LEE'S SUMMIT FIRE STATION NO. 5

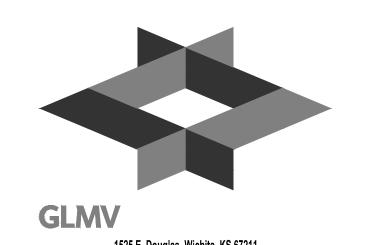
801 SW MO 150 HIGHWAY LEE'S SUMMIT, MISSOURI 64082

REVISED 6/19/2023 PL2022358

PRCOM20230374

FINAL DEVELOPMENT PLAN

CONSULTANT:



9229 WARD PKWY KANSAS CITY, MISSOURI 6411 DERICK HOLMES DERICK.HOLMES@GLMV.COM T (816) 444-4200

PARCEL INFORMATION:

ACREAGE: 1.00

ADDRESS: 801 SW M0 150 HIGHWAY LEE'S SUMMIT, MO 64082

LEGAL DESCRIPTION ALL OF LOT 5, RAINTREE LAKE VILLAGE, A

SUBDIVISON IN THE NW 1/4 OF SECTION 31, T-47 N, R-31 W, LEE'S SUMMIT, JACKSON

COUNTY, MISSOURI

FEMA FLOODPLAIN THE SUBJECT PROPERTY IS LOCATED IN ZONE X, AREAS DETERMINED TO BE

OUTSIDE THE 0.2% ANNUAL CHANCE

FLOODPLAIN, AS SHOWN ON FLOOD INSURANCE RATE MAP (FIRM) 29095C0532G.

INSURANCE RATE MAP (FIRM) 290 EFFECTIVE JANUARY 20, 2017.

OIL AND GAS WELLS NO EVIDENCE OF OIL OR GAS WELLS WERE

FOUND ON LOT 6-A AND THE PORTION OF LOT 7 PROPOSED TO BE REPLATTED AS EVIDENCED BY THE FOLLOWING SOURCES 1. ATLAS/NSPS LAND SURVEY PERFORMED BY J&J SURVEYING LLC, DATED AUGUST 12, 2021.

2. MISSOURI SPATIAL DATA INFORMATION SERVICE (FEBRUARY 20, 2022), MO 2018 STATE PERMITTED OIL AND GAS WELLS.

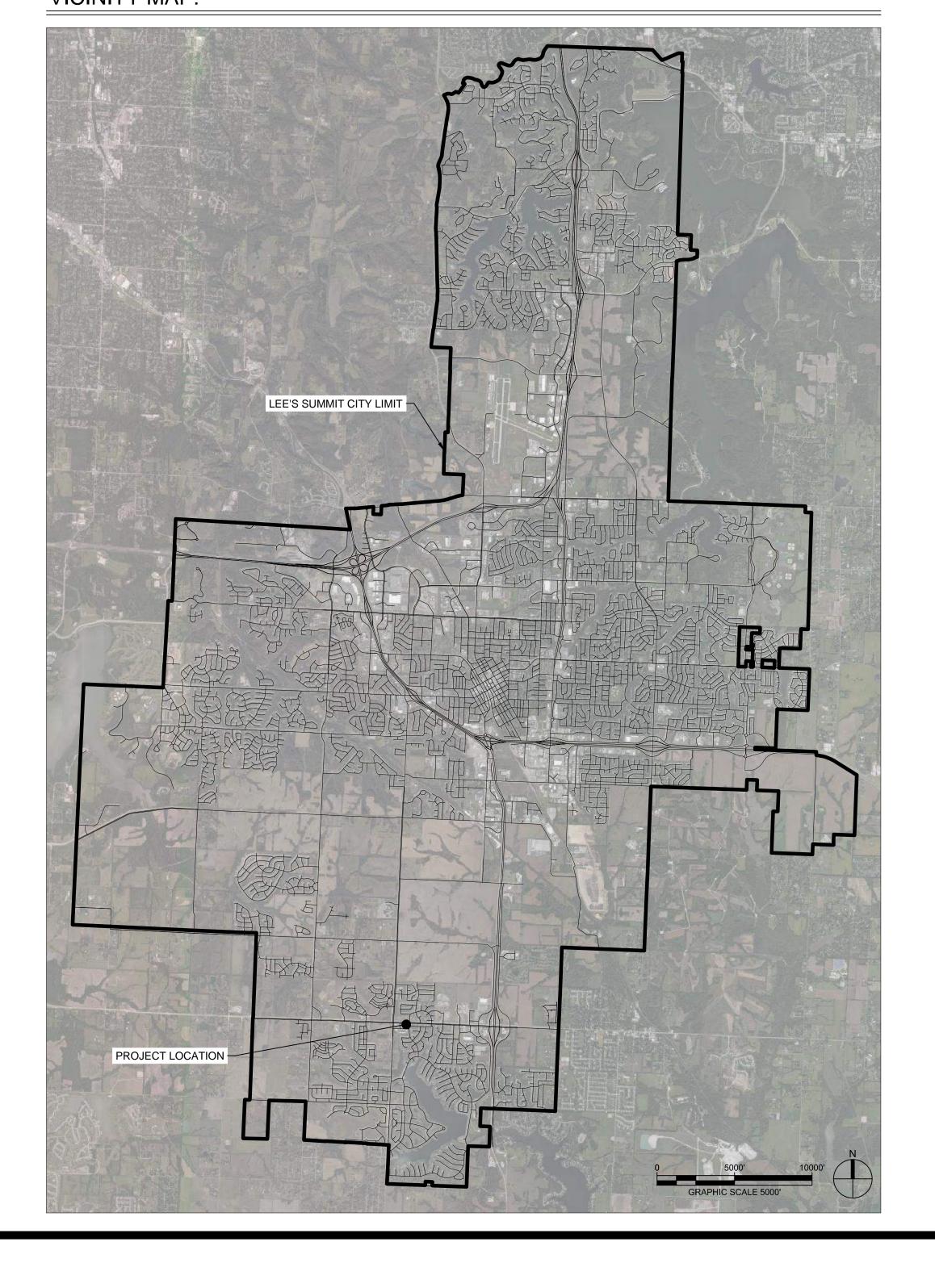
RETRIEVED FROM HTTP://DATA-MSDIS.OPENDATA.ARCGIS.COM/DATASETS

ZONING

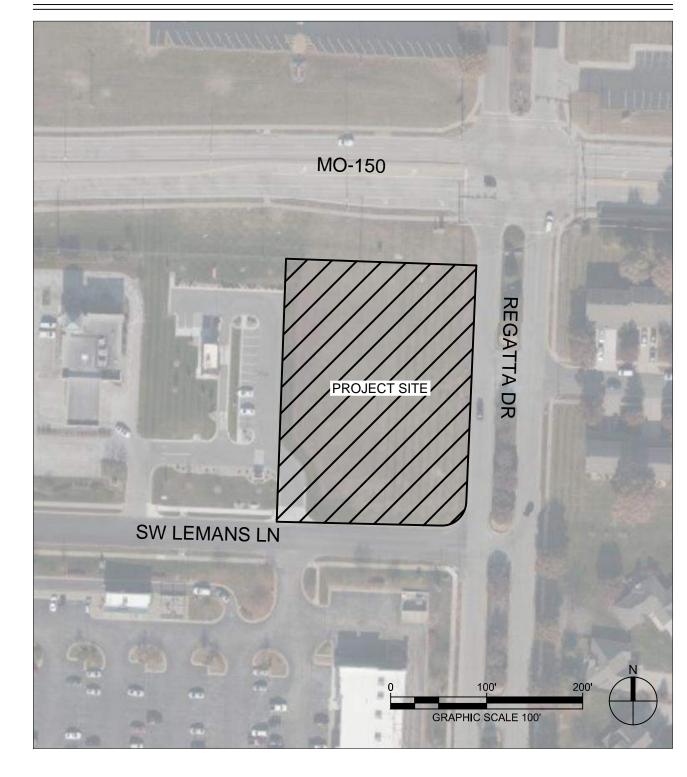
CP-2, PLANNED COMMUNITY COMMERCIAL

LAND USE SCHEDULE		
TOTAL FLOOR AREA 12,189 SF		
NUMBER OF DWELLING UNITS	8	
LAND AREA	1.00 ACRES	
REQUIRED PARKING	DIRECTED BY FIRE CHIEF	
PROPOSED PARKING	13 SPACES	
IMPERVIOUS COVERAGE	25,745 SF (.59 ACRES)	
FLOOR AREA RATIO (FAR)	0.28	
PERMITTED LAND USE	FIRE STATION - MUNICIPAL = CONDITIONAL	
DWELLING UNITS PER ACRE WITH COMMON AREA	8	
DWELLING UNITS PER ACRE WITHOUT COMMON AREA	8	

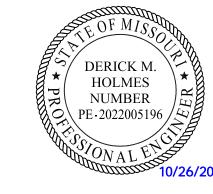
VICINITY MAP:



SITE LOCATION MAP:



INDEX OF DRAWINGS		
SHEET NO.	SHEET NAME	
C-001	COVER SHEET	
GS001	ALTA/NSPS LAND TITLE SURVEY	
A-101	FIRST FLOOR PLAN	
A-102	SECOND FLOOR PLAN	
A-201	BUILDING ELEVATIONS	
A-202	BUILDING ELEVATIONS	
C-100	SITE PLAN	
C-101	LAYOUT PLAN	
C-102	DEMOLITION PLAN	
C-103	EROSION CONTROL PLAN	
C-104	GRADING & DRAINAGE PLAN	
C-105	UTILITY PLAN	
C-220	PUBLIC WATER PLAN & PROFILE	
C-231	PUBLIC STORMWATER PROFILES	
C-231	PRIVATE STORMWATER PROFILES	
C-400	SITE ENLARGEMENTS	
C-401	SITE ENLARGEMENTS	
C-402	SITE ENLARGEMENTS	
C-500	SITE DETAILS	
C-501	SITE DETAILS	
C-502	SITE DETAILS	
C-503	SITE DETAILS	
C-504	SITE DETAILS	
C-510	EROSION CONTROL DETAILS	
C-511	EROSION CONTROL DETAILS	
C-520	WATER DETAILS	
C-521	WATER DETAILS	
C-530	STORMWATER DETAILS	
C-531	STORMWATER DETAILS	
C-532	STORMWATER DETAILS	
C-540	SANITARY SEWER DETAILS	
ME001	MPE SITE PLAN	
ME002	SITE LIGHTING PHOTOMETRIC PLAN	
L-100	LANDSCAPE SCHEDULE	
L-101	LANDSCAPE PLAN	



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As Noted on Plan Review

Development Services Department
Lee's Summit, Missouri
06/20/2023

EVISIONS:
Description Date

ISSUED FOR

PERMITTING

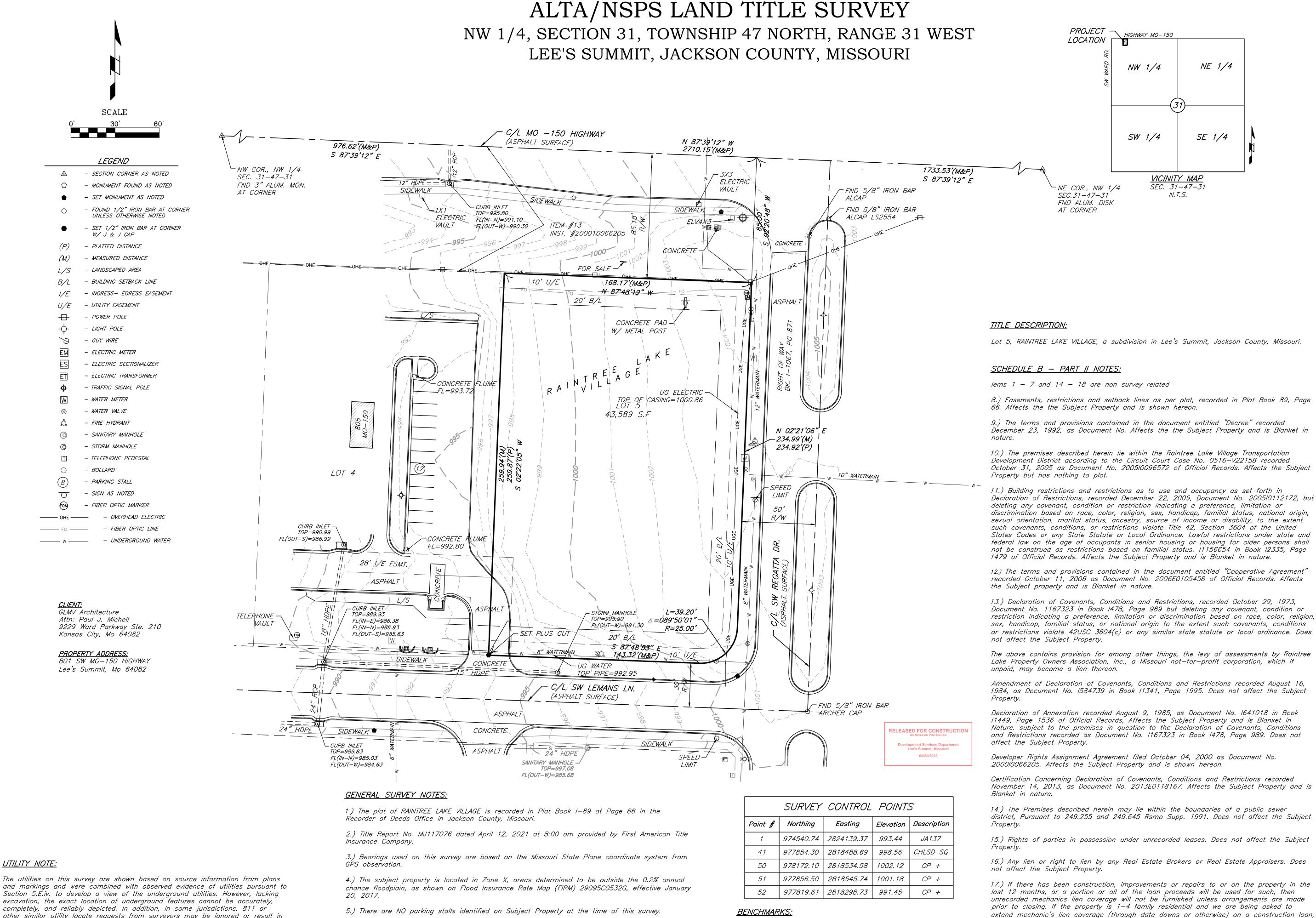
PROJECT NO: 18225R21001

DATE: 10.26.2022

COVER

C-001

SHEET



UTILITY NOTE:

and markings and were combined with observed evidence of utilities pursuant to Section 5.E.iv. to develop a view of the underground utilities. However, lacking excavation, the exact location of underground features cannot be accurately, completely, and reliably depicted. In addition, in some jurisdictions, 811 or other similar utility locate requests from surveyors may be ignored or result in an incomplete response, in which case the surveyor shall note on the plat or map how this affected the surveyor's assessment of the location of the utilities. Where additional or more detailed information is required, the client is advised that excavation and/or a private utility locate request may be necessary.

- 6.) There were no Wetland delineation at the time of survey.
- 7.) This property is Zoned CP-2, Planned Community Commercial
- 8.) Water utilities are based on the City Map image provided by City of Lee's Summit, Missouri,

STATION JA 137: Alum Disk, Located about 0.7 miles South of the intersection of highway 150 and highway 291 of Lee's Summit.

ELEVATION = 993.44

PROJECT — HIGHWAY MO-150

NE COR., NW 1/4

SEC.31-47-31

FND ALUM. DISK AT CORNER

NW 1/4

SW 1/4

a Mechanic's Lien Indemnity Agreement secured by a satisfactory Letter of Credit will need

to be furnished to the company. If the transaction is not a residential construction loan,

either the aforesaid secured indemnity or satisfactory financial statements, indemnities,

notify the company in writing before closing will invalidate any mechanic's lien coverage

given in the policy. Does not affect the Subject Property.

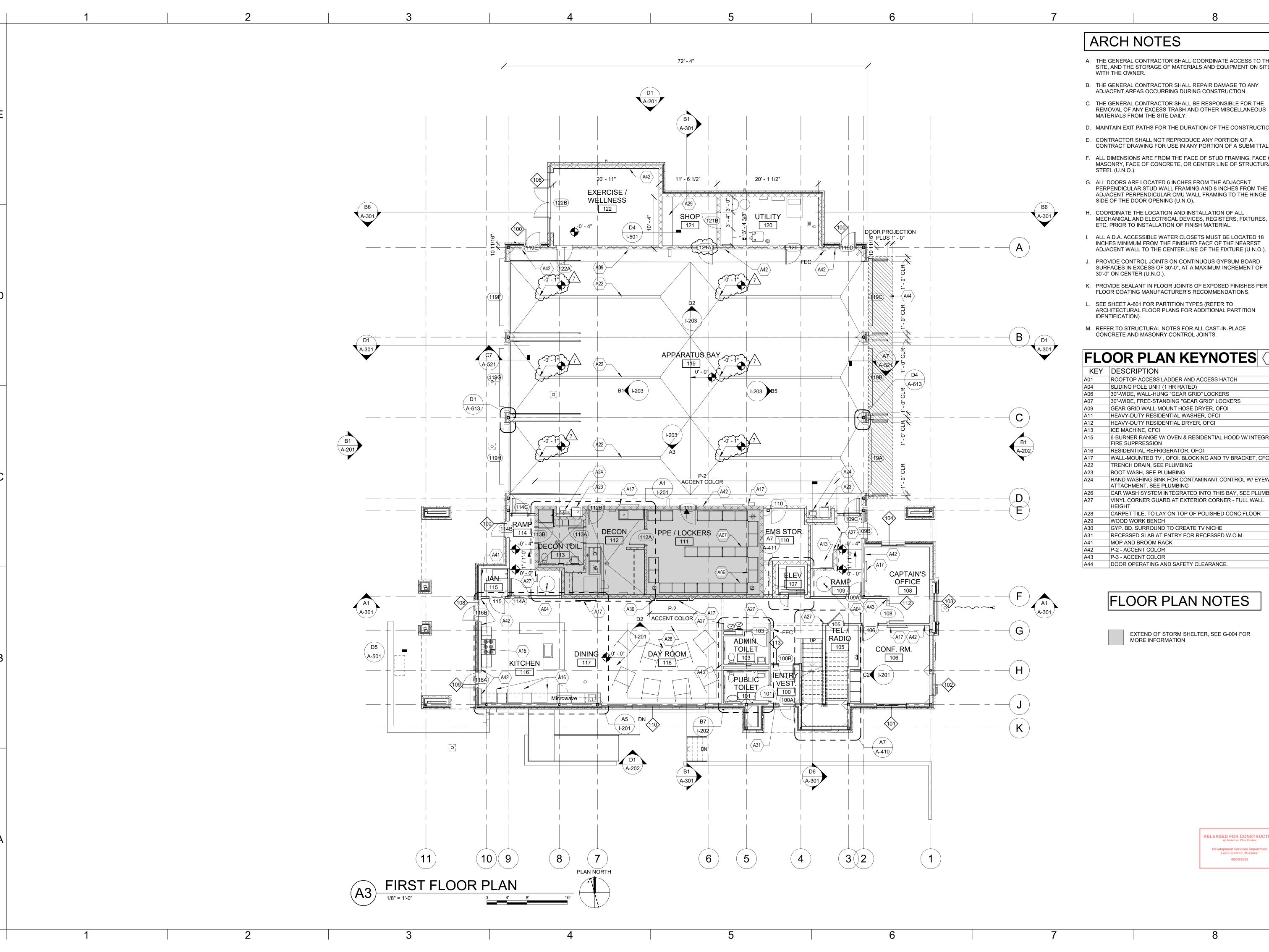
<u>VICINITY MAP</u>

SEC. 31-47-31

N. T. S.

NE 1/4

affidavits and possibly lien waivers, will need to be furnished to the company. Failure to



- A. THE GENERAL CONTRACTOR SHALL COORDINATE ACCESS TO THE SITE, AND THE STORAGE OF MATERIALS AND EQUIPMENT ON SITE
- B. THE GENERAL CONTRACTOR SHALL REPAIR DAMAGE TO ANY
 - C. THE GENERAL CONTRACTOR SHALL BE RESPONSIBLE FOR THE REMOVAL OF ANY EXCESS TRASH AND OTHER MISCELLANEOUS
 - D. MAINTAIN EXIT PATHS FOR THE DURATION OF THE CONSTRUCTION.
 - E. CONTRACTOR SHALL NOT REPRODUCE ANY PORTION OF A
 - F. ALL DIMENSIONS ARE FROM THE FACE OF STUD FRAMING, FACE OF MASONRY, FACE OF CONCRETE, OR CENTER LINE OF STRUCTURAL
 - G. ALL DOORS ARE LOCATED 6 INCHES FROM THE ADJACENT PERPENDICULAR STUD WALL FRAMING AND 8 INCHES FROM THE ADJACENT PERPENDICULAR CMU WALL FRAMING TO THE HINGE
 - H. COORDINATE THE LOCATION AND INSTALLATION OF ALL MECHANICAL AND ELECTRICAL DEVICES, REGISTERS, FIXTURES, ETC. PRIOR TO INSTALLATION OF FINISH MATERIAL.
 - ALL A.D.A. ACCESSIBLE WATER CLOSETS MUST BE LOCATED 18 INCHES MINIMUM FROM THE FINISHED FACE OF THE NEAREST ADJACENT WALL TO THE CENTER LINE OF THE FIXTURE (U.N.O.).
 - PROVIDE CONTROL JOINTS ON CONTINUOUS GYPSUM BOARD SURFACES IN EXCESS OF 30'-0", AT A MAXIMUM INCREMENT OF
 - K. PROVIDE SEALANT IN FLOOR JOINTS OF EXPOSED FINISHES PER FLOOR COATING MANUFACTURER'S RECOMMENDATIONS.
 - L. SEE SHEET A-601 FOR PARTITION TYPES (REFER TO ARCHITECTURAL FLOOR PLANS FOR ADDITIONAL PARTITION
 - M. REFER TO STRUCTURAL NOTES FOR ALL CAST-IN-PLACE CONCRETE AND MASONRY CONTROL JOINTS.

FLOOR PLAN KEYNOTES

• •	JOINT LANTINE THO LO		
KEY	DESCRIPTION		
A01	ROOFTOP ACCESS LADDER AND ACCESS HATCH		
A04	SLIDING POLE UNIT (1 HR RATED)		
A06	30"-WIDE, WALL-HUNG "GEAR GRID" LOCKERS		
A07	30"-WIDE, FREE-STANDING "GEAR GRID" LOCKERS		
A09	GEAR GRID WALL-MOUNT HOSE DRYER, OFOI		
A11	HEAVY-DUTY RESIDENTIAL WASHER, OFCI		
A12	HEAVY-DUTY RESIDENTIAL DRYER, OFCI		
A13	ICE MACHINE, CFCI		
A15	6-BURNER RANGE W/ OVEN & RESIDENTIAL HOOD W/ INTEGRAL FIRE SUPPRESSION		
A16	RESIDENTIAL REFRIGERATOR, OFOI		
A17	WALL-MOUNTED TV , OFOI. BLOCKING AND TV BRACKET, CFCI		
A22	TRENCH DRAIN, SEE PLUMBING		
A23	BOOT WASH, SEE PLUMBING		
A24	HAND WASHING SINK FOR CONTAMINANT CONTROL W/ EYEWASH ATTACHMENT, SEE PLUMBING		
A26	CAR WASH SYSTEM INTEGRATED INTO THIS BAY, SEE PLUMBING		
A27	VINYL CORNER GUARD AT EXTERIOR CORNER - FULL WALL HEIGHT		
A28	CARPET TILE, TO LAY ON TOP OF POLISHED CONC FLOOR		
A29	WOOD WORK BENCH		
A30	GYP. BD. SURROUND TO CREATE TV NICHE		
A31	RECESSED SLAB AT ENTRY FOR RECESSED W.O.M.		
A41	MOP AND BROOM RACK		
A42	P-2 - ACCENT COLOR		
A43	P-3 - ACCENT COLOR		
A44	DOOR OPERATING AND SAFETY CLEARANCE		

FLOOR PLAN NOTES

EXTEND OF STORM SHELTER, SEE G-004 FOR MORE INFORMATION

RELEASED FOR CONSTRUCTION
As Noted on Plan Review

Lee's Summit, Missouri

06/20/2023



GLMVArchitecture 9229 WARD PARKWAY

KANSAS CITY, MO 64114 TEL: (816) 444-4200 FAX: (316) 265-5646 www.glmv.com GLMV ARCHITECTURE, INC. MISSOURI STATE CERTIFICATE OF AUTHORITY #000305

SUITE # 210

CONSULTING ARCHITECT FGMA ARCHITECTS 11250 ROGER BACON DRIVE, SUITE 16 RESTON, VIRGINIA 20190

TEL: (703) 956-5600 CIVIL ENGINEER & LANDSCAPE ARCH. GLMV ARCHITECTURE, INC

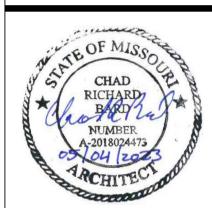
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STRUCTURAL ENGINEER LEIGH + O'KANE MISSOURI COA #001644 250 NE MULBERRY, SUITE 201 LEE'S SUMMIT, MO 64086 (816) 444-3144

MECH., ELECT. & PLMG. ENGINEERS HOSS & BROWN ENGINEERS MISSOURI COA #01022 15902 MIDLAND DRIVE SHAWNEE, KS 66217 (913) 362.9090

SECURITY & IT ENGINEERS HENDERSON ENGINEERS MISSOURI COA #000556 1801 MAIN STREET, SUITE 300 KANSAS CITY, MO 64108 (816) 663-8700

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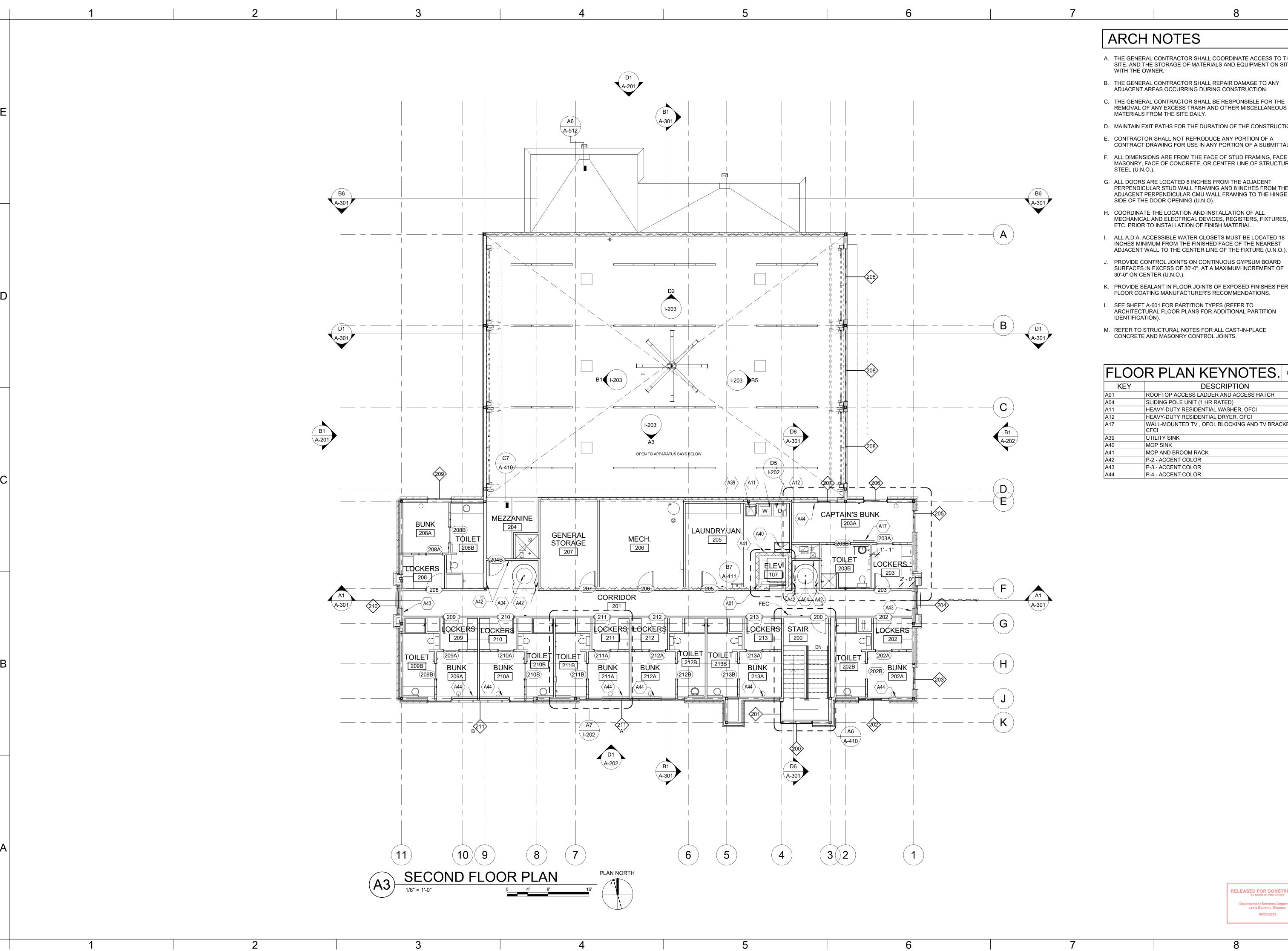


CHAD R. BARD - ARCHITECT MO# A-2018024473

PROJECT NO: 18225R21001 DATE: 05.04.2023 DRAWN BY: CHK'D BY:

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FIRST FLOOR



ARCH NOTES

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FLOOR PLAN KEYNOTES.

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A43	P-3 - ACCENT COLOR	
A44	P-4 - ACCENT COLOR	



9229 WARD PARKWAY

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SUITE # 210

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SECURITY & IT ENGINEERS HENDERSON ENGINEERS MISSOURI COA #000556 1801 MAIN STREET, SUITE 300 KANSAS CITY, MO 64108 (816) 663-8700

801 MISSOUF LEE'S SUMMI

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PAUL J. MICHELL - ARCHITECT MO# A-2009021701

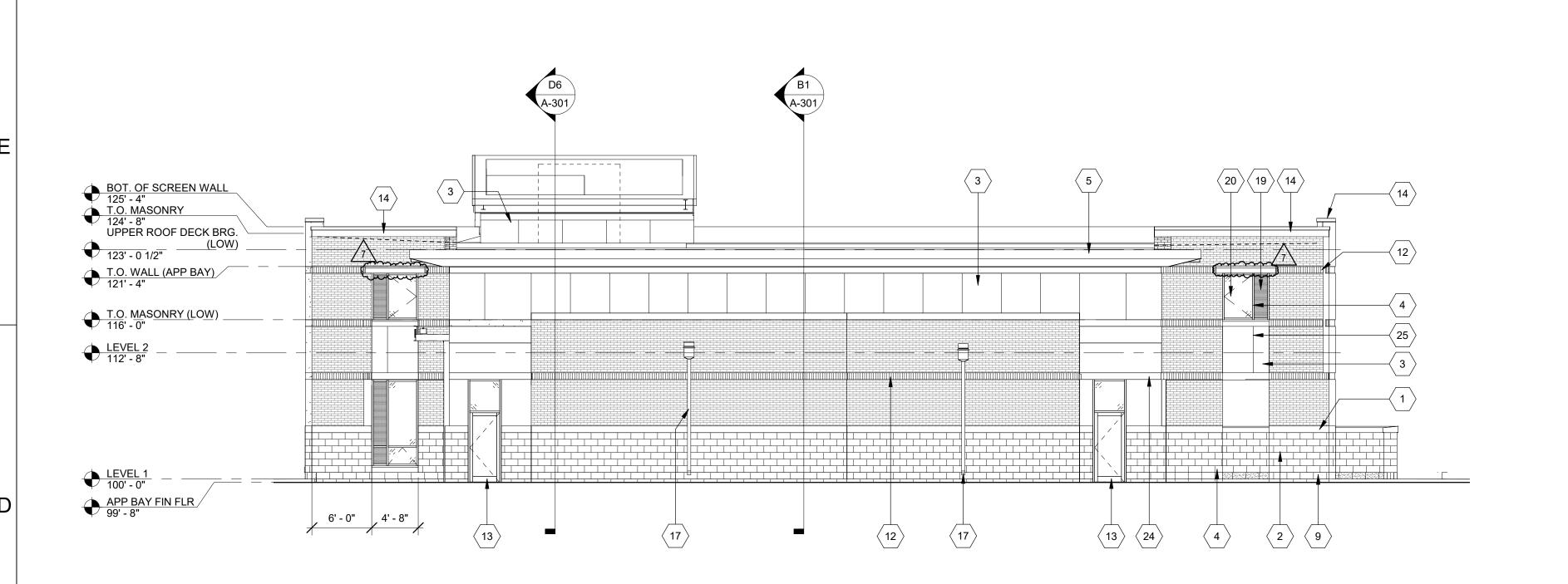
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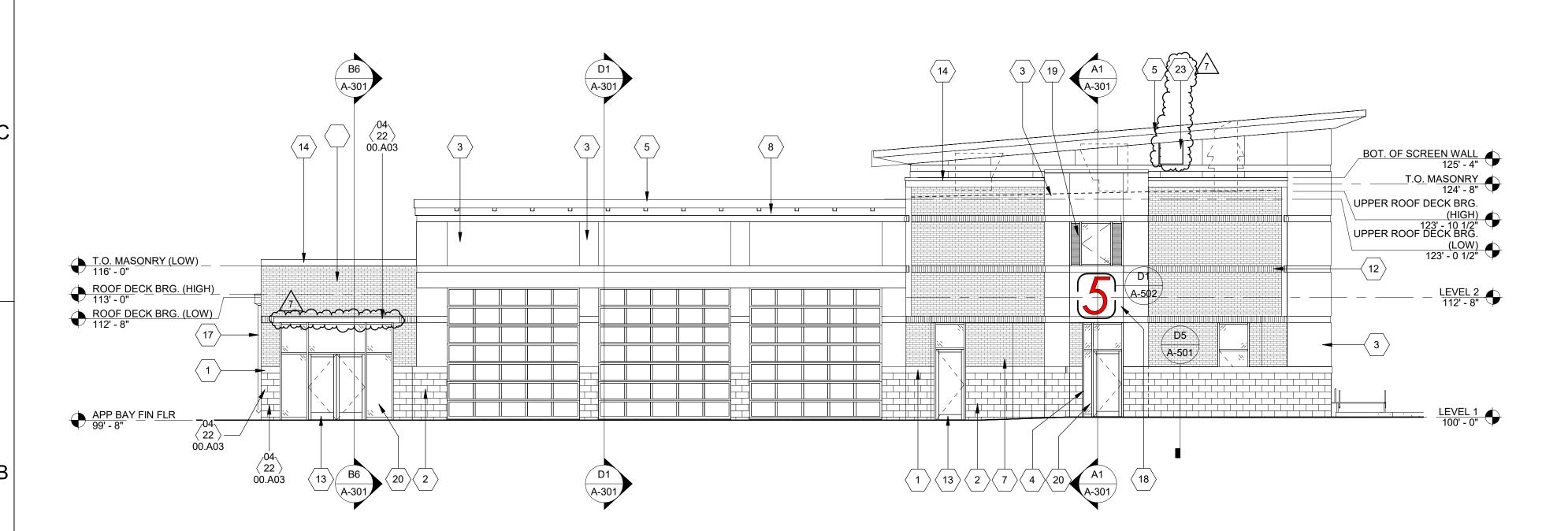
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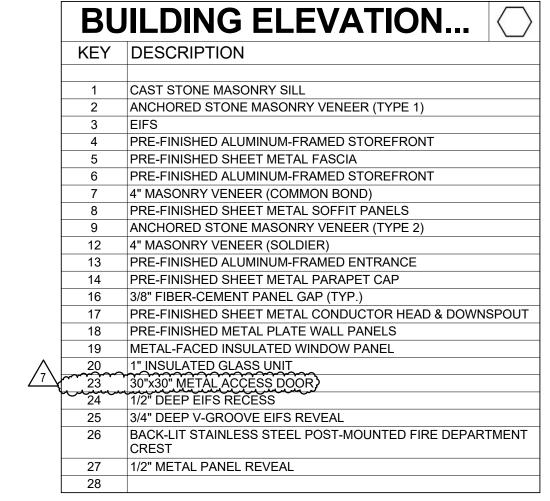
Development Services Departi Lee's Summit, Missouri



NORTH ELEVATION

EAST ELEVATION







SUITE # 210 KANSAS CITY, MO 64114

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FIRE STATION #5 CITY OF LEE'S SUMMIT 801 MISSOUF LEE'S SUMMI

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1 ASI 01
4 ASI 04
7 ASI 07 Date 11/21/2022 02/01/2023 05/04/2023



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PROJECT NO: 18225R21001 DATE: 05.04.2023 DRAWN BY: CHK'D BY:

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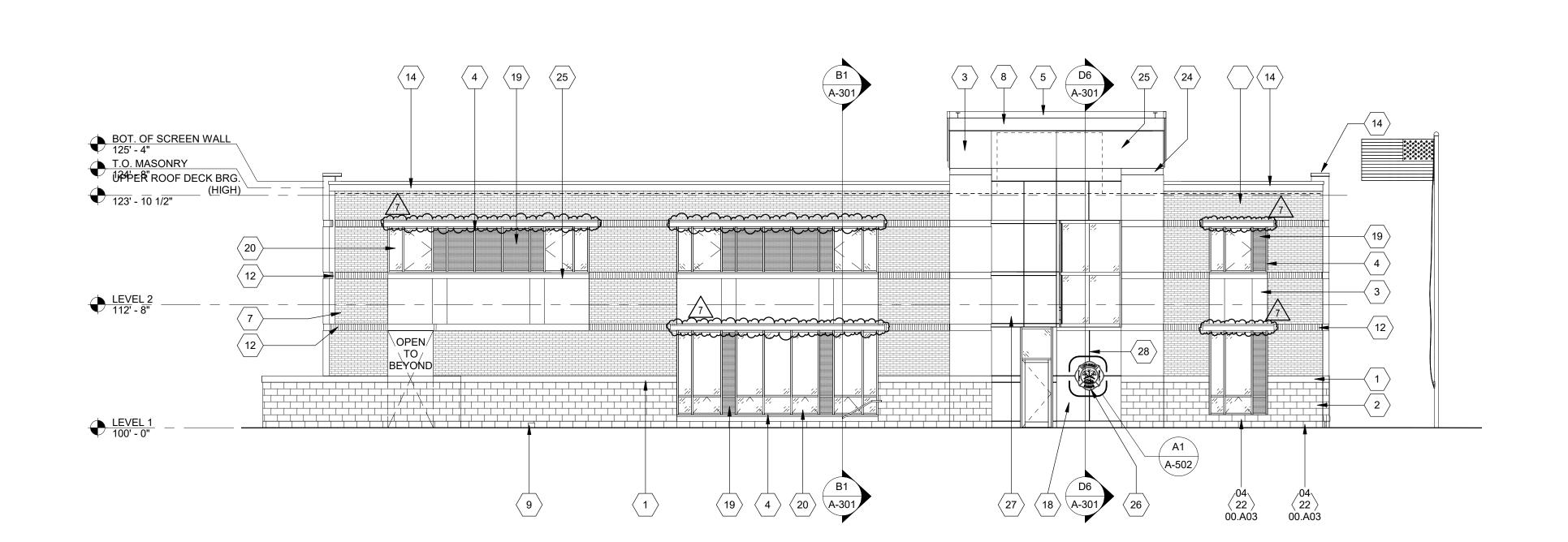
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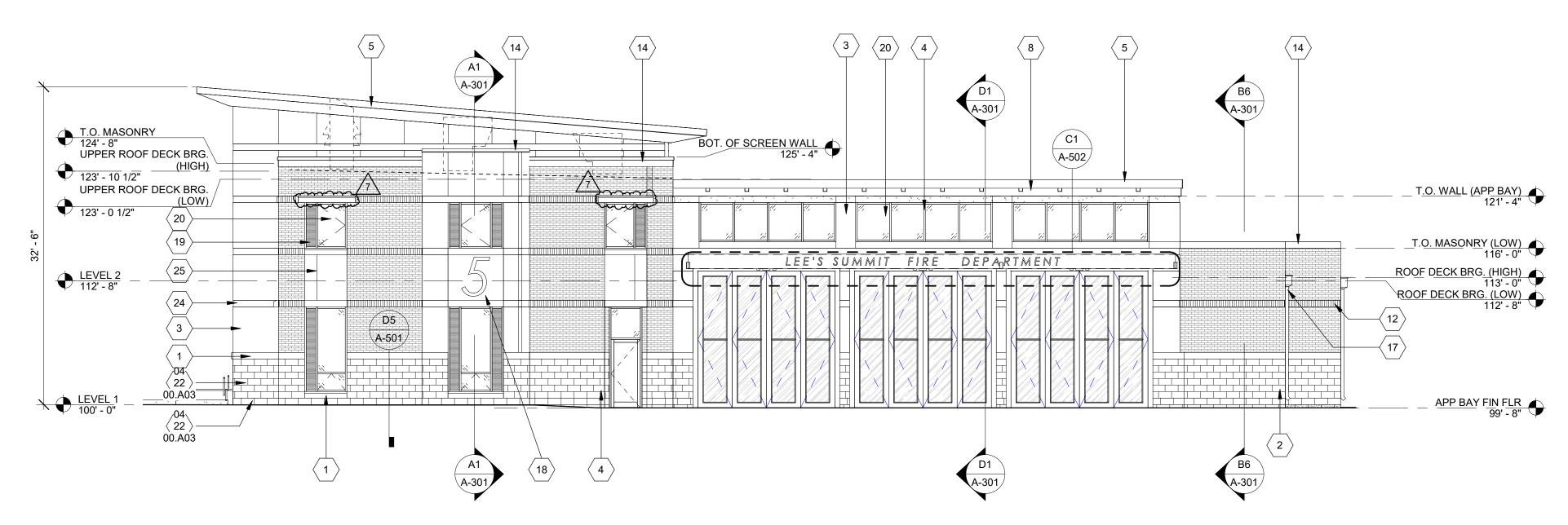
BUILDING **ELEVATIONS**

A-201

PLEASE CONSIDER THE ENVIRONMENT BEFORE PRINTING THIS

Development Services Department Lee's Summit, Missouri 06/20/2023







SOUTH ELEVATION

BUILDING ELEVATION... KEY DESCRIPTION 1 CAST STONE MASONRY SILL 2 ANCHORED STONE MASONRY VENEER (TYPE 1) 4 PRE-FINISHED ALUMINUM-FRAMED STOREFRONT 5 PRE-FINISHED SHEET METAL FASCIA 6 PRE-FINISHED ALUMINUM-FRAMED STOREFRONT 7 4" MASONRY VENEER (COMMON BOND) 8 PRE-FINISHED SHEET METAL SOFFIT PANELS 9 ANCHORED STONE MASONRY VENEER (TYPE 2) 12 4" MASONRY VENEER (SOLDIER) 13 PRE-FINISHED ALUMINUM-FRAMED ENTRANCE 14 PRE-FINISHED SHEET METAL PARAPET CAP 16 3/8" FIBER-CEMENT PANEL GAP (TYP.) 17 PRE-FINISHED SHEET METAL CONDUCTOR HEAD & DOWNSPOUT 18 PRE-FINISHED METAL PLATE WALL PANELS 19 METAL-FACED INSULATED WINDOW PANEL 20 1" INSULATED GLASS UNIT
23 30"x30" METAL ACCESS DOOR)
24 1/2" DEEP EIFS RECESS 25 3/4" DEEP V-GROOVE EIFS REVEAL 26 BACK-LIT STAINLESS STEEL POST-MOUNTED FIRE DEPARTMENT 27 1/2" METAL PANEL REVEAL 28

GLMVArchitecture 9229 WARD PARKWAY SUITE # 210

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FIRE STATION #5 CITY OF LEE'S SUMMIT 801 MISSOUF LEE'S SUMMI

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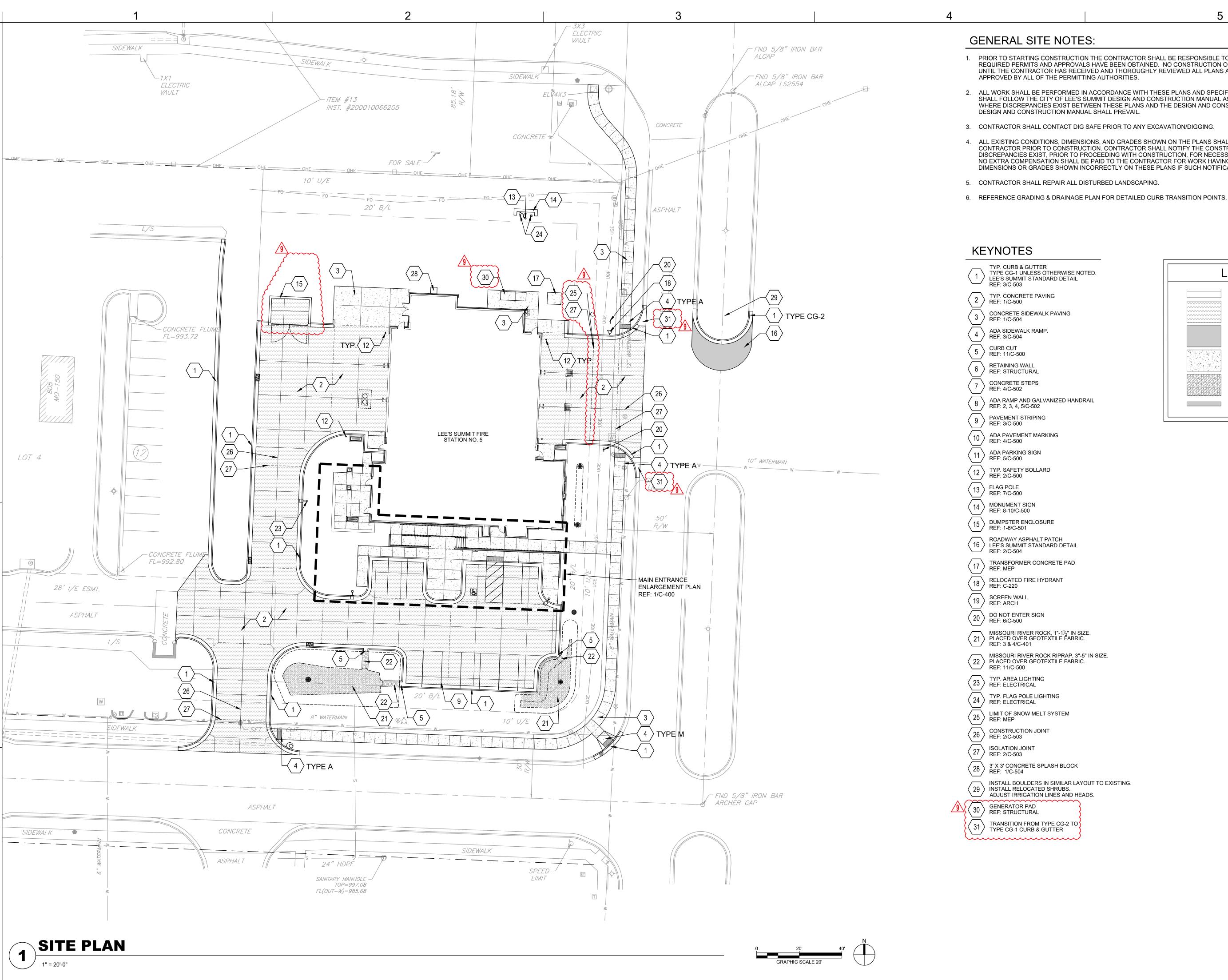
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PROJECT NO:	18225R21001
DATE:	05.04.2023
DRAWN BY:	JSP
CHK'D BY:	GLW
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BUILDING **ELEVATIONS**

RELEASED FOR CONSTRUCTION
As Noted on Plan Review Development Services Department Lee's Summit, Missouri 06/20/2023



- 1. PRIOR TO STARTING CONSTRUCTION THE CONTRACTOR SHALL BE RESPONSIBLE TO MAKE SURE THAT ALL REQUIRED PERMITS AND APPROVALS HAVE BEEN OBTAINED. NO CONSTRUCTION OR FABRICATION SHALL BEGIN UNTIL THE CONTRACTOR HAS RECEIVED AND THOROUGHLY REVIEWED ALL PLANS AND OTHER DOCUMENTS
- 2. ALL WORK SHALL BE PERFORMED IN ACCORDANCE WITH THESE PLANS AND SPECIFICATIONS. ALL CONSTRUCTION SHALL FOLLOW THE CITY OF LEE'S SUMMIT DESIGN AND CONSTRUCTION MANUAL AS ADOPTED BY ORDINANCE 5813. WHERE DISCREPANCIES EXIST BETWEEN THESE PLANS AND THE DESIGN AND CONSTRUCTION MANUAL, THE
- 4. ALL EXISTING CONDITIONS, DIMENSIONS, AND GRADES SHOWN ON THE PLANS SHALL BE FIELD VERIFIED BY THE CONTRACTOR PRIOR TO CONSTRUCTION. CONTRACTOR SHALL NOTIFY THE CONSTRUCTION MANAGER IF ANY DISCREPANCIES EXIST, PRIOR TO PROCEEDING WITH CONSTRUCTION, FOR NECESSARY PLAN OR GRADE CHANGES. NO EXTRA COMPENSATION SHALL BE PAID TO THE CONTRACTOR FOR WORK HAVING TO BE REDONE DUE TO DIMENSIONS OR GRADES SHOWN INCORRECTLY ON THESE PLANS IF SUCH NOTIFICATION HAS NOT BEEN GIVEN.

LEGEND

TYP. CURB & GUTTER

ASPHALT PATCH

CONCRETE SIDEWALK

MISSOURI RIVER ROCK

RETAINING WALL

TYP. CONCRETE PAVING



SUITE # 210 KANSAS CITY, MO 64114 TEL: (816) 444-4200 FAX: (316) 265-5646 www.glmv.com

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LEE'S SUMMIT, MO, 64086 (816) 444-3144 PHONE

MECH., ELEC. & PLUMBING ENGINEERS HOSS & BROWN ENGINEERS MISSOURI COA #01022

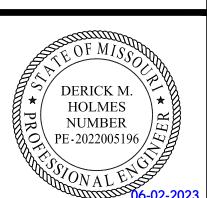
15902 MIDLAND DRIVE SHAWNEE, KS 66217 (913) 362-9090 PHONE SECURITY & IT ENGINEERS

HENDERSON ENGINEERS MISSOURI COA # 000556 1801 MAIN STREET. SUITE 300 KANSAS CITY, MO 64108 (816) 663-8700 PHONE

FIRE STATIC CITY OF LEE'S SUN MISSOURI I

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ASI 09 06.02.2023



DERICK HOLMES - CIVIL ENGINEER MO# PE-2022005196

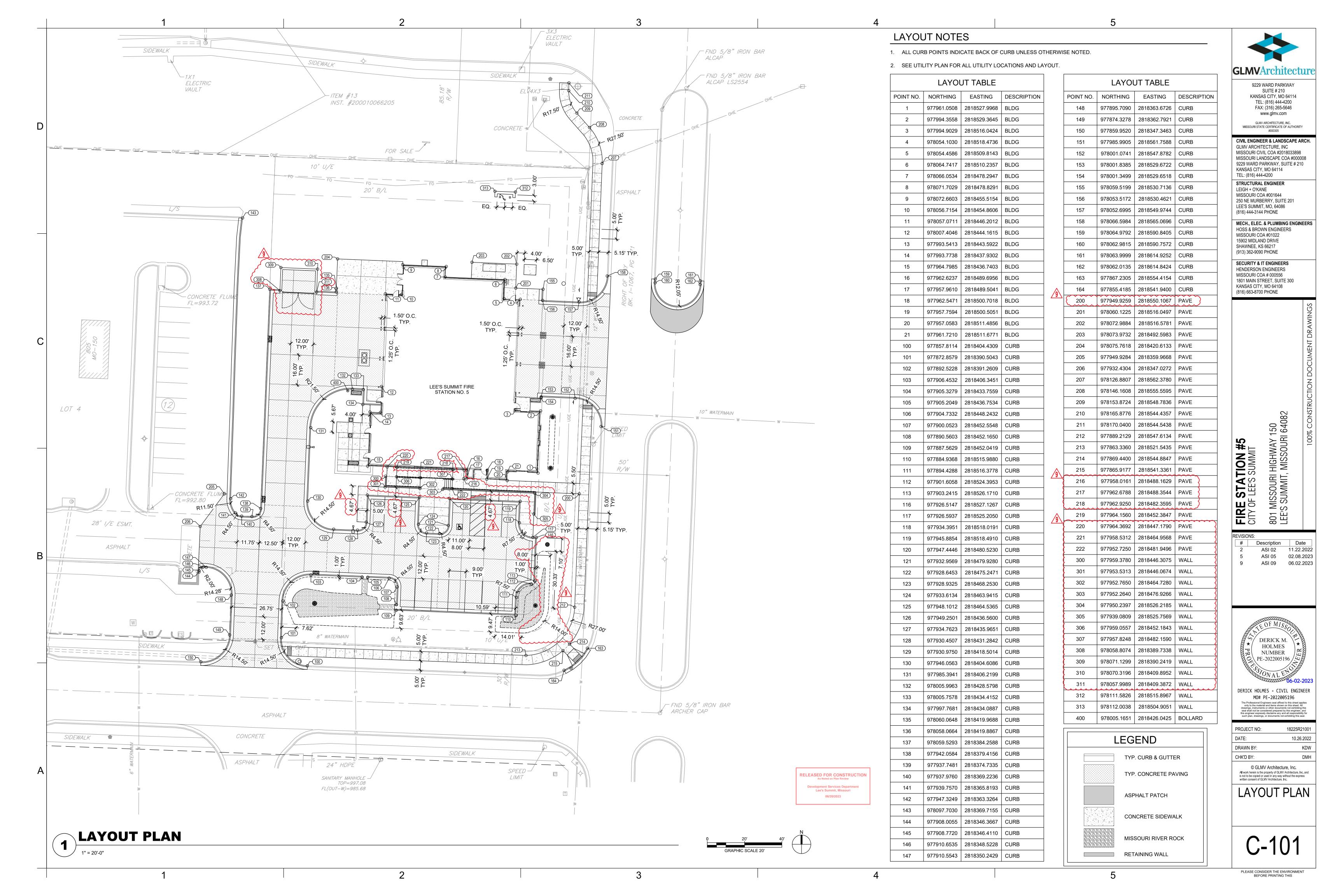
PROJECT NO:	18225R21001
DATE:	10.26.2022
DRAWN BY:	KDW
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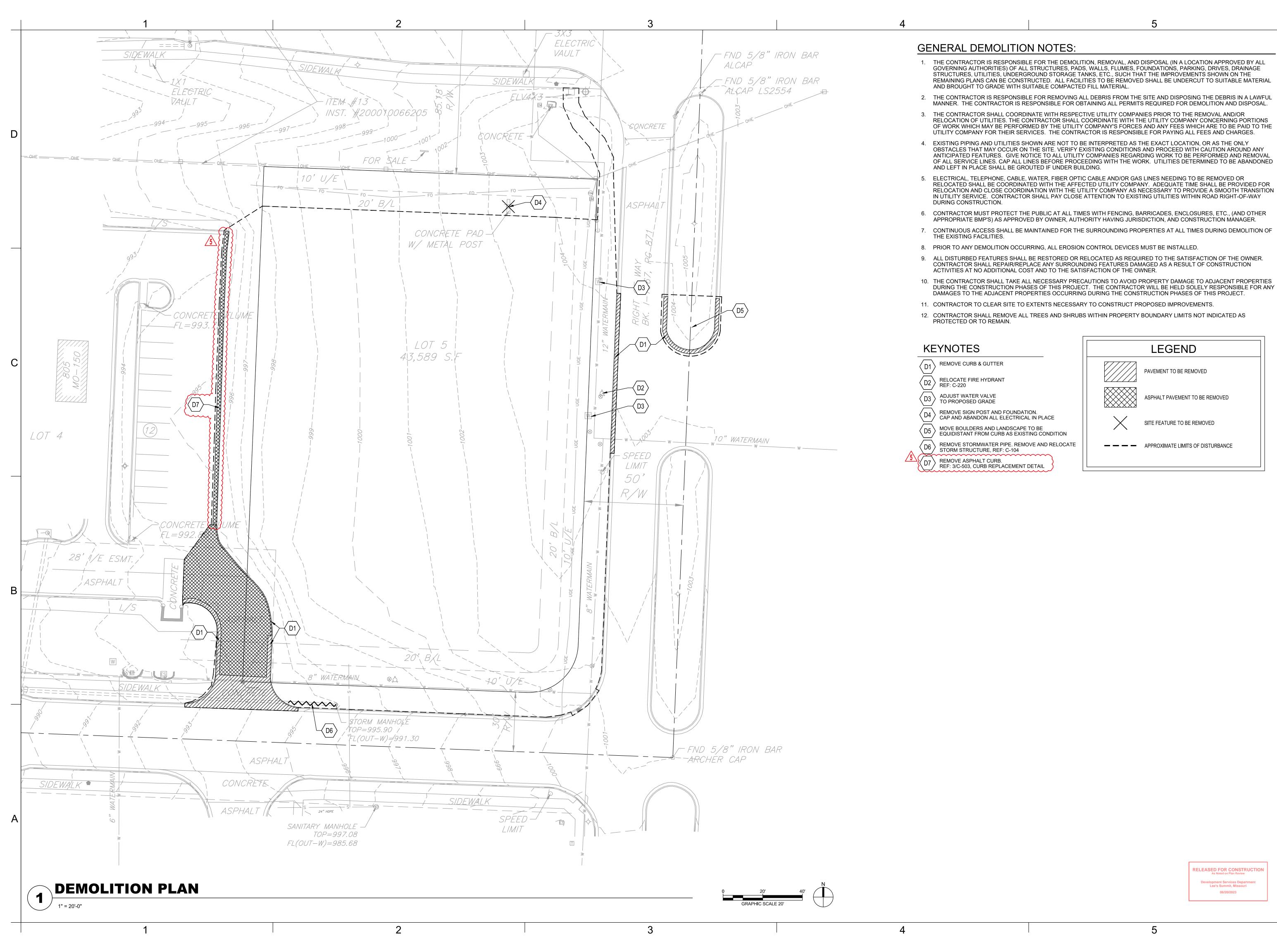
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SITE PLAN

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As Noted on Plan Review

Development Services Departmen Lee's Summit, Missouri 06/20/2023





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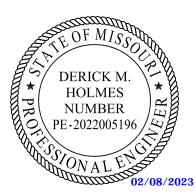
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(913) 362-9090 PHONE SECURITY & IT ENGINEERS HENDERSON ENGINEERS MISSOURI COA # 000556 1801 MAIN STREET, SUITE 300

SHAWNEE, KS 66217

KANSAS CITY, MO 64108 (816) 663-8700 PHONE

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DERICK HOLMES - CIVIL ENGINEER MO# PE-2022005196

PROJECT NO: 18225R21001 DATE: 10.26.2022 DRAWN BY: KDW CHK'D BY:

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DEMOLITION PLAN

GENERAL EROSION AND SEDIMENT CONTROL NOTES:

THIS SHEET OUTLINES MINIMUM STORMWATER PRACTICES TO BE FOLLOWED BY THE CONTRACTOR DURING ALL PHASES OF CONSTRUCTION OF THE PROJECT. THE CONTRACTOR WILL BE RESPONSIBLE FOR PREVENTION OF SOIL OR SEDIMENT LOSS FROM THE CONSTRUCTION SITE. THE CONTRACTOR SHALL SUBMIT A SITE-SPECIFIC SEDIMENT AND EROSION CONTROL SCHEDULE. THESE NOTES ARE TO BE USED AS A GUIDELINE ONLY. THE PROJECT IS NOT CONSIDERED COMPLETE UNTIL ALL PERMANENT EROSION AND SEDIMENT CONTROLS AND STORMWATER MANAGEMENT PRACTICES ARE IN PLACE TO THE SATISFACTION OF THE OWNER AND ENGINEER. ALL TEMPORARY PRACTICES MUST BE

IN ACCORDANCE WITH LOCAL AND STATE REGULATIONS PURSUANT TO THE GENERAL NPDES PERMIT FOR CONSTRUCTION STORMWATER, A STORMWATER POLLUTION PREVENTION PLAN (SWPPP) HAS BEEN DEVELOPED FOR THIS SITE. THE PLAN WAS DEVELOPED TO MINIMIZE THE EFFECTS OF SOIL EROSION AND RESULTING SEDIMENT LOSS. PREVENTION WILL BE PROVIDED THROUGH THE USE OF PROPER CONSTRUCTION TECHNIQUES. THESE TECHNIQUES WILL INCLUDE BOTH TEMPORARY AND PERMANENT MANAGEMENT PRACTICES. TO PREVENT EROSION AND SEDIMENT

- 1. PRIOR TO STARTING ANY SOIL DISTURBING ACTIVITIES, THE CONTRACTOR SHALL INSTALL PERIMETER EROSION AND
- 2. EROSION AND SEDIMENT CONTROL DEVICES SHALL BE CONSTRUCTED IN ACCORDANCE WITH THE KANSAS CITY METRO CHAPTER OF THE AMERICAN PUBLIC WORKS ASSOCIATION. INSTALL SILT FENCE AT INDICATED LOCATIONS AND OTHER LOCATIONS AS DIRECTED BY THE ENGINEER TO CONTROL SOIL EROSION. SILT FENCE SHALL BE KEPT IN
- 3. CONSTRUCTION ENTRANCE SHALL BE MAINTAINED BY THE CONTRACTOR IN A CONDITION THAT WILL PREVENT TRACKING OR FLOWING OF SEDIMENT ONTO PUBLIC RIGHT-OF-WAYS AND PAVED STREETS. THIS MAY INCLUDE PERIODIC TOP DRESSING WITH ADDITIONAL CRUSHED STONE AS CONDITIONS WARRANT. REPAIR OF ENTRANCE(S) AND CLEANING OF RIGHT-OF-WAYS AND PAVED STREETS THAT HAVE BEEN SOILED BY CONSTRUCTION ACTIVITIES
- 4. DURING ALL SOIL DISTURBING ACTIVITIES, THE CONTRACTOR SHALL TAKE APPROPRIATE STEPS USING ACCEPTED CONSTRUCTION METHODS TO MINIMIZE THE TIME OF EXPOSURE OF UNPROTECTED SOIL AND OTHER CONSTRUCTION MATERIALS TO RAINFALL. PARTICULAR CARE MUST BE EXERCISED WHEN DEALING WITH STOCKPILES OF TOPSOIL
- 5. SOIL STOCKPILED FOR MORE THAN 7 DAYS WILL HAVE SILT FENCE PLACED ON THE DOWNHILL SIDE TO TRAP
- 6. NO GROUND SHALL BE LEFT DISTURBED FOR MORE THAN 14 DAYS OF NON-ACTIVITY WITHOUT BEING TEMPORARILY
- 7. EROSION CONTROLS SHALL BE INSPECTED AND MAINTAINED BY THE CONTRACTOR NOT LESS THAN WEEKLY AND WITHIN 24 HOURS AFTER A RAINFALL EVENT OF 0.5 INCHES OR MORE. MAINTENANCE SHALL INCLUDE BUT NOT BE
- 8. WHENEVER DIRT, ROCK, OR OTHER MATERIALS ARE EXPORTED FOR PLACEMENT IN AREAS OFF THE PRIMARY CONSTRUCTION SITE, THE CONTRACTOR IS RESPONSIBLE FOR DETERMINING THAT ALL JURISDICTIONAL AUTHORITY REQUIREMENTS ARE MET. PRIOR TO THE REMOVAL OF ANY MATERIALS FROM THE SITE THE CONTRACTOR WILL FURNISH THE ENGINEER WITH A WRITTEN AGREEMENT, SIGNED BY EACH LANDOWNER WHO WILL RECEIVE EXPORTED MATERIALS, STATING THAT THE RECEIVING SITE WILL BE PROPERLY PERMITTED, WHEN REQUIRED.
- 9. CONTRACTOR SHALL BE RESPONSIBLE FOR ALL COSTS AND EXPENSES OF PROVIDING EROSION AND SEDIMENT
- CONTRACTOR SHALL KEEP A WRITTEN LOG OF WHEN CONSTRUCTION ACTIVITIES BEGIN, EROSION AND SEDIMENT CONTROLS ARE INSTALLED, INSPECTED, AND REPAIRED. COPIES OF LOG SHALL BE FURNISHED TO THE ENGINEER.
- 11. EROSION AND SEDIMENT CONTROL MEASURES SHALL BE REMOVED UPON STABILIZATION OF DISTURBED AREAS.

	EROSION AND SEDIMENT CONTROL PHASING SCHEDULE
PRIOR TO CONSTRUCTION	INSTALL TEMPORARY GRAVEL CONSTRUCTION ENTRANCES. INSTALL TEMPORARY PERIMETER SILT FENCE. INSTALL TEMPORARY EXISTING CURB INLET PROTECTION.
DURING CONSTRUCTION	1. INSTALL THE FOLLOWING AS SITE IMPROVEMENTS ARE COMPLETED: A. TEMPORARY CURB AND AREA INLET PROTECTION. B. TEMPORARY EROSION AND SEDIMENT CONTROL BLANKETS. C. PERMANENT TURF REINFORCEMENT MATS. 2. TEMPORARY SEED AREAS OF SITE, AS REQUIRED (SEE NOTE 6).
AFTER CONSTRUCTION	SEED, FERTILIZE, AND MULCH ALL SLOPES AND DISTURBED AREAS. PERFORM SITE CLEANUP. REMOVE TEMPORARY PRACTICES AND PERIMETER CONTROLS ONCE FINAL STABILIZATION HAS BEEN ACHIEVED.

- E6 TEMPORARY EROSION CONTROL BLANKET REF: 2 / C-510
- E7 PERMANENT TURF REINFORCEMENT MAT REF: 2 / C-510
- E8 RIPRAP REF: C-100

DERICK M. HOLMES NUMBER **LEGEND ____ __ LIMITS OF DISTURBANCE**

DERICK HOLMES - CIVIL ENGINEER MO# PE-2022005196

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HENDERSON ENGINEERS

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MISSOURI 'S SUMMIT,

Description

ASI 09

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06.02.2023

250 NE MURBERRY, SUITE 201

MECH., ELEC. & PLUMBING ENGINEERS

TEL: (816) 444-4200 STRUCTURAL ENGINEER

LEIGH + O'KANE

PROJECT NO: 18225R21001 DATE: 10.26.2022 DRAWN BY:

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EROSION

CONTROL PLAN

AREA INLET PROTECTION

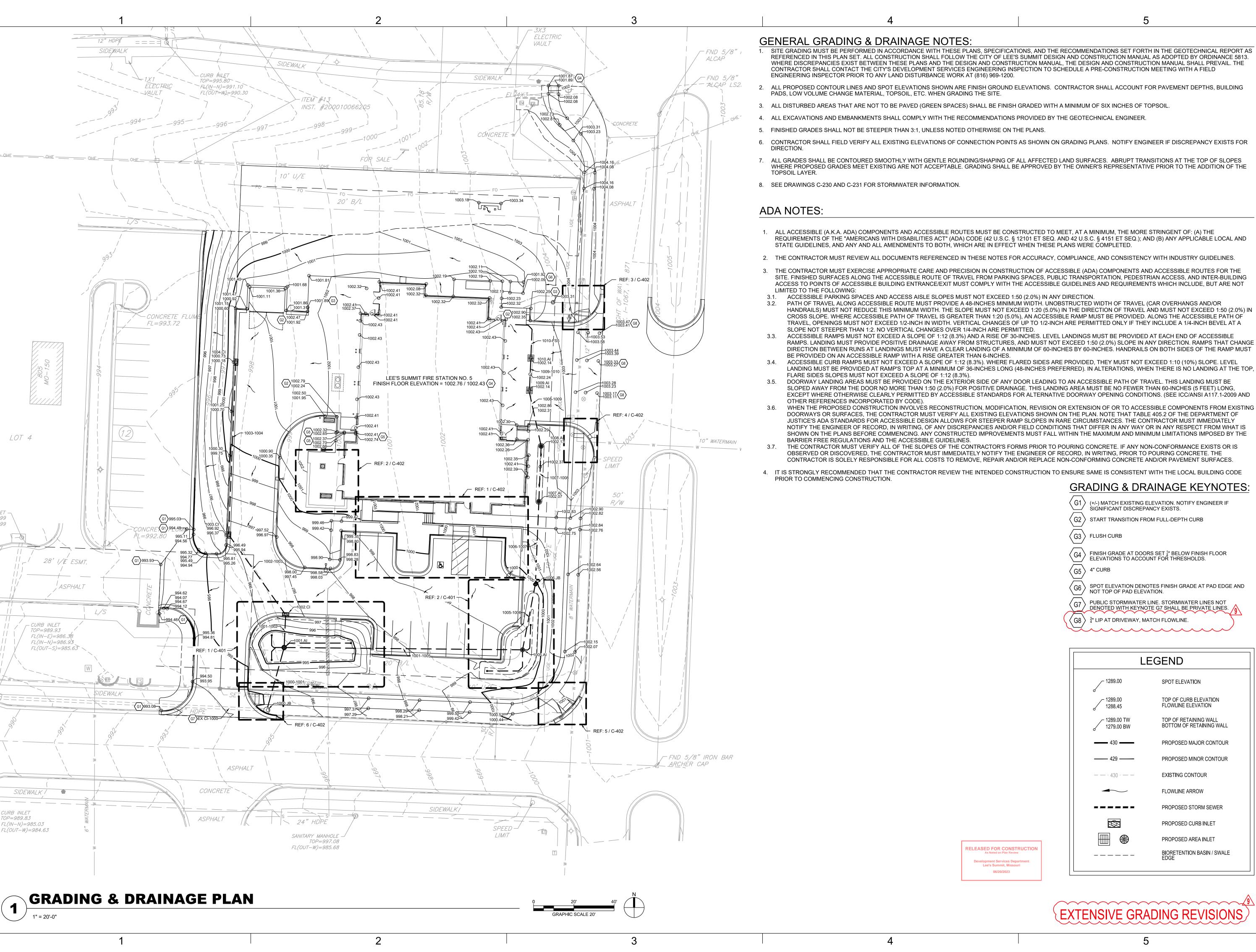
CONCRETE WASHOUT

CURB INLET PROTECTION

CONSTRUCTION ENTRANCE

TEMPORARY EROSION CONTROL BLANKET

PERMANENT TURF REINFORCEMENT MAT



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DERICK M. HOLMES NUMBER DE-2022005196 /⊱

DERICK HOLMES - CIVIL ENGINEER MO# PE-2022005196 The Professional Engineers seal affixed to this sheet applic only to the material and items shown on this sheet. All strawings, instruments or other documents not exhibiting this seal shall not be considered prepared by this engineer, an anis engineer expressly disclaims any and all responsibility in

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GRADING & DRAINAGE PLAN

SIGNIFICANT DISCREPANCY EXISTS.

NOT TOP OF PAD ELEVATION.

- 1289.00

- 1289.00

1288.45

- 1289.00 TW

1279.00 BW

— · 430 · — —

DENOTED WITH KEYNOTE G7 SHALL BE PRIVATE LINES.

LEGEND

SPOT ELEVATION

TOP OF CURB ELEVATION

FLOWLINE ELEVATION

TOP OF RETAINING WALL

BOTTOM OF RETAINING WALL

PROPOSED MAJOR CONTOUR

PROPOSED MINOR CONTOUR

EXISTING CONTOUR

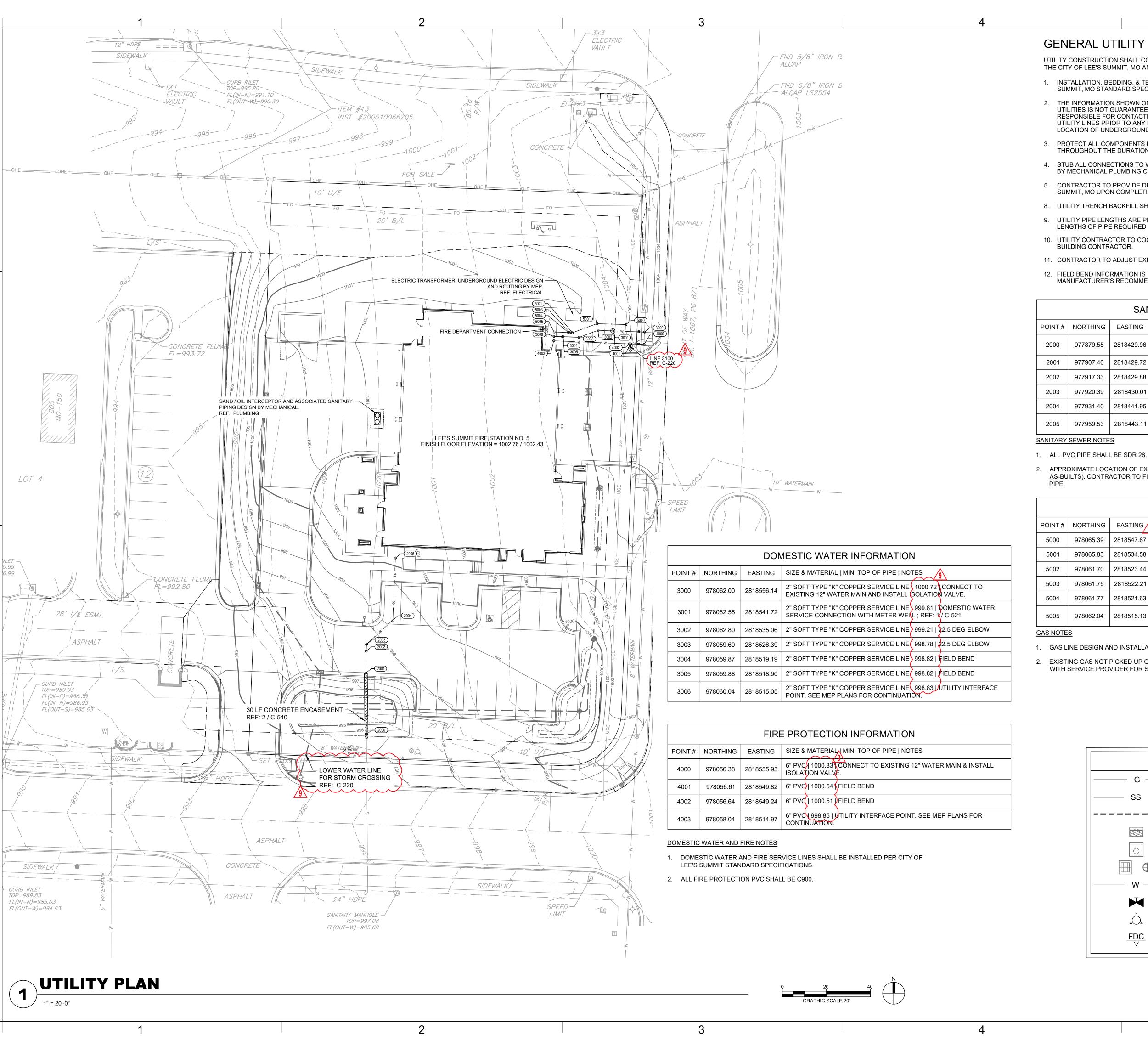
FLOWLINE ARROW

PROPOSED STORM SEWER

PROPOSED CURB INLET

PROPOSED AREA INLET

BIORETENTION BASIN / SWALE



GENERAL UTILITY NOTES:

UTILITY CONSTRUCTION SHALL COMPLY WITH THE STANDARD SPECIFICATIONS, CODES, AND DETAILS OF THE CITY OF LEE'S SUMMIT, MO AND UTILITY PROVIDERS.

- 1. INSTALLATION, BEDDING, & TESTING OF UTILITY INSTALLATIONS SHALL BE AS PER CITY OF LEE'S SUMMIT, MO STANDARD SPECIFICATIONS AND STANDARD SPECIAL PROVISIONS.
- 2. THE INFORMATION SHOWN ON THESE PLANS CONCERNING THE TYPE AND LOCATION OF UNDERGROUND UTILITIES IS NOT GUARANTEED TO BE ACCURATE OR ALL INCLUSIVE. THE CONTRACTOR IS RESPONSIBLE FOR CONTACTING ALL UTILITY COMPANIES FOR FIELD LOCATION OF ALL UNDERGROUND UTILITY LINES PRIOR TO ANY EXCAVATION AND FOR MAKING HIS OWN VERIFICATION AS TO TYPE AND LOCATION OF UNDERGROUND UTILITIES AS MAY BE NECESSARY TO AVOID DAMAGE THERETO.
- PROTECT ALL COMPONENTS DURING DEMOLITION / CONSTRUCTION PROCESS. MAINTAIN BMP'S THROUGHOUT THE DURATION OF CONSTRUCTION.
- 4. STUB ALL CONNECTIONS TO WITHIN 5' OF THE BUILDING TO PROVIDE CONNECTION INTO THE BUILDING BY MECHANICAL PLUMBING CONTRACTOR.
- 5. CONTRACTOR TO PROVIDE DETAILED AS-BUILT DRAWINGS TO OWNER, ENGINEER, AND CITY OF LEE'S SUMMIT, MO UPON COMPLETION OF ALL UTILITIES.
- 8. UTILITY TRENCH BACKFILL SHALL BE PER PROJECT SPECIFICATIONS.
- 9. UTILITY PIPE LENGTHS ARE PROVIDED FOR INFORMATION ONLY. CONTRACTOR TO VERIFY ACTUAL LENGTHS OF PIPE REQUIRED PRIOR TO BIDDING & INSTALLING UTILITIES.
- 10. UTILITY CONTRACTOR TO COORDINATE BUILDING CONNECTION POINTS WITH PLUMBING PLAN AND **BUILDING CONTRACTOR.**
- 11. CONTRACTOR TO ADJUST EXISTING WATER VALVES TO PROPOSED GRADE, AS REQUIRED.
- 12. FIELD BEND INFORMATION IS PROVIDED FOR REFERENCE ONLY. CONTRACTOR TO FOLLOW PIPE MANUFACTURER'S RECOMMENDATIONS FOR FIELD ADJUSTMENTS OF PIPE BETWEEN FITTINGS.

	SANITARY SEWER INFORMATION			
POINT # NORTHING EASTING SIZE & MATERIAL SLOPE DOWNSTREAM INV. EL. NOTES		SIZE & MATERIAL SLOPE DOWNSTREAM INV. EL. NOTES		
2000	977879.55	2818429.96	4" PVC N/A 989.58 CONNECTION TO EXISTING SERVICE. SEE SANITARY SEWER NOTE 2	
2001	977907.40	2818429.72	4" PVC 4.32% 990.78 FIELD BEND	
2002	977917.33	2818429.88	4" PVC 4.32% 991.21 FIELD BEND	
2003	977920.39	2818430.01	4" PVC 4.32% 991.34 45 DEG ELBOW	
2004	977931.40	2818441.95	4" PVC 13.19% 993.49 45 DEG ELBOW	
2005	977959 53	2818443 11	4" PVC 13.19% 997.20 CLEANOUT UTILITY INTERFACE POINT. SEE MEP	

PLANS FOR CONTINUATION

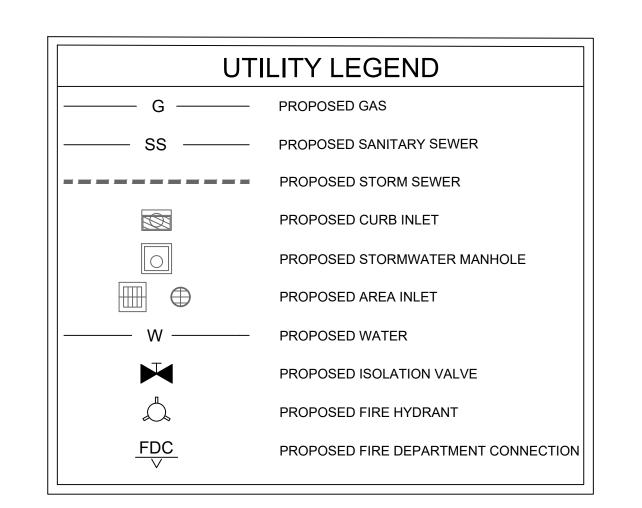
SANITARY SEWER NOTES

- 1. ALL PVC PIPE SHALL BE SDR 26.
- 2. APPROXIMATE LOCATION OF EXISTING SANITARY SEWER STUB (PER CITY AS-BUILTS). CONTRACTOR TO FIELD VERIFY PRIOR TO INSTALLING UPSTREAM

GAS INFORMATION				
POINT#	NORTHING	EASTING /9	FINISHED GRADE NOTES	
5000	978065.39	2818547.67	1003.89 SEE GAS NOTE 2	
5001	978065.83	2818534.58	1002.74 22.5 DEG ELBOW	
5002	978061.70	2818523.44	1002.25 22.5 DEG ELBOW	
5003	978061.75	2818522.21	1002.25 FIELD BEND	
5004	978061.77	2818521.63	1002.26 FIELD BEND	
5005	978062.04	2818515.13	1002.30 UTILITY INTERFACE POINT. SEE MEP PLANS FOR CONTINUATION.	

GAS NOTES

- 1. GAS LINE DESIGN AND INSTALLATION PER SERVICE PROVIDER.
- 2. EXISTING GAS NOT PICKED UP ON SITE SURVEY. CONTRACTOR TO COORDINATE WITH SERVICE PROVIDER FOR SERVICING SITE WITH NATURAL GAS.



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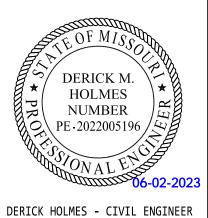
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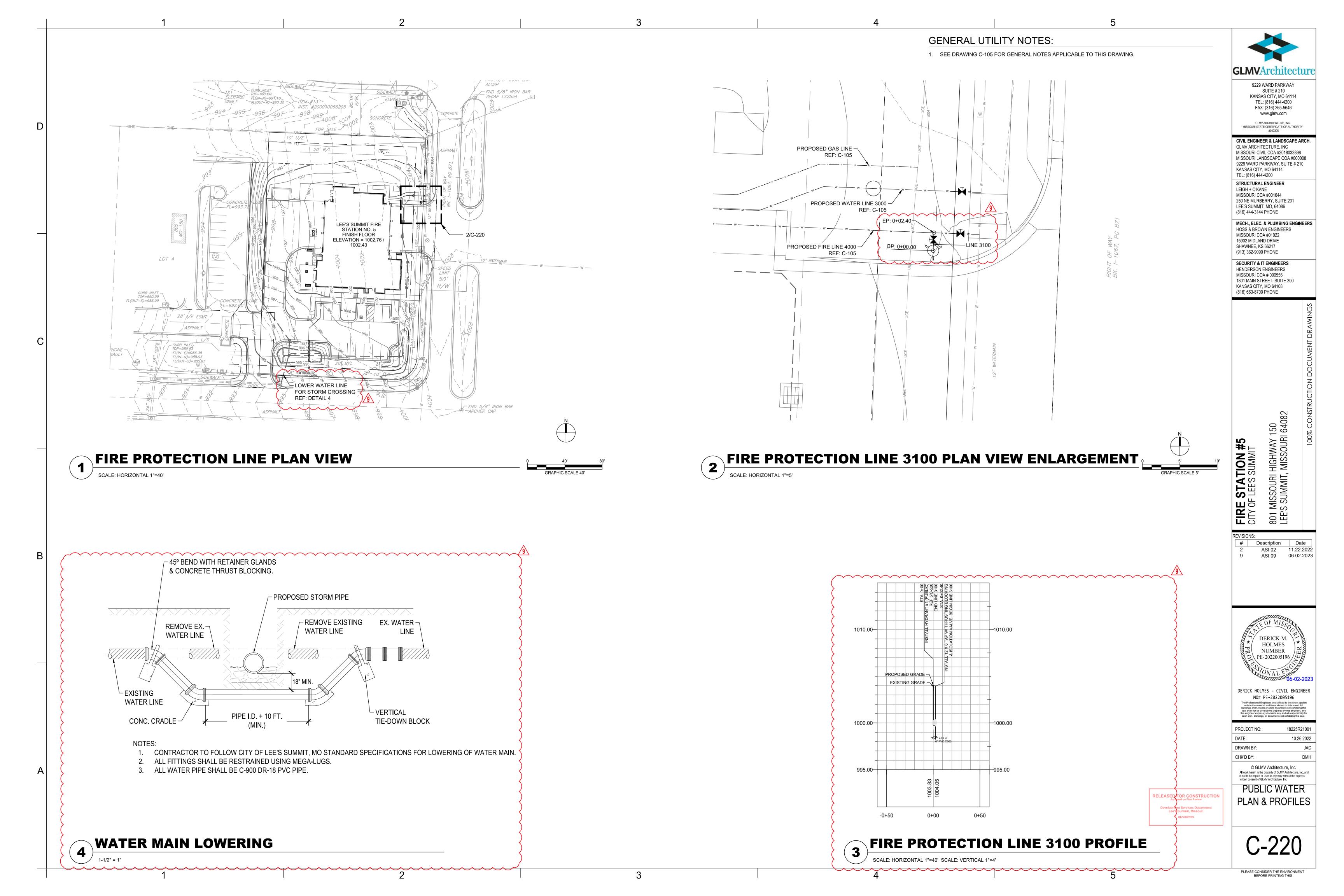


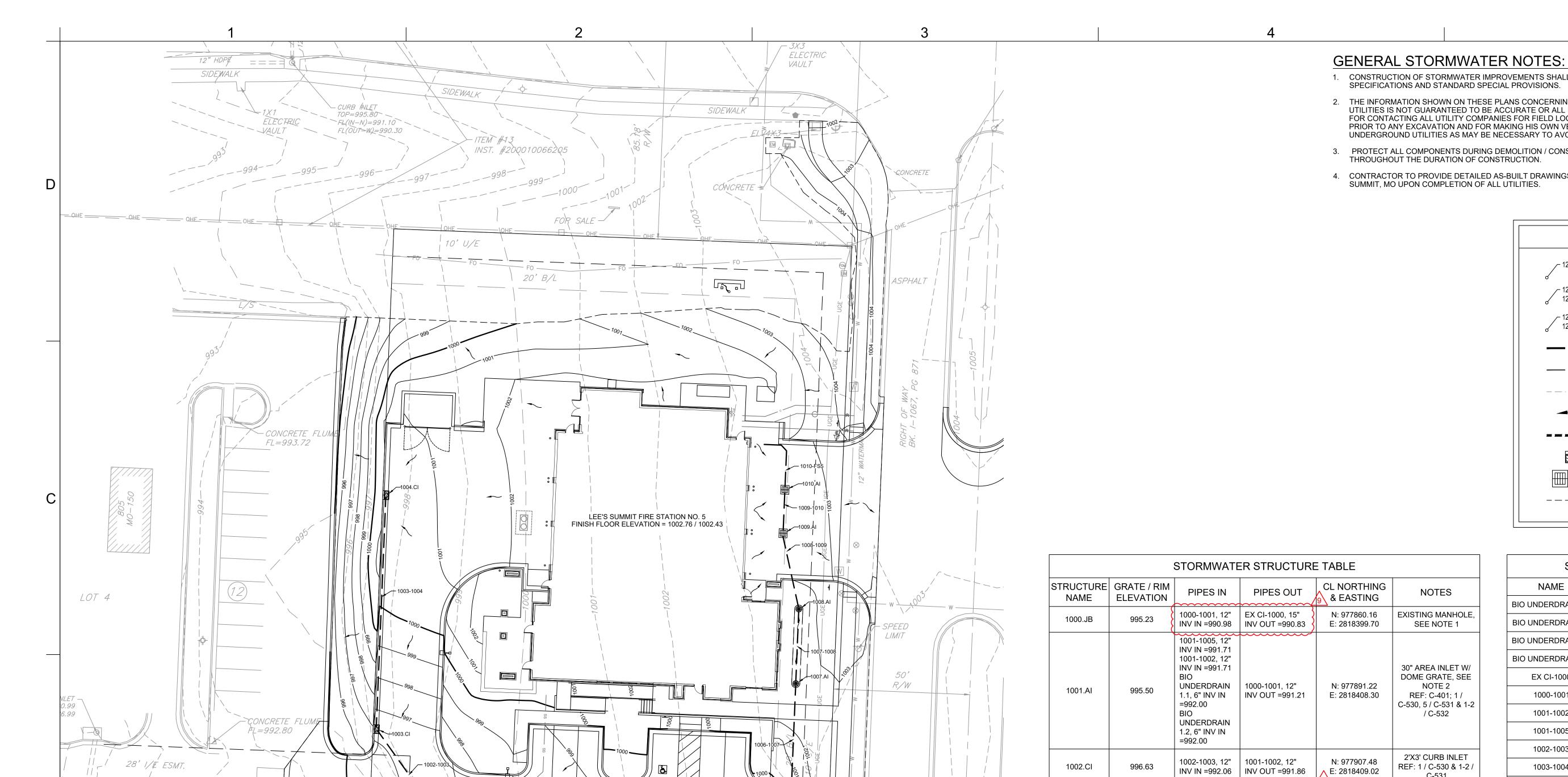
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UTILITY PLAN





SIDEWALK!

SPEED —/ LIMIT

- CURB INLET TOP=989.93 FL(IN-E)=986.3

SIDEWALK /

- CURB INLET TOP=989.83

FL(IN-N)=985.03

FL(OUT-W)=984.63

FL(IN-N) = 986.93

FL(OUT-S)=985.63

SIDEWALK

STORMWATER PLAN

ASPHALT

SANITARY MANHOLE -TOP=997.08 FL(OUT-W)=985.68

CONCRETE

- CONSTRUCTION OF STORMWATER IMPROVEMENTS SHALL BE AS PER CITY OF LEE'S SUMMIT, MO STANDARD
- 2. THE INFORMATION SHOWN ON THESE PLANS CONCERNING THE TYPE AND LOCATION OF UNDERGROUND UTILITIES IS NOT GUARANTEED TO BE ACCURATE OR ALL INCLUSIVE. THE CONTRACTOR IS RESPONSIBLE FOR CONTACTING ALL UTILITY COMPANIES FOR FIELD LOCATION OF ALL UNDERGROUND UTILITY LINES PRIOR TO ANY EXCAVATION AND FOR MAKING HIS OWN VERIFICATION AS TO TYPE AND LOCATION OF UNDERGROUND UTILITIES AS MAY BE NECESSARY TO AVOID DAMAGE THERETO.
- 3. PROTECT ALL COMPONENTS DURING DEMOLITION / CONSTRUCTION PROCESS. MAINTAIN BMP'S THROUGHOUT THE DURATION OF CONSTRUCTION.
- 4. CONTRACTOR TO PROVIDE DETAILED AS-BUILT DRAWINGS TO OWNER, ENGINEER, AND CITY OF LEE'S

LE	EGEND
1289.00	SPOT ELEVATION
1289.00 1288.45	TOP OF CURB ELEVATION FLOWLINE ELEVATION
1289.00 TW 1279.00 BW	TOP OF RETAINING WALL BOTTOM OF RETAINING WALL
430	PROPOSED MAJOR CONTOUR
 429 	PROPOSED MINOR CONTOUR
— · 430 · — —	EXISTING CONTOUR
	FLOWLINE ARROW
	PROPOSED STORM SEWER
	PROPOSED CURB INLET
	PROPOSED AREA INLET
	BIORETENTION BASIN / SWALE EDGE

		STORMWATE	ER STRUCTURE	E TABLE	
TRUCTURE NAME	GRATE / RIM ELEVATION	PIPES IN	PIPES OUT	CL NORTHING & EASTING	NOTES
1000.JB	995.23	1000-1001, 12" INV IN =990.98	EX CI-1000, 15" INV OUT =990.83	N: 977860.16 E: 2818399.70	EXISTING MANHOLE, SEE NOTE 1
1001.AI	995.50	1001-1005, 12" INV IN =991.71 1001-1002, 12" INV IN =991.71 BIO UNDERDRAIN 1.1, 6" INV IN =992.00 BIO UNDERDRAIN 1.2, 6" INV IN =992.00	1000-1001, 12" INV OUT =991.21	N: 977891.22 E: 2818408.30	30" AREA INLET W/ DOME GRATE, SEE NOTE 2 REF: C-401; 1 / C-530, 5 / C-531 & 1-2 / C-532
1002.CI	996.63	1002-1003, 12" INV IN =992.06	1001-1002, 12" INV OUT =991.86	N: 977907.48 E: 2818409.02	2'X3' CURB INLET REF: 1 / C-530 & 1-2 / C-531
1003.CI	996.37	1003-1004, 12" INV IN =992.50	1002-1003, 12" INV OUT =992.30	N: 977947.03 E: 2818380.76	2'X3' CURB INLET REF: 1 / C-530 & 1-2 / C-531
1004.CI	1000.18		1003-1004, 12" INV OUT =996.00	N: 978032.84 E: 2818384.29	2'X3' CURB INLET REF: 1 / C-530 & 1-2 / C-531
1005.AI	998.59	1005-1006, 12" INV IN =994.39 BIO UNDERDRAIN 2.1, 6" INV IN =994.76 BIO UNDERDRAIN 2.2, 6" INV IN =994.76	1001-1005, 12" INV OUT =993.89	N: 977890.08 E: 2818526.60	24" AREA INLET W/ DOME GRATE, SEE NOTE 2 REF: C-401;1 / C-530 & 2, 3, 5 / C-531
1006.JB	1000.00	1006-1007, 12" INV IN =994.81	1005-1006, 12" INV OUT =994.61	N: 977922.79 E: 2818532.99	24" DRAIN BASIN W/ SOLID COVER REF: 1 / C-530 & 2,4, & 5 / C-531
1007.AI	1002.07	1007-1008, 12" INV IN =995.31	1006-1007, 12" INV OUT =995.11	N: 977963.78 E: 2818534.70	24" AREA INLET W/ DOME GRATE REF:1 / C-530 & 2, 3, & 5 / C-531
1008.AI	1002.17	1008-1009, 12" INV IN =995.98	1007-1008, 12" INV OUT =995.78	N: 977991.06 E: 2818535.81	24" AREA INLET W/ DOME GRATE REF: 1 / C-530 & 2, 3, & 5 / C-531
1009.AI	1002.14	1009-1010, 12" INV IN =996.81	1008-1009, 12" INV OUT =996.61	N: 978018.88 E: 2818530.05	STANDARD DOUBLE GRATE INLET REF: 2 / C-530
1010.AI	1002.14	1010-FS5, 6" INV IN =997.30	1009-1010, 12" INV OUT =997.10	N: 978034.83 E: 2818530.72	STANDARD DOUBLE GRATE INLET REF: 2 / C-530
EX CI	989 93	EX CI-1000, 15"		N: 977866.28	EXISTING CURB

STORMWATER PIPE TABLE		
NAME	PIPE DESCRIPTION	
BIO UNDERDRAIN 2.2	14.42 L.F. OF PERFORATED 6" PVC @ 0.5%	
BIO UNDERDRAIN 2.1	25.92 L.F. OF PERFORATED 6" PVC @ 0.5%	
BIO UNDERDRAIN 1.2	17.72 L.F. OF PERFORATED 6" PVC @ 0.5%	
BIO UNDERDRAIN 1.1	32.74 L.F. OF PERFORATED 6" PVC @ 0.5%	
EX CI-1000	133.81 LF OF 15" HDPE @ 3.33%	
1000-1001	31.21 LF OF 12" HDPE @ 0.75%	
1001-1002	14.52 LF OF 12" HDPE @ 1.00%	
1001-1005	116.32 LF OF 12" HDPE @ 1.87%	
1002-1003	47.13 LF OF 12" HDPE @ 0.50%	
1003-1004	84.45 LF OF 12" HDPE @4.15%	
1005-1006	31.33 LF OF 12" HDPE @ 0.70%	
1006-1007	39.03 LF OF 12" HDPE @ 0.77%	
1007-1008	25.31 LF OF 12" HDPE @ 1.86%	
1008-1009	26.29 LF OF 12" HDPE @ 2.40%	
1009-1010	13.70 LF OF 12" HDPE @ 2.12%	
1010-FS5	22.29 LF OF 6" HDPE @0.50% MIN	

NOTES

- 1. CONTRACTOR TO REUSE EXISTING MANHOLE, IF POSSIBLE. SEE C-102. GROUT AND REPAIR EXISTING PIPE PENETRATIONS NO LONGER NECESSARY PER CITY OF LEE'S SUMMIT, MO STANDARDS. NOTIFY ENGINEER IF STRUCTURE IS UNABLE TO BE REUSED. EXISTING INVERT ELEVATION OUT ASSUMED BASED ON LINEAR INTERPOLATION. CONTRACTOR TO FIELD VERIFY AND CONTACT ENGINEER IF DISCREPANCY EXISTS.
- 2. BIORETENTION BASIN OUTLET CONTROL STRUCTURE. SEE
- 3. THIS STRUCTURE HAS ADDITIONAL EXISTING PIPES NOT SHOWN IN THIS STRUCTURE TABLE.

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REVISIONS: # Description Date ASI 02 11.22.2022 ASI 05 02.08.2023 ASI 09 06.02.2023



DERICK HOLMES - CIVIL ENGINEER MO# PE-2022005196

PROJECT NO:	18225R21001
DATE:	10.26.2022
DRAWN BY:	SJB
CHK'D BY:	DMH

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STORMWATER PLAN

RELEASED FOR CONSTRUCTION
As Noted on Plan Review Development Services Department Lee's Summit, Missouri 06/20/2023

989.93

EX CI

INV IN =986.38

E: 2818263.15

INLET, SEE NOTE 3

REF: 3-4 / C-530

GENERAL NOTES:

- 1. SEE DRAWING C-230 FOR GENERAL NOTES APPLICABLE TO THIS DRAWING.
- 3. 18" MINIMUM CLEARANCE REQUIRED.

TIME OF PEAK

FLOW

OCCURRENCE

(DAYS HH:MM)

0 12:02

0 12:00

0 12:02

0 12:05

0 12:05

0 12:00

0 12:00

0 11:56

0 11:20

0 11:20

0 12:01

TRAVEL TIME

(MIN)

0.13

0.08

0.40

0.37

0.35

0.17

0.20

0.10

0.09

0.05

0.33

FLOW

CAPACITY

(CFS)

3.31

3.92

5.28

2.75

7.86

3.23

3.38

5.26

6.00

5.62

12.76

MAX FLOW

VELOCITY

(FT/SEC)

4.01

2.91

4.83

2.10

4.02

3.13

3.25

4.38

4.75

4.37

6.79

PEAK FLOW

(CFS)

1.36

0.28

0.77

0.21

0.17

0.59

0.59

0.57

0.54

0.47

EXIT/BEND

LOSSES

0.80

1.00

1.00

0.60

0.60

0.80

0.55

0.50

0.55

0.50

0.50

2. ALL STORMWATER STRUCTURES AND PIPES SHOWN ON THIS DRAWING ARE PRIVATE, UNLESS NOTED OTHERWISE.

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FIRE STATIC CITY OF LEE'S SUN

MAX FLOW

TOTAL

DEPTH

RATIO

0.45

0.18

0.26

0.19

0.10

0.29

0.28

0.22

0.20

0.20

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As Noted on Plan Review

Development Services Department Lee's Summit, Missouri 06/20/2023

MAX FLOW / MAX FLOW

DESIGN

FLOW RATIO

0.41

0.15

0.08

0.18

0.17

0.11

0.09

0.08

0.11

0.02

DEPTH

(FT)

0.45

0.18

0.26

0.19

0.10

0.29

0.28

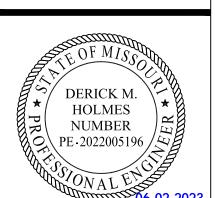
0.22

0.20

0.20

0.28

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CHK'D BY:	DMH
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18225R21001

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STORMWATER **PROFILES**

PLEASE CONSIDER THE ENVIRONMENT

_ EXISTING GRADE 39.03 LF OF 12" HDPE @ 0.77% 7 13.70 LF OF 12" HDPE @ 2.12% PROPOSED -1000.00 1000.00 BIORETENTION FINAL GRADE -BASIN 2 PROPOSED -BIORETENTION 1005-1006 BASIN 1 1.33 LF OF 12" HDPE @ 0.70% 100-YR, 24-HR HGL (TYP) __26.29 LF OF 12" HDPE @ 2.40% ⁻25.31 LF OF 12" HDPE @ 1.86% 116.32 LE OF 12" HDPE @ 1.87% ¯ -990.00 PROPOSED 4" SANITARY INV. EL: 990.08 STA.=0+21.56 -PIPE ENCASEMENT PER 2 / C-540 0+00 0+50 1+00 1+50 2+00 2+50 3+00 3+50

 FINAL GRADE EXISTING GRADE 1000.00-COMPACTED FILL SHALL BE PLACED TO A MINIMUM 18" ABOVE THE TOP OF THE PIPE PRIOR TO INSTALLATION. PROPOSED BIORETENTION BASIN 1 ___14.52 LF OF 12" HDPE @ 1.00% 84.45 LF OF 12" HDPE @ 4.15% 47.13 LF OF 12" HDPE @ 0.50% 990.00 990.00 1000-1001 100-YR, 24-HR HGL (TYP) 31.21 LF OF 12" HDPE @ 0.75% EXISTING 8" WATERLINE SEE NOTE 3 0+00 0+50 1+00 1+50 2+00 2+50

100-YR, 24-HR STORM EVENT

ENTRANCE

LOSSES

0.50

0.50

0.50

0.50

0.50

0.50

0.50

0.50

0.50

0.50

0.50

MANNING'S

ROUGHNESS

(N)

0.012

0.012

0.012

0.012

0.012

0.012

0.012

0.012

0.012

0.012

0.012

DIAMETER

(INCHES)

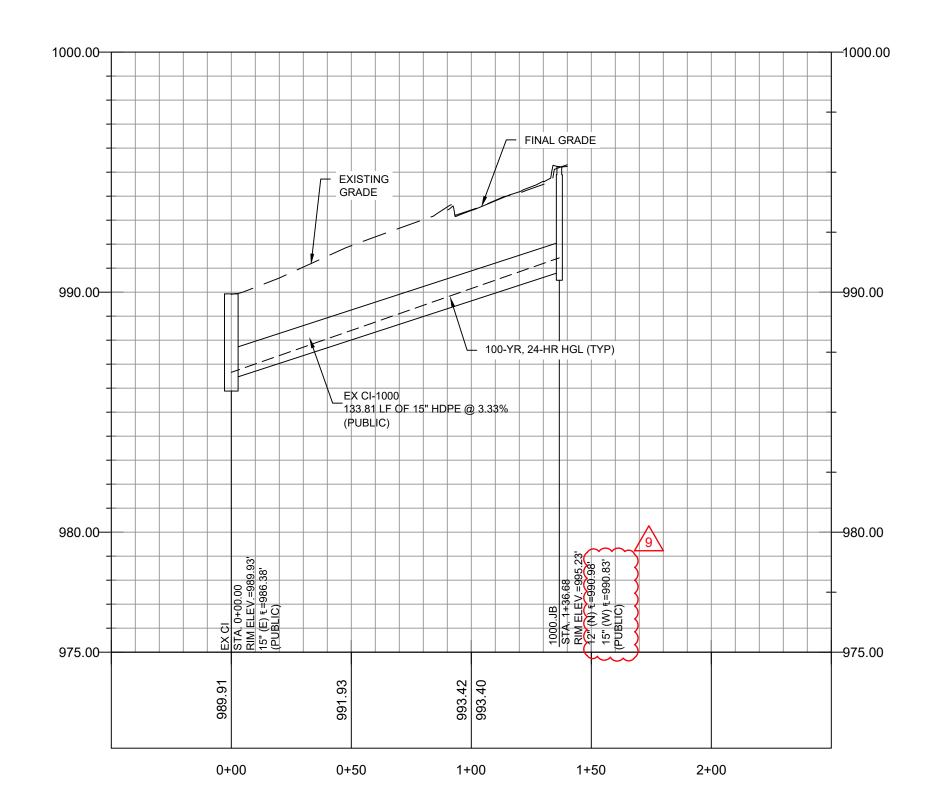
12

12

12

1001.AI - 1010.AI PROFILE

SCALE: HORIZONTAL 1"=40' SCALE: VERTICAL: 1"=4'



PIPE NAME	UPSTREAM NODE	DOWNSTREAM NODE	LENGTH (FT)	INLET INVERT ELEVATION (FT)	OUTLET INVERT ELEVATION (FT)	SLOPE (%)
1000-1001	1001.AI	1000.JB	31.21	991.21	990.98	0.75
1001-1002	1002.CI	1001.AI	14.52	991.86	991.71	1.00
1001-1005	1005.AI	1001.AI	116.32	993.89	991.71	1.87
1002-1003	1003.CI	1002.CI	47.13	992.30	992.06	0.50
1003-1004	1004.CI	1003.CI	84.45	996.00	992.50	4.15
1005-1006	1006.JB	1005.AI	31.33	994.61	994.39	0.70
1006-1007	1007.AI	1006.JB	39.03	995.11	994.81	0.77
1007-1008	1008.AI	1007.AI	25.31	995.78	995.31	1.86
1008-1009	1009.AI	1008.AI	26.29	996.61	995.98	2.40
1009-1010	1010.AI	1009.AI	13.70	997.10	996.81	2.12
EX CI - 1000.JB	1000.JB	EX CI	133.81	990.83	986.38	3.33
100-YR, 24-HR ST	ORM EVENT MAX HGL ELEVATION (FT)	<u></u>				
1000.JB	991.43	<u> </u>				
1001.AI	991.97	}				
1002.CI	992.25	}				
1003.CI	992.60)				
1004.CI	996.11					
1	<i>(</i>)	$\nu \sim \iota$				

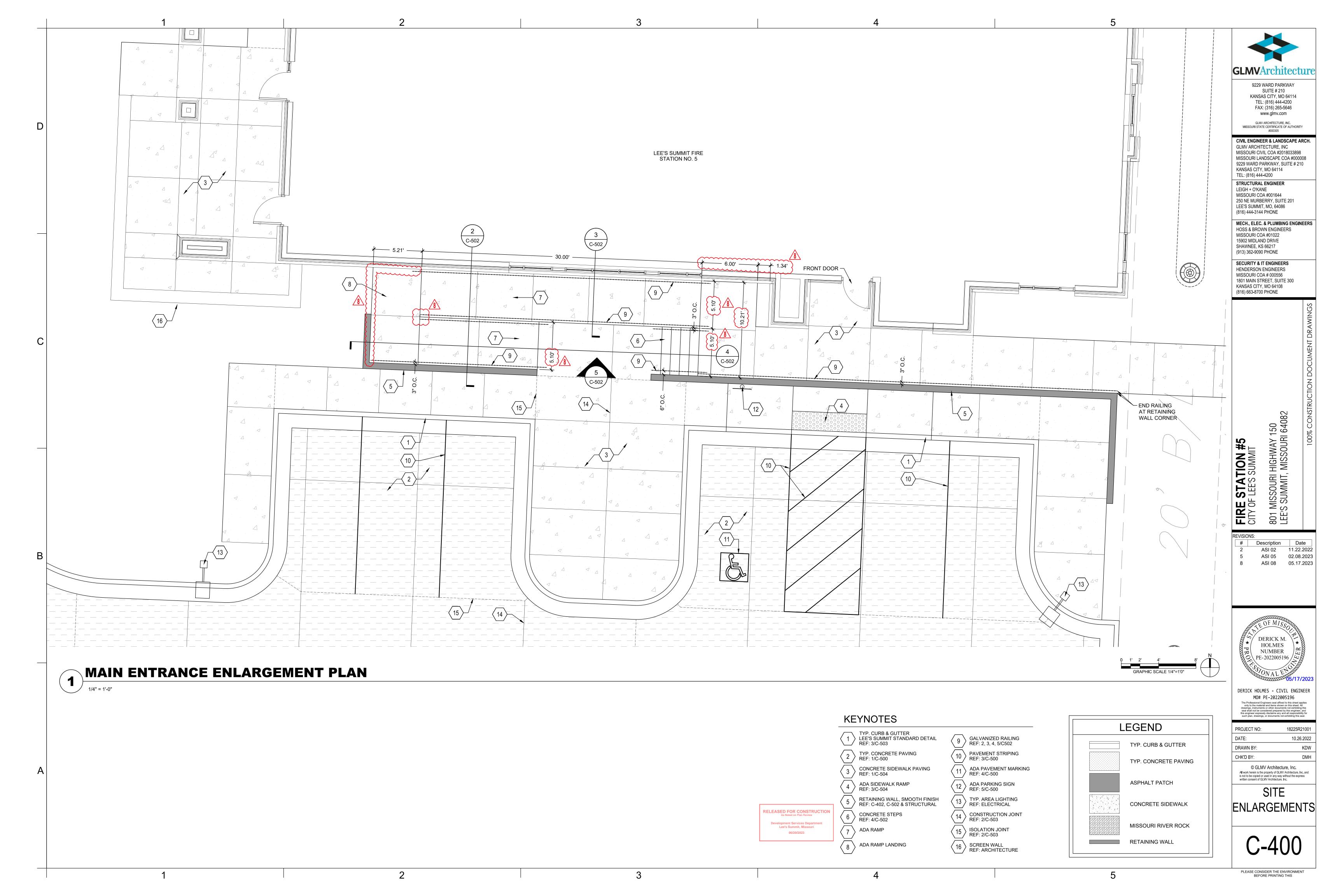
STRUCTURE NAME	MAX HGL ELEVATION (FT)	/ 9
1000.JB	991.43	5
1001.AI	991.97	}
1002.CI	992.25	}
1003.CI	992.60	5
1004.CI	996.11	/9\
1005.AI	994.68	\ <u>\</u>
1006.JB	995.09	}
1007.AI	995.53	}
1008.AI	996.18	}
1009.AI	997.01	{
1010.AI	997.30	5
EX CI	986.66	

EX CI - 1000.JB PROFILE

SCALE: HORIZONTAL 1"=40' SCALE: VERTICAL: 1"=4'

1000.JB - 1004.CI PROFILE

SCALE: HORIZONTAL 1"=40' SCALE: VERTICAL: 1"=4'



1/2" = 1'-0"

GENERAL NOTES:

- BIORETENTION FACILITIES SHALL NOT BE CONSTRUCTED UNTIL ALL CONTRIBUTING DRAINAGE AREAS ARE PERMANENTLY STABILIZED AGAINST EROSION AND SEDIMENTATION. ANY DISCHARGE OF SEDIMENT THAT AFFECTS THE PERFORMANCE OF THE CELL WILL REQUIRE RECONSTRUCTION OF THE CELL TO RESTORE ITS DEFINED
- 2. NO HEAVY EQUIPMENT SHALL OPERATE WITHIN THE BIORETENTION FACILITY DURING UNDERDRAIN PLACEMENT, BACKFILLING, OR PLANTING OF THE FACILITY.
- 3. IF THE BIORETENTION FACILITY IS TO BE USED AS A SEDIMENT BASIN. THE BIORETENTION FACILITY SHALL BE EXCAVATED TO THE DIMENSIONS, SIDE SLOPES, AND 1 FOOT ABOVE THE BOTTOM OF THE BIORETENSION SOIL MIXTURE. ANY SEDIMENT FROM CONSTRUCTION OPERATIONS DEPOSITED IN THE BIORETENTION FACILITY SHALL BE COMPLETELY REMOVED FROM THE FACILITY AFTER ALL VEGETATION HAS BEEN ESTABLISHED. THE EXCAVATION LIMITS SHALL THEN BE FINAL GRADED TO THE DIMENSIONS, SIDE SLOPES, AND FINAL ELEVATIONS. LOW GROUND-CONTACT PRESSURE EQUIPMENT IS TO BE USED WHEN CONSTRUCTING THE BIORETENTION FACILITIES TO MINIMIZE DISTURBANCE TO ESTABLISH AREAS AROUND PERIMETER OF CELL. NO HEAVY EQUIPMENT SHALL BE USED WITHIN THE PERIMETER OF THE BIORETENTION FACILITY BEFORE, DURING, OR AFTER THE PLACEMENT OF THE BSM.
- 4. THE BIORETENTION SOIL MIXTURE (BSM) SHALL BE PLACED IN LAYERS NOT TO EXCEED 12 INCHES. THE BSM SHALL BE SATURATED OVER THE ENTIRE AREA OF THE FACILITY AFTER EACH LIFT OF BSM IS PLACED UNTIL WATER FLOWS FROM THE UNDERDRAIN TO LIGHTLY CONSOLIDATE THE BSM MIXTURE. WATER FOR SATURATION SHALL BE APPLIED BY SPRAYING OR SPRINKLING TO AVOID SEPARATION OF THE BSM COMPONENTS. FINAL GRADING OF THE BSM SHALL BE PERFORMED AFTER A 24-HOUR SETTLING PERIOD. UPON FINAL GRADING THE SURFACE OF THE BSM SHALL BE ROTO-TILLED TO A DEPTH OF 6".
- 5. SEE DRAWING L-100 AND L-101 FOR PLANTING SCHEDULE. PESTICIDES, HERBICIDES, AND FERTILIZER SHALL NOT BE APPLIED DURING PLANTING UNDER ANY CIRCUMSTANCES.

BIORETENTION SOIL MIXTURE (BSM) SPECIFICATIONS:

MATERIALS

TYP. CURB &

A. BIORTENTION SOIL MIXUTRE: THE BIORETENTION SOIL MIXTURE (BSM) IS A MIXTURE OF PLANTING SOIL, COMPOST, AND SAND CONSISTING OF THE FOLLOWING:

ITEM	COMPOSITION BY VOLUME	REFERENCE
PLANTING SOIL	30%	SEE BELOW
ORGANIC COMPOST	20%	SEE BELOW
SAND	50%	ASTM C33 FINE AGGREGATE

B. PLANTING SOIL: THE USDA TEXTURAL CLASSIFICATION OF THE PLANTING SOIL FOR THE BSM SHALL BE LOAMY SAND OR SANDY LOAM. THE PLANTING SOIL SHALL BE TESTED AND MEET THE FOLLOWING CRITERIA:

ITEM	PERCENT BY WEIGHT	TEST METHOD
SAND (2.0 - 0.050 MM)	50-85%	AASHTO T88
SILT (0.050 - 0.002 MM)	0-50%	AASHTO T88
CLAY (LESS THAN 0.002 MM)	2-5%	AASHTO T88
ORGANIC MATTER	3-10%	AASHTO T194

THE TEXTURAL ANALYSIS OF THE PLANTING SOIL SHALL BE AS FOLLOWS:

ASTM E11 SIEVE SIZE	MINIMUM PERCENT PASSING BY WEIGHT
2 IN.	100%
NO. 4	90
NO. 10	80

AT LEAST 45 DAYS PRIOR TO THE START OF CONSTRUCTION OF THE BIORETENTION FACILITIES, THE CONTRACTOR SHALL SUBMIT THE SOURCE AND TESTING RESULTS OF THE PLANTING SOIL FOR THE BSM TO THE ENGINEER FOR

C. ORGANIC COMPOST

COMPOST IS DEEMED ACCEPTABLE IF IT MEETS 2 OF THE FOLLOWING REQUIREMENTS:

- 1. C/N RATIO <= 25; 2. OXYGEN UPTAKE RATE <= 150 mg/ O2/kg VOLATILE SOLIDS PER HOUR
- 3. COMPOST MUST NOT CONTAIN MORE THAN 1 PERCENT FOREIGN MATTER. FOREIGN MATTER IS DEFINED AS: "ANY MATTER OVER A 2 MM DIMENSION THAT RESULTS FROM HUMAN INTERVENTION AND HAVING ORGANIC OR INORGANIC CONSTITUENTS SUCH AS METAL, GLASS AND SYNTHETIC POLYMERS (E.G., PLASTIC OR RUBBER) THAT MAY BE PRESENT IN THE COMPOST BUT EXCLUDING MINERAL SOILS, WOODY MATERIAL AND
- 4. FOREIGN MATTER LESS THAN 1 PERCENT BY WEIGHT MUST NOT EXCEED 12.5 MM IN ANY DIMENSION
- D. THE BIORETENTION SOIL MIXTURE (BSM) SHALL BE A UNIFORM MIX, FREE OF PLANT RESIDUE, STONES, STUMPS, ROOTS OR OTHER SIMILAR OBJECTS LARGER THAN TWO INCHES EXCLUDING MULCH. NO OTHER MATERIALS OR SUBSTANCES SHALL BE MIXED OR DUMPED WITHIN THE BIORETENTION AREA THAT MAY BE HARMFUL TO PLANT GROWTH, OR PROVE A HINDRANCE TO THE PLANTING OR MAINTENANCE OPERATIONS.
- 1. THE BIORETENTION SOIL MIXTURE SHALL BE TESTED AND MEET THE FOLLOWING CRITERIA:

CRITERIA	TEST METHOD
5.5 - 7.5	ASTM D4972
MINIMUM 32 PPM	*
NOT TO EXCEED 60 PPM PLANT AVAILABLE PHOSPHORUS	*
MINIMUM 78 PPM	*
NOT TO EXCEED 500 PPM	*
	5.5 - 7.5 MINIMUM 32 PPM NOT TO EXCEED 60 PPM PLANT AVAILABLE PHOSPHORUS MINIMUM 78 PPM

*USE AUTHORIZED SOIL TEST PROCEDURES

- 2. SHOULD THE pH FALL OUTSIDE OF THE ACCEPTABLE RANGE, IT MAY BE MODIFIED WITH LIME (TO RAISE) OR AMMONIUM SULFATE (TO LOWER). THE LIME OR AMMONIUM SULFATE MUST BE MIXED UNIFORMLY INTO THE BSM PRIOR TO USE IN BIORETENTION FACILITIES.
- 3. SHOULD THE BSM NOT MEET THE MINIMUM REQUIREMENT FOR MAGNESIUM, IT MAY BE MODIFIED WITH MAGNESIUM SULFATE. LIKEWISE, SHOULD THE BSM NOT MEET THE MINIMUM REQUIREMENT FOR POTASSIUM, IT MAY BE MODIFIED WITH POTASH. MAGNESIUM SULFATE AND POTASH MUST BE MIXED UNIFORMLY INTO THE BSM PRIOR TO USE IN BIORETENTION FACILITIES
- 4. PLANTING SOIL AND/OR BSM THAT FAILS TO MEET THE MINIMUM REQUIREMENTS SHALL BE REPLACED AT THE CONTRACTOR'S EXPENSE. MIXING OF THE CORRECTIVE ADDITIVES TO THE BSM IS INCIDENTAL AND SHALL BE AT THE CONTRACTOR'S EXPENSE.
- 5. MIXING OF THE BSM TO A HOMOGENOUS CONSISTENCY SHALL BE DONE TO THE SATISFACTION OF THE ENGINEER, UPON APPROVAL OF ALL REQUIREMENTS AND TESTING ABOVE, THE BSM SHALL BE STOCKPILED, AND NO MATERIAL SHALL BE ADDED TO THE BSM IN THE STOCKPILE OR DURING TRANSPORT TO THE BIORETENTION

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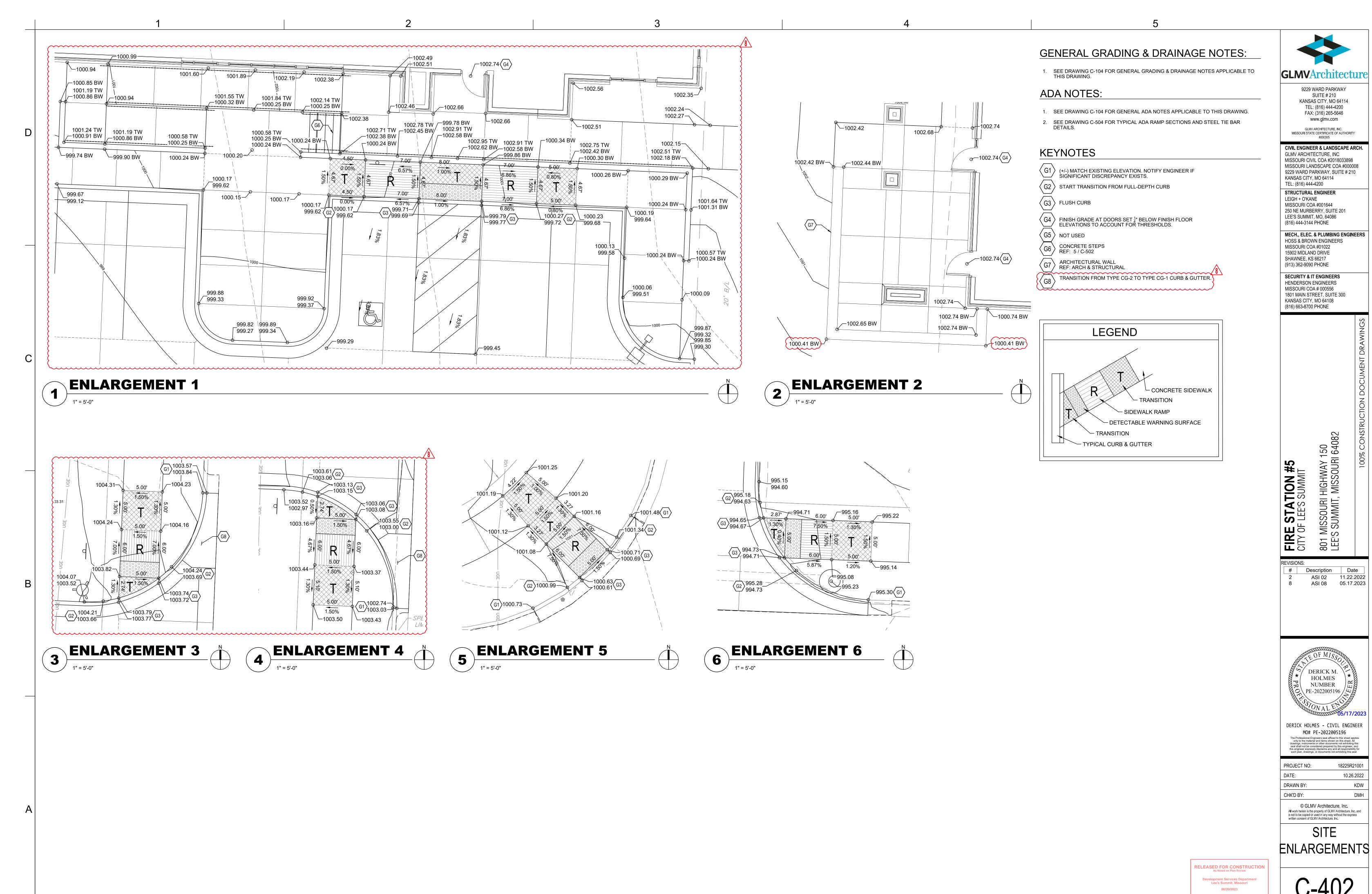
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DATE:	10.26.2022	
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CHK'D BY:	DMH	

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MO# PE-2022005196

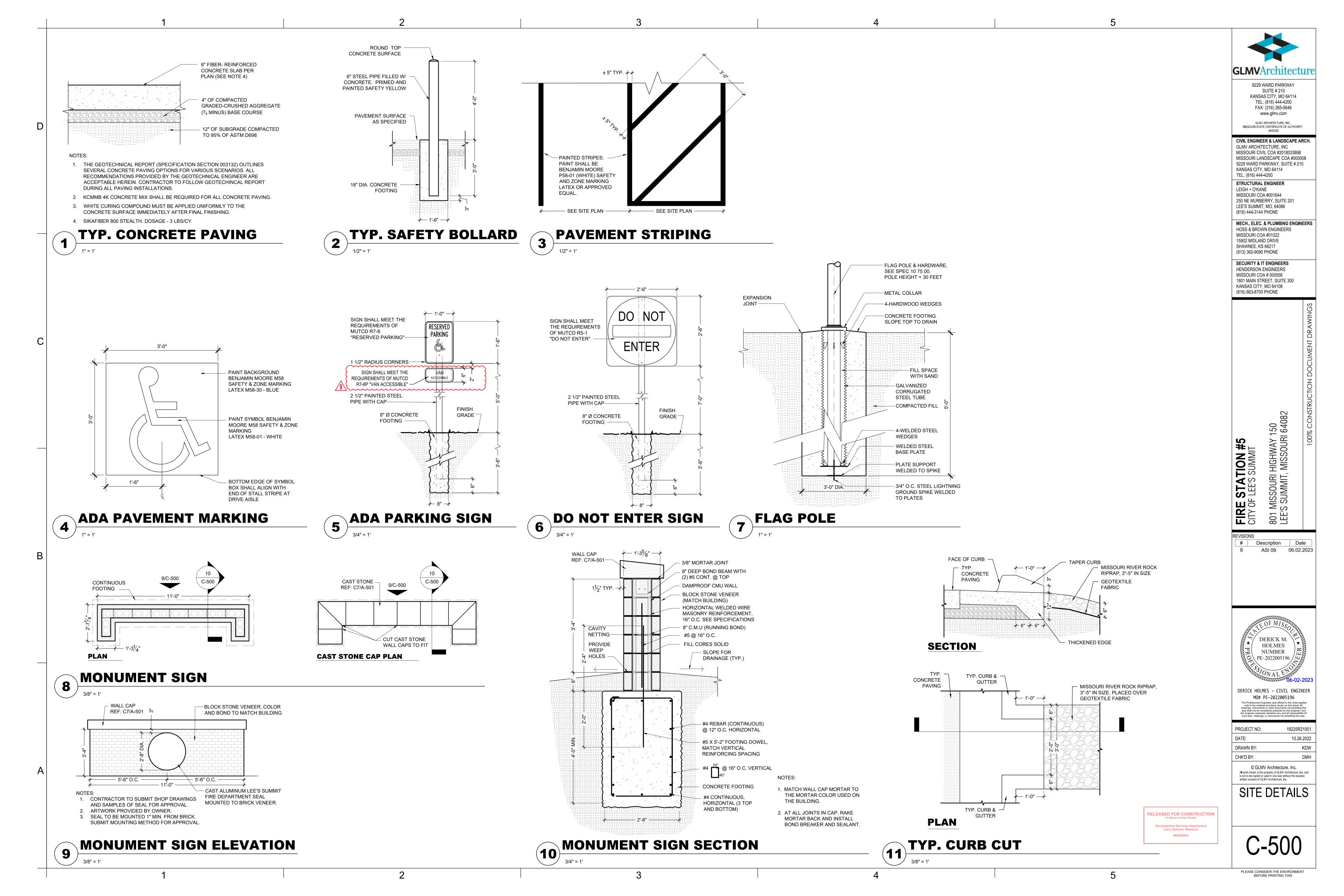
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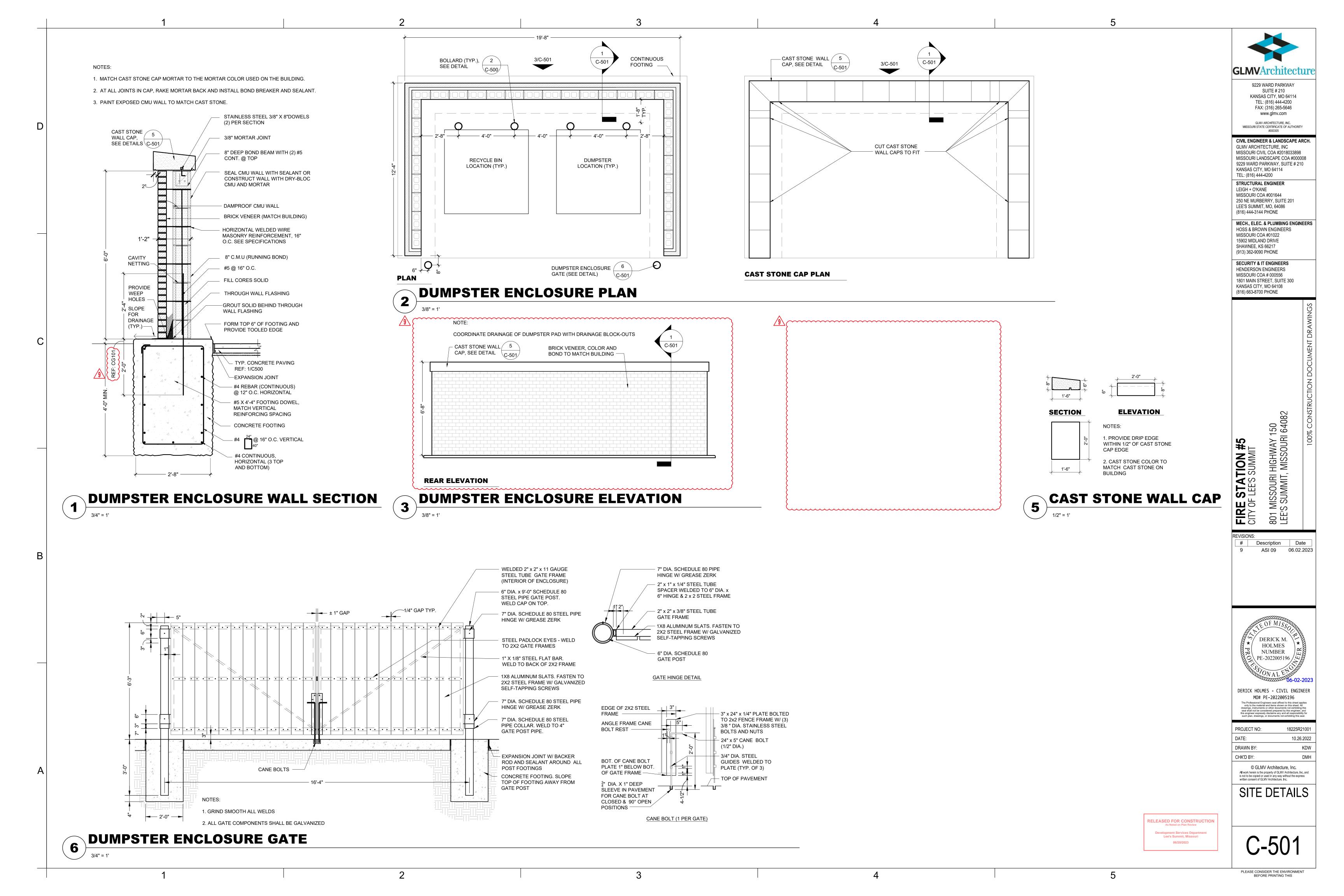


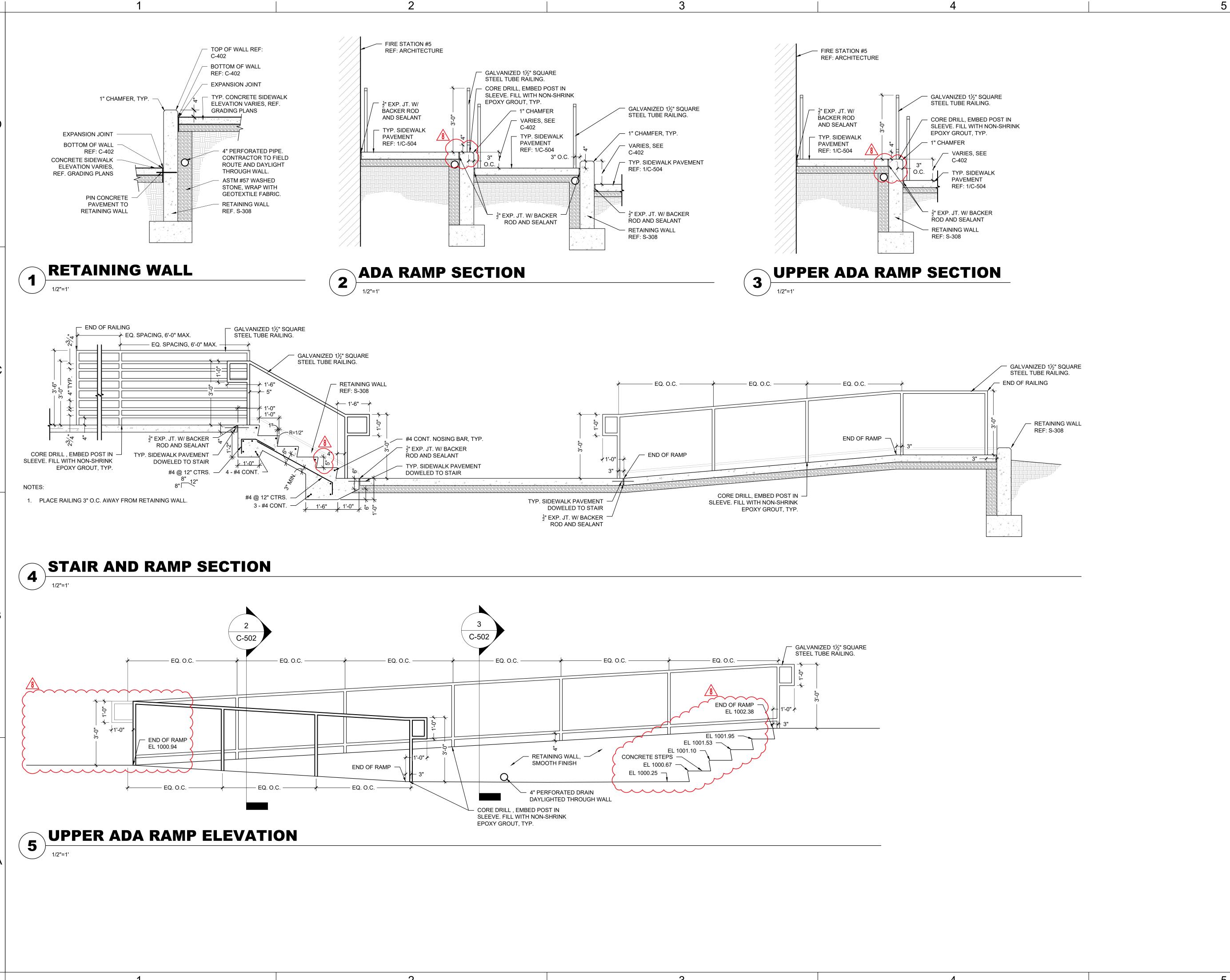
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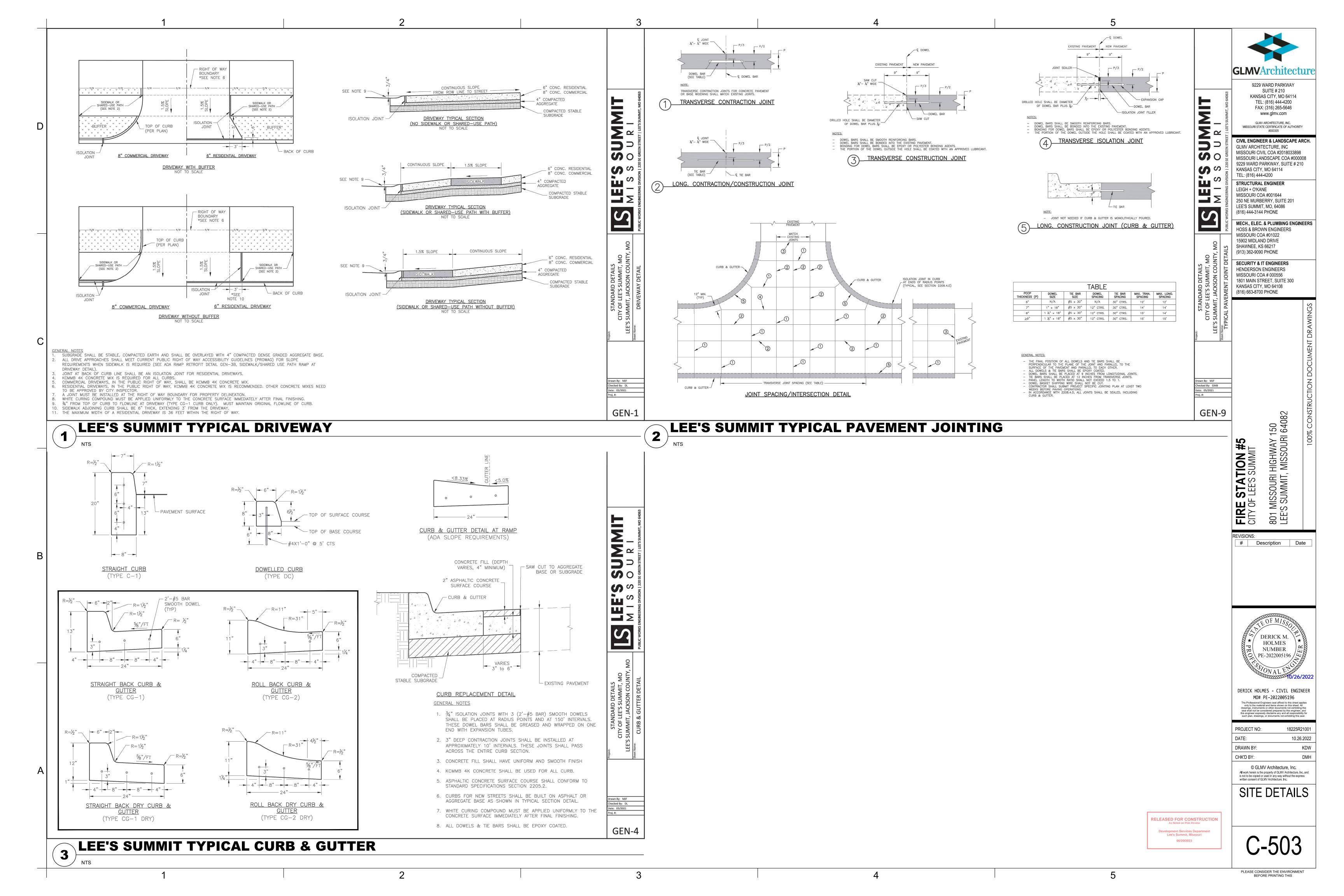
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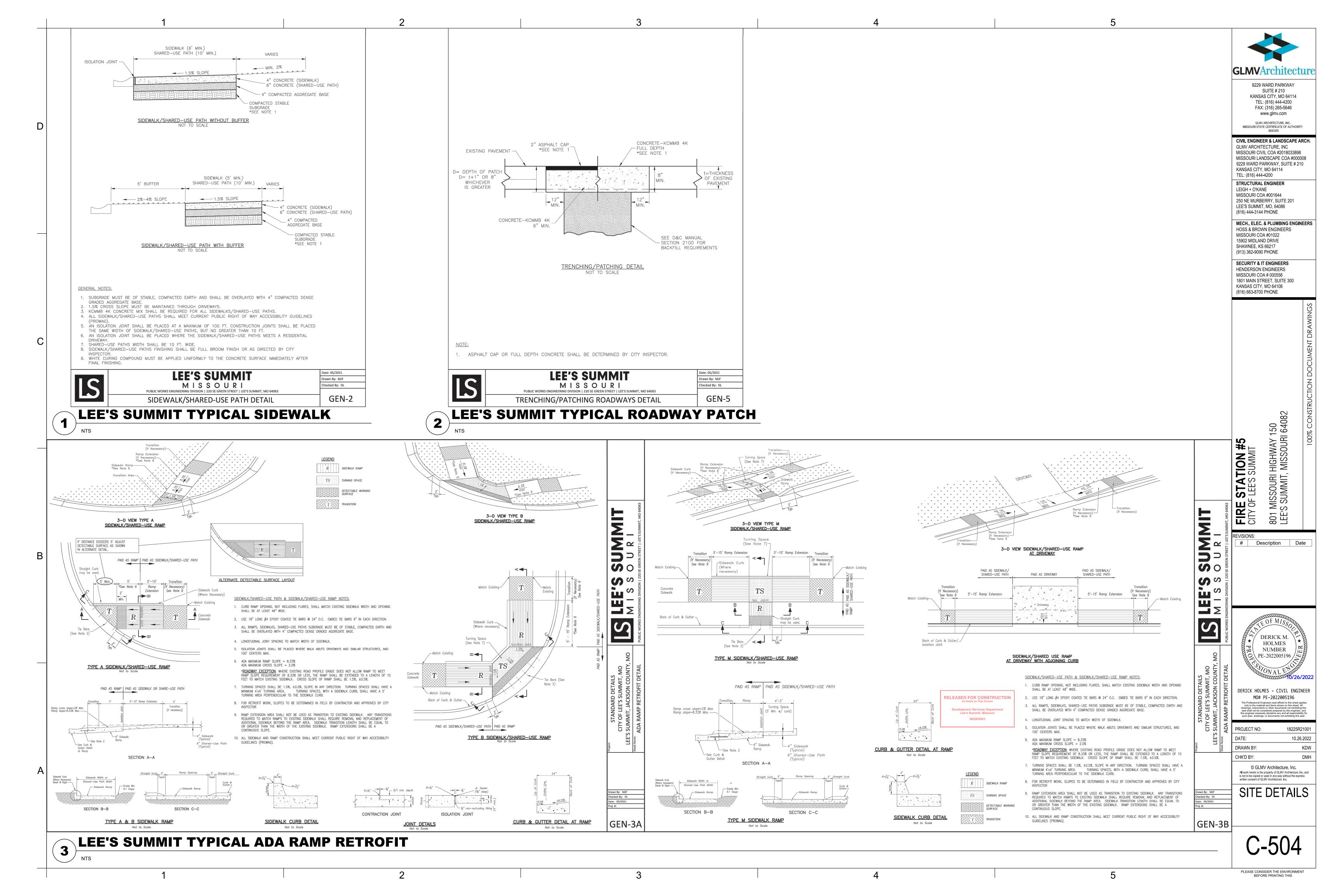
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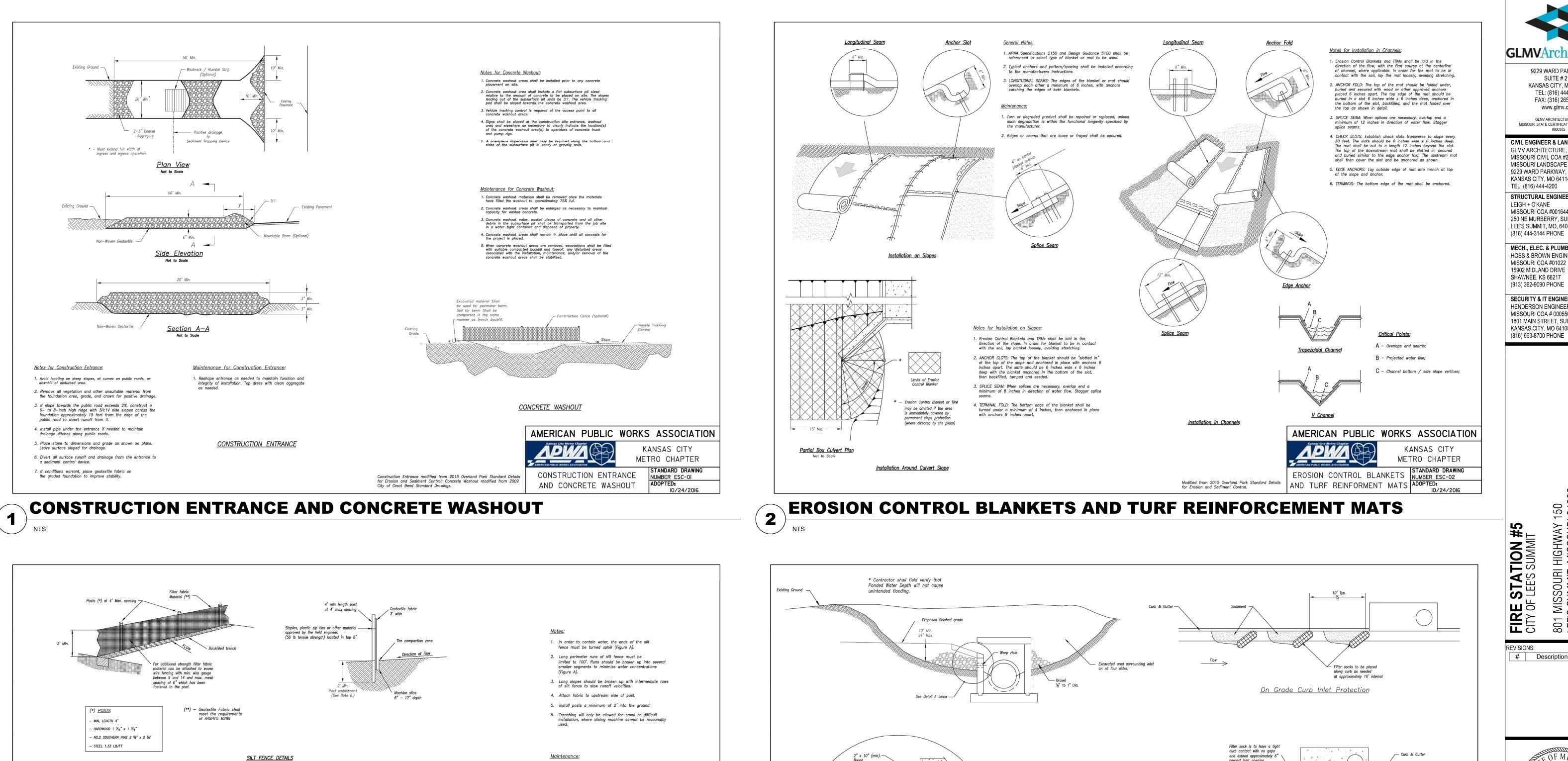
Development Services Department Lee's Summit, Missouri 06/20/2023

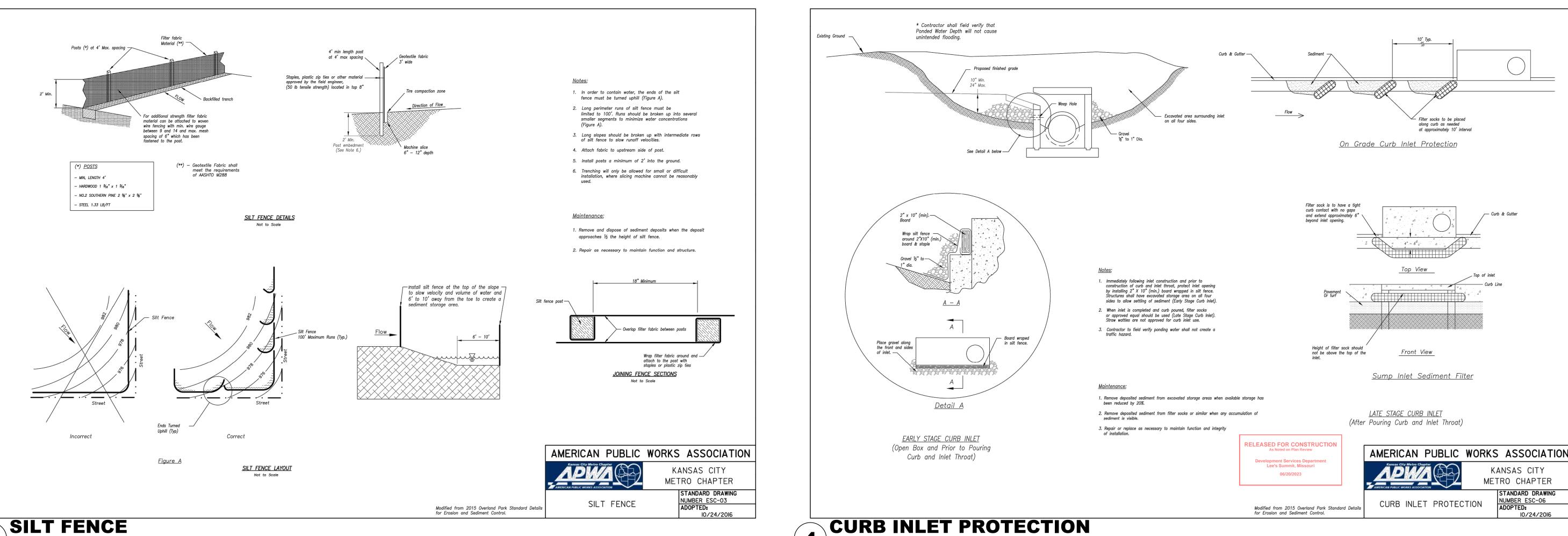
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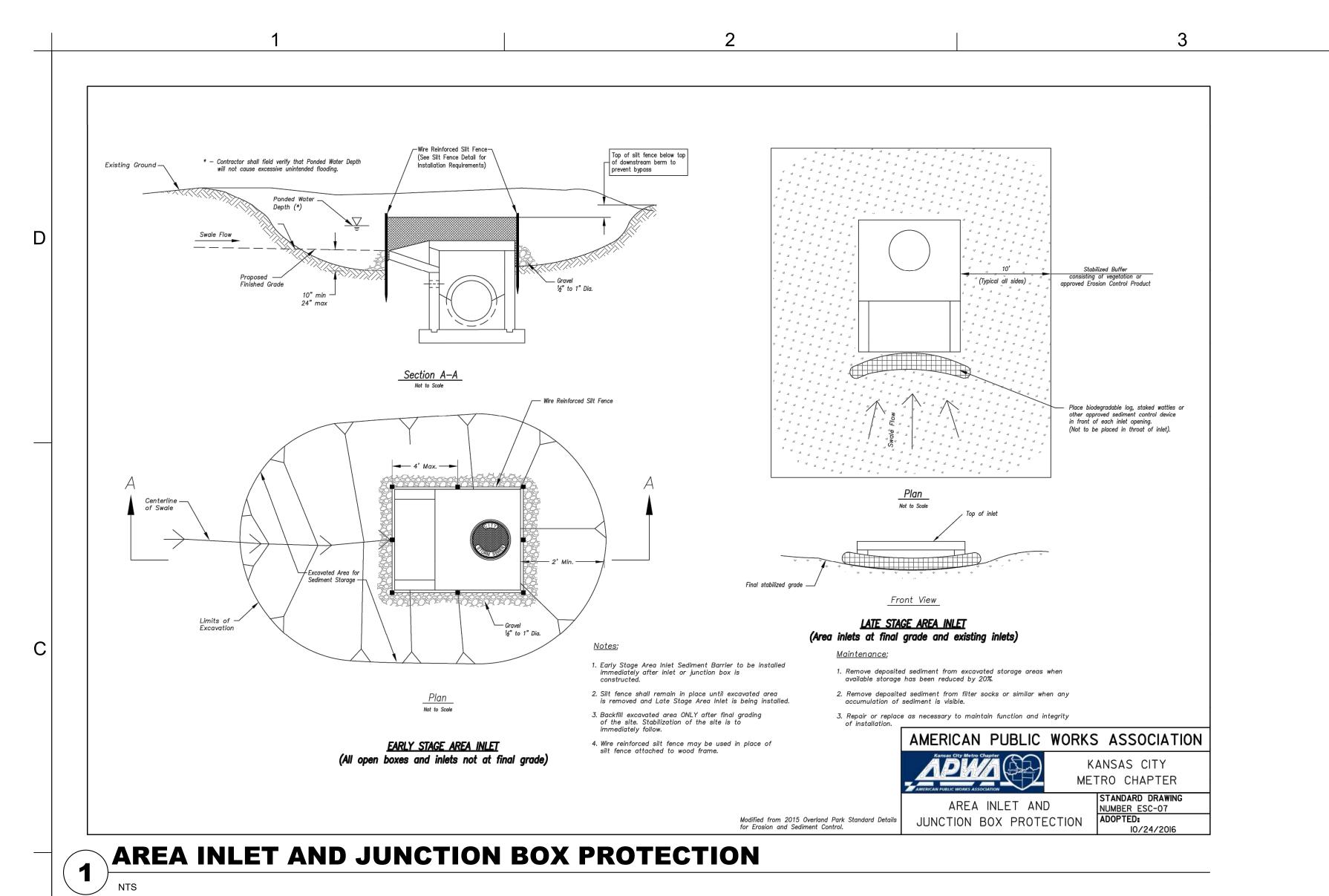
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CLAVAmahitaatuma

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CTION DOCUMENT DE

OURI 64082

FIRE STATION #5
CITY OF LEE'S SUMMIT
801 MISSOURI HIGHWAY 1
LEE'S SUMMIT, MISSOURI

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Description Date

DERICK M.

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NUMBER
PE-2022005196

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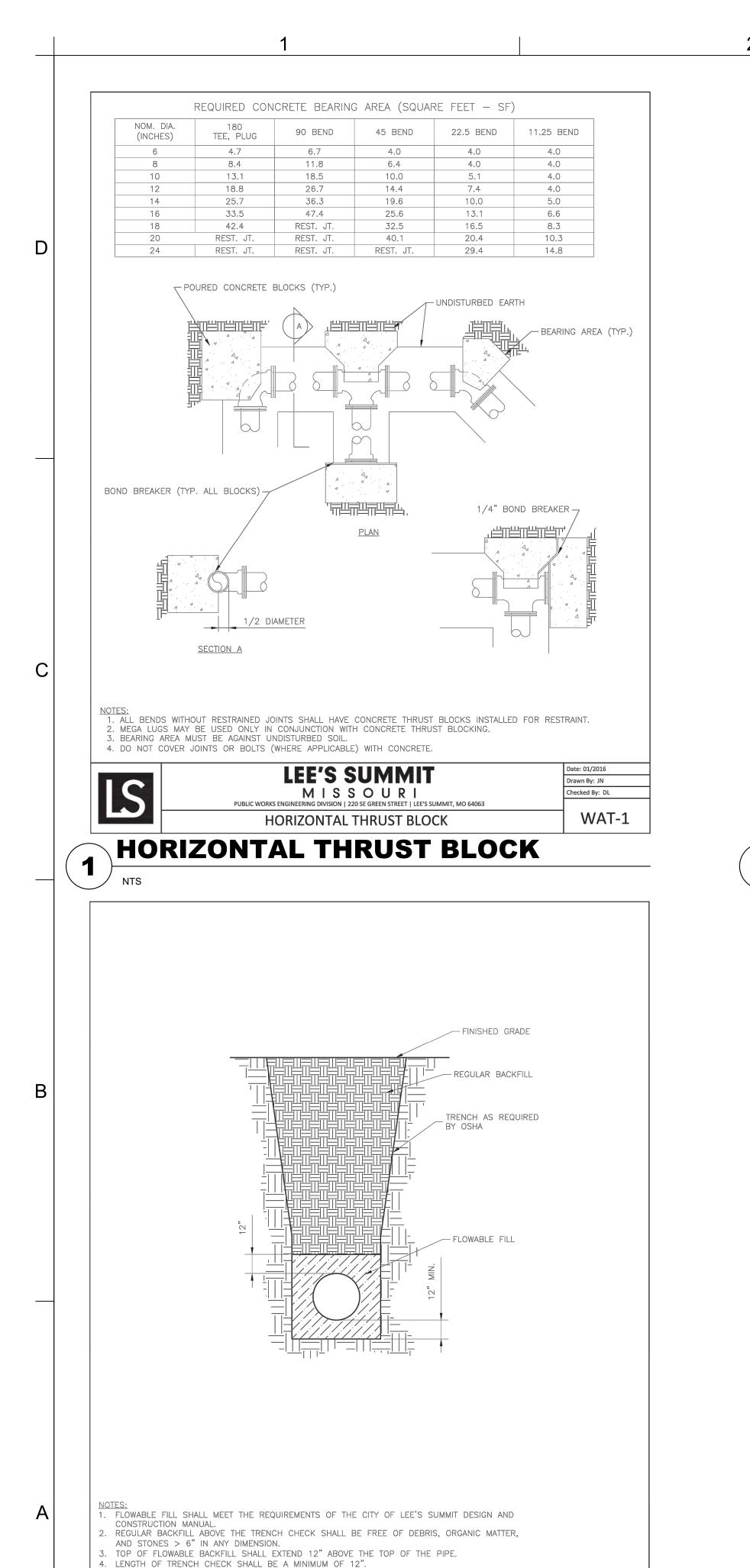
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LEE'S SUMMIT

WATER TRENCH CHECK DETAIL

WATER TRENCH CHECK DETAIL

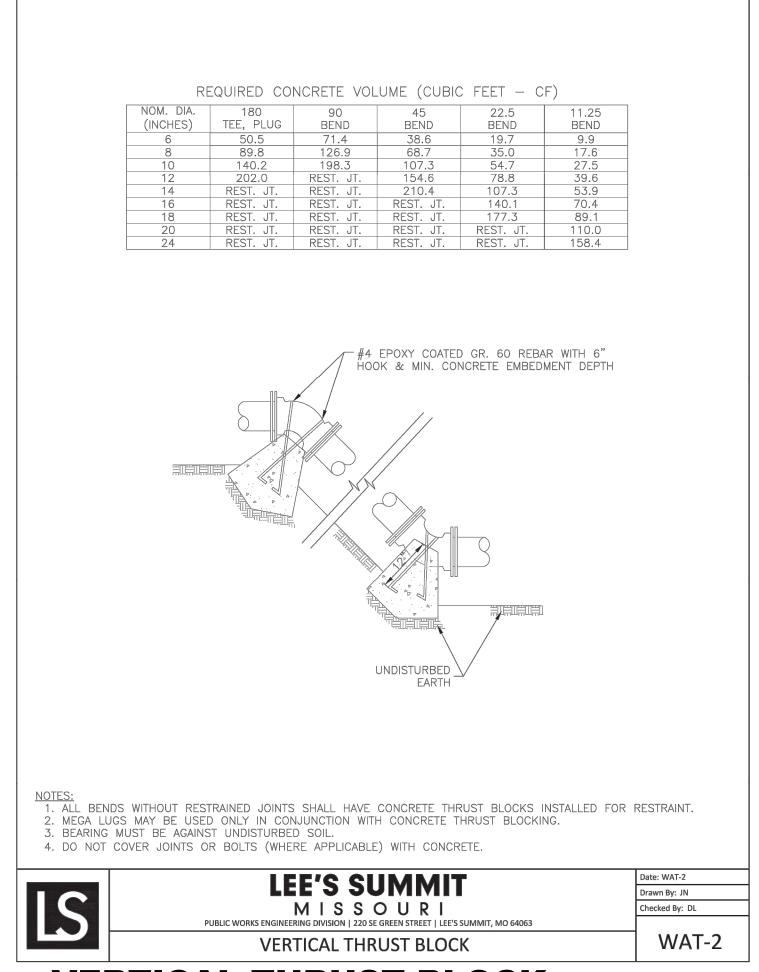
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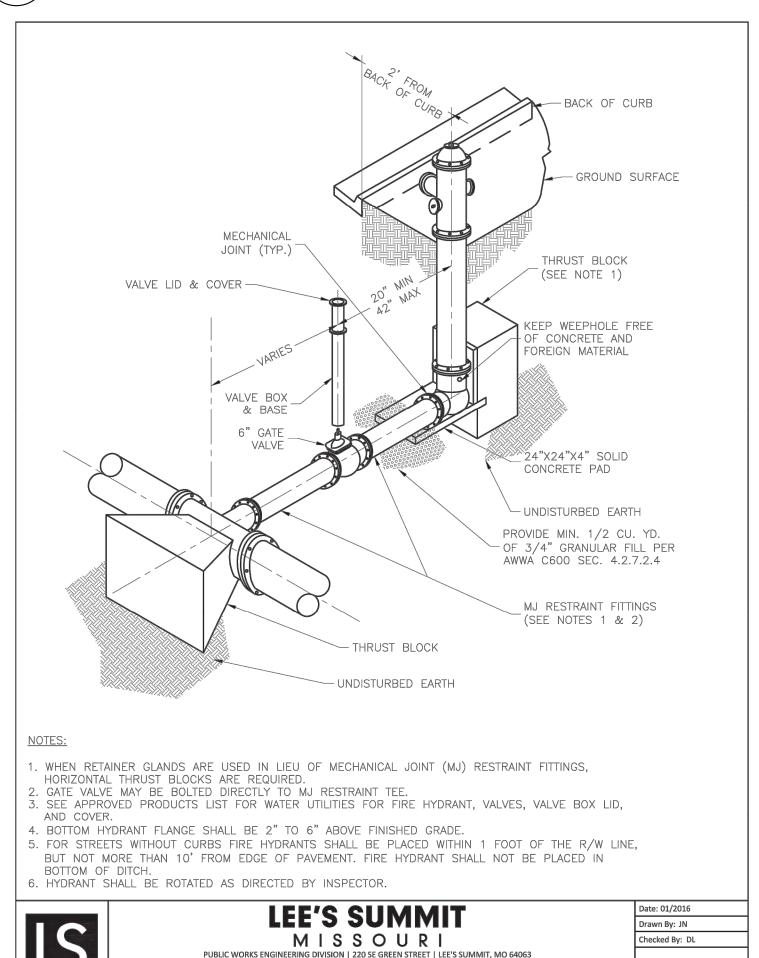
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WAT-6



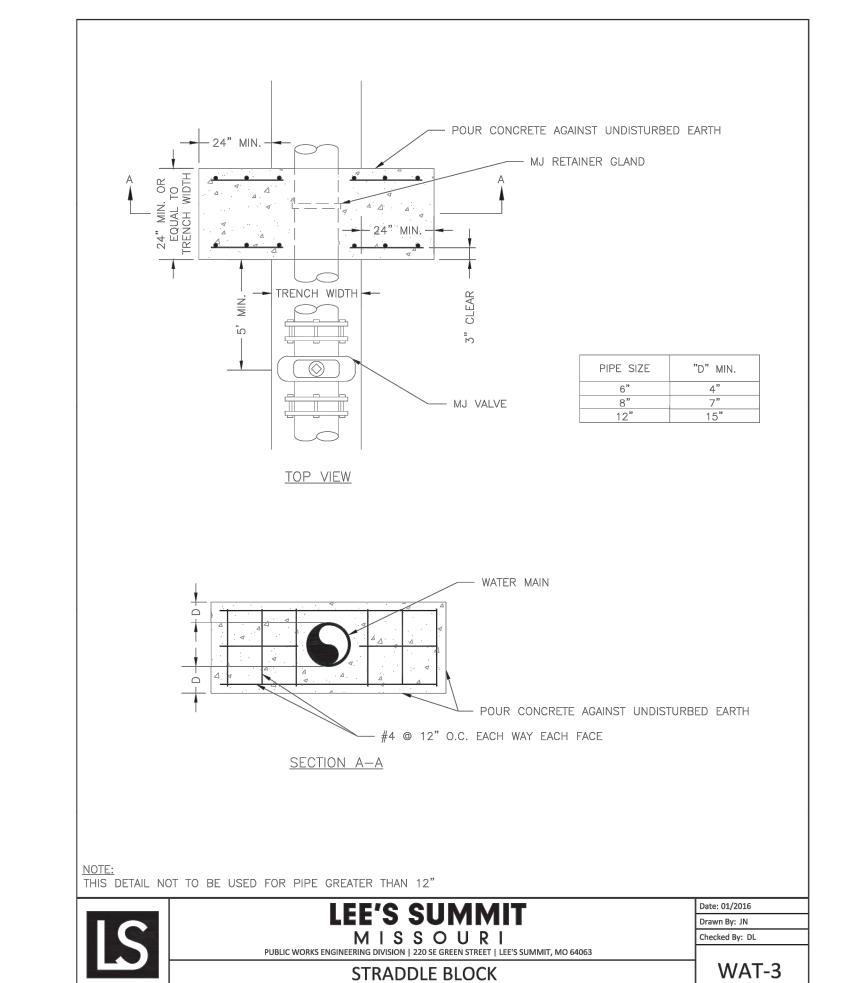
VERTICAL THRUST BLOCK



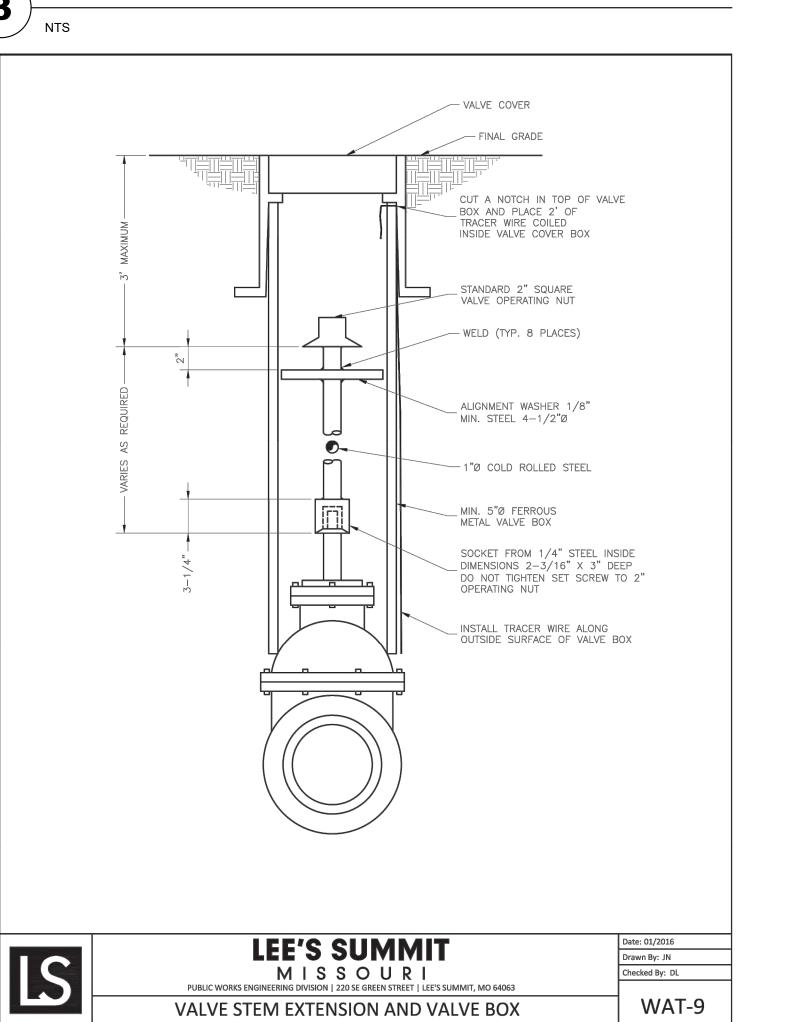
HYDRANT - STRAIGHT SET

HYDRANT - STRAIGHT SET

WAT-7



STRADDLE BLOCK



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SHAWNEE, KS 66217

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1801 MAIN STREET, SUITE 300 KANSAS CITY, MO 64108 (816) 663-8700 PHONE

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|REVISIONS: # Description Date

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DERICK HOLMES - CIVIL ENGINEER MO# PE-2022005196

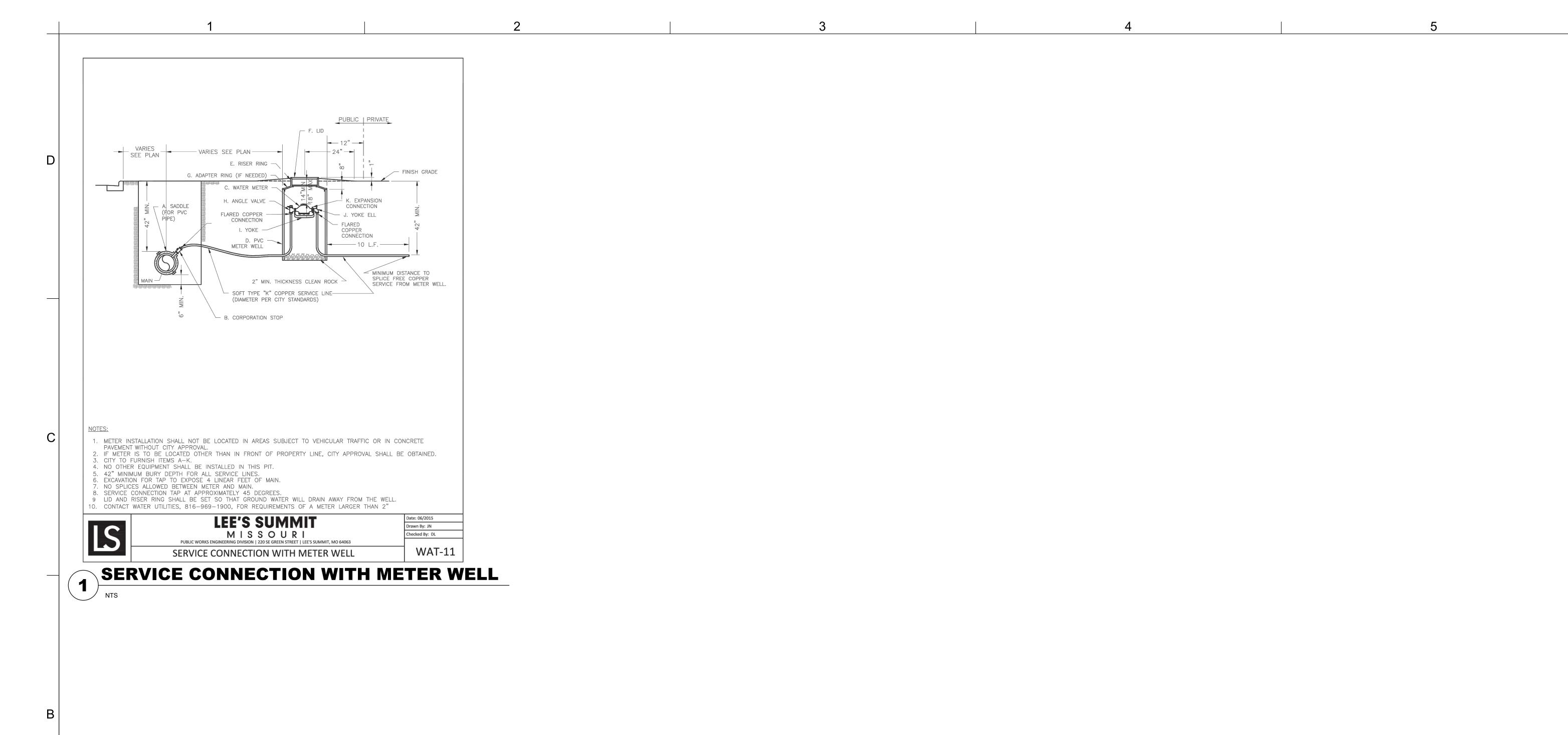
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WATER **DETAILS**

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VALVE STEM EXTENSION & VALVE BOX



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FIRE STATION #5 CITY OF LEE'S SUMMIT

REVISIONS: # Description Date

DERICK M. HOLMES NUMBER PE-2022005196 DERICK HOLMES - CIVIL ENGINEER MO# PE-2022005196

PROJECT NO: 18225R21001 DATE: 10.26.2022 DRAWN BY: SJB

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> WATER **DETAILS**

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Section 2721

Engineered Surface Drainage Products

GENERAL

PVC surface drainage inlets shall include the drain basin type as indicated on the contract drawing and referenced within the contract specifications. The ductile iron grates for each of these fittings are to be considered an integral part of the surface drainage inlet and shall be furnished by the same manufacturer. The surface drainage inlets shall be as manufactured by Nyloplast a division of Advanced Drainage Systems, Inc., or prior approved equal.

MATERIAL

The drain basins required for this contract shall be manufactured from PVC pipe stock, utilizing a thermoforming process to reform the pipe stock to the specified configuration. The drainage pipe connection stubs shall be manufactured from PVC pipe stock and formed to provide a watertight connection with the specified pipe system. This joint tightness shall conform to <u>ASTM D3212 for joints for drain and sewer plastic pipe using flexible elastomeric seals</u>. The flexible elastomeric seals shall conform to <u>ASTM F477</u>. The pipe bell spigot shall be joined to the main body of the drain basin or catch basin. The raw material used to manufacture the pipe stock that is used to manufacture the main body and pipe stubs of the surface drainage inlets shall conform to <u>ASTM D1784 cell class 12454</u>.

The grates and frames furnished for all surface drainage inlets shall be ductile iron for structure sizes 8", 10", 12", 15", 18", 24", 30" and 36" and shall be made specifically for each basin so as to provide a round bottom flange that closely matches the diameter of the surface drainage inlet. Grates for drain basins shall be capable of supporting various wheel loads as specified by Nyloplast. 12" and 15" square grates will be hinged to the frame using pins. Ductile iron used in the manufacture of the castings shall conform to <u>ASTM A536 grade 70-50-05</u>. Grates and covers shall be provided painted black.

INSTALLATION

The specified PVC surface drainage inlet shall be installed using conventional flexible pipe backfill materials and procedures. The backfill material shall be crushed stone or other granular material meeting the requirements of class 1, class 2, or class 3 material as defined in <u>ASTM D2321</u>. Bedding and backfill for surface drainage inlets shall be well placed and compacted uniformly in accordance with <u>ASTM D2321</u>. The drain basin body will be cut at the time of the final grade. No brick, stone or concrete block will be required to set the grate to the final grade height. For load rated installations, a concrete slab shall be poured under and around the grate and frame. The concrete slab must be designed taking into consideration local soil conditions, traffic loading, and other applicable design factors. For other installation considerations such as migration of fines, ground water, and soft foundations refer to <u>ASTM D2321</u> guidelines.

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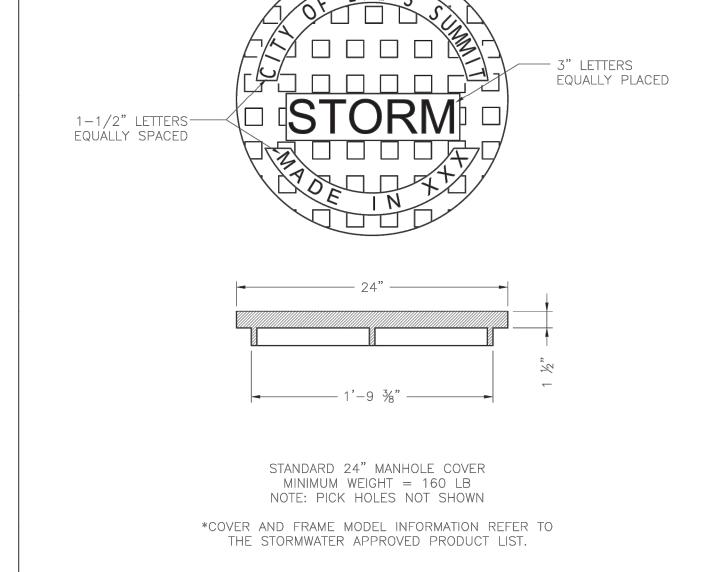
Г	DRAWN BY CJA DATE 3-10-00	MATERIAL	Nyloplast	3130 VERONA AVI BUFORD, GA 3051 PHN (770) 932-244 FAX (770) 932-249
ı	REVISED BY NMH	PROJECT NO./NAME	TITLE	www.nyloplast-us
RS	DATE 02-21-18		8 IN - 36 IN DRAIN BASIN S	PECIFICATIONS

DWG SIZE A SCALE 1:1 SHEET 1 OF 1 DWG NO.

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8 IN - 36 IN DRAIN BASIN SPECIFICATIONS

JOE LEE'S SILL



STORM MANHOLE COVER DETAIL

3 STORM MANHOLE COVER DETAIL

LEE'S SUMMIT

MISSOURI

Date: 05/2021 Drawn By: MJF

Checked By: DL

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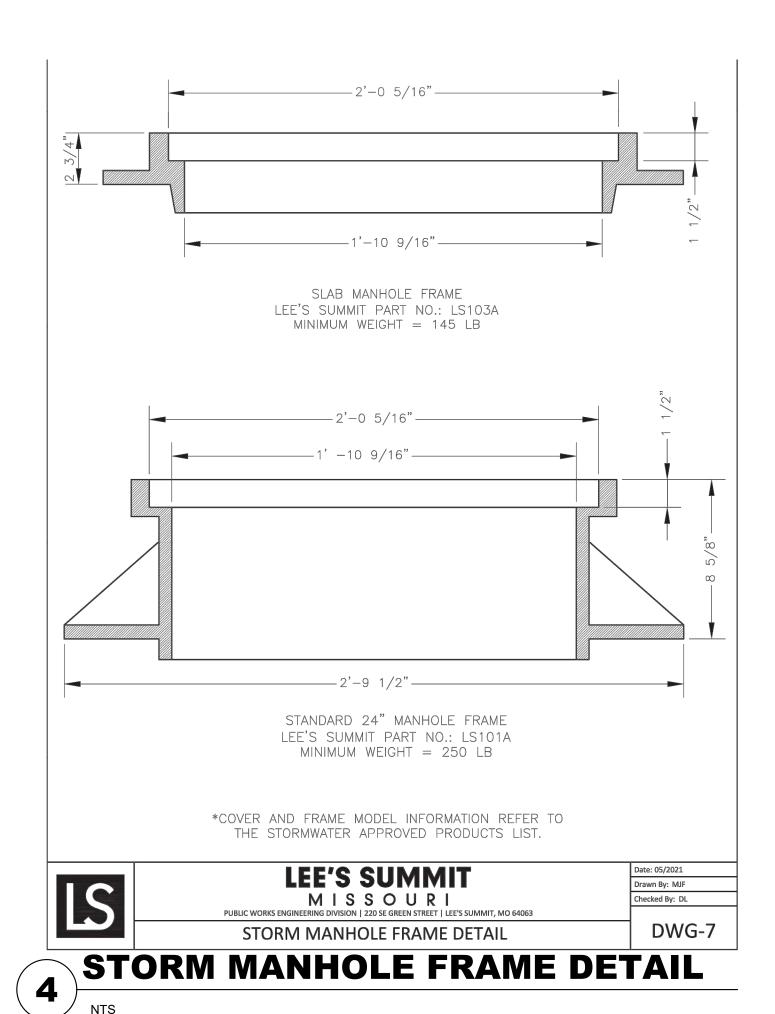
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GRATE INLET DETAIL

NTS



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SENI DRAWINGS

164082

FIRE STATION #5
CITY OF LEE'S SUMMIT
801 MISSOURI HIGHWAY 15
LEE'S SUMMIT, MISSOURI 6.

REVISIONS:

Description Date

DERICK M.

HOLMES
NUMBER
PE-2022005196

DERICK HOLMES - CIVIL ENGINEER

MO# PE-2022005196

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STORMWATER DETAILS

C-530

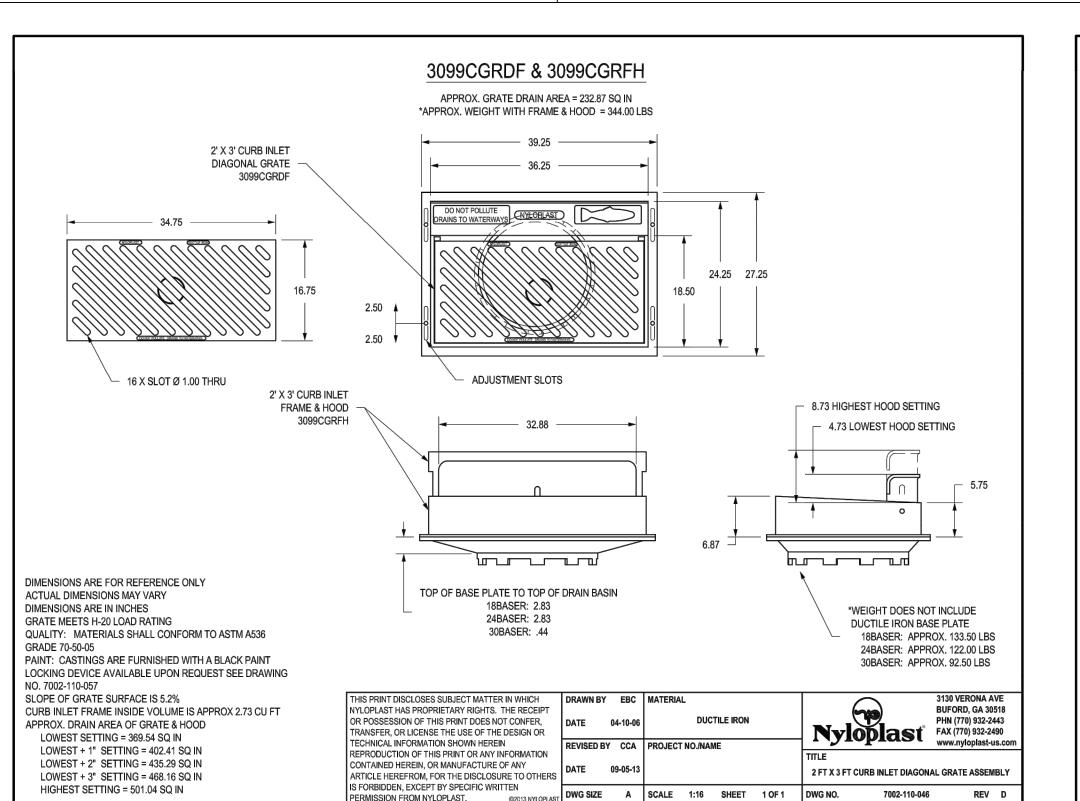
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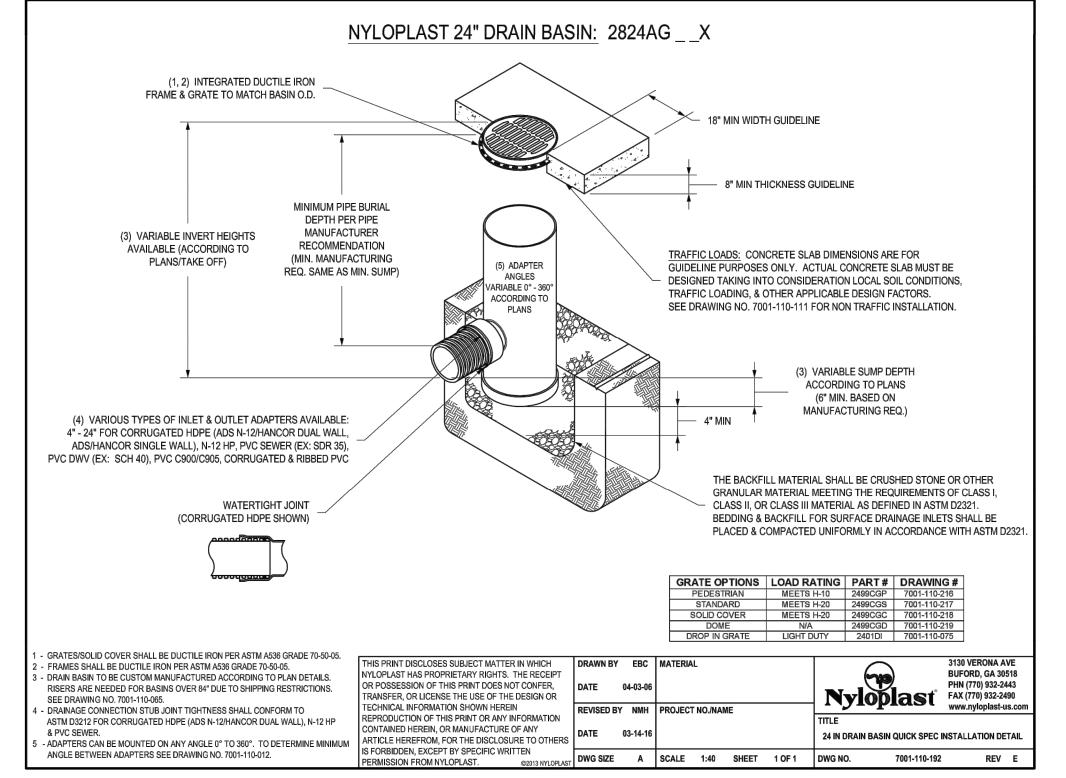
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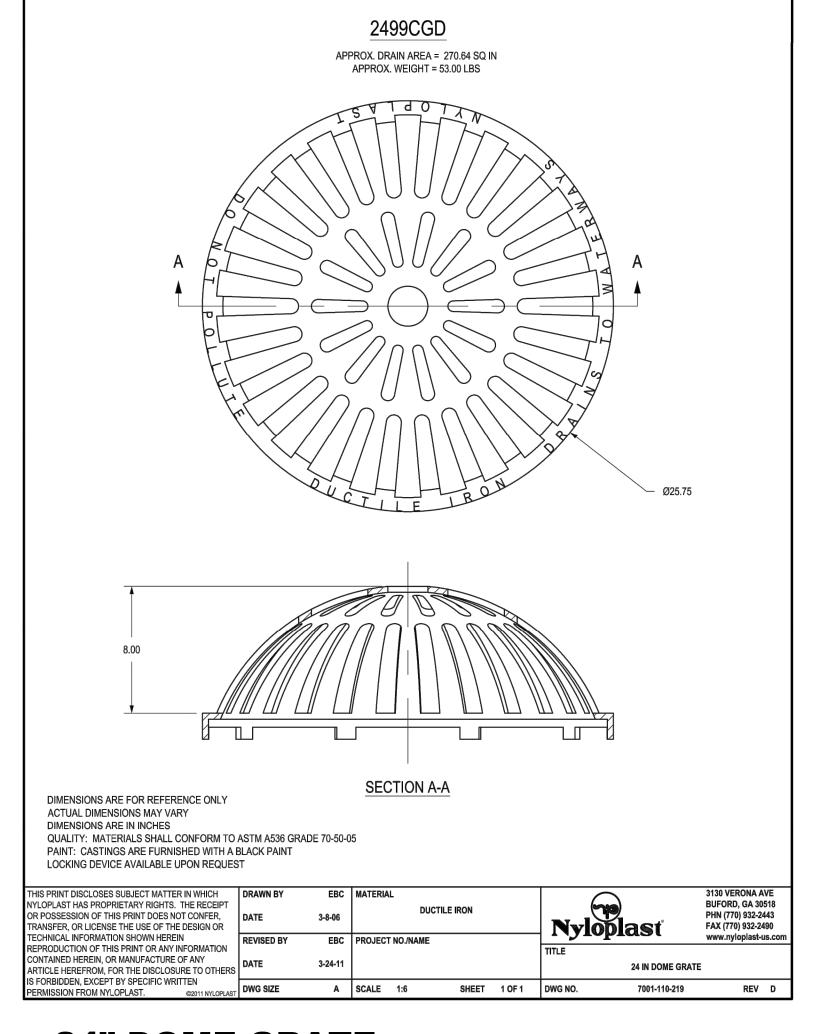
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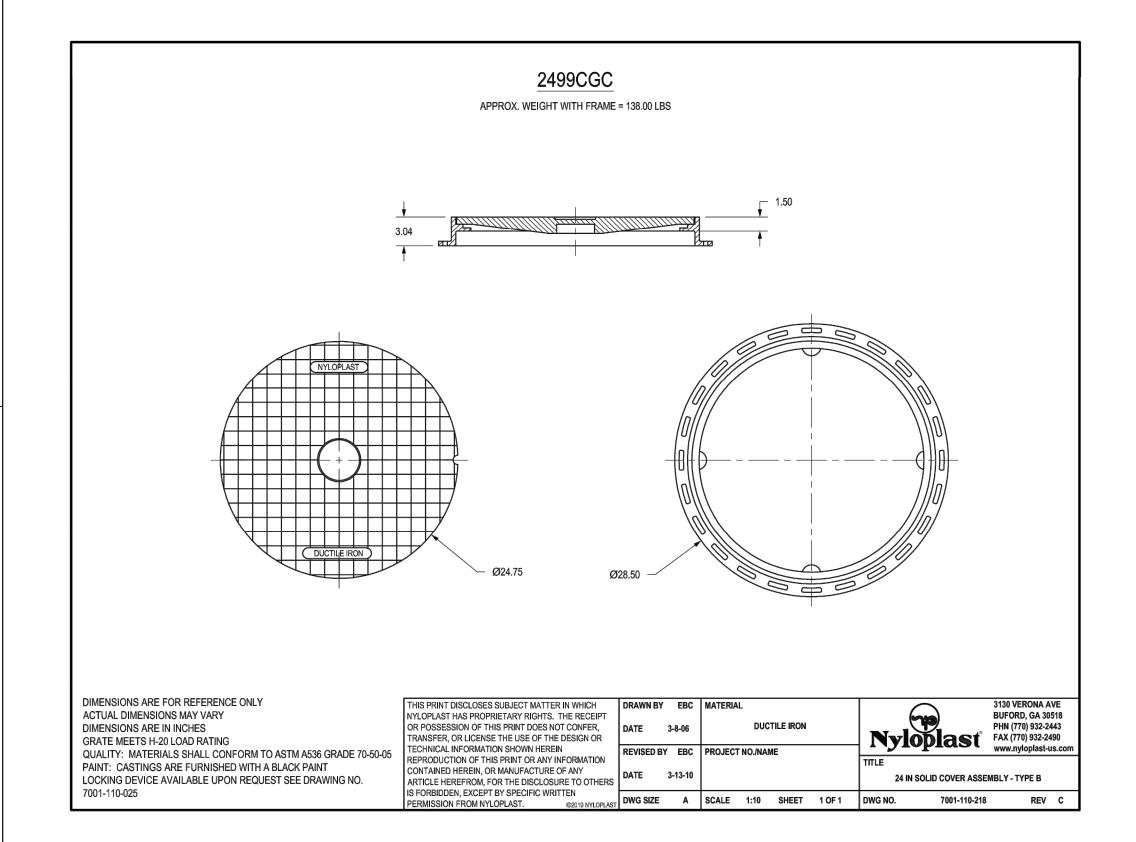




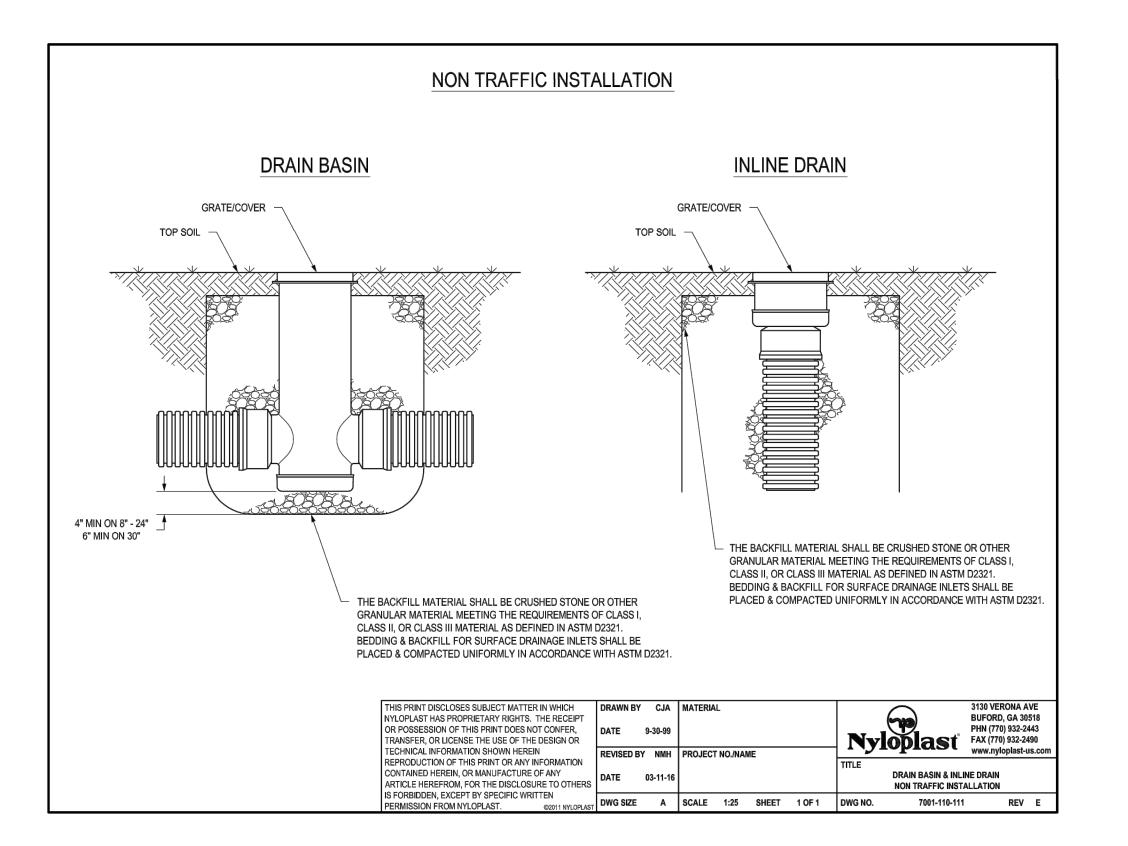
2'x3' CURB INLET DIAGONAL GRATE ASSEMBLY

24" DRAIN BASIN QUICK SPEC INSTALLATION DETAIL

24" DOME GRATE



24" SOLID COVER ASSEMBLY - TYPE B



DRAIN BASIN & INLINE DRAIN NON-TRAFFIC INSTALLATION

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FIRE STATIC

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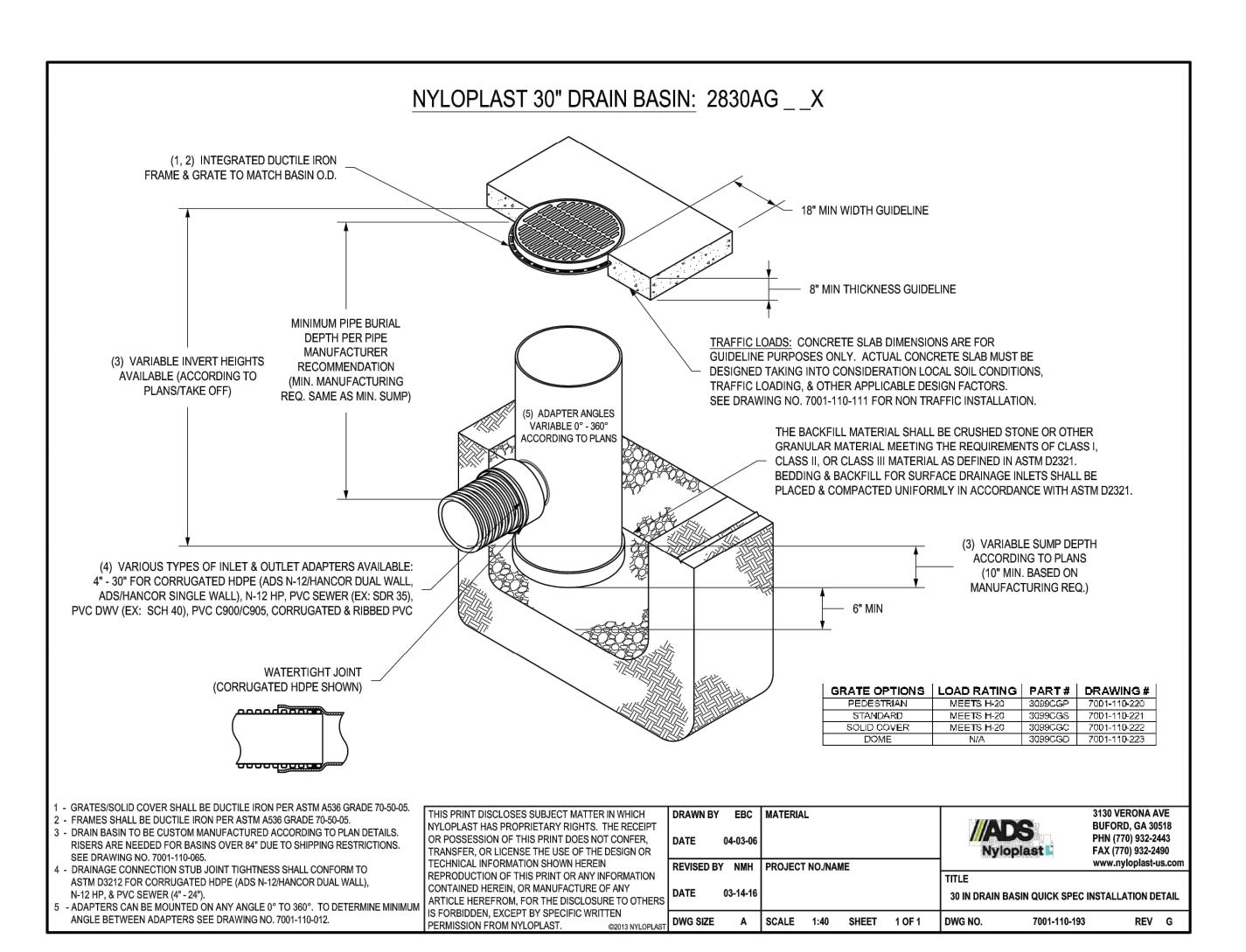
HOLMES NUMBER PE-2022005196

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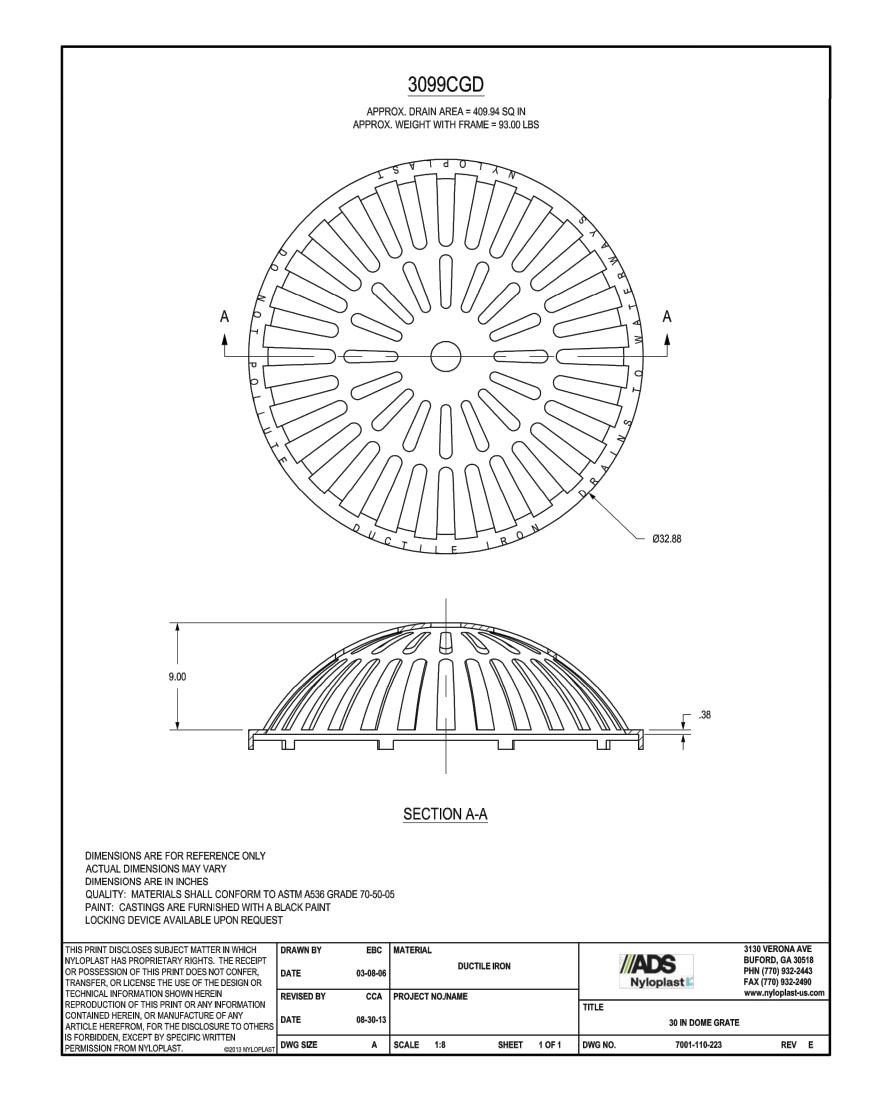
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URI 64082

FIRE STATION #5
CITY OF LEE'S SUMMIT
801 MISSOURI HIGHWAY 15
LEE'S SUMMIT, MISSOURI 6

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Description Date

DERICK M.
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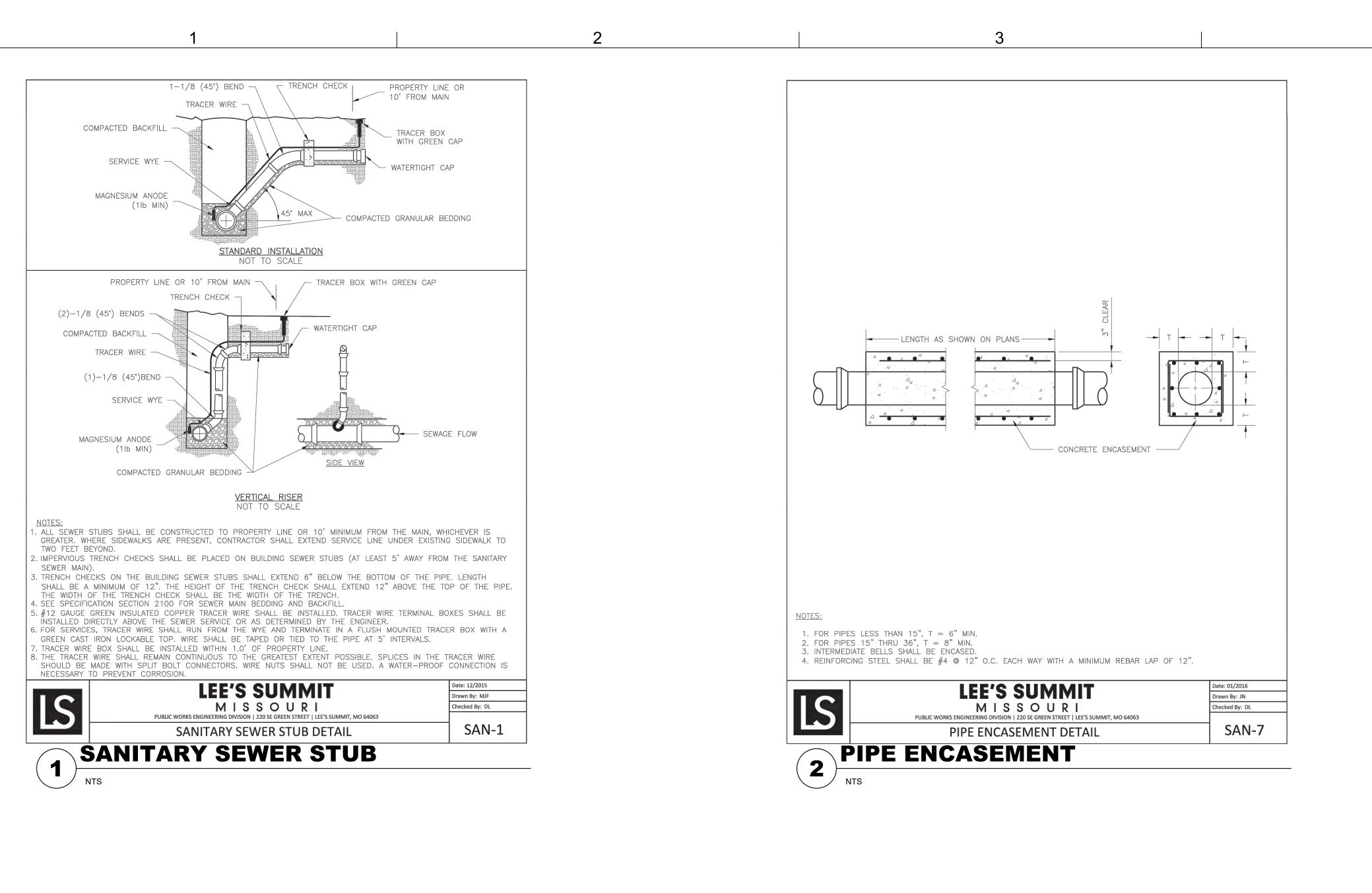
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FIRE STATION #5
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 $==\pm\pm=$ PREVAILING WINDS

TOP OF TREE PIT (VARIES) TREE PIT EQUALS 2X DIAM. OF ROOTBALL AT CENTERLINE OF ROOTBALL

BOTTOM OF TREE PIT (VARIES)

2 X 2 SOUND HARDWOOD STAKE TO BE ANGLED APPROX. 30 DEGREES FROM VERTICAL AND DRIVEN 2'-0" MIN. INTO UNDISTURBED SOIL. PLACE STAKE ON WINDWARD SIDE OF TRUNK, I.E. IF

POLYPROPYLENE TREE STRAP ABOVE LOWEST BRANCHES WITH NO. 12 GA.

5' DIAM. MULCH RING AROUND ALL TREES IN TURF AREAS INCLUDING

10. CONTRACTOR TO PROVIDE A 1-YEAR WARRANTY ON ALL INSTALLED

PLANTINGS FROM POINT OF SUBSTANTIAL COMPLETION.

3. SEE PLANT SCHEDULE FOR PLANT LEGEND AND QUANTITIES.

QUANTITIES AND LABELS.

WEEDING, AND FERTILIZING.

INADEQUATE AMENITIES.

INSTALLATION.

DURING THE MAINTENANCE PERIOD.

4. SYMBOLS INDICATED ON THE PLAN TAKE PRIORITY OVER WRITTEN

6. CONTRACTOR SHALL MAINTAIN THE LANDSCAPE UNTIL SUBSTANTIAL

5. PLANTS CALLED OUT IN PLAN ARE CONSIDERED IN CLUSTERS EVEN IF NOT

7. CONTRACTOR SHALL BE RESPONSIBLE FOR DISEASE AND PEST CONTROL

NEEDED AND CONTACT THE LANDSCAPE ARCHITECT IF THERE ARE ANY

9. PLANT MATERIAL SHALL NOT BE DELIVERED TO THE SITE NOR INSTALLED

PLANTING AND FORECASTED FOR A PERIOD OF 2 WEEKS AFTER

WHEN TEMPERATURES ARE ABOVE 90°F OR BELOW 40°F AT THE TIME OF

BOTANICAL / COMMON NAME

8. CONTRACTOR TO VERIFY, WITH SOIL ANALYSIS, THE SOIL AMENDMENT

ATTACHED BY CONNECTING LINES. CALLOUTS HAVE TOTAL COUNTS NEEDED.

COMPLETION. MAINTENANCE WORK SHALL CONSIST OF APPLYING WATER,

- 1. ALL PLANT MATERIAL SHALL BE OF EXCELLENT QUALITY, FREE OF DISEASE AND INFESTATION, AND TRUE TO TYPE, VARIETY, SIZE SPECIFIED, AND FORM PER THE AMERICAN STANDARD FOR NURSERY STOCK (ANSI Z60.1, CURRENT VERSION), PUBLISHED BY THE AMERICAN NURSERYMEN'S ASSOCIATION.
- 2. PLANT MATERIAL SHALL BE PLANTED AND MAINTAINED TO ASNS
- 3. CONTRACTOR SHALL VERIFY ALL LANDSCAPE MATERIAL QUANTITIES AND SHALL REPORT ANY DISCREPANCIES IMMEDIATELY TO THE LANDSCAPE ARCHITECT.
- 4. NO SUBSTITUTIONS FOR VARIETY OR CULTIVAR SHALL BE ACCEPTED WITHOUT FIRST OBTAINING WRITTEN APPROVAL FROM LANDSCAPE ARCHITECT.
- 5. ALL TREES AND SHRUBS SHALL BE LAID OUT IN A UNIFORM AND CONSISTENT PATTERN, FOLLOWING THE LANDSCAPE PLAN ACCURATELY, PAYING ATTENTION TO EVEN SPACING IN THE ROW OR COVERAGE AREA OF THE INDIVIDUAL SPECIES AND HOW IT IS BEING USED.
- 6. ALL PLANTING BEDS ABUTTING LAWN AREAS SHALL HAVE A CULTIVATED EDGE (SEE DETAIL, THIS SHEET).
- 7. ALL PLANTINGS SHALL BE THOROUGHLY WATERED IN WITH A GARDEN HOSE, TWICE, THE SAME DAY AS INSTALLATION TO ELIMINATE AIR POCKETS IN THE
- 8. NO PLANTINGS SHALL BE PLACED CLOSER THAN 3' FROM THE BACK OF THE CURB TO ALLOW FOR VEHICLE BUMPER OVERHANG.
- 9. PROPOSED TREES SHALL NOT BE PLACED OVER EXISTING OR PROPOSED UTILITY SERVICE LINES. IT IS THE CONTRACTOR'S RESPONSIBILITY TO UNDERSTAND UTILITY LOCATIONS AND HAVE THEM MARKED DURING TREE PLANTING OPERATIONS. IF UTILITY IS DAMAGED DURING PLANTING, CONTRACTOR IS RESPONSIBLE FOR NOTIFYING THE GENERAL CONTRACTOR AND OWNER OF UTILITY AND PAYING FOR REPAIR OF THE DAMAGED UTILITY.
- 10. ALL PLANTING BEDS WILL HAVE 3-INCHES OF SHREDDED BROWN HARDWOOD MULCH UNLESS OTHERWISE SPECIFIED.

CONT SIZE

ROOTBALL VARIES PREVAILING WIND IS FROM THE N/NW, PLACE STAKE ON WEST SIDE OF TREE. GALVANIZED WIRE TIE ASSEMBLY **EXISTING TREES**

EVERGREEN TREE PLANTING

SECTION

PREVAILING

WINDS

1/2 BALL DIA.

FINISHED GRADE /

(3) POLYPROPYLENE TREE STRAPS ABOVE LOWEST BRANCHES WITH NO. 12 GA. GALVANIZED WIRE. PROVIDE SUFFICIENT TENSION TO SUPPORT TREE BUT DO NOT GIRDLE TRUNK. 1/2" PVC PIPE AROUND EA. WIRE. EXPOSED WIRE SHALL BE MAX. 2" EACH SIDE TYP. - (3) 6' (FT.) HT. STEEL T-POST. STUBS MUST FACE AWAY FROM TREE SEE PLAN DETAIL FOR POSITIONING. DO NOT ALLOW STAKE TO PIERCE ROOTBALL PLASTIC CAP EA. T-POST TYP. TREE GUARD IN LAWN AREAS ONLY TOP OF ROOTBALL AT 2" ABOVE FINISHED GRADE REMOVE TOP 1/3 OF BURLAP AND ROPE FROM BALL 3" DEPTH HARDWOOD MULCH. KEEP 4" AWAY FINISHED GRADE FROM TRUNK. NOTE: ALL TREES, EXISTING AND PROPOSED, IN TURF AREAS SHALL HAVE 5' DIAM. MULCH RING. THIS DIMENSION EQUALS 1/2 THE DIAMETER OF THE ROOTBALL AT THE CENTERLINE OF ROOTBALL PLACE TREE IN PLANTING POSITION, BACK FILL 1/3RD OR DEPTH, THEN REMOVE ALL TWINE AND BURLAP FROM TOP OF ROOTBALL. WIRE BASKET TO REMAIN IN PLACE, BEND TOP LOOPS DOWN. EXPOSE ROOT FLARE AT BASE OF TRUNK. **SECTION** PLANTING SOIL BACKFILL UNDISTURBED SUBGRADE **PREVAILING** WINDS NOTE: REMOVE STAKING MATERIAL AFTER FIRST GROWING SEASON

NOTE: PRUNE ALL BROKEN AND DAMAGED

BRANCHES, AFTER PLANTING

TOP OF ROOTBALL AT 2" ABOVE

REMOVE TOP 1/3 OF BURLAP AND

3" DEPTH HARDWOOD MULCH. KEEP 4"

AWAY FROM TRUNK. NOTE: ALL TREES,

SHALL HAVE 5' DIAM. MULCH RING.

THIS DIMENSION EQUALS 1/2 THE

TWINE AND BURLAP FROM TOP OF

ROOT FLARE AT BASE OF TRUNK.

PLANTING SOIL BACKFILL

UNDISTURBED SUBGRADE

DIAMETER OF THE ROOTBALL AT

THE CENTERLINE OF ROOTBALL.

EXISTING AND PROPOSED, IN TURF AREAS

PLACE TREE IN PLANTING POSITION, BACK

FILL 1/3RD OR DEPTH, THEN REMOVE ALL

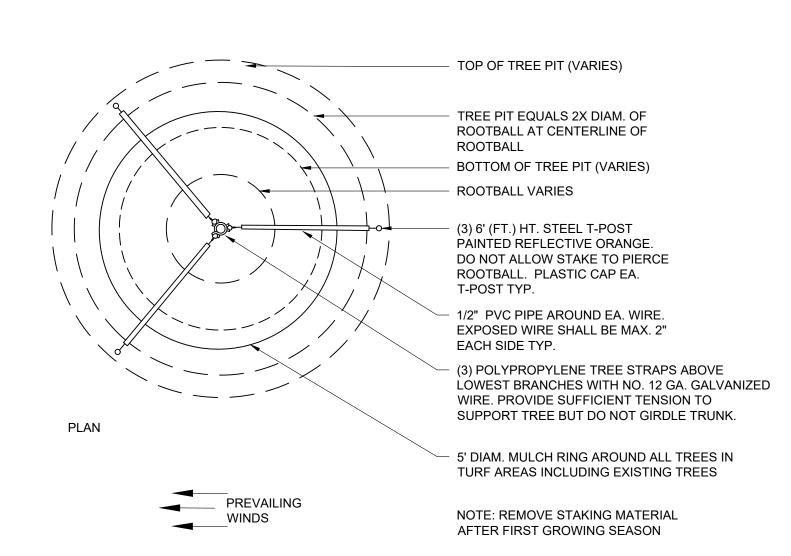
ROOTBALL. WIRE BASKET TO REMAIN IN

PLACE, BEND TOP LOOPS DOWN. EXPOSE

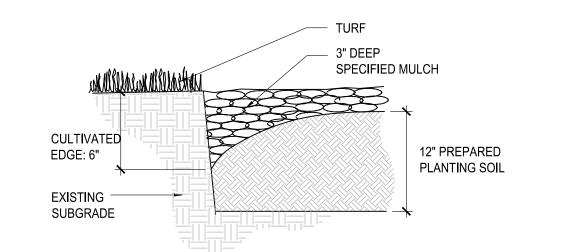
FINISHED GRADE

ROPE FROM BALL

EVERGREEN TREE STAKING



DECIDUOUS TREE STAKING



CULTIVATED EDGE

ANDSCAPE SCHEDULE

PLANT SCHEDULE

TREES	CODE	QTY	BOTANICAL / COMMON NAME	CONT	SIZE	
	AB	3	Acer rubrum `Brandywine` / Brandywine Red Maple	B & B	3"	
	AA	3	Acer rubrum 'Armstrong' / Armstrong Red Maple	B & B	3"	
	GP	2	Ginkgo biloba 'Princeton Sentry' / Princeton Sentry Maidenhair Tree	В&В	3"	
	KP	2	Koelreuteria paniculata / Golden Rain Tree	B & B	3"	
	MA	3	Malus x 'Adirondack' / Adirondack Crabapple	В&В	3"	
	NW	5	Nyssa sylvatica `Wildfire` / Black Gum	B & B	3"	
•	UC	1	Ulmus x 'Frontier' / Frontier Elm	B & B	3"	
£ • 33	ZM	3	Zelkova serrata 'Musashino' / Musashino Sawleaf Zelkova	B & B	3"	
CONIFERS	CODE	QTY	BOTANICAL / COMMON NAME	<u>CONT</u>	SIZE	
	РВ	4	Picea pungens `Baby Blue` / Baby Blue Colorado Spruce	В&В	8` Ht	
(·	TS	10	Thuja occidentalis 'Smaragd' / Emerald Green Arborvitae	В&В	8` Ht	
SHRUBS	CODE	<u>QTY</u>	BOTANICAL / COMMON NAME	CONT.	SPACING	SPACING
20 3 2 3 2 3 2 3 2 3 2 3 2 3 2 3 2 3 3 2 3	Ca	25	Cornus sericea `Artic Fire` / Artic Fire Dogwood	5 gal	Pot	48" o.c.
$\langle \cdot \rangle$	Ec	3	Euonymus alatus `Compactus` / Compact Burning Bush	5 gal	Pot	72" o.c.
E MARKET	Но	36	Hemerocallis x 'Stella de Oro' / Stella de Oro Daylily	Quart	Pot	18" o.c.
*	Hf	3	Hosta x 'First Frost' / First Frost Hosta	2 gal	Pot	30" o.c.
\odot	Lm	20	Liriope muscari / Lily Turf	Quart	Pot	12" o.c.
•	Rr	12	Rosa x `Knockout` TM / Rose	2 gal	Pot	48" o.c.
GRASSES	CODE	QTY 🛕	BOTANICAL / COMMON NAME	CONT.	SPACING	SPACING
\odot	Ck	18 /9	Calamagrostis x acutiflora `Karl Foerster` / Feather Reed Grass	3 gal.	Pot	36" o.c.
\odot	Sh	34	Sporobolus heterolepis / Prairie Dropseed	2 gal	Pot	30" o.c.
EVERGREEN	CODE	<u>QTY</u>	BOTANICAL / COMMON NAME	CONT.	SPACING	SPACING
\circ	JI	17	Juniperus chinensis 'Gold Lace' / Gold Lace Juniper	5 gal	Pot	60" o.c.
SOD/SEED	CODE	<u>QTY</u>	BOTANICAL / COMMON NAME	SIZE		Γ
* * * * * * * * * * * * * * * * * * *	Fa	15,473 sf	Festuca arundinacea / Tall Fescue 90% Fescue, 10% Bluegrass Mix	sod		

GLMVArchitecture

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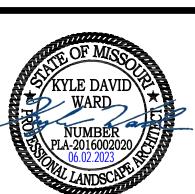
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STATIC LEE'S SU

|REVISIONS: Description

ASI 02 11.22.2022 ASI 09 06.02.2022



KYLE WARD - LANDSCAPE ARCHITECT MO# PLA-2016002020

PROJECT NO: 18225R21001 DATE: 10.26.2022 DRAWN BY: KDW CHK'D BY: CDW

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LANDSCAPE **SCHEDULE**

RELEASED FOR CONSTRUCTION
As Noted on Plan Review

Lee's Summit, Missouri

06/20/2023

PLEASE CONSIDER THE ENVIRONMENT

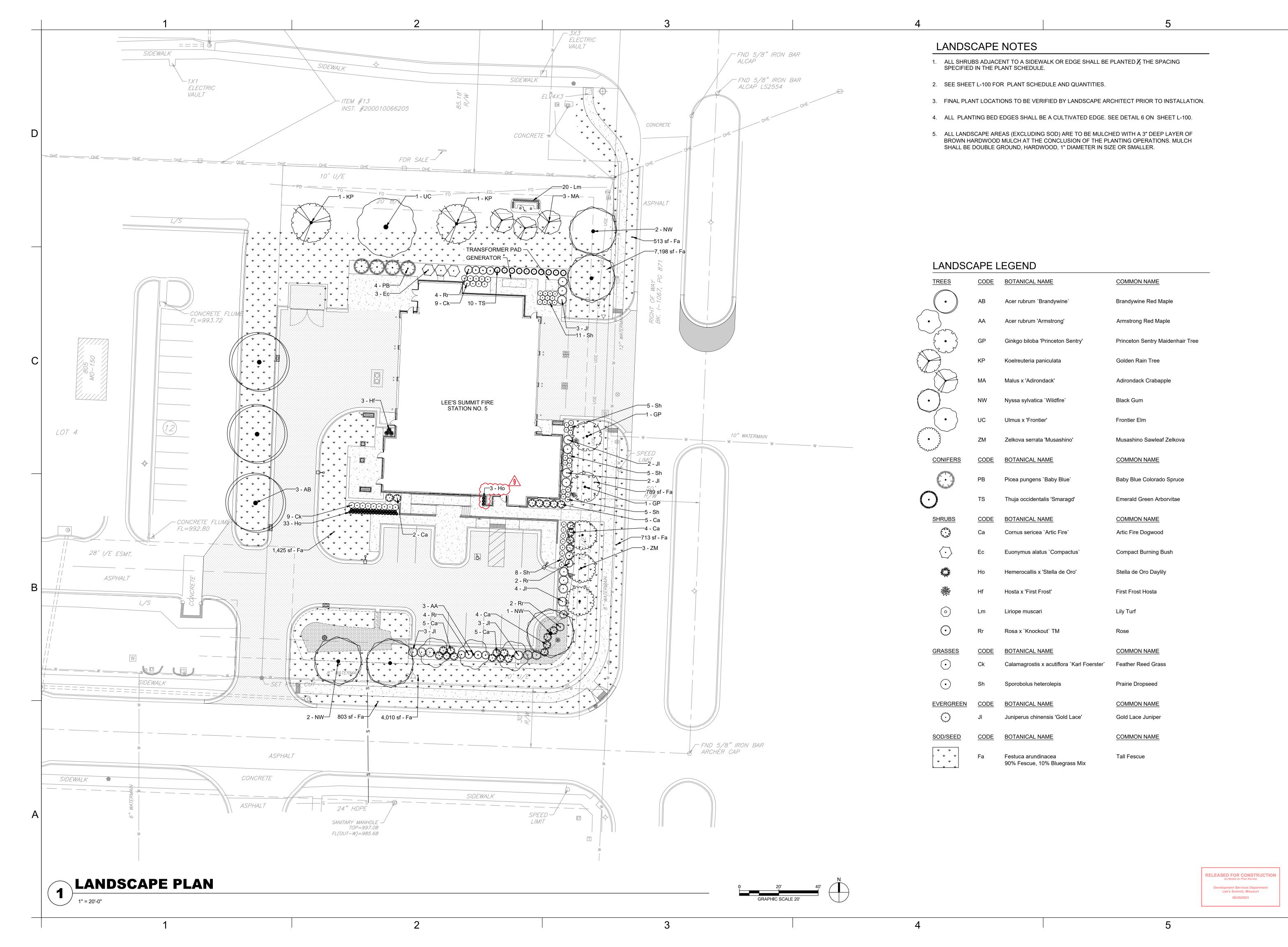
COMPACTED PLANTING SOIL MIXTURE ON WHICH TO POSITION SHRUB

REQUIRED IN PLANTING BEDS SURROUNDED BY PAVEMENT), REF: 6/L-100 - PLANTING SOIL BACKFILL 3" DEPTH HARDWOOD MULCH GRADE PLANTING SOIL BACKFILL REMOVE TOP 1/3 OF BURLAP AND ROPE FROM BALL OR REMOVE CONTAINER AND SLASH SIDES OF ROOTBALL WITH (4) TO (5) 1" DEEP CUTS. UNDISTURBED SUBGRADE

DECIDUOUS TREE PLANTING

SHRUB PLANTING

PLANTING BED EDGING (NOT-





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 PROJECT NO:
 18225R21001

 DATE:
 10.26.2022

 DRAWN BY:
 KDW

 CHK'D BY:
 CDW

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LANDSCAPE PLAN

L-10'

PLEASE CONSIDER THE ENVIRONMENT

BEFORE PRINTING THIS

