

CITY OF MISSION PLANNING COMMISSION AGENDA
February 28, 2022
7:00 PM
Powell Community Center, 6200 Martway Street

- I. Call to Order
- II. Election of Officers – Chair and Vice Chair
- III. Approval of Minutes from the September 27, 2021 Meeting
- IV. New Business Items:
 1. Public Hearing – Case #22-01 - Consideration of a Preliminary Development Plan for a Multi-family Residential Development for Adults Aged 55+ to be known as Mission Preserve – Located at approximately 51st Street and Riggs Street - Stride DevCo LLC, Applicant
 - Staff Report
 - Letter Summarizing Applicant’s Request
 - Preliminary Development Plans
 2. Preliminary Plat – Case #22-02 - Consideration of a Preliminary Plat Mission Preserve, Lot 1, Tracts 1 & 2 - Located at approximately 51st Street and Riggs Street – Stride DevCo LLC, Applicant
 - Staff Report
 - Preliminary Plat
 3. Final Plat – Case #22-03 - Consideration of Final Plat Rock Creek Pump Station, Lot 1 – 5701 Roe – Johnson County Wastwater, applicant
 - Staff Report
 - Final Plat
 4. Site Plan – Case #22-04 – Consideration of Site Improvements and a Non-Conforming Situation Permit – 5918 Broadmoor - Unleashed Pet Rescue, Applicant
 - Staff Report
 - Site Plans
 5. Appointment of a Recording Secretary - Appointment of Kimberly Steffens as Recording Secretary for the Mission Planning Commission
 6. National Planning Conference – American Planning Association ‘s National Planning Conference for 2022 – April 30th through May 3rd in San Deigo, CA
- V. Old Business
- VI. Planning Commission Comments
- VII. Staff Updates

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

MINUTES OF THE PLANNING COMMISSION MEETING

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The regular meeting of the Mission Planning Commission was called to order by Chairman Mike Lee at 7:00 PM Monday, September 27, 2021. Members also present: Frank Bruce, Robin Dukelow, Stuart Braden, Charlie Troppito and Pete Christiansen (via Zoom). Burton Taylor and Brad Davidson were absent. Also in attendance: Brian Scott, Assistant City Administrator, and Audrey McClanahan, Secretary to the Planning Commission.

Chairman Lee: I'd like to call the meeting to order. The public is invited to participate. If you would like to make a comment, please raise your hand and stay seated. We will call on you to the lectern. Please make sure to be conscientious of others trying to speak, and speak slowly and clearly. If I need to confirm something that may have been difficult to hear, I will ask for clarification.

Approval of Minutes from the July 26, 2021 Meeting

Chairman Lee: The first two items on the agenda tonight are approval of the minutes from our July 26th and August 23rd meetings.

Comm. Dukelow: Mr. Chairman, I have a couple of comments on the July 26th minutes, if I may. Page 2, paragraph 2, references the Phoenix Building, and it says it's in Roeland Park. In fact, that building is in Overland Park. Page 9, paragraph 3, references a 25-cent sales tax, and I believe that should read either quarter-cent or one-fourth cent. Thank you. That's all I had, Mr. Chairman. I don't have any comments on the August 23rd minutes.

Comm. Dukelow moved and Comm. Braden seconded a motion to approve the minutes of the July 26, 2021, Planning Commission meeting, with corrections as noted.

The vote was taken (6-0) The **motion carried**.

Approval of Minutes from the August 23, 2021 Meeting

Comm. Braden moved and Comm. Dukelow seconded a motion to approve the minutes of the August 23, 2021, Planning Commission meeting.

The vote was taken (6-0) The **motion carried**.

New Business

A. Case # 21-06 Approval of Application for Site Plan Improvements at 6101 Johnson Drive – The Bar, Applicant

An application for approval of a site plan improvement for a 550 square foot addition at the rear of the structure at 6101 Johnson Drive

Mr. Scott: Thank you, Mr. Chair. This is Case 21-06, an application for a site plan approval, an addition to an existing structure located at 6101 Johnson Drive. The applicant is Nick Ewing at Sullivan Palmer Architects, and the property owner is Johnson 6101, LLC, c/o RH Johnson Co. The structure at 6101 Johnson Drive was built in 1960's. It's been a gas station up until about the early 2000's when it was obtained by RH Johnson and converted over to a bar and restaurant/grill. In 2004, they made an addition to the west side of the building. They are now wanting to fill out the back of the building if you will. You can see from the site plan, the additions to the building over the years have

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created a little bit of an empty void or space at the back, essentially where their kitchen is at. They have some outdoor storage in that area behind the gate. They essentially want to fill in that outdoor storage area by expanding the kitchen. It's about a 500-square-foot addition. What they will do at that point is wrap the entire back of the building with wood cladding that is similar to what is on the addition on the left side. You can see that in the photograph in the packet. That goes around the west side of the building and goes around the corner of that addition and they would just continue that along the back.

This meets the Johnson Drive Design Guidelines. It still fulfills the intent of the MS1. There is no additional parking needed of that nature. That's the request in a nutshell. Mr. Sullivan, of Sullivan Architects, is here tonight if you have any questions.

Chairman Lee: Would you like to step forward?

Jim Sullivan, Sullivan Architects, appeared before the Zoning Board and made the following comments:

Mr. Sullivan: Good evening, Members of the Commission. I'm happy to be here tonight. I really have no presentation other than the bar has sort of been an ongoing project for us. The major design element in all the development of this in the additions so far has been the fact that we have a ten-ton mechanical unit that's been sitting on the ground, and we've just been building around that through the years. This eventually was sort of the last straw, where he said, "All right, let's get this mechanical unit up on the roof and build an addition where it is." So that's essentially what we have before you. We knew that the kitchen was small to begin with. With the business that we've had, it was time to do it. That's my presentation. I'd be happy to field any questions.

Chairman Lee: Questions?

Comm. Braden: First of all, it appears that there are a couple walk-in, maybe a walk-in refrigerator, maybe a walk-in freezer, and I was just curious if the condensing units are mounted on top of the units inside the building or [inaudible].

Mr. Sullivan: I'm really not sure on the walk-in's where the mechanical units are this time. I know that there is a parapet around three sides of the building right now, and the mechanical unit and exhaust fans and that sort of thing are up on the roof, of course. They're shielded by the parapet.

Comm. Braden: The reason I ask is, if they're not mounted inside, like on top of the unit, and they're mounted outside, if they're hidden from view or if they're on the ground. I was just curious to make sure that wherever they're located they're hidden. Whatever meets current rules for it.

Mr. Sullivan: As you can see from the elevation at the top of the sheet, essentially on the three sides, the north, east and west, the mechanical unit and all other devices up on the roof are screened. It is open to the parking structure to the south of it. It meets all the design guidelines.

Comm. Braden: That was my second question. That mechanical unit was on the ground. Now it's moving to the roof. Is it going to serve the new addition also, or will there be a separate unit for the new addition?

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Mr. Sullivan: Yes, it will serve as part of the mechanical units for the –

Comm. Braden: Okay, so it will serve the addition also. Okay. Thank you.

Comm. Dukelow: Mr. Chairman, I have some comments. I think I'll stick with the equipment right now, and the mechanical screening, since that was the question that Stuart had. It's my understanding from the Mission Design Guidelines that all of the sides of that parapet need to be screened. All of that roof needs to be screened. Because that applies to the Downtown and East Gateway. It also is item number 7, Section 415.30 of the Mission Design Guidelines. With that in mind, would you be willing to run a screen from the top of the existing parapet across the back to meet the current west addition?

Mr. Sullivan: I know that I haven't, but my associate, Nick, has been working with staff through this process, and had said staff was comfortable with the screening that we have at this point.

Comm. Dukelow: Okay. Well, again, in the Downtown and East Gateway, as part of the Johnson Drive and Corridor Guidelines – that would be page 4-7 and again on page 5-5, and then in the Mission Design Guidelines dated 2008 – that is stated. I'll let you work with City staff on that. The other comments that I have have to do with the grease receptacle and the proposal to move it into the corner between the trash dumpster and the back of the building. I'm wondering how that will be accessed and serviced if it's in that location with parking directly adjacent.

Mr. Sullivan: That's the grease container, yes, and that, of course, is picked up on a regular basis by a company and disposed of. [inaudible] that we've checked with them. It's accessible from their standpoint.

Comm. Dukelow: Can you tell me what the room is on the southwest corner? There's an existing door to go outside, but on these plans it shows the door to be demolished, and on the elevation it shows the door existing to remain.

Mr. Sullivan: Are you talking about the door that enters into the kitchen from the back?

Comm. Dukelow: The other side, on the west addition.

Mr. Sullivan: Yes. That has been there for a while.

Comm. Dukelow: I presume it came with the west addition.

Mr. Sullivan: It looks to me like it's actually kind of an intermediate space between the kitchen and the dining area, for possibly staging of food and that sort of thing.

Comm. Dukelow: Do you know where the outside storage will be relocated?

Mr. Sullivan: You mean for trash?

Comm. Dukelow: For all of the stuff that's in that space right now.

Mr. Sullivan: Based on this plan, I think that all of that stuff is going to be removed properly.

Comm. Dukelow: My concern is that all of that stuff will be at the back of the building.

Mr. Sullivan: Excuse me?

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Comm. Dukelow: My concern is that all of that stuff will be exposed and at the back of the building. And that would not be...

Mr. Sullivan: Obviously, that's an operational issue. It's not part of our scope of work. However, based on the development of this plan, it doesn't look like there is an "outdoor storage area."

Comm. Dukelow: Right, and that is exactly my concern, because there is a lot of miscellaneous things out there. And I understand that grease receptacle, then, will be accessible? The person who collects the grease is happy with that, and it will be built to match the trash enclosure?

Mr. Sullivan: That is correct.

Comm. Dukelow: That's all I have, Mr. Chairman. Thank you.

Mr. Scott: I had asked Mr. Ewing, the architect that was working on this project, about the materials that would be...that are currently kind of behind this gate in the back. He said most of that would just be removed. It's old chairs that are broken. Some of the items would be put inside in the storage. I think there's a little storage room that's behind or in the back of the addition, so some of those items would be put back there that are items they want to keep. But yeah, you can't have any items outside, sitting in the parking lot. That would be a code violation. Not permissible.

Chairman Lee: Questions for the applicant?

Unidentified Speaker: [inaudible]

Mr. Scott: Yeah, that's a good question.

Unidentified Speaker: [inaudible]

Mr. Scott: Yeah. The handicap parking spaces are on the drawing on the screen. They don't show up very well. They're very faint. I think this was an older rendition, so what you have in your packet is the final rendition that was sent to the City. I just gave Audrey the wrong rendition to put up tonight at the meeting. It's essentially the same. This rendition in your packet highlights the area that's going to be enclosed, the kitchen expansion, so everything is kind of hashed out. There's the existing space. That area that's not hashed out is the addition, and then it also shows the trash enclosure for the grease dumpster between the existing enclosure and the building. I don't think that's shown on what you see on the screen here.

[Unidentified Speaker: [inaudible]

Mr. Scott: Right.

Unidentified Speaker: [inaudible]

Mr. Scott: I'm sorry, what?

Unidentified Speaker: [inaudible]

Mr. Scott: I believe so, yes. They've been there. They meet code.

Unidentified Speaker: [inaudible]

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Mr. Scott: I don't know if there's any more handicapped in the front. I think it's just those two spaces.

Unidentified Speaker: [inaudible]

Mr. Sullivan: I believe that those handicapped spaces are there at this time. To my knowledge, they do comply with handicap requirements. They're eight feet wide, van accessible, drop-off space, and then another eight-foot wide parking stall.

Unidentified Speaker: [inaudible]

Mr. Sullivan: I see.

Mr. Scott: Yeah, I believe that's adequate. I forgot how many parking spaces are on the lot. I want to say 24 seems to stick out in my mind.

Unidentified Speaker: [inaudible]

Mr. Sullivan: We have indicated here 29 spaces. I think at 20 you need two, and I believe at 50 it jumps up again.

Chairman Lee: All right. Thank you. Additional comments? Frank, do you have any? Okay, thank you.

Mr. Sullivan: Thank you very much.

Chairman Lee: Are we ready to make a motion?

Comm. Dukelow moved and Comm. Bruce seconded a motion to approve Case # 21-06 which is the site plan approval for an addition to the structure at 6101 Johnson Drive.

The vote was taken (6-0). **The motion passed.**

B. Public Hearing – Case# 21-07 Approval of an Application for Zoning, Preliminary Development Plan, and Special Use Permit for the Construction and Operation of a Sanitary Sewer Pump Station at 5701 Roe Avenue – Johnson County Wastewater, Applicant.

An application for approval of zoning property at 5701 Roe Avenue to "MP" Industrial Park, approval of a preliminary plat of the property, approval of a preliminary development plan, and approval of a special use permit all in association with the construction and operation of sanitary sewer pump station on the property.

Chairman Lee: Item B will be a public hearing. This is Case# 21-07, approval of an application for zoning, preliminary development plan and a special use permit for the construction and operation of a sanitary sewer pump station at 5701 Roe Avenue. The applicant is Johnson County Wastewater.

Mr. Scott: Thank you, Mr. Chair. We do have some representatives tonight from Johnson County Wastewater as well as HDR, the engineering firm that they've hired to assist in this project. I'm not going to steal too much of their thunder, but this is an existing pump station on property at 5701 Roe Avenue. The pump station has been there since the late 1950s to 1960s. It is actually property that is owned by KDOT, Kansas Department of Transportation, right-of-way for Shawnee Mission Parkway, and exchange that existed

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there at one time and is still kind of there, branches off on Johnson Drive. Johnson County Wastewater is at a point right now where they're making a number of updates to facilities around the service area. One of the updates is going to be to the Nelson Treatment Plant, very far north into Mission. They're starting that process probably within the next couple of years. They're actually having an open house this Wednesday evening at the plant, 5pm to 7pm. It's kind of an introduction to the improvements they're going to be making at the plant, getting some initial feedback from the residents in that area. It's open to the public, 5-7 pm this Wednesday evening, at the Nelson Treatment Plant, 4800 Nall.

Before they can really begin that work, though, they need to focus their attention on the facilities that feed into that treatment plant. This pump station is one of those. [inaudible] to tear down the existing pump station and build a new pump station at the site. With that, they want to secure ownership from KDOT of that parcel. That's really what this is all about tonight. They do have a presentation, so Audrey can pull that up for us. I think Mr. Denning from Johnson County Wastewater that will give the presentation.

Patrick Denning, Assistant Chief Engineer, Johnson County Wastewater, appeared before the Zoning Board and made the following comments:

Mr. Denning: Thanks, Brian. And thanks for your time this evening. I'm in charge of our existing infrastructure for the Engineering Group. With me tonight is Mike Kallis [phonetic] from Engineering. He can help assist with questions if there are some at the end. Again, we appreciate your time.

The agenda for tonight, the purpose of this project. I want to give a little bit of history and talk about our Integrated Plan, which is part of our Consent Order with the State of Kansas. I want to talk a little bit about the Nelson Service Area, which is the plant at 4800 Nall, as Brian mentioned. Then I want to talk a little bit about this specific project, the Rock Creek pump station improvements, and finally, the schedule.

The purpose of our being here tonight is to ask for Planning Commission approval for a zoning change for this parcel, a preliminary plat, a preliminary development plan, and a special use permit. This slide is showing part of the investment that we're making through our Integrated Plan, which is a scheduling tool that we're using with a Consent Order through the State of Kansas. Johnson County Wastewater is going to make \$2 billion of improvements to our system over the next 25 years. This is driven by regulatory requirements, as well as just our need for renewing our infrastructure. We've negotiated a flexible long-term plan – that's why it's called an integrated plan – to manage rates by sequencing projects. A key part of the Integrated Plan is the Nelson improvements project at 4800 Nall. That will take place between 2024 and 2029. This will include needed improvements to the Rock Creek Pump Station, as Brian mentioned. It also includes the eventual decommissioning of our Martway pumping facility, which is behind the former Mission Bowl. That's a little further out in the future.

The purple outline here shows the Nelson Complex Service Area, so this treatment plant up at the north side of Mission serves quite an area, from County Line on the north, State Line on the east, approximately 87th Street to the south and Quivira Road to the west. The Rock Creek Pump Station is circled there in red, in there in red, in the middle of Mission. This shows the areas of service that the pump station includes. The pink area is

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the gravity system that goes to the pump station and then is pumped. The blue area is actually pumped by the facility known as the Brush Creek Pump Station shown down there in yellow. That pump station pumps to the Rock Creek Pump Station, which then pumps it again to the Nelson facility. So, all in all, that whole shaded area is served by the Rock Creek Pump Station.

As Brian mentioned, this facility has been there since about the late 1950's, and it's been expanded several times. It exists in its current location through a right-of-way agreement with KDOT. It currently can pump 12 million gallons per day. That's if it's raining, but on a given dry day like today, maybe 3 million gallons a day, which is about a quarter of the flow that the Nelson Treatment Plant processes. In the future it will need to be expanded to 24, up to 39 million gallons per day, depending on how tight of a system we can get through our future improvements. The new pump station will be constructed now for this higher flow scenario for the concrete. However, we may add some of the equipment at a later date.

We evaluated rehabilitation or replacing the existing facility. It was decided that the lowest long-term cost would be to construct a new facility and demolish the existing one. There is a building being constructed out there right now that is an electrical building. It will serve this facility for its remaining life, and then when the new facility is constructed, it will serve that facility.

Currently, KDOT owns the property in the red outline. JCW is working to acquire the area in blue. The new pump station is expected to cost approximately \$15 million. It is in the best interests of our rate-payers to own the property we'll be investing in. Otherwise, we are subject to KDOT right-of-way agreements, which are not really set up to accommodate facilities. This is the best location to keep it at, as all the gravity from the area flows to this location, the other pump stations pump to this location, and the pipe going to the treatment plant originates at this location. More offsite work would be required if we chose a different location. KDOT is agreeable to this area shown. We are keeping our distance from the bridge, so that they may maintain that if they're putting it back there, and maintain that bridge long-term.

Here is the site plan showing the future pump station. The future utility easement is there in pink. Future sidewalk is shown in yellow. The sidewalk would be probably constructed with a future Roe Avenue improvement. It would make more sense to do that with a street project. JCW would contribute a portion of the expense. We're working on a Memorandum of Understanding with the City to document that financial obligation.

This is the landscaping plan. Trees would be placed on the JCW property inside of the fence, except up there on the north. North of that culvert we'd have a few trees out there as well. North is actually to your left. Here are some proposed elevation views on the next slide. The new facility will match the brick color of the electrical building that we're currently constructing right now. That was matched to some of the other new buildings to the north of that intersection. There's that hospital and bank, I believe. That brick was intended to match that. The pump station will match both of those.

The next slide shows a rendering of the future facility, showing the landscaping, as well as the old facility being demolished. You can see that we're leaving space for KDOT to

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maintain the elevated roadway there, and it shows the future sidewalk as well. The next slide is the schedule. Right now we're working to acquire the site. The electrical building will be finished next year, just to continue to serve the existing facility. We will be designing a new pump station from now through 2023. Construction will take place in 2024 to 2028. Although the construction will not take four years, it's going to be in that window. We're getting a contractor onboard now to help us figure out how to sequence the pump station project with the plant project, so it won't take four years, but it would happen in that window. That's the basic presentation. We'll be happy to answer any questions.

Chairman Lee: Questions?

Comm. Dukelow: Mr. Chairman, I have a few questions, if I may. Can we go back to the site plan where it shows the channel that goes under? That's good. Maybe even the next one that shows the subterrain. That will do. Thank you. I have a question. What is the dash that goes all the way around the building? Is that some subsurface pump infrastructure? It goes around the east, the south and the west sides?

Mr. Denning: That's a storm sewer that we'll have to reroute around the new facility. There's storm sewer infrastructure from offsite that goes through this facility that's heading for the drainageway there. I believe you're talking about the storm sewer there.

Comm. Dukelow: It's heading towards Brush Creek?

Mr. Denning: Yeah, it's going towards the creek, yes.

Comm. Dukelow: Where is the line that this \$3 million or however many million gallons goes up to the other facility? Where is that line located?

Mr. Denning: It's in Roe Avenue.

Comm. Dukelow: It's in Roe Avenue?

Mr. Denning: It is. It's under Roe, in the northbound lanes of Roe. That pipe is under the roadway there.

Comm. Dukelow: Okay, thank you. I have a couple more comments, if I may. I understand in the staff report and in the analysis there is a recommendation to approve this with a little bit of a modification to the setbacks, the deviation of 25 feet from the required minimum front yard setback of 50 feet. I'm mentioning that because I noticed that, and it was one of my questions, so I just wanted to acknowledge that before I go on. So, the question that I have, really – and I know there was something in the proposal and in the report – they talked about the trees and how difficult it is to plant trees around the existing storm culvert. In conjunction with that, I also see that we have said in one case it says there are no employees, and then in the written report it says that crews will come for routine maintenance and it also says that the proposed plan increases onsite parking and access with a paved area. With all that in mind, I see there is, in fact, a large, paved area, and my suggestion is that even though we don't want to call it a parking lot, I guess that means we don't want to stripe it, because it's for heavy trucks delivering chemicals, et cetera. I still think, feel strongly, that that paved area should be considered a parking area and that trees should be provided per the area that would be typically...If that square footage right there represents the area that it would take to park 20 cars, then I think we

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should be providing a tree for 20 cars. Because that's how our parking requirements, our landscape requirements are currently written. I think that we're selling ourselves short if we just say, "Oh, well they don't have any people working there, so we don't have any parking." Well, we still have all of this hardscape, and I think it would be prudent of us to require trees to help mitigate the impacts of that hardscape. Does that make sense? Then, my other question is regarding waste receptacles. I saw in the plan that it looks like a waste receptacle that's inside an enclosed space. Is that a dumpster, in fact?

Mr. Denning: That's correct.

Comm. Dukelow: And is that to accommodate chemical containers, or lunch, or everything?

Mr. Denning: No. We have some mechanical screening devices that are at this pump station. They're at the existing pump station as well, and they remove material that gets flushed or into the sewer system that cannot be pumped, and that is just put into the dumpster and removed by our waste management company.

Comm. Dukelow: Interesting. Okay, thank you for that.

Mr. Denning: Yeah, it's to protect our pumping –

Comm. Dukelow: So there's no need for a trash enclosure onsite in addition to that because it will all go in there?

Mr. Denning: It will be in the facility. Yeah, because we want to control any odors.

Chairman Lee: [inaudible]

Unidentified Speaker: [inaudible] talking about a consent agreement. Can you explain why [inaudible].

Mr. Denning: Sure.

Unidentified Speaker: Also, the life expectancy of this project once it's completed [inaudible] dollars invested.

Mr. Denning: Sure. I'll start with your first question on the Consent Agreement. The Nelson Complex, the treatment facility, is not able to meet the future permit limits that are required for ammonia and nutrients. Those are the main ones. So, when the state needs us to upgrade our treatment plant, it's required to be within a five-year permit cycle. For a project of this nature – and we currently are also reconstructing another wastewater facility in Leawood – five years is not enough time. So we entered a consent order with them to give us more time on this project and get it done. Also, to address our other needs throughout the system. We don't want to stop repairing things, replacing other things needed, so we worked out this integrated plan to allow us a 25-year planning period to be able to phase the projects and the things that need to happen to maintain our level of service. So really, the consent order just references our integrated plan, and really what it does is gives us time and allows us to stretch out those needs over a longer period, which helps us control our rates, and gives us more regulatory certainty.

The lifetime of the project – Wastewater equipment has a 15- to 20-year life. It lives a pretty rough life, and we replace that without modifying the architecture and so forth. The

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architecture could have a 50-plus-year life. It will be concrete with mason and brick, so it could have a 50- to 100-year life. The structure that is there now was originally built in the 1950's.

Comm. Braden: In the rezoning, does that that runs forever, or with just this space, or how does that work? [inaudible] would ever move and abandon that space, but I'm just curious if for some reason that would happen, what would happen to the site for the zoning of that space, that area?

Mr. Scott: The land is zoned. That will be in placed until it's changed. It's changed by you all, so it could be two years. It could be 200 years.

Comm. Braden: That's what I thought.

Mr. Scott: Yeah. When we rezone that to the MP, Industrial Park, which is suggested in the staff report, that will be in place as long as that facility is there. If for some strange reason they were to sell the facility and somebody wants to do something else with that property, at that point we would revisit the zoning, and it might have to be a different type of zoning, so it would be rezoned.

Comm. Braden: I mean, I don't ever see anything happening, but I was just thinking if for some reason they would abandon it in 10 to 15 years, would we be open to the chance of something going in there that we [inaudible]?

Mr. Scott: The same with the special use permit. The special use permit will run with the land, so if Johnson County Wastewater ever morphs into some other kind of entity, whether it be a true standalone wastewater district or an agency of the state, or whatever the case may be, they're still operating that pump station on that site or whatever that new entity is, that special use permit will still apply.

Chairman Lee: Additional questions?

Comm. Dukelow: Thank you, Mr. Chairman. I have one more comment. It's regarding the fencing that is shown on the preliminary development plan, and I know there was, again, there was some dialog about it in the report, but I understand it to be chain link on one side and iron on another side. Can you elaborate the areas of those two types of fencing material with the site plan, please?

Mr. Denning: Yeah. Brian, you might need to help me a little bit here, but didn't we decide...? Could you pull up the site plan again? The iron fence was to run, did we decide along Johnson Drive, the north side? Or the roadside, and then the other sides were going to be the...? Go back to the one you were just at. That was going to be along Roe, and then there was going to be chain link along the remainder of the facility.

Comm. Dukelow: I'm sorry. Did you say that the iron fence would be along Roe and Johnson Drive?

Mr. Denning: I believe it's just Roe. I think I misspoke. It's just along Roe, which is the bottom [inaudible].

Comm. Dukelow: Okay. Well, again I'm going to cite the Mission Design Guidelines, page 3-6, which prohibits chain link fencing. Now, I'm also going to say that this may be a

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slippery slope, because in 2008 that particular triangle wasn't included in the map, so I guess we have to decide if this is or is not part of the Johnson Drive Corridor and required to follow the Mission Design Guidelines, which I believe would have been the intent at that time. So, I guess that's just a detail they'd have to work out with City staff and through the final development plan, et cetera.

Mr. Denning: Yes. We'll work that out.

Comm. Dukelow: I just wanted to bring that to your attention, or to everyone's attention, really, tonight. Thank you.

Mr. Denning: Thank you.

Chairman Lee: Okay, at this time we'll open the meeting to the public, so if anyone would like to step forward and speak?

Mr. Denning: Could I just do one more thing before?

Chairman Lee: Sure.

Mr. Denning: Could you go to the slide right after the questions slide. I'd just like to bring up the open house slide again if anybody's interested. We are having an open house for the Nelson project to gather public input. We're not really going to show layouts and stuff yet. We're not that far along, but we do want to gather input on what is important to the residents. So, on September 29th, which is Wednesday, it's just a come-and-go at the plant, from 5:00 to 7:00. There will be people at the gates to direct people where to go, and that will be at the wastewater plant. On the 30th, there's a virtual Zoom option at 7p.m. for people that would prefer that. You do have to sign up for that because we have to send a link out. It's jcwnelson.com, and a little snippet of the website is right there. You just click on the red button and it walks you through that process. I appreciate the extra time, but if anybody's interested, we'd like to hear what everybody has got to [inaudible]. Thank you.

Chairman Lee: Great. Thank you.

Mr. Scott: That invitation is on the City's website as well. So anybody who missed that it's on the City's website.

Chairman Lee: If you would identify yourself and your residence.

Kim Donaway, Mission, Kansas, appeared before the Zoning Board and made the following comments:

Ms. Donaway: I'm a resident of Mission, Kansas, yet I own property that abuts – that's why I got the letter – that butts right back up to the proposed expansion. So I came here to see what was happening, because I wanted to address things to remember. And that's about odor. I was reading in that packet saying that it's not going to increase. I'm hoping it doesn't so it doesn't smell like the north side of Mission, which smells like sewer, which devalues everything down there. Longtime people know about that. The other is the aesthetics, because chain link is like looking at a heavy duty industrial, and we are in prime property location. Wrought iron is more aesthetically pleasing to look at when you're driving, even though it's a ramp. And then on the back side, I've never noticed the pump

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station before, because I butt up there. I'm not sure how high it will go to see from the back side. If it's going to be a whole lot higher, we're in the back yards now, and we would see that, so my main things are aesthetics, the odor. And then I saw the semi-trucks because I believe they're moving from where the bowling alley was, because they're having issues and talking about trucks before, and moving the stuff over there. So if those semi-trucks are coming in – that's why I assume they are – when are they coming in about noise? If it's in the middle of the night and you're going vroom, vroom, vroom, that thing going on, then that disrupts all of the residents of Fairway. So I'm addressing those things to consider that usually don't get addressed. I've never noticed lights on it in the evening because I've been taking up light pollution and light trespass. I do believe that the property needs to be protected by fencing to keep people out. That's it.

Chairman Lee: Thank you. Anyone else? Not seeing anyone, so we'll close the public portion of the meeting. Comments?

Comm. Dukelow: I do have a question regarding the odors, if I may, Mr. Chairman. And this is probably a question for the applicant. I know that odor is addressed in the staff report. So, I know that at the north site - Nelson station, forgive me – doesn't smell great up there. There's an area where it doesn't smell great, but I wasn't aware of any odors associated with this pump station that we are addressing tonight. Is that a concern? Because there aren't the open – I don't even know what they're called – areas? How is that addressed?

Mr. Denning: Yeah, so odor is always a concern when you've got raw sewage. That's just the nature of it. What we do right now and what we plan to do here is we actually add some chemicals into the system to suppress the odor from developing. That's actually added at the Brush Creek facility and at the current Martway facility. We've done that more over the last couple years, and I believe that's helped. There's also a carbon scrubber that exhausts through the pump station now to try to limit the foul air that's coming out of the pump station if there is any. The chemicals work pretty well to eliminate a lot of it, but there's a carbon scrubber there if needed. That's the [inaudible].

Comm. Braden: First of all, Robin, to address your issue, I don't notice odor there much, or at all, recently, but I know there has been in the past. I don't know if there was something that was not working correctly at the time, or whatever. It's been a long time.

Mr. Denning: In the last five years or so we've invested more in the chemical suppression, so hopefully that's helping. I'll say, even the odor control systems are mechanical systems, and mechanical systems will fail. We try to maintain our things as best we can, but I can't say there will never be an odor from a wastewater pump station. We do our best to keep up with that.

Comm. Braden: I just have one more question. Maybe it would help alleviate our citizen's concern. Will this plant be operated any different from the current plant, as far as trucks moving in and out, lighting and that type of thing?

Mr. Denning: The intent is no. They would be very similar to what's there now. Hopefully less maintenance with a new facility. We monitor all of our offsite stations via computer system, so we can tell what's going on from our main plant. But we've got to keep wastewater going so we'll go out there when needed.

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Comm. Braden: Thank you.

Mr. Scott: Mr. Chair, I'll draw your attention to item number 3, the special use permit, one of the conditions is "Odor control systems sufficient to eliminate any odors detectable from outside of the pump station shall be in place and operational for as long as a sanitary sewer pump station is operational." That's one of the conditions of the special use permit that's being proposed.

Chairman Lee: Thank you. Additional comments? [none]

Comm. Braden moved and Comm. Bruce seconded a motion that the Planning Commission recommend approval to the City Council of Case # 21-07 which is the approval of an application for rezoning, preliminary plat, preliminary development plan, and special use permit to operate a sanitary sewer pump station on the property addressed as 5701 Roe Avenue, in the City of Mission, with the conditions outlined in the staff report, and the stipulation that the fencing material is reviewed with City staff to make sure it conforms with the applicable design guidelines.

Comm. Dukelow: May I make a friendly amendment that we provide trees and/or landscape screening to mitigate the impacts of the hardscape drive and parking areas?

Comm. Troppito: I'll second that.

Chairman Lee: Call the role, please.

The vote was taken (6-0). **The motion passed.**

Chairman Lee: Thank you.

Old Business

Chair Lee: Any old business tonight? [none]

Planning Commission Comments

Chairman Lee: How about comments? [none]

Staff Updates

Mr. Scott: I do have some updates. We are filling positions in the Community Development Department. We had an office assistant position for a long time. Audrey was our last office assistant, and she was promoted to the position of City Clerk about a year-and-a-half ago. She was kind of set in that position during COVID. We've gone ahead and kind of reclassified that position, if you will, to a permanent tech. This would be an individual at the front counter that is accepting applications as they come in for us to review, making sure that the applications are complete and all the necessary material, the payment, possibly going through Building Official and Planner for review, following up with any requests for additional information, scheduling inspections for the Building Inspector. A little bit more of a technical position that can actually approve some permits over the counter, like fence permits, things that are pretty straightforward and easy.

We have hired somebody for that position, and they are going to start next Monday. We're excited about that opportunity. Today we held interviews for a planner. We had four really good applicants. We'll check references on a couple of them in the next couple days and

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hope to extend an offer to one of them by the end of the week. Hopefully by the next Planning Commission meeting we'll have somebody sitting next to me as the Planner.

We're also in the process of reviewing proposals for permitting software. We do everything by pencil and paper, spreadsheets, extremely antiquated. The City Council was gracious enough to leave some funding in last year's budget to purchase software. Actually, it will alleviate some of the responsibility of the permit tech because now a lot of this can be done online. A contractor or engineer, somebody can sit at home in the evenings, go to the City's website, pull up the application, complete it, submit all the materials, actually make payment online. We get it the next morning. We route it around electronically, online review, send questions back to the applicant for feedback and [inaudible], get our Public Works director involved in the process, reviewing things that are applicable for infrastructure and roads and so forth.

It will be a much slicker process, and we can use that not only for building permits and land use applications, but for business licenses, which is what Audrey is doing, the City Clerk's Office. Fees, and chicken permits that we issue, farms, businesses, a wide variety of applications, really anything that pertains to a piece of property in the city of Mission. We did an RFP. We issued that about a month, or two months ago. We got nine proposals back from software firms about three or four weeks ago, and we've been plowing through and reading those when we can find the time in schedules. We're hoping to wrap that up here in the next week or so, select three or four firms to actually invite to the city to do demos for us, to see how the software works and ask questions, and make a selection and present it to the City Council to [inaudible]. Things are moving along in the Community Development Department. Things are up to date in Kansas City, and things are up to date in Mission Community Development Department.

Commissioner Dukelow sent me an email a couple weeks ago. "Hey there, Brian. Cruising by the other day, and I was astonished to see this building in its renovated condition, so I did a bit of quick research." The building she's referring to is 5916 Dearborn. "I did a little bit of research. I have a few questions and comments about the referenced project as part of the Downtown District. I was shocked to see the entire building was clad in EFIS." She references the Mission Design Guidelines, page 4-5. "I understand the owner is a 501(c)3. Are they under our jurisdiction? Between 2020 and 2021, the appraised value increased by \$323," or maybe that's \$323,000, almost double. "They have made a significant investment. Did I miss a meeting or something?"

That is a good question, and I thought it would be good to have a discussion with you all tonight. The building that she is referencing the Down Syndrome Guild building which is really just a block over that way. The Down Syndrome Guild has been in our community for a long time. They've been leasing space in a two-story office building at 5919 Dearborn. They had the opportunity about a year or so ago to acquire the building immediately to the north, which I think had been a number of different offices. I remember an insurance office being in there. They purchased that building. They have an architect whose child has Down Syndrome and is kind of a part of that community that they operate in. He provided some pro bono work to basically redesign the building for them to meet their needs. We found out about it through a Facebook posting about a year-and-a-half

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ago. They were doing a fundraiser and got a bunch of money from the Sutherland Foundation and said, "Look, we got a great big donation to finally do our building."

Here's a picture of it. That was right at the beginning of COVID. So, I reached out to the Executive Director and said, "We didn't know anything about this," so he promptly gave me the name of the architect, and I wound up having a phone call with the architect. What they wanted to do was, essentially, I call it a reskin. It's to take off all of the existing skin of the building and put on a new skin. I kind of remember that building. It was a stucco building, kind of a tan stucco building. It had a Mansard roof. It was actually the building to the north with an addition to the south that was put on at a later date, so the original building I think was built back in the 1950's. The addition was put on sometime in the 60's or 70's. It had kind of an odd shape to it. There was off-street parking and some parking around the building. They didn't want to expand the size of the building. They didn't want to expand the height of the building. They just essentially wanted to reskin it. And then they wanted to gut the entire interior and put in a whole new interior with various meeting rooms for parents and children with Down Syndrome. Activity rooms, educational type rooms. They had done a nice job with it when it was complete.

So we went ahead and said it was okay, the staff. We did kind of an administrative review on it. Our only pushback, if you will, with some of the elements, for one thing, the original color of building would have portions of the building that were bright green, lime green. So that's not going to work. That's just not appropriate for our community. The wainscoting around the base of the building was stone. You see that in a lot of buildings today, the stone elements ring around pillars. We asked them to change that to brick. We asked them for more brick on the building, because again, pointing back to the Johnson Drive Design Guidelines, we wanted to complement the brick that's in other buildings, especially along Johnson Drive. They pushed back because of cost. Masonry can get very expensive. We kind of settled on, "If you change out the stone wainscoting for brick wainscoting around the building." We just kind of comped them with that. And "Can you not have the lime green? Can you come up with a different color scheme for the building?" So they came up with that kind of dark navy blue [inaudible].

It is a lot of EFIS. I think what we learned since then...and this is why you're starting to see more and more projects come to you, like the bar tonight. When I look through the Zoning Code and I look at each zoning district, for example, the MS1, Main Street District, there are permitted uses. There are height and area regulations, parking regulations, development standards, performance standards, and I get so excited looking at an application that sometimes I don't always read the very...The very last sentence of every zoning district, under performance standards, reads, "Plan approval prior to the issuance of any building permit for development or redevelopment, alteration, replacement or repair, site plan approval shall be obtained and provided in Chapter 440." So that seems pretty straightforward. It should be coming to the Planning Commission that any kind of alteration, like tonight, the addition to the back of the bar.

I go to 440, though, and I think this is what's happened in the past. Under 400.190, Consideration of Final Development Plans, "Revisions to approve final development plans which do not include significant changes may be approved administratively by the Community Development Director or his designee." It could say his or her. "Existing

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structures or developments being altered, replaced or repaired that do not contain significant changes may be approved administratively by the Community Development Director, regardless of whether approval for site plans apply.” That was something I used to rely on. That was something Danielle relied on. When I started doing this work after Danielle left I realized there were a lot of building alterations that were being done around the city that I don’t think you ever saw. A prime example of that would be the Starbucks. It used to be a Taco Bell. It sat vacant for a long time. Starbucks was interested in buying it and bidding it. She kind of relied on this provision to say, “Well, it’s not really a significant change to the building. We’re not changing the footprint of the building. We’re not increasing the height or density, not adding additional residential units. It’s essentially the same building, just kind of changing the use. That probably is a significant enough change that is should be brought to you all [inaudible].

I guess I kind of ask for some guidance. I’m not really sure what the history is of the Planning Commission and [inaudible, background noise] where I guess go ahead and do these administratively or...We run into challenges, too, with [inaudible, background noise] Johnson County Wastewater. They don’t want to spend the money on a wrought iron fence. That’s expensive. So we’re compromising with them saying, “Can you do a wrought iron fence on the primary road that faces the community, that being Roe, and you can do chain link fence in the back where it’s not as apparent to those that are sitting there [inaudible]?” So there’s always that kind of negotiation with an applicant about cost and what can be done, and us pointing to the Design Guidelines and pointing to the Zoning Code, and then that [inaudible]. Probably if we brought more of these applications to the Planning Commission we might get a little bit more leverage to have some higher standards in place. Any kind of statement or questions?

Chairman Lee: In the past, as I recall, it’s primarily whoever was making the decision of how much of a change it really was. I think there was a magic number they would pull out of the hat every time as to what that percentage should be. Probably for the most part it probably wasn’t bad. But if you’re using the Starbucks example, where yes, the building plan didn’t really change, but the whole look of the place changed, the use really changed, that probably is one we should see, even though it may not be a huge ticket item.

Comm. Braden: I would say reskinning their entire building would be a significant [inaudible].

Comm. Dukelow: Can’t hear you, Stuart.

Comm. Braden: Oh, I’m sorry. I would say [inaudible].

Comm. Dukelow: So, we mentioned Starbucks, but the other one that I would... Starbucks used to be Taco Bell and all of this, so we didn’t see that, but we saw the Taco Bell when they moved back. And that was, if I remember correctly, that was based on their dollar amount of investment.

Mr. Scott: That’s the struggle I had, was the initial applicant that came shortly after Danielle left, we had a McDonald’s that wanted to essentially reskin their building. They wanted to update it with a new look like they’re doing across all the McDonalds. That was within the Form Based Code District. The question becomes how you make the applicant follow the Form Based Code. That’s when I looked back to another example that had

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been done in the Form Based Code, and I found the Starbucks. So how did staff treat that at that time? Staff did an administrative review and worked with the applicant to make some changes, and signed off on it. I didn't feel real warm and fuzzy about that, frankly. So I talked with Pete Heaven about it, who's our land use attorney. Pete suggested, "Look at that non-conforming situation permit." So that non-conforming situation permit, if you have anything in terms of improvement to a building that's greater than 10 percent of the value of the building then that would trigger going to the Planning Commission. So that's why we brought it to you for Starbucks, the old Taco Bell, which is now Slim Chickens. The old Jiffy Lube, whatever it was, that's now a Valvoline. Johnny's Bar-B-Q, which is now a Stem Salon. Qdoba, which is now the new Taco Bell. We've brought a series of those to you over the last several years, just for that reason. But this building of the Down Syndrome Guild is not in the Form Based Code District. It's outside of the Form Based Code District.

Comm. Dukelow: It's in the Johnson Drive Corridor.

Mr. Scott: Yeah, it would be the Johnson Drive Design Guidelines.

Comm. Dukelow: Governed by the Guidelines, and that's the snag. And also, ten percent. They increased the value of that building by \$300,000 in a year. That's got to be ten percent.

Mr. Scott: Yeah, well I'm looking at the value of the building at the time of the applicant, not after the application and work has been done. So, what I'm asking for is, what is the cost to the work to be done, and is that greater than ten percent of the value of the building? The Down Syndrome deal I probably should have asked for the value of the work to be done, then determine it against the value of the building. And that obviously would be greater than ten percent. This kind of an application of a, does that apply for the Form Based Code District, or does that apply for everything in all the commercial areas of the city? Basically Roe, all the way down Johnson Drive?

Comm. Dukelow: In response to that, we see several small changes along Johnson Drive, businesses coming and going. They've got to be getting licenses and some sort of permit to re-configure plumbing or do whatever they're doing in them. I mean, it's a continual thing down there. But [gap in recording, distortion] I think that [gap in recording] across the board.

Mr. Scott: We struggle with the Design Guidelines, frankly. The Design Guidelines stipulation, for example, the colors. The colors should be an earth tone, terra cotta, taupe, brown. We have people, "I want to paint my building gray." We go around with them, go around with them, to the point where you just kind of give in and say, "Fine, go paint your building gray." Sometimes they do it and they don't even consult us. We come back to work on Monday and there's a gray building there. When did that happen? It happened over the weekend. Go back and paint the building again? There's been a lot of change in ownership along Johnson Drive in the last few years. It would probably behoove staff to kind of re-educate folks on the Design Guidelines. One of the things I've been wanting to do with the Comprehensive Plan update is to re-evaluate the guidelines. Do they still make sense? I got a lot of pushback from the architects and contractors that were working on the Down Syndrome building. They wanted to build a building that they felt was more

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modern. They didn't really want something that would be reflective some of the older buildings along Johnson Drive, the brick, the colors. They wanted something that was distinct, unique, kind of spoke to their identity as an organization, to their community that they serve. Besides the art and architecture, it's a matter of taste, and what I may find attractive somebody else may not.

Comm. Dukelow: I agree that that's not our place. I don't think it's our place exactly. Well, I mean, you know, everybody would say that it's art. Part of it's art. Part of it's science, but there's a juggling act there. One of the reasons, though, that the EIFS is not supposed to go down to grade is because it's just going to get abused. It's not a sturdy, durable material to have below three feet. That was...And yes, they have a brick wainscot, but it's only at the playground, behind the fence.

Mr. Scott: It's all around the building. I'll have to go back and look, but it should have been all the way around the building.

Comm. Dukelow: I'll have to take a peek, drive around it. Okay. I don't know. I don't know what the answer is. Probably based on the value. What do you all think?

Comm. Braden: Value, but at the same time, if maybe you don't have whatever that number is, percentagewise, but if it's a total change to the exterior, you almost have to have a little of both.

Comm. Dukelow: It's a tough call. I mean, I'm sure you have to be able to just process some things. I have no idea how much comes through. Maybe that's what we all need to do – a day in the life of a city planner in the City of Mission.

Mr. Scott: If brought everything that came to us through you all, the balance between your time, staff time, preparing staff reports, the applicant's time...Time is money. [inaudible] ...tell them it's six to eight weeks to go to the Planning Commission [inaudible] and that's the amount of time it take to get the plans to us, the staff, for us to review those, get back to them with comments, a public hearing with to process [inaudible] period of time, go sign the papers, send letters to neighbors [inaudible].

Comm. Dukelow: Well I mean, we're not any slower than anybody else, are we?

Mr. Scott: Bigger cities have meetings more often. They have a bigger agenda.

Comm. Braden: Speaking of permits, I do have a question. I just noticed on Lamar somebody had poured concrete driveway in the front of their house. It looked to me like the whole front yard was basically concrete. I think they just did it last week or maybe the week before, and I don't remember what our percentage of impervious space versus grass or other type of hardscape is, but it looked like a lot more than I would have expected to see.

Mr. Scott: [inaudible] percent. [inaudible]

Comm. Braden: No. It's probably between 53rd and 59th or somewhere on the east side of the street.

Mr. Scott: [inaudible]

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ADJOURNMENT

With no other agenda items, **Comm. Troppito, seconded by Comm. Dukelow, made a motion to adjourn.**

The **motion carried unanimously.** The meeting adjourned at 8:26 P.M.

Mike Lee, Chair

ATTEST:

Audrey McClanahan, Secretary

STAFF REPORT
Planning Commission Meeting February 28, 2022

NEW BUSINESS AGENDA ITEM: 1

PROJECT NUMBER / TITLE: Case #22-01 - Preliminary Development Plan for a Multi-family Residential Development for Adults Aged 55

REQUEST: Case #22-01 - Consideration of a Preliminary Development Plan for a Multi-family Residential Development for Adults Aged 55+ to be known as Mission Preserve

LOCATION: 9.6-acre site at the Southwest Corner of 51st St and Riggs (Parcel ID: KF251205-2001)

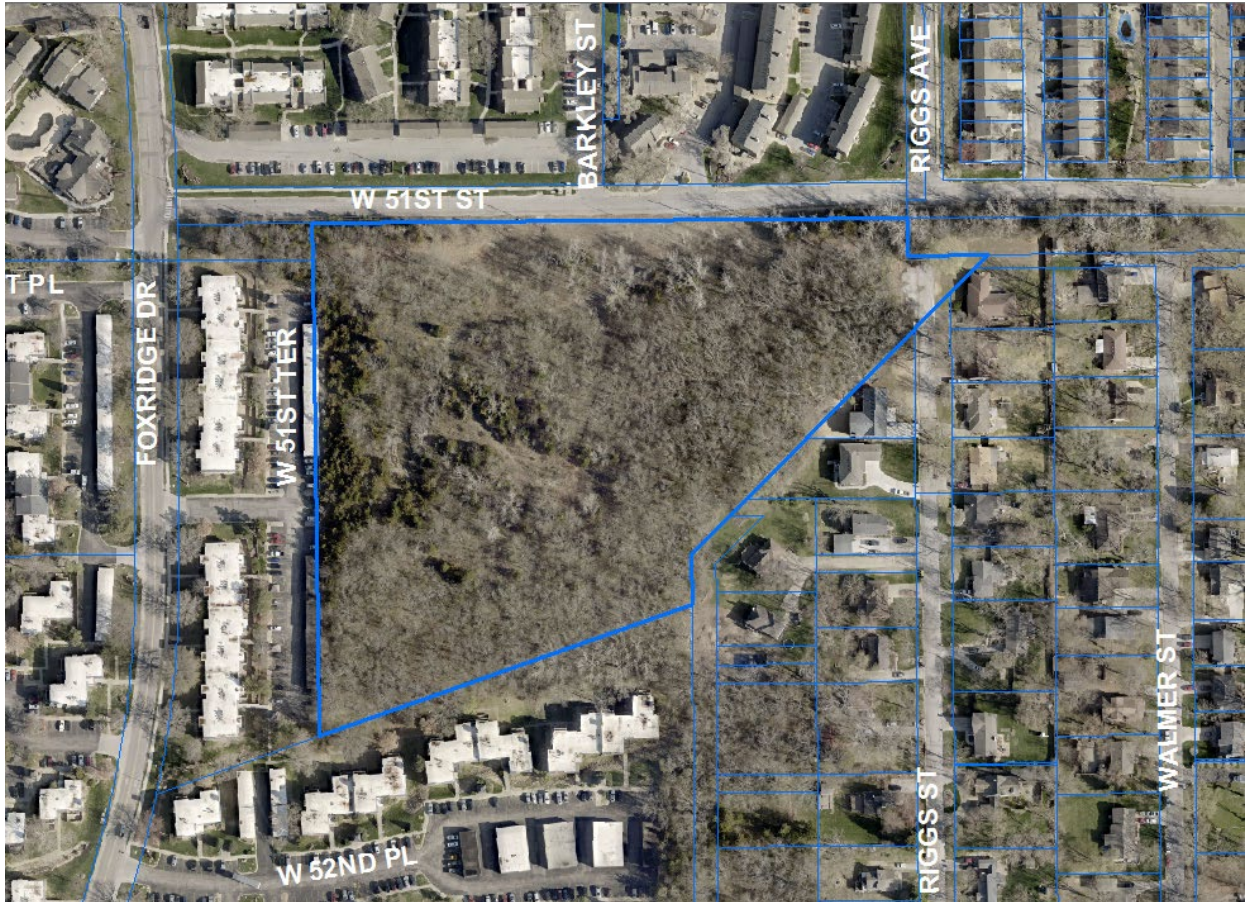
Abbreviated Legal Description: 5-12-25 BG 305.81' E NW CR NE1/4 SW1/4 E 111.64' SW 588.30' S 140.99' SW 517.01' N 654.16' E 389.28' N 50' E 420.71' S 50' TO POB & W 389.28' E 504.18' SW1/4 NW1/4 LYG S OF 51 ST EX PT IN RD 9.9468 ACS M/L MIC 92

APPLICANT: Jason Ferdig, Owner
Stride DevCo. LLC
Louisville, CO

STAFF CONTACT: Brian Scott, Deputy City Administrator

ADVERTISEMENT: February 8th, 2021 – The Legal Record

PUBLIC HEARING: February 28th, 2021 – Planning Commission



Property Information

The subject property is a 9.6-acre, undeveloped parcel located on the south side of West 51st Street, east of Foxridge Drive and west of Riggs Street.

The property is zoned RP-5 – Planned Senior Adult Residential District. This zoning designation is intended to provide housing opportunities for independent seniors aged 55 years and older or assisted living and skilled nursing facilities. This zoning has been in place since the late 1980s.

There have been two previously approved development projects for the property that were never constructed - The Gables of Mission, a 132-unit multi-family development approved in 1987, and Mission Falls, a 203-unit multi-family development approved in 2007. Both projects were intended for those 55 years of age or older seeking an independent lifestyle housing opportunity.

The property is currently moderately wooded, with a hill crest or ridge in the center, steep slopes, and rock outcroppings.

Zoning and Use of Surrounding Property

North: “R-6” High-Rise Apartment District – Wellington Club apartment complex (built in 1972) and Foxfire apartment complex (built in 1984)

East: “R-1” Single-Family Residential District – Single-family homes along Riggs Street (built dates vary from 1920 to 1980)

South: “R-4” Garden Apartment District – Bridges at Foxridge apartment complex (built in 1970)

West: “R-4” Garden Apartment District – Bridges at Foxridge apartment complex (built in 1973)

Comprehensive Plan and Future Land Use Map

The proposed comprehensive land use plan (Tomorrow Together, City of Mission Comprehensive Land Use Plan for 2040) indicates the subject property as High-Density Residential. This is consistent with the current comprehensive land use plan, adopted in 2007, and previous comprehensive land use plans dating back to 1968.

Project Information

Stride DevCo LLC (hereafter, Stride) purchased the property last summer. Stride proposes to construct a 132-unit, multi-family development on the site, marketed to individuals aged 55 years or older who are seeking an active, independent lifestyle. Assisted living and/or long-term nursing care will not be a part of this project. The proposed development is known as Mission Preserve.

Project Description

The proposed development consists of two residential structures (east and west) connected by a structure serving as a clubhouse with entryway and lobby, leasing offices, shared workspace offices for residents, and a general seating and lounge area with a chef’s kitchen.

The clubhouse is one-story while the two residential buildings are four-stories each. Due to the grade change, the west building has a basement with direct at-grade-access. The basement contains resident storage area, bike storage, and a workshop area. The total square footage for the development is 186,140 square feet with a 57,490 square foot building footprint.

There are 20 one-bedroom apartments and 112 two-bedroom apartments for a total 132 units (244 bedrooms). Stride believes the second bedroom will be an attractive option for residents who want a guest room, home office, or craft room.

The development offers several outdoor amenities including patio area with barbecue grill, fire pit, sun deck, and swimming pool. A community garden, small dog park, and pickleball court are proposed on the south side of the development. A walking trail on the north will extend northwest into an existing forested area.

Building Design and Components

Exterior building materials include a 10-foot-high stone veneer base around each of the two residential buildings with lap siding above. Each building has two sections that project slightly from the façade creating alternating wall plans that break up the façade to a more human scale and provide visual interest. The projections are surfaced in cement fiber board with trim to cover the seam, creating a board and batten look. The roofs will have a 12/4 pitch covered in composition shingles.

The one-story clubhouse has a similar design and exterior elements. The portico at the front of the building over the driveway and a cupola on the roof with windows provide natural lighting for the lobby and lounge area within.

Landscaping

The applicant is attempting to preserve many of the existing trees on site around the building footprint. The largest area of preserved trees and vegetation will be in the northeast corner of the site, but trees around the entire perimeter of the site, especially on the south side will be maintained.

Within the site there will be variety of ornamental trees, interior shade trees, evergreens and shrubs. Stride proposes two small ponds on the property, one on the north side at the entrance drive and the other on the south side of the property. The ponds serve as attractive landscape elements, as well as storm water detention basins.

Site Access and Parking

Primary access to the development is a single point entrance at 51st Street, approximately midpoint of the property's north frontage. From the entrance, there is an approximately 720-foot driveway up the hillside to the entrance of the clubhouse or around the building to the west parking lot. A secondary western access aligns with a dedicated easement that runs through the apartment complex west of Foxridge Drive.

Stride proposes a small parking lot on the north with 15 parking spaces adjacent to the clubhouse. There are three larger, primary parking lots; one on the west (75 parking spaces), one on the south (46 parking spaces), and one on the southeast (48 parking space). There are a total of 184 parking spaces and carports are on the interior side of the parking lots, adjacent to buildings, for resident parking.

The fire marshal reviewed the preliminary site plan and is not concerned with fire access at both access points or the ability for fire apparatus to maneuver throughout the site.

Site Configuration

The property is an unusual shape with the north and west property lines forming a 90-degree angle at the northwest corner, and the east property line forming a 45-degree angle at the northeast corner. At the northeast corner, the property line returns in southwesterly direction. The northeast corner of the property crosses the north end of Riggs Street and cuts into a portion of the front yard of the property at 5101 Riggs Street. City staff requested a dedicated

right of way to the city for the northern terminus of Riggs Street and to provide the remaining portion in fee simple to the owner of 5101 Riggs. This dedication will be further addressed in the final plat.

Code Review and Analysis – Zoning

R-5 (RP-5) – Planned Senior Adult Residential District at Section 410.050 of the Mission Municipal Code provides the following zoning restrictions:

Permitted Uses. In District R-5, no building, structure, land or premises shall be used and no structure shall be hereafter erected, constructed, reconstructed or altered except for one (1) or more of the following uses:

1. Apartment structures designed for occupancy by persons of retirement age, primarily fifty-five (55) years and older, who do not require continuing or intensive health care.
2. Congregate living facilities for persons of retirement age.

Analysis: The proposed project is a multi-family residential development for individuals aged 55 or older who seek an independent lifestyle. There will be congregate living facilities as part of this project. The proposed project is a permitted use in this zoning.

Height And Area Regulations Generally. The minimum lot area per occupant, minimum lot and yard dimensions, and building height shall generally conform to the following guidelines:

Every apartment house hereafter constructed, reconstructed or converted shall provide a lot area per unit of not less than the following:

2 Bedroom Unit	1,400 square feet
1 Bedroom Unit	1,100 square feet

Every congregate living facility hereafter constructed, reconstructed or converted shall provide a lot area per occupant of not less than five hundred (500) square feet.

Living floor area shall be not less than the following:

2 Bedroom Unit	700 square feet
1 Bedroom Unit	500 square feet

The Planning Commission and City Council may grant relief from the above guidelines upon a showing of good cause or due to unique circumstances and exceptional design.

Analysis: The proposed project will have only one and two-bedroom apartments. The zoning stipulates a lot area of not less than 1,100 square feet per one-bedroom unit and 1,400 square feet per two-bedroom unit.

The west residential building area is approximately 102,800 square feet. There are four (4) one-bedroom apartments on each of the four floors in the building for a total of sixteen (16) units in the building and a 17,600 total square foot lot area required for one-bed room units. There are sixteen (16) two-bedroom units on each of the four floors in the building for a total of sixty-four (64) units in the building and a 89,600 total square foot lot area required for two-bedroom units.

Total lot area required for the number and type of units in the west building is 107,200, or 4,400 square feet greater than the actual building size of 102,800 square feet.

The east residential building is approximately 70,600 square feet. There is a one (1) one-bedroom apartment on each of the four floors for a total of four (4) one-bedroom units and a 4,400 total square foot lot area required for one-bedroom units. There are twelve (12) two-bedroom units on each of the four floors for a total of forty-eight (48) two-bedroom units and a 67,200 total square foot lot area required for two-bedroom units.

Total lot area required for the number and type of units in the west building is 71,600, or 1,100 square feet greater than the building size.

Lot Area per Apartment Building	West Building	East Building	Club House
Total Sq. Ft. Required for One Bedroom	17,600	4,400	
Total Sq. Ft. Required for Two Bedroom	89,600	67,200	
Total Square Footage Required	107,200	71,600	
Total Square Footage Provided	102,800	70,600	12,740
Difference	(4,400)	(1,000)	

When calculating the lot area per one or two-bedroom unit, common areas of the building are included in the calculation. The zoning stipulation of 1,100 square feet of lot area does not mean that the unit itself must be 1,100 square feet. Rather, a portion of the common area of the building is included in the 1,100 square feet requirement.

Actual unit sizes proposed for the project are as follows:

- One-Bedroom = 1,040 Square Feet
- Two-Bedroom (A) = 1,072 Square Feet
- Two-Bedroom (B) = 1,144 Square Feet

Furthermore, the total square footage of the project (all three buildings) is equal to approximately 186,140 square feet, while the entire site is 434,598 square feet, or a ratio of building to land of 43%. It is the desire of the applicant and the City to preserve open space on the property. Therefore, a slightly lesser lot area per unit is acceptable to provide more open space on the property.

Yards. No building shall be located closer than twenty-five (25) feet to a property line provided greater setbacks may be required in the planned zoning process.

Analysis: The three buildings are grouped together in the center of the property. Both the west and east apartment buildings are set back approximately 100' from the property lines, almost four times the distance required by the zoning regulations.

Height. No minimum or maximum height except as determined in the planned zoning process.

Analysis: The two residential buildings are proposed to be four stories in height, which is acceptable in the "RP-5". The height of the buildings is comparable to other multi-family developments in the area.

In addition, the east building will be sitting lower than the nearest home off of Riggs. A cross section of the elevation difference indicates that the home would be even third level of the residential building.

Parking. For multi-family residential buildings hereafter constructed, reconstructed, or converted for the exclusive use of persons fifty-five (55) years of age or older, one (1) parking space shall be provided on the premises for each bedroom, but only one (1) space for each three (3) bedrooms need be improved and paved until such time as parking demand, as determined by the City Council, requires the pavement of additional space. Until such deferred parking is required to be approved, the City Council may require the area of said parking to be preserved as landscaped open space.

Analysis: There are 244 bedrooms for the proposed development. A literal interpretation of the code requires only 73 parking spaces (244 divided by 3). However, there are 132 units (one and two-bedrooms), so a minimum of 132 parking spaces are needed. Stride proposes 184 parking spaces. The additional parking spaces are for employees of the development and visiting family or guests. There will also be a certain percentage of both one-bedroom and two-bedroom units that have two drivers per unit. Staff believes the proposed number of 184 parking spaces is adequate for the proposed development. Additionally, Stride proposes to construct car ports within parking lots located on the interior, adjacent to the buildings. Carports are a permitted accessory use.

Code Review and Analysis – Landscaping, Stormwater, and Traffic

Landscaping:

The landscape plan preserves the natural wooded area in the northeast corner of the site and provides an area for a walking trail. There will be a wooded buffer around much of the property, especially on the south end.

Section 415.090 of the Mission Municipal Code stipulates that “in all zones one (1) tree is required for each fifty (50) feet of street frontage or portion thereof. Said trees shall be planted within the landscape setback abutting said street frontage. Trees may be clustered or arranged within the setback and need not be placed evenly at fifty (50) foot intervals.” Because much of the natural woodland, especially along 51st Street will remain, Stride believes this requirement has been met. There are also obstacles that prevent additional landscaping along the street frontage, including overhead powerlines, the proposed sidewalk, and the existing hillside. Staff is supportive of this position but recommends that landscaping is added in the future if the powerlines are buried.

The portion of the developed site will include new trees. Trees shown on the plan include ornamental trees such as Serviceberries, Redbuds, and Dogwoods; shade trees such as Red Oak and Silver Lindens; and evergreens such as Red Cedar and Norway Spruce. Section 415.090 stipulates that one tree is provided for every 3,000 square feet of open space. There is 222,963 square feet of open space on this site which equates to 74 trees, which are provided in addition to the existing woodlands according to the landscape plan. The quantity and variety of trees meets the requirements in Section 415.060 et seq of the Mission Municipal Code. In addition, there are a variety of shrubs throughout the site.

Section 415.110 of the Mission Municipal Code stipulates that all parking lots with more than 25 parking spaces shall include at least 6% of landscaping per lot. Parking lot landscaping islands spaced throughout the parking area contain shade trees and ground covering. Based on the number of parking spaces, nine (9) parking lot trees are required. The plan proposes thirteen (13) trees within parking lot areas.

Sidewalk

Section 515.360 of the Mission Municipal Code stipulates, “Sidewalks shall be installed by the subdivider/developer on both sides of all primary and secondary thoroughfares and collector streets and on one (1) side of all local residential streets. Sidewalks shall be required only on peripheral streets in industrial parks. All sidewalks shall be not less than four (4) feet in width, of Portland cement concrete and shall comply with the specifications of the City. Sidewalks shall be located in the platted street right-of-way abutting the property line, and whenever setbacks allow, these sidewalks shall be separated from the street curb by a distance of at least five (5) feet and landscaped with street trees as indicated in Section [240.070](#). Walks shall also be installed in any pedestrian easements as may be required by the Planning Commission.

Stride proposes to construct a five-foot wide sidewalk in the City’s right-of-way from the development’s entrance point toward the west to Foxridge Drive and connecting with the existing sidewalk on Foxridge Drive.

Stormwater

Stride proposes that site runoff is conveyed via underground storm sewer and drainage flumes to two proposed detention basins – one on the north side of the site and one on the south side of the site. The overall drainage patterns will generally remain the same on the site. The northern portion of the site drains to a north-central detention basin and the southern portion of the site drains southward to a southwest detention basin. The proposed detention basins are designed for the 1-year, 10-year, and 100-year storm projections at release rates that are less

than existing conditions. Final details on stormwater and detention basin design will be provided in the Final Stormwater Management Report to be submitted with the Final Development Plan.

Traffic

Stride submitted a Traffic Impact Study (TIS) to document traffic and trip generation for the proposed development. The proposed trip generation for multifamily housing (mid-rise) estimates a total of 583 vehicles per day, with 46 a.m. peak hour trips and 52 p.m. peak hour trips. Based on the proposed trip generation, it is anticipated that there will be minimal impacts to existing traffic on surrounding arterials, including 51st Street and Foxridge Drive.

Code Review and Analysis – Preliminary Development Plan

Section 440.160 of the Mission Municipal Code provides the standards and criteria for consideration of site plans. Section 440.160 (D) provides the following:

The site plan shall be approved if it is determined that the following criteria are satisfied:

1. The site is capable of accommodating the building(s), parking areas, and drives with appropriate open space.

Analysis: the subject property is capable of accommodating the buildings, parking areas, and drives as proposed. The applicant developed a plan that takes advantage of the natural features of the site and preserves as much open space as possible.

2. The plan provides for safe and easy ingress, egress, and internal traffic circulation.

Analysis: the proposed site plan provides for safe and easy ingress and egress to the development from 51st Street as well as Foxridge Drive through the Bridges at Foxridge apartment complex.

3. The plan is consistent with good land planning and site engineering design principles.

Analysis: The proposed site plan is consistent with good land planning and site engineering.

4. An appropriate degree of harmony will prevail between the architectural quality of the proposed building(s) and the surrounding neighborhood.

Analysis: The architectural quality of the proposed development is in keeping with other development projects that surround the site. Proposed materials are consistent with the City's design guidelines.

5. The plan represents an overall development pattern that is consistent with the Comprehensive Plan and other adopted planning policies.

Analysis: The proposed development project is consistent with the type of development that has been identified in the City's comprehensive land use plans dating back to 1968, as well as the proposed updated comprehensive land use plan. It is also consistent with

the zoning category that was established for this property in 1987.

6. Right-of-way for any abutting thoroughfare has been dedicated pursuant to the provisions of Chapter [455](#).

Analysis: Right-of-way has been identified in the site plan and a sidewalk is proposed.

When reviewing an application for a preliminary development plan, consideration is given to whether the application is compatible with the designated zoning district and the overall comprehensive land use plan of the City. Staff believes this is the case for the Mission Preserve proposed development.

Recommendation:

Staff recommends that the Planning Commission recommend to the City Council approval of Case #22-01 – Consideration of a Preliminary Development Plan for a Multi-Family Residential Complex for Adults Aged 55+ – with the following conditions:

Conditions of Approval:

1. A final development plan will be submitted to the City and approved by the Planning Commission prior to the issuance of any building permits.
2. A Final Stormwater Management Report will be required with the Final Development Plan submittal. The stormwater report will document stormwater infrastructure and detention basin design details, subject to review and approval by Public Works staff.
3. An application for a Land Disturbance Permit shall be submitted to, and issued by, the City before any clearing, grading, digging or blasting occurs on the site.
4. The applicant shall submit a Final Site Plan and construction documents to the City for review and approval prior to building permit issuance.
5. A Final Plat shall be approved by the Planning Commission before building permit issuance.
6. The applicant shall obtain all approvals from the Consolidated Fire District No. 2 prior to building permit issuance.
7. The applicant shall obtain all approvals from Johnson County Wastewater and Johnson County Water District #1 prior to building permit issuance.
8. The applicant shall be responsible for all damage to existing City infrastructure, including roads, curbs, and sidewalks. Repairs shall be of a quality like or better than existing conditions before final Certificate of Occupancy issuance.
9. The applicant shall provide a two (2) year warranty bond on all public infrastructure installed as part of this Preliminary Development Plan; bond(s) will be placed on file with the City of Mission Community Development Department.
10. This Preliminary Plan approval shall lapse in five (5) years from its effective date if construction on the project has not begun, or if such construction is not being diligently pursued; provided, however, that the applicant may request a hearing before the City Council to request an extension of this time period. The City Council may grant an extension for a maximum of 12 months for good cause.

Planning Commission Action: To be considered by the Planning Commission on February 28, 2022

City Council Action: To be considered by the City Council on March 9, 2022



Mission Preserve: Development Narrative

Stride DevCo (owner), is requesting a change to the previously approved Mission Falls Development Plan which allowed for the construction of 240 senior independent living apartment units on the 9.85 acres located at approx. 51st St. and Foxridge Drive, identified by Johnson County Parcel# KF251205-2001. The property is currently zoned RP-5, Senior Adult Residential District. Stride DevCo's proposal is to update the current development plan to build 132, 55+ age restricted, active adult multifamily living units and to name the development "Mission Preserve".

While Mission Preserve will be available for residents over the age of 55, the typical actual average age of the residents at similar age-restricted active adult apartments upon move-in is reported to be 70 to 73, with actual ages ranging from 62 to 90. These residents will be healthy and active and able to live independently. They do not require or desire the supportive services that are typically offered and required at full-service independent living communities, such as meals, housekeeping, laundry services, etc. The main motivations for moving into an active adult Senior apartment are to downsize, simplify living arrangements, access a maintenance-free lifestyle, security, and socialization. They find value in social activities and amenities such as a fitness center, social activity/gathering areas, and outdoor areas such as landscaped courtyards with seating areas, swimming pool, barbeque grill, gardening areas and direct connections to Mission's public sidewalks, parks, and streets along both 51st St and Foxridge Drive. Stride DevCo will continue to work with staff to identify the best location for the new city sidewalk connecting Mission Preserve's main entrance on 51st St. to Foxridge Drive.

The Clubhouse will provide additional guest amenities including Management and leasing offices, conference rooms, a guest business center with related facilities, a library and media center, internet/computer center, mail/package room, grand dining room and private dining areas, a large demonstration kitchen, a wet bar, aerobic and fitness rooms with equipment, guest toilet and locker facilities, a multipurpose room, in-house theatre, and janitorial/housekeeping space. In addition, the south half of the basement area of Building Area 3 contains additional flex space that could be utilized for: crafts, social gatherings, additional conference rooms and offices, additional guest storage space, and additional mechanical, electrical, and maintenance rooms. This area is also served by an elevator for ADA access.

Stride DevCo will work openly with the Sustainability Commission throughout the approval process to identify and implement sustainable design standards through the site planning stages as well as building design, construction, and management.

Recognizing that adjoining property owners are likely concerned about the effect of the development on their property, every component of this project was evaluated to minimize their impact. The Mission Preserve Development Plan significantly increases the building setbacks from those of the previously approved development plan as well as those required by zoning or code. The minimum distance from the building to any

property line is >80 ft. Increasing the setbacks also allows for greater lighting design flexibility to reduce the nighttime impact of the project on neighboring properties.

The location of the access points for the property will remain the same as previously approved. The main access to the project is off 51st Street extending to the south with an entry island and community monument sign dividing the dedicated entry and exit lanes. The secondary access is located off Foxridge Drive from the west side of the property. The secondary access will utilize the existing 30 ft Non-Exclusive Ingress-Egress Easement. Vol. 836, PG. 659.

Care has been taken to ensure fire and emergency vehicles have full access and adequate maneuvering capabilities throughout the site, including a 96 ft turnaround at the NE corner of the building. The final development plans for the fire flows, number and location of fire hydrants, size of the fire service line, verification if a fire pump will be required, location of FDC and other fire service features will be reflected on the applicable civil sheets and provided to the Fire Marshal and Building Official for review as part of the FDP and construction documents. Final development plans for the complete building fire sprinkler and fire alarm systems will be provided to the Fire Marshal and the Building Official for review as deferred submittals.

The site plan provides for 183 parking spaces, 10 of which will be handicapped accessible. Special emphasis has been given to preserving as much of the existing wooded area as possible while also providing for the adequate detention, building footprint, sidewalks, drives and parking areas. Preserving existing wooded areas allows for private walking trails to be included at the northeast area of the property. If city council determines that additional parking is required, additional preserved wooded area can be cleared to allow for 1 parking space per bedroom for a total of 244 parking spaces.

Mission Preserve is comprised of a one-story Clubhouse at the center of the structure (Building Area 1) and two, four story wings containing the living units (Building Areas 2 and 3). Building Area 2 is an L shaped wing to the southeast of the common clubhouse and consists of 13 living units on each floor totaling 52 units. Building Area 3 is a slightly angled wing extending to the northwest and southwest of a common entry and consists of 20 living units per floor totaling 80 units which gives the project a total of 132 living units. The unit mix for the project is (a) 112 2- bedroom units with 2 bathrooms and (b) 20 1- bedroom units with a den and 1 ½ bathrooms.

The Clubhouse and living areas will be constructed to meet all current building codes as directed by the Mission Building Department. Construction will include 2x6 wood frame structure and a truss roof system. Exterior finishes will include a combination of lap siding, board and batten siding, and stone veneer with no more than 4 colors on the building facade. Ground level floors will be slab on grade. Interior wall and ceiling finishes will be primarily drywall but may include wood or tile accents. Interior floor finishes will include carpet, tile, and other hard surface finishes on lightweight concrete over plywood decking. Both living unit building areas are served by elevators and stairs and all three building areas will be protected by fire sprinkler systems in accordance with current applicable code.

Jason Ferdig – Owner
Stride DevCo, LLC



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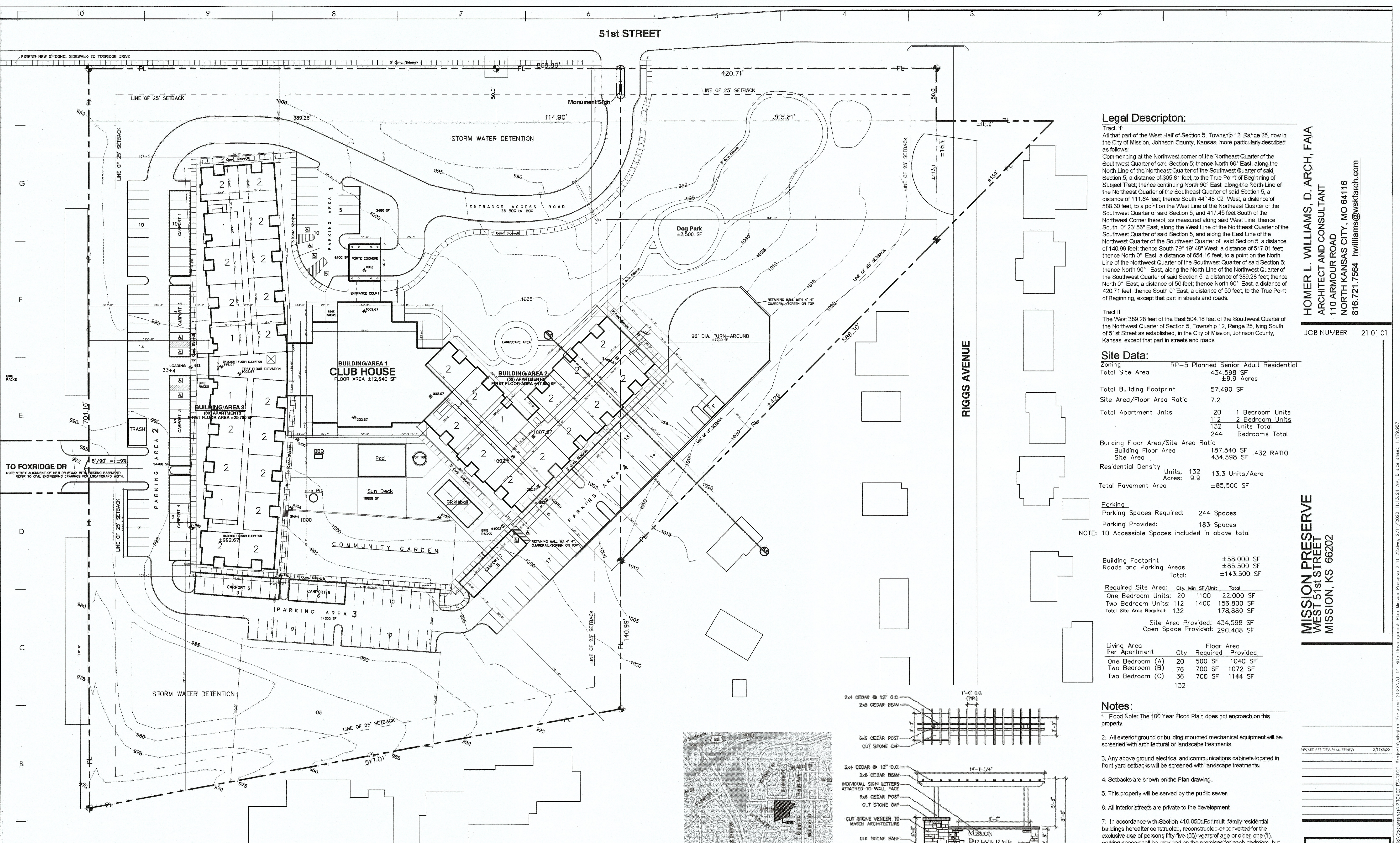
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Jason Ferdig – Owner
Stride DevCo, LLC



Legal Description:
 Tract 1:
 All that part of the West Half of Section 5, Township 12, Range 25, now in the City of Mission, Johnson County, Kansas, more particularly described as follows:
 Commencing at the Northwest corner of the Northeast Quarter of the Southwest Quarter of said Section 5; thence North 90° East, along the North Line of the Northeast Quarter of the Southwest Quarter of said Section 5, a distance of 305.81 feet, to the True Point of Beginning of Subject Tract; thence continuing North 90° East, along the North Line of the Northeast Quarter of the Southwest Quarter of said Section 5, a distance of 111.64 feet; thence South 44° 48' 02" West, a distance of 588.30 feet, to a point on the West Line of the Northeast Quarter of the Southwest Quarter of said Section 5, and 417.45 feet South of the Northeast Corner thereof, as measured along said West Line; thence South 0° 23' 56" East, along the West Line of the Northeast Quarter of the Southwest Quarter of said Section 5, and along the East Line of the Northwest Quarter of the Southwest Quarter of said Section 5, a distance of 140.99 feet; thence South 79° 19' 48" West, a distance of 517.01 feet; thence North 0° East, a distance of 654.16 feet, to a point on the North Line of the Northwest Quarter of the Southwest Quarter of said Section 5; thence North 90° East, along the North Line of the Northwest Quarter of the Southwest Quarter of said Section 5, a distance of 389.28 feet; thence North 0° East, a distance of 50 feet; thence North 90° East, a distance of 420.71 feet; thence South 0° East, a distance of 50 feet, to the True Point of Beginning, except that part in streets and roads.

Tract II:
 The West 389.28 feet of the East 504.18 feet of the Southwest Quarter of the Northwest Quarter of Section 5, Township 12, Range 25, lying South of 51st Street as established, in the City of Mission, Johnson County, Kansas, except that part in streets and roads.

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 ARCHITECT AND CONSULTANT
 110 ARMOUR ROAD
 NORTH KANSAS CITY, MO 64116
 816.721.7564 hwilliams@wskfarch.com

Site Data:

Zoning	RP-5 Planned Senior Adult Residential
Total Site Area	434,598 SF ±9.9 Acres
Total Building Footprint	57,490 SF
Site Area/Floor Area Ratio	7.2
Total Apartment Units	20 1 Bedroom Units 112 2 Bedroom Units 132 Units Total 244 Bedrooms Total
Building Floor Area/Site Area Ratio	187,540 SF .432 RATIO Site Area 434,598 SF
Residential Density	Units: 132 13.3 Units/Acre Acres: 9.9
Total Pavement Area	±85,500 SF

Parking
 Parking Spaces Required: 244 Spaces
 Parking Provided: 183 Spaces
 NOTE: 10 Accessible Spaces included in above total

Building Footprint	±58,000 SF
Roads and Parking Areas	±85,500 SF
Total:	±143,500 SF

Required Site Area:	Qty.	Min SF/Unit	Total
One Bedroom Units:	20	1100	22,000 SF
Two Bedroom Units:	112	1400	156,800 SF
Total Site Area Required:	132		178,800 SF
Site Area Provided:			434,598 SF
Open Space Provided:			290,408 SF

Living Area Per Apartment	Qty	Floor Area Required	Provided
One Bedroom (A)	20	500 SF	1040 SF
Two Bedroom (B)	76	700 SF	1072 SF
Two Bedroom (C)	36	700 SF	1144 SF
		132	

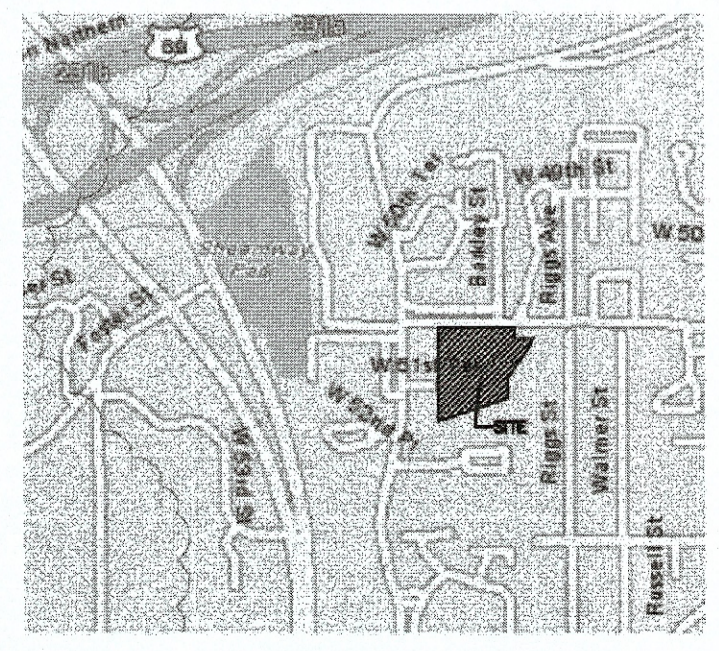
- Notes:**
- Flood Note: The 100 Year Flood Plain does not encroach on this property.
 - All exterior ground or building mounted mechanical equipment will be screened with architectural or landscape treatments.
 - Any above ground electrical and communications cabinets located in front yard setbacks will be screened with landscape treatments.
 - Setbacks are shown on the Plan drawing.
 - This property will be served by the public sewer.
 - All interior streets are private to the development.
 - In accordance with Section 410.050: For multi-family residential buildings hereafter constructed, reconstructed or converted for the exclusive use of persons fifty-five (55) years of age or older, one (1) parking space shall be provided on the premises for each bedroom, but only one (1) space for each three (3) bedrooms need be improved and paved until such time as parking demand, as determined by the City Council, requires the pavement of additional space. Until such deferred parking is required to be approved, the City Council may require the area of said parking to be preserved as landscaped open space.

MISSION PRESERVE
 WEST 51st STREET
 MISSION, KS 66202

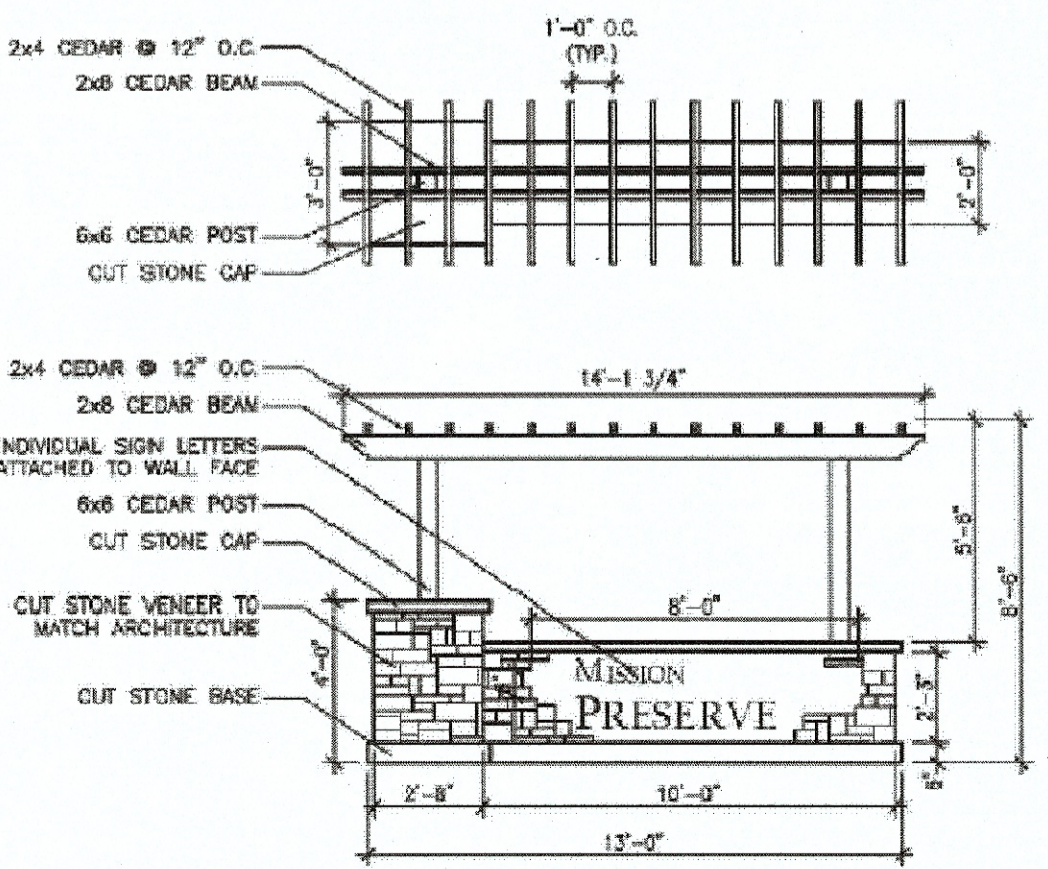
REVISION PER DEV. PLAN REVIEW 2/11/2022

SITE DEVELOPMENT PLAN
A1.01

SITE PLAN
 NORTH
 SCALE: 1" = 40'-0"



VICINITY MAP:



ENTRY MONUMENT
 SCALE: 1/4" = 1'-0"

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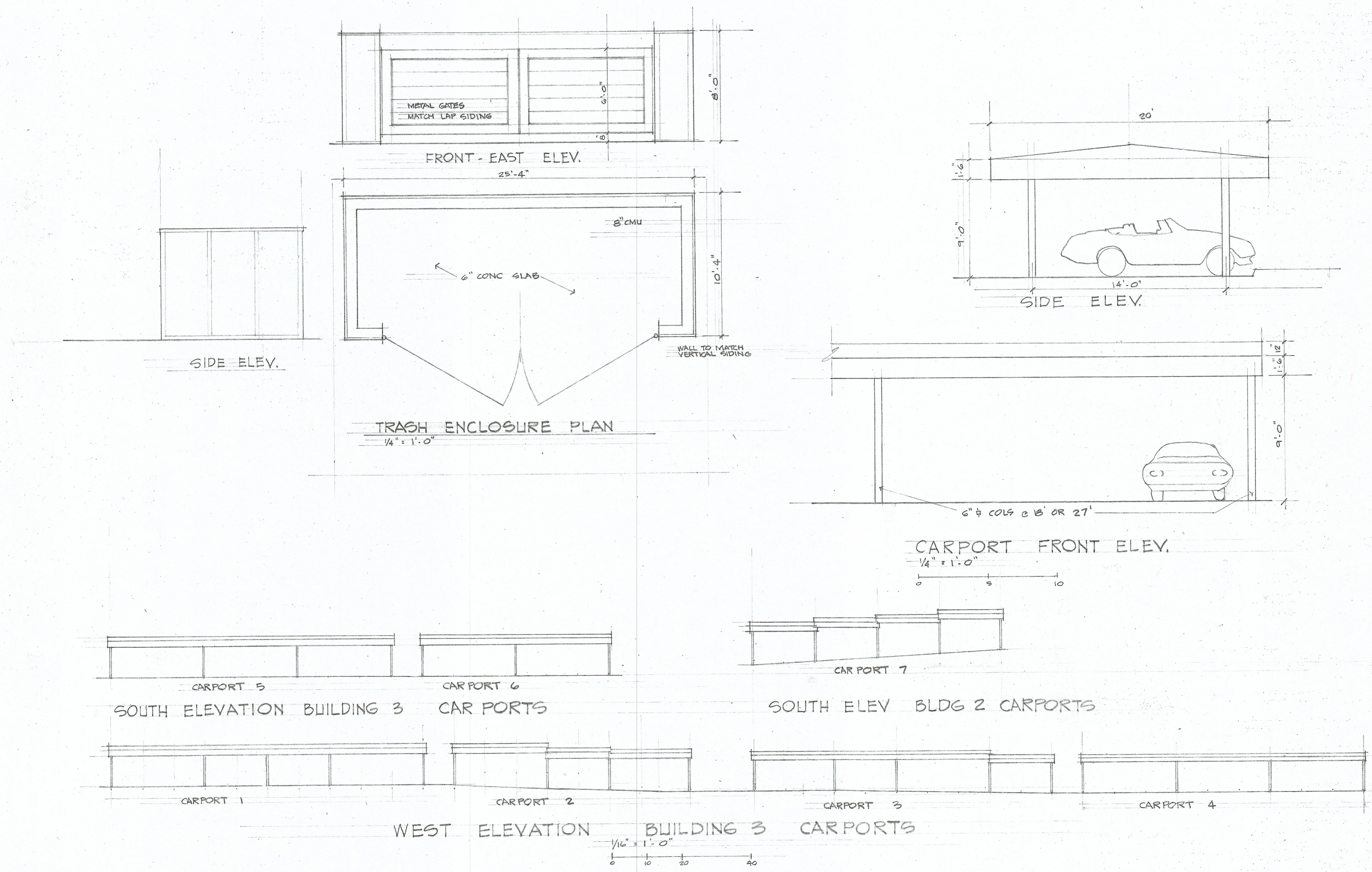
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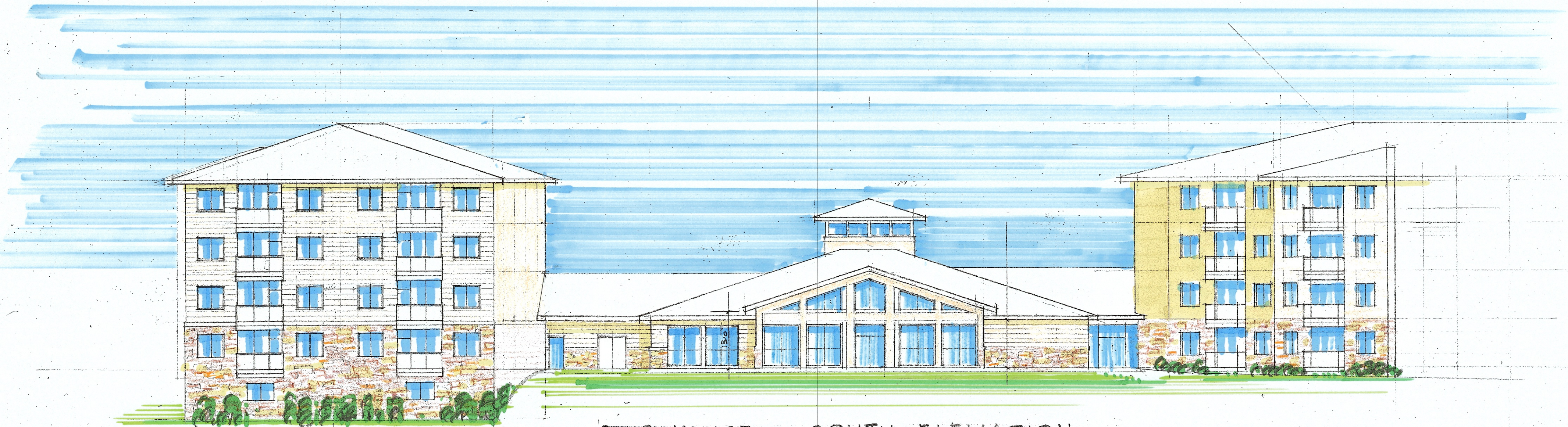
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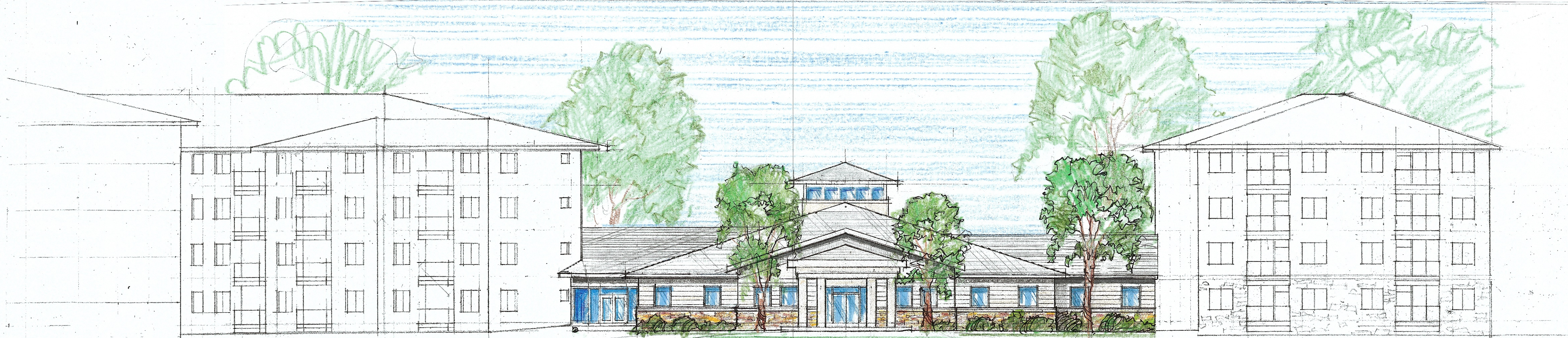
CARPPTS +
 TRASH ENCL

A3.10





CLUB HOUSE SOUTH ELEVATION
 1/16" = 1'-0"



CLUB HOUSE NORTH ELEVATION
 1/16" = 1'-0"

MISSION PRESERVE
 AT MISSION, KS

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2-11-2022

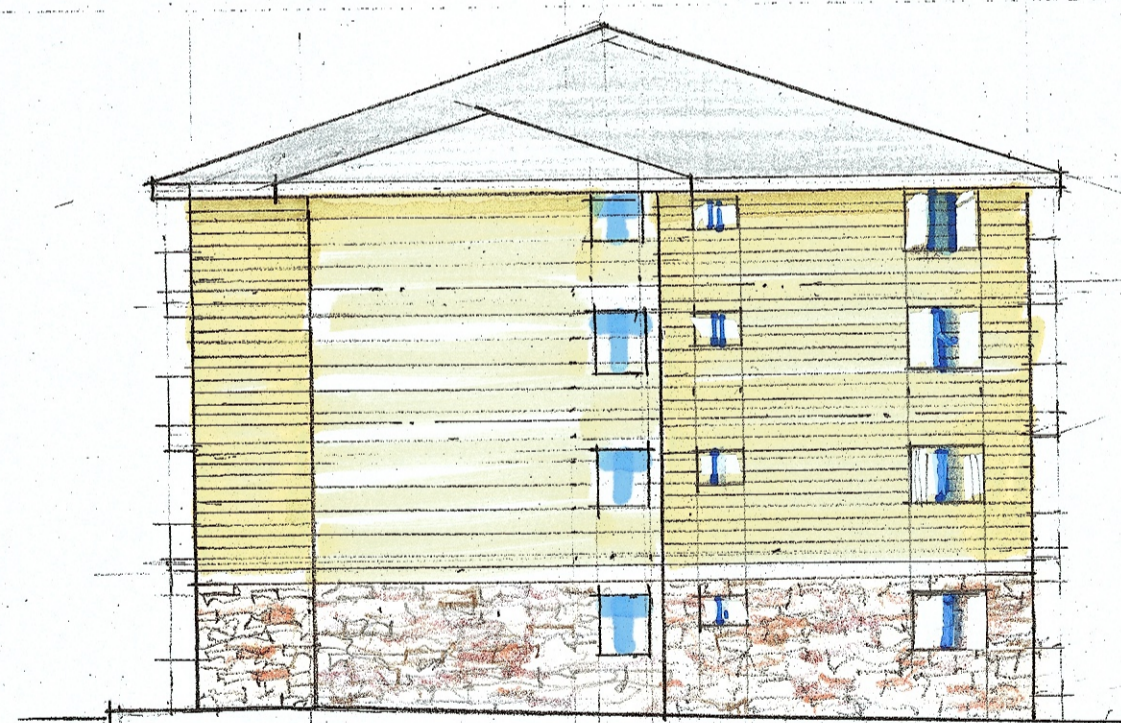
RENDERING 1
 A4.10



NORTHWEST ELEVATION BUILDING 2
1/16"



SOUTHEAST ELEVATION BUILDING 2
1/16"



NORTHEAST ELEVATION BUILDING 2
1/16"



SOUTHWEST ELEVATION BUILDING 2
1/16"

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JOB NUMBER

MISSION PRESERVE
AT MISSION, KS

2-11-2022

RENDERING 2

A4.20



WEST ELEVATION
1/16" = 1'-0"



EAST ELEVATION
1/16"

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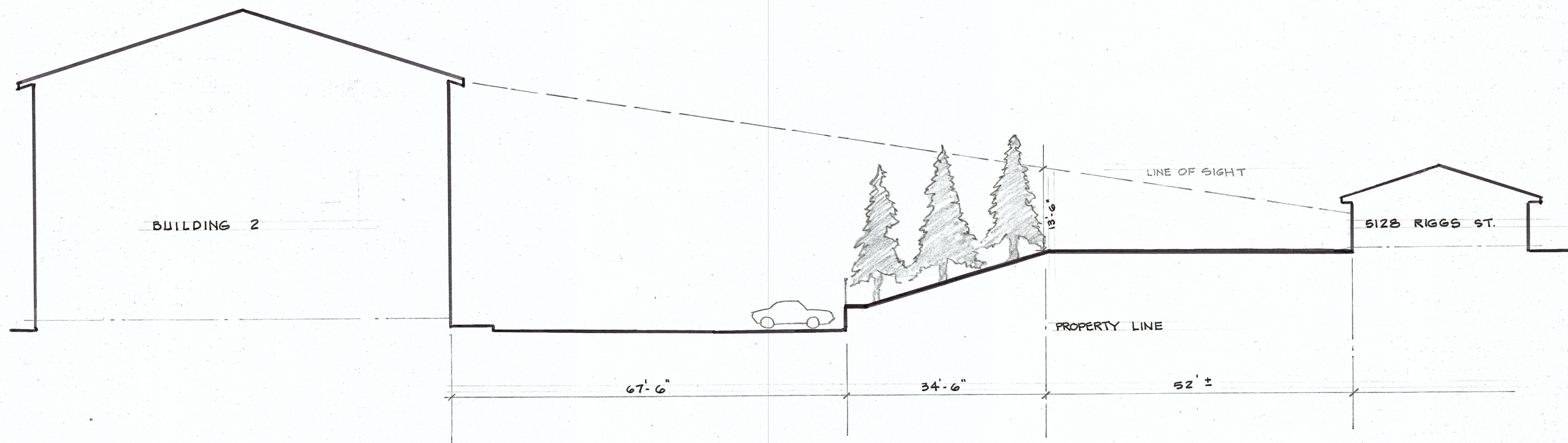
JOB NUMBER

MISSION PRESERVE
AT MISSION, KS

2-11-2022

RENDERING 3

A4.30



SECTION AA

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MISSION PRESERVE
 AT MISSION, KS

2-11-2022

LINE OF SIGHT

A4.40

TRAFFIC IMPACT STUDY

MISSION PRESERVE

MISSION, KANSAS

Prepared For:
STRIDE DEVCO, LLC

Prepared By:
Janelle Clayton, PE, PTOE

January 9, 2022



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INTRODUCTION

This study summarizes the development characteristics and trip generation for the proposed Mission Preserve multi-family residential development generally located south of W 51st Street and east of Foxridge Drive in Mission, Kansas. The approximate location of the proposed development is shown in the Google Earth image below.



This study addresses items #1-#5 in the City of Mission's *Transportation Impact Study Guidelines*, generally identifying the development, land uses, existing and proposed streets and driveways, and trip generation.

DEVELOPMENT & LAND USES

The proposed Mission Preserve development consists of 132 apartment units targeted for the ages of 55 plus. The apartments are planned in two separate four-story buildings; one with 80 units and one with 52 units. A separate clubhouse building will be located between the two apartment buildings. Parking is generally located around the west, south, and east perimeter of the site. The proposed site plan is shown on **Exhibit 1**.

Existing multi-family apartments surround the development to the west, south, and north. Single-family homes are adjacent to the development on the east side.

The Mission Comprehensive Plan depicts the existing land use (Figure 2.3) for the proposed site as “Ag/Vacant” and the future land use (Figure 5.1) as “Residential, High Density.”

ADJACENT ROADWAY NETWORK

W 51st Street is a two-lane asphalt east/west roadway with a posted speed limit of 25 miles per hour (mph). It is generally 24’ wide with one lane in each direction and curb and gutter.

Foxridge Drive is a two-lane asphalt north/south roadway with a posted speed limit of 35 mph. It is generally 24’ wide with one lane in each direction, curb and gutter, and includes pavement markings and signage for on-street bicycle facilities.

PROPOSED ACCESS

Two access points are shown for the development. A full-access driveway is proposed to intersect W 51st Street and will line up with the existing Glenwood Street/Foxfire Apartment Drive to the north, located approximately 745’ east of the Foxridge Drive intersection. This proposed driveway access will provide one 12’ lane outbound, one 12’ lane inbound, with a raised median between the two lanes.

An additional full-access point will be provided on the west side of the development via connection to the existing W 51st Terrace / Bridges of Foxridge Entry #5 that intersects Foxridge Drive. The driveway connection is proposed to be 24’ wide, providing one lane eastbound and one lane westbound. It will provide a direct connection to the existing W 51st Terrace / Bridges of Foxridge Entry #5.

INTERSECTION SIGHT DISTANCE

Intersection sight-distance measurements were taken in the field at the intersections of W 51st Street & the Proposed Driveway and Foxridge Drive & W 51st Terrace / Bridges of Foxridge Entry #5. Based on AASHTO's *A Policy on Geometric Design of Highways and Streets*, the amount of sight distance that is desirable for a 25-mph road (W 51st Street) is 280' for a left-turning vehicle (Case B1) and 240' for a right-turning vehicle (Case B2). The amount of sight distance that is desirable for a 35-mph road (Foxridge Drive) is 390' for a left-turning vehicle (Case B1) and 335' for a right-turning vehicle (Case B2).

The results of the intersection sight distances recorded in the field are summarized below. It should be noted that if available sight distance was over the recommended value, a field measured value of ">distance" is recorded below. If the sight distance requirements were not easily reached by simple observation, actual distances were recorded.

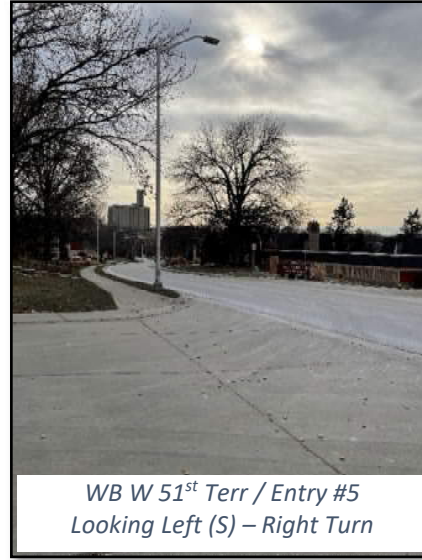
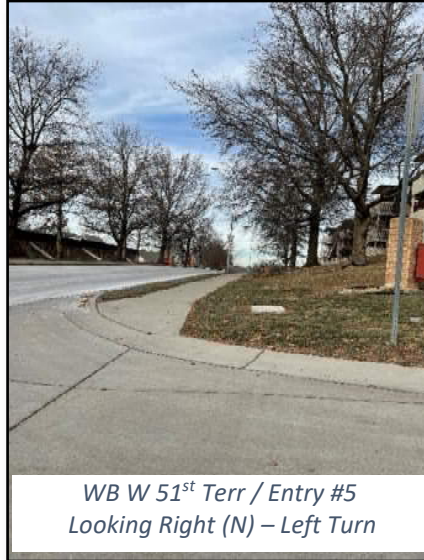
W 51st Street & Proposed Drive

	<u>AASHTO Recommended</u>	<u>Field Measured</u>
Left-Turning Vehicle	280'	308'
Right-Turning Vehicle	240'	>750'



Foxridge Drive & W 51st Terrace / Bridges of Foxridge Entry #5

	<u>AASHTO Recommended</u>	<u>Field Measured</u>
Left-Turning Vehicle	390'	400'
Right-Turning Vehicle	335'	>1,000'



TRIP GENERATION

The estimated trip generation for the proposed Mission Preserve development was based upon the 11th Edition of the Institute of Transportation Engineers (ITE) *Trip Generation Handbook*. The Land Use code assumed for the apartments was 221 – Multifamily Housing (Mid-Rise). **Table 1** depicts the trip generation for the site.

Table 1: Proposed Trip Generation

Land Use	Qty	Unit	ADT (VPD)	AM Peak Hour (VPH)			PM Peak Hour (VPH)		
				TOTAL	IN	OUT	TOTAL	IN	OUT
221 – Multifamily Housing (Mid-Rise)	132	DU	583	46	10	36	52	32	20
Total Trips			583	46	10	36	52	32	20

As the property is currently vacant and the land use is consistent with the Comprehensive Plan, no trip generation comparisons are listed.

We appreciate the opportunity to serve you on this very important project. Please feel free to contact us if you should have any questions.

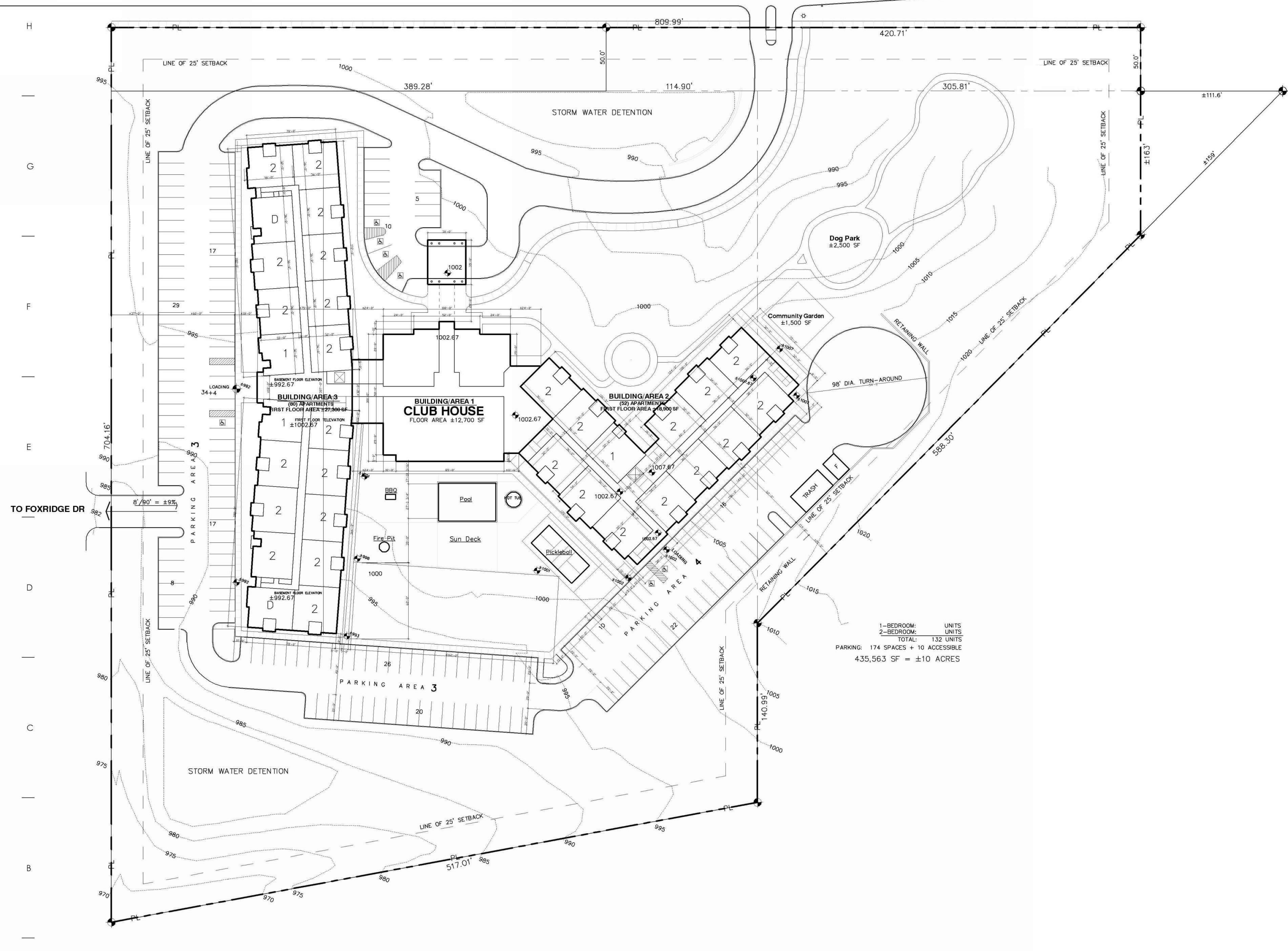
Respectfully submitted,

Merge Midwest Engineering, LLC

A handwritten signature in blue ink that reads "Janelle M. Clayton". The signature is written in a cursive style with a large, stylized initial "J".

Janelle M. Clayton, P.E., PTOE
Manager / Co-Owner

EXHIBIT 1



1-BEDROOM:	UNITS
2-BEDROOM:	UNITS
TOTAL:	132 UNITS
PARKING: 174 SPACES + 10 ACCESSIBLE	
435,563 SF = ±10 ACRES	

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JOB NUMBER 21 01 01

MISSION PRESERVE
 WEST 51st STREET
 MISSION, KS 66202

PRELIMINARY DESIGN 1/6/2022

NORTH

SITE PLAN

SCALE: 1" = 40'-0"

C:\Users\David\Documents\PROJECTS\2021\Projects\Mission_Preserve\1.06.22.dwg, 1/6/2022 5:00:18 PM, D_size sheet, 1:480



Appendix



Trip Generation

Multifamily Housing (Mid-Rise) Not Close to Rail Transit (221)

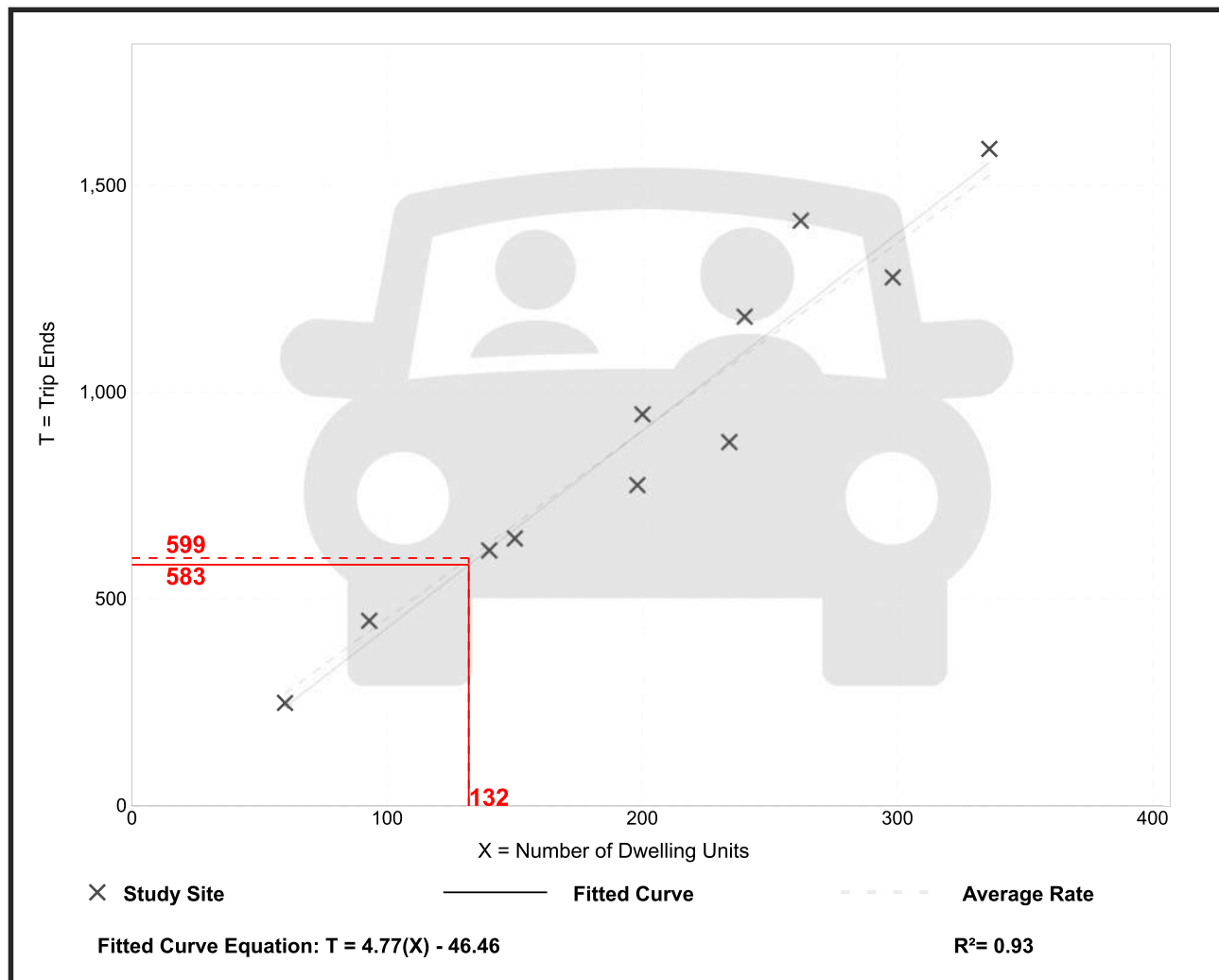
Vehicle Trip Ends vs: Dwelling Units
On a: Weekday

Setting/Location: General Urban/Suburban
Number of Studies: 11
Avg. Num. of Dwelling Units: 201
Directional Distribution: 50% entering, 50% exiting

Vehicle Trip Generation per Dwelling Unit

Average Rate	Range of Rates	Standard Deviation
4.54	3.76 - 5.40	0.51

Data Plot and Equation



Calculated Trip Ends:

Average Rate: 599 (Total), 299 (Entry), 300 (Exit)

Fitted Curve: 583 (Total), 291 (Entry), 292 (Exit)

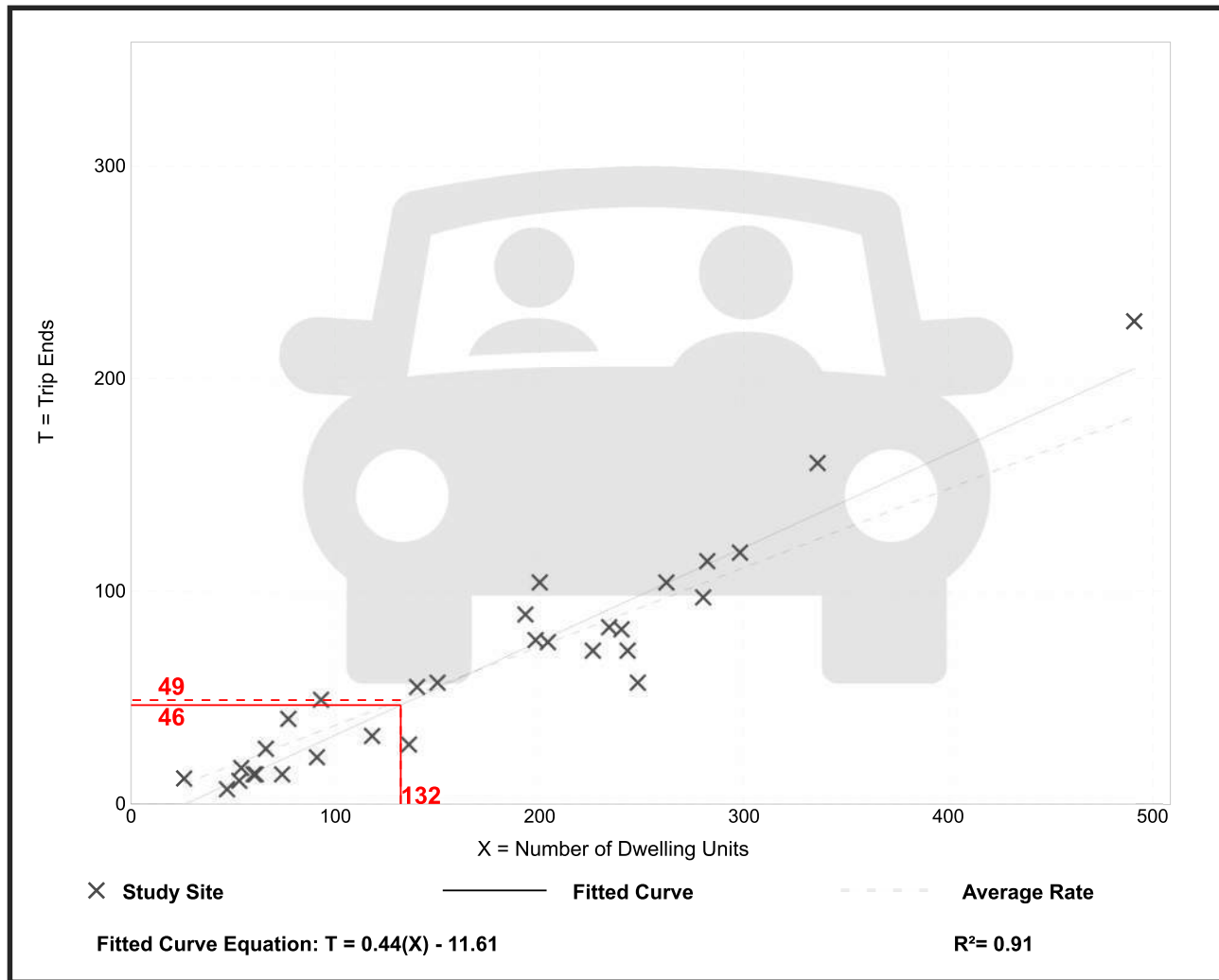
Multifamily Housing (Mid-Rise) Not Close to Rail Transit (221)

Vehicle Trip Ends vs: Dwelling Units
 On a: Weekday,
 Peak Hour of Adjacent Street Traffic,
 One Hour Between 7 and 9 a.m.
 Setting/Location: General Urban/Suburban
 Number of Studies: 30
 Avg. Num. of Dwelling Units: 173
 Directional Distribution: 23% entering, 77% exiting

Vehicle Trip Generation per Dwelling Unit

Average Rate	Range of Rates	Standard Deviation
0.37	0.15 - 0.53	0.09

Data Plot and Equation



Calculated Trip Ends:

Average Rate: 49 (Total), 11 (Entry), 38 (Exit)

Fitted Curve: 46 (Total), 10 (Entry), 36 (Exit)

Multifamily Housing (Mid-Rise) Not Close to Rail Transit (221)

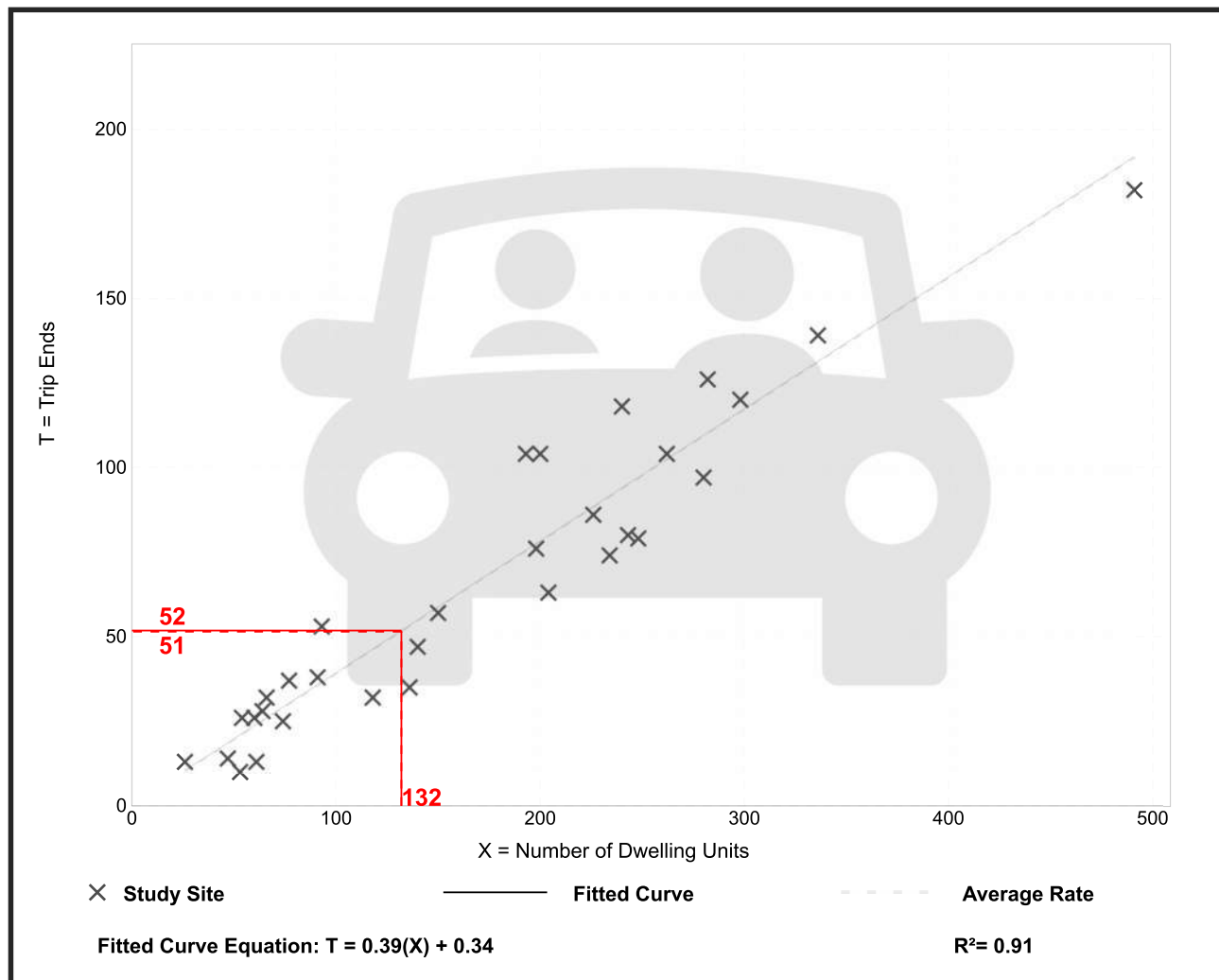
Vehicle Trip Ends vs: Dwelling Units
On a: Weekday,
Peak Hour of Adjacent Street Traffic,
One Hour Between 4 and 6 p.m.

Setting/Location: General Urban/Suburban
Number of Studies: 31
Avg. Num. of Dwelling Units: 169
Directional Distribution: 61% entering, 39% exiting

Vehicle Trip Generation per Dwelling Unit

Average Rate	Range of Rates	Standard Deviation
0.39	0.19 - 0.57	0.08

Data Plot and Equation



Calculated Trip Ends:

Average Rate: 51 (Total), 31 (Entry), 20 (Exit)

Fitted Curve: 52 (Total), 32 (Entry), 20 (Exit)

NEW BUSINESS AGENDA ITEM: 2

PROJECT NUMBER / TITLE: Case #22-02, Mission Preserve Preliminary Plat

REQUEST: Consideration of a Preliminary Plat for a Multi-Family Residential Complex for Adults Aged 55+

LOCATION: 9.6-acre site at the Southwest Corner of 51st St and Riggs (Parcel ID: KF251205-2001)

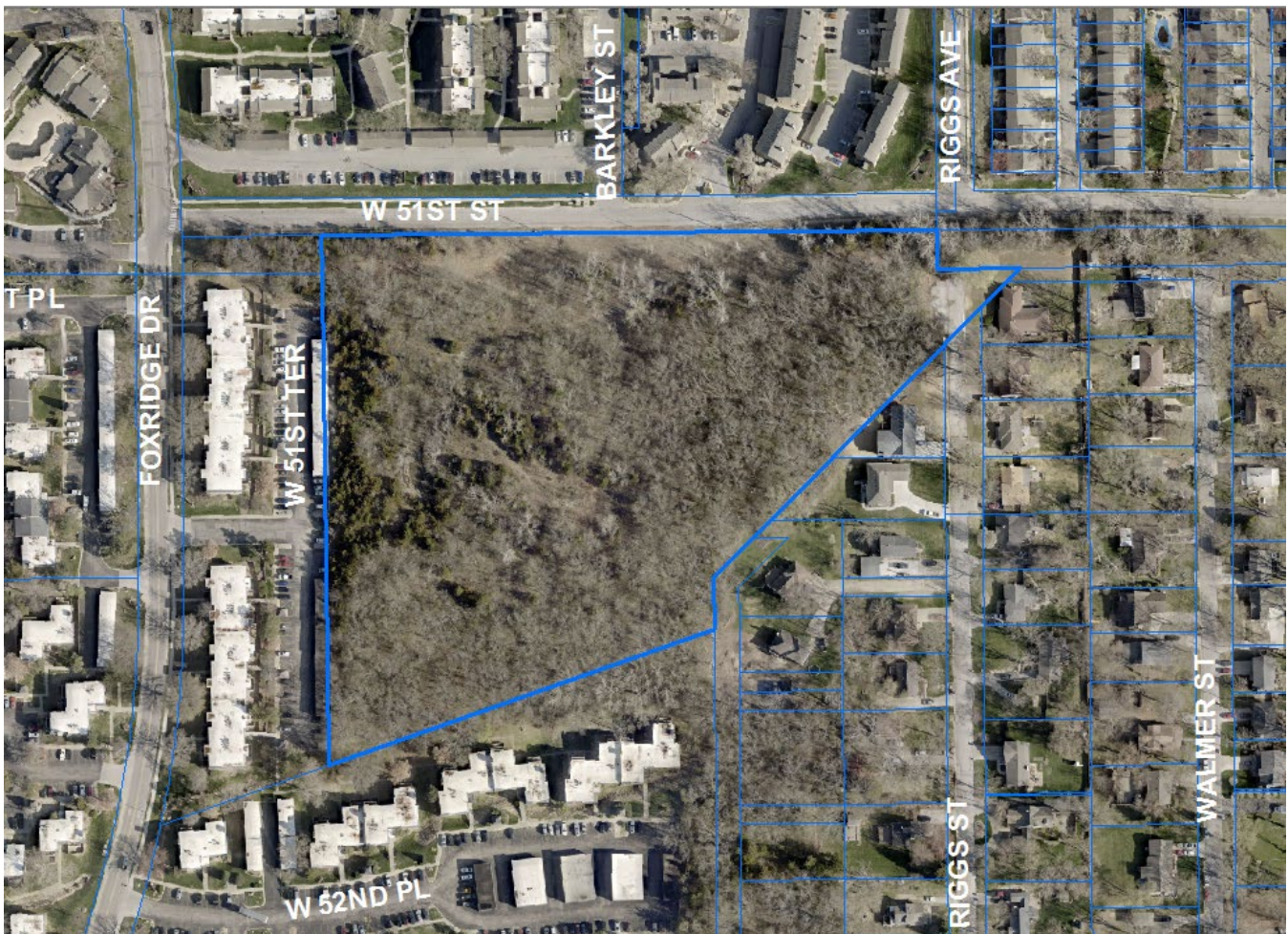
Abbreviated Legal Description: 5-12-25 BG 305.81' E NW CR NE1/4 SW1/4 E 111.64' SW 588.30' S 140.99' SW 517.01' N 654.16' E 389.28' N 50' E 420.71' S 50' TO POB & W 389.28' E 504.18' SW1/4 NW1/4 LYG S OF 51 ST EX PT IN RD 9.9468 ACS M/L MIC 92

APPLICANT: Jason Ferdig, Owner
Stride DevCo. LLC
Louisville, CO

STAFF CONTACT: Brian Scott, Deputy City Administrator

ADVERTISEMENT: February 8th, 2021 – The Legal Record

PUBLIC HEARING: February 28th, 2021 – Planning Commission





11031 Strang Line Road
Lenexa, KS 66215
P 913.888.7800

www.mecresults.com

NORTHWEST IOWA | DES MOINES METRO | EASTERN IOWA | SIOUXLAND | SOUTHWEST IOWA | CENTRAL MISSOURI | KANSAS CITY METRO

**Preliminary Stormwater
Management Report
Mission Preserve**
51st Street & Riggs Street
City of Mission
Johnson County, Kansas

by:
McClure Engineering Company
11031 Strang Line Road
Lenexa, KS 66215
(913) 888-7800

for:
Stride Devco, LLC
Louisville, Colorado

January 13, 2022



01/13/2022

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Drainage Map – Existing	
Proposed Drainage Map	
Proposed BMP Map	
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PondPack Calculations	

General

The proposed project is a senior living center consisting of a new building and associated drives and parking at a site located southwest of the intersection of 51st Street and Riggs Street in the City of Mission, Johnson County, Kansas. The project site lies within the Turkey Creek watershed and is located in the southwest quarter of Section 5-12-25. The site area is 9.3 acres and is currently undeveloped. The site area does not include the northeast portion of the site that is the apparent public street R/W for Riggs Street.

Existing Conditions

Existing Cover & Drainage Patterns

As discussed above, the site is currently undeveloped and covered with woods.

The site drains two different directions. The north 4.8 acres of the site drains to an existing 24” RCP that crosses under 51st Street. This storm sewer line drains west along the north side of 51st Street and then discharges into an open channel on the east side of Foxridge Drive. Stormwater then drains into a 54” CMP pipe that crosses Foxridge Drive and discharges into Turkey Creek.

The south 4.5 acres of the site drains to an open channel that flows west adjacent to the south property line. Stormwater crosses Foxridge Drive through a 36” CMP culvert before reaching the Metcalf Avenue R/W. Stormwater then flows north in an open channel and discharges to Turkey Creek.

A small area of 0.4 acres located east of the site drains onto the site into the north drainage area. This area is developed with a single family residential use.

Soil Types

The Natural Resources Conservation Service soil maps were referenced to determine the types and characteristics of on-site soils. According to the maps, almost all of the site soils belong to hydrologic soils group (HSG) “D”. A small area of the site and the offsite area that drains onto the site belong to hydrologic soils group (HSG) “C”. A map of the on-site soils can be found in Appendix B.

Flood Zone

The site is located outside of the FEMA regulated floodplain.

Corps of Engineers/Kansas DWR

There are no waters or wetlands that are in the jurisdiction of the Corps of Engineers or the Kansas Division of Water Resources.

Runoff

An existing conditions stormwater model was developed utilizing Bentley’s Pondpack program with the integrated SCS TR55 method to simulate both the pre-developed runoff conditions of the site. The 2, 10 and 100 year storms using a Type II 24 hour rainfall distribution were modeled. The following chart shows a summary of the pre-development peak runoff rates. Information for the North Outlet includes the offsite drainage area. Further details can be found in Appendix C of this report.

Table 1 - Site Stormwater Runoff Information Summary – Existing Conditions (See Appendix B)			
Drainage Sub-Basin	Peak Runoff (1 yr) Storm (cfs)	Peak Runoff 10% (10 yr) Storm (cfs)	Peak Runoff 1% (100 yr) Storm (cfs)
North Outfall	6.84	19.11	32.97
South Outfall	5.05	14.48	25.16

Proposed Improvements

As shown on the proposed drainage map in Appendix A, a building and associated parking lot and drives will be constructed on the site. The overall drainage patterns will generally remain the same with the northern portion of the site draining north and the southern portion of the site draining south. Site runoff will be conveyed via underground storm sewer and drainage flumes to proposed detention basins. All of the on-site storm sewer will be private and will be sized up to a 100 year storm if required to prevent overflow from impacting the proposed building.

The detention basins will be constructed in the north-central and southwest areas of the property to control site stormwater outflow. The detention basins will also serve as extended detention basins for the water quality storm for the purpose of stormwater treatment. The drainage areas are shown on the attached proposed conditions drainage map. This is accounted for in the proposed runoff model.

Runoff

Runoff will be collected and conveyed to two above ground detention basins as discussed above. The following chart shows a summary of the proposed condition peak runoff rates. Information for the North Outlet includes the offsite drainage area. Further details can be found in Appendix B of this report.

Site Stormwater Runoff Information Summary – Proposed Conditions (see Appendix B)			
Drainage Sub-Basin	Peak Runoff (1 yr) Storm (cfs)	Peak Runoff 10% (10 yr) Storm (cfs)	Peak Runoff 1% (100 yr) Storm (cfs)
North Outfall	5.83	18.89	29.49
South Outfall	4.92	11.63	17.13

North Detention #1 Summary:

Detention Basin Volume Required = 939 cubic feet
1 year elevation = 995.5
10 year elevation = 995.91
100 year elevation = 996.35

North Detention #2 Summary:

Detention Basin Volume Required = 21,762 cubic feet
1 year elevation = 977.28
10 year elevation = 978.45
100 year elevation = 979.28

South Detention Summary:

Detention Basin Volume Required = 37,487 cubic feet
1 year elevation = 979.30
10 year elevation = 981.72
100 year elevation = 983.38

Water Quality/Level of Service

The impacts of the development on the water environment will be mitigated by providing extended wet detention in both the north and south detention basins. Also, native vegetation will be preserved or planted in undeveloped areas of the site. These improvements are shown on the BMP Map in Appendix A.

Existing site cover consists of woodland and site soils consist mostly HSG “D” soils as previously discussed. The required value rating for the site is 6.3 in accordance with BMP Manual. The calculations can be found in Appendix B. Calculations show that the mitigation package proposed with this project achieves a level of service of 6.35 by treating 9.15 acres of area as shown in Appendix B. The PondPack calculations included in Appendix C show that the water quality volume drains from the extended wet detention basin in a period that exceeds 40 hours.

Appendix A

Level of Service

WORKSHEET 1: REQUIRED LEVEL OF SERVICE (UNDEVELOPED SITE)

Project: Mission Preserve by: PLK
 Location: Mission, KS date: 1/10/2022
 Total Site Area (Ac.): 9.3

1. Runoff Curve Number

A. Pre-development CN

Cover Description	HSG	CN	Area (Ac.)	CNxArea
Woods - Fair	D	79	9.10	718.90
Woods - Fair	C	73	0.20	14.60
				0.00
				0.00
				0.00
				0.00
				0.00
				0.00
				0.00
				0.00
				0.00
Totals:			9.30	733.50

Area-Weighted CN = total product/total area = 79

B. Post-development CN

Cover Description	HSG	CN	Area (Ac.)	CNxArea
Impervious Area	D	98	4.40	431.20
Open Space - Good	D	80	2.15	172.00
Native Vegetation	D	78	2.75	214.50
				0.00
				0.00
				0.00
				0.00
				0.00
				0.00
				0.00
Totals:			9.30	817.70

0.00

Area-Weighted CN = total product/total area = 88

2. Level of Service (LS) Calculation

Pre-development CN: 79
 Post-development CN: 88
 Difference: 9
 LS Required 6.3

BMP Manual Addendum #1 Accepted November 10, 2016

Addendum #1 to the BMP Manual includes:

- Remove existing Table 4.2, LS for Previously Undeveloped Sites,

TABLE 4.2
LS for Previously Undeveloped Sites

Change in CN	Impact	LS
17 or greater	High water quality impact	8
7 to 16	Moderate water quality impact	7
4 to 6	Low water quality impact	6
1 to 3	Minimal water quality impact	5

- Insert New Table 4.2, LS for Previously Undeveloped Sites

Table 4.2
LS for Previously Undeveloped Sites

Change in CN	LS		Change in CN	LS
1	4.3		17	7.1
2	4.7		18	7.2
3	5		19	7.3
4	5.3		20	7.4
5	5.7		21	7.6
6	6		22	7.7
7	6.1		23	7.8
8	6.2		24	7.9
9	6.3		25	8
10	6.4		25+	8
11	6.5			
12	6.6			
13	6.7			
14	6.8			
15	6.9			
16	7			

WORKSHEET 2: DEVELOP MITIGATION PACKAGE(S) THAT MEET THE REQUIRED LS

Project: Mission Preserve
 Location: Mission, KS
 Site Area (Ac.): 9.3
 Sheet 1 of 1
 Previously Developed Yes No

by: PLK
 checked:
 Date: 1/10/2022
 Date:

1. Required LS (from Table 1 or 1A or Worksheet 1 or 1A, as appropriate) 6.3

2. Proposed BMP Option Package No. 1

BMP/Cover Description	Treatment Area	VR from Table 5 or Table 6 ¹	Product of VR x Area	Notes:
Extended Wet Detention	6.10	5	30.50	
Native Vegetation	2.75	9.25	25.44	
TT: Native Vegetation into Extended Wet Detention	0.30	10.25	3.08	
Untreated	0.15		0.00	
Total	9.3	Total:	59.01	
			*Weighted VR:	6.35

- ¹ VR calculated for final BMP only in Treatment Train.
- ² Total Treatment area cannot exceed 100 percent of the actual site area.
- * Blank In Redevelopment

Meets required LS (Yes/No)? Yes (If No, or if additional options are being tested, proceed below.)

3. Proposed BMP Option Package No. _____

BMP/Cover Description	Treatment Area	VR from Table 5 or Table 6 ¹	Product of VR x Area	Notes:
Total	0	Total:	0.00	
			*Weighted VR:	#DIV/0!

- ¹ VR calculated for final BMP only in Treatment Train.
- ² Total Treatment area cannot exceed 100 percent of the actual site area.
- * Blank In Redevelopment

Meets required LS (Yes/No)? #DIV/0! (If No, or if additional options are being tested, proceed below.)

Appendix B

Maps

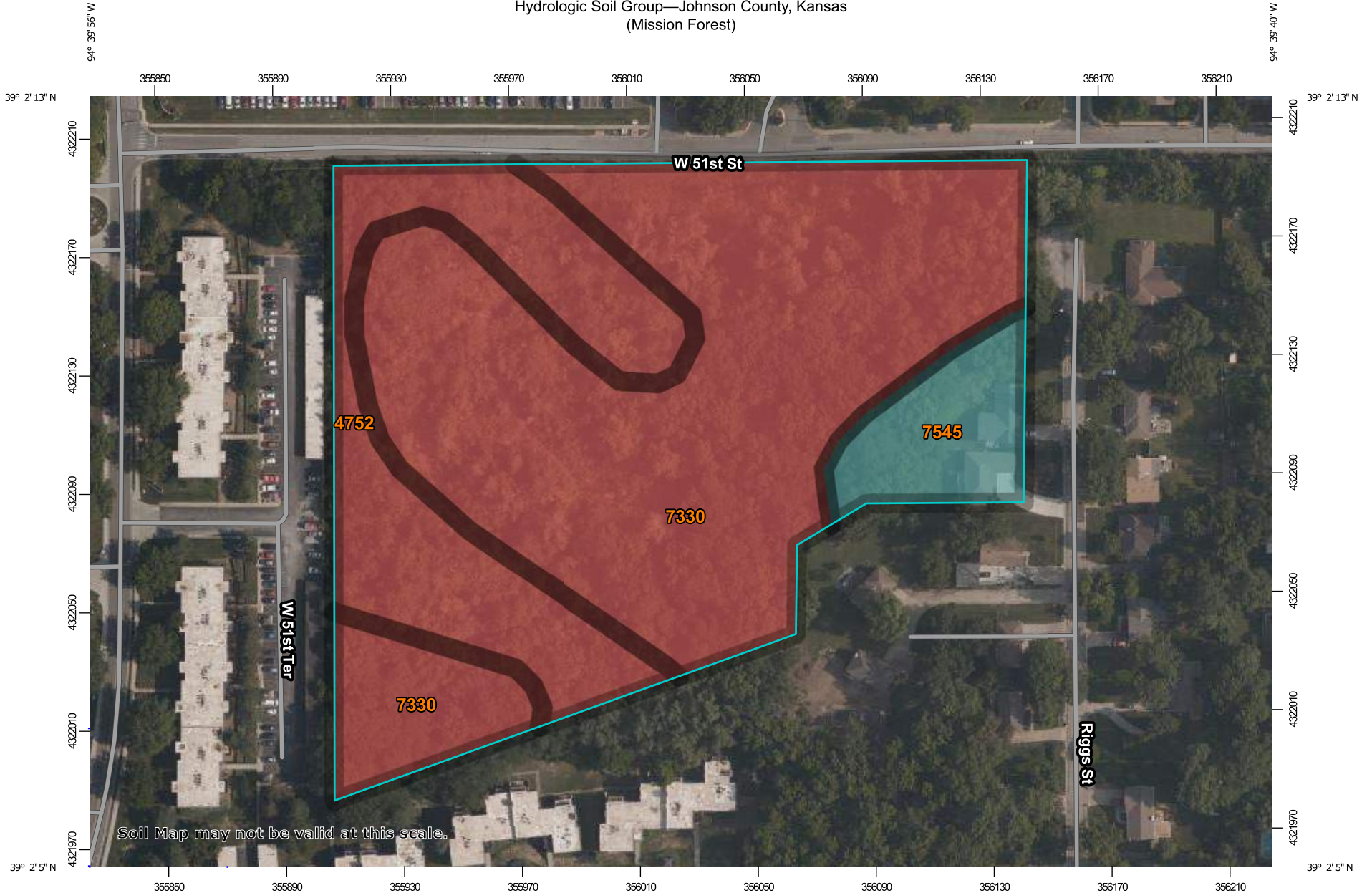
Soil Map

Drainage Map - Existing

Proposed Drainage Map

Proposed BMP Map

Hydrologic Soil Group—Johnson County, Kansas
(Mission Forest)



Soil Map may not be valid at this scale.

Map Scale: 1:1,830 if printed on A landscape (11" x 8.5") sheet.




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 Rating Polygons





 A
 A/D
 B
 B/D
 C
 C/D
 D
 Not rated or not available

Soil Rating Lines

 A
 A/D
 B
 B/D
 C
 C/D
 D
 Not rated or not available

Soil Rating Points






 A
 A/D
 B
 B/D

 C
 C/D
 D
 Not rated or not available


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 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.

Hydrologic Soil Group

Map unit symbol	Map unit name	Rating	Acres in AOI	Percent of AOI
4752	Sogn-Vinland complex, 3 to 25 percent slopes	D	2.3	23.7%
7330	Martin-Vinland silty clay loams, 5 to 10 percent slopes	D	6.5	68.4%
7545	Sharpsburg-Urban land complex, 4 to 8 percent slopes	C	0.8	7.9%
Totals for Area of Interest			9.5	100.0%

Description

Hydrologic soil groups are based on estimates of runoff potential. Soils are assigned to one of four groups according to the rate of water infiltration when the soils are not protected by vegetation, are thoroughly wet, and receive precipitation from long-duration storms.

The soils in the United States are assigned to four groups (A, B, C, and D) and three dual classes (A/D, B/D, and C/D). The groups are defined as follows:

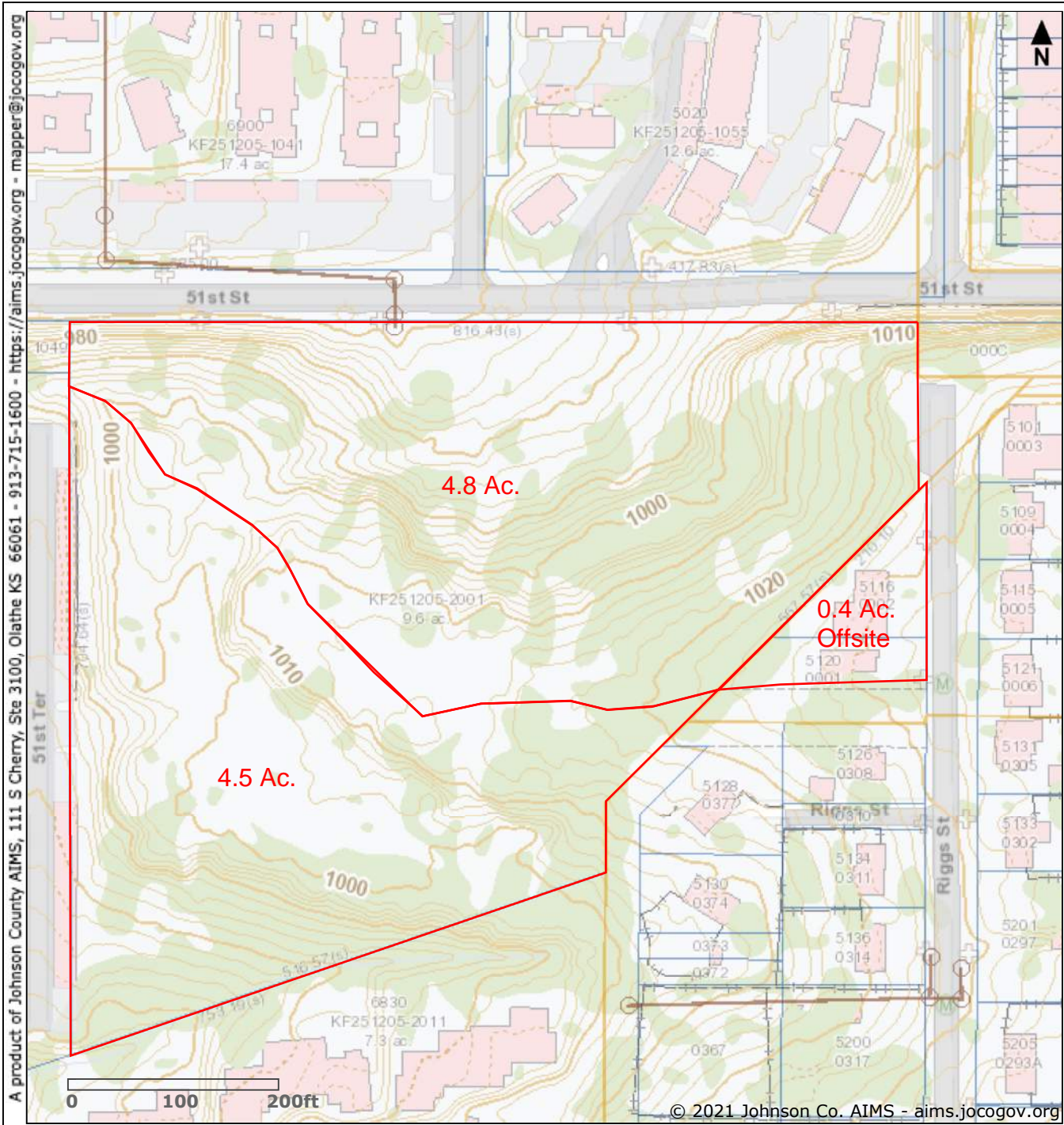
Group A. Soils having a high infiltration rate (low runoff potential) when thoroughly wet. These consist mainly of deep, well drained to excessively drained sands or gravelly sands. These soils have a high rate of water transmission.

Group B. Soils having a moderate infiltration rate when thoroughly wet. These consist chiefly of moderately deep or deep, moderately well drained or well drained soils that have moderately fine texture to moderately coarse texture. These soils have a moderate rate of water transmission.

Group C. Soils having a slow infiltration rate when thoroughly wet. These consist chiefly of soils having a layer that impedes the downward movement of water or soils of moderately fine texture or fine texture. These soils have a slow rate of water transmission.

Group D. Soils having a very slow infiltration rate (high runoff potential) when thoroughly wet. These consist chiefly of clays that have a high shrink-swell potential, soils that have a high water table, soils that have a claypan or clay layer at or near the surface, and soils that are shallow over nearly impervious material. These soils have a very slow rate of water transmission.

If a soil is assigned to a dual hydrologic group (A/D, B/D, or C/D), the first letter is for drained areas and the second is for undrained areas. Only the soils that in their natural condition are in group D are assigned to dual classes.



Johnson Co AIMS Map

LEGEND

Other Building Feature

- ⊕ Fence
- ⊕ Retaining Wall

Edge of Pavement

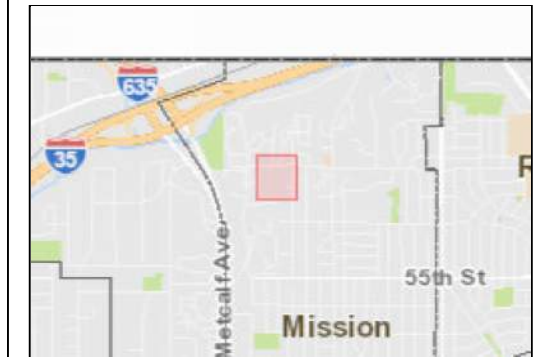
- ▬ Paved Road
- ▬ Unpaved Road
- ▬ Trail
- ▬ Alley
- ▬ Bridge
- ▬ Paved Parking
- ▬ Unpaved Parking

Water Features

- ▬ River
- ▬ Lake
- ▬ Pond

Surface Util

- ⊕ Fire Hydrant
- ⊕ Light Pole



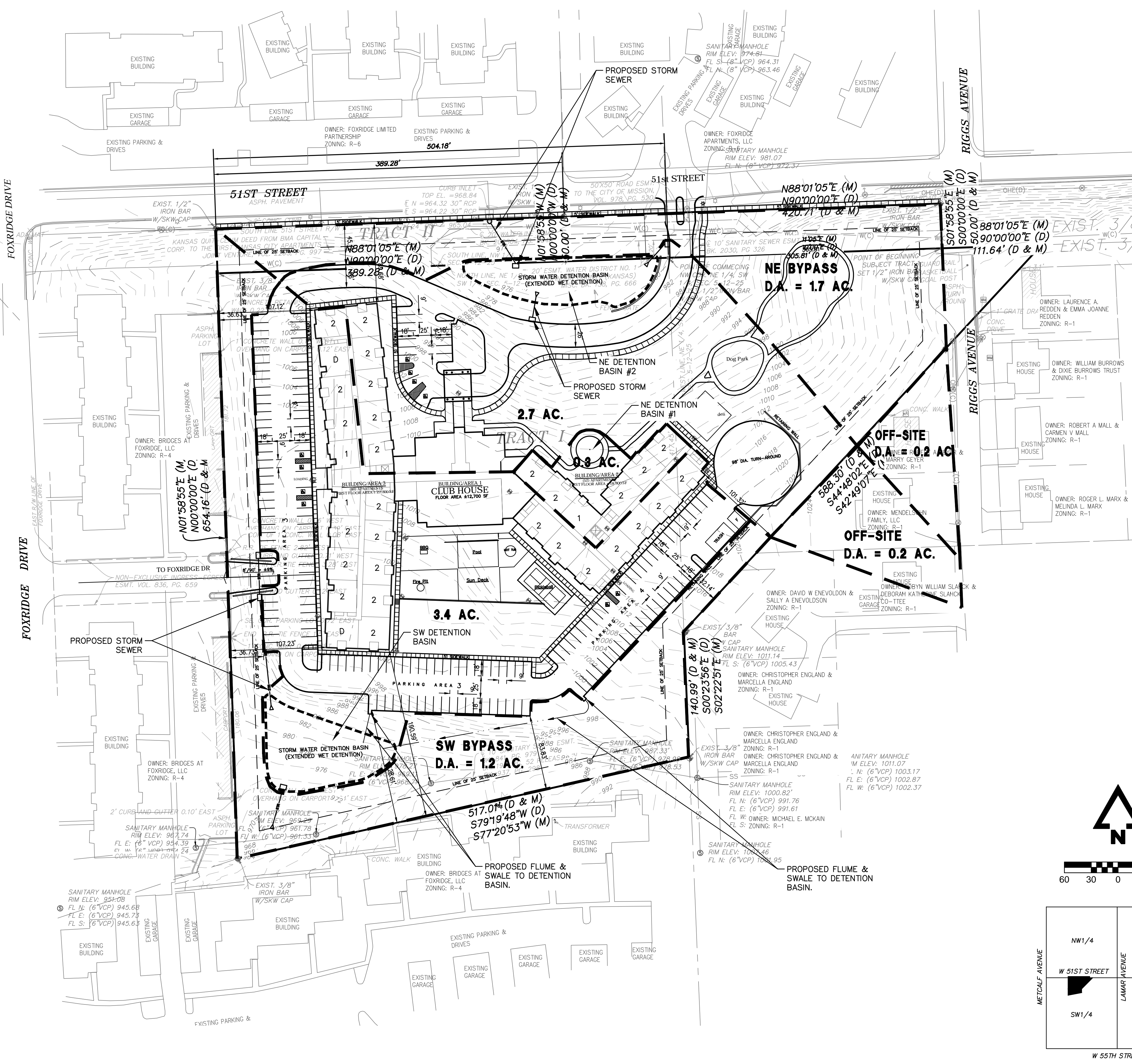
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JOHNSON COUNTY
 AIMS GIS & Mapping KANSAS

12/22/2021

Existing Drainage Map

H
G
F
E
D
C
B
A



LEGAL DESCRIPTION PER TITLE COMMITMENT:

TRACT 1:

ALL THAT PART OF THE WEST 1/2 OF SECTION 5, TOWNSHIP 12, RANGE 25, NOW IN THE CITY OF MISSION, JOHNSON COUNTY, KANSAS, MORE PARTICULARLY DESCRIBED AS FOLLOWS:

COMMENCING AT THE NORTHWEST CORNER OF THE NORTHEAST QUARTER OF THE SOUTHWEST QUARTER OF SAID SECTION 5; THENCE NORTH 90° EAST, ALONG THE NORTH LINE OF THE NORTHEAST QUARTER OF THE SOUTHWEST QUARTER OF SAID SECTION 5, A DISTANCE OF 305.81 FEET, TO THE TRUE POINT OF BEGINNING OF SUBJECT TRACT; THENCE CONTINUING NORTH 90° EAST, ALONG THE NORTH LINE OF THE NORTHEAST QUARTER OF THE SOUTHWEST QUARTER OF SAID SECTION 5, A DISTANCE OF 111.64 FEET; THENCE SOUTH 44°48'02" WEST, A DISTANCE OF 588.30 FEET, TO A POINT ON THE WEST LINE OF THE NORTHEAST QUARTER OF THE SOUTHWEST QUARTER OF SAID SECTION 5, AND 417.45 FEET SOUTH OF THE NORTHWEST CORNER THEREOF, AS MEASURED ALONG SAID WEST LINE; THENCE SOUTH 0°23'56" EAST, ALONG THE WEST LINE OF THE NORTHEAST QUARTER OF THE SOUTHWEST QUARTER OF SAID SECTION 5, AND ALONG THE EAST LINE OF THE NORTHWEST QUARTER OF THE SOUTHWEST QUARTER OF SAID SECTION 5, A DISTANCE OF 140.99 FEET; THENCE SOUTH 79°19'48" WEST, A DISTANCE OF 517.01 FEET; THENCE NORTH 0° EAST, A DISTANCE OF 654.16 FEET, TO A POINT ON THE NORTH LINE OF THE NORTHWEST QUARTER OF THE SOUTHWEST QUARTER OF SAID SECTION 5; THENCE NORTH 90° EAST, ALONG THE NORTH LINE OF THE NORTHWEST QUARTER OF THE SOUTHWEST QUARTER OF SAID SECTION 5, A DISTANCE OF 389.28 FEET; THENCE NORTH 0° EAST, A DISTANCE OF 50 FEET; THENCE NORTH 90° EAST, A DISTANCE OF 420.71 FEET; THENCE SOUTH 0° EAST, A DISTANCE OF 50 FEET, TO THE TRUE POINT OF BEGINNING, EXCEPT THAT PART IN STREETS AND ROADS

TRACT 2:

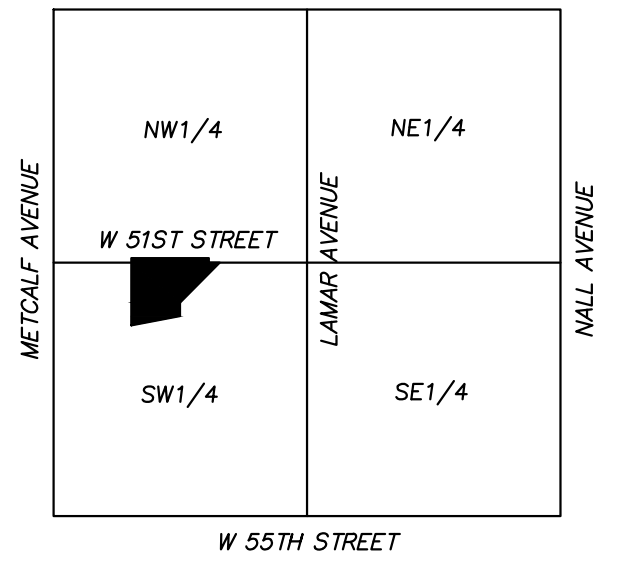
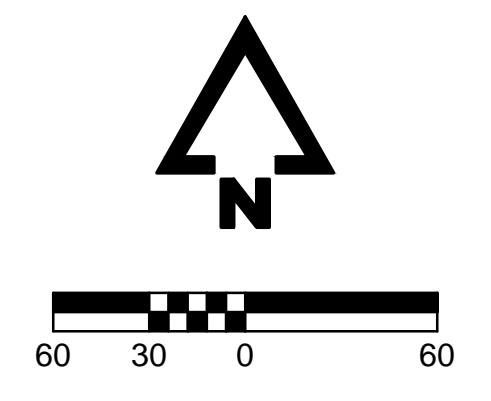
THE WEST 389.28 FEET OF THE EAST 504.18 FEET OF THE SOUTHWEST QUARTER OF THE NORTHWEST QUARTER OF SECTION 5, TOWNSHIP 12, RANGE 25, LYING SOUTH OF 51ST STREET AS ESTABLISHED, IN THE CITY OF MISSION, JOHNSON COUNTY, KANSAS, EXCEPT THAT PART IN STREETS AND ROADS.

FLOOD NOTE:
this property lies within flood "Zone X", defined as "areas determined to be outside the 0.2% annual chance flood plain", as shown on the flood insurance rate map, prepared by the Federal Emergency Management Agency for the City of Mission, Johnson County, Kansas, Map No. 20091C0008G, Community No. 200170, Panel No. 0008, Suffix "G" and dated August 3, 2009.

HOMER L. WILLIAMS, D. ARCH, FAIA
ARCHITECT AND CONSULTANT
110 ARMOUR ROAD
NORTH KANSAS CITY, MO 64116
816.721.7564 hwilliams@wskfarch.com

JOB NUMBER 21 01 01

MISSION PRESERVE
WEST 51ST STREET
MISSION, KS 66202



VICINITY MAP
SEC. 6-12-25

DEVELOPER:
STRIDE DEVCO, LLC
401 W. SPRUCE STREET
LOUISVILLE, CO 80027
ATTN: JASON FERDIG
PHONE: (303) 548-4149
EMAIL: JASON@STRIDEDEVCO.COM

ENGINEERS:
McCLURE
11031 STRANG LINE ROAD
LENEXA, KANSAS 66215
ATTN: PAT KULLBERG
PHONE: (913) 888-7800
EMAIL: PKULLBERG@MCCLUREVISION.COM

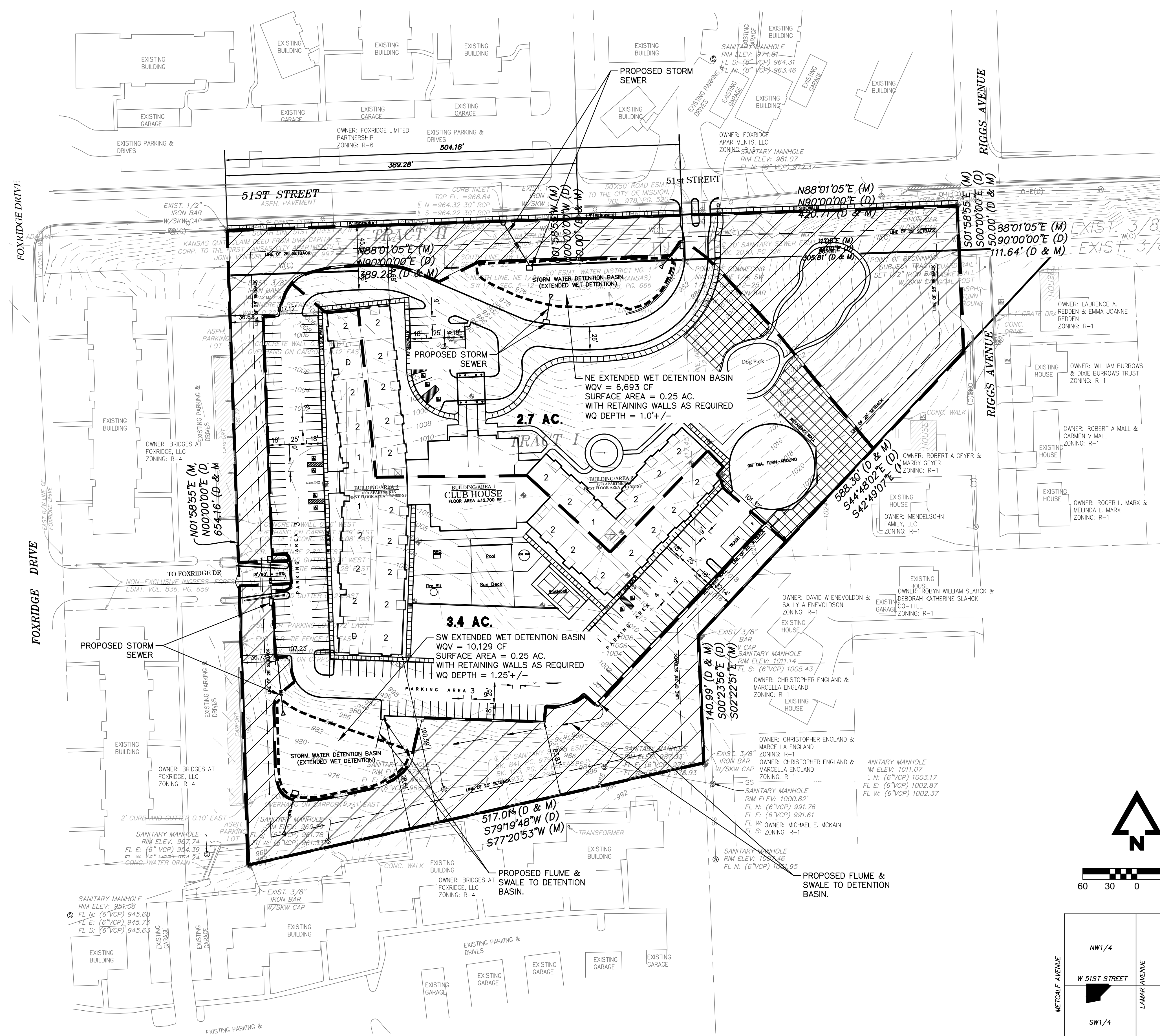
McCLURE ENGINEERING CO.
11031 Strang Line Road
Lenexa, KS 66215
913.888.7800 FAX: 913.888.7868
SURVEYING | ENGINEERING | CONSTRUCTION



PRELIMINARY
SITE DEVELOPMENT
DRAINAGE MAP
C2.00

PRELIMINARY DESIGN 1/6/2022

H
G
F
E
D
C
B
A



LEGAL DESCRIPTION PER TITLE COMMITMENT:

TRACT 1:

ALL THAT PART OF THE WEST 1/2 OF SECTION 5, TOWNSHIP 12, RANGE 25, NOW IN THE CITY OF MISSION, JOHNSON COUNTY, KANSAS, MORE PARTICULARLY DESCRIBED AS FOLLOWS:

COMMENCING AT THE NORTHWEST CORNER OF THE NORTHEAST QUARTER OF THE SOUTHWEST QUARTER OF SAID SECTION 5; THENCE NORTH 90° EAST, ALONG THE NORTH LINE OF THE NORTHEAST QUARTER OF THE SOUTHWEST QUARTER OF SAID SECTION 5, A DISTANCE OF 305.81 FEET, TO THE TRUE POINT OF BEGINNING OF SUBJECT TRACT; THENCE CONTINUING NORTH 90° EAST, ALONG THE NORTH LINE OF THE NORTHEAST QUARTER OF THE SOUTHWEST QUARTER OF SAID SECTION 5, A DISTANCE OF 111.64 FEET; THENCE SOUTH 44°48'02" WEST, A DISTANCE OF 588.30 FEET, TO A POINT ON THE WEST LINE OF THE NORTHEAST QUARTER OF THE SOUTHWEST QUARTER OF SAID SECTION 5, AND 417.45 FEET SOUTH OF THE NORTHWEST CORNER THEREOF, AS MEASURED ALONG SAID WEST LINE; THENCE SOUTH 0°23'56" EAST, ALONG THE WEST LINE OF THE NORTHEAST QUARTER OF THE SOUTHWEST QUARTER OF SAID SECTION 5, AND ALONG THE EAST LINE OF THE NORTHWEST QUARTER OF THE SOUTHWEST QUARTER OF SAID SECTION 5, A DISTANCE OF 140.99 FEET; THENCE SOUTH 79°19'48" WEST, A DISTANCE OF 517.01 FEET; THENCE NORTH 0° EAST, A DISTANCE OF 654.16 FEET, TO A POINT ON THE NORTH LINE OF THE NORTHWEST QUARTER OF THE SOUTHWEST QUARTER OF SAID SECTION 5; THENCE NORTH 90° EAST, ALONG THE NORTH LINE OF THE NORTHWEST QUARTER OF THE SOUTHWEST QUARTER OF SAID SECTION 5, A DISTANCE OF 389.28 FEET; THENCE NORTH 0° EAST, A DISTANCE OF 50 FEET; THENCE NORTH 90° EAST, A DISTANCE OF 420.71 FEET; THENCE SOUTH 0° EAST, A DISTANCE OF 50 FEET, TO THE TRUE POINT OF BEGINNING, EXCEPT THAT PART IN STREETS AND ROADS

TRACT 2:

THE WEST 389.28 FEET OF THE EAST 504.18 FEET OF THE SOUTHWEST QUARTER OF THE NORTHWEST QUARTER OF SECTION 5, TOWNSHIP 12, RANGE 25, LYING SOUTH OF 51ST STREET AS ESTABLISHED, IN THE CITY OF MISSION, JOHNSON COUNTY, KANSAS, EXCEPT THAT PART IN STREETS AND ROADS.

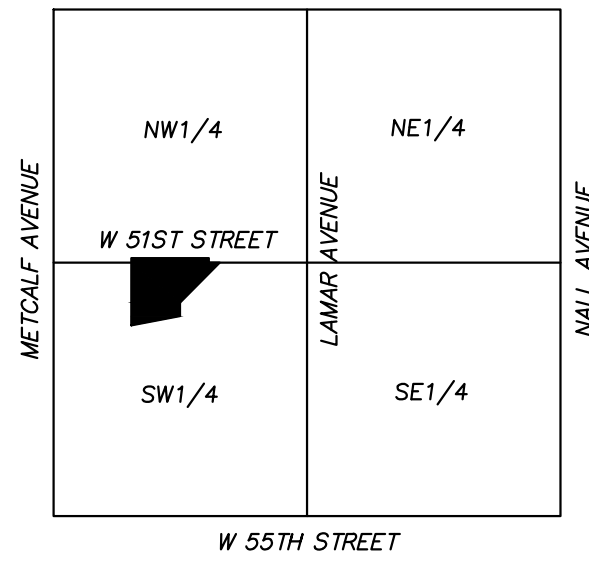
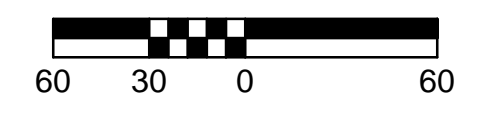
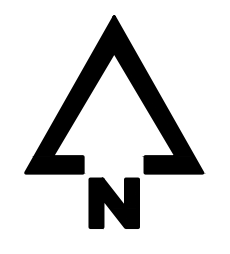
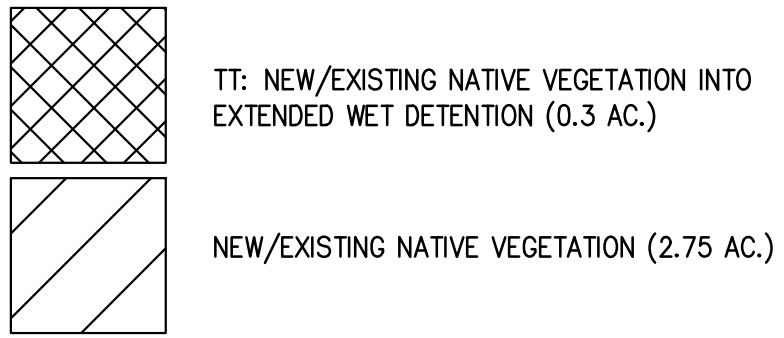
FLOOD NOTE:

this property lies within flood "Zone X", defined as "areas determined to be outside the 0.2% annual chance flood plain", as shown on the flood insurance rate map, prepared by the Federal Emergency Management Agency for the City of Mission, Johnson County, Kansas, Map No. 20091C0008G, Community No. 200170, Panel No. 0008, Suffix "G" and dated August 3, 2009.

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JOB NUMBER 21 01 01

MISSION PRESERVE
WEST 51st STREET
MISSION, KS 66202



VICINITY MAP
SEC. 6-12-25

DEVELOPER:
STRIDE DEVCO, LLC
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LOUISVILLE, CO 80027
ATTN: JASON FERDIG
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ENGINEERS:
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McCLURE ENGINEERING CO.
11031 Strang Line Road
Lenexa, KS 66215
913.888.7800 FAX: 913.888.7868
SURVEYING | ENGINEERING | CONSTRUCTION



PRELIMINARY
SITE DEVELOPMENT
BMP MAP
C2.01

PRELIMINARY DESIGN 1/6/2022

Appendix C
Drainage Calculations
PondPack Calculations

Mission Preserve Existing

Project Summary

Title	Mission Preserve
Engineer	
Company	
Date	12/17/2021

Notes	Existing Runoff
-------	-----------------

Scenario: Johnson County - Synthetic Curve, 100 yrs

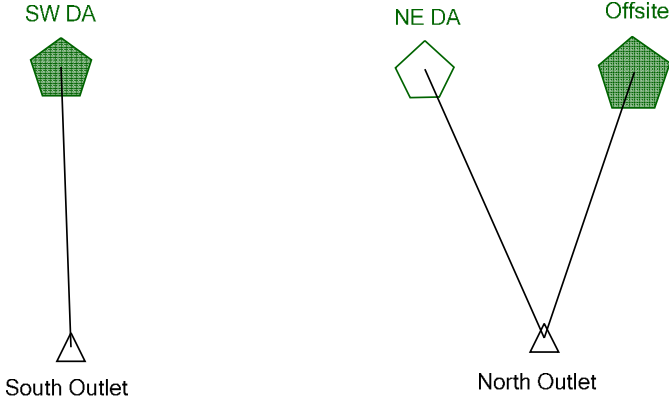


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Mission Preserve Existing

Subsection: Master Network Summary

Catchments Summary

Label	Scenario	Return Event (years)	Hydrograph Volume (ft ³)	Time to Peak (hours)	Peak Flow (ft ³ /s)
SW DA	Johnson County - Synthetic Curve, 1 yrs	1	17,496.000	12.080	5.05
SW DA	Johnson County - Synthetic Curve, 10 yrs	10	48,369.000	12.080	14.48
SW DA	Johnson County - Synthetic Curve, 100 yrs	100	84,662.000	12.080	25.16
NE DA	Johnson County - Synthetic Curve, 1 yrs	1	18,662.000	12.060	6.14
NE DA	Johnson County - Synthetic Curve, 10 yrs	10	51,592.000	12.040	17.41
NE DA	Johnson County - Synthetic Curve, 100 yrs	100	90,303.000	12.020	30.22
Offsite	Johnson County - Synthetic Curve, 1 yrs	1	2,100.000	12.040	0.70
Offsite	Johnson County - Synthetic Curve, 10 yrs	10	5,137.000	12.040	1.70
Offsite	Johnson County - Synthetic Curve, 100 yrs	100	8,541.000	12.040	2.77

Node Summary

Label	Scenario	Return Event (years)	Hydrograph Volume (ft ³)	Time to Peak (hours)	Peak Flow (ft ³ /s)
South Outlet	Johnson County - Synthetic Curve, 1 yrs	1	17,496.000	12.080	5.05
South Outlet	Johnson County - Synthetic Curve, 10 yrs	10	48,369.000	12.080	14.48
South Outlet	Johnson County - Synthetic Curve, 100 yrs	100	84,662.000	12.080	25.16
North Outlet	Johnson County - Synthetic Curve, 1 yrs	1	20,762.000	12.060	6.84

Mission Preserve Existing

Subsection: Master Network Summary

Node Summary

Label	Scenario	Return Event (years)	Hydrograph Volume (ft ³)	Time to Peak (hours)	Peak Flow (ft ³ /s)
North Outlet	Johnson County - Synthetic Curve, 10 yrs	10	56,730.000	12.040	19.11
North Outlet	Johnson County - Synthetic Curve, 100 yrs	100	98,844.000	12.020	32.97

Mission Preserve Existing

Subsection: Time-Depth Curve

Return Event: 1 years

Label: Johnson County

Storm Event: TypeII 24hr (3.0 in)

Scenario: Johnson County - Synthetic Curve, 1 yrs

Time-Depth Curve: TypeII 24hr (3.0 in)

Label	TypeII 24hr (3.0 in)
Start Time	0.000 hours
Increment	0.100 hours
End Time	24.000 hours
Return Event	1 years

CUMULATIVE RAINFALL (in)

Output Time Increment = 0.100 hours

Time on left represents time for first value in each row.

Time (hours)	Depth (in)	Depth (in)	Depth (in)	Depth (in)	Depth (in)
0.000	0.0	0.0	0.0	0.0	0.0
0.500	0.0	0.0	0.0	0.0	0.0
1.000	0.0	0.0	0.0	0.0	0.0
1.500	0.0	0.1	0.1	0.1	0.1
2.000	0.1	0.1	0.1	0.1	0.1
2.500	0.1	0.1	0.1	0.1	0.1
3.000	0.1	0.1	0.1	0.1	0.1
3.500	0.1	0.1	0.1	0.1	0.1
4.000	0.1	0.1	0.2	0.2	0.2
4.500	0.2	0.2	0.2	0.2	0.2
5.000	0.2	0.2	0.2	0.2	0.2
5.500	0.2	0.2	0.2	0.2	0.2
6.000	0.2	0.2	0.3	0.3	0.3
6.500	0.3	0.3	0.3	0.3	0.3
7.000	0.3	0.3	0.3	0.3	0.3
7.500	0.3	0.3	0.3	0.3	0.4
8.000	0.4	0.4	0.4	0.4	0.4
8.500	0.4	0.4	0.4	0.4	0.4
9.000	0.4	0.5	0.5	0.5	0.5
9.500	0.5	0.5	0.5	0.5	0.5
10.000	0.5	0.6	0.6	0.6	0.6
10.500	0.6	0.6	0.6	0.7	0.7
11.000	0.7	0.7	0.8	0.8	0.8
11.500	0.8	0.9	1.1	1.3	1.7
12.000	2.0	2.0	2.1	2.1	2.2
12.500	2.2	2.2	2.3	2.3	2.3
13.000	2.3	2.3	2.4	2.4	2.4
13.500	2.4	2.4	2.4	2.4	2.4
14.000	2.5	2.5	2.5	2.5	2.5
14.500	2.5	2.5	2.5	2.5	2.6
15.000	2.6	2.6	2.6	2.6	2.6
15.500	2.6	2.6	2.6	2.6	2.6
16.000	2.6	2.6	2.7	2.7	2.7

Mission Preserve Existing

Subsection: Time-Depth Curve

Return Event: 1 years

Label: Johnson County

Storm Event: TypeII 24hr (3.0 in)

Scenario: Johnson County - Synthetic Curve, 1 yrs

CUMULATIVE RAINFALL (in)

Output Time Increment = 0.100 hours

Time on left represents time for first value in each row.

Time (hours)	Depth (in)	Depth (in)	Depth (in)	Depth (in)	Depth (in)
16.500	2.7	2.7	2.7	2.7	2.7
17.000	2.7	2.7	2.7	2.7	2.7
17.500	2.7	2.7	2.7	2.8	2.8
18.000	2.8	2.8	2.8	2.8	2.8
18.500	2.8	2.8	2.8	2.8	2.8
19.000	2.8	2.8	2.8	2.8	2.8
19.500	2.8	2.8	2.8	2.8	2.9
20.000	2.9	2.9	2.9	2.9	2.9
20.500	2.9	2.9	2.9	2.9	2.9
21.000	2.9	2.9	2.9	2.9	2.9
21.500	2.9	2.9	2.9	2.9	2.9
22.000	2.9	2.9	2.9	2.9	2.9
22.500	2.9	3.0	3.0	3.0	3.0
23.000	3.0	3.0	3.0	3.0	3.0
23.500	3.0	3.0	3.0	3.0	3.0
24.000	3.0	(N/A)	(N/A)	(N/A)	(N/A)

Mission Preserve Existing

Subsection: Time-Depth Curve

Return Event: 10 years

Label: Johnson County

Storm Event: TypeII 24hr (5.4 in)

Scenario: Johnson County - Synthetic Curve, 10 yrs

Time-Depth Curve: TypeII 24hr (5.4 in)

Label	TypeII 24hr (5.4 in)
Start Time	0.000 hours
Increment	0.100 hours
End Time	24.000 hours
Return Event	10 years

CUMULATIVE RAINFALL (in)

Output Time Increment = 0.100 hours

Time on left represents time for first value in each row.

Time (hours)	Depth (in)	Depth (in)	Depth (in)	Depth (in)	Depth (in)
0.000	0.0	0.0	0.0	0.0	0.0
0.500	0.0	0.0	0.0	0.0	0.1
1.000	0.1	0.1	0.1	0.1	0.1
1.500	0.1	0.1	0.1	0.1	0.1
2.000	0.1	0.1	0.1	0.1	0.1
2.500	0.2	0.2	0.2	0.2	0.2
3.000	0.2	0.2	0.2	0.2	0.2
3.500	0.2	0.2	0.2	0.2	0.3
4.000	0.3	0.3	0.3	0.3	0.3
4.500	0.3	0.3	0.3	0.3	0.3
5.000	0.3	0.3	0.4	0.4	0.4
5.500	0.4	0.4	0.4	0.4	0.4
6.000	0.4	0.4	0.5	0.5	0.5
6.500	0.5	0.5	0.5	0.5	0.5
7.000	0.5	0.5	0.6	0.6	0.6
7.500	0.6	0.6	0.6	0.6	0.6
8.000	0.6	0.7	0.7	0.7	0.7
8.500	0.7	0.7	0.7	0.8	0.8
9.000	0.8	0.8	0.8	0.8	0.9
9.500	0.9	0.9	0.9	0.9	1.0
10.000	1.0	1.0	1.0	1.0	1.1
10.500	1.1	1.1	1.2	1.2	1.2
11.000	1.3	1.3	1.4	1.4	1.5
11.500	1.5	1.7	1.9	2.3	3.1
12.000	3.6	3.7	3.8	3.9	3.9
12.500	4.0	4.0	4.1	4.1	4.1
13.000	4.2	4.2	4.2	4.3	4.3
13.500	4.3	4.3	4.4	4.4	4.4
14.000	4.4	4.4	4.5	4.5	4.5
14.500	4.5	4.5	4.6	4.6	4.6
15.000	4.6	4.6	4.6	4.7	4.7
15.500	4.7	4.7	4.7	4.7	4.7
16.000	4.8	4.8	4.8	4.8	4.8

Mission Preserve Existing

Subsection: Time-Depth Curve

Return Event: 10 years

Label: Johnson County

Storm Event: TypeII 24hr (5.4 in)

Scenario: Johnson County - Synthetic Curve, 10 yrs

CUMULATIVE RAINFALL (in)

Output Time Increment = 0.100 hours

Time on left represents time for first value in each row.

Time (hours)	Depth (in)	Depth (in)	Depth (in)	Depth (in)	Depth (in)
16.500	4.8	4.8	4.8	4.8	4.9
17.000	4.9	4.9	4.9	4.9	4.9
17.500	4.9	4.9	4.9	5.0	5.0
18.000	5.0	5.0	5.0	5.0	5.0
18.500	5.0	5.0	5.0	5.0	5.1
19.000	5.1	5.1	5.1	5.1	5.1
19.500	5.1	5.1	5.1	5.1	5.1
20.000	5.1	5.1	5.2	5.2	5.2
20.500	5.2	5.2	5.2	5.2	5.2
21.000	5.2	5.2	5.2	5.2	5.2
21.500	5.2	5.2	5.3	5.3	5.3
22.000	5.3	5.3	5.3	5.3	5.3
22.500	5.3	5.3	5.3	5.3	5.3
23.000	5.3	5.3	5.4	5.4	5.4
23.500	5.4	5.4	5.4	5.4	5.4
24.000	5.4	(N/A)	(N/A)	(N/A)	(N/A)

Mission Preserve Existing

Subsection: Time-Depth Curve

Return Event: 100 years

Label: Johnson County

Storm Event: TypeII 24hr (7.9 in)

Scenario: Johnson County - Synthetic Curve, 100 yrs

Time-Depth Curve: TypeII 24hr (7.9 in)

Label	TypeII 24hr (7.9 in)
Start Time	0.000 hours
Increment	0.100 hours
End Time	24.000 hours
Return Event	100 years

CUMULATIVE RAINFALL (in)

Output Time Increment = 0.100 hours

Time on left represents time for first value in each row.

Time (hours)	Depth (in)	Depth (in)	Depth (in)	Depth (in)	Depth (in)
0.000	0.0	0.0	0.0	0.0	0.0
0.500	0.0	0.0	0.1	0.1	0.1
1.000	0.1	0.1	0.1	0.1	0.1
1.500	0.1	0.1	0.1	0.2	0.2
2.000	0.2	0.2	0.2	0.2	0.2
2.500	0.2	0.2	0.2	0.3	0.3
3.000	0.3	0.3	0.3	0.3	0.3
3.500	0.3	0.3	0.3	0.4	0.4
4.000	0.4	0.4	0.4	0.4	0.4
4.500	0.4	0.4	0.5	0.5	0.5
5.000	0.5	0.5	0.5	0.5	0.5
5.500	0.6	0.6	0.6	0.6	0.6
6.000	0.6	0.6	0.7	0.7	0.7
6.500	0.7	0.7	0.7	0.8	0.8
7.000	0.8	0.8	0.8	0.8	0.8
7.500	0.9	0.9	0.9	0.9	0.9
8.000	0.9	1.0	1.0	1.0	1.0
8.500	1.0	1.1	1.1	1.1	1.1
9.000	1.2	1.2	1.2	1.2	1.3
9.500	1.3	1.3	1.3	1.4	1.4
10.000	1.4	1.5	1.5	1.5	1.6
10.500	1.6	1.7	1.7	1.7	1.8
11.000	1.9	1.9	2.0	2.1	2.1
11.500	2.2	2.4	2.8	3.4	4.5
12.000	5.2	5.4	5.5	5.6	5.7
12.500	5.8	5.9	5.9	6.0	6.0
13.000	6.1	6.1	6.2	6.2	6.3
13.500	6.3	6.3	6.4	6.4	6.4
14.000	6.5	6.5	6.5	6.6	6.6
14.500	6.6	6.6	6.7	6.7	6.7
15.000	6.7	6.8	6.8	6.8	6.8
15.500	6.9	6.9	6.9	6.9	6.9
16.000	7.0	7.0	7.0	7.0	7.0

Mission Preserve Existing

Subsection: Time-Depth Curve

Return Event: 100 years

Label: Johnson County

Storm Event: TypeII 24hr (7.9 in)

Scenario: Johnson County - Synthetic Curve, 100 yrs

CUMULATIVE RAINFALL (in)

Output Time Increment = 0.100 hours

Time on left represents time for first value in each row.

Time (hours)	Depth (in)	Depth (in)	Depth (in)	Depth (in)	Depth (in)
16.500	7.0	7.1	7.1	7.1	7.1
17.000	7.1	7.1	7.2	7.2	7.2
17.500	7.2	7.2	7.2	7.2	7.3
18.000	7.3	7.3	7.3	7.3	7.3
18.500	7.3	7.4	7.4	7.4	7.4
19.000	7.4	7.4	7.4	7.4	7.5
19.500	7.5	7.5	7.5	7.5	7.5
20.000	7.5	7.5	7.5	7.6	7.6
20.500	7.6	7.6	7.6	7.6	7.6
21.000	7.6	7.6	7.6	7.7	7.7
21.500	7.7	7.7	7.7	7.7	7.7
22.000	7.7	7.7	7.7	7.7	7.8
22.500	7.8	7.8	7.8	7.8	7.8
23.000	7.8	7.8	7.8	7.8	7.8
23.500	7.9	7.9	7.9	7.9	7.9
24.000	7.9	(N/A)	(N/A)	(N/A)	(N/A)

Mission Preserve Existing

Subsection: Time of Concentration Calculations

Label: NE DA

Scenario: Johnson County - Synthetic Curve, 100 yrs

Return Event: 100 years

Storm Event: TypeII 24hr (7.9 in)

Time of Concentration Results

Segment #1: TR-55 Sheet Flow

Hydraulic Length	100.00 ft
Manning's n	0.400
Slope	0.060 ft/ft
2 Year 24 Hour Depth	3.5 in
Average Velocity	0.13 ft/s
Segment Time of Concentration	0.221 hours

Segment #2: TR-55 Shallow Concentrated Flow

Hydraulic Length	400.00 ft
Is Paved?	False
Slope	0.120 ft/ft
Average Velocity	5.59 ft/s
Segment Time of Concentration	0.020 hours

Time of Concentration (Composite)

Time of Concentration (Composite)	0.240 hours
-----------------------------------	-------------

Mission Preserve Existing

Subsection: Time of Concentration Calculations

Label: NE DA

Scenario: Johnson County - Synthetic Curve, 100 yrs

Return Event: 100 years

Storm Event: TypeII 24hr (7.9 in)

==== SCS Channel Flow

$$T_c = \frac{R = Q_a / W_p}{V = (1.49 * (R^{2/3}) * (S_f^{0.5})) / n}$$

Where: $(L_f / V) / 3600$
R= Hydraulic radius
A_q= Flow area, square feet
W_p= Wetted perimeter, feet
V= Velocity, ft/sec
S_f= Slope, ft/ft
n= Manning's n
T_c= Time of concentration, hours
L_f= Flow length, feet

==== SCS TR-55 Shallow Concentration Flow

$$T_c = \frac{\text{Unpaved surface:}}{V = 16.1345 * (S_f^{0.5})}$$

$$\text{Paved Surface:}$$
$$V = 20.3282 * (S_f^{0.5})$$

Where: $(L_f / V) / 3600$
V= Velocity, ft/sec
S_f= Slope, ft/ft
T_c= Time of concentration, hours
L_f= Flow length, feet

Mission Preserve Existing

Subsection: Time of Concentration Calculations

Label: Offsite

Scenario: Johnson County - Synthetic Curve, 100 yrs

Return Event: 100 years

Storm Event: TypeII 24hr (7.9 in)

Time of Concentration Results

Segment #1: User Defined Tc

Time of Concentration	0.250 hours
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Time of Concentration (Composite)

Time of Concentration (Composite)	0.250 hours
--------------------------------------	-------------

Mission Preserve Existing

Subsection: Time of Concentration Calculations

Label: Offsite

Scenario: Johnson County - Synthetic Curve, 100 yrs

Return Event: 100 years

Storm Event: TypeII 24hr (7.9 in)

==== User Defined

Tc = Value entered by user

Where: Tc= Time of concentration, hours

Mission Preserve Existing

Subsection: Time of Concentration Calculations

Label: SW DA

Scenario: Johnson County - Synthetic Curve, 100 yrs

Return Event: 100 years

Storm Event: TypeII 24hr (7.9 in)

Time of Concentration Results

Segment #1: TR-55 Sheet Flow

Hydraulic Length	60.00 ft
Manning's n	0.400
Slope	0.010 ft/ft
2 Year 24 Hour Depth	3.5 in
Average Velocity	0.06 ft/s
Segment Time of Concentration	0.300 hours

Segment #2: TR-55 Shallow Concentrated Flow

Hydraulic Length	250.00 ft
Is Paved?	False
Slope	0.150 ft/ft
Average Velocity	6.25 ft/s
Segment Time of Concentration	0.011 hours

Segment #3: Length and Velocity

Hydraulic Length	180.00 ft
Velocity	5.00 ft/s
Segment Time of Concentration	0.010 hours

Time of Concentration (Composite)

Time of Concentration (Composite)	0.321 hours
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Mission Preserve Existing

Subsection: Time of Concentration Calculations

Label: SW DA

Scenario: Johnson County - Synthetic Curve, 100 yrs

Return Event: 100 years

Storm Event: TypeII 24hr (7.9 in)

==== User Defined Length & Velocity

Tc = $(L_f / V) / 3600$
Where: Tc= Time of concentration, hours
Lf= Flow length, feet
V= Velocity, ft/sec

==== SCS Channel Flow

Tc = $R = Q_a / W_p$
 $V = (1.49 * (R^{2/3}) * (S_f^{0.5})) / n$
 $(L_f / V) / 3600$
Where: R= Hydraulic radius
Aq= Flow area, square feet
Wp= Wetted perimeter, feet
V= Velocity, ft/sec
Sf= Slope, ft/ft
n= Manning's n
Tc= Time of concentration, hours
Lf= Flow length, feet

==== SCS TR-55 Shallow Concentration Flow

Tc = Unpaved surface:
 $V = 16.1345 * (S_f^{0.5})$
Paved Surface:
 $V = 20.3282 * (S_f^{0.5})$
 $(L_f / V) / 3600$
Where: V= Velocity, ft/sec
Sf= Slope, ft/ft
Tc= Time of concentration, hours
Lf= Flow length, feet

Mission Preserve Existing

Subsection: Runoff CN-Area

Return Event: 100 years

Label: NE DA

Storm Event: TypeII 24hr (7.9 in)

Scenario: Johnson County - Synthetic Curve, 100 yrs

Runoff Curve Number Data

Soil/Surface Description	CN	Area (acres)	C (%)	UC (%)	Adjusted CN
Woods - good - Soil D	77.000	4.600	0.0	0.0	77.000
Woods - good - Soil C	70.000	0.200	0.0	0.0	70.000
COMPOSITE AREA & WEIGHTED CN --->	(N/A)	4.800	(N/A)	(N/A)	76.708

Mission Preserve Existing

Subsection: Runoff CN-Area

Label: Offsite

Scenario: Johnson County - Synthetic Curve, 100 yrs

Return Event: 100 years

Storm Event: TypeII 24hr (7.9 in)

Runoff Curve Number Data

Soil/Surface Description	CN	Area (acres)	C (%)	UC (%)	Adjusted CN
Residential Districts - 1/4 acre - Soil C	83.000	0.400	0.0	0.0	83.000
COMPOSITE AREA & WEIGHTED CN --->	(N/A)	0.400	(N/A)	(N/A)	83.000

Mission Preserve Existing

Subsection: Runoff CN-Area

Label: SW DA

Scenario: Johnson County - Synthetic Curve, 100 yrs

Return Event: 100 years

Storm Event: TypeII 24hr (7.9 in)

Runoff Curve Number Data

Soil/Surface Description	CN	Area (acres)	C (%)	UC (%)	Adjusted CN
Woods - good - Soil D	77.000	4.500	0.0	0.0	77.000
COMPOSITE AREA & WEIGHTED CN --->	(N/A)	4.500	(N/A)	(N/A)	77.000

Mission Preserve Existing

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Mission Preserve Proposed

Project Summary

Title	Mission Preserve
Engineer	
Company	
Date	1/10/2022

Notes	Proposed Detention Calculations
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Scenario: Johnson County - Synthetic Curve, 10 yrs

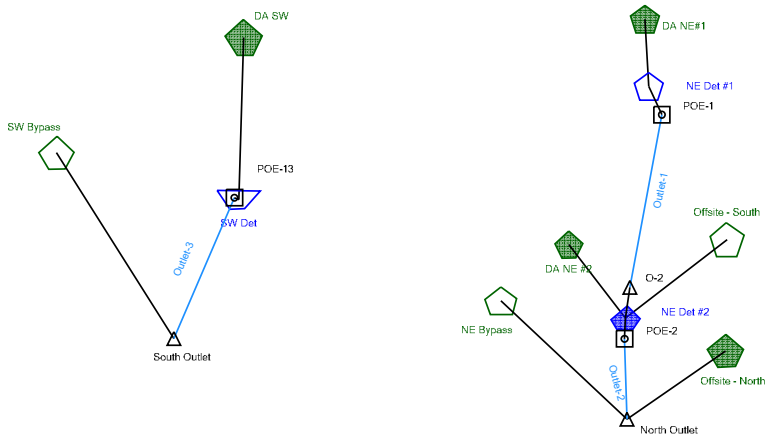


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Mission Preserve Proposed

Subsection: Master Network Summary

Catchments Summary

Label	Scenario	Return Event (years)	Hydrograph Volume (ft ³)	Time to Peak (hours)	Peak Flow (ft ³ /s)
DA NE#1	Johnson County - Synthetic Curve, 1 yrs	1	2,353.000	11.920	0.99
DA NE#1	Johnson County - Synthetic Curve, 10 yrs	10	4,879.000	11.920	1.98
DA NE#1	Johnson County - Synthetic Curve, 90 %	90	754.000	11.920	0.33
DA NE#1	Johnson County - Synthetic Curve, 100 yrs	100	7,562.000	11.920	2.98
NE Bypass	Johnson County - Synthetic Curve, 1 yrs	1	7,334.000	11.940	3.06
NE Bypass	Johnson County - Synthetic Curve, 10 yrs	10	19,433.000	11.940	8.16
NE Bypass	Johnson County - Synthetic Curve, 90 %	90	1,240.000	12.020	0.43
NE Bypass	Johnson County - Synthetic Curve, 100 yrs	100	33,416.000	11.920	13.85
DA NE #2	Johnson County - Synthetic Curve, 1 yrs	1	19,446.000	11.920	8.01
DA NE #2	Johnson County - Synthetic Curve, 10 yrs	10	41,781.000	11.920	16.69
DA NE #2	Johnson County - Synthetic Curve, 90 %	90	5,716.000	11.940	2.37
DA NE #2	Johnson County - Synthetic Curve, 100 yrs	100	65,737.000	11.920	25.61
Offsite - South	Johnson County - Synthetic Curve, 1 yrs	1	1,050.000	12.040	0.35
Offsite - South	Johnson County - Synthetic Curve, 10 yrs	10	2,569.000	12.040	0.85
Offsite - South	Johnson County - Synthetic Curve, 90 %	90	223.000	12.060	0.07

Mission Preserve Proposed

Subsection: Master Network Summary

Catchments Summary

Label	Scenario	Return Event (years)	Hydrograph Volume (ft ³)	Time to Peak (hours)	Peak Flow (ft ³ /s)
Offsite - South	Johnson County - Synthetic Curve, 100 yrs	100	4,270.000	12.040	1.39
DA SW	Johnson County - Synthetic Curve, 1 yrs	1	29,005.000	11.920	11.61
DA SW	Johnson County - Synthetic Curve, 10 yrs	10	58,044.000	11.920	22.36
DA SW	Johnson County - Synthetic Curve, 90 %	90	10,129.000	11.940	4.21
DA SW	Johnson County - Synthetic Curve, 100 yrs	100	88,646.000	11.920	33.38
SW Bypass	Johnson County - Synthetic Curve, 1 yrs	1	5,177.000	11.920	2.20
SW Bypass	Johnson County - Synthetic Curve, 10 yrs	10	13,717.000	11.920	5.92
SW Bypass	Johnson County - Synthetic Curve, 90 %	90	876.000	12.020	0.30
SW Bypass	Johnson County - Synthetic Curve, 100 yrs	100	23,587.000	11.920	10.03
Offsite - North	Johnson County - Synthetic Curve, 1 yrs	1	1,050.000	12.040	0.35
Offsite - North	Johnson County - Synthetic Curve, 10 yrs	10	2,569.000	12.040	0.85
Offsite - North	Johnson County - Synthetic Curve, 90 %	90	223.000	12.060	0.07
Offsite - North	Johnson County - Synthetic Curve, 100 yrs	100	4,270.000	12.040	1.39

Node Summary

Label	Scenario	Return Event (years)	Hydrograph Volume (ft ³)	Time to Peak (hours)	Peak Flow (ft ³ /s)
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Mission Preserve Proposed

Subsection: Master Network Summary

Node Summary

Label	Scenario	Return Event (years)	Hydrograph Volume (ft ³)	Time to Peak (hours)	Peak Flow (ft ³ /s)
North Outlet	Johnson County - Synthetic Curve, 1 yrs	1	27,876.000	12.040	5.83
North Outlet	Johnson County - Synthetic Curve, 10 yrs	10	67,817.000	12.020	18.89
North Outlet	Johnson County - Synthetic Curve, 90 %	90	8,127.000	12.020	0.54
North Outlet	Johnson County - Synthetic Curve, 100 yrs	100	111,809.000	12.000	29.49
South Outlet	Johnson County - Synthetic Curve, 1 yrs	1	30,422.000	12.020	4.92
South Outlet	Johnson County - Synthetic Curve, 10 yrs	10	67,677.000	11.940	11.63
South Outlet	Johnson County - Synthetic Curve, 90 %	90	10,994.000	12.020	0.41
South Outlet	Johnson County - Synthetic Curve, 100 yrs	100	108,045.000	11.940	17.13

Pond Summary

Label	Scenario	Return Event (years)	Hydrograph Volume (ft ³)	Time to Peak (hours)	Peak Flow (ft ³ /s)	Maximum Water Surface Elevation (ft)	Maximum Pond Storage (ft ³)
NE Det #1 (IN)	Johnson County - Synthetic Curve, 1 yrs	1	2,353.000	11.920	0.99	(N/A)	(N/A)
NE Det #1 (OUT)	Johnson County - Synthetic Curve, 1 yrs	1	2,353.000	12.020	0.69	995.50	350.000
NE Det #1 (IN)	Johnson County - Synthetic Curve, 10 yrs	10	4,879.000	11.920	1.98	(N/A)	(N/A)

Mission Preserve Proposed

Subsection: Master Network Summary

Pond Summary

Label	Scenario	Return Event (years)	Hydrograph Volume (ft ³)	Time to Peak (hours)	Peak Flow (ft ³ /s)	Maximum Water Surface Elevation (ft)	Maximum Pond Storage (ft ³)
NE Det #1 (OUT)	Johnson County - Synthetic Curve, 10 yrs	10	4,879.000	12.020	1.49	995.91	637.000
NE Det #1 (IN)	Johnson County - Synthetic Curve, 90 %	90	754.000	11.920	0.33	(N/A)	(N/A)
NE Det #1 (OUT)	Johnson County - Synthetic Curve, 90 %	90	754.000	12.040	0.23	995.17	115.000
NE Det #1 (IN)	Johnson County - Synthetic Curve, 100 yrs	100	7,562.000	11.920	2.98	(N/A)	(N/A)
NE Det #1 (OUT)	Johnson County - Synthetic Curve, 100 yrs	100	7,562.000	12.020	2.23	996.35	939.000
NE Det #2 (IN)	Johnson County - Synthetic Curve, 1 yrs	1	22,850.000	11.940	8.86	(N/A)	(N/A)
NE Det #2 (OUT)	Johnson County - Synthetic Curve, 1 yrs	1	19,491.000	12.100	3.59	977.28	9,922.000
NE Det #2 (IN)	Johnson County - Synthetic Curve, 10 yrs	10	49,229.000	11.940	18.55	(N/A)	(N/A)
NE Det #2 (OUT)	Johnson County - Synthetic Curve, 10 yrs	10	45,816.000	12.060	11.65	978.45	16,114.000
NE Det #2 (IN)	Johnson County - Synthetic Curve, 90 %	90	WQV 6,693.000	11.940	2.60	(N/A)	(N/A)
NE Det #2 (OUT)	Johnson County - Synthetic Curve, 90 %	90	6,664.000	15.940	0.08	975.96	4,189.000

Mission Preserve Proposed

Subsection: Master Network Summary

Pond Summary

Label	Scenario	Return Event (years)	Hydrograph Volume (ft ³)	Time to Peak (hours)	Peak Flow (ft ³ /s)	Maximum Water Surface Elevation (ft)	Maximum Pond Storage (ft ³)
NE Det #2 (IN)	Johnson County - Synthetic Curve, 100 yrs	100	77,569.000	11.920	28.52	(N/A)	(N/A)
NE Det #2 (OUT)	Johnson County - Synthetic Curve, 100 yrs	100	74,122.000	12.060	17.41	979.28	21,762.000
SW Det (IN)	Johnson County - Synthetic Curve, 1 yrs	1	29,005.000	11.920	11.61	(N/A)	(N/A)
SW Det (OUT)	Johnson County - Synthetic Curve, 1 yrs	1	25,245.000	12.100	3.52	979.30	14,367.000
SW Det (IN)	Johnson County - Synthetic Curve, 10 yrs	10	58,044.000	11.920	22.36	(N/A)	(N/A)
SW Det (OUT)	Johnson County - Synthetic Curve, 10 yrs	10	53,961.000	12.100	7.02	981.72	26,206.000
SW Det (IN)	Johnson County - Synthetic Curve, 90 %	90	10,129.000	11.940	4.21	(N/A)	(N/A)
SW Det (OUT)	Johnson County - Synthetic Curve, 90 %	90	10,118.000	14.960	0.12	977.48	6,456.000
SW Det (IN)	Johnson County - Synthetic Curve, 100 yrs	100	88,646.000	11.920	33.38	(N/A)	(N/A)
SW Det (OUT)	Johnson County - Synthetic Curve, 100 yrs	100	84,458.000	12.120	8.63	983.38	37,487.000

Mission Preserve Proposed

Subsection: Time-Depth Curve

Return Event: 90 years

Label: Johnson County

Storm Event: TypeII 24hr (1.4 in)

Scenario: Johnson County - Synthetic Curve, 90 %

Time-Depth Curve: TypeII 24hr (1.4 in)

Label	TypeII 24hr (1.4 in)
Start Time	0.000 hours
Increment	0.100 hours
End Time	24.000 hours
Return Event	90 years

CUMULATIVE RAINFALL (in)

Output Time Increment = 0.100 hours

Time on left represents time for first value in each row.

Time (hours)	Depth (in)	Depth (in)	Depth (in)	Depth (in)	Depth (in)
0.000	0.0	0.0	0.0	0.0	0.0
0.500	0.0	0.0	0.0	0.0	0.0
1.000	0.0	0.0	0.0	0.0	0.0
1.500	0.0	0.0	0.0	0.0	0.0
2.000	0.0	0.0	0.0	0.0	0.0
2.500	0.0	0.0	0.0	0.0	0.0
3.000	0.0	0.0	0.1	0.1	0.1
3.500	0.1	0.1	0.1	0.1	0.1
4.000	0.1	0.1	0.1	0.1	0.1
4.500	0.1	0.1	0.1	0.1	0.1
5.000	0.1	0.1	0.1	0.1	0.1
5.500	0.1	0.1	0.1	0.1	0.1
6.000	0.1	0.1	0.1	0.1	0.1
6.500	0.1	0.1	0.1	0.1	0.1
7.000	0.1	0.1	0.1	0.1	0.1
7.500	0.1	0.2	0.2	0.2	0.2
8.000	0.2	0.2	0.2	0.2	0.2
8.500	0.2	0.2	0.2	0.2	0.2
9.000	0.2	0.2	0.2	0.2	0.2
9.500	0.2	0.2	0.2	0.2	0.2
10.000	0.2	0.3	0.3	0.3	0.3
10.500	0.3	0.3	0.3	0.3	0.3
11.000	0.3	0.3	0.3	0.4	0.4
11.500	0.4	0.4	0.5	0.6	0.8
12.000	0.9	0.9	1.0	1.0	1.0
12.500	1.0	1.0	1.0	1.0	1.0
13.000	1.1	1.1	1.1	1.1	1.1
13.500	1.1	1.1	1.1	1.1	1.1
14.000	1.1	1.1	1.1	1.1	1.1
14.500	1.1	1.2	1.2	1.2	1.2
15.000	1.2	1.2	1.2	1.2	1.2
15.500	1.2	1.2	1.2	1.2	1.2
16.000	1.2	1.2	1.2	1.2	1.2

Mission Preserve Proposed

Subsection: Time-Depth Curve

Return Event: 90 years

Label: Johnson County

Storm Event: TypeII 24hr (1.4 in)

Scenario: Johnson County - Synthetic Curve, 90 %

CUMULATIVE RAINFALL (in)

Output Time Increment = 0.100 hours

Time on left represents time for first value in each row.

Time (hours)	Depth (in)	Depth (in)	Depth (in)	Depth (in)	Depth (in)
16.500	1.2	1.2	1.2	1.2	1.2
17.000	1.2	1.2	1.2	1.2	1.2
17.500	1.2	1.3	1.3	1.3	1.3
18.000	1.3	1.3	1.3	1.3	1.3
18.500	1.3	1.3	1.3	1.3	1.3
19.000	1.3	1.3	1.3	1.3	1.3
19.500	1.3	1.3	1.3	1.3	1.3
20.000	1.3	1.3	1.3	1.3	1.3
20.500	1.3	1.3	1.3	1.3	1.3
21.000	1.3	1.3	1.3	1.3	1.3
21.500	1.3	1.3	1.3	1.3	1.3
22.000	1.3	1.3	1.3	1.3	1.3
22.500	1.3	1.3	1.3	1.4	1.4
23.000	1.4	1.4	1.4	1.4	1.4
23.500	1.4	1.4	1.4	1.4	1.4
24.000	1.4	(N/A)	(N/A)	(N/A)	(N/A)

Mission Preserve Proposed

Subsection: Time-Depth Curve

Return Event: 1 years

Label: Johnson County

Storm Event: TypeII 24hr (3.0 in)

Scenario: Johnson County - Synthetic Curve, 1 yrs

Time-Depth Curve: TypeII 24hr (3.0 in)

Label	TypeII 24hr (3.0 in)
Start Time	0.000 hours
Increment	0.100 hours
End Time	24.000 hours
Return Event	1 years

CUMULATIVE RAINFALL (in)

Output Time Increment = 0.100 hours

Time on left represents time for first value in each row.

Time (hours)	Depth (in)	Depth (in)	Depth (in)	Depth (in)	Depth (in)
0.000	0.0	0.0	0.0	0.0	0.0
0.500	0.0	0.0	0.0	0.0	0.0
1.000	0.0	0.0	0.0	0.0	0.0
1.500	0.0	0.1	0.1	0.1	0.1
2.000	0.1	0.1	0.1	0.1	0.1
2.500	0.1	0.1	0.1	0.1	0.1
3.000	0.1	0.1	0.1	0.1	0.1
3.500	0.1	0.1	0.1	0.1	0.1
4.000	0.1	0.1	0.2	0.2	0.2
4.500	0.2	0.2	0.2	0.2	0.2
5.000	0.2	0.2	0.2	0.2	0.2
5.500	0.2	0.2	0.2	0.2	0.2
6.000	0.2	0.2	0.3	0.3	0.3
6.500	0.3	0.3	0.3	0.3	0.3
7.000	0.3	0.3	0.3	0.3	0.3
7.500	0.3	0.3	0.3	0.3	0.4
8.000	0.4	0.4	0.4	0.4	0.4
8.500	0.4	0.4	0.4	0.4	0.4
9.000	0.4	0.5	0.5	0.5	0.5
9.500	0.5	0.5	0.5	0.5	0.5
10.000	0.5	0.6	0.6	0.6	0.6
10.500	0.6	0.6	0.6	0.7	0.7
11.000	0.7	0.7	0.8	0.8	0.8
11.500	0.8	0.9	1.1	1.3	1.7
12.000	2.0	2.0	2.1	2.1	2.2
12.500	2.2	2.2	2.3	2.3	2.3
13.000	2.3	2.3	2.4	2.4	2.4
13.500	2.4	2.4	2.4	2.4	2.4
14.000	2.5	2.5	2.5	2.5	2.5
14.500	2.5	2.5	2.5	2.5	2.6
15.000	2.6	2.6	2.6	2.6	2.6
15.500	2.6	2.6	2.6	2.6	2.6
16.000	2.6	2.6	2.7	2.7	2.7

Mission Preserve Proposed

Subsection: Time-Depth Curve

Return Event: 1 years

Label: Johnson County

Storm Event: TypeII 24hr (3.0 in)

Scenario: Johnson County - Synthetic Curve, 1 yrs

CUMULATIVE RAINFALL (in)

Output Time Increment = 0.100 hours

Time on left represents time for first value in each row.

Time (hours)	Depth (in)	Depth (in)	Depth (in)	Depth (in)	Depth (in)
16.500	2.7	2.7	2.7	2.7	2.7
17.000	2.7	2.7	2.7	2.7	2.7
17.500	2.7	2.7	2.7	2.8	2.8
18.000	2.8	2.8	2.8	2.8	2.8
18.500	2.8	2.8	2.8	2.8	2.8
19.000	2.8	2.8	2.8	2.8	2.8
19.500	2.8	2.8	2.8	2.8	2.9
20.000	2.9	2.9	2.9	2.9	2.9
20.500	2.9	2.9	2.9	2.9	2.9
21.000	2.9	2.9	2.9	2.9	2.9
21.500	2.9	2.9	2.9	2.9	2.9
22.000	2.9	2.9	2.9	2.9	2.9
22.500	2.9	3.0	3.0	3.0	3.0
23.000	3.0	3.0	3.0	3.0	3.0
23.500	3.0	3.0	3.0	3.0	3.0
24.000	3.0	(N/A)	(N/A)	(N/A)	(N/A)

Mission Preserve Proposed

Subsection: Time-Depth Curve

Label: Johnson County

Scenario: Johnson County - Synthetic Curve, 10 yrs

Return Event: 10 years

Storm Event: TypeII 24hr (5.4 in)

Time-Depth Curve: TypeII 24hr (5.4 in)

Label	TypeII 24hr (5.4 in)
Start Time	0.000 hours
Increment	0.100 hours
End Time	24.000 hours
Return Event	10 years

CUMULATIVE RAINFALL (in)

Output Time Increment = 0.100 hours

Time on left represents time for first value in each row.

Time (hours)	Depth (in)	Depth (in)	Depth (in)	Depth (in)	Depth (in)
0.000	0.0	0.0	0.0	0.0	0.0
0.500	0.0	0.0	0.0	0.0	0.1
1.000	0.1	0.1	0.1	0.1	0.1
1.500	0.1	0.1	0.1	0.1	0.1
2.000	0.1	0.1	0.1	0.1	0.1
2.500	0.2	0.2	0.2	0.2	0.2
3.000	0.2	0.2	0.2	0.2	0.2
3.500	0.2	0.2	0.2	0.2	0.3
4.000	0.3	0.3	0.3	0.3	0.3
4.500	0.3	0.3	0.3	0.3	0.3
5.000	0.3	0.3	0.4	0.4	0.4
5.500	0.4	0.4	0.4	0.4	0.4
6.000	0.4	0.4	0.5	0.5	0.5
6.500	0.5	0.5	0.5	0.5	0.5
7.000	0.5	0.5	0.6	0.6	0.6
7.500	0.6	0.6	0.6	0.6	0.6
8.000	0.6	0.7	0.7	0.7	0.7
8.500	0.7	0.7	0.7	0.8	0.8
9.000	0.8	0.8	0.8	0.8	0.9
9.500	0.9	0.9	0.9	0.9	1.0
10.000	1.0	1.0	1.0	1.0	1.1
10.500	1.1	1.1	1.2	1.2	1.2
11.000	1.3	1.3	1.4	1.4	1.5
11.500	1.5	1.7	1.9	2.3	3.1
12.000	3.6	3.7	3.8	3.9	3.9
12.500	4.0	4.0	4.1	4.1	4.1
13.000	4.2	4.2	4.2	4.3	4.3
13.500	4.3	4.3	4.4	4.4	4.4
14.000	4.4	4.4	4.5	4.5	4.5
14.500	4.5	4.5	4.6	4.6	4.6
15.000	4.6	4.6	4.6	4.7	4.7
15.500	4.7	4.7	4.7	4.7	4.7
16.000	4.8	4.8	4.8	4.8	4.8

Mission Preserve Proposed

Subsection: Time-Depth Curve

Return Event: 10 years

Label: Johnson County

Storm Event: TypeII 24hr (5.4 in)

Scenario: Johnson County - Synthetic Curve, 10 yrs

CUMULATIVE RAINFALL (in)

Output Time Increment = 0.100 hours

Time on left represents time for first value in each row.

Time (hours)	Depth (in)	Depth (in)	Depth (in)	Depth (in)	Depth (in)
16.500	4.8	4.8	4.8	4.8	4.9
17.000	4.9	4.9	4.9	4.9	4.9
17.500	4.9	4.9	4.9	5.0	5.0
18.000	5.0	5.0	5.0	5.0	5.0
18.500	5.0	5.0	5.0	5.0	5.1
19.000	5.1	5.1	5.1	5.1	5.1
19.500	5.1	5.1	5.1	5.1	5.1
20.000	5.1	5.1	5.2	5.2	5.2
20.500	5.2	5.2	5.2	5.2	5.2
21.000	5.2	5.2	5.2	5.2	5.2
21.500	5.2	5.2	5.3	5.3	5.3
22.000	5.3	5.3	5.3	5.3	5.3
22.500	5.3	5.3	5.3	5.3	5.3
23.000	5.3	5.3	5.4	5.4	5.4
23.500	5.4	5.4	5.4	5.4	5.4
24.000	5.4	(N/A)	(N/A)	(N/A)	(N/A)

Mission Preserve Proposed

Subsection: Time-Depth Curve

Return Event: 100 years

Label: Johnson County

Storm Event: TypeII 24hr (7.9 in)

Scenario: Johnson County - Synthetic Curve, 100 yrs

Time-Depth Curve: TypeII 24hr (7.9 in)

Label	TypeII 24hr (7.9 in)
Start Time	0.000 hours
Increment	0.100 hours
End Time	24.000 hours
Return Event	100 years

CUMULATIVE RAINFALL (in)

Output Time Increment = 0.100 hours

Time on left represents time for first value in each row.

Time (hours)	Depth (in)	Depth (in)	Depth (in)	Depth (in)	Depth (in)
0.000	0.0	0.0	0.0	0.0	0.0
0.500	0.0	0.0	0.1	0.1	0.1
1.000	0.1	0.1	0.1	0.1	0.1
1.500	0.1	0.1	0.1	0.2	0.2
2.000	0.2	0.2	0.2	0.2	0.2
2.500	0.2	0.2	0.2	0.3	0.3
3.000	0.3	0.3	0.3	0.3	0.3
3.500	0.3	0.3	0.3	0.4	0.4
4.000	0.4	0.4	0.4	0.4	0.4
4.500	0.4	0.4	0.5	0.5	0.5
5.000	0.5	0.5	0.5	0.5	0.5
5.500	0.6	0.6	0.6	0.6	0.6
6.000	0.6	0.6	0.7	0.7	0.7
6.500	0.7	0.7	0.7	0.8	0.8
7.000	0.8	0.8	0.8	0.8	0.8
7.500	0.9	0.9	0.9	0.9	0.9
8.000	0.9	1.0	1.0	1.0	1.0
8.500	1.0	1.1	1.1	1.1	1.1
9.000	1.2	1.2	1.2	1.2	1.3
9.500	1.3	1.3	1.3	1.4	1.4
10.000	1.4	1.5	1.5	1.5	1.6
10.500	1.6	1.7	1.7	1.7	1.8
11.000	1.9	1.9	2.0	2.1	2.1
11.500	2.2	2.4	2.8	3.4	4.5
12.000	5.2	5.4	5.5	5.6	5.7
12.500	5.8	5.9	5.9	6.0	6.0
13.000	6.1	6.1	6.2	6.2	6.3
13.500	6.3	6.3	6.4	6.4	6.4
14.000	6.5	6.5	6.5	6.6	6.6
14.500	6.6	6.6	6.7	6.7	6.7
15.000	6.7	6.8	6.8	6.8	6.8
15.500	6.9	6.9	6.9	6.9	6.9
16.000	7.0	7.0	7.0	7.0	7.0

Mission Preserve Proposed

Subsection: Time-Depth Curve

Return Event: 100 years

Label: Johnson County

Storm Event: TypeII 24hr (7.9 in)

Scenario: Johnson County - Synthetic Curve, 100 yrs

CUMULATIVE RAINFALL (in)

Output Time Increment = 0.100 hours

Time on left represents time for first value in each row.

Time (hours)	Depth (in)	Depth (in)	Depth (in)	Depth (in)	Depth (in)
16.500	7.0	7.1	7.1	7.1	7.1
17.000	7.1	7.1	7.2	7.2	7.2
17.500	7.2	7.2	7.2	7.2	7.3
18.000	7.3	7.3	7.3	7.3	7.3
18.500	7.3	7.4	7.4	7.4	7.4
19.000	7.4	7.4	7.4	7.4	7.5
19.500	7.5	7.5	7.5	7.5	7.5
20.000	7.5	7.5	7.5	7.6	7.6
20.500	7.6	7.6	7.6	7.6	7.6
21.000	7.6	7.6	7.6	7.7	7.7
21.500	7.7	7.7	7.7	7.7	7.7
22.000	7.7	7.7	7.7	7.7	7.8
22.500	7.8	7.8	7.8	7.8	7.8
23.000	7.8	7.8	7.8	7.8	7.8
23.500	7.9	7.9	7.9	7.9	7.9
24.000	7.9	(N/A)	(N/A)	(N/A)	(N/A)

Mission Preserve Proposed

Subsection: Time of Concentration Calculations

Label: DA NE #2

Scenario: Johnson County - Synthetic Curve, 100 yrs

Return Event: 100 years

Storm Event: TypeII 24hr (7.9 in)

Time of Concentration Results

Segment #1: User Defined Tc

Time of Concentration	0.100 hours
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Time of Concentration (Composite)

Time of Concentration (Composite)	0.100 hours
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Mission Preserve Proposed

Subsection: Time of Concentration Calculations

Label: DA NE #2

Scenario: Johnson County - Synthetic Curve, 100 yrs

Return Event: 100 years

Storm Event: TypeII 24hr (7.9 in)

==== User Defined

Tc = Value entered by user

Where: Tc= Time of concentration, hours

Mission Preserve Proposed

Subsection: Time of Concentration Calculations

Label: DA NE#1

Scenario: Johnson County - Synthetic Curve, 100 yrs

Return Event: 100 years

Storm Event: TypeII 24hr (7.9 in)

Time of Concentration Results

Segment #1: User Defined Tc

Time of Concentration	0.083 hours
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Time of Concentration (Composite)

Time of Concentration (Composite)	0.083 hours
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Mission Preserve Proposed

Subsection: Time of Concentration Calculations

Label: DA NE#1

Scenario: Johnson County - Synthetic Curve, 100 yrs

Return Event: 100 years

Storm Event: TypeII 24hr (7.9 in)

==== User Defined

Tc = Value entered by user

Where: Tc= Time of concentration, hours

Mission Preserve Proposed

Subsection: Time of Concentration Calculations

Label: DA SW

Scenario: Johnson County - Synthetic Curve, 100 yrs

Return Event: 100 years

Storm Event: TypeII 24hr (7.9 in)

Time of Concentration Results

Segment #1: User Defined Tc

Time of Concentration	0.100 hours
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Time of Concentration (Composite)

Time of Concentration (Composite)	0.100 hours
--------------------------------------	-------------

Mission Preserve Proposed

Subsection: Time of Concentration Calculations

Label: DA SW

Scenario: Johnson County - Synthetic Curve, 100 yrs

Return Event: 100 years

Storm Event: TypeII 24hr (7.9 in)

==== User Defined

Tc = Value entered by user

Where: Tc= Time of concentration, hours

Mission Preserve Proposed

Subsection: Time of Concentration Calculations

Label: NE Bypass

Scenario: Johnson County - Synthetic Curve, 100 yrs

Return Event: 100 years

Storm Event: TypeII 24hr (7.9 in)

Time of Concentration Results

Segment #1: TR-55 Sheet Flow

Hydraulic Length	100.00 ft
Manning's n	0.150
Slope	0.100 ft/ft
2 Year 24 Hour Depth	3.5 in
Average Velocity	0.34 ft/s
Segment Time of Concentration	0.082 hours

Segment #2: TR-55 Shallow Concentrated Flow

Hydraulic Length	300.00 ft
Is Paved?	False
Slope	0.150 ft/ft
Average Velocity	6.25 ft/s
Segment Time of Concentration	0.013 hours

Time of Concentration (Composite)

Time of Concentration (Composite)	0.095 hours
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Mission Preserve Proposed

Subsection: Time of Concentration Calculations

Label: NE Bypass

Scenario: Johnson County - Synthetic Curve, 100 yrs

Return Event: 100 years

Storm Event: TypeII 24hr (7.9 in)

==== SCS Channel Flow

$$T_c = \frac{R = Q_a / W_p}{V = (1.49 * (R^{2/3}) * (S_f^{-0.5})) / n}$$

Where: $(L_f / V) / 3600$
R= Hydraulic radius
A_q= Flow area, square feet
W_p= Wetted perimeter, feet
V= Velocity, ft/sec
S_f= Slope, ft/ft
n= Manning's n
T_c= Time of concentration, hours
L_f= Flow length, feet

==== SCS TR-55 Shallow Concentration Flow

$$T_c = \frac{\text{Unpaved surface:}}{V = 16.1345 * (S_f^{0.5})}$$

$$\text{Paved Surface:}$$
$$V = 20.3282 * (S_f^{0.5})$$

Where: $(L_f / V) / 3600$
V= Velocity, ft/sec
S_f= Slope, ft/ft
T_c= Time of concentration, hours
L_f= Flow length, feet

Mission Preserve Proposed

Subsection: Time of Concentration Calculations

Label: Offsite - North

Scenario: Johnson County - Synthetic Curve, 100 yrs

Return Event: 100 years

Storm Event: TypeII 24hr (7.9 in)

Time of Concentration Results

Segment #1: User Defined Tc

Time of Concentration	0.250 hours
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Time of Concentration (Composite)

Time of Concentration (Composite)	0.250 hours
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Mission Preserve Proposed

Subsection: Time of Concentration Calculations

Label: Offsite - North

Scenario: Johnson County - Synthetic Curve, 100 yrs

Return Event: 100 years

Storm Event: TypeII 24hr (7.9 in)

==== User Defined

Tc = Value entered by user

Where: Tc= Time of concentration, hours

Mission Preserve Proposed

Subsection: Time of Concentration Calculations

Label: Offsite - South

Scenario: Johnson County - Synthetic Curve, 100 yrs

Return Event: 100 years

Storm Event: TypeII 24hr (7.9 in)

Time of Concentration Results

Segment #1: User Defined Tc

Time of Concentration	0.250 hours
-----------------------	-------------

Time of Concentration (Composite)

Time of Concentration (Composite)	0.250 hours
--------------------------------------	-------------

Mission Preserve Proposed

Subsection: Time of Concentration Calculations

Label: Offsite - South

Scenario: Johnson County - Synthetic Curve, 100 yrs

Return Event: 100 years

Storm Event: TypeII 24hr (7.9 in)

==== User Defined

Tc = Value entered by user

Where: Tc= Time of concentration, hours

Mission Preserve Proposed

Subsection: Time of Concentration Calculations

Label: SW Bypass

Scenario: Johnson County - Synthetic Curve, 100 yrs

Return Event: 100 years

Storm Event: TypeII 24hr (7.9 in)

Time of Concentration Results

Segment #1: TR-55 Sheet Flow

Hydraulic Length	100.00 ft
Manning's n	0.024
Slope	0.100 ft/ft
2 Year 24 Hour Depth	3.5 in
Average Velocity	1.47 ft/s
Segment Time of Concentration	0.019 hours

Segment #2: Length and Velocity

Hydraulic Length	300.00 ft
Velocity	5.00 ft/s
Segment Time of Concentration	0.017 hours

Time of Concentration (Composite)

Time of Concentration (Composite)	0.083 hours
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Mission Preserve Proposed

Subsection: Time of Concentration Calculations

Label: SW Bypass

Scenario: Johnson County - Synthetic Curve, 100 yrs

Return Event: 100 years

Storm Event: TypeII 24hr (7.9 in)

==== User Defined Length & Velocity

Tc = $(L_f / V) / 3600$
Where: Tc= Time of concentration, hours
Lf= Flow length, feet
V= Velocity, ft/sec

==== SCS Channel Flow

Tc = $R = Q_a / W_p$
 $V = (1.49 * (R^{2/3}) * (S_f^{*-0.5})) / n$
 $(L_f / V) / 3600$
Where: R= Hydraulic radius
Aq= Flow area, square feet
Wp= Wetted perimeter, feet
V= Velocity, ft/sec
Sf= Slope, ft/ft
n= Manning's n
Tc= Time of concentration, hours
Lf= Flow length, feet

Mission Preserve Proposed

Subsection: Runoff CN-Area

Return Event: 100 years

Label: DA NE #2

Storm Event: TypeII 24hr (7.9 in)

Scenario: Johnson County - Synthetic Curve, 100 yrs

Runoff Curve Number Data

Soil/Surface Description	CN	Area (acres)	C (%)	UC (%)	Adjusted CN
Impervious Area - Soil D	98.000	1.500	0.0	0.0	98.000
Open Space - HSG D - Good	80.000	1.200	0.0	0.0	80.000
COMPOSITE AREA & WEIGHTED CN --->	(N/A)	2.700	(N/A)	(N/A)	90.000

Mission Preserve Proposed

Subsection: Runoff CN-Area

Return Event: 100 years

Label: DA NE#1

Storm Event: TypeII 24hr (7.9 in)

Scenario: Johnson County - Synthetic Curve, 100 yrs

Runoff Curve Number Data

Soil/Surface Description	CN	Area (acres)	C (%)	UC (%)	Adjusted CN
Impervious Area	98.000	0.200	0.0	0.0	98.000
Ooen Space - HSG D - Good	80.000	0.100	0.0	0.0	80.000
COMPOSITE AREA & WEIGHTED CN --->	(N/A)	0.300	(N/A)	(N/A)	92.000

Mission Preserve Proposed

Subsection: Runoff CN-Area

Return Event: 100 years

Label: DA SW

Storm Event: TypeII 24hr (7.9 in)

Scenario: Johnson County - Synthetic Curve, 100 yrs

Runoff Curve Number Data

Soil/Surface Description	CN	Area (acres)	C (%)	UC (%)	Adjusted CN
Impervious Area	98.000	2.550	0.0	0.0	98.000
Open Space - HSG D - Good	80.000	0.850	0.0	0.0	80.000
COMPOSITE AREA & WEIGHTED CN --->	(N/A)	3.400	(N/A)	(N/A)	93.500

Mission Preserve Proposed

Subsection: Runoff CN-Area

Label: NE Bypass

Scenario: Johnson County - Synthetic Curve, 100 yrs

Return Event: 100 years

Storm Event: TypeII 24hr (7.9 in)

Runoff Curve Number Data

Soil/Surface Description	CN	Area (acres)	C (%)	UC (%)	Adjusted CN
Impervious Area	98.000	0.100	0.0	0.0	98.000
Native Vegetation	78.000	1.600	0.0	0.0	78.000
COMPOSITE AREA & WEIGHTED CN --->	(N/A)	1.700	(N/A)	(N/A)	79.176

Mission Preserve Proposed

Subsection: Runoff CN-Area

Label: Offsite - North

Scenario: Johnson County - Synthetic Curve, 100 yrs

Return Event: 100 years

Storm Event: TypeII 24hr (7.9 in)

Runoff Curve Number Data

Soil/Surface Description	CN	Area (acres)	C (%)	UC (%)	Adjusted CN
Residential Districts - 1/4 acre - Soil C	83.000	0.200	0.0	0.0	83.000
COMPOSITE AREA & WEIGHTED CN --->	(N/A)	0.200	(N/A)	(N/A)	83.000

Mission Preserve Proposed

Subsection: Runoff CN-Area

Label: Offsite - South

Scenario: Johnson County - Synthetic Curve, 100 yrs

Return Event: 100 years

Storm Event: TypeII 24hr (7.9 in)

Runoff Curve Number Data

Soil/Surface Description	CN	Area (acres)	C (%)	UC (%)	Adjusted CN
Residential Districts - 1/4 acre - Soil C	83.000	0.200	0.0	0.0	83.000
COMPOSITE AREA & WEIGHTED CN --->	(N/A)	0.200	(N/A)	(N/A)	83.000

Mission Preserve Proposed

Subsection: Runoff CN-Area

Label: SW Bypass

Scenario: Johnson County - Synthetic Curve, 100 yrs

Return Event: 100 years

Storm Event: TypeII 24hr (7.9 in)

Runoff Curve Number Data

Soil/Surface Description	CN	Area (acres)	C (%)	UC (%)	Adjusted CN
Impervious Area	98.000	0.050	0.0	0.0	98.000
Native Vegetation	78.000	1.150	0.0	0.0	78.000
COMPOSITE AREA & WEIGHTED CN --->	(N/A)	1.200	(N/A)	(N/A)	78.833

NE BMP

Time to Drain = 57.38 - 15.94 = 41.44 hours (okay)

Mission Preserve Proposed

Subsection: Hydrograph

Label: NE Det #2 (OUT)

Scenario: Johnson County - Synthetic Curve, 90 %

Return Event: 90 years

Storm Event: TypeII 24hr (1.4 in)

Peak Discharge	0.08 ft ³ /s
Time to Peak	15.940 hours
Hydrograph Volume	6,663.695 ft ³

HYDROGRAPH ORDINATES (ft³/s)

Output Time Increment = 0.020 hours

Time on left represents time for first value in each row.

Time (hours)	Flow (ft ³ /s)	Flow (ft ³ /s)	Flow (ft ³ /s)	Flow (ft ³ /s)	Flow (ft ³ /s)
0.000	0.00	0.00	0.00	0.00	0.00
0.100	0.00	0.00	0.00	0.00	0.00
0.200	0.00	0.00	0.00	0.00	0.00
0.300	0.00	0.00	0.00	0.00	0.00
0.400	0.00	0.00	0.00	0.00	0.00
0.500	0.00	0.00	0.00	0.00	0.00
0.600	0.00	0.00	0.00	0.00	0.00
0.700	0.00	0.00	0.00	0.00	0.00
0.800	0.00	0.00	0.00	0.00	0.00
0.900	0.00	0.00	0.00	0.00	0.00
1.000	0.00	0.00	0.00	0.00	0.00
1.100	0.00	0.00	0.00	0.00	0.00
1.200	0.00	0.00	0.00	0.00	0.00
1.300	0.00	0.00	0.00	0.00	0.00
1.400	0.00	0.00	0.00	0.00	0.00
1.500	0.00	0.00	0.00	0.00	0.00
1.600	0.00	0.00	0.00	0.00	0.00
1.700	0.00	0.00	0.00	0.00	0.00
1.800	0.00	0.00	0.00	0.00	0.00
1.900	0.00	0.00	0.00	0.00	0.00
2.000	0.00	0.00	0.00	0.00	0.00
2.100	0.00	0.00	0.00	0.00	0.00
2.200	0.00	0.00	0.00	0.00	0.00
2.300	0.00	0.00	0.00	0.00	0.00
2.400	0.00	0.00	0.00	0.00	0.00
2.500	0.00	0.00	0.00	0.00	0.00
2.600	0.00	0.00	0.00	0.00	0.00
2.700	0.00	0.00	0.00	0.00	0.00
2.800	0.00	0.00	0.00	0.00	0.00
2.900	0.00	0.00	0.00	0.00	0.00
3.000	0.00	0.00	0.00	0.00	0.00
3.100	0.00	0.00	0.00	0.00	0.00
3.200	0.00	0.00	0.00	0.00	0.00
3.300	0.00	0.00	0.00	0.00	0.00
3.400	0.00	0.00	0.00	0.00	0.00
3.500	0.00	0.00	0.00	0.00	0.00
3.600	0.00	0.00	0.00	0.00	0.00

Mission Preserve Proposed

Subsection: Hydrograph

Return Event: 90 years

Label: NE Det #2 (OUT)

Storm Event: TypeII 24hr (1.4 in)

Scenario: Johnson County - Synthetic Curve, 90 %

HYDROGRAPH ORDINATES (ft³/s)

Output Time Increment = 0.020 hours

Time on left represents time for first value in each row.

Time (hours)	Flow (ft ³ /s)	Flow (ft ³ /s)	Flow (ft ³ /s)	Flow (ft ³ /s)	Flow (ft ³ /s)
3.700	0.00	0.00	0.00	0.00	0.00
3.800	0.00	0.00	0.00	0.00	0.00
3.900	0.00	0.00	0.00	0.00	0.00
4.000	0.00	0.00	0.00	0.00	0.00
4.100	0.00	0.00	0.00	0.00	0.00
4.200	0.00	0.00	0.00	0.00	0.00
4.300	0.00	0.00	0.00	0.00	0.00
4.400	0.00	0.00	0.00	0.00	0.00
4.500	0.00	0.00	0.00	0.00	0.00
4.600	0.00	0.00	0.00	0.00	0.00
4.700	0.00	0.00	0.00	0.00	0.00
4.800	0.00	0.00	0.00	0.00	0.00
4.900	0.00	0.00	0.00	0.00	0.00
5.000	0.00	0.00	0.00	0.00	0.00
5.100	0.00	0.00	0.00	0.00	0.00
5.200	0.00	0.00	0.00	0.00	0.00
5.300	0.00	0.00	0.00	0.00	0.00
5.400	0.00	0.00	0.00	0.00	0.00
5.500	0.00	0.00	0.00	0.00	0.00
5.600	0.00	0.00	0.00	0.00	0.00
5.700	0.00	0.00	0.00	0.00	0.00
5.800	0.00	0.00	0.00	0.00	0.00
5.900	0.00	0.00	0.00	0.00	0.00
6.000	0.00	0.00	0.00	0.00	0.00
6.100	0.00	0.00	0.00	0.00	0.00
6.200	0.00	0.00	0.00	0.00	0.00
6.300	0.00	0.00	0.00	0.00	0.00
6.400	0.00	0.00	0.00	0.00	0.00
6.500	0.00	0.00	0.00	0.00	0.00
6.600	0.00	0.00	0.00	0.00	0.00
6.700	0.00	0.00	0.00	0.00	0.00
6.800	0.00	0.00	0.00	0.00	0.00
6.900	0.00	0.00	0.00	0.00	0.00
7.000	0.00	0.00	0.00	0.00	0.00
7.100	0.00	0.00	0.00	0.00	0.00
7.200	0.00	0.00	0.00	0.00	0.00
7.300	0.00	0.00	0.00	0.00	0.00
7.400	0.00	0.00	0.00	0.00	0.00
7.500	0.00	0.00	0.00	0.00	0.00
7.600	0.00	0.00	0.00	0.00	0.00
7.700	0.00	0.00	0.00	0.00	0.00
7.800	0.00	0.00	0.00	0.00	0.00

Mission Preserve Proposed

Subsection: Hydrograph

Return Event: 90 years

Label: NE Det #2 (OUT)

Storm Event: TypeII 24hr (1.4 in)

Scenario: Johnson County - Synthetic Curve, 90 %

HYDROGRAPH ORDINATES (ft³/s)

Output Time Increment = 0.020 hours

Time on left represents time for first value in each row.

Time (hours)	Flow (ft ³ /s)	Flow (ft ³ /s)	Flow (ft ³ /s)	Flow (ft ³ /s)	Flow (ft ³ /s)
7.900	0.00	0.00	0.00	0.00	0.00
8.000	0.00	0.00	0.00	0.00	0.00
8.100	0.00	0.00	0.00	0.00	0.00
8.200	0.00	0.00	0.00	0.00	0.00
8.300	0.00	0.00	0.00	0.00	0.00
8.400	0.00	0.00	0.00	0.00	0.00
8.500	0.00	0.00	0.00	0.00	0.00
8.600	0.00	0.00	0.00	0.00	0.00
8.700	0.00	0.00	0.00	0.00	0.00
8.800	0.00	0.00	0.00	0.00	0.00
8.900	0.00	0.00	0.00	0.00	0.00
9.000	0.00	0.00	0.00	0.00	0.00
9.100	0.00	0.00	0.00	0.00	0.00
9.200	0.00	0.00	0.00	0.00	0.00
9.300	0.00	0.00	0.00	0.00	0.00
9.400	0.00	0.00	0.00	0.00	0.00
9.500	0.00	0.00	0.00	0.00	0.00
9.600	0.00	0.00	0.00	0.00	0.00
9.700	0.00	0.00	0.00	0.00	0.00
9.800	0.00	0.00	0.00	0.00	0.00
9.900	0.00	0.00	0.00	0.00	0.00
10.000	0.00	0.00	0.00	0.00	0.00
10.100	0.00	0.00	0.00	0.00	0.00
10.200	0.00	0.00	0.00	0.00	0.00
10.300	0.00	0.00	0.00	0.00	0.00
10.400	0.00	0.00	0.00	0.00	0.00
10.500	0.00	0.00	0.00	0.00	0.00
10.600	0.00	0.00	0.00	0.00	0.00
10.700	0.00	0.00	0.00	0.00	0.00
10.800	0.00	0.00	0.00	0.00	0.00
10.900	0.00	0.00	0.00	0.00	0.00
11.000	0.00	0.00	0.00	0.00	0.00
11.100	0.00	0.00	0.00	0.00	0.00
11.200	0.00	0.00	0.00	0.00	0.00
11.300	0.00	0.00	0.00	0.00	0.00
11.400	0.00	0.00	0.00	0.00	0.00
11.500	0.00	0.01	0.01	0.01	0.01
11.600	0.01	0.01	0.01	0.01	0.01
11.700	0.01	0.01	0.01	0.01	0.01
11.800	0.02	0.02	0.02	0.02	0.03
11.900	0.03	0.03	0.04	0.04	0.05
12.000	0.05	0.05	0.06	0.06	0.06

Mission Preserve Proposed

Subsection: Hydrograph

Return Event: 90 years

Label: NE Det #2 (OUT)

Storm Event: TypeII 24hr (1.4 in)

Scenario: Johnson County - Synthetic Curve, 90 %

HYDROGRAPH ORDINATES (ft³/s)

Output Time Increment = 0.020 hours

Time on left represents time for first value in each row.

Time (hours)	Flow (ft ³ /s)	Flow (ft ³ /s)	Flow (ft ³ /s)	Flow (ft ³ /s)	Flow (ft ³ /s)
12.100	0.06	0.06	0.06	0.06	0.06
12.200	0.06	0.06	0.06	0.06	0.06
12.300	0.06	0.06	0.07	0.07	0.07
12.400	0.07	0.07	0.07	0.07	0.07
12.500	0.07	0.07	0.07	0.07	0.07
12.600	0.07	0.07	0.07	0.07	0.07
12.700	0.07	0.07	0.07	0.07	0.07
12.800	0.07	0.07	0.07	0.07	0.07
12.900	0.07	0.07	0.07	0.07	0.07
13.000	0.07	0.07	0.07	0.07	0.07
13.100	0.07	0.07	0.07	0.07	0.07
13.200	0.07	0.07	0.07	0.07	0.07
13.300	0.07	0.07	0.07	0.07	0.07
13.400	0.07	0.07	0.07	0.07	0.07
13.500	0.07	0.07	0.07	0.07	0.07
13.600	0.07	0.07	0.07	0.07	0.07
13.700	0.07	0.07	0.07	0.07	0.07
13.800	0.07	0.07	0.07	0.07	0.07
13.900	0.07	0.07	0.07	0.07	0.07
14.000	0.07	0.07	0.07	0.07	0.07
14.100	0.07	0.07	0.07	0.07	0.07
14.200	0.07	0.07	0.07	0.07	0.07
14.300	0.07	0.07	0.07	0.07	0.07
14.400	0.07	0.07	0.07	0.07	0.07
14.500	0.07	0.07	0.07	0.07	0.07
14.600	0.07	0.07	0.07	0.07	0.07
14.700	0.07	0.07	0.07	0.07	0.07
14.800	0.07	0.07	0.07	0.07	0.08
14.900	0.08	0.08	0.08	0.08	0.08
15.000	0.08	0.08	0.08	0.08	0.08
15.100	0.08	0.08	0.08	0.08	0.08
15.200	0.08	0.08	0.08	0.08	0.08
15.300	0.08	0.08	0.08	0.08	0.08
15.400	0.08	0.08	0.08	0.08	0.08
15.500	0.08	0.08	0.08	0.08	0.08
15.600	0.08	0.08	0.08	0.08	0.08
15.700	0.08	0.08	0.08	0.08	0.08
15.800	0.08	0.08	0.08	0.08	0.08
15.900	0.08	0.08	0.08	0.08	0.08
16.000	0.08	0.08	0.08	0.08	0.08
16.100	0.08	0.08	0.08	0.08	0.08
16.200	0.08	0.08	0.08	0.08	0.08

Mission Preserve Proposed

Subsection: Hydrograph

Return Event: 90 years

Label: NE Det #2 (OUT)

Storm Event: TypeII 24hr (1.4 in)

Scenario: Johnson County - Synthetic Curve, 90 %

HYDROGRAPH ORDINATES (ft³/s)

Output Time Increment = 0.020 hours

Time on left represents time for first value in each row.

Time (hours)	Flow (ft ³ /s)	Flow (ft ³ /s)	Flow (ft ³ /s)	Flow (ft ³ /s)	Flow (ft ³ /s)
16.300	0.08	0.08	0.08	0.08	0.08
16.400	0.08	0.08	0.08	0.08	0.08
16.500	0.08	0.08	0.08	0.08	0.08
16.600	0.08	0.08	0.08	0.08	0.08
16.700	0.08	0.08	0.08	0.08	0.08
16.800	0.08	0.08	0.08	0.08	0.08
16.900	0.08	0.08	0.08	0.08	0.08
17.000	0.08	0.08	0.08	0.08	0.08
17.100	0.08	0.08	0.08	0.08	0.08
17.200	0.08	0.08	0.08	0.08	0.08
17.300	0.08	0.08	0.08	0.08	0.08
17.400	0.08	0.08	0.08	0.08	0.08
17.500	0.08	0.08	0.08	0.08	0.07
17.600	0.07	0.07	0.07	0.07	0.07
17.700	0.07	0.07	0.07	0.07	0.07
17.800	0.07	0.07	0.07	0.07	0.07
17.900	0.07	0.07	0.07	0.07	0.07
18.000	0.07	0.07	0.07	0.07	0.07
18.100	0.07	0.07	0.07	0.07	0.07
18.200	0.07	0.07	0.07	0.07	0.07
18.300	0.07	0.07	0.07	0.07	0.07
18.400	0.07	0.07	0.07	0.07	0.07
18.500	0.07	0.07	0.07	0.07	0.07
18.600	0.07	0.07	0.07	0.07	0.07
18.700	0.07	0.07	0.07	0.07	0.07
18.800	0.07	0.07	0.07	0.07	0.07
18.900	0.07	0.07	0.07	0.07	0.07
19.000	0.07	0.07	0.07	0.07	0.07
19.100	0.07	0.07	0.07	0.07	0.07
19.200	0.07	0.07	0.07	0.07	0.07
19.300	0.07	0.07	0.07	0.07	0.07
19.400	0.07	0.07	0.07	0.07	0.07
19.500	0.07	0.07	0.07	0.07	0.07
19.600	0.07	0.07	0.07	0.07	0.07
19.700	0.07	0.07	0.07	0.07	0.07
19.800	0.07	0.07	0.07	0.07	0.07
19.900	0.07	0.07	0.07	0.07	0.07
20.000	0.07	0.07	0.07	0.07	0.07
20.100	0.07	0.07	0.07	0.07	0.07
20.200	0.07	0.07	0.07	0.07	0.07
20.300	0.07	0.07	0.07	0.07	0.07
20.400	0.07	0.07	0.07	0.07	0.07

Mission Preserve Proposed

Subsection: Hydrograph

Return Event: 90 years

Label: NE Det #2 (OUT)

Storm Event: TypeII 24hr (1.4 in)

Scenario: Johnson County - Synthetic Curve, 90 %

HYDROGRAPH ORDINATES (ft³/s)

Output Time Increment = 0.020 hours

Time on left represents time for first value in each row.

Time (hours)	Flow (ft ³ /s)	Flow (ft ³ /s)	Flow (ft ³ /s)	Flow (ft ³ /s)	Flow (ft ³ /s)
20.500	0.07	0.07	0.07	0.07	0.07
20.600	0.07	0.07	0.07	0.07	0.07
20.700	0.07	0.07	0.07	0.07	0.07
20.800	0.07	0.07	0.07	0.07	0.07
20.900	0.07	0.07	0.07	0.07	0.07
21.000	0.07	0.07	0.07	0.07	0.07
21.100	0.07	0.07	0.07	0.07	0.07
21.200	0.07	0.07	0.07	0.07	0.07
21.300	0.07	0.07	0.07	0.07	0.07
21.400	0.07	0.07	0.07	0.07	0.07
21.500	0.07	0.07	0.07	0.07	0.07
21.600	0.07	0.07	0.07	0.07	0.07
21.700	0.07	0.07	0.07	0.07	0.07
21.800	0.07	0.07	0.07	0.07	0.07
21.900	0.07	0.07	0.07	0.07	0.07
22.000	0.07	0.07	0.07	0.07	0.07
22.100	0.07	0.07	0.07	0.07	0.07
22.200	0.07	0.07	0.07	0.07	0.07
22.300	0.07	0.07	0.07	0.07	0.07
22.400	0.07	0.07	0.07	0.07	0.07
22.500	0.07	0.07	0.07	0.07	0.07
22.600	0.07	0.07	0.07	0.07	0.07
22.700	0.07	0.07	0.07	0.07	0.07
22.800	0.07	0.07	0.07	0.07	0.07
22.900	0.07	0.07	0.07	0.07	0.07
23.000	0.07	0.07	0.07	0.07	0.07
23.100	0.07	0.07	0.07	0.07	0.07
23.200	0.07	0.07	0.07	0.07	0.07
23.300	0.07	0.07	0.07	0.07	0.07
23.400	0.07	0.07	0.07	0.07	0.07
23.500	0.07	0.07	0.07	0.07	0.07
23.600	0.07	0.07	0.07	0.07	0.07
23.700	0.07	0.07	0.07	0.07	0.07
23.800	0.07	0.07	0.07	0.07	0.07
23.900	0.07	0.07	0.07	0.07	0.07
24.000	0.07	0.07	0.07	0.07	0.07
24.100	0.07	0.07	0.07	0.07	0.07
24.200	0.07	0.07	0.07	0.07	0.07
24.300	0.07	0.07	0.07	0.07	0.07
24.400	0.07	0.07	0.07	0.07	0.07
24.500	0.07	0.07	0.07	0.07	0.07
24.600	0.07	0.07	0.07	0.07	0.07

Mission Preserve Proposed

Subsection: Hydrograph

Return Event: 90 years

Label: NE Det #2 (OUT)

Storm Event: TypeII 24hr (1.4 in)

Scenario: Johnson County - Synthetic Curve, 90 %

HYDROGRAPH ORDINATES (ft³/s)

Output Time Increment = 0.020 hours

Time on left represents time for first value in each row.

Time (hours)	Flow (ft ³ /s)	Flow (ft ³ /s)	Flow (ft ³ /s)	Flow (ft ³ /s)	Flow (ft ³ /s)
24.700	0.07	0.07	0.07	0.07	0.07
24.800	0.07	0.07	0.07	0.07	0.07
24.900	0.07	0.07	0.07	0.07	0.07
25.000	0.07	0.07	0.07	0.07	0.06
25.100	0.06	0.06	0.06	0.06	0.06
25.200	0.06	0.06	0.06	0.06	0.06
25.300	0.06	0.06	0.06	0.06	0.06
25.400	0.06	0.06	0.06	0.06	0.06
25.500	0.06	0.06	0.06	0.06	0.06
25.600	0.06	0.06	0.06	0.06	0.06
25.700	0.06	0.06	0.06	0.06	0.06
25.800	0.06	0.06	0.06	0.06	0.06
25.900	0.06	0.06	0.06	0.06	0.06
26.000	0.06	0.06	0.06	0.06	0.06
26.100	0.06	0.06	0.06	0.06	0.06
26.200	0.06	0.06	0.06	0.06	0.06
26.300	0.06	0.06	0.06	0.06	0.06
26.400	0.06	0.06	0.06	0.06	0.06
26.500	0.06	0.06	0.06	0.06	0.06
26.600	0.06	0.06	0.06	0.06	0.06
26.700	0.06	0.06	0.06	0.06	0.06
26.800	0.06	0.06	0.06	0.06	0.06
26.900	0.06	0.06	0.06	0.06	0.06
27.000	0.06	0.06	0.06	0.06	0.06
27.100	0.06	0.06	0.06	0.06	0.06
27.200	0.06	0.06	0.06	0.06	0.06
27.300	0.06	0.06	0.06	0.06	0.06
27.400	0.06	0.06	0.06	0.06	0.06
27.500	0.06	0.06	0.06	0.06	0.06
27.600	0.06	0.06	0.06	0.06	0.06
27.700	0.06	0.06	0.06	0.06	0.06
27.800	0.06	0.06	0.06	0.06	0.06
27.900	0.06	0.06	0.06	0.06	0.06
28.000	0.06	0.06	0.06	0.06	0.06
28.100	0.06	0.06	0.06	0.06	0.06
28.200	0.06	0.06	0.06	0.06	0.06
28.300	0.06	0.06	0.06	0.06	0.06
28.400	0.06	0.06	0.06	0.06	0.06
28.500	0.06	0.06	0.06	0.06	0.06
28.600	0.06	0.06	0.06	0.06	0.06
28.700	0.06	0.06	0.06	0.06	0.06
28.800	0.06	0.06	0.06	0.06	0.06

Mission Preserve Proposed

Subsection: Hydrograph

Return Event: 90 years

Label: NE Det #2 (OUT)

Storm Event: TypeII 24hr (1.4 in)

Scenario: Johnson County - Synthetic Curve, 90 %

HYDROGRAPH ORDINATES (ft³/s)

Output Time Increment = 0.020 hours

Time on left represents time for first value in each row.

Time (hours)	Flow (ft ³ /s)	Flow (ft ³ /s)	Flow (ft ³ /s)	Flow (ft ³ /s)	Flow (ft ³ /s)
28.900	0.06	0.06	0.06	0.06	0.06
29.000	0.06	0.06	0.06	0.06	0.06
29.100	0.06	0.06	0.06	0.05	0.05
29.200	0.05	0.05	0.05	0.05	0.05
29.300	0.05	0.05	0.05	0.05	0.05
29.400	0.05	0.05	0.05	0.05	0.05
29.500	0.05	0.05	0.05	0.05	0.05
29.600	0.05	0.05	0.05	0.05	0.05
29.700	0.05	0.05	0.05	0.05	0.05
29.800	0.05	0.05	0.05	0.05	0.05
29.900	0.05	0.05	0.05	0.05	0.05
30.000	0.05	0.05	0.05	0.05	0.05
30.100	0.05	0.05	0.05	0.05	0.05
30.200	0.05	0.05	0.05	0.05	0.05
30.300	0.05	0.05	0.05	0.05	0.05
30.400	0.05	0.05	0.05	0.05	0.05
30.500	0.05	0.05	0.05	0.05	0.05
30.600	0.05	0.05	0.05	0.05	0.05
30.700	0.05	0.05	0.05	0.05	0.05
30.800	0.05	0.05	0.05	0.05	0.05
30.900	0.05	0.05	0.05	0.05	0.05
31.000	0.05	0.05	0.05	0.05	0.05
31.100	0.05	0.05	0.05	0.05	0.05
31.200	0.05	0.05	0.05	0.05	0.05
31.300	0.05	0.05	0.05	0.05	0.05
31.400	0.05	0.05	0.05	0.05	0.05
31.500	0.05	0.05	0.05	0.05	0.05
31.600	0.05	0.05	0.05	0.05	0.05
31.700	0.05	0.05	0.05	0.05	0.05
31.800	0.05	0.05	0.05	0.05	0.05
31.900	0.05	0.05	0.05	0.05	0.05
32.000	0.05	0.05	0.05	0.04	0.04
32.100	0.04	0.04	0.04	0.04	0.04
32.200	0.04	0.04	0.04	0.04	0.04
32.300	0.04	0.04	0.04	0.04	0.04
32.400	0.04	0.04	0.04	0.04	0.04
32.500	0.04	0.04	0.04	0.04	0.04
32.600	0.04	0.04	0.04	0.04	0.04
32.700	0.04	0.04	0.04	0.04	0.04
32.800	0.04	0.04	0.04	0.04	0.04
32.900	0.04	0.04	0.04	0.04	0.04
33.000	0.04	0.04	0.04	0.04	0.04

Mission Preserve Proposed

Subsection: Hydrograph

Return Event: 90 years

Label: NE Det #2 (OUT)

Storm Event: TypeII 24hr (1.4 in)

Scenario: Johnson County - Synthetic Curve, 90 %

HYDROGRAPH ORDINATES (ft³/s)

Output Time Increment = 0.020 hours

Time on left represents time for first value in each row.

Time (hours)	Flow (ft ³ /s)	Flow (ft ³ /s)	Flow (ft ³ /s)	Flow (ft ³ /s)	Flow (ft ³ /s)
33.100	0.04	0.04	0.04	0.04	0.04
33.200	0.04	0.04	0.04	0.04	0.04
33.300	0.04	0.04	0.04	0.04	0.04
33.400	0.04	0.04	0.04	0.04	0.04
33.500	0.04	0.04	0.04	0.04	0.04
33.600	0.04	0.04	0.04	0.04	0.04
33.700	0.04	0.04	0.04	0.04	0.04
33.800	0.04	0.04	0.04	0.04	0.04
33.900	0.04	0.04	0.04	0.04	0.04
34.000	0.04	0.04	0.04	0.04	0.04
34.100	0.04	0.04	0.04	0.04	0.04
34.200	0.04	0.04	0.04	0.04	0.04
34.300	0.04	0.04	0.04	0.04	0.04
34.400	0.04	0.04	0.04	0.04	0.04
34.500	0.04	0.04	0.04	0.04	0.04
34.600	0.04	0.04	0.04	0.04	0.04
34.700	0.04	0.04	0.04	0.04	0.04
34.800	0.04	0.04	0.04	0.04	0.04
34.900	0.04	0.04	0.03	0.03	0.03
35.000	0.03	0.03	0.03	0.03	0.03
35.100	0.03	0.03	0.03	0.03	0.03
35.200	0.03	0.03	0.03	0.03	0.03
35.300	0.03	0.03	0.03	0.03	0.03
35.400	0.03	0.03	0.03	0.03	0.03
35.500	0.03	0.03	0.03	0.03	0.03
35.600	0.03	0.03	0.03	0.03	0.03
35.700	0.03	0.03	0.03	0.03	0.03
35.800	0.03	0.03	0.03	0.03	0.03
35.900	0.03	0.03	0.03	0.03	0.03
36.000	0.03	0.03	0.03	0.03	0.03
36.100	0.03	0.03	0.03	0.03	0.03
36.200	0.03	0.03	0.03	0.03	0.03
36.300	0.03	0.03	0.03	0.03	0.03
36.400	0.03	0.03	0.03	0.03	0.03
36.500	0.03	0.03	0.03	0.03	0.03
36.600	0.03	0.03	0.03	0.03	0.03
36.700	0.03	0.03	0.03	0.03	0.03
36.800	0.03	0.03	0.03	0.03	0.03
36.900	0.03	0.03	0.03	0.03	0.03
37.000	0.03	0.03	0.03	0.03	0.03
37.100	0.03	0.03	0.03	0.03	0.03
37.200	0.03	0.03	0.03	0.03	0.03

Mission Preserve Proposed

Subsection: Hydrograph

Return Event: 90 years

Label: NE Det #2 (OUT)

Storm Event: TypeII 24hr (1.4 in)

Scenario: Johnson County - Synthetic Curve, 90 %

HYDROGRAPH ORDINATES (ft³/s)

Output Time Increment = 0.020 hours

Time on left represents time for first value in each row.

Time (hours)	Flow (ft ³ /s)	Flow (ft ³ /s)	Flow (ft ³ /s)	Flow (ft ³ /s)	Flow (ft ³ /s)
37.300	0.03	0.03	0.03	0.03	0.03
37.400	0.03	0.03	0.03	0.03	0.03
37.500	0.03	0.03	0.03	0.03	0.03
37.600	0.03	0.03	0.03	0.03	0.03
37.700	0.03	0.03	0.03	0.03	0.03
37.800	0.03	0.03	0.03	0.03	0.03
37.900	0.03	0.03	0.03	0.03	0.03
38.000	0.03	0.03	0.03	0.03	0.03
38.100	0.03	0.03	0.03	0.03	0.03
38.200	0.03	0.03	0.03	0.03	0.03
38.300	0.03	0.03	0.03	0.03	0.03
38.400	0.03	0.03	0.03	0.03	0.03
38.500	0.03	0.03	0.03	0.03	0.03
38.600	0.03	0.03	0.03	0.03	0.03
38.700	0.03	0.03	0.03	0.03	0.03
38.800	0.03	0.02	0.02	0.02	0.02
38.900	0.02	0.02	0.02	0.02	0.02
39.000	0.02	0.02	0.02	0.02	0.02
39.100	0.02	0.02	0.02	0.02	0.02
39.200	0.02	0.02	0.02	0.02	0.02
39.300	0.02	0.02	0.02	0.02	0.02
39.400	0.02	0.02	0.02	0.02	0.02
39.500	0.02	0.02	0.02	0.02	0.02
39.600	0.02	0.02	0.02	0.02	0.02
39.700	0.02	0.02	0.02	0.02	0.02
39.800	0.02	0.02	0.02	0.02	0.02
39.900	0.02	0.02	0.02	0.02	0.02
40.000	0.02	0.02	0.02	0.02	0.02
40.100	0.02	0.02	0.02	0.02	0.02
40.200	0.02	0.02	0.02	0.02	0.02
40.300	0.02	0.02	0.02	0.02	0.02
40.400	0.02	0.02	0.02	0.02	0.02
40.500	0.02	0.02	0.02	0.02	0.02
40.600	0.02	0.02	0.02	0.02	0.02
40.700	0.02	0.02	0.02	0.02	0.02
40.800	0.02	0.02	0.02	0.02	0.02
40.900	0.02	0.02	0.02	0.02	0.02
41.000	0.02	0.02	0.02	0.02	0.02
41.100	0.02	0.02	0.02	0.02	0.02
41.200	0.02	0.02	0.02	0.02	0.02
41.300	0.02	0.02	0.02	0.02	0.02
41.400	0.02	0.02	0.02	0.02	0.02

Mission Preserve Proposed

Subsection: Hydrograph

Return Event: 90 years

Label: NE Det #2 (OUT)

Storm Event: TypeII 24hr (1.4 in)

Scenario: Johnson County - Synthetic Curve, 90 %

HYDROGRAPH ORDINATES (ft³/s)

Output Time Increment = 0.020 hours

Time on left represents time for first value in each row.

Time (hours)	Flow (ft ³ /s)	Flow (ft ³ /s)	Flow (ft ³ /s)	Flow (ft ³ /s)	Flow (ft ³ /s)
41.500	0.02	0.02	0.02	0.02	0.02
41.600	0.02	0.02	0.02	0.02	0.02
41.700	0.02	0.02	0.02	0.02	0.02
41.800	0.02	0.02	0.02	0.02	0.02
41.900	0.02	0.02	0.02	0.02	0.02
42.000	0.02	0.02	0.02	0.02	0.02
42.100	0.02	0.02	0.02	0.02	0.02
42.200	0.02	0.02	0.02	0.02	0.02
42.300	0.02	0.02	0.02	0.02	0.02
42.400	0.02	0.02	0.02	0.02	0.02
42.500	0.02	0.02	0.02	0.02	0.02
42.600	0.02	0.02	0.02	0.02	0.02
42.700	0.02	0.02	0.02	0.02	0.02
42.800	0.02	0.02	0.02	0.02	0.02
42.900	0.02	0.02	0.02	0.02	0.02
43.000	0.02	0.02	0.02	0.02	0.02
43.100	0.02	0.02	0.02	0.02	0.02
43.200	0.02	0.02	0.02	0.02	0.02
43.300	0.02	0.02	0.02	0.02	0.02
43.400	0.02	0.02	0.02	0.02	0.02
43.500	0.02	0.02	0.02	0.02	0.02
43.600	0.02	0.02	0.02	0.02	0.02
43.700	0.02	0.02	0.02	0.02	0.02
43.800	0.02	0.02	0.02	0.02	0.02
43.900	0.02	0.02	0.02	0.02	0.02
44.000	0.02	0.02	0.02	0.02	0.02
44.100	0.02	0.02	0.02	0.02	0.02
44.200	0.02	0.02	0.02	0.02	0.02
44.300	0.02	0.02	0.02	0.02	0.02
44.400	0.02	0.02	0.02	0.02	0.02
44.500	0.02	0.02	0.02	0.02	0.02
44.600	0.02	0.02	0.02	0.02	0.02
44.700	0.02	0.01	0.01	0.01	0.01
44.800	0.01	0.01	0.01	0.01	0.01
44.900	0.01	0.01	0.01	0.01	0.01
45.000	0.01	0.01	0.01	0.01	0.01
45.100	0.01	0.01	0.01	0.01	0.01
45.200	0.01	0.01	0.01	0.01	0.01
45.300	0.01	0.01	0.01	0.01	0.01
45.400	0.01	0.01	0.01	0.01	0.01
45.500	0.01	0.01	0.01	0.01	0.01
45.600	0.01	0.01	0.01	0.01	0.01

Mission Preserve Proposed

Subsection: Hydrograph

Return Event: 90 years

Label: NE Det #2 (OUT)

Storm Event: TypeII 24hr (1.4 in)

Scenario: Johnson County - Synthetic Curve, 90 %

HYDROGRAPH ORDINATES (ft³/s)

Output Time Increment = 0.020 hours

Time on left represents time for first value in each row.

Time (hours)	Flow (ft ³ /s)	Flow (ft ³ /s)	Flow (ft ³ /s)	Flow (ft ³ /s)	Flow (ft ³ /s)
45.700	0.01	0.01	0.01	0.01	0.01
45.800	0.01	0.01	0.01	0.01	0.01
45.900	0.01	0.01	0.01	0.01	0.01
46.000	0.01	0.01	0.01	0.01	0.01
46.100	0.01	0.01	0.01	0.01	0.01
46.200	0.01	0.01	0.01	0.01	0.01
46.300	0.01	0.01	0.01	0.01	0.01
46.400	0.01	0.01	0.01	0.01	0.01
46.500	0.01	0.01	0.01	0.01	0.01
46.600	0.01	0.01	0.01	0.01	0.01
46.700	0.01	0.01	0.01	0.01	0.01
46.800	0.01	0.01	0.01	0.01	0.01
46.900	0.01	0.01	0.01	0.01	0.01
47.000	0.01	0.01	0.01	0.01	0.01
47.100	0.01	0.01	0.01	0.01	0.01
47.200	0.01	0.01	0.01	0.01	0.01
47.300	0.01	0.01	0.01	0.01	0.01
47.400	0.01	0.01	0.01	0.01	0.01
47.500	0.01	0.01	0.01	0.01	0.01
47.600	0.01	0.01	0.01	0.01	0.01
47.700	0.01	0.01	0.01	0.01	0.01
47.800	0.01	0.01	0.01	0.01	0.01
47.900	0.01	0.01	0.01	0.01	0.01
48.000	0.01	0.01	0.01	0.01	0.01
48.100	0.01	0.01	0.01	0.01	0.01
48.200	0.01	0.01	0.01	0.01	0.01
48.300	0.01	0.01	0.01	0.01	0.01
48.400	0.01	0.01	0.01	0.01	0.01
48.500	0.01	0.01	0.01	0.01	0.01
48.600	0.01	0.01	0.01	0.01	0.01
48.700	0.01	0.01	0.01	0.01	0.01
48.800	0.01	0.01	0.01	0.01	0.01
48.900	0.01	0.01	0.01	0.01	0.01
49.000	0.01	0.01	0.01	0.01	0.01
49.100	0.01	0.01	0.01	0.01	0.01
49.200	0.01	0.01	0.01	0.01	0.01
49.300	0.01	0.01	0.01	0.01	0.01
49.400	0.01	0.01	0.01	0.01	0.01
49.500	0.01	0.01	0.01	0.01	0.01
49.600	0.01	0.01	0.01	0.01	0.01
49.700	0.01	0.01	0.01	0.01	0.01
49.800	0.01	0.01	0.01	0.01	0.01

Mission Preserve Proposed

Subsection: Hydrograph

Return Event: 90 years

Label: NE Det #2 (OUT)

Storm Event: TypeII 24hr (1.4 in)

Scenario: Johnson County - Synthetic Curve, 90 %

HYDROGRAPH ORDINATES (ft³/s)

Output Time Increment = 0.020 hours

Time on left represents time for first value in each row.

Time (hours)	Flow (ft ³ /s)	Flow (ft ³ /s)	Flow (ft ³ /s)	Flow (ft ³ /s)	Flow (ft ³ /s)
49.900	0.01	0.01	0.01	0.01	0.01
50.000	0.01	0.01	0.01	0.01	0.01
50.100	0.01	0.01	0.01	0.01	0.01
50.200	0.01	0.01	0.01	0.01	0.01
50.300	0.01	0.01	0.01	0.01	0.01
50.400	0.01	0.01	0.01	0.01	0.01
50.500	0.01	0.01	0.01	0.01	0.01
50.600	0.01	0.01	0.01	0.01	0.01
50.700	0.01	0.01	0.01	0.01	0.01
50.800	0.01	0.01	0.01	0.01	0.01
50.900	0.01	0.01	0.01	0.01	0.01
51.000	0.01	0.01	0.01	0.01	0.01
51.100	0.01	0.01	0.01	0.01	0.01
51.200	0.01	0.01	0.01	0.01	0.01
51.300	0.01	0.01	0.01	0.01	0.01
51.400	0.01	0.01	0.01	0.01	0.01
51.500	0.01	0.01	0.01	0.01	0.01
51.600	0.01	0.01	0.01	0.01	0.01
51.700	0.01	0.01	0.01	0.01	0.01
51.800	0.01	0.01	0.01	0.01	0.01
51.900	0.01	0.01	0.01	0.01	0.01
52.000	0.01	0.01	0.01	0.01	0.01
52.100	0.01	0.01	0.01	0.01	0.01
52.200	0.01	0.01	0.01	0.01	0.01
52.300	0.01	0.01	0.01	0.01	0.01
52.400	0.01	0.01	0.01	0.01	0.01
52.500	0.01	0.01	0.01	0.01	0.01
52.600	0.01	0.01	0.01	0.01	0.01
52.700	0.01	0.01	0.01	0.01	0.01
52.800	0.01	0.01	0.01	0.01	0.01
52.900	0.01	0.01	0.01	0.01	0.01
53.000	0.01	0.01	0.01	0.01	0.01
53.100	0.01	0.01	0.01	0.01	0.01
53.200	0.01	0.01	0.01	0.01	0.01
53.300	0.01	0.01	0.01	0.01	0.01
53.400	0.01	0.01	0.01	0.01	0.01
53.500	0.01	0.01	0.01	0.01	0.01
53.600	0.01	0.01	0.01	0.01	0.01
53.700	0.01	0.01	0.01	0.01	0.01
53.800	0.01	0.01	0.01	0.01	0.01
53.900	0.01	0.01	0.01	0.01	0.01
54.000	0.01	0.01	0.01	0.01	0.01

Mission Preserve Proposed

Subsection: Hydrograph

Return Event: 90 years

Label: NE Det #2 (OUT)

Storm Event: TypeII 24hr (1.4 in)

Scenario: Johnson County - Synthetic Curve, 90 %

HYDROGRAPH ORDINATES (ft³/s)

Output Time Increment = 0.020 hours

Time on left represents time for first value in each row.

Time (hours)	Flow (ft ³ /s)	Flow (ft ³ /s)	Flow (ft ³ /s)	Flow (ft ³ /s)	Flow (ft ³ /s)
54.100	0.01	0.01	0.01	0.01	0.01
54.200	0.01	0.01	0.01	0.01	0.01
54.300	0.01	0.01	0.01	0.01	0.01
54.400	0.01	0.01	0.01	0.01	0.01
54.500	0.01	0.01	0.01	0.01	0.01
54.600	0.01	0.01	0.01	0.01	0.01
54.700	0.01	0.01	0.01	0.01	0.01
54.800	0.01	0.01	0.01	0.01	0.01
54.900	0.01	0.01	0.01	0.01	0.01
55.000	0.01	0.01	0.01	0.01	0.01
55.100	0.01	0.01	0.01	0.01	0.01
55.200	0.01	0.01	0.01	0.01	0.01
55.300	0.01	0.01	0.01	0.01	0.01
55.400	0.01	0.01	0.01	0.01	0.01
55.500	0.01	0.01	0.01	0.01	0.01
55.600	0.01	0.01	0.01	0.01	0.01
55.700	0.01	0.01	0.01	0.01	0.01
55.800	0.01	0.01	0.01	0.01	0.01
55.900	0.01	0.01	0.01	0.01	0.01
56.000	0.01	0.01	0.01	0.01	0.01
56.100	0.01	0.01	0.01	0.01	0.01
56.200	0.01	0.01	0.01	0.01	0.01
56.300	0.01	0.01	0.01	0.01	0.01
56.400	0.01	0.01	0.01	0.01	0.01
56.500	0.01	0.01	0.01	0.01	0.01
56.600	0.01	0.01	0.01	0.01	0.01
56.700	0.01	0.01	0.01	0.01	0.01
56.800	0.01	0.01	0.01	0.01	0.01
56.900	0.01	0.01	0.01	0.01	0.01
57.000	0.01	0.01	0.01	0.01	0.01
57.100	0.01	0.01	0.01	0.01	0.01
57.200	0.01	0.01	0.01	0.01	0.01
57.300	0.01	0.01	0.01	0.01	0.00
57.400	0.00	0.00	0.00	0.00	0.00
57.500	0.00	0.00	0.00	0.00	0.00
57.600	0.00	0.00	0.00	0.00	0.00
57.700	0.00	0.00	0.00	0.00	0.00
57.800	0.00	0.00	0.00	0.00	0.00
57.900	0.00	0.00	0.00	0.00	0.00
58.000	0.00	0.00	0.00	0.00	0.00
58.100	0.00	0.00	0.00	0.00	0.00
58.200	0.00	0.00	0.00	0.00	0.00

Mission Preserve Proposed

Subsection: Hydrograph

Return Event: 90 years

Label: NE Det #2 (OUT)

Storm Event: TypeII 24hr (1.4 in)

Scenario: Johnson County - Synthetic Curve, 90 %

HYDROGRAPH ORDINATES (ft³/s)

Output Time Increment = 0.020 hours

Time on left represents time for first value in each row.

Time (hours)	Flow (ft ³ /s)	Flow (ft ³ /s)	Flow (ft ³ /s)	Flow (ft ³ /s)	Flow (ft ³ /s)
58.300	0.00	0.00	0.00	0.00	0.00
58.400	0.00	0.00	0.00	0.00	0.00
58.500	0.00	0.00	0.00	0.00	0.00
58.600	0.00	0.00	0.00	0.00	0.00
58.700	0.00	0.00	0.00	0.00	0.00
58.800	0.00	0.00	0.00	0.00	0.00
58.900	0.00	0.00	0.00	0.00	0.00
59.000	0.00	0.00	0.00	0.00	0.00
59.100	0.00	0.00	0.00	0.00	0.00
59.200	0.00	0.00	0.00	0.00	0.00
59.300	0.00	0.00	0.00	0.00	0.00
59.400	0.00	0.00	0.00	0.00	0.00
59.500	0.00	0.00	0.00	0.00	0.00
59.600	0.00	0.00	0.00	0.00	0.00
59.700	0.00	0.00	0.00	0.00	0.00
59.800	0.00	0.00	0.00	0.00	0.00
59.900	0.00	0.00	0.00	0.00	0.00
60.000	0.00	0.00	0.00	0.00	0.00
60.100	0.00	0.00	0.00	0.00	0.00
60.200	0.00	0.00	0.00	0.00	0.00
60.300	0.00	0.00	0.00	0.00	0.00
60.400	0.00	0.00	0.00	0.00	0.00
60.500	0.00	0.00	0.00	0.00	0.00
60.600	0.00	0.00	0.00	0.00	0.00
60.700	0.00	0.00	0.00	0.00	0.00
60.800	0.00	0.00	0.00	0.00	0.00
60.900	0.00	0.00	0.00	0.00	0.00
61.000	0.00	0.00	0.00	0.00	0.00
61.100	0.00	0.00	0.00	0.00	0.00
61.200	0.00	0.00	0.00	0.00	0.00
61.300	0.00	0.00	0.00	0.00	0.00
61.400	0.00	0.00	0.00	0.00	0.00
61.500	0.00	0.00	0.00	0.00	0.00
61.600	0.00	0.00	0.00	0.00	0.00
61.700	0.00	0.00	0.00	0.00	0.00
61.800	0.00	0.00	0.00	0.00	0.00
61.900	0.00	0.00	0.00	0.00	0.00
62.000	0.00	0.00	0.00	0.00	0.00
62.100	0.00	0.00	0.00	0.00	0.00
62.200	0.00	0.00	0.00	0.00	0.00
62.300	0.00	0.00	0.00	0.00	0.00
62.400	0.00	0.00	0.00	0.00	0.00

Mission Preserve Proposed

Subsection: Hydrograph

Return Event: 90 years

Label: NE Det #2 (OUT)

Storm Event: TypeII 24hr (1.4 in)

Scenario: Johnson County - Synthetic Curve, 90 %

HYDROGRAPH ORDINATES (ft³/s)

Output Time Increment = 0.020 hours

Time on left represents time for first value in each row.

Time (hours)	Flow (ft ³ /s)	Flow (ft ³ /s)	Flow (ft ³ /s)	Flow (ft ³ /s)	Flow (ft ³ /s)
62.500	0.00	0.00	0.00	0.00	0.00
62.600	0.00	0.00	0.00	0.00	0.00
62.700	0.00	0.00	0.00	0.00	0.00
62.800	0.00	0.00	0.00	0.00	0.00
62.900	0.00	0.00	0.00	0.00	0.00
63.000	0.00	0.00	0.00	0.00	0.00
63.100	0.00	0.00	0.00	0.00	0.00
63.200	0.00	0.00	0.00	0.00	0.00
63.300	0.00	0.00	0.00	0.00	0.00
63.400	0.00	0.00	0.00	0.00	0.00
63.500	0.00	0.00	0.00	0.00	0.00
63.600	0.00	0.00	0.00	0.00	0.00
63.700	0.00	0.00	0.00	0.00	0.00
63.800	0.00	0.00	0.00	0.00	0.00
63.900	0.00	0.00	0.00	0.00	0.00
64.000	0.00	0.00	0.00	0.00	0.00
64.100	0.00	0.00	0.00	0.00	0.00
64.200	0.00	0.00	0.00	0.00	0.00
64.300	0.00	0.00	0.00	0.00	0.00
64.400	0.00	0.00	0.00	0.00	0.00
64.500	0.00	0.00	0.00	0.00	0.00
64.600	0.00	0.00	0.00	0.00	0.00
64.700	0.00	0.00	0.00	0.00	0.00
64.800	0.00	0.00	0.00	0.00	0.00
64.900	0.00	0.00	0.00	0.00	0.00
65.000	0.00	0.00	0.00	0.00	0.00
65.100	0.00	0.00	0.00	0.00	0.00
65.200	0.00	0.00	0.00	0.00	0.00
65.300	0.00	0.00	0.00	0.00	0.00
65.400	0.00	0.00	0.00	0.00	0.00
65.500	0.00	0.00	0.00	0.00	0.00
65.600	0.00	0.00	0.00	0.00	0.00
65.700	0.00	0.00	0.00	0.00	0.00
65.800	0.00	0.00	0.00	0.00	0.00
65.900	0.00	0.00	0.00	0.00	0.00
66.000	0.00	0.00	0.00	0.00	0.00
66.100	0.00	0.00	0.00	0.00	0.00
66.200	0.00	0.00	0.00	0.00	0.00
66.300	0.00	0.00	0.00	0.00	0.00
66.400	0.00	0.00	0.00	0.00	0.00
66.500	0.00	0.00	0.00	0.00	0.00
66.600	0.00	0.00	0.00	0.00	0.00

Mission Preserve Proposed

Subsection: Hydrograph

Return Event: 90 years

Label: NE Det #2 (OUT)

Storm Event: TypeII 24hr (1.4 in)

Scenario: Johnson County - Synthetic Curve, 90 %

HYDROGRAPH ORDINATES (ft³/s)

Output Time Increment = 0.020 hours

Time on left represents time for first value in each row.

Time (hours)	Flow (ft ³ /s)	Flow (ft ³ /s)	Flow (ft ³ /s)	Flow (ft ³ /s)	Flow (ft ³ /s)
66.700	0.00	0.00	0.00	0.00	0.00
66.800	0.00	0.00	0.00	0.00	0.00
66.900	0.00	0.00	0.00	0.00	0.00
67.000	0.00	0.00	0.00	0.00	0.00
67.100	0.00	0.00	0.00	0.00	0.00
67.200	0.00	0.00	0.00	0.00	0.00
67.300	0.00	0.00	0.00	0.00	0.00
67.400	0.00	0.00	0.00	0.00	0.00
67.500	0.00	0.00	0.00	0.00	0.00
67.600	0.00	0.00	0.00	0.00	0.00
67.700	0.00	0.00	0.00	0.00	0.00
67.800	0.00	0.00	0.00	0.00	0.00
67.900	0.00	0.00	0.00	0.00	0.00
68.000	0.00	0.00	0.00	0.00	0.00
68.100	0.00	0.00	0.00	0.00	0.00
68.200	0.00	0.00	0.00	0.00	0.00
68.300	0.00	0.00	0.00	0.00	0.00
68.400	0.00	0.00	0.00	0.00	0.00
68.500	0.00	0.00	0.00	0.00	0.00
68.600	0.00	0.00	0.00	0.00	0.00
68.700	0.00	0.00	0.00	0.00	0.00
68.800	0.00	0.00	0.00	0.00	0.00
68.900	0.00	0.00	0.00	0.00	0.00
69.000	0.00	0.00	0.00	0.00	0.00
69.100	0.00	0.00	0.00	0.00	0.00
69.200	0.00	0.00	0.00	0.00	0.00
69.300	0.00	0.00	0.00	0.00	0.00
69.400	0.00	0.00	0.00	0.00	0.00
69.500	0.00	0.00	0.00	0.00	0.00
69.600	0.00	0.00	0.00	0.00	0.00
69.700	0.00	0.00	0.00	0.00	0.00
69.800	0.00	0.00	0.00	0.00	0.00
69.900	0.00	0.00	0.00	0.00	0.00
70.000	0.00	0.00	0.00	0.00	0.00
70.100	0.00	0.00	0.00	0.00	0.00
70.200	0.00	0.00	0.00	0.00	0.00
70.300	0.00	0.00	0.00	0.00	0.00
70.400	0.00	0.00	0.00	0.00	0.00
70.500	0.00	0.00	0.00	0.00	0.00
70.600	0.00	0.00	0.00	0.00	0.00
70.700	0.00	0.00	0.00	0.00	0.00
70.800	0.00	0.00	0.00	0.00	0.00

Mission Preserve Proposed

Subsection: Hydrograph

Return Event: 90 years

Label: NE Det #2 (OUT)

Storm Event: TypeII 24hr (1.4 in)

Scenario: Johnson County - Synthetic Curve, 90 %

HYDROGRAPH ORDINATES (ft³/s)

Output Time Increment = 0.020 hours

Time on left represents time for first value in each row.

Time (hours)	Flow (ft ³ /s)	Flow (ft ³ /s)	Flow (ft ³ /s)	Flow (ft ³ /s)	Flow (ft ³ /s)
70.900	0.00	0.00	0.00	0.00	0.00
71.000	0.00	0.00	0.00	0.00	0.00
71.100	0.00	0.00	0.00	0.00	0.00
71.200	0.00	0.00	0.00	0.00	0.00
71.300	0.00	0.00	0.00	0.00	0.00
71.400	0.00	0.00	0.00	0.00	0.00
71.500	0.00	0.00	0.00	0.00	0.00
71.600	0.00	0.00	0.00	0.00	0.00
71.700	0.00	0.00	0.00	0.00	0.00
71.800	0.00	0.00	0.00	0.00	0.00
71.900	0.00	0.00	0.00	0.00	0.00
72.000	0.00	0.00	0.00	0.00	0.00
72.100	0.00	0.00	0.00	0.00	0.00
72.200	0.00	0.00	0.00	0.00	0.00
72.300	0.00	0.00	0.00	0.00	0.00
72.400	0.00	0.00	0.00	0.00	0.00
72.500	0.00	0.00	0.00	0.00	0.00
72.600	0.00	0.00	0.00	0.00	0.00
72.700	0.00	0.00	0.00	0.00	0.00
72.800	0.00	0.00	0.00	0.00	0.00
72.900	0.00	0.00	0.00	0.00	0.00
73.000	0.00	0.00	0.00	0.00	0.00
73.100	0.00	0.00	0.00	0.00	0.00
73.200	0.00	0.00	0.00	0.00	0.00
73.300	0.00	0.00	0.00	0.00	0.00
73.400	0.00	0.00	0.00	0.00	0.00
73.500	0.00	0.00	0.00	0.00	0.00
73.600	0.00	0.00	0.00	0.00	0.00
73.700	0.00	0.00	0.00	0.00	0.00
73.800	0.00	0.00	0.00	0.00	0.00
73.900	0.00	0.00	0.00	0.00	0.00
74.000	0.00	0.00	0.00	0.00	0.00
74.100	0.00	0.00	0.00	0.00	0.00
74.200	0.00	0.00	0.00	0.00	0.00
74.300	0.00	0.00	0.00	0.00	0.00
74.400	0.00	0.00	0.00	0.00	0.00
74.500	0.00	0.00	0.00	0.00	0.00
74.600	0.00	0.00	0.00	0.00	0.00
74.700	0.00	0.00	0.00	0.00	0.00
74.800	0.00	0.00	0.00	0.00	0.00
74.900	0.00	0.00	0.00	0.00	0.00
75.000	0.00	0.00	0.00	0.00	0.00

Mission Preserve Proposed

Subsection: Hydrograph

Return Event: 90 years

Label: NE Det #2 (OUT)

Storm Event: TypeII 24hr (1.4 in)

Scenario: Johnson County - Synthetic Curve, 90 %

HYDROGRAPH ORDINATES (ft³/s)

Output Time Increment = 0.020 hours

Time on left represents time for first value in each row.

Time (hours)	Flow (ft ³ /s)	Flow (ft ³ /s)	Flow (ft ³ /s)	Flow (ft ³ /s)	Flow (ft ³ /s)
75.100	0.00	0.00	0.00	0.00	0.00
75.200	0.00	0.00	0.00	0.00	0.00
75.300	0.00	0.00	0.00	0.00	0.00
75.400	0.00	0.00	0.00	0.00	0.00
75.500	0.00	0.00	0.00	0.00	0.00
75.600	0.00	0.00	0.00	0.00	0.00
75.700	0.00	0.00	0.00	0.00	0.00
75.800	0.00	0.00	0.00	0.00	0.00
75.900	0.00	0.00	0.00	0.00	0.00
76.000	0.00	0.00	0.00	0.00	0.00
76.100	0.00	0.00	0.00	0.00	0.00
76.200	0.00	0.00	0.00	0.00	0.00
76.300	0.00	0.00	0.00	0.00	0.00
76.400	0.00	0.00	0.00	0.00	0.00
76.500	0.00	0.00	0.00	0.00	0.00
76.600	0.00	0.00	0.00	0.00	0.00
76.700	0.00	0.00	0.00	0.00	0.00
76.800	0.00	0.00	0.00	0.00	0.00
76.900	0.00	0.00	0.00	0.00	0.00
77.000	0.00	0.00	0.00	0.00	0.00
77.100	0.00	0.00	0.00	0.00	0.00
77.200	0.00	0.00	0.00	0.00	0.00
77.300	0.00	0.00	0.00	0.00	0.00
77.400	0.00	0.00	0.00	0.00	0.00
77.500	0.00	0.00	0.00	0.00	0.00
77.600	0.00	0.00	0.00	0.00	0.00
77.700	0.00	0.00	0.00	0.00	0.00
77.800	0.00	0.00	0.00	0.00	0.00
77.900	0.00	0.00	0.00	0.00	0.00
78.000	0.00	0.00	0.00	0.00	0.00
78.100	0.00	0.00	0.00	0.00	0.00
78.200	0.00	0.00	0.00	0.00	0.00
78.300	0.00	0.00	0.00	0.00	0.00
78.400	0.00	0.00	0.00	0.00	0.00
78.500	0.00	0.00	0.00	0.00	0.00
78.600	0.00	0.00	0.00	0.00	0.00
78.700	0.00	0.00	0.00	0.00	0.00
78.800	0.00	0.00	0.00	0.00	0.00
78.900	0.00	0.00	0.00	0.00	0.00
79.000	0.00	0.00	0.00	0.00	0.00
79.100	0.00	0.00	0.00	0.00	0.00
79.200	0.00	0.00	0.00	0.00	0.00

Mission Preserve Proposed

Subsection: Hydrograph

Return Event: 90 years

Label: NE Det #2 (OUT)

Storm Event: TypeII 24hr (1.4 in)

Scenario: Johnson County - Synthetic Curve, 90 %

HYDROGRAPH ORDINATES (ft³/s)

Output Time Increment = 0.020 hours

Time on left represents time for first value in each row.

Time (hours)	Flow (ft ³ /s)	Flow (ft ³ /s)	Flow (ft ³ /s)	Flow (ft ³ /s)	Flow (ft ³ /s)
79.300	0.00	0.00	0.00	0.00	0.00
79.400	0.00	0.00	0.00	0.00	0.00
79.500	0.00	0.00	0.00	0.00	0.00
79.600	0.00	0.00	0.00	0.00	0.00
79.700	0.00	0.00	0.00	0.00	0.00
79.800	0.00	0.00	0.00	0.00	0.00
79.900	0.00	0.00	0.00	0.00	0.00
80.000	0.00	(N/A)	(N/A)	(N/A)	(N/A)

SW BMP

Time to Drain = 55.94 - 14.96 = 40.98 hours (okay)

Mission Preserve Proposed

Subsection: Pond Routed Hydrograph (total out)

Return Event: 90 years

Label: SW Det (OUT)

Storm Event: TypeII 24hr (1.4 in)

Scenario: Johnson County - Synthetic Curve, 90 %

Peak Discharge	0.12 ft ³ /s
Time to Peak	14.960 hours
Hydrograph Volume	10,093.383 ft ³

HYDROGRAPH ORDINATES (ft³/s)

Output Time Increment = 0.020 hours

Time on left represents time for first value in each row.

Time (hours)	Flow (ft ³ /s)	Flow (ft ³ /s)	Flow (ft ³ /s)	Flow (ft ³ /s)	Flow (ft ³ /s)
8.300	0.00	0.00	0.00	0.00	0.00
8.400	0.00	0.00	0.00	0.00	0.00
8.500	0.00	0.00	0.00	0.00	0.00
8.600	0.00	0.00	0.00	0.00	0.00
8.700	0.00	0.00	0.00	0.00	0.00
8.800	0.00	0.00	0.00	0.00	0.00
8.900	0.00	0.00	0.00	0.00	0.00
9.000	0.00	0.00	0.00	0.00	0.00
9.100	0.00	0.00	0.00	0.00	0.00
9.200	0.00	0.00	0.00	0.00	0.00
9.300	0.00	0.00	0.00	0.00	0.00
9.400	0.00	0.00	0.00	0.00	0.00
9.500	0.00	0.00	0.00	0.00	0.00
9.600	0.00	0.00	0.00	0.00	0.00
9.700	0.00	0.00	0.01	0.01	0.01
9.800	0.01	0.01	0.01	0.01	0.01
9.900	0.01	0.01	0.01	0.01	0.01
10.000	0.01	0.01	0.01	0.01	0.01
10.100	0.01	0.01	0.01	0.01	0.01
10.200	0.01	0.01	0.01	0.01	0.01
10.300	0.01	0.01	0.01	0.01	0.01
10.400	0.01	0.01	0.01	0.01	0.01
10.500	0.01	0.01	0.01	0.01	0.01
10.600	0.01	0.01	0.01	0.01	0.01
10.700	0.01	0.01	0.01	0.01	0.01
10.800	0.01	0.01	0.01	0.01	0.01
10.900	0.01	0.01	0.01	0.01	0.01
11.000	0.01	0.01	0.02	0.02	0.02
11.100	0.02	0.02	0.02	0.02	0.02
11.200	0.02	0.02	0.02	0.02	0.02
11.300	0.02	0.02	0.02	0.02	0.02
11.400	0.02	0.02	0.02	0.02	0.02
11.500	0.02	0.02	0.02	0.03	0.03
11.600	0.03	0.03	0.03	0.03	0.03
11.700	0.04	0.04	0.04	0.04	0.05
11.800	0.05	0.06	0.06	0.07	0.07
11.900	0.08	0.08	0.08	0.09	0.09

Mission Preserve Proposed

Subsection: Pond Routed Hydrograph (total out)

Return Event: 90 years

Label: SW Det (OUT)

Storm Event: TypeII 24hr (1.4 in)

Scenario: Johnson County - Synthetic Curve, 90 %

HYDROGRAPH ORDINATES (ft³/s)

Output Time Increment = 0.020 hours

Time on left represents time for first value in each row.

Time (hours)	Flow (ft ³ /s)	Flow (ft ³ /s)	Flow (ft ³ /s)	Flow (ft ³ /s)	Flow (ft ³ /s)
12.000	0.10	0.10	0.10	0.11	0.11
12.100	0.11	0.11	0.11	0.11	0.11
12.200	0.11	0.11	0.11	0.11	0.11
12.300	0.11	0.11	0.11	0.11	0.12
12.400	0.12	0.12	0.12	0.12	0.12
12.500	0.12	0.12	0.12	0.12	0.12
12.600	0.12	0.12	0.12	0.12	0.12
12.700	0.12	0.12	0.12	0.12	0.12
12.800	0.12	0.12	0.12	0.12	0.12
12.900	0.12	0.12	0.12	0.12	0.12
13.000	0.12	0.12	0.12	0.12	0.12
13.100	0.12	0.12	0.12	0.12	0.12
13.200	0.12	0.12	0.12	0.12	0.12
13.300	0.12	0.12	0.12	0.12	0.12
13.400	0.12	0.12	0.12	0.12	0.12
13.500	0.12	0.12	0.12	0.12	0.12
13.600	0.12	0.12	0.12	0.12	0.12
13.700	0.12	0.12	0.12	0.12	0.12
13.800	0.12	0.12	0.12	0.12	0.12
13.900	0.12	0.12	0.12	0.12	0.12
14.000	0.12	0.12	0.12	0.12	0.12
14.100	0.12	0.12	0.12	0.12	0.12
14.200	0.12	0.12	0.12	0.12	0.12
14.300	0.12	0.12	0.12	0.12	0.12
14.400	0.12	0.12	0.12	0.12	0.12
14.500	0.12	0.12	0.12	0.12	0.12
14.600	0.12	0.12	0.12	0.12	0.12
14.700	0.12	0.12	0.12	0.12	0.12
14.800	0.12	0.12	0.12	0.12	0.12
14.900	0.12	0.12	0.12	0.12	0.12
15.000	0.12	0.12	0.12	0.12	0.12
15.100	0.12	0.12	0.12	0.12	0.12
15.200	0.12	0.12	0.12	0.12	0.12
15.300	0.12	0.12	0.12	0.12	0.12
15.400	0.12	0.12	0.12	0.12	0.12
15.500	0.12	0.12	0.12	0.12	0.12
15.600	0.12	0.12	0.12	0.12	0.12
15.700	0.12	0.12	0.12	0.12	0.12
15.800	0.12	0.12	0.12	0.12	0.12
15.900	0.12	0.12	0.12	0.12	0.12
16.000	0.12	0.12	0.12	0.12	0.12
16.100	0.12	0.12	0.12	0.12	0.12

Mission Preserve Proposed

Subsection: Pond Routed Hydrograph (total out)

Return Event: 90 years

Label: SW Det (OUT)

Storm Event: TypeII 24hr (1.4 in)

Scenario: Johnson County - Synthetic Curve, 90 %

HYDROGRAPH ORDINATES (ft³/s)

Output Time Increment = 0.020 hours

Time on left represents time for first value in each row.

Time (hours)	Flow (ft ³ /s)	Flow (ft ³ /s)	Flow (ft ³ /s)	Flow (ft ³ /s)	Flow (ft ³ /s)
16.200	0.12	0.12	0.12	0.12	0.12
16.300	0.12	0.12	0.12	0.12	0.12
16.400	0.12	0.12	0.12	0.12	0.12
16.500	0.12	0.12	0.12	0.12	0.12
16.600	0.12	0.12	0.12	0.12	0.12
16.700	0.12	0.12	0.12	0.12	0.12
16.800	0.12	0.12	0.12	0.12	0.12
16.900	0.12	0.12	0.12	0.12	0.12
17.000	0.12	0.12	0.12	0.12	0.12
17.100	0.12	0.12	0.12	0.12	0.12
17.200	0.12	0.12	0.12	0.12	0.12
17.300	0.12	0.12	0.12	0.12	0.12
17.400	0.12	0.12	0.12	0.12	0.12
17.500	0.12	0.12	0.12	0.12	0.12
17.600	0.12	0.12	0.12	0.12	0.12
17.700	0.12	0.12	0.12	0.12	0.12
17.800	0.12	0.12	0.12	0.12	0.12
17.900	0.12	0.12	0.12	0.12	0.12
18.000	0.12	0.12	0.12	0.12	0.12
18.100	0.12	0.12	0.12	0.12	0.12
18.200	0.12	0.12	0.12	0.12	0.12
18.300	0.12	0.12	0.12	0.12	0.12
18.400	0.12	0.12	0.12	0.12	0.12
18.500	0.12	0.12	0.12	0.12	0.12
18.600	0.12	0.12	0.12	0.12	0.12
18.700	0.12	0.12	0.12	0.12	0.12
18.800	0.12	0.12	0.12	0.12	0.12
18.900	0.12	0.12	0.12	0.12	0.12
19.000	0.12	0.12	0.12	0.12	0.12
19.100	0.12	0.12	0.12	0.12	0.12
19.200	0.12	0.12	0.12	0.12	0.12
19.300	0.12	0.12	0.12	0.12	0.12
19.400	0.12	0.12	0.12	0.12	0.12
19.500	0.12	0.12	0.12	0.12	0.12
19.600	0.12	0.12	0.12	0.12	0.12
19.700	0.12	0.12	0.12	0.12	0.12
19.800	0.12	0.12	0.12	0.12	0.12
19.900	0.12	0.12	0.12	0.12	0.12
20.000	0.12	0.12	0.12	0.12	0.12
20.100	0.12	0.12	0.12	0.12	0.12
20.200	0.12	0.12	0.12	0.12	0.12
20.300	0.12	0.12	0.12	0.12	0.12

Mission Preserve Proposed

Subsection: Pond Routed Hydrograph (total out)

Return Event: 90 years

Label: SW Det (OUT)

Storm Event: TypeII 24hr (1.4 in)

Scenario: Johnson County - Synthetic Curve, 90 %

HYDROGRAPH ORDINATES (ft³/s)

Output Time Increment = 0.020 hours

Time on left represents time for first value in each row.

Time (hours)	Flow (ft ³ /s)	Flow (ft ³ /s)	Flow (ft ³ /s)	Flow (ft ³ /s)	Flow (ft ³ /s)
20.400	0.12	0.12	0.11	0.11	0.11
20.500	0.11	0.11	0.11	0.11	0.11
20.600	0.11	0.11	0.11	0.11	0.11
20.700	0.11	0.11	0.11	0.11	0.11
20.800	0.11	0.11	0.11	0.11	0.11
20.900	0.11	0.11	0.11	0.11	0.11
21.000	0.11	0.11	0.11	0.11	0.11
21.100	0.11	0.11	0.11	0.11	0.11
21.200	0.11	0.11	0.11	0.11	0.11
21.300	0.11	0.11	0.11	0.11	0.11
21.400	0.11	0.11	0.11	0.11	0.11
21.500	0.11	0.11	0.11	0.11	0.11
21.600	0.11	0.11	0.11	0.11	0.11
21.700	0.11	0.11	0.11	0.11	0.11
21.800	0.11	0.11	0.11	0.11	0.11
21.900	0.11	0.11	0.11	0.11	0.11
22.000	0.11	0.11	0.11	0.11	0.11
22.100	0.11	0.11	0.11	0.11	0.11
22.200	0.11	0.11	0.11	0.11	0.11
22.300	0.11	0.11	0.11	0.11	0.11
22.400	0.11	0.11	0.11	0.11	0.11
22.500	0.11	0.11	0.11	0.11	0.11
22.600	0.11	0.11	0.11	0.11	0.11
22.700	0.11	0.11	0.11	0.11	0.11
22.800	0.11	0.11	0.11	0.11	0.11
22.900	0.11	0.11	0.11	0.11	0.11
23.000	0.11	0.11	0.11	0.11	0.11
23.100	0.11	0.11	0.11	0.11	0.11
23.200	0.11	0.11	0.11	0.11	0.11
23.300	0.11	0.11	0.11	0.11	0.11
23.400	0.11	0.11	0.11	0.11	0.11
23.500	0.11	0.11	0.11	0.11	0.11
23.600	0.11	0.11	0.11	0.11	0.11
23.700	0.11	0.11	0.11	0.11	0.11
23.800	0.11	0.11	0.11	0.11	0.11
23.900	0.11	0.11	0.11	0.11	0.11
24.000	0.11	0.11	0.11	0.11	0.11
24.100	0.11	0.11	0.11	0.11	0.11
24.200	0.11	0.11	0.11	0.11	0.11
24.300	0.11	0.10	0.10	0.10	0.10
24.400	0.10	0.10	0.10	0.10	0.10
24.500	0.10	0.10	0.10	0.10	0.10

Mission Preserve Proposed

Subsection: Pond Routed Hydrograph (total out)

Return Event: 90 years

Label: SW Det (OUT)

Storm Event: TypeII 24hr (1.4 in)

Scenario: Johnson County - Synthetic Curve, 90 %

HYDROGRAPH ORDINATES (ft³/s)

Output Time Increment = 0.020 hours

Time on left represents time for first value in each row.

Time (hours)	Flow (ft ³ /s)	Flow (ft ³ /s)	Flow (ft ³ /s)	Flow (ft ³ /s)	Flow (ft ³ /s)
24.600	0.10	0.10	0.10	0.10	0.10
24.700	0.10	0.10	0.10	0.10	0.10
24.800	0.10	0.10	0.10	0.10	0.10
24.900	0.10	0.10	0.10	0.10	0.10
25.000	0.10	0.10	0.10	0.10	0.10
25.100	0.10	0.10	0.10	0.10	0.10
25.200	0.10	0.10	0.10	0.10	0.10
25.300	0.10	0.10	0.10	0.10	0.10
25.400	0.10	0.10	0.10	0.10	0.10
25.500	0.10	0.10	0.10	0.10	0.10
25.600	0.10	0.10	0.10	0.10	0.10
25.700	0.10	0.10	0.10	0.10	0.10
25.800	0.10	0.10	0.10	0.10	0.10
25.900	0.10	0.10	0.10	0.10	0.10
26.000	0.10	0.10	0.10	0.10	0.10
26.100	0.10	0.10	0.10	0.10	0.10
26.200	0.10	0.10	0.10	0.10	0.10
26.300	0.10	0.10	0.10	0.10	0.10
26.400	0.10	0.10	0.09	0.09	0.09
26.500	0.09	0.09	0.09	0.09	0.09
26.600	0.09	0.09	0.09	0.09	0.09
26.700	0.09	0.09	0.09	0.09	0.09
26.800	0.09	0.09	0.09	0.09	0.09
26.900	0.09	0.09	0.09	0.09	0.09
27.000	0.09	0.09	0.09	0.09	0.09
27.100	0.09	0.09	0.09	0.09	0.09
27.200	0.09	0.09	0.09	0.09	0.09
27.300	0.09	0.09	0.09	0.09	0.09
27.400	0.09	0.09	0.09	0.09	0.09
27.500	0.09	0.09	0.09	0.09	0.09
27.600	0.09	0.09	0.09	0.09	0.09
27.700	0.09	0.09	0.09	0.09	0.09
27.800	0.09	0.09	0.09	0.09	0.09
27.900	0.09	0.09	0.09	0.09	0.09
28.000	0.09	0.09	0.09	0.09	0.09
28.100	0.09	0.09	0.09	0.09	0.09
28.200	0.09	0.09	0.09	0.09	0.09
28.300	0.09	0.09	0.09	0.09	0.09
28.400	0.09	0.09	0.09	0.09	0.09
28.500	0.08	0.08	0.08	0.08	0.08
28.600	0.08	0.08	0.08	0.08	0.08
28.700	0.08	0.08	0.08	0.08	0.08

Mission Preserve Proposed

Subsection: Pond Routed Hydrograph (total out)

Return Event: 90 years

Label: SW Det (OUT)

Storm Event: TypeII 24hr (1.4 in)

Scenario: Johnson County - Synthetic Curve, 90 %

HYDROGRAPH ORDINATES (ft³/s)

Output Time Increment = 0.020 hours

Time on left represents time for first value in each row.

Time (hours)	Flow (ft ³ /s)	Flow (ft ³ /s)	Flow (ft ³ /s)	Flow (ft ³ /s)	Flow (ft ³ /s)
28.800	0.08	0.08	0.08	0.08	0.08
28.900	0.08	0.08	0.08	0.08	0.08
29.000	0.08	0.08	0.08	0.08	0.08
29.100	0.08	0.08	0.08	0.08	0.08
29.200	0.08	0.08	0.08	0.08	0.08
29.300	0.08	0.08	0.08	0.08	0.08
29.400	0.08	0.08	0.08	0.08	0.08
29.500	0.08	0.08	0.08	0.08	0.08
29.600	0.08	0.08	0.08	0.08	0.08
29.700	0.08	0.08	0.08	0.08	0.08
29.800	0.08	0.08	0.08	0.08	0.08
29.900	0.08	0.08	0.08	0.08	0.08
30.000	0.08	0.08	0.08	0.08	0.08
30.100	0.08	0.08	0.08	0.08	0.08
30.200	0.08	0.08	0.08	0.08	0.08
30.300	0.08	0.08	0.08	0.08	0.08
30.400	0.08	0.08	0.08	0.08	0.08
30.500	0.08	0.08	0.08	0.08	0.08
30.600	0.08	0.08	0.08	0.08	0.08
30.700	0.08	0.08	0.08	0.08	0.08
30.800	0.07	0.07	0.07	0.07	0.07
30.900	0.07	0.07	0.07	0.07	0.07
31.000	0.07	0.07	0.07	0.07	0.07
31.100	0.07	0.07	0.07	0.07	0.07
31.200	0.07	0.07	0.07	0.07	0.07
31.300	0.07	0.07	0.07	0.07	0.07
31.400	0.07	0.07	0.07	0.07	0.07
31.500	0.07	0.07	0.07	0.07	0.07
31.600	0.07	0.07	0.07	0.07	0.07
31.700	0.07	0.07	0.07	0.07	0.07
31.800	0.07	0.07	0.07	0.07	0.07
31.900	0.07	0.07	0.07	0.07	0.07
32.000	0.07	0.07	0.07	0.07	0.07
32.100	0.07	0.07	0.07	0.07	0.07
32.200	0.07	0.07	0.07	0.07	0.07
32.300	0.07	0.07	0.07	0.07	0.07
32.400	0.07	0.07	0.07	0.07	0.07
32.500	0.07	0.07	0.07	0.07	0.07
32.600	0.07	0.07	0.07	0.07	0.07
32.700	0.07	0.07	0.07	0.07	0.07
32.800	0.07	0.07	0.07	0.07	0.07
32.900	0.07	0.07	0.07	0.07	0.07

Mission Preserve Proposed

Subsection: Pond Routed Hydrograph (total out)

Return Event: 90 years

Label: SW Det (OUT)

Storm Event: TypeII 24hr (1.4 in)

Scenario: Johnson County - Synthetic Curve, 90 %

HYDROGRAPH ORDINATES (ft³/s)

Output Time Increment = 0.020 hours

Time on left represents time for first value in each row.

Time (hours)	Flow (ft ³ /s)	Flow (ft ³ /s)	Flow (ft ³ /s)	Flow (ft ³ /s)	Flow (ft ³ /s)
33.000	0.07	0.07	0.07	0.06	0.06
33.100	0.06	0.06	0.06	0.06	0.06
33.200	0.06	0.06	0.06	0.06	0.06
33.300	0.06	0.06	0.06	0.06	0.06
33.400	0.06	0.06	0.06	0.06	0.06
33.500	0.06	0.06	0.06	0.06	0.06
33.600	0.06	0.06	0.06	0.06	0.06
33.700	0.06	0.06	0.06	0.06	0.06
33.800	0.06	0.06	0.06	0.06	0.06
33.900	0.06	0.06	0.06	0.06	0.06
34.000	0.06	0.06	0.06	0.06	0.06
34.100	0.06	0.06	0.06	0.06	0.06
34.200	0.06	0.06	0.06	0.06	0.06
34.300	0.06	0.06	0.06	0.06	0.06
34.400	0.06	0.06	0.06	0.06	0.06
34.500	0.06	0.06	0.05	0.05	0.05
34.600	0.05	0.05	0.05	0.05	0.05
34.700	0.05	0.05	0.05	0.05	0.05
34.800	0.05	0.05	0.05	0.05	0.05
34.900	0.05	0.05	0.05	0.05	0.05
35.000	0.05	0.05	0.05	0.05	0.05
35.100	0.05	0.05	0.05	0.05	0.05
35.200	0.05	0.05	0.05	0.05	0.05
35.300	0.05	0.05	0.05	0.05	0.05
35.400	0.05	0.05	0.05	0.05	0.05
35.500	0.05	0.05	0.05	0.05	0.05
35.600	0.05	0.05	0.05	0.05	0.05
35.700	0.05	0.05	0.05	0.05	0.05
35.800	0.05	0.05	0.05	0.05	0.05
35.900	0.05	0.05	0.05	0.05	0.05
36.000	0.05	0.05	0.05	0.05	0.05
36.100	0.05	0.05	0.05	0.05	0.05
36.200	0.05	0.05	0.05	0.05	0.05
36.300	0.05	0.05	0.04	0.04	0.04
36.400	0.04	0.04	0.04	0.04	0.04
36.500	0.04	0.04	0.04	0.04	0.04
36.600	0.04	0.04	0.04	0.04	0.04
36.700	0.04	0.04	0.04	0.04	0.04
36.800	0.04	0.04	0.04	0.04	0.04
36.900	0.04	0.04	0.04	0.04	0.04
37.000	0.04	0.04	0.04	0.04	0.04
37.100	0.04	0.04	0.04	0.04	0.04

Mission Preserve Proposed

Subsection: Pond Routed Hydrograph (total out)

Return Event: 90 years

Label: SW Det (OUT)

Storm Event: TypeII 24hr (1.4 in)

Scenario: Johnson County - Synthetic Curve, 90 %

HYDROGRAPH ORDINATES (ft³/s)

Output Time Increment = 0.020 hours

Time on left represents time for first value in each row.

Time (hours)	Flow (ft ³ /s)	Flow (ft ³ /s)	Flow (ft ³ /s)	Flow (ft ³ /s)	Flow (ft ³ /s)
37.200	0.04	0.04	0.04	0.04	0.04
37.300	0.04	0.04	0.04	0.04	0.04
37.400	0.04	0.04	0.04	0.04	0.04
37.500	0.04	0.04	0.04	0.04	0.04
37.600	0.04	0.04	0.04	0.04	0.04
37.700	0.04	0.04	0.04	0.04	0.04
37.800	0.04	0.04	0.04	0.04	0.04
37.900	0.04	0.04	0.04	0.04	0.04
38.000	0.04	0.04	0.04	0.04	0.04
38.100	0.04	0.04	0.04	0.04	0.04
38.200	0.04	0.04	0.04	0.04	0.04
38.300	0.04	0.04	0.04	0.04	0.04
38.400	0.04	0.04	0.04	0.04	0.04
38.500	0.04	0.04	0.04	0.04	0.03
38.600	0.03	0.03	0.03	0.03	0.03
38.700	0.03	0.03	0.03	0.03	0.03
38.800	0.03	0.03	0.03	0.03	0.03
38.900	0.03	0.03	0.03	0.03	0.03
39.000	0.03	0.03	0.03	0.03	0.03
39.100	0.03	0.03	0.03	0.03	0.03
39.200	0.03	0.03	0.03	0.03	0.03
39.300	0.03	0.03	0.03	0.03	0.03
39.400	0.03	0.03	0.03	0.03	0.03
39.500	0.03	0.03	0.03	0.03	0.03
39.600	0.03	0.03	0.03	0.03	0.03
39.700	0.03	0.03	0.03	0.03	0.03
39.800	0.03	0.03	0.03	0.03	0.03
39.900	0.03	0.03	0.03	0.03	0.03
40.000	0.03	0.03	0.03	0.03	0.03
40.100	0.03	0.03	0.03	0.03	0.03
40.200	0.03	0.03	0.03	0.03	0.03
40.300	0.03	0.03	0.03	0.03	0.03
40.400	0.03	0.03	0.03	0.03	0.03
40.500	0.03	0.03	0.03	0.03	0.03
40.600	0.03	0.03	0.03	0.03	0.03
40.700	0.03	0.03	0.03	0.03	0.03
40.800	0.03	0.03	0.03	0.03	0.03
40.900	0.03	0.03	0.03	0.03	0.03
41.000	0.03	0.03	0.03	0.03	0.03
41.100	0.03	0.03	0.03	0.03	0.03
41.200	0.03	0.03	0.03	0.03	0.03
41.300	0.03	0.03	0.03	0.03	0.03

Mission Preserve Proposed

Subsection: Pond Routed Hydrograph (total out)

Return Event: 90 years

Label: SW Det (OUT)

Storm Event: TypeII 24hr (1.4 in)

Scenario: Johnson County - Synthetic Curve, 90 %

HYDROGRAPH ORDINATES (ft³/s)

Output Time Increment = 0.020 hours

Time on left represents time for first value in each row.

Time (hours)	Flow (ft ³ /s)	Flow (ft ³ /s)	Flow (ft ³ /s)	Flow (ft ³ /s)	Flow (ft ³ /s)
41.400	0.03	0.03	0.03	0.03	0.03
41.500	0.03	0.03	0.03	0.03	0.02
41.600	0.02	0.02	0.02	0.02	0.02
41.700	0.02	0.02	0.02	0.02	0.02
41.800	0.02	0.02	0.02	0.02	0.02
41.900	0.02	0.02	0.02	0.02	0.02
42.000	0.02	0.02	0.02	0.02	0.02
42.100	0.02	0.02	0.02	0.02	0.02
42.200	0.02	0.02	0.02	0.02	0.02
42.300	0.02	0.02	0.02	0.02	0.02
42.400	0.02	0.02	0.02	0.02	0.02
42.500	0.02	0.02	0.02	0.02	0.02
42.600	0.02	0.02	0.02	0.02	0.02
42.700	0.02	0.02	0.02	0.02	0.02
42.800	0.02	0.02	0.02	0.02	0.02
42.900	0.02	0.02	0.02	0.02	0.02
43.000	0.02	0.02	0.02	0.02	0.02
43.100	0.02	0.02	0.02	0.02	0.02
43.200	0.02	0.02	0.02	0.02	0.02
43.300	0.02	0.02	0.02	0.02	0.02
43.400	0.02	0.02	0.02	0.02	0.02
43.500	0.02	0.02	0.02	0.02	0.02
43.600	0.02	0.02	0.02	0.02	0.02
43.700	0.02	0.02	0.02	0.02	0.02
43.800	0.02	0.02	0.02	0.02	0.02
43.900	0.02	0.02	0.02	0.02	0.02
44.000	0.02	0.02	0.02	0.02	0.02
44.100	0.02	0.02	0.02	0.02	0.02
44.200	0.02	0.02	0.02	0.02	0.02
44.300	0.02	0.02	0.02	0.02	0.02
44.400	0.02	0.02	0.02	0.02	0.02
44.500	0.02	0.02	0.02	0.02	0.02
44.600	0.02	0.02	0.02	0.02	0.02
44.700	0.02	0.02	0.02	0.02	0.02
44.800	0.02	0.02	0.02	0.02	0.02
44.900	0.02	0.02	0.02	0.02	0.02
45.000	0.02	0.02	0.02	0.02	0.02
45.100	0.02	0.02	0.02	0.02	0.02
45.200	0.02	0.02	0.02	0.02	0.02
45.300	0.02	0.02	0.02	0.02	0.02
45.400	0.02	0.02	0.02	0.02	0.02
45.500	0.02	0.02	0.02	0.02	0.02

Mission Preserve Proposed

Subsection: Pond Routed Hydrograph (total out)

Return Event: 90 years

Label: SW Det (OUT)

Storm Event: TypeII 24hr (1.4 in)

Scenario: Johnson County - Synthetic Curve, 90 %

HYDROGRAPH ORDINATES (ft³/s)

Output Time Increment = 0.020 hours

Time on left represents time for first value in each row.

Time (hours)	Flow (ft ³ /s)	Flow (ft ³ /s)	Flow (ft ³ /s)	Flow (ft ³ /s)	Flow (ft ³ /s)
45.600	0.02	0.02	0.02	0.02	0.02
45.700	0.02	0.02	0.02	0.02	0.02
45.800	0.02	0.02	0.02	0.02	0.02
45.900	0.02	0.02	0.02	0.02	0.02
46.000	0.02	0.02	0.02	0.02	0.02
46.100	0.02	0.02	0.01	0.01	0.01
46.200	0.01	0.01	0.01	0.01	0.01
46.300	0.01	0.01	0.01	0.01	0.01
46.400	0.01	0.01	0.01	0.01	0.01
46.500	0.01	0.01	0.01	0.01	0.01
46.600	0.01	0.01	0.01	0.01	0.01
46.700	0.01	0.01	0.01	0.01	0.01
46.800	0.01	0.01	0.01	0.01	0.01
46.900	0.01	0.01	0.01	0.01	0.01
47.000	0.01	0.01	0.01	0.01	0.01
47.100	0.01	0.01	0.01	0.01	0.01
47.200	0.01	0.01	0.01	0.01	0.01
47.300	0.01	0.01	0.01	0.01	0.01
47.400	0.01	0.01	0.01	0.01	0.01
47.500	0.01	0.01	0.01	0.01	0.01
47.600	0.01	0.01	0.01	0.01	0.01
47.700	0.01	0.01	0.01	0.01	0.01
47.800	0.01	0.01	0.01	0.01	0.01
47.900	0.01	0.01	0.01	0.01	0.01
48.000	0.01	0.01	0.01	0.01	0.01
48.100	0.01	0.01	0.01	0.01	0.01
48.200	0.01	0.01	0.01	0.01	0.01
48.300	0.01	0.01	0.01	0.01	0.01
48.400	0.01	0.01	0.01	0.01	0.01
48.500	0.01	0.01	0.01	0.01	0.01
48.600	0.01	0.01	0.01	0.01	0.01
48.700	0.01	0.01	0.01	0.01	0.01
48.800	0.01	0.01	0.01	0.01	0.01
48.900	0.01	0.01	0.01	0.01	0.01
49.000	0.01	0.01	0.01	0.01	0.01
49.100	0.01	0.01	0.01	0.01	0.01
49.200	0.01	0.01	0.01	0.01	0.01
49.300	0.01	0.01	0.01	0.01	0.01
49.400	0.01	0.01	0.01	0.01	0.01
49.500	0.01	0.01	0.01	0.01	0.01
49.600	0.01	0.01	0.01	0.01	0.01
49.700	0.01	0.01	0.01	0.01	0.01

Mission Preserve Proposed

Subsection: Pond Routed Hydrograph (total out)

Return Event: 90 years

Label: SW Det (OUT)

Storm Event: TypeII 24hr (1.4 in)

Scenario: Johnson County - Synthetic Curve, 90 %

HYDROGRAPH ORDINATES (ft³/s)

Output Time Increment = 0.020 hours

Time on left represents time for first value in each row.

Time (hours)	Flow (ft ³ /s)	Flow (ft ³ /s)	Flow (ft ³ /s)	Flow (ft ³ /s)	Flow (ft ³ /s)
49.800	0.01	0.01	0.01	0.01	0.01
49.900	0.01	0.01	0.01	0.01	0.01
50.000	0.01	0.01	0.01	0.01	0.01
50.100	0.01	0.01	0.01	0.01	0.01
50.200	0.01	0.01	0.01	0.01	0.01
50.300	0.01	0.01	0.01	0.01	0.01
50.400	0.01	0.01	0.01	0.01	0.01
50.500	0.01	0.01	0.01	0.01	0.01
50.600	0.01	0.01	0.01	0.01	0.01
50.700	0.01	0.01	0.01	0.01	0.01
50.800	0.01	0.01	0.01	0.01	0.01
50.900	0.01	0.01	0.01	0.01	0.01
51.000	0.01	0.01	0.01	0.01	0.01
51.100	0.01	0.01	0.01	0.01	0.01
51.200	0.01	0.01	0.01	0.01	0.01
51.300	0.01	0.01	0.01	0.01	0.01
51.400	0.01	0.01	0.01	0.01	0.01
51.500	0.01	0.01	0.01	0.01	0.01
51.600	0.01	0.01	0.01	0.01	0.01
51.700	0.01	0.01	0.01	0.01	0.01
51.800	0.01	0.01	0.01	0.01	0.01
51.900	0.01	0.01	0.01	0.01	0.01
52.000	0.01	0.01	0.01	0.01	0.01
52.100	0.01	0.01	0.01	0.01	0.01
52.200	0.01	0.01	0.01	0.01	0.01
52.300	0.01	0.01	0.01	0.01	0.01
52.400	0.01	0.01	0.01	0.01	0.01
52.500	0.01	0.01	0.01	0.01	0.01
52.600	0.01	0.01	0.01	0.01	0.01
52.700	0.01	0.01	0.01	0.01	0.01
52.800	0.01	0.01	0.01	0.01	0.01
52.900	0.01	0.01	0.01	0.01	0.01
53.000	0.01	0.01	0.01	0.01	0.01
53.100	0.01	0.01	0.01	0.01	0.01
53.200	0.01	0.01	0.01	0.01	0.01
53.300	0.01	0.01	0.01	0.01	0.01
53.400	0.01	0.01	0.01	0.01	0.01
53.500	0.01	0.01	0.01	0.01	0.01
53.600	0.01	0.01	0.01	0.01	0.01
53.700	0.01	0.01	0.01	0.01	0.01
53.800	0.01	0.01	0.01	0.01	0.01
53.900	0.01	0.01	0.01	0.01	0.01

Mission Preserve Proposed

Subsection: Pond Routed Hydrograph (total out)

Return Event: 90 years

Label: SW Det (OUT)

Storm Event: TypeII 24hr (1.4 in)

Scenario: Johnson County - Synthetic Curve, 90 %

HYDROGRAPH ORDINATES (ft³/s)

Output Time Increment = 0.020 hours

Time on left represents time for first value in each row.

Time (hours)	Flow (ft ³ /s)	Flow (ft ³ /s)	Flow (ft ³ /s)	Flow (ft ³ /s)	Flow (ft ³ /s)
54.000	0.01	0.01	0.01	0.01	0.01
54.100	0.01	0.01	0.01	0.01	0.01
54.200	0.01	0.01	0.01	0.01	0.01
54.300	0.01	0.01	0.01	0.01	0.01
54.400	0.01	0.01	0.01	0.01	0.01
54.500	0.01	0.01	0.01	0.01	0.01
54.600	0.01	0.01	0.01	0.01	0.01
54.700	0.01	0.01	0.01	0.01	0.01
54.800	0.01	0.01	0.01	0.01	0.01
54.900	0.01	0.01	0.01	0.01	0.01
55.000	0.01	0.01	0.01	0.01	0.01
55.100	0.01	0.01	0.01	0.01	0.01
55.200	0.01	0.01	0.01	0.01	0.01
55.300	0.01	0.01	0.01	0.01	0.01
55.400	0.01	0.01	0.01	0.01	0.01
55.500	0.01	0.01	0.01	0.01	0.01
55.600	0.01	0.01	0.01	0.01	0.01
55.700	0.01	0.01	0.01	0.01	0.01
55.800	0.01	0.01	0.01	0.01	0.01
55.900	0.01	0.01	0.00	0.00	0.00
56.000	0.00	0.00	0.00	0.00	0.00
56.100	0.00	0.00	0.00	0.00	0.00
56.200	0.00	0.00	0.00	0.00	0.00
56.300	0.00	0.00	0.00	0.00	0.00
56.400	0.00	0.00	0.00	0.00	0.00
56.500	0.00	0.00	0.00	0.00	0.00
56.600	0.00	0.00	0.00	0.00	0.00
56.700	0.00	0.00	0.00	0.00	0.00
56.800	0.00	0.00	0.00	0.00	0.00
56.900	0.00	0.00	0.00	0.00	0.00
57.000	0.00	0.00	0.00	0.00	0.00
57.100	0.00	0.00	0.00	0.00	0.00
57.200	0.00	0.00	0.00	0.00	0.00
57.300	0.00	0.00	0.00	0.00	0.00
57.400	0.00	0.00	0.00	0.00	0.00
57.500	0.00	0.00	0.00	0.00	0.00
57.600	0.00	0.00	0.00	0.00	0.00
57.700	0.00	0.00	0.00	0.00	0.00
57.800	0.00	0.00	0.00	0.00	0.00
57.900	0.00	0.00	0.00	0.00	0.00
58.000	0.00	0.00	0.00	0.00	0.00
58.100	0.00	0.00	0.00	0.00	0.00

Mission Preserve Proposed

Subsection: Pond Routed Hydrograph (total out)

Return Event: 90 years

Label: SW Det (OUT)

Storm Event: TypeII 24hr (1.4 in)

Scenario: Johnson County - Synthetic Curve, 90 %

HYDROGRAPH ORDINATES (ft³/s)

Output Time Increment = 0.020 hours

Time on left represents time for first value in each row.

Time (hours)	Flow (ft ³ /s)	Flow (ft ³ /s)	Flow (ft ³ /s)	Flow (ft ³ /s)	Flow (ft ³ /s)
58.200	0.00	0.00	0.00	0.00	0.00
58.300	0.00	0.00	0.00	0.00	0.00
58.400	0.00	0.00	0.00	0.00	0.00
58.500	0.00	0.00	0.00	0.00	0.00
58.600	0.00	0.00	0.00	0.00	0.00
58.700	0.00	0.00	0.00	0.00	0.00
58.800	0.00	0.00	0.00	0.00	0.00
58.900	0.00	0.00	0.00	0.00	0.00
59.000	0.00	0.00	0.00	0.00	0.00
59.100	0.00	0.00	0.00	0.00	0.00
59.200	0.00	0.00	0.00	0.00	0.00
59.300	0.00	0.00	0.00	0.00	0.00
59.400	0.00	0.00	0.00	0.00	0.00
59.500	0.00	0.00	0.00	0.00	0.00
59.600	0.00	0.00	0.00	0.00	0.00
59.700	0.00	0.00	0.00	0.00	0.00
59.800	0.00	0.00	0.00	0.00	0.00
59.900	0.00	0.00	0.00	0.00	0.00
60.000	0.00	0.00	0.00	0.00	0.00
60.100	0.00	0.00	0.00	0.00	0.00
60.200	0.00	0.00	0.00	0.00	0.00
60.300	0.00	0.00	0.00	0.00	0.00
60.400	0.00	0.00	0.00	0.00	0.00
60.500	0.00	0.00	0.00	0.00	0.00
60.600	0.00	0.00	0.00	0.00	0.00
60.700	0.00	0.00	0.00	0.00	0.00
60.800	0.00	0.00	0.00	0.00	0.00
60.900	0.00	0.00	0.00	0.00	0.00
61.000	0.00	0.00	0.00	0.00	0.00
61.100	0.00	0.00	0.00	0.00	0.00
61.200	0.00	0.00	0.00	0.00	0.00
61.300	0.00	0.00	0.00	0.00	0.00
61.400	0.00	0.00	0.00	0.00	0.00
61.500	0.00	0.00	0.00	0.00	0.00
61.600	0.00	0.00	0.00	0.00	0.00
61.700	0.00	0.00	0.00	0.00	0.00
61.800	0.00	0.00	0.00	0.00	0.00
61.900	0.00	0.00	0.00	0.00	0.00
62.000	0.00	0.00	0.00	0.00	0.00
62.100	0.00	0.00	0.00	0.00	0.00
62.200	0.00	0.00	0.00	0.00	0.00
62.300	0.00	0.00	0.00	0.00	0.00

Mission Preserve Proposed

Subsection: Pond Routed Hydrograph (total out)

Return Event: 90 years

Label: SW Det (OUT)

Storm Event: TypeII 24hr (1.4 in)

Scenario: Johnson County - Synthetic Curve, 90 %

HYDROGRAPH ORDINATES (ft³/s)

Output Time Increment = 0.020 hours

Time on left represents time for first value in each row.

Time (hours)	Flow (ft ³ /s)	Flow (ft ³ /s)	Flow (ft ³ /s)	Flow (ft ³ /s)	Flow (ft ³ /s)
62.400	0.00	0.00	0.00	0.00	0.00
62.500	0.00	0.00	0.00	0.00	0.00
62.600	0.00	0.00	0.00	0.00	0.00
62.700	0.00	0.00	0.00	0.00	0.00
62.800	0.00	0.00	0.00	0.00	0.00
62.900	0.00	0.00	0.00	0.00	0.00
63.000	0.00	0.00	0.00	0.00	0.00
63.100	0.00	0.00	0.00	0.00	0.00
63.200	0.00	0.00	0.00	0.00	0.00
63.300	0.00	0.00	0.00	0.00	0.00
63.400	0.00	0.00	0.00	0.00	0.00
63.500	0.00	0.00	0.00	0.00	0.00
63.600	0.00	0.00	0.00	0.00	0.00
63.700	0.00	0.00	0.00	0.00	0.00
63.800	0.00	0.00	0.00	0.00	0.00
63.900	0.00	0.00	0.00	0.00	0.00
64.000	0.00	0.00	0.00	0.00	0.00
64.100	0.00	0.00	0.00	0.00	0.00
64.200	0.00	0.00	0.00	0.00	0.00
64.300	0.00	0.00	0.00	0.00	0.00
64.400	0.00	0.00	0.00	0.00	0.00
64.500	0.00	0.00	0.00	0.00	0.00
64.600	0.00	0.00	0.00	0.00	0.00
64.700	0.00	0.00	0.00	0.00	0.00
64.800	0.00	0.00	0.00	0.00	0.00
64.900	0.00	0.00	0.00	0.00	0.00
65.000	0.00	0.00	0.00	0.00	0.00
65.100	0.00	0.00	0.00	0.00	0.00
65.200	0.00	0.00	0.00	0.00	0.00
65.300	0.00	0.00	0.00	0.00	0.00
65.400	0.00	0.00	0.00	0.00	0.00
65.500	0.00	0.00	0.00	0.00	0.00
65.600	0.00	0.00	0.00	0.00	0.00
65.700	0.00	0.00	0.00	0.00	0.00
65.800	0.00	0.00	0.00	0.00	0.00
65.900	0.00	0.00	0.00	0.00	0.00
66.000	0.00	0.00	0.00	0.00	0.00
66.100	0.00	0.00	0.00	0.00	0.00
66.200	0.00	0.00	0.00	0.00	0.00
66.300	0.00	0.00	0.00	0.00	0.00
66.400	0.00	0.00	0.00	0.00	0.00
66.500	0.00	0.00	0.00	0.00	0.00

Mission Preserve Proposed

Subsection: Pond Routed Hydrograph (total out)

Return Event: 90 years

Label: SW Det (OUT)

Storm Event: TypeII 24hr (1.4 in)

Scenario: Johnson County - Synthetic Curve, 90 %

HYDROGRAPH ORDINATES (ft³/s)

Output Time Increment = 0.020 hours

Time on left represents time for first value in each row.

Time (hours)	Flow (ft ³ /s)	Flow (ft ³ /s)	Flow (ft ³ /s)	Flow (ft ³ /s)	Flow (ft ³ /s)
66.600	0.00	0.00	0.00	0.00	0.00
66.700	0.00	0.00	0.00	0.00	0.00
66.800	0.00	0.00	0.00	0.00	0.00
66.900	0.00	0.00	0.00	0.00	0.00
67.000	0.00	0.00	0.00	0.00	0.00
67.100	0.00	0.00	0.00	0.00	0.00
67.200	0.00	0.00	0.00	0.00	0.00
67.300	0.00	0.00	0.00	0.00	0.00
67.400	0.00	0.00	0.00	0.00	0.00
67.500	0.00	0.00	0.00	0.00	0.00
67.600	0.00	0.00	0.00	0.00	0.00
67.700	0.00	0.00	0.00	0.00	0.00
67.800	0.00	0.00	0.00	0.00	0.00
67.900	0.00	0.00	0.00	0.00	0.00
68.000	0.00	0.00	0.00	0.00	0.00
68.100	0.00	0.00	0.00	0.00	0.00
68.200	0.00	0.00	0.00	0.00	0.00
68.300	0.00	0.00	0.00	0.00	0.00
68.400	0.00	0.00	0.00	0.00	0.00
68.500	0.00	0.00	0.00	0.00	0.00
68.600	0.00	0.00	0.00	0.00	0.00
68.700	0.00	0.00	0.00	0.00	0.00
68.800	0.00	0.00	0.00	0.00	0.00
68.900	0.00	0.00	0.00	0.00	0.00
69.000	0.00	0.00	0.00	0.00	0.00
69.100	0.00	0.00	0.00	0.00	0.00
69.200	0.00	0.00	0.00	0.00	0.00
69.300	0.00	0.00	0.00	0.00	0.00
69.400	0.00	0.00	0.00	0.00	0.00
69.500	0.00	0.00	0.00	0.00	0.00
69.600	0.00	0.00	0.00	0.00	0.00
69.700	0.00	0.00	0.00	0.00	0.00
69.800	0.00	0.00	0.00	0.00	0.00

Mission Preserve Proposed

Subsection: Elevation-Area Volume Curve

Return Event: 100 years

Label: NE Det #1

Storm Event: TypeII 24hr (7.9 in)

Scenario: Johnson County - Synthetic Curve, 100 yrs

Elevation (ft)	Planimeter (ft ²)	Area (acres)	A1+A2+sqr (A1*A2) (acres)	Volume (ft ³)	Volume (Total) (ft ³)
995.00	0.0	0.016	0.000	0.000	0.000
998.00	0.0	0.016	0.048	2,091.000	2,091.000

Mission Preserve Proposed

Subsection: Elevation-Area Volume Curve

Return Event: 100 years

Label: NE Det #2

Storm Event: TypeII 24hr (7.9 in)

Scenario: Johnson County - Synthetic Curve, 100 yrs

Elevation (ft)	Planimeter (ft ²)	Area (acres)	A1+A2+sqr (A1*A2) (acres)	Volume (ft ³)	Volume (Total) (ft ³)
975.00	0.0	0.100	0.000	0.000	0.000
978.00	0.0	0.100	0.300	13,068.000	13,068.000
983.00	0.0	0.220	0.468	34,000.000	47,068.000

Mission Preserve Proposed

Subsection: Elevation-Area Volume Curve

Return Event: 100 years

Label: SW Det

Storm Event: TypeII 24hr (7.9 in)

Scenario: Johnson County - Synthetic Curve, 100 yrs

Elevation (ft)	Planimeter (ft ²)	Area (acres)	A1+A2+sq (A1*A2) (acres)	Volume (ft ³)	Volume (Total) (ft ³)
976.00	0.0	0.100	0.000	0.000	0.000
980.00	0.0	0.100	0.300	17,424.000	17,424.000
985.00	0.0	0.220	0.468	34,000.000	51,424.000

Mission Preserve Proposed

Subsection: Outlet Input Data

Return Event: 100 years

Label: Composite Outlet Structure - 1

Storm Event: TypeII 24hr (7.9 in)

Scenario: Johnson County - Synthetic Curve, 100 yrs

Requested Pond Water Surface Elevations

Minimum (Headwater)	995.00 ft
Increment (Headwater)	0.50 ft
Maximum (Headwater)	998.00 ft

Outlet Connectivity

Structure Type	Outlet ID	Direction	Outfall	E1 (ft)	E2 (ft)
Rectangular Weir	Weir - 1	Forward + Reverse	TW	995.00	998.00
Tailwater Settings	Tailwater			(N/A)	(N/A)

Mission Preserve Proposed

Subsection: Outlet Input Data

Return Event: 100 years

Label: Composite Outlet Structure - 1

Storm Event: TypeII 24hr (7.9 in)

Scenario: Johnson County - Synthetic Curve, 100 yrs

Structure ID: Weir - 1

Structure Type: Rectangular Weir

Number of Openings	1
Elevation	995.00 ft
Weir Length	0.75 ft
Weir Coefficient	3.00 (ft ^{0.5})/s

Mission Preserve Proposed

Subsection: Individual Outlet Curves
 Label: Composite Outlet Structure - 1
 Scenario: Johnson County - Synthetic Curve, 100 yrs

Return Event: 100 years
 Storm Event: TypeII 24hr (7.9 in)

RATING TABLE FOR ONE OUTLET TYPE
 Structure ID = Weir - 1 (Rectangular Weir)

 Upstream ID = (Pond Water Surface)
 Downstream ID = Tailwater (Pond Outfall)

Water Surface Elevation (ft)	Flow (ft ³ /s)	Tailwater Elevation (ft)	Convergence Error (ft)
995.00	0.00	975.00	0.00
995.50	0.69	975.00	0.00
996.00	1.65	975.00	0.00
996.50	2.48	975.00	0.00
997.00	2.97	975.00	0.00
997.50	2.96	975.00	0.00
998.00	2.34	975.00	0.00

Computation Messages
H=.00; Htw=.00; Qfree=.00;
H=.50; Htw=.00; Qfree=.69;
H=1.00; Htw=.00; Qfree=1.65;
H=1.50; Htw=.00; Qfree=2.48;
H=2.00; Htw=.00; Qfree=2.97;
H=2.50; Htw=.00; Qfree=2.96;
H=3.00; Htw=.00; Qfree=2.34;

Mission Preserve Proposed

Subsection: Individual Outlet Curves
 Label: Composite Outlet Structure - 1
 Scenario: Johnson County - Synthetic Curve, 100 yrs

Return Event: 100 years
 Storm Event: TypeII 24hr (7.9 in)

RATING TABLE FOR ONE OUTLET TYPE
 Structure ID = Weir - 1 (Rectangular Weir)

 Upstream ID = (Pond Water Surface)
 Downstream ID = Tailwater (Pond Outfall)

Water Surface Elevation (ft)	Flow (ft ³ /s)	Tailwater Elevation (ft)	Convergence Error (ft)
995.00	0.00	975.75	0.00
995.50	0.69	975.75	0.00
996.00	1.65	975.75	0.00
996.50	2.48	975.75	0.00
997.00	2.97	975.75	0.00
997.50	2.96	975.75	0.00
998.00	2.34	975.75	0.00

Computation Messages
H=.00; Htw=.00; Qfree=.00;
H=.50; Htw=.00; Qfree=.69;
H=1.00; Htw=.00; Qfree=1.65;
H=1.50; Htw=.00; Qfree=2.48;
H=2.00; Htw=.00; Qfree=2.97;
H=2.50; Htw=.00; Qfree=2.96;
H=3.00; Htw=.00; Qfree=2.34;

Mission Preserve Proposed

Subsection: Individual Outlet Curves
 Label: Composite Outlet Structure - 1
 Scenario: Johnson County - Synthetic Curve, 100 yrs

Return Event: 100 years
 Storm Event: TypeII 24hr (7.9 in)

RATING TABLE FOR ONE OUTLET TYPE
 Structure ID = Weir - 1 (Rectangular Weir)

 Upstream ID = (Pond Water Surface)
 Downstream ID = Tailwater (Pond Outfall)

Water Surface Elevation (ft)	Flow (ft ³ /s)	Tailwater Elevation (ft)	Convergence Error (ft)
995.00	0.00	976.50	0.00
995.50	0.69	976.50	0.00
996.00	1.65	976.50	0.00
996.50	2.48	976.50	0.00
997.00	2.97	976.50	0.00
997.50	2.96	976.50	0.00
998.00	2.34	976.50	0.00

Computation Messages
H=.00; Htw=.00; Qfree=.00;
H=.50; Htw=.00; Qfree=.69;
H=1.00; Htw=.00; Qfree=1.65;
H=1.50; Htw=.00; Qfree=2.48;
H=2.00; Htw=.00; Qfree=2.97;
H=2.50; Htw=.00; Qfree=2.96;
H=3.00; Htw=.00; Qfree=2.34;

Mission Preserve Proposed

Subsection: Individual Outlet Curves
 Label: Composite Outlet Structure - 1
 Scenario: Johnson County - Synthetic Curve, 100 yrs

Return Event: 100 years
 Storm Event: TypeII 24hr (7.9 in)

RATING TABLE FOR ONE OUTLET TYPE
 Structure ID = Weir - 1 (Rectangular Weir)

Upstream ID = (Pond Water Surface)
 Downstream ID = Tailwater (Pond Outfall)

Water Surface Elevation (ft)	Flow (ft ³ /s)	Tailwater Elevation (ft)	Convergence Error (ft)
995.00	0.00	977.25	0.00
995.50	0.69	977.25	0.00
996.00	1.65	977.25	0.00
996.50	2.48	977.25	0.00
997.00	2.97	977.25	0.00
997.50	2.96	977.25	0.00
998.00	2.34	977.25	0.00

Computation Messages

```
H=.00; Htw=.00;
Qfree=.00;
H=.50; Htw=.00;
Qfree=.69;
H=1.00; Htw=.00;
Qfree=1.65;
H=1.50; Htw=.00;
Qfree=2.48;
H=2.00; Htw=.00;
Qfree=2.97;
H=2.50; Htw=.00;
Qfree=2.96;
H=3.00; Htw=.00;
Qfree=2.34;
```

Mission Preserve Proposed

Subsection: Individual Outlet Curves
 Label: Composite Outlet Structure - 1
 Scenario: Johnson County - Synthetic Curve, 100 yrs

Return Event: 100 years
 Storm Event: TypeII 24hr (7.9 in)

RATING TABLE FOR ONE OUTLET TYPE
 Structure ID = Weir - 1 (Rectangular Weir)

 Upstream ID = (Pond Water Surface)
 Downstream ID = Tailwater (Pond Outfall)

Water Surface Elevation (ft)	Flow (ft ³ /s)	Tailwater Elevation (ft)	Convergence Error (ft)
995.00	0.00	978.00	0.00
995.50	0.69	978.00	0.00
996.00	1.65	978.00	0.00
996.50	2.48	978.00	0.00
997.00	2.97	978.00	0.00
997.50	2.96	978.00	0.00
998.00	2.34	978.00	0.00

Computation Messages
H=.00; Htw=.00; Qfree=.00;
H=.50; Htw=.00; Qfree=.69;
H=1.00; Htw=.00; Qfree=1.65;
H=1.50; Htw=.00; Qfree=2.48;
H=2.00; Htw=.00; Qfree=2.97;
H=2.50; Htw=.00; Qfree=2.96;
H=3.00; Htw=.00; Qfree=2.34;

Mission Preserve Proposed

Subsection: Individual Outlet Curves
 Label: Composite Outlet Structure - 1
 Scenario: Johnson County - Synthetic Curve, 100 yrs

Return Event: 100 years
 Storm Event: TypeII 24hr (7.9 in)

RATING TABLE FOR ONE OUTLET TYPE
 Structure ID = Weir - 1 (Rectangular Weir)

Upstream ID = (Pond Water Surface)
 Downstream ID = Tailwater (Pond Outfall)

Water Surface Elevation (ft)	Flow (ft ³ /s)	Tailwater Elevation (ft)	Convergence Error (ft)
995.00	0.00	978.75	0.00
995.50	0.69	978.75	0.00
996.00	1.65	978.75	0.00
996.50	2.48	978.75	0.00
997.00	2.97	978.75	0.00
997.50	2.96	978.75	0.00
998.00	2.34	978.75	0.00

Computation Messages

```
H=.00; Htw=.00;
Qfree=.00;
H=.50; Htw=.00;
Qfree=.69;
H=1.00; Htw=.00;
Qfree=1.65;
H=1.50; Htw=.00;
Qfree=2.48;
H=2.00; Htw=.00;
Qfree=2.97;
H=2.50; Htw=.00;
Qfree=2.96;
H=3.00; Htw=.00;
Qfree=2.34;
```

Mission Preserve Proposed

Subsection: Individual Outlet Curves
 Label: Composite Outlet Structure - 1
 Scenario: Johnson County - Synthetic Curve, 100 yrs

Return Event: 100 years
 Storm Event: TypeII 24hr (7.9 in)

RATING TABLE FOR ONE OUTLET TYPE
 Structure ID = Weir - 1 (Rectangular Weir)

 Upstream ID = (Pond Water Surface)
 Downstream ID = Tailwater (Pond Outfall)

Water Surface Elevation (ft)	Flow (ft ³ /s)	Tailwater Elevation (ft)	Convergence Error (ft)
995.00	0.00	979.50	0.00
995.50	0.69	979.50	0.00
996.00	1.65	979.50	0.00
996.50	2.48	979.50	0.00
997.00	2.97	979.50	0.00
997.50	2.96	979.50	0.00
998.00	2.34	979.50	0.00

Computation Messages
H=.00; Htw=.00; Qfree=.00;
H=.50; Htw=.00; Qfree=.69;
H=1.00; Htw=.00; Qfree=1.65;
H=1.50; Htw=.00; Qfree=2.48;
H=2.00; Htw=.00; Qfree=2.97;
H=2.50; Htw=.00; Qfree=2.96;
H=3.00; Htw=.00; Qfree=2.34;

Mission Preserve Proposed

Subsection: Individual Outlet Curves
 Label: Composite Outlet Structure - 1
 Scenario: Johnson County - Synthetic Curve, 100 yrs

Return Event: 100 years
 Storm Event: TypeII 24hr (7.9 in)

RATING TABLE FOR ONE OUTLET TYPE
 Structure ID = Weir - 1 (Rectangular Weir)

Upstream ID = (Pond Water Surface)
 Downstream ID = Tailwater (Pond Outfall)

Water Surface Elevation (ft)	Flow (ft ³ /s)	Tailwater Elevation (ft)	Convergence Error (ft)
995.00	0.00	980.25	0.00
995.50	0.69	980.25	0.00
996.00	1.65	980.25	0.00
996.50	2.48	980.25	0.00
997.00	2.97	980.25	0.00
997.50	2.96	980.25	0.00
998.00	2.34	980.25	0.00

Computation Messages
H=.00; Htw=.00; Qfree=.00;
H=.50; Htw=.00; Qfree=.69;
H=1.00; Htw=.00; Qfree=1.65;
H=1.50; Htw=.00; Qfree=2.48;
H=2.00; Htw=.00; Qfree=2.97;
H=2.50; Htw=.00; Qfree=2.96;
H=3.00; Htw=.00; Qfree=2.34;

Mission Preserve Proposed

Subsection: Individual Outlet Curves
 Label: Composite Outlet Structure - 1
 Scenario: Johnson County - Synthetic Curve, 100 yrs

Return Event: 100 years
 Storm Event: TypeII 24hr (7.9 in)

RATING TABLE FOR ONE OUTLET TYPE
 Structure ID = Weir - 1 (Rectangular Weir)

Upstream ID = (Pond Water Surface)
 Downstream ID = Tailwater (Pond Outfall)

Water Surface Elevation (ft)	Flow (ft ³ /s)	Tailwater Elevation (ft)	Convergence Error (ft)
995.00	0.00	981.00	0.00
995.50	0.69	981.00	0.00
996.00	1.65	981.00	0.00
996.50	2.48	981.00	0.00
997.00	2.97	981.00	0.00
997.50	2.96	981.00	0.00
998.00	2.34	981.00	0.00

Computation Messages
H=.00; Htw=.00; Qfree=.00;
H=.50; Htw=.00; Qfree=.69;
H=1.00; Htw=.00; Qfree=1.65;
H=1.50; Htw=.00; Qfree=2.48;
H=2.00; Htw=.00; Qfree=2.97;
H=2.50; Htw=.00; Qfree=2.96;
H=3.00; Htw=.00; Qfree=2.34;

Mission Preserve Proposed

Subsection: Individual Outlet Curves
 Label: Composite Outlet Structure - 1
 Scenario: Johnson County - Synthetic Curve, 100 yrs

Return Event: 100 years
 Storm Event: TypeII 24hr (7.9 in)

RATING TABLE FOR ONE OUTLET TYPE
 Structure ID = Weir - 1 (Rectangular Weir)

Upstream ID = (Pond Water Surface)
 Downstream ID = Tailwater (Pond Outfall)

Water Surface Elevation (ft)	Flow (ft ³ /s)	Tailwater Elevation (ft)	Convergence Error (ft)
995.00	0.00	981.75	0.00
995.50	0.69	981.75	0.00
996.00	1.65	981.75	0.00
996.50	2.48	981.75	0.00
997.00	2.97	981.75	0.00
997.50	2.96	981.75	0.00
998.00	2.34	981.75	0.00

Computation Messages

```
H=.00; Htw=.00;
Qfree=.00;
H=.50; Htw=.00;
Qfree=.69;
H=1.00; Htw=.00;
Qfree=1.65;
H=1.50; Htw=.00;
Qfree=2.48;
H=2.00; Htw=.00;
Qfree=2.97;
H=2.50; Htw=.00;
Qfree=2.96;
H=3.00; Htw=.00;
Qfree=2.34;
```

Mission Preserve Proposed

Subsection: Individual Outlet Curves
 Label: Composite Outlet Structure - 1
 Scenario: Johnson County - Synthetic Curve, 100 yrs

Return Event: 100 years
 Storm Event: TypeII 24hr (7.9 in)

RATING TABLE FOR ONE OUTLET TYPE
 Structure ID = Weir - 1 (Rectangular Weir)

 Upstream ID = (Pond Water Surface)
 Downstream ID = Tailwater (Pond Outfall)

Water Surface Elevation (ft)	Flow (ft ³ /s)	Tailwater Elevation (ft)	Convergence Error (ft)
995.00	0.00	982.50	0.00
995.50	0.69	982.50	0.00
996.00	1.65	982.50	0.00
996.50	2.48	982.50	0.00
997.00	2.97	982.50	0.00
997.50	2.96	982.50	0.00
998.00	2.34	982.50	0.00

Computation Messages
H=.00; Htw=.00; Qfree=.00;
H=.50; Htw=.00; Qfree=.69;
H=1.00; Htw=.00; Qfree=1.65;
H=1.50; Htw=.00; Qfree=2.48;
H=2.00; Htw=.00; Qfree=2.97;
H=2.50; Htw=.00; Qfree=2.96;
H=3.00; Htw=.00; Qfree=2.34;

Mission Preserve Proposed

Subsection: Individual Outlet Curves
 Label: Composite Outlet Structure - 1
 Scenario: Johnson County - Synthetic Curve, 100 yrs

Return Event: 100 years
 Storm Event: TypeII 24hr (7.9 in)

RATING TABLE FOR ONE OUTLET TYPE
 Structure ID = Weir - 1 (Rectangular Weir)

 Upstream ID = (Pond Water Surface)
 Downstream ID = Tailwater (Pond Outfall)

Water Surface Elevation (ft)	Flow (ft ³ /s)	Tailwater Elevation (ft)	Convergence Error (ft)
995.00	0.00	983.00	0.00
995.50	0.69	983.00	0.00
996.00	1.65	983.00	0.00
996.50	2.48	983.00	0.00
997.00	2.97	983.00	0.00
997.50	2.96	983.00	0.00
998.00	2.34	983.00	0.00

Computation Messages
H=.00; Htw=.00; Qfree=.00;
H=.50; Htw=.00; Qfree=.69;
H=1.00; Htw=.00; Qfree=1.65;
H=1.50; Htw=.00; Qfree=2.48;
H=2.00; Htw=.00; Qfree=2.97;
H=2.50; Htw=.00; Qfree=2.96;
H=3.00; Htw=.00; Qfree=2.34;

Mission Preserve Proposed

Subsection: Composite Rating Curve

Return Event: 100 years

Label: Composite Outlet Structure - 1

Storm Event: TypeII 24hr (7.9 in)

Scenario: Johnson County - Synthetic Curve, 100 yrs

Composite Outflow Summary

Water Surface Elevation (ft)	Flow (ft ³ /s)	Tailwater Elevation (ft)	Convergence Error (ft)
995.00	0.00	975.00	0.00
995.50	0.69	975.00	0.00
996.00	1.65	975.00	0.00
996.50	2.48	975.00	0.00
997.00	2.97	975.00	0.00
997.50	2.96	975.00	0.00
998.00	2.34	975.00	0.00

Contributing Structures

Weir - 1 Weir - 1 Weir - 1 Weir - 1 Weir - 1 Weir - 1 Weir - 1
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Mission Preserve Proposed

Subsection: Composite Rating Curve

Return Event: 100 years

Label: Composite Outlet Structure - 1

Storm Event: TypeII 24hr (7.9 in)

Scenario: Johnson County - Synthetic Curve, 100 yrs

Composite Outflow Summary

Water Surface Elevation (ft)	Flow (ft ³ /s)	Tailwater Elevation (ft)	Convergence Error (ft)
995.00	0.00	975.75	0.00
995.50	0.69	975.75	0.00
996.00	1.65	975.75	0.00
996.50	2.48	975.75	0.00
997.00	2.97	975.75	0.00
997.50	2.96	975.75	0.00
998.00	2.34	975.75	0.00

Contributing Structures

Weir - 1
Weir - 1
Weir - 1
Weir - 1
Weir - 1
Weir - 1
Weir - 1

Mission Preserve Proposed

Subsection: Composite Rating Curve

Return Event: 100 years

Label: Composite Outlet Structure - 1

Storm Event: TypeII 24hr (7.9 in)

Scenario: Johnson County - Synthetic Curve, 100 yrs

Composite Outflow Summary

Water Surface Elevation (ft)	Flow (ft ³ /s)	Tailwater Elevation (ft)	Convergence Error (ft)
995.00	0.00	976.50	0.00
995.50	0.69	976.50	0.00
996.00	1.65	976.50	0.00
996.50	2.48	976.50	0.00
997.00	2.97	976.50	0.00
997.50	2.96	976.50	0.00
998.00	2.34	976.50	0.00

Contributing Structures

Weir - 1 Weir - 1 Weir - 1 Weir - 1 Weir - 1 Weir - 1 Weir - 1
--

Mission Preserve Proposed

Subsection: Composite Rating Curve

Return Event: 100 years

Label: Composite Outlet Structure - 1

Storm Event: TypeII 24hr (7.9 in)

Scenario: Johnson County - Synthetic Curve, 100 yrs

Composite Outflow Summary

Water Surface Elevation (ft)	Flow (ft ³ /s)	Tailwater Elevation (ft)	Convergence Error (ft)
995.00	0.00	977.25	0.00
995.50	0.69	977.25	0.00
996.00	1.65	977.25	0.00
996.50	2.48	977.25	0.00
997.00	2.97	977.25	0.00
997.50	2.96	977.25	0.00
998.00	2.34	977.25	0.00

Contributing Structures

Weir - 1 Weir - 1 Weir - 1 Weir - 1 Weir - 1 Weir - 1 Weir - 1
--

Mission Preserve Proposed

Subsection: Composite Rating Curve

Return Event: 100 years

Label: Composite Outlet Structure - 1

Storm Event: TypeII 24hr (7.9 in)

Scenario: Johnson County - Synthetic Curve, 100 yrs

Composite Outflow Summary

Water Surface Elevation (ft)	Flow (ft ³ /s)	Tailwater Elevation (ft)	Convergence Error (ft)
995.00	0.00	978.00	0.00
995.50	0.69	978.00	0.00
996.00	1.65	978.00	0.00
996.50	2.48	978.00	0.00
997.00	2.97	978.00	0.00
997.50	2.96	978.00	0.00
998.00	2.34	978.00	0.00

Contributing Structures

- | |
|--|
| Weir - 1
Weir - 1
Weir - 1
Weir - 1
Weir - 1
Weir - 1
Weir - 1 |
|--|

Mission Preserve Proposed

Subsection: Composite Rating Curve

Return Event: 100 years

Label: Composite Outlet Structure - 1

Storm Event: TypeII 24hr (7.9 in)

Scenario: Johnson County - Synthetic Curve, 100 yrs

Composite Outflow Summary

Water Surface Elevation (ft)	Flow (ft ³ /s)	Tailwater Elevation (ft)	Convergence Error (ft)
995.00	0.00	978.75	0.00
995.50	0.69	978.75	0.00
996.00	1.65	978.75	0.00
996.50	2.48	978.75	0.00
997.00	2.97	978.75	0.00
997.50	2.96	978.75	0.00
998.00	2.34	978.75	0.00

Contributing Structures

Weir - 1 Weir - 1 Weir - 1 Weir - 1 Weir - 1 Weir - 1 Weir - 1
--

Mission Preserve Proposed

Subsection: Composite Rating Curve

Return Event: 100 years

Label: Composite Outlet Structure - 1

Storm Event: TypeII 24hr (7.9 in)

Scenario: Johnson County - Synthetic Curve, 100 yrs

Composite Outflow Summary

Water Surface Elevation (ft)	Flow (ft ³ /s)	Tailwater Elevation (ft)	Convergence Error (ft)
995.00	0.00	979.50	0.00
995.50	0.69	979.50	0.00
996.00	1.65	979.50	0.00
996.50	2.48	979.50	0.00
997.00	2.97	979.50	0.00
997.50	2.96	979.50	0.00
998.00	2.34	979.50	0.00

Contributing Structures

Weir - 1 Weir - 1 Weir - 1 Weir - 1 Weir - 1 Weir - 1 Weir - 1
--

Mission Preserve Proposed

Subsection: Composite Rating Curve

Return Event: 100 years

Label: Composite Outlet Structure - 1

Storm Event: TypeII 24hr (7.9 in)

Scenario: Johnson County - Synthetic Curve, 100 yrs

Composite Outflow Summary

Water Surface Elevation (ft)	Flow (ft ³ /s)	Tailwater Elevation (ft)	Convergence Error (ft)
995.00	0.00	980.25	0.00
995.50	0.69	980.25	0.00
996.00	1.65	980.25	0.00
996.50	2.48	980.25	0.00
997.00	2.97	980.25	0.00
997.50	2.96	980.25	0.00
998.00	2.34	980.25	0.00

Contributing Structures

Weir - 1 Weir - 1 Weir - 1 Weir - 1 Weir - 1 Weir - 1 Weir - 1
--

Mission Preserve Proposed

Subsection: Composite Rating Curve

Return Event: 100 years

Label: Composite Outlet Structure - 1

Storm Event: TypeII 24hr (7.9 in)

Scenario: Johnson County - Synthetic Curve, 100 yrs

Composite Outflow Summary

Water Surface Elevation (ft)	Flow (ft ³ /s)	Tailwater Elevation (ft)	Convergence Error (ft)
995.00	0.00	981.00	0.00
995.50	0.69	981.00	0.00
996.00	1.65	981.00	0.00
996.50	2.48	981.00	0.00
997.00	2.97	981.00	0.00
997.50	2.96	981.00	0.00
998.00	2.34	981.00	0.00

Contributing Structures

- | |
|--|
| Weir - 1
Weir - 1
Weir - 1
Weir - 1
Weir - 1
Weir - 1
Weir - 1 |
|--|

Mission Preserve Proposed

Subsection: Composite Rating Curve

Return Event: 100 years

Label: Composite Outlet Structure - 1

Storm Event: TypeII 24hr (7.9 in)

Scenario: Johnson County - Synthetic Curve, 100 yrs

Composite Outflow Summary

Water Surface Elevation (ft)	Flow (ft ³ /s)	Tailwater Elevation (ft)	Convergence Error (ft)
995.00	0.00	981.75	0.00
995.50	0.69	981.75	0.00
996.00	1.65	981.75	0.00
996.50	2.48	981.75	0.00
997.00	2.97	981.75	0.00
997.50	2.96	981.75	0.00
998.00	2.34	981.75	0.00

Contributing Structures

Weir - 1 Weir - 1 Weir - 1 Weir - 1 Weir - 1 Weir - 1 Weir - 1
--

Mission Preserve Proposed

Subsection: Composite Rating Curve

Return Event: 100 years

Label: Composite Outlet Structure - 1

Storm Event: TypeII 24hr (7.9 in)

Scenario: Johnson County - Synthetic Curve, 100 yrs

Composite Outflow Summary

Water Surface Elevation (ft)	Flow (ft ³ /s)	Tailwater Elevation (ft)	Convergence Error (ft)
995.00	0.00	982.50	0.00
995.50	0.69	982.50	0.00
996.00	1.65	982.50	0.00
996.50	2.48	982.50	0.00
997.00	2.97	982.50	0.00
997.50	2.96	982.50	0.00
998.00	2.34	982.50	0.00

Contributing Structures

Weir - 1 Weir - 1 Weir - 1 Weir - 1 Weir - 1 Weir - 1 Weir - 1
--

Mission Preserve Proposed

Subsection: Composite Rating Curve

Return Event: 100 years

Label: Composite Outlet Structure - 1

Storm Event: TypeII 24hr (7.9 in)

Scenario: Johnson County - Synthetic Curve, 100 yrs

Composite Outflow Summary

Water Surface Elevation (ft)	Flow (ft ³ /s)	Tailwater Elevation (ft)	Convergence Error (ft)
995.00	0.00	983.00	0.00
995.50	0.69	983.00	0.00
996.00	1.65	983.00	0.00
996.50	2.48	983.00	0.00
997.00	2.97	983.00	0.00
997.50	2.96	983.00	0.00
998.00	2.34	983.00	0.00

Contributing Structures

Weir - 1 Weir - 1 Weir - 1 Weir - 1 Weir - 1 Weir - 1 Weir - 1
--

Mission Preserve Proposed

Subsection: Outlet Input Data

Return Event: 100 years

Label: Composite Outlet Structure - 2

Storm Event: TypeII 24hr (7.9 in)

Scenario: Johnson County - Synthetic Curve, 100 yrs

Requested Pond Water Surface Elevations	
Minimum (Headwater)	975.00 ft
Increment (Headwater)	0.50 ft
Maximum (Headwater)	983.00 ft

Outlet Connectivity

Structure Type	Outlet ID	Direction	Outfall	E1 (ft)	E2 (ft)
Orifice-Circular	Orifice - 1	Forward	TW	975.00	983.00
Rectangular Weir	Weir - 1	Forward	TW	976.50	983.00
Tailwater Settings	Tailwater			(N/A)	(N/A)

Mission Preserve Proposed

Subsection: Outlet Input Data

Return Event: 100 years

Label: Composite Outlet Structure - 2

Storm Event: TypeII 24hr (7.9 in)

Scenario: Johnson County - Synthetic Curve, 100 yrs

Structure ID: Orifice - 1	
Structure Type: Orifice-Circular	
Number of Openings	1
Elevation	975.00 ft
Orifice Diameter	1.75 in
Orifice Coefficient	0.600
Structure ID: Weir - 1	
Structure Type: Rectangular Weir	
Number of Openings	1
Elevation	976.50 ft
Weir Length	1.80 ft
Weir Coefficient	3.00 (ft ^{0.5})/s
Structure ID: TW	
Structure Type: TW Setup, DS Channel	
Tailwater Type	Free Outfall
Convergence Tolerances	
Maximum Iterations	30
Tailwater Tolerance (Minimum)	0.01 ft
Tailwater Tolerance (Maximum)	0.50 ft
Headwater Tolerance (Minimum)	0.01 ft
Headwater Tolerance (Maximum)	0.50 ft
Flow Tolerance (Minimum)	0.001 ft ³ /s
Flow Tolerance (Maximum)	10.000 ft ³ /s

Mission Preserve Proposed

Subsection: Individual Outlet Curves
 Label: Composite Outlet Structure - 2
 Scenario: Johnson County - Synthetic Curve, 100 yrs

Return Event: 100 years
 Storm Event: TypeII 24hr (7.9 in)

RATING TABLE FOR ONE OUTLET TYPE
 Structure ID = Orifice - 1 (Orifice-Circular)

Upstream ID = (Pond Water Surface)
 Downstream ID = Tailwater (Pond Outfall)

Water Surface Elevation (ft)	Flow (ft ³ /s)	Tailwater Elevation (ft)	Convergence Error (ft)
975.00	0.00	(N/A)	0.00
975.50	0.05	(N/A)	0.00
976.00	0.08	(N/A)	0.00
976.50	0.10	(N/A)	0.00
977.00	0.11	(N/A)	0.00
977.50	0.13	(N/A)	0.00
978.00	0.14	(N/A)	0.00
978.50	0.15	(N/A)	0.00
979.00	0.16	(N/A)	0.00
979.50	0.17	(N/A)	0.00
980.00	0.18	(N/A)	0.00
980.50	0.19	(N/A)	0.00
981.00	0.20	(N/A)	0.00
981.50	0.20	(N/A)	0.00
982.00	0.21	(N/A)	0.00
982.50	0.22	(N/A)	0.00
983.00	0.23	(N/A)	0.00

Computation Messages

Upstream HW &
 DNstream TW < Inv.El
 H =.43
 H =.93
 H =1.43
 H =1.93
 H =2.43
 H =2.93
 H =3.43
 H =3.93
 H =4.43
 H =4.93
 H =5.43
 H =5.93
 H =6.43
 H =6.93
 H =7.43
 H =7.93

Mission Preserve Proposed

Subsection: Individual Outlet Curves
 Label: Composite Outlet Structure - 2
 Scenario: Johnson County - Synthetic Curve, 100 yrs

Return Event: 100 years
 Storm Event: TypeII 24hr (7.9 in)

RATING TABLE FOR ONE OUTLET TYPE
 Structure ID = Weir - 1 (Rectangular Weir)

 Upstream ID = (Pond Water Surface)
 Downstream ID = Tailwater (Pond Outfall)

Water Surface Elevation (ft)	Flow (ft ³ /s)	Tailwater Elevation (ft)	Convergence Error (ft)
975.00	0.00	(N/A)	0.00
975.50	0.00	(N/A)	0.00
976.00	0.00	(N/A)	0.00
976.50	0.00	(N/A)	0.00
977.00	1.80	(N/A)	0.00
977.50	4.80	(N/A)	0.00
978.00	8.27	(N/A)	0.00
978.50	11.88	(N/A)	0.00
979.00	15.42	(N/A)	0.00
979.50	18.71	(N/A)	0.00
980.00	21.61	(N/A)	0.00
980.50	24.00	(N/A)	0.00
981.00	25.77	(N/A)	0.00
981.50	26.83	(N/A)	0.00
982.00	27.09	(N/A)	0.00
982.50	26.45	(N/A)	0.00
983.00	24.86	(N/A)	0.00

Computation Messages

```

HW & TW below
Inv.El.=976.500
HW & TW below
Inv.El.=976.500
HW & TW below
Inv.El.=976.500
H=.00; Htw=.00;
Qfree=.00;
H=.50; Htw=.00;
Qfree=1.80;
H=1.00; Htw=.00;
Qfree=4.80;
H=1.50; Htw=.00;
Qfree=8.27;
H=2.00; Htw=.00;
Qfree=11.88;
H=2.50; Htw=.00;
Qfree=15.42;
H=3.00; Htw=.00;
Qfree=18.71;
    
```

Mission Preserve Proposed

Subsection: Individual Outlet Curves
Label: Composite Outlet Structure - 2
Scenario: Johnson County - Synthetic Curve, 100 yrs

Return Event: 100 years
Storm Event: TypeII 24hr (7.9 in)

RATING TABLE FOR ONE OUTLET TYPE
Structure ID = Weir - 1 (Rectangular Weir)

Upstream ID = (Pond Water Surface)
Downstream ID = Tailwater (Pond Outfall)

Computation Messages

H=3.50; Htw=.00; Qfree=21.61; H=4.00; Htw=.00; Qfree=24.00; H=4.50; Htw=.00; Qfree=25.77; H=5.00; Htw=.00; Qfree=26.83; H=5.50; Htw=.00; Qfree=27.09; H=6.00; Htw=.00; Qfree=26.45; H=6.50; Htw=.00; Qfree=24.86;
--

Mission Preserve Proposed

Subsection: Composite Rating Curve
 Label: Composite Outlet Structure - 2
 Scenario: Johnson County - Synthetic Curve, 100 yrs

Return Event: 100 years
 Storm Event: TypeII 24hr (7.9 in)

Composite Outflow Summary

Water Surface Elevation (ft)	Flow (ft ³ /s)	Tailwater Elevation (ft)	Convergence Error (ft)
975.00	0.00	(N/A)	0.00
975.50	0.05	(N/A)	0.00
976.00	0.08	(N/A)	0.00
976.50	0.10	(N/A)	0.00
977.00	1.91	(N/A)	0.00
977.50	4.93	(N/A)	0.00
978.00	8.40	(N/A)	0.00
978.50	12.03	(N/A)	0.00
979.00	15.58	(N/A)	0.00
979.50	18.88	(N/A)	0.00
980.00	21.79	(N/A)	0.00
980.50	24.19	(N/A)	0.00
981.00	25.97	(N/A)	0.00
981.50	27.04	(N/A)	0.00
982.00	27.30	(N/A)	0.00
982.50	26.67	(N/A)	0.00
983.00	25.08	(N/A)	0.00

Contributing Structures

None Contributing
Orifice - 1
Orifice - 1
Orifice - 1 + Weir - 1
Orifice - 1 + Weir - 1
Orifice - 1 + Weir - 1
Orifice - 1 + Weir - 1
Orifice - 1 + Weir - 1
Orifice - 1 + Weir - 1
Orifice - 1 + Weir - 1
Orifice - 1 + Weir - 1
Orifice - 1 + Weir - 1
Orifice - 1 + Weir - 1
Orifice - 1 + Weir - 1
Orifice - 1 + Weir - 1
Orifice - 1 + Weir - 1
Orifice - 1 + Weir - 1
Orifice - 1 + Weir - 1
Orifice - 1 + Weir - 1
Orifice - 1 + Weir - 1
Orifice - 1 + Weir - 1
Orifice - 1 + Weir - 1

Mission Preserve Proposed

Subsection: Outlet Input Data

Return Event: 100 years

Label: Composite Outlet Structure - 3

Storm Event: TypeII 24hr (7.9 in)

Scenario: Johnson County - Synthetic Curve, 100 yrs

Requested Pond Water Surface Elevations	
Minimum (Headwater)	976.00 ft
Increment (Headwater)	0.50 ft
Maximum (Headwater)	985.00 ft

Outlet Connectivity

Structure Type	Outlet ID	Direction	Outfall	E1 (ft)	E2 (ft)
Orifice-Circular	Orifice - 1	Forward	TW	976.00	985.00
Orifice-Circular	Orifice - 2	Forward	TW	978.00	985.00
Tailwater Settings	Tailwater			(N/A)	(N/A)

Mission Preserve Proposed

Subsection: Outlet Input Data

Return Event: 100 years

Label: Composite Outlet Structure - 3

Storm Event: TypeII 24hr (7.9 in)

Scenario: Johnson County - Synthetic Curve, 100 yrs

Structure ID: Orifice - 1	
Structure Type: Orifice-Circular	
Number of Openings	1
Elevation	976.00 ft
Orifice Diameter	2.00 in
Orifice Coefficient	0.600
Structure ID: Orifice - 2	
Structure Type: Orifice-Circular	
Number of Openings	1
Elevation	978.00 ft
Orifice Diameter	12.00 in
Orifice Coefficient	0.600
Structure ID: TW	
Structure Type: TW Setup, DS Channel	
Tailwater Type	Free Outfall
Convergence Tolerances	
Maximum Iterations	30
Tailwater Tolerance (Minimum)	0.01 ft
Tailwater Tolerance (Maximum)	0.50 ft
Headwater Tolerance (Minimum)	0.01 ft
Headwater Tolerance (Maximum)	0.50 ft
Flow Tolerance (Minimum)	0.001 ft ³ /s
Flow Tolerance (Maximum)	10.000 ft ³ /s

Mission Preserve Proposed

Subsection: Individual Outlet Curves
 Label: Composite Outlet Structure - 3
 Scenario: Johnson County - Synthetic Curve, 100 yrs

Return Event: 100 years
 Storm Event: TypeII 24hr (7.9 in)

RATING TABLE FOR ONE OUTLET TYPE
 Structure ID = Orifice - 1 (Orifice-Circular)

 Upstream ID = (Pond Water Surface)
 Downstream ID = Tailwater (Pond Outfall)

Water Surface Elevation (ft)	Flow (ft ³ /s)	Tailwater Elevation (ft)	Convergence Error (ft)
976.00	0.00	(N/A)	0.00
976.50	0.07	(N/A)	0.00
977.00	0.10	(N/A)	0.00
977.50	0.12	(N/A)	0.00
978.00	0.15	(N/A)	0.00
978.50	0.16	(N/A)	0.00
979.00	0.18	(N/A)	0.00
979.50	0.19	(N/A)	0.00
980.00	0.21	(N/A)	0.00
980.50	0.22	(N/A)	0.00
981.00	0.23	(N/A)	0.00
981.50	0.24	(N/A)	0.00
982.00	0.26	(N/A)	0.00
982.50	0.27	(N/A)	0.00
983.00	0.28	(N/A)	0.00
983.50	0.29	(N/A)	0.00
984.00	0.30	(N/A)	0.00
984.50	0.30	(N/A)	0.00
985.00	0.31	(N/A)	0.00

Computation Messages

Upstream HW &
 DNstream TW < Inv.El
 H =.42
 H =.92
 H =1.42
 H =1.92
 H =2.42
 H =2.92
 H =3.42
 H =3.92
 H =4.42
 H =4.92
 H =5.42
 H =5.92
 H =6.42
 H =6.92
 H =7.42

Mission Preserve Proposed

Subsection: Individual Outlet Curves

Label: Composite Outlet Structure - 3

Scenario: Johnson County - Synthetic Curve, 100 yrs

Return Event: 100 years

Storm Event: TypeII 24hr (7.9 in)

RATING TABLE FOR ONE OUTLET TYPE

Structure ID = Orifice - 1 (Orifice-Circular)

Upstream ID = (Pond Water Surface)

Downstream ID = Tailwater (Pond Outfall)

Computation Messages

H =7.92

H =8.42

H =8.92

Mission Preserve Proposed

Subsection: Individual Outlet Curves
 Label: Composite Outlet Structure - 3
 Scenario: Johnson County - Synthetic Curve, 100 yrs

Return Event: 100 years
 Storm Event: TypeII 24hr (7.9 in)

RATING TABLE FOR ONE OUTLET TYPE
 Structure ID = Orifice - 2 (Orifice-Circular)

Upstream ID = (Pond Water Surface)
 Downstream ID = Tailwater (Pond Outfall)

Water Surface Elevation (ft)	Flow (ft ³ /s)	Tailwater Elevation (ft)	Convergence Error (ft)
976.00	0.00	(N/A)	0.00
976.50	0.00	(N/A)	0.00
977.00	0.00	(N/A)	0.00
977.50	0.00	(N/A)	0.00
978.00	0.00	(N/A)	0.00
978.50	0.76	(N/A)	0.00
979.00	2.67	(N/A)	0.00
979.50	3.78	(N/A)	0.00
980.00	4.63	(N/A)	0.00
980.50	5.35	(N/A)	0.00
981.00	5.98	(N/A)	0.00
981.50	6.55	(N/A)	0.00
982.00	7.07	(N/A)	0.00
982.50	7.56	(N/A)	0.00
983.00	8.02	(N/A)	0.00
983.50	8.45	(N/A)	0.00
984.00	8.87	(N/A)	0.00
984.50	9.26	(N/A)	0.00
985.00	9.64	(N/A)	0.00

Computation Messages

HW & TW below invert
 HW & TW below invert
 HW & TW below invert
 HW & TW below invert
 Upstream HW &
 DNstream TW < Inv.El
 CRIT.DEPTH CONTROL
 Vh= .135ft Dcr= .365ft
 CRIT.DEPTH Hev= .00ft
 H =.50
 H =1.00
 H =1.50
 H =2.00
 H =2.50
 H =3.00
 H =3.50
 H =4.00

Mission Preserve Proposed

Subsection: Individual Outlet Curves

Label: Composite Outlet Structure - 3

Scenario: Johnson County - Synthetic Curve, 100 yrs

Return Event: 100 years

Storm Event: TypeII 24hr (7.9 in)

RATING TABLE FOR ONE OUTLET TYPE

Structure ID = Orifice - 2 (Orifice-Circular)

Upstream ID = (Pond Water Surface)

Downstream ID = Tailwater (Pond Outfall)

Computation Messages

H =4.50

H =5.00

H =5.50

H =6.00

H =6.50

Mission Preserve Proposed

Subsection: Composite Rating Curve

Return Event: 100 years

Label: Composite Outlet Structure - 3

Storm Event: TypeII 24hr (7.9 in)

Scenario: Johnson County - Synthetic Curve, 100 yrs

Composite Outflow Summary

Water Surface Elevation (ft)	Flow (ft ³ /s)	Tailwater Elevation (ft)	Convergence Error (ft)
976.00	0.00	(N/A)	0.00
976.50	0.07	(N/A)	0.00
977.00	0.10	(N/A)	0.00
977.50	0.12	(N/A)	0.00
978.00	0.15	(N/A)	0.00
978.50	0.93	(N/A)	0.00
979.00	2.85	(N/A)	0.00
979.50	3.97	(N/A)	0.00
980.00	4.84	(N/A)	0.00
980.50	5.57	(N/A)	0.00
981.00	6.21	(N/A)	0.00
981.50	6.79	(N/A)	0.00
982.00	7.33	(N/A)	0.00
982.50	7.83	(N/A)	0.00
983.00	8.30	(N/A)	0.00
983.50	8.74	(N/A)	0.00
984.00	9.16	(N/A)	0.00
984.50	9.56	(N/A)	0.00
985.00	9.95	(N/A)	0.00

Contributing Structures

None Contributing
Orifice - 1
Orifice - 1
Orifice - 1
Orifice - 1
Orifice - 1 + Orifice - 2
Orifice - 1 + Orifice - 2
Orifice - 1 + Orifice - 2
Orifice - 1 + Orifice - 2
Orifice - 1 + Orifice - 2
Orifice - 1 + Orifice - 2
Orifice - 1 + Orifice - 2
Orifice - 1 + Orifice - 2
Orifice - 1 + Orifice - 2
Orifice - 1 + Orifice - 2
Orifice - 1 + Orifice - 2
Orifice - 1 + Orifice - 2
Orifice - 1 + Orifice - 2
Orifice - 1 + Orifice - 2
Orifice - 1 + Orifice - 2
Orifice - 1 + Orifice - 2

Mission Preserve Proposed

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Property Information

The subject property is a 9.6-acre, undeveloped parcel located on the south side of West 51st Street, east of Foxridge Drive and west of Riggs Street.

The property is zoned RP-5 – Planned Senior Adult Residential District. This zoning designation is intended to provide housing opportunities for independent seniors aged 55 years and older or assisted living and skilled nursing facilities. This zoning has been in place since the late 1980s.

There have been two previously approved development projects for the property that were never constructed - The Gables of Mission, a 132-unit multi-family development approved in 1987, and Mission Falls, a 203-unit multi-family development approved in 2007. Both projects were intended for those 55 years of age or older seeking an independent lifestyle housing opportunity.

The property is currently moderately wooded, with a hill crest or ridge in the center, steep slopes, and rock outcroppings.

Zoning and Use of Surrounding Property

North: “R-6” High-Rise Apartment District – Wellington Club apartment complex (built in 1972) and Foxfire apartment complex (built in 1984)

East: “R-1” Single-Family Residential District – Single-family homes along Riggs Street (built dates vary from 1920 to 1980)

South: “R-4” Garden Apartment District – Bridges at Foxridge apartment complex (built in 1970)

West: “R-4” Garden Apartment District – Bridges at Foxridge apartment complex (built in 1973)

Comprehensive Plan and Future Land Use Map

The proposed comprehensive land use plan (Tomorrow Together, City of Mission Comprehensive Land Use Plan for 2040) indicates the subject property as High-Density Residential. This is consistent with the current comprehensive land use plan, adopted in 2007, and previous comprehensive land use plans dating back to 1968.

Project Information

Stride DevCo LLC (hereafter, Stride) purchased the property last summer. Stride proposes to construct a 132-unit, multi-family development on the site, marketed to individuals aged 55 years or older who are seeking an active, independent lifestyle. Assisted living and/or long-term nursing care will not be a part of this project. The proposed development is known as Mission Preserve.

Code Review and Analysis: Preliminary Plats Section 440.220 of the Municipal Code

Section 440.220 of the Mission Municipal Code provides that preliminary plats shall be approved by the Planning Commission if it determines that:

1. The proposed preliminary plat conforms to the requirements of this Title, the applicable zoning district regulations, and any other applicable provisions of this Code, subject only to acceptable rule exceptions.
2. The subdivision or plat represents an overall development pattern consistent with the Master Plan and the Official Street Map.
3. The plat contains a sound, well-conceived parcel and land subdivision layout consistent with good land planning and site engineering design principles.
4. The spacing and design of proposed curb cuts and intersection locations is consistent with good traffic

engineering design and public safety considerations.

5. All submission requirements have been satisfied.

According to the requirements of Section 440.220, staff has determined the following:

1. The proposed preliminary plat conforms to the requirements of this Title, the applicable zoning district regulations and any other applicable provisions of this Code, subject only to acceptable rule exceptions.
2. The subdivision or platting represents an overall development pattern that is consistent with the Master Plan and the Official Street Map.

The property is an unusual shape with the north and west property lines forming a 90-degree angle at the northwest corner, and the east property line forming a 45-degree angle at the northeast corner. At the northeast corner, the property line returns in southwesterly direction. The northeast corner of the property crosses the north end of Riggs Street and cuts into a portion of the front yard of the property at 5101 Riggs Street. City staff requested a dedicated right of way to the city for the northern terminus of Riggs Street and to provide the remaining portion in fee simple to the owner of 5101 Riggs. This dedication will be further addressed in the final plat.

3. The plat contains a sound, well-conceived parcel and land subdivision layout consistent with good land planning and site engineering design principles.

The plat is one lot with two tracts. According to the applicant, this is how the property was surveyed and platted at the time of purchase. Staff determined that the small Tract II along the north side of the property was allotted utility dedication.

4. The spacing and design of proposed curb cuts and intersection locations is consistent with good traffic engineering design and public safety considerations.

Utility easements on the plat are consistent with good engineering practices and are acceptable to the City.

5. All submission requirements have been satisfied

The City will require the following for the Final Plat:

- a. *Dedication of the turn-around at the north terminus of Riggs Street to the City and dedication of that portion of property cutting into the yard of 5101 Riggs. Such dedication will require approval by the City Council.*
- b. *Sealed by a surveyor licensed in the state of Kansas and signed over the seal by said surveyor.*
- c. *Appropriate dedications and assignment clauses to be agreed upon between applicant and the City.*

Recommendation:

Staff recommends that the Planning Commission recommend to the City Council approval of Case #22-02 – Consideration of a Preliminary Plat known as Mission Preserve – with the conditions as outlined in Item 5 (above) of the staff report.

Planning Commission Action: To be considered by the Planning Commission on February 28, 2022

City Council Action: To be considered by the City Council on March 9, 2022

PRELIMINARY PLAT OF MISSION PRESERVE MISSION, JOHNSON COUNTY, KANSAS

LEGAL DESCRIPTION PER TITLE COMMITMENT:

TRACT 1:

ALL THAT PART OF THE WEST 1/2 OF SECTION 5, TOWNSHIP 12, RANGE 25, NOW IN THE CITY OF MISSION, JOHNSON COUNTY, KANSAS, MORE PARTICULARLY DESCRIBED AS FOLLOWS:

COMMENCING AT THE NORTHWEST CORNER OF THE NORTHEAST QUARTER OF THE SOUTHWEST QUARTER OF SAID SECTION 5; THENCE NORTH 90° EAST, ALONG THE NORTH LINE OF THE NORTHEAST QUARTER OF THE SOUTHWEST QUARTER OF SAID SECTION 5, A DISTANCE OF 305.81 FEET, TO THE TRUE POINT OF BEGINNING OF SUBJECT TRACT; THENCE CONTINUING NORTH 90° EAST, ALONG THE NORTH LINE OF THE NORTHEAST QUARTER OF THE SOUTHWEST QUARTER OF SAID SECTION 5, A DISTANCE OF 111.64 FEET; THENCE SOUTH 44°48'02" WEST, A DISTANCE OF 588.30 FEET, TO A POINT ON THE WEST LINE OF THE NORTHEAST QUARTER OF THE SOUTHWEST QUARTER OF SAID SECTION 5, A DISTANCE OF 417.45 FEET SOUTH OF THE NORTHWEST CORNER THEREOF, AS MEASURED ALONG SAID WEST LINE; THENCE SOUTH 02°35'6" EAST, ALONG THE WEST LINE OF THE NORTHEAST QUARTER OF THE SOUTHWEST QUARTER OF SAID SECTION 5, AND ALONG THE EAST LINE OF THE NORTHWEST QUARTER OF THE SOUTHWEST QUARTER OF SAID SECTION 5, A DISTANCE OF 140.99 FEET; THENCE SOUTH 79°19'48" WEST, A DISTANCE OF 517.01 FEET; THENCE NORTH 0° EAST, A DISTANCE OF 654.16 FEET, TO A POINT ON THE NORTH LINE OF THE NORTHWEST QUARTER OF SAID SECTION 5; THENCE NORTH 90° EAST, ALONG THE NORTH LINE OF THE NORTHWEST QUARTER OF THE SOUTHWEST QUARTER OF SAID SECTION 5, A DISTANCE OF 353.28 FEET; THENCE NORTH 0° EAST, A DISTANCE OF 50 FEET; THENCE NORTH 90° EAST, A DISTANCE OF 420.71 FEET; THENCE SOUTH 0° EAST, A DISTANCE OF 50 FEET, TO THE TRUE POINT OF BEGINNING, EXCEPT THAT PART IN STREETS AND ROADS

TRACT 2:

THE WEST 389.28 FEET OF THE EAST 504.18 FEET OF THE SOUTHWEST QUARTER OF THE NORTHWEST QUARTER OF SECTION 5, TOWNSHIP 12, RANGE 25, LYING SOUTH OF 51ST STREET AS ESTABLISHED IN THE CITY OF MISSION, JOHNSON COUNTY, KANSAS, EXCEPT THAT PART IN STREETS AND ROADS.

FLOOD NOTE:

THE DEVELOPMENT DOES NOT FALL WITHIN THE FEMA REGULATED 100 YEAR FLOODPLAIN.

Site Data:

Zoning/Land Use	RP-5 Planned Senior Adult Residential
Tract 1 Area	415,117 SF ±9.5 Acres
Tract 2 Area	19,464 SF ±0.4 Acres
Total Site Area	434,581 SF ±9.9 Acres

LEGEND

- ☒ AIR CONDITIONER
- GUY WIRE ANCHOR
- LIGHT POLE
- MONUMENT AS DESCRIBED
- ⊙ SANITARY SEWER MANHOLE
- ⊕ UTILITY POLE
- ⊖ WATER METER
- ⊗ WATER VALVE

APPROVED BY:

MISSION, KANSAS PLANNING COMMISSION

CHAIRMAN OF THE PLANNING COMMISSION: MIKE LEE

DATE

RECORDING SECRETARY OF PLANNING COMMISSION: AUDREY MCCLANAHAN

DATE

MAYOR: SOLANA FLORA

DATE

CITY CLERK: AUDREY MCCLANAHAN

DATE

DEVELOPER:

STRODE DEVCO, LLC
401 W. SPRUCE STREET
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ATTN: JASON FERDIG
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EMAIL: JASON@STRODEDEVCO.COM

ENGINEERS:

McCLURE
11031 STRANG LINE ROAD
LENEXA, KANSAS 66215
ATTN: PAT KULLBERG
PHONE: (913) 888-7800
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McCLURE ENGINEERING CO.

11031 Strang Line Road
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SURVEYING | ENGINEERING | CONSTRUCTION



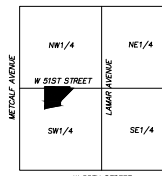
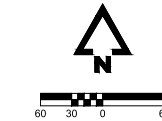
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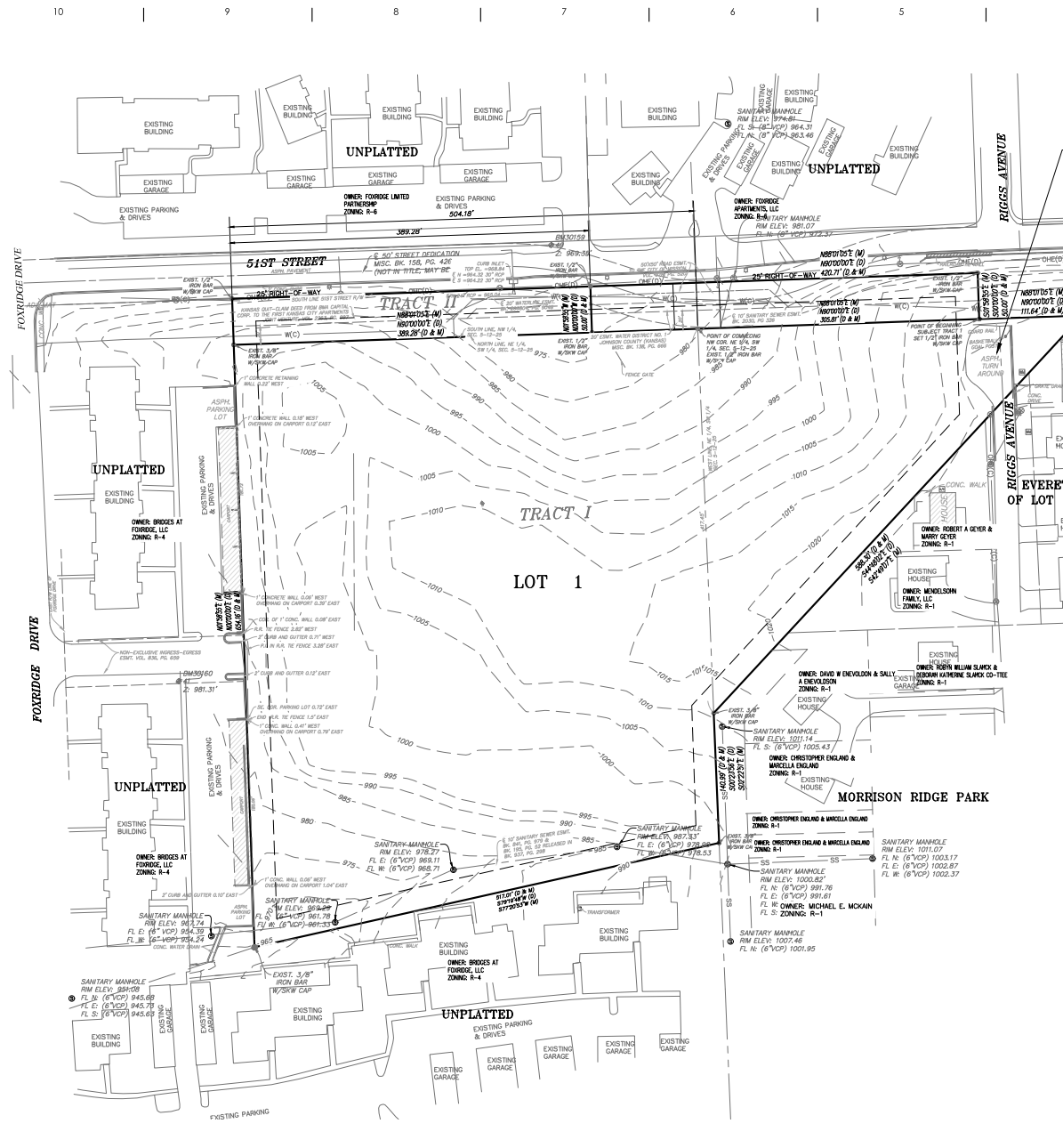
MISSION PRESERVE
WEST 51st STREET
MISSION, KS 66202

JOB NUMBER 21 01 01

HOMER L. WILLIAMS, D. ARCH., FAIA
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NORTH KANSAS CITY, MO 64116
816.721.7564 hwilliams@hvsstarch.com



VICINITY MAP
SEC. 5-12-25



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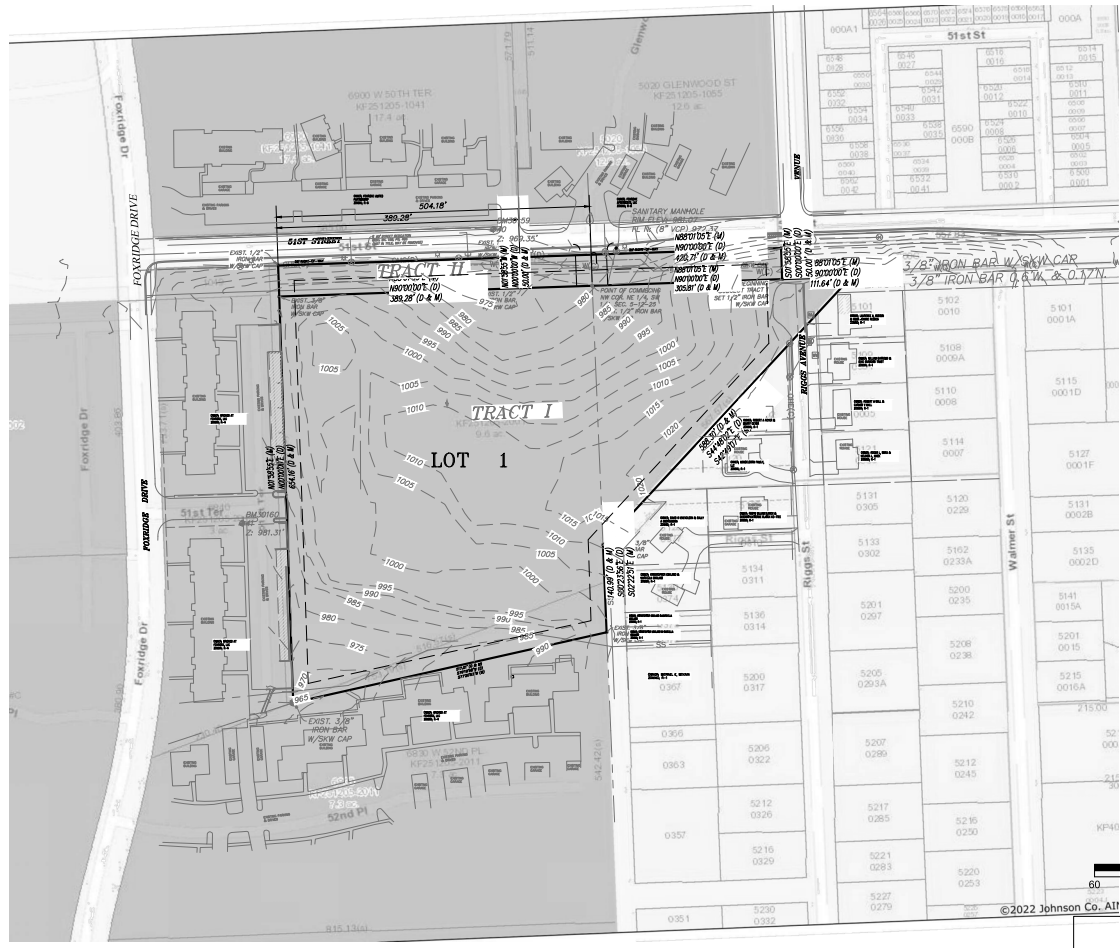
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1

SURROUNDING PROPERTY EXHIBIT
PRELIMINARY PLAT OF
MISSION PRESERVE
MISSION, JOHNSON COUNTY, KANSAS



LEGAL DESCRIPTION PER TITLE COMMITMENT:

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- GUY WIRE ANCHOR
- LIGHT POLE
- MONUMENT AS DESCRIBED
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- ⊙ WATER METER
- ⊙ WATER VALVE

APPROVED BY:

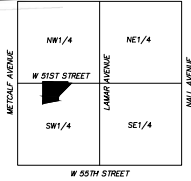
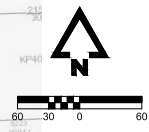
MISSION, KANSAS PLANNING COMMISSION

CHAIRMAN OF THE PLANNING COMMISSION: MIKE LEE DATE

RECORDING SECRETARY OF PLANNING COMMISSION: AUDREY MCCLANAHAN DATE

MAYOR: SOLANA FLORA DATE

CITY CLERK: AUDREY MCCLANAHAN DATE



VICINITY MAP
SEC. 5-12-25

DEVELOPER:
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JOB NUMBER 21 01 01

MISSION PRESERVE
WEST 51st STREET
MISSION, KS 66202

PRELIMINARY DESIGN 1/6/2022
OWNER REVISIONS 1/19/2022
CITY COMMENTS 2/11/2022

PRELIMINARY
PLAT
SURROUNDING
PROPERTY EXHIBIT
C0.01

AGENDA ITEM NO.: 3

PROJECT NUMBER / TITLE: Case #22-03 – Final Plat of Rock Creek Pump Station, Lot 1

REQUEST: Consideration of Final Plat of Rock Creek Pump Station, Lot 1

LOCATION: 5701 Roe Avenue

APPLICANT: Johnson County Wastewater
11811 South Sunset Drive, Suite 2500
Olathe, KS 66061

STAFF CONTACT: Brian Scott, Deputy City Administrator



Property Information

The subject property is located on the eastern edge of Mission. The parcel is bounded by Roe Avenue on the west, the on-ramp to Shawnee Mission Parkway on the north, and Shawnee Mission Parkway on the southeast. The parcel is owned by the Kansas Department of Transportation (KDOT) and is designated as right-of-way for Shawnee Mission Parkway and the corresponding on/off ramps.

Rock Creek flows through the site. Because this site is at the low point of the Rock Creek watershed, Johnson County Wastewater (JCW) has operated a small sanitary sewer pump station on this site since the late 1950s. Wastewater collected within the watershed flows to the pump station via a gravity sewer system and the station pumps wastewater to the Nelson treatment plant at the north end of Mission for processing.

Surrounding properties are zoned and used as follows:

- **West:** "MXD" Planned Mixed-Use District, site of the Gateway development.
- **North:** "CPO" Planned Office Building, Sunflower Medical Group Office Building located in Roeland Park.
- **East:** Not Zoned, Kansas Department of Transportation Right-of-Way located in Fairway, KS.
- **South:** "R-1" Single Family Residential, single-family homes located in Fairway, KS.

Comprehensive Plan Future Land Use Recommendation for this area:

The subject property is identified as right-of-way.

All surrounding properties are currently developed:

Surrounding properties are developed, or will be developed, with a mix of attached and freestanding buildings for commercial uses, and single-family residential properties.

Project Background

JCW has recently undertaken a comprehensive update of its wastewater facilities throughout its service area. The most notable of these projects is a significant expansion to the Tomahawk Creek wastewater treatment plant near Mission Road and I-435 in Leawood, KS. When completed early next year, this expansion and update will double the capacity for treatment of wastewater from parts of Leawood, Olathe, Overland Park and Prairie Village that are within the Tomahawk Creek watershed and the Indian Creek watershed.

JCW will then begin working on updates and expansion of the Nelson wastewater treatment plant, which is located at the end of Nall Avenue in the northeastern corner of Mission. This plant treats wastewater from Mission, Roeland Park, Fairway, Prairie Village, northern Overland Park and Merriam, and was originally built in the 1940's.

Before work can begin on the Nelson treatment plant, existing facilities that feed into the treatment plant must be updated. JCW intends to demolish the existing pump station on the Roe Avenue site and build a new pump station. The new pump station would have greater capacity and ability to support the Nelson treatment plant during reconstruction when portions of the plant will be taken off-line.

Because of the sizeable investment and the long-term commitment to this facility, JCW has been in discussions with KDOT to purchase the portion of the parcel where the pump station will be located.

A plat of the portion to be purchased has been created to be recorded with the County Recorder of Deeds. The preliminary plat was approved by the Planning Commission at the September 27, 2021 meeting.

JCW is now before the Planning Commission seeking approval for the final plat.

Code Review and Analysis: Section 440.260 - Consideration of Final Plats

Section 440.260 of Mission Municipal Code stipulates the following:

- A. Prior to consideration of any final plat, City staff shall determine whether dedication of right-of-way will be required.

Analysis: The City has requested a dedication of a drainage easement of variable widths on the plat for the Rock Creek channel, which goes through the north side of the site, and a fifteen (15) foot wide drainage easement for a storm water sewer pipe that crosses the lower third of the site. These are indicated on the final plat.

- B. Final plats shall be approved by the Planning Commission if it determines that:
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.

Approval of a final plat shall require the affirmative vote of a majority of the membership of the Planning Commission.

Analysis: The Final Plat of Rock Creek Pump Station is in conformance with the Preliminary Plat of Rock Creek Pump Station and all conditions placed upon the preliminary plat when approved. The final plat is also in conformance with all city codes and submission requirements.

- C. Following approval of the final plat by the Planning Commission, the final plat shall be submitted to the City Council for review of land proposed to be dedicated for public purposes. The City Council shall approve or disapprove the dedication of land for public purposes within thirty (30) days after the first (1st) meeting of the City Council following the date of the submission of the plat to the City Clerk. The City Council may defer action for an additional thirty (30) days for the purpose of allowing for modifications to comply with the requirements established by the City Council. No additional filing fees shall be assessed during that period. If the City Council defers or disapproves any such dedication, it shall advise the Planning Commission of the reasons therefor. No plat shall be filed with the Register of Deeds unless such plat bears the endorsement that the land dedicated to public purposes has been approved by the City Council.

Analysis: Upon the Planning Commission's recommendation, the final plat will be submitted to the City Council for their review and consideration. Approval of the City Council will reflect acceptance of the dedicated drainage easements.

- D. Final plats shall be recorded with the Register of Deeds within eighteen (18) months following City Council approval of land dedicated to public purposes. Final plats which are not recorded within said time period shall be deemed null and void.

Analysis: The Final Plat of Rock Creek Pump Station will be submitted to the Johnson County Register of Deeds for recording.

Recommendation:

Staff recommends that the Planning Commission recommend approval to the City Council Case# 22-03 - Final Plat of Rock Creek Pump Station, Lot 1 – Johnson County Wastewater, applicant.

Planning Commission Action:

To be considered by the Planning Commission on February 28, 2022

City Council Action:

To be considered by the Planning Commission on March 9, 2022

FINAL PLAT of ROCK CREEK PUMP STATION, LOT 1

PART OF THE NE1/4 OF SECTION 9, TOWNSHIP 12 SOUTH, RANGE 25 EAST
CITY OF MISSION, JOHNSON COUNTY, KANSAS

DESCRIPTION:

All that part of the Northeast Quarter of Section 9, Township 12 South, Range 25 East, City of Mission, Johnson County, Kansas, more particularly described as follows: (Per Book 202112 at Page 007644)

(Note: The bearings in the following description are based on Grid North, Kansas State Plane Coordinate System, NAD83)

Commencing at the southwest corner of the Northeast Quarter of said Section 9; thence N01°55'25"W, along the west line thereof, 610.16 feet; thence departing said west line, N88°04'35"E, 50.00 feet to the Point of Beginning; thence N01°55'25"W, 262.53 feet; thence northeasterly along a curve to the right being tangent to the last described curve and having a radius of 32.50 feet, an arc distance of 60.78 feet; thence southeasterly along a curve to the right being compound to the last described curve and having a radius of 441.00 feet, an arc distance of 140.00 feet; thence southeasterly along a curve to the left being reverse to the last described curve and having a radius of 605.00 feet, an arc distance of 60.83 feet; thence S37°25'35"W, 257.76 feet; thence S88°04'35"W, 55.00 feet to the Point of Beginning.

Containing in all 0.92 acres, more or less.

Subject to all easements and restrictions of record.

DEDICATION:

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, however building foundations can be constructed within said easements below grade.

The undersigned proprietor of the above described tract of land hereby consents and agrees that the Board of County Commissioners of Johnson County, Kansas, and City of Mission, Johnson County, Kansas, shall have the power to release such land proposed to be dedicated for public uses and thoroughfares or parts thereof, for public use, 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, however building foundations can be constructed within said easements below grade.

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 hereinafter be known as "ROCK CREEK PUMP STATION, LOT 1", a subdivision in the City of Mission, Johnson County, Kansas.

IN TESTIMONY WHEREOF, Johnson County Board of Commissioners has caused this instrument to be executed by Ed Eilert, its Chairman, this ____ day of _____, 2022.

Ed Eilert
Johnson County Board of Commissioners

State of Kansas)
) SS
County of Johnson)

This instrument was acknowledged before me on this ____ day of _____, 2022, by Ed Eilert as Chairman of Johnson County Board of Commissioners.

Notary
My appointment expires:

APPROVED BY THE Planning Commission of the City of Mission, Johnson County, Kansas, this ____ day of _____, 2022.

Chairman: Mike Lee

APPROVED BY THE City Council of the City of Mission, Johnson County, Kansas, this ____ day of _____, 2022.

Mayor: Sollie Flora

City Clerk: Audrey McClanahan

SURVEYOR'S DECLARATION:

I hereby certify that I have made or directly supervised a survey of the above described premises and that the results shown on this plat are represented correctly to the best of my belief and professional knowledge. This survey meets the current minimum standards for boundary surveys as set forth by the state of Kansas.

Date of Preparation: 11/17/2022

(Signature)
JOHNNY R. YAKLE, PLS 1334
KANSAS
LAND SURVEYOR

SURVEYOR'S NOTES:

- Property classified as "Urban".
- Plat is valid only if print has original signature and seal of the surveyor.
- Surveyor has made no investigation or independent search of record, encumbrances, restrictive covenants, ownership title evidence or any other facts that an accurate and current title search may disclose.
- Proposed use: Pump Station Facility
- There are no new streets planned within the proposed development.
- See Preliminary Development Plan Submittal for drainage calculations.
- Property Zoned "M-P" Industrial Park District
- Bearings shown hereon are based on the Kansas State Plane Coordinate System of 1983, North Zone, with reference to Johnson County Control Network monument JCPW-1059. Coordinates shown hereon are grid coordinates with a scale factor of 0.99996461

CLOSURE CALCULATIONS

Precision, 1 part in: 4139040.00
Error distance: 0.0002'
Error direction: S42°48'03"E
Perimeter: 836.90'

NW COR., NE 1/4
SEC. 9, T12S, R25E

KDOT
BK 38 PG 378

NORTHING: 269478.12
EASTING: 2266976.43

NORTHING: 269447.24
EASTING: 2267028.80

NORTHING: 269503.07
EASTING: 2266808.37

NORTHING: 269535.52
EASTING: 2266849.38

NORTHING: 269240.70
EASTING: 2266817.18

NORTHING: 269242.55
EASTING: 2266872.15

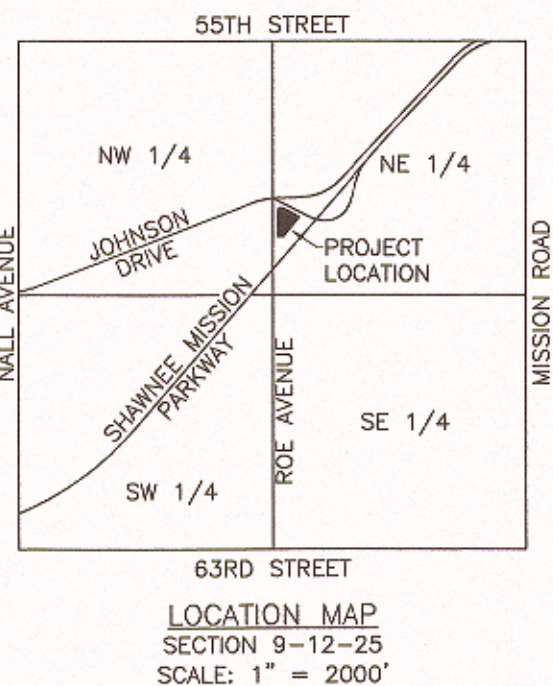
POINT OF COMMENCEMENT
SW COR., NE 1/4
SEC. 9, T12S, R25E
FOUND 2" ALUM.

JOHNSON COUNTY
CONTROL NETWORK
JCPW-1059
NORTHING: 259322.17
EASTING: 2267429.25



LEGEND

- Section Corner
- Set 1/2" rebar
- JCPW Monument
- E/E Electric Easement
- D/E Drainage Easement
- RW- Right of Way
- PL- Property Line



EXTERNAL REFERENCE		IMAGE REFERENCE	
JOHNSON COUNTY KANSAS Wastewater			
DESIGNED BY:	DRAWN BY:	CHECKED BY:	
TBS	JRY		
DRAWING: 10256802 Final Plat.dwg DATE: 11/17/2022 2:30PM			
HDR HDR ENGINEERING, INC. 10450 HOLMES ROAD, SUITE 600 KANSAS CITY, MO 64137 816-347-1100 • FAX 816-347-1197 MO. CERTIFICATE OF AUTHORITY #0086856			
FINAL PLAT OF ROCK CREEK PUMP STATION, LOT 1 PART OF THE NE1/4 OF SECTION 9, T12S, R25E CITY OF MISSION, JOHNSON COUNTY, KANSAS			
OWNER ADDRESS: 111 S. CHERRY ST., SUITE 3300, OLATHE, KS 66061			
PROJECT NO. 10256802			
DRAWING NO. 1 of 1			

NEW BUSINESS AGENDA ITEM: 4

PROJECT NUMBER / TITLE: Case #22-04 – Site Improvements and Non-Conforming Situation Permit for Unleashed Pet Rescue

REQUEST: Consideration of Site Plan Improvements and Non-Conforming Situation Permit for Exterior Site Improvements of Unleashed Pet Rescue

LOCATION: 5918 Broadmoor Street
Mission, KS 66202

APPLICANT: Unleashed Pet Rescue
5918 Broadmoor Street
Mission, KS 66202

STAFF CONTACT: Brian Scott, Deputy City Administrator



Property Information:

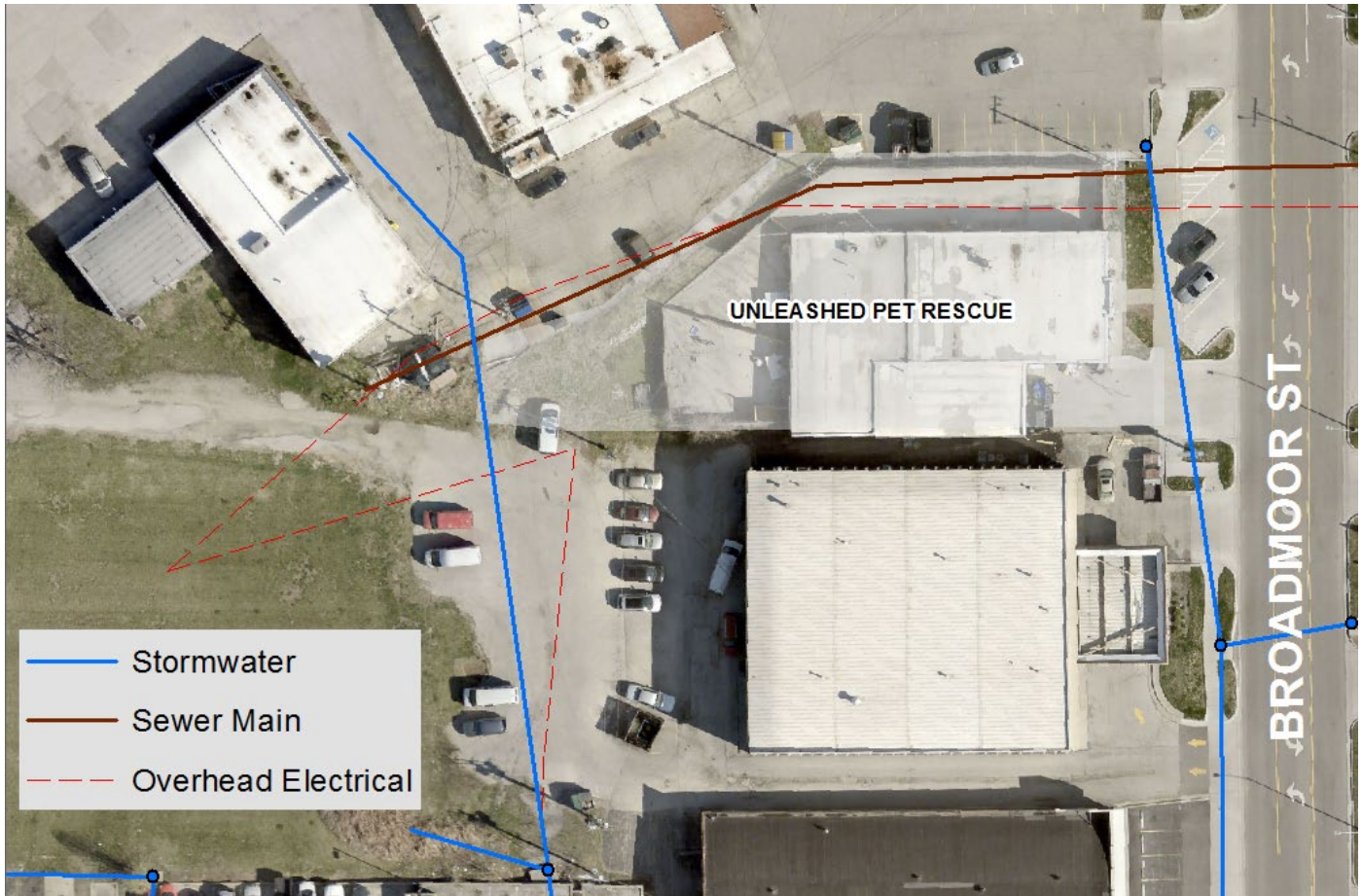
The subject property, Unleashed Pet Rescue (hereafter, Unleashed) is located at 5918 Broadmoor Street south of the intersection of Johnson Drive and Broadmoor Street. The total land area of the property is 17,515 square feet (.40 acres). The current structure on the property is a one-story building erected in 1951 with a footprint of 7,276 square feet. The business is a non-profit animal rescue shelter with boarding kennels.

The property is zoned M-1 - General Industrial District. It is located in the West Gateway Form Based Code (FBC) Overlay District. Adjacent properties include the Headless Hands Custom Tattoo Shop and Planet Sub to the north and Pride Cleaners to the south. The former Don Chilitos restaurant and Stag's Park Realty back the subject property to the northwest. The City of Mission owns the vacant property directly to the southwest.



The property has five diagonal parking spaces on Broadmoor (one is an ADA stall). Pedestrians can access the site via a sidewalk that fronts the building and extends along Broadmoor Street. The building façade and main entrance faces east toward Broadmoor Street and the dumpster is currently located at the front of the building at the service door. An open-air animal enclosure on the north side and west side of the property is surrounded by a six-foot fence in disrepair.

Currently, the outdoor enclosure is built over a Johnson County Wastewater (JCW) sanitary sewer easement and under an overhead electrical line. A stormwater inlet approximately 70' south of the property on Broadmoor collects runoff.



Project Background:

Since 2006, there have been numerous complaints regarding illicit discharge from runoff associated with washing down the outdoor enclosures and washing out kennels. This water runoff flows across the sidewalk and south along Broadmoor Street into the stormwater inlet. Allowing animal waste to enter the stormwater system is a violation of the Clean Water Act and jeopardizes the City's permit through the Kansas Department of Health and Environment to operate a storm sewer system. An NPDES Permit as defined by the Environmental Protection Agency (EPA) relative to pollutants states, "anything which causes or contributes to pollution," to include but not limited to "animal wastes and any noxious or offensive matter" is in violation of federal regulations unless regulated; the following sections of the municipal code also apply: [§220.010](#), [§220.060](#), [§220.070](#)

In 2018, the City of Mission Public Works Director mailed a certified letter to the property owner which ordered compliance with Municipal Code and the City's public health code. The letter requested mitigation of illicit discharge entering the storm water system. In September and November 2020, the City sent a Notice of Violation to the registered agent of Unleashed with a deadline to respond in January 2021. The violations persisted after the deadline and the operation did not submit a mitigation plan to the City. Shortly following the missed deadline, the matter was referred to municipal court where the judge ordered an immediate definitive plan to mitigate the illicit discharge.

Since that time, Unleashed has engaged a contractor to develop a solution that would allow them to continue to use the outdoor enclosures and manage pet waste. The apparent solution would be to install a drain in the outdoor enclosure area that connects to the sanitary sewer line, allowing volunteers to wash the animal waste directly into the sanitary sewer. However, connecting directly to the sanitary sewer line requires approval of Johnson County Wastewater (JCW), and they will not permit an outdoor drain that may allow stormwater into the sanitary sewer system. Additionally, JCW will not permit a valve on the drain, as the

valve may be left permanently open, allowing infiltration of stormwater into the sanitary sewer system. Therefore, Unleashed proposes to cover the outdoor enclosures.

However, the animal enclosure area on the north side of the building is located over an existing sanitary sewer easement. JCW will not allow a permanent structure or footings to be built in the easement. A roof structure built over the easement is permissible if there are no footings for support columns in the easement, and the roof is high enough for equipment if the sewer main needs to be repaired or replaced. The solution to construct a cantilevered canopy over the north and west outdoor animal enclosures will allow a floor drain that connects to the sanitary sewer line for animal waste discharge and prevent stormwater to infiltrate the sanitary sewer.

In addition to the cantilevered canopies over the two outdoor animal enclosures, Unleashed proposes other site improvements including new fencing, curbing within the enclosures, and new landscaping.

Plan Review:

On October 14, 2021, JCW issued Unleashed Pet Rescue a wastewater permit for on-site connection to the wastewater system, as well as removal of an existing grease interceptor on the property. JCW stated it would perform inspections once the installation of the wastewater connection and grease interceptor removal was completed.

On January 14, 2022, the City received plans for exterior site improvements which include a Sanitary Sewer Plan, the permit issued by Johnson County Wastewater, and plans for canopies and fencing for the existing outdoor yard enclosures. The Sanitary Plan includes installation of drains that collect animal waste wash water in the north and the west yard enclosures. The drains tie into a 4-inch sanitary sewer service line that connects to the existing 8-inch sanitary sewer line located north of the Unleashed property. The Drainage Plan also shows 4-inch downspouts that collect roof runoff from the canopy gutter in the north and west canopy areas. The downspouts connect to a 12-inch and 15-inch private storm sewer line that will be connected to the City's public storm sewer inlet located northeast of Unleashed. The canopy roofs prevent stormwater from entering the yard enclosures and sanitary sewer system. An open-air storage area separating the north and west yard enclosures contains an open stormwater drain. According to the plans, the storage area will be self-contained by proposed curbing to prevent animal waste from entering the stormwater drain as runoff from the north and west yard enclosures. Since there is an open stormwater inlet in the northwest storage area, no animals will be allowed in this area to prevent waste from draining into the City's stormwater system.

Fencing will also be installed to contain animals within the enclosures and separate them from the storage area. The fencing will also screen the storage area from off-site view. City code specifies that fencing is to be no taller than six (6) feet, however Unleashed is requesting approval of eight (8) foot fencing that will discourage people from dropping animals into the enclosure areas during non-operating hours.

Proposed landscaping fronting Broadmoor Street includes trees and bushes. The design and specifications will be finalized for the Final Site Plan submittal. A temporary dumpster location on City property is proposed until a permanent enclosure can be coordinated with adjacent back lot property owners or managers. Staff has determined that this location may be permanently located on City property for access to all adjacent back lot properties and Staff will coordinate with property owners and/or managers at a time and date to be determined.



Form-Based Code (FBC) Overlay District

The property lies in “Block R” of the FBC overlay district. Since the property lies within the FBC overlay district, any improvements to the site that exceed 10% of the appraised value shall conform with the adopted Form-Based Code regulations. The appraised value of the property is \$389,330 and site improvements according to the proposal are estimated to exceed 10% of the appraised value. The following elements of the Plan will not meet the Form-Based Code requirements for “Block R”:

1. Mid-rise, High-rise, or Parking Structure – the existing building is a one-story low-rise structure and will not be modified with the Plan.
2. Parking shall be in the rear of lots only – the existing building includes parking in the side lot
3. Broadmoor is a Type III Avenue in the FBC overlay – the proposed landscaping in the front yard (two trees and a few bushes) conforms minimally with some elements of the requirements, but does not meet the intent to create a more enhanced pedestrian experience by adding streetlights, benches, planters, bike racks, etc.

Since the elements of the Plan listed above do not score 90 points or more according to the FBC requirements, the proposed improvements require a Non-Conforming Situation Permit application for Planning Commission review.

Recommendation:

Staff recommends that Case #22-04 Site Improvements and Non-Conforming Situation Permit be granted to Unleashed Pet Rescue – 5918 Broadmoor – Unleashed Pet Rescue, applicant, with the following conditions:

Conditions of Approval:

1. No animal waste is allowed in the City’s municipal separate storm sewer system (MS4) per Mission municipal code; therefore, no animals or animal waste are allowed in the Northwest Storage Area where the proposed storm sewer drain is located. Permanently separate the yard enclosures from the storage/stormwater area and ensure that animals cannot enter the Northwest Storage Area. Post a sign made of durable material (metal or other like material) in a prominent location within the storage area that states, “No Animals Allowed.” Submit specifications to Staff for Final Site Plan review.
2. Landscaping shall be installed during the next appropriate seasonal cycle upon final approval; Submit specifications of species and locations to Staff for Final Site Plan review; All landscaping shall be

maintained by the property owner or owner's agent and replaced as soon as possible if disease or death occurs.

3. The dumpster location shall be coordinated and between adjacent back lot property owners/managers; Staff will coordinate the desired location and placement, including materials at the appropriate time. If coordination is for whatever reason not possible between adjacent back lot property owners/managers in a timely manner, Staff reserves the right to singularly coordinate the placement and enclosure materials with Unleashed at Staff's discretion. The dumpster enclosures shall be installed as soon as coordination efforts and approved location has been established.
4. Following improvements to the site, continued operations are contingent upon the approval of JCW after inspection(s) are conducted.

PROJECT NARRATIVE:

Unleashed Pet Rescue Outdoor Play Yard Improvements 2022

City Agency: City of Mission, Kansas

6090 Woodson St, Mission, KS 66202

Brian Scott, CPM Deputy City Administrator

913-676-8353 / bcsott@missionks.org

Project Title: Unleashed Pet Rescue Outdoor Play Yard Improvements 2022

5918 Broadmoor St. Mission, KS 66202

Owner of Property / Contact Information: Danielle Reno, Director

913-426-1351 / danimreno@gmail.com

Application Contact: Envision Exteriors, LLC

Christopher Oyer and Tammy Bratton

913-424-5514 / EnvisionExteriorsLLC@gmail.com

Project Summary:

The purpose of this Authorized Use Project is to comply with the requirements of Johnson County Wastewater regarding sanitary drains as well as the City of Mission. Wastewater is to route to the sanitary drains and rainwater to the storm drains.

Location: Unleashed Pet Rescue 5918 Broadmoor St Mission KS, 66202

- a. Duration: Pending coordination of all components the duration of the play yard portion of the project will ideally be completed within 3-6 months
- b. Total cost: We understand the magnitude of this project and general ranges in costs. Current estimates are being acquired and have been over the last 6 months. The property owner has been making plans throughout the last year to accommodate this project.

In addition to the sanitary drains and canopy builds, the City of Mission has expressed a preference to have the dumpster for the property moved to the back. Currently the dumpster is in the front of the building. There are no appropriate locations for the dumpster to fit on the actual property in the back area. A request has been made with the city to allow a single dumpster enclosure to be built on city property where allowed. A proposed location is addressed on the site map. This portion will be completed last after all canopy structures are build and fencing is back up on the property.

SUMMARY:

This project proposes to install two sanitary sewer drains in the dog play yards at Unleashed Pet Rescue. One will be in the West play yard and one in the North play yard. The landscape will be removed and new ground will be poured. Curbing will be utilized to route wastewater that needs to go into the sanitary sewer, towards the sanitary sewer drains and to keep rainwater in the uncovered area, routed towards the storm drains. Two roofing canopies will be erected. One canopy on the north side and one canopy on the west side. The canopies cover the areas where dogs will be outside in the play yards. The uncovered area will be utilized as storage. The fencing will be replaced on this property. Due to the usage of the yards and safety needs, the front fencing will be 8' tall. A solid metal fence will be utilized in the front facing section as well as the area where storage will be to hide any view of storage from eye view. The remaining fencing will be either 6' or 8' depending on the placement of the fence for the property due to the height of the retaining wall. Bushes and trees will be planted in the front of the shelter on the current grassy area for appearance, shade, and erosion.

Pending approval by the City of Mission, the dumpster that is currently in the front of the building, would be moved to the back area and on city property. A block dumpster enclosure would be built around the dumpster container.

Goals of the Project:

Route pet waste from the play yards into sanitary drains/sewer system. Route rainwater to storm drains. Cover play yard areas where dogs are occupying.

Enclose dumpster in the back of the building on city property.

Objectives of the Project:

Increase sanitation cleanliness. Improve visual appearance of the building and dog yards.

Increase cleanliness in the front of the building by removing the dumpster and relocating the dumpster to the back city lot.

Authorized Use: Proper play yard for dogs where pet waste goes to the sanitary drains.

Project Description:

Installation of sanitary drains, erecting a roofing structure over the dog play yards, utilizing curbing and slopes to direct water towards drains. Fence the area for safety. Build new dumpster enclosure on city property in back, if approved by the city.

Goals: To begin this project as soon as possible. Contractors have been contacted and are in the process of offering bids and timeframe of their ability to begin and complete the project.

Statement of Work:

We have obtained a permit from Johnson County Wastewater for the ideas in this project. The architectural drawings and structural drawings were provided to JOCO Wastewater at the time of that permit approval.

Upon approval from the planning committee, we will apply for all necessary building permits. There will be demolition of the current yards, pouring of the pier supports, building of the steel structure, plumbing work to install drains and necessary piping, flat work done in the yards, curbing installation, fence rebuild, and planting of the front vegetation.

Schedule: To be determined by permit approval, weather, and material availability.

Ideally, work would begin in March of 2022.

Concrete and surface work was proposed to take a month total

Structural building was estimated at two weeks once the material was available.

Depending on how soon the project is approved, they may have all material available.

Fencing was estimated as a two week process.

Plumbing estimated a week of work.

Dumpster build estimated 2-3 weeks to complete

Factors that impact scheduling:

- a. Approval from the committee and permitting timeframe
 - a. The contractors who have been in contact with the project management team, are aware of the need and preference for this project to be completed asap per the city. All are trying to work this project into their schedules as they can providing timing falls into place for them as well.
 - b. Weather
 - c. Material availability

Project Management Plan:

Envision Exteriors LLC, will be leading the organization for this project. They have been involved with this project since the beginning when the owner contacted them for exterior improvement help. Both Tammy Bratton and Christopher Oyer are contacts at Envision Exteriors, LLC.

The sanitation improvements as well as the visual improvements to the site at Unleashed Pet Rescue, will improve the appearance in this area. Many people from the community and surrounding areas, come to this animal shelter to adopt their animals. Many of these adopters often eat at surrounding restaurants and regularly come back to the area to volunteer. Again, they support the local restaurants in this area. The guests who come to the shelter, increase local revenue.

Drawings: Drawings (architectural and structural) have been provided to the city in previous emails. The Civil Engineer on this project has provided a site map (on 1/18/22). A visual rendering of this project is attached along with this narrative.

Environmental Impact:

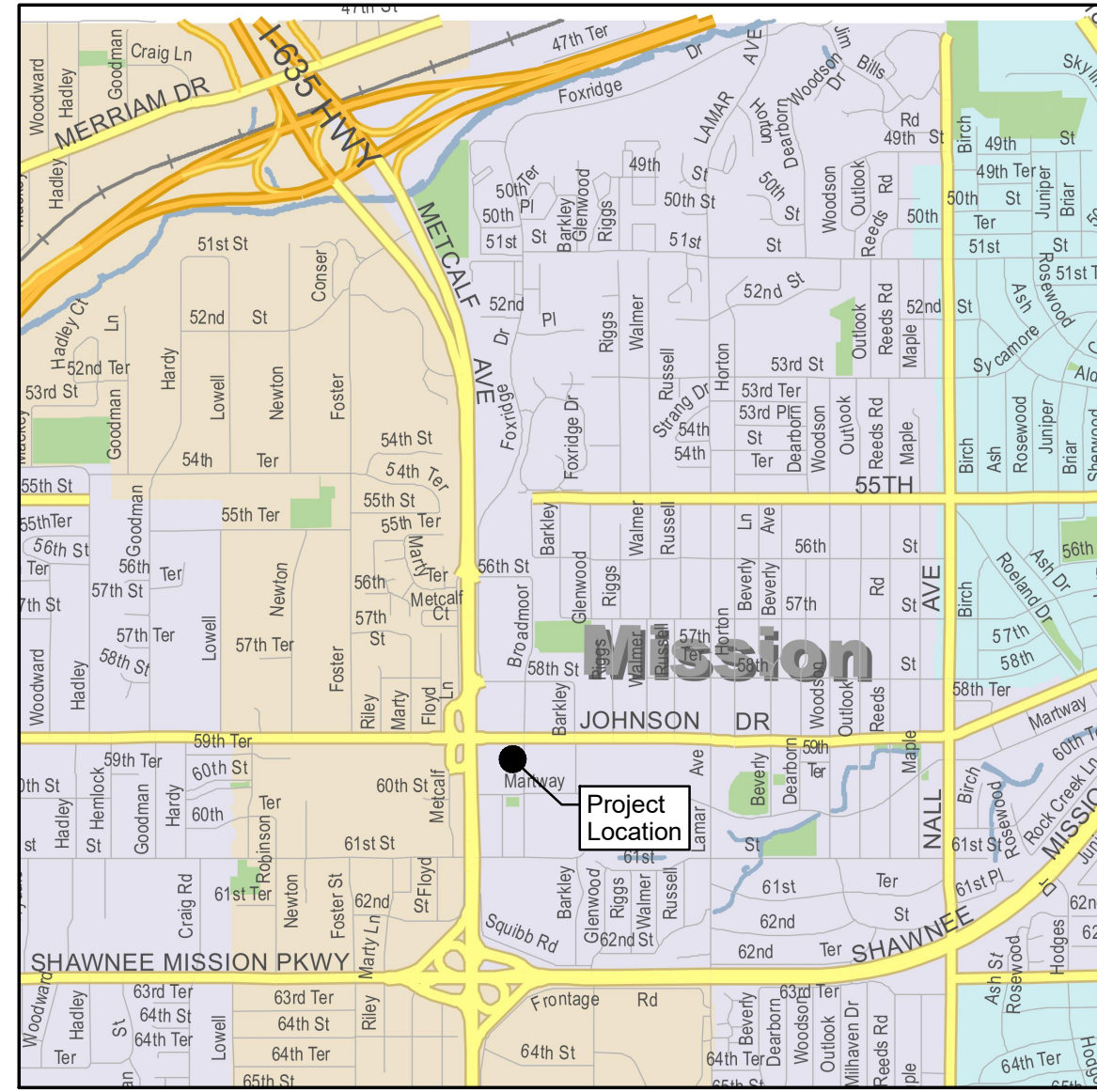
Sanitary water will go to sanitary drains. Cleaner environment.

Permits:

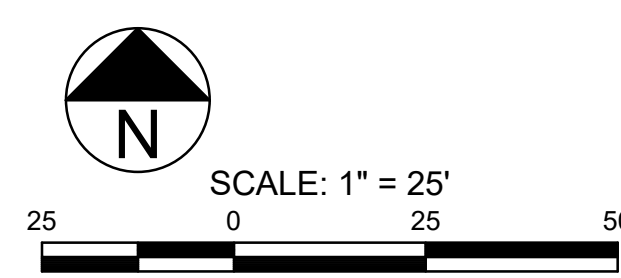
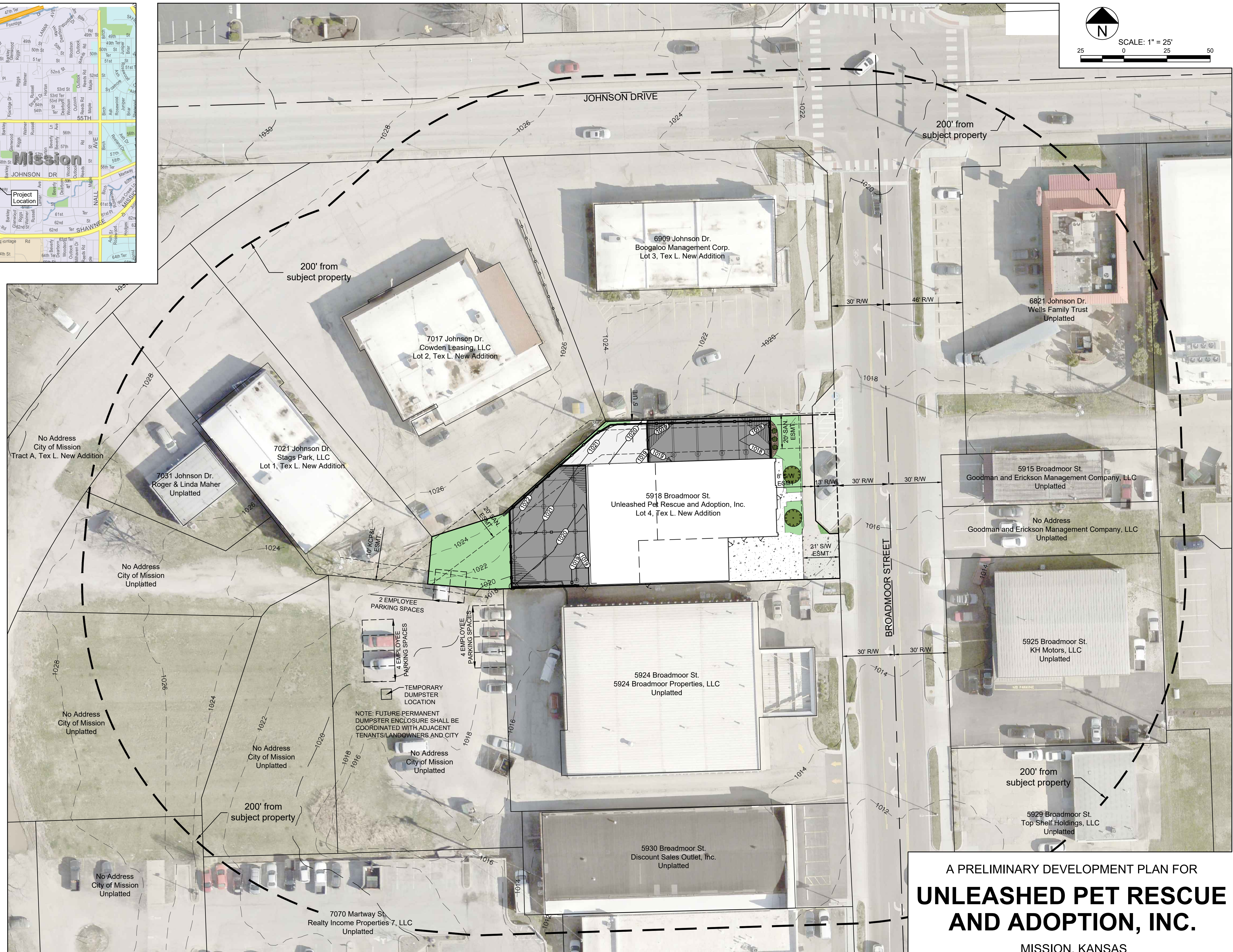
Permits will be requested once approval from planning committee is received.

Changes between site plan and architectural location plan:

Rather than French drain system, route water to the open area where there is storage and no animals (per civil engineering).



LOCATION MAP:
SCALE 1 : 2,000



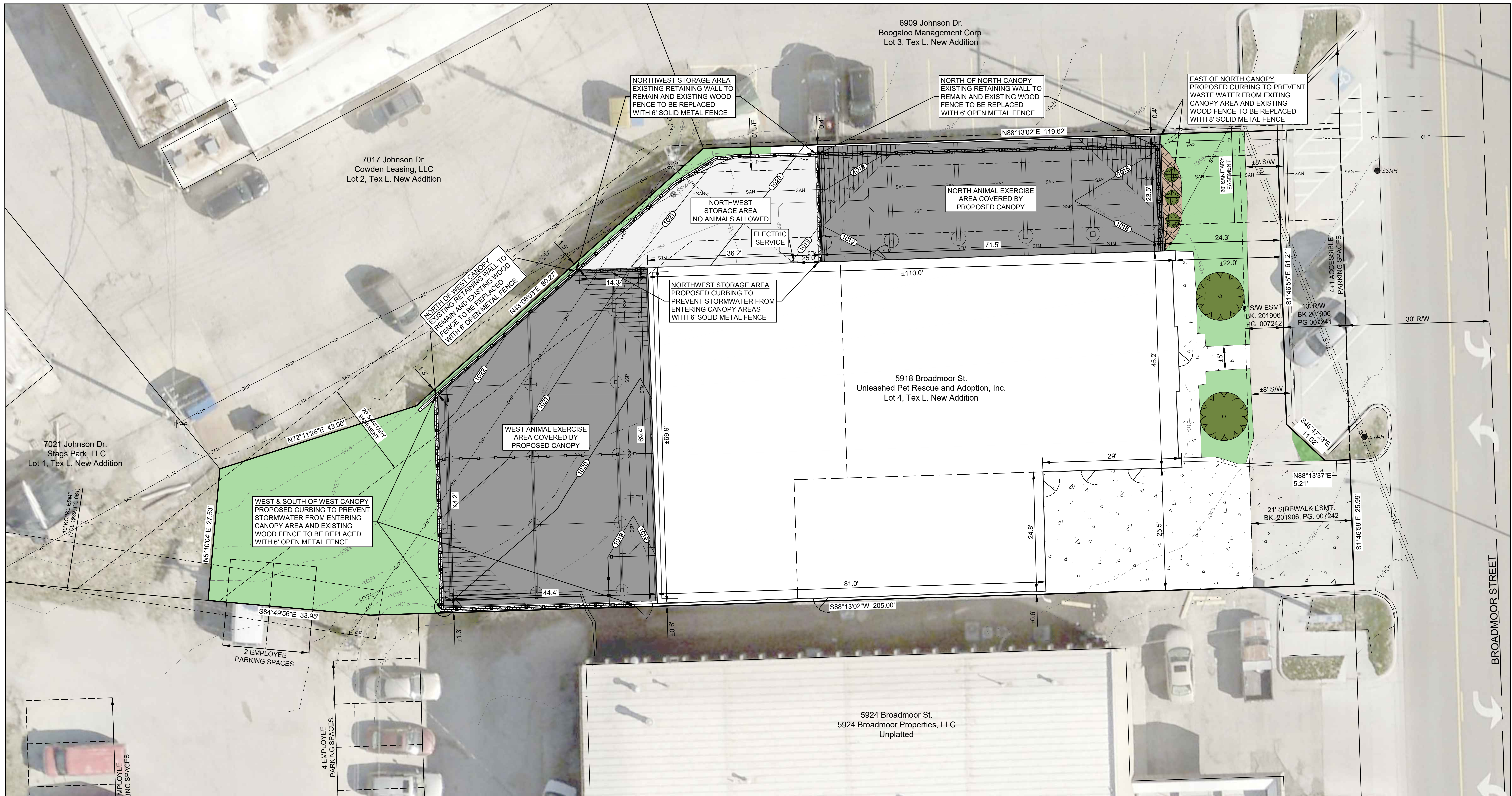
A PRELIMINARY DEVELOPMENT PLAN FOR
UNLEASHED PET RESCUE AND ADOPTION, INC.
 MISSION, KANSAS



UNLEASHED PET RESCUE AND ADOPTION, INC.
 PRELIMINARY DEVELOPMENT PLAN
 AREA MAP

REV	DATE	DESCRIPTION
A	2/17/2022	MISSION REVIEW COMMENTS

DATE:	1/14/2022
PROJECT NO.:	21128
VERSION:	B
SHEET NUMBER:	1



PROJECT AREA SUMMARY:

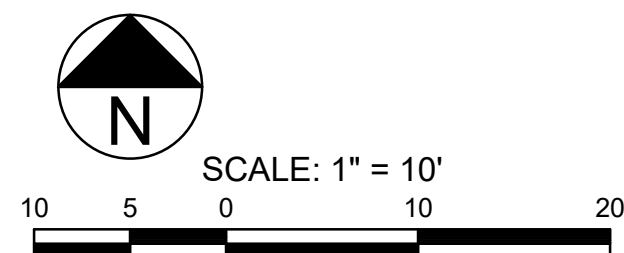
PROPERTY GROSS AREA:	18,379 SF /	0.422 AC
PROPERTY NET AREA:	17,513 SF /	0.402 AC
EXISTING CONDITIONS:		
BUILDING AREA	6,960 SF /	0.160 AC 39.8%
PAVEMENT AREA	7,888 SF /	0.181 AC 45.0%
IMPERVIOUS AREA	14,848 SF /	0.341 AC 84.8%
PERVIOUS AREA	2,665 SF /	0.061 AC 15.2%
TOTAL AREA	17,513 SF /	0.402 AC 100.0%
FLOOR TO AREA RATIO		39.8%

PROPOSED CONDITIONS:		
BUILDING AREA	6,960 SF /	0.160 AC 39.8%
OUTDOOR CANOPY AREA	4,415 SF /	0.101 AC 25.2%
PAVEMENT AREA	3,473 SF /	0.080 AC 19.8%
IMPERVIOUS AREA	14,848 SF /	0.341 AC 84.8%
PERVIOUS AREA	2,665 SF /	0.061 AC 15.2%
TOTAL AREA	17,513 SF /	0.402 AC 100.0%
FLOOR TO AREA RATIO		39.8%

ZONING	INDUSTRIAL, M-1
REQUIRED PARKING SPACES	2 SPACES/1,000 SF (INDUSTRIAL) 6,960 SF x 2 SPACES/1000 SF = 14 SPACES
AVAILABLE PARKING SPACES	4 + 1 ACCESSIBLE SPACES ALONG BROADMOOR 10 SPACES SW OF BUILDING FOR EMPLOYEES 14 + 1 SPACES AVAILABLE

GENERAL NOTES:

- OWNER: UNLEASHED PET RESCUE AND ADOPTION, INC.
5918 BROADMOOR STREET
MISSION, KANSAS 66202
- LAND PLANNER & CIVIL ENGINEER: STORM ENGINEERING GROUP, PA
5719 WESTFIELD DRIVE
LAWRENCE, KANSAS 66049
- LEGAL DESCRIPTION: LOT 4, TEX L. NEW ADDITION, A SUBDIVISION IN THE CITY OF MISSION, JOHNSON COUNTY, KANSAS EXCEPT THAT PART IN ROAD.
- EXISTING ZONING: INDUSTRIAL, M-1
- PROPOSED ZONING: INDUSTRIAL, M-1
- EXISTING LAND USE: PET RESCUE/ADOPTION (VETERINARY HOSPITAL)
- TOPOGRAPHIC INFORMATION SHOWN AREA MAP FROM JOHNSON COUNTY AIMS. BOUNDARY AND TOPOGRAPHIC INFORMATION SHOWN ON SITE PLAN FROM BEYOND SURVEYING. SURVEY COMPLETED MARCH 2021. ALL ELEVATIONS NAVD88 DATUM.
- NO PORTIONS OF THE PROPERTY IS LOCATED WITHIN AREAS DESIGNATED AS SPECIAL FLOOD HAZARD AREAS SUBJECT TO INUNDATION BY THE FLOOD EVENT HAVING A 1-PERCENT CHANCE OF BEING EQUALED OR EXCEEDED IN ANY GIVEN YEAR PER FEMA MAP NUMBER 20091C0023G, LAST REVISED AUGUST 3, 2009.



A PRELIMINARY DEVELOPMENT PLAN FOR
UNLEASHED PET RESCUE AND ADOPTION, INC.
MISSION, KANSAS

7017 Johnson Dr.
Cowden Leasing, LLC
Lot 2, Tex L. New Addition

6909 Johnson Dr.
Boogaloo Management Corp.
Lot 3, Tex L. New Addition

5918 Broadmoor St.
Unleashed Pet Rescue and Adoption, Inc.
Lot 4, Tex L. New Addition

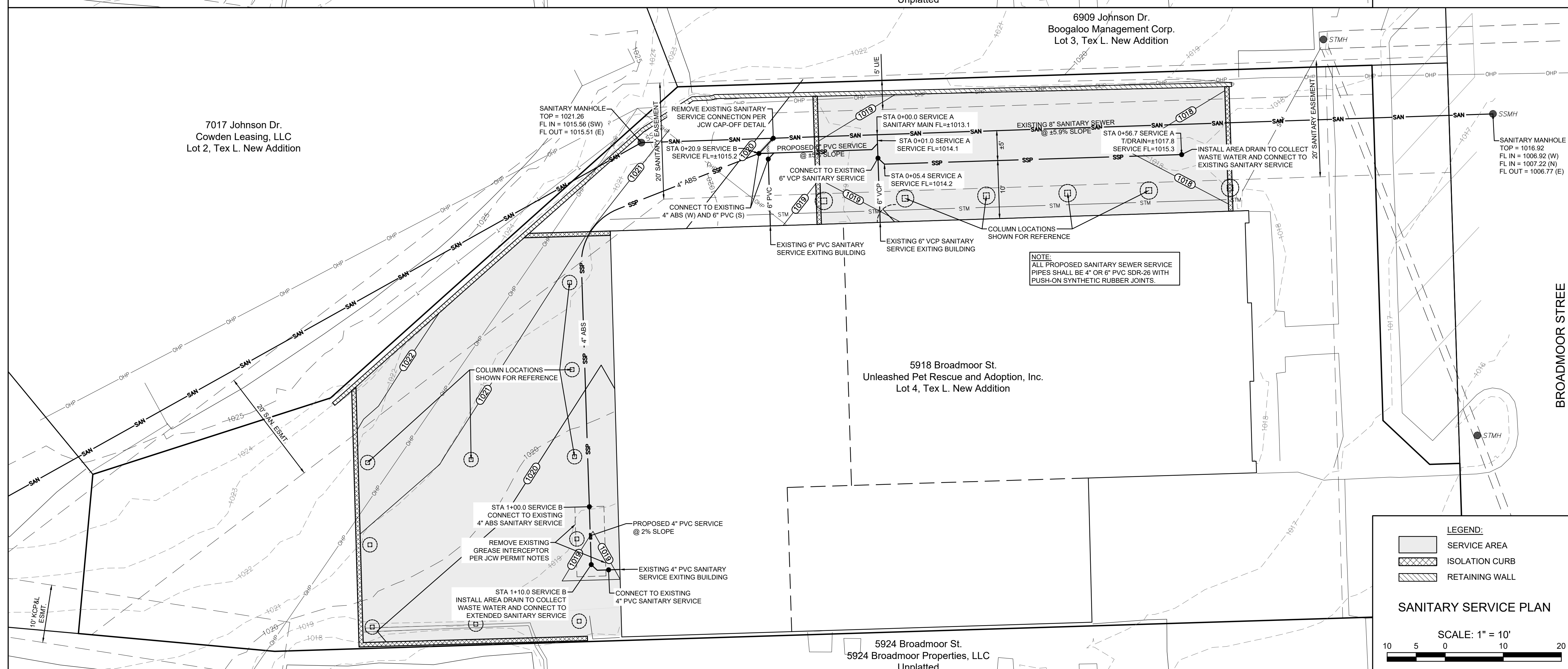
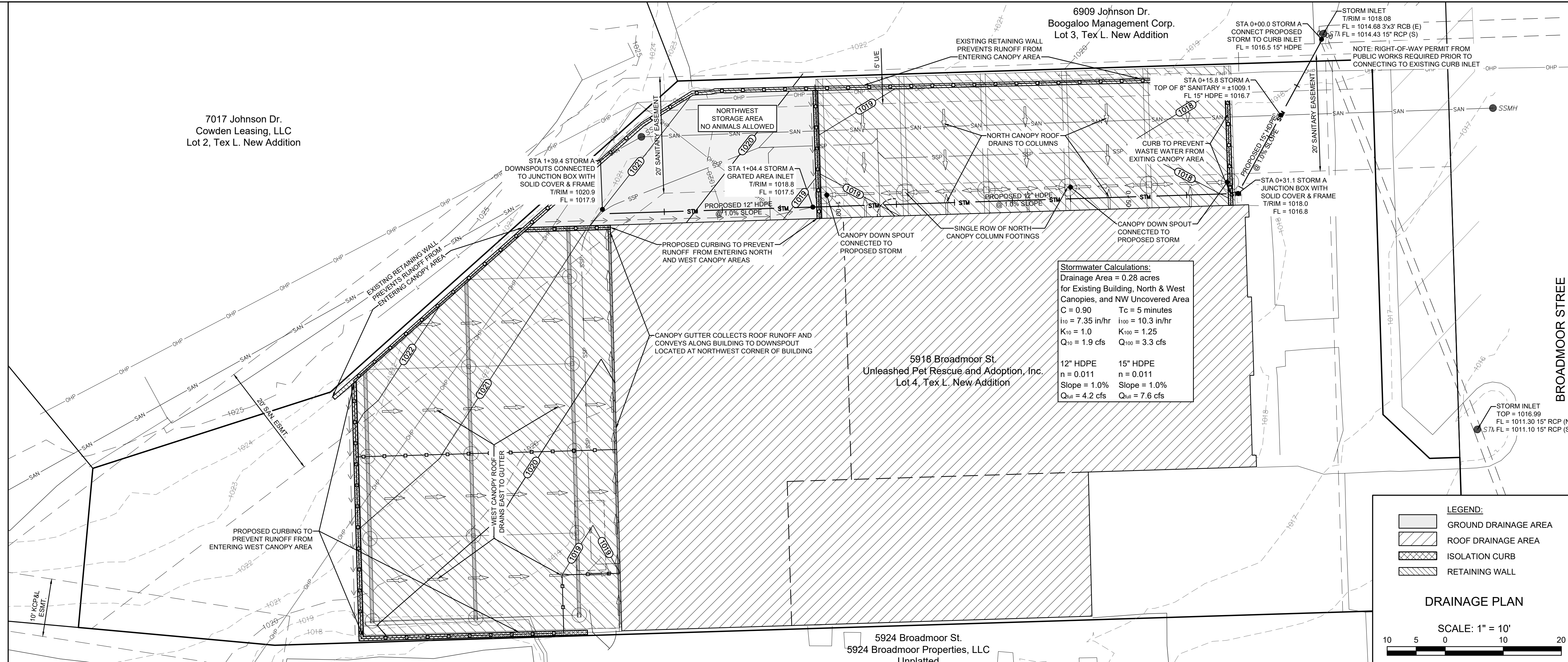
5924 Broadmoor St.
5924 Broadmoor Properties, LLC
Unplatted

7017 Johnson Dr.
Cowden Leasing, LLC
Lot 2, Tex L. New Addition

6909 Johnson Dr.
Boogaloo Management Corp.
Lot 3, Tex L. New Addition

5918 Broadmoor St.
Unleashed Pet Rescue and Adoption, Inc.
Lot 4, Tex L. New Addition

5924 Broadmoor St.
5924 Broadmoor Properties, LLC
Unplatted



UNLEASHED PET RESCUE AND ADOPTION, INC.
PRELIMINARY DEVELOPMENT PLAN
SITE DRAINAGE AND SANITARY PLAN

REV	DATE	DESCRIPTION
A	2/17/2022	MISSION REVIEW COMMENTS

DATE: 1/14/2022
 PROJECT NO.: 21128
 VERSION: B

SHEET NUMBER:
3

SITE IMPROVEMENTS

FOR UNLEASHED PET RESCUE

5918 BROADMOOR ST.
MISSION, KANSAS 66202

GENERAL NOTES

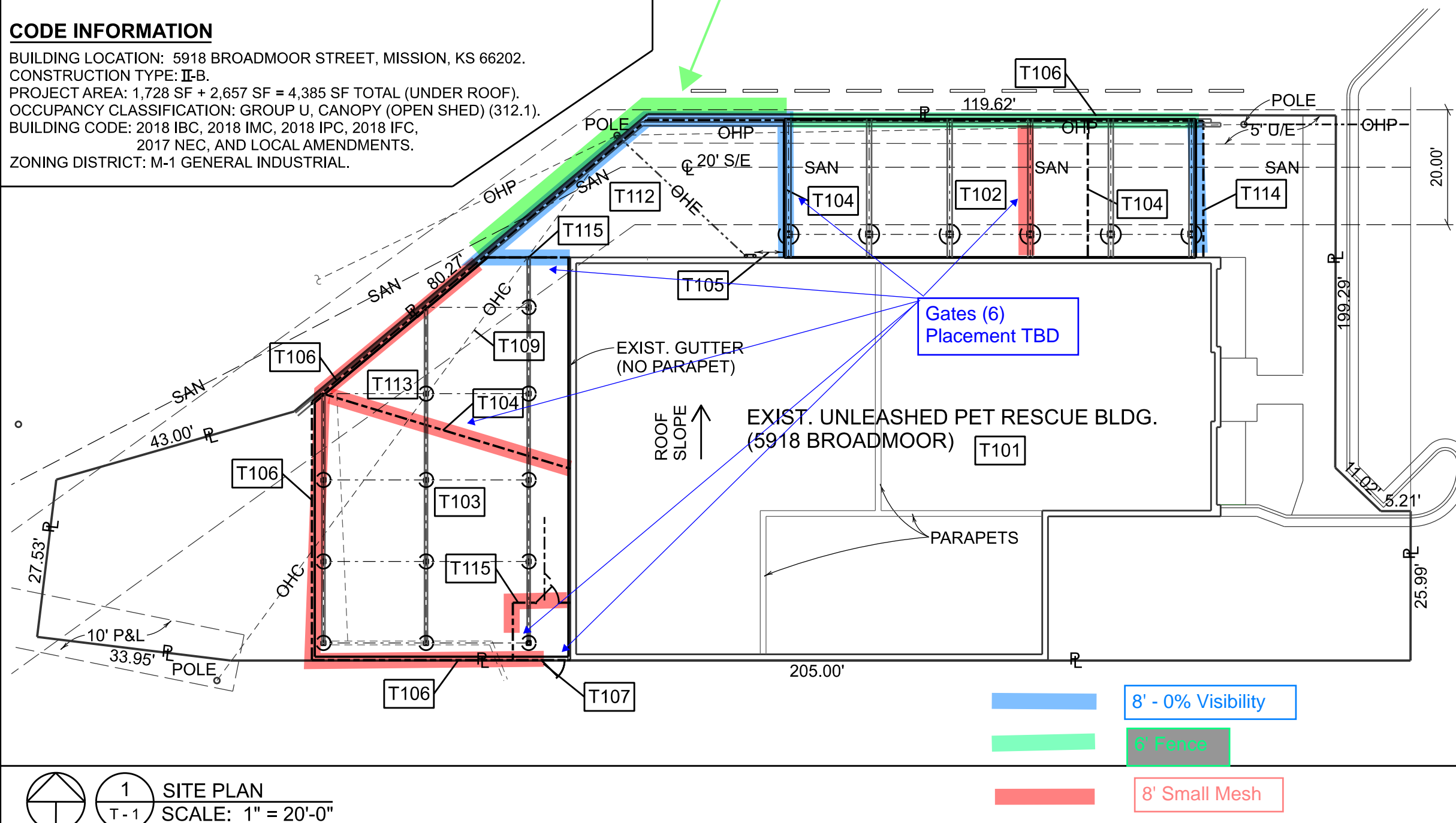
- CONTRACTORS SHALL CONFORM TO REQUIREMENTS OF THE LATEST INTERNATIONAL BUILDING CODE AND ITS REFERENCES, AND ALL APPLICABLE ORDINANCES AND CODES.
- CONTRACTOR SHALL FURNISH EVIDENCE OF INSURANCE MEETING THE REQUIREMENTS OF THE CITY AT WHICH THIS WORK IS PERFORMED.
- BUILDING CONTRACTOR SHALL BE RESPONSIBLE FOR ACQUISITION OF THE CERTIFICATE OF OCCUPANCY AT PROJECT COMPLETION.
- ALL CONTRACTORS, SUB-CONTRACTORS, AND MATERIAL SUPPLIERS SHALL BE RESPONSIBLE FOR ASSURING THAT NO ASBESTOS OR ASBESTOS CONTAINING MATERIALS ARE USED ON THE PROJECT.
- THESE DRAWINGS AND COPIES THEREOF ARE LEGAL INSTRUMENTS OF SERVICE FOR THE USE OF THE OWNER AND AUTHORIZED AGENTS ON THE DESIGNATED PROPERTY ONLY.
- EACH TRADE SHALL BE RESPONSIBLE FOR KNOWLEDGE OF RELATIVE INFORMATION CONTAINED IN THESE DOCUMENTS AND THE CONDITIONS UNDER WHICH HE WILL BE EXPECTED TO PERFORM.
- THE GENERAL CONTRACTOR AND ALL SUB-CONTRACTORS SHALL CAREFULLY AND THOROUGHLY EXAMINE THE PROJECT SITE, FIELD VERIFY ALL CONDITIONS, GRADES, ELEVATIONS AND DIMENSIONS OF THE VARIOUS FEATURES OF THE PROJECT SITE AND SHALL COMPARE THE DRAWINGS WITH THE EXISTING SITE CONDITIONS. DISCREPANCIES SHALL BE REPORTED IMMEDIATELY TO THE ARCHITECT, IN WRITING, BEFORE BEGINNING WORK.
- THE GENERAL CONTRACTOR AND ALL SUB-CONTRACTORS SHALL REVIEW AND THOROUGHLY EXAMINE AND FAMILIARIZE THEMSELVES WITH ALL ELEMENTS AND CONDITIONS IN THE CONTRACT DRAWINGS AND SPECIFICATIONS. THE GENERAL CONTRACTOR AND ALL SUB-CONTRACTORS SHALL VERIFY ALL DIMENSIONS ON THE DRAWINGS. ANY DISCREPANCIES AND/OR CONDITIONS NEEDING CLARIFICATION SHALL BE REPORTED IMMEDIATELY TO THE ARCHITECT, IN WRITING, BEFORE BEGINNING WORK.
- ALL CONSTRUCTION, FABRICATION AND INSTALLATIONS SHALL CONFORM TO THE LATEST ADOPTED EDITIONS OF THE U.B.C., U.F.C., U.M.C., U.P.C., N.E.C., & ANY FEDERAL, STATE AND LOCAL CODES, REGULATIONS AND ORDINANCES OF THE GOVERNING AGENCY HAVING JURISDICTION OVER THE PROJECT. SUCH APPLICABLE CODES, ETC. ARE THOSE WHICH ARE IN EFFECT AT THE TIME THE PERMIT APPLICATION FOR THE PROJECT IS RECORDED.
- EACH SUB-CONTRACTOR IS CONSIDERED A SPECIALIST IN HIS RESPECTIVE FIELD/TRADE AND SHALL (BEFORE SUBMISSION OF BID OR PERFORMANCE OF WORK) NOTIFY THE GENERAL CONTRACTOR AND THE DEVELOPER, IN WRITING, OF ANY WORK CALLED OUT ON THE DRAWINGS OR IN THE SPECIFICATIONS WHICH CANNOT BE FULLY GUARANTEED OR CONSTRUCTED AS DESIGNATED AND/OR DETAILED.
- DUE TO REPROGRAPHIC PROCESSES, THESE PLANS MAY NOT BE ACCURATE TO SCALE. ALL DIMENSIONS SHALL TAKE PRECEDENCE OVER SCALE SHOWN AND IN NO CASE SHALL WORKING DIMENSIONS BE SCALED FROM PLANS, SECTIONS, ELEVATIONS OR DETAILS.
- THE STRUCTURAL, MECHANICAL, PLUMBING, AND ELECTRICAL DRAWINGS ARE SUPPLEMENTARY TO THE ARCHITECTURAL DRAWINGS. SHOULD THERE BE ANY DISCREPANCY BETWEEN THE VARIOUS DRAWINGS, IT SHALL BE BROUGHT TO THE ARCHITECT'S ATTENTION FOR CLARIFICATION.
- THE CONTRACTOR SHALL COORDINATE WITH THE OWNER'S REPRESENTATIVE FOR INSTALLATION OF SPECIAL MANUFACTURING EQUIPMENT NOT SHOWN IN THESE DRAWINGS. THE CONTRACTOR SHALL VERIFY EQUIPMENT LOCATIONS WITH THE OWNER'S REPRESENTATIVE AND/OR EQUIPMENT MANUFACTURER PRIOR TO FORMING THE SLAB, FOR PROPER SIZE AND LOCATION OF FOUNDATION DEPRESSIONS, DRAINS, AND WARPS.
- UNLESS OTHERWISE NOTED, MANUFACTURER'S ITEMS SHALL BE PROVIDED. CONTRACTOR SHALL VERIFY ANY SUBSTITUTIONS WITH THE OWNER AND ARCHITECT PRIOR TO BID AND/OR INSTALLATION.
- WHERE CONSTRUCTION DETAILS ARE NOT SHOWN OR NOTED FOR ANY PART OF THE WORK, DETAILS SHALL BE THE SAME AS FOR OTHER SIMILAR FIRST CLASS WORK; FOR THE TRADE INVOLVED THE DEVELOPER SHALL BE NOTIFIED IMMEDIATELY, IN WRITING, OF ANY ALTERNATE NON-STANDARD OR UNTESTED METHOD(S) PROPOSED.
- ALL EXISTING UTILITIES OR STRUCTURES ARE INDICATED ON THESE PLANS BASED ON INFORMATION OF RECORD. THE CONTRACTOR SHALL TAKE PRECAUTIONARY MEASURES TO PROTECT THE UTILITY LINES NOT OF RECORD OR NOT SHOWN ON THESE PLANS. THE CONTRACTOR SHALL BE RESPONSIBLE FOR ANY AND ALL DAMAGES WHICH OCCUR DUE TO HIS FAILURE TO LOCATE AND PROTECT ANY AND ALL UNDERGROUND UTILITIES.
- THE GENERAL CONTRACTOR AND ALL SUB-CONTRACTORS SHALL BE RESPONSIBLE FOR THE ENFORCEMENT OF ALL REQUIREMENTS AND REGULATIONS AND SHALL PERFORM ALL WORK ON THIS PROJECT IN COMPLIANCE WITH THE OCCUPATIONAL SAFETY AND HEALTH ACT.
- INTERIOR FINISH SHALL COMPLY WITH 2012 IBC TABLE 803.9.
- MATERIALS TO BE USED SHALL BE OF FIRST QUALITY. THE WORK SHALL BE PERFORMED BY SKILLED MECHANICS IN A WORKMANLIKE MANNER.
- CLEAN, PATCH AND/OR REPAIR ALL SURFACES DAMAGED BY DEMOLITION OR ALTERATION OF WORK AS REQUIRED.
- CONTRACTOR SHALL PICK-UP AND PAY FOR ANY PERMITS NOT PROVIDED BY THE BUILDING OWNER. CONTRACTOR SHALL INCLUDE ALL NECESSARY TAXES, FEES, LABOR, MATERIALS, DRAWINGS REQUIRED TO CONSTRUCT THE PROJECT.
- THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE REMOVAL OF ALL DEBRIS FROM THE BUILDING PREMISES. BUILDING TRASH RECEPTACLES ARE NOT TO BE USED FOR CONSTRUCTION DEBRIS.
- ALL EXISTING WALLS SHALL BE FINISHED AS NECESSARY FOR SPECIFIED INTERIOR FINISH APPLICATION.
- THE CONTRACTOR SHALL BE RESPONSIBLE FOR PROVIDING AND INSTALLING ANY "BUILDING STANDARD" FIXTURES AND FINISHES IN ADDITION TO THOSE NOTED ON THE PLAN.
- THE CONTRACTOR SHALL PROVIDE AND INSTALL IN WALLS ANY AND ALL BLOCKING THAT MAY BE REQUIRED FOR THE ATTACHMENT OF EQUIPMENT, SHELVING, DEVICES TO WALLS.

SCOPE OF WORK

2 NEW FREE-STANDING CANOPIES TO COVER EXISTING DOG TURN-OUT AREAS. THE NEW CONSTRUCTION IS SEPARATE FROM THE EXISTING ANIMAL SHELTER BUILDING. INSTALL NEW METAL FENCING AT PERIMETER OF PROPERTY.

CODE INFORMATION

BUILDING LOCATION: 5918 BROADMOOR STREET, MISSION, KS 66202.
CONSTRUCTION TYPE: II-B.
PROJECT AREA: 1,728 SF + 2,657 SF = 4,385 SF TOTAL (UNDER ROOF).
OCCUPANCY CLASSIFICATION: GROUP U, CANOPY (OPEN SHED) (312.1).
BUILDING CODE: 2018 IBC, 2018 IMC, 2018 IPC, 2018 IFC,
2017 NEC, AND LOCAL AMENDMENTS.
ZONING DISTRICT: M-1 GENERAL INDUSTRIAL.



SHEET INDEX

SHEET NO.	SHEET NAME	Current Revision	Current Revision Date
T-1	SITE PLAN, NOTES, SHEET INDEX		
L-1	LANDSCAPE PLAN		
A-1	CANOPY NO.1 PLAN, SECTIONS, ELEVATIONS		
A-2	CANOPY NO. 2 PLAN, SECTIONS, ELEVATIONS		
A-3	TRASH ENCLOSURE PLAN & DETAILS		
A-4	CANOPY NO.1 ROOF		
A-5	FENCE DETAILS		
S-100	STRUCTURAL - NOTES		
S-101	STRUCTURAL - NOTES		
S-110	STRUCTURAL - SPECIAL INSPECTIONS		
S-111	STRUCTURAL - SPECIAL INSPECTIONS		
S-120	STRUCTURAL - SCHEDULE		
S-201	STRUCTURAL - FOUNDATION PLAN		
S-210	STRUCTURAL - NORTH CANOPY FRAMING		
S-220	STRUCTURAL - WEST CANOPY FRAMING		
S-400	STRUCTURAL - WALL SECTION		
S-500	STRUCTURAL - FOUNDATION DETAILS		
S-510	STRUCTURAL - TYP. FOUNDATION DETAILS		
S-520	STRUCTURAL - TYP. STEEL DETAILS		
S-521	STRUCTURAL - TYP. STEEL DETAILS		
S-530	STRUCTURAL - STEEL DETAILS		
S-531	STRUCTURAL - STEEL DETAILS		
1	SITE DRAINAGE & SANITARY SERVICE PLAN		

SITE PLAN NOTES

- REFER TO CERTIFICATE OF SURVEY PREPARED BY BEYOND SURVEYING JOB NO. 2021-0019 DATED 03/16/2021.
- REFER TO CIVIL ENGINEERS DRAWINGS FOR SANITARY WASTE FOR OUTDOOR PET YARDS NO. 1 AND NO.2
- OWNER HAS RECEIVED APPROVAL FROM JOHNSON COUNTY WASTE WATER JCW) FOR THE PROPOSED CANOPIES TO OVERHANG EXISTING SANITARY SEWER EASEMENT.
- STORMWATER FROM CANOPIES WILL BE CHANNLED DIRECTLY INTO EXISTING CITY STORM WATER SYSTEM FOR CANOPY NO. 1 OR DIRECTED TO PAVEMENT.
- OVERHEAD CABLE LOCATED ABOVE FENCE ON NORTH PROPERTY LINE AND TRANSVERSING ACROSS THE REAR PROPERTY SHALL BE REMOVED COMPLETELY.

SITE PLAN NOTES

NOTE NO.	COMMENT
T101	EXISTING BUILDING. NO CHANGES.
T102	NEW STEEL CANOPY NO. 1. SEE SHEET A-1.
T103	NEW STEEL CANOPY NO. 2. SEE SHEET A-2.
T104	NEW 8 FOOT METAL FENCE.
T105	PROVIDE MINIMUM 5'-0" SEPARATION BETWEEN EXIST. POWER MAST AND NEW CANOPY NO. 1.
T106	REMOVE EXIST. WOOD FENCE AND CHAIN LINK FENCE. PROVIDE NEW 6' BLACK-COATED METAL FENCING. SEE SHEET A-5.
T107	NEW BLACK-COATED METAL GATE IN NEW METAL FENCE.
T108	PROVIDE NEW 6' BLACK-COATED METAL FENCING, SEE SHEET A-5.
T109	REMOVE EXIST. OVERHEAD CABLE.
T110	REMOVE EXIST. VEGETATION AT REAR OF BUILDING ALONG THE EXIST. FENCE LINE.
T111	RELOCATE PARKING SIGNS AT PARKING LOT, COORDINATE WITH ADJACENT OWNER.
T112	REMOVE EXIST. PLASTIC PIPING AS REQUIRED.
T113	REMOVE EXIST. R. R. TIES AT DIRECTION OF OWNER.
T114	MOUNT ROLLER BAR AT TOP OF FENCE.
T115	NEW 6' METAL FENCING WITH GATE.



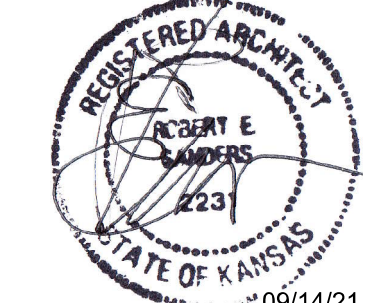
2 VICINITY MAP
SCALE: NONE



9111 DELMAR ST
PRAIRIE VILLAGE, KS 66207
PHONE: 913.660.4863

www.rsabob05@gmail.com

CERTIFICATION:



CONSULTANTS:

APEX ENGINEERS, INC.
1625 Locust
Kansas City, MO 64108
816-421-3222

STORM ENGINEERING GROUP
Christopher Storm
785-766-6661

REVISIONS:

No.	Description	Date

PROJECT:

SITE IMPROVEMENTS FOR
UNLEASHED PET RESCUE
5918 Broadmoor St.
Mission, Kansas 66202

OWNER:

FENCING LAYOUT

PROJECT NUMBER: 2111

DATE: 09/09/21

DRAWN BY: JKC

CHECKED BY: RES

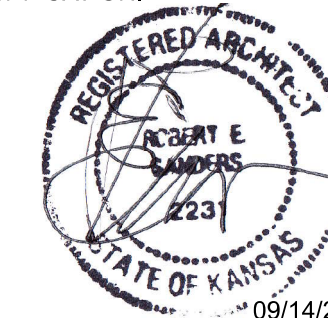
F-1

SCALE: AS NOTED

UPR-Canopies-T1-TitleSheet-2.dgn

1 SITE PLAN
SCALE: 1" = 20'-0"

CERTIFICATION:



CONSULTANTS:

APEX ENGINEERS, INC.
1625 Locust
Kansas City, MO 64108
816-421-3222

STORM ENGINEERING GROUP
Christopher Storm
785-766-6661

REVISIONS:

No.	Description	Date

PROJECT:

SITE IMPROVEMENTS FOR
UNLEASHED PET RESCUE
5918 Broadmoor St.
Mission, Kansas 66202

OWNER:

CANOPY NO. 1 FLOOR PLAN

PROJECT NUMBER: 2111

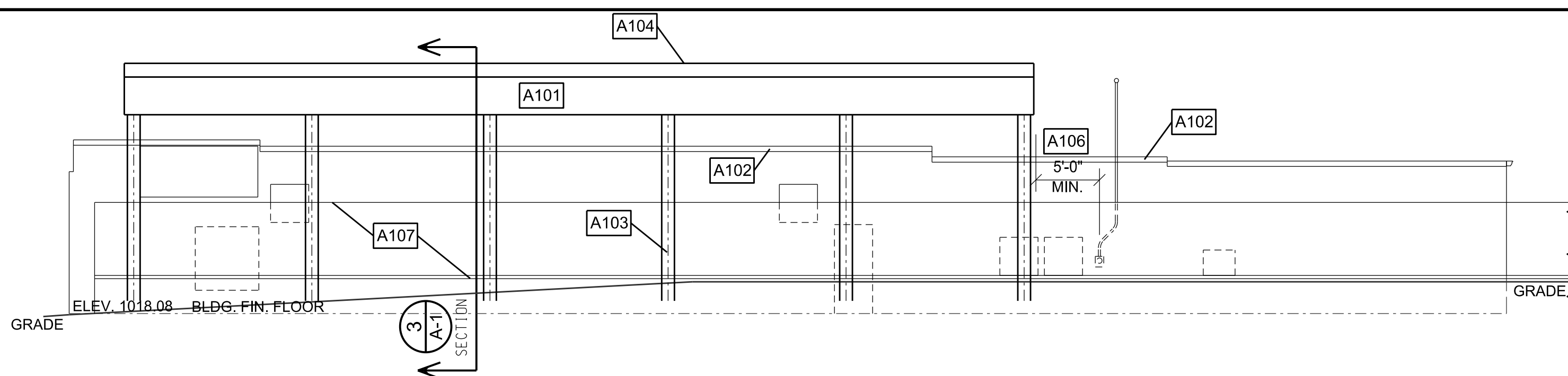
DATE: 09/09/21

DRAWN BY: JKC

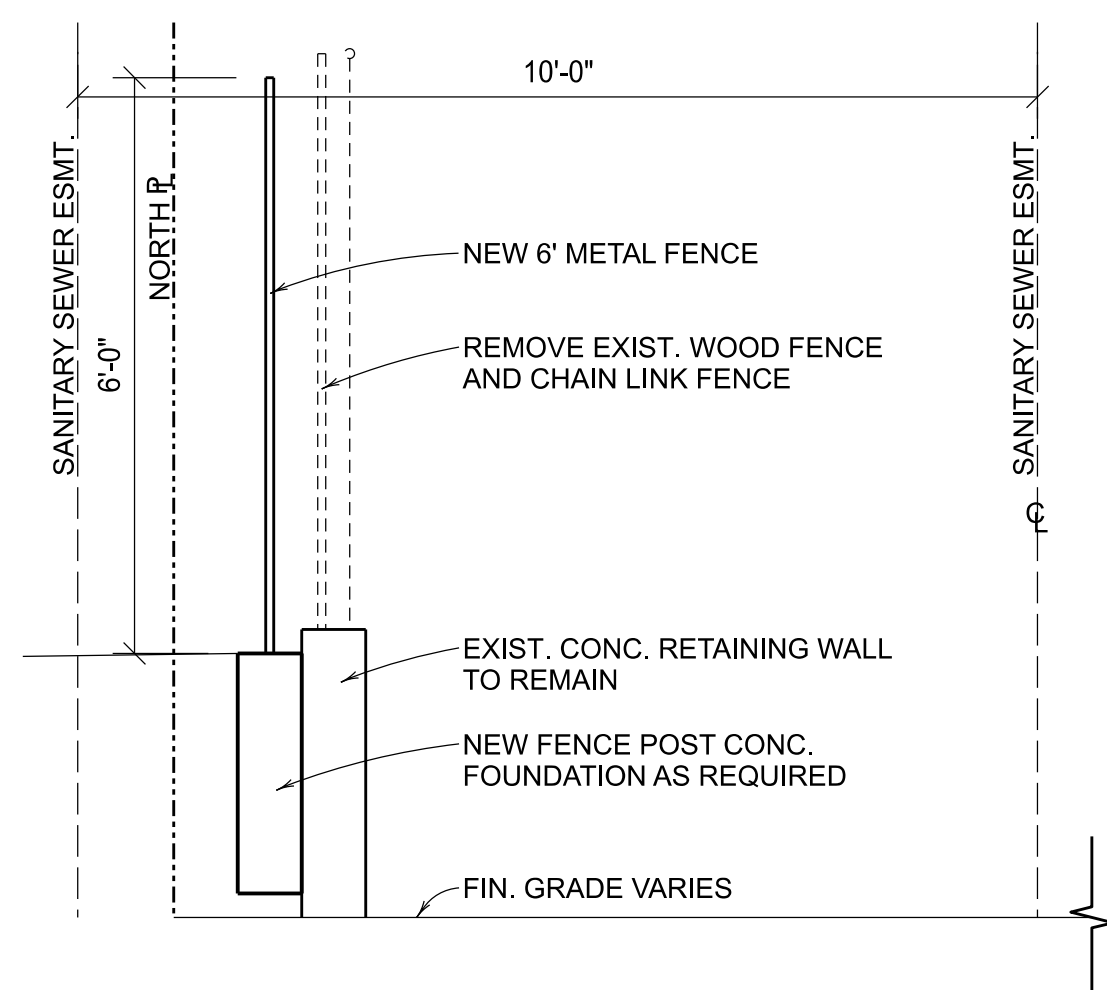
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A - 1

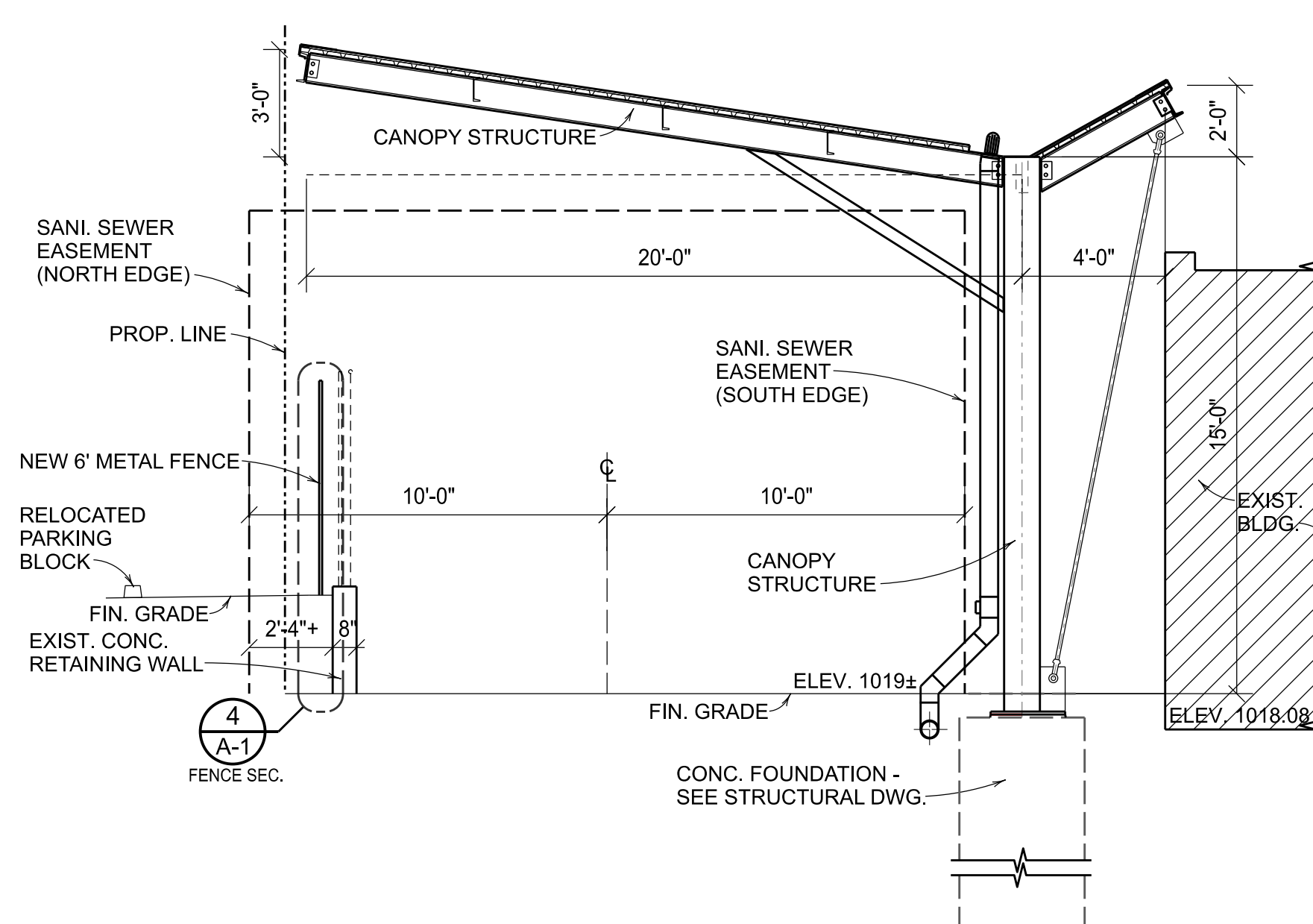
SCALE: AS NOTED



1 NORTH ELEVATION
A-1 SCALE: 1/8" = 1'-0"



4 TYPICAL FENCE SECTION
A-1 SCALE: 1/2" = 1'-0"



3 CANOPY NO. 1 SECTION
A-1 SCALE: 1/4" = 1'-0"

CANOPY NO. 1 NOTES

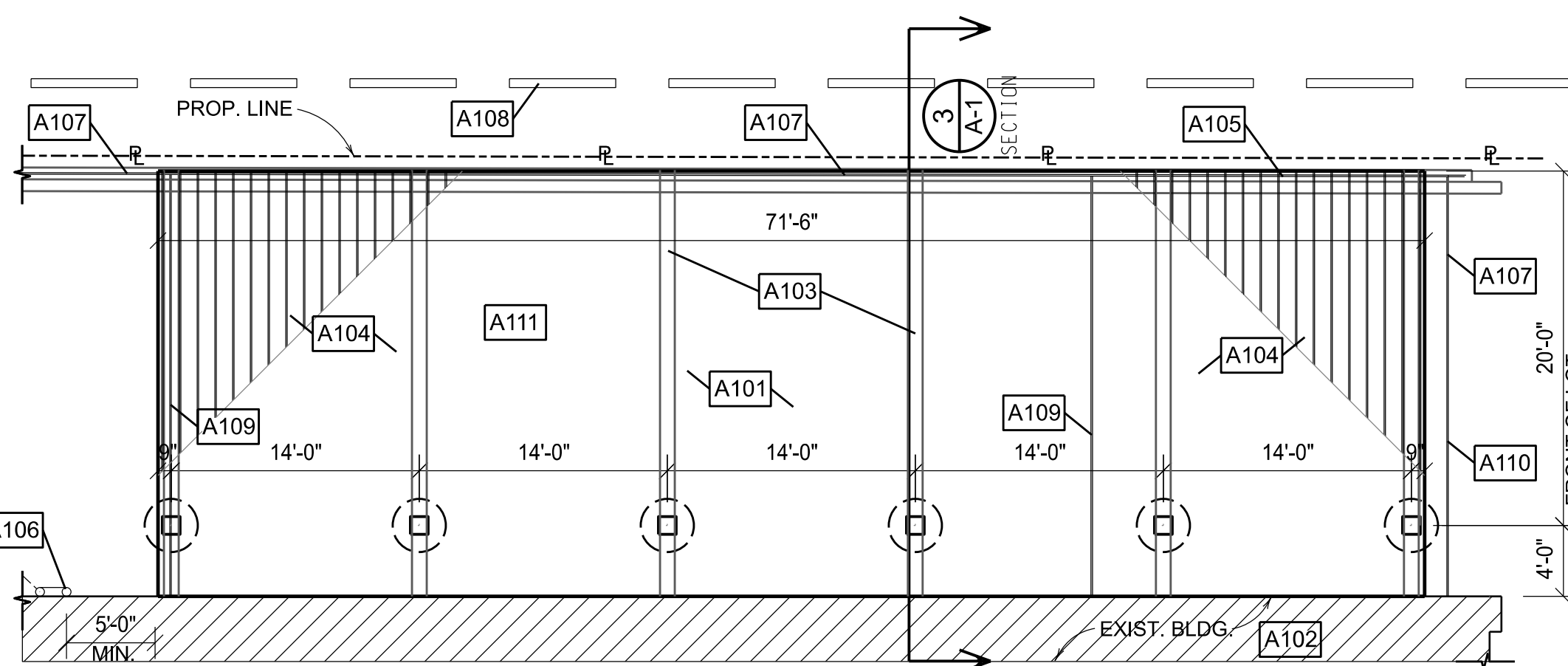
NOTE NO.	COMMENT
A101	NEW CANOPY NO.1.
A102	EXISTING BUILDING.
A103	NEW CANOPY STRUCTURAL MEMBERS.
A104	NEW CANOPY METAL STANDING SEAM ROOFING.
A105	NEW CANOPY 5" X 5" GUTTER OR 6" K STYLE GUTTER.
A106	PROVIDE 5'-0" MIN. CLEARANCE BETWEEN EXISTING POWER MAST AND NEW CANOPY ROOF.
A107	NEW METAL FENCING BEYOND. FENCE HT. 6' OR 8'.
A108	RELOCATE EXISTING TENANT'S PARKING BLOCKS.
A109	REMOVE EXIST. WOOD FENCE AND CHAIN LINK FENCE. PROVIDE NEW 8" BLACK-COATED METAL FENCING, SEE SHEET A-4.
A110	MOUNT ROLLER BAR AT TOP OF FENCE.
A111	REFER TO CIVIL DRAWING STORM DRAINAGE PLAN FOR STORM DRAINAGE ROUTE. CONNECT ROOF DRAIN TO STORM PIPE.

METAL DECK SPECIFICATIONS

METAL DECK MANUFACTURER:
CORDECK CO. OR EQUAL AS MANUFACTURED PER SDI, STEEL DECK INSTITUTE.
1.5" DEPTH, 36" WIDTH, 22 GA., GALVANIZED G80 FINISH, SINGLE SPAN MAX. 5'-6".
ALLOWABLE UNIFORM LOAD, 10 PSF, LIVE LOAD + DEAD LOAD. ASTM 924.
ACCESSORIES TO MATCH IN QUALITY.

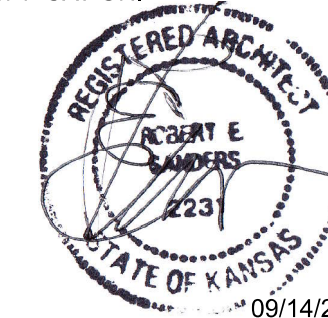
STRUCTURAL STEEL COATING SPECIFICATIONS

POWDER COATING: EXPOSED STEEL STRUCTURE MEMBERS TO BE POWDER COATED PER AAMA604 AND ASTM A924. EXTERIOR PREPARATION TO BE ZINC RICH POWDER PRIMER TO BE APPLIED OR IRON PHOSPHATE, ZINC PRETREATMENT.
APPLY 2 COATS. TOUCH UP OF EXPOSED SURFACES CAN BE APPLIED BY HAND.



3 CANOPY PLAN
A-1 SCALE: 1/8" = 1'-0"

CERTIFICATION:



CONSULTANTS:

APEX ENGINEERS, INC.
1625 Locust
Kansas City, MO 64108
816-421-3222

STORM ENGINEERING GROUP
Christopher Storm
785-766-6661

REVISIONS:

No.	Description	Date

PROJECT:

SITE IMPROVEMENTS FOR
UNLEASHED PET RESCUE
5918 Broadmoor St.
Mission, Kansas 66202

OWNER:

CANOPY NO. 2 FLOOR PLAN

PROJECT NUMBER: 2111

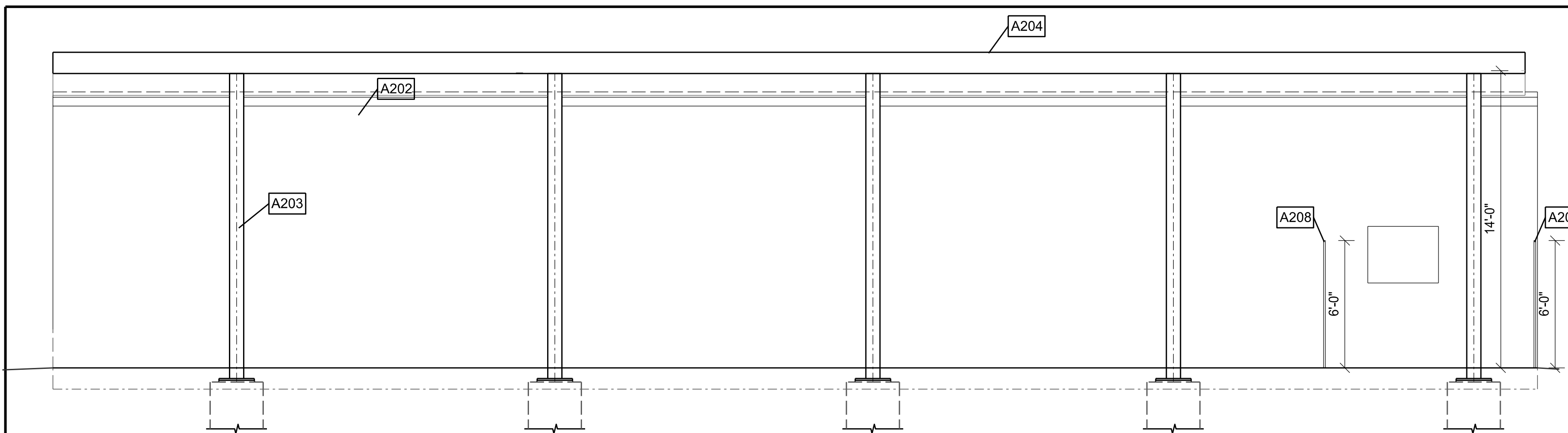
DATE: 09/09/21

DRAWN BY: JKC

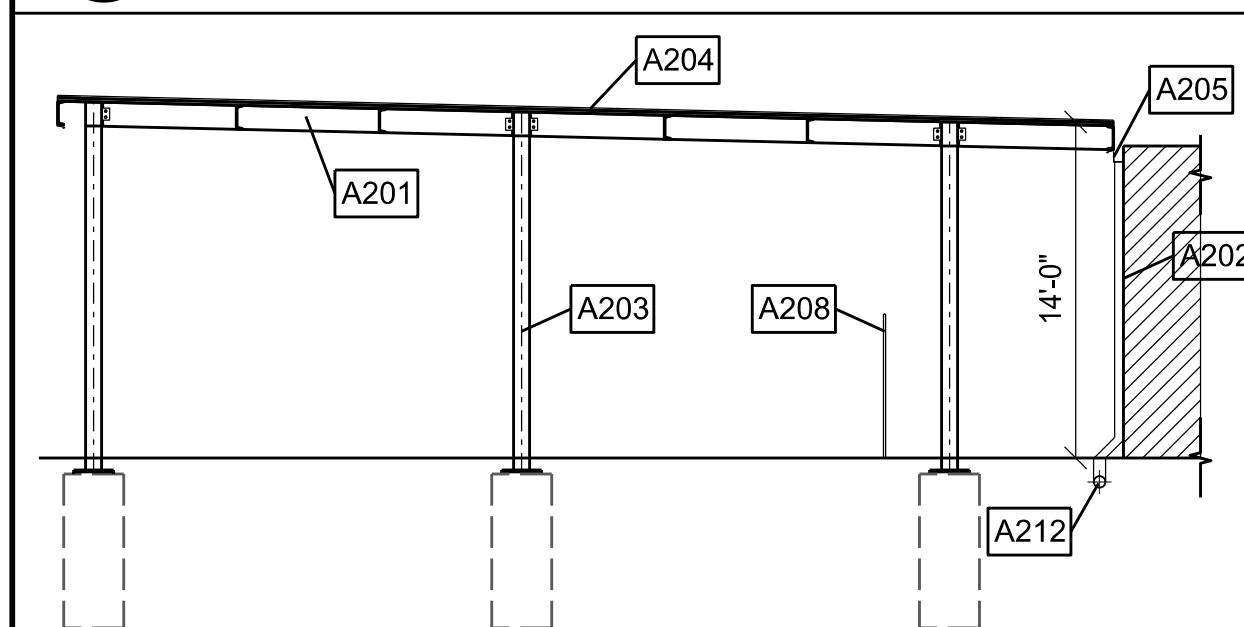
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A - 2

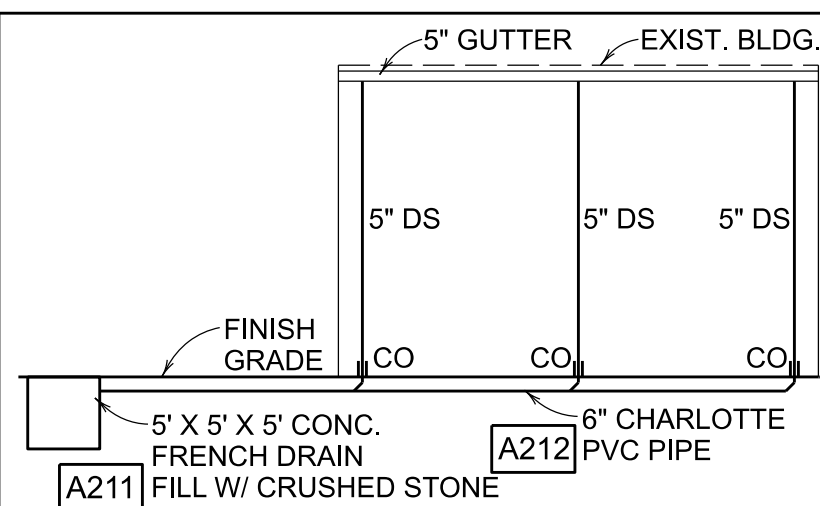
SCALE: AS NOTED



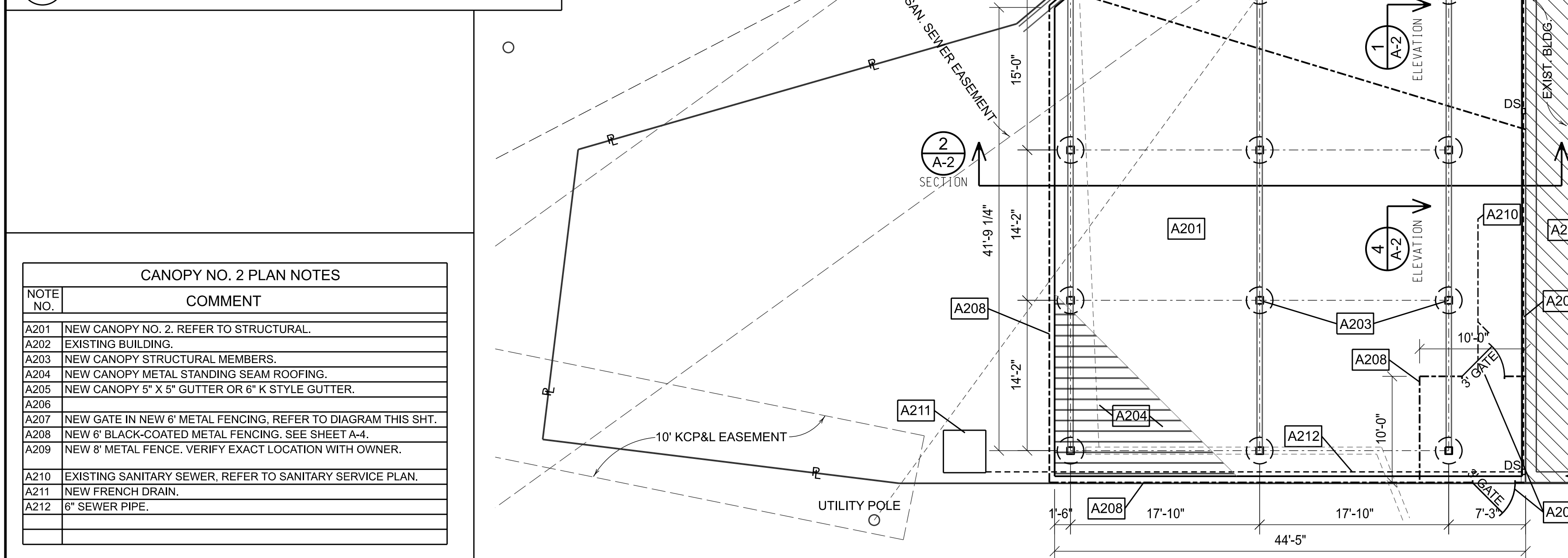
1 WEST ELEVATION
A-2 SCALE: 1/4" = 1'-0"



2 CANOPY NO. 2 SECTION
A-2 SCALE: 1/8" = 1'-0"



4 GUTTER/DOWNSPOUT DIAGRAM
A-2 SCALE: NONE



CANOPY NO. 2 PLAN NOTES	
NOTE NO.	COMMENT
A201	NEW CANOPY NO. 2. REFER TO STRUCTURAL.
A202	EXISTING BUILDING.
A203	NEW CANOPY STRUCTURAL MEMBERS.
A204	NEW CANOPY METAL STANDING SEAM ROOFING.
A205	NEW CANOPY 5" X 5" GUTTER OR 6" K STYLE GUTTER.
A206	
A207	NEW GATE IN NEW 6" METAL FENCING, REFER TO DIAGRAM THIS SHT.
A208	NEW 6" BLACK-COATED METAL FENCING. SEE SHEET A-4.
A209	NEW 8" METAL FENCE. VERIFY EXACT LOCATION WITH OWNER.
A210	EXISTING SANITARY SEWER, REFER TO SANITARY SERVICE PLAN.
A211	NEW FRENCH DRAIN.
A212	6" SEWER PIPE.

3 CANOPY NO. 2 PLAN
A-2 SCALE: 1/8" = 1'-0"



PERMIT

2021-11826-
C-TF

Permit Number



Johnson County Wastewater, 11811 S. Sunset Dr., Suite 2500, Olathe, KS 66061
Telephone: 913-715-8520, Email: PermitGroup@jocogov.org, Website: www.jocogov.org/dept/wastewater/home

Project Name Unleashed Pet Rescue and Adoption Yard Improvements		
Address of Structure 5918 BROADMOOR ST Mission KS 66202	Meter Size	Date Issued 10/14/2021
Dwelling Type Veterinary Clinic	Sewer Sub-District MTM1	LSD & SEC /
Plumber Quality Plumbing 1731 Howell St., North Kansas City, KS 64116 Sean Moorhead	Mobile # (816) 589-6455	Office # (913) 894-4994
		E-mail sean@qualityplumbing.com
Deeded Property Owner Unleashed Pet Rescue and Adoption, Inc. 5918 Broadmoor St., Mission, KS 66202 Danielle Reno	Mobile # (913) 426-1351	Office # (913) 831-7387
		E-mail danimreno@gmail.com
Fee		Amount
Commercial Plan Administration		\$440.00
Wastewater Permit		\$220.00
Total		\$660.00

Legal Description
TEX L. NEW ADDITION LT 4 EX BG NE CR LT 4 S 69' W 5.21' NW 11.02' N 61.21' E 13' TO POB IN ST
Connection Description
PERMANENT CAP-OFF 122 FT TO DS MH MTM1 (17)055 145 FT BETWEEN REMOVE EXISTING GREASE INTERCEPTOR

To request an inspection, access

www.MyGovernmentOnline.org.

For assistance accessing this site, call 866-957-3764.

For other inspection questions, contact JCW at 913-715-8520.

Permit #2021-11826-C-TF

PERMIT CONDITIONS FOR SEWER INSTALLATION OR MODIFIED USE

1. Application is hereby made to Johnson County, Kansas (JCW), by the Owner or the Owners authorized agent for a Building Sewer Connection permit. This application is non-transferable except by express written permission of JCW. Use by an unauthorized company or individual constitutes fraud. The Owner agrees to conform at all times to and fully comply with all rules, regulations, specifications, details, installation procedures of JCW and agrees to inform the Chief Engineer when the following items of work are ready for inspection, 1) Building Sewer and/or low pressure sewer appurtenances (pump wet-well, valve boxes, cleanouts flushing assembly boxes) are installed and sealed but not backfilled, 2) All at grade structures such as, but not limited to, manholes, cleanouts, and/or low pressure sewer appurtenances after final grading, seeding, or sodding to check for damage or noncompliance with JCW specifications. Owner agrees to pay applicable JCW inspection fees for each partial and final inspection by JCW inspectors and agrees to hold harmless, make repairs, and indemnify JCW for any and all damage to JCW facilities and appurtenances thereto within 30 days of receipt of notice of such damage from JCW.
2. Owner is advised to inspect JCW facilities located on or adjacent to Owners property to check for preexisting damage and notify JCW of any damage prior to the start of construction activities. After construction activities start, the Owner agrees to hold harmless, make repairs, and indemnify JCW for any and all damage to JCW facilities and appurtenances thereto within 30 days of receipt of notice of such damage from JCW.
3. Pursuant to Kansas Administrative Regulation 28-16-55, Johnson County Resolution No. 120-02 (hereinafter referred to as "Johnson County Code of Regulations for Sanitary Sewer Use, 2003 Edition"), and Johnson County Resolution No. WD 10-031, and future resolutions amending or replacing the same, no roof, areaway, garage, or foundation drain may connect to or permit surface runoff or ground water to enter the JCW sanitary sewer system.
4. Pursuant to the Johnson County Code of Regulations for Sanitary Sewer Use, 2003 Edition, and any future resolution amending the same, this permit will expire one year from date of issuance. If connection is not completed by the Owner and approved by JCW on or before the expiration date, this permit shall become void and invalid unless the Owner applies for and obtains an extension prior to the permit expiration date and pays all applicable permit renewal or extension fees. The Owner shall pay all applicable connection fees or charges in effect on the date physical connection to the sanitary sewer system is approved.
5. Pursuant to Resolution No. WD 13-021, Building Sewer Connection fees are assessed based on the size or equivalent size of the water meter required to serve the building or the estimated amount of wastewater discharged or dischargeable to the sanitary sewer system. If the existing water meter size is changed by the water utility or due to building expansion, modification or tenant finish, JCW may require the submission of plans, specifications and other data to JCW for review. Based upon such review, JCW may require submission of an application for Modified Use Permit and may assess additional connection fees. Connection and/or modified usage fees and charges shall become due and payable prior to commencement of construction of a connection or modification to a connection or modification of usage and if unpaid shall become a lien against the property connected to the sanitary sewerage system pursuant to the Johnson County Code of Regulations for Sanitary Sewer Use, 2003 Edition.
6. If this application for Building Sewer Connection Permit is completed by an Agent on behalf of the Owner of the property described herein, the Agent hereby certifies and agrees that it is duly authorized to apply for and obtain a Building Sewer Connection Permit from JCW for the property. The Agent further represents that it is authorized to bind the Owner to any obligations and /or commitments set forth in this Building Sewer Connection Permit or Application and any JCW codes or regulations related thereto and has provided a copy of this Building Sewer Connection Permit and Application to the Owner.
7. Pursuant to Article 4, Part C, Section 2 of the Johnson County Code of Regulations for Sanitary Sewer Use, 2003 Edition, and amendments thereto, the discharge of certain substances to the sanitary sewer system are prohibited by law. A list of the prohibited substances can be viewed in the Code at the following link:
<http://www.jocogov.org/sites/default/files/documents/JCW/SUC08.pdf>.

Contractors Must Comply With All Statements Listed Below and Additional Conditions Where Noted

- No Food Prep - No food preparation shall be performed on the premises without prior approval of the Chief Engineer. The owner and all occupants shall be required to comply with Resolution No. 120-02 and any future resolution amending or replacing the same. Said compliance may include the installation of a grease interceptor in accordance with JCW standards outside the building.
- Service line and/or appurtenances shall NOT be installed until the ground rough plumbing has been installed and the interior plumbing has been stubbed through or under the footing.
- Attached Sketch(es)
- Match Layout - Installation shall match the attached layout as released by JCW and contractor shall have said layout on-site at all times including at inspection. IN EVENT A REVISED SITE PLAN IS NECESSARY, 5 CALENDAR DAYS (MIN) AND A \$100 PROCESSING FEE IS REQUIRED. IF PROPOSED REVISIONS ARE NOT APPROVED, THE ORIGINAL APPROVED SITE PLAN WILL NEED TO BE FOLLOWED.
- The builder shall inspect any manhole on or within 7.5 ft of the lot before starting construction activities on the lot and no later than 7 days past permit issuance. If damaged or buried, please request the Pre-Construction Peripheral Damage Inspection online through the Customer Portal to schedule a site visit with the JCW inspector.
- SEE JOHNSON COUNTY WASTEWATER SERVICE LINE DESIGN AND CONSTRUCTION STANDARDS FOR SPECIFICATIONS AND INSTALLATION REQUIREMENTS AT <http://www.jocogov.org/sites/default/files/documents/JCW/Service%20Line%20Design%20and%20Construction%20Stds%20FINAL%203-29-17.pdf> OR CONTACT THE JCW PERMIT GROUP AT 913-715-8520.
- Grease Interceptor Removal
 - A. The interceptor inlet shall be capped at the building foundation and capped on the outlet at the connection to the service line. JCW shall inspect the cap-offs.
 - B. All sampling ports and/or cleanouts for interceptor piping shall be removed below grade. JCW shall confirm this removal.
 - C. Completely remove the grease interceptor. JCW shall inspect the removal prior to backfill.
 - D. Backfill the interceptor excavation with compacted clay or gravel backfill.

Inspection Sequence

Priority 7 - Service Line Inspection
Priority 7 - Grease Interceptor Removal Inspection
Priority 7 - Permanent Cap Off Inspection
Priority 8 - Peripheral Inspection - Post
Turf/Landscape/Hardscape Completion

Inspections with the same priority number may be scheduled simultaneously. All inspections within one priority number must pass before moving to the next priority number.

At Grade Structure Description(s)

Manhole - MTM1 (17)056 N of building

2021-11826-C-TF

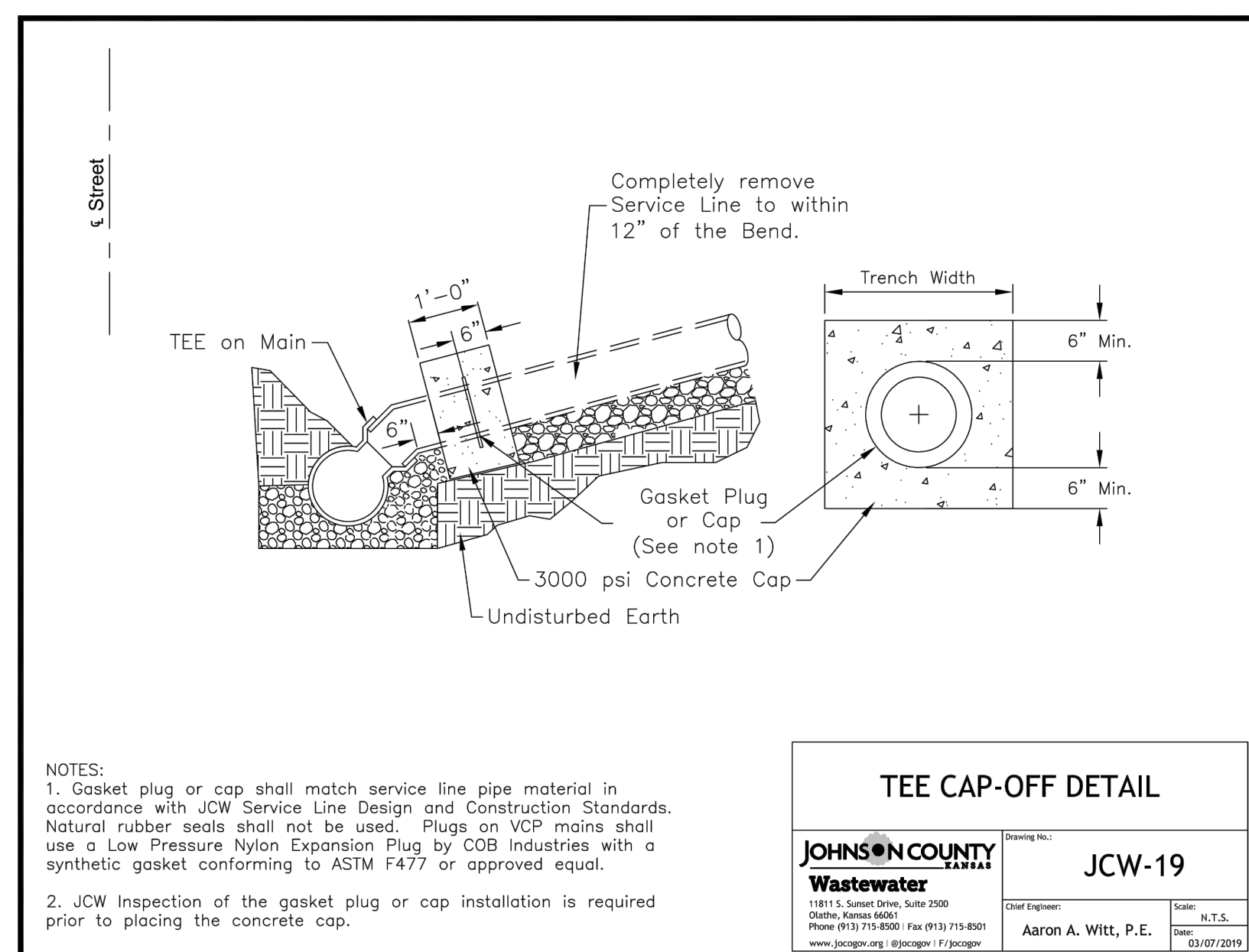
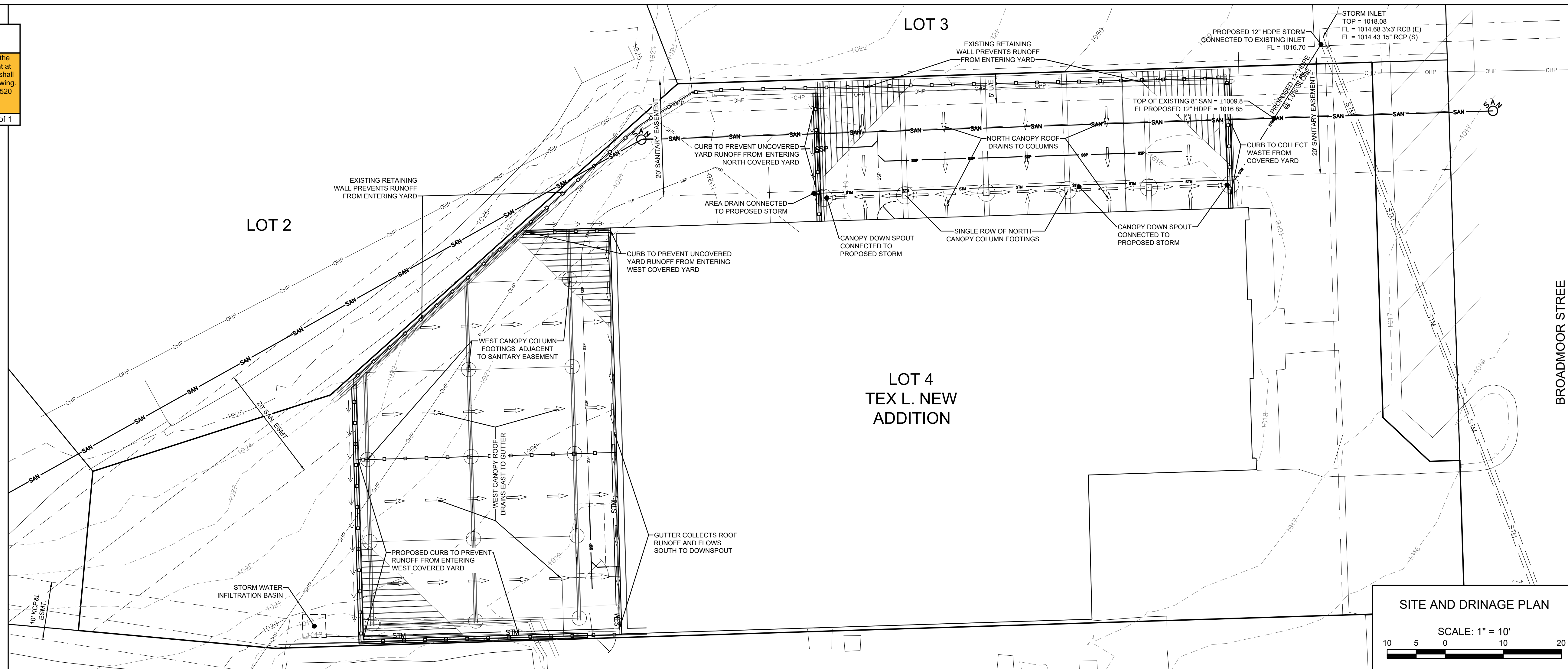
JOHNSON COUNTY
Wastewater

11811 S. Sunset Drive, Suite 2500
Olathe, Kansas 66061
Phone (913) 715-8520 | Fax (913) 715-8501
www.jcogov.org | @jocogov | F30000

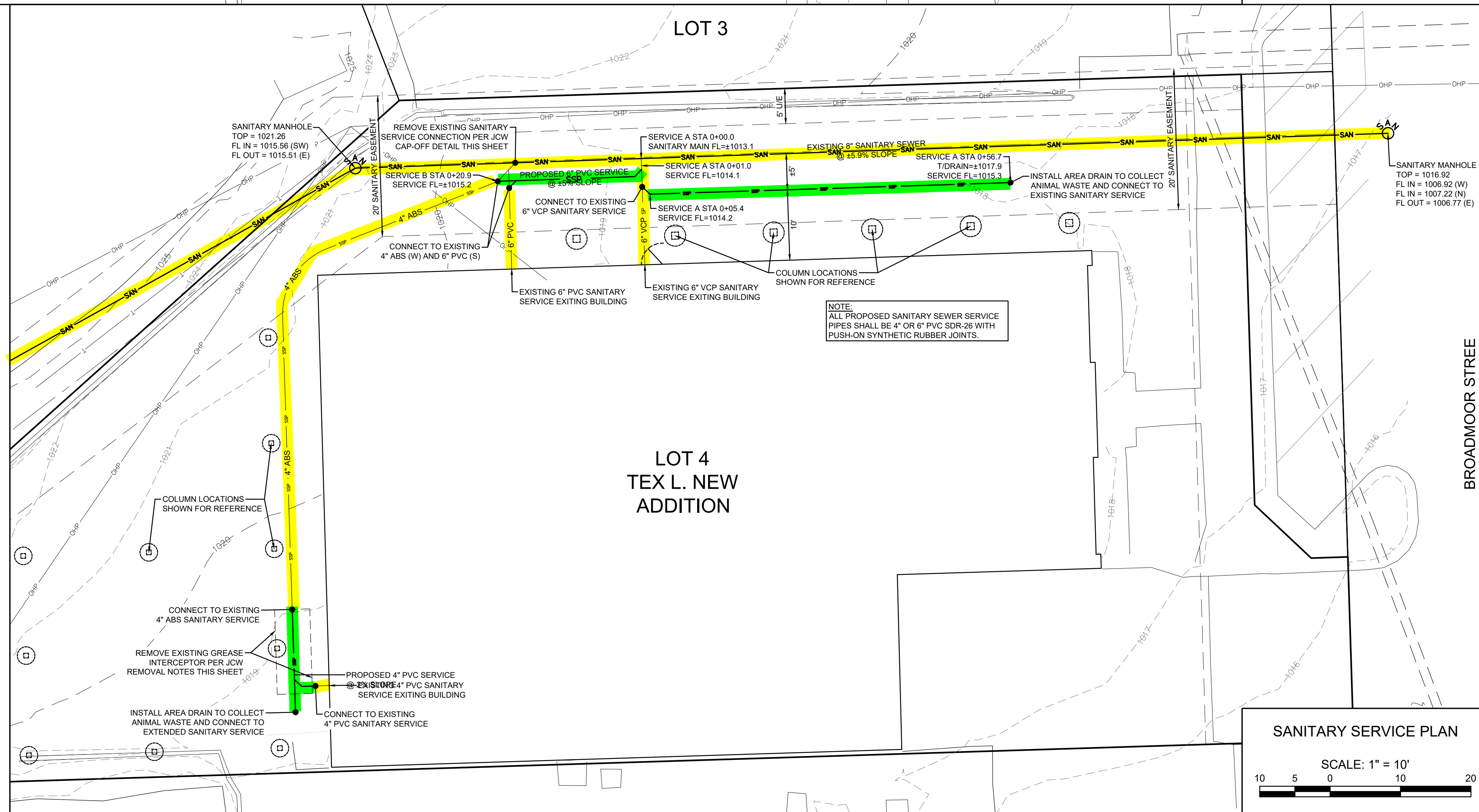
This document shall remain with the sewer permit and shall be present at the time of inspection. Plumbing shall be installed as shown on this drawing. For permit questions: (913) 715-8520

PID: KP60100000 0004

10/14/2021 ACSK 1 of 1

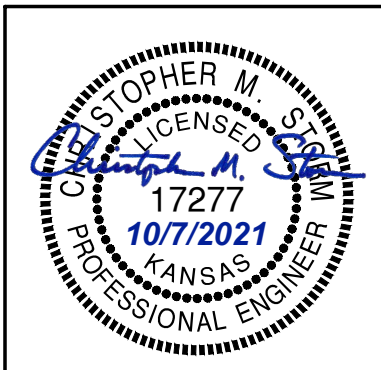


- GREASE INTERCEPTOR REMOVAL NOTES:**
- A. The interceptor inlet shall be capped at the building foundation and capped on the outlet at the connection to the service line. JCW shall inspect the cap-offs.
 - B. All sampling ports and/or cleanouts for interceptor piping shall be removed below grade. JCW shall confirm this removal.
 - C. Completely remove the grease interceptor. JCW shall inspect the removal prior to backfill.
 - D. Backfill the interceptor excavation with compacted clay or gravel backfill.



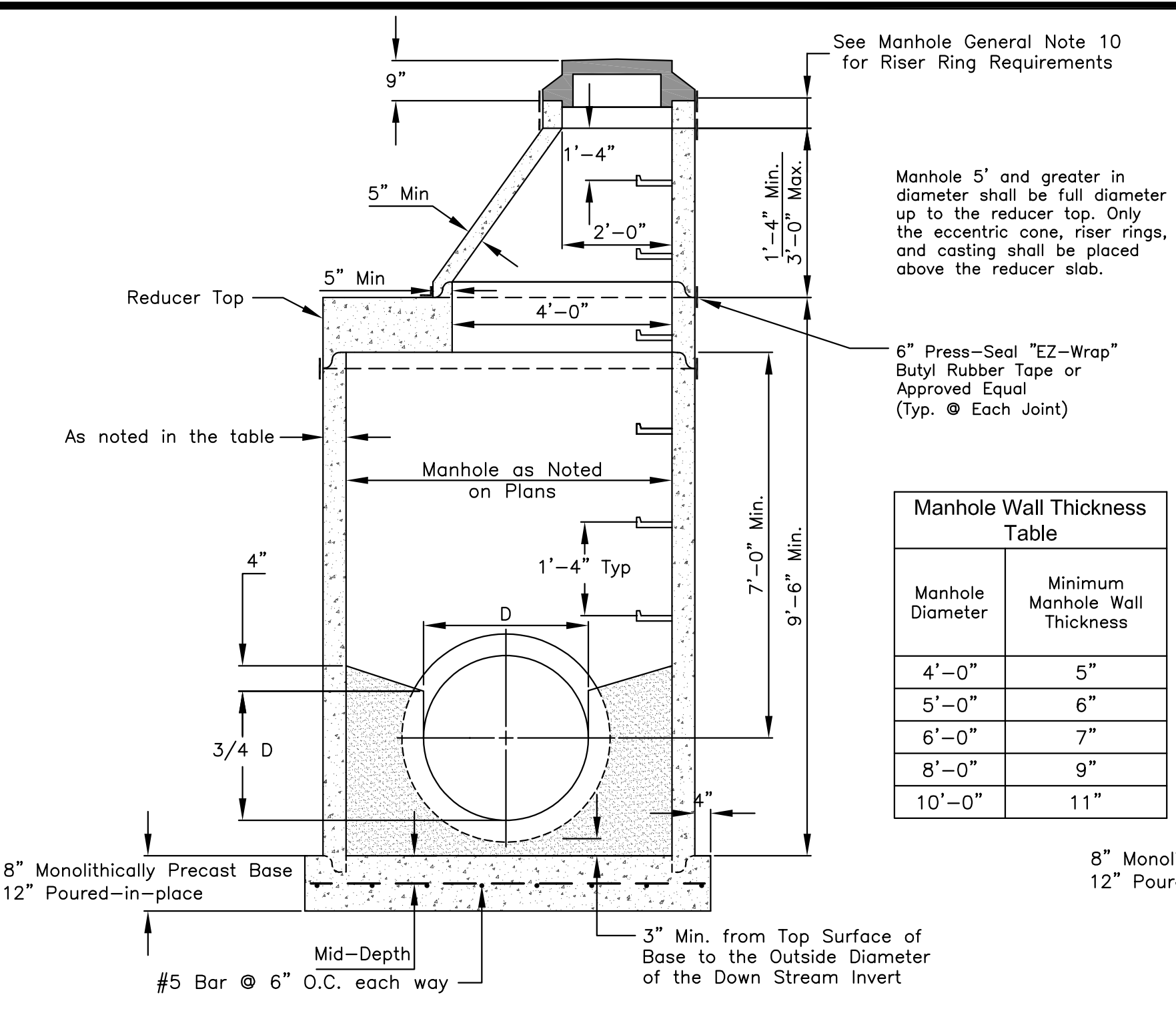
UNLEASHED PET RESCUE AND ADOPTION, INC.
5918 BROADMOOR ST, MISSION, KANSAS - JCW PERMIT
SITE AND DRAINAGE PLAN & SANITARY SERVICE PLAN

REV	DATE	DESCRIPTION



DATE: 7/9/2021
PROJECT NO.: 21128
VERSION: B

SHEET NUMBER:
C-1

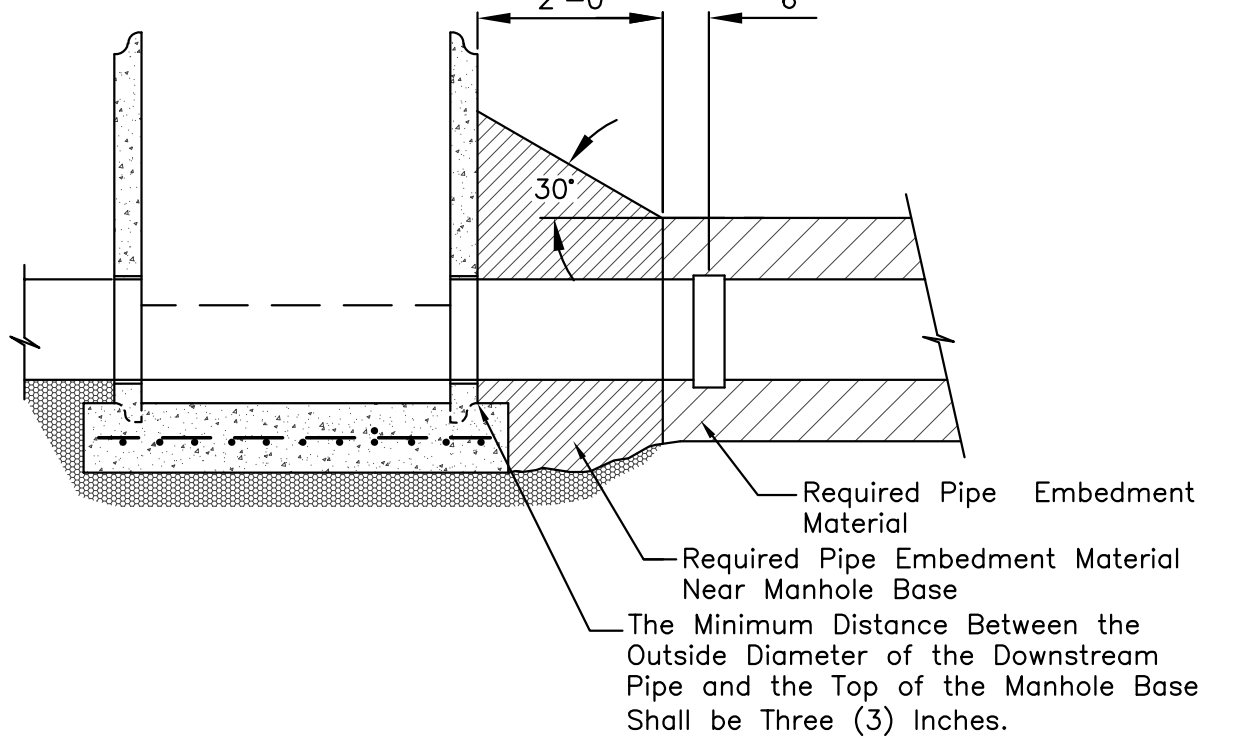


Manhole Diameter	Minimum Manhole Wall Thickness
4'-0"	5"
5'-0"	6"
6'-0"	7"
8'-0"	9"
10'-0"	11"

5' AND GREATER STANDARD PRECAST MANHOLE (ECCENTRIC CONE)
No Scale

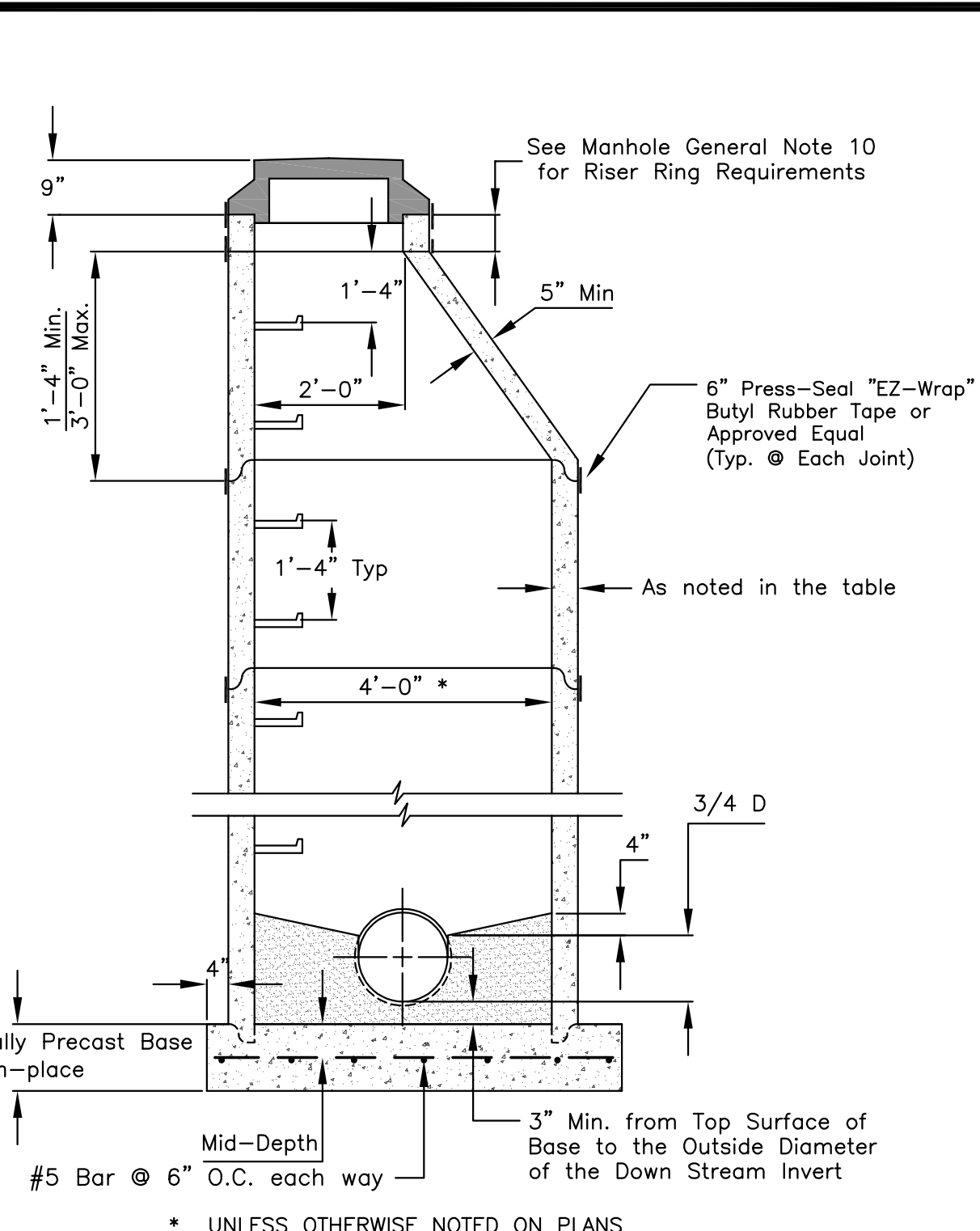
MANHOLE GENERAL NOTES:

- All manhole rings shall be set in a minimum of two (2) rows of 3/4 to 1 inch pre-formed butyl joint sealer.
- All manhole rings to be placed in pavement or in areas to be subsequently paved shall have "Machined Horizontal Bearing Surfaces" and shall comply with Class #25 as established in ASTM A-48.
- The inside diameter of the manhole shall be 4'-0" for pipe diameters from 8" thru 24" and shall be 5'-0" for pipe diameters from 27" thru 36". In addition, the inside diameter (ID) of manholes up to 20 feet deep shall be 4'-0". ID shall be 5'-0" for depths up to 25 feet and ID shall be 6'-0" for depths exceeding 25 feet unless otherwise noted on the plans.
- All manhole bases (pre-cast or poured-in-place) shall have No. 5 reinforcing bars placed on 6" centers both ways.
- All standard manhole rings and covers to be Deeter 1315-jcs, Neenah NF-15360009/B (frame) and NF-15360010/B (cover), or approved equal. All manhole rings and covers shown in plans to be "bolt-down" to be Clay & Bailey Manufacturing Co. No. 20140R, Neenah R-1915-F2 or approved equal. An extra payment for furnishing "bolt-down" ring and cover as shown in plans will not be made, but shall be considered as subsidiary to the item, "Standard Manhole".
- Standard manhole steps to be steel core, plastic coated steps (M.A. Ind., Inc. No. PS1-PF, PS2-PF, or approved equal).
- Maximum grade adjustment allowable is 8". Minimum allowable thickness for precast concrete grade adjustment ring is 4".
- Reinforcement in all precast sections shall equal or exceed A.S.T.M. C-478 specifications.
- Butyl material to be used at all precast sections joints. O-Rings may be used for joints below the cone section, but the cone section itself shall not have O-ring joints.
- Riser Rings:
 - Manholes in Pavement: The thickness of the recycled rubber riser rings shall not be less than one (1) inch nor greater than four (4) inches. If the required thickness of riser rings exceeds 4 inches, a 4-inch or 6-inch precast concrete riser ring may be installed between the rubber riser ring and the cone. Riser rings may be used up to a maximum of 12 inches. The minimum number of riser rings required to achieve the necessary adjustment shall be used. The rubber riser rings shall be tapered to match the slope of the existing or proposed pavement at the manhole. The joints between the cone, rubber riser rings, and casting shall be sealed with the manufacturer-supplied sealant.
 - Manholes Not in Pavement: All manholes shall be provided with riser ring(s) underneath the casting as shown on Drawings. A minimum of one (1) 4-inch riser ring shall be installed on top of the cone section. If a greater depth of adjustment rings is necessary, a combination of 4-inch and 6-inch riser rings may be used up to a maximum of 12 inches of riser rings. The minimum number of riser rings required to achieve the necessary adjustment shall be used. If precast concrete riser rings are used, the joints between the cone, riser rings, and casting shall be sealed with a double bead of preformed butyl rubber sealant. If recycled rubber riser rings are used, the joints between the cone, rubber riser rings, and casting shall be sealed with the manufacturer-supplied sealant.
 - Brick and mortar adjustments will not be allowed.

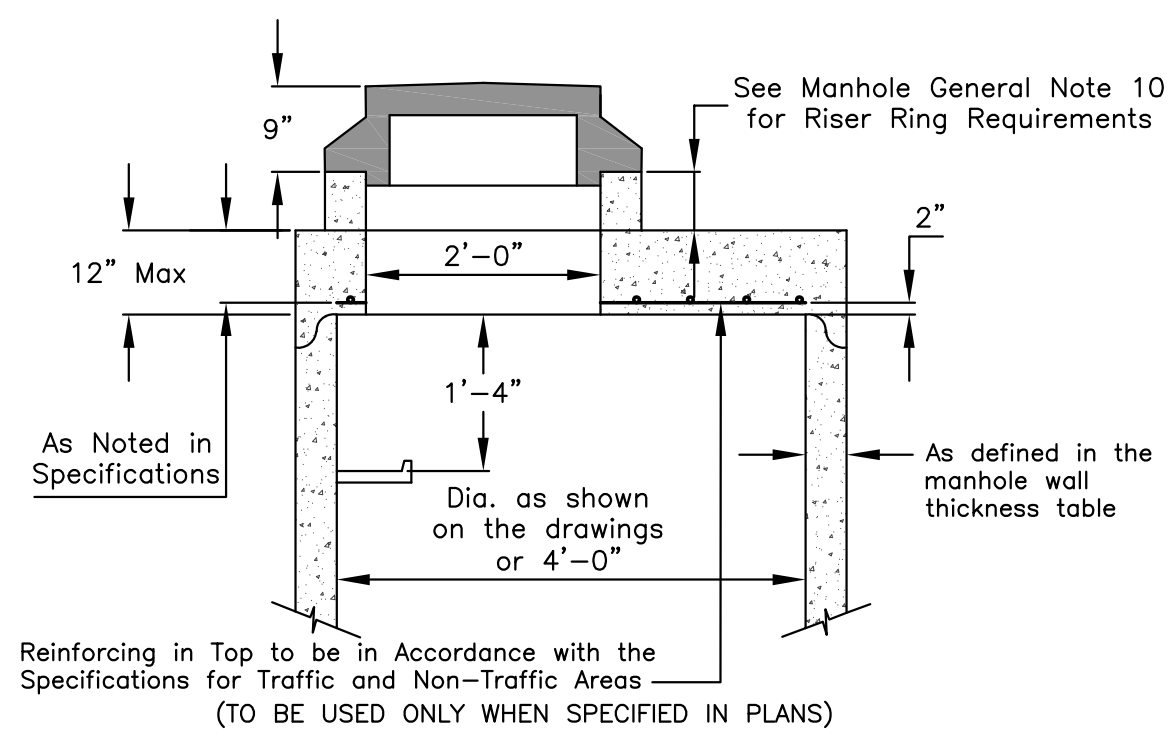


- Notes:**
- First joint of RCP or VCP pipe shall be embedded in concrete to within 6" of the first joint.
 - If flexible or semi-flexible pipe is used, flexible wall connector must be used.
 - If a flexible wall connection is used in conjunction with PVC or Ductile Iron pipe, a standard flexible embedment shall be used.
 - Flexible wall connections shall be press A-LOK X-CEL, Z-LOK, Press-Seal (PSX Boot-Type Gasket) or approved equal.

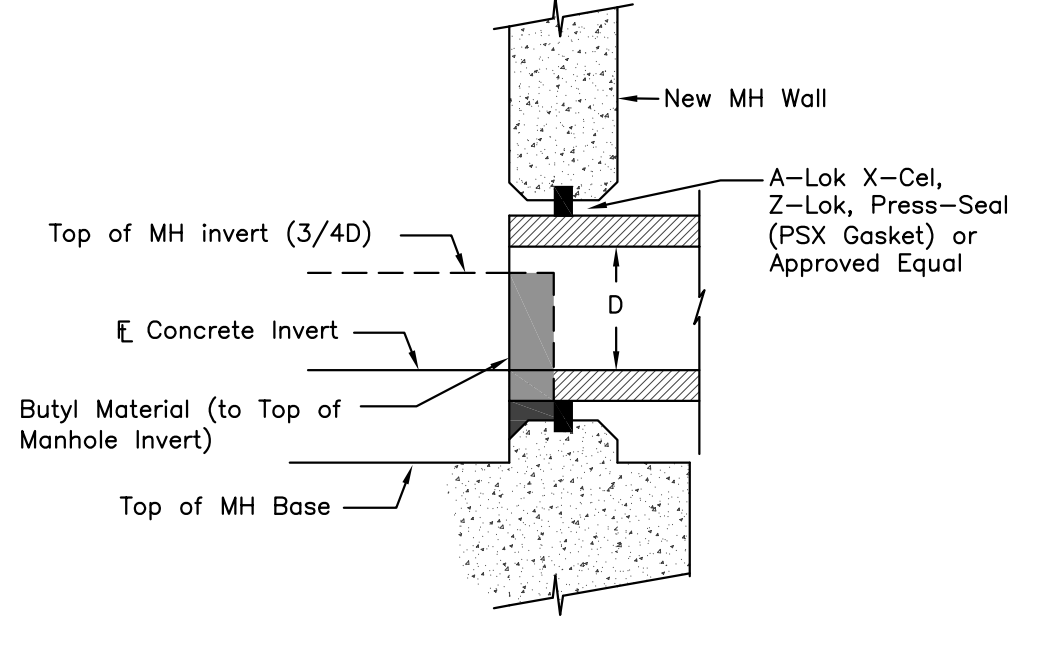
MANHOLE BASE SECTION
No Scale



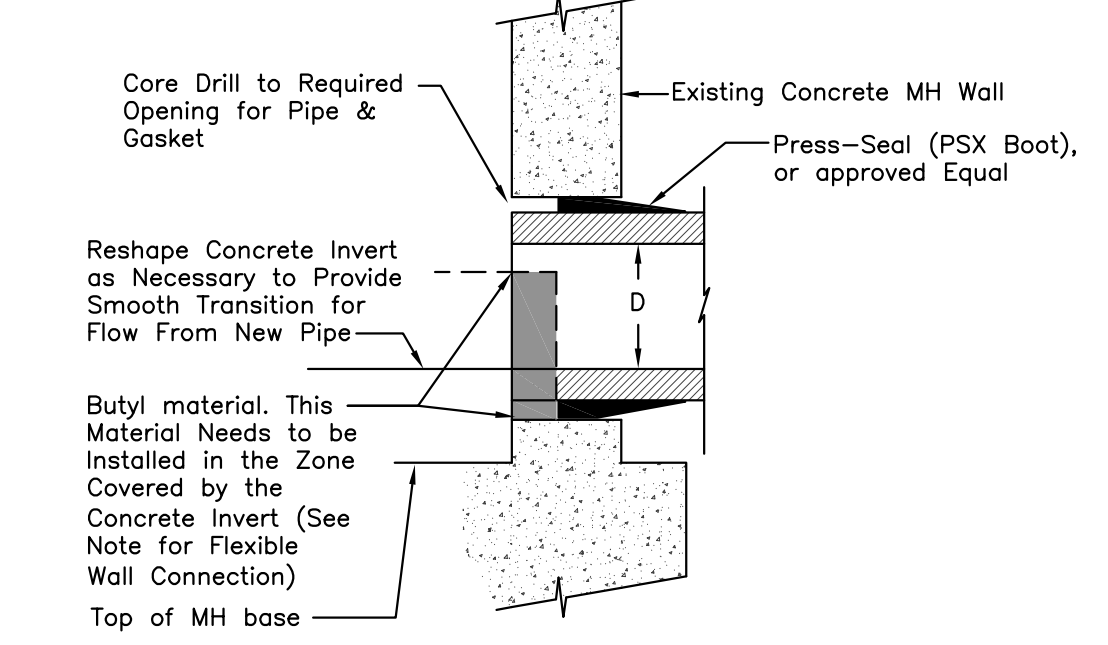
4' DIA. STANDARD PRECAST MANHOLE (ECCENTRIC CONE)
No Scale



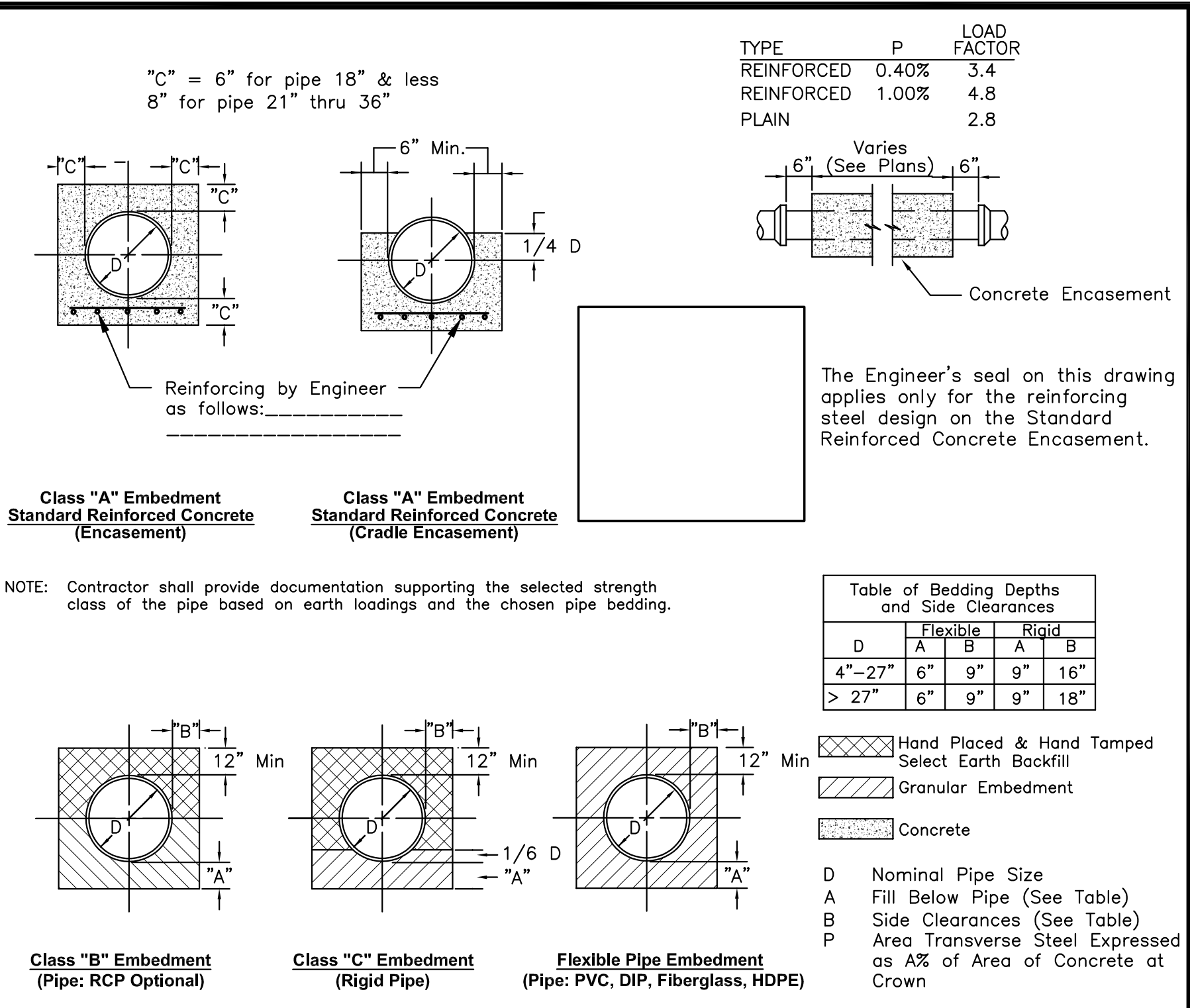
STANDARD PRECAST MANHOLE (SHALLOW TYPE)
No Scale



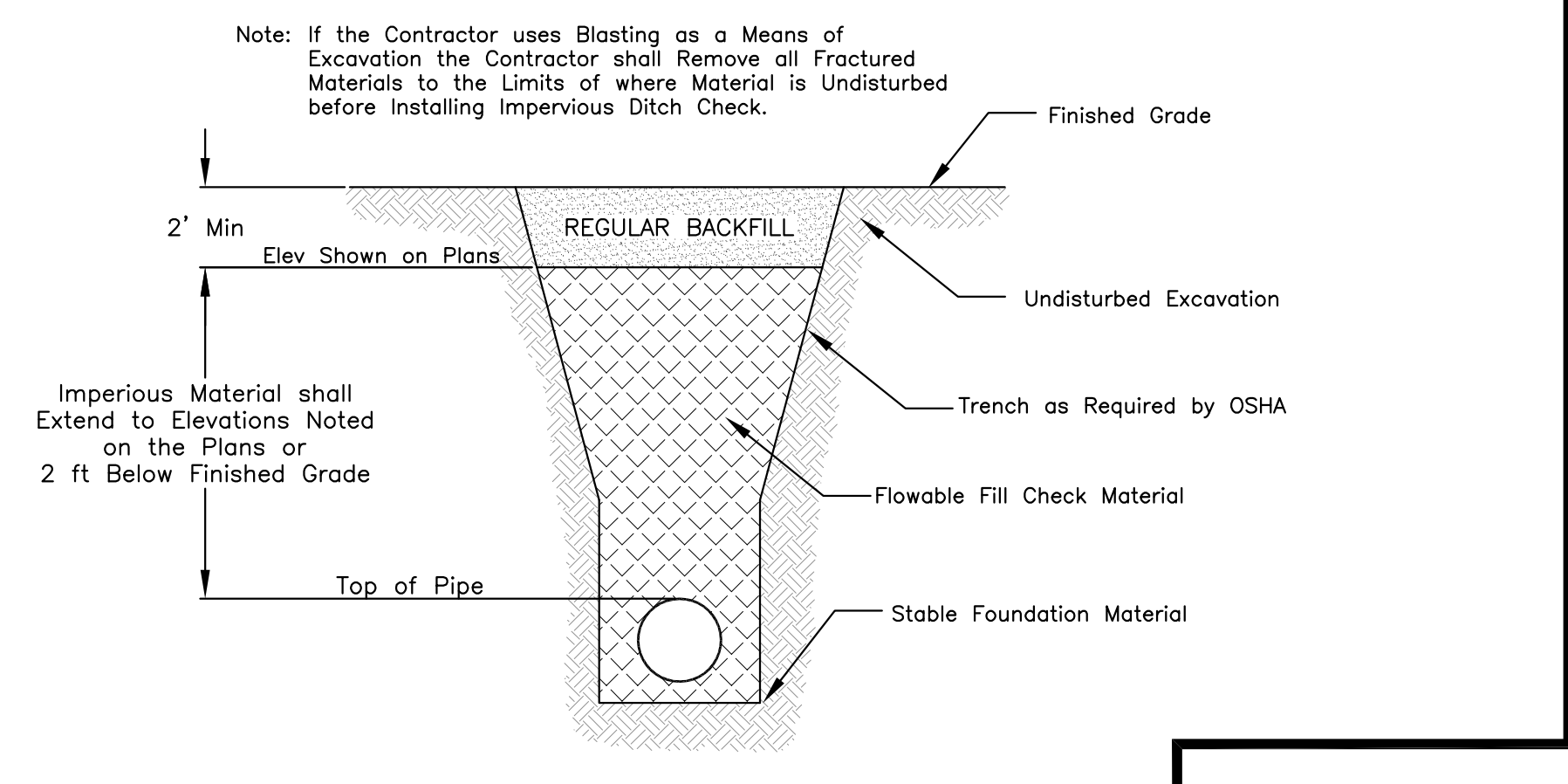
FLEXIBLE WALL CONNECTION DETAIL
No Scale



EXISTING WALL CONNECTION DETAIL
No Scale

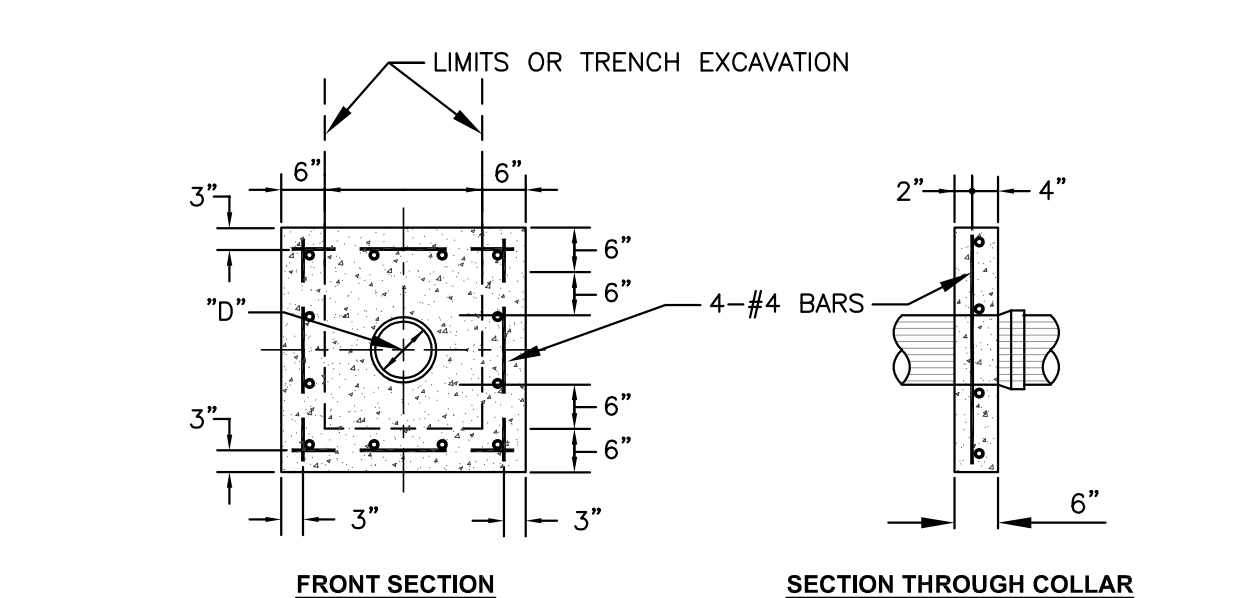


STANDARD EMBEDMENTS
No Scale



- Notes:**
- Impervious ditch checks shall be placed where shown on the plans. Length shall be a minimum of 5 L.F.. Flowable fill shall be used and consist of a Portland cement grout having a minimum 28 day comprehensive strength of five hundred pounds per square inch (500 psi).
 - Regular backfill (above ditch check) shall be Top Soil.
 - Top of impervious material shall be a minimum of 2'-0" below finished grade.

IMPERVIOUS DITCH CHECK DETAIL
No Scale



CONCRETE ANCHOR DETAIL
No Scale

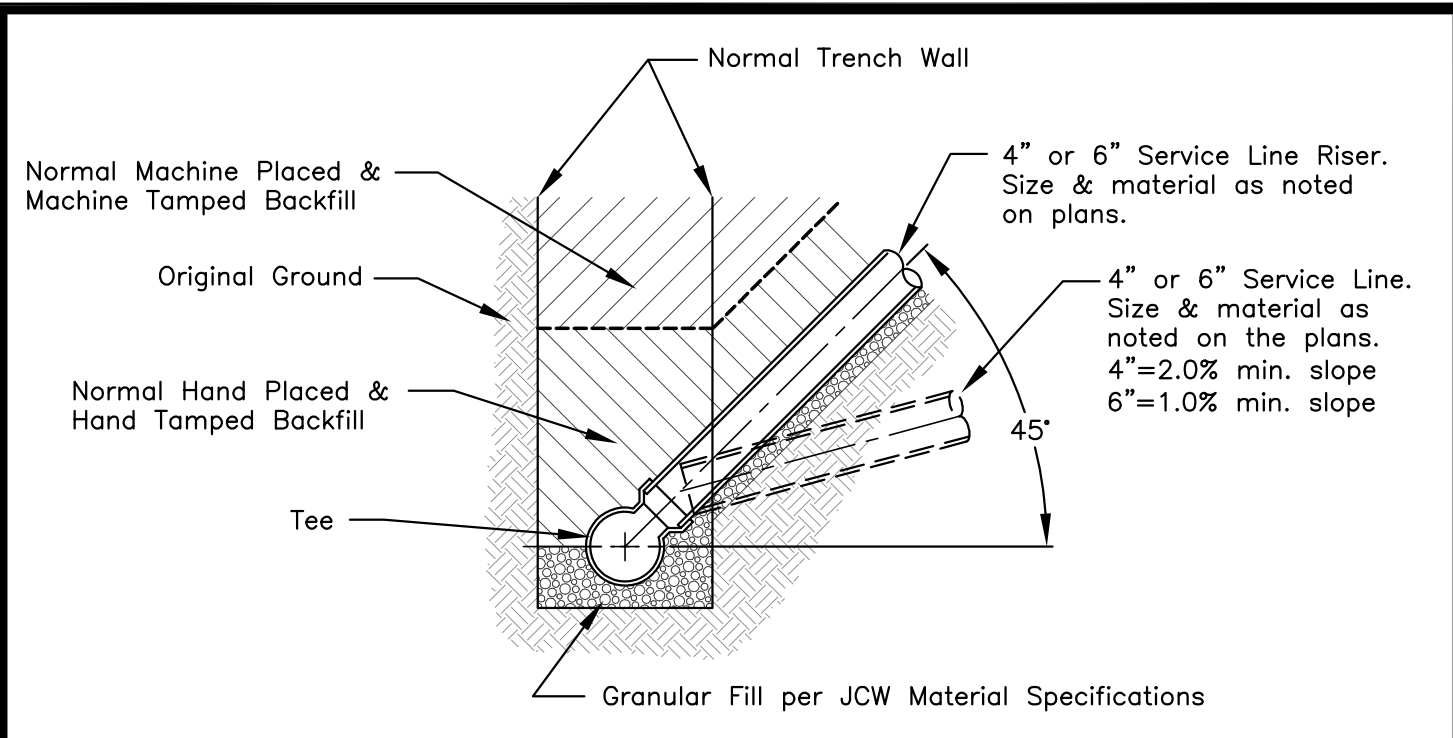
NOTE: See Section 2536 for Concrete Anchor Placement Spacing Requirements.

TYPE	P	LOAD FACTOR
REINFORCED	0.40%	3.4
REINFORCED	1.00%	4.8
PLAIN		2.8

D	Flexible		Rigid	
	A	B	A	B
4"-27"	6"	9"	9"	16"
> 27"	6"	9"	9"	18"

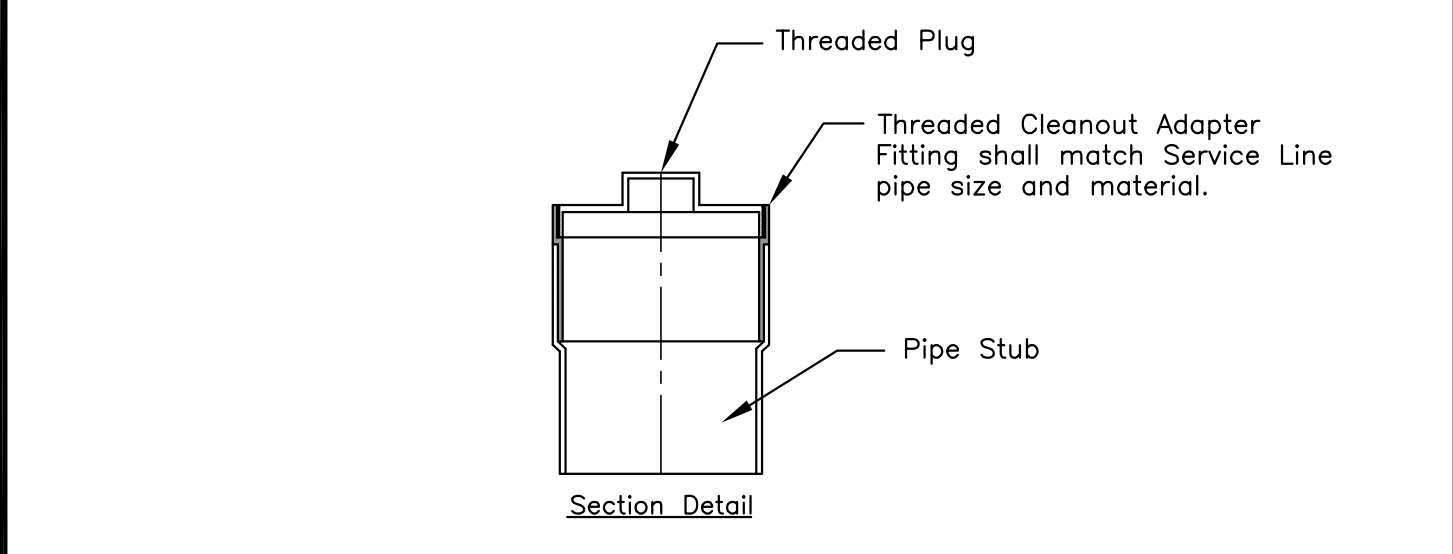
Hand Placed & Hand Tamped Select Earth Backfill
Granular Embedment
Concrete

D Nominal Pipe Size
A Fill Below Pipe (See Table)
B Side Clearances (See Table)
P Area Transverse Steel Expressed as % of Area of Concrete at Crown

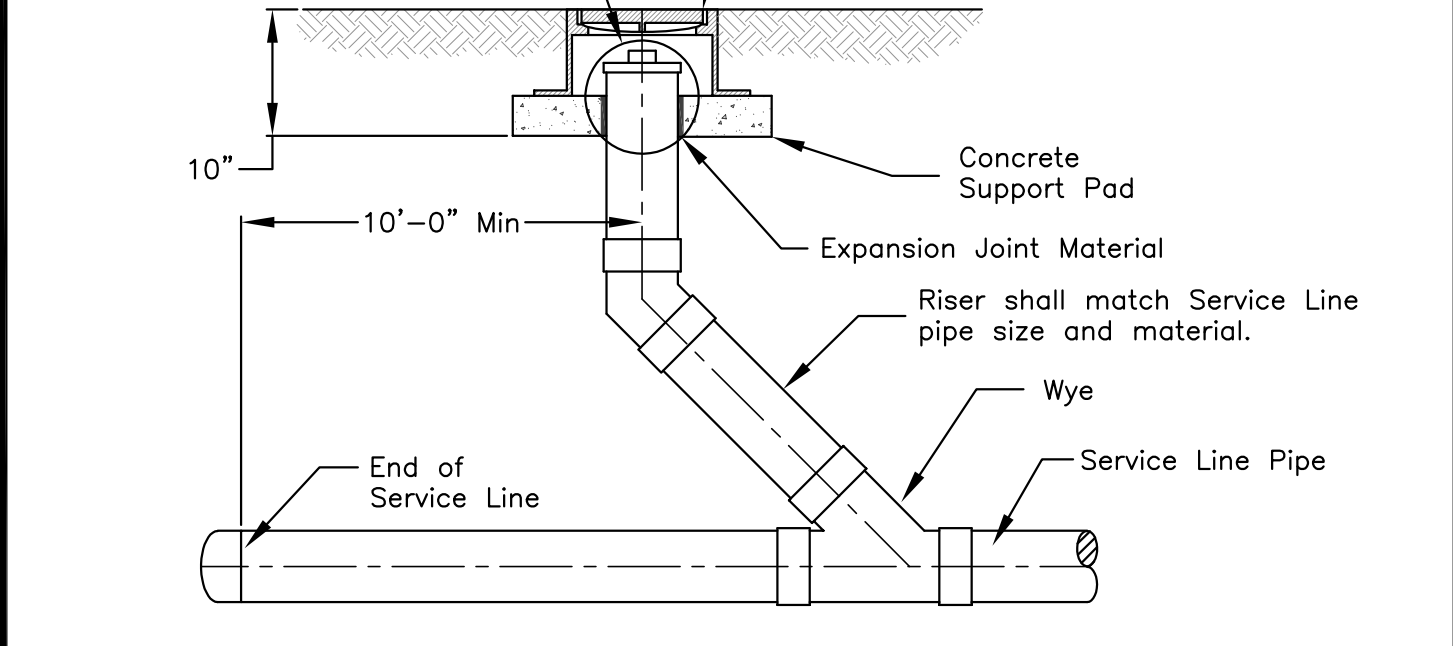


TEE ORIENTATION AND RISER DETAIL
No Scale

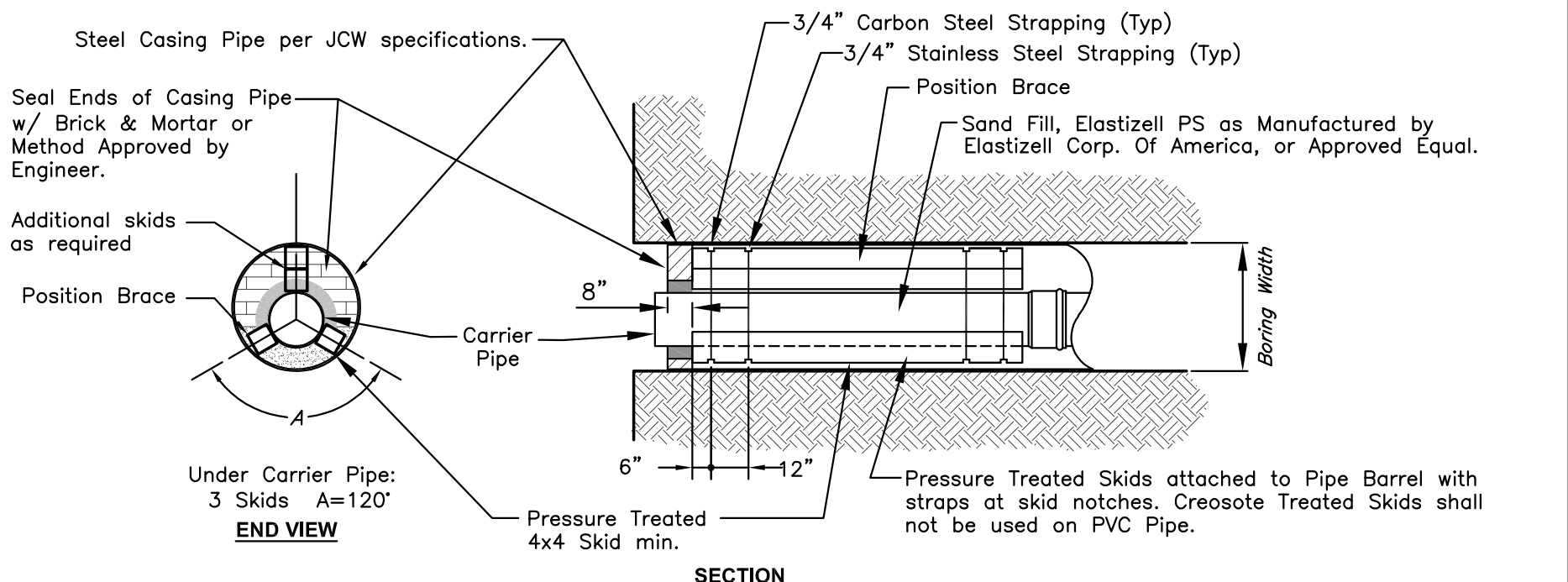
- Note:**
- Concrete anchors will be required where the service line is installed at a grade of 30' or greater. See Section 2536 of the Specifications and detail on this sheet.
 - No service line shall be installed with a grade greater than 45'.



CLEANOUT DETAIL
No Scale



CLEANOUT DETAIL
No Scale



GRAVITY SEWER CASING PIPE AND END SEAL DETAIL
No Scale

Note: In lieu of wood skids with brick and mortar end seals, the Contractor may install casing spacers and fabricated end seals per Section 2445 of the Standard Specifications. A minimum of three (3) spacers shall be installed on each pipe segment. Casing Spacers shall be approved by the Engineer then JCW Prior to Installation.

SANITARY SEWER STANDARD DETAILS

JOHNSON COUNTY
KANSAS
Wastewater

11811 S. Sunset Drive, Suite 2500
Olathe, Kansas 66061
Phone (913) 715-8500 Fax (913) 715-8501
www.jocogov.org | @jocogov | F/jocogov

Drawing No.:

JCW-00

Chief Engineer:

Aaron A. Witt, P.E.

Scale:

N.T.S.

Date:

03/07/2019



Community Development Department
 6090 Woodson Street
 Mission, KS 66202
 Phone: (913) 676-8360
 Fax: (913) 722-1415

Permit # _____

Development Application

Applicant Name:	Christopher O'Leary	Company:	Envision Exteriors LLC
Address:	12400 W. 42nd Street Suite B		
City/State/Zip:	Shawnee KS 66206		
Telephone:	913-424-5514		
Email:	Envision Exteriors LLC@gmail.com		
Property Owner Name:	Danielle Reno	Company:	Unleashed Pet Rescue
Address:	5118 Broadmoor St.		
City/State/Zip:	Mission KS 66206		
Telephone:	913-426-1351		
Email:	DanimReno@gmail.com		
Firm Preparing Application:	Company:		
Address:			
City/State/Zip:	NA		
Telephone:			
Email:			
*All correspondence on this application should be sent to (check one) <input checked="" type="checkbox"/> Applicant <input type="checkbox"/> Owner <input type="checkbox"/> Firm			
Application Type			
Rezoning <input type="checkbox"/>	Plat <input type="checkbox"/>	Site Plan <input type="checkbox"/>	SUP <input type="checkbox"/> Lot Split <input type="checkbox"/> Other (Specify):
Non-Conforming USE Permit <u>Urban Street Curb</u>			
Description of Request			

This property lies under form-based code overlay district. Unleashed Pet Rescue is located in block R and is not a mid-rise, high-rise or parking garage. The building was not made for these purposes. They do not meet the form-based code guidelines for BUILDING GUIDELINES, URBAN GUIDELINES, and not all of the LANDSCAPE GUIDELINES. BUILDING TYPES (3): This property is not any one of these building types: Townhouse, Low-Rise, Mid-Rise 1 High-Rise, or Parking Structure. URBAN GUIDELINES (4): This property is not any one of these structures: Townhouse 1 Low-Rise 2 Mid-Rise 3 High-Rise or 4 Parking Structure. Broadmoor falls under an avenue. This property does not have the ability to comply with all guidelines LANDSCAPE GUIDELINES (6) regarding an avenue. Regarding process and implementation, this property scores less than 90 points and does not meet form-based code.

Project Details

General Location or Address of Property: 5918 Broadview St. Mission KS 66202

Present zoning of property: Industrial M1 (General Industrial)

Present use of property: Animal Shelter

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, Daneille Rene 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 Daneille Rene ----- Date 2/8/22
Signature (Owner)

x By: Joseph Oyer ----- Date 2/8/22
Signature (Owner's Agent)

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

File Fee: \$
Total:
Receipt #
Notes:

Meeting Date
PC CC
Date Notices Sent
Date Published
Decision



MEMORANDUM

To: Chairman Lee and Members of the Planning Commission

From: Brian Scott, Assistant City Administrator

Date: February 23, 2022

Regarding: Appointment of Planning Commission Secretary

It is my pleasure to offer the appointment of Ms. Kimberly Steffens as Planning Commission Secretary.

Ms. Steffens was recently hired to serve as the Permit Technician (formerly office assistant) for the Community Development Department. In this role she will answer the phone and greet citizens and other parties that may have inquiries with the department. She will also be responsible for processing land use and building permit applications and general coordination of office processes and functions.

Ms. McClanahan will also serve as the Planning Commission Secretary preparing agendas for the meetings, publishing notices of public hearings, and taking minutes.

Prior to joining our staff Ms. Steffens worked for the State of Kansas License Office here in Mission. She has also worked for Ford Motor Company and the Internal Revenue Service.

Proposed Motion: Mr. Chair, I move to appointment Ms. Kimberly Steffens as Planning Commission Secretary for the City of Mission, Kansas, effectively immediately.