorporate and coordinate findings from this and the other TMs listed below to arrive at the most feasible combination of alternatives for the full-plant improvement project.

TM 1: Existing Plant Operations	Develop existing liquid and solids process flow diagrams including all return streams. Develop Mission Main (MM) and Turkey Creek (TC) process models. Evaluate the use of Chemically Enhanced Primary Treatment (CEPT) with the MM primary clarifiers to maintain treatment performance during construction. Develop CEPT pilot study protocol and assist with implementation.
TM 2: Design Flows and Loads	Review influent flow, load, and wastewater characteristics data. Evaluate seasonal, diurnal, and duration patterns. Develop sampling plan for unavailable or insufficient data. Develop basis of design flows, loads and wastewater characteristics.
TM 3: Biological Nutrient Removal Process	Develop and evaluate alternatives using conventional activated sludge BNR technologies. Include evaluation of technology alternatives for carbon augmentation and BNR process intensification.
TM 4: Biosolids Processing and Stabilization	Evaluate reuse or replacement of existing digestion facilities for solids stabilization. Develop and evaluate technology alternatives for sludge thickening, sludge dewatering, and digester mixing. Develop strategies to mitigate struvite.
TM 5: Sidestream Nitrogen Treatment	Develop and evaluate technologies that remove ammonia from the anaerobic digestion sidestream to reduce mainstream requirements.
TM 6: Hauled Waste and FOG Receiving/Processing and Digester Gas Utilization	Evaluate options and feasibility to receive hauled waste and fats oils and grease (FOG). Evaluate impact to digestion facilities. Determine process design criteria and new facility requirements.

TM 7: Balance of Plant Facilities	Develop and evaluate technologies for improvements to the following process facilities: headworks, primary treatment, auxiliary treatment, disinfection, and odor control.
TM 8: Layout and Construction Sequence	Through close coordination with the construction manager at risk (CMAR) and Operation & Maintenance (O&M) staff, develop and evaluate two site layout alternatives based on reuse or replacement of Digester Nos. 3 and 4. Evaluation will consider performance modeling, hydraulics, economic factors, non-economic factors, construction scheduling, construction sequencing, and maintenance of plant operations.
TM 9: Nelson Treatment O&M Staff Building and Site Utilization During Construction	Develop and evaluate options to utilize existing facilities (i.e., TC 11) or new construction for a dedicated O&M staff building. Develop sequencing, operations, maintenance, travel, and access plans for site utilization of O&M staff during construction.
TM 10: Collection O&M Staff Location During and After Construction	Evaluate temporary offsite facility options to house Collections O&M Staff during construction. Evaluate new onsite permanent facility options to house Collections O&M Staff following construction. Coordinate with Collection O&M Staff to develop implementation plan for both temporary and permanent facilities.
TM 11: Offsite Traffic Plan	Perform traffic analysis and coordinate with CMAR to develop construction scheduling and sequencing plan to mitigate offsite traffic congestion. Coordinate planning efforts through public outreach with local communities and agencies.
TM 12: Offsite Pump Station and Forcemain Improvements	Perform condition assessment of Rock Creek Pump Station (PS), Belinder PS, Turkey Creek PS, Lamar PS and Roe Village PS. Develop pump station and forcemain improvement plan based on condition assessment and design condition requirements identified in TM 2. Develop improvement plan to replace and/or extend forcemains. Include evaluation of alignment options and construction sequencing in forcemain improvement plan.
TM 13: Site Permitting	Evaluate permitting requirements for local, state and federal agencies. Assist with public outreach via Planning Commission meetings and develop permitting plan to ensure compliance.

2.0 Section 1 Introduction

The purpose of this memo is to evaluate the traffic impacts of construction activity during a proposed expansion of the Myron Nelson Wastewater Treatment Facility. This analysis includes an evaluation of impacts at the following four intersections along Lamar Avenue and mitigation strategies to reduce the impact of construction traffic during commuting hours.

- Lamar Avenue / Foxridge Drive (Signalized)
- 24th Street (Lamar Avenue) / I-35 NB Ramp (Unsignalized)
- 24th Street / I-35 SB Ramp (Unsignalized)
- 24th Street / Merriam Lane (Signalized)

The study evaluates existing traffic conditions, traffic impacts during the first construction year, and study intersection operations. Consideration is given to the need for alternative routing, alternative scheduling, access management, sight distance, and safety.

2.1 Improvement Project Objectives

This Technical Memorandum will address the following objectives:

- Evaluate the impacts at four intersections along Lamar Avenue
- Provide mitigation strategies to reduce construction traffic impact
- Understand the steps necessary to reduce construction impacts on commuting traffic

2.2 Background

The Myron Nelson Wastewater Treatment Facility is situated off Foxridge Drive to the east of Lamar Avenue. Foxridge Drive and Lamar Avenue intersection is located just south of intersections providing access to I-35 from Lamar Avenue. This intersection will be used for construction access to the Myron Nelson Wastewater Treatment Facility throughout the course of the JCW Nelson WWTF Expansion project. To accommodate typical traffic patterns during commuting hours, alternative routing and scheduling are evaluated. A study of the traffic patterns during the first year of construction is analyzed to further reduce construction impacts. These measures are taken to evaluate the steps necessary for effective delivery and construction scheduling at the WWTF throughout the course of the day.

2.3 Past and Reference Reports

One previous document has been reviewed and provided insight into the Traffic Impact Study Report. This document is as follows:

- Traffic Impact Study Report for MK Nelson Complex WWTF Improvements – Prepared by HDR – August 2020.

3.0 Section 2 Project Study Area

The project study area includes a 0.3-mile stretch of 24th Street / Lamar Avenue between Foxridge Drive and Merriam Lane, shown in Figure 3-1. Intersections #1 (Foxridge Drive / Lamar Avenue) and #4 (Merriam Lane / S. 24th Street) are signalized, while the I-35 ramp intersections are one-way stop-controlled. This study does not contemplate any future developments or other traffic generators near the study area.

Figure 3-1 Location Map

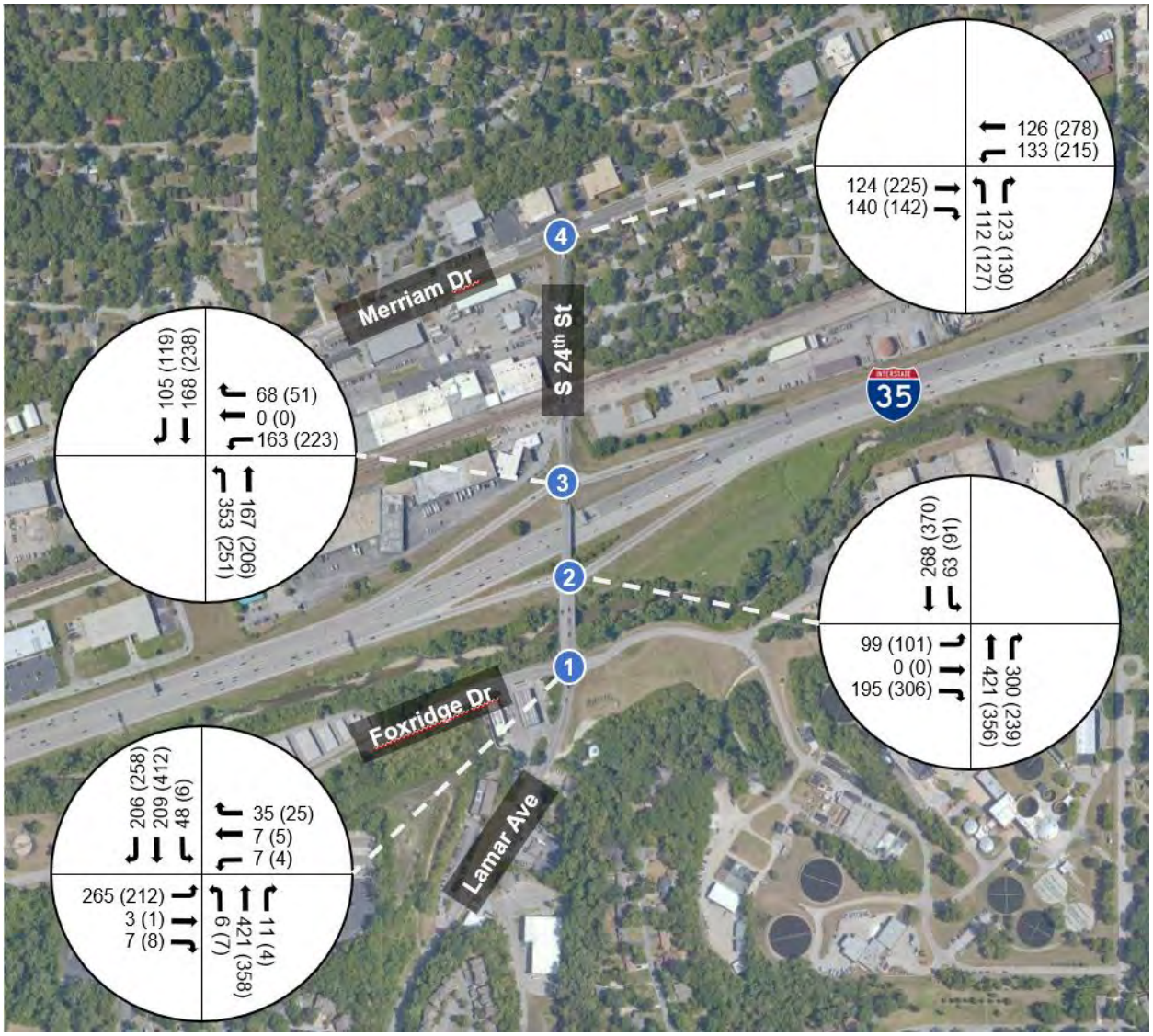
4.0 Section 3 Data Collection

The following data was collected to complete the traffic analysis for this project:

- **Intersection Turning-Movement Counts:** Turning-movement counts were obtained from subconsultant GHA Engineers for the four study intersections shown in Figure 3-1. Peak traffic periods were calculated to be 7:30 – 8:30 AM and 4:30 –5:30 PM, although data was also obtained for other hours, as described later in this document. Turning-movement volume data is in Appendix A.
- **Geometry Data:** Existing intersection geometrics (e.g., number of lanes, etc.) and traffic control were obtained from Google Earth aerial imagery.
- **Traffic Signal Timing:** Traffic signal timing was obtained for the two signalized study intersections. The Unified Government of Wyandotte County – City of Kansas City, Kansas (UG-KCK) provided programmed signal timing for the S. 24th Street / Merriam Lane intersection. Evergy provided programmed signal timing for the Lamar Avenue / Foxridge Drive intersection.
- **BNSF Rail Crossing:** A U.S. DOT Crossing Inventory Form was obtained for the BNSF Railway Company rail crossing from the Federal Railroad Administration (FRA). This Crossing Inventory Form is in Appendix B.

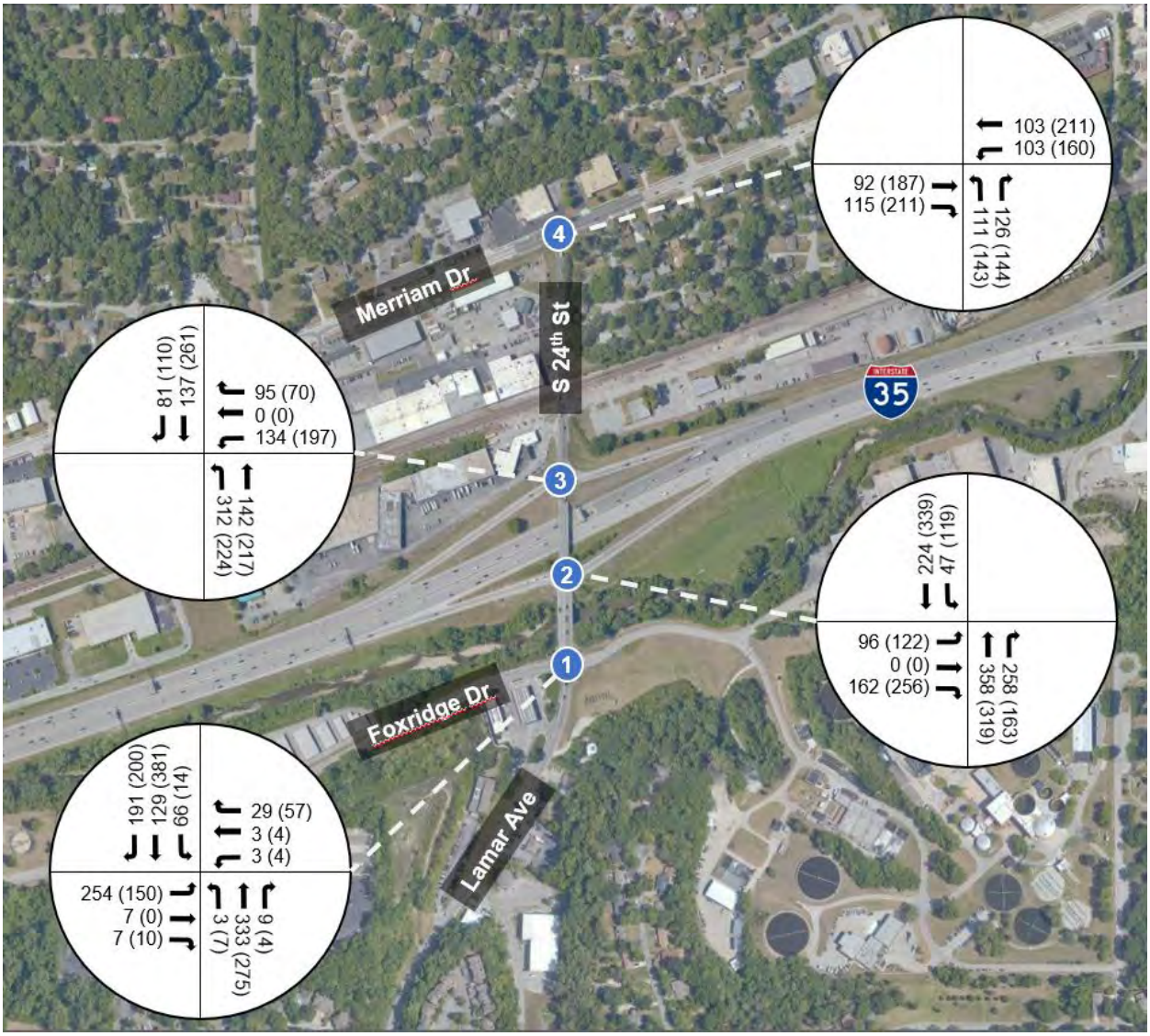
Figure 4-1 depicts the 2021 Existing 7:30–8:30 AM and 4:30-5:30 PM peak-hour balanced volumes assembled by the HDR team during the data-collection phase of this study.

Figure 4-1 2021 Existing AM (& PM) Peak-Hour Balanced Volumes



Analysis described later in this report identifies the need for turning movement counts during two additional hours described as the "Early AM (6:30 –7:30 AM)" and the "Early PM (3:30–4:30 PM)" periods. Figure 4-2 depicts the 2021 Existing Early AM and Early PM peak-hour balanced volumes assembled by the HDR team during the data-collection phase of this study. A comparison of Figure 4-1 and Figure 4-2 indicates that volumes during the Early AM and PM hours are generally lower than the peak periods for all study intersections. However, there are a small number of movements for which the volumes are higher during the Early AM or PM hours.

Figure 4-2 2021 Existing Early AM (& Early PM) Peak-Hour Balanced Volumes



5.0 Section 4 Existing Characteristics

Lamar Avenue / South 24th Street is a classified as a Major Collector on KDOT's Functional Classification maps for Johnson and Wyandotte Counties and is signed with a 35-MPH speed limit. The area is urbanized with a mix of commercial, retail, and governmental land uses. Lamar Avenue is a significant north-south route within the city of Mission, connecting a primarily residential area to I-35. Lamar Avenue is also one of a small number of non-highway routes that cross I-35 and the adjacent BNSF railroad tracks. Lamar Avenue / 24th Street varies in number of lanes throughout the study corridor but carries only two lanes (one per direction) from the I-35 NB Ramp north to Merriam Lane. S. 24th Street forms an at-grade crossing with a double-tracked BNSF railroad 310 feet north of the I-35 SB Ramp intersection. The I-35 off-ramps are fed by auxiliary lanes connected to the nearest upstream interchange.

Primary access to the Myron Nelson WWTP is from Foxridge Drive east of Lamar Avenue. There is an existing rain garden on the south side of Foxridge Drive through the curve immediately east of Lamar Avenue. Sight lines through this curve are seasonally obstructed when the plants in the rain garden are grown. Additionally, sight lines for traffic making the left-turn movement leaving the Nelson WWTP entrance onto Foxridge Drive are obstructed by trees to the east.

6.0 Section 5 Traffic Evaluation Methodology

The Highway Capacity Manual (HCM), 6th Edition, defines capacity as the maximum suitable flow rate at which vehicles can reasonably be expected to traverse a point during a specified time period. The measure of effectiveness known as Level-of-Service (LOS) is used to characterize traffic performance at intersections.

For signalized intersections, LOS is based on the average delay per vehicle for all vehicles entering the intersection. An acceptable LOS for a signalized intersection is considered to be LOS D or better (i.e., A, B, C or D). At unsignalized intersections, LOS is based on the control delay for the movements that must yield right-of-way. It is typical for stop-controlled minor streets to experience longer delays during peak periods, while most of the traffic flows through the intersection on the major street experience little or no delay.

HCM provides procedures for the analysis of both signalized and unsignalized intersections. LOS categorizations are shown in Error! Reference source not found..

Table 6-1 HCM LOS Description for Signalized and Unsignalized Intersections

Level of Service	Signalized Intersection Control Delay (sec/veh)	Unsignalized Intersection Control Delay (sec/veh)	Traffic Flow Characteristics
A	≤ 10.0	≤ 10.0	Free flow, insignificant delays.
B	> 10.1-20.0	> 10.1-15.0	Stable operation, minimal delays.
C	> 20.1-35.0	> 15.1-25.0	Stable operation, acceptable delays.
D	> 35.1-55.0	> 25.0-35.0	Restricted flow, common delays.
E	> 55.1-80.0	> 35.1-50.0	Maximum capacity, extended delays. Volumes at or near capacity. Long queues form upstream from intersection.
F	> 80.0	> 50.0	Forced flow, excessive delays. Represents jammed conditions. Not all intersection demand is served. Queues may block upstream intersections.

Traffic operational models representing the 2021 Existing Condition, 2029 No-Build Condition, and 2029 Build Condition were developed for the study intersections for the Early AM (6:30-7:30), AM (7:30-8:30), Early PM (3:30-4:30), and PM (4:30-5:30) periods. Analysis was completed utilizing Synchro software Version 11.1, build 168, revision 0. Synchro is a traffic engineering software used to calculate intersection delay, LOS, and other operational metrics that drivers could typically encounter while driving through the intersection being analyzed. Synchro reports generated by these analyses are in Appendix C.

The traffic analysis included a traffic signal warrant analysis based on the Federal Highway Administration's (FHWA) Manual on Uniform Traffic Control Devices (MUTCD) 2009 edition at the two currently unsignalized intersections located at the I-35 off-ramps. Because the traffic data only includes the vehicular traffic volumes from the collected turning movement counts, a partial analysis was performed (i.e., only the analyses pertinent to the traffic volume).

The signal timings at all signalized intersections were optimized in all Synchro models. For the 'with signals' models, it was determined based on preliminary analysis of the traffic counts data, that only the I-35 off-ramp signals would be analyzed as coordinated. Additionally, the 24th Street and Merriam Lane intersection is located around 900 feet from the I-35 SB off-ramp intersection on 24th Street; it was assumed to run as an isolated signal. The railway at-grade crossing intersection was also modeled in Synchro with the assumption of one train arrival per hour, blocking traffic movements on S. 24th Street for four and half minutes. This was accomplished in the model by placing a traffic signal at the railway crossing with 270 seconds (4.5 minutes) for E-W railway green time and 3,000 seconds (50 minutes; maximum allowable in Synchro) for N-S traffic green time on 24th Street.

7.0 Section 6 2021 Existing Intersection Operations

For the 2021 Existing Condition, the level of service and delay values for the study intersections are provided in Table 7-1.

Table 7-1 Existing (2021) Conditions Intersection Results Summary

ID	Intersection	2021							
		6:30-7:30 Early AM Peak Hour		7:30-8:30 AM Peak Hour		3:30-4:30 Early PM Peak Hour		4:30-5:30 PM Peak Hour	
		Delay	LOS	Delay	LOS	Delay	LOS	Delay	LOS
1	Lamar / Foxridge	19.0	B	18.3	B	12.6	B	14.9	B
2	24th / I-35 NB	21.5 (EBL)	C	35.4(EBL)	E	91.7(EBL)	F	95.6 (EBL)	F
3	24th / I-35 SB	70.4 (WBL)	F	250.1 (WBL)	F	183.9 (WBL)	F	275.5 (WBL)	F
4	24th / Merriam	13.0	B	14.1	B	18.6	B	18.7	B

I-35 Ramps: Based on the overall delays and LOS summarized in Table 8-2, both I-35 ramp-terminal intersections experience significant delays and unacceptable LOS for the off-ramp traffic in the stop-controlled condition. These results indicate the need to conduct a traffic signal warrant analysis for both ramp terminal intersections. Delays reported close to approximately 300 seconds are unrealistically high (artificial from the models) but indicate a lack of capacity and extreme poor intersection operations. Excessive delays will cause motorists to divert and use an alternate route and thus reduce the actual delay to a more tolerable value.

Lamar Avenue / Foxridge Drive: This intersection currently operates at no worse than LOS B during the study periods.

24th Street / Merriam Lane: This intersection operates acceptably during all periods analyzed. It should also be noted that there is anecdotal evidence of considerable delay associated with the busy BNSF railroad crossing. During train crossing events, northbound and southbound traffic on 24th Street is known to back up into the I-35 interchange ramps and this intersection.

8.0 Section 7 Traffic Signal Warrant Analysis

Using the traffic volume data collected for the project, a traffic signal warrant analysis was conducted for existing conditions on S. 24th Street at both the I-35 NB and SB Ramps. Given the data collected for this study, the applicable MUTCD traffic signal warrants are Warrants 1, 2, and 3. The signal warrants were evaluated using the raw 2021 traffic counts to determine if signals are needed under existing conditions. The results of the signal warrant analysis can be seen in Table 8-1.

Table 8-1 Traffic Signal Warrant Analysis Results

	Warrant Met?	
MUTCD Warrant	I-35 SB Ramp / 24th Street	I-35 NB Ramp / 24th Street
Warrant 1, Eight-Hour Vehicular Volume	**MET**	**MET**
Warrant 2, Four-Hour Vehicular Volume	**MET**	**MET**
Warrant 3, Peak Hour	**MET**	**MET**
Warrant 4, Pedestrian Volume	N/A	N/A
Warrant 5, School Crossing	N/A	N/A
Warrant 6, Coordinated Signal	N/A	N/A
Warrant 7, Crash Experience	N/A	N/A
Warrant 8, Roadway Network	N/A	N/A
Warrant 9, Intersection Near a Grade Crossing	NOT MET	NOT MET

The Manual on Uniform Traffic Control Devices (MUTCD), 2009 Edition, states that "the investigation of the need for a traffic control signal shall include an analysis of factors related to the existing operation and safety at the study location and the potential to improve these conditions, and the applicable factors contained in the following traffic signal warrants."

Warrant 1 – 8-Hour Warrant **appears to be SATISFIED** at both unsignalized study intersections. To fully evaluate Warrant 1, volumes were estimated between 5:00-5:30 AM, 2:00-3:00 PM, and 6:30-7:00 PM. Estimated volumes were included with the collected intersection turning movement counts for nine hours of traffic volumes.

The Minimum Vehicular Volume, Condition A, is intended for application at locations where a large volume of intersecting traffic is the principal reason to consider installing a traffic control signal. This warrant is considered met if for each of any 8 hours of an average day the vehicles per hour given in both 100 percent columns of Condition A in Table 8-2 and Table 8-3 exist on the major-street and the higher-volume minor-street approaches, respectively, to the intersection.

The Interruption of Continuous Traffic, Condition B, is intended for application at locations where Condition A is not satisfied and where the traffic volume on a major street is so heavy that traffic on a minor intersecting street suffers excessive delay or conflict in entering or crossing the major street. This warrant is considered met if for each of any 8 hours of an average day the vehicles per hour given in both 100 percent columns of Condition B in Table 8-2 and Table 8-3 exist on the major-street and the higher-volume minor-street approaches, respectively, to the intersection.

Table 8-2 Eight-Hour Warrant 24th Street / I-35 SB Ramp

Time	Condition A			Condition B		Volumes	
	100% Major (500)	100% Minor (150)		100% Major (750)	100% Minor (75)	Major	Minor
6:00	**Yes**	**Yes**		No	**Yes**	532	164
7:00	**Yes**	**Yes**		**Yes**	**Yes**	794	252
8:00	**Yes**	**Yes**		No	**Yes**	725	254
9:00	No	**Yes**		No	**Yes**	-	159
10:00	No	**Yes**		No	**Yes**	-	161
11:00	No	**Yes**		No	**Yes**	-	180
12:00	No	**Yes**		No	**Yes**	-	219
13:00	No	**Yes**		No	**Yes**	-	227
14:00*	**Yes**	**Yes**		No	**Yes**	640	231
15:00	**Yes**	**Yes**		**Yes**	**Yes**	794	275
16:00	**Yes**	**Yes**		**Yes**	**Yes**	787	273
17:00	**Yes**	**Yes**		**Yes**	**Yes**	770	274
18:00*	**Yes**	**Yes**		No	**Yes**	555	199
	Total Hours Met	**8**		**Total Hours Met**	**4**		

* Estimated volumes

Table 8-3 Eight-Hour Warrant 24th Street / I-35 NB Ramp

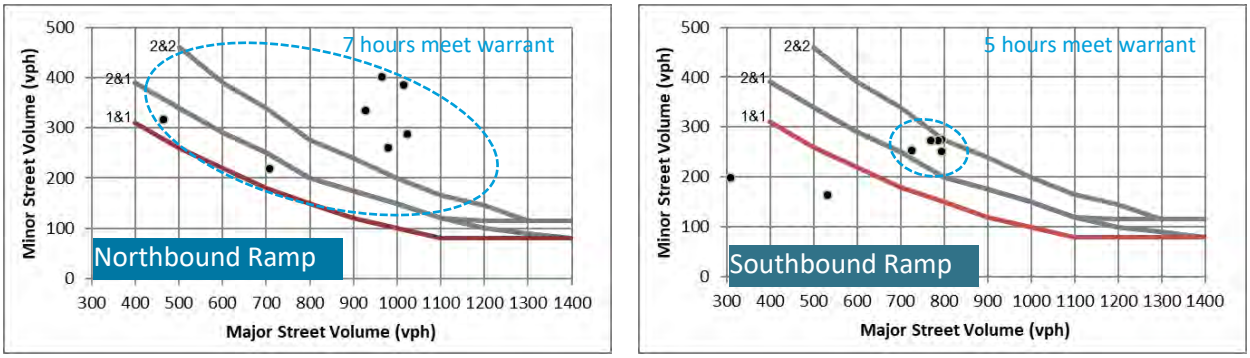
Time	Condition A			Condition B		Volumes	
	100% Major (500)	100% Minor (150)		100% Major (750)	100% Minor (75)	Major	Minor
6:00	**Yes**	**Yes**		No	**Yes**	707	219
7:00	**Yes**	**Yes**		**Yes**	**Yes**	1022	287
8:00	**Yes**	**Yes**		**Yes**	**Yes**	980	261
9:00	No	**Yes**		No	**Yes**	-	188
10:00	No	**Yes**		No	**Yes**	-	188
11:00	No	**Yes**		No	**Yes**	-	234
12:00	No	**Yes**		No	**Yes**	-	273
13:00	No	**Yes**		No	**Yes**	-	282
14:00*	**Yes**	**Yes**		**Yes**	**Yes**	757	292
15:00	**Yes**	**Yes**		**Yes**	**Yes**	928	334
16:00	**Yes**	**Yes**		**Yes**	**Yes**	965	402
17:00	**Yes**	**Yes**		**Yes**	**Yes**	1,015	386
18:00*	**Yes**	**Yes**		**Yes**	**Yes**	884	316
	Total Hours Met	**8**		**Total Hours Met**	**7**		

* Estimated volumes

Based on this analysis of Warrant 1 – Condition A, the *installation of a traffic signal at the I-35 North and Southbound Ramps / S. 24th Street intersections would be warranted*.

Warrant 2 – 4-Hour Warrant appears to be SATISFIED at both unsignalized study intersections. The Four-Hour Vehicular Volume signal warrant is intended to be applied where the volume of intersecting traffic is the principal reason to consider installing a traffic control signal. This warrant is considered met if, for each of any 4 hours of an average day, the plotted points representing the vehicles per hour on the major street (total of both approaches) and the corresponding vehicles per hour on the higher-volume minor-street approach (one direction only) all fall above the applicable curve in **Error! Reference source not found.** (for each of the two intersections) for the existing combination of approach lanes. On the minor street, the higher volume shall not be required to be on the same approach during each of these four hours.

Figure 8-1 Four-Hour Warrants I-35 Ramps / 24th Street



Based on this analysis of Warrant 2, the installation of a traffic signal at the I-35 North and Southbound Ramps / S. 24th Street intersections would be warranted.

Warrant 3 – Peak Hour Warrant – Category A **appears to be SATISFIED** at both unsignalized study intersections. The Peak Hour signal warrant is intended for use at locations where traffic conditions are such that for a minimum of 1 hour of an average day, the minor street traffic suffers undue delay when entering or crossing the major street. According to the MUTCD, the peak hour warrant should only be applied in unusual cases; near facilities that attract or discharge large numbers of vehicles over a short time. This existing area is home to commercial and retail developments including the existing Myron Nelson WWTP, and proposed construction traffic minimally meets this criterion; therefore, the peak hour warrant was examined for this evaluation.

Category A for this warrant is considered met if ALL three of the following conditions exist for the same 1 hour (any four consecutive 15-minute periods) of an average day:

1. The total stopped time delay experienced by the traffic on one minor-street approach (one direction only) controlled by a STOP sign equals or exceeds: 4 vehicle-hours for a one-lane approach or 5 vehicle-hours for a two-lane approach; and,
2. The volume on the same minor-street approach (one direction only) equals or exceeds 100 vehicles per hour (vph) for one moving lane of traffic or 150 vehicles per hour for two moving lanes; and,
3. The total entering volume serviced during the hour equals or exceeds 650 vehicles per hour for intersections with three approaches or 800 vehicles per hour for intersections with four or more approaches.

Total stop time delay was calculated in the 2021 Existing Conditions Synchro models with the studied intersections modeled as two-way stop-controlled intersections. As described above, delays reported close to 300 seconds are unrealistically high (artificial from the models). However, even with a tolerable value to motorists, the warrant threshold would still be met. Results from this analysis are provided in Table 8-4.

Table 8-4 Stopped Time Delay during 2021 PM Peak Hour

Peak	Intersection	Movement	Volume	Delay (sec/veh)	Total Stopped Time Delay (vehicle-hrs)
PM	S. 24th Street & I-35 SB Ramp	SB (WB) Left/Right	274	275.5	21.0
PM	S. 24th Street & I-35 NB Ramp	NB (EB) Left/Right	407	95.6	10.8

Note: Methodology – HCM 6th Edition

Results from Category A are shown in Table 8-5.

Table 8-5 Warrant 3 – Category A Results

Intersection	Stopped Time Delay (4 veh-hrs)	Minor Street Volume (100 vph)	Total Entering Volume (650 vph)	Met?
S. 24th Street & I-35 SB Ramp	21.0	277	1108	**Yes**
S. 24th Street & I-35 NB Ramp	10.8	405	1468	**Yes**

Based on this analysis of Warrant 3 – Category A, the *installation of a traffic signal at the I-35 North and Southbound Ramps / S. 24th Street intersections would be warranted*.

Since traffic signals appear to be warranted under existing conditions, it was determined that traffic should also be modeled assuming traffic signals are in place at the I-35 ramp termini intersections – under all existing and future scenarios.

9.0 Section 8 Growth Projections

Construction of the Nelson WWTP expansion is expected to end in 2029. To develop forecasted turning movement volumes for 2029, the study team assumed a 0.5-percent annual growth rate. This rate was assumed using engineering judgment based primarily on the intensity of the existing land use density surrounding the study area. Figure 9-1 displays the 2029 forecasted AM and PM peak-hour turning movement volumes used for the Baseline analysis.

Figure 9-1 2029 Forecasted Baseline AM (& PM) Peak-Hour Volumes

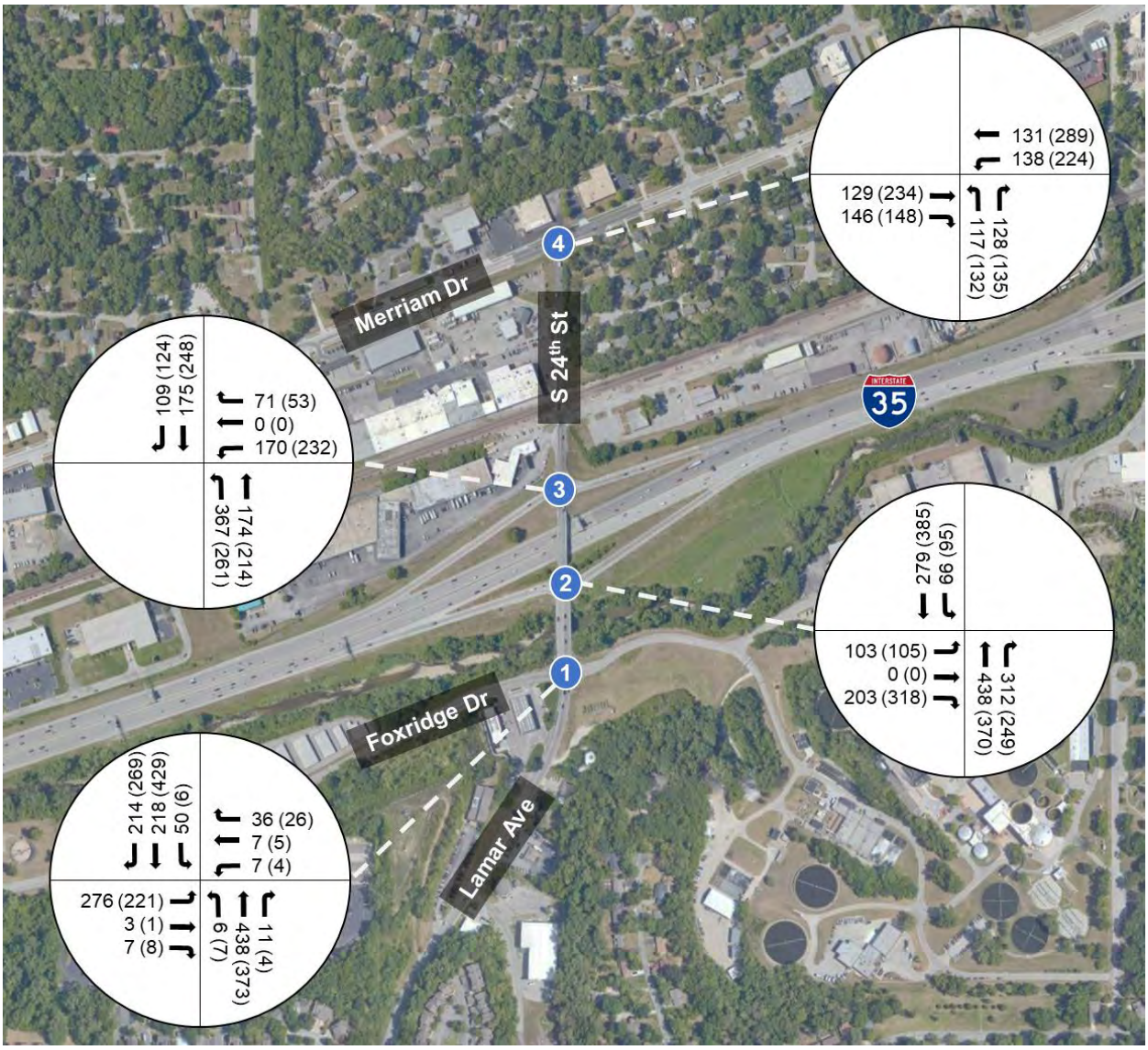
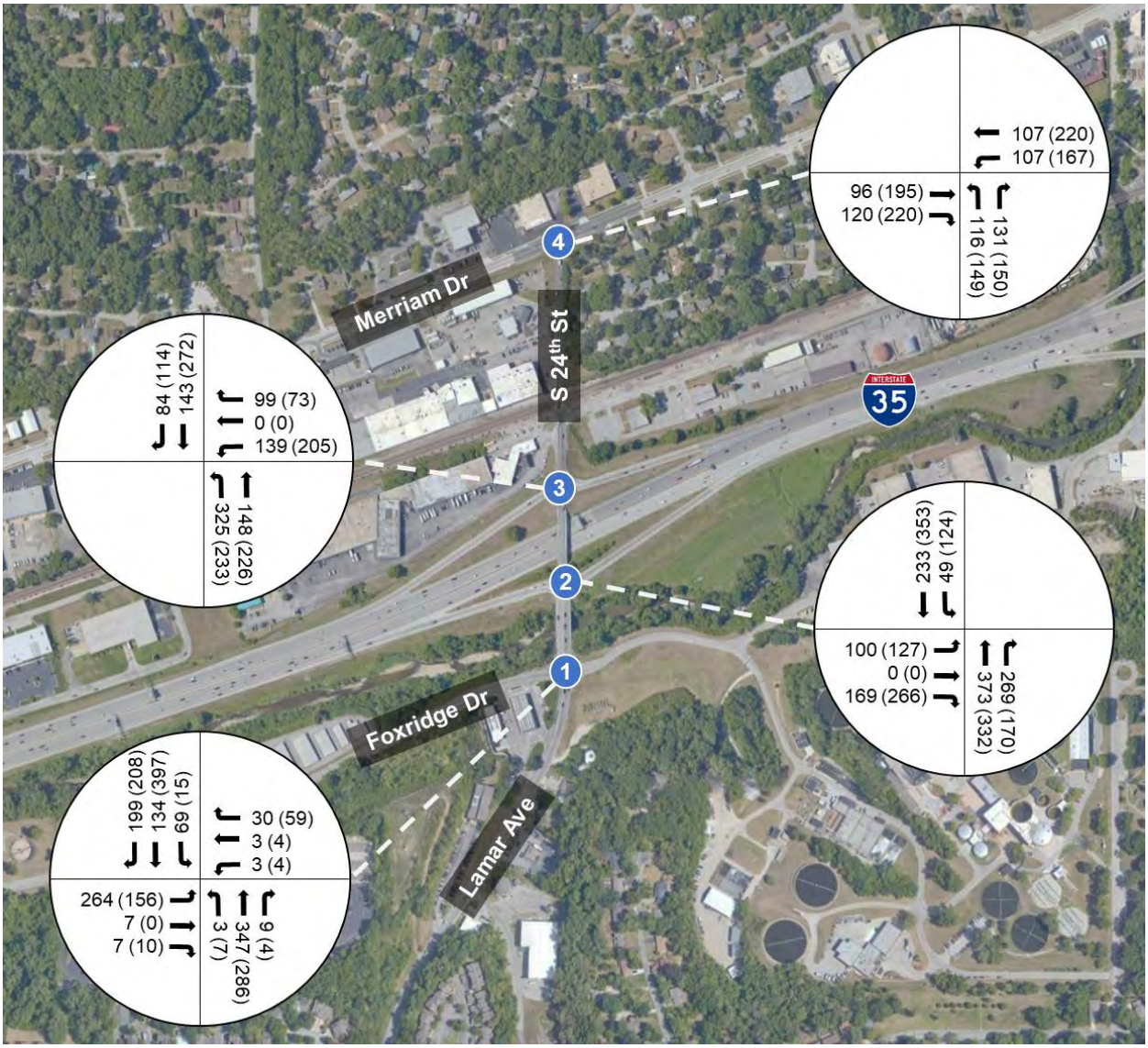


Figure 9-2 displays the 2029 forecasted Early AM and Early PM peak-hour turning movement volumes used for the Baseline analysis.

Figure 9-2 2029 Forecasted Baseline Early AM (& Early PM) Peak-Hour Volumes



10.0 Section 9 Trip Generation and Directional Distribution

Construction-related traffic was estimated based on information provided by engineers working on the WWTP expansion project. These quantities were based on prior experience with wastewater treatment facility projects and calculated volumes of materials to be transported.

Heavy vehicle trips were estimated based on the volume of material expected to be transported to and from the site and the capacity of each type of vehicle. Four categories of material, each requiring a different type of heavy vehicle, were considered: concrete, soil/rock export, demolition removal, and deliveries. Table 10-1 summarizes the trip calculations for each of these material types.

Table 10-1 Summary of Construction Trips

Heavy Vehicle	Volume of Material (CY)	Vehicle Capacity (CY)	Trips Required
Concrete	50,000	9.0	5,600
Soil / Rock Export	60,000	12.0	5,000
Demolition Removal	15,000	10.0	1,500
Deliveries	--	--	10,000
		Total:	**~22,000**

Construction is anticipated to last 5 years, with a 3-year "peak period" during which heavy vehicles will be used. 22,000 trips over 36 months, assuming a 5-day work week, results in approximately 28 heavy vehicle trips per day to and from the site. Heavy vehicle traffic is assumed to be evenly distributed throughout the workday (7 AM – 5 PM).

Approximately 300 construction workers will be present at the site during the peak period. They are expected to arrive at the site by 7 AM. Two-thirds of the workers would leave just after 4 PM, and the remaining third would leave just after 5 PM.

Finally, about 40 full-time wastewater treatment facility staff are expected to continue to travel to and from the site during the construction period. These employees will arrive by 7 AM and leave just after 4 PM.

Table 10-2 summarizes the new trips generated on a typical weekday during construction.

Table 10-2 Summary of Estimated Trip Generation

Vehicle Type	06:30	07:30	08:30	09:30	10:30	11:30	12:30	13:30	14:30	15:30	16:30	17:30
Concrete		2	2	2	2	2	2	2	2	2	2	
Rock / Soil Export		2	2	2	2	2	2	2	2	2	2	
Demolition Removal		2	2	2	2	2	2	2	2	2	2	
Deliveries		4	4	4	4	4	4	4	4	4	4	
Workers	300 in										200 out	100 out
Total	**300**	**10**	**10**	**10**	**10**	**10**	**10**	**10**	**10**	**10**	**210**	**100**

The anticipated construction trips generated and shown in Table 2 warrant two additional hours of traffic analyses. The resulting traffic impacts from the inbound and outbound workers entering and leaving the treatment facility in the early morning and in the early evening hours were analyzed as "Early AM (6:30-7:30)" and "Early PM (3:30-4:30PM)."

Given the site's location on a major north-south freeway near the center of the Kansas City metropolitan area, the expected trip distribution is divided evenly between routes to the north and south along Interstate 35. A small percentage (2% or less) of trips is expected to utilize local roads to access areas to the south. Traffic was not distributed north on 24th Street to Merriam Lane since Merriam Lane connects to I-35 via numerous cross-streets north and south of 24th Street. Traffic accessing the Nelson WWTP could access local destinations using I-35 more quickly than taking access to Merriam Lane to get to 24th Street. The forecasted Nelson WWTP site-generated construction trips were distributed to the roadway network as shown in Figure 10-1.

Figure 10-1 Estimated Nelson Construction Traffic Trip Distribution (Employee and Truck)

The resulting 2029 construction-period AM and PM peak-hour volumes are shown in Figure 10-2.

Figure 10-2 2029 Forecasted AM (& PM) Peak Hour Volumes with Construction Traffic

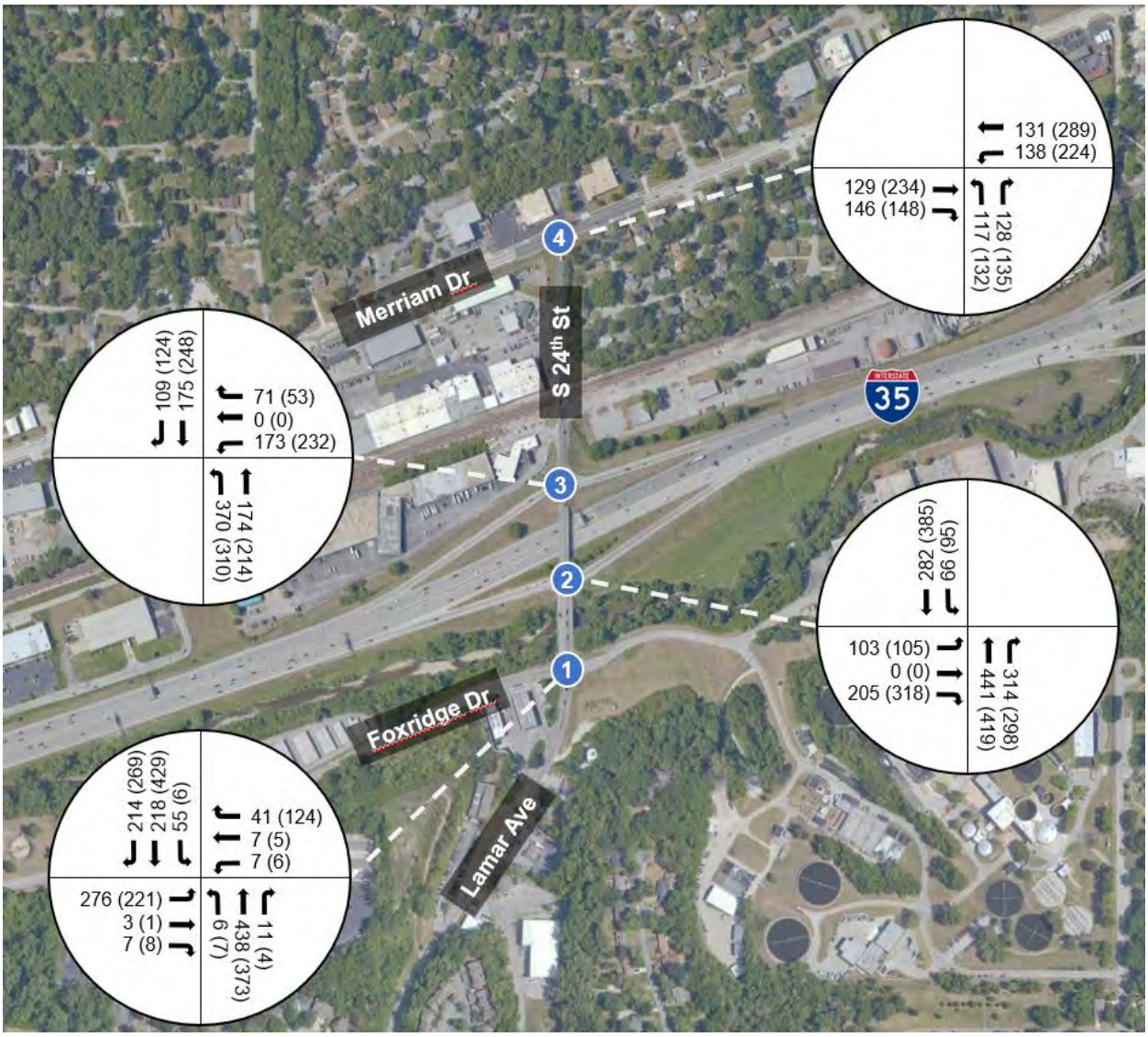
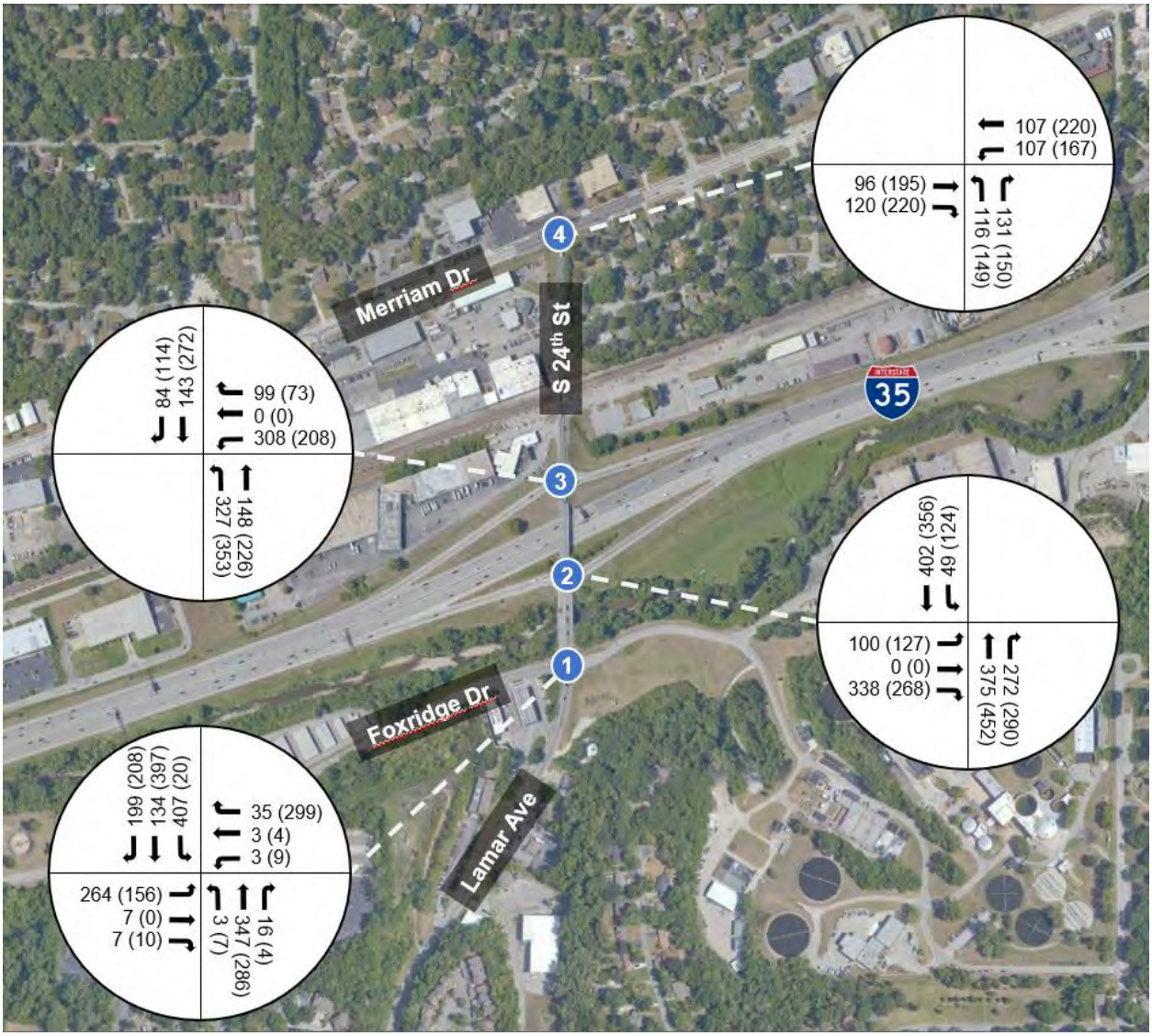


Figure 10-3 displays the 2029 forecasted Early AM and Early PM peak-hour turning movement volumes used for the construction period.

Figure 10-3 2029 Forecasted Early AM (& PM) Peak-Hour Volumes with Construction Traffic



11.0 Section 10 Traffic Analysis

Operational Analysis – Since the trip generation analysis for the Nelson WWTP construction period determined that a large majority of ingress / egress trips would occur from 6:30-8:30 AM and 3:30-5:30 PM, each hour of these time periods was included in the analysis (a total of four time periods). Synchro models for all four time periods were populated with existing geometry, hourly volumes, existing (or proposed) signal timing, a 0.92 peak-hour factor, and a 2% heavy vehicle percentage.

The signal warrant analyses, presented in a previous section of this report, clearly indicate that signalization of the I-35 NB and SB off-ramp intersections on S. 24th Street is warranted. Therefore, twenty-four (24) operational scenarios (combinations of year, presence of construction, time period, and signalization) were developed in Synchro, and intersection level-of-service (LOS) were determined in terms of overall and approach control delays at the intersections for each scenario:

Table 11-1 Intersection Scenario Constraints

Years / Construction Scenarios	Time Periods	Ramp Signalization
2021 (Existing) 2029 Baseline 2029 with Construction	Early AM AM Early PM PM	No Signals With Signals

The Synchro analysis results are summarized in Table 11-2 for all the above scenarios and queueing analysis summaries are summarized in Table 11-3.

Table 11-2 Existing (2021), Baseline (2029), and With Construction (2029) Conditions Intersection Results Summary

ID	Intersection	2021				2029 No-Build				2029 Build			
		Unsignalized		Signalized		Unsignalized		Signalized		Unsignalized		Signalized	
		Delay	LOS	Delay	LOS	Delay	LOS	Delay	LOS	Delay	LOS	Delay	LOS
6:30-7:30 Early AM Peak Hour													
1	Lamar / Foxridge	-		10.7	B	-		12.8	B	-		42.0	D
2	24th / I-35 NB	21.5 (EBL)	C	6.1	A	24.1 (EBL)	C	6.3	A	101.8 (EBL)	F	9.4	A
3	24th / I-35 SB	70.4 (WBL)	F	7.0	A	96.5 (WBL)	F	7.2	A	532.7 * (WBL)	F	11.4	B
4	24th / Merriam	-		13.0	B	-		13.3	B	-		13.3	B
7:30-8:30 AM Peak Hour													
1	Lamar / Foxridge	-		14.2	B	-		15.2	B	-		21.2	C
2	24th / I-35 NB	35.4 (EBL)	E	7.8	A	45.1 (EBL)	E	8.1	A	46.1 (EBL)	E	8.1	A
3	24th / I-35 SB	250.1 (WBL)	F	8.6	A	328 * (WBL)	F	8.9	A	349.1 * (WBL)	F	9.0	A
4	24th / Merriam	-		14.1	B	-		14.4	B	-		14.4	B
3:30-4:30 Early PM Peak Hour													
1	Lamar / Foxridge	-		9.9	A	-		9.4	A	-		9.9	A
2	24th / I-35 NB	91.7 (EBL)	F	11.2	B	127.4 (EBL)	F	8.7	A	247.0 (EBL)	F	11.2	B
3	24th / I-35 SB	183.9 (WBL)	F	12.1	B	244.8 (WBL)	F	9.4	A	710.9 * (WBL)	F	12.1	B
4	24th / Merriam	-		19.5	B	-		19.5	B	-		19.5	B
4:30-5:30 PM Peak Hour													
1	Lamar / Foxridge	-		9.8	A	-		10.1	B	-		10.3	B
2	24th / I-35 NB	95.6 (EBL)	F	10.5	B	129.3 (EBL)	F	9.7	A	163.9 (EBL)	F	9.5	A
3	24th / I-35 SB	275.5 (WBL)	F	10.9	B	358.2 * (WBL)	F	10.5	B	538.4 * (WBL)	F	10.3	B
4	24th / Merriam	-		18.7	B	-		19.3	B	-		19.3	B

*Unrealistic (artificial) delay (see text).

I-35 Ramps: As reported in the Existing Condition section above, the results summarized in Table 7-1 for the I-35 ramp-terminal intersections indicate significant delays for the off-ramp traffic in the stop-controlled condition. As previously described, delays reported close to 300 seconds are unrealistically high (artificial from the models) but indicate a lack of capacity and extreme poor intersection operations. These results further support the traffic signal warrant analysis findings and justify the signalization of the two ramp terminals. In most of the unsignalized operational scenarios, these two intersections would operate at LOS F with unacceptable approach delays. When signalized, both intersections would operate with an acceptable LOS, D or better, in all scenarios and time periods.

The additional traffic generated by the construction activities at the Nelson WWTP is forecasted to have little to no effect on LOS and delay at any of the study intersections (under signalized conditions at the ramp intersections), with the Northbound ramp seeing slight improvement due to the signal timings being optimized. With the signalization recommended under existing conditions, the intersection would operate at acceptable levels of service during all four study hours.

Lamar Avenue / Foxridge Drive: This intersection currently operates at LOS B or better during all study time periods. Increased traffic demand from the construction activities is generally forecasted to minimally affect this intersection. The southbound left-turn/thru lane and the eastbound left-turn lane are projected to operate at LOS E during the Early AM hour in 2029 with construction traffic. Additional analysis was developed for this hour, assuming the conversion of the southbound left-turn and the eastbound left turn movements from permissive operation to protected-permissive operation. For the southbound left-turn/through lane, this change would improve the LOS from E with 73.8 seconds of delay to LOS D with 51.7 seconds of delay. For the eastbound left-turn/thru lane, this change would improve the LOS from E with 64.8 seconds of delay to LOS D with 54.1 seconds of delay. Sight distance is acceptable for permissive left-turn operation in both directions. Protected-permissive operation can be programmed in the controller by time-of-day as needed based on traffic volume fluctuations. Long-term improvements should be planned/programmed to separate the southbound left and through movements from the same lane into separate lanes, which would increase the left-turn capacity that is needed to handle the high volumes that exist today.

Additionally, the 2029 Early PM hour forecasts 299 vph in the westbound right-turn lane due to construction workers leaving the facility after a workday. Although westbound right turns may be made on red, this volume will still queue into the through lane and block the through and left-turn traffic. The anticipated westbound through and left-turn traffic volumes are 4 and 9 vph, respectively, which are insignificant to the operations of the westbound approach. The Synchro report shows that the westbound through/right movement will operate at LOS A and the westbound left-turn movement will operate at a LOS B; however, the permissive eastbound left-turn movement (156 vph) conflicts with the westbound right-turns and will operate at a LOS C. The operational concerns between the westbound right-turns and the eastbound left-turns will occur during the egress of the construction workers leaving from 4:00-4:20 PM (during the 3:30-4:30 Early PM hour) and should be monitored during the initial start of construction. Improvements, if necessary, should first include the addition of green time for east-west movements. If additional improvements are needed to assist clearing the queue for the eastbound left, protected-permissive left-turn operation should be installed, excluding this addition for the westbound left-turns. If installed, the protected phase should only be programmed to operate by time-of-day during the egress of the construction workers between 3:30-4:30 PM.

24th Street / Merriam Lane: Because 98 percent of the anticipated trips generated from the WWTP construction were assumed to be distributed on I-35, there would be minimal variations in performance at this intersection with the addition of construction traffic. Given that the Nelson WWTP construction activities will not affect this intersection, it is recommended that signal operations during the construction period be monitored and possibly update signal timings with optimized signal timing plans by time-of-day as needed.

***Queue Results**:* 95th-percentile queue lengths were obtained from the Synchro models for the 2029 Build scenario with signalization at the I-35 off-ramp intersections. The worst queueing conditions appear to occur at the intersection of Lamar Avenue and Foxridge Drive for the Early AM and AM scenarios. The southbound through lane is anticipated to queue into the I-35 NB Off-Ramp intersection and the eastbound left-turn lane is anticipated to queue outside of its existing left-turn storage lane. Optimizing signal timing and/or staggering/shifting project traffic arrival times at Lamar Avenue / Foxridge Drive may be critical in reducing these anticipated long queues. Projected queue lengths on the northbound and southbound I-35 off-ramps are relatively short with the longest 95-percentile queue being 169 feet in the Early AM hour at the SB Off-Ramp. Queueing on either off-ramp is not anticipated to extend onto the freeway mainline. The worst 95th-percentile queue lengths and queueing issues are shown in Table 11-3.

Table 11-3 2029 Build w/Signalization Scenario Queues

Time Period	Queue Metric	Intersection			
		I-35 SB Off-Ramp / 24th St.	I-35 NB Off-Ramp / 24th St.	Lamar Ave / Foxridge Dr	
Early AM (6:30-7:30 AM)	Approach	SB Off-Ramp	SBT	SBT	EBL
	Queue Length (ft.)	169	223	389**	301***
	Queue Storage (ft.)	815	275	235	180
	QSR*	0.22	0.85	1.74	1.76
AM (7:30-8:30 AM)	Approach	NBT	NBT	SBT	EBL
	Queue Length (ft.)	103	151	304**	242***
	Queue Storage (ft.)	275	235	235	180
	QSR*	0.39	0.68	1.36	1.42
Early PM (3:30-4:30 PM)	Approach	SBT	NBT	EBL	
	Queue Length (ft.)	137	182	109	
	Queue Storage (ft.)	245	235	180	
	QSR*	0.59	0.82	0.64	
PM (4:30-5:30 PM)	Approach	SB Off-Ramp	SBT	EBL	
	Queue Length (ft.)	142	193	139	
	Queue Storage (ft.)	815	275	180	
	QSR*	0.18	0.74	0.81	

** QSR - Queue Storage Ratio = Queue Length/Queue Storage.*

*** Queue exceeds capacity and extends into upstream intersection.*

**** Queue exceeds capacity*

Anecdotally, when a train was present in the no-build and build models at the 24th Street crossing north of the interchange, it was observed in the SimTraffic model to cause gridlock at all study intersections with queues extending down the off-ramps and onto mainline I-35. After the train cleared the crossing, the model showed all of northbound traffic from the interchange ramps and from the south on Lamar Avenue getting blocked and backing through the interchange intersections and down the off-ramps. Northbound and ramp queues remained very long for over 30 minutes as the interchange operations were never observed to fully recover from the presence of the train during the AM and PM Peak hours.

12.0 Section 11 Traffic Safety

Historic crash data was obtained for the study intersections, excluding 24th Street / Merriam Lane, for the five-year period from 2016-2020. During the five-year analysis period, there were 14 total crashes reported at the three study intersections. Of those, there were no fatalities, 4 injuries, and the remaining 10 crashes resulted in property damage only. The majority of the crashes were rear-end crashes with a few angle crashes and sideswipes. 2018 had the highest number of crashes with 2016 recording the least number of crashes.

As shown in Figure 12-1, crashes tended to cluster most often at the intersection of Foxridge Drive and Lamar Avenue with all 4 injury crashes occurring at that intersection.

Figure 12-1 Reported Crashes 2016-2020

At the Lamar Avenue and Foxridge Drive intersection, most reported crashes are right-angle or rear-end crashes. These can be attributed to vehicles occasionally violating or coming to abrupt stops at red signals.

Predictive Safety – Due to a lack of sufficient crash data within the study area as well as the lack of a reliable CMF that accurately reflects the proposed improvement, a qualitative future safety performance assessment was conducted in place of a quantitative predictive method. Based on several studies published to the FHWA's CMF Clearinghouse, signalizing 4-legged stop-controlled intersections can reduce crashes by up to 39%. Signalization minimizes the potential for right-angle crashes since minor approach drivers are not frequently faced with the challenge of identifying and accepting adequate gaps in mainline traffic flow in order to complete a maneuver. By installing signals at the two study area ramp terminals, and consequently controlling right-of-way assignment, similar safety benefits can be reasonably expected in the study area.

At the Lamar Avenue / Foxridge Drive intersection, HDR recommends installing retroreflective backplates on the proposed signal heads at the ramp terminals and existing signal heads. According to the FHWA Report (FHWA-SA-21-039), retroreflective backplates improve the visibility of signal heads by introducing a controlled-contrast background. For both daytime and nighttime conditions, signal heads equipped with retroreflective borders are more visible and conspicuous, reducing total crashes by up to 15%.

13.0 Section 12 Findings & Recommendations

2021 existing conditions experience unacceptable LOS, extremely long delays, and queuing back onto the freeway lanes at the I-35 ramp terminal intersections.

The BNSF rail crossing north of I-35 was found to possibly cause gridlock conditions for northbound and southbound traffic on 24th Street from Merriam Lane through the I-35 NB Ramp intersection, spilling back on both I-35 off-ramps. These conditions contribute to the unrealistic delays being reported in the Synchro models. The gridlock conditions created by the rail crossing take many signal cycles to recover to normal conditions. This type of gridlock condition can contribute to rear-end crashes (as well as other types of crashes). Improvements – including signalization at the ramp termini intersections and a capacity improvement project at the intersection of 24th Street / Merriam Lane – would significantly improve operations in the study area after an active train crossing event.

The projected traffic growth in the study area from 2021 to 2029 would have minimal effects on the overall traffic operations along the study corridor. However, it is apparent that the current stop-controlled condition at the I-35 ramp-terminals causes unacceptable delays, which will only be increased by the additional traffic movements from the construction activities at the treatment facility in 2029 during all study periods. The analysis results justify signalization of the two ramp terminals. Signalization would dramatically improve the operations of these ramp-terminal intersections, improve safety, and provide reasonable traffic operations in the 2029 forecast year under Baseline and With Construction conditions.

LOS and delay at the Lamar Avenue / Foxridge Drive and 24th Street / Merriam Lane intersections would remain mostly unaffected from 2021 Existing and 2029 Baseline and With Construction scenarios, except for Lamar Avenue / Foxridge Drive experiencing a degradation in operations under construction conditions during the Early AM period. This forecasted degradation from LOS B to LOS D is due to the additional southbound left-turns from the ingress of the construction workers to the treatment facility.

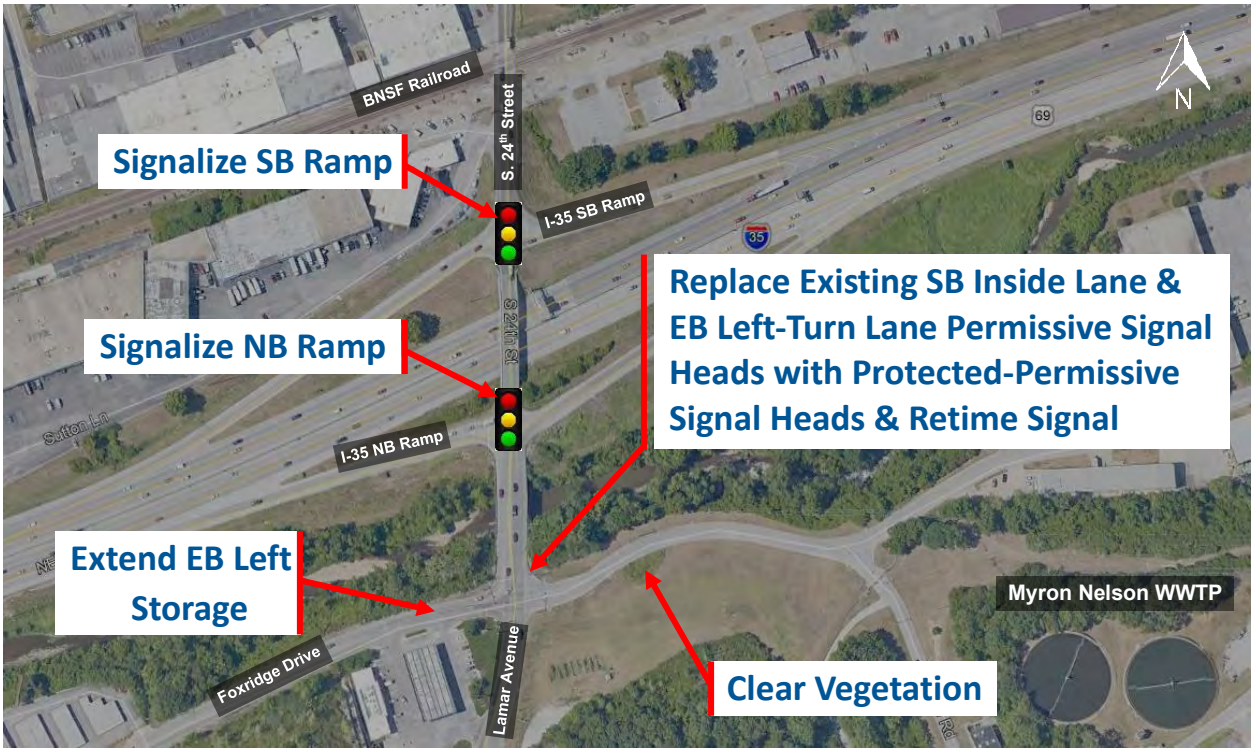
Queue lengths exceeding storage were found for the SB through/left and EB left-turn lanes at Lamar Avenue / Foxridge Drive during the Early AM and AM hours. The presence of a train crossing 24th Street north of I-35 blocks northbound traffic and causes queues to extend down the off-ramps and onto mainline I-35.

HDR recommends:

- *I-35/24th Street:* Signalize both intersections. Based on the analysis, the addition of left-turn lanes on 24th Street at the I-35 ramp terminal intersections was determined to be unnecessary in the near term. However, consideration should be given to such an improvement in the longer term. These two signals should be interconnected and coordinated.
- *Lamar Avenue / Foxridge Drive:* Install a 5-section protected-permissive left-turn head (with green ball for permissive indication) for the southbound through/left lane and eastbound left-turn lane and reprogram the controller accordingly.
    - Conduct a traffic count at the intersection prior to construction activities and develop optimized signal timing plans by time of day that more effectively handle anticipated traffic volumes.
    - Observe traffic operations during the early PM and PM peak hours to determine the need to increase the green time for the east-west movements.
    - Observe traffic operations during the early AM and AM peak hours and should long queueing be observed in the eastbound left-turn lane, the signal controller should be programmed to display the protected phase during the time period of the observed operational deficiency. The protected phase for this movement should not be displayed during times-of-day when queue lengths are acceptable.
    - Coordinate with CMAR contractor on options to stagger or shift project traffic arrival times during the Early AM and AM hours to lessen the southbound left-turn volume.
- *Foxridge Drive:* Discuss clearing sight lines for traffic leaving the Nelson WWTP driveway on Foxridge Drive with the selected engineer/contractor. This includes the trees east of the driveway and plants in the rain garden on the south side of Foxridge Drive. Also, when Foxridge Drive is improved by the City of Mission in 2023, the eastbound left-turn storage should be increased to avoid queues spilling back into the through lane. This is only a striping change, not requiring widening.

Recommended offsite traffic improvements are shown in Figure 13-1.

Figure 13-1 Recommended Off-Site Traffic Improvements



14.0 Section 13 Next Steps

The steps needed to accomplish the recommended off-site traffic improvements include:

1. Meet with stakeholders that include the City of Mission, Unified Government of Wyandotte County / Kansas City, Kansas (UGKCK), Kansas Department of Transportation (KDOT), and Evergy.
2. Obtain refined trip generation values for construction traffic from CMAR contractor to validate results and assumptions used in this traffic analysis.
3. Coordinate with CMAR contractor on options to stagger or shift project traffic arrival times during the Early AM and AM hours to lessen the southbound left turn volume on Lamar Avenue at Foxridge Drive.
4. Develop implementation plan for off-site traffic improvements with the CMAR contractor.
5. Finalize TM 11 with approved implementation plan.
6. Initiate public outreach process to notify local residents and businesses of planned improvements.

15.0 Section 14 Cost Estimate

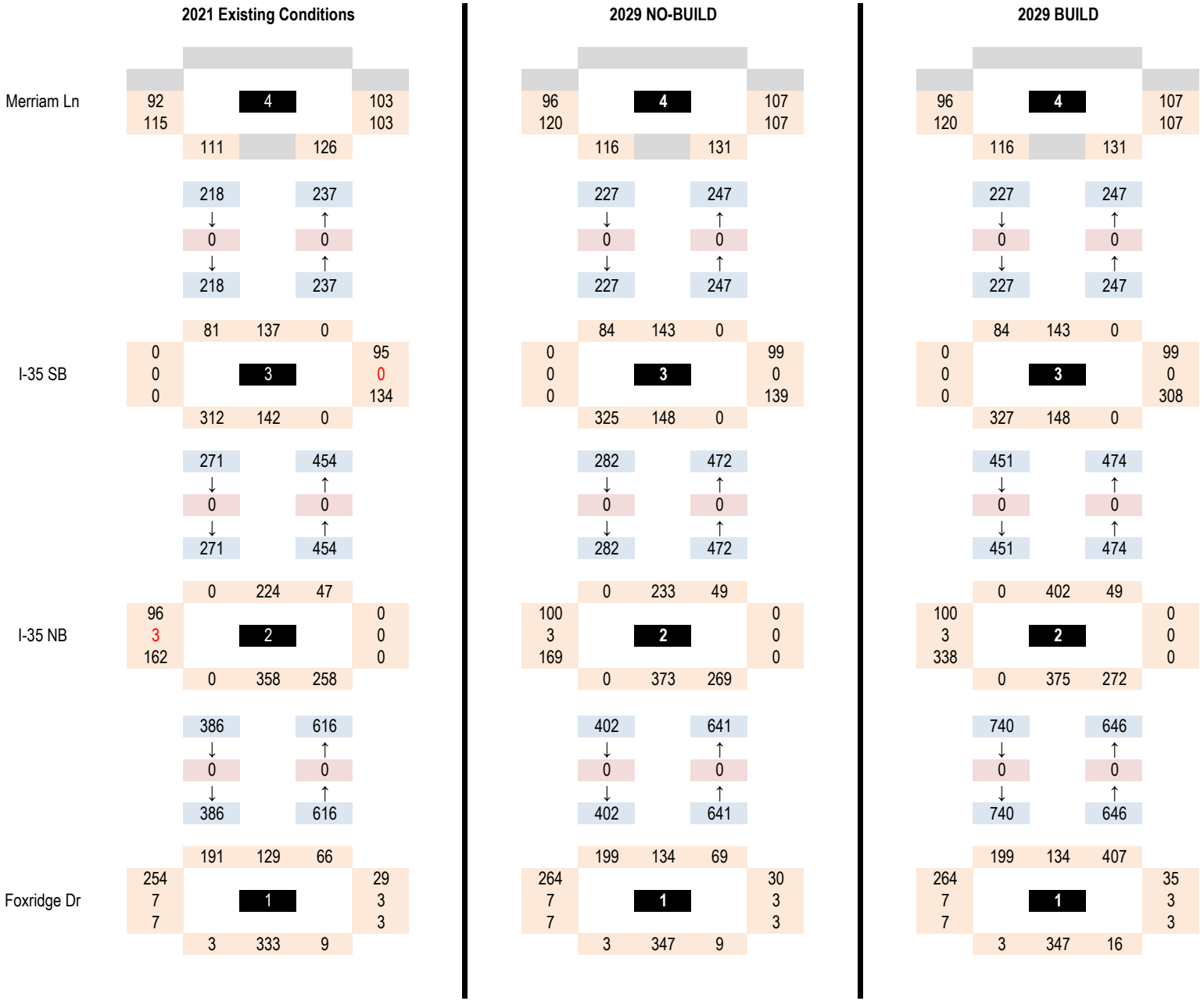
The Engineer's Opinion of Probable Costs for the recommended off-site traffic improvements is shown in Table 15-1. Costs included in this table consider contractor markups and contingency.

Table 15-1 Engineer's Opinion of Probable Construction Costs for Off-Site Traffic Improvements

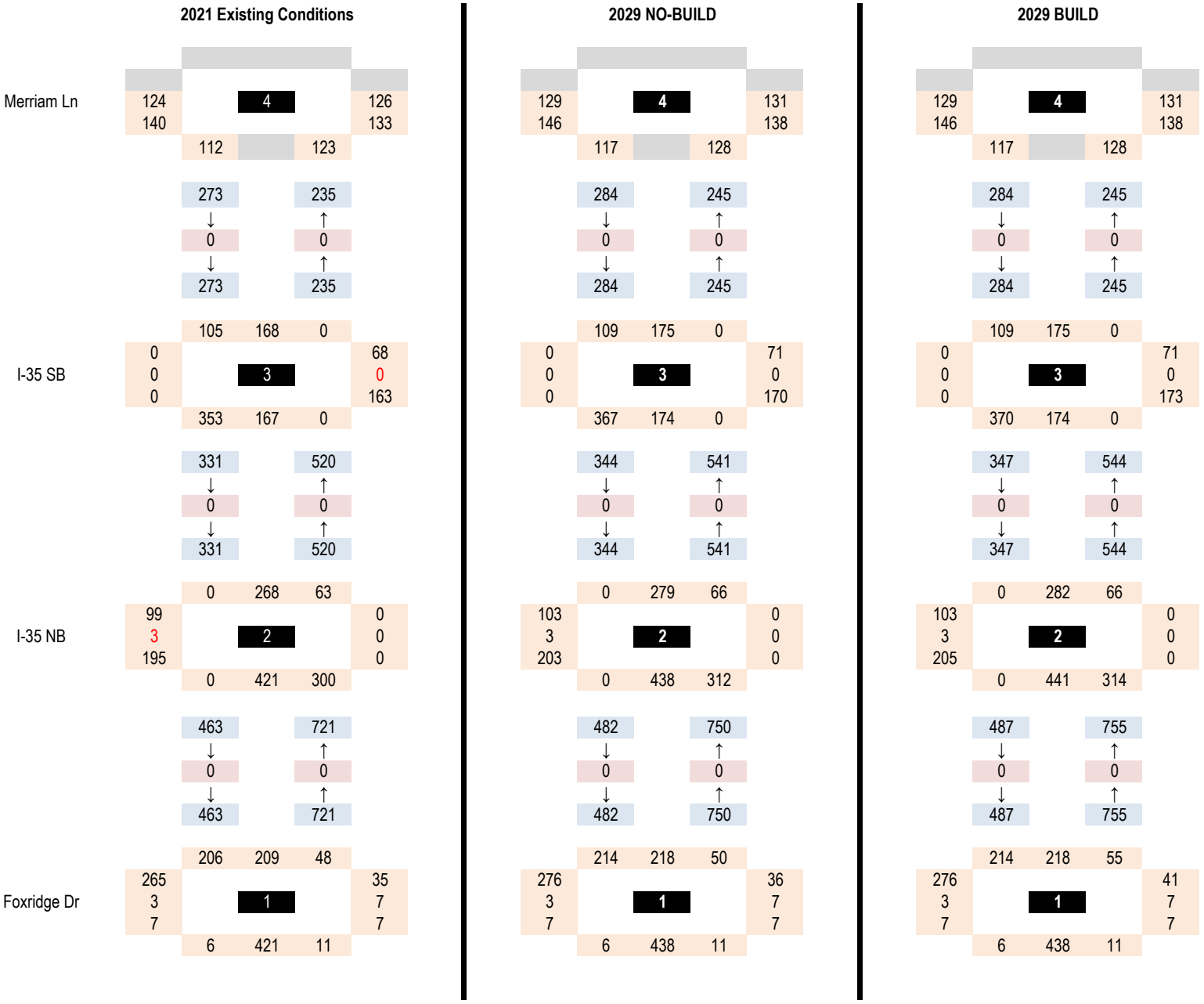
	Improvement	Quantity	Units	Unit Cost	Extension
1	Install Traffic Signal at I-35 Northbound Ramp Terminal	1	LS	$ 200,000.00	$ 200,000.00
2	Install Traffic Signal at I-35 Southbound Ramp Terminal	1	LS	$ 200,000.00	$ 200,000.00
3	Install 5-section signal head for SBT/L movement	1	LS	$ 4,000.00	$ 4,000.00
4	Install 5-section signal head for EBL movement	1	LS	$ 4,000.00	$ 4,000.00
				TOTAL:	**$ 408,000.00**

Appendix A. S. 24th Street / Lamar Avenue Study Intersections Turning Movement Count Dat

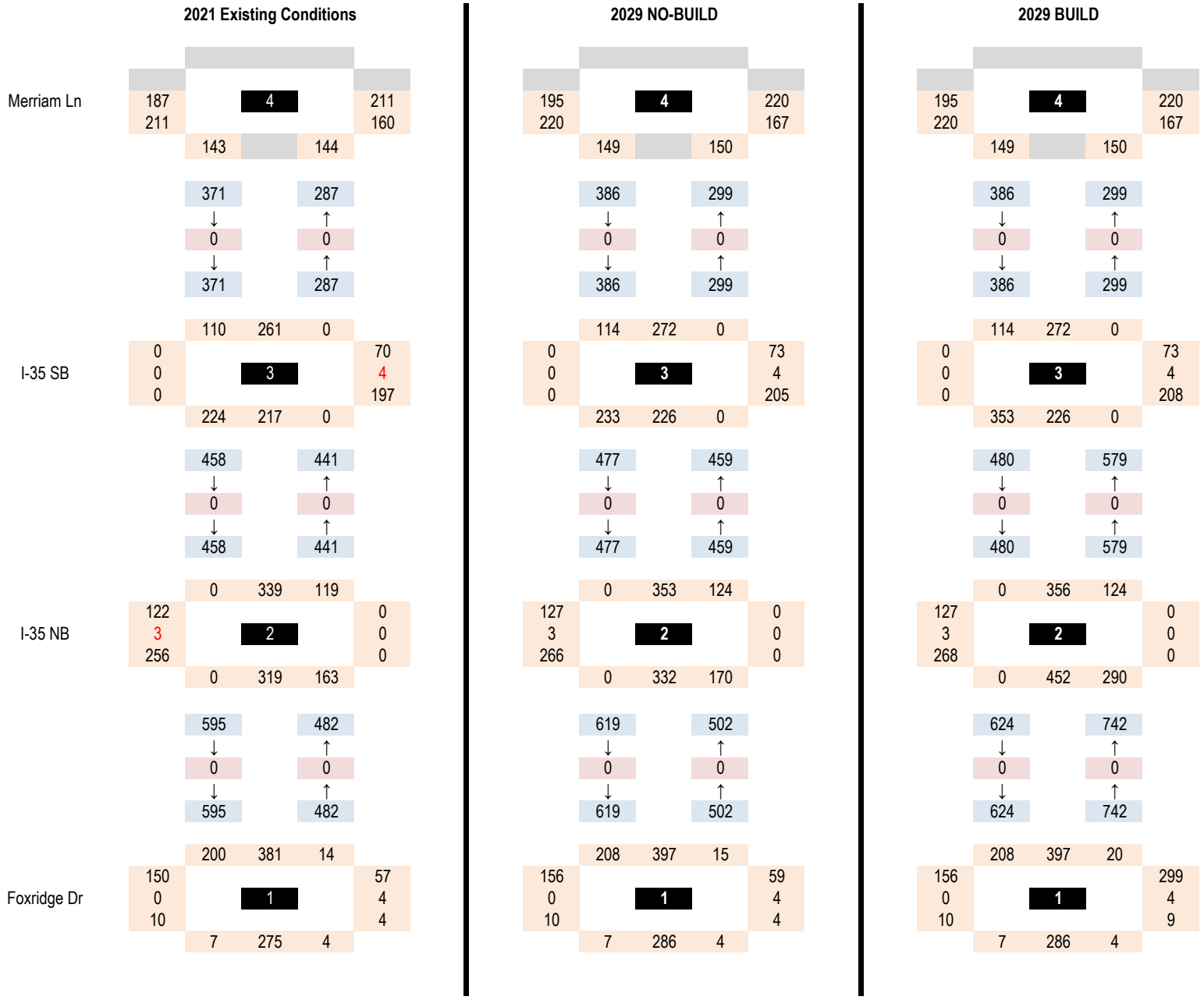
Early AM: 6:30am-7:30am



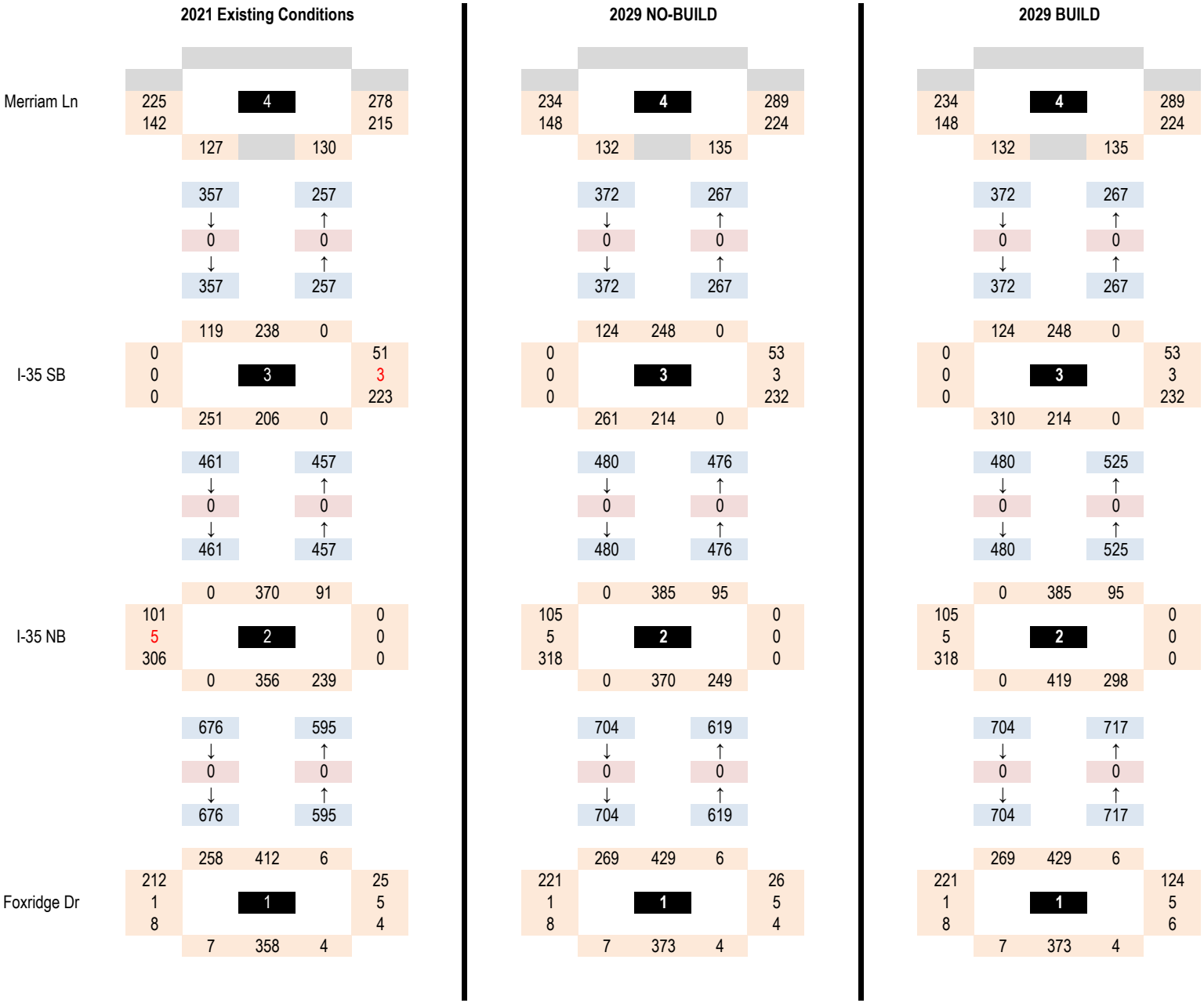
AM: 7:30am-8:30am



Early PM: 3:30pm-4:30pm



PM: 4:30pm-5:30pm



Appendix B. Rail Crossing Inventory Form

U. S. DOT CROSSING INVENTORY FORM

DEPARTMENT OF TRANSPORTATION
FEDERAL RAILROAD ADMINISTRATION

OMB No. 2130-0017

Instructions for the initial reporting of the following types of new or previously unreported crossings: For public highway-rail grade crossings, complete the entire inventory Form. For private highway-rail grade crossings, complete the Header, Parts I and II, and the Submission Information section. For public pathway grade crossings (including pedestrian station grade crossings), complete the Header, Parts I and II, and the Submission Information section. For Private pathway grade crossings, complete the Header, Parts I and II, and the Submission Information section. For grade-separated highway-rail or pathway crossings (including pedestrian station crossings), complete the Header, Part I, and the Submission Information section. For changes to existing data, complete the Header, Part I Items 1-3, and the Submission Information section, in addition to the updated data fields. Note: For private crossings only, Part I Item 20 and Part III Item 2.K. are required unless otherwise noted. An asterisk * denotes an optional field.

A. Revision Date (MM/DD/YYYY)	B. Reporting Agency	C. Reason for Update (Select only one)	D. DOT Crossing Inventory Number
11 / 15 / 2019	☒ Railroad ☐ Transit ☐ State ☐ Other	☒ Change in Data ☐ New Crossing ☐ Closed ☐ No Train Traffic ☐ Quiet Zone Update ☐ Re-Open ☐ Date Change Only ☐ Change in Primary Operating RR ☐ Admin. Correction	663550G

Part I: Location and Classification Information

1. Primary Operating Railroad	2. State	3. County
BNSF Railway Company [BNSF]	KANSAS	WYANDOTTE

4. City / Municipality	5. Street/Road Name & Block Number	6. Highway Type & No.
☒ In ☐ Near KANSAS CITY	S 24th Street or Lamar Avenue (Street/Road Name) | * (Block Number)	LS

7. Do Other Railroads Operate a Separate Track at Crossing?	8. Do Other Railroads Operate Over Your Track at Crossing?
☐ Yes ☒ No If Yes, Specify RR	☒ Yes ☐ No If Yes, Specify RR UP

9. Railroad Division or Region	10. Railroad Subdivision or District	11. Branch or Line Name	12. RR Milepost
☐ None HEARTLAND	☐ None FT SCOTT	☐ None KC-NICHOLS	(prefix) | 0005.650 (nnnn.nnn) | (suffix)

13. Line Segment *	14. Nearest RR Timetable Station *	15. Parent RR (if applicable)	16. Crossing Owner (if applicable)
1001	ARGENTINE YD, KS	☒ N/A	☐ N/A BNSF

17. Crossing Type	18. Crossing Purpose	19. Crossing Position	20. Public Access (if Private Crossing)	21. Type of Train	22. Average Passenger Train Count Per Day
☒ Public ☐ Private	☒ Highway ☐ Pathway, Ped. ☐ Station, Ped.	☒ At Grade ☐ RR Under ☐ RR Over	☐ Yes ☐ No	☒ Freight ☐ Intercity Passenger ☐ Commuter ☐ Transit ☐ Shared Use Transit ☐ Tourist/Other	☐ Less Than One Per Day ☐ Number Per Day 0

23. Type of Land Use
☐ Open Space ☐ Farm ☐ Residential ☐ Commercial ☒ Industrial ☐ Institutional ☐ Recreational ☐ RR Yard

24. Is there an Adjacent Crossing with a Separate Number?	25. Quiet Zone (FRA provided)
☐ Yes ☒ No If Yes, Provide Crossing Number	☒ No ☐ 24 Hr ☐ Partial ☐ Chicago Excused Date Established

26. HSR Corridor ID	27. Latitude in decimal degrees	28. Longitude in decimal degrees	29. Lat/Long Source
☒ N/A	(WGS84 std: nn.nnnnnnn) 39.0462650	(WGS84 std: -nnn.nnnnnnn) -94.656162	☒ Actual ☐ Estimated

30.A. Railroad Use *	31.A. State Use *
	2 Crossbucks on Flashing Lights & Gates
30.B. Railroad Use *	**31.B. State Use *** Bungalow has MilePost at 5.66
30.C. Railroad Use *	**31.C. State Use ***
30.D. Railroad Use *	**31.D. State Use ***
32.A. Narrative (Railroad Use) * (I.27 I.28 I.29)Value Provided by Railroad, Not Ye	**32.B. Narrative** (State Use) *

33. Emergency Notification Telephone No. (posted)	34. Railroad Contact (Telephone No.)	35. State Contact (Telephone No.)
800-832-5452	817-352-1549	785-296-7121

Part II: Railroad Information

1. Estimated Number of Daily Train Movements

1.A. Total Day Thru Trains (6 AM to 6 PM)	1.B. Total Night Thru Trains (6 PM to 6 AM)	1.C. Total Switching Trains	1.D. Total Transit Trains	1.E. Check if Less Than One Movement Per Day ☐ How many trains per week?
9	9	0	0	

2. Year of Train Count Data (YYYY)	3. Speed of Train at Crossing
2019	3.A. Maximum Timetable Speed (mph) 30 3.B. Typical Speed Range Over Crossing (mph) From 1 to 30

4. Type and Count of Tracks
Main 2 Siding 0 Yard 0 Transit 0 Industry 0

5. Train Detection (Main Track only)
☐ Constant Warning Time ☒ Motion Detection ☐ AFO ☐ PTC ☐ DC ☐ Other ☐ None

6. Is Track Signaled?	7.A. Event Recorder	7.B. Remote Health Monitoring
☒ Yes ☐ No	☐ Yes ☐ No	☐ Yes ☐ No

U. S. DOT CROSSING INVENTORY FORM

A. Revision Date *(MM/DD/YYYY)*	PAGE 2	D. Crossing Inventory Number *(7 char.)*
11/15/2019		663550G

Part III: Highway or Pathway Traffic Control Device Information

1. Are there Signs or Signals? ☒ Yes ☐ No

2. Types of Passive Traffic Control Devices associated with the Crossing

2.A. Crossbuck Assemblies *(count)*	2.B. STOP Signs *(R1-1)* *(count)*	2.C. YIELD Signs *(R1-2)* *(count)*	2.D. Advance Warning Signs *(Check all that apply; include count)* ☒ None
0	0	0	☐ W10-1 _____ ☐ W10-3 _____ ☐ W10-11 _____ ☐ W10-2 _____ ☐ W10-4 _____ ☐ W10-12 _____

2.E. Low Ground Clearance Sign *(W10-5)*	2.F. Pavement Markings	2.G. Channelization Devices/Medians	2.H. EXEMPT Sign *(R15-3)*	2.I. ENS Sign *(I-13)* Displayed
☐ Yes *(count_____)* ☒ No	☐ Stop Lines ☐ Dynamic Envelope ☐ RR Xing Symbols ☒ None	☐ All Approaches ☐ Median ☐ One Approach ☒ None	☐ Yes ☒ No	☒ Yes ☐ No

2.J. Other MUTCD Signs ☒ Yes ☐ No	2.K. Private Crossing Signs *(if private)*	2.L. LED Enhanced Signs *(List types)*
Specify Type W10-15P Count 2 Specify Type _____ Count _____ Specify Type _____ Count _____	☐ Yes ☐ No	0

3. Types of Train Activated Warning Devices at the Grade Crossing *(specify count of each device for all that apply)*

3.A. Gate Arms *(count)*	3.B. Gate Configuration	3.C. Cantilevered *(or Bridged)* Flashing Light Structures *(count)*	3.D. Mast Mounted Flashing Lights *(count of masts)* 2	3.E. Total Count of Flashing Light Pairs
Roadway 2 Pedestrian 0	☒ 2 Quad ☐ Full *(Barrier)* Resistance ☐ 3 Quad ☐ 4 Quad ☐ Median Gates	Over Traffic Lane 0 ☐ Incandescent Not Over Traffic Lane 0 ☐ LED	☒ Incandescent ☐ LED ☒ Back Lights Included ☒ Side Lights Included	5

3.F. Installation Date of Current Active Warning Devices: *(MM/YYYY)*	3.G. Wayside Horn	3.H. Highway Traffic Signals Controlling Crossing	3.I. Bells *(count)*
_____/_____ ☒ Not Required	☐ Yes Installed on *(MM/YYYY)* _____/_____ ☒ No	☐ Yes ☒ No	1

3.J. Non-Train Active Warning	3.K. Other Flashing Lights or Warning Devices
☐ Flagging/Flagman ☐ Manually Operated Signals ☐ Watchman ☐ Floodlighting ☒ None	Count 0 Specify type _____

4.A. Does nearby Hwy Intersection have Traffic Signals?	4.B. Hwy Traffic Signal Interconnection	4.C. Hwy Traffic Signal Preemption	5. Highway Traffic Pre-Signals	6. Highway Monitoring Devices *(Check all that apply)*
☐ Yes ☒ No	☒ Not Interconnected ☐ For Traffic Signals ☐ For Warning Signs	☐ Simultaneous ☐ Advance	☐ Yes ☒ No Storage Distance * _____ Stop Line Distance * _____	☐ Yes - Photo/Video Recording ☐ Yes – Vehicle Presence Detection ☒ None

Part IV: Physical Characteristics

1. Traffic Lanes Crossing Railroad	2. Is Roadway/Pathway Paved?	3. Does Track Run Down a Street?	4. Is Crossing Illuminated? *(Street lights within approx. 50 feet from nearest rail)*
☐ One-way Traffic ☒ Two-way Traffic ☐ Divided Traffic Number of Lanes 2	☒ Yes ☐ No	☐ Yes ☒ No	☒ Yes ☐ No

5. Crossing Surface *(on Main Track, multiple types allowed)* Installation Date * *(MM/YYYY)* _____/_____ Width * _____ Length * 40

☐ 1 Timber ☐ 2 Asphalt ☐ 3 Asphalt and Timber ☒ 4 Concrete ☐ 5 Concrete and Rubber ☐ 6 Rubber ☐ 7 Metal
☐ 8 Unconsolidated ☐ 9 Composite ☐ 10 Other *(specify)* _____

6. Intersecting Roadway within 500 feet?	7. Smallest Crossing Angle	8. Is Commercial Power Available? *
☒ Yes ☐ No If Yes, Approximate Distance *(feet)* 50	☐ 0° – 29° ☐ 30° – 59° ☒ 60° - 90°	☒ Yes ☐ No

Part V: Public Highway Information

1. Highway System	2. Functional Classification of Road at Crossing	3. Is Crossing on State Highway System?	4. Highway Speed Limit
☒ (01) Interstate Highway System ☐ (02) Other Nat Hwy System (NHS) ☐ (03) Federal AID, Not NHS ☐ (08) Non-Federal Aid	☐ (0) Rural ☒ (1) Urban ☐ (1) Interstate ☒ (5) Major Collector ☐ (2) Other Freeways and Expressways ☐ (3) Other Principal Arterial ☐ (6) Minor Collector ☐ (4) Minor Arterial ☐ (7) Local	☐ Yes ☒ No	30 MPH ☐ Posted ☒ Statutory

5. Linear Referencing System *(LRS Route ID)* *

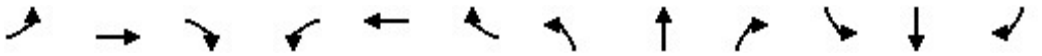
6. LRS Milepost *

7. Annual Average Daily Traffic *(AADT)*	8. Estimated Percent Trucks	9. Regularly Used by School Buses?	10. Emergency Services Route
Year 2000 AADT 007976	01 %	☐ Yes ☒ No Average Number per Day _____	☐ Yes ☒ No

Submission Information - *This information is used for administrative purposes and is not available on the public website.*

Submitted by _____ Organization _____ Phone _____ Date _____

Appendix C. Synchro Analysis Reports

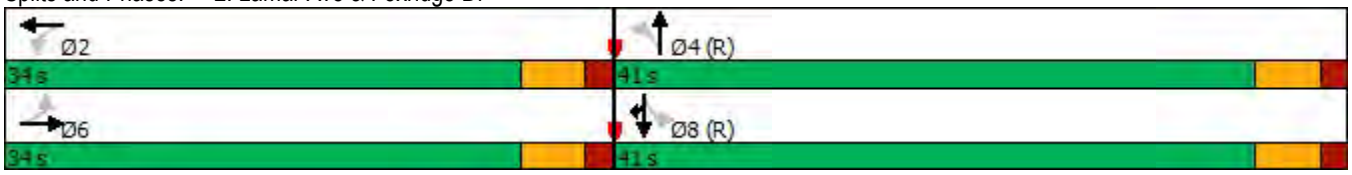


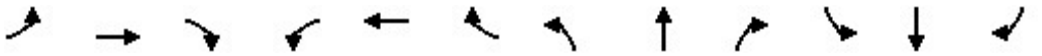
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	265	3	7	7	7	35	6	421	11	48	209	206
Future Volume (vph)	265	3	7	7	7	35	6	421	11	48	209	206
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	0		0	60		0	0		0	0		0
Storage Lanes	1		0	1		0	0		0	0		1
Taper Length (ft)	25			25			25			25		
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	0.95	0.95	0.95	1.00	1.00	1.00
Frt		0.891			0.876			0.996				0.850
Flt Protected	0.950			0.950				0.999			0.991	
Satd. Flow (prot)	1770	1660	0	1770	1632	0	0	3522	0	0	1846	1583
Flt Permitted	0.727			0.750				0.951			0.860	
Satd. Flow (perm)	1354	1660	0	1397	1632	0	0	3352	0	0	1602	1583
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		8			38			5				224
Link Speed (mph)		35			25			35			35	
Link Distance (ft)		362			218			374			353	
Travel Time (s)		7.1			5.9			7.3			6.9	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	288	3	8	8	8	38	7	458	12	52	227	224
Shared Lane Traffic (%)												
Lane Group Flow (vph)	288	11	0	8	46	0	0	477	0	0	279	224
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		12			12			0			0	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Number of Detectors	1	2		1	2		1	2		1	2	1
Detector Template	Left	Thru		Left	Thru		Left	Thru		Left	Thru	Right
Leading Detector (ft)	20	100		20	100		20	100		20	100	20
Trailing Detector (ft)	0	0		0	0		0	0		0	0	0
Detector 1 Position(ft)	0	0		0	0		0	0		0	0	0
Detector 1 Size(ft)	20	6		20	6		20	6		20	6	20
Detector 1 Type	Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex	Cl+Ex
Detector 1 Channel												
Detector 1 Extend (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	0.0
Detector 1 Queue (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	0.0
Detector 1 Delay (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	0.0
Detector 2 Position(ft)		94			94			94			94	
Detector 2 Size(ft)		6			6			6			6	
Detector 2 Type		Cl+Ex			Cl+Ex			Cl+Ex			Cl+Ex	
Detector 2 Channel												
Detector 2 Extend (s)		0.0			0.0			0.0			0.0	
Turn Type	Perm	NA		Perm	NA		Perm	NA		Perm	NA	Prot
Protected Phases		6			2			4			8	8
Permitted Phases	6			2			4			8		

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Detector Phase	6	6		2	2		4	4		8	8	8
Switch Phase												
Minimum Initial (s)	10.0	10.0		10.0	10.0		10.0	10.0		10.0	10.0	10.0
Minimum Split (s)	15.2	15.2		15.2	15.2		15.2	15.2		15.2	15.2	15.2
Total Split (s)	34.0	34.0		34.0	34.0		41.0	41.0		41.0	41.0	41.0
Total Split (%)	45.3%	45.3%		45.3%	45.3%		54.7%	54.7%		54.7%	54.7%	54.7%
Maximum Green (s)	28.8	28.8		28.8	28.8		35.8	35.8		35.8	35.8	35.8
Yellow Time (s)	3.6	3.6		3.6	3.6		3.6	3.6		3.6	3.6	3.6
All-Red Time (s)	1.6	1.6		1.6	1.6		1.6	1.6		1.6	1.6	1.6
Lost Time Adjust (s)	0.0	0.0		0.0	0.0			0.0			0.0	0.0
Total Lost Time (s)	5.2	5.2		5.2	5.2			5.2			5.2	5.2
Lead/Lag												
Lead-Lag Optimize?												
Vehicle Extension (s)	3.0	3.0		3.0	3.0		3.0	3.0		3.0	3.0	3.0
Recall Mode	None	None		Min	Min		C-Min	C-Min		C-Min	C-Min	C-Min
Act Effct Green (s)	21.1	21.1		21.1	21.1			43.5			43.5	43.5
Actuated g/C Ratio	0.28	0.28		0.28	0.28			0.58			0.58	0.58
v/c Ratio	0.76	0.02		0.02	0.09			0.25			0.30	0.22
Control Delay	36.7	10.6		16.0	7.5			9.1			10.6	2.3
Queue Delay	0.0	0.0		0.0	0.0			0.0			0.0	0.0
Total Delay	36.7	10.6		16.0	7.5			9.1			10.6	2.3
LOS	D	B		B	A			A			B	A
Approach Delay		35.7			8.7			9.1			6.9	
Approach LOS		D			A			A			A	

Intersection Summary			
Area Type:	Other		
Cycle Length: 75			
Actuated Cycle Length: 75			
Offset: 0 (0%), Referenced to phase 4:NBTL and 8:SBTL, Start of Green			
Natural Cycle: 40			
Control Type: Actuated-Coordinated			
Maximum v/c Ratio: 0.76			
Intersection Signal Delay: 14.2		Intersection LOS: B	
Intersection Capacity Utilization 60.2%		ICU Level of Service B	
Analysis Period (min) 15			

Splits and Phases: 2: Lamar Ave & Foxridge Dr





Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	99	0	195	0	0	0	0	421	300	63	268	0
Future Volume (vph)	99	0	195	0	0	0	0	421	300	63	268	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	16	12	16	16	16	12	12	12	12	12	12
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Frt		0.911							0.850			
Flt Protected		0.983									0.991	
Satd. Flow (prot)	0	1891	0	0	0	0	0	1863	1583	0	1846	0
Flt Permitted		0.983									0.991	
Satd. Flow (perm)	0	1891	0	0	0	0	0	1863	1583	0	1846	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		168							326			
Link Speed (mph)		35			35			35			35	
Link Distance (ft)		2302			750			353			299	
Travel Time (s)		44.8			14.6			6.9			5.8	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	108	0	212	0	0	0	0	458	326	68	291	0
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	320	0	0	0	0	0	458	326	0	359	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		0			0			0			0	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.00	0.85	1.00	0.85	0.85	0.85	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Number of Detectors	1	2						2	1	1	2	
Detector Template	Left	Thru						Thru	Right	Left	Thru	
Leading Detector (ft)	20	100						100	20	20	100	
Trailing Detector (ft)	0	0						0	0	0	0	
Detector 1 Position(ft)	0	0						0	0	0	0	
Detector 1 Size(ft)	20	6						6	20	20	6	
Detector 1 Type	Cl+Ex	Cl+Ex						Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	
Detector 1 Channel												
Detector 1 Extend (s)	0.0	0.0						0.0	0.0	0.0	0.0	
Detector 1 Queue (s)	0.0	0.0						0.0	0.0	0.0	0.0	
Detector 1 Delay (s)	0.0	0.0						0.0	0.0	0.0	0.0	
Detector 2 Position(ft)		94						94			94	
Detector 2 Size(ft)		6						6			6	
Detector 2 Type		Cl+Ex						Cl+Ex			Cl+Ex	
Detector 2 Channel												
Detector 2 Extend (s)		0.0						0.0			0.0	
Turn Type	Perm	NA						NA	Perm	Split	NA	
Protected Phases		4						2!		6!	6	
Permitted Phases	4								2			
Detector Phase	4	4						2	2	6	6	
Switch Phase												

Lane Group	Ø8
Lane Configurations	
Traffic Volume (vph)	
Future Volume (vph)	
Ideal Flow (vphpl)	
Lane Width (ft)	
Lane Util. Factor	
Frt	
Flt Protected	
Satd. Flow (prot)	
Flt Permitted	
Satd. Flow (perm)	
Right Turn on Red	
Satd. Flow (RTOR)	
Link Speed (mph)	
Link Distance (ft)	
Travel Time (s)	
Peak Hour Factor	
Adj. Flow (vph)	
Shared Lane Traffic (%)	
Lane Group Flow (vph)	
Enter Blocked Intersection	
Lane Alignment	
Median Width(ft)	
Link Offset(ft)	
Crosswalk Width(ft)	
Two way Left Turn Lane	
Headway Factor	
Turning Speed (mph)	
Number of Detectors	
Detector Template	
Leading Detector (ft)	
Trailing Detector (ft)	
Detector 1 Position(ft)	
Detector 1 Size(ft)	
Detector 1 Type	
Detector 1 Channel	
Detector 1 Extend (s)	
Detector 1 Queue (s)	
Detector 1 Delay (s)	
Detector 2 Position(ft)	
Detector 2 Size(ft)	
Detector 2 Type	
Detector 2 Channel	
Detector 2 Extend (s)	
Turn Type	
Protected Phases	8
Permitted Phases	
Detector Phase	
Switch Phase	

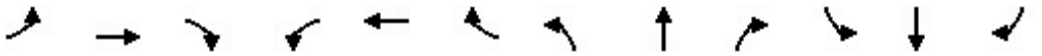
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Minimum Initial (s)	7.0	7.0						7.0	7.0	7.0	7.0	
Minimum Split (s)	22.5	22.5						22.5	22.5	22.5	22.5	
Total Split (s)	22.5	22.5						37.5	37.5	37.5	37.5	
Total Split (%)	37.5%	37.5%						62.5%	62.5%	62.5%	62.5%	
Maximum Green (s)	18.0	18.0						33.0	33.0	33.0	33.0	
Yellow Time (s)	3.5	3.5						3.5	3.5	3.5	3.5	
All-Red Time (s)	1.0	1.0						1.0	1.0	1.0	1.0	
Lost Time Adjust (s)		0.0						0.0	0.0		0.0	
Total Lost Time (s)		4.5						4.5	4.5		4.5	
Lead/Lag												
Lead-Lag Optimize?												
Vehicle Extension (s)	3.0	3.0						3.0	3.0	3.0	3.0	
Recall Mode	None	None						Max	Max	Max	Max	
Act Effct Green (s)		11.1						33.1	33.1		33.1	
Actuated g/C Ratio		0.21						0.62	0.62		0.62	
v/c Ratio		0.61						0.40	0.29		0.31	
Control Delay		14.3						7.0	1.6		7.4	
Queue Delay		0.0						0.5	0.0		0.4	
Total Delay		14.3						7.5	1.6		7.9	
LOS		B						A	A		A	
Approach Delay		14.3						5.1			7.9	
Approach LOS		B						A			A	

Intersection Summary			
Area Type:	Other		
Cycle Length: 60			
Actuated Cycle Length: 53.3			
Natural Cycle: 50			
Control Type: Semi Act-Uncoord			
Maximum v/c Ratio: 0.61			
Intersection Signal Delay: 7.8		Intersection LOS: A	
Intersection Capacity Utilization 68.5%		ICU Level of Service C	
Analysis Period (min) 15			
! Phase conflict between lane groups.			

Splits and Phases: 7: I-35 NB Off-Ramp & 24th St

Lane Group	Ø8
Minimum Initial (s)	7.0
Minimum Split (s)	22.5
Total Split (s)	22.5
Total Split (%)	38%
Maximum Green (s)	18.0
Yellow Time (s)	3.5
All-Red Time (s)	1.0
Lost Time Adjust (s)	
Total Lost Time (s)	
Lead/Lag	
Lead-Lag Optimize?	
Vehicle Extension (s)	3.0
Recall Mode	None
Act Effct Green (s)	
Actuated g/C Ratio	
v/c Ratio	
Control Delay	
Queue Delay	
Total Delay	
LOS	
Approach Delay	
Approach LOS	

Intersection Summary



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	0	0	0	163	0	68	353	167	0	0	168	105
Future Volume (vph)	0	0	0	163	0	68	353	167	0	0	168	105
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	16	16	16	12	16	12	12	12	12	12	12	12
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Frt					0.960						0.948	
Flt Protected					0.966			0.967				
Satd. Flow (prot)	0	0	0	0	1958	0	0	1801	0	0	1766	0
Flt Permitted					0.966			0.967				
Satd. Flow (perm)	0	0	0	0	1958	0	0	1801	0	0	1766	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)					36						83	
Link Speed (mph)		35			35			35			35	
Link Distance (ft)		755			1614			299			328	
Travel Time (s)		14.7			31.4			5.8			6.4	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	0	0	0	177	0	74	384	182	0	0	183	114
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	0	0	0	251	0	0	566	0	0	297	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		0			0			0			0	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	0.85	0.85	0.85	1.00	0.85	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Number of Detectors				1	2		1	2			2	
Detector Template				Left	Thru		Left	Thru			Thru	
Leading Detector (ft)				20	100		20	100			100	
Trailing Detector (ft)				0	0		0	0			0	
Detector 1 Position(ft)				0	0		0	0			0	
Detector 1 Size(ft)				20	6		20	6			6	
Detector 1 Type				Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex			Cl+Ex	
Detector 1 Channel												
Detector 1 Extend (s)				0.0	0.0		0.0	0.0			0.0	
Detector 1 Queue (s)				0.0	0.0		0.0	0.0			0.0	
Detector 1 Delay (s)				0.0	0.0		0.0	0.0			0.0	
Detector 2 Position(ft)					94			94			94	
Detector 2 Size(ft)					6			6			6	
Detector 2 Type					Cl+Ex			Cl+Ex			Cl+Ex	
Detector 2 Channel												
Detector 2 Extend (s)					0.0			0.0			0.0	
Turn Type				Perm	NA		Split	NA			NA	
Protected Phases					8		2!	2			6!	
Permitted Phases				8								
Detector Phase				8	8		2	2			6	
Switch Phase												

Lane Group	Ø4
Lane Configurations	
Traffic Volume (vph)	
Future Volume (vph)	
Ideal Flow (vphpl)	
Lane Width (ft)	
Lane Util. Factor	
Frt	
Flt Protected	
Satd. Flow (prot)	
Flt Permitted	
Satd. Flow (perm)	
Right Turn on Red	
Satd. Flow (RTOR)	
Link Speed (mph)	
Link Distance (ft)	
Travel Time (s)	
Peak Hour Factor	
Adj. Flow (vph)	
Shared Lane Traffic (%)	
Lane Group Flow (vph)	
Enter Blocked Intersection	
Lane Alignment	
Median Width(ft)	
Link Offset(ft)	
Crosswalk Width(ft)	
Two way Left Turn Lane	
Headway Factor	
Turning Speed (mph)	
Number of Detectors	
Detector Template	
Leading Detector (ft)	
Trailing Detector (ft)	
Detector 1 Position(ft)	
Detector 1 Size(ft)	
Detector 1 Type	
Detector 1 Channel	
Detector 1 Extend (s)	
Detector 1 Queue (s)	
Detector 1 Delay (s)	
Detector 2 Position(ft)	
Detector 2 Size(ft)	
Detector 2 Type	
Detector 2 Channel	
Detector 2 Extend (s)	
Turn Type	
Protected Phases	4
Permitted Phases	
Detector Phase	
Switch Phase	

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Minimum Initial (s)				7.0	7.0		7.0	7.0			7.0	
Minimum Split (s)				22.5	22.5		22.5	22.5			22.5	
Total Split (s)				22.5	22.5		37.5	37.5			37.5	
Total Split (%)				37.5%	37.5%		62.5%	62.5%			62.5%	
Maximum Green (s)				18.0	18.0		33.0	33.0			33.0	
Yellow Time (s)				3.5	3.5		3.5	3.5			3.5	
All-Red Time (s)				1.0	1.0		1.0	1.0			1.0	
Lost Time Adjust (s)					0.0			0.0			0.0	
Total Lost Time (s)					4.5			4.5			4.5	
Lead/Lag												
Lead-Lag Optimize?												
Vehicle Extension (s)				3.0	3.0		3.0	3.0			3.0	
Recall Mode				None	None		Max	Max			Max	
Act Effct Green (s)					11.1			33.1			33.1	
Actuated g/C Ratio					0.21			0.62			0.62	
v/c Ratio					0.57			0.51			0.26	
Control Delay					21.4			4.9			4.5	
Queue Delay					0.0			0.1			0.0	
Total Delay					21.4			5.0			4.5	
LOS					C			A			A	
Approach Delay					21.4			5.0			4.5	
Approach LOS					C			A			A	

Intersection Summary			
Area Type:	Other		
Cycle Length: 60			
Actuated Cycle Length: 53.3			
Natural Cycle: 50			
Control Type: Semi Act-Uncoord			
Maximum v/c Ratio: 0.61			
Intersection Signal Delay: 8.6		Intersection LOS: A	
Intersection Capacity Utilization 68.0%		ICU Level of Service C	
Analysis Period (min) 15			
! Phase conflict between lane groups.			

Splits and Phases: 9: 24th St & I-35 SB Off-Ramp

Lane Group	Ø4
Minimum Initial (s)	7.0
Minimum Split (s)	22.5
Total Split (s)	22.5
Total Split (%)	38%
Maximum Green (s)	18.0
Yellow Time (s)	3.5
All-Red Time (s)	1.0
Lost Time Adjust (s)	
Total Lost Time (s)	
Lead/Lag	
Lead-Lag Optimize?	
Vehicle Extension (s)	3.0
Recall Mode	None
Act Effct Green (s)	
Actuated g/C Ratio	
v/c Ratio	
Control Delay	
Queue Delay	
Total Delay	
LOS	
Approach Delay	
Approach LOS	

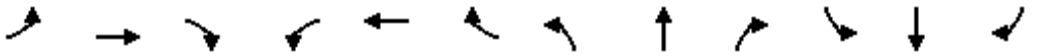
Intersection Summary

Lane Group	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Volume (vph)	124	140	133	126	112	123
Future Volume (vph)	124	140	133	126	112	123
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Storage Length (ft)		0	165		0	0
Storage Lanes		0	1		1	0
Taper Length (ft)			25		25	
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Frt	0.929				0.929	
Flt Protected			0.950		0.977	
Satd. Flow (prot)	1730	0	1770	1863	1691	0
Flt Permitted			0.486		0.977	
Satd. Flow (perm)	1730	0	905	1863	1691	0
Right Turn on Red		Yes				Yes
Satd. Flow (RTOR)	93				86	
Link Speed (mph)	35			35	35	
Link Distance (ft)	1077			256	581	
Travel Time (s)	21.0			5.0	11.3	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	135	152	145	137	122	134
Shared Lane Traffic (%)						
Lane Group Flow (vph)	287	0	145	137	256	0
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Right	Left	Left	Left	Right
Median Width(ft)	12			12	12	
Link Offset(ft)	0			0	0	
Crosswalk Width(ft)	16			16	16	
Two way Left Turn Lane						
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)		9	15		15	9
Number of Detectors	0		0	0	0	
Detector Template	Thru		Left	Thru	Left	
Leading Detector (ft)	0		0	0	0	
Trailing Detector (ft)	0		0	0	0	
Turn Type	NA		pm+pt	NA	Prot	
Protected Phases	2		1	2	4	
Permitted Phases			2			
Detector Phase	2		1	2	4	
Switch Phase						
Minimum Initial (s)	14.0		10.0	14.0	14.0	
Minimum Split (s)	18.7		15.0	18.7	19.0	
Total Split (s)	26.0		15.0	26.0	24.0	
Total Split (%)	40.0%		23.1%	40.0%	36.9%	
Maximum Green (s)	21.3		10.0	21.3	19.0	
Yellow Time (s)	3.6		3.0	3.6	3.0	
All-Red Time (s)	1.1		2.0	1.1	2.0	
Lost Time Adjust (s)	0.0		0.0	0.0	0.0	
Total Lost Time (s)	4.7		5.0	4.7	5.0	
Lead/Lag	Lag		Lead	Lag		

Lane Group	EBT	EBR	WBL	WBT	NBL	NBR
Lead-Lag Optimize?						
Vehicle Extension (s)	3.0		3.0	3.0	3.0	
Recall Mode	Max		Max	Max	Max	
Act Effct Green (s)	21.3		31.0	21.3	19.0	
Actuated g/C Ratio	0.33		0.48	0.33	0.29	
v/c Ratio	0.46		0.26	0.22	0.46	
Control Delay	14.2		8.6	17.1	15.4	
Queue Delay	0.0		0.0	0.0	0.0	
Total Delay	14.2		8.6	17.1	15.4	
LOS	B		A	B	B	
Approach Delay	14.2			12.7	15.4	
Approach LOS	B			B	B	

Intersection Summary			
Area Type:	Other		
Cycle Length: 65			
Actuated Cycle Length: 65			
Natural Cycle: 55			
Control Type: Actuated-Uncoordinated			
Maximum v/c Ratio: 0.46			
Intersection Signal Delay: 14.1		Intersection LOS: B	
Intersection Capacity Utilization 49.4%		ICU Level of Service A	
Analysis Period (min) 15			

Splits and Phases: 3: 24th St & Merriam Ln

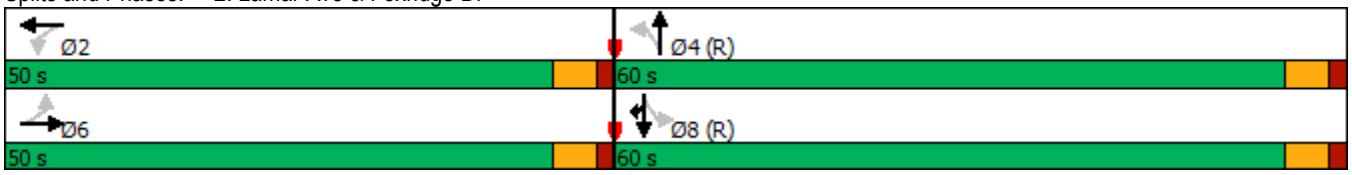


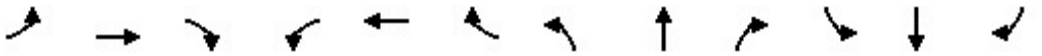
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	265	3	7	7	7	35	6	421	11	48	209	206
Future Volume (vph)	265	3	7	7	7	35	6	421	11	48	209	206
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	0		0	60		0	0		0	0		0
Storage Lanes	1		0	1		0	0		0	0		1
Taper Length (ft)	25			25			25			25		
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	0.95	0.95	0.95	1.00	1.00	1.00
Frt		0.891			0.876			0.996				0.850
Flt Protected	0.950			0.950				0.999			0.991	
Satd. Flow (prot)	1770	1660	0	1770	1632	0	0	3522	0	0	1846	1583
Flt Permitted	0.727			0.750				0.951			0.852	
Satd. Flow (perm)	1354	1660	0	1397	1632	0	0	3352	0	0	1587	1583
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		8			38			3				224
Link Speed (mph)		35			25			35			35	
Link Distance (ft)		362			218			374			353	
Travel Time (s)		7.1			5.9			7.3			6.9	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	288	3	8	8	8	38	7	458	12	52	227	224
Shared Lane Traffic (%)												
Lane Group Flow (vph)	288	11	0	8	46	0	0	477	0	0	279	224
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		12			12			0			0	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Number of Detectors	1	2		1	2		1	2		1	2	1
Detector Template	Left	Thru		Left	Thru		Left	Thru		Left	Thru	Right
Leading Detector (ft)	20	100		20	100		20	100		20	100	20
Trailing Detector (ft)	0	0		0	0		0	0		0	0	0
Detector 1 Position(ft)	0	0		0	0		0	0		0	0	0
Detector 1 Size(ft)	20	6		20	6		20	6		20	6	20
Detector 1 Type	Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex	Cl+Ex
Detector 1 Channel												
Detector 1 Extend (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	0.0
Detector 1 Queue (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	0.0
Detector 1 Delay (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	0.0
Detector 2 Position(ft)		94			94			94			94	
Detector 2 Size(ft)		6			6			6			6	
Detector 2 Type		Cl+Ex			Cl+Ex			Cl+Ex			Cl+Ex	
Detector 2 Channel												
Detector 2 Extend (s)		0.0			0.0			0.0			0.0	
Turn Type	Perm	NA		Perm	NA		Perm	NA		Perm	NA	Prot
Protected Phases		6			2			4			8	8
Permitted Phases	6			2			4			8		

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Detector Phase	6	6		2	2		4	4		8	8	8
Switch Phase												
Minimum Initial (s)	10.0	10.0		10.0	10.0		10.0	10.0		10.0	10.0	10.0
Minimum Split (s)	15.2	15.2		15.2	15.2		15.2	15.2		15.2	15.2	15.2
Total Split (s)	50.0	50.0		50.0	50.0		60.0	60.0		60.0	60.0	60.0
Total Split (%)	45.5%	45.5%		45.5%	45.5%		54.5%	54.5%		54.5%	54.5%	54.5%
Maximum Green (s)	44.8	44.8		44.8	44.8		54.8	54.8		54.8	54.8	54.8
Yellow Time (s)	3.6	3.6		3.6	3.6		3.6	3.6		3.6	3.6	3.6
All-Red Time (s)	1.6	1.6		1.6	1.6		1.6	1.6		1.6	1.6	1.6
Lost Time Adjust (s)	0.0	0.0		0.0	0.0			0.0			0.0	0.0
Total Lost Time (s)	5.2	5.2		5.2	5.2			5.2			5.2	5.2
Lead/Lag												
Lead-Lag Optimize?												
Vehicle Extension (s)	3.0	3.0		3.0	3.0		3.0	3.0		3.0	3.0	3.0
Recall Mode	None	None		Min	Min		C-Min	C-Min		C-Min	C-Min	C-Min
Act Effct Green (s)	29.3	29.3		29.3	29.3			70.3			70.3	70.3
Actuated g/C Ratio	0.27	0.27		0.27	0.27			0.64			0.64	0.64
v/c Ratio	0.80	0.02		0.02	0.10			0.22			0.28	0.20
Control Delay	53.6	15.7		25.3	10.5			9.6			10.9	2.0
Queue Delay	0.0	0.0		0.0	0.0			0.0			0.0	0.0
Total Delay	53.6	15.7		25.3	10.5			9.6			10.9	2.0
LOS	D	B		C	B			A			B	A
Approach Delay		52.2			12.7			9.6			7.0	
Approach LOS		D			B			A			A	

Intersection Summary			
Area Type:	Other		
Cycle Length: 110			
Actuated Cycle Length: 110			
Offset: 0 (0%), Referenced to phase 4:NBTL and 8:SBTL, Start of Green			
Natural Cycle: 40			
Control Type: Actuated-Coordinated			
Maximum v/c Ratio: 0.80			
Intersection Signal Delay: 18.3		Intersection LOS: B	
Intersection Capacity Utilization 60.2%		ICU Level of Service B	
Analysis Period (min) 15			

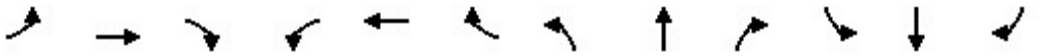
Splits and Phases: 2: Lamar Ave & Foxridge Dr





Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	99	0	195	0	0	0	0	421	300	63	268	0
Future Volume (vph)	99	0	195	0	0	0	0	421	300	63	268	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	16	12	16	16	16	12	12	12	12	12	12
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Frt		0.911							0.850			
Flt Protected		0.983									0.991	
Satd. Flow (prot)	0	1891	0	0	0	0	0	1863	1583	0	1846	0
Flt Permitted		0.983									0.991	
Satd. Flow (perm)	0	1891	0	0	0	0	0	1863	1583	0	1846	0
Link Speed (mph)		35			35			35			35	
Link Distance (ft)		2302			750			353			299	
Travel Time (s)		44.8			14.6			6.9			5.8	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	108	0	212	0	0	0	0	458	326	68	291	0
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	320	0	0	0	0	0	458	326	0	359	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		0			0			0			0	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.00	0.85	1.00	0.85	0.85	0.85	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Sign Control		Stop			Free			Free			Free	

Intersection Summary			
Area Type:	Other		
Control Type: Unsignalized			
Intersection Capacity Utilization 67.2%		ICU Level of Service C	
Analysis Period (min) 15			



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	0	0	0	163	0	68	353	167	0	0	168	105
Future Volume (vph)	0	0	0	163	0	68	353	167	0	0	168	105
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	16	16	16	12	16	12	12	12	12	12	12	12
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Frt					0.960						0.948	
Flt Protected					0.966			0.967				
Satd. Flow (prot)	0	0	0	0	1958	0	0	1801	0	0	1766	0
Flt Permitted					0.966			0.967				
Satd. Flow (perm)	0	0	0	0	1958	0	0	1801	0	0	1766	0
Link Speed (mph)		35			35			35			35	
Link Distance (ft)		755			1614			299			328	
Travel Time (s)		14.7			31.4			5.8			6.4	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	0	0	0	177	0	74	384	182	0	0	183	114
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	0	0	0	251	0	0	566	0	0	297	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		0			0			0			0	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	0.85	0.85	0.85	1.00	0.85	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Sign Control		Free			Stop			Free			Free	

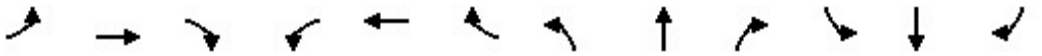
Intersection Summary			
Area Type:	Other		
Control Type: Unsignalized			
Intersection Capacity Utilization 66.8%		ICU Level of Service C	
Analysis Period (min) 15			

Lane Group	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Volume (vph)	124	140	133	126	112	123
Future Volume (vph)	124	140	133	126	112	123
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Storage Length (ft)		0	165		0	0
Storage Lanes		0	1		1	0
Taper Length (ft)			25		25	
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Frt	0.929				0.929	
Flt Protected			0.950		0.977	
Satd. Flow (prot)	1730	0	1770	1863	1691	0
Flt Permitted			0.486		0.977	
Satd. Flow (perm)	1730	0	905	1863	1691	0
Right Turn on Red		Yes				Yes
Satd. Flow (RTOR)	93				86	
Link Speed (mph)	35			35	35	
Link Distance (ft)	1077			256	581	
Travel Time (s)	21.0			5.0	11.3	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	135	152	145	137	122	134
Shared Lane Traffic (%)						
Lane Group Flow (vph)	287	0	145	137	256	0
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Right	Left	Left	Left	Right
Median Width(ft)	12			12	12	
Link Offset(ft)	0			0	0	
Crosswalk Width(ft)	16			16	16	
Two way Left Turn Lane						
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)		9	15		15	9
Number of Detectors	0		0	0	0	
Detector Template	Thru		Left	Thru	Left	
Leading Detector (ft)	0		0	0	0	
Trailing Detector (ft)	0		0	0	0	
Turn Type	NA		pm+pt	NA	Prot	
Protected Phases	2		1	2	4	
Permitted Phases			2			
Detector Phase	2		1	2	4	
Switch Phase						
Minimum Initial (s)	14.0		10.0	14.0	14.0	
Minimum Split (s)	18.7		15.0	18.7	19.0	
Total Split (s)	26.0		15.0	26.0	24.0	
Total Split (%)	40.0%		23.1%	40.0%	36.9%	
Maximum Green (s)	21.3		10.0	21.3	19.0	
Yellow Time (s)	3.6		3.0	3.6	3.0	
All-Red Time (s)	1.1		2.0	1.1	2.0	
Lost Time Adjust (s)	0.0		0.0	0.0	0.0	
Total Lost Time (s)	4.7		5.0	4.7	5.0	
Lead/Lag	Lag		Lead	Lag		

Lane Group	EBT	EBR	WBL	WBT	NBL	NBR
Lead-Lag Optimize?						
Vehicle Extension (s)	3.0		3.0	3.0	3.0	
Recall Mode	Max		Max	Max	Max	
Act Effct Green (s)	21.3		31.0	21.3	19.0	
Actuated g/C Ratio	0.33		0.48	0.33	0.29	
v/c Ratio	0.46		0.26	0.22	0.46	
Control Delay	14.2		8.6	17.1	15.4	
Queue Delay	0.0		0.0	0.0	0.0	
Total Delay	14.2		8.6	17.1	15.4	
LOS	B		A	B	B	
Approach Delay	14.2			12.7	15.4	
Approach LOS	B			B	B	

Intersection Summary			
Area Type:	Other		
Cycle Length: 65			
Actuated Cycle Length: 65			
Natural Cycle: 55			
Control Type: Actuated-Uncoordinated			
Maximum v/c Ratio: 0.46			
Intersection Signal Delay: 14.1		Intersection LOS: B	
Intersection Capacity Utilization 49.4%		ICU Level of Service A	
Analysis Period (min) 15			

Splits and Phases: 3: 24th St & Merriam Ln

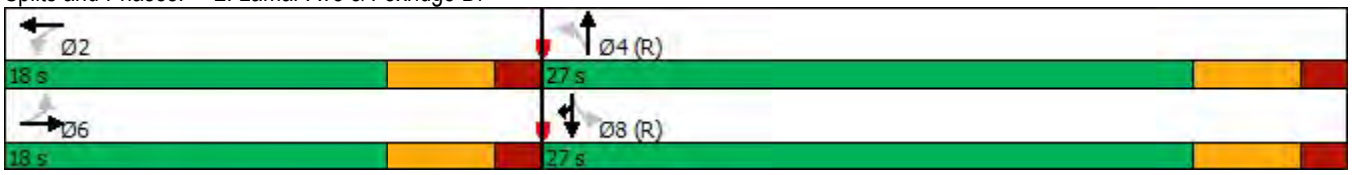


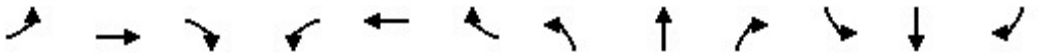
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	254	7	7	3	3	29	3	333	9	66	129	191
Future Volume (vph)	254	7	7	3	3	29	3	333	9	66	129	191
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	0		0	60		0	0		0	0		0
Storage Lanes	1		0	1		0	0		0	0		1
Taper Length (ft)	25			25			25			25		
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	0.95	0.95	0.95	1.00	1.00	1.00
Frt		0.925			0.863			0.996				0.850
Flt Protected	0.950			0.950							0.983	
Satd. Flow (prot)	1770	1723	0	1770	1608	0	0	3525	0	0	1831	1583
Flt Permitted	0.734			0.747				0.953			0.786	
Satd. Flow (perm)	1367	1723	0	1391	1608	0	0	3359	0	0	1464	1583
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		8			32			8				208
Link Speed (mph)		35			25			35			35	
Link Distance (ft)		362			218			374			353	
Travel Time (s)		7.1			5.9			7.3			6.9	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	276	8	8	3	3	32	3	362	10	72	140	208
Shared Lane Traffic (%)												
Lane Group Flow (vph)	276	16	0	3	35	0	0	375	0	0	212	208
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		12			12			0			0	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Number of Detectors	1	2		1	2		1	2		1	2	1
Detector Template	Left	Thru		Left	Thru		Left	Thru		Left	Thru	Right
Leading Detector (ft)	20	100		20	100		20	100		20	100	20
Trailing Detector (ft)	0	0		0	0		0	0		0	0	0
Detector 1 Position(ft)	0	0		0	0		0	0		0	0	0
Detector 1 Size(ft)	20	6		20	6		20	6		20	6	20
Detector 1 Type	Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex	Cl+Ex
Detector 1 Channel												
Detector 1 Extend (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	0.0
Detector 1 Queue (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	0.0
Detector 1 Delay (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	0.0
Detector 2 Position(ft)		94			94			94			94	
Detector 2 Size(ft)		6			6			6			6	
Detector 2 Type		Cl+Ex			Cl+Ex			Cl+Ex			Cl+Ex	
Detector 2 Channel												
Detector 2 Extend (s)		0.0			0.0			0.0			0.0	
Turn Type	Perm	NA		Perm	NA		Perm	NA		Perm	NA	Prot
Protected Phases		6			2			4			8	8
Permitted Phases	6			2			4			8		

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Detector Phase	6	6		2	2		4	4		8	8	8
Switch Phase												
Minimum Initial (s)	10.0	10.0		10.0	10.0		10.0	10.0		10.0	10.0	10.0
Minimum Split (s)	15.2	15.2		15.2	15.2		15.2	15.2		15.2	15.2	15.2
Total Split (s)	18.0	18.0		18.0	18.0		27.0	27.0		27.0	27.0	27.0
Total Split (%)	40.0%	40.0%		40.0%	40.0%		60.0%	60.0%		60.0%	60.0%	60.0%
Maximum Green (s)	12.8	12.8		12.8	12.8		21.8	21.8		21.8	21.8	21.8
Yellow Time (s)	3.6	3.6		3.6	3.6		3.6	3.6		3.6	3.6	3.6
All-Red Time (s)	1.6	1.6		1.6	1.6		1.6	1.6		1.6	1.6	1.6
Lost Time Adjust (s)	0.0	0.0		0.0	0.0			0.0			0.0	0.0
Total Lost Time (s)	5.2	5.2		5.2	5.2			5.2			5.2	5.2
Lead/Lag												
Lead-Lag Optimize?												
Vehicle Extension (s)	3.0	3.0		3.0	3.0		3.0	3.0		3.0	3.0	3.0
Recall Mode	None	None		Min	Min		C-Min	C-Min		C-Min	C-Min	C-Min
Act Effct Green (s)	13.9	13.9		13.9	13.9			20.7			20.7	20.7
Actuated g/C Ratio	0.31	0.31		0.31	0.31			0.46			0.46	0.46
v/c Ratio	0.65	0.03		0.01	0.07			0.24			0.32	0.25
Control Delay	21.0	7.5		9.3	5.0			8.4			10.3	2.7
Queue Delay	0.0	0.0		0.0	0.0			0.0			0.0	0.0
Total Delay	21.0	7.5		9.3	5.0			8.4			10.3	2.7
LOS	C	A		A	A			A			B	A
Approach Delay		20.3			5.4			8.4			6.5	
Approach LOS		C			A			A			A	

Intersection Summary			
Area Type:	Other		
Cycle Length: 45			
Actuated Cycle Length: 45			
Offset: 0 (0%), Referenced to phase 4:NBTL and 8:SBTL, Start of Green			
Natural Cycle: 40			
Control Type: Actuated-Coordinated			
Maximum v/c Ratio: 0.65			
Intersection Signal Delay: 10.7		Intersection LOS: B	
Intersection Capacity Utilization 53.8%		ICU Level of Service A	
Analysis Period (min) 15			

Splits and Phases: 2: Lamar Ave & Foxridge Dr





Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	96	0	162	0	0	0	0	358	258	47	224	0
Future Volume (vph)	96	0	162	0	0	0	0	358	258	47	224	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	16	12	16	16	16	12	12	12	12	12	12
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Frt		0.915							0.850			
Flt Protected		0.982									0.991	
Satd. Flow (prot)	0	1897	0	0	0	0	0	1863	1583	0	1846	0
Flt Permitted		0.982									0.991	
Satd. Flow (perm)	0	1897	0	0	0	0	0	1863	1583	0	1846	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		176							280			
Link Speed (mph)		35			35			35			35	
Link Distance (ft)		2302			750			353			299	
Travel Time (s)		44.8			14.6			6.9			5.8	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	104	0	176	0	0	0	0	389	280	51	243	0
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	280	0	0	0	0	0	389	280	0	294	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		0			0			0			0	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.00	0.85	1.00	0.85	0.85	0.85	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Number of Detectors	1	2						2	1	1	2	
Detector Template	Left	Thru						Thru	Right	Left	Thru	
Leading Detector (ft)	20	100						100	20	20	100	
Trailing Detector (ft)	0	0						0	0	0	0	
Detector 1 Position(ft)	0	0						0	0	0	0	
Detector 1 Size(ft)	20	6						6	20	20	6	
Detector 1 Type	Cl+Ex	Cl+Ex						Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	
Detector 1 Channel												
Detector 1 Extend (s)	0.0	0.0						0.0	0.0	0.0	0.0	
Detector 1 Queue (s)	0.0	0.0						0.0	0.0	0.0	0.0	
Detector 1 Delay (s)	0.0	0.0						0.0	0.0	0.0	0.0	
Detector 2 Position(ft)		94						94			94	
Detector 2 Size(ft)		6						6			6	
Detector 2 Type		Cl+Ex						Cl+Ex			Cl+Ex	
Detector 2 Channel												
Detector 2 Extend (s)		0.0						0.0			0.0	
Turn Type	Perm	NA						NA	Perm	Split	NA	
Protected Phases		4						2!		6!	6	
Permitted Phases	4								2			
Detector Phase	4	4						2	2	6	6	
Switch Phase												

Lane Group	Ø8
Lane Configurations	
Traffic Volume (vph)	
Future Volume (vph)	
Ideal Flow (vphpl)	
Lane Width (ft)	
Lane Util. Factor	
Frt	
Flt Protected	
Satd. Flow (prot)	
Flt Permitted	
Satd. Flow (perm)	
Right Turn on Red	
Satd. Flow (RTOR)	
Link Speed (mph)	
Link Distance (ft)	
Travel Time (s)	
Peak Hour Factor	
Adj. Flow (vph)	
Shared Lane Traffic (%)	
Lane Group Flow (vph)	
Enter Blocked Intersection	
Lane Alignment	
Median Width(ft)	
Link Offset(ft)	
Crosswalk Width(ft)	
Two way Left Turn Lane	
Headway Factor	
Turning Speed (mph)	
Number of Detectors	
Detector Template	
Leading Detector (ft)	
Trailing Detector (ft)	
Detector 1 Position(ft)	
Detector 1 Size(ft)	
Detector 1 Type	
Detector 1 Channel	
Detector 1 Extend (s)	
Detector 1 Queue (s)	
Detector 1 Delay (s)	
Detector 2 Position(ft)	
Detector 2 Size(ft)	
Detector 2 Type	
Detector 2 Channel	
Detector 2 Extend (s)	
Turn Type	
Protected Phases	8
Permitted Phases	
Detector Phase	
Switch Phase	

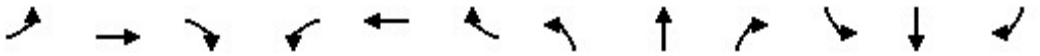
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Minimum Initial (s)	7.0	7.0						7.0	7.0	7.0	7.0	
Minimum Split (s)	22.5	22.5						22.5	22.5	22.5	22.5	
Total Split (s)	23.0	23.0						27.0	27.0	27.0	27.0	
Total Split (%)	46.0%	46.0%						54.0%	54.0%	54.0%	54.0%	
Maximum Green (s)	18.5	18.5						22.5	22.5	22.5	22.5	
Yellow Time (s)	3.5	3.5						3.5	3.5	3.5	3.5	
All-Red Time (s)	1.0	1.0						1.0	1.0	1.0	1.0	
Lost Time Adjust (s)		0.0						0.0	0.0		0.0	
Total Lost Time (s)		4.5						4.5	4.5		4.5	
Lead/Lag												
Lead-Lag Optimize?												
Vehicle Extension (s)	3.0	3.0						3.0	3.0	3.0	3.0	
Recall Mode	None	None						Max	Max	Max	Max	
Act Effct Green (s)		9.2						22.5	22.5		22.5	
Actuated g/C Ratio		0.23						0.55	0.55		0.55	
v/c Ratio		0.50						0.38	0.28		0.29	
Control Delay		8.9						7.1	1.9		6.2	
Queue Delay		0.0						0.0	0.0		0.0	
Total Delay		8.9						7.1	1.9		6.2	
LOS		A						A	A		A	
Approach Delay		8.9						4.9			6.2	
Approach LOS		A						A			A	

Intersection Summary			
Area Type:	Other		
Cycle Length: 50			
Actuated Cycle Length: 40.8			
Natural Cycle: 45			
Control Type: Semi Act-Uncoord			
Maximum v/c Ratio: 0.50			
Intersection Signal Delay: 6.1		Intersection LOS: A	
Intersection Capacity Utilization 59.8%		ICU Level of Service B	
Analysis Period (min) 15			
! Phase conflict between lane groups.			

Splits and Phases: 7: I-35 NB On-Ramp & 24th St

Lane Group	Ø8
Minimum Initial (s)	7.0
Minimum Split (s)	22.5
Total Split (s)	23.0
Total Split (%)	46%
Maximum Green (s)	18.5
Yellow Time (s)	3.5
All-Red Time (s)	1.0
Lost Time Adjust (s)	
Total Lost Time (s)	
Lead/Lag	
Lead-Lag Optimize?	
Vehicle Extension (s)	3.0
Recall Mode	None
Act Effct Green (s)	
Actuated g/C Ratio	
v/c Ratio	
Control Delay	
Queue Delay	
Total Delay	
LOS	
Approach Delay	
Approach LOS	

Intersection Summary



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	0	0	0	134	0	95	312	142	0	0	137	81
Future Volume (vph)	0	0	0	134	0	95	312	142	0	0	137	81
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	16	16	16	12	16	12	12	12	12	12	12	12
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Frt					0.944						0.950	
Flt Protected					0.972			0.967				
Satd. Flow (prot)	0	0	0	0	1937	0	0	1801	0	0	1770	0
Flt Permitted					0.972			0.967				
Satd. Flow (perm)	0	0	0	0	1937	0	0	1801	0	0	1770	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)					81						77	
Link Speed (mph)		35			35			35			35	
Link Distance (ft)		755			1614			299			328	
Travel Time (s)		14.7			31.4			5.8			6.4	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	0	0	0	146	0	103	339	154	0	0	149	88
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	0	0	0	249	0	0	493	0	0	237	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		0			0			0			0	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	0.85	0.85	0.85	1.00	0.85	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Number of Detectors				1	2		1	2			2	
Detector Template				Left	Thru		Left	Thru			Thru	
Leading Detector (ft)				20	100		20	100			100	
Trailing Detector (ft)				0	0		0	0			0	
Detector 1 Position(ft)				0	0		0	0			0	
Detector 1 Size(ft)				20	6		20	6			6	
Detector 1 Type				Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex			Cl+Ex	
Detector 1 Channel												
Detector 1 Extend (s)				0.0	0.0		0.0	0.0			0.0	
Detector 1 Queue (s)				0.0	0.0		0.0	0.0			0.0	
Detector 1 Delay (s)				0.0	0.0		0.0	0.0			0.0	
Detector 2 Position(ft)					94			94			94	
Detector 2 Size(ft)					6			6			6	
Detector 2 Type					Cl+Ex			Cl+Ex			Cl+Ex	
Detector 2 Channel												
Detector 2 Extend (s)					0.0			0.0			0.0	
Turn Type				Perm	NA		Split	NA			NA	
Protected Phases					8		2!	2			6!	
Permitted Phases				8								
Detector Phase				8	8		2	2			6	
Switch Phase												

Lane Group	Ø4
Lane Configurations	
Traffic Volume (vph)	
Future Volume (vph)	
Ideal Flow (vphpl)	
Lane Width (ft)	
Lane Util. Factor	
Frt	
Flt Protected	
Satd. Flow (prot)	
Flt Permitted	
Satd. Flow (perm)	
Right Turn on Red	
Satd. Flow (RTOR)	
Link Speed (mph)	
Link Distance (ft)	
Travel Time (s)	
Peak Hour Factor	
Adj. Flow (vph)	
Shared Lane Traffic (%)	
Lane Group Flow (vph)	
Enter Blocked Intersection	
Lane Alignment	
Median Width(ft)	
Link Offset(ft)	
Crosswalk Width(ft)	
Two way Left Turn Lane	
Headway Factor	
Turning Speed (mph)	
Number of Detectors	
Detector Template	
Leading Detector (ft)	
Trailing Detector (ft)	
Detector 1 Position(ft)	
Detector 1 Size(ft)	
Detector 1 Type	
Detector 1 Channel	
Detector 1 Extend (s)	
Detector 1 Queue (s)	
Detector 1 Delay (s)	
Detector 2 Position(ft)	
Detector 2 Size(ft)	
Detector 2 Type	
Detector 2 Channel	
Detector 2 Extend (s)	
Turn Type	
Protected Phases	4
Permitted Phases	
Detector Phase	
Switch Phase	

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Minimum Initial (s)				7.0	7.0		7.0	7.0			7.0	
Minimum Split (s)				22.5	22.5		22.5	22.5			22.5	
Total Split (s)				23.0	23.0		27.0	27.0			27.0	
Total Split (%)				46.0%	46.0%		54.0%	54.0%			54.0%	
Maximum Green (s)				18.5	18.5		22.5	22.5			22.5	
Yellow Time (s)				3.5	3.5		3.5	3.5			3.5	
All-Red Time (s)				1.0	1.0		1.0	1.0			1.0	
Lost Time Adjust (s)					0.0			0.0			0.0	
Total Lost Time (s)					4.5			4.5			4.5	
Lead/Lag												
Lead-Lag Optimize?												
Vehicle Extension (s)				3.0	3.0		3.0	3.0			3.0	
Recall Mode				None	None		Max	Max			Max	
Act Effct Green (s)					9.2			22.5			22.5	
Actuated g/C Ratio					0.23			0.55			0.55	
v/c Ratio					0.50			0.50			0.23	
Control Delay					12.9			5.1			4.4	
Queue Delay					0.0			0.1			0.0	
Total Delay					12.9			5.2			4.4	
LOS					B			A			A	
Approach Delay					12.9			5.2			4.4	
Approach LOS					B			A			A	

Intersection Summary			
Area Type:	Other		
Cycle Length: 50			
Actuated Cycle Length: 40.8			
Natural Cycle: 45			
Control Type: Semi Act-Uncoord			
Maximum v/c Ratio: 0.50			
Intersection Signal Delay: 7.0		Intersection LOS: A	
Intersection Capacity Utilization 61.4%		ICU Level of Service B	
Analysis Period (min) 15			
! Phase conflict between lane groups.			

Splits and Phases: 9: 24th St & I-35 SB Off-Ramp

Lane Group	Ø4
Minimum Initial (s)	7.0
Minimum Split (s)	22.5
Total Split (s)	23.0
Total Split (%)	46%
Maximum Green (s)	18.5
Yellow Time (s)	3.5
All-Red Time (s)	1.0
Lost Time Adjust (s)	
Total Lost Time (s)	
Lead/Lag	
Lead-Lag Optimize?	
Vehicle Extension (s)	3.0
Recall Mode	None
Act Effct Green (s)	
Actuated g/C Ratio	
v/c Ratio	
Control Delay	
Queue Delay	
Total Delay	
LOS	
Approach Delay	
Approach LOS	

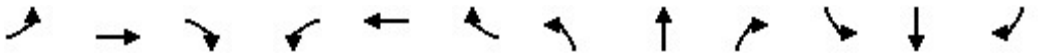
Intersection Summary

Lane Group	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Volume (vph)	92	115	103	103	111	126
Future Volume (vph)	92	115	103	103	111	126
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Storage Length (ft)		0	165		0	0
Storage Lanes		0	1		1	0
Taper Length (ft)			25		25	
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Frt	0.925				0.928	
Flt Protected			0.950		0.977	
Satd. Flow (prot)	1723	0	1770	1863	1689	0
Flt Permitted			0.573		0.977	
Satd. Flow (perm)	1723	0	1067	1863	1689	0
Right Turn on Red		Yes				Yes
Satd. Flow (RTOR)	103				89	
Link Speed (mph)	35			35	35	
Link Distance (ft)	1077			256	581	
Travel Time (s)	21.0			5.0	11.3	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	100	125	112	112	121	137
Shared Lane Traffic (%)						
Lane Group Flow (vph)	225	0	112	112	258	0
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Right	Left	Left	Left	Right
Median Width(ft)	12			12	12	
Link Offset(ft)	0			0	0	
Crosswalk Width(ft)	16			16	16	
Two way Left Turn Lane						
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)		9	15		15	9
Number of Detectors	0		0	0	0	
Detector Template	Thru		Left	Thru	Left	
Leading Detector (ft)	0		0	0	0	
Trailing Detector (ft)	0		0	0	0	
Turn Type	NA		pm+pt	NA	Prot	
Protected Phases	2		1	2	4	
Permitted Phases			2			
Detector Phase	2		1	2	4	
Switch Phase						
Minimum Initial (s)	14.0		10.0	14.0	14.0	
Minimum Split (s)	18.7		15.0	18.7	19.0	
Total Split (s)	26.0		15.0	26.0	24.0	
Total Split (%)	40.0%		23.1%	40.0%	36.9%	
Maximum Green (s)	21.3		10.0	21.3	19.0	
Yellow Time (s)	3.6		3.0	3.6	3.0	
All-Red Time (s)	1.1		2.0	1.1	2.0	
Lost Time Adjust (s)	0.0		0.0	0.0	0.0	
Total Lost Time (s)	4.7		5.0	4.7	5.0	
Lead/Lag	Lag		Lead	Lag		

Lane Group	EBT	EBR	WBL	WBT	NBL	NBR
Lead-Lag Optimize?						
Vehicle Extension (s)	3.0		3.0	3.0	3.0	
Recall Mode	Max		Max	Max	Max	
Act Effct Green (s)	21.3		31.0	21.3	19.0	
Actuated g/C Ratio	0.33		0.48	0.33	0.29	
v/c Ratio	0.36		0.18	0.18	0.46	
Control Delay	10.9		8.0	16.7	15.3	
Queue Delay	0.0		0.0	0.0	0.0	
Total Delay	10.9		8.0	16.7	15.3	
LOS	B		A	B	B	
Approach Delay	10.9			12.3	15.3	
Approach LOS	B			B	B	

Intersection Summary			
Area Type:	Other		
Cycle Length: 65			
Actuated Cycle Length: 65			
Natural Cycle: 55			
Control Type: Actuated-Uncoordinated			
Maximum v/c Ratio: 0.46			
Intersection Signal Delay: 13.0		Intersection LOS: B	
Intersection Capacity Utilization 46.3%		ICU Level of Service A	
Analysis Period (min) 15			

Splits and Phases: 3: 24th St & Merriam Ln

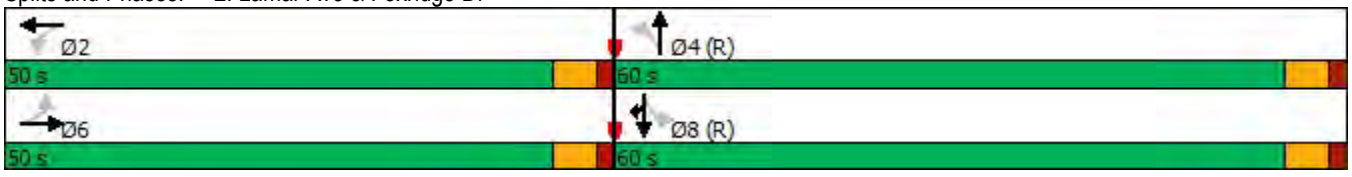


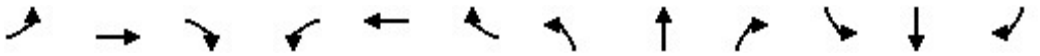
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	254	7	7	3	3	29	3	333	9	66	129	191
Future Volume (vph)	254	7	7	3	3	29	3	333	9	66	129	191
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	0		0	60		0	0		0	0		0
Storage Lanes	1		0	1		0	0		0	0		1
Taper Length (ft)	25			25			25			25		
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	0.95	0.95	0.95	1.00	1.00	1.00
Frt		0.925			0.863			0.996				0.850
Flt Protected	0.950			0.950							0.983	
Satd. Flow (prot)	1770	1723	0	1770	1608	0	0	3525	0	0	1831	1583
Flt Permitted	0.734			0.747				0.954			0.779	
Satd. Flow (perm)	1367	1723	0	1391	1608	0	0	3363	0	0	1451	1583
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		8			32			3				208
Link Speed (mph)		35			25			35			35	
Link Distance (ft)		362			218			374			353	
Travel Time (s)		7.1			5.9			7.3			6.9	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	276	8	8	3	3	32	3	362	10	72	140	208
Shared Lane Traffic (%)												
Lane Group Flow (vph)	276	16	0	3	35	0	0	375	0	0	212	208
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		12			12			0			0	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Number of Detectors	1	2		1	2		1	2		1	2	1
Detector Template	Left	Thru		Left	Thru		Left	Thru		Left	Thru	Right
Leading Detector (ft)	20	100		20	100		20	100		20	100	20
Trailing Detector (ft)	0	0		0	0		0	0		0	0	0
Detector 1 Position(ft)	0	0		0	0		0	0		0	0	0
Detector 1 Size(ft)	20	6		20	6		20	6		20	6	20
Detector 1 Type	Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex	Cl+Ex
Detector 1 Channel												
Detector 1 Extend (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	0.0
Detector 1 Queue (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	0.0
Detector 1 Delay (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	0.0
Detector 2 Position(ft)		94			94			94			94	
Detector 2 Size(ft)		6			6			6			6	
Detector 2 Type		Cl+Ex			Cl+Ex			Cl+Ex			Cl+Ex	
Detector 2 Channel												
Detector 2 Extend (s)		0.0			0.0			0.0			0.0	
Turn Type	Perm	NA		Perm	NA		Perm	NA		Perm	NA	Prot
Protected Phases		6			2			4			8	8
Permitted Phases	6			2			4			8		

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Detector Phase	6	6		2	2		4	4		8	8	8
Switch Phase												
Minimum Initial (s)	10.0	10.0		10.0	10.0		10.0	10.0		10.0	10.0	10.0
Minimum Split (s)	15.2	15.2		15.2	15.2		15.2	15.2		15.2	15.2	15.2
Total Split (s)	50.0	50.0		50.0	50.0		60.0	60.0		60.0	60.0	60.0
Total Split (%)	45.5%	45.5%		45.5%	45.5%		54.5%	54.5%		54.5%	54.5%	54.5%
Maximum Green (s)	44.8	44.8		44.8	44.8		54.8	54.8		54.8	54.8	54.8
Yellow Time (s)	3.6	3.6		3.6	3.6		3.6	3.6		3.6	3.6	3.6
All-Red Time (s)	1.6	1.6		1.6	1.6		1.6	1.6		1.6	1.6	1.6
Lost Time Adjust (s)	0.0	0.0		0.0	0.0			0.0			0.0	0.0
Total Lost Time (s)	5.2	5.2		5.2	5.2			5.2			5.2	5.2
Lead/Lag												
Lead-Lag Optimize?												
Vehicle Extension (s)	3.0	3.0		3.0	3.0		3.0	3.0		3.0	3.0	3.0
Recall Mode	None	None		Min	Min		C-Min	C-Min		C-Min	C-Min	C-Min
Act Effct Green (s)	28.1	28.1		28.1	28.1			71.5			71.5	71.5
Actuated g/C Ratio	0.26	0.26		0.26	0.26			0.65			0.65	0.65
v/c Ratio	0.79	0.04		0.01	0.08			0.17			0.22	0.19
Control Delay	53.8	18.3		25.7	10.2			8.8			10.0	1.9
Queue Delay	0.0	0.0		0.0	0.0			0.0			0.0	0.0
Total Delay	53.8	18.3		25.7	10.2			8.8			10.0	1.9
LOS	D	B		C	B			A			B	A
Approach Delay		51.8			11.4			8.8			6.0	
Approach LOS		D			B			A			A	

Intersection Summary			
Area Type:	Other		
Cycle Length: 110			
Actuated Cycle Length: 110			
Offset: 0 (0%), Referenced to phase 4:NBTL and 8:SBTL, Start of Green			
Natural Cycle: 40			
Control Type: Actuated-Coordinated			
Maximum v/c Ratio: 0.79			
Intersection Signal Delay: 19.0		Intersection LOS: B	
Intersection Capacity Utilization 53.8%		ICU Level of Service A	
Analysis Period (min) 15			

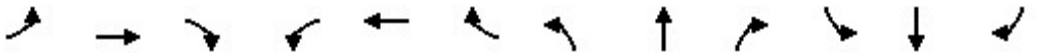
Splits and Phases: 2: Lamar Ave & Foxridge Dr





Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	96	0	162	0	0	0	0	358	258	47	224	0
Future Volume (vph)	96	0	162	0	0	0	0	358	258	47	224	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	16	12	16	16	16	12	12	12	12	12	12
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Frt		0.915							0.850			
Flt Protected		0.982									0.991	
Satd. Flow (prot)	0	1897	0	0	0	0	0	1863	1583	0	1846	0
Flt Permitted		0.982									0.991	
Satd. Flow (perm)	0	1897	0	0	0	0	0	1863	1583	0	1846	0
Link Speed (mph)		35			35			35			35	
Link Distance (ft)		2302			750			353			299	
Travel Time (s)		44.8			14.6			6.9			5.8	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	104	0	176	0	0	0	0	389	280	51	243	0
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	280	0	0	0	0	0	389	280	0	294	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		0			0			0			0	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.00	0.85	1.00	0.85	0.85	0.85	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Sign Control		Stop			Free			Free			Free	

Intersection Summary			
Area Type:	Other		
Control Type: Unsignalized			
Intersection Capacity Utilization 58.5%		ICU Level of Service B	
Analysis Period (min) 15			



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	0	0	0	134	0	95	312	142	0	0	137	81
Future Volume (vph)	0	0	0	134	0	95	312	142	0	0	137	81
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	16	16	16	12	16	12	12	12	12	12	12	12
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Frt					0.944						0.950	
Flt Protected					0.972			0.967				
Satd. Flow (prot)	0	0	0	0	1937	0	0	1801	0	0	1770	0
Flt Permitted					0.972			0.967				
Satd. Flow (perm)	0	0	0	0	1937	0	0	1801	0	0	1770	0
Link Speed (mph)		35			35			35			35	
Link Distance (ft)		755			1614			299			328	
Travel Time (s)		14.7			31.4			5.8			6.4	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	0	0	0	146	0	103	339	154	0	0	149	88
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	0	0	0	249	0	0	493	0	0	237	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		0			0			0			0	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	0.85	0.85	0.85	1.00	0.85	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Sign Control		Free			Stop			Free			Free	

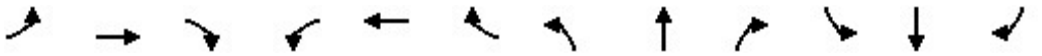
Intersection Summary			
Area Type:	Other		
Control Type: Unsignalized			
Intersection Capacity Utilization 60.1%		ICU Level of Service B	
Analysis Period (min) 15			

Lane Group	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Volume (vph)	92	115	103	103	111	126
Future Volume (vph)	92	115	103	103	111	126
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Storage Length (ft)		0	165		0	0
Storage Lanes		0	1		1	0
Taper Length (ft)			25		25	
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Frt	0.925				0.928	
Flt Protected			0.950		0.977	
Satd. Flow (prot)	1723	0	1770	1863	1689	0
Flt Permitted			0.573		0.977	
Satd. Flow (perm)	1723	0	1067	1863	1689	0
Right Turn on Red		Yes				Yes
Satd. Flow (RTOR)	103				89	
Link Speed (mph)	35			35	35	
Link Distance (ft)	1077			256	581	
Travel Time (s)	21.0			5.0	11.3	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	100	125	112	112	121	137
Shared Lane Traffic (%)						
Lane Group Flow (vph)	225	0	112	112	258	0
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Right	Left	Left	Left	Right
Median Width(ft)	12			12	12	
Link Offset(ft)	0			0	0	
Crosswalk Width(ft)	16			16	16	
Two way Left Turn Lane						
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)		9	15		15	9
Number of Detectors	0		0	0	0	
Detector Template	Thru		Left	Thru	Left	
Leading Detector (ft)	0		0	0	0	
Trailing Detector (ft)	0		0	0	0	
Turn Type	NA		pm+pt	NA	Prot	
Protected Phases	2		1	2	4	
Permitted Phases			2			
Detector Phase	2		1	2	4	
Switch Phase						
Minimum Initial (s)	14.0		10.0	14.0	14.0	
Minimum Split (s)	18.7		15.0	18.7	19.0	
Total Split (s)	26.0		15.0	26.0	24.0	
Total Split (%)	40.0%		23.1%	40.0%	36.9%	
Maximum Green (s)	21.3		10.0	21.3	19.0	
Yellow Time (s)	3.6		3.0	3.6	3.0	
All-Red Time (s)	1.1		2.0	1.1	2.0	
Lost Time Adjust (s)	0.0		0.0	0.0	0.0	
Total Lost Time (s)	4.7		5.0	4.7	5.0	
Lead/Lag	Lag		Lead	Lag		

Lane Group	EBT	EBR	WBL	WBT	NBL	NBR
Lead-Lag Optimize?						
Vehicle Extension (s)	3.0		3.0	3.0	3.0	
Recall Mode	Max		Max	Max	Max	
Act Effct Green (s)	21.3		31.0	21.3	19.0	
Actuated g/C Ratio	0.33		0.48	0.33	0.29	
v/c Ratio	0.36		0.18	0.18	0.46	
Control Delay	10.9		8.0	16.7	15.3	
Queue Delay	0.0		0.0	0.0	0.0	
Total Delay	10.9		8.0	16.7	15.3	
LOS	B		A	B	B	
Approach Delay	10.9			12.3	15.3	
Approach LOS	B			B	B	

Intersection Summary			
Area Type:	Other		
Cycle Length: 65			
Actuated Cycle Length: 65			
Natural Cycle: 55			
Control Type: Actuated-Uncoordinated			
Maximum v/c Ratio: 0.46			
Intersection Signal Delay: 13.0		Intersection LOS: B	
Intersection Capacity Utilization 46.3%		ICU Level of Service A	
Analysis Period (min) 15			

Splits and Phases: 3: 24th St & Merriam Ln

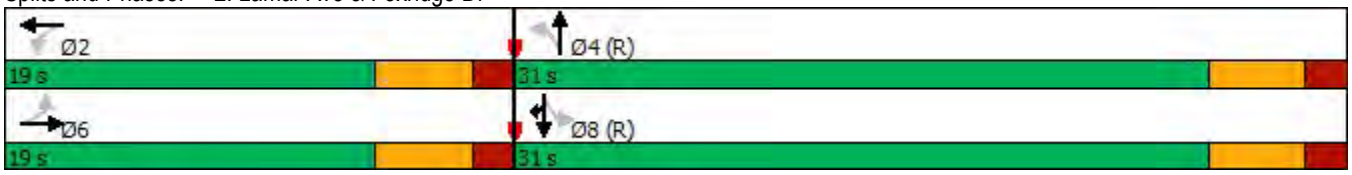


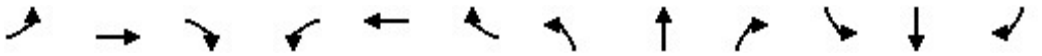
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	150	0	10	4	4	57	7	275	4	14	381	200
Future Volume (vph)	150	0	10	4	4	57	7	275	4	14	381	200
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	0		0	60		0	0		0	0		0
Storage Lanes	1		0	1		0	0		0	0		1
Taper Length (ft)	25			25			25			25		
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	0.95	0.95	0.95	1.00	1.00	1.00
Frt		0.850			0.859			0.998				0.850
Flt Protected	0.950			0.950				0.999			0.998	
Satd. Flow (prot)	1770	1583	0	1770	1600	0	0	3529	0	0	1859	1583
Flt Permitted	0.714			0.750				0.945			0.985	
Satd. Flow (perm)	1330	1583	0	1397	1600	0	0	3338	0	0	1835	1583
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		387			62			4				217
Link Speed (mph)		35			25			35			35	
Link Distance (ft)		362			218			374			353	
Travel Time (s)		7.1			5.9			7.3			6.9	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	163	0	11	4	4	62	8	299	4	15	414	217
Shared Lane Traffic (%)												
Lane Group Flow (vph)	163	11	0	4	66	0	0	311	0	0	429	217
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		12			12			0			0	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Number of Detectors	1	2		1	2		1	2		1	2	1
Detector Template	Left	Thru		Left	Thru		Left	Thru		Left	Thru	Right
Leading Detector (ft)	20	100		20	100		20	100		20	100	20
Trailing Detector (ft)	0	0		0	0		0	0		0	0	0
Detector 1 Position(ft)	0	0		0	0		0	0		0	0	0
Detector 1 Size(ft)	20	6		20	6		20	6		20	6	20
Detector 1 Type	Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex	Cl+Ex
Detector 1 Channel												
Detector 1 Extend (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	0.0
Detector 1 Queue (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	0.0
Detector 1 Delay (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	0.0
Detector 2 Position(ft)		94			94			94			94	
Detector 2 Size(ft)		6			6			6			6	
Detector 2 Type		Cl+Ex			Cl+Ex			Cl+Ex			Cl+Ex	
Detector 2 Channel												
Detector 2 Extend (s)		0.0			0.0			0.0			0.0	
Turn Type	Perm	NA		Perm	NA		Perm	NA		Perm	NA	Prot
Protected Phases		6			2			4			8	8
Permitted Phases	6			2			4			8		

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Detector Phase	6	6		2	2		4	4		8	8	8
Switch Phase												
Minimum Initial (s)	10.0	10.0		10.0	10.0		10.0	10.0		10.0	10.0	10.0
Minimum Split (s)	15.2	15.2		15.2	15.2		15.2	15.2		15.2	15.2	15.2
Total Split (s)	19.0	19.0		19.0	19.0		31.0	31.0		31.0	31.0	31.0
Total Split (%)	38.0%	38.0%		38.0%	38.0%		62.0%	62.0%		62.0%	62.0%	62.0%
Maximum Green (s)	13.8	13.8		13.8	13.8		25.8	25.8		25.8	25.8	25.8
Yellow Time (s)	3.6	3.6		3.6	3.6		3.6	3.6		3.6	3.6	3.6
All-Red Time (s)	1.6	1.6		1.6	1.6		1.6	1.6		1.6	1.6	1.6
Lost Time Adjust (s)	0.0	0.0		0.0	0.0			0.0			0.0	0.0
Total Lost Time (s)	5.2	5.2		5.2	5.2			5.2			5.2	5.2
Lead/Lag												
Lead-Lag Optimize?												
Vehicle Extension (s)	3.0	3.0		3.0	3.0		3.0	3.0		3.0	3.0	3.0
Recall Mode	None	None		Min	Min		C-Min	C-Min		C-Min	C-Min	C-Min
Act Effct Green (s)	11.8	11.8		11.8	11.8			27.8			27.8	27.8
Actuated g/C Ratio	0.24	0.24		0.24	0.24			0.56			0.56	0.56
v/c Ratio	0.52	0.02		0.01	0.16			0.17			0.42	0.22
Control Delay	22.6	0.0		13.2	6.0			6.1			8.6	1.9
Queue Delay	0.0	0.0		0.0	0.0			0.0			0.3	0.0
Total Delay	22.6	0.0		13.2	6.0			6.1			8.9	1.9
LOS	C	A		B	A			A			A	A
Approach Delay		21.1			6.4			6.1			6.6	
Approach LOS		C			A			A			A	

Intersection Summary			
Area Type:	Other		
Cycle Length: 50			
Actuated Cycle Length: 50			
Offset: 22 (44%), Referenced to phase 4:NBTL and 8:SBTL, Start of Green			
Natural Cycle: 40			
Control Type: Actuated-Coordinated			
Maximum v/c Ratio: 0.52			
Intersection Signal Delay: 8.6		Intersection LOS: A	
Intersection Capacity Utilization 55.0%		ICU Level of Service B	
Analysis Period (min) 15			

Splits and Phases: 2: Lamar Ave & Foxridge Dr





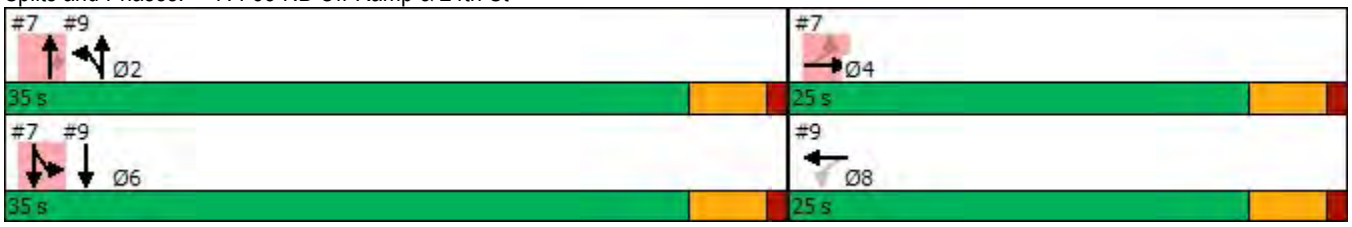
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	122	0	256	0	0	0	0	319	163	119	339	0
Future Volume (vph)	122	0	256	0	0	0	0	319	163	119	339	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	16	12	16	16	16	12	12	12	12	12	12
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Frt		0.909							0.850			
Flt Protected		0.984									0.987	
Satd. Flow (prot)	0	1888	0	0	0	0	0	1863	1583	0	1839	0
Flt Permitted		0.984									0.987	
Satd. Flow (perm)	0	1888	0	0	0	0	0	1863	1583	0	1839	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		191							177			
Link Speed (mph)		35			35			35			35	
Link Distance (ft)		2302			750			353			299	
Travel Time (s)		44.8			14.6			6.9			5.8	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	133	0	278	0	0	0	0	347	177	129	368	0
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	411	0	0	0	0	0	347	177	0	497	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		0			0			0			0	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.00	0.85	1.00	0.85	0.85	0.85	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Number of Detectors	1	2						2	1	1	2	
Detector Template	Left	Thru						Thru	Right	Left	Thru	
Leading Detector (ft)	20	100						100	20	20	100	
Trailing Detector (ft)	0	0						0	0	0	0	
Detector 1 Position(ft)	0	0						0	0	0	0	
Detector 1 Size(ft)	20	6						6	20	20	6	
Detector 1 Type	Cl+Ex	Cl+Ex						Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	
Detector 1 Channel												
Detector 1 Extend (s)	0.0	0.0						0.0	0.0	0.0	0.0	
Detector 1 Queue (s)	0.0	0.0						0.0	0.0	0.0	0.0	
Detector 1 Delay (s)	0.0	0.0						0.0	0.0	0.0	0.0	
Detector 2 Position(ft)		94						94			94	
Detector 2 Size(ft)		6						6			6	
Detector 2 Type		Cl+Ex						Cl+Ex			Cl+Ex	
Detector 2 Channel												
Detector 2 Extend (s)		0.0						0.0			0.0	
Turn Type	Perm	NA						NA	Perm	Split	NA	
Protected Phases		4						2!		6!	6	
Permitted Phases	4								2			
Detector Phase	4	4						2	2	6	6	
Switch Phase												

Lane Group	Ø8
Lane Configurations	
Traffic Volume (vph)	
Future Volume (vph)	
Ideal Flow (vphpl)	
Lane Width (ft)	
Lane Util. Factor	
Frt	
Flt Protected	
Satd. Flow (prot)	
Flt Permitted	
Satd. Flow (perm)	
Right Turn on Red	
Satd. Flow (RTOR)	
Link Speed (mph)	
Link Distance (ft)	
Travel Time (s)	
Peak Hour Factor	
Adj. Flow (vph)	
Shared Lane Traffic (%)	
Lane Group Flow (vph)	
Enter Blocked Intersection	
Lane Alignment	
Median Width(ft)	
Link Offset(ft)	
Crosswalk Width(ft)	
Two way Left Turn Lane	
Headway Factor	
Turning Speed (mph)	
Number of Detectors	
Detector Template	
Leading Detector (ft)	
Trailing Detector (ft)	
Detector 1 Position(ft)	
Detector 1 Size(ft)	
Detector 1 Type	
Detector 1 Channel	
Detector 1 Extend (s)	
Detector 1 Queue (s)	
Detector 1 Delay (s)	
Detector 2 Position(ft)	
Detector 2 Size(ft)	
Detector 2 Type	
Detector 2 Channel	
Detector 2 Extend (s)	
Turn Type	
Protected Phases	8
Permitted Phases	
Detector Phase	
Switch Phase	

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Minimum Initial (s)	7.0	7.0						7.0	7.0	7.0	7.0	
Minimum Split (s)	25.0	25.0						22.5	22.5	22.5	22.5	
Total Split (s)	25.0	25.0						35.0	35.0	35.0	35.0	
Total Split (%)	41.7%	41.7%						58.3%	58.3%	58.3%	58.3%	
Maximum Green (s)	20.5	20.5						30.5	30.5	30.5	30.5	
Yellow Time (s)	3.5	3.5						3.5	3.5	3.5	3.5	
All-Red Time (s)	1.0	1.0						1.0	1.0	1.0	1.0	
Lost Time Adjust (s)		0.0						0.0	0.0		0.0	
Total Lost Time (s)		4.5						4.5	4.5		4.5	
Lead/Lag												
Lead-Lag Optimize?												
Vehicle Extension (s)	3.0	3.0						3.0	3.0	3.0	3.0	
Recall Mode	Max	Max						Min	Min	Min	Min	
Act Effct Green (s)		20.9						20.4	20.4		20.4	
Actuated g/C Ratio		0.41						0.40	0.40		0.40	
v/c Ratio		0.46						0.46	0.24		0.67	
Control Delay		9.0						12.5	2.5		14.7	
Queue Delay		0.0						0.0	0.0		0.1	
Total Delay		9.0						12.5	2.5		14.9	
LOS		A						B	A		B	
Approach Delay		9.0						9.1			14.9	
Approach LOS		A						A			B	

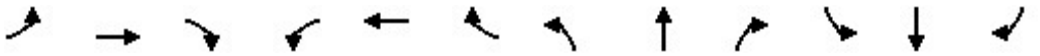
Intersection Summary			
Area Type:	Other		
Cycle Length: 60			
Actuated Cycle Length: 50.5			
Natural Cycle: 50			
Control Type: Semi Act-Uncoord			
Maximum v/c Ratio: 0.67			
Intersection Signal Delay: 11.1		Intersection LOS: B	
Intersection Capacity Utilization 75.0%		ICU Level of Service D	
Analysis Period (min) 15			
! Phase conflict between lane groups.			

Splits and Phases: 7: I-35 NB Off-Ramp & 24th St



Lane Group	Ø8
Minimum Initial (s)	7.0
Minimum Split (s)	25.0
Total Split (s)	25.0
Total Split (%)	42%
Maximum Green (s)	20.5
Yellow Time (s)	3.5
All-Red Time (s)	1.0
Lost Time Adjust (s)	
Total Lost Time (s)	
Lead/Lag	
Lead-Lag Optimize?	
Vehicle Extension (s)	3.0
Recall Mode	Max
Act Effct Green (s)	
Actuated g/C Ratio	
v/c Ratio	
Control Delay	
Queue Delay	
Total Delay	
LOS	
Approach Delay	
Approach LOS	

Intersection Summary



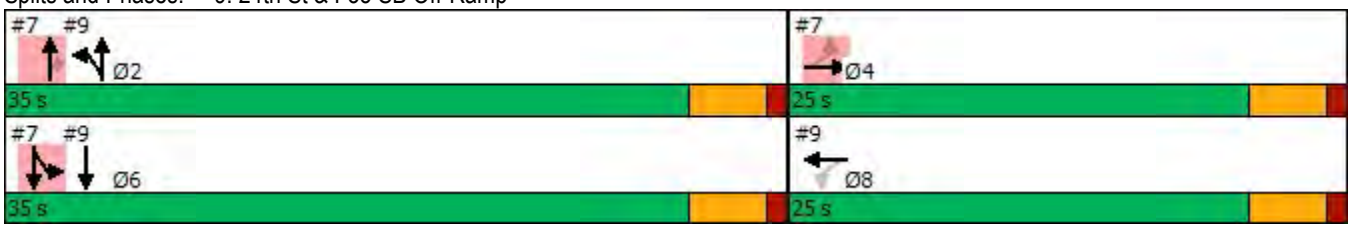
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	0	0	0	197	0	70	224	217	0	0	261	110
Future Volume (vph)	0	0	0	197	0	70	224	217	0	0	261	110
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	16	16	16	12	16	12	12	12	12	12	12	12
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Frt					0.965						0.960	
Flt Protected					0.964			0.975				
Satd. Flow (prot)	0	0	0	0	1964	0	0	1816	0	0	1788	0
Flt Permitted					0.964			0.975				
Satd. Flow (perm)	0	0	0	0	1964	0	0	1816	0	0	1788	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)					32						52	
Link Speed (mph)		35			35			35			35	
Link Distance (ft)		755			1614			299			328	
Travel Time (s)		14.7			31.4			5.8			6.4	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	0	0	0	214	0	76	243	236	0	0	284	120
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	0	0	0	290	0	0	479	0	0	404	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		0			0			0			0	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	0.85	0.85	0.85	1.00	0.85	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Number of Detectors				1	2		1	2			2	
Detector Template				Left	Thru		Left	Thru			Thru	
Leading Detector (ft)				20	100		20	100			100	
Trailing Detector (ft)				0	0		0	0			0	
Detector 1 Position(ft)				0	0		0	0			0	
Detector 1 Size(ft)				20	6		20	6			6	
Detector 1 Type				Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex			Cl+Ex	
Detector 1 Channel												
Detector 1 Extend (s)				0.0	0.0		0.0	0.0			0.0	
Detector 1 Queue (s)				0.0	0.0		0.0	0.0			0.0	
Detector 1 Delay (s)				0.0	0.0		0.0	0.0			0.0	
Detector 2 Position(ft)					94			94			94	
Detector 2 Size(ft)					6			6			6	
Detector 2 Type					Cl+Ex			Cl+Ex			Cl+Ex	
Detector 2 Channel												
Detector 2 Extend (s)					0.0			0.0			0.0	
Turn Type				Perm	NA		Split	NA			NA	
Protected Phases					8		2!	2			6!	
Permitted Phases				8								
Detector Phase				8	8		2	2			6	
Switch Phase												

Lane Group	Ø4
Lane Configurations	
Traffic Volume (vph)	
Future Volume (vph)	
Ideal Flow (vphpl)	
Lane Width (ft)	
Lane Util. Factor	
Frt	
Flt Protected	
Satd. Flow (prot)	
Flt Permitted	
Satd. Flow (perm)	
Right Turn on Red	
Satd. Flow (RTOR)	
Link Speed (mph)	
Link Distance (ft)	
Travel Time (s)	
Peak Hour Factor	
Adj. Flow (vph)	
Shared Lane Traffic (%)	
Lane Group Flow (vph)	
Enter Blocked Intersection	
Lane Alignment	
Median Width(ft)	
Link Offset(ft)	
Crosswalk Width(ft)	
Two way Left Turn Lane	
Headway Factor	
Turning Speed (mph)	
Number of Detectors	
Detector Template	
Leading Detector (ft)	
Trailing Detector (ft)	
Detector 1 Position(ft)	
Detector 1 Size(ft)	
Detector 1 Type	
Detector 1 Channel	
Detector 1 Extend (s)	
Detector 1 Queue (s)	
Detector 1 Delay (s)	
Detector 2 Position(ft)	
Detector 2 Size(ft)	
Detector 2 Type	
Detector 2 Channel	
Detector 2 Extend (s)	
Turn Type	
Protected Phases	4
Permitted Phases	
Detector Phase	
Switch Phase	

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Minimum Initial (s)				7.0	7.0		7.0	7.0			7.0	
Minimum Split (s)				25.0	25.0		22.5	22.5			22.5	
Total Split (s)				25.0	25.0		35.0	35.0			35.0	
Total Split (%)				41.7%	41.7%		58.3%	58.3%			58.3%	
Maximum Green (s)				20.5	20.5		30.5	30.5			30.5	
Yellow Time (s)				3.5	3.5		3.5	3.5			3.5	
All-Red Time (s)				1.0	1.0		1.0	1.0			1.0	
Lost Time Adjust (s)					0.0			0.0			0.0	
Total Lost Time (s)					4.5			4.5			4.5	
Lead/Lag												
Lead-Lag Optimize?												
Vehicle Extension (s)				3.0	3.0		3.0	3.0			3.0	
Recall Mode				Max	Max		Min	Min			Min	
Act Effct Green (s)					20.9			20.4			20.4	
Actuated g/C Ratio					0.41			0.40			0.40	
v/c Ratio					0.35			0.65			0.54	
Control Delay					12.4			10.5			12.0	
Queue Delay					0.0			0.0			0.1	
Total Delay					12.4			10.5			12.2	
LOS					B			B			B	
Approach Delay					12.4			10.5			12.2	
Approach LOS					B			B			B	

Intersection Summary			
Area Type:	Other		
Cycle Length: 60			
Actuated Cycle Length: 50.5			
Natural Cycle: 50			
Control Type: Semi Act-Uncoord			
Maximum v/c Ratio: 0.67			
Intersection Signal Delay: 11.6		Intersection LOS: B	
Intersection Capacity Utilization 70.7%		ICU Level of Service C	
Analysis Period (min) 15			
! Phase conflict between lane groups.			

Splits and Phases: 9: 24th St & I-35 SB Off-Ramp



Lane Group	Ø4
Minimum Initial (s)	7.0
Minimum Split (s)	25.0
Total Split (s)	25.0
Total Split (%)	42%
Maximum Green (s)	20.5
Yellow Time (s)	3.5
All-Red Time (s)	1.0
Lost Time Adjust (s)	
Total Lost Time (s)	
Lead/Lag	
Lead-Lag Optimize?	
Vehicle Extension (s)	3.0
Recall Mode	Max
Act Effct Green (s)	
Actuated g/C Ratio	
v/c Ratio	
Control Delay	
Queue Delay	
Total Delay	
LOS	
Approach Delay	
Approach LOS	

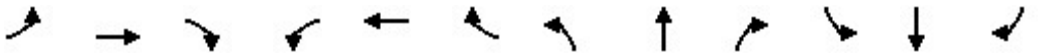
Intersection Summary

Lane Group	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Volume (vph)	187	211	160	211	143	144
Future Volume (vph)	187	211	160	211	143	144
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Storage Length (ft)		0	165		0	0
Storage Lanes		0	1		1	0
Taper Length (ft)			25		25	
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Frt	0.928				0.932	
Flt Protected			0.950		0.976	
Satd. Flow (prot)	1729	0	1770	1863	1694	0
Flt Permitted			0.293		0.976	
Satd. Flow (perm)	1729	0	546	1863	1694	0
Right Turn on Red		Yes				Yes
Satd. Flow (RTOR)	93				79	
Link Speed (mph)	35			35	35	
Link Distance (ft)	1077			256	581	
Travel Time (s)	21.0			5.0	11.3	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	203	229	174	229	155	157
Shared Lane Traffic (%)						
Lane Group Flow (vph)	432	0	174	229	312	0
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Right	Left	Left	Left	Right
Median Width(ft)	12			12	12	
Link Offset(ft)	0			0	0	
Crosswalk Width(ft)	16			16	16	
Two way Left Turn Lane						
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)		9	15		15	9
Number of Detectors	0		0	0	0	
Detector Template	Thru		Left	Thru	Left	
Leading Detector (ft)	0		0	0	0	
Trailing Detector (ft)	0		0	0	0	
Turn Type	NA		pm+pt	NA	Prot	
Protected Phases	2		1	2	4	
Permitted Phases			2			
Detector Phase	2		1	2	4	
Switch Phase						
Minimum Initial (s)	14.0		10.0	14.0	14.0	
Minimum Split (s)	18.7		15.0	18.7	19.0	
Total Split (s)	26.0		15.0	26.0	24.0	
Total Split (%)	40.0%		23.1%	40.0%	36.9%	
Maximum Green (s)	21.3		10.0	21.3	19.0	
Yellow Time (s)	3.6		3.0	3.6	3.0	
All-Red Time (s)	1.1		2.0	1.1	2.0	
Lost Time Adjust (s)	0.0		0.0	0.0	0.0	
Total Lost Time (s)	4.7		5.0	4.7	5.0	
Lead/Lag	Lag		Lead	Lag		

Lane Group	EBT	EBR	WBL	WBT	NBL	NBR
Lead-Lag Optimize?						
Vehicle Extension (s)	3.0		3.0	3.0	3.0	
Recall Mode	Max		Max	Max	Max	
Act Effct Green (s)	21.3		31.0	21.3	19.0	
Actuated g/C Ratio	0.33		0.48	0.33	0.29	
v/c Ratio	0.69		0.39	0.38	0.57	
Control Delay	21.3		10.2	19.0	19.1	
Queue Delay	0.0		0.0	0.0	0.0	
Total Delay	21.3		10.2	19.0	19.1	
LOS	C		B	B	B	
Approach Delay	21.3			15.2	19.1	
Approach LOS	C			B	B	

Intersection Summary			
Area Type:	Other		
Cycle Length: 65			
Actuated Cycle Length: 65			
Natural Cycle: 60			
Control Type: Actuated-Uncoordinated			
Maximum v/c Ratio: 0.69			
Intersection Signal Delay: 18.6		Intersection LOS: B	
Intersection Capacity Utilization 60.6%		ICU Level of Service B	
Analysis Period (min) 15			

Splits and Phases: 3: 24th St & Merriam Ln

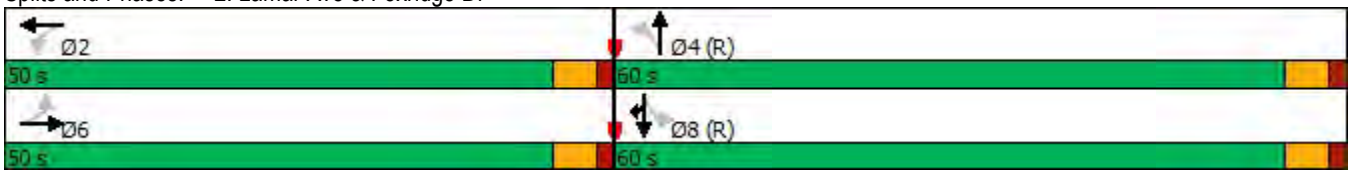


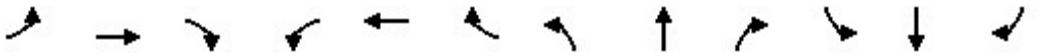
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	150	0	10	4	4	57	7	275	4	14	381	200
Future Volume (vph)	150	0	10	4	4	57	7	275	4	14	381	200
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	0		0	60		0	0		0	0		0
Storage Lanes	1		0	1		0	0		0	0		1
Taper Length (ft)	25			25			25			25		
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	0.95	0.95	0.95	1.00	1.00	1.00
Frt		0.850			0.859			0.998				0.850
Flt Protected	0.950			0.950				0.999			0.998	
Satd. Flow (prot)	1770	1583	0	1770	1600	0	0	3529	0	0	1859	1583
Flt Permitted	0.714			0.750				0.945			0.985	
Satd. Flow (perm)	1330	1583	0	1397	1600	0	0	3338	0	0	1835	1583
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		373			62			2				217
Link Speed (mph)		35			25			35			35	
Link Distance (ft)		362			218			374			353	
Travel Time (s)		7.1			5.9			7.3			6.9	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	163	0	11	4	4	62	8	299	4	15	414	217
Shared Lane Traffic (%)												
Lane Group Flow (vph)	163	11	0	4	66	0	0	311	0	0	429	217
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		12			12			0			0	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Number of Detectors	1	2		1	2		1	2		1	2	1
Detector Template	Left	Thru		Left	Thru		Left	Thru		Left	Thru	Right
Leading Detector (ft)	20	100		20	100		20	100		20	100	20
Trailing Detector (ft)	0	0		0	0		0	0		0	0	0
Detector 1 Position(ft)	0	0		0	0		0	0		0	0	0
Detector 1 Size(ft)	20	6		20	6		20	6		20	6	20
Detector 1 Type	Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex	Cl+Ex
Detector 1 Channel												
Detector 1 Extend (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	0.0
Detector 1 Queue (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	0.0
Detector 1 Delay (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	0.0
Detector 2 Position(ft)		94			94			94			94	
Detector 2 Size(ft)		6			6			6			6	
Detector 2 Type		Cl+Ex			Cl+Ex			Cl+Ex			Cl+Ex	
Detector 2 Channel												
Detector 2 Extend (s)		0.0			0.0			0.0			0.0	
Turn Type	Perm	NA		Perm	NA		Perm	NA		Perm	NA	Prot
Protected Phases		6			2			4			8	8
Permitted Phases	6			2			4			8		

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Detector Phase	6	6		2	2		4	4		8	8	8
Switch Phase												
Minimum Initial (s)	10.0	10.0		10.0	10.0		10.0	10.0		10.0	10.0	10.0
Minimum Split (s)	15.2	15.2		15.2	15.2		15.2	15.2		15.2	15.2	15.2
Total Split (s)	50.0	50.0		50.0	50.0		60.0	60.0		60.0	60.0	60.0
Total Split (%)	45.5%	45.5%		45.5%	45.5%		54.5%	54.5%		54.5%	54.5%	54.5%
Maximum Green (s)	44.8	44.8		44.8	44.8		54.8	54.8		54.8	54.8	54.8
Yellow Time (s)	3.6	3.6		3.6	3.6		3.6	3.6		3.6	3.6	3.6
All-Red Time (s)	1.6	1.6		1.6	1.6		1.6	1.6		1.6	1.6	1.6
Lost Time Adjust (s)	0.0	0.0		0.0	0.0			0.0			0.0	0.0
Total Lost Time (s)	5.2	5.2		5.2	5.2			5.2			5.2	5.2
Lead/Lag												
Lead-Lag Optimize?												
Vehicle Extension (s)	3.0	3.0		3.0	3.0		3.0	3.0		3.0	3.0	3.0
Recall Mode	None	None		Min	Min		C-Min	C-Min		C-Min	C-Min	C-Min
Act Effct Green (s)	19.1	19.1		19.1	19.1			80.5			80.5	80.5
Actuated g/C Ratio	0.17	0.17		0.17	0.17			0.73			0.73	0.73
v/c Ratio	0.71	0.02		0.02	0.20			0.13			0.32	0.18
Control Delay	58.4	0.1		33.5	11.1			5.1			6.7	1.2
Queue Delay	0.0	0.0		0.0	0.0			0.0			0.0	0.0
Total Delay	58.4	0.1		33.5	11.1			5.1			6.7	1.2
LOS	E	A		C	B			A			A	A
Approach Delay		54.7			12.4			5.1			4.9	
Approach LOS		D			B			A			A	

Intersection Summary			
Area Type:	Other		
Cycle Length: 110			
Actuated Cycle Length: 110			
Offset: 0 (0%), Referenced to phase 4:NBTL and 8:SBTL, Start of Green			
Natural Cycle: 40			
Control Type: Actuated-Coordinated			
Maximum v/c Ratio: 0.71			
Intersection Signal Delay: 12.6		Intersection LOS: B	
Intersection Capacity Utilization 55.0%		ICU Level of Service B	
Analysis Period (min) 15			

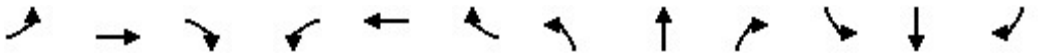
Splits and Phases: 2: Lamar Ave & Foxridge Dr





Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	122	0	256	0	0	0	0	319	163	119	339	0
Future Volume (vph)	122	0	256	0	0	0	0	319	163	119	339	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	16	12	16	16	16	12	12	12	12	12	12
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Frt		0.909							0.850			
Flt Protected		0.984									0.987	
Satd. Flow (prot)	0	1888	0	0	0	0	0	1863	1583	0	1839	0
Flt Permitted		0.984									0.987	
Satd. Flow (perm)	0	1888	0	0	0	0	0	1863	1583	0	1839	0
Link Speed (mph)		35			35			35			35	
Link Distance (ft)		2302			750			353			299	
Travel Time (s)		44.8			14.6			6.9			5.8	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	133	0	278	0	0	0	0	347	177	129	368	0
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	411	0	0	0	0	0	347	177	0	497	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		0			0			0			0	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.00	0.85	1.00	0.85	0.85	0.85	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Sign Control		Stop			Free			Free			Free	

Intersection Summary			
Area Type:	Other		
Control Type: Unsignalized			
Intersection Capacity Utilization 73.7%		ICU Level of Service D	
Analysis Period (min) 15			



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	0	0	0	197	0	70	224	217	0	0	261	110
Future Volume (vph)	0	0	0	197	0	70	224	217	0	0	261	110
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	16	16	16	12	16	12	12	12	12	12	12	12
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Frt					0.965						0.960	
Flt Protected					0.964			0.975				
Satd. Flow (prot)	0	0	0	0	1964	0	0	1816	0	0	1788	0
Flt Permitted					0.964			0.975				
Satd. Flow (perm)	0	0	0	0	1964	0	0	1816	0	0	1788	0
Link Speed (mph)		35			35			35			35	
Link Distance (ft)		755			1614			299			328	
Travel Time (s)		14.7			31.4			5.8			6.4	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	0	0	0	214	0	76	243	236	0	0	284	120
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	0	0	0	290	0	0	479	0	0	404	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		0			0			0			0	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	0.85	0.85	0.85	1.00	0.85	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Sign Control		Free			Stop			Free			Free	

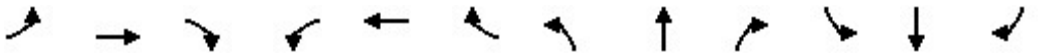
Intersection Summary			
Area Type:	Other		
Control Type: Unsignalized			
Intersection Capacity Utilization 69.4%		ICU Level of Service C	
Analysis Period (min) 15			

Lane Group	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Volume (vph)	187	211	160	211	143	144
Future Volume (vph)	187	211	160	211	143	144
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Storage Length (ft)		0	165		0	0
Storage Lanes		0	1		1	0
Taper Length (ft)			25		25	
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Frt	0.928				0.932	
Flt Protected			0.950		0.976	
Satd. Flow (prot)	1729	0	1770	1863	1694	0
Flt Permitted			0.293		0.976	
Satd. Flow (perm)	1729	0	546	1863	1694	0
Right Turn on Red		Yes				Yes
Satd. Flow (RTOR)	93				79	
Link Speed (mph)	35			35	35	
Link Distance (ft)	1077			256	581	
Travel Time (s)	21.0			5.0	11.3	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	203	229	174	229	155	157
Shared Lane Traffic (%)						
Lane Group Flow (vph)	432	0	174	229	312	0
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Right	Left	Left	Left	Right
Median Width(ft)	12			12	12	
Link Offset(ft)	0			0	0	
Crosswalk Width(ft)	16			16	16	
Two way Left Turn Lane						
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)		9	15		15	9
Number of Detectors	0		0	0	0	
Detector Template	Thru		Left	Thru	Left	
Leading Detector (ft)	0		0	0	0	
Trailing Detector (ft)	0		0	0	0	
Turn Type	NA		pm+pt	NA	Prot	
Protected Phases	2		1	2	4	
Permitted Phases			2			
Detector Phase	2		1	2	4	
Switch Phase						
Minimum Initial (s)	14.0		10.0	14.0	14.0	
Minimum Split (s)	18.7		15.0	18.7	19.0	
Total Split (s)	26.0		15.0	26.0	24.0	
Total Split (%)	40.0%		23.1%	40.0%	36.9%	
Maximum Green (s)	21.3		10.0	21.3	19.0	
Yellow Time (s)	3.6		3.0	3.6	3.0	
All-Red Time (s)	1.1		2.0	1.1	2.0	
Lost Time Adjust (s)	0.0		0.0	0.0	0.0	
Total Lost Time (s)	4.7		5.0	4.7	5.0	
Lead/Lag	Lag		Lead	Lag		

Lane Group	EBT	EBR	WBL	WBT	NBL	NBR
Lead-Lag Optimize?						
Vehicle Extension (s)	3.0		3.0	3.0	3.0	
Recall Mode	Max		Max	Max	Max	
Act Effct Green (s)	21.3		31.0	21.3	19.0	
Actuated g/C Ratio	0.33		0.48	0.33	0.29	
v/c Ratio	0.69		0.39	0.38	0.57	
Control Delay	21.3		10.2	19.0	19.1	
Queue Delay	0.0		0.0	0.0	0.0	
Total Delay	21.3		10.2	19.0	19.1	
LOS	C		B	B	B	
Approach Delay	21.3			15.2	19.1	
Approach LOS	C			B	B	

Intersection Summary			
Area Type:	Other		
Cycle Length: 65			
Actuated Cycle Length: 65			
Natural Cycle: 60			
Control Type: Actuated-Uncoordinated			
Maximum v/c Ratio: 0.69			
Intersection Signal Delay: 18.6		Intersection LOS: B	
Intersection Capacity Utilization 60.6%		ICU Level of Service B	
Analysis Period (min) 15			

Splits and Phases: 3: 24th St & Merriam Ln

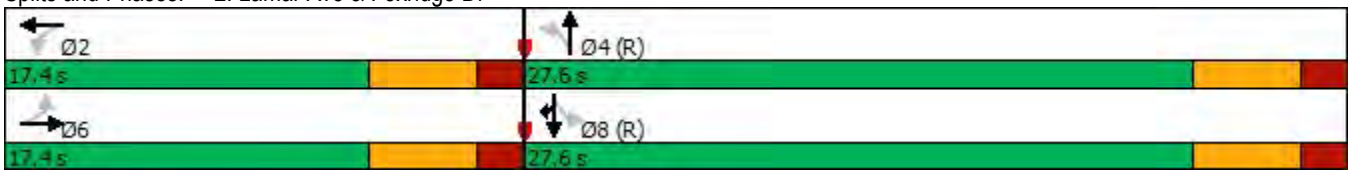


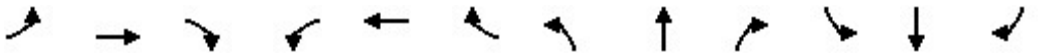
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	212	1	8	4	5	25	7	358	4	6	412	258
Future Volume (vph)	212	1	8	4	5	25	7	358	4	6	412	258
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	0		0	60		0	0		0	0		0
Storage Lanes	1		0	1		0	0		0	0		1
Taper Length (ft)	25			25			25			25		
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	0.95	0.95	0.95	1.00	1.00	1.00
Frt		0.865			0.873			0.999				0.850
Flt Protected	0.950			0.950				0.999			0.999	
Satd. Flow (prot)	1770	1611	0	1770	1626	0	0	3532	0	0	1861	1583
Flt Permitted	0.736			0.751				0.946			0.993	
Satd. Flow (perm)	1371	1611	0	1399	1626	0	0	3345	0	0	1850	1583
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		9			27			3				280
Link Speed (mph)		35			25			35			35	
Link Distance (ft)		362			218			374			353	
Travel Time (s)		7.1			5.9			7.3			6.9	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	230	1	9	4	5	27	8	389	4	7	448	280
Shared Lane Traffic (%)												
Lane Group Flow (vph)	230	10	0	4	32	0	0	401	0	0	455	280
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		12			12			0			0	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Number of Detectors	1	2		1	2		1	2		1	2	1
Detector Template	Left	Thru		Left	Thru		Left	Thru		Left	Thru	Right
Leading Detector (ft)	20	100		20	100		20	100		20	100	20
Trailing Detector (ft)	0	0		0	0		0	0		0	0	0
Detector 1 Position(ft)	0	0		0	0		0	0		0	0	0
Detector 1 Size(ft)	20	6		20	6		20	6		20	6	20
Detector 1 Type	Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex	Cl+Ex
Detector 1 Channel												
Detector 1 Extend (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	0.0
Detector 1 Queue (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	0.0
Detector 1 Delay (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	0.0
Detector 2 Position(ft)		94			94			94			94	
Detector 2 Size(ft)		6			6			6			6	
Detector 2 Type		Cl+Ex			Cl+Ex			Cl+Ex			Cl+Ex	
Detector 2 Channel												
Detector 2 Extend (s)		0.0			0.0			0.0			0.0	
Turn Type	Perm	NA		Perm	NA		Perm	NA		Perm	NA	Prot
Protected Phases		6			2			4			8	8
Permitted Phases	6			2			4			8		

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Detector Phase	6	6		2	2		4	4		8	8	8
Switch Phase												
Minimum Initial (s)	10.0	10.0		10.0	10.0		10.0	10.0		10.0	10.0	10.0
Minimum Split (s)	15.2	15.2		15.2	15.2		15.2	15.2		15.2	15.2	15.2
Total Split (s)	17.4	17.4		17.4	17.4		27.6	27.6		27.6	27.6	27.6
Total Split (%)	38.7%	38.7%		38.7%	38.7%		61.3%	61.3%		61.3%	61.3%	61.3%
Maximum Green (s)	12.2	12.2		12.2	12.2		22.4	22.4		22.4	22.4	22.4
Yellow Time (s)	3.6	3.6		3.6	3.6		3.6	3.6		3.6	3.6	3.6
All-Red Time (s)	1.6	1.6		1.6	1.6		1.6	1.6		1.6	1.6	1.6
Lost Time Adjust (s)	0.0	0.0		0.0	0.0			0.0			0.0	0.0
Total Lost Time (s)	5.2	5.2		5.2	5.2			5.2			5.2	5.2
Lead/Lag												
Lead-Lag Optimize?												
Vehicle Extension (s)	3.0	3.0		3.0	3.0		3.0	3.0		3.0	3.0	3.0
Recall Mode	None	None		Min	Min		C-Min	C-Min		C-Min	C-Min	C-Min
Act Effct Green (s)	11.9	11.9		11.9	11.9			22.7			22.7	22.7
Actuated g/C Ratio	0.26	0.26		0.26	0.26			0.50			0.50	0.50
v/c Ratio	0.64	0.02		0.01	0.07			0.24			0.49	0.30
Control Delay	24.4	8.0		11.8	6.9			7.0			9.9	2.1
Queue Delay	0.0	0.0		0.0	0.0			0.0			0.0	0.0
Total Delay	24.4	8.0		11.8	6.9			7.0			9.9	2.1
LOS	C	A		B	A			A			A	A
Approach Delay		23.7			7.5			7.0			7.0	
Approach LOS		C			A			A			A	

Intersection Summary			
Area Type:	Other		
Cycle Length: 45			
Actuated Cycle Length: 45			
Offset: 0 (0%), Referenced to phase 4:NBTL and 8:SBTL, Start of Green			
Natural Cycle: 40			
Control Type: Actuated-Coordinated			
Maximum v/c Ratio: 0.64			
Intersection Signal Delay: 9.8		Intersection LOS: A	
Intersection Capacity Utilization 53.6%		ICU Level of Service A	
Analysis Period (min) 15			

Splits and Phases: 2: Lamar Ave & Foxridge Dr





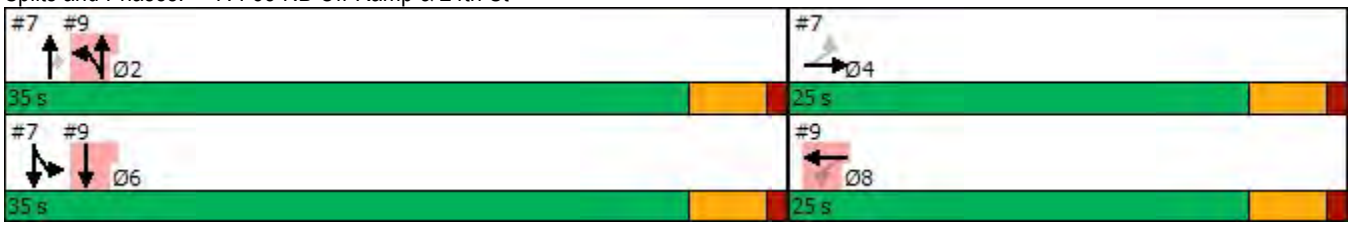
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	101	0	306	0	0	0	0	356	239	91	370	0
Future Volume (vph)	101	0	306	0	0	0	0	356	239	91	370	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	16	12	16	16	16	12	12	12	12	12	12
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Frt		0.899							0.850			
Flt Protected		0.988									0.990	
Satd. Flow (prot)	0	1875	0	0	0	0	0	1863	1583	0	1844	0
Flt Permitted		0.988									0.990	
Satd. Flow (perm)	0	1875	0	0	0	0	0	1863	1583	0	1844	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		276							260			
Link Speed (mph)		35			35			35			35	
Link Distance (ft)		2302			750			353			299	
Travel Time (s)		44.8			14.6			6.9			5.8	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	110	0	333	0	0	0	0	387	260	99	402	0
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	443	0	0	0	0	0	387	260	0	501	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		0			0			0			0	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.00	0.85	1.00	0.85	0.85	0.85	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Number of Detectors	1	2						2	1	1	2	
Detector Template	Left	Thru						Thru	Right	Left	Thru	
Leading Detector (ft)	20	100						100	20	20	100	
Trailing Detector (ft)	0	0						0	0	0	0	
Detector 1 Position(ft)	0	0						0	0	0	0	
Detector 1 Size(ft)	20	6						6	20	20	6	
Detector 1 Type	Cl+Ex	Cl+Ex						Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	
Detector 1 Channel												
Detector 1 Extend (s)	0.0	0.0						0.0	0.0	0.0	0.0	
Detector 1 Queue (s)	0.0	0.0						0.0	0.0	0.0	0.0	
Detector 1 Delay (s)	0.0	0.0						0.0	0.0	0.0	0.0	
Detector 2 Position(ft)		94						94			94	
Detector 2 Size(ft)		6						6			6	
Detector 2 Type		Cl+Ex						Cl+Ex			Cl+Ex	
Detector 2 Channel												
Detector 2 Extend (s)		0.0						0.0			0.0	
Turn Type	Perm	NA						NA	Perm	Split	NA	
Protected Phases		4						2!		6!	6	
Permitted Phases	4								2			
Detector Phase	4	4						2	2	6	6	
Switch Phase												

Lane Group	Ø8
Lane Configurations	
Traffic Volume (vph)	
Future Volume (vph)	
Ideal Flow (vphpl)	
Lane Width (ft)	
Lane Util. Factor	
Frt	
Flt Protected	
Satd. Flow (prot)	
Flt Permitted	
Satd. Flow (perm)	
Right Turn on Red	
Satd. Flow (RTOR)	
Link Speed (mph)	
Link Distance (ft)	
Travel Time (s)	
Peak Hour Factor	
Adj. Flow (vph)	
Shared Lane Traffic (%)	
Lane Group Flow (vph)	
Enter Blocked Intersection	
Lane Alignment	
Median Width(ft)	
Link Offset(ft)	
Crosswalk Width(ft)	
Two way Left Turn Lane	
Headway Factor	
Turning Speed (mph)	
Number of Detectors	
Detector Template	
Leading Detector (ft)	
Trailing Detector (ft)	
Detector 1 Position(ft)	
Detector 1 Size(ft)	
Detector 1 Type	
Detector 1 Channel	
Detector 1 Extend (s)	
Detector 1 Queue (s)	
Detector 1 Delay (s)	
Detector 2 Position(ft)	
Detector 2 Size(ft)	
Detector 2 Type	
Detector 2 Channel	
Detector 2 Extend (s)	
Turn Type	
Protected Phases	8
Permitted Phases	
Detector Phase	
Switch Phase	

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Minimum Initial (s)	7.0	7.0						7.0	7.0	7.0	7.0	
Minimum Split (s)	25.0	25.0						22.5	22.5	22.5	22.5	
Total Split (s)	25.0	25.0						35.0	35.0	35.0	35.0	
Total Split (%)	41.7%	41.7%						58.3%	58.3%	58.3%	58.3%	
Maximum Green (s)	20.5	20.5						30.5	30.5	30.5	30.5	
Yellow Time (s)	3.5	3.5						3.5	3.5	3.5	3.5	
All-Red Time (s)	1.0	1.0						1.0	1.0	1.0	1.0	
Lost Time Adjust (s)		0.0						0.0	0.0		0.0	
Total Lost Time (s)		4.5						4.5	4.5		4.5	
Lead/Lag												
Lead-Lag Optimize?												
Vehicle Extension (s)	3.0	3.0						3.0	3.0	3.0	3.0	
Recall Mode	Max	Max						Min	Min	Min	Min	
Act Effct Green (s)		20.9						21.8	21.8		21.8	
Actuated g/C Ratio		0.40						0.42	0.42		0.42	
v/c Ratio		0.48						0.49	0.32		0.65	
Control Delay		7.5						12.7	2.5		15.4	
Queue Delay		0.0						0.1	0.0		0.2	
Total Delay		7.5						12.9	2.5		15.6	
LOS		A						B	A		B	
Approach Delay		7.5						8.7			15.6	
Approach LOS		A						A			B	

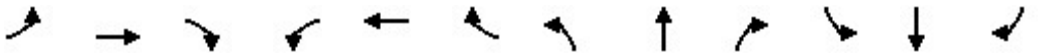
Intersection Summary			
Area Type:	Other		
Cycle Length: 60			
Actuated Cycle Length: 51.8			
Natural Cycle: 50			
Control Type: Semi Act-Uncoord			
Maximum v/c Ratio: 0.65			
Intersection Signal Delay: 10.5		Intersection LOS: B	
Intersection Capacity Utilization 78.9%		ICU Level of Service D	
Analysis Period (min) 15			
! Phase conflict between lane groups.			

Splits and Phases: 7: I-35 NB Off-Ramp & 24th St



Lane Group	Ø8
Minimum Initial (s)	7.0
Minimum Split (s)	25.0
Total Split (s)	25.0
Total Split (%)	42%
Maximum Green (s)	20.5
Yellow Time (s)	3.5
All-Red Time (s)	1.0
Lost Time Adjust (s)	
Total Lost Time (s)	
Lead/Lag	
Lead-Lag Optimize?	
Vehicle Extension (s)	3.0
Recall Mode	Max
Act Effct Green (s)	
Actuated g/C Ratio	
v/c Ratio	
Control Delay	
Queue Delay	
Total Delay	
LOS	
Approach Delay	
Approach LOS	

Intersection Summary



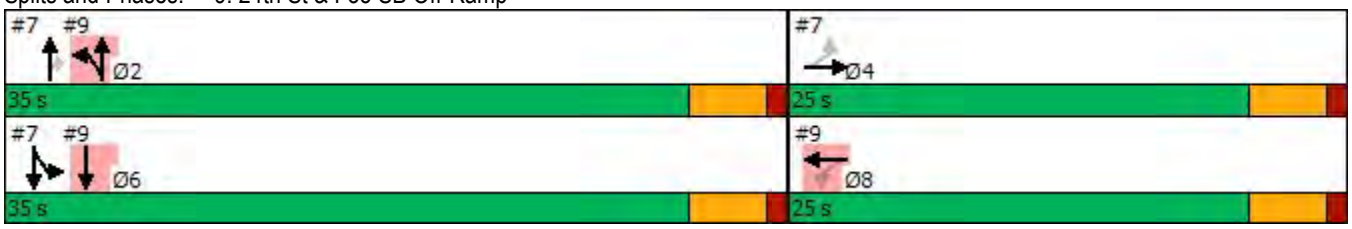
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	0	0	0	223	0	51	251	206	0	0	238	119
Future Volume (vph)	0	0	0	223	0	51	251	206	0	0	238	119
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	16	16	16	12	16	12	12	12	12	12	12	12
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Frt					0.975						0.955	
Flt Protected					0.961			0.973				
Satd. Flow (prot)	0	0	0	0	1978	0	0	1812	0	0	1779	0
Flt Permitted					0.961			0.973				
Satd. Flow (perm)	0	0	0	0	1978	0	0	1812	0	0	1779	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)					27						61	
Link Speed (mph)		35			35			35			35	
Link Distance (ft)		755			1614			299			328	
Travel Time (s)		14.7			31.4			5.8			6.4	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	0	0	0	242	0	55	273	224	0	0	259	129
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	0	0	0	297	0	0	497	0	0	388	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		0			0			0			0	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	0.85	0.85	0.85	1.00	0.85	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Number of Detectors				1	2		1	2			2	
Detector Template				Left	Thru		Left	Thru			Thru	
Leading Detector (ft)				20	100		20	100			100	
Trailing Detector (ft)				0	0		0	0			0	
Detector 1 Position(ft)				0	0		0	0			0	
Detector 1 Size(ft)				20	6		20	6			6	
Detector 1 Type				Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex			Cl+Ex	
Detector 1 Channel												
Detector 1 Extend (s)				0.0	0.0		0.0	0.0			0.0	
Detector 1 Queue (s)				0.0	0.0		0.0	0.0			0.0	
Detector 1 Delay (s)				0.0	0.0		0.0	0.0			0.0	
Detector 2 Position(ft)					94			94			94	
Detector 2 Size(ft)					6			6			6	
Detector 2 Type					Cl+Ex			Cl+Ex			Cl+Ex	
Detector 2 Channel												
Detector 2 Extend (s)					0.0			0.0			0.0	
Turn Type				Perm	NA		Split	NA			NA	
Protected Phases					8		2!	2			6!	
Permitted Phases				8								
Detector Phase				8	8		2	2			6	
Switch Phase												

Lane Group	Ø4
Lane Configurations	
Traffic Volume (vph)	
Future Volume (vph)	
Ideal Flow (vphpl)	
Lane Width (ft)	
Lane Util. Factor	
Frt	
Flt Protected	
Satd. Flow (prot)	
Flt Permitted	
Satd. Flow (perm)	
Right Turn on Red	
Satd. Flow (RTOR)	
Link Speed (mph)	
Link Distance (ft)	
Travel Time (s)	
Peak Hour Factor	
Adj. Flow (vph)	
Shared Lane Traffic (%)	
Lane Group Flow (vph)	
Enter Blocked Intersection	
Lane Alignment	
Median Width(ft)	
Link Offset(ft)	
Crosswalk Width(ft)	
Two way Left Turn Lane	
Headway Factor	
Turning Speed (mph)	
Number of Detectors	
Detector Template	
Leading Detector (ft)	
Trailing Detector (ft)	
Detector 1 Position(ft)	
Detector 1 Size(ft)	
Detector 1 Type	
Detector 1 Channel	
Detector 1 Extend (s)	
Detector 1 Queue (s)	
Detector 1 Delay (s)	
Detector 2 Position(ft)	
Detector 2 Size(ft)	
Detector 2 Type	
Detector 2 Channel	
Detector 2 Extend (s)	
Turn Type	
Protected Phases	4
Permitted Phases	
Detector Phase	
Switch Phase	

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Minimum Initial (s)				7.0	7.0		7.0	7.0			7.0	
Minimum Split (s)				25.0	25.0		22.5	22.5			22.5	
Total Split (s)				25.0	25.0		35.0	35.0			35.0	
Total Split (%)				41.7%	41.7%		58.3%	58.3%			58.3%	
Maximum Green (s)				20.5	20.5		30.5	30.5			30.5	
Yellow Time (s)				3.5	3.5		3.5	3.5			3.5	
All-Red Time (s)				1.0	1.0		1.0	1.0			1.0	
Lost Time Adjust (s)					0.0			0.0			0.0	
Total Lost Time (s)					4.5			4.5			4.5	
Lead/Lag												
Lead-Lag Optimize?												
Vehicle Extension (s)				3.0	3.0		3.0	3.0			3.0	
Recall Mode				Max	Max		Min	Min			Min	
Act Effct Green (s)					20.9			21.8			21.8	
Actuated g/C Ratio					0.40			0.42			0.42	
v/c Ratio					0.37			0.65			0.50	
Control Delay					13.3			9.3			10.9	
Queue Delay					0.0			0.0			0.1	
Total Delay					13.3			9.4			11.0	
LOS					B			A			B	
Approach Delay					13.3			9.4			11.0	
Approach LOS					B			A			B	

Intersection Summary			
Area Type:	Other		
Cycle Length: 60			
Actuated Cycle Length: 51.8			
Natural Cycle: 50			
Control Type: Semi Act-Uncoord			
Maximum v/c Ratio: 0.65			
Intersection Signal Delay: 10.9		Intersection LOS: B	
Intersection Capacity Utilization 71.2%		ICU Level of Service C	
Analysis Period (min) 15			
! Phase conflict between lane groups.			

Splits and Phases: 9: 24th St & I-35 SB Off-Ramp



Lane Group	Ø4
Minimum Initial (s)	7.0
Minimum Split (s)	25.0
Total Split (s)	25.0
Total Split (%)	42%
Maximum Green (s)	20.5
Yellow Time (s)	3.5
All-Red Time (s)	1.0
Lost Time Adjust (s)	
Total Lost Time (s)	
Lead/Lag	
Lead-Lag Optimize?	
Vehicle Extension (s)	3.0
Recall Mode	Max
Act Effct Green (s)	
Actuated g/C Ratio	
v/c Ratio	
Control Delay	
Queue Delay	
Total Delay	
LOS	
Approach Delay	
Approach LOS	

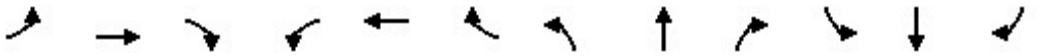
Intersection Summary

Lane Group	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Volume (vph)	225	142	215	278	127	130
Future Volume (vph)	225	142	215	278	127	130
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Storage Length (ft)		0	165		0	0
Storage Lanes		0	1		1	0
Taper Length (ft)			25		25	
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Frt	0.948				0.932	
Flt Protected			0.950		0.976	
Satd. Flow (prot)	1766	0	1770	1863	1694	0
Flt Permitted			0.335		0.976	
Satd. Flow (perm)	1766	0	624	1863	1694	0
Right Turn on Red		Yes				Yes
Satd. Flow (RTOR)	52				80	
Link Speed (mph)	35			35	35	
Link Distance (ft)	1077			256	581	
Travel Time (s)	21.0			5.0	11.3	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	245	154	234	302	138	141
Shared Lane Traffic (%)						
Lane Group Flow (vph)	399	0	234	302	279	0
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Right	Left	Left	Left	Right
Median Width(ft)	12			12	12	
Link Offset(ft)	0			0	0	
Crosswalk Width(ft)	16			16	16	
Two way Left Turn Lane						
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)		9	15		15	9
Number of Detectors	0		0	0	0	
Detector Template	Thru		Left	Thru	Left	
Leading Detector (ft)	0		0	0	0	
Trailing Detector (ft)	0		0	0	0	
Turn Type	NA		pm+pt	NA	Prot	
Protected Phases	2		1	2	4	
Permitted Phases			2			
Detector Phase	2		1	2	4	
Switch Phase						
Minimum Initial (s)	14.0		10.0	14.0	14.0	
Minimum Split (s)	18.7		15.0	18.7	19.0	
Total Split (s)	26.0		15.0	26.0	24.0	
Total Split (%)	40.0%		23.1%	40.0%	36.9%	
Maximum Green (s)	21.3		10.0	21.3	19.0	
Yellow Time (s)	3.6		3.0	3.6	3.0	
All-Red Time (s)	1.1		2.0	1.1	2.0	
Lost Time Adjust (s)	0.0		0.0	0.0	0.0	
Total Lost Time (s)	4.7		5.0	4.7	5.0	
Lead/Lag	Lag		Lead	Lag		

Lane Group	EBT	EBR	WBL	WBT	NBL	NBR
Lead-Lag Optimize?						
Vehicle Extension (s)	3.0		3.0	3.0	3.0	
Recall Mode	Max		Max	Max	Max	
Act Effct Green (s)	21.3		31.0	21.3	19.0	
Actuated g/C Ratio	0.33		0.48	0.33	0.29	
v/c Ratio	0.65		0.49	0.50	0.51	
Control Delay	22.0		11.7	20.9	17.2	
Queue Delay	0.0		0.0	0.0	0.0	
Total Delay	22.0		11.7	20.9	17.2	
LOS	C		B	C	B	
Approach Delay	22.0			16.9	17.2	
Approach LOS	C			B	B	

Intersection Summary			
Area Type:	Other		
Cycle Length: 65			
Actuated Cycle Length: 65			
Natural Cycle: 60			
Control Type: Actuated-Uncoordinated			
Maximum v/c Ratio: 0.65			
Intersection Signal Delay: 18.7		Intersection LOS: B	
Intersection Capacity Utilization 59.7%		ICU Level of Service B	
Analysis Period (min) 15			

Splits and Phases: 3: 24th St & Merriam Ln

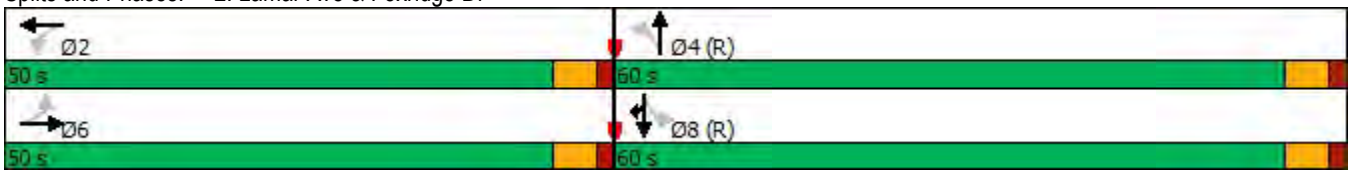


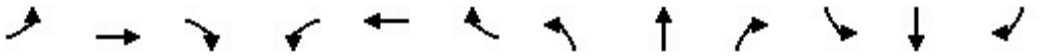
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	212	1	8	4	5	25	7	358	4	6	412	258
Future Volume (vph)	212	1	8	4	5	25	7	358	4	6	412	258
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	0		0	60		0	0		0	0		0
Storage Lanes	1		0	1		0	0		0	0		1
Taper Length (ft)	25			25			25			25		
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	0.95	0.95	0.95	1.00	1.00	1.00
Frt		0.865			0.873			0.999				0.850
Flt Protected	0.950			0.950				0.999			0.999	
Satd. Flow (prot)	1770	1611	0	1770	1626	0	0	3532	0	0	1861	1583
Flt Permitted	0.736			0.751				0.947			0.994	
Satd. Flow (perm)	1371	1611	0	1399	1626	0	0	3348	0	0	1852	1583
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		9			27			1				280
Link Speed (mph)		35			25			35			35	
Link Distance (ft)		362			218			374			353	
Travel Time (s)		7.1			5.9			7.3			6.9	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	230	1	9	4	5	27	8	389	4	7	448	280
Shared Lane Traffic (%)												
Lane Group Flow (vph)	230	10	0	4	32	0	0	401	0	0	455	280
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		12			12			0			0	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Number of Detectors	1	2		1	2		1	2		1	2	1
Detector Template	Left	Thru		Left	Thru		Left	Thru		Left	Thru	Right
Leading Detector (ft)	20	100		20	100		20	100		20	100	20
Trailing Detector (ft)	0	0		0	0		0	0		0	0	0
Detector 1 Position(ft)	0	0		0	0		0	0		0	0	0
Detector 1 Size(ft)	20	6		20	6		20	6		20	6	20
Detector 1 Type	Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex	Cl+Ex
Detector 1 Channel												
Detector 1 Extend (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	0.0
Detector 1 Queue (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	0.0
Detector 1 Delay (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	0.0
Detector 2 Position(ft)		94			94			94			94	
Detector 2 Size(ft)		6			6			6			6	
Detector 2 Type		Cl+Ex			Cl+Ex			Cl+Ex			Cl+Ex	
Detector 2 Channel												
Detector 2 Extend (s)		0.0			0.0			0.0			0.0	
Turn Type	Perm	NA		Perm	NA		Perm	NA		Perm	NA	Prot
Protected Phases		6			2			4			8	8
Permitted Phases	6			2			4			8		

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Detector Phase	6	6		2	2		4	4		8	8	8
Switch Phase												
Minimum Initial (s)	10.0	10.0		10.0	10.0		10.0	10.0		10.0	10.0	10.0
Minimum Split (s)	15.2	15.2		15.2	15.2		15.2	15.2		15.2	15.2	15.2
Total Split (s)	50.0	50.0		50.0	50.0		60.0	60.0		60.0	60.0	60.0
Total Split (%)	45.5%	45.5%		45.5%	45.5%		54.5%	54.5%		54.5%	54.5%	54.5%
Maximum Green (s)	44.8	44.8		44.8	44.8		54.8	54.8		54.8	54.8	54.8
Yellow Time (s)	3.6	3.6		3.6	3.6		3.6	3.6		3.6	3.6	3.6
All-Red Time (s)	1.6	1.6		1.6	1.6		1.6	1.6		1.6	1.6	1.6
Lost Time Adjust (s)	0.0	0.0		0.0	0.0			0.0			0.0	0.0
Total Lost Time (s)	5.2	5.2		5.2	5.2			5.2			5.2	5.2
Lead/Lag												
Lead-Lag Optimize?												
Vehicle Extension (s)	3.0	3.0		3.0	3.0		3.0	3.0		3.0	3.0	3.0
Recall Mode	None	None		Min	Min		C-Min	C-Min		C-Min	C-Min	C-Min
Act Effct Green (s)	24.3	24.3		24.3	24.3			75.3			75.3	75.3
Actuated g/C Ratio	0.22	0.22		0.22	0.22			0.68			0.68	0.68
v/c Ratio	0.76	0.03		0.01	0.08			0.17			0.36	0.24
Control Delay	55.6	15.8		29.0	12.9			7.3			9.3	1.6
Queue Delay	0.0	0.0		0.0	0.0			0.0			0.0	0.0
Total Delay	55.6	15.8		29.0	12.9			7.3			9.3	1.6
LOS	E	B		C	B			A			A	A
Approach Delay		53.9			14.7			7.3			6.3	
Approach LOS		D			B			A			A	

Intersection Summary			
Area Type:	Other		
Cycle Length: 110			
Actuated Cycle Length: 110			
Offset: 0 (0%), Referenced to phase 4:NBTL and 8:SBTL, Start of Green			
Natural Cycle: 40			
Control Type: Actuated-Coordinated			
Maximum v/c Ratio: 0.76			
Intersection Signal Delay: 14.9		Intersection LOS: B	
Intersection Capacity Utilization 53.6%		ICU Level of Service A	
Analysis Period (min) 15			

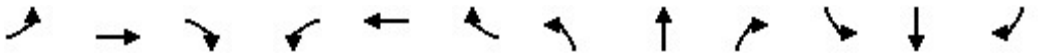
Splits and Phases: 2: Lamar Ave & Foxridge Dr





Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	101	0	306	0	0	0	0	356	239	91	370	0
Future Volume (vph)	101	0	306	0	0	0	0	356	239	91	370	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	16	12	16	16	16	12	12	12	12	12	12
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Frt		0.899							0.850			
Flt Protected		0.988									0.990	
Satd. Flow (prot)	0	1875	0	0	0	0	0	1863	1583	0	1844	0
Flt Permitted		0.988									0.990	
Satd. Flow (perm)	0	1875	0	0	0	0	0	1863	1583	0	1844	0
Link Speed (mph)		35			35			35			35	
Link Distance (ft)		2302			750			353			299	
Travel Time (s)		44.8			14.6			6.9			5.8	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	110	0	333	0	0	0	0	387	260	99	402	0
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	443	0	0	0	0	0	387	260	0	501	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		0			0			0			0	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.00	0.85	1.00	0.85	0.85	0.85	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Sign Control		Stop			Free			Free			Free	

Intersection Summary			
Area Type:	Other		
Control Type: Unsignalized			
Intersection Capacity Utilization 77.7%		ICU Level of Service D	
Analysis Period (min) 15			



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	0	0	0	223	0	51	251	206	0	0	238	119
Future Volume (vph)	0	0	0	223	0	51	251	206	0	0	238	119
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	16	16	16	12	16	12	12	12	12	12	12	12
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Frt					0.975						0.955	
Flt Protected					0.961			0.973				
Satd. Flow (prot)	0	0	0	0	1978	0	0	1812	0	0	1779	0
Flt Permitted					0.961			0.973				
Satd. Flow (perm)	0	0	0	0	1978	0	0	1812	0	0	1779	0
Link Speed (mph)		35			35			35			35	
Link Distance (ft)		755			1614			299			328	
Travel Time (s)		14.7			31.4			5.8			6.4	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	0	0	0	242	0	55	273	224	0	0	259	129
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	0	0	0	297	0	0	497	0	0	388	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		0			0			0			0	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	0.85	0.85	0.85	1.00	0.85	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Sign Control		Free			Stop			Free			Free	

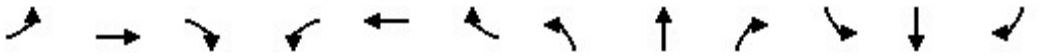
Intersection Summary			
Area Type:	Other		
Control Type: Unsignalized			
Intersection Capacity Utilization 70.0%		ICU Level of Service C	
Analysis Period (min) 15			

Lane Group	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Volume (vph)	225	142	215	278	127	130
Future Volume (vph)	225	142	215	278	127	130
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Storage Length (ft)		0	165		0	0
Storage Lanes		0	1		1	0
Taper Length (ft)			25		25	
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Frt	0.948				0.932	
Flt Protected			0.950		0.976	
Satd. Flow (prot)	1766	0	1770	1863	1694	0
Flt Permitted			0.335		0.976	
Satd. Flow (perm)	1766	0	624	1863	1694	0
Right Turn on Red		Yes				Yes
Satd. Flow (RTOR)	52				80	
Link Speed (mph)	35			35	35	
Link Distance (ft)	1077			256	581	
Travel Time (s)	21.0			5.0	11.3	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	245	154	234	302	138	141
Shared Lane Traffic (%)						
Lane Group Flow (vph)	399	0	234	302	279	0
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Right	Left	Left	Left	Right
Median Width(ft)	12			12	12	
Link Offset(ft)	0			0	0	
Crosswalk Width(ft)	16			16	16	
Two way Left Turn Lane						
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)		9	15		15	9
Number of Detectors	0		0	0	0	
Detector Template	Thru		Left	Thru	Left	
Leading Detector (ft)	0		0	0	0	
Trailing Detector (ft)	0		0	0	0	
Turn Type	NA		pm+pt	NA	Prot	
Protected Phases	2		1	2	4	
Permitted Phases			2			
Detector Phase	2		1	2	4	
Switch Phase						
Minimum Initial (s)	14.0		10.0	14.0	14.0	
Minimum Split (s)	18.7		15.0	18.7	19.0	
Total Split (s)	26.0		15.0	26.0	24.0	
Total Split (%)	40.0%		23.1%	40.0%	36.9%	
Maximum Green (s)	21.3		10.0	21.3	19.0	
Yellow Time (s)	3.6		3.0	3.6	3.0	
All-Red Time (s)	1.1		2.0	1.1	2.0	
Lost Time Adjust (s)	0.0		0.0	0.0	0.0	
Total Lost Time (s)	4.7		5.0	4.7	5.0	
Lead/Lag	Lag		Lead	Lag		

Lane Group	EBT	EBR	WBL	WBT	NBL	NBR
Lead-Lag Optimize?						
Vehicle Extension (s)	3.0		3.0	3.0	3.0	
Recall Mode	Max		Max	Max	Max	
Act Effct Green (s)	21.3		31.0	21.3	19.0	
Actuated g/C Ratio	0.33		0.48	0.33	0.29	
v/c Ratio	0.65		0.49	0.50	0.51	
Control Delay	22.0		11.7	20.9	17.2	
Queue Delay	0.0		0.0	0.0	0.0	
Total Delay	22.0		11.7	20.9	17.2	
LOS	C		B	C	B	
Approach Delay	22.0			16.9	17.2	
Approach LOS	C			B	B	

Intersection Summary			
Area Type:	Other		
Cycle Length: 65			
Actuated Cycle Length: 65			
Natural Cycle: 60			
Control Type: Actuated-Uncoordinated			
Maximum v/c Ratio: 0.65			
Intersection Signal Delay: 18.7		Intersection LOS: B	
Intersection Capacity Utilization 59.7%		ICU Level of Service B	
Analysis Period (min) 15			

Splits and Phases: 3: 24th St & Merriam Ln

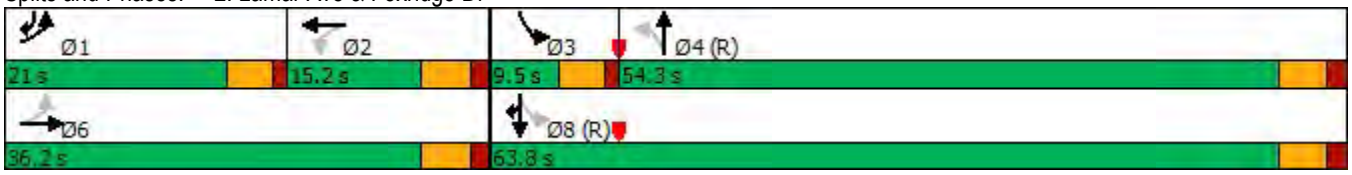


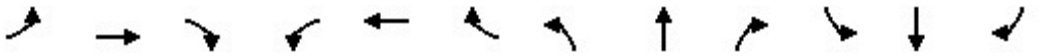
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	276	3	7	7	7	41	6	438	11	214	218	55
Future Volume (vph)	276	3	7	7	7	41	6	438	11	214	218	55
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	0		0	60		0	0		0	0		0
Storage Lanes	1		0	1		0	0		0	0		1
Taper Length (ft)	25			25			25			25		
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	0.95	0.95	0.95	1.00	1.00	1.00
Frt		0.891			0.873			0.996				0.850
Flt Protected	0.950			0.950				0.999			0.976	
Satd. Flow (prot)	1770	1660	0	1770	1626	0	0	3522	0	0	1818	1583
Flt Permitted	0.462			0.750				0.949			0.518	
Satd. Flow (perm)	861	1660	0	1397	1626	0	0	3345	0	0	965	1583
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		8			45			3				60
Link Speed (mph)		35			25			35			35	
Link Distance (ft)		362			218			374			353	
Travel Time (s)		7.1			5.9			7.3			6.9	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	300	3	8	8	8	45	7	476	12	233	237	60
Shared Lane Traffic (%)												
Lane Group Flow (vph)	300	11	0	8	53	0	0	495	0	0	470	60
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		12			12			0			0	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Number of Detectors	1	2		1	2		1	2		1	2	1
Detector Template	Left	Thru		Left	Thru		Left	Thru		Left	Thru	Right
Leading Detector (ft)	20	100		20	100		20	100		20	100	20
Trailing Detector (ft)	0	0		0	0		0	0		0	0	0
Detector 1 Position(ft)	0	0		0	0		0	0		0	0	0
Detector 1 Size(ft)	20	6		20	6		20	6		20	6	20
Detector 1 Type	Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex	Cl+Ex
Detector 1 Channel												
Detector 1 Extend (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	0.0
Detector 1 Queue (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	0.0
Detector 1 Delay (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	0.0
Detector 2 Position(ft)		94			94			94			94	
Detector 2 Size(ft)		6			6			6			6	
Detector 2 Type		Cl+Ex			Cl+Ex			Cl+Ex			Cl+Ex	
Detector 2 Channel												
Detector 2 Extend (s)		0.0			0.0			0.0			0.0	
Turn Type	pm+pt	NA		Perm	NA		Perm	NA		pm+pt	NA	pt+ov
Protected Phases	1	6			2			4		3	8	8 1
Permitted Phases	6			2			4			8		

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Detector Phase	1	6		2	2		4	4		3	8	8 1
Switch Phase												
Minimum Initial (s)	5.0	10.0		10.0	10.0		10.0	10.0		5.0	10.0	
Minimum Split (s)	9.5	15.2		15.2	15.2		15.2	15.2		9.5	15.2	
Total Split (s)	21.0	36.2		15.2	15.2		54.3	54.3		9.5	63.8	
Total Split (%)	21.0%	36.2%		15.2%	15.2%		54.3%	54.3%		9.5%	63.8%	
Maximum Green (s)	16.5	31.0		10.0	10.0		49.1	49.1		5.0	58.6	
Yellow Time (s)	3.5	3.6		3.6	3.6		3.6	3.6		3.5	3.6	
All-Red Time (s)	1.0	1.6		1.6	1.6		1.6	1.6		1.0	1.6	
Lost Time Adjust (s)	0.0	0.0		0.0	0.0			0.0			0.0	
Total Lost Time (s)	4.5	5.2		5.2	5.2			5.2			5.2	
Lead/Lag	Lead			Lag	Lag		Lag	Lag		Lead		
Lead-Lag Optimize?												
Vehicle Extension (s)	3.0	3.0		3.0	3.0		3.0	3.0		3.0	3.0	
Recall Mode	Max	None		None	None		C-Min	C-Min		Max	C-Min	
Act Effct Green (s)	28.7	28.0		10.0	10.0			52.1			61.6	83.7
Actuated g/C Ratio	0.29	0.28		0.10	0.10			0.52			0.62	0.84
v/c Ratio	0.76	0.02		0.06	0.26			0.28			0.74	0.04
Control Delay	43.2	15.6		42.0	19.2			14.7			24.8	0.8
Queue Delay	0.0	0.0		0.0	0.0			0.0			2.3	0.0
Total Delay	43.2	15.6		42.0	19.2			14.7			27.1	0.8
LOS	D	B		D	B			B			C	A
Approach Delay		42.2			22.2			14.7			24.1	
Approach LOS		D			C			B			C	

Intersection Summary			
Area Type:	Other		
Cycle Length: 100			
Actuated Cycle Length: 100			
Offset: 6 (6%), Referenced to phase 4:NBTL and 8:SBTL, Start of Green			
Natural Cycle: 80			
Control Type: Actuated-Coordinated			
Maximum v/c Ratio: 0.76			
Intersection Signal Delay: 24.7		Intersection LOS: C	
Intersection Capacity Utilization 70.9%		ICU Level of Service C	
Analysis Period (min) 15			

Splits and Phases: 2: Lamar Ave & Foxridge Dr



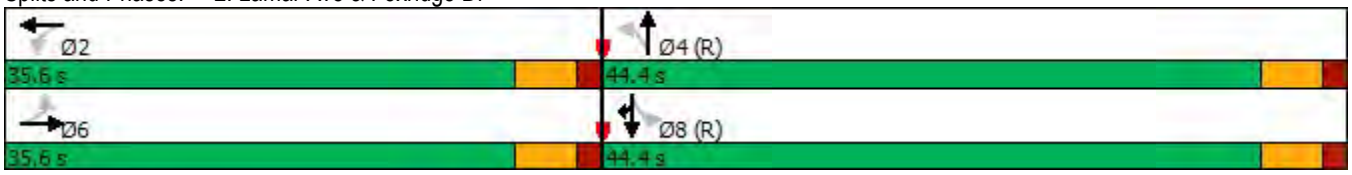


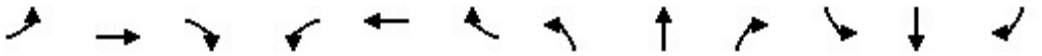
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	276	3	7	7	7	41	6	438	11	214	218	55
Future Volume (vph)	276	3	7	7	7	41	6	438	11	214	218	55
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	0		0	60		0	0		0	0		0
Storage Lanes	1		0	1		0	0		0	0		1
Taper Length (ft)	25			25			25			25		
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	0.95	0.95	0.95	1.00	1.00	1.00
Frt		0.891			0.873			0.996				0.850
Flt Protected	0.950			0.950				0.999			0.976	
Satd. Flow (prot)	1770	1660	0	1770	1626	0	0	3522	0	0	1818	1583
Flt Permitted	0.722			0.750				0.949			0.594	
Satd. Flow (perm)	1345	1660	0	1397	1626	0	0	3345	0	0	1106	1583
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		8			45			4				60
Link Speed (mph)		35			25			35			35	
Link Distance (ft)		362			218			374			353	
Travel Time (s)		7.1			5.9			7.3			6.9	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	300	3	8	8	8	45	7	476	12	233	237	60
Shared Lane Traffic (%)												
Lane Group Flow (vph)	300	11	0	8	53	0	0	495	0	0	470	60
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		12			12			0			0	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Number of Detectors	1	2		1	2		1	2		1	2	1
Detector Template	Left	Thru		Left	Thru		Left	Thru		Left	Thru	Right
Leading Detector (ft)	20	100		20	100		20	100		20	100	20
Trailing Detector (ft)	0	0		0	0		0	0		0	0	0
Detector 1 Position(ft)	0	0		0	0		0	0		0	0	0
Detector 1 Size(ft)	20	6		20	6		20	6		20	6	20
Detector 1 Type	Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex	Cl+Ex
Detector 1 Channel												
Detector 1 Extend (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	0.0
Detector 1 Queue (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	0.0
Detector 1 Delay (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	0.0
Detector 2 Position(ft)		94			94			94			94	
Detector 2 Size(ft)		6			6			6			6	
Detector 2 Type		Cl+Ex			Cl+Ex			Cl+Ex			Cl+Ex	
Detector 2 Channel												
Detector 2 Extend (s)		0.0			0.0			0.0			0.0	
Turn Type	Perm	NA		Perm	NA		Perm	NA		Perm	NA	Prot
Protected Phases		6			2			4			8	8
Permitted Phases	6			2			4			8		

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Detector Phase	6	6		2	2		4	4		8	8	8
Switch Phase												
Minimum Initial (s)	10.0	10.0		10.0	10.0		10.0	10.0		10.0	10.0	10.0
Minimum Split (s)	15.2	15.2		15.2	15.2		15.2	15.2		15.2	15.2	15.2
Total Split (s)	35.6	35.6		35.6	35.6		44.4	44.4		44.4	44.4	44.4
Total Split (%)	44.5%	44.5%		44.5%	44.5%		55.5%	55.5%		55.5%	55.5%	55.5%
Maximum Green (s)	30.4	30.4		30.4	30.4		39.2	39.2		39.2	39.2	39.2
Yellow Time (s)	3.6	3.6		3.6	3.6		3.6	3.6		3.6	3.6	3.6
All-Red Time (s)	1.6	1.6		1.6	1.6		1.6	1.6		1.6	1.6	1.6
Lost Time Adjust (s)	0.0	0.0		0.0	0.0			0.0			0.0	0.0
Total Lost Time (s)	5.2	5.2		5.2	5.2			5.2			5.2	5.2
Lead/Lag												
Lead-Lag Optimize?												
Vehicle Extension (s)	3.0	3.0		3.0	3.0		3.0	3.0		3.0	3.0	3.0
Recall Mode	None	None		Min	Min		C-Min	C-Min		C-Min	C-Min	C-Min
Act Effct Green (s)	22.9	22.9		22.9	22.9			46.7			46.7	46.7
Actuated g/C Ratio	0.29	0.29		0.29	0.29			0.58			0.58	0.58
v/c Ratio	0.78	0.02		0.02	0.11			0.25			0.73	0.06
Control Delay	39.8	11.3		17.1	7.4			9.5			23.2	3.3
Queue Delay	0.0	0.0		0.0	0.0			0.0			2.5	0.0
Total Delay	39.8	11.3		17.1	7.4			9.5			25.7	3.3
LOS	D	B		B	A			A			C	A
Approach Delay		38.8			8.7			9.5			23.2	
Approach LOS		D			A			A			C	

Intersection Summary			
Area Type:	Other		
Cycle Length: 80			
Actuated Cycle Length: 80			
Offset: 0 (0%), Referenced to phase 4:NBTL and 8:SBTL, Start of Green			
Natural Cycle: 60			
Control Type: Actuated-Coordinated			
Maximum v/c Ratio: 0.78			
Intersection Signal Delay: 21.2		Intersection LOS: C	
Intersection Capacity Utilization 70.9%		ICU Level of Service C	
Analysis Period (min) 15			

Splits and Phases: 2: Lamar Ave & Foxridge Dr





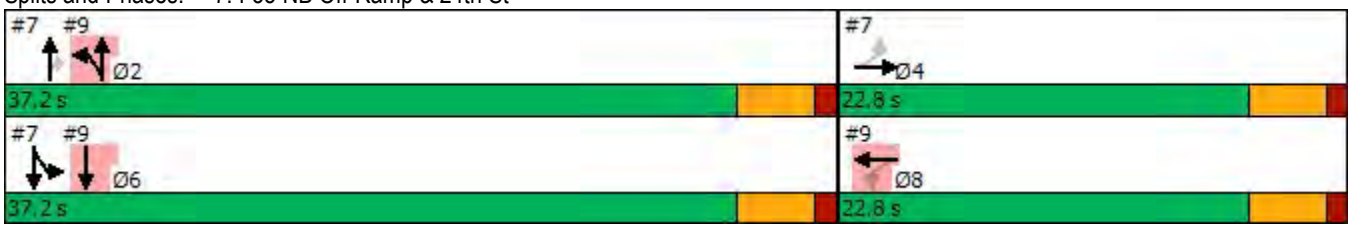
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	103	0	205	0	0	0	0	441	314	66	282	0
Future Volume (vph)	103	0	205	0	0	0	0	441	314	66	282	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	16	12	16	16	16	12	12	12	12	12	12
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Frt		0.910							0.850			
Flt Protected		0.984									0.991	
Satd. Flow (prot)	0	1890	0	0	0	0	0	1863	1583	0	1846	0
Flt Permitted		0.984									0.991	
Satd. Flow (perm)	0	1890	0	0	0	0	0	1863	1583	0	1846	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		172							341			
Link Speed (mph)		35			35			35			35	
Link Distance (ft)		2302			750			353			299	
Travel Time (s)		44.8			14.6			6.9			5.8	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	112	0	223	0	0	0	0	479	341	72	307	0
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	335	0	0	0	0	0	479	341	0	379	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		0			0			0			0	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.00	0.85	1.00	0.85	0.85	0.85	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Number of Detectors	1	2						2	1	1	2	
Detector Template	Left	Thru						Thru	Right	Left	Thru	
Leading Detector (ft)	20	100						100	20	20	100	
Trailing Detector (ft)	0	0						0	0	0	0	
Detector 1 Position(ft)	0	0						0	0	0	0	
Detector 1 Size(ft)	20	6						6	20	20	6	
Detector 1 Type	Cl+Ex	Cl+Ex						Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	
Detector 1 Channel												
Detector 1 Extend (s)	0.0	0.0						0.0	0.0	0.0	0.0	
Detector 1 Queue (s)	0.0	0.0						0.0	0.0	0.0	0.0	
Detector 1 Delay (s)	0.0	0.0						0.0	0.0	0.0	0.0	
Detector 2 Position(ft)		94						94			94	
Detector 2 Size(ft)		6						6			6	
Detector 2 Type		Cl+Ex						Cl+Ex			Cl+Ex	
Detector 2 Channel												
Detector 2 Extend (s)		0.0						0.0			0.0	
Turn Type	Perm	NA						NA	Perm	Split	NA	
Protected Phases		4						2!		6!	6	
Permitted Phases	4								2			
Detector Phase	4	4						2	2	6	6	
Switch Phase												

Lane Group	Ø8
Lane Configurations	
Traffic Volume (vph)	
Future Volume (vph)	
Ideal Flow (vphpl)	
Lane Width (ft)	
Lane Util. Factor	
Frt	
Flt Protected	
Satd. Flow (prot)	
Flt Permitted	
Satd. Flow (perm)	
Right Turn on Red	
Satd. Flow (RTOR)	
Link Speed (mph)	
Link Distance (ft)	
Travel Time (s)	
Peak Hour Factor	
Adj. Flow (vph)	
Shared Lane Traffic (%)	
Lane Group Flow (vph)	
Enter Blocked Intersection	
Lane Alignment	
Median Width(ft)	
Link Offset(ft)	
Crosswalk Width(ft)	
Two way Left Turn Lane	
Headway Factor	
Turning Speed (mph)	
Number of Detectors	
Detector Template	
Leading Detector (ft)	
Trailing Detector (ft)	
Detector 1 Position(ft)	
Detector 1 Size(ft)	
Detector 1 Type	
Detector 1 Channel	
Detector 1 Extend (s)	
Detector 1 Queue (s)	
Detector 1 Delay (s)	
Detector 2 Position(ft)	
Detector 2 Size(ft)	
Detector 2 Type	
Detector 2 Channel	
Detector 2 Extend (s)	
Turn Type	
Protected Phases	8
Permitted Phases	
Detector Phase	
Switch Phase	

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Minimum Initial (s)	7.0	7.0						7.0	7.0	7.0	7.0	
Minimum Split (s)	22.5	22.5						22.5	22.5	22.5	22.5	
Total Split (s)	22.8	22.8						37.2	37.2	37.2	37.2	
Total Split (%)	38.0%	38.0%						62.0%	62.0%	62.0%	62.0%	
Maximum Green (s)	18.3	18.3						32.7	32.7	32.7	32.7	
Yellow Time (s)	3.5	3.5						3.5	3.5	3.5	3.5	
All-Red Time (s)	1.0	1.0						1.0	1.0	1.0	1.0	
Lost Time Adjust (s)		0.0						0.0	0.0		0.0	
Total Lost Time (s)		4.5						4.5	4.5		4.5	
Lead/Lag												
Lead-Lag Optimize?												
Vehicle Extension (s)	3.0	3.0						3.0	3.0	3.0	3.0	
Recall Mode	None	None						Max	Max	Max	Max	
Act Effct Green (s)		11.6						32.8	32.8		32.8	
Actuated g/C Ratio		0.22						0.61	0.61		0.61	
v/c Ratio		0.61						0.42	0.31		0.33	
Control Delay		14.3						7.6	1.7		8.0	
Queue Delay		0.0						0.6	0.0		0.5	
Total Delay		14.3						8.2	1.7		8.5	
LOS		B						A	A		A	
Approach Delay		14.3						5.5			8.5	
Approach LOS		B						A			A	

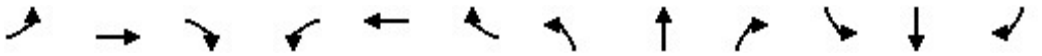
Intersection Summary			
Area Type:	Other		
Cycle Length: 60			
Actuated Cycle Length: 53.5			
Natural Cycle: 55			
Control Type: Semi Act-Uncoord			
Maximum v/c Ratio: 0.61			
Intersection Signal Delay: 8.1		Intersection LOS: A	
Intersection Capacity Utilization 71.3%		ICU Level of Service C	
Analysis Period (min) 15			
! Phase conflict between lane groups.			

Splits and Phases: 7: I-35 NB Off-Ramp & 24th St



Lane Group	Ø8
Minimum Initial (s)	7.0
Minimum Split (s)	22.5
Total Split (s)	22.8
Total Split (%)	38%
Maximum Green (s)	18.3
Yellow Time (s)	3.5
All-Red Time (s)	1.0
Lost Time Adjust (s)	
Total Lost Time (s)	
Lead/Lag	
Lead-Lag Optimize?	
Vehicle Extension (s)	3.0
Recall Mode	None
Act Effct Green (s)	
Actuated g/C Ratio	
v/c Ratio	
Control Delay	
Queue Delay	
Total Delay	
LOS	
Approach Delay	
Approach LOS	

Intersection Summary



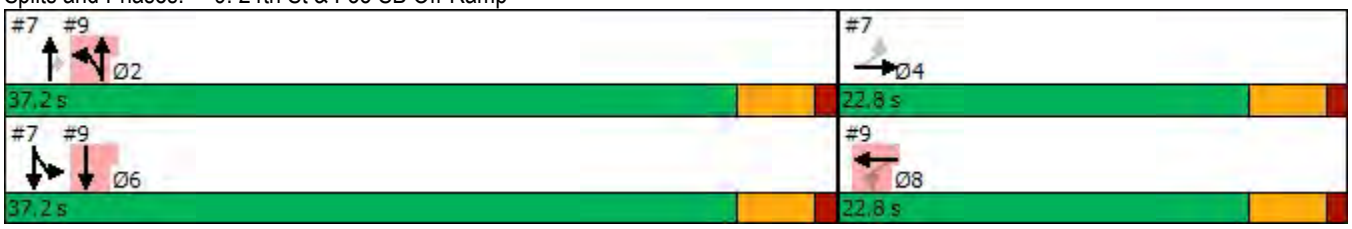
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	0	0	0	173	0	71	370	174	0	0	175	109
Future Volume (vph)	0	0	0	173	0	71	370	174	0	0	175	109
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	16	16	16	12	16	12	12	12	12	12	12	12
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Frt					0.961						0.948	
Flt Protected					0.966			0.967				
Satd. Flow (prot)	0	0	0	0	1960	0	0	1801	0	0	1766	0
Flt Permitted					0.966			0.967				
Satd. Flow (perm)	0	0	0	0	1960	0	0	1801	0	0	1766	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)					35						82	
Link Speed (mph)		35			35			35			35	
Link Distance (ft)		755			1614			299			328	
Travel Time (s)		14.7			31.4			5.8			6.4	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	0	0	0	188	0	77	402	189	0	0	190	118
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	0	0	0	265	0	0	591	0	0	308	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		0			0			0			0	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	0.85	0.85	0.85	1.00	0.85	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Number of Detectors				1	2		1	2			2	
Detector Template				Left	Thru		Left	Thru			Thru	
Leading Detector (ft)				20	100		20	100			100	
Trailing Detector (ft)				0	0		0	0			0	
Detector 1 Position(ft)				0	0		0	0			0	
Detector 1 Size(ft)				20	6		20	6			6	
Detector 1 Type				Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex			Cl+Ex	
Detector 1 Channel												
Detector 1 Extend (s)				0.0	0.0		0.0	0.0			0.0	
Detector 1 Queue (s)				0.0	0.0		0.0	0.0			0.0	
Detector 1 Delay (s)				0.0	0.0		0.0	0.0			0.0	
Detector 2 Position(ft)					94			94			94	
Detector 2 Size(ft)					6			6			6	
Detector 2 Type					Cl+Ex			Cl+Ex			Cl+Ex	
Detector 2 Channel												
Detector 2 Extend (s)					0.0			0.0			0.0	
Turn Type				Perm	NA		Split	NA			NA	
Protected Phases					8		2!	2			6!	
Permitted Phases				8								
Detector Phase				8	8		2	2			6	
Switch Phase												

Lane Group	Ø4
Lane Configurations	
Traffic Volume (vph)	
Future Volume (vph)	
Ideal Flow (vphpl)	
Lane Width (ft)	
Lane Util. Factor	
Frt	
Flt Protected	
Satd. Flow (prot)	
Flt Permitted	
Satd. Flow (perm)	
Right Turn on Red	
Satd. Flow (RTOR)	
Link Speed (mph)	
Link Distance (ft)	
Travel Time (s)	
Peak Hour Factor	
Adj. Flow (vph)	
Shared Lane Traffic (%)	
Lane Group Flow (vph)	
Enter Blocked Intersection	
Lane Alignment	
Median Width(ft)	
Link Offset(ft)	
Crosswalk Width(ft)	
Two way Left Turn Lane	
Headway Factor	
Turning Speed (mph)	
Number of Detectors	
Detector Template	
Leading Detector (ft)	
Trailing Detector (ft)	
Detector 1 Position(ft)	
Detector 1 Size(ft)	
Detector 1 Type	
Detector 1 Channel	
Detector 1 Extend (s)	
Detector 1 Queue (s)	
Detector 1 Delay (s)	
Detector 2 Position(ft)	
Detector 2 Size(ft)	
Detector 2 Type	
Detector 2 Channel	
Detector 2 Extend (s)	
Turn Type	
Protected Phases	4
Permitted Phases	
Detector Phase	
Switch Phase	

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Minimum Initial (s)				7.0	7.0		7.0	7.0			7.0	
Minimum Split (s)				22.5	22.5		22.5	22.5			22.5	
Total Split (s)				22.8	22.8		37.2	37.2			37.2	
Total Split (%)				38.0%	38.0%		62.0%	62.0%			62.0%	
Maximum Green (s)				18.3	18.3		32.7	32.7			32.7	
Yellow Time (s)				3.5	3.5		3.5	3.5			3.5	
All-Red Time (s)				1.0	1.0		1.0	1.0			1.0	
Lost Time Adjust (s)					0.0			0.0			0.0	
Total Lost Time (s)					4.5			4.5			4.5	
Lead/Lag												
Lead-Lag Optimize?												
Vehicle Extension (s)				3.0	3.0		3.0	3.0			3.0	
Recall Mode				None	None		Max	Max			Max	
Act Effct Green (s)					11.6			32.8			32.8	
Actuated g/C Ratio					0.22			0.61			0.61	
v/c Ratio					0.58			0.54			0.28	
Control Delay					21.4			5.3			4.9	
Queue Delay					0.0			0.1			0.3	
Total Delay					21.4			5.4			5.2	
LOS					C			A			A	
Approach Delay					21.4			5.4			5.2	
Approach LOS					C			A			A	

Intersection Summary			
Area Type:	Other		
Cycle Length: 60			
Actuated Cycle Length: 53.5			
Natural Cycle: 55			
Control Type: Semi Act-Uncoord			
Maximum v/c Ratio: 0.61			
Intersection Signal Delay: 9.0		Intersection LOS: A	
Intersection Capacity Utilization 70.7%		ICU Level of Service C	
Analysis Period (min) 15			
! Phase conflict between lane groups.			

Splits and Phases: 9: 24th St & I-35 SB Off-Ramp



Lane Group	Ø4
Minimum Initial (s)	7.0
Minimum Split (s)	22.5
Total Split (s)	22.8
Total Split (%)	38%
Maximum Green (s)	18.3
Yellow Time (s)	3.5
All-Red Time (s)	1.0
Lost Time Adjust (s)	
Total Lost Time (s)	
Lead/Lag	
Lead-Lag Optimize?	
Vehicle Extension (s)	3.0
Recall Mode	None
Act Effct Green (s)	
Actuated g/C Ratio	
v/c Ratio	
Control Delay	
Queue Delay	
Total Delay	
LOS	
Approach Delay	
Approach LOS	

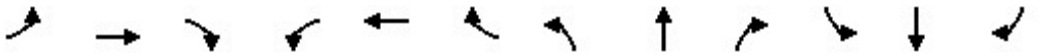
Intersection Summary

Lane Group	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Volume (vph)	129	146	138	131	117	128
Future Volume (vph)	129	146	138	131	117	128
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Storage Length (ft)		0	165		0	0
Storage Lanes		0	1		1	0
Taper Length (ft)			25		25	
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Frt	0.928				0.929	
Flt Protected			0.950		0.977	
Satd. Flow (prot)	1729	0	1770	1863	1691	0
Flt Permitted			0.469		0.977	
Satd. Flow (perm)	1729	0	874	1863	1691	0
Right Turn on Red		Yes				Yes
Satd. Flow (RTOR)	94				86	
Link Speed (mph)	35			35	35	
Link Distance (ft)	1077			256	581	
Travel Time (s)	21.0			5.0	11.3	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	140	159	150	142	127	139
Shared Lane Traffic (%)						
Lane Group Flow (vph)	299	0	150	142	266	0
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Right	Left	Left	Left	Right
Median Width(ft)	12			12	12	
Link Offset(ft)	0			0	0	
Crosswalk Width(ft)	16			16	16	
Two way Left Turn Lane						
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)		9	15		15	9
Number of Detectors	0		0	0	0	
Detector Template	Thru		Left	Thru	Left	
Leading Detector (ft)	0		0	0	0	
Trailing Detector (ft)	0		0	0	0	
Turn Type	NA		pm+pt	NA	Prot	
Protected Phases	2		1	2	4	
Permitted Phases			2			
Detector Phase	2		1	2	4	
Switch Phase						
Minimum Initial (s)	14.0		10.0	14.0	14.0	
Minimum Split (s)	18.7		15.0	18.7	19.0	
Total Split (s)	26.0		15.0	26.0	24.0	
Total Split (%)	40.0%		23.1%	40.0%	36.9%	
Maximum Green (s)	21.3		10.0	21.3	19.0	
Yellow Time (s)	3.6		3.0	3.6	3.0	
All-Red Time (s)	1.1		2.0	1.1	2.0	
Lost Time Adjust (s)	0.0		0.0	0.0	0.0	
Total Lost Time (s)	4.7		5.0	4.7	5.0	
Lead/Lag	Lag		Lead	Lag		

Lane Group	EBT	EBR	WBL	WBT	NBL	NBR
Lead-Lag Optimize?						
Vehicle Extension (s)	3.0		3.0	3.0	3.0	
Recall Mode	Max		Max	Max	Max	
Act Effct Green (s)	21.3		31.0	21.3	19.0	
Actuated g/C Ratio	0.33		0.48	0.33	0.29	
v/c Ratio	0.48		0.27	0.23	0.48	
Control Delay	14.6		8.7	17.2	16.0	
Queue Delay	0.0		0.0	0.0	0.0	
Total Delay	14.6		8.7	17.2	16.0	
LOS	B		A	B	B	
Approach Delay	14.6			12.8	16.0	
Approach LOS	B			B	B	

Intersection Summary			
Area Type:	Other		
Cycle Length: 65			
Actuated Cycle Length: 65			
Natural Cycle: 55			
Control Type: Actuated-Uncoordinated			
Maximum v/c Ratio: 0.48			
Intersection Signal Delay: 14.4		Intersection LOS: B	
Intersection Capacity Utilization 50.6%		ICU Level of Service A	
Analysis Period (min) 15			

Splits and Phases: 3: 24th St & Merriam Ln

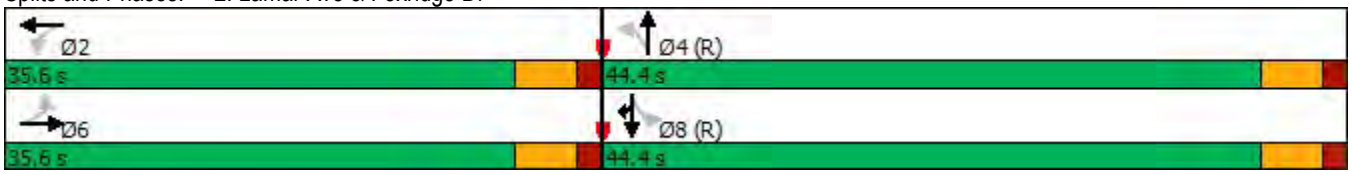


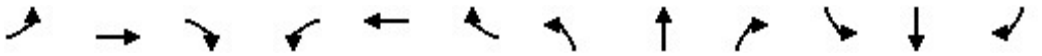
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	276	3	7	7	7	41	6	438	11	55	218	214
Future Volume (vph)	276	3	7	7	7	41	6	438	11	55	218	214
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	0		0	60		0	0		0	0		0
Storage Lanes	1		0	1		0	0		0	0		1
Taper Length (ft)	25			25			25			25		
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	0.95	0.95	0.95	1.00	1.00	1.00
Frt		0.891			0.873			0.996				0.850
Flt Protected	0.950			0.950				0.999			0.990	
Satd. Flow (prot)	1770	1660	0	1770	1626	0	0	3522	0	0	1844	1583
Flt Permitted	0.722			0.750				0.951			0.838	
Satd. Flow (perm)	1345	1660	0	1397	1626	0	0	3352	0	0	1561	1583
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		8			45			4				233
Link Speed (mph)		35			25			35			35	
Link Distance (ft)		362			218			374			353	
Travel Time (s)		7.1			5.9			7.3			6.9	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	300	3	8	8	8	45	7	476	12	60	237	233
Shared Lane Traffic (%)												
Lane Group Flow (vph)	300	11	0	8	53	0	0	495	0	0	297	233
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		12			12			0			0	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Number of Detectors	1	2		1	2		1	2		1	2	1
Detector Template	Left	Thru		Left	Thru		Left	Thru		Left	Thru	Right
Leading Detector (ft)	20	100		20	100		20	100		20	100	20
Trailing Detector (ft)	0	0		0	0		0	0		0	0	0
Detector 1 Position(ft)	0	0		0	0		0	0		0	0	0
Detector 1 Size(ft)	20	6		20	6		20	6		20	6	20
Detector 1 Type	Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex	Cl+Ex
Detector 1 Channel												
Detector 1 Extend (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	0.0
Detector 1 Queue (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	0.0
Detector 1 Delay (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	0.0
Detector 2 Position(ft)		94			94			94			94	
Detector 2 Size(ft)		6			6			6			6	
Detector 2 Type		Cl+Ex			Cl+Ex			Cl+Ex			Cl+Ex	
Detector 2 Channel												
Detector 2 Extend (s)		0.0			0.0			0.0			0.0	
Turn Type	Perm	NA		Perm	NA		Perm	NA		Perm	NA	Prot
Protected Phases		6			2			4			8	8
Permitted Phases	6			2			4			8		

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Detector Phase	6	6		2	2		4	4		8	8	8
Switch Phase												
Minimum Initial (s)	10.0	10.0		10.0	10.0		10.0	10.0		10.0	10.0	10.0
Minimum Split (s)	15.2	15.2		15.2	15.2		15.2	15.2		15.2	15.2	15.2
Total Split (s)	35.6	35.6		35.6	35.6		44.4	44.4		44.4	44.4	44.4
Total Split (%)	44.5%	44.5%		44.5%	44.5%		55.5%	55.5%		55.5%	55.5%	55.5%
Maximum Green (s)	30.4	30.4		30.4	30.4		39.2	39.2		39.2	39.2	39.2
Yellow Time (s)	3.6	3.6		3.6	3.6		3.6	3.6		3.6	3.6	3.6
All-Red Time (s)	1.6	1.6		1.6	1.6		1.6	1.6		1.6	1.6	1.6
Lost Time Adjust (s)	0.0	0.0		0.0	0.0			0.0			0.0	0.0
Total Lost Time (s)	5.2	5.2		5.2	5.2			5.2			5.2	5.2
Lead/Lag												
Lead-Lag Optimize?												
Vehicle Extension (s)	3.0	3.0		3.0	3.0		3.0	3.0		3.0	3.0	3.0
Recall Mode	None	None		Min	Min		C-Min	C-Min		C-Min	C-Min	C-Min
Act Effct Green (s)	23.0	23.0		23.0	23.0			46.6			46.6	46.6
Actuated g/C Ratio	0.29	0.29		0.29	0.29			0.58			0.58	0.58
v/c Ratio	0.78	0.02		0.02	0.11			0.25			0.33	0.23
Control Delay	39.3	11.1		16.9	7.3			9.6			11.4	2.3
Queue Delay	0.0	0.0		0.0	0.0			0.0			0.0	0.0
Total Delay	39.3	11.1		16.9	7.3			9.6			11.4	2.3
LOS	D	B		B	A			A			B	A
Approach Delay		38.3			8.6			9.6			7.4	
Approach LOS		D			A			A			A	

Intersection Summary			
Area Type:	Other		
Cycle Length: 80			
Actuated Cycle Length: 80			
Offset: 0 (0%), Referenced to phase 4:NBTL and 8:SBTL, Start of Green			
Natural Cycle: 45			
Control Type: Actuated-Coordinated			
Maximum v/c Ratio: 0.78			
Intersection Signal Delay: 15.1		Intersection LOS: B	
Intersection Capacity Utilization 62.1%		ICU Level of Service B	
Analysis Period (min) 15			

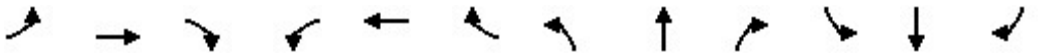
Splits and Phases: 2: Lamar Ave & Foxridge Dr





Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	103	0	205	0	0	0	0	441	314	66	282	0
Future Volume (vph)	103	0	205	0	0	0	0	441	314	66	282	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	16	12	16	16	16	12	12	12	12	12	12
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Frt		0.910							0.850			
Flt Protected		0.984									0.991	
Satd. Flow (prot)	0	1890	0	0	0	0	0	1863	1583	0	1846	0
Flt Permitted		0.984									0.991	
Satd. Flow (perm)	0	1890	0	0	0	0	0	1863	1583	0	1846	0
Link Speed (mph)		35			35			35			35	
Link Distance (ft)		2302			750			353			299	
Travel Time (s)		44.8			14.6			6.9			5.8	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	112	0	223	0	0	0	0	479	341	72	307	0
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	335	0	0	0	0	0	479	341	0	379	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		0			0			0			0	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.00	0.85	1.00	0.85	0.85	0.85	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Sign Control		Stop			Free			Free			Free	

Intersection Summary			
Area Type:	Other		
Control Type: Unsignalized			
Intersection Capacity Utilization 70.0%		ICU Level of Service C	
Analysis Period (min) 15			



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	0	0	0	173	0	71	370	174	0	0	175	109
Future Volume (vph)	0	0	0	173	0	71	370	174	0	0	175	109
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	16	16	16	12	16	12	12	12	12	12	12	12
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Frt					0.961						0.948	
Flt Protected					0.966			0.967				
Satd. Flow (prot)	0	0	0	0	1960	0	0	1801	0	0	1766	0
Flt Permitted					0.966			0.967				
Satd. Flow (perm)	0	0	0	0	1960	0	0	1801	0	0	1766	0
Link Speed (mph)		35			35			35			35	
Link Distance (ft)		755			1614			299			328	
Travel Time (s)		14.7			31.4			5.8			6.4	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	0	0	0	188	0	77	402	189	0	0	190	118
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	0	0	0	265	0	0	591	0	0	308	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		0			0			0			0	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	0.85	0.85	0.85	1.00	0.85	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Sign Control		Free			Stop			Free			Free	

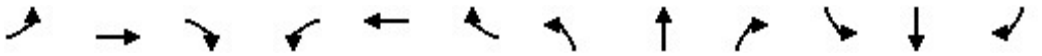
Intersection Summary			
Area Type:	Other		
Control Type: Unsignalized			
Intersection Capacity Utilization 69.4%		ICU Level of Service C	
Analysis Period (min) 15			

Lane Group	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Volume (vph)	129	146	138	131	117	128
Future Volume (vph)	129	146	138	131	117	128
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Storage Length (ft)		0	165		0	0
Storage Lanes		0	1		1	0
Taper Length (ft)			25		25	
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Frt	0.928				0.929	
Flt Protected			0.950		0.977	
Satd. Flow (prot)	1729	0	1770	1863	1691	0
Flt Permitted			0.469		0.977	
Satd. Flow (perm)	1729	0	874	1863	1691	0
Right Turn on Red		Yes				Yes
Satd. Flow (RTOR)	94				86	
Link Speed (mph)	35			35	35	
Link Distance (ft)	1077			256	581	
Travel Time (s)	21.0			5.0	11.3	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	140	159	150	142	127	139
Shared Lane Traffic (%)						
Lane Group Flow (vph)	299	0	150	142	266	0
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Right	Left	Left	Left	Right
Median Width(ft)	12			12	12	
Link Offset(ft)	0			0	0	
Crosswalk Width(ft)	16			16	16	
Two way Left Turn Lane						
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)		9	15		15	9
Number of Detectors	0		0	0	0	
Detector Template	Thru		Left	Thru	Left	
Leading Detector (ft)	0		0	0	0	
Trailing Detector (ft)	0		0	0	0	
Turn Type	NA		pm+pt	NA	Prot	
Protected Phases	2		1	2	4	
Permitted Phases			2			
Detector Phase	2		1	2	4	
Switch Phase						
Minimum Initial (s)	14.0		10.0	14.0	14.0	
Minimum Split (s)	18.7		15.0	18.7	19.0	
Total Split (s)	26.0		15.0	26.0	24.0	
Total Split (%)	40.0%		23.1%	40.0%	36.9%	
Maximum Green (s)	21.3		10.0	21.3	19.0	
Yellow Time (s)	3.6		3.0	3.6	3.0	
All-Red Time (s)	1.1		2.0	1.1	2.0	
Lost Time Adjust (s)	0.0		0.0	0.0	0.0	
Total Lost Time (s)	4.7		5.0	4.7	5.0	
Lead/Lag	Lag		Lead	Lag		

Lane Group	EBT	EBR	WBL	WBT	NBL	NBR
Lead-Lag Optimize?						
Vehicle Extension (s)	3.0		3.0	3.0	3.0	
Recall Mode	Max		Max	Max	Max	
Act Effct Green (s)	21.3		31.0	21.3	19.0	
Actuated g/C Ratio	0.33		0.48	0.33	0.29	
v/c Ratio	0.48		0.27	0.23	0.48	
Control Delay	14.6		8.7	17.2	16.0	
Queue Delay	0.0		0.0	0.0	0.0	
Total Delay	14.6		8.7	17.2	16.0	
LOS	B		A	B	B	
Approach Delay	14.6			12.8	16.0	
Approach LOS	B			B	B	

Intersection Summary			
Area Type:	Other		
Cycle Length: 65			
Actuated Cycle Length: 65			
Natural Cycle: 55			
Control Type: Actuated-Uncoordinated			
Maximum v/c Ratio: 0.48			
Intersection Signal Delay: 14.4		Intersection LOS: B	
Intersection Capacity Utilization 50.6%		ICU Level of Service A	
Analysis Period (min) 15			

Splits and Phases: 3: 24th St & Merriam Ln

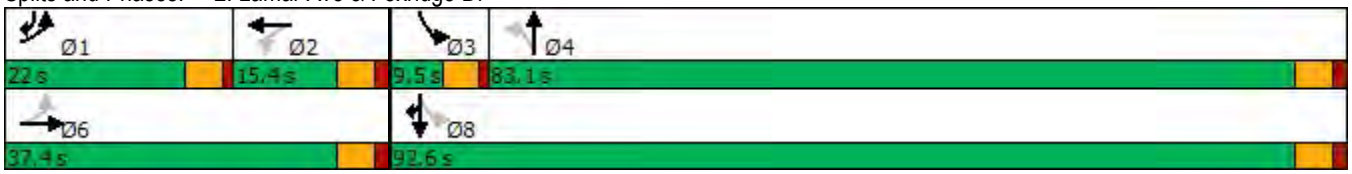


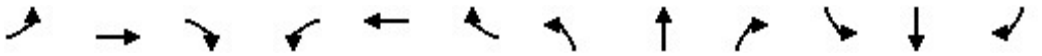
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	264	7	7	3	3	35	3	347	16	407	134	199
Future Volume (vph)	264	7	7	3	3	35	3	347	16	407	134	199
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	0		0	60		0	0		0	0		0
Storage Lanes	1		0	1		0	0		0	0		1
Taper Length (ft)	25			25			25			25		
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	0.95	0.95	0.95	1.00	1.00	1.00
Frt		0.925			0.861			0.994				0.850
Flt Protected	0.950			0.950							0.964	
Satd. Flow (prot)	1770	1723	0	1770	1604	0	0	3518	0	0	1796	1583
Flt Permitted	0.452			0.747				0.952			0.496	
Satd. Flow (perm)	842	1723	0	1391	1604	0	0	3349	0	0	924	1583
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		8			38			6				216
Link Speed (mph)		35			25			35			35	
Link Distance (ft)		362			218			374			353	
Travel Time (s)		7.1			5.9			7.3			6.9	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	287	8	8	3	3	38	3	377	17	442	146	216
Shared Lane Traffic (%)												
Lane Group Flow (vph)	287	16	0	3	41	0	0	397	0	0	588	216
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		12			12			0			0	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Number of Detectors	1	2		1	2		1	2		1	2	1
Detector Template	Left	Thru		Left	Thru		Left	Thru		Left	Thru	Right
Leading Detector (ft)	20	100		20	100		20	100		20	100	20
Trailing Detector (ft)	0	0		0	0		0	0		0	0	0
Detector 1 Position(ft)	0	0		0	0		0	0		0	0	0
Detector 1 Size(ft)	20	6		20	6		20	6		20	6	20
Detector 1 Type	Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex	Cl+Ex
Detector 1 Channel												
Detector 1 Extend (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	0.0
Detector 1 Queue (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	0.0
Detector 1 Delay (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	0.0
Detector 2 Position(ft)		94			94			94			94	
Detector 2 Size(ft)		6			6			6			6	
Detector 2 Type		Cl+Ex			Cl+Ex			Cl+Ex			Cl+Ex	
Detector 2 Channel												
Detector 2 Extend (s)		0.0			0.0			0.0			0.0	
Turn Type	pm+pt	NA		Perm	NA		Perm	NA		pm+pt	NA	pt+ov
Protected Phases	1	6			2			4		3	8	8 1
Permitted Phases	6			2			4			8		

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Detector Phase	1	6		2	2		4	4		3	8	8 1
Switch Phase												
Minimum Initial (s)	5.0	10.0		10.0	10.0		10.0	10.0		5.0	10.0	
Minimum Split (s)	9.5	15.2		15.2	15.2		15.2	15.2		9.5	15.2	
Total Split (s)	22.0	37.4		15.4	15.4		83.1	83.1		9.5	92.6	
Total Split (%)	16.9%	28.8%		11.8%	11.8%		63.9%	63.9%		7.3%	71.2%	
Maximum Green (s)	17.5	32.2		10.2	10.2		77.9	77.9		5.0	87.4	
Yellow Time (s)	3.5	3.6		3.6	3.6		3.6	3.6		3.5	3.6	
All-Red Time (s)	1.0	1.6		1.6	1.6		1.6	1.6		1.0	1.6	
Lost Time Adjust (s)	0.0	0.0		0.0	0.0			0.0			0.0	
Total Lost Time (s)	4.5	5.2		5.2	5.2			5.2			5.2	
Lead/Lag	Lead			Lag	Lag		Lag	Lag		Lead		
Lead-Lag Optimize?												
Vehicle Extension (s)	3.0	3.0		3.0	3.0		3.0	3.0		3.0	3.0	
Recall Mode	Max	None		None	None		Min	Min		Max	Min	
Act Effct Green (s)	29.8	29.0		10.7	10.7			63.8			74.0	99.4
Actuated g/C Ratio	0.26	0.25		0.09	0.09			0.56			0.65	0.87
v/c Ratio	0.77	0.04		0.02	0.22			0.21			0.93	0.15
Control Delay	55.9	25.9		56.0	22.0			12.1			39.6	0.5
Queue Delay	0.0	0.0		0.0	0.0			0.0			17.4	0.7
Total Delay	55.9	25.9		56.0	22.0			12.1			57.0	1.1
LOS	E	C		E	C			B			E	A
Approach Delay		54.3			24.3			12.1			42.0	
Approach LOS		D			C			B			D	

Intersection Summary			
Area Type:	Other		
Cycle Length: 130			
Actuated Cycle Length: 114.2			
Natural Cycle: 90			
Control Type: Semi Act-Uncoord			
Maximum v/c Ratio: 0.93			
Intersection Signal Delay: 36.2		Intersection LOS: D	
Intersection Capacity Utilization 74.1%		ICU Level of Service D	
Analysis Period (min) 15			

Splits and Phases: 2: Lamar Ave & Foxridge Dr



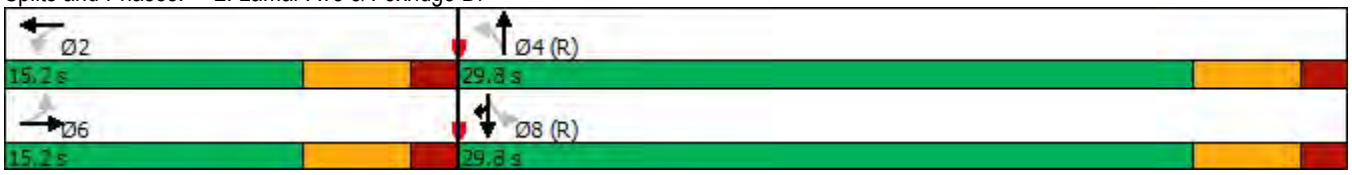


Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	264	7	7	3	3	35	3	347	16	407	134	199
Future Volume (vph)	264	7	7	3	3	35	3	347	16	407	134	199
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	0		0	60		0	0		0	0		0
Storage Lanes	1		0	1		0	0		0	0		1
Taper Length (ft)	25			25			25			25		
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	0.95	0.95	0.95	1.00	1.00	1.00
Frt		0.925			0.861			0.994				0.850
Flt Protected	0.950			0.950							0.964	
Satd. Flow (prot)	1770	1723	0	1770	1604	0	0	3518	0	0	1796	1583
Flt Permitted	0.730			0.747				0.952			0.543	
Satd. Flow (perm)	1360	1723	0	1391	1604	0	0	3349	0	0	1011	1583
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		8			38			16				216
Link Speed (mph)		35			25			35			35	
Link Distance (ft)		362			218			374			353	
Travel Time (s)		7.1			5.9			7.3			6.9	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	287	8	8	3	3	38	3	377	17	442	146	216
Shared Lane Traffic (%)												
Lane Group Flow (vph)	287	16	0	3	41	0	0	397	0	0	588	216
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		12			12			0			0	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Number of Detectors	1	2		1	2		1	2		1	2	1
Detector Template	Left	Thru		Left	Thru		Left	Thru		Left	Thru	Right
Leading Detector (ft)	20	100		20	100		20	100		20	100	20
Trailing Detector (ft)	0	0		0	0		0	0		0	0	0
Detector 1 Position(ft)	0	0		0	0		0	0		0	0	0
Detector 1 Size(ft)	20	6		20	6		20	6		20	6	20
Detector 1 Type	Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex	Cl+Ex
Detector 1 Channel												
Detector 1 Extend (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	0.0
Detector 1 Queue (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	0.0
Detector 1 Delay (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	0.0
Detector 2 Position(ft)		94			94			94			94	
Detector 2 Size(ft)		6			6			6			6	
Detector 2 Type		Cl+Ex			Cl+Ex			Cl+Ex			Cl+Ex	
Detector 2 Channel												
Detector 2 Extend (s)		0.0			0.0			0.0			0.0	
Turn Type	Perm	NA		Perm	NA		Perm	NA		Perm	NA	Prot
Protected Phases		6			2			4			8	8
Permitted Phases	6			2			4			8		

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Detector Phase	6	6		2	2		4	4		8	8	8
Switch Phase												
Minimum Initial (s)	10.0	10.0		10.0	10.0		10.0	10.0		10.0	10.0	10.0
Minimum Split (s)	15.2	15.2		15.2	15.2		15.2	15.2		15.2	15.2	15.2
Total Split (s)	15.2	15.2		15.2	15.2		29.8	29.8		29.8	29.8	29.8
Total Split (%)	33.8%	33.8%		33.8%	33.8%		66.2%	66.2%		66.2%	66.2%	66.2%
Maximum Green (s)	10.0	10.0		10.0	10.0		24.6	24.6		24.6	24.6	24.6
Yellow Time (s)	3.6	3.6		3.6	3.6		3.6	3.6		3.6	3.6	3.6
All-Red Time (s)	1.6	1.6		1.6	1.6		1.6	1.6		1.6	1.6	1.6
Lost Time Adjust (s)	0.0	0.0		0.0	0.0			0.0			0.0	0.0
Total Lost Time (s)	5.2	5.2		5.2	5.2			5.2			5.2	5.2
Lead/Lag												
Lead-Lag Optimize?												
Vehicle Extension (s)	3.0	3.0		3.0	3.0		3.0	3.0		3.0	3.0	3.0
Recall Mode	None	None		Min	Min		C-Min	C-Min		C-Min	C-Min	C-Min
Act Effct Green (s)	10.0	10.0		10.0	10.0			24.6			24.6	24.6
Actuated g/C Ratio	0.22	0.22		0.22	0.22			0.55			0.55	0.55
v/c Ratio	0.95	0.04		0.01	0.11			0.22			1.07	0.22
Control Delay	64.8	11.2		14.0	7.2			5.4			73.8	1.7
Queue Delay	0.0	0.0		0.0	0.0			0.0			0.0	0.0
Total Delay	64.8	11.2		14.0	7.2			5.4			73.8	1.7
LOS	E	B		B	A			A			E	A
Approach Delay		62.0			7.7			5.4			54.4	
Approach LOS		E			A			A			D	

Intersection Summary			
Area Type:	Other		
Cycle Length: 45			
Actuated Cycle Length: 45			
Offset: 0 (0%), Referenced to phase 4:NBTL and 8:SBTL, Start of Green			
Natural Cycle: 90			
Control Type: Actuated-Coordinated			
Maximum v/c Ratio: 1.07			
Intersection Signal Delay: 42.0		Intersection LOS: D	
Intersection Capacity Utilization 74.1%		ICU Level of Service D	
Analysis Period (min) 15			

Splits and Phases: 2: Lamar Ave & Foxridge Dr



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	100	0	338	0	0	0	0	375	272	49	402	0
Future Volume (vph)	100	0	338	0	0	0	0	375	272	49	402	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	16	12	16	16	16	12	12	12	12	12	12
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Frt		0.896							0.850			
Flt Protected		0.989									0.995	
Satd. Flow (prot)	0	1871	0	0	0	0	0	1863	1583	0	1853	0
Flt Permitted		0.989									0.995	
Satd. Flow (perm)	0	1871	0	0	0	0	0	1863	1583	0	1853	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		318							296			
Link Speed (mph)		35			35			35			35	
Link Distance (ft)		2302			750			353			299	
Travel Time (s)		44.8			14.6			6.9			5.8	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	109	0	367	0	0	0	0	408	296	53	437	0
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	476	0	0	0	0	0	408	296	0	490	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		0			0			0			0	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.00	0.85	1.00	0.85	0.85	0.85	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Number of Detectors	1	2						2	1	1	2	
Detector Template	Left	Thru						Thru	Right	Left	Thru	
Leading Detector (ft)	20	100						100	20	20	100	
Trailing Detector (ft)	0	0						0	0	0	0	
Detector 1 Position(ft)	0	0						0	0	0	0	
Detector 1 Size(ft)	20	6						6	20	20	6	
Detector 1 Type	Cl+Ex	Cl+Ex						Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	
Detector 1 Channel												
Detector 1 Extend (s)	0.0	0.0						0.0	0.0	0.0	0.0	
Detector 1 Queue (s)	0.0	0.0						0.0	0.0	0.0	0.0	
Detector 1 Delay (s)	0.0	0.0						0.0	0.0	0.0	0.0	
Detector 2 Position(ft)		94						94			94	
Detector 2 Size(ft)		6						6			6	
Detector 2 Type		Cl+Ex						Cl+Ex			Cl+Ex	
Detector 2 Channel												
Detector 2 Extend (s)		0.0						0.0			0.0	
Turn Type	Perm	NA						NA	Perm	Split	NA	
Protected Phases		4						2!		6!	6	
Permitted Phases	4								2			
Detector Phase	4	4						2	2	6	6	
Switch Phase												

Lane Group	Ø8
Lane Configurations	
Traffic Volume (vph)	
Future Volume (vph)	
Ideal Flow (vphpl)	
Lane Width (ft)	
Lane Util. Factor	
Frt	
Flt Protected	
Satd. Flow (prot)	
Flt Permitted	
Satd. Flow (perm)	
Right Turn on Red	
Satd. Flow (RTOR)	
Link Speed (mph)	
Link Distance (ft)	
Travel Time (s)	
Peak Hour Factor	
Adj. Flow (vph)	
Shared Lane Traffic (%)	
Lane Group Flow (vph)	
Enter Blocked Intersection	
Lane Alignment	
Median Width(ft)	
Link Offset(ft)	
Crosswalk Width(ft)	
Two way Left Turn Lane	
Headway Factor	
Turning Speed (mph)	
Number of Detectors	
Detector Template	
Leading Detector (ft)	
Trailing Detector (ft)	
Detector 1 Position(ft)	
Detector 1 Size(ft)	
Detector 1 Type	
Detector 1 Channel	
Detector 1 Extend (s)	
Detector 1 Queue (s)	
Detector 1 Delay (s)	
Detector 2 Position(ft)	
Detector 2 Size(ft)	
Detector 2 Type	
Detector 2 Channel	
Detector 2 Extend (s)	
Turn Type	
Protected Phases	8
Permitted Phases	
Detector Phase	
Switch Phase	

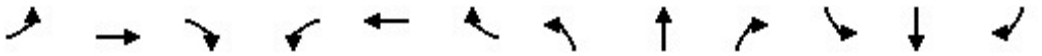
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Minimum Initial (s)	7.0	7.0						7.0	7.0	7.0	7.0	
Minimum Split (s)	22.5	22.5						22.5	22.5	22.5	22.5	
Total Split (s)	22.5	22.5						27.5	27.5	27.5	27.5	
Total Split (%)	45.0%	45.0%						55.0%	55.0%	55.0%	55.0%	
Maximum Green (s)	18.0	18.0						23.0	23.0	23.0	23.0	
Yellow Time (s)	3.5	3.5						3.5	3.5	3.5	3.5	
All-Red Time (s)	1.0	1.0						1.0	1.0	1.0	1.0	
Lost Time Adjust (s)		0.0						0.0	0.0		0.0	
Total Lost Time (s)		4.5						4.5	4.5		4.5	
Lead/Lag												
Lead-Lag Optimize?												
Vehicle Extension (s)	3.0	3.0						3.0	3.0	3.0	3.0	
Recall Mode	None	None						Max	Max	Max	Max	
Act Effct Green (s)		14.2						23.2	23.2		23.2	
Actuated g/C Ratio		0.31						0.50	0.50		0.50	
v/c Ratio		0.60						0.44	0.32		0.53	
Control Delay		8.1						10.3	2.4		13.4	
Queue Delay		0.0						0.0	0.0		0.8	
Total Delay		8.1						10.3	2.4		14.2	
LOS		A						B	A		B	
Approach Delay		8.1						6.9			14.2	
Approach LOS		A						A			B	

Intersection Summary			
Area Type:	Other		
Cycle Length: 50			
Actuated Cycle Length: 46.4			
Natural Cycle: 55			
Control Type: Semi Act-Uncoord			
Maximum v/c Ratio: 0.71			
Intersection Signal Delay: 9.4		Intersection LOS: A	
Intersection Capacity Utilization 81.2%		ICU Level of Service D	
Analysis Period (min) 15			
! Phase conflict between lane groups.			

Splits and Phases: 7: I-35 NB Off-Ramp & 24th St

Lane Group	Ø8
Minimum Initial (s)	7.0
Minimum Split (s)	22.5
Total Split (s)	22.5
Total Split (%)	45%
Maximum Green (s)	18.0
Yellow Time (s)	3.5
All-Red Time (s)	1.0
Lost Time Adjust (s)	
Total Lost Time (s)	
Lead/Lag	
Lead-Lag Optimize?	
Vehicle Extension (s)	3.0
Recall Mode	None
Act Effct Green (s)	
Actuated g/C Ratio	
v/c Ratio	
Control Delay	
Queue Delay	
Total Delay	
LOS	
Approach Delay	
Approach LOS	

Intersection Summary



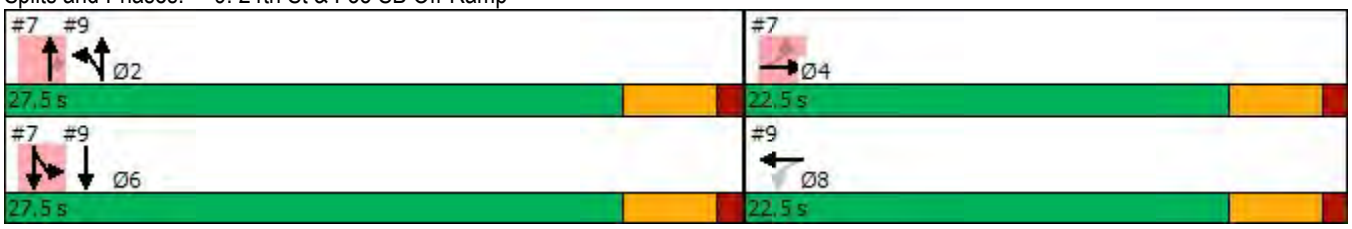
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	0	0	0	308	0	99	327	148	0	0	143	84
Future Volume (vph)	0	0	0	308	0	99	327	148	0	0	143	84
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	16	16	16	12	16	12	12	12	12	12	12	12
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Frt					0.967						0.950	
Flt Protected					0.964			0.967				
Satd. Flow (prot)	0	0	0	0	1968	0	0	1801	0	0	1770	0
Flt Permitted					0.964			0.967				
Satd. Flow (perm)	0	0	0	0	1968	0	0	1801	0	0	1770	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)					36						78	
Link Speed (mph)		35			35			35			35	
Link Distance (ft)		755			1614			299			328	
Travel Time (s)		14.7			31.4			5.8			6.4	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	0	0	0	335	0	108	355	161	0	0	155	91
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	0	0	0	443	0	0	516	0	0	246	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		0			0			0			0	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	0.85	0.85	0.85	1.00	0.85	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Number of Detectors				1	2		1	2			2	
Detector Template				Left	Thru		Left	Thru			Thru	
Leading Detector (ft)				20	100		20	100			100	
Trailing Detector (ft)				0	0		0	0			0	
Detector 1 Position(ft)				0	0		0	0			0	
Detector 1 Size(ft)				20	6		20	6			6	
Detector 1 Type				Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex			Cl+Ex	
Detector 1 Channel												
Detector 1 Extend (s)				0.0	0.0		0.0	0.0			0.0	
Detector 1 Queue (s)				0.0	0.0		0.0	0.0			0.0	
Detector 1 Delay (s)				0.0	0.0		0.0	0.0			0.0	
Detector 2 Position(ft)					94			94			94	
Detector 2 Size(ft)					6			6			6	
Detector 2 Type					Cl+Ex			Cl+Ex			Cl+Ex	
Detector 2 Channel												
Detector 2 Extend (s)					0.0			0.0			0.0	
Turn Type				Perm	NA		Split	NA			NA	
Protected Phases					8		2!	2			6!	
Permitted Phases				8								
Detector Phase				8	8		2	2			6	
Switch Phase												

Lane Group	Ø4
Lane Configurations	
Traffic Volume (vph)	
Future Volume (vph)	
Ideal Flow (vphpl)	
Lane Width (ft)	
Lane Util. Factor	
Frt	
Flt Protected	
Satd. Flow (prot)	
Flt Permitted	
Satd. Flow (perm)	
Right Turn on Red	
Satd. Flow (RTOR)	
Link Speed (mph)	
Link Distance (ft)	
Travel Time (s)	
Peak Hour Factor	
Adj. Flow (vph)	
Shared Lane Traffic (%)	
Lane Group Flow (vph)	
Enter Blocked Intersection	
Lane Alignment	
Median Width(ft)	
Link Offset(ft)	
Crosswalk Width(ft)	
Two way Left Turn Lane	
Headway Factor	
Turning Speed (mph)	
Number of Detectors	
Detector Template	
Leading Detector (ft)	
Trailing Detector (ft)	
Detector 1 Position(ft)	
Detector 1 Size(ft)	
Detector 1 Type	
Detector 1 Channel	
Detector 1 Extend (s)	
Detector 1 Queue (s)	
Detector 1 Delay (s)	
Detector 2 Position(ft)	
Detector 2 Size(ft)	
Detector 2 Type	
Detector 2 Channel	
Detector 2 Extend (s)	
Turn Type	
Protected Phases	4
Permitted Phases	
Detector Phase	
Switch Phase	

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Minimum Initial (s)				7.0	7.0		7.0	7.0			7.0	
Minimum Split (s)				22.5	22.5		22.5	22.5			22.5	
Total Split (s)				22.5	22.5		27.5	27.5			27.5	
Total Split (%)				45.0%	45.0%		55.0%	55.0%			55.0%	
Maximum Green (s)				18.0	18.0		23.0	23.0			23.0	
Yellow Time (s)				3.5	3.5		3.5	3.5			3.5	
All-Red Time (s)				1.0	1.0		1.0	1.0			1.0	
Lost Time Adjust (s)					0.0			0.0			0.0	
Total Lost Time (s)					4.5			4.5			4.5	
Lead/Lag												
Lead-Lag Optimize?												
Vehicle Extension (s)				3.0	3.0		3.0	3.0			3.0	
Recall Mode				None	None		Max	Max			Max	
Act Effct Green (s)					14.2			23.2			23.2	
Actuated g/C Ratio					0.31			0.50			0.50	
v/c Ratio					0.71			0.57			0.27	
Control Delay					19.7			6.7			6.3	
Queue Delay					0.0			0.0			0.1	
Total Delay					19.7			6.8			6.3	
LOS					B			A			A	
Approach Delay					19.7			6.8			6.3	
Approach LOS					B			A			A	

Intersection Summary			
Area Type:	Other		
Cycle Length: 50			
Actuated Cycle Length: 46.4			
Natural Cycle: 55			
Control Type: Semi Act-Uncoord			
Maximum v/c Ratio: 0.71			
Intersection Signal Delay: 11.4		Intersection LOS: B	
Intersection Capacity Utilization 72.9%		ICU Level of Service C	
Analysis Period (min) 15			
! Phase conflict between lane groups.			

Splits and Phases: 9: 24th St & I-35 SB Off-Ramp



Lane Group	Ø4
Minimum Initial (s)	7.0
Minimum Split (s)	22.5
Total Split (s)	22.5
Total Split (%)	45%
Maximum Green (s)	18.0
Yellow Time (s)	3.5
All-Red Time (s)	1.0
Lost Time Adjust (s)	
Total Lost Time (s)	
Lead/Lag	
Lead-Lag Optimize?	
Vehicle Extension (s)	3.0
Recall Mode	None
Act Effct Green (s)	
Actuated g/C Ratio	
v/c Ratio	
Control Delay	
Queue Delay	
Total Delay	
LOS	
Approach Delay	
Approach LOS	

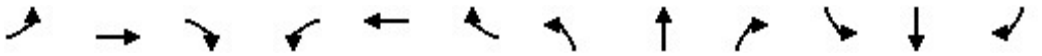
Intersection Summary

Lane Group	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Volume (vph)	96	120	107	107	116	131
Future Volume (vph)	96	120	107	107	116	131
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Storage Length (ft)		0	165		0	0
Storage Lanes		0	1		1	0
Taper Length (ft)			25		25	
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Frt	0.925				0.928	
Flt Protected			0.950		0.977	
Satd. Flow (prot)	1723	0	1770	1863	1689	0
Flt Permitted			0.560		0.977	
Satd. Flow (perm)	1723	0	1043	1863	1689	0
Right Turn on Red		Yes				Yes
Satd. Flow (RTOR)	103				88	
Link Speed (mph)	35			35	35	
Link Distance (ft)	1077			256	581	
Travel Time (s)	21.0			5.0	11.3	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	104	130	116	116	126	142
Shared Lane Traffic (%)						
Lane Group Flow (vph)	234	0	116	116	268	0
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Right	Left	Left	Left	Right
Median Width(ft)	12			12	12	
Link Offset(ft)	0			0	0	
Crosswalk Width(ft)	16			16	16	
Two way Left Turn Lane						
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)		9	15		15	9
Number of Detectors	0		0	0	0	
Detector Template	Thru		Left	Thru	Left	
Leading Detector (ft)	0		0	0	0	
Trailing Detector (ft)	0		0	0	0	
Turn Type	NA		pm+pt	NA	Prot	
Protected Phases	2		1	2	4	
Permitted Phases			2			
Detector Phase	2		1	2	4	
Switch Phase						
Minimum Initial (s)	14.0		10.0	14.0	14.0	
Minimum Split (s)	18.7		15.0	18.7	19.0	
Total Split (s)	26.0		15.0	26.0	24.0	
Total Split (%)	40.0%		23.1%	40.0%	36.9%	
Maximum Green (s)	21.3		10.0	21.3	19.0	
Yellow Time (s)	3.6		3.0	3.6	3.0	
All-Red Time (s)	1.1		2.0	1.1	2.0	
Lost Time Adjust (s)	0.0		0.0	0.0	0.0	
Total Lost Time (s)	4.7		5.0	4.7	5.0	
Lead/Lag	Lag		Lead	Lag		

Lane Group	EBT	EBR	WBL	WBT	NBL	NBR
Lead-Lag Optimize?						
Vehicle Extension (s)	3.0		3.0	3.0	3.0	
Recall Mode	Max		Max	Max	Max	
Act Effct Green (s)	21.3		31.0	21.3	19.0	
Actuated g/C Ratio	0.33		0.48	0.33	0.29	
v/c Ratio	0.37		0.19	0.19	0.48	
Control Delay	11.3		8.0	16.8	15.9	
Queue Delay	0.0		0.0	0.0	0.0	
Total Delay	11.3		8.0	16.8	15.9	
LOS	B		A	B	B	
Approach Delay	11.3			12.4	15.9	
Approach LOS	B			B	B	

Intersection Summary			
Area Type:	Other		
Cycle Length: 65			
Actuated Cycle Length: 65			
Natural Cycle: 55			
Control Type: Actuated-Uncoordinated			
Maximum v/c Ratio: 0.48			
Intersection Signal Delay: 13.3		Intersection LOS: B	
Intersection Capacity Utilization 47.4%		ICU Level of Service A	
Analysis Period (min) 15			

Splits and Phases: 3: 24th St & Merriam Ln

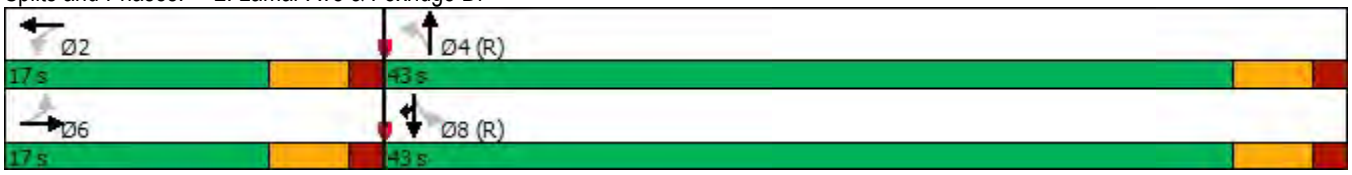


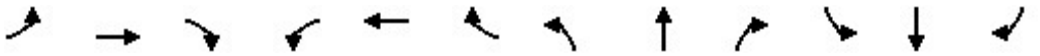
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	264	7	7	3	3	35	3	347	16	407	134	199
Future Volume (vph)	264	7	7	3	3	35	3	347	16	407	134	199
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	0		0	60		0	0		0	0		0
Storage Lanes	1		0	1		0	0		0	0		1
Taper Length (ft)	25			25			25			25		
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	0.95	0.95	0.95	1.00	1.00	1.00
Frt		0.925			0.861			0.994				0.850
Flt Protected	0.950			0.950							0.964	
Satd. Flow (prot)	1770	1723	0	1770	1604	0	0	3518	0	0	1796	1583
Flt Permitted	0.730			0.747				0.952			0.543	
Satd. Flow (perm)	1360	1723	0	1391	1604	0	0	3349	0	0	1011	1583
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		8			38			14				216
Link Speed (mph)		35			25			35			35	
Link Distance (ft)		362			218			374			353	
Travel Time (s)		7.1			5.9			7.3			6.9	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	287	8	8	3	3	38	3	377	17	442	146	216
Shared Lane Traffic (%)												
Lane Group Flow (vph)	287	16	0	3	41	0	0	397	0	0	588	216
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		12			12			0			0	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Number of Detectors	1	2		1	2		1	2		1	2	1
Detector Template	Left	Thru		Left	Thru		Left	Thru		Left	Thru	Right
Leading Detector (ft)	20	100		20	100		20	100		20	100	20
Trailing Detector (ft)	0	0		0	0		0	0		0	0	0
Detector 1 Position(ft)	0	0		0	0		0	0		0	0	0
Detector 1 Size(ft)	20	6		20	6		20	6		20	6	20
Detector 1 Type	Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex	Cl+Ex
Detector 1 Channel												
Detector 1 Extend (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	0.0
Detector 1 Queue (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	0.0
Detector 1 Delay (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	0.0
Detector 2 Position(ft)		94			94			94			94	
Detector 2 Size(ft)		6			6			6			6	
Detector 2 Type		Cl+Ex			Cl+Ex			Cl+Ex			Cl+Ex	
Detector 2 Channel												
Detector 2 Extend (s)		0.0			0.0			0.0			0.0	
Turn Type	Perm	NA		Perm	NA		Perm	NA		Perm	NA	Prot
Protected Phases		6			2			4			8	8
Permitted Phases	6			2			4			8		

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Detector Phase	6	6		2	2		4	4		8	8	8
Switch Phase												
Minimum Initial (s)	10.0	10.0		10.0	10.0		10.0	10.0		10.0	10.0	10.0
Minimum Split (s)	15.2	15.2		15.2	15.2		15.2	15.2		15.2	15.2	15.2
Total Split (s)	17.0	17.0		17.0	17.0		43.0	43.0		43.0	43.0	43.0
Total Split (%)	28.3%	28.3%		28.3%	28.3%		71.7%	71.7%		71.7%	71.7%	71.7%
Maximum Green (s)	11.8	11.8		11.8	11.8		37.8	37.8		37.8	37.8	37.8
Yellow Time (s)	3.6	3.6		3.6	3.6		3.6	3.6		3.6	3.6	3.6
All-Red Time (s)	1.6	1.6		1.6	1.6		1.6	1.6		1.6	1.6	1.6
Lost Time Adjust (s)	0.0	0.0		0.0	0.0			0.0			0.0	0.0
Total Lost Time (s)	5.2	5.2		5.2	5.2			5.2			5.2	5.2
Lead/Lag												
Lead-Lag Optimize?												
Vehicle Extension (s)	3.0	3.0		3.0	3.0		3.0	3.0		3.0	3.0	3.0
Recall Mode	None	None		Min	Min		C-Min	C-Min		C-Min	C-Min	C-Min
Act Effct Green (s)	12.8	12.8		12.8	12.8			36.8			36.8	36.8
Actuated g/C Ratio	0.21	0.21		0.21	0.21			0.61			0.61	0.61
v/c Ratio	0.99	0.04		0.01	0.11			0.19			0.95	0.20
Control Delay	80.9	15.4		19.7	9.3			5.0			40.0	1.3
Queue Delay	0.0	0.0		0.0	0.0			0.0			0.0	0.0
Total Delay	80.9	15.4		19.7	9.3			5.0			40.0	1.3
LOS	F	B		B	A			A			D	A
Approach Delay		77.4			10.0			5.0			29.6	
Approach LOS		E			A			A			C	

Intersection Summary			
Area Type:	Other		
Cycle Length: 60			
Actuated Cycle Length: 60			
Offset: 0 (0%), Referenced to phase 4:NBTL and 8:SBTL, Start of Green			
Natural Cycle: 90			
Control Type: Actuated-Coordinated			
Maximum v/c Ratio: 0.99			
Intersection Signal Delay: 32.1		Intersection LOS: C	
Intersection Capacity Utilization 74.1%		ICU Level of Service D	
Analysis Period (min) 15			

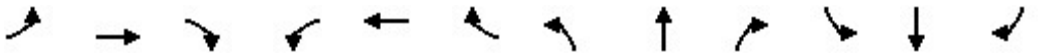
Splits and Phases: 2: Lamar Ave & Foxridge Dr





Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	100	0	338	0	0	0	0	375	272	49	402	0
Future Volume (vph)	100	0	338	0	0	0	0	375	272	49	402	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	16	12	16	16	16	12	12	12	12	12	12
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Frt		0.896							0.850			
Flt Protected		0.989									0.995	
Satd. Flow (prot)	0	1871	0	0	0	0	0	1863	1583	0	1853	0
Flt Permitted		0.989									0.995	
Satd. Flow (perm)	0	1871	0	0	0	0	0	1863	1583	0	1853	0
Link Speed (mph)		35			35			35			35	
Link Distance (ft)		2302			750			353			299	
Travel Time (s)		44.8			14.6			6.9			5.8	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	109	0	367	0	0	0	0	408	296	53	437	0
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	476	0	0	0	0	0	408	296	0	490	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		0			0			0			0	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.00	0.85	1.00	0.85	0.85	0.85	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Sign Control		Stop			Free			Free			Free	

Intersection Summary			
Area Type:	Other		
Control Type: Unsignalized			
Intersection Capacity Utilization 80.0%		ICU Level of Service D	
Analysis Period (min) 15			



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	0	0	0	308	0	99	327	148	0	0	143	84
Future Volume (vph)	0	0	0	308	0	99	327	148	0	0	143	84
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	16	16	16	12	16	12	12	12	12	12	12	12
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Frt					0.967						0.950	
Flt Protected					0.964			0.967				
Satd. Flow (prot)	0	0	0	0	1968	0	0	1801	0	0	1770	0
Flt Permitted					0.964			0.967				
Satd. Flow (perm)	0	0	0	0	1968	0	0	1801	0	0	1770	0
Link Speed (mph)		35			35			35			35	
Link Distance (ft)		755			1614			299			328	
Travel Time (s)		14.7			31.4			5.8			6.4	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	0	0	0	335	0	108	355	161	0	0	155	91
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	0	0	0	443	0	0	516	0	0	246	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		0			0			0			0	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	0.85	0.85	0.85	1.00	0.85	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Sign Control		Free			Stop			Free			Free	

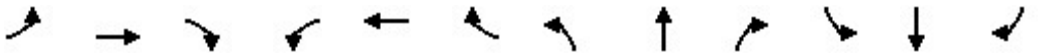
Intersection Summary			
Area Type:	Other		
Control Type: Unsignalized			
Intersection Capacity Utilization 71.6%		ICU Level of Service C	
Analysis Period (min) 15			

Lane Group	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Volume (vph)	96	120	107	107	116	131
Future Volume (vph)	96	120	107	107	116	131
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Storage Length (ft)		0	165		0	0
Storage Lanes		0	1		1	0
Taper Length (ft)			25		25	
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Frt	0.925				0.928	
Flt Protected			0.950		0.977	
Satd. Flow (prot)	1723	0	1770	1863	1689	0
Flt Permitted			0.560		0.977	
Satd. Flow (perm)	1723	0	1043	1863	1689	0
Right Turn on Red		Yes				Yes
Satd. Flow (RTOR)	103				88	
Link Speed (mph)	35			35	35	
Link Distance (ft)	1077			256	581	
Travel Time (s)	21.0			5.0	11.3	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	104	130	116	116	126	142
Shared Lane Traffic (%)						
Lane Group Flow (vph)	234	0	116	116	268	0
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Right	Left	Left	Left	Right
Median Width(ft)	12			12	12	
Link Offset(ft)	0			0	0	
Crosswalk Width(ft)	16			16	16	
Two way Left Turn Lane						
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)		9	15		15	9
Number of Detectors	0		0	0	0	
Detector Template	Thru		Left	Thru	Left	
Leading Detector (ft)	0		0	0	0	
Trailing Detector (ft)	0		0	0	0	
Turn Type	NA		pm+pt	NA	Prot	
Protected Phases	2		1	2	4	
Permitted Phases			2			
Detector Phase	2		1	2	4	
Switch Phase						
Minimum Initial (s)	14.0		10.0	14.0	14.0	
Minimum Split (s)	18.7		15.0	18.7	19.0	
Total Split (s)	26.0		15.0	26.0	24.0	
Total Split (%)	40.0%		23.1%	40.0%	36.9%	
Maximum Green (s)	21.3		10.0	21.3	19.0	
Yellow Time (s)	3.6		3.0	3.6	3.0	
All-Red Time (s)	1.1		2.0	1.1	2.0	
Lost Time Adjust (s)	0.0		0.0	0.0	0.0	
Total Lost Time (s)	4.7		5.0	4.7	5.0	
Lead/Lag	Lag		Lead	Lag		

Lane Group	EBT	EBR	WBL	WBT	NBL	NBR
Lead-Lag Optimize?						
Vehicle Extension (s)	3.0		3.0	3.0	3.0	
Recall Mode	Max		Max	Max	Max	
Act Effct Green (s)	21.3		31.0	21.3	19.0	
Actuated g/C Ratio	0.33		0.48	0.33	0.29	
v/c Ratio	0.37		0.19	0.19	0.48	
Control Delay	11.3		8.0	16.8	15.9	
Queue Delay	0.0		0.0	0.0	0.0	
Total Delay	11.3		8.0	16.8	15.9	
LOS	B		A	B	B	
Approach Delay	11.3			12.4	15.9	
Approach LOS	B			B	B	

Intersection Summary			
Area Type:	Other		
Cycle Length: 65			
Actuated Cycle Length: 65			
Natural Cycle: 55			
Control Type: Actuated-Uncoordinated			
Maximum v/c Ratio: 0.48			
Intersection Signal Delay: 13.3		Intersection LOS: B	
Intersection Capacity Utilization 47.4%		ICU Level of Service A	
Analysis Period (min) 15			

Splits and Phases: 3: 24th St & Merriam Ln

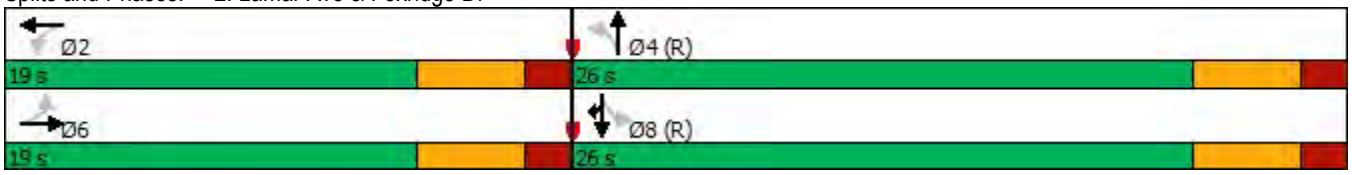


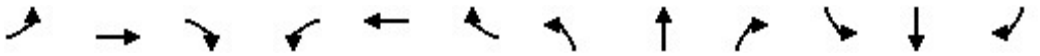
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	156	0	10	9	4	299	7	286	4	20	397	208
Future Volume (vph)	156	0	10	9	4	299	7	286	4	20	397	208
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	0		0	60		0	0		0	0		0
Storage Lanes	1		0	1		0	0		0	0		1
Taper Length (ft)	25			25			25			25		
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	0.95	0.95	0.95	1.00	1.00	1.00
Frt		0.850			0.852			0.998				0.850
Flt Protected	0.950			0.950				0.999			0.998	
Satd. Flow (prot)	1770	1583	0	1770	1587	0	0	3529	0	0	1859	1583
Flt Permitted	0.471			0.750				0.944			0.975	
Satd. Flow (perm)	877	1583	0	1397	1587	0	0	3334	0	0	1816	1583
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		325			325			4				226
Link Speed (mph)		35			25			35			35	
Link Distance (ft)		362			218			374			353	
Travel Time (s)		7.1			5.9			7.3			6.9	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	170	0	11	10	4	325	8	311	4	22	432	226
Shared Lane Traffic (%)												
Lane Group Flow (vph)	170	11	0	10	329	0	0	323	0	0	454	226
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		12			12			0			0	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Number of Detectors	1	2		1	2		1	2		1	2	1
Detector Template	Left	Thru		Left	Thru		Left	Thru		Left	Thru	Right
Leading Detector (ft)	20	100		20	100		20	100		20	100	20
Trailing Detector (ft)	0	0		0	0		0	0		0	0	0
Detector 1 Position(ft)	0	0		0	0		0	0		0	0	0
Detector 1 Size(ft)	20	6		20	6		20	6		20	6	20
Detector 1 Type	Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex	Cl+Ex
Detector 1 Channel												
Detector 1 Extend (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	0.0
Detector 1 Queue (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	0.0
Detector 1 Delay (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	0.0
Detector 2 Position(ft)		94			94			94			94	
Detector 2 Size(ft)		6			6			6			6	
Detector 2 Type		Cl+Ex			Cl+Ex			Cl+Ex			Cl+Ex	
Detector 2 Channel												
Detector 2 Extend (s)		0.0			0.0			0.0			0.0	
Turn Type	Perm	NA		Perm	NA		Perm	NA		Perm	NA	Prot
Protected Phases		6			2			4			8	8
Permitted Phases	6			2			4			8		

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Detector Phase	6	6		2	2		4	4		8	8	8
Switch Phase												
Minimum Initial (s)	10.0	10.0		10.0	10.0		10.0	10.0		10.0	10.0	10.0
Minimum Split (s)	15.2	15.2		15.2	15.2		15.2	15.2		15.2	15.2	15.2
Total Split (s)	19.0	19.0		19.0	19.0		26.0	26.0		26.0	26.0	26.0
Total Split (%)	42.2%	42.2%		42.2%	42.2%		57.8%	57.8%		57.8%	57.8%	57.8%
Maximum Green (s)	13.8	13.8		13.8	13.8		20.8	20.8		20.8	20.8	20.8
Yellow Time (s)	3.6	3.6		3.6	3.6		3.6	3.6		3.6	3.6	3.6
All-Red Time (s)	1.6	1.6		1.6	1.6		1.6	1.6		1.6	1.6	1.6
Lost Time Adjust (s)	0.0	0.0		0.0	0.0			0.0			0.0	0.0
Total Lost Time (s)	5.2	5.2		5.2	5.2			5.2			5.2	5.2
Lead/Lag												
Lead-Lag Optimize?												
Vehicle Extension (s)	3.0	3.0		3.0	3.0		3.0	3.0		3.0	3.0	3.0
Recall Mode	None	None		Min	Min		C-Min	C-Min		C-Min	C-Min	C-Min
Act Effct Green (s)	12.6	12.6		12.6	12.6			22.0			22.0	22.0
Actuated g/C Ratio	0.28	0.28		0.28	0.28			0.49			0.49	0.49
v/c Ratio	0.70	0.02		0.03	0.49			0.20			0.51	0.25
Control Delay	32.6	0.0		11.1	4.8			7.2			10.9	2.3
Queue Delay	0.0	0.0		0.0	0.0			0.0			0.0	0.0
Total Delay	32.6	0.0		11.1	4.8			7.2			10.9	2.3
LOS	C	A		B	A			A			B	A
Approach Delay		30.6			5.0			7.2			8.0	
Approach LOS		C			A			A			A	

Intersection Summary			
Area Type:	Other		
Cycle Length: 45			
Actuated Cycle Length: 45			
Offset: 21 (47%), Referenced to phase 4:NBTL and 8:SBTL, Start of Green			
Natural Cycle: 40			
Control Type: Actuated-Coordinated			
Maximum v/c Ratio: 0.70			
Intersection Signal Delay: 9.9		Intersection LOS: A	
Intersection Capacity Utilization 75.0%		ICU Level of Service D	
Analysis Period (min) 15			

Splits and Phases: 2: Lamar Ave & Foxridge Dr





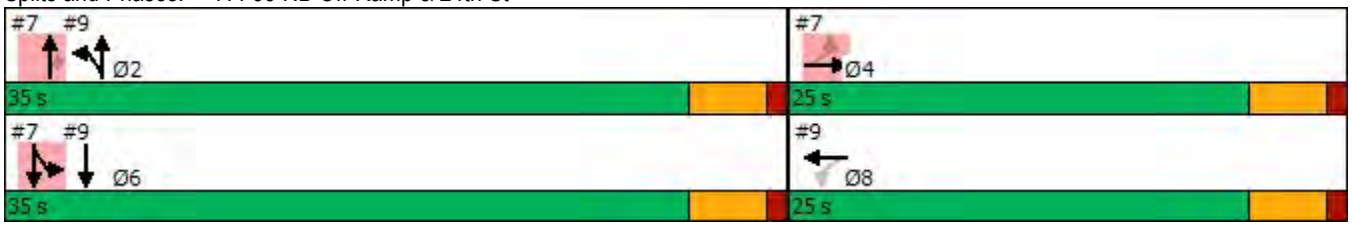
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	127	0	268	0	0	0	0	452	290	124	356	0
Future Volume (vph)	127	0	268	0	0	0	0	452	290	124	356	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	16	12	16	16	16	12	12	12	12	12	12
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Frt		0.908							0.850			
Flt Protected		0.984									0.987	
Satd. Flow (prot)	0	1886	0	0	0	0	0	1863	1583	0	1839	0
Flt Permitted		0.984									0.987	
Satd. Flow (perm)	0	1886	0	0	0	0	0	1863	1583	0	1839	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		192							315			
Link Speed (mph)		35			35			35			35	
Link Distance (ft)		2302			750			353			299	
Travel Time (s)		44.8			14.6			6.9			5.8	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	138	0	291	0	0	0	0	491	315	135	387	0
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	429	0	0	0	0	0	491	315	0	522	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		0			0			0			0	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.00	0.85	1.00	0.85	0.85	0.85	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Number of Detectors	1	2						2	1	1	2	
Detector Template	Left	Thru						Thru	Right	Left	Thru	
Leading Detector (ft)	20	100						100	20	20	100	
Trailing Detector (ft)	0	0						0	0	0	0	
Detector 1 Position(ft)	0	0						0	0	0	0	
Detector 1 Size(ft)	20	6						6	20	20	6	
Detector 1 Type	Cl+Ex	Cl+Ex						Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	
Detector 1 Channel												
Detector 1 Extend (s)	0.0	0.0						0.0	0.0	0.0	0.0	
Detector 1 Queue (s)	0.0	0.0						0.0	0.0	0.0	0.0	
Detector 1 Delay (s)	0.0	0.0						0.0	0.0	0.0	0.0	
Detector 2 Position(ft)		94						94			94	
Detector 2 Size(ft)		6						6			6	
Detector 2 Type		Cl+Ex						Cl+Ex			Cl+Ex	
Detector 2 Channel												
Detector 2 Extend (s)		0.0						0.0			0.0	
Turn Type	Perm	NA						NA	Perm	Split	NA	
Protected Phases		4						2!		6!	6	
Permitted Phases	4								2			
Detector Phase	4	4						2	2	6	6	
Switch Phase												

Lane Group	Ø8
Lane Configurations	
Traffic Volume (vph)	
Future Volume (vph)	
Ideal Flow (vphpl)	
Lane Width (ft)	
Lane Util. Factor	
Frt	
Flt Protected	
Satd. Flow (prot)	
Flt Permitted	
Satd. Flow (perm)	
Right Turn on Red	
Satd. Flow (RTOR)	
Link Speed (mph)	
Link Distance (ft)	
Travel Time (s)	
Peak Hour Factor	
Adj. Flow (vph)	
Shared Lane Traffic (%)	
Lane Group Flow (vph)	
Enter Blocked Intersection	
Lane Alignment	
Median Width(ft)	
Link Offset(ft)	
Crosswalk Width(ft)	
Two way Left Turn Lane	
Headway Factor	
Turning Speed (mph)	
Number of Detectors	
Detector Template	
Leading Detector (ft)	
Trailing Detector (ft)	
Detector 1 Position(ft)	
Detector 1 Size(ft)	
Detector 1 Type	
Detector 1 Channel	
Detector 1 Extend (s)	
Detector 1 Queue (s)	
Detector 1 Delay (s)	
Detector 2 Position(ft)	
Detector 2 Size(ft)	
Detector 2 Type	
Detector 2 Channel	
Detector 2 Extend (s)	
Turn Type	
Protected Phases	8
Permitted Phases	
Detector Phase	
Switch Phase	

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Minimum Initial (s)	7.0	7.0						7.0	7.0	7.0	7.0	
Minimum Split (s)	25.0	25.0						22.5	22.5	22.5	22.5	
Total Split (s)	25.0	25.0						35.0	35.0	35.0	35.0	
Total Split (%)	41.7%	41.7%						58.3%	58.3%	58.3%	58.3%	
Maximum Green (s)	20.5	20.5						30.5	30.5	30.5	30.5	
Yellow Time (s)	3.5	3.5						3.5	3.5	3.5	3.5	
All-Red Time (s)	1.0	1.0						1.0	1.0	1.0	1.0	
Lost Time Adjust (s)		0.0						0.0	0.0		0.0	
Total Lost Time (s)		4.5						4.5	4.5		4.5	
Lead/Lag												
Lead-Lag Optimize?												
Vehicle Extension (s)	3.0	3.0						3.0	3.0	3.0	3.0	
Recall Mode	Max	Max						Min	Min	Min	Min	
Act Effct Green (s)		20.7						25.9	25.9		25.9	
Actuated g/C Ratio		0.37						0.46	0.46		0.46	
v/c Ratio		0.52						0.57	0.35		0.61	
Control Delay		11.0						13.4	2.4		13.4	
Queue Delay		0.0						0.6	0.0		0.5	
Total Delay		11.0						14.1	2.4		13.9	
LOS		B						B	A		B	
Approach Delay		11.0						9.5			13.9	
Approach LOS		B						A			B	

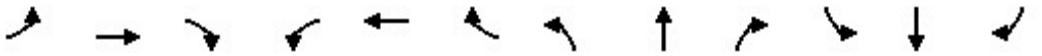
Intersection Summary			
Area Type:	Other		
Cycle Length: 60			
Actuated Cycle Length: 55.7			
Natural Cycle: 60			
Control Type: Semi Act-Uncoord			
Maximum v/c Ratio: 0.75			
Intersection Signal Delay: 11.2		Intersection LOS: B	
Intersection Capacity Utilization 84.2%		ICU Level of Service E	
Analysis Period (min) 15			
! Phase conflict between lane groups.			

Splits and Phases: 7: I-35 NB Off-Ramp & 24th St



Lane Group	Ø8
Minimum Initial (s)	7.0
Minimum Split (s)	25.0
Total Split (s)	25.0
Total Split (%)	42%
Maximum Green (s)	20.5
Yellow Time (s)	3.5
All-Red Time (s)	1.0
Lost Time Adjust (s)	
Total Lost Time (s)	
Lead/Lag	
Lead-Lag Optimize?	
Vehicle Extension (s)	3.0
Recall Mode	Max
Act Effct Green (s)	
Actuated g/C Ratio	
v/c Ratio	
Control Delay	
Queue Delay	
Total Delay	
LOS	
Approach Delay	
Approach LOS	

Intersection Summary



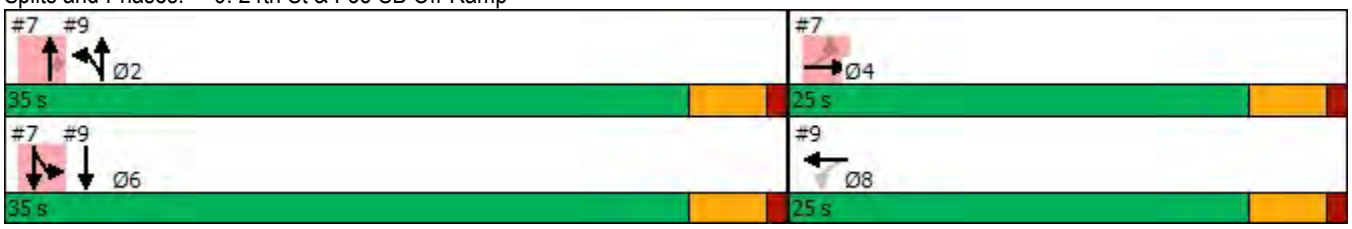
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	0	0	0	208	0	73	353	226	0	0	272	114
Future Volume (vph)	0	0	0	208	0	73	353	226	0	0	272	114
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	16	16	16	12	16	12	12	12	12	12	12	12
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Frt					0.965						0.960	
Flt Protected					0.964			0.970				
Satd. Flow (prot)	0	0	0	0	1964	0	0	1807	0	0	1788	0
Flt Permitted					0.964			0.970				
Satd. Flow (perm)	0	0	0	0	1964	0	0	1807	0	0	1788	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)					32						51	
Link Speed (mph)		35			35			35			35	
Link Distance (ft)		755			1614			299			328	
Travel Time (s)		14.7			31.4			5.8			6.4	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	0	0	0	226	0	79	384	246	0	0	296	124
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	0	0	0	305	0	0	630	0	0	420	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		0			0			0			0	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	0.85	0.85	0.85	1.00	0.85	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Number of Detectors				1	2		1	2			2	
Detector Template				Left	Thru		Left	Thru			Thru	
Leading Detector (ft)				20	100		20	100			100	
Trailing Detector (ft)				0	0		0	0			0	
Detector 1 Position(ft)				0	0		0	0			0	
Detector 1 Size(ft)				20	6		20	6			6	
Detector 1 Type				Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex			Cl+Ex	
Detector 1 Channel												
Detector 1 Extend (s)				0.0	0.0		0.0	0.0			0.0	
Detector 1 Queue (s)				0.0	0.0		0.0	0.0			0.0	
Detector 1 Delay (s)				0.0	0.0		0.0	0.0			0.0	
Detector 2 Position(ft)					94			94			94	
Detector 2 Size(ft)					6			6			6	
Detector 2 Type					Cl+Ex			Cl+Ex			Cl+Ex	
Detector 2 Channel												
Detector 2 Extend (s)					0.0			0.0			0.0	
Turn Type				Perm	NA		Split	NA			NA	
Protected Phases					8		2!	2			6!	
Permitted Phases				8								
Detector Phase				8	8		2	2			6	
Switch Phase												

Lane Group	Ø4
Lane Configurations	
Traffic Volume (vph)	
Future Volume (vph)	
Ideal Flow (vphpl)	
Lane Width (ft)	
Lane Util. Factor	
Frt	
Flt Protected	
Satd. Flow (prot)	
Flt Permitted	
Satd. Flow (perm)	
Right Turn on Red	
Satd. Flow (RTOR)	
Link Speed (mph)	
Link Distance (ft)	
Travel Time (s)	
Peak Hour Factor	
Adj. Flow (vph)	
Shared Lane Traffic (%)	
Lane Group Flow (vph)	
Enter Blocked Intersection	
Lane Alignment	
Median Width(ft)	
Link Offset(ft)	
Crosswalk Width(ft)	
Two way Left Turn Lane	
Headway Factor	
Turning Speed (mph)	
Number of Detectors	
Detector Template	
Leading Detector (ft)	
Trailing Detector (ft)	
Detector 1 Position(ft)	
Detector 1 Size(ft)	
Detector 1 Type	
Detector 1 Channel	
Detector 1 Extend (s)	
Detector 1 Queue (s)	
Detector 1 Delay (s)	
Detector 2 Position(ft)	
Detector 2 Size(ft)	
Detector 2 Type	
Detector 2 Channel	
Detector 2 Extend (s)	
Turn Type	
Protected Phases	4
Permitted Phases	
Detector Phase	
Switch Phase	

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Minimum Initial (s)				7.0	7.0		7.0	7.0			7.0	
Minimum Split (s)				25.0	25.0		22.5	22.5			22.5	
Total Split (s)				25.0	25.0		35.0	35.0			35.0	
Total Split (%)				41.7%	41.7%		58.3%	58.3%			58.3%	
Maximum Green (s)				20.5	20.5		30.5	30.5			30.5	
Yellow Time (s)				3.5	3.5		3.5	3.5			3.5	
All-Red Time (s)				1.0	1.0		1.0	1.0			1.0	
Lost Time Adjust (s)					0.0			0.0			0.0	
Total Lost Time (s)					4.5			4.5			4.5	
Lead/Lag												
Lead-Lag Optimize?												
Vehicle Extension (s)				3.0	3.0		3.0	3.0			3.0	
Recall Mode				Max	Max		Min	Min			Min	
Act Effct Green (s)					20.7			25.9			25.9	
Actuated g/C Ratio					0.37			0.46			0.46	
v/c Ratio					0.41			0.75			0.49	
Control Delay					14.9			11.3			10.8	
Queue Delay					0.0			0.0			0.6	
Total Delay					14.9			11.3			11.3	
LOS					B			B			B	
Approach Delay					14.9			11.3			11.3	
Approach LOS					B			B			B	

Intersection Summary			
Area Type:	Other		
Cycle Length: 60			
Actuated Cycle Length: 55.7			
Natural Cycle: 60			
Control Type: Semi Act-Uncoord			
Maximum v/c Ratio: 0.75			
Intersection Signal Delay: 12.1		Intersection LOS: B	
Intersection Capacity Utilization 79.9%		ICU Level of Service D	
Analysis Period (min) 15			
! Phase conflict between lane groups.			

Splits and Phases: 9: 24th St & I-35 SB Off-Ramp



Lane Group	Ø4
Minimum Initial (s)	7.0
Minimum Split (s)	25.0
Total Split (s)	25.0
Total Split (%)	42%
Maximum Green (s)	20.5
Yellow Time (s)	3.5
All-Red Time (s)	1.0
Lost Time Adjust (s)	
Total Lost Time (s)	
Lead/Lag	
Lead-Lag Optimize?	
Vehicle Extension (s)	3.0
Recall Mode	Max
Act Effct Green (s)	
Actuated g/C Ratio	
v/c Ratio	
Control Delay	
Queue Delay	
Total Delay	
LOS	
Approach Delay	
Approach LOS	

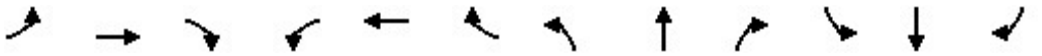
Intersection Summary

Lane Group	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Volume (vph)	195	220	167	220	149	150
Future Volume (vph)	195	220	167	220	149	150
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Storage Length (ft)		0	165		0	0
Storage Lanes		0	1		1	0
Taper Length (ft)			25		25	
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Frt	0.928				0.932	
Flt Protected			0.950		0.976	
Satd. Flow (prot)	1729	0	1770	1863	1694	0
Flt Permitted			0.269		0.976	
Satd. Flow (perm)	1729	0	501	1863	1694	0
Right Turn on Red		Yes				Yes
Satd. Flow (RTOR)	93				79	
Link Speed (mph)	35			35	35	
Link Distance (ft)	1077			256	581	
Travel Time (s)	21.0			5.0	11.3	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	212	239	182	239	162	163
Shared Lane Traffic (%)						
Lane Group Flow (vph)	451	0	182	239	325	0
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Right	Left	Left	Left	Right
Median Width(ft)	12			12	12	
Link Offset(ft)	0			0	0	
Crosswalk Width(ft)	16			16	16	
Two way Left Turn Lane						
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)		9	15		15	9
Number of Detectors	0		0	0	0	
Detector Template	Thru		Left	Thru	Left	
Leading Detector (ft)	0		0	0	0	
Trailing Detector (ft)	0		0	0	0	
Turn Type	NA		pm+pt	NA	Prot	
Protected Phases	2		1	2	4	
Permitted Phases			2			
Detector Phase	2		1	2	4	
Switch Phase						
Minimum Initial (s)	14.0		10.0	14.0	14.0	
Minimum Split (s)	18.7		15.0	18.7	19.0	
Total Split (s)	26.0		15.0	26.0	24.0	
Total Split (%)	40.0%		23.1%	40.0%	36.9%	
Maximum Green (s)	21.3		10.0	21.3	19.0	
Yellow Time (s)	3.6		3.0	3.6	3.0	
All-Red Time (s)	1.1		2.0	1.1	2.0	
Lost Time Adjust (s)	0.0		0.0	0.0	0.0	
Total Lost Time (s)	4.7		5.0	4.7	5.0	
Lead/Lag	Lag		Lead	Lag		

Lane Group	EBT	EBR	WBL	WBT	NBL	NBR
Lead-Lag Optimize?						
Vehicle Extension (s)	3.0		3.0	3.0	3.0	
Recall Mode	Max		Max	Max	Max	
Act Effct Green (s)	21.3		31.0	21.3	19.0	
Actuated g/C Ratio	0.33		0.48	0.33	0.29	
v/c Ratio	0.72		0.42	0.39	0.59	
Control Delay	22.9		10.8	19.2	19.8	
Queue Delay	0.0		0.0	0.0	0.0	
Total Delay	22.9		10.8	19.2	19.8	
LOS	C		B	B	B	
Approach Delay	22.9			15.6	19.8	
Approach LOS	C			B	B	

Intersection Summary			
Area Type:	Other		
Cycle Length: 65			
Actuated Cycle Length: 65			
Natural Cycle: 60			
Control Type: Actuated-Uncoordinated			
Maximum v/c Ratio: 0.72			
Intersection Signal Delay: 19.5		Intersection LOS: B	
Intersection Capacity Utilization 62.7%		ICU Level of Service B	
Analysis Period (min) 15			

Splits and Phases: 3: 24th St & Merriam Ln

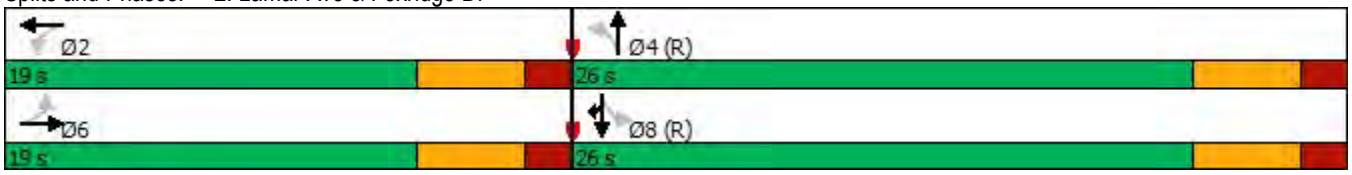


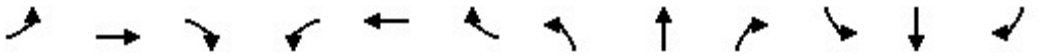
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	156	0	10	9	4	299	7	286	4	20	397	208
Future Volume (vph)	156	0	10	9	4	299	7	286	4	20	397	208
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	0		0	60		0	0		0	0		0
Storage Lanes	1		0	1		0	0		0	0		1
Taper Length (ft)	25			25			25			25		
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	0.95	0.95	0.95	1.00	1.00	1.00
Frt		0.850			0.852			0.998				0.850
Flt Protected	0.950			0.950				0.999			0.998	
Satd. Flow (prot)	1770	1583	0	1770	1587	0	0	3529	0	0	1859	1583
Flt Permitted	0.471			0.750				0.944			0.975	
Satd. Flow (perm)	877	1583	0	1397	1587	0	0	3334	0	0	1816	1583
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		325			325			4				226
Link Speed (mph)		35			25			35			35	
Link Distance (ft)		362			218			374			353	
Travel Time (s)		7.1			5.9			7.3			6.9	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	170	0	11	10	4	325	8	311	4	22	432	226
Shared Lane Traffic (%)												
Lane Group Flow (vph)	170	11	0	10	329	0	0	323	0	0	454	226
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		12			12			0			0	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Number of Detectors	1	2		1	2		1	2		1	2	1
Detector Template	Left	Thru		Left	Thru		Left	Thru		Left	Thru	Right
Leading Detector (ft)	20	100		20	100		20	100		20	100	20
Trailing Detector (ft)	0	0		0	0		0	0		0	0	0
Detector 1 Position(ft)	0	0		0	0		0	0		0	0	0
Detector 1 Size(ft)	20	6		20	6		20	6		20	6	20
Detector 1 Type	Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex	Cl+Ex
Detector 1 Channel												
Detector 1 Extend (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	0.0
Detector 1 Queue (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	0.0
Detector 1 Delay (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	0.0
Detector 2 Position(ft)		94			94			94			94	
Detector 2 Size(ft)		6			6			6			6	
Detector 2 Type		Cl+Ex			Cl+Ex			Cl+Ex			Cl+Ex	
Detector 2 Channel												
Detector 2 Extend (s)		0.0			0.0			0.0			0.0	
Turn Type	Perm	NA		Perm	NA		Perm	NA		Perm	NA	Prot
Protected Phases		6			2			4			8	8
Permitted Phases	6			2			4			8		

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Detector Phase	6	6		2	2		4	4		8	8	8
Switch Phase												
Minimum Initial (s)	10.0	10.0		10.0	10.0		10.0	10.0		10.0	10.0	10.0
Minimum Split (s)	15.2	15.2		15.2	15.2		15.2	15.2		15.2	15.2	15.2
Total Split (s)	19.0	19.0		19.0	19.0		26.0	26.0		26.0	26.0	26.0
Total Split (%)	42.2%	42.2%		42.2%	42.2%		57.8%	57.8%		57.8%	57.8%	57.8%
Maximum Green (s)	13.8	13.8		13.8	13.8		20.8	20.8		20.8	20.8	20.8
Yellow Time (s)	3.6	3.6		3.6	3.6		3.6	3.6		3.6	3.6	3.6
All-Red Time (s)	1.6	1.6		1.6	1.6		1.6	1.6		1.6	1.6	1.6
Lost Time Adjust (s)	0.0	0.0		0.0	0.0			0.0			0.0	0.0
Total Lost Time (s)	5.2	5.2		5.2	5.2			5.2			5.2	5.2
Lead/Lag												
Lead-Lag Optimize?												
Vehicle Extension (s)	3.0	3.0		3.0	3.0		3.0	3.0		3.0	3.0	3.0
Recall Mode	None	None		Min	Min		C-Min	C-Min		C-Min	C-Min	C-Min
Act Effct Green (s)	12.6	12.6		12.6	12.6			22.0			22.0	22.0
Actuated g/C Ratio	0.28	0.28		0.28	0.28			0.49			0.49	0.49
v/c Ratio	0.70	0.02		0.03	0.49			0.20			0.51	0.25
Control Delay	32.6	0.0		11.1	4.8			7.2			10.9	2.3
Queue Delay	0.0	0.0		0.0	0.0			0.0			0.0	0.0
Total Delay	32.6	0.0		11.1	4.8			7.2			10.9	2.3
LOS	C	A		B	A			A			B	A
Approach Delay		30.6			5.0			7.2			8.0	
Approach LOS		C			A			A			A	

Intersection Summary			
Area Type:	Other		
Cycle Length: 45			
Actuated Cycle Length: 45			
Offset: 0 (0%), Referenced to phase 4:NBTL and 8:SBTL, Start of Green			
Natural Cycle: 40			
Control Type: Actuated-Coordinated			
Maximum v/c Ratio: 0.70			
Intersection Signal Delay: 9.9		Intersection LOS: A	
Intersection Capacity Utilization 75.0%		ICU Level of Service D	
Analysis Period (min) 15			

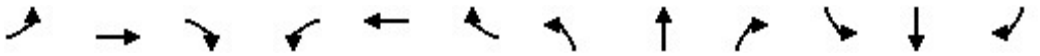
Splits and Phases: 2: Lamar Ave & Foxridge Dr





Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	127	0	268	0	0	0	0	452	290	124	356	0
Future Volume (vph)	127	0	268	0	0	0	0	452	290	124	356	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	16	12	16	16	16	12	12	12	12	12	12
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Frt		0.908							0.850			
Flt Protected		0.984									0.987	
Satd. Flow (prot)	0	1886	0	0	0	0	0	1863	1583	0	1839	0
Flt Permitted		0.984									0.987	
Satd. Flow (perm)	0	1886	0	0	0	0	0	1863	1583	0	1839	0
Link Speed (mph)		35			35			35			35	
Link Distance (ft)		2302			750			353			299	
Travel Time (s)		44.8			14.6			6.9			5.8	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	138	0	291	0	0	0	0	491	315	135	387	0
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	429	0	0	0	0	0	491	315	0	522	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		0			0			0			0	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.00	0.85	1.00	0.85	0.85	0.85	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Sign Control		Stop			Free			Free			Free	

Intersection Summary			
Area Type:	Other		
Control Type: Unsignalized			
Intersection Capacity Utilization 82.9%		ICU Level of Service E	
Analysis Period (min) 15			



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	0	0	0	208	0	73	353	226	0	0	272	114
Future Volume (vph)	0	0	0	208	0	73	353	226	0	0	272	114
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	16	16	16	12	16	12	12	12	12	12	12	12
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Frt					0.965						0.960	
Flt Protected					0.964			0.970				
Satd. Flow (prot)	0	0	0	0	1964	0	0	1807	0	0	1788	0
Flt Permitted					0.964			0.970				
Satd. Flow (perm)	0	0	0	0	1964	0	0	1807	0	0	1788	0
Link Speed (mph)		35			35			35			35	
Link Distance (ft)		755			1614			299			328	
Travel Time (s)		14.7			31.4			5.8			6.4	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	0	0	0	226	0	79	384	246	0	0	296	124
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	0	0	0	305	0	0	630	0	0	420	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		0			0			0			0	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	0.85	0.85	0.85	1.00	0.85	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Sign Control		Free			Stop			Free			Free	

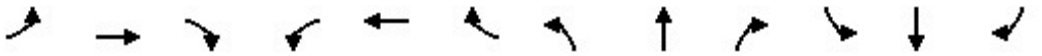
Intersection Summary			
Area Type:	Other		
Control Type: Unsignalized			
Intersection Capacity Utilization 78.7%		ICU Level of Service D	
Analysis Period (min) 15			

Lane Group	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Volume (vph)	195	220	167	220	149	150
Future Volume (vph)	195	220	167	220	149	150
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Storage Length (ft)		0	165		0	0
Storage Lanes		0	1		1	0
Taper Length (ft)			25		25	
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Frt	0.928				0.932	
Flt Protected			0.950		0.976	
Satd. Flow (prot)	1729	0	1770	1863	1694	0
Flt Permitted			0.269		0.976	
Satd. Flow (perm)	1729	0	501	1863	1694	0
Right Turn on Red		Yes				Yes
Satd. Flow (RTOR)	93				79	
Link Speed (mph)	35			35	35	
Link Distance (ft)	1077			256	581	
Travel Time (s)	21.0			5.0	11.3	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	212	239	182	239	162	163
Shared Lane Traffic (%)						
Lane Group Flow (vph)	451	0	182	239	325	0
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Right	Left	Left	Left	Right
Median Width(ft)	12			12	12	
Link Offset(ft)	0			0	0	
Crosswalk Width(ft)	16			16	16	
Two way Left Turn Lane						
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)		9	15		15	9
Number of Detectors	0		0	0	0	
Detector Template	Thru		Left	Thru	Left	
Leading Detector (ft)	0		0	0	0	
Trailing Detector (ft)	0		0	0	0	
Turn Type	NA		pm+pt	NA	Prot	
Protected Phases	2		1	2	4	
Permitted Phases			2			
Detector Phase	2		1	2	4	
Switch Phase						
Minimum Initial (s)	14.0		10.0	14.0	14.0	
Minimum Split (s)	18.7		15.0	18.7	19.0	
Total Split (s)	26.0		15.0	26.0	24.0	
Total Split (%)	40.0%		23.1%	40.0%	36.9%	
Maximum Green (s)	21.3		10.0	21.3	19.0	
Yellow Time (s)	3.6		3.0	3.6	3.0	
All-Red Time (s)	1.1		2.0	1.1	2.0	
Lost Time Adjust (s)	0.0		0.0	0.0	0.0	
Total Lost Time (s)	4.7		5.0	4.7	5.0	
Lead/Lag	Lag		Lead	Lag		

Lane Group	EBT	EBR	WBL	WBT	NBL	NBR
Lead-Lag Optimize?						
Vehicle Extension (s)	3.0		3.0	3.0	3.0	
Recall Mode	Max		Max	Max	Max	
Act Effct Green (s)	21.3		31.0	21.3	19.0	
Actuated g/C Ratio	0.33		0.48	0.33	0.29	
v/c Ratio	0.72		0.42	0.39	0.59	
Control Delay	22.9		10.8	19.2	19.8	
Queue Delay	0.0		0.0	0.0	0.0	
Total Delay	22.9		10.8	19.2	19.8	
LOS	C		B	B	B	
Approach Delay	22.9			15.6	19.8	
Approach LOS	C			B	B	

Intersection Summary			
Area Type:	Other		
Cycle Length: 65			
Actuated Cycle Length: 65			
Natural Cycle: 60			
Control Type: Actuated-Uncoordinated			
Maximum v/c Ratio: 0.72			
Intersection Signal Delay: 19.5		Intersection LOS: B	
Intersection Capacity Utilization 62.7%		ICU Level of Service B	
Analysis Period (min) 15			

Splits and Phases: 3: 24th St & Merriam Ln

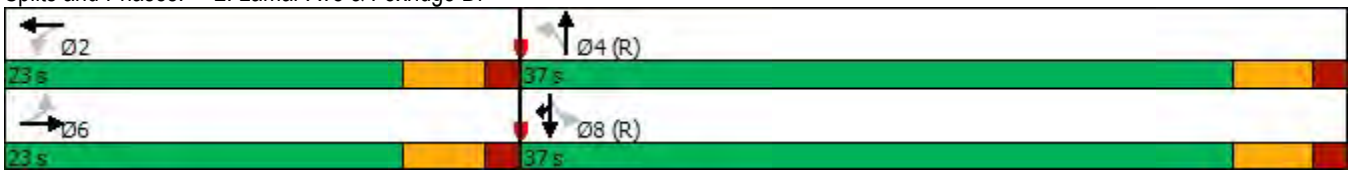


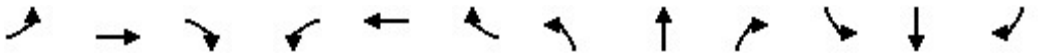
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	221	1	8	6	5	124	7	373	4	6	429	269
Future Volume (vph)	221	1	8	6	5	124	7	373	4	6	429	269
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	0		0	60		0	0		0	0		0
Storage Lanes	1		0	1		0	0		0	0		1
Taper Length (ft)	25			25			25			25		
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	0.95	0.95	0.95	1.00	1.00	1.00
Frt		0.865			0.855			0.999				0.850
Flt Protected	0.950			0.950				0.999			0.999	
Satd. Flow (prot)	1770	1611	0	1770	1593	0	0	3532	0	0	1861	1583
Flt Permitted	0.668			0.751				0.947			0.994	
Satd. Flow (perm)	1244	1611	0	1399	1593	0	0	3348	0	0	1852	1583
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		9			135			2				292
Link Speed (mph)		35			25			35			35	
Link Distance (ft)		362			218			374			353	
Travel Time (s)		7.1			5.9			7.3			6.9	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	240	1	9	7	5	135	8	405	4	7	466	292
Shared Lane Traffic (%)												
Lane Group Flow (vph)	240	10	0	7	140	0	0	417	0	0	473	292
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		12			12			0			0	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Number of Detectors	1	2		1	2		1	2		1	2	1
Detector Template	Left	Thru		Left	Thru		Left	Thru		Left	Thru	Right
Leading Detector (ft)	20	100		20	100		20	100		20	100	20
Trailing Detector (ft)	0	0		0	0		0	0		0	0	0
Detector 1 Position(ft)	0	0		0	0		0	0		0	0	0
Detector 1 Size(ft)	20	6		20	6		20	6		20	6	20
Detector 1 Type	Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex	Cl+Ex
Detector 1 Channel												
Detector 1 Extend (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	0.0
Detector 1 Queue (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	0.0
Detector 1 Delay (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	0.0
Detector 2 Position(ft)		94			94			94			94	
Detector 2 Size(ft)		6			6			6			6	
Detector 2 Type		Cl+Ex			Cl+Ex			Cl+Ex			Cl+Ex	
Detector 2 Channel												
Detector 2 Extend (s)		0.0			0.0			0.0			0.0	
Turn Type	Perm	NA		Perm	NA		Perm	NA		Perm	NA	Prot
Protected Phases		6			2			4			8	8
Permitted Phases	6			2			4			8		

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Detector Phase	6	6		2	2		4	4		8	8	8
Switch Phase												
Minimum Initial (s)	10.0	10.0		10.0	10.0		10.0	10.0		10.0	10.0	10.0
Minimum Split (s)	15.2	15.2		15.2	15.2		15.2	15.2		15.2	15.2	15.2
Total Split (s)	23.0	23.0		23.0	23.0		37.0	37.0		37.0	37.0	37.0
Total Split (%)	38.3%	38.3%		38.3%	38.3%		61.7%	61.7%		61.7%	61.7%	61.7%
Maximum Green (s)	17.8	17.8		17.8	17.8		31.8	31.8		31.8	31.8	31.8
Yellow Time (s)	3.6	3.6		3.6	3.6		3.6	3.6		3.6	3.6	3.6
All-Red Time (s)	1.6	1.6		1.6	1.6		1.6	1.6		1.6	1.6	1.6
Lost Time Adjust (s)	0.0	0.0		0.0	0.0			0.0			0.0	0.0
Total Lost Time (s)	5.2	5.2		5.2	5.2			5.2			5.2	5.2
Lead/Lag												
Lead-Lag Optimize?												
Vehicle Extension (s)	3.0	3.0		3.0	3.0		3.0	3.0		3.0	3.0	3.0
Recall Mode	None	None		Min	Min		C-Min	C-Min		C-Min	C-Min	C-Min
Act Effct Green (s)	15.9	15.9		15.9	15.9			33.7			33.7	33.7
Actuated g/C Ratio	0.26	0.26		0.26	0.26			0.56			0.56	0.56
v/c Ratio	0.73	0.02		0.02	0.27			0.22			0.45	0.29
Control Delay	33.0	9.1		14.3	5.1			7.6			7.4	1.7
Queue Delay	0.0	0.0		0.0	0.0			0.0			0.3	0.0
Total Delay	33.0	9.1		14.3	5.1			7.6			7.7	1.7
LOS	C	A		B	A			A			A	A
Approach Delay		32.1			5.5			7.6			5.4	
Approach LOS		C			A			A			A	

Intersection Summary			
Area Type:	Other		
Cycle Length: 60			
Actuated Cycle Length: 60			
Offset: 0 (0%), Referenced to phase 4:NBTL and 8:SBTL, Start of Green			
Natural Cycle: 45			
Control Type: Actuated-Coordinated			
Maximum v/c Ratio: 0.73			
Intersection Signal Delay: 10.2		Intersection LOS: B	
Intersection Capacity Utilization 60.9%		ICU Level of Service B	
Analysis Period (min) 15			

Splits and Phases: 2: Lamar Ave & Foxridge Dr





Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	105	0	318	0	0	0	0	419	298	95	385	0
Future Volume (vph)	105	0	318	0	0	0	0	419	298	95	385	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	16	12	16	16	16	12	12	12	12	12	12
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Frt		0.898							0.850			
Flt Protected		0.988									0.990	
Satd. Flow (prot)	0	1873	0	0	0	0	0	1863	1583	0	1844	0
Flt Permitted		0.988									0.990	
Satd. Flow (perm)	0	1873	0	0	0	0	0	1863	1583	0	1844	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		271							324			
Link Speed (mph)		35			35			35			35	
Link Distance (ft)		2302			750			353			299	
Travel Time (s)		44.8			14.6			6.9			5.8	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	114	0	346	0	0	0	0	455	324	103	418	0
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	460	0	0	0	0	0	455	324	0	521	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		0			0			0			0	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.00	0.85	1.00	0.85	0.85	0.85	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Number of Detectors	1	2						2	1	1	2	
Detector Template	Left	Thru						Thru	Right	Left	Thru	
Leading Detector (ft)	20	100						100	20	20	100	
Trailing Detector (ft)	0	0						0	0	0	0	
Detector 1 Position(ft)	0	0						0	0	0	0	
Detector 1 Size(ft)	20	6						6	20	20	6	
Detector 1 Type	Cl+Ex	Cl+Ex						Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	
Detector 1 Channel												
Detector 1 Extend (s)	0.0	0.0						0.0	0.0	0.0	0.0	
Detector 1 Queue (s)	0.0	0.0						0.0	0.0	0.0	0.0	
Detector 1 Delay (s)	0.0	0.0						0.0	0.0	0.0	0.0	
Detector 2 Position(ft)		94						94			94	
Detector 2 Size(ft)		6						6			6	
Detector 2 Type		Cl+Ex						Cl+Ex			Cl+Ex	
Detector 2 Channel												
Detector 2 Extend (s)		0.0						0.0			0.0	
Turn Type	Perm	NA						NA	Perm	Split	NA	
Protected Phases		4						2!		6!	6	
Permitted Phases	4								2			
Detector Phase	4	4						2	2	6	6	
Switch Phase												

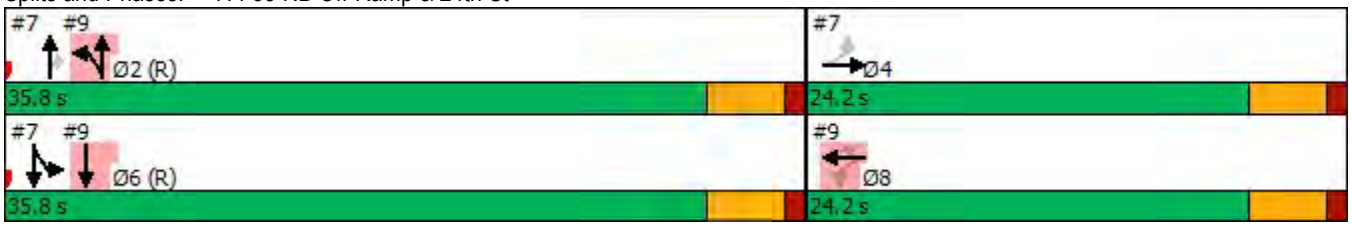
Lane Group	Ø8
Lane Configurations	
Traffic Volume (vph)	
Future Volume (vph)	
Ideal Flow (vphpl)	
Lane Width (ft)	
Lane Util. Factor	
Frt	
Flt Protected	
Satd. Flow (prot)	
Flt Permitted	
Satd. Flow (perm)	
Right Turn on Red	
Satd. Flow (RTOR)	
Link Speed (mph)	
Link Distance (ft)	
Travel Time (s)	
Peak Hour Factor	
Adj. Flow (vph)	
Shared Lane Traffic (%)	
Lane Group Flow (vph)	
Enter Blocked Intersection	
Lane Alignment	
Median Width(ft)	
Link Offset(ft)	
Crosswalk Width(ft)	
Two way Left Turn Lane	
Headway Factor	
Turning Speed (mph)	
Number of Detectors	
Detector Template	
Leading Detector (ft)	
Trailing Detector (ft)	
Detector 1 Position(ft)	
Detector 1 Size(ft)	
Detector 1 Type	
Detector 1 Channel	
Detector 1 Extend (s)	
Detector 1 Queue (s)	
Detector 1 Delay (s)	
Detector 2 Position(ft)	
Detector 2 Size(ft)	
Detector 2 Type	
Detector 2 Channel	
Detector 2 Extend (s)	
Turn Type	
Protected Phases	8
Permitted Phases	
Detector Phase	
Switch Phase	

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Minimum Initial (s)	7.0	7.0						7.0	7.0	7.0	7.0	
Minimum Split (s)	22.5	22.5						22.5	22.5	22.5	22.5	
Total Split (s)	24.2	24.2						35.8	35.8	35.8	35.8	
Total Split (%)	40.3%	40.3%						59.7%	59.7%	59.7%	59.7%	
Maximum Green (s)	19.7	19.7						31.3	31.3	31.3	31.3	
Yellow Time (s)	3.5	3.5						3.5	3.5	3.5	3.5	
All-Red Time (s)	1.0	1.0						1.0	1.0	1.0	1.0	
Lost Time Adjust (s)		0.0						0.0	0.0		0.0	
Total Lost Time (s)		4.5						4.5	4.5		4.5	
Lead/Lag												
Lead-Lag Optimize?												
Vehicle Extension (s)	3.0	3.0						3.0	3.0	3.0	3.0	
Recall Mode	None	None						C-Max	C-Max	C-Max	C-Max	
Act Effct Green (s)		13.6						37.4	37.4		37.4	
Actuated g/C Ratio		0.23						0.62	0.62		0.62	
v/c Ratio		0.73						0.39	0.29		0.45	
Control Delay		15.3						7.3	2.1		10.6	
Queue Delay		0.0						0.3	0.0		0.8	
Total Delay		15.3						7.7	2.1		11.3	
LOS		B						A	A		B	
Approach Delay		15.3						5.3			11.3	
Approach LOS		B						A			B	

Intersection Summary			
Area Type:	Other		
Cycle Length: 60			
Actuated Cycle Length: 60			
Offset: 54 (90%), Referenced to phase 2:NBT and 6:SBTL, Start of 1st Green			
Natural Cycle: 50			
Control Type: Actuated-Coordinated			
Maximum v/c Ratio: 0.73			
Intersection Signal Delay: 9.7		Intersection LOS: A	
Intersection Capacity Utilization 84.2%		ICU Level of Service E	
Analysis Period (min) 15			

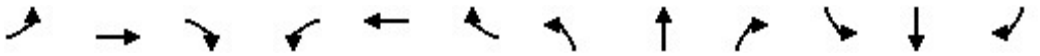
! Phase conflict between lane groups.

Splits and Phases: 7: I-35 NB Off-Ramp & 24th St



Lane Group	Ø8
Minimum Initial (s)	7.0
Minimum Split (s)	22.5
Total Split (s)	24.2
Total Split (%)	40%
Maximum Green (s)	19.7
Yellow Time (s)	3.5
All-Red Time (s)	1.0
Lost Time Adjust (s)	
Total Lost Time (s)	
Lead/Lag	
Lead-Lag Optimize?	
Vehicle Extension (s)	3.0
Recall Mode	None
Act Effct Green (s)	
Actuated g/C Ratio	
v/c Ratio	
Control Delay	
Queue Delay	
Total Delay	
LOS	
Approach Delay	
Approach LOS	

Intersection Summary



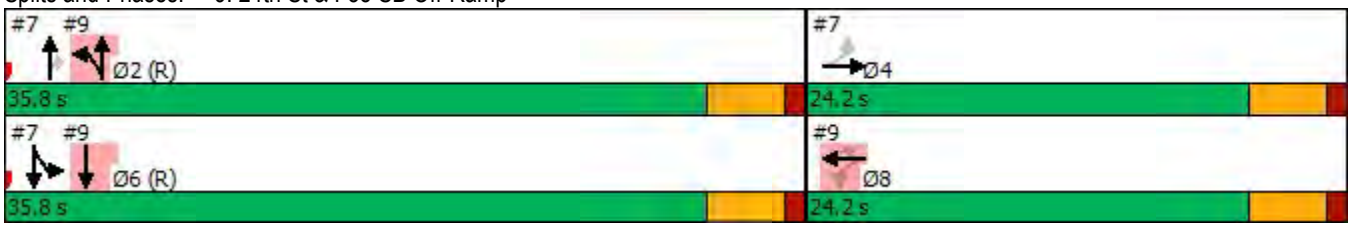
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	0	0	0	232	0	53	310	214	0	0	248	124
Future Volume (vph)	0	0	0	232	0	53	310	214	0	0	248	124
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	16	16	16	12	16	12	12	12	12	12	12	12
Storage Length (ft)	0		0	0		300	0		0	0		0
Storage Lanes	0		0	0		1	0		0	0		0
Taper Length (ft)	25			25			25			25		
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Frt						0.850					0.955	
Flt Protected					0.950			0.971				
Satd. Flow (prot)	0	0	0	0	2006	1583	0	1809	0	0	1779	0
Flt Permitted					0.950			0.971				
Satd. Flow (perm)	0	0	0	0	2006	1583	0	1809	0	0	1779	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)						58					63	
Link Speed (mph)		35			35			35			35	
Link Distance (ft)		755			1614			299			328	
Travel Time (s)		14.7			31.4			5.8			6.4	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	0	0	0	252	0	58	337	233	0	0	270	135
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	0	0	0	252	58	0	570	0	0	405	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		0			0			0			0	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	0.85	0.85	0.85	1.00	0.85	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Number of Detectors				1	2	1	1	2			2	
Detector Template				Left	Thru	Right	Left	Thru			Thru	
Leading Detector (ft)				20	100	20	20	100			100	
Trailing Detector (ft)				0	0	0	0	0			0	
Detector 1 Position(ft)				0	0	0	0	0			0	
Detector 1 Size(ft)				20	6	20	20	6			6	
Detector 1 Type				Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex			Cl+Ex	
Detector 1 Channel												
Detector 1 Extend (s)				0.0	0.0	0.0	0.0	0.0			0.0	
Detector 1 Queue (s)				0.0	0.0	0.0	0.0	0.0			0.0	
Detector 1 Delay (s)				0.0	0.0	0.0	0.0	0.0			0.0	
Detector 2 Position(ft)					94			94			94	
Detector 2 Size(ft)					6			6			6	
Detector 2 Type					Cl+Ex			Cl+Ex			Cl+Ex	
Detector 2 Channel												
Detector 2 Extend (s)					0.0			0.0			0.0	
Turn Type				Perm	NA	Perm	Split	NA			NA	
Protected Phases					8		2!	2			6!	

Lane Group	Ø4
Lane Configurations	
Traffic Volume (vph)	
Future Volume (vph)	
Ideal Flow (vphpl)	
Lane Width (ft)	
Storage Length (ft)	
Storage Lanes	
Taper Length (ft)	
Lane Util. Factor	
Frt	
Flt Protected	
Satd. Flow (prot)	
Flt Permitted	
Satd. Flow (perm)	
Right Turn on Red	
Satd. Flow (RTOR)	
Link Speed (mph)	
Link Distance (ft)	
Travel Time (s)	
Peak Hour Factor	
Adj. Flow (vph)	
Shared Lane Traffic (%)	
Lane Group Flow (vph)	
Enter Blocked Intersection	
Lane Alignment	
Median Width(ft)	
Link Offset(ft)	
Crosswalk Width(ft)	
Two way Left Turn Lane	
Headway Factor	
Turning Speed (mph)	
Number of Detectors	
Detector Template	
Leading Detector (ft)	
Trailing Detector (ft)	
Detector 1 Position(ft)	
Detector 1 Size(ft)	
Detector 1 Type	
Detector 1 Channel	
Detector 1 Extend (s)	
Detector 1 Queue (s)	
Detector 1 Delay (s)	
Detector 2 Position(ft)	
Detector 2 Size(ft)	
Detector 2 Type	
Detector 2 Channel	
Detector 2 Extend (s)	
Turn Type	
Protected Phases	4

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Permitted Phases				8		8						
Detector Phase				8	8	8	2	2			6	
Switch Phase												
Minimum Initial (s)				7.0	7.0	7.0	7.0	7.0			7.0	
Minimum Split (s)				22.5	22.5	22.5	22.5	22.5			22.5	
Total Split (s)				24.2	24.2	24.2	35.8	35.8			35.8	
Total Split (%)				40.3%	40.3%	40.3%	59.7%	59.7%			59.7%	
Maximum Green (s)				19.7	19.7	19.7	31.3	31.3			31.3	
Yellow Time (s)				3.5	3.5	3.5	3.5	3.5			3.5	
All-Red Time (s)				1.0	1.0	1.0	1.0	1.0			1.0	
Lost Time Adjust (s)					0.0	0.0		0.0			0.0	
Total Lost Time (s)					4.5	4.5		4.5			4.5	
Lead/Lag												
Lead-Lag Optimize?												
Vehicle Extension (s)				3.0	3.0	3.0	3.0	3.0			3.0	
Recall Mode				None	None	None	C-Max	C-Max			C-Max	
Act Effct Green (s)					13.6	13.6		37.4			37.4	
Actuated g/C Ratio					0.23	0.23		0.62			0.62	
v/c Ratio					0.56	0.14		0.51			0.36	
Control Delay					24.4	5.9		4.5			6.6	
Queue Delay					0.0	0.0		0.1			0.6	
Total Delay					24.4	5.9		4.6			7.2	
LOS					C	A		A			A	
Approach Delay					21.0			4.6			7.2	
Approach LOS					C			A			A	

Intersection Summary	
Area Type:	Other
Cycle Length: 60	
Actuated Cycle Length: 60	
Offset: 54 (90%), Referenced to phase 2:NBT and 6:SBTL, Start of 1st Green	
Natural Cycle: 50	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 0.73	
Intersection Signal Delay: 9.4	Intersection LOS: A
Intersection Capacity Utilization 73.1%	ICU Level of Service D
Analysis Period (min) 15	
! Phase conflict between lane groups.	

Splits and Phases: 9: 24th St & I-35 SB Off-Ramp



Lane Group	Ø4
Permitted Phases	
Detector Phase	
Switch Phase	
Minimum Initial (s)	7.0
Minimum Split (s)	22.5
Total Split (s)	24.2
Total Split (%)	40%
Maximum Green (s)	19.7
Yellow Time (s)	3.5
All-Red Time (s)	1.0
Lost Time Adjust (s)	
Total Lost Time (s)	
Lead/Lag	
Lead-Lag Optimize?	
Vehicle Extension (s)	3.0
Recall Mode	None
Act Effct Green (s)	
Actuated g/C Ratio	
v/c Ratio	
Control Delay	
Queue Delay	
Total Delay	
LOS	
Approach Delay	
Approach LOS	

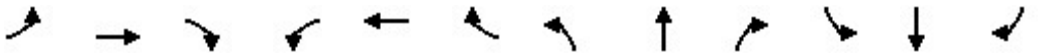
Intersection Summary

Lane Group	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Volume (vph)	234	148	224	289	132	135
Future Volume (vph)	234	148	224	289	132	135
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Storage Length (ft)		0	165		0	0
Storage Lanes		0	1		1	0
Taper Length (ft)			25		25	
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Frt	0.948				0.932	
Flt Protected			0.950		0.976	
Satd. Flow (prot)	1766	0	1770	1863	1694	0
Flt Permitted			0.315		0.976	
Satd. Flow (perm)	1766	0	587	1863	1694	0
Right Turn on Red		Yes				Yes
Satd. Flow (RTOR)	52				80	
Link Speed (mph)	35			35	35	
Link Distance (ft)	1077			256	581	
Travel Time (s)	21.0			5.0	11.3	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	254	161	243	314	143	147
Shared Lane Traffic (%)						
Lane Group Flow (vph)	415	0	243	314	290	0
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Right	Left	Left	Left	Right
Median Width(ft)	12			12	12	
Link Offset(ft)	0			0	0	
Crosswalk Width(ft)	16			16	16	
Two way Left Turn Lane						
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)		9	15		15	9
Number of Detectors	0		0	0	0	
Detector Template	Thru		Left	Thru	Left	
Leading Detector (ft)	0		0	0	0	
Trailing Detector (ft)	0		0	0	0	
Turn Type	NA		pm+pt	NA	Prot	
Protected Phases	2		1	2	4	
Permitted Phases			2			
Detector Phase	2		1	2	4	
Switch Phase						
Minimum Initial (s)	14.0		10.0	14.0	14.0	
Minimum Split (s)	18.7		15.0	18.7	19.0	
Total Split (s)	26.0		15.0	26.0	24.0	
Total Split (%)	40.0%		23.1%	40.0%	36.9%	
Maximum Green (s)	21.3		10.0	21.3	19.0	
Yellow Time (s)	3.6		3.0	3.6	3.0	
All-Red Time (s)	1.1		2.0	1.1	2.0	
Lost Time Adjust (s)	0.0		0.0	0.0	0.0	
Total Lost Time (s)	4.7		5.0	4.7	5.0	
Lead/Lag	Lag		Lead	Lag		

Lane Group	EBT	EBR	WBL	WBT	NBL	NBR
Lead-Lag Optimize?						
Vehicle Extension (s)	3.0		3.0	3.0	3.0	
Recall Mode	Max		Max	Max	Max	
Act Effct Green (s)	21.3		31.0	21.3	19.0	
Actuated g/C Ratio	0.33		0.48	0.33	0.29	
v/c Ratio	0.68		0.53	0.51	0.53	
Control Delay	23.0		12.4	21.3	17.8	
Queue Delay	0.0		0.0	0.0	0.0	
Total Delay	23.0		12.4	21.3	17.8	
LOS	C		B	C	B	
Approach Delay	23.0			17.4	17.8	
Approach LOS	C			B	B	

Intersection Summary			
Area Type:	Other		
Cycle Length: 65			
Actuated Cycle Length: 65			
Natural Cycle: 60			
Control Type: Actuated-Uncoordinated			
Maximum v/c Ratio: 0.68			
Intersection Signal Delay: 19.3		Intersection LOS: B	
Intersection Capacity Utilization 61.6%		ICU Level of Service B	
Analysis Period (min) 15			

Splits and Phases: 3: 24th St & Merriam Ln

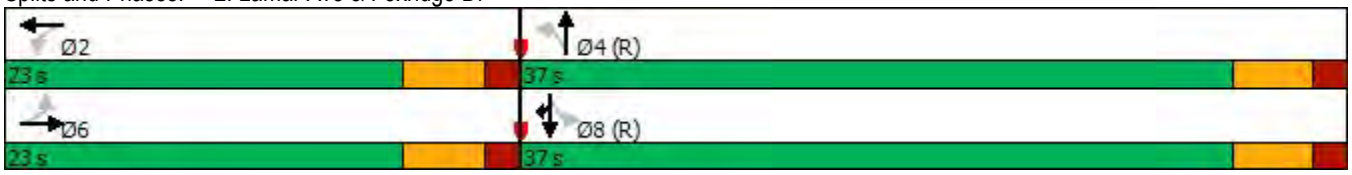


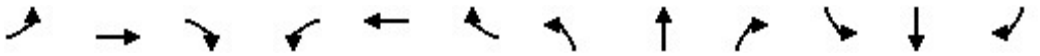
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	221	1	8	6	5	124	7	373	4	6	429	269
Future Volume (vph)	221	1	8	6	5	124	7	373	4	6	429	269
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	0		0	60		0	0		0	0		0
Storage Lanes	1		0	1		0	0		0	0		1
Taper Length (ft)	25			25			25			25		
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	0.95	0.95	0.95	1.00	1.00	1.00
Frt		0.865			0.855			0.999				0.850
Flt Protected	0.950			0.950				0.999			0.999	
Satd. Flow (prot)	1770	1611	0	1770	1593	0	0	3532	0	0	1861	1583
Flt Permitted	0.668			0.751				0.947			0.994	
Satd. Flow (perm)	1244	1611	0	1399	1593	0	0	3348	0	0	1852	1583
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		9			135			2				292
Link Speed (mph)		35			25			35			35	
Link Distance (ft)		362			218			374			353	
Travel Time (s)		7.1			5.9			7.3			6.9	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	240	1	9	7	5	135	8	405	4	7	466	292
Shared Lane Traffic (%)												
Lane Group Flow (vph)	240	10	0	7	140	0	0	417	0	0	473	292
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		12			12			0			0	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Number of Detectors	1	2		1	2		1	2		1	2	1
Detector Template	Left	Thru		Left	Thru		Left	Thru		Left	Thru	Right
Leading Detector (ft)	20	100		20	100		20	100		20	100	20
Trailing Detector (ft)	0	0		0	0		0	0		0	0	0
Detector 1 Position(ft)	0	0		0	0		0	0		0	0	0
Detector 1 Size(ft)	20	6		20	6		20	6		20	6	20
Detector 1 Type	Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex	Cl+Ex
Detector 1 Channel												
Detector 1 Extend (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	0.0
Detector 1 Queue (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	0.0
Detector 1 Delay (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	0.0
Detector 2 Position(ft)		94			94			94			94	
Detector 2 Size(ft)		6			6			6			6	
Detector 2 Type		Cl+Ex			Cl+Ex			Cl+Ex			Cl+Ex	
Detector 2 Channel												
Detector 2 Extend (s)		0.0			0.0			0.0			0.0	
Turn Type	Perm	NA		Perm	NA		Perm	NA		Perm	NA	Prot
Protected Phases		6			2			4			8	8
Permitted Phases	6			2			4			8		

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Detector Phase	6	6		2	2		4	4		8	8	8
Switch Phase												
Minimum Initial (s)	10.0	10.0		10.0	10.0		10.0	10.0		10.0	10.0	10.0
Minimum Split (s)	15.2	15.2		15.2	15.2		15.2	15.2		15.2	15.2	15.2
Total Split (s)	23.0	23.0		23.0	23.0		37.0	37.0		37.0	37.0	37.0
Total Split (%)	38.3%	38.3%		38.3%	38.3%		61.7%	61.7%		61.7%	61.7%	61.7%
Maximum Green (s)	17.8	17.8		17.8	17.8		31.8	31.8		31.8	31.8	31.8
Yellow Time (s)	3.6	3.6		3.6	3.6		3.6	3.6		3.6	3.6	3.6
All-Red Time (s)	1.6	1.6		1.6	1.6		1.6	1.6		1.6	1.6	1.6
Lost Time Adjust (s)	0.0	0.0		0.0	0.0			0.0			0.0	0.0
Total Lost Time (s)	5.2	5.2		5.2	5.2			5.2			5.2	5.2
Lead/Lag												
Lead-Lag Optimize?												
Vehicle Extension (s)	3.0	3.0		3.0	3.0		3.0	3.0		3.0	3.0	3.0
Recall Mode	None	None		Min	Min		C-Min	C-Min		C-Min	C-Min	C-Min
Act Effct Green (s)	15.9	15.9		15.9	15.9			33.7			33.7	33.7
Actuated g/C Ratio	0.26	0.26		0.26	0.26			0.56			0.56	0.56
v/c Ratio	0.73	0.02		0.02	0.27			0.22			0.45	0.29
Control Delay	33.0	9.1		14.3	5.1			7.6			7.5	1.7
Queue Delay	0.0	0.0		0.0	0.0			0.0			0.3	0.0
Total Delay	33.0	9.1		14.3	5.1			7.6			7.8	1.7
LOS	C	A		B	A			A			A	A
Approach Delay		32.1			5.5			7.6			5.5	
Approach LOS		C			A			A			A	

Intersection Summary			
Area Type:	Other		
Cycle Length: 60			
Actuated Cycle Length: 60			
Offset: 0 (0%), Referenced to phase 4:NBTL and 8:SBTL, Start of Green			
Natural Cycle: 45			
Control Type: Actuated-Coordinated			
Maximum v/c Ratio: 0.73			
Intersection Signal Delay: 10.3		Intersection LOS: B	
Intersection Capacity Utilization 60.9%		ICU Level of Service B	
Analysis Period (min) 15			

Splits and Phases: 2: Lamar Ave & Foxridge Dr





Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	105	0	318	0	0	0	0	419	298	95	385	0
Future Volume (vph)	105	0	318	0	0	0	0	419	298	95	385	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	16	12	16	16	16	12	12	12	12	12	12
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Frt		0.898							0.850			
Flt Protected		0.988									0.990	
Satd. Flow (prot)	0	1873	0	0	0	0	0	1863	1583	0	1844	0
Flt Permitted		0.988									0.990	
Satd. Flow (perm)	0	1873	0	0	0	0	0	1863	1583	0	1844	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		271							324			
Link Speed (mph)		35			35			35			35	
Link Distance (ft)		2302			750			353			299	
Travel Time (s)		44.8			14.6			6.9			5.8	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	114	0	346	0	0	0	0	455	324	103	418	0
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	460	0	0	0	0	0	455	324	0	521	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		0			0			0			0	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.00	0.85	1.00	0.85	0.85	0.85	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Number of Detectors	1	2						2	1	1	2	
Detector Template	Left	Thru						Thru	Right	Left	Thru	
Leading Detector (ft)	20	100						100	20	20	100	
Trailing Detector (ft)	0	0						0	0	0	0	
Detector 1 Position(ft)	0	0						0	0	0	0	
Detector 1 Size(ft)	20	6						6	20	20	6	
Detector 1 Type	Cl+Ex	Cl+Ex						Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	
Detector 1 Channel												
Detector 1 Extend (s)	0.0	0.0						0.0	0.0	0.0	0.0	
Detector 1 Queue (s)	0.0	0.0						0.0	0.0	0.0	0.0	
Detector 1 Delay (s)	0.0	0.0						0.0	0.0	0.0	0.0	
Detector 2 Position(ft)		94						94			94	
Detector 2 Size(ft)		6						6			6	
Detector 2 Type		Cl+Ex						Cl+Ex			Cl+Ex	
Detector 2 Channel												
Detector 2 Extend (s)		0.0						0.0			0.0	
Turn Type	Perm	NA						NA	Perm	Split	NA	
Protected Phases		4						2!		6!	6	
Permitted Phases	4								2			
Detector Phase	4	4						2	2	6	6	
Switch Phase												

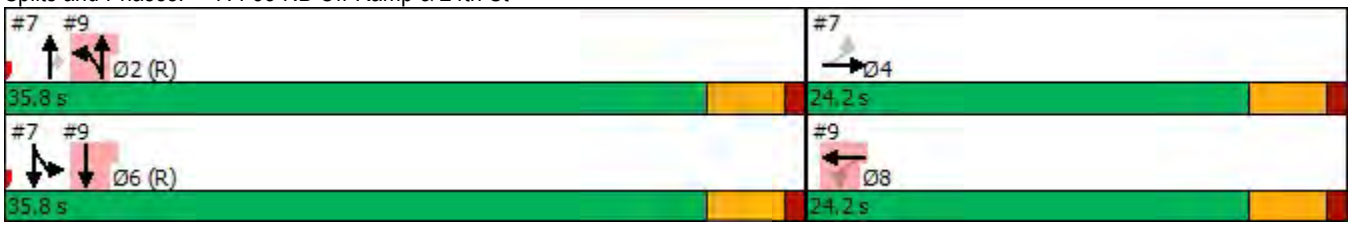
Lane Group	Ø8
Lane Configurations	
Traffic Volume (vph)	
Future Volume (vph)	
Ideal Flow (vphpl)	
Lane Width (ft)	
Lane Util. Factor	
Frt	
Flt Protected	
Satd. Flow (prot)	
Flt Permitted	
Satd. Flow (perm)	
Right Turn on Red	
Satd. Flow (RTOR)	
Link Speed (mph)	
Link Distance (ft)	
Travel Time (s)	
Peak Hour Factor	
Adj. Flow (vph)	
Shared Lane Traffic (%)	
Lane Group Flow (vph)	
Enter Blocked Intersection	
Lane Alignment	
Median Width(ft)	
Link Offset(ft)	
Crosswalk Width(ft)	
Two way Left Turn Lane	
Headway Factor	
Turning Speed (mph)	
Number of Detectors	
Detector Template	
Leading Detector (ft)	
Trailing Detector (ft)	
Detector 1 Position(ft)	
Detector 1 Size(ft)	
Detector 1 Type	
Detector 1 Channel	
Detector 1 Extend (s)	
Detector 1 Queue (s)	
Detector 1 Delay (s)	
Detector 2 Position(ft)	
Detector 2 Size(ft)	
Detector 2 Type	
Detector 2 Channel	
Detector 2 Extend (s)	
Turn Type	
Protected Phases	8
Permitted Phases	
Detector Phase	
Switch Phase	

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Minimum Initial (s)	7.0	7.0						7.0	7.0	7.0	7.0	
Minimum Split (s)	22.5	22.5						22.5	22.5	22.5	22.5	
Total Split (s)	24.2	24.2						35.8	35.8	35.8	35.8	
Total Split (%)	40.3%	40.3%						59.7%	59.7%	59.7%	59.7%	
Maximum Green (s)	19.7	19.7						31.3	31.3	31.3	31.3	
Yellow Time (s)	3.5	3.5						3.5	3.5	3.5	3.5	
All-Red Time (s)	1.0	1.0						1.0	1.0	1.0	1.0	
Lost Time Adjust (s)		0.0						0.0	0.0		0.0	
Total Lost Time (s)		4.5						4.5	4.5		4.5	
Lead/Lag												
Lead-Lag Optimize?												
Vehicle Extension (s)	3.0	3.0						3.0	3.0	3.0	3.0	
Recall Mode	None	None						C-Max	C-Max	C-Max	C-Max	
Act Effct Green (s)		14.0						37.0	37.0		37.0	
Actuated g/C Ratio		0.23						0.62	0.62		0.62	
v/c Ratio		0.71						0.40	0.29		0.46	
Control Delay		14.6						7.6	2.1		10.1	
Queue Delay		0.0						0.3	0.0		0.7	
Total Delay		14.6						8.0	2.1		10.8	
LOS		B						A	A		B	
Approach Delay		14.6						5.5			10.8	
Approach LOS		B						A			B	

Intersection Summary			
Area Type:	Other		
Cycle Length: 60			
Actuated Cycle Length: 60			
Offset: 54 (90%), Referenced to phase 2:NBT and 6:SBTL, Start of 1st Green			
Natural Cycle: 50			
Control Type: Actuated-Coordinated			
Maximum v/c Ratio: 0.71			
Intersection Signal Delay: 9.5		Intersection LOS: A	
Intersection Capacity Utilization 84.2%		ICU Level of Service E	
Analysis Period (min) 15			

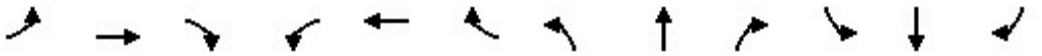
! Phase conflict between lane groups.

Splits and Phases: 7: I-35 NB Off-Ramp & 24th St



Lane Group	Ø8
Minimum Initial (s)	7.0
Minimum Split (s)	22.5
Total Split (s)	24.2
Total Split (%)	40%
Maximum Green (s)	19.7
Yellow Time (s)	3.5
All-Red Time (s)	1.0
Lost Time Adjust (s)	
Total Lost Time (s)	
Lead/Lag	
Lead-Lag Optimize?	
Vehicle Extension (s)	3.0
Recall Mode	None
Act Effct Green (s)	
Actuated g/C Ratio	
v/c Ratio	
Control Delay	
Queue Delay	
Total Delay	
LOS	
Approach Delay	
Approach LOS	

Intersection Summary



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	0	0	0	232	0	53	310	214	0	0	248	124
Future Volume (vph)	0	0	0	232	0	53	310	214	0	0	248	124
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	16	16	16	12	16	12	12	12	12	12	12	12
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Frt					0.975						0.955	
Flt Protected					0.961			0.971				
Satd. Flow (prot)	0	0	0	0	1978	0	0	1809	0	0	1779	0
Flt Permitted					0.961			0.971				
Satd. Flow (perm)	0	0	0	0	1978	0	0	1809	0	0	1779	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)					27						63	
Link Speed (mph)		35			35			35			35	
Link Distance (ft)		755			1614			299			328	
Travel Time (s)		14.7			31.4			5.8			6.4	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	0	0	0	252	0	58	337	233	0	0	270	135
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	0	0	0	310	0	0	570	0	0	405	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		0			0			0			0	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	0.85	0.85	0.85	1.00	0.85	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Number of Detectors				1	2		1	2			2	
Detector Template				Left	Thru		Left	Thru			Thru	
Leading Detector (ft)				20	100		20	100			100	
Trailing Detector (ft)				0	0		0	0			0	
Detector 1 Position(ft)				0	0		0	0			0	
Detector 1 Size(ft)				20	6		20	6			6	
Detector 1 Type				Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex			Cl+Ex	
Detector 1 Channel												
Detector 1 Extend (s)				0.0	0.0		0.0	0.0			0.0	
Detector 1 Queue (s)				0.0	0.0		0.0	0.0			0.0	
Detector 1 Delay (s)				0.0	0.0		0.0	0.0			0.0	
Detector 2 Position(ft)					94			94			94	
Detector 2 Size(ft)					6			6			6	
Detector 2 Type					Cl+Ex			Cl+Ex			Cl+Ex	
Detector 2 Channel												
Detector 2 Extend (s)					0.0			0.0			0.0	
Turn Type				Perm	NA		Split	NA			NA	
Protected Phases					8		2!	2			6!	
Permitted Phases				8								
Detector Phase				8	8		2	2			6	
Switch Phase												

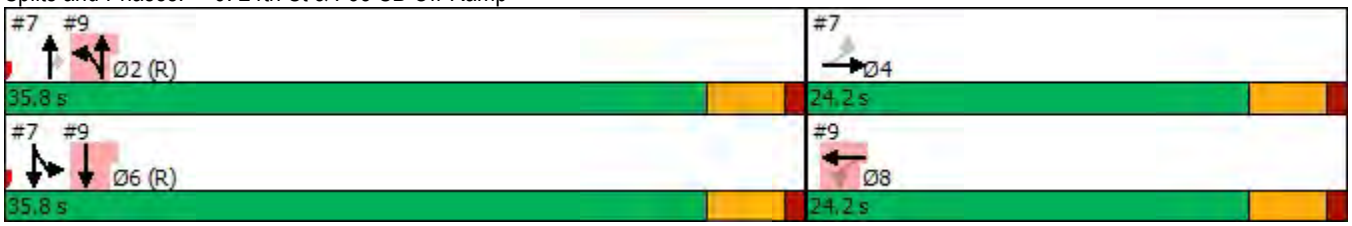
Lane Group	Ø4
Lane Configurations	
Traffic Volume (vph)	
Future Volume (vph)	
Ideal Flow (vphpl)	
Lane Width (ft)	
Lane Util. Factor	
Frt	
Flt Protected	
Satd. Flow (prot)	
Flt Permitted	
Satd. Flow (perm)	
Right Turn on Red	
Satd. Flow (RTOR)	
Link Speed (mph)	
Link Distance (ft)	
Travel Time (s)	
Peak Hour Factor	
Adj. Flow (vph)	
Shared Lane Traffic (%)	
Lane Group Flow (vph)	
Enter Blocked Intersection	
Lane Alignment	
Median Width(ft)	
Link Offset(ft)	
Crosswalk Width(ft)	
Two way Left Turn Lane	
Headway Factor	
Turning Speed (mph)	
Number of Detectors	
Detector Template	
Leading Detector (ft)	
Trailing Detector (ft)	
Detector 1 Position(ft)	
Detector 1 Size(ft)	
Detector 1 Type	
Detector 1 Channel	
Detector 1 Extend (s)	
Detector 1 Queue (s)	
Detector 1 Delay (s)	
Detector 2 Position(ft)	
Detector 2 Size(ft)	
Detector 2 Type	
Detector 2 Channel	
Detector 2 Extend (s)	
Turn Type	
Protected Phases	4
Permitted Phases	
Detector Phase	
Switch Phase	

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Minimum Initial (s)				7.0	7.0		7.0	7.0			7.0	
Minimum Split (s)				22.5	22.5		22.5	22.5			22.5	
Total Split (s)				24.2	24.2		35.8	35.8			35.8	
Total Split (%)				40.3%	40.3%		59.7%	59.7%			59.7%	
Maximum Green (s)				19.7	19.7		31.3	31.3			31.3	
Yellow Time (s)				3.5	3.5		3.5	3.5			3.5	
All-Red Time (s)				1.0	1.0		1.0	1.0			1.0	
Lost Time Adjust (s)					0.0			0.0			0.0	
Total Lost Time (s)					4.5			4.5			4.5	
Lead/Lag												
Lead-Lag Optimize?												
Vehicle Extension (s)				3.0	3.0		3.0	3.0			3.0	
Recall Mode				None	None		C-Max	C-Max			C-Max	
Act Effct Green (s)					14.0			37.0			37.0	
Actuated g/C Ratio					0.23			0.62			0.62	
v/c Ratio					0.64			0.51			0.36	
Control Delay					24.5			4.6			6.7	
Queue Delay					0.0			0.1			0.6	
Total Delay					24.5			4.7			7.3	
LOS					C			A			A	
Approach Delay					24.5			4.7			7.3	
Approach LOS					C			A			A	

Intersection Summary			
Area Type:	Other		
Cycle Length: 60			
Actuated Cycle Length: 60			
Offset: 54 (90%), Referenced to phase 2:NBT and 6:SBTL, Start of 1st Green			
Natural Cycle: 50			
Control Type: Actuated-Coordinated			
Maximum v/c Ratio: 0.71			
Intersection Signal Delay: 10.3		Intersection LOS: B	
Intersection Capacity Utilization 76.4%		ICU Level of Service D	
Analysis Period (min) 15			

! Phase conflict between lane groups.

Splits and Phases: 9: 24th St & I-35 SB Off-Ramp



Lane Group	Ø4
Minimum Initial (s)	7.0
Minimum Split (s)	22.5
Total Split (s)	24.2
Total Split (%)	40%
Maximum Green (s)	19.7
Yellow Time (s)	3.5
All-Red Time (s)	1.0
Lost Time Adjust (s)	
Total Lost Time (s)	
Lead/Lag	
Lead-Lag Optimize?	
Vehicle Extension (s)	3.0
Recall Mode	None
Act Effct Green (s)	
Actuated g/C Ratio	
v/c Ratio	
Control Delay	
Queue Delay	
Total Delay	
LOS	
Approach Delay	
Approach LOS	

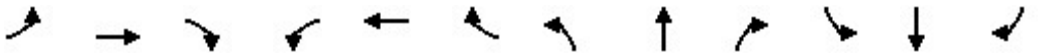
Intersection Summary

Lane Group	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Volume (vph)	234	148	224	289	132	135
Future Volume (vph)	234	148	224	289	132	135
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Storage Length (ft)		0	165		0	0
Storage Lanes		0	1		1	0
Taper Length (ft)			25		25	
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Frt	0.948				0.932	
Flt Protected			0.950		0.976	
Satd. Flow (prot)	1766	0	1770	1863	1694	0
Flt Permitted			0.315		0.976	
Satd. Flow (perm)	1766	0	587	1863	1694	0
Right Turn on Red		Yes				Yes
Satd. Flow (RTOR)	52				80	
Link Speed (mph)	35			35	35	
Link Distance (ft)	1077			256	581	
Travel Time (s)	21.0			5.0	11.3	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	254	161	243	314	143	147
Shared Lane Traffic (%)						
Lane Group Flow (vph)	415	0	243	314	290	0
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Right	Left	Left	Left	Right
Median Width(ft)	12			12	12	
Link Offset(ft)	0			0	0	
Crosswalk Width(ft)	16			16	16	
Two way Left Turn Lane						
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)		9	15		15	9
Number of Detectors	0		0	0	0	
Detector Template	Thru		Left	Thru	Left	
Leading Detector (ft)	0		0	0	0	
Trailing Detector (ft)	0		0	0	0	
Turn Type	NA		pm+pt	NA	Prot	
Protected Phases	2		1	2	4	
Permitted Phases			2			
Detector Phase	2		1	2	4	
Switch Phase						
Minimum Initial (s)	14.0		10.0	14.0	14.0	
Minimum Split (s)	18.7		15.0	18.7	19.0	
Total Split (s)	26.0		15.0	26.0	24.0	
Total Split (%)	40.0%		23.1%	40.0%	36.9%	
Maximum Green (s)	21.3		10.0	21.3	19.0	
Yellow Time (s)	3.6		3.0	3.6	3.0	
All-Red Time (s)	1.1		2.0	1.1	2.0	
Lost Time Adjust (s)	0.0		0.0	0.0	0.0	
Total Lost Time (s)	4.7		5.0	4.7	5.0	
Lead/Lag	Lag		Lead	Lag		

Lane Group	EBT	EBR	WBL	WBT	NBL	NBR
Lead-Lag Optimize?						
Vehicle Extension (s)	3.0		3.0	3.0	3.0	
Recall Mode	Max		Max	Max	Max	
Act Effct Green (s)	21.3		31.0	21.3	19.0	
Actuated g/C Ratio	0.33		0.48	0.33	0.29	
v/c Ratio	0.68		0.53	0.51	0.53	
Control Delay	23.0		12.4	21.3	17.8	
Queue Delay	0.0		0.0	0.0	0.0	
Total Delay	23.0		12.4	21.3	17.8	
LOS	C		B	C	B	
Approach Delay	23.0			17.4	17.8	
Approach LOS	C			B	B	

Intersection Summary			
Area Type:	Other		
Cycle Length: 65			
Actuated Cycle Length: 65			
Natural Cycle: 60			
Control Type: Actuated-Uncoordinated			
Maximum v/c Ratio: 0.68			
Intersection Signal Delay: 19.3		Intersection LOS: B	
Intersection Capacity Utilization 61.6%		ICU Level of Service B	
Analysis Period (min) 15			

Splits and Phases: 3: 24th St & Merriam Ln

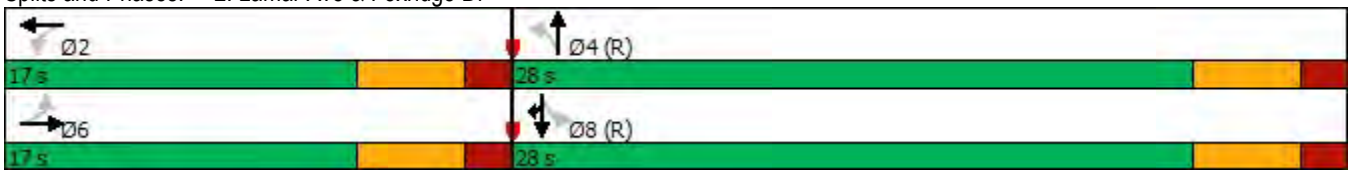


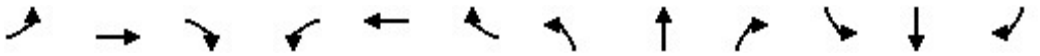
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	221	1	8	6	5	124	7	373	4	6	429	269
Future Volume (vph)	221	1	8	6	5	124	7	373	4	6	429	269
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	0		0	60		0	0		0	0		0
Storage Lanes	1		0	1		0	0		0	0		1
Taper Length (ft)	25			25			25			25		
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	0.95	0.95	0.95	1.00	1.00	1.00
Frt		0.865			0.855			0.999				0.850
Flt Protected	0.950			0.950				0.999			0.999	
Satd. Flow (prot)	1770	1611	0	1770	1593	0	0	3532	0	0	1861	1583
Flt Permitted	0.668			0.751				0.946			0.993	
Satd. Flow (perm)	1244	1611	0	1399	1593	0	0	3345	0	0	1850	1583
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		9			135			3				292
Link Speed (mph)		35			25			35			35	
Link Distance (ft)		362			218			374			353	
Travel Time (s)		7.1			5.9			7.3			6.9	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	240	1	9	7	5	135	8	405	4	7	466	292
Shared Lane Traffic (%)												
Lane Group Flow (vph)	240	10	0	7	140	0	0	417	0	0	473	292
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		12			12			0			0	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Number of Detectors	1	2		1	2		1	2		1	2	1
Detector Template	Left	Thru		Left	Thru		Left	Thru		Left	Thru	Right
Leading Detector (ft)	20	100		20	100		20	100		20	100	20
Trailing Detector (ft)	0	0		0	0		0	0		0	0	0
Detector 1 Position(ft)	0	0		0	0		0	0		0	0	0
Detector 1 Size(ft)	20	6		20	6		20	6		20	6	20
Detector 1 Type	Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex	Cl+Ex
Detector 1 Channel												
Detector 1 Extend (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	0.0
Detector 1 Queue (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	0.0
Detector 1 Delay (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	0.0
Detector 2 Position(ft)		94			94			94			94	
Detector 2 Size(ft)		6			6			6			6	
Detector 2 Type		Cl+Ex			Cl+Ex			Cl+Ex			Cl+Ex	
Detector 2 Channel												
Detector 2 Extend (s)		0.0			0.0			0.0			0.0	
Turn Type	Perm	NA		Perm	NA		Perm	NA		Perm	NA	Prot
Protected Phases		6			2			4			8	8
Permitted Phases	6			2			4			8		

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Detector Phase	6	6		2	2		4	4		8	8	8
Switch Phase												
Minimum Initial (s)	10.0	10.0		10.0	10.0		10.0	10.0		10.0	10.0	10.0
Minimum Split (s)	15.2	15.2		15.2	15.2		15.2	15.2		15.2	15.2	15.2
Total Split (s)	17.0	17.0		17.0	17.0		28.0	28.0		28.0	28.0	28.0
Total Split (%)	37.8%	37.8%		37.8%	37.8%		62.2%	62.2%		62.2%	62.2%	62.2%
Maximum Green (s)	11.8	11.8		11.8	11.8		22.8	22.8		22.8	22.8	22.8
Yellow Time (s)	3.6	3.6		3.6	3.6		3.6	3.6		3.6	3.6	3.6
All-Red Time (s)	1.6	1.6		1.6	1.6		1.6	1.6		1.6	1.6	1.6
Lost Time Adjust (s)	0.0	0.0		0.0	0.0			0.0			0.0	0.0
Total Lost Time (s)	5.2	5.2		5.2	5.2			5.2			5.2	5.2
Lead/Lag												
Lead-Lag Optimize?												
Vehicle Extension (s)	3.0	3.0		3.0	3.0		3.0	3.0		3.0	3.0	3.0
Recall Mode	None	None		Min	Min		C-Min	C-Min		C-Min	C-Min	C-Min
Act Effct Green (s)	12.4	12.4		12.4	12.4			22.2			22.2	22.2
Actuated g/C Ratio	0.28	0.28		0.28	0.28			0.49			0.49	0.49
v/c Ratio	0.70	0.02		0.02	0.26			0.25			0.52	0.31
Control Delay	29.7	8.1		12.0	5.0			7.2			10.5	2.1
Queue Delay	0.0	0.0		0.0	0.0			0.0			0.0	0.0
Total Delay	29.7	8.1		12.0	5.0			7.2			10.5	2.1
LOS	C	A		B	A			A			B	A
Approach Delay		28.8			5.3			7.2			7.3	
Approach LOS		C			A			A			A	

Intersection Summary			
Area Type:	Other		
Cycle Length: 45			
Actuated Cycle Length: 45			
Offset: 0 (0%), Referenced to phase 4:NBTL and 8:SBTL, Start of Green			
Natural Cycle: 45			
Control Type: Actuated-Coordinated			
Maximum v/c Ratio: 0.70			
Intersection Signal Delay: 10.5		Intersection LOS: B	
Intersection Capacity Utilization 60.9%		ICU Level of Service B	
Analysis Period (min) 15			

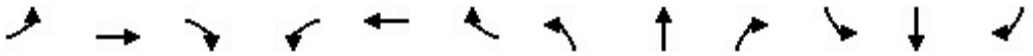
Splits and Phases: 2: Lamar Ave & Foxridge Dr





Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	105	0	318	0	0	0	0	419	298	95	385	0
Future Volume (vph)	105	0	318	0	0	0	0	419	298	95	385	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	16	12	16	16	16	12	12	12	12	12	12
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Frt		0.898							0.850			
Flt Protected		0.988									0.990	
Satd. Flow (prot)	0	1873	0	0	0	0	0	1863	1583	0	1844	0
Flt Permitted		0.988									0.990	
Satd. Flow (perm)	0	1873	0	0	0	0	0	1863	1583	0	1844	0
Link Speed (mph)		35			35			35			35	
Link Distance (ft)		2302			750			353			299	
Travel Time (s)		44.8			14.6			6.9			5.8	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	114	0	346	0	0	0	0	455	324	103	418	0
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	460	0	0	0	0	0	455	324	0	521	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		0			0			0			0	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.00	0.85	1.00	0.85	0.85	0.85	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Sign Control		Stop			Free			Free			Free	

Intersection Summary			
Area Type:	Other		
Control Type: Unsignalized			
Intersection Capacity Utilization 83.0%		ICU Level of Service E	
Analysis Period (min) 15			



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	0	0	0	232	0	53	310	214	0	0	248	124
Future Volume (vph)	0	0	0	232	0	53	310	214	0	0	248	124
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	16	16	16	12	16	12	12	12	12	12	12	12
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Frt					0.975						0.955	
Flt Protected					0.961			0.971				
Satd. Flow (prot)	0	0	0	0	1978	0	0	1809	0	0	1779	0
Flt Permitted					0.961			0.971				
Satd. Flow (perm)	0	0	0	0	1978	0	0	1809	0	0	1779	0
Link Speed (mph)		35			35			35			35	
Link Distance (ft)		755			1614			299			328	
Travel Time (s)		14.7			31.4			5.8			6.4	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	0	0	0	252	0	58	337	233	0	0	270	135
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	0	0	0	310	0	0	570	0	0	405	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		0			0			0			0	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	0.85	0.85	0.85	1.00	0.85	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Sign Control		Free			Stop			Free			Free	

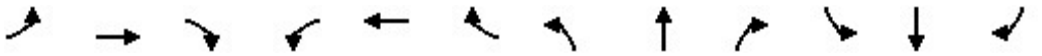
Intersection Summary			
Area Type:	Other		
Control Type: Unsignalized			
Intersection Capacity Utilization 75.1%		ICU Level of Service D	
Analysis Period (min) 15			

Lane Group	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Volume (vph)	234	148	224	289	132	135
Future Volume (vph)	234	148	224	289	132	135
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Storage Length (ft)		0	165		0	0
Storage Lanes		0	1		1	0
Taper Length (ft)			25		25	
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Frt	0.948				0.932	
Flt Protected			0.950		0.976	
Satd. Flow (prot)	1766	0	1770	1863	1694	0
Flt Permitted			0.315		0.976	
Satd. Flow (perm)	1766	0	587	1863	1694	0
Right Turn on Red		Yes				Yes
Satd. Flow (RTOR)	52				80	
Link Speed (mph)	35			35	35	
Link Distance (ft)	1077			256	581	
Travel Time (s)	21.0			5.0	11.3	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	254	161	243	314	143	147
Shared Lane Traffic (%)						
Lane Group Flow (vph)	415	0	243	314	290	0
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Right	Left	Left	Left	Right
Median Width(ft)	12			12	12	
Link Offset(ft)	0			0	0	
Crosswalk Width(ft)	16			16	16	
Two way Left Turn Lane						
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)		9	15		15	9
Number of Detectors	0		0	0	0	
Detector Template	Thru		Left	Thru	Left	
Leading Detector (ft)	0		0	0	0	
Trailing Detector (ft)	0		0	0	0	
Turn Type	NA		pm+pt	NA	Prot	
Protected Phases	2		1	2	4	
Permitted Phases			2			
Detector Phase	2		1	2	4	
Switch Phase						
Minimum Initial (s)	14.0		10.0	14.0	14.0	
Minimum Split (s)	18.7		15.0	18.7	19.0	
Total Split (s)	26.0		15.0	26.0	24.0	
Total Split (%)	40.0%		23.1%	40.0%	36.9%	
Maximum Green (s)	21.3		10.0	21.3	19.0	
Yellow Time (s)	3.6		3.0	3.6	3.0	
All-Red Time (s)	1.1		2.0	1.1	2.0	
Lost Time Adjust (s)	0.0		0.0	0.0	0.0	
Total Lost Time (s)	4.7		5.0	4.7	5.0	
Lead/Lag	Lag		Lead	Lag		

Lane Group	EBT	EBR	WBL	WBT	NBL	NBR
Lead-Lag Optimize?						
Vehicle Extension (s)	3.0		3.0	3.0	3.0	
Recall Mode	Max		Max	Max	Max	
Act Effct Green (s)	21.3		31.0	21.3	19.0	
Actuated g/C Ratio	0.33		0.48	0.33	0.29	
v/c Ratio	0.68		0.53	0.51	0.53	
Control Delay	23.0		12.4	21.3	17.8	
Queue Delay	0.0		0.0	0.0	0.0	
Total Delay	23.0		12.4	21.3	17.8	
LOS	C		B	C	B	
Approach Delay	23.0			17.4	17.8	
Approach LOS	C			B	B	

Intersection Summary			
Area Type:	Other		
Cycle Length: 65			
Actuated Cycle Length: 65			
Natural Cycle: 60			
Control Type: Actuated-Uncoordinated			
Maximum v/c Ratio: 0.68			
Intersection Signal Delay: 19.3		Intersection LOS: B	
Intersection Capacity Utilization 61.6%		ICU Level of Service B	
Analysis Period (min) 15			

Splits and Phases: 3: 24th St & Merriam Ln

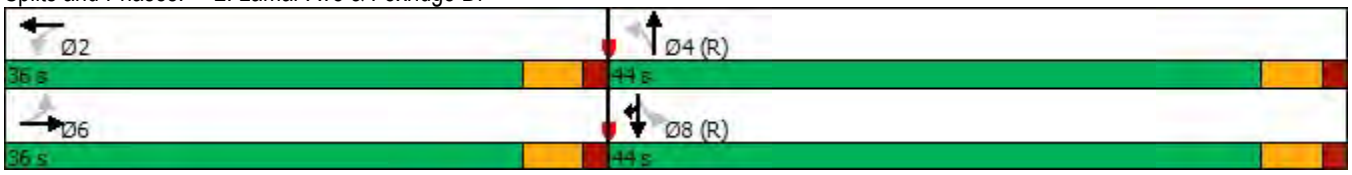


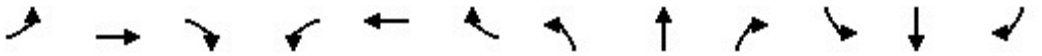
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	276	3	7	7	7	36	6	438	11	50	218	214
Future Volume (vph)	276	3	7	7	7	36	6	438	11	50	218	214
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	0		0	60		0	0		0	0		0
Storage Lanes	1		0	1		0	0		0	0		1
Taper Length (ft)	25			25			25			25		
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	0.95	0.95	0.95	1.00	1.00	1.00
Frt		0.891			0.876			0.996				0.850
Flt Protected	0.950			0.950				0.999			0.991	
Satd. Flow (prot)	1770	1660	0	1770	1632	0	0	3522	0	0	1846	1583
Flt Permitted	0.726			0.750				0.951			0.854	
Satd. Flow (perm)	1352	1660	0	1397	1632	0	0	3352	0	0	1591	1583
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		8			39			4				233
Link Speed (mph)		35			25			35			35	
Link Distance (ft)		362			218			374			353	
Travel Time (s)		7.1			5.9			7.3			6.9	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	300	3	8	8	8	39	7	476	12	54	237	233
Shared Lane Traffic (%)												
Lane Group Flow (vph)	300	11	0	8	47	0	0	495	0	0	291	233
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		12			12			0			0	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Number of Detectors	1	2		1	2		1	2		1	2	1
Detector Template	Left	Thru		Left	Thru		Left	Thru		Left	Thru	Right
Leading Detector (ft)	20	100		20	100		20	100		20	100	20
Trailing Detector (ft)	0	0		0	0		0	0		0	0	0
Detector 1 Position(ft)	0	0		0	0		0	0		0	0	0
Detector 1 Size(ft)	20	6		20	6		20	6		20	6	20
Detector 1 Type	Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex	Cl+Ex
Detector 1 Channel												
Detector 1 Extend (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	0.0
Detector 1 Queue (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	0.0
Detector 1 Delay (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	0.0
Detector 2 Position(ft)		94			94			94			94	
Detector 2 Size(ft)		6			6			6			6	
Detector 2 Type		Cl+Ex			Cl+Ex			Cl+Ex			Cl+Ex	
Detector 2 Channel												
Detector 2 Extend (s)		0.0			0.0			0.0			0.0	
Turn Type	Perm	NA		Perm	NA		Perm	NA		Perm	NA	Prot
Protected Phases		6			2			4			8	8
Permitted Phases	6			2			4			8		

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Detector Phase	6	6		2	2		4	4		8	8	8
Switch Phase												
Minimum Initial (s)	10.0	10.0		10.0	10.0		10.0	10.0		10.0	10.0	10.0
Minimum Split (s)	15.2	15.2		15.2	15.2		15.2	15.2		15.2	15.2	15.2
Total Split (s)	36.0	36.0		36.0	36.0		44.0	44.0		44.0	44.0	44.0
Total Split (%)	45.0%	45.0%		45.0%	45.0%		55.0%	55.0%		55.0%	55.0%	55.0%
Maximum Green (s)	30.8	30.8		30.8	30.8		38.8	38.8		38.8	38.8	38.8
Yellow Time (s)	3.6	3.6		3.6	3.6		3.6	3.6		3.6	3.6	3.6
All-Red Time (s)	1.6	1.6		1.6	1.6		1.6	1.6		1.6	1.6	1.6
Lost Time Adjust (s)	0.0	0.0		0.0	0.0			0.0			0.0	0.0
Total Lost Time (s)	5.2	5.2		5.2	5.2			5.2			5.2	5.2
Lead/Lag												
Lead-Lag Optimize?												
Vehicle Extension (s)	3.0	3.0		3.0	3.0		3.0	3.0		3.0	3.0	3.0
Recall Mode	None	None		Min	Min		C-Min	C-Min		C-Min	C-Min	C-Min
Act Effct Green (s)	23.0	23.0		23.0	23.0			46.6			46.6	46.6
Actuated g/C Ratio	0.29	0.29		0.29	0.29			0.58			0.58	0.58
v/c Ratio	0.77	0.02		0.02	0.09			0.25			0.31	0.23
Control Delay	39.2	11.1		16.9	7.6			9.6			11.2	2.3
Queue Delay	0.0	0.0		0.0	0.0			0.0			0.6	0.0
Total Delay	39.2	11.1		16.9	7.6			9.6			11.8	2.3
LOS	D	B		B	A			A			B	A
Approach Delay		38.2			9.0			9.6			7.6	
Approach LOS		D			A			A			A	

Intersection Summary			
Area Type:	Other		
Cycle Length: 80			
Actuated Cycle Length: 80			
Offset: 0 (0%), Referenced to phase 4:NBTL and 8:SBTL, Start of Green			
Natural Cycle: 45			
Control Type: Actuated-Coordinated			
Maximum v/c Ratio: 0.77			
Intersection Signal Delay: 15.2		Intersection LOS: B	
Intersection Capacity Utilization 61.8%		ICU Level of Service B	
Analysis Period (min) 15			

Splits and Phases: 2: Lamar Ave & Foxridge Dr





Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	103	0	203	0	0	0	0	438	312	66	279	0
Future Volume (vph)	103	0	203	0	0	0	0	438	312	66	279	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	16	12	16	16	16	12	12	12	12	12	12
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Frt		0.910							0.850			
Flt Protected		0.983									0.990	
Satd. Flow (prot)	0	1888	0	0	0	0	0	1863	1583	0	1844	0
Flt Permitted		0.983									0.990	
Satd. Flow (perm)	0	1888	0	0	0	0	0	1863	1583	0	1844	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		170							339			
Link Speed (mph)		35			35			35			35	
Link Distance (ft)		2302			750			353			299	
Travel Time (s)		44.8			14.6			6.9			5.8	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	112	0	221	0	0	0	0	476	339	72	303	0
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	333	0	0	0	0	0	476	339	0	375	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		0			0			0			0	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.00	0.85	1.00	0.85	0.85	0.85	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Number of Detectors	1	2						2	1	1	2	
Detector Template	Left	Thru						Thru	Right	Left	Thru	
Leading Detector (ft)	20	100						100	20	20	100	
Trailing Detector (ft)	0	0						0	0	0	0	
Detector 1 Position(ft)	0	0						0	0	0	0	
Detector 1 Size(ft)	20	6						6	20	20	6	
Detector 1 Type	Cl+Ex	Cl+Ex						Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	
Detector 1 Channel												
Detector 1 Extend (s)	0.0	0.0						0.0	0.0	0.0	0.0	
Detector 1 Queue (s)	0.0	0.0						0.0	0.0	0.0	0.0	
Detector 1 Delay (s)	0.0	0.0						0.0	0.0	0.0	0.0	
Detector 2 Position(ft)		94						94			94	
Detector 2 Size(ft)		6						6			6	
Detector 2 Type		Cl+Ex						Cl+Ex			Cl+Ex	
Detector 2 Channel												
Detector 2 Extend (s)		0.0						0.0			0.0	
Turn Type	Perm	NA						NA	Perm	Split	NA	
Protected Phases		4						2!		6!	6	
Permitted Phases	4								2			
Detector Phase	4	4						2	2	6	6	
Switch Phase												

Lane Group	Ø8
Lane Configurations	
Traffic Volume (vph)	
Future Volume (vph)	
Ideal Flow (vphpl)	
Lane Width (ft)	
Lane Util. Factor	
Frt	
Flt Protected	
Satd. Flow (prot)	
Flt Permitted	
Satd. Flow (perm)	
Right Turn on Red	
Satd. Flow (RTOR)	
Link Speed (mph)	
Link Distance (ft)	
Travel Time (s)	
Peak Hour Factor	
Adj. Flow (vph)	
Shared Lane Traffic (%)	
Lane Group Flow (vph)	
Enter Blocked Intersection	
Lane Alignment	
Median Width(ft)	
Link Offset(ft)	
Crosswalk Width(ft)	
Two way Left Turn Lane	
Headway Factor	
Turning Speed (mph)	
Number of Detectors	
Detector Template	
Leading Detector (ft)	
Trailing Detector (ft)	
Detector 1 Position(ft)	
Detector 1 Size(ft)	
Detector 1 Type	
Detector 1 Channel	
Detector 1 Extend (s)	
Detector 1 Queue (s)	
Detector 1 Delay (s)	
Detector 2 Position(ft)	
Detector 2 Size(ft)	
Detector 2 Type	
Detector 2 Channel	
Detector 2 Extend (s)	
Turn Type	
Protected Phases	8
Permitted Phases	
Detector Phase	
Switch Phase	

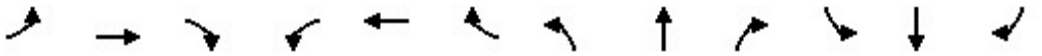
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Minimum Initial (s)	7.0	7.0						7.0	7.0	7.0	7.0	
Minimum Split (s)	22.5	22.5						22.5	22.5	22.5	22.5	
Total Split (s)	22.8	22.8						37.2	37.2	37.2	37.2	
Total Split (%)	38.0%	38.0%						62.0%	62.0%	62.0%	62.0%	
Maximum Green (s)	18.3	18.3						32.7	32.7	32.7	32.7	
Yellow Time (s)	3.5	3.5						3.5	3.5	3.5	3.5	
All-Red Time (s)	1.0	1.0						1.0	1.0	1.0	1.0	
Lost Time Adjust (s)		0.0						0.0	0.0		0.0	
Total Lost Time (s)		4.5						4.5	4.5		4.5	
Lead/Lag												
Lead-Lag Optimize?												
Vehicle Extension (s)	3.0	3.0						3.0	3.0	3.0	3.0	
Recall Mode	None	None						Max	Max	Max	Max	
Act Effct Green (s)		11.5						32.8	32.8		32.8	
Actuated g/C Ratio		0.22						0.61	0.61		0.61	
v/c Ratio		0.62						0.42	0.31		0.33	
Control Delay		14.4						7.5	1.7		7.9	
Queue Delay		0.0						0.6	0.0		0.5	
Total Delay		14.4						8.1	1.7		8.3	
LOS		B						A	A		A	
Approach Delay		14.4						5.4			8.3	
Approach LOS		B						A			A	

Intersection Summary			
Area Type:	Other		
Cycle Length: 60			
Actuated Cycle Length: 53.4			
Natural Cycle: 55			
Control Type: Semi Act-Uncoord			
Maximum v/c Ratio: 0.62			
Intersection Signal Delay: 8.1		Intersection LOS: A	
Intersection Capacity Utilization 70.8%		ICU Level of Service C	
Analysis Period (min) 15			
! Phase conflict between lane groups.			

Splits and Phases: 7: I-35 NB Off-Ramp & 24th St

Lane Group	Ø8
Minimum Initial (s)	7.0
Minimum Split (s)	22.5
Total Split (s)	22.8
Total Split (%)	38%
Maximum Green (s)	18.3
Yellow Time (s)	3.5
All-Red Time (s)	1.0
Lost Time Adjust (s)	
Total Lost Time (s)	
Lead/Lag	
Lead-Lag Optimize?	
Vehicle Extension (s)	3.0
Recall Mode	None
Act Effct Green (s)	
Actuated g/C Ratio	
v/c Ratio	
Control Delay	
Queue Delay	
Total Delay	
LOS	
Approach Delay	
Approach LOS	

Intersection Summary



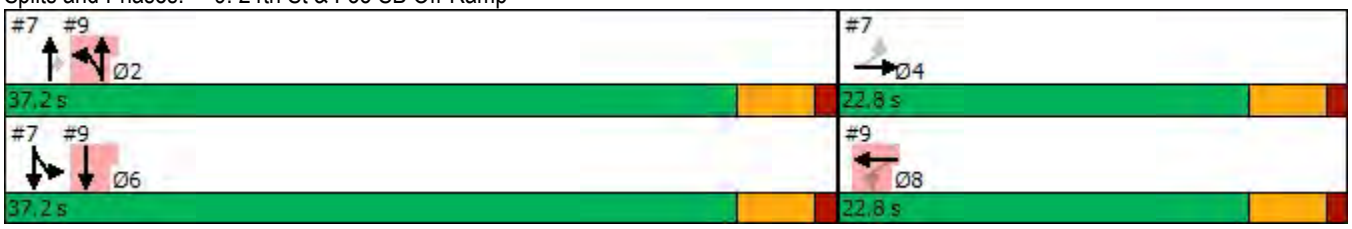
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	0	0	0	170	0	71	367	174	0	0	175	109
Future Volume (vph)	0	0	0	170	0	71	367	174	0	0	175	109
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	16	16	16	12	16	12	12	12	12	12	12	12
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Frt					0.960						0.948	
Flt Protected					0.966			0.967				
Satd. Flow (prot)	0	0	0	0	1958	0	0	1801	0	0	1766	0
Flt Permitted					0.966			0.967				
Satd. Flow (perm)	0	0	0	0	1958	0	0	1801	0	0	1766	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)					36						82	
Link Speed (mph)		35			35			35			35	
Link Distance (ft)		755			1614			299			328	
Travel Time (s)		14.7			31.4			5.8			6.4	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	0	0	0	185	0	77	399	189	0	0	190	118
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	0	0	0	262	0	0	588	0	0	308	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		0			0			0			0	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	0.85	0.85	0.85	1.00	0.85	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Number of Detectors				1	2		1	2			2	
Detector Template				Left	Thru		Left	Thru			Thru	
Leading Detector (ft)				20	100		20	100			100	
Trailing Detector (ft)				0	0		0	0			0	
Detector 1 Position(ft)				0	0		0	0			0	
Detector 1 Size(ft)				20	6		20	6			6	
Detector 1 Type				Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex			Cl+Ex	
Detector 1 Channel												
Detector 1 Extend (s)				0.0	0.0		0.0	0.0			0.0	
Detector 1 Queue (s)				0.0	0.0		0.0	0.0			0.0	
Detector 1 Delay (s)				0.0	0.0		0.0	0.0			0.0	
Detector 2 Position(ft)					94			94			94	
Detector 2 Size(ft)					6			6			6	
Detector 2 Type					Cl+Ex			Cl+Ex			Cl+Ex	
Detector 2 Channel												
Detector 2 Extend (s)					0.0			0.0			0.0	
Turn Type				Perm	NA		Split	NA			NA	
Protected Phases					8		2!	2			6!	
Permitted Phases				8								
Detector Phase				8	8		2	2			6	
Switch Phase												

Lane Group	Ø4
Lane Configurations	
Traffic Volume (vph)	
Future Volume (vph)	
Ideal Flow (vphpl)	
Lane Width (ft)	
Lane Util. Factor	
Frt	
Flt Protected	
Satd. Flow (prot)	
Flt Permitted	
Satd. Flow (perm)	
Right Turn on Red	
Satd. Flow (RTOR)	
Link Speed (mph)	
Link Distance (ft)	
Travel Time (s)	
Peak Hour Factor	
Adj. Flow (vph)	
Shared Lane Traffic (%)	
Lane Group Flow (vph)	
Enter Blocked Intersection	
Lane Alignment	
Median Width(ft)	
Link Offset(ft)	
Crosswalk Width(ft)	
Two way Left Turn Lane	
Headway Factor	
Turning Speed (mph)	
Number of Detectors	
Detector Template	
Leading Detector (ft)	
Trailing Detector (ft)	
Detector 1 Position(ft)	
Detector 1 Size(ft)	
Detector 1 Type	
Detector 1 Channel	
Detector 1 Extend (s)	
Detector 1 Queue (s)	
Detector 1 Delay (s)	
Detector 2 Position(ft)	
Detector 2 Size(ft)	
Detector 2 Type	
Detector 2 Channel	
Detector 2 Extend (s)	
Turn Type	
Protected Phases	4
Permitted Phases	
Detector Phase	
Switch Phase	

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Minimum Initial (s)				7.0	7.0		7.0	7.0			7.0	
Minimum Split (s)				22.5	22.5		22.5	22.5			22.5	
Total Split (s)				22.8	22.8		37.2	37.2			37.2	
Total Split (%)				38.0%	38.0%		62.0%	62.0%			62.0%	
Maximum Green (s)				18.3	18.3		32.7	32.7			32.7	
Yellow Time (s)				3.5	3.5		3.5	3.5			3.5	
All-Red Time (s)				1.0	1.0		1.0	1.0			1.0	
Lost Time Adjust (s)					0.0			0.0			0.0	
Total Lost Time (s)					4.5			4.5			4.5	
Lead/Lag												
Lead-Lag Optimize?												
Vehicle Extension (s)				3.0	3.0		3.0	3.0			3.0	
Recall Mode				None	None		Max	Max			Max	
Act Effct Green (s)					11.5			32.8			32.8	
Actuated g/C Ratio					0.22			0.61			0.61	
v/c Ratio					0.58			0.53			0.28	
Control Delay					21.3			5.2			4.8	
Queue Delay					0.0			0.1			0.3	
Total Delay					21.3			5.3			5.2	
LOS					C			A			A	
Approach Delay					21.3			5.3			5.2	
Approach LOS					C			A			A	

Intersection Summary			
Area Type:	Other		
Cycle Length: 60			
Actuated Cycle Length: 53.4			
Natural Cycle: 55			
Control Type: Semi Act-Uncoord			
Maximum v/c Ratio: 0.62			
Intersection Signal Delay: 8.9		Intersection LOS: A	
Intersection Capacity Utilization 70.3%		ICU Level of Service C	
Analysis Period (min) 15			
! Phase conflict between lane groups.			

Splits and Phases: 9: 24th St & I-35 SB Off-Ramp



Lane Group	Ø4
Minimum Initial (s)	7.0
Minimum Split (s)	22.5
Total Split (s)	22.8
Total Split (%)	38%
Maximum Green (s)	18.3
Yellow Time (s)	3.5
All-Red Time (s)	1.0
Lost Time Adjust (s)	
Total Lost Time (s)	
Lead/Lag	
Lead-Lag Optimize?	
Vehicle Extension (s)	3.0
Recall Mode	None
Act Effct Green (s)	
Actuated g/C Ratio	
v/c Ratio	
Control Delay	
Queue Delay	
Total Delay	
LOS	
Approach Delay	
Approach LOS	

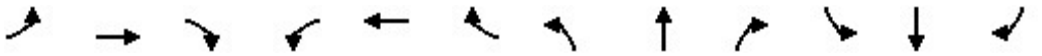
Intersection Summary

Lane Group	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Volume (vph)	129	146	138	131	117	128
Future Volume (vph)	129	146	138	131	117	128
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Storage Length (ft)		0	165		0	0
Storage Lanes		0	1		1	0
Taper Length (ft)			25		25	
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Frt	0.928				0.929	
Flt Protected			0.950		0.977	
Satd. Flow (prot)	1729	0	1770	1863	1691	0
Flt Permitted			0.469		0.977	
Satd. Flow (perm)	1729	0	874	1863	1691	0
Right Turn on Red		Yes				Yes
Satd. Flow (RTOR)	94				86	
Link Speed (mph)	35			35	35	
Link Distance (ft)	1077			256	581	
Travel Time (s)	21.0			5.0	11.3	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	140	159	150	142	127	139
Shared Lane Traffic (%)						
Lane Group Flow (vph)	299	0	150	142	266	0
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Right	Left	Left	Left	Right
Median Width(ft)	12			12	12	
Link Offset(ft)	0			0	0	
Crosswalk Width(ft)	16			16	16	
Two way Left Turn Lane						
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)		9	15		15	9
Number of Detectors	0		0	0	0	
Detector Template	Thru		Left	Thru	Left	
Leading Detector (ft)	0		0	0	0	
Trailing Detector (ft)	0		0	0	0	
Turn Type	NA		pm+pt	NA	Prot	
Protected Phases	2		1	2	4	
Permitted Phases			2			
Detector Phase	2		1	2	4	
Switch Phase						
Minimum Initial (s)	14.0		10.0	14.0	14.0	
Minimum Split (s)	18.7		15.0	18.7	19.0	
Total Split (s)	26.0		15.0	26.0	24.0	
Total Split (%)	40.0%		23.1%	40.0%	36.9%	
Maximum Green (s)	21.3		10.0	21.3	19.0	
Yellow Time (s)	3.6		3.0	3.6	3.0	
All-Red Time (s)	1.1		2.0	1.1	2.0	
Lost Time Adjust (s)	0.0		0.0	0.0	0.0	
Total Lost Time (s)	4.7		5.0	4.7	5.0	
Lead/Lag	Lag		Lead	Lag		

Lane Group	EBT	EBR	WBL	WBT	NBL	NBR
Lead-Lag Optimize?						
Vehicle Extension (s)	3.0		3.0	3.0	3.0	
Recall Mode	Max		Max	Max	Max	
Act Effct Green (s)	21.3		31.0	21.3	19.0	
Actuated g/C Ratio	0.33		0.48	0.33	0.29	
v/c Ratio	0.48		0.27	0.23	0.48	
Control Delay	14.6		8.7	17.2	16.0	
Queue Delay	0.0		0.0	0.0	0.0	
Total Delay	14.6		8.7	17.2	16.0	
LOS	B		A	B	B	
Approach Delay	14.6			12.8	16.0	
Approach LOS	B			B	B	

Intersection Summary			
Area Type:	Other		
Cycle Length: 65			
Actuated Cycle Length: 65			
Natural Cycle: 55			
Control Type: Actuated-Uncoordinated			
Maximum v/c Ratio: 0.48			
Intersection Signal Delay: 14.4		Intersection LOS: B	
Intersection Capacity Utilization 50.6%		ICU Level of Service A	
Analysis Period (min) 15			

Splits and Phases: 3: 24th St & Merriam Ln

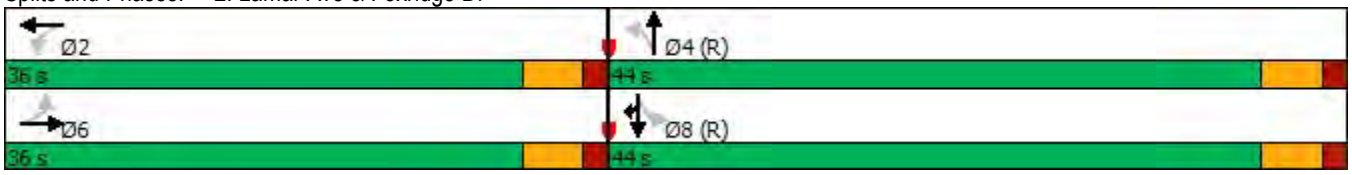


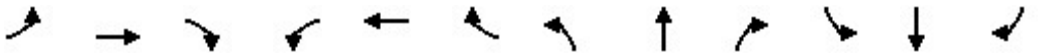
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	276	3	7	7	7	36	6	438	11	50	218	214
Future Volume (vph)	276	3	7	7	7	36	6	438	11	50	218	214
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	0		0	60		0	0		0	0		0
Storage Lanes	1		0	1		0	0		0	0		1
Taper Length (ft)	25			25			25			25		
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	0.95	0.95	0.95	1.00	1.00	1.00
Frt		0.891			0.876			0.996				0.850
Flt Protected	0.950			0.950				0.999			0.991	
Satd. Flow (prot)	1770	1660	0	1770	1632	0	0	3522	0	0	1846	1583
Flt Permitted	0.726			0.750				0.951			0.854	
Satd. Flow (perm)	1352	1660	0	1397	1632	0	0	3352	0	0	1591	1583
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		8			39			4				233
Link Speed (mph)		35			25			35			35	
Link Distance (ft)		362			218			374			353	
Travel Time (s)		7.1			5.9			7.3			6.9	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	300	3	8	8	8	39	7	476	12	54	237	233
Shared Lane Traffic (%)												
Lane Group Flow (vph)	300	11	0	8	47	0	0	495	0	0	291	233
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		12			12			0			0	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Number of Detectors	1	2		1	2		1	2		1	2	1
Detector Template	Left	Thru		Left	Thru		Left	Thru		Left	Thru	Right
Leading Detector (ft)	20	100		20	100		20	100		20	100	20
Trailing Detector (ft)	0	0		0	0		0	0		0	0	0
Detector 1 Position(ft)	0	0		0	0		0	0		0	0	0
Detector 1 Size(ft)	20	6		20	6		20	6		20	6	20
Detector 1 Type	Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex	Cl+Ex
Detector 1 Channel												
Detector 1 Extend (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	0.0
Detector 1 Queue (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	0.0
Detector 1 Delay (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	0.0
Detector 2 Position(ft)		94			94			94			94	
Detector 2 Size(ft)		6			6			6			6	
Detector 2 Type		Cl+Ex			Cl+Ex			Cl+Ex			Cl+Ex	
Detector 2 Channel												
Detector 2 Extend (s)		0.0			0.0			0.0			0.0	
Turn Type	Perm	NA		Perm	NA		Perm	NA		Perm	NA	Prot
Protected Phases		6			2			4			8	8
Permitted Phases	6			2			4			8		

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Detector Phase	6	6		2	2		4	4		8	8	8
Switch Phase												
Minimum Initial (s)	10.0	10.0		10.0	10.0		10.0	10.0		10.0	10.0	10.0
Minimum Split (s)	15.2	15.2		15.2	15.2		15.2	15.2		15.2	15.2	15.2
Total Split (s)	36.0	36.0		36.0	36.0		44.0	44.0		44.0	44.0	44.0
Total Split (%)	45.0%	45.0%		45.0%	45.0%		55.0%	55.0%		55.0%	55.0%	55.0%
Maximum Green (s)	30.8	30.8		30.8	30.8		38.8	38.8		38.8	38.8	38.8
Yellow Time (s)	3.6	3.6		3.6	3.6		3.6	3.6		3.6	3.6	3.6
All-Red Time (s)	1.6	1.6		1.6	1.6		1.6	1.6		1.6	1.6	1.6
Lost Time Adjust (s)	0.0	0.0		0.0	0.0			0.0			0.0	0.0
Total Lost Time (s)	5.2	5.2		5.2	5.2			5.2			5.2	5.2
Lead/Lag												
Lead-Lag Optimize?												
Vehicle Extension (s)	3.0	3.0		3.0	3.0		3.0	3.0		3.0	3.0	3.0
Recall Mode	None	None		Min	Min		C-Min	C-Min		C-Min	C-Min	C-Min
Act Effct Green (s)	23.0	23.0		23.0	23.0			46.6			46.6	46.6
Actuated g/C Ratio	0.29	0.29		0.29	0.29			0.58			0.58	0.58
v/c Ratio	0.77	0.02		0.02	0.09			0.25			0.31	0.23
Control Delay	39.2	11.1		16.9	7.6			9.6			11.2	2.3
Queue Delay	0.0	0.0		0.0	0.0			0.0			0.0	0.0
Total Delay	39.2	11.1		16.9	7.6			9.6			11.2	2.3
LOS	D	B		B	A			A			B	A
Approach Delay		38.2			9.0			9.6			7.2	
Approach LOS		D			A			A			A	

Intersection Summary			
Area Type:	Other		
Cycle Length: 80			
Actuated Cycle Length: 80			
Offset: 0 (0%), Referenced to phase 4:NBTL and 8:SBTL, Start of Green			
Natural Cycle: 45			
Control Type: Actuated-Coordinated			
Maximum v/c Ratio: 0.77			
Intersection Signal Delay: 15.1		Intersection LOS: B	
Intersection Capacity Utilization 61.8%		ICU Level of Service B	
Analysis Period (min) 15			

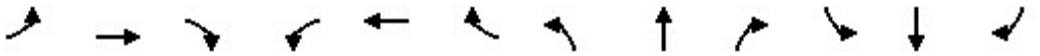
Splits and Phases: 2: Lamar Ave & Foxridge Dr





Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	103	0	205	0	0	0	0	438	312	66	279	0
Future Volume (vph)	103	0	205	0	0	0	0	438	312	66	279	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	16	12	16	16	16	12	12	12	12	12	12
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Frt		0.910							0.850			
Flt Protected		0.984									0.990	
Satd. Flow (prot)	0	1890	0	0	0	0	0	1863	1583	0	1844	0
Flt Permitted		0.984									0.990	
Satd. Flow (perm)	0	1890	0	0	0	0	0	1863	1583	0	1844	0
Link Speed (mph)		35			35			35			35	
Link Distance (ft)		2302			750			353			299	
Travel Time (s)		44.8			14.6			6.9			5.8	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	112	0	223	0	0	0	0	476	339	72	303	0
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	335	0	0	0	0	0	476	339	0	375	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		0			0			0			0	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.00	0.85	1.00	0.85	0.85	0.85	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Sign Control		Stop			Free			Free			Free	

Intersection Summary			
Area Type:	Other		
Control Type: Unsignalized			
Intersection Capacity Utilization 69.7%		ICU Level of Service C	
Analysis Period (min) 15			



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	0	0	0	170	0	71	367	174	0	0	175	109
Future Volume (vph)	0	0	0	170	0	71	367	174	0	0	175	109
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	16	16	16	12	16	12	12	12	12	12	12	12
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Frt					0.960						0.948	
Flt Protected					0.966			0.967				
Satd. Flow (prot)	0	0	0	0	1958	0	0	1801	0	0	1766	0
Flt Permitted					0.966			0.967				
Satd. Flow (perm)	0	0	0	0	1958	0	0	1801	0	0	1766	0
Link Speed (mph)		35			35			35			35	
Link Distance (ft)		755			1614			299			328	
Travel Time (s)		14.7			31.4			5.8			6.4	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	0	0	0	185	0	77	399	189	0	0	190	118
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	0	0	0	262	0	0	588	0	0	308	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		0			0			0			0	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	0.85	0.85	0.85	1.00	0.85	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Sign Control		Free			Stop			Free			Free	

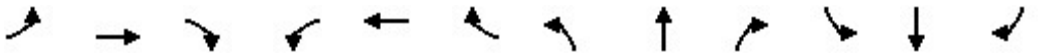
Intersection Summary			
Area Type:	Other		
Control Type: Unsignalized			
Intersection Capacity Utilization 69.1%		ICU Level of Service C	
Analysis Period (min) 15			

Lane Group	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Volume (vph)	129	146	138	131	117	128
Future Volume (vph)	129	146	138	131	117	128
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Storage Length (ft)		0	165		0	0
Storage Lanes		0	1		1	0
Taper Length (ft)			25		25	
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Frt	0.928				0.929	
Flt Protected			0.950		0.977	
Satd. Flow (prot)	1729	0	1770	1863	1691	0
Flt Permitted			0.469		0.977	
Satd. Flow (perm)	1729	0	874	1863	1691	0
Right Turn on Red		Yes				Yes
Satd. Flow (RTOR)	94				86	
Link Speed (mph)	35			35	35	
Link Distance (ft)	1077			256	581	
Travel Time (s)	21.0			5.0	11.3	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	140	159	150	142	127	139
Shared Lane Traffic (%)						
Lane Group Flow (vph)	299	0	150	142	266	0
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Right	Left	Left	Left	Right
Median Width(ft)	12			12	12	
Link Offset(ft)	0			0	0	
Crosswalk Width(ft)	16			16	16	
Two way Left Turn Lane						
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)		9	15		15	9
Number of Detectors	0		0	0	0	
Detector Template	Thru		Left	Thru	Left	
Leading Detector (ft)	0		0	0	0	
Trailing Detector (ft)	0		0	0	0	
Turn Type	NA		pm+pt	NA	Prot	
Protected Phases	2		1	2	4	
Permitted Phases			2			
Detector Phase	2		1	2	4	
Switch Phase						
Minimum Initial (s)	14.0		10.0	14.0	14.0	
Minimum Split (s)	18.7		15.0	18.7	19.0	
Total Split (s)	26.0		15.0	26.0	24.0	
Total Split (%)	40.0%		23.1%	40.0%	36.9%	
Maximum Green (s)	21.3		10.0	21.3	19.0	
Yellow Time (s)	3.6		3.0	3.6	3.0	
All-Red Time (s)	1.1		2.0	1.1	2.0	
Lost Time Adjust (s)	0.0		0.0	0.0	0.0	
Total Lost Time (s)	4.7		5.0	4.7	5.0	
Lead/Lag	Lag		Lead	Lag		

Lane Group	EBT	EBR	WBL	WBT	NBL	NBR
Lead-Lag Optimize?						
Vehicle Extension (s)	3.0		3.0	3.0	3.0	
Recall Mode	Max		Max	Max	Max	
Act Effct Green (s)	21.3		31.0	21.3	19.0	
Actuated g/C Ratio	0.33		0.48	0.33	0.29	
v/c Ratio	0.48		0.27	0.23	0.48	
Control Delay	14.6		8.7	17.2	16.0	
Queue Delay	0.0		0.0	0.0	0.0	
Total Delay	14.6		8.7	17.2	16.0	
LOS	B		A	B	B	
Approach Delay	14.6			12.8	16.0	
Approach LOS	B			B	B	

Intersection Summary			
Area Type:	Other		
Cycle Length: 65			
Actuated Cycle Length: 65			
Natural Cycle: 55			
Control Type: Actuated-Uncoordinated			
Maximum v/c Ratio: 0.48			
Intersection Signal Delay: 14.4		Intersection LOS: B	
Intersection Capacity Utilization 50.6%		ICU Level of Service A	
Analysis Period (min) 15			

Splits and Phases: 3: 24th St & Merriam Ln

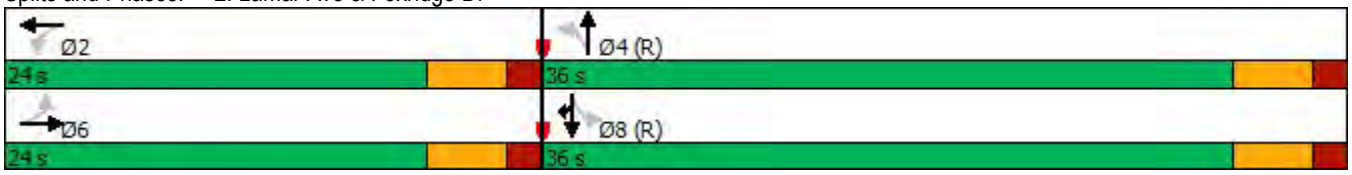


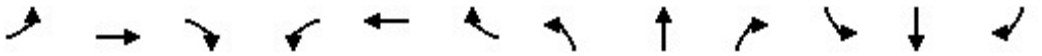
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	264	7	7	3	3	30	3	347	9	69	134	199
Future Volume (vph)	264	7	7	3	3	30	3	347	9	69	134	199
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	0		0	60		0	0		0	0		0
Storage Lanes	1		0	1		0	0		0	0		1
Taper Length (ft)	25			25			25			25		
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	0.95	0.95	0.95	1.00	1.00	1.00
Frt		0.925			0.862			0.996				0.850
Flt Protected	0.950			0.950							0.983	
Satd. Flow (prot)	1770	1723	0	1770	1606	0	0	3525	0	0	1831	1583
Flt Permitted	0.734			0.747				0.954			0.785	
Satd. Flow (perm)	1367	1723	0	1391	1606	0	0	3363	0	0	1462	1583
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		8			33			6				216
Link Speed (mph)		35			25			35			35	
Link Distance (ft)		362			218			374			353	
Travel Time (s)		7.1			5.9			7.3			6.9	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	287	8	8	3	3	33	3	377	10	75	146	216
Shared Lane Traffic (%)												
Lane Group Flow (vph)	287	16	0	3	36	0	0	390	0	0	221	216
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		12			12			0			0	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Number of Detectors	1	2		1	2		1	2		1	2	1
Detector Template	Left	Thru		Left	Thru		Left	Thru		Left	Thru	Right
Leading Detector (ft)	20	100		20	100		20	100		20	100	20
Trailing Detector (ft)	0	0		0	0		0	0		0	0	0
Detector 1 Position(ft)	0	0		0	0		0	0		0	0	0
Detector 1 Size(ft)	20	6		20	6		20	6		20	6	20
Detector 1 Type	Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex	Cl+Ex
Detector 1 Channel												
Detector 1 Extend (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	0.0
Detector 1 Queue (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	0.0
Detector 1 Delay (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	0.0
Detector 2 Position(ft)		94			94			94			94	
Detector 2 Size(ft)		6			6			6			6	
Detector 2 Type		Cl+Ex			Cl+Ex			Cl+Ex			Cl+Ex	
Detector 2 Channel												
Detector 2 Extend (s)		0.0			0.0			0.0			0.0	
Turn Type	Perm	NA		Perm	NA		Perm	NA		Perm	NA	Prot
Protected Phases		6			2			4			8	8
Permitted Phases	6			2			4			8		

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Detector Phase	6	6		2	2		4	4		8	8	8
Switch Phase												
Minimum Initial (s)	10.0	10.0		10.0	10.0		10.0	10.0		10.0	10.0	10.0
Minimum Split (s)	15.2	15.2		15.2	15.2		15.2	15.2		15.2	15.2	15.2
Total Split (s)	24.0	24.0		24.0	24.0		36.0	36.0		36.0	36.0	36.0
Total Split (%)	40.0%	40.0%		40.0%	40.0%		60.0%	60.0%		60.0%	60.0%	60.0%
Maximum Green (s)	18.8	18.8		18.8	18.8		30.8	30.8		30.8	30.8	30.8
Yellow Time (s)	3.6	3.6		3.6	3.6		3.6	3.6		3.6	3.6	3.6
All-Red Time (s)	1.6	1.6		1.6	1.6		1.6	1.6		1.6	1.6	1.6
Lost Time Adjust (s)	0.0	0.0		0.0	0.0			0.0			0.0	0.0
Total Lost Time (s)	5.2	5.2		5.2	5.2			5.2			5.2	5.2
Lead/Lag												
Lead-Lag Optimize?												
Vehicle Extension (s)	3.0	3.0		3.0	3.0		3.0	3.0		3.0	3.0	3.0
Recall Mode	None	None		Min	Min		C-Min	C-Min		C-Min	C-Min	C-Min
Act Effct Green (s)	17.5	17.5		17.5	17.5			32.1			32.1	32.1
Actuated g/C Ratio	0.29	0.29		0.29	0.29			0.54			0.54	0.54
v/c Ratio	0.72	0.03		0.01	0.07			0.22			0.28	0.23
Control Delay	29.0	9.6		12.3	5.8			8.7			10.4	2.5
Queue Delay	0.0	0.0		0.0	0.0			0.0			0.0	0.0
Total Delay	29.0	9.6		12.3	5.8			8.7			10.4	2.5
LOS	C	A		B	A			A			B	A
Approach Delay		28.0			6.3			8.7			6.5	
Approach LOS		C			A			A			A	

Intersection Summary			
Area Type:	Other		
Cycle Length: 60			
Actuated Cycle Length: 60			
Offset: 0 (0%), Referenced to phase 4:NBTL and 8:SBTL, Start of Green			
Natural Cycle: 40			
Control Type: Actuated-Coordinated			
Maximum v/c Ratio: 0.72			
Intersection Signal Delay: 12.8		Intersection LOS: B	
Intersection Capacity Utilization 55.1%		ICU Level of Service B	
Analysis Period (min) 15			

Splits and Phases: 2: Lamar Ave & Foxridge Dr





Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	100	0	169	0	0	0	0	373	269	49	233	0
Future Volume (vph)	100	0	169	0	0	0	0	373	269	49	233	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	16	12	16	16	16	12	12	12	12	12	12
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Frt		0.915							0.850			
Flt Protected		0.982									0.991	
Satd. Flow (prot)	0	1897	0	0	0	0	0	1863	1583	0	1846	0
Flt Permitted		0.982									0.991	
Satd. Flow (perm)	0	1897	0	0	0	0	0	1863	1583	0	1846	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		184							292			
Link Speed (mph)		35			35			35			35	
Link Distance (ft)		2302			750			353			299	
Travel Time (s)		44.8			14.6			6.9			5.8	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	109	0	184	0	0	0	0	405	292	53	253	0
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	293	0	0	0	0	0	405	292	0	306	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		0			0			0			0	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.00	0.85	1.00	0.85	0.85	0.85	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Number of Detectors	1	2						2	1	1	2	
Detector Template	Left	Thru						Thru	Right	Left	Thru	
Leading Detector (ft)	20	100						100	20	20	100	
Trailing Detector (ft)	0	0						0	0	0	0	
Detector 1 Position(ft)	0	0						0	0	0	0	
Detector 1 Size(ft)	20	6						6	20	20	6	
Detector 1 Type	Cl+Ex	Cl+Ex						Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	
Detector 1 Channel												
Detector 1 Extend (s)	0.0	0.0						0.0	0.0	0.0	0.0	
Detector 1 Queue (s)	0.0	0.0						0.0	0.0	0.0	0.0	
Detector 1 Delay (s)	0.0	0.0						0.0	0.0	0.0	0.0	
Detector 2 Position(ft)		94						94			94	
Detector 2 Size(ft)		6						6			6	
Detector 2 Type		Cl+Ex						Cl+Ex			Cl+Ex	
Detector 2 Channel												
Detector 2 Extend (s)		0.0						0.0			0.0	
Turn Type	Perm	NA						NA	Perm	Split	NA	
Protected Phases		4						2!		6!	6	
Permitted Phases	4								2			
Detector Phase	4	4						2	2	6	6	
Switch Phase												

Lane Group	Ø8
Lane Configurations	
Traffic Volume (vph)	
Future Volume (vph)	
Ideal Flow (vphpl)	
Lane Width (ft)	
Lane Util. Factor	
Frt	
Flt Protected	
Satd. Flow (prot)	
Flt Permitted	
Satd. Flow (perm)	
Right Turn on Red	
Satd. Flow (RTOR)	
Link Speed (mph)	
Link Distance (ft)	
Travel Time (s)	
Peak Hour Factor	
Adj. Flow (vph)	
Shared Lane Traffic (%)	
Lane Group Flow (vph)	
Enter Blocked Intersection	
Lane Alignment	
Median Width(ft)	
Link Offset(ft)	
Crosswalk Width(ft)	
Two way Left Turn Lane	
Headway Factor	
Turning Speed (mph)	
Number of Detectors	
Detector Template	
Leading Detector (ft)	
Trailing Detector (ft)	
Detector 1 Position(ft)	
Detector 1 Size(ft)	
Detector 1 Type	
Detector 1 Channel	
Detector 1 Extend (s)	
Detector 1 Queue (s)	
Detector 1 Delay (s)	
Detector 2 Position(ft)	
Detector 2 Size(ft)	
Detector 2 Type	
Detector 2 Channel	
Detector 2 Extend (s)	
Turn Type	
Protected Phases	8
Permitted Phases	
Detector Phase	
Switch Phase	

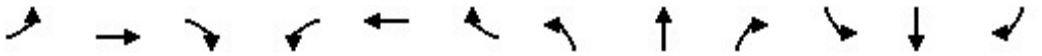
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Minimum Initial (s)	7.0	7.0						7.0	7.0	7.0	7.0	
Minimum Split (s)	22.5	22.5						22.5	22.5	22.5	22.5	
Total Split (s)	23.0	23.0						27.0	27.0	27.0	27.0	
Total Split (%)	46.0%	46.0%						54.0%	54.0%	54.0%	54.0%	
Maximum Green (s)	18.5	18.5						22.5	22.5	22.5	22.5	
Yellow Time (s)	3.5	3.5						3.5	3.5	3.5	3.5	
All-Red Time (s)	1.0	1.0						1.0	1.0	1.0	1.0	
Lost Time Adjust (s)		0.0						0.0	0.0		0.0	
Total Lost Time (s)		4.5						4.5	4.5		4.5	
Lead/Lag												
Lead-Lag Optimize?												
Vehicle Extension (s)	3.0	3.0						3.0	3.0	3.0	3.0	
Recall Mode	None	None						Max	Max	Max	Max	
Act Effct Green (s)		9.4						22.6	22.6		22.6	
Actuated g/C Ratio		0.23						0.55	0.55		0.55	
v/c Ratio		0.51						0.40	0.29		0.30	
Control Delay		8.9						7.4	1.9		6.4	
Queue Delay		0.0						0.0	0.0		0.0	
Total Delay		8.9						7.4	1.9		6.4	
LOS		A						A	A		A	
Approach Delay		8.9						5.1			6.4	
Approach LOS		A						A			A	

Intersection Summary			
Area Type:	Other		
Cycle Length: 50			
Actuated Cycle Length: 41			
Natural Cycle: 50			
Control Type: Semi Act-Uncoord			
Maximum v/c Ratio: 0.52			
Intersection Signal Delay: 6.3		Intersection LOS: A	
Intersection Capacity Utilization 61.8%		ICU Level of Service B	
Analysis Period (min) 15			
! Phase conflict between lane groups.			

Splits and Phases: 7: I-35 NB Off-Ramp & 24th St

Lane Group	Ø8
Minimum Initial (s)	7.0
Minimum Split (s)	22.5
Total Split (s)	23.0
Total Split (%)	46%
Maximum Green (s)	18.5
Yellow Time (s)	3.5
All-Red Time (s)	1.0
Lost Time Adjust (s)	
Total Lost Time (s)	
Lead/Lag	
Lead-Lag Optimize?	
Vehicle Extension (s)	3.0
Recall Mode	None
Act Effct Green (s)	
Actuated g/C Ratio	
v/c Ratio	
Control Delay	
Queue Delay	
Total Delay	
LOS	
Approach Delay	
Approach LOS	

Intersection Summary



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	0	0	0	139	0	99	325	148	0	0	143	84
Future Volume (vph)	0	0	0	139	0	99	325	148	0	0	143	84
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	16	16	16	12	16	12	12	12	12	12	12	12
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Frt					0.944						0.950	
Flt Protected					0.972			0.967				
Satd. Flow (prot)	0	0	0	0	1937	0	0	1801	0	0	1770	0
Flt Permitted					0.972			0.967				
Satd. Flow (perm)	0	0	0	0	1937	0	0	1801	0	0	1770	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)					82						77	
Link Speed (mph)		35			35			35			35	
Link Distance (ft)		755			1614			299			328	
Travel Time (s)		14.7			31.4			5.8			6.4	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	0	0	0	151	0	108	353	161	0	0	155	91
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	0	0	0	259	0	0	514	0	0	246	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		0			0			0			0	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	0.85	0.85	0.85	1.00	0.85	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Number of Detectors				1	2		1	2			2	
Detector Template				Left	Thru		Left	Thru			Thru	
Leading Detector (ft)				20	100		20	100			100	
Trailing Detector (ft)				0	0		0	0			0	
Detector 1 Position(ft)				0	0		0	0			0	
Detector 1 Size(ft)				20	6		20	6			6	
Detector 1 Type				Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex			Cl+Ex	
Detector 1 Channel												
Detector 1 Extend (s)				0.0	0.0		0.0	0.0			0.0	
Detector 1 Queue (s)				0.0	0.0		0.0	0.0			0.0	
Detector 1 Delay (s)				0.0	0.0		0.0	0.0			0.0	
Detector 2 Position(ft)					94			94			94	
Detector 2 Size(ft)					6			6			6	
Detector 2 Type					Cl+Ex			Cl+Ex			Cl+Ex	
Detector 2 Channel												
Detector 2 Extend (s)					0.0			0.0			0.0	
Turn Type				Perm	NA		Split	NA			NA	
Protected Phases					8		2!	2			6!	
Permitted Phases				8								
Detector Phase				8	8		2	2			6	
Switch Phase												

Lane Group	Ø4
Lane Configurations	
Traffic Volume (vph)	
Future Volume (vph)	
Ideal Flow (vphpl)	
Lane Width (ft)	
Lane Util. Factor	
Frt	
Flt Protected	
Satd. Flow (prot)	
Flt Permitted	
Satd. Flow (perm)	
Right Turn on Red	
Satd. Flow (RTOR)	
Link Speed (mph)	
Link Distance (ft)	
Travel Time (s)	
Peak Hour Factor	
Adj. Flow (vph)	
Shared Lane Traffic (%)	
Lane Group Flow (vph)	
Enter Blocked Intersection	
Lane Alignment	
Median Width(ft)	
Link Offset(ft)	
Crosswalk Width(ft)	
Two way Left Turn Lane	
Headway Factor	
Turning Speed (mph)	
Number of Detectors	
Detector Template	
Leading Detector (ft)	
Trailing Detector (ft)	
Detector 1 Position(ft)	
Detector 1 Size(ft)	
Detector 1 Type	
Detector 1 Channel	
Detector 1 Extend (s)	
Detector 1 Queue (s)	
Detector 1 Delay (s)	
Detector 2 Position(ft)	
Detector 2 Size(ft)	
Detector 2 Type	
Detector 2 Channel	
Detector 2 Extend (s)	
Turn Type	
Protected Phases	4
Permitted Phases	
Detector Phase	
Switch Phase	

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Minimum Initial (s)				7.0	7.0		7.0	7.0			7.0	
Minimum Split (s)				22.5	22.5		22.5	22.5			22.5	
Total Split (s)				23.0	23.0		27.0	27.0			27.0	
Total Split (%)				46.0%	46.0%		54.0%	54.0%			54.0%	
Maximum Green (s)				18.5	18.5		22.5	22.5			22.5	
Yellow Time (s)				3.5	3.5		3.5	3.5			3.5	
All-Red Time (s)				1.0	1.0		1.0	1.0			1.0	
Lost Time Adjust (s)					0.0			0.0			0.0	
Total Lost Time (s)					4.5			4.5			4.5	
Lead/Lag												
Lead-Lag Optimize?												
Vehicle Extension (s)				3.0	3.0		3.0	3.0			3.0	
Recall Mode				None	None		Max	Max			Max	
Act Effct Green (s)					9.4			22.6			22.6	
Actuated g/C Ratio					0.23			0.55			0.55	
v/c Ratio					0.51			0.52			0.24	
Control Delay					13.1			5.3			4.6	
Queue Delay					0.0			0.1			0.0	
Total Delay					13.1			5.4			4.6	
LOS					B			A			A	
Approach Delay					13.1			5.4			4.6	
Approach LOS					B			A			A	

Intersection Summary			
Area Type:	Other		
Cycle Length: 50			
Actuated Cycle Length: 41			
Natural Cycle: 50			
Control Type: Semi Act-Uncoord			
Maximum v/c Ratio: 0.52			
Intersection Signal Delay: 7.2		Intersection LOS: A	
Intersection Capacity Utilization 63.4%		ICU Level of Service B	
Analysis Period (min) 15			
! Phase conflict between lane groups.			

Splits and Phases: 9: 24th St & I-35 SB Off-Ramp

Lane Group	Ø4
Minimum Initial (s)	7.0
Minimum Split (s)	22.5
Total Split (s)	23.0
Total Split (%)	46%
Maximum Green (s)	18.5
Yellow Time (s)	3.5
All-Red Time (s)	1.0
Lost Time Adjust (s)	
Total Lost Time (s)	
Lead/Lag	
Lead-Lag Optimize?	
Vehicle Extension (s)	3.0
Recall Mode	None
Act Effct Green (s)	
Actuated g/C Ratio	
v/c Ratio	
Control Delay	
Queue Delay	
Total Delay	
LOS	
Approach Delay	
Approach LOS	

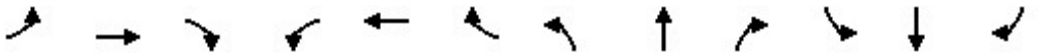
Intersection Summary

Lane Group	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Volume (vph)	96	120	107	107	116	131
Future Volume (vph)	96	120	107	107	116	131
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Storage Length (ft)		0	165		0	0
Storage Lanes		0	1		1	0
Taper Length (ft)			25		25	
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Frt	0.925				0.928	
Flt Protected			0.950		0.977	
Satd. Flow (prot)	1723	0	1770	1863	1689	0
Flt Permitted			0.560		0.977	
Satd. Flow (perm)	1723	0	1043	1863	1689	0
Right Turn on Red		Yes				Yes
Satd. Flow (RTOR)	103				88	
Link Speed (mph)	35			35	35	
Link Distance (ft)	1077			256	581	
Travel Time (s)	21.0			5.0	11.3	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	104	130	116	116	126	142
Shared Lane Traffic (%)						
Lane Group Flow (vph)	234	0	116	116	268	0
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Right	Left	Left	Left	Right
Median Width(ft)	12			12	12	
Link Offset(ft)	0			0	0	
Crosswalk Width(ft)	16			16	16	
Two way Left Turn Lane						
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)		9	15		15	9
Number of Detectors	0		0	0	0	
Detector Template	Thru		Left	Thru	Left	
Leading Detector (ft)	0		0	0	0	
Trailing Detector (ft)	0		0	0	0	
Turn Type	NA		pm+pt	NA	Prot	
Protected Phases	2		1	2	4	
Permitted Phases			2			
Detector Phase	2		1	2	4	
Switch Phase						
Minimum Initial (s)	14.0		10.0	14.0	14.0	
Minimum Split (s)	18.7		15.0	18.7	19.0	
Total Split (s)	26.0		15.0	26.0	24.0	
Total Split (%)	40.0%		23.1%	40.0%	36.9%	
Maximum Green (s)	21.3		10.0	21.3	19.0	
Yellow Time (s)	3.6		3.0	3.6	3.0	
All-Red Time (s)	1.1		2.0	1.1	2.0	
Lost Time Adjust (s)	0.0		0.0	0.0	0.0	
Total Lost Time (s)	4.7		5.0	4.7	5.0	
Lead/Lag	Lag		Lead	Lag		

Lane Group	EBT	EBR	WBL	WBT	NBL	NBR
Lead-Lag Optimize?						
Vehicle Extension (s)	3.0		3.0	3.0	3.0	
Recall Mode	Max		Max	Max	Max	
Act Effct Green (s)	21.3		31.0	21.3	19.0	
Actuated g/C Ratio	0.33		0.48	0.33	0.29	
v/c Ratio	0.37		0.19	0.19	0.48	
Control Delay	11.3		8.0	16.8	15.9	
Queue Delay	0.0		0.0	0.0	0.0	
Total Delay	11.3		8.0	16.8	15.9	
LOS	B		A	B	B	
Approach Delay	11.3			12.4	15.9	
Approach LOS	B			B	B	

Intersection Summary			
Area Type:	Other		
Cycle Length: 65			
Actuated Cycle Length: 65			
Natural Cycle: 55			
Control Type: Actuated-Uncoordinated			
Maximum v/c Ratio: 0.48			
Intersection Signal Delay: 13.3		Intersection LOS: B	
Intersection Capacity Utilization 47.4%		ICU Level of Service A	
Analysis Period (min) 15			

Splits and Phases: 3: 24th St & Merriam Ln

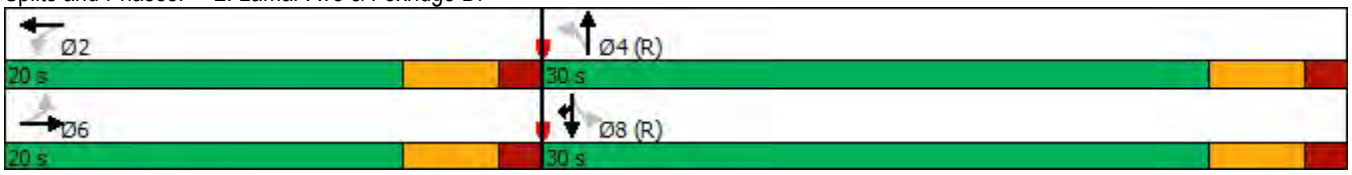


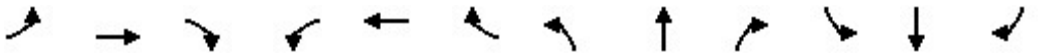
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	264	7	7	3	3	30	3	347	9	69	134	199
Future Volume (vph)	264	7	7	3	3	30	3	347	9	69	134	199
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	0		0	60		0	0		0	0		0
Storage Lanes	1		0	1		0	0		0	0		1
Taper Length (ft)	25			25			25			25		
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	0.95	0.95	0.95	1.00	1.00	1.00
Frt		0.925			0.862			0.996				0.850
Flt Protected	0.950			0.950							0.983	
Satd. Flow (prot)	1770	1723	0	1770	1606	0	0	3525	0	0	1831	1583
Flt Permitted	0.734			0.747				0.953			0.782	
Satd. Flow (perm)	1367	1723	0	1391	1606	0	0	3359	0	0	1457	1583
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		8			33			7				216
Link Speed (mph)		35			25			35			35	
Link Distance (ft)		362			218			374			353	
Travel Time (s)		7.1			5.9			7.3			6.9	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	287	8	8	3	3	33	3	377	10	75	146	216
Shared Lane Traffic (%)												
Lane Group Flow (vph)	287	16	0	3	36	0	0	390	0	0	221	216
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		12			12			0			0	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Number of Detectors	1	2		1	2		1	2		1	2	1
Detector Template	Left	Thru		Left	Thru		Left	Thru		Left	Thru	Right
Leading Detector (ft)	20	100		20	100		20	100		20	100	20
Trailing Detector (ft)	0	0		0	0		0	0		0	0	0
Detector 1 Position(ft)	0	0		0	0		0	0		0	0	0
Detector 1 Size(ft)	20	6		20	6		20	6		20	6	20
Detector 1 Type	Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex	Cl+Ex
Detector 1 Channel												
Detector 1 Extend (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	0.0
Detector 1 Queue (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	0.0
Detector 1 Delay (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	0.0
Detector 2 Position(ft)		94			94			94			94	
Detector 2 Size(ft)		6			6			6			6	
Detector 2 Type		Cl+Ex			Cl+Ex			Cl+Ex			Cl+Ex	
Detector 2 Channel												
Detector 2 Extend (s)		0.0			0.0			0.0			0.0	
Turn Type	Perm	NA		Perm	NA		Perm	NA		Perm	NA	Prot
Protected Phases		6			2			4			8	8
Permitted Phases	6			2			4			8		

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Detector Phase	6	6		2	2		4	4		8	8	8
Switch Phase												
Minimum Initial (s)	10.0	10.0		10.0	10.0		10.0	10.0		10.0	10.0	10.0
Minimum Split (s)	15.2	15.2		15.2	15.2		15.2	15.2		15.2	15.2	15.2
Total Split (s)	20.0	20.0		20.0	20.0		30.0	30.0		30.0	30.0	30.0
Total Split (%)	40.0%	40.0%		40.0%	40.0%		60.0%	60.0%		60.0%	60.0%	60.0%
Maximum Green (s)	14.8	14.8		14.8	14.8		24.8	24.8		24.8	24.8	24.8
Yellow Time (s)	3.6	3.6		3.6	3.6		3.6	3.6		3.6	3.6	3.6
All-Red Time (s)	1.6	1.6		1.6	1.6		1.6	1.6		1.6	1.6	1.6
Lost Time Adjust (s)	0.0	0.0		0.0	0.0			0.0			0.0	0.0
Total Lost Time (s)	5.2	5.2		5.2	5.2			5.2			5.2	5.2
Lead/Lag												
Lead-Lag Optimize?												
Vehicle Extension (s)	3.0	3.0		3.0	3.0		3.0	3.0		3.0	3.0	3.0
Recall Mode	None	None		Min	Min		C-Min	C-Min		C-Min	C-Min	C-Min
Act Effct Green (s)	15.4	15.4		15.4	15.4			24.2			24.2	24.2
Actuated g/C Ratio	0.31	0.31		0.31	0.31			0.48			0.48	0.48
v/c Ratio	0.68	0.03		0.01	0.07			0.24			0.31	0.25
Control Delay	23.4	7.9		10.0	5.1			8.8			10.7	2.7
Queue Delay	0.0	0.0		0.0	0.0			0.0			0.0	0.0
Total Delay	23.4	7.9		10.0	5.1			8.8			10.7	2.7
LOS	C	A		A	A			A			B	A
Approach Delay		22.6			5.4			8.8			6.8	
Approach LOS		C			A			A			A	

Intersection Summary			
Area Type:	Other		
Cycle Length: 50			
Actuated Cycle Length: 50			
Offset: 0 (0%), Referenced to phase 4:NBTL and 8:SBTL, Start of Green			
Natural Cycle: 40			
Control Type: Actuated-Coordinated			
Maximum v/c Ratio: 0.68			
Intersection Signal Delay: 11.5		Intersection LOS: B	
Intersection Capacity Utilization 55.1%		ICU Level of Service B	
Analysis Period (min) 15			

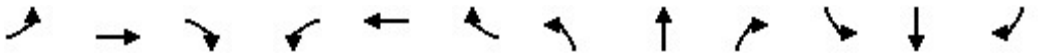
Splits and Phases: 2: Lamar Ave & Foxridge Dr





Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	100	0	169	0	0	0	0	373	269	49	233	0
Future Volume (vph)	100	0	169	0	0	0	0	373	269	49	233	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	16	12	16	16	16	12	12	12	12	12	12
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Frt		0.915							0.850			
Flt Protected		0.982									0.991	
Satd. Flow (prot)	0	1897	0	0	0	0	0	1863	1583	0	1846	0
Flt Permitted		0.982									0.991	
Satd. Flow (perm)	0	1897	0	0	0	0	0	1863	1583	0	1846	0
Link Speed (mph)		35			35			35			35	
Link Distance (ft)		2302			750			353			299	
Travel Time (s)		44.8			14.6			6.9			5.8	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	109	0	184	0	0	0	0	405	292	53	253	0
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	293	0	0	0	0	0	405	292	0	306	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		0			0			0			0	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.00	0.85	1.00	0.85	0.85	0.85	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Sign Control		Stop			Free			Free			Free	

Intersection Summary			
Area Type:	Other		
Control Type: Unsignalized			
Intersection Capacity Utilization 60.5%		ICU Level of Service B	
Analysis Period (min) 15			



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	0	0	0	139	0	99	325	148	0	0	143	84
Future Volume (vph)	0	0	0	139	0	99	325	148	0	0	143	84
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	16	16	16	12	16	12	12	12	12	12	12	12
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Frt					0.944						0.950	
Flt Protected					0.972			0.967				
Satd. Flow (prot)	0	0	0	0	1937	0	0	1801	0	0	1770	0
Flt Permitted					0.972			0.967				
Satd. Flow (perm)	0	0	0	0	1937	0	0	1801	0	0	1770	0
Link Speed (mph)		35			35			35			35	
Link Distance (ft)		755			1614			299			328	
Travel Time (s)		14.7			31.4			5.8			6.4	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	0	0	0	151	0	108	353	161	0	0	155	91
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	0	0	0	259	0	0	514	0	0	246	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		0			0			0			0	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	0.85	0.85	0.85	1.00	0.85	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Sign Control		Free			Stop			Free			Free	

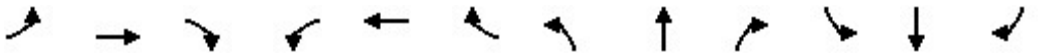
Intersection Summary			
Area Type:	Other		
Control Type: Unsignalized			
Intersection Capacity Utilization 62.2%		ICU Level of Service B	
Analysis Period (min) 15			

Lane Group	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Volume (vph)	96	120	107	107	116	131
Future Volume (vph)	96	120	107	107	116	131
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Storage Length (ft)		0	165		0	0
Storage Lanes		0	1		1	0
Taper Length (ft)			25		25	
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Frt	0.925				0.928	
Flt Protected			0.950		0.977	
Satd. Flow (prot)	1723	0	1770	1863	1689	0
Flt Permitted			0.560		0.977	
Satd. Flow (perm)	1723	0	1043	1863	1689	0
Right Turn on Red		Yes				Yes
Satd. Flow (RTOR)	103				88	
Link Speed (mph)	35			35	35	
Link Distance (ft)	1077			256	581	
Travel Time (s)	21.0			5.0	11.3	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	104	130	116	116	126	142
Shared Lane Traffic (%)						
Lane Group Flow (vph)	234	0	116	116	268	0
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Right	Left	Left	Left	Right
Median Width(ft)	12			12	12	
Link Offset(ft)	0			0	0	
Crosswalk Width(ft)	16			16	16	
Two way Left Turn Lane						
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)		9	15		15	9
Number of Detectors	0		0	0	0	
Detector Template	Thru		Left	Thru	Left	
Leading Detector (ft)	0		0	0	0	
Trailing Detector (ft)	0		0	0	0	
Turn Type	NA		pm+pt	NA	Prot	
Protected Phases	2		1	2	4	
Permitted Phases			2			
Detector Phase	2		1	2	4	
Switch Phase						
Minimum Initial (s)	14.0		10.0	14.0	14.0	
Minimum Split (s)	18.7		15.0	18.7	19.0	
Total Split (s)	26.0		15.0	26.0	24.0	
Total Split (%)	40.0%		23.1%	40.0%	36.9%	
Maximum Green (s)	21.3		10.0	21.3	19.0	
Yellow Time (s)	3.6		3.0	3.6	3.0	
All-Red Time (s)	1.1		2.0	1.1	2.0	
Lost Time Adjust (s)	0.0		0.0	0.0	0.0	
Total Lost Time (s)	4.7		5.0	4.7	5.0	
Lead/Lag	Lag		Lead	Lag		

Lane Group	EBT	EBR	WBL	WBT	NBL	NBR
Lead-Lag Optimize?						
Vehicle Extension (s)	3.0		3.0	3.0	3.0	
Recall Mode	Max		Max	Max	Max	
Act Effct Green (s)	21.3		31.0	21.3	19.0	
Actuated g/C Ratio	0.33		0.48	0.33	0.29	
v/c Ratio	0.37		0.19	0.19	0.48	
Control Delay	11.3		8.0	16.8	15.9	
Queue Delay	0.0		0.0	0.0	0.0	
Total Delay	11.3		8.0	16.8	15.9	
LOS	B		A	B	B	
Approach Delay	11.3			12.4	15.9	
Approach LOS	B			B	B	

Intersection Summary			
Area Type:	Other		
Cycle Length: 65			
Actuated Cycle Length: 65			
Natural Cycle: 55			
Control Type: Actuated-Uncoordinated			
Maximum v/c Ratio: 0.48			
Intersection Signal Delay: 13.3		Intersection LOS: B	
Intersection Capacity Utilization 47.4%		ICU Level of Service A	
Analysis Period (min) 15			

Splits and Phases: 3: 24th St & Merriam Ln



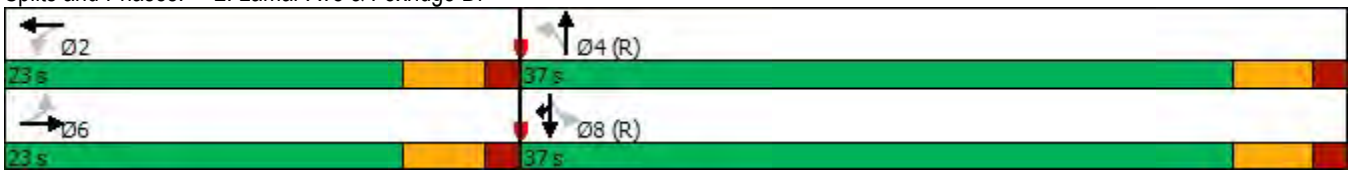
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	156	0	10	4	4	59	7	286	4	15	397	208
Future Volume (vph)	156	0	10	4	4	59	7	286	4	15	397	208
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	0		0	60		0	0		0	0		0
Storage Lanes	1		0	1		0	0		0	0		1
Taper Length (ft)	25			25			25			25		
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	0.95	0.95	0.95	1.00	1.00	1.00
Frt		0.850			0.859			0.998				0.850
Flt Protected	0.950			0.950				0.999			0.998	
Satd. Flow (prot)	1770	1583	0	1770	1600	0	0	3529	0	0	1859	1583
Flt Permitted	0.713			0.750				0.946			0.985	
Satd. Flow (perm)	1328	1583	0	1397	1600	0	0	3341	0	0	1835	1583
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		380			64			3				226
Link Speed (mph)		35			25			35			35	
Link Distance (ft)		362			218			374			353	
Travel Time (s)		7.1			5.9			7.3			6.9	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	170	0	11	4	4	64	8	311	4	16	432	226
Shared Lane Traffic (%)												
Lane Group Flow (vph)	170	11	0	4	68	0	0	323	0	0	448	226
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		12			12			0			0	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Number of Detectors	1	2		1	2		1	2		1	2	1
Detector Template	Left	Thru		Left	Thru		Left	Thru		Left	Thru	Right
Leading Detector (ft)	20	100		20	100		20	100		20	100	20
Trailing Detector (ft)	0	0		0	0		0	0		0	0	0
Detector 1 Position(ft)	0	0		0	0		0	0		0	0	0
Detector 1 Size(ft)	20	6		20	6		20	6		20	6	20
Detector 1 Type	Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex	Cl+Ex
Detector 1 Channel												
Detector 1 Extend (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	0.0
Detector 1 Queue (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	0.0
Detector 1 Delay (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	0.0
Detector 2 Position(ft)		94			94			94			94	
Detector 2 Size(ft)		6			6			6			6	
Detector 2 Type		Cl+Ex			Cl+Ex			Cl+Ex			Cl+Ex	
Detector 2 Channel												
Detector 2 Extend (s)		0.0			0.0			0.0			0.0	
Turn Type	Perm	NA		Perm	NA		Perm	NA		Perm	NA	Prot
Protected Phases		6			2			4			8	8
Permitted Phases	6			2			4			8		

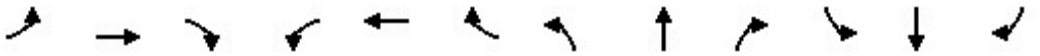
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Detector Phase	6	6		2	2		4	4		8	8	8
Switch Phase												
Minimum Initial (s)	10.0	10.0		10.0	10.0		10.0	10.0		10.0	10.0	10.0
Minimum Split (s)	15.2	15.2		15.2	15.2		15.2	15.2		15.2	15.2	15.2
Total Split (s)	23.0	23.0		23.0	23.0		37.0	37.0		37.0	37.0	37.0
Total Split (%)	38.3%	38.3%		38.3%	38.3%		61.7%	61.7%		61.7%	61.7%	61.7%
Maximum Green (s)	17.8	17.8		17.8	17.8		31.8	31.8		31.8	31.8	31.8
Yellow Time (s)	3.6	3.6		3.6	3.6		3.6	3.6		3.6	3.6	3.6
All-Red Time (s)	1.6	1.6		1.6	1.6		1.6	1.6		1.6	1.6	1.6
Lost Time Adjust (s)	0.0	0.0		0.0	0.0			0.0			0.0	0.0
Total Lost Time (s)	5.2	5.2		5.2	5.2			5.2			5.2	5.2
Lead/Lag												
Lead-Lag Optimize?												
Vehicle Extension (s)	3.0	3.0		3.0	3.0		3.0	3.0		3.0	3.0	3.0
Recall Mode	None	None		Min	Min		C-Min	C-Min		C-Min	C-Min	C-Min
Act Effct Green (s)	13.4	13.4		13.4	13.4			36.2			36.2	36.2
Actuated g/C Ratio	0.22	0.22		0.22	0.22			0.60			0.60	0.60
v/c Ratio	0.58	0.02		0.01	0.17			0.16			0.40	0.22
Control Delay	28.1	0.0		15.8	6.7			6.1			8.4	1.8
Queue Delay	0.0	0.0		0.0	0.0			0.0			0.6	0.0
Total Delay	28.1	0.0		15.8	6.7			6.1			9.0	1.8
LOS	C	A		B	A			A			A	A
Approach Delay		26.4			7.2			6.1			6.6	
Approach LOS		C			A			A			A	

Intersection Summary

Area Type: Other
Cycle Length: 60
Actuated Cycle Length: 60
Offset: 0 (0%), Referenced to phase 4:NBTL and 8:SBTL, Start of Green
Natural Cycle: 40
Control Type: Actuated-Coordinated
Maximum v/c Ratio: 0.58
Intersection Signal Delay: 9.4 Intersection LOS: A
Intersection Capacity Utilization 57.0% ICU Level of Service B
Analysis Period (min) 15

Splits and Phases: 2: Lamar Ave & Foxridge Dr





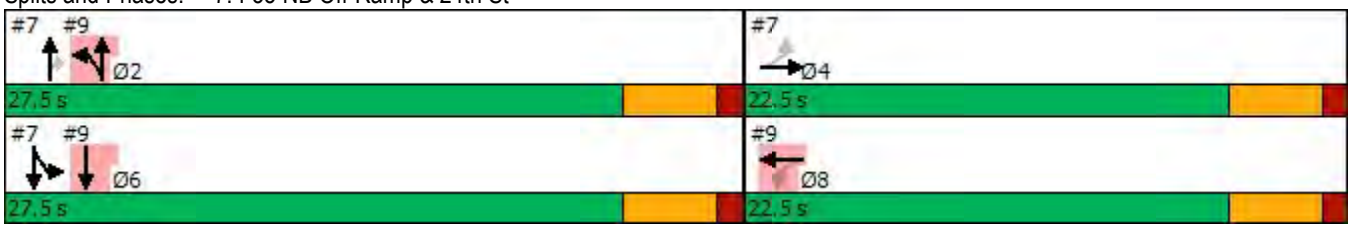
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	127	0	266	0	0	0	0	332	170	124	353	0
Future Volume (vph)	127	0	266	0	0	0	0	332	170	124	353	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	16	12	16	16	16	12	12	12	12	12	12
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Frt		0.909							0.850			
Flt Protected		0.984									0.987	
Satd. Flow (prot)	0	1888	0	0	0	0	0	1863	1583	0	1839	0
Flt Permitted		0.984									0.987	
Satd. Flow (perm)	0	1888	0	0	0	0	0	1863	1583	0	1839	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		236							185			
Link Speed (mph)		35			35			35			35	
Link Distance (ft)		2302			750			353			299	
Travel Time (s)		44.8			14.6			6.9			5.8	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	138	0	289	0	0	0	0	361	185	135	384	0
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	427	0	0	0	0	0	361	185	0	519	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		0			0			0			0	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.00	0.85	1.00	0.85	0.85	0.85	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Number of Detectors	1	2						2	1	1	2	
Detector Template	Left	Thru						Thru	Right	Left	Thru	
Leading Detector (ft)	20	100						100	20	20	100	
Trailing Detector (ft)	0	0						0	0	0	0	
Detector 1 Position(ft)	0	0						0	0	0	0	
Detector 1 Size(ft)	20	6						6	20	20	6	
Detector 1 Type	Cl+Ex	Cl+Ex						Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	
Detector 1 Channel												
Detector 1 Extend (s)	0.0	0.0						0.0	0.0	0.0	0.0	
Detector 1 Queue (s)	0.0	0.0						0.0	0.0	0.0	0.0	
Detector 1 Delay (s)	0.0	0.0						0.0	0.0	0.0	0.0	
Detector 2 Position(ft)		94						94			94	
Detector 2 Size(ft)		6						6			6	
Detector 2 Type		Cl+Ex						Cl+Ex			Cl+Ex	
Detector 2 Channel												
Detector 2 Extend (s)		0.0						0.0			0.0	
Turn Type	Perm	NA						NA	Perm	Split	NA	
Protected Phases		4						2!		6!	6	
Permitted Phases	4								2			
Detector Phase	4	4						2	2	6	6	
Switch Phase												

Lane Group	Ø8
Lane Configurations	
Traffic Volume (vph)	
Future Volume (vph)	
Ideal Flow (vphpl)	
Lane Width (ft)	
Lane Util. Factor	
Frt	
Flt Protected	
Satd. Flow (prot)	
Flt Permitted	
Satd. Flow (perm)	
Right Turn on Red	
Satd. Flow (RTOR)	
Link Speed (mph)	
Link Distance (ft)	
Travel Time (s)	
Peak Hour Factor	
Adj. Flow (vph)	
Shared Lane Traffic (%)	
Lane Group Flow (vph)	
Enter Blocked Intersection	
Lane Alignment	
Median Width(ft)	
Link Offset(ft)	
Crosswalk Width(ft)	
Two way Left Turn Lane	
Headway Factor	
Turning Speed (mph)	
Number of Detectors	
Detector Template	
Leading Detector (ft)	
Trailing Detector (ft)	
Detector 1 Position(ft)	
Detector 1 Size(ft)	
Detector 1 Type	
Detector 1 Channel	
Detector 1 Extend (s)	
Detector 1 Queue (s)	
Detector 1 Delay (s)	
Detector 2 Position(ft)	
Detector 2 Size(ft)	
Detector 2 Type	
Detector 2 Channel	
Detector 2 Extend (s)	
Turn Type	
Protected Phases	8
Permitted Phases	
Detector Phase	
Switch Phase	

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Minimum Initial (s)	7.0	7.0						7.0	7.0	7.0	7.0	
Minimum Split (s)	22.5	22.5						22.5	22.5	22.5	22.5	
Total Split (s)	22.5	22.5						27.5	27.5	27.5	27.5	
Total Split (%)	45.0%	45.0%						55.0%	55.0%	55.0%	55.0%	
Maximum Green (s)	18.0	18.0						23.0	23.0	23.0	23.0	
Yellow Time (s)	3.5	3.5						3.5	3.5	3.5	3.5	
All-Red Time (s)	1.0	1.0						1.0	1.0	1.0	1.0	
Lost Time Adjust (s)		0.0						0.0	0.0		0.0	
Total Lost Time (s)		4.5						4.5	4.5		4.5	
Lead/Lag												
Lead-Lag Optimize?												
Vehicle Extension (s)	3.0	3.0						3.0	3.0	3.0	3.0	
Recall Mode	None	None						Max	Max	Max	Max	
Act Effct Green (s)		11.5						23.2	23.2		23.2	
Actuated g/C Ratio		0.26						0.53	0.53		0.53	
v/c Ratio		0.64						0.37	0.20		0.53	
Control Delay		10.9						8.4	2.2		9.0	
Queue Delay		0.0						0.0	0.0		0.3	
Total Delay		10.9						8.4	2.2		9.3	
LOS		B						A	A		A	
Approach Delay		10.9						6.3			9.3	
Approach LOS		B						A			A	

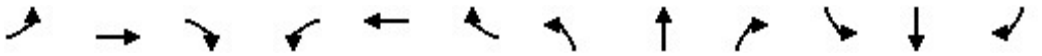
Intersection Summary			
Area Type:	Other		
Cycle Length: 50			
Actuated Cycle Length: 43.7			
Natural Cycle: 50			
Control Type: Semi Act-Uncoord			
Maximum v/c Ratio: 0.64			
Intersection Signal Delay: 8.7		Intersection LOS: A	
Intersection Capacity Utilization 77.6%		ICU Level of Service D	
Analysis Period (min) 15			
! Phase conflict between lane groups.			

Splits and Phases: 7: I-35 NB Off-Ramp & 24th St



Lane Group	Ø8
Minimum Initial (s)	7.0
Minimum Split (s)	22.5
Total Split (s)	22.5
Total Split (%)	45%
Maximum Green (s)	18.0
Yellow Time (s)	3.5
All-Red Time (s)	1.0
Lost Time Adjust (s)	
Total Lost Time (s)	
Lead/Lag	
Lead-Lag Optimize?	
Vehicle Extension (s)	3.0
Recall Mode	None
Act Effct Green (s)	
Actuated g/C Ratio	
v/c Ratio	
Control Delay	
Queue Delay	
Total Delay	
LOS	
Approach Delay	
Approach LOS	

Intersection Summary



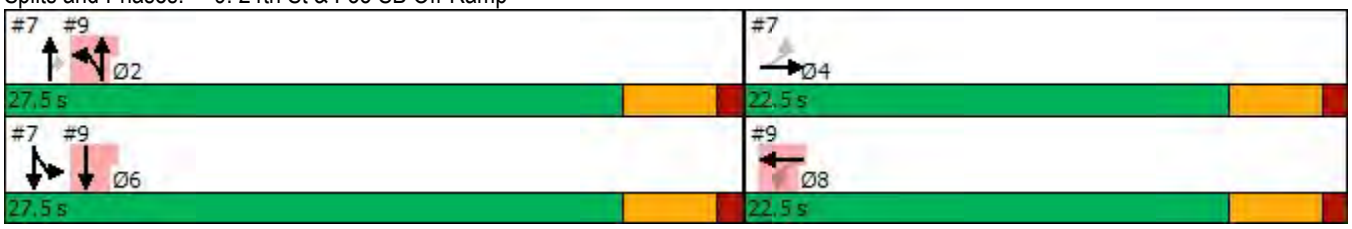
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	0	0	0	205	0	73	233	226	0	0	272	114
Future Volume (vph)	0	0	0	205	0	73	233	226	0	0	272	114
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	16	16	16	12	16	12	12	12	12	12	12	12
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Frt					0.965						0.960	
Flt Protected					0.964			0.975				
Satd. Flow (prot)	0	0	0	0	1964	0	0	1816	0	0	1788	0
Flt Permitted					0.964			0.975				
Satd. Flow (perm)	0	0	0	0	1964	0	0	1816	0	0	1788	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)					40						56	
Link Speed (mph)		35			35			35			35	
Link Distance (ft)		755			1614			299			328	
Travel Time (s)		14.7			31.4			5.8			6.4	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	0	0	0	223	0	79	253	246	0	0	296	124
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	0	0	0	302	0	0	499	0	0	420	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		0			0			0			0	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	0.85	0.85	0.85	1.00	0.85	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Number of Detectors				1	2		1	2			2	
Detector Template				Left	Thru		Left	Thru			Thru	
Leading Detector (ft)				20	100		20	100			100	
Trailing Detector (ft)				0	0		0	0			0	
Detector 1 Position(ft)				0	0		0	0			0	
Detector 1 Size(ft)				20	6		20	6			6	
Detector 1 Type				Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex			Cl+Ex	
Detector 1 Channel												
Detector 1 Extend (s)				0.0	0.0		0.0	0.0			0.0	
Detector 1 Queue (s)				0.0	0.0		0.0	0.0			0.0	
Detector 1 Delay (s)				0.0	0.0		0.0	0.0			0.0	
Detector 2 Position(ft)					94			94			94	
Detector 2 Size(ft)					6			6			6	
Detector 2 Type					Cl+Ex			Cl+Ex			Cl+Ex	
Detector 2 Channel												
Detector 2 Extend (s)					0.0			0.0			0.0	
Turn Type				Perm	NA		Split	NA			NA	
Protected Phases					8		2!	2			6!	
Permitted Phases				8								
Detector Phase				8	8		2	2			6	
Switch Phase												

Lane Group	Ø4
Lane Configurations	
Traffic Volume (vph)	
Future Volume (vph)	
Ideal Flow (vphpl)	
Lane Width (ft)	
Lane Util. Factor	
Frt	
Flt Protected	
Satd. Flow (prot)	
Flt Permitted	
Satd. Flow (perm)	
Right Turn on Red	
Satd. Flow (RTOR)	
Link Speed (mph)	
Link Distance (ft)	
Travel Time (s)	
Peak Hour Factor	
Adj. Flow (vph)	
Shared Lane Traffic (%)	
Lane Group Flow (vph)	
Enter Blocked Intersection	
Lane Alignment	
Median Width(ft)	
Link Offset(ft)	
Crosswalk Width(ft)	
Two way Left Turn Lane	
Headway Factor	
Turning Speed (mph)	
Number of Detectors	
Detector Template	
Leading Detector (ft)	
Trailing Detector (ft)	
Detector 1 Position(ft)	
Detector 1 Size(ft)	
Detector 1 Type	
Detector 1 Channel	
Detector 1 Extend (s)	
Detector 1 Queue (s)	
Detector 1 Delay (s)	
Detector 2 Position(ft)	
Detector 2 Size(ft)	
Detector 2 Type	
Detector 2 Channel	
Detector 2 Extend (s)	
Turn Type	
Protected Phases	4
Permitted Phases	
Detector Phase	
Switch Phase	

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Minimum Initial (s)				7.0	7.0		7.0	7.0			7.0	
Minimum Split (s)				22.5	22.5		22.5	22.5			22.5	
Total Split (s)				22.5	22.5		27.5	27.5			27.5	
Total Split (%)				45.0%	45.0%		55.0%	55.0%			55.0%	
Maximum Green (s)				18.0	18.0		23.0	23.0			23.0	
Yellow Time (s)				3.5	3.5		3.5	3.5			3.5	
All-Red Time (s)				1.0	1.0		1.0	1.0			1.0	
Lost Time Adjust (s)					0.0			0.0			0.0	
Total Lost Time (s)					4.5			4.5			4.5	
Lead/Lag												
Lead-Lag Optimize?												
Vehicle Extension (s)				3.0	3.0		3.0	3.0			3.0	
Recall Mode				None	None		Max	Max			Max	
Act Effct Green (s)					11.5			23.2			23.2	
Actuated g/C Ratio					0.26			0.53			0.53	
v/c Ratio					0.55			0.52			0.43	
Control Delay					15.8			6.4			8.0	
Queue Delay					0.0			0.1			0.2	
Total Delay					15.8			6.5			8.3	
LOS					B			A			A	
Approach Delay					15.8			6.5			8.3	
Approach LOS					B			A			A	

Intersection Summary			
Area Type:	Other		
Cycle Length: 50			
Actuated Cycle Length: 43.7			
Natural Cycle: 50			
Control Type: Semi Act-Uncoord			
Maximum v/c Ratio: 0.64			
Intersection Signal Delay: 9.4		Intersection LOS: A	
Intersection Capacity Utilization 73.1%		ICU Level of Service D	
Analysis Period (min) 15			
! Phase conflict between lane groups.			

Splits and Phases: 9: 24th St & I-35 SB Off-Ramp



Lane Group	Ø4
Minimum Initial (s)	7.0
Minimum Split (s)	22.5
Total Split (s)	22.5
Total Split (%)	45%
Maximum Green (s)	18.0
Yellow Time (s)	3.5
All-Red Time (s)	1.0
Lost Time Adjust (s)	
Total Lost Time (s)	
Lead/Lag	
Lead-Lag Optimize?	
Vehicle Extension (s)	3.0
Recall Mode	None
Act Effct Green (s)	
Actuated g/C Ratio	
v/c Ratio	
Control Delay	
Queue Delay	
Total Delay	
LOS	
Approach Delay	
Approach LOS	

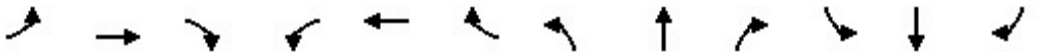
Intersection Summary

Lane Group	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Volume (vph)	195	220	167	220	149	150
Future Volume (vph)	195	220	167	220	149	150
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Storage Length (ft)		0	165		0	0
Storage Lanes		0	1		1	0
Taper Length (ft)			25		25	
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Frt	0.928				0.932	
Flt Protected			0.950		0.976	
Satd. Flow (prot)	1729	0	1770	1863	1694	0
Flt Permitted			0.269		0.976	
Satd. Flow (perm)	1729	0	501	1863	1694	0
Right Turn on Red		Yes				Yes
Satd. Flow (RTOR)	93				79	
Link Speed (mph)	35			35	35	
Link Distance (ft)	1077			256	581	
Travel Time (s)	21.0			5.0	11.3	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	212	239	182	239	162	163
Shared Lane Traffic (%)						
Lane Group Flow (vph)	451	0	182	239	325	0
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Right	Left	Left	Left	Right
Median Width(ft)	12			12	12	
Link Offset(ft)	0			0	0	
Crosswalk Width(ft)	16			16	16	
Two way Left Turn Lane						
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)		9	15		15	9
Number of Detectors	0		0	0	0	
Detector Template	Thru		Left	Thru	Left	
Leading Detector (ft)	0		0	0	0	
Trailing Detector (ft)	0		0	0	0	
Turn Type	NA		pm+pt	NA	Prot	
Protected Phases	2		1	2	4	
Permitted Phases			2			
Detector Phase	2		1	2	4	
Switch Phase						
Minimum Initial (s)	14.0		10.0	14.0	14.0	
Minimum Split (s)	18.7		15.0	18.7	19.0	
Total Split (s)	26.0		15.0	26.0	24.0	
Total Split (%)	40.0%		23.1%	40.0%	36.9%	
Maximum Green (s)	21.3		10.0	21.3	19.0	
Yellow Time (s)	3.6		3.0	3.6	3.0	
All-Red Time (s)	1.1		2.0	1.1	2.0	
Lost Time Adjust (s)	0.0		0.0	0.0	0.0	
Total Lost Time (s)	4.7		5.0	4.7	5.0	
Lead/Lag	Lag		Lead	Lag		

Lane Group	EBT	EBR	WBL	WBT	NBL	NBR
Lead-Lag Optimize?						
Vehicle Extension (s)	3.0		3.0	3.0	3.0	
Recall Mode	Max		Max	Max	Max	
Act Effct Green (s)	21.3		31.0	21.3	19.0	
Actuated g/C Ratio	0.33		0.48	0.33	0.29	
v/c Ratio	0.72		0.42	0.39	0.59	
Control Delay	22.9		10.8	19.2	19.8	
Queue Delay	0.0		0.0	0.0	0.0	
Total Delay	22.9		10.8	19.2	19.8	
LOS	C		B	B	B	
Approach Delay	22.9			15.6	19.8	
Approach LOS	C			B	B	

Intersection Summary			
Area Type:	Other		
Cycle Length: 65			
Actuated Cycle Length: 65			
Natural Cycle: 60			
Control Type: Actuated-Uncoordinated			
Maximum v/c Ratio: 0.72			
Intersection Signal Delay: 19.5		Intersection LOS: B	
Intersection Capacity Utilization 62.7%		ICU Level of Service B	
Analysis Period (min) 15			

Splits and Phases: 3: 24th St & Merriam Ln



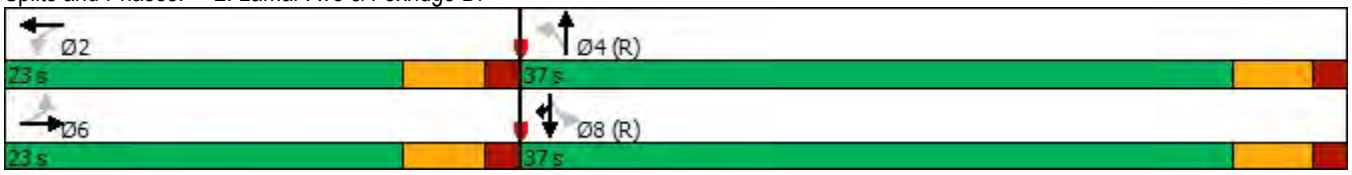
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	156	0	10	4	4	59	7	286	4	15	397	208
Future Volume (vph)	156	0	10	4	4	59	7	286	4	15	397	208
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	0		0	60		0	0		0	0		0
Storage Lanes	1		0	1		0	0		0	0		1
Taper Length (ft)	25			25			25			25		
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	0.95	0.95	0.95	1.00	1.00	1.00
Frt		0.850			0.859			0.998				0.850
Flt Protected	0.950			0.950				0.999			0.998	
Satd. Flow (prot)	1770	1583	0	1770	1600	0	0	3529	0	0	1859	1583
Flt Permitted	0.713			0.750				0.946			0.985	
Satd. Flow (perm)	1328	1583	0	1397	1600	0	0	3341	0	0	1835	1583
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		380			64			3				226
Link Speed (mph)		35			25			35			35	
Link Distance (ft)		362			218			374			353	
Travel Time (s)		7.1			5.9			7.3			6.9	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	170	0	11	4	4	64	8	311	4	16	432	226
Shared Lane Traffic (%)												
Lane Group Flow (vph)	170	11	0	4	68	0	0	323	0	0	448	226
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		12			12			0			0	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Number of Detectors	1	2		1	2		1	2		1	2	1
Detector Template	Left	Thru		Left	Thru		Left	Thru		Left	Thru	Right
Leading Detector (ft)	20	100		20	100		20	100		20	100	20
Trailing Detector (ft)	0	0		0	0		0	0		0	0	0
Detector 1 Position(ft)	0	0		0	0		0	0		0	0	0
Detector 1 Size(ft)	20	6		20	6		20	6		20	6	20
Detector 1 Type	Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex	Cl+Ex
Detector 1 Channel												
Detector 1 Extend (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	0.0
Detector 1 Queue (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	0.0
Detector 1 Delay (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	0.0
Detector 2 Position(ft)		94			94			94			94	
Detector 2 Size(ft)		6			6			6			6	
Detector 2 Type		Cl+Ex			Cl+Ex			Cl+Ex			Cl+Ex	
Detector 2 Channel												
Detector 2 Extend (s)		0.0			0.0			0.0			0.0	
Turn Type	Perm	NA		Perm	NA		Perm	NA		Perm	NA	Prot
Protected Phases		6			2			4			8	8
Permitted Phases	6			2			4			8		

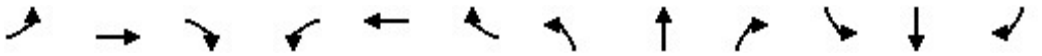
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Detector Phase	6	6		2	2		4	4		8	8	8
Switch Phase												
Minimum Initial (s)	10.0	10.0		10.0	10.0		10.0	10.0		10.0	10.0	10.0
Minimum Split (s)	15.2	15.2		15.2	15.2		15.2	15.2		15.2	15.2	15.2
Total Split (s)	23.0	23.0		23.0	23.0		37.0	37.0		37.0	37.0	37.0
Total Split (%)	38.3%	38.3%		38.3%	38.3%		61.7%	61.7%		61.7%	61.7%	61.7%
Maximum Green (s)	17.8	17.8		17.8	17.8		31.8	31.8		31.8	31.8	31.8
Yellow Time (s)	3.6	3.6		3.6	3.6		3.6	3.6		3.6	3.6	3.6
All-Red Time (s)	1.6	1.6		1.6	1.6		1.6	1.6		1.6	1.6	1.6
Lost Time Adjust (s)	0.0	0.0		0.0	0.0			0.0			0.0	0.0
Total Lost Time (s)	5.2	5.2		5.2	5.2			5.2			5.2	5.2
Lead/Lag												
Lead-Lag Optimize?												
Vehicle Extension (s)	3.0	3.0		3.0	3.0		3.0	3.0		3.0	3.0	3.0
Recall Mode	None	None		Min	Min		C-Min	C-Min		C-Min	C-Min	C-Min
Act Effct Green (s)	13.4	13.4		13.4	13.4			36.2			36.2	36.2
Actuated g/C Ratio	0.22	0.22		0.22	0.22			0.60			0.60	0.60
v/c Ratio	0.58	0.02		0.01	0.17			0.16			0.40	0.22
Control Delay	28.1	0.0		15.8	6.7			6.1			8.4	1.8
Queue Delay	0.0	0.0		0.0	0.0			0.0			0.0	0.0
Total Delay	28.1	0.0		15.8	6.7			6.1			8.4	1.8
LOS	C	A		B	A			A			A	A
Approach Delay		26.4			7.2			6.1			6.2	
Approach LOS		C			A			A			A	

Intersection Summary

Area Type: Other
Cycle Length: 60
Actuated Cycle Length: 60
Offset: 0 (0%), Referenced to phase 4:NBTL and 8:SBTL, Start of Green
Natural Cycle: 40
Control Type: Actuated-Coordinated
Maximum v/c Ratio: 0.58
Intersection Signal Delay: 9.1 Intersection LOS: A
Intersection Capacity Utilization 57.0% ICU Level of Service B
Analysis Period (min) 15

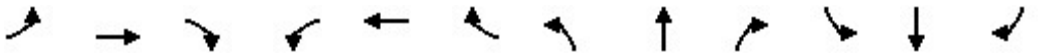
Splits and Phases: 2: Lamar Ave & Foxridge Dr





Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	127	0	266	0	0	0	0	332	170	124	353	0
Future Volume (vph)	127	0	266	0	0	0	0	332	170	124	353	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	16	12	16	16	16	12	12	12	12	12	12
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Frt		0.909							0.850			
Flt Protected		0.984									0.987	
Satd. Flow (prot)	0	1888	0	0	0	0	0	1863	1583	0	1839	0
Flt Permitted		0.984									0.987	
Satd. Flow (perm)	0	1888	0	0	0	0	0	1863	1583	0	1839	0
Link Speed (mph)		35			35			35			35	
Link Distance (ft)		2302			750			353			299	
Travel Time (s)		44.8			14.6			6.9			5.8	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	138	0	289	0	0	0	0	361	185	135	384	0
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	427	0	0	0	0	0	361	185	0	519	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		0			0			0			0	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.00	0.85	1.00	0.85	0.85	0.85	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Sign Control		Stop			Free			Free			Free	

Intersection Summary			
Area Type:	Other		
Control Type: Unsignalized			
Intersection Capacity Utilization 76.3%		ICU Level of Service D	
Analysis Period (min) 15			



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	0	0	0	205	0	73	233	226	0	0	272	114
Future Volume (vph)	0	0	0	205	0	73	233	226	0	0	272	114
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	16	16	16	12	16	12	12	12	12	12	12	12
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Frt					0.965						0.960	
Flt Protected					0.964			0.975				
Satd. Flow (prot)	0	0	0	0	1964	0	0	1816	0	0	1788	0
Flt Permitted					0.964			0.975				
Satd. Flow (perm)	0	0	0	0	1964	0	0	1816	0	0	1788	0
Link Speed (mph)		35			35			35			35	
Link Distance (ft)		755			1614			299			328	
Travel Time (s)		14.7			31.4			5.8			6.4	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	0	0	0	223	0	79	253	246	0	0	296	124
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	0	0	0	302	0	0	499	0	0	420	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		0			0			0			0	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	0.85	0.85	0.85	1.00	0.85	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Sign Control		Free			Stop			Free			Free	

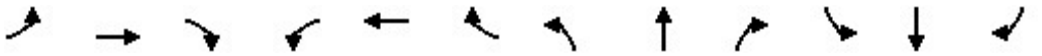
Intersection Summary			
Area Type:	Other		
Control Type: Unsignalized			
Intersection Capacity Utilization 71.9%		ICU Level of Service C	
Analysis Period (min) 15			

Lane Group	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Volume (vph)	195	220	167	220	149	150
Future Volume (vph)	195	220	167	220	149	150
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Storage Length (ft)		0	165		0	0
Storage Lanes		0	1		1	0
Taper Length (ft)			25		25	
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Frt	0.928				0.932	
Flt Protected			0.950		0.976	
Satd. Flow (prot)	1729	0	1770	1863	1694	0
Flt Permitted			0.269		0.976	
Satd. Flow (perm)	1729	0	501	1863	1694	0
Right Turn on Red		Yes				Yes
Satd. Flow (RTOR)	93				79	
Link Speed (mph)	35			35	35	
Link Distance (ft)	1077			256	581	
Travel Time (s)	21.0			5.0	11.3	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	212	239	182	239	162	163
Shared Lane Traffic (%)						
Lane Group Flow (vph)	451	0	182	239	325	0
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Right	Left	Left	Left	Right
Median Width(ft)	12			12	12	
Link Offset(ft)	0			0	0	
Crosswalk Width(ft)	16			16	16	
Two way Left Turn Lane						
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)		9	15		15	9
Number of Detectors	0		0	0	0	
Detector Template	Thru		Left	Thru	Left	
Leading Detector (ft)	0		0	0	0	
Trailing Detector (ft)	0		0	0	0	
Turn Type	NA		pm+pt	NA	Prot	
Protected Phases	2		1	2	4	
Permitted Phases			2			
Detector Phase	2		1	2	4	
Switch Phase						
Minimum Initial (s)	14.0		10.0	14.0	14.0	
Minimum Split (s)	18.7		15.0	18.7	19.0	
Total Split (s)	26.0		15.0	26.0	24.0	
Total Split (%)	40.0%		23.1%	40.0%	36.9%	
Maximum Green (s)	21.3		10.0	21.3	19.0	
Yellow Time (s)	3.6		3.0	3.6	3.0	
All-Red Time (s)	1.1		2.0	1.1	2.0	
Lost Time Adjust (s)	0.0		0.0	0.0	0.0	
Total Lost Time (s)	4.7		5.0	4.7	5.0	
Lead/Lag	Lag		Lead	Lag		

Lane Group	EBT	EBR	WBL	WBT	NBL	NBR
Lead-Lag Optimize?						
Vehicle Extension (s)	3.0		3.0	3.0	3.0	
Recall Mode	Max		Max	Max	Max	
Act Effct Green (s)	21.3		31.0	21.3	19.0	
Actuated g/C Ratio	0.33		0.48	0.33	0.29	
v/c Ratio	0.72		0.42	0.39	0.59	
Control Delay	22.9		10.8	19.2	19.8	
Queue Delay	0.0		0.0	0.0	0.0	
Total Delay	22.9		10.8	19.2	19.8	
LOS	C		B	B	B	
Approach Delay	22.9			15.6	19.8	
Approach LOS	C			B	B	

Intersection Summary			
Area Type:	Other		
Cycle Length: 65			
Actuated Cycle Length: 65			
Natural Cycle: 60			
Control Type: Actuated-Uncoordinated			
Maximum v/c Ratio: 0.72			
Intersection Signal Delay: 19.5		Intersection LOS: B	
Intersection Capacity Utilization 62.7%		ICU Level of Service B	
Analysis Period (min) 15			

Splits and Phases: 3: 24th St & Merriam Ln

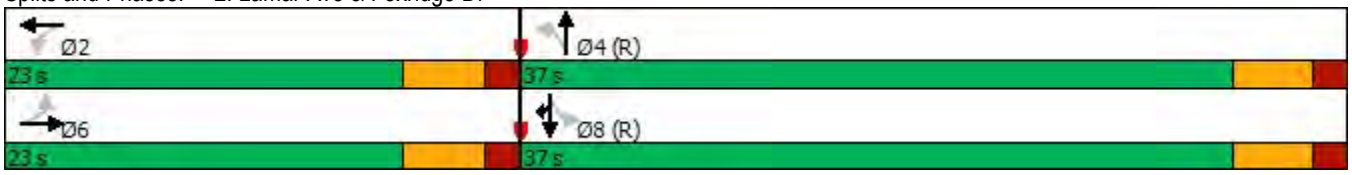


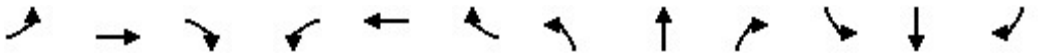
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	221	1	8	4	5	26	7	373	4	6	429	269
Future Volume (vph)	221	1	8	4	5	26	7	373	4	6	429	269
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	0		0	60		0	0		0	0		0
Storage Lanes	1		0	1		0	0		0	0		1
Taper Length (ft)	25			25			25			25		
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	0.95	0.95	0.95	1.00	1.00	1.00
Frt		0.865			0.873			0.999				0.850
Flt Protected	0.950			0.950				0.999			0.999	
Satd. Flow (prot)	1770	1611	0	1770	1626	0	0	3532	0	0	1861	1583
Flt Permitted	0.736			0.751				0.947			0.994	
Satd. Flow (perm)	1371	1611	0	1399	1626	0	0	3348	0	0	1852	1583
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		9			28			2				292
Link Speed (mph)		35			25			35			35	
Link Distance (ft)		362			218			374			353	
Travel Time (s)		7.1			5.9			7.3			6.9	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	240	1	9	4	5	28	8	405	4	7	466	292
Shared Lane Traffic (%)												
Lane Group Flow (vph)	240	10	0	4	33	0	0	417	0	0	473	292
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		12			12			0			0	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Number of Detectors	1	2		1	2		1	2		1	2	1
Detector Template	Left	Thru		Left	Thru		Left	Thru		Left	Thru	Right
Leading Detector (ft)	20	100		20	100		20	100		20	100	20
Trailing Detector (ft)	0	0		0	0		0	0		0	0	0
Detector 1 Position(ft)	0	0		0	0		0	0		0	0	0
Detector 1 Size(ft)	20	6		20	6		20	6		20	6	20
Detector 1 Type	Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex	Cl+Ex
Detector 1 Channel												
Detector 1 Extend (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	0.0
Detector 1 Queue (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	0.0
Detector 1 Delay (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	0.0
Detector 2 Position(ft)		94			94			94			94	
Detector 2 Size(ft)		6			6			6			6	
Detector 2 Type		Cl+Ex			Cl+Ex			Cl+Ex			Cl+Ex	
Detector 2 Channel												
Detector 2 Extend (s)		0.0			0.0			0.0			0.0	
Turn Type	Perm	NA		Perm	NA		Perm	NA		Perm	NA	Prot
Protected Phases		6			2			4			8	8
Permitted Phases	6			2			4			8		

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Detector Phase	6	6		2	2		4	4		8	8	8
Switch Phase												
Minimum Initial (s)	10.0	10.0		10.0	10.0		10.0	10.0		10.0	10.0	10.0
Minimum Split (s)	15.2	15.2		15.2	15.2		15.2	15.2		15.2	15.2	15.2
Total Split (s)	23.0	23.0		23.0	23.0		37.0	37.0		37.0	37.0	37.0
Total Split (%)	38.3%	38.3%		38.3%	38.3%		61.7%	61.7%		61.7%	61.7%	61.7%
Maximum Green (s)	17.8	17.8		17.8	17.8		31.8	31.8		31.8	31.8	31.8
Yellow Time (s)	3.6	3.6		3.6	3.6		3.6	3.6		3.6	3.6	3.6
All-Red Time (s)	1.6	1.6		1.6	1.6		1.6	1.6		1.6	1.6	1.6
Lost Time Adjust (s)	0.0	0.0		0.0	0.0			0.0			0.0	0.0
Total Lost Time (s)	5.2	5.2		5.2	5.2			5.2			5.2	5.2
Lead/Lag												
Lead-Lag Optimize?												
Vehicle Extension (s)	3.0	3.0		3.0	3.0		3.0	3.0		3.0	3.0	3.0
Recall Mode	None	None		Min	Min		C-Min	C-Min		C-Min	C-Min	C-Min
Act Effct Green (s)	15.1	15.1		15.1	15.1			34.5			34.5	34.5
Actuated g/C Ratio	0.25	0.25		0.25	0.25			0.58			0.58	0.58
v/c Ratio	0.70	0.02		0.01	0.08			0.22			0.44	0.28
Control Delay	30.9	9.2		14.8	7.7			7.2			7.0	1.6
Queue Delay	0.0	0.0		0.0	0.0			0.0			0.3	0.0
Total Delay	30.9	9.2		14.8	7.7			7.2			7.3	1.6
LOS	C	A		B	A			A			A	A
Approach Delay		30.0			8.5			7.2			5.2	
Approach LOS		C			A			A			A	

Intersection Summary			
Area Type:	Other		
Cycle Length: 60			
Actuated Cycle Length: 60			
Offset: 0 (0%), Referenced to phase 4:NBTL and 8:SBTL, Start of Green			
Natural Cycle: 45			
Control Type: Actuated-Coordinated			
Maximum v/c Ratio: 0.70			
Intersection Signal Delay: 10.1		Intersection LOS: B	
Intersection Capacity Utilization 54.9%		ICU Level of Service A	
Analysis Period (min) 15			

Splits and Phases: 2: Lamar Ave & Foxridge Dr





Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	105	0	318	0	0	0	0	370	249	95	385	0
Future Volume (vph)	105	0	318	0	0	0	0	370	249	95	385	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	16	12	16	16	16	12	12	12	12	12	12
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Frt		0.898							0.850			
Flt Protected		0.988									0.990	
Satd. Flow (prot)	0	1873	0	0	0	0	0	1863	1583	0	1844	0
Flt Permitted		0.988									0.990	
Satd. Flow (perm)	0	1873	0	0	0	0	0	1863	1583	0	1844	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		271							271			
Link Speed (mph)		35			35			35			35	
Link Distance (ft)		2302			750			353			299	
Travel Time (s)		44.8			14.6			6.9			5.8	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	114	0	346	0	0	0	0	402	271	103	418	0
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	460	0	0	0	0	0	402	271	0	521	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		0			0			0			0	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.00	0.85	1.00	0.85	0.85	0.85	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Number of Detectors	1	2						2	1	1	2	
Detector Template	Left	Thru						Thru	Right	Left	Thru	
Leading Detector (ft)	20	100						100	20	20	100	
Trailing Detector (ft)	0	0						0	0	0	0	
Detector 1 Position(ft)	0	0						0	0	0	0	
Detector 1 Size(ft)	20	6						6	20	20	6	
Detector 1 Type	Cl+Ex	Cl+Ex						Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	
Detector 1 Channel												
Detector 1 Extend (s)	0.0	0.0						0.0	0.0	0.0	0.0	
Detector 1 Queue (s)	0.0	0.0						0.0	0.0	0.0	0.0	
Detector 1 Delay (s)	0.0	0.0						0.0	0.0	0.0	0.0	
Detector 2 Position(ft)		94						94			94	
Detector 2 Size(ft)		6						6			6	
Detector 2 Type		Cl+Ex						Cl+Ex			Cl+Ex	
Detector 2 Channel												
Detector 2 Extend (s)		0.0						0.0			0.0	
Turn Type	Perm	NA						NA	Perm	Split	NA	
Protected Phases		4						2!		6!	6	
Permitted Phases	4								2			
Detector Phase	4	4						2	2	6	6	
Switch Phase												

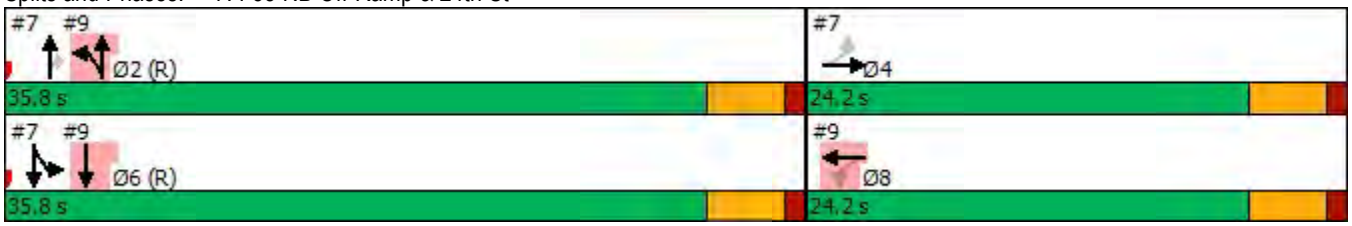
Lane Group	Ø8
Lane Configurations	
Traffic Volume (vph)	
Future Volume (vph)	
Ideal Flow (vphpl)	
Lane Width (ft)	
Lane Util. Factor	
Frt	
Flt Protected	
Satd. Flow (prot)	
Flt Permitted	
Satd. Flow (perm)	
Right Turn on Red	
Satd. Flow (RTOR)	
Link Speed (mph)	
Link Distance (ft)	
Travel Time (s)	
Peak Hour Factor	
Adj. Flow (vph)	
Shared Lane Traffic (%)	
Lane Group Flow (vph)	
Enter Blocked Intersection	
Lane Alignment	
Median Width(ft)	
Link Offset(ft)	
Crosswalk Width(ft)	
Two way Left Turn Lane	
Headway Factor	
Turning Speed (mph)	
Number of Detectors	
Detector Template	
Leading Detector (ft)	
Trailing Detector (ft)	
Detector 1 Position(ft)	
Detector 1 Size(ft)	
Detector 1 Type	
Detector 1 Channel	
Detector 1 Extend (s)	
Detector 1 Queue (s)	
Detector 1 Delay (s)	
Detector 2 Position(ft)	
Detector 2 Size(ft)	
Detector 2 Type	
Detector 2 Channel	
Detector 2 Extend (s)	
Turn Type	
Protected Phases	8
Permitted Phases	
Detector Phase	
Switch Phase	

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Minimum Initial (s)	7.0	7.0						7.0	7.0	7.0	7.0	
Minimum Split (s)	22.5	22.5						22.5	22.5	22.5	22.5	
Total Split (s)	24.2	24.2						35.8	35.8	35.8	35.8	
Total Split (%)	40.3%	40.3%						59.7%	59.7%	59.7%	59.7%	
Maximum Green (s)	19.7	19.7						31.3	31.3	31.3	31.3	
Yellow Time (s)	3.5	3.5						3.5	3.5	3.5	3.5	
All-Red Time (s)	1.0	1.0						1.0	1.0	1.0	1.0	
Lost Time Adjust (s)		0.0						0.0	0.0		0.0	
Total Lost Time (s)		4.5						4.5	4.5		4.5	
Lead/Lag												
Lead-Lag Optimize?												
Vehicle Extension (s)	3.0	3.0						3.0	3.0	3.0	3.0	
Recall Mode	None	None						C-Max	C-Max	C-Max	C-Max	
Act Effct Green (s)		14.0						37.0	37.0		37.0	
Actuated g/C Ratio		0.23						0.62	0.62		0.62	
v/c Ratio		0.71						0.35	0.25		0.46	
Control Delay		14.6						7.3	2.2		10.1	
Queue Delay		0.0						0.3	0.0		0.7	
Total Delay		14.6						7.6	2.2		10.8	
LOS		B						A	A		B	
Approach Delay		14.6						5.4			10.8	
Approach LOS		B						A			B	

Intersection Summary			
Area Type:	Other		
Cycle Length: 60			
Actuated Cycle Length: 60			
Offset: 54 (90%), Referenced to phase 2:NBT and 6:SBTL, Start of 1st Green			
Natural Cycle: 50			
Control Type: Actuated-Coordinated			
Maximum v/c Ratio: 0.71			
Intersection Signal Delay: 9.7		Intersection LOS: A	
Intersection Capacity Utilization 81.6%		ICU Level of Service D	
Analysis Period (min) 15			

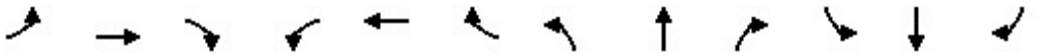
! Phase conflict between lane groups.

Splits and Phases: 7: I-35 NB Off-Ramp & 24th St



Lane Group	Ø8
Minimum Initial (s)	7.0
Minimum Split (s)	22.5
Total Split (s)	24.2
Total Split (%)	40%
Maximum Green (s)	19.7
Yellow Time (s)	3.5
All-Red Time (s)	1.0
Lost Time Adjust (s)	
Total Lost Time (s)	
Lead/Lag	
Lead-Lag Optimize?	
Vehicle Extension (s)	3.0
Recall Mode	None
Act Effct Green (s)	
Actuated g/C Ratio	
v/c Ratio	
Control Delay	
Queue Delay	
Total Delay	
LOS	
Approach Delay	
Approach LOS	

Intersection Summary



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	0	0	0	232	0	53	261	214	0	0	248	124
Future Volume (vph)	0	0	0	232	0	53	261	214	0	0	248	124
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	16	16	16	12	16	12	12	12	12	12	12	12
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Frt					0.975						0.955	
Flt Protected					0.961			0.973				
Satd. Flow (prot)	0	0	0	0	1978	0	0	1812	0	0	1779	0
Flt Permitted					0.961			0.973				
Satd. Flow (perm)	0	0	0	0	1978	0	0	1812	0	0	1779	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)					27						63	
Link Speed (mph)		35			35			35			35	
Link Distance (ft)		755			1614			299			328	
Travel Time (s)		14.7			31.4			5.8			6.4	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	0	0	0	252	0	58	284	233	0	0	270	135
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	0	0	0	310	0	0	517	0	0	405	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		0			0			0			0	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	0.85	0.85	0.85	1.00	0.85	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Number of Detectors				1	2		1	2			2	
Detector Template				Left	Thru		Left	Thru			Thru	
Leading Detector (ft)				20	100		20	100			100	
Trailing Detector (ft)				0	0		0	0			0	
Detector 1 Position(ft)				0	0		0	0			0	
Detector 1 Size(ft)				20	6		20	6			6	
Detector 1 Type				Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex			Cl+Ex	
Detector 1 Channel												
Detector 1 Extend (s)				0.0	0.0		0.0	0.0			0.0	
Detector 1 Queue (s)				0.0	0.0		0.0	0.0			0.0	
Detector 1 Delay (s)				0.0	0.0		0.0	0.0			0.0	
Detector 2 Position(ft)					94			94			94	
Detector 2 Size(ft)					6			6			6	
Detector 2 Type					Cl+Ex			Cl+Ex			Cl+Ex	
Detector 2 Channel												
Detector 2 Extend (s)					0.0			0.0			0.0	
Turn Type				Perm	NA		Split	NA			NA	
Protected Phases					8		2!	2			6!	
Permitted Phases				8								
Detector Phase				8	8		2	2			6	
Switch Phase												

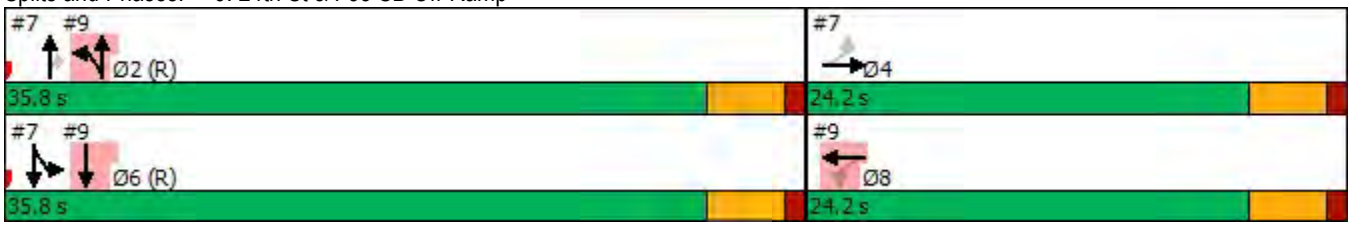
Lane Group	Ø4
Lane Configurations	
Traffic Volume (vph)	
Future Volume (vph)	
Ideal Flow (vphpl)	
Lane Width (ft)	
Lane Util. Factor	
Frt	
Flt Protected	
Satd. Flow (prot)	
Flt Permitted	
Satd. Flow (perm)	
Right Turn on Red	
Satd. Flow (RTOR)	
Link Speed (mph)	
Link Distance (ft)	
Travel Time (s)	
Peak Hour Factor	
Adj. Flow (vph)	
Shared Lane Traffic (%)	
Lane Group Flow (vph)	
Enter Blocked Intersection	
Lane Alignment	
Median Width(ft)	
Link Offset(ft)	
Crosswalk Width(ft)	
Two way Left Turn Lane	
Headway Factor	
Turning Speed (mph)	
Number of Detectors	
Detector Template	
Leading Detector (ft)	
Trailing Detector (ft)	
Detector 1 Position(ft)	
Detector 1 Size(ft)	
Detector 1 Type	
Detector 1 Channel	
Detector 1 Extend (s)	
Detector 1 Queue (s)	
Detector 1 Delay (s)	
Detector 2 Position(ft)	
Detector 2 Size(ft)	
Detector 2 Type	
Detector 2 Channel	
Detector 2 Extend (s)	
Turn Type	
Protected Phases	4
Permitted Phases	
Detector Phase	
Switch Phase	

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Minimum Initial (s)				7.0	7.0		7.0	7.0			7.0	
Minimum Split (s)				22.5	22.5		22.5	22.5			22.5	
Total Split (s)				24.2	24.2		35.8	35.8			35.8	
Total Split (%)				40.3%	40.3%		59.7%	59.7%			59.7%	
Maximum Green (s)				19.7	19.7		31.3	31.3			31.3	
Yellow Time (s)				3.5	3.5		3.5	3.5			3.5	
All-Red Time (s)				1.0	1.0		1.0	1.0			1.0	
Lost Time Adjust (s)					0.0			0.0			0.0	
Total Lost Time (s)					4.5			4.5			4.5	
Lead/Lag												
Lead-Lag Optimize?												
Vehicle Extension (s)				3.0	3.0		3.0	3.0			3.0	
Recall Mode				None	None		C-Max	C-Max			C-Max	
Act Effct Green (s)					14.0			37.0			37.0	
Actuated g/C Ratio					0.23			0.62			0.62	
v/c Ratio					0.64			0.46			0.36	
Control Delay					24.5			4.5			6.7	
Queue Delay					0.0			0.2			0.6	
Total Delay					24.5			4.7			7.3	
LOS					C			A			A	
Approach Delay					24.5			4.7			7.3	
Approach LOS					C			A			A	

Intersection Summary	
Area Type:	Other
Cycle Length: 60	
Actuated Cycle Length: 60	
Offset: 54 (90%), Referenced to phase 2:NBT and 6:SBTL, Start of 1st Green	
Natural Cycle: 50	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 0.71	
Intersection Signal Delay: 10.5	Intersection LOS: B
Intersection Capacity Utilization 73.7%	ICU Level of Service D
Analysis Period (min) 15	

! Phase conflict between lane groups.

Splits and Phases: 9: 24th St & I-35 SB Off-Ramp



Lane Group	Ø4
Minimum Initial (s)	7.0
Minimum Split (s)	22.5
Total Split (s)	24.2
Total Split (%)	40%
Maximum Green (s)	19.7
Yellow Time (s)	3.5
All-Red Time (s)	1.0
Lost Time Adjust (s)	
Total Lost Time (s)	
Lead/Lag	
Lead-Lag Optimize?	
Vehicle Extension (s)	3.0
Recall Mode	None
Act Effct Green (s)	
Actuated g/C Ratio	
v/c Ratio	
Control Delay	
Queue Delay	
Total Delay	
LOS	
Approach Delay	
Approach LOS	

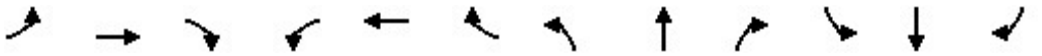
Intersection Summary

Lane Group	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Volume (vph)	234	148	224	289	132	135
Future Volume (vph)	234	148	224	289	132	135
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Storage Length (ft)		0	165		0	0
Storage Lanes		0	1		1	0
Taper Length (ft)			25		25	
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Frt	0.948				0.932	
Flt Protected			0.950		0.976	
Satd. Flow (prot)	1766	0	1770	1863	1694	0
Flt Permitted			0.315		0.976	
Satd. Flow (perm)	1766	0	587	1863	1694	0
Right Turn on Red		Yes				Yes
Satd. Flow (RTOR)	52				80	
Link Speed (mph)	35			35	35	
Link Distance (ft)	1077			256	581	
Travel Time (s)	21.0			5.0	11.3	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	254	161	243	314	143	147
Shared Lane Traffic (%)						
Lane Group Flow (vph)	415	0	243	314	290	0
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Right	Left	Left	Left	Right
Median Width(ft)	12			12	12	
Link Offset(ft)	0			0	0	
Crosswalk Width(ft)	16			16	16	
Two way Left Turn Lane						
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)		9	15		15	9
Number of Detectors	0		0	0	0	
Detector Template	Thru		Left	Thru	Left	
Leading Detector (ft)	0		0	0	0	
Trailing Detector (ft)	0		0	0	0	
Turn Type	NA		pm+pt	NA	Prot	
Protected Phases	2		1	2	4	
Permitted Phases			2			
Detector Phase	2		1	2	4	
Switch Phase						
Minimum Initial (s)	14.0		10.0	14.0	14.0	
Minimum Split (s)	18.7		15.0	18.7	19.0	
Total Split (s)	26.0		15.0	26.0	24.0	
Total Split (%)	40.0%		23.1%	40.0%	36.9%	
Maximum Green (s)	21.3		10.0	21.3	19.0	
Yellow Time (s)	3.6		3.0	3.6	3.0	
All-Red Time (s)	1.1		2.0	1.1	2.0	
Lost Time Adjust (s)	0.0		0.0	0.0	0.0	
Total Lost Time (s)	4.7		5.0	4.7	5.0	
Lead/Lag	Lag		Lead	Lag		

Lane Group	EBT	EBR	WBL	WBT	NBL	NBR
Lead-Lag Optimize?						
Vehicle Extension (s)	3.0		3.0	3.0	3.0	
Recall Mode	Max		Max	Max	Max	
Act Effct Green (s)	21.3		31.0	21.3	19.0	
Actuated g/C Ratio	0.33		0.48	0.33	0.29	
v/c Ratio	0.68		0.53	0.51	0.53	
Control Delay	23.0		12.4	21.3	17.8	
Queue Delay	0.0		0.0	0.0	0.0	
Total Delay	23.0		12.4	21.3	17.8	
LOS	C		B	C	B	
Approach Delay	23.0			17.4	17.8	
Approach LOS	C			B	B	

Intersection Summary			
Area Type:	Other		
Cycle Length: 65			
Actuated Cycle Length: 65			
Natural Cycle: 60			
Control Type: Actuated-Uncoordinated			
Maximum v/c Ratio: 0.68			
Intersection Signal Delay: 19.3		Intersection LOS: B	
Intersection Capacity Utilization 61.6%		ICU Level of Service B	
Analysis Period (min) 15			

Splits and Phases: 3: 24th St & Merriam Ln

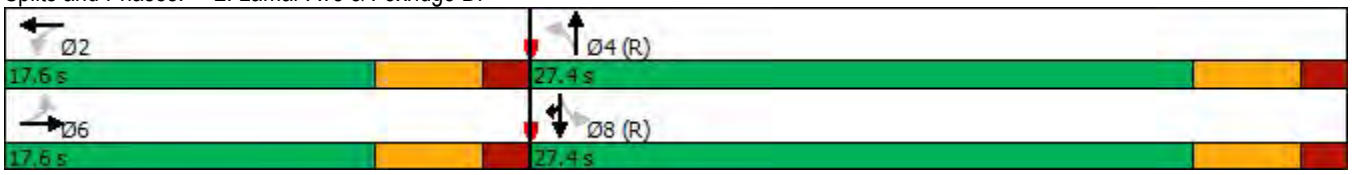


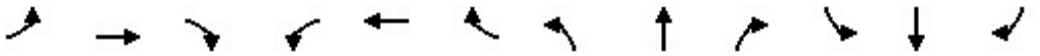
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	221	1	8	4	5	26	7	373	4	6	429	269
Future Volume (vph)	221	1	8	4	5	26	7	373	4	6	429	269
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	0		0	60		0	0		0	0		0
Storage Lanes	1		0	1		0	0		0	0		1
Taper Length (ft)	25			25			25			25		
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	0.95	0.95	0.95	1.00	1.00	1.00
Frt		0.865			0.873			0.999				0.850
Flt Protected	0.950			0.950				0.999			0.999	
Satd. Flow (prot)	1770	1611	0	1770	1626	0	0	3532	0	0	1861	1583
Flt Permitted	0.736			0.751				0.946			0.993	
Satd. Flow (perm)	1371	1611	0	1399	1626	0	0	3345	0	0	1850	1583
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		9			28			3				292
Link Speed (mph)		35			25			35			35	
Link Distance (ft)		362			218			374			353	
Travel Time (s)		7.1			5.9			7.3			6.9	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	240	1	9	4	5	28	8	405	4	7	466	292
Shared Lane Traffic (%)												
Lane Group Flow (vph)	240	10	0	4	33	0	0	417	0	0	473	292
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		12			12			0			0	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Number of Detectors	1	2		1	2		1	2		1	2	1
Detector Template	Left	Thru		Left	Thru		Left	Thru		Left	Thru	Right
Leading Detector (ft)	20	100		20	100		20	100		20	100	20
Trailing Detector (ft)	0	0		0	0		0	0		0	0	0
Detector 1 Position(ft)	0	0		0	0		0	0		0	0	0
Detector 1 Size(ft)	20	6		20	6		20	6		20	6	20
Detector 1 Type	Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex	Cl+Ex
Detector 1 Channel												
Detector 1 Extend (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	0.0
Detector 1 Queue (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	0.0
Detector 1 Delay (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	0.0
Detector 2 Position(ft)		94			94			94			94	
Detector 2 Size(ft)		6			6			6			6	
Detector 2 Type		Cl+Ex			Cl+Ex			Cl+Ex			Cl+Ex	
Detector 2 Channel												
Detector 2 Extend (s)		0.0			0.0			0.0			0.0	
Turn Type	Perm	NA		Perm	NA		Perm	NA		Perm	NA	Prot
Protected Phases		6			2			4			8	8
Permitted Phases	6			2			4			8		

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Detector Phase	6	6		2	2		4	4		8	8	8
Switch Phase												
Minimum Initial (s)	10.0	10.0		10.0	10.0		10.0	10.0		10.0	10.0	10.0
Minimum Split (s)	15.2	15.2		15.2	15.2		15.2	15.2		15.2	15.2	15.2
Total Split (s)	17.6	17.6		17.6	17.6		27.4	27.4		27.4	27.4	27.4
Total Split (%)	39.1%	39.1%		39.1%	39.1%		60.9%	60.9%		60.9%	60.9%	60.9%
Maximum Green (s)	12.4	12.4		12.4	12.4		22.2	22.2		22.2	22.2	22.2
Yellow Time (s)	3.6	3.6		3.6	3.6		3.6	3.6		3.6	3.6	3.6
All-Red Time (s)	1.6	1.6		1.6	1.6		1.6	1.6		1.6	1.6	1.6
Lost Time Adjust (s)	0.0	0.0		0.0	0.0			0.0			0.0	0.0
Total Lost Time (s)	5.2	5.2		5.2	5.2			5.2			5.2	5.2
Lead/Lag												
Lead-Lag Optimize?												
Vehicle Extension (s)	3.0	3.0		3.0	3.0		3.0	3.0		3.0	3.0	3.0
Recall Mode	None	None		Min	Min		C-Min	C-Min		C-Min	C-Min	C-Min
Act Effct Green (s)	12.0	12.0		12.0	12.0			22.6			22.6	22.6
Actuated g/C Ratio	0.27	0.27		0.27	0.27			0.50			0.50	0.50
v/c Ratio	0.66	0.02		0.01	0.07			0.25			0.51	0.31
Control Delay	25.2	7.9		11.8	6.8			7.1			10.3	2.1
Queue Delay	0.0	0.0		0.0	0.0			0.0			0.0	0.0
Total Delay	25.2	7.9		11.8	6.8			7.1			10.3	2.1
LOS	C	A		B	A			A			B	A
Approach Delay		24.5			7.4			7.1			7.2	
Approach LOS		C			A			A			A	

Intersection Summary			
Area Type:	Other		
Cycle Length: 45			
Actuated Cycle Length: 45			
Offset: 0 (0%), Referenced to phase 4:NBTL and 8:SBTL, Start of Green			
Natural Cycle: 45			
Control Type: Actuated-Coordinated			
Maximum v/c Ratio: 0.66			
Intersection Signal Delay: 10.1		Intersection LOS: B	
Intersection Capacity Utilization 54.9%		ICU Level of Service A	
Analysis Period (min) 15			

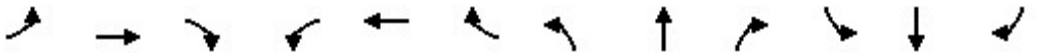
Splits and Phases: 2: Lamar Ave & Foxridge Dr





Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	105	0	318	0	0	0	0	370	249	95	385	0
Future Volume (vph)	105	0	318	0	0	0	0	370	249	95	385	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	16	12	16	16	16	12	12	12	12	12	12
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Frt		0.898							0.850			
Flt Protected		0.988									0.990	
Satd. Flow (prot)	0	1873	0	0	0	0	0	1863	1583	0	1844	0
Flt Permitted		0.988									0.990	
Satd. Flow (perm)	0	1873	0	0	0	0	0	1863	1583	0	1844	0
Link Speed (mph)		35			35			35			35	
Link Distance (ft)		2302			750			353			299	
Travel Time (s)		44.8			14.6			6.9			5.8	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	114	0	346	0	0	0	0	402	271	103	418	0
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	460	0	0	0	0	0	402	271	0	521	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		0			0			0			0	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.00	0.85	1.00	0.85	0.85	0.85	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Sign Control		Stop			Free			Free			Free	

Intersection Summary			
Area Type:	Other		
Control Type: Unsignalized			
Intersection Capacity Utilization 80.4%		ICU Level of Service D	
Analysis Period (min) 15			



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	0	0	0	232	0	53	261	214	0	0	248	124
Future Volume (vph)	0	0	0	232	0	53	261	214	0	0	248	124
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	16	16	16	12	16	12	12	12	12	12	12	12
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Frt					0.975						0.955	
Flt Protected					0.961			0.973				
Satd. Flow (prot)	0	0	0	0	1978	0	0	1812	0	0	1779	0
Flt Permitted					0.961			0.973				
Satd. Flow (perm)	0	0	0	0	1978	0	0	1812	0	0	1779	0
Link Speed (mph)		35			35			35			35	
Link Distance (ft)		755			1614			299			328	
Travel Time (s)		14.7			31.4			5.8			6.4	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	0	0	0	252	0	58	284	233	0	0	270	135
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	0	0	0	310	0	0	517	0	0	405	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		0			0			0			0	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	0.85	0.85	0.85	1.00	0.85	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Sign Control		Free			Stop			Free			Free	

Intersection Summary			
Area Type:	Other		
Control Type: Unsignalized			
Intersection Capacity Utilization 72.4%		ICU Level of Service C	
Analysis Period (min) 15			

Lane Group	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Volume (vph)	234	148	224	289	132	135
Future Volume (vph)	234	148	224	289	132	135
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Storage Length (ft)		0	165		0	0
Storage Lanes		0	1		1	0
Taper Length (ft)			25		25	
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Frt	0.948				0.932	
Flt Protected			0.950		0.976	
Satd. Flow (prot)	1766	0	1770	1863	1694	0
Flt Permitted			0.315		0.976	
Satd. Flow (perm)	1766	0	587	1863	1694	0
Right Turn on Red		Yes				Yes
Satd. Flow (RTOR)	52				80	
Link Speed (mph)	35			35	35	
Link Distance (ft)	1077			256	581	
Travel Time (s)	21.0			5.0	11.3	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	254	161	243	314	143	147
Shared Lane Traffic (%)						
Lane Group Flow (vph)	415	0	243	314	290	0
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Right	Left	Left	Left	Right
Median Width(ft)	12			12	12	
Link Offset(ft)	0			0	0	
Crosswalk Width(ft)	16			16	16	
Two way Left Turn Lane						
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)		9	15		15	9
Number of Detectors	0		0	0	0	
Detector Template	Thru		Left	Thru	Left	
Leading Detector (ft)	0		0	0	0	
Trailing Detector (ft)	0		0	0	0	
Turn Type	NA		pm+pt	NA	Prot	
Protected Phases	2		1	2	4	
Permitted Phases			2			
Detector Phase	2		1	2	4	
Switch Phase						
Minimum Initial (s)	14.0		10.0	14.0	14.0	
Minimum Split (s)	18.7		15.0	18.7	19.0	
Total Split (s)	26.0		15.0	26.0	24.0	
Total Split (%)	40.0%		23.1%	40.0%	36.9%	
Maximum Green (s)	21.3		10.0	21.3	19.0	
Yellow Time (s)	3.6		3.0	3.6	3.0	
All-Red Time (s)	1.1		2.0	1.1	2.0	
Lost Time Adjust (s)	0.0		0.0	0.0	0.0	
Total Lost Time (s)	4.7		5.0	4.7	5.0	
Lead/Lag	Lag		Lead	Lag		

Lane Group	EBT	EBR	WBL	WBT	NBL	NBR
Lead-Lag Optimize?						
Vehicle Extension (s)	3.0		3.0	3.0	3.0	
Recall Mode	Max		Max	Max	Max	
Act Effct Green (s)	21.3		31.0	21.3	19.0	
Actuated g/C Ratio	0.33		0.48	0.33	0.29	
v/c Ratio	0.68		0.53	0.51	0.53	
Control Delay	23.0		12.4	21.3	17.8	
Queue Delay	0.0		0.0	0.0	0.0	
Total Delay	23.0		12.4	21.3	17.8	
LOS	C		B	C	B	
Approach Delay	23.0			17.4	17.8	
Approach LOS	C			B	B	

Intersection Summary			
Area Type:	Other		
Cycle Length: 65			
Actuated Cycle Length: 65			
Natural Cycle: 60			
Control Type: Actuated-Uncoordinated			
Maximum v/c Ratio: 0.68			
Intersection Signal Delay: 19.3		Intersection LOS: B	
Intersection Capacity Utilization 61.6%		ICU Level of Service B	
Analysis Period (min) 15			

Splits and Phases: 3: 24th St & Merriam Ln

March 25, 2024

Planning Commission

Staff Report

AT A GLANCE

Applicant:
Johnson County Wastewater

Location:
5901 Foxridge Drive (former address, 4800 Nall Avenue)

Property ID:
KP175000000014A;KP175000000013; KP450000000049;KP450000000001; KP1 75000000009A,B,D,C;KP175000000010; KP175000000011;KD175000000005;KP17500000 0013; KP67500000 0002

Current Zoning:
R-1

Proposed Zoning:
N/A

Current Land Use:
Wastewater Treatment Facility

Proposed Land Use:
N/A

No Public Hearing Required

Legal Notice:
N/A

Case Number:
24-04

Project Name:
Nelson Wastewater Treatment Facility Final Plat

Project Summary:
The subject property is the site of an existing wastewater treatment facility that is currently undergoing reconstruction during a multi-phase process.

Staff Contact:
Karie Kneller, City Planner

Property Background and Information

The subject property is located between Lamar and Nall, abutting the northernmost border of Mission and Kansas City, KS and the easternmost border of Mission and Roeland Park. This is the site of the existing wastewater treatment facility built from the 1940s to 2009. It is in the northeast quarter of Section 5, Township 12S, Range 25E – a replat of part of Oakwood subdivision, part of Walnut View subdivision, and part of Jessup's 2nd Subdivision, in the City of Mission, Kansas.

Adjacent properties are industrial uses to the north and just south of Interstate 35 in Wyandotte County, a park (Nall Park) to the east in Roeland Park, and single family uses to the south and west. The property is served by stormwater, electric, sewer, and water utilities throughout the site.

Project Proposal

The subject property currently consists of 13 parcels that will be consolidated with this plat, which will become one lot (Lot 1). Lot 1 consists of approximately 51 acres, with .91 acres of public right-of-way, for a total of 51.90 acres. The property boundaries are not being expanded beyond its current boundaries and configuration.

The Oakwood plat, previously recorded in 1946, is the largest portion of the subject property area. The previous plat allowed for rights-of-way for 47th Terrace, 48th Terrace, Woodson Road, and Maple Avenue that are not part of the current build-out of the wastewater treatment facility. These rights-of-way will be vacated with the proposed plat. Other easements for utilities that currently exist are included in the re-plat, and a 30-foot right-of-way will be dedicated to the City along Nall Avenue.

The Walnut View subdivision plat was previously recorded in 1955 and is part of the vacant property on the south side of the property, abutting 49th Street to the north. Lots 2-10 of the previous plat will now become part of Lot 1 for this plat.

Jessup's 2nd Subdivision plat was recorded in 1924, and the proposal will incorporate the northeastern portion of the previous plat labeled Lots 9-14 into Lot 1.

Plan Review and Analysis

Section 440.260 (B)(1-4) of the Mission municipal code addresses consideration of final plats, which states that the Planning Commission shall approve the final plat if it meets the following criteria:

1. The final plat substantially conforms to the approved preliminary plat and rule exceptions granted thereto.

2. The plat conforms to all applicable requirements of this Code, subject only to approved rule exceptions.

3. All submission requirements have been satisfied.

4. Approval of a final plat shall require the affirmative vote of a majority of the membership of the Planning Commission.

Recommendation

Staff recommends that the Planning Commission approve Case #24-05, Nelson Wastewater Treatment Facility Final Plat.

Planning Commision Action

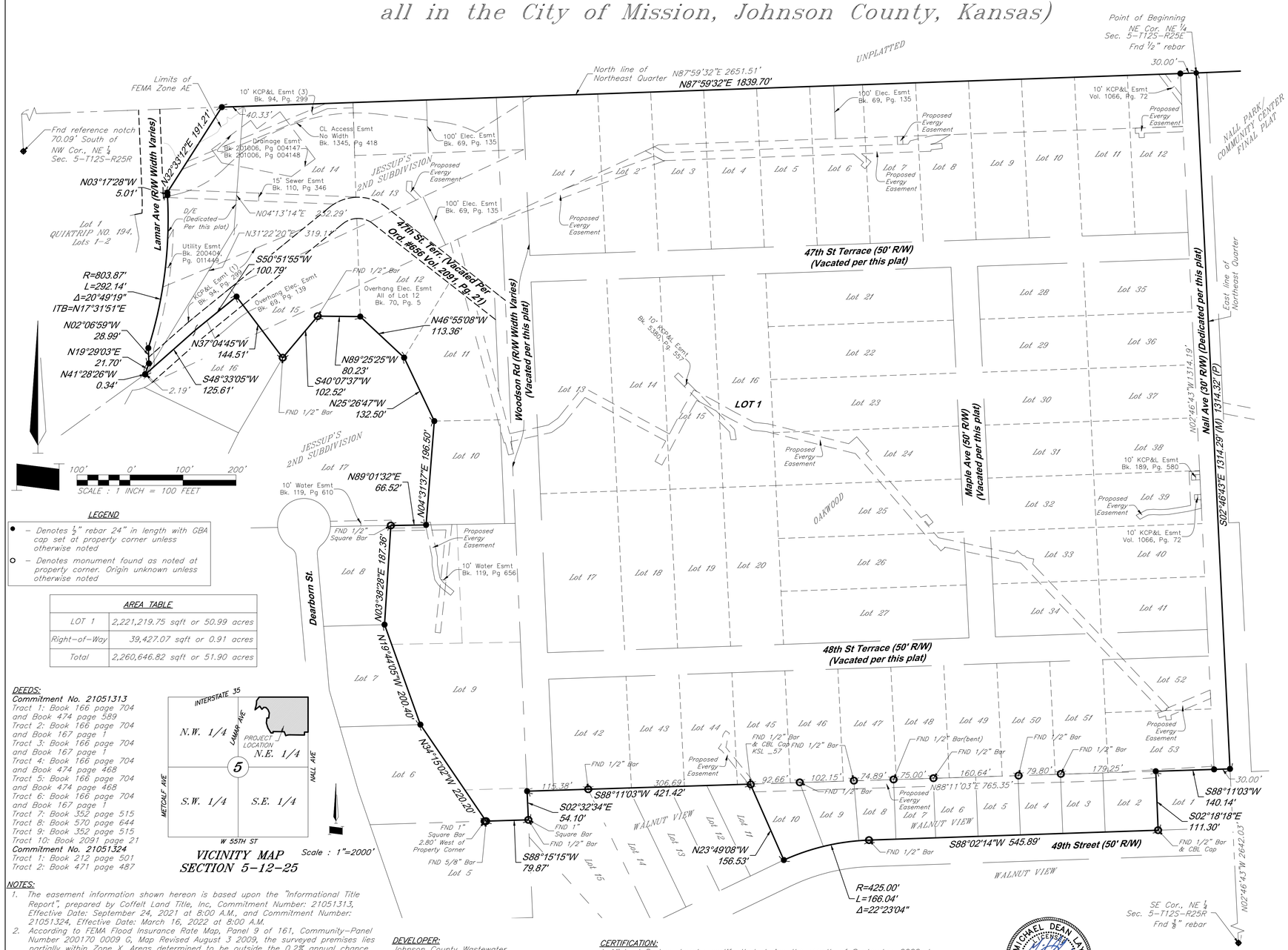
Planning Commission will consider Case #24-05 at its March 25, 2024 meeting.

City Council Action

No Action.

NELSON WASTEWATER TREATMENT FACILITY

Part of the Northeast Quarter of Section 5, Township 12 South, Range 25 East, and replat of part of OAKWOOD subdivision, and part of WALNUT VIEW subdivision, and part of JESSUP'S 2ND SUBDIVISION, all in the City of Mission, Johnson County, Kansas)



LEGEND

- ● – Denotes ½" rebar 24" in length with GBA cap set at property corner unless otherwise noted
- ○ – Denotes monument found as noted at property corner. Origin unknown unless otherwise noted

AREA TABLE	
LOT 1	2,221,219.75 sqft or 50.99 acres
Right-of-Way	39,427.07 sqft or 0.91 acres
Total	2,260,646.82 sqft or 51.90 acres

DEEDS:
Commitment No. 21051313
Tract 1: Book 166 page 704 and Book 474 page 589
Tract 2: Book 166 page 704 and Book 167 page 1
Tract 3: Book 166 page 704 and Book 167 page 1
Tract 4: Book 166 page 704 and Book 474 page 468
Tract 5: Book 166 page 704 and Book 474 page 468
Tract 6: Book 166 page 704 and Book 167 page 1
Tract 7: Book 352 page 515
Tract 8: Book 570 page 644
Tract 9: Book 352 page 515
Tract 10: Book 2091 page 21
Commitment No. 21051324
Tract 1: Book 212 page 501
Tract 2: Book 471 page 487

VICINITY MAP Scale : 1"=2000'
SECTION 5-12-25

NOTES:
1. The easement information shown hereon is based upon the "Informational Title Report", prepared by Coffelt Land Title, Inc, Commitment Number: 21051313, Effective Date: September 24, 2021 at 8:00 A.M., and Commitment Number: 21051324, Effective Date: March 16, 2022 at 8:00 A.M.
2. According to FEMA Flood Insurance Rate Map, Panel 9 of 161, Community-Panel Number 2001170 0009 G, Map Revised August 3 2009, the surveyed premises lies partially within Zone X, Areas determined to be outside the 0.2% annual chance floodplain, and partially within Flood Zone AE, Base Flood Elevation 844, Flooding Effects from Turkey Creek.
3. According to the Johnson County AIMS GIS website, the property is zoned R-1.
4. Proposed Use: Wastewater treatment facility
5. Waste water to be handled by public sanitary sewer system
6. See Preliminary Development Plan Submittal for drainage calculations.
7. Pursuit to KSA 12-512b all of 47th St Terrace, 48th St Terrace, Maple Ave, and Woodson Rd Right-of-Ways shown hereon are hereby vacated.

THEORY OF LOCATION:
Monuments found at the lot corners of OAKWOOD, WALNUT VIEW, AND JESSUP'S 2ND SUBDIVISION, and monuments found at Section Corners were used to establish the boundary of this subdivision.

DEVELOPER:
Johnson County Wastewater
11811 S Sunset Dr #2500
Olathe, KS 66061

CLOSURE SUMMARY PLAT BOUNDARY:
Precision, 1 part in: 771,801.758'
Error distance: 0.009'
Error direction: S32°39'36"W

BASIS OF BEARINGS:
Bearings are based on the Kansas State Plane Coordinate System of 1983, North zone; with the East line of the Northeast Quarter of Section 5, Township 12, Range 25, having a bearing of South 02°46'43" East, between a ½" rebar found at the Northeast Corner, and a ⅜" rebar at the Southeast Corner.

CERTIFICATION:
I, Michael D. Lay, hereby certify that during the month of September 2022, I or someone under my direct supervision have made a survey of the above described tract of land and the results of said survey are correctly represented on this plat. The field work was completed on 05/19/2022.

MICHAEL DEAN LAY LS-1612 KANSAS LAND SURVEYOR 12-26-2024

Michael D. Lay
Kansas Land Surveyor No. 1612

Job No. 14852.00 February 19, 2024 Drawn By: MAP/TLF

DESCRIPTION:

A tract of land being all of Lots 1 through 53 inclusive, and all of 47th Street Terrace, 48th Street Terrace, Maple Avenue, Woodson Road, and Nall Avenue all in OAKWOOD subdivision, and all of Lots 2 through 10 inclusive, of WALNUT VIEW subdivision, and all of Lots 9 through 15 inclusive, and adjacent vacated Right-of-Way of 47th Street Terrace (platted as Horseshoe Avenue), and all of Woodson Road, all in JESSUP'S 2ND SUBDIVISION, all in the Northeast Quarter of Section 5, Township 12 South, Range 25 East of the Sixth Principal Meridian, in the City of Mission, Johnson County, Kansas, as prepared by Michael Dean Lay, LS 1612, on September 8, 2022, and all together being more particularly described as follows:

Beginning at the Northeast Corner of said Northeast Quarter; thence South 02°46'43" East, along the East line of said Northeast Quarter, a distance of 1314.29 feet (1314.32 Platted); thence South 88°11'03" West, departing said East line, along the South line of said OAKWOOD subdivision, a distance of 140.14 feet, to the Northeast corner of Lot 2, of said WALNUT VIEW subdivision; thence South 02°18'18" East, departing the South line of said OAKWOOD subdivision, along the East line of said Lot 2, a distance of 111.30 feet, to a point on the North Right-of-Way line of West 49th Street, as now established, said point also being the Southeast Corner of said Lot 2; thence South 88°02'14" West, departing said East line of Lot 2, along said North Right-of-Way line, a distance of 545.89 feet, to a point of curvature; thence Southwesterly, continuing along said North Right-of-Way line, and along said curve to the left, having a radius of 425.00 feet, and a central angle of 22°23'04", a distance of 166.04 feet, to the Southwest Corner of Lot 10, of said WALNUT VIEW subdivision; thence North 23°49'08" West, departing said North Right-of-Way line, along the Westerly line of said Lot 10, a distance of 156.53 feet, to the Northwest Corner of said Lot 10, said Corner being on the South line of said OAKWOOD subdivision; thence South 88°11'03" West, departing said Westerly line of Lot 10, along the South line of said OAKWOOD subdivision, a distance of 421.42 feet, to the Southwest Corner of said OAKWOOD subdivision, said Corner being on the East line of Lot 9, of said JESSUP'S 2ND SUBDIVISION; thence South 02°32'34" East, departing said South line of OAKWOOD subdivision, along said East line of Lot 9, a distance of 54.10 feet, to the Southeast Corner of said Lot 9; thence South 88°15'15" West, departing said East line of Lot 9, along the South Line of said Lot 9, a distance of 79.87 feet, to the Southwest Corner of said Lot 9; thence North 34°15'02" West, departing said South line of Lot 9, along the West line of said Lot 9, a distance of 220.20 feet; thence North 19°44'05" West, continuing along said West line of Lot 9, a distance of 200.40 feet; thence North 03°38'28" East, continuing along said West line of Lot 9, a distance of 187.36 feet, to the Northwest Corner of said Lot 9; thence North 89°01'32" East, along the North line of said Lot 9, a distance of 66.52 feet, to the Southwest Corner of Lot 10, of said JESSUP'S 2ND SUBDIVISION; thence North 04°31'37" East, departing said North line of Lot 9, along the West line of said Lot 10, a distance of 196.50 feet, to the Southwest Corner of Lot 11, of said JESSUPS'S 2ND SUBDIVISION; thence North 25°26'47" West, departing said West line of Lot 10, along the West line of said Lot 11, a distance of 132.50 feet, to the Southmost Corner of Lot 12, of said JESSUPS'S 2ND SUBDIVISION; thence North 46°55'08" West, departing the West line of said Lot 11, along the Southerly line of said Lot 12, a distance of 113.36 feet, to the Southeast Corner of Lot 15, of said JESSUPS'S 2ND SUBDIVISION; thence North 89°25'25" West, departing said Southerly line of Lot 12, along the Southerly line of said Lot 15, a distance of 80.23 feet; thence South 40°07'37" West, continuing along said Southerly line of Lot 15, a distance of 102.52 feet, to the Southmost Corner of said Lot 15; thence North 37°04'45" West, departing said Southerly line of Lot 15, along the Westerly line of said Lot 15, and its extension, a distance of 144.51 feet, to a point on the centerline of vacated 47th Street Terrace (platted as Horseshoe Avenue), per Ordinance No. 656, recorded in Volume 2091, Page 21; thence South 50°51'55" West, along the centerline of said vacated 47th Street Terrace, a distance of 100.79 feet; thence South 48°33'05" West, continuing along the centerline of said vacated 47th Terrace, a distance of 125.61 feet, to a point on the East Right-of-Way line of Lamar Avenue, as now established; thence North 41°28'26" West, departing the centerline of said Vacated 47th Street Terrace, along said East Right-of-Way line, a distance of 0.34 feet; thence North 19°29'03" East, continuing along said East Right-of-Way line, a distance of 21.70 feet; thence North 02°06'59" West, continuing along said East Right-of-Way line, a distance of 28.99 feet, to a point on a non-tangent curve; thence Northerly, continuing along said East Right-of-Way line, and along said curve to the left, having a radius of 803.87 feet, a central angle of 20°49'19", and whose initial tangent bearing is North 17°31'51" East, a distance of 292.14 feet; thence North 03°17'28" West, continuing along said East Right-of-Way line, a distance of 5.01 feet, to a point on the West line of a tract of land, as described in a Kansas Warranty Deed, recorded in Book 570, Page 644, said point being on the Southerly Right-of-Way line of Interstate 35, as now established; thence North 32°33'12" East, departing said East Right-of-Way line, along the West line of said tract of land, a distance of 191.21 feet, to a point on the North line said Northeast Quarter, said point also being on the North line of said JESSUP'S 2ND SUBDIVISION; thence North 87°59'32" East, departing the West line of said tract of land, along the North line of said Northeast Quarter, and along the North line of said JESSUP'S 2ND SUBDIVISION, and along the North line of said OAKWOOD subdivision, a distance of 1,839.70 feet, to the Point of Beginning, containing 2,260,646.82 square feet, or 51.90 acres, more or less.

The undersigned proprietors of the above described tract of land having caused the same to be subdivided in the manner as shown on the accompanying plat, which subdivision and plat shall hereafter be known as "NELSON WASTEWATER TREATMENT FACILITY", a subdivision of land in the City of Mission, Johnson County, Kansas.

Lot 1 shall be used as a wastewater treatment facility.

The proprietors, successors and assigns of property described on this plat hereby dedicate for public use all land described on the plat as streets or public ways not heretofore dedicated. Acceptance for the dedication of land for public right-of-way purposes described in this plat is for the sole purpose of maintaining right-of-way, and does not constitute acceptance of any terms or conditions set forth in any agreement not shown on this plat.

In accordance with KSA 12-512B, all rights, obligations, reservations, easements or interest not shown on this plat shall be vacated as to use and as to title, upon filing and recording of this plat. The proprietors, successors and assigns of property shown on this plat hereby absolve and agree, jointly and severally, to indemnify the City of Mission, Kansas of any expense incident with the relocation of any existing utility improvements heretofore installed and required to be relocated in accordance with the proposed improvements described in this plat.

A non-exclusive easement or license to enter upon, locate, construct, use and maintain or authorize the location, construction, maintenance or use of conduits, surface drainage facilities, subsurface drainage facilities, and similar facilities, upon, over and under these areas outlined and designated on this plat as "Storm Sewer Easement" or Drainage Easement" or "D/E" is hereby granted to the City of Mission, Kansas. Storm Sewer Easements end at grade.

The undersigned proprietor of the above described land hereby consents and agrees that the governing body of any special assessment district shall have the power to release such land proposed to be dedicated for streets and roads, or parts thereof, for public use, from the lien and effect of any special assessments and that the amount of unpaid special assessments on such land dedicated, shall become and remain a lien on the remainder of this land fronting or abutting on said dedicated road or street.

IN TESTIMONY WHEREOF: The undersigned owner of the property described herein, has hereunto set their hand this _____ day of _____, 2024.

Johnson County Board of Commissioners, Owner of record of described property.

By: _____
Mike Kelly

STATE OF _____) SS
COUNTY OF _____)

BE IT REMEMBERED that on this _____ day of _____, 2024, before me, the undersigned, a Notary Public in and for said County and State, personally appeared Mike Kelly, of Johnson County Board of Commissioners, to me personally acknowledged the execution of the same to be the free act and deed of said Company.

IN WITNESS WHEREOF: I have hereunto set my hand and affixed my official seal the day and year last above written.

Notary Public: _____ My Appointment Expires: _____

Print Name: _____

APPROVED by the Planning Commission of the City of Mission, Johnson County, Kansas, this _____ day of _____, 2024.

By: _____ Attest: _____
Mike Lee, Chairperson Kimberly Steffens, Secretary

APPROVED by the City Council of the City of Mission, Johnson County, Kansas, this _____ day of _____, 2024.

By: _____ Attest: _____
Solana Flora, Mayor Robyn Fulks, City Clerk

GBA
GEORGE BUTLER ASSOCIATES, INC.
CONSULTING ENGINEERS / ARCHITECTS / LANDSCAPE ARCHITECTS / PLANNERS
ONE RENNER RIDGE, 9801 RENNER BLVD, LENEXA, KS 66219/ (913)492-0400
Surveyor Email: mlay@gbateam.com

FINAL PLAT OF NELSON WASTEWATER TREATMENT FACILITY, a subdivision in Section 5, Township 12, Range 25, City of Mission, Johnson County, Kansas

SHEET 1 OF 1