

MARTWAY MIXED USE – STORMWATER DRAINAGE MEMORANDUM

PAGE 1 OF 3

DATE: September 13th, 2017
RE: Martway Mixed Use Apartments
6045 Martway
Mission, Kansas 66202
CFS Project No. 17-5085

On behalf of the owners of the Martway Mixed Use development, CFS Engineers, P.A., requests a waiver from stormwater management based on the minimal change in surface runoff characteristics between the pre and post-development site conditions. The site is bounded on the north by Martway Street, on the south by Rock Creek, and along the east and west by low-rise commercial/office buildings. Johnson Drive and Mission's downtown shopping strip is located less than a quarter mile to the north. The Sylvester Powell Jr. Community Center is located to the northwest. The Mission Aquatic Center is located across Rock Creek to the southeast.



**Site Location Map, Mission, Kansas
Proposed Martway Mixed Use Development**

The proposed 1.767 acre site calls for the removal of three existing single story office buildings and parking lots along the southern side of Martway Street between Beverly Avenue and Dearborn Street and replacing them with a multi-story apartment complex building with business space and parking on the lower level. The apartment building would be elevated to provide

MARTWAY MIXED USE – STORMWATER DRAINAGE MEMORANDUM

PAGE 2 OF 3

parking at ground level. The changes between the pre and post-development impervious surface area was less than 5,000 sq ft per the APWA 5600, and was measured as follows:

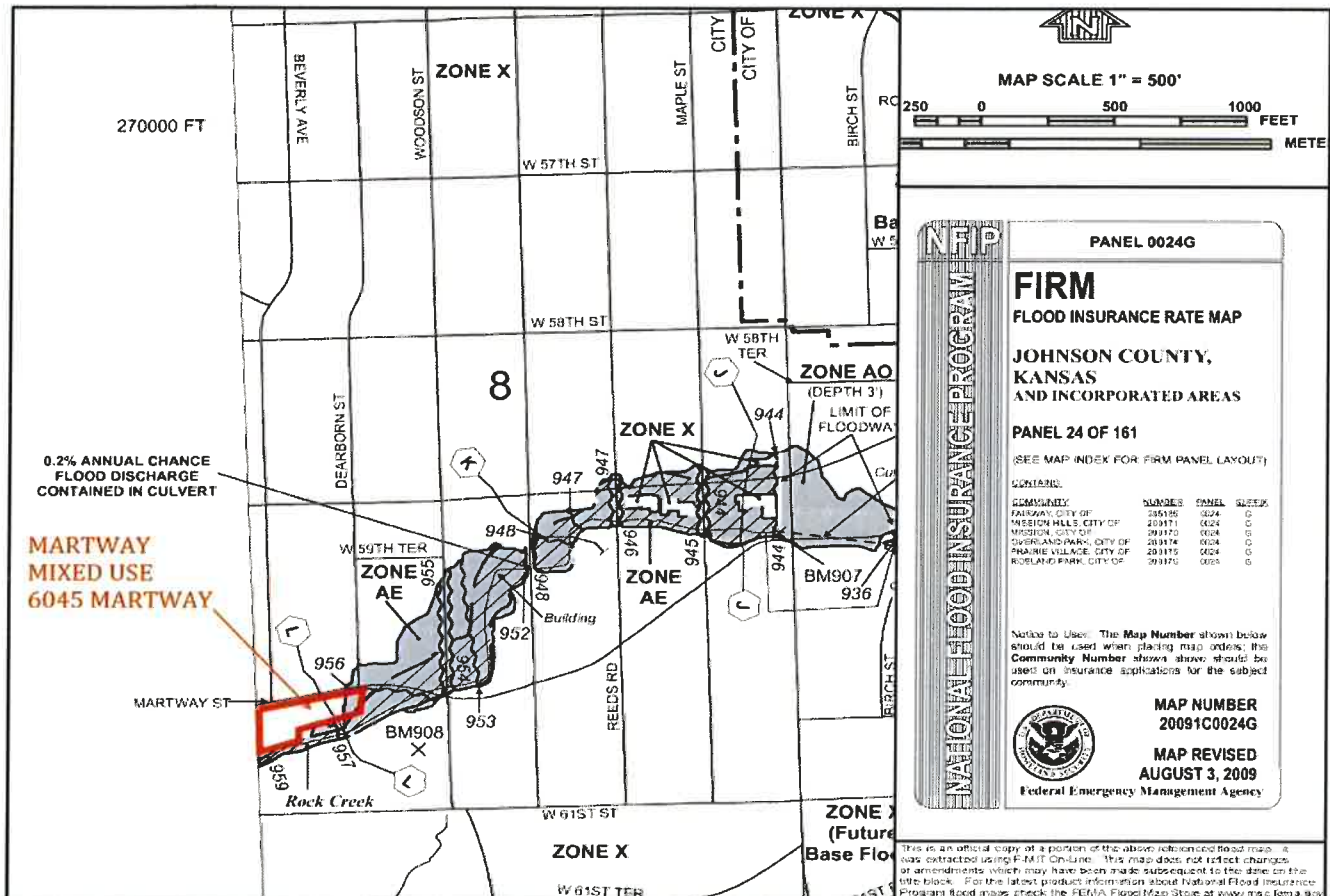
Pre-Development Conditions:

Total Site Area = 1.767 acres
Impervious Surface = 1.415 acres/61,653 sqft
80.1% Impervious

Post-Development Conditions:

Total Site Area = 1.767 acres
Impervious Surface = 1.494 acres/65,071 sqft (3,418 sqft increase)
84.6% Impervious

Under the APWA Section 5601.3.A.3, "Remodeling, repair, replacement or other improvements to any existing structure or facility and appurtenances on sites smaller than two acres that does not cause an increased area of impervious surface on the site in excess of 10 percent of that previously existing." The 1.767 acre site is smaller than two acres and the 3,418 sqft increase in impervious surface from 80.1% to 84.6% does not exceed the allowable 5,000 sqft increase limit allowed by the APWA.




MARTWAY MIXED USE – STORMWATER DRAINAGE MEMORANDUM

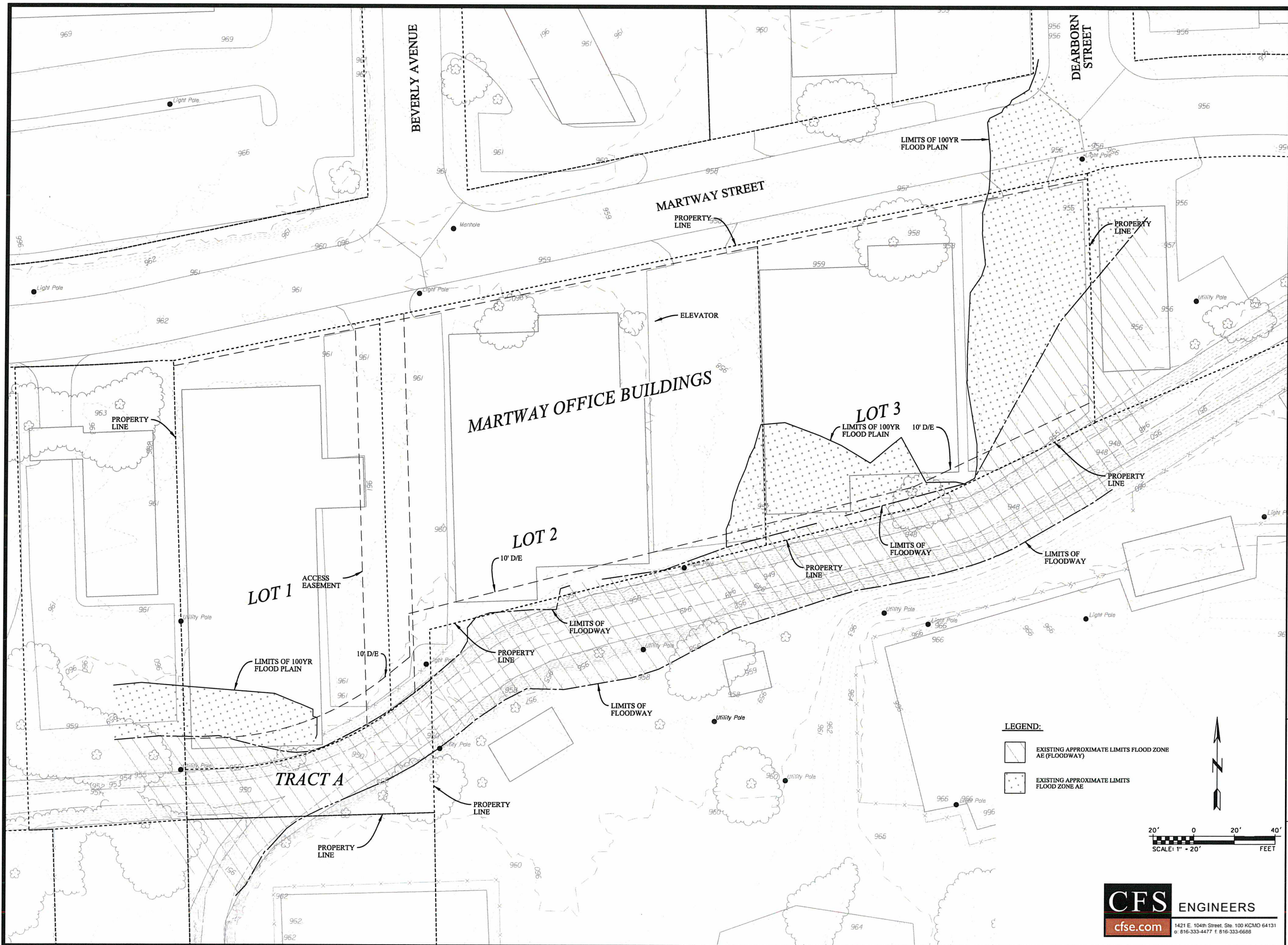
PAGE 3 OF 3

Stormwater runoff from the site's proposed parking lot and building roofs would be collected and drained directly into Rock Creek flowing eastwards along the rear of the property. The FEMA FIRM Panel 20091C0024G indicates that a small portion of the site is designated within 100-year flood zone AE from flooding during the 100-year storm event. The 3,491 sqft of business space on the ground floor would be set along the northern side of the site fronting Martway Street, and would be out of the FEMA 100-year flood zone. The upper floor apartments would be constructed on raised piers above the ground floor parking lot and would be one story above the FEMA 100-year flood zone.

The proposed parking lot plan has a total of 166 spaces (including five ADA accessible spaces and one ADA van-accessible space), so the developer would need to lease an additional 44 off-site parking spaces to meet the City's total 210 space requirement for the proposed apartments and business space. Superimposing the 100-year FEMA floodplain elevations from Rock Creek onto the proposed parking lot grading indicated that 40 spaces would be within the floodplain limits, however, no space would have more than the allowable 7 inches of water during the 100-year event.



Lucas W. Williams
9/13/17



clockwork

423 Delaware St Ste 102
Kansas City MO 64105
www.clockwork-ad.com

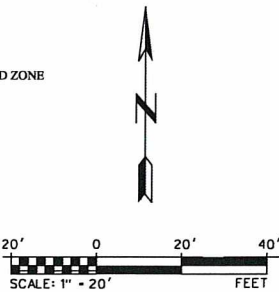
LUCAS W. WILLIAMS - ENGINEER
KS PE # 20382

Martway Mixed Use

6009 - 6045 Martway
Mission, KS 64202

LEGEND:

- EXISTING APPROXIMATE LIMITS FLOOD ZONE AE (FLOODWAY)
- EXISTING APPROXIMATE LIMITS FLOOD ZONE AE



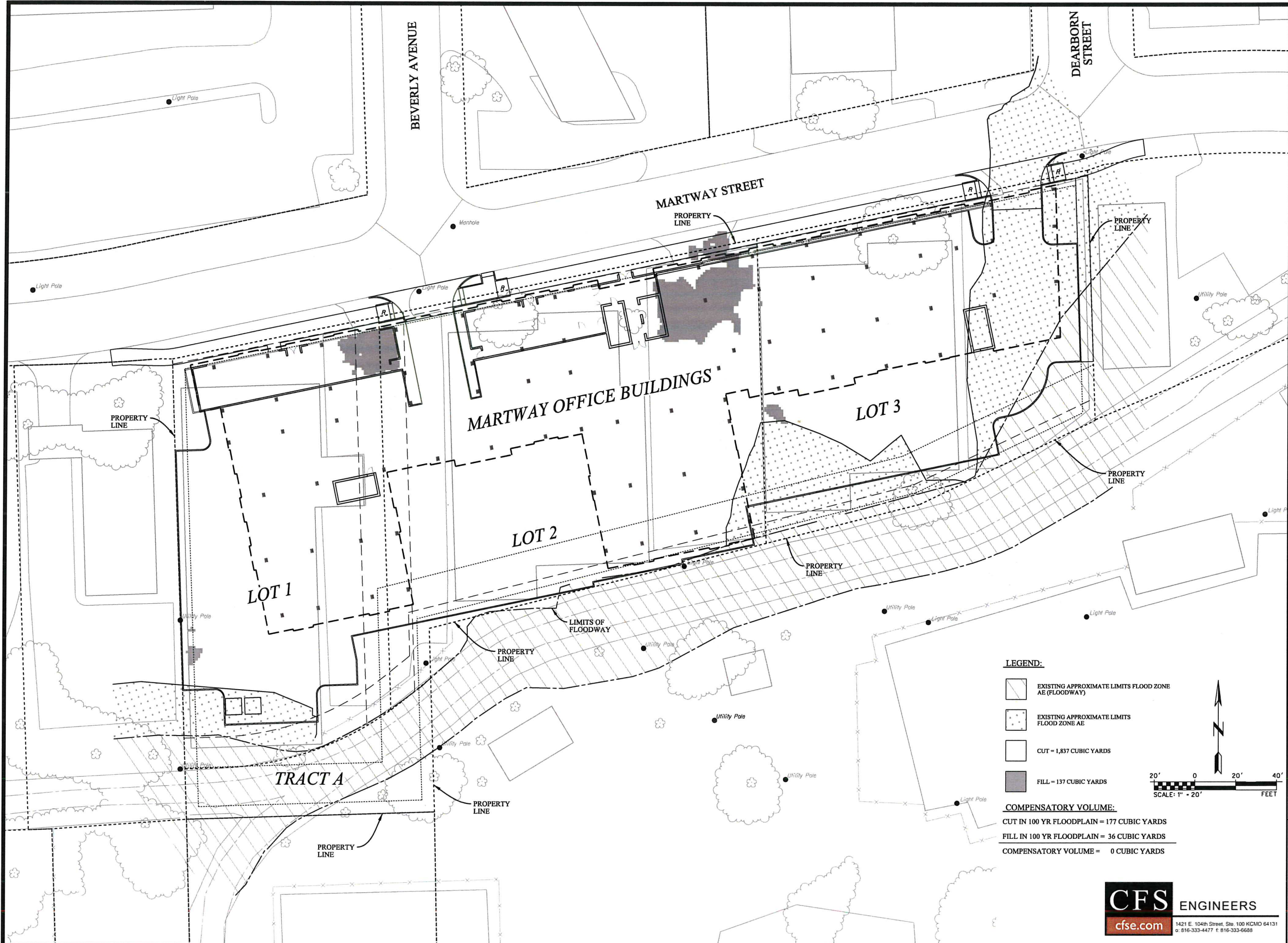
CFS ENGINEERS
cfse.com
1421 E. 104th Street, Ste. 100 KCMO 64131
p. 816-333-4477 f. 816-333-6688

REV	Issue	date
	PRELIM. DEV. PLAN SUBMITTAL	07.12.2017

16.05.Martway

C202

EXISTING FLOOD PLAIN PLAN



clockwork

423 Delaware St Ste 102
Kansas City MO 64105
www.clockwork-ad.com

LUCAS W. WILLIAMS - ENGINEER
KS PE # 20382

Martway Mixed Use

6009 - 6045 Martway
Mission, KS 64202

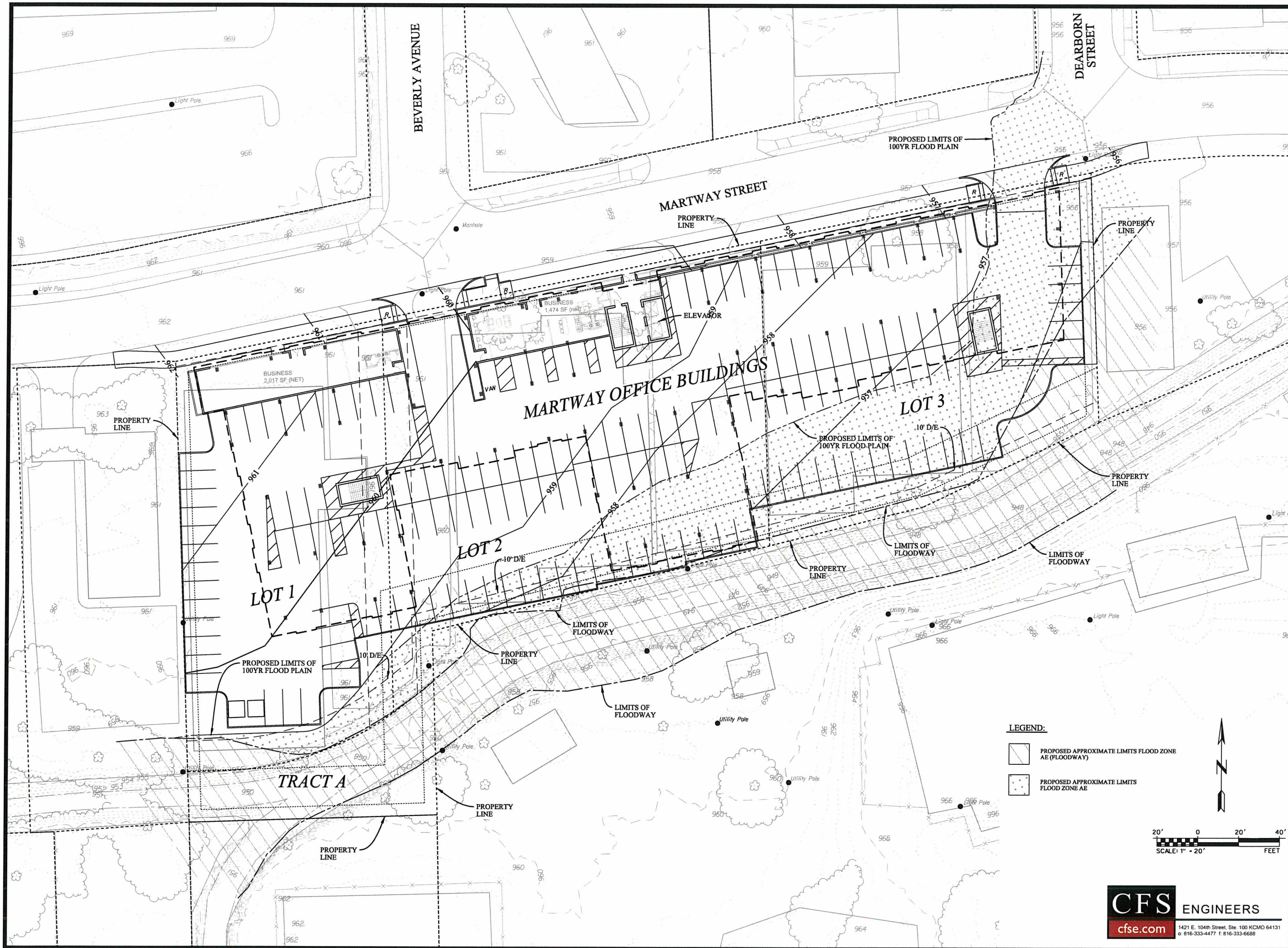
REV	Issue	date
	PRELIM. DEV. PLAN SUBMITTAL	07.12.2017

16.05.Martway

C201

CUT & FILL PLAN

CFS ENGINEERS
cfse.com
1421 E. 104th Street, Ste. 100 KCMO 64131
o: 816-333-4477 f: 816-333-6688



clockwork
423 Delaware St Ste 102
Kansas City MO 64105
www.clockwork-ad.com

LUCAS W. WILLIAMS - ENGINEER
KS PE # 20382

Martway Mixed Use
6009 - 6045 Martway
Mission, KS 64202

REV	ISSUE	DATE
	PRELIM. DEV. PLAN SUBMITTAL	07.12.2017

16.05.Martway

C203

PROPOSED FLOOD PLAIN PLAN

CFS ENGINEERS
cfse.com
1421 E. 104th Street, Ste. 100 KCMO 64131
o. 816-333-4477 f. 816-333-6688