

Jan 11, 2023 -- 12:15pm Printed By: kurt.yoder V:\033570-01_leea east\04-dwg\Eng\Sheet\FDP\033570-SHFS-CORR.dwg Layout: Cover Sheet

FINAL DEVELOPMENT PLAN

SAINT LUKE'S EAST HOSPITAL - ASC EXPANSION & RENOVATION

LEE'S SUMMIT, MO 64086

100 NE SAINT LUKE'S BLVD.

GENERAL NOTES

- All work in public easement and Right-of-Way shall be installed per the requirements and specifications of the City of Lee's Summit, Missouri.
- All existing topographic, survey, and utility information shown was provided to BHC in the form of an Topographic Survey prepared by BHC and dated July 12, 2022. Contractors shall satisfy themselves as to the existing conditions of the site and have all utilities located prior to commencing construction.
- The Contractor shall be required to obtain all Federal, State, and Local permits required for this project prior to commencing construction.
- Any work adjacent to or crossing existing streets requires proper traffic control devices. Traffic control devices shall be placed in accordance with the Manual of Uniform Traffic Control Devices (MUTCD).
- The contractor shall be required to demolish, remove and dispose of all existing structures, pavements, and features necessary to construct the improvements shown hereon. Any waste materials generated during construction shall be removed from the site by the Contractor and disposed of in accordance with all local, State, and Federal regulations governing such disposal.
- The contractor shall prevent any trash, debris, or liquid wastes from being disposed of in sanitary sewers, storm sewers, or open drainage systems.
- The Contractor shall be solely responsible to protect adjacent property, structures, and other improvements from damage during construction. In the event of damage to adjacent property, structures, or improvements, the contractor shall repair or replace such damage to the Owner's satisfaction at the Contractor's expense.
- Contractors at the site shall be solely responsible for jobsite safety for all aspects of work shown hereon.
- All work and materials used in the construction of the improvements shown hereon shall comply with all referenced standards, specifications, and plan notes.
- All buildings are shown as a reference only. All buildings shall be located and constructed per the Architectural drawings prepared by others.
- Contractor shall be responsible for contacting all utility companies for field locations of underground utilities affected by the contract. All existing utilities indicated on these plans are according to the best information available to the engineer; however, all utilities actually existing may not be shown. Utilities damaged through the negligence of the contractor to obtain the location of same shall be repaired or replaced at the expense of the contractor.
- Coordinate with facility representative as to when construction activities may be performed to work with the operations of the facility.
- Any and all hazards shall be properly identified and barricaded from access during all non-construction periods.
- A Right-of-Way permit is required from the City of Lee's Summit, Missouri Public Works Department for any work within the public right-of-way.

UTILITY CONTACTS

PLANNING AND DEVELOPMENT
CITY HALL
220 SE GREEN STREET
LEE'S SUMMIT, MO 64063
TEL: (816) 969-1600
FAX: (816) 969-1619

CODES ADMINISTRATION
CITY HALL
220 SE GREEN STREET
LEE'S SUMMIT, MO 64063
TEL: (816) 969-1200
FAX: (816) 969-1201

PUBLIC WORKS
CITY HALL
220 SE GREEN STREET
LEE'S SUMMIT, MO 64063
TEL: (816) 969-1800
FAX: (816) 969-1809

WATER UTILITIES
CITY HALL
1200 SE HAMBLEN RD
LEE'S SUMMIT, MO 64063
TEL: (816) 969-1900
FAX: (816) 969-1935

LEE'S SUMMIT FIRE DEPARTMENT
207 SE DOUGLAS ROAD
LEE'S SUMMIT, MO 64063
TEL: (816) 969-1300

ELECTRIC COMPANY
EVERGY
TEL: (888) 471-5275

TELEPHONE COMPANY
AT&T
TEL: (800) 464-7928

GAS COMPANY
MISSOURI GAS ENERGY
TEL: (816) 756-5252

BENCHMARKS

(DATUM: NAVD88)

BENCHMARK NUMBER: 1
CHISELED SQUARE ON THE FRONT FACE OF A DUAL MANHOLE CURB INLET, LOCATED 49.8 FEET NORTHWEST OF THE NORTHEAST CORNER OF THE NORTH END OF SAINT LUKE'S HOSPITAL.

ELEVATION= 982.88

BENCHMARK NUMBER: 2
CHISELED SQUARE ON THE FRONT FACE OF A CURB INLET, LOCATED ±97.4 FEET SOUTHWEST OF THE SOUTHEAST CORNER ON THE NORTH END SAINT LUKE'S HOSPITAL.

ELEVATION= 979.35

FLOOD STATEMENT

The subject property lies within Flood Zone " X " (unshaded) (Areas determined to be outside the 0.2% annual chance floodplain), as shown on the Jackson County, Missouri and Incorporated Areas Flood Insurance Rate Map (F.I.R.M.).

Map Number: 29095C0409G
Panel No: 409 of 625
Map Revised Date: January 20, 2017

NOTE: This statement is provided for informational purposes only and shall in no way constitute a basis for a flood certificate. No field work was performed to establish the boundaries of this zone. The information was derived by scaling the subject property on the above referenced map.



Sheet List Table	
Sheet Number	Sheet Title
CVR	Cover Sheet
C100	Demolition Plan - Building Expansion
C101	Demolition Plan - Parking Expansion
C200	Overall Site Plan
C201	Site Plan - Building Expansion
C202	Site Plan - Parking Expansion
C203	Dimension Plan - Building Expansion
C204	Dimension Plan - Parking Expansion
C300	Overall Grading Plan
C301	Detailed Grading Plan - Building Expansion
C302	Detailed Grading Plan - Parking Expansion
C303	Overall Erosion Control Plan
C304	Erosion Control Plan - Building Expansion
C305	Erosion Control Plan - Parking Expansion
C306	Erosion Control Details
C400	Overall Utility Plan
C401	Sanitary Plan & Profile
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C500	Overall Drainage Map
C501	Expansion Drainage Map
C502	Storm Plan & Profile
C503	Storm Plan & Profile
C504	Storm Plan & Profile
C505	Storm Plan & Profile
C506	Detention Basin Plan
C600	Wall Specifications
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C702	Civil Details 3
C703	Civil Details 4
L100	Landscape Plan
L200	Planting Details
L201	Irrigation Details 1
L202	Irrigation Details 2
A120	Architectural Site Plan Details
A214	Roof Plan and Details
A510	Exterior Elevations
A511	Exterior Elevations

SURVEYOR OF RECORD

BHC
712 STATE AVE.
KANSAS CITY, KANSAS 66101
P (913) 663-1900
F (913) 663-1633
CONTACT: BRENT THOMPSON
EMAIL: BRENT.THOMPSON@IBHC.COM

CIVIL ENGINEER

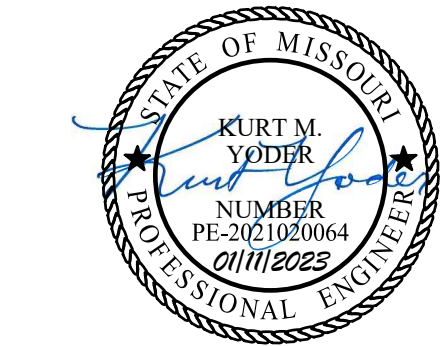
BHC
7101 COLLEGE BOULEVARD, SUITE 400
OVERLAND PARK, KANSAS 66210
P (913) 663-1900
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CONTACT: KURT YODER
EMAIL: KURT.YODER@IBHC.COM

ARCHITECT OF RECORD

ACI BOLAND ARCHITECTS
1710 WYANDOTTE ST.
KANSAS CITY, MISSOURI 64108
P (816) 763-9600
CONTACT: SAMUEL BECKMAN
EMAIL: SBECKMAN@ACIBOLAND.COM

OWNER/DEVELOPER

SAINT LUKE'S
4401 WORNALL ROAD
KANSAS CITY, MISSOURI 64111
(816) 932-3200
CONTACT: TJ STEINKIRCHNER
EMAIL: TSTEINKIRCHNER@SAINTLUKESKC.ORG



Kurt M. Yoder, Civil Engineer
License - Missouri #2021020064



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Kansas City | St. Louis
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Missouri: #000958

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Licensee's Certificate of Authority Number:
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1000 Walnut, Suit 1570
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MEP CONSULTANT

IMEG
1600 Baltimore Ave, Suite 300
Kansas City, MO 64108
816.842.8437



Date	12/22/2022
Job Number	3-21037
Drawn By	KMY
Checked By	KMY

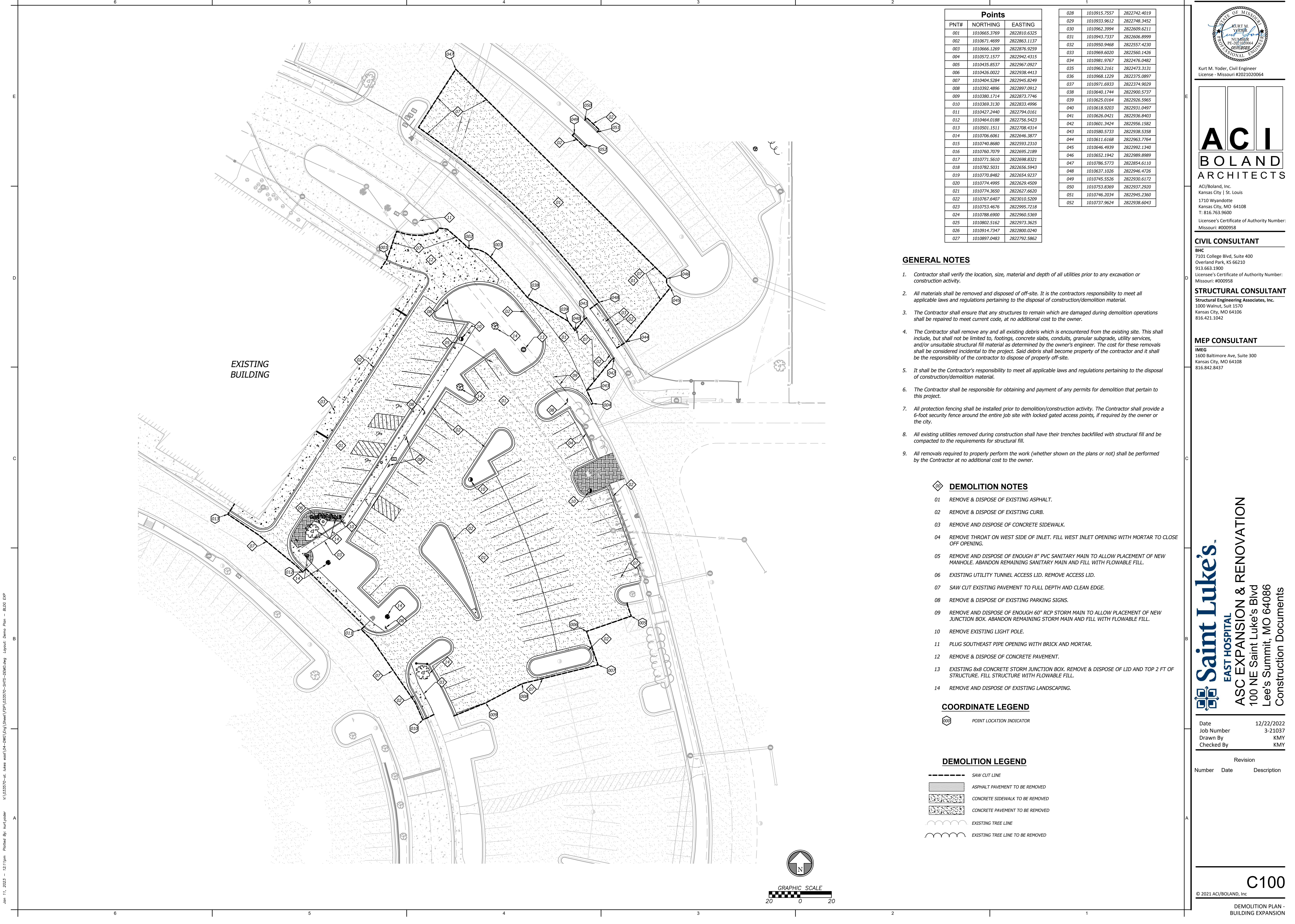
Revision		
Number	Date	Description

CVR

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COVER SHEET

Jan 11, 2023 -- 12:11pm Plotted By: kurt.yoder V:\033570-et_lukes east\04-dwg\Eng\Sheet\SP\033570-SHS-DEMO.dwg Layout: Demo Plot -- BLOC EXP



Points		
PNT#	NORTHING	EASTING
001	1010665.3769	2822810.6325
002	1010671.4699	2822863.1137
003	1010666.1269	2822876.9259
004	1010572.1577	2822942.4315
005	1010435.8537	2822967.0927
006	1010426.0022	2822938.4413
007	1010404.5284	2822945.8249
008	1010392.4896	2822897.0912
009	1010380.1714	2822873.7746
010	1010369.3130	2822833.4996
011	1010427.2440	2822794.0161
012	1010464.0188	2822756.5423
013	1010501.1511	2822708.4314
014	1010706.6061	2822646.3877
015	1010740.8680	2822593.2310
016	1010760.7079	2822695.2189
017	1010771.5610	2822698.8321
018	1010782.5031	2822656.5943
019	1010770.8482	2822654.9237
020	1010774.4995	2822629.4509
021	1010774.3650	2822627.6620
022	1010767.6407	2823010.5209
023	1010753.4676	2822995.7218
024	1010788.6900	2822960.5369
025	1010802.5162	2822973.3625
026	1010914.7347	2822800.0240
027	1010897.0483	2822792.5862

028	1010915.7557	2822742.4019
029	1010933.9612	2822748.3452
030	1010962.3994	2822609.6211
031	1010943.7337	2822606.8999
032	1010950.9468	2822557.4230
033	1010969.6020	2822560.1426
034	1010981.9767	2822476.0482
035	1010963.2161	2822473.3131
036	1010968.1229	2822375.0897
037	1010971.6933	2822374.9029
038	1010640.1744	2822900.5737
039	1010625.0164	2822926.5965
040	1010618.9203	2822931.0497
041	1010626.0421	2822936.8403
042	1010601.3424	2822956.1582
043	1010580.5733	2822938.5358
044	1010611.6168	2822963.7764
045	1010646.4939	2822992.1340
046	1010652.1942	2822989.8989
047	1010786.5773	2822854.6110
048	1010637.1026	2822946.4726
049	1010745.5526	2822930.6172
050	1010753.8369	2822937.2920
051	1010746.2034	2822945.2360
052	1010737.9624	2822938.6043

GENERAL NOTES

- Contractor shall verify the location, size, material and depth of all utilities prior to any excavation or construction activity.
- All materials shall be removed and disposed of off-site. It is the contractors responsibility to meet all applicable laws and regulations pertaining to the disposal of construction/demolition material.
- The Contractor shall ensure that any structures to remain which are damaged during demolition operations shall be repaired to meet current code, at no additional cost to the owner.
- The Contractor shall remove any and all existing debris which is encountered from the existing site. This shall include, but shall not be limited to, footings, concrete slabs, conduits, granular subgrade, utility services, and/or unsuitable structural fill material as determined by the owner's engineer. The cost for these removals shall be considered incidental to the project. Said debris shall become property of the contractor and it shall be the responsibility of the contractor to dispose of properly off-site.
- It shall be the Contractor's responsibility to meet all applicable laws and regulations pertaining to the disposal of construction/demolition material.
- The Contractor shall be responsible for obtaining and payment of any permits for demolition that pertain to this project.
- All protection fencing shall be installed prior to demolition/construction activity. The Contractor shall provide a 6-foot security fence around the entire job site with locked gated access points, if required by the owner or the city.
- All existing utilities removed during construction shall have their trenches backfilled with structural fill and be compacted to the requirements for structural fill.
- All removals required to properly perform the work (whether shown on the plans or not) shall be performed by the Contractor at no additional cost to the owner.

DEMOLITION NOTES

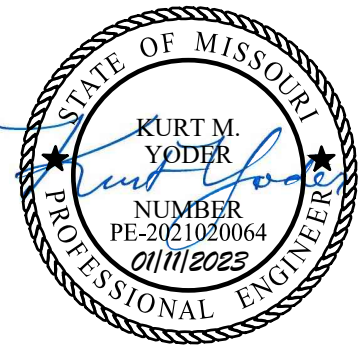
- REMOVE & DISPOSE OF EXISTING ASPHALT.
- REMOVE & DISPOSE OF EXISTING CURB.
- REMOVE AND DISPOSE OF CONCRETE SIDEWALK.
- REMOVE THROAT ON WEST SIDE OF INLET. FILL WEST INLET OPENING WITH MORTAR TO CLOSE OFF OPENING.
- REMOVE AND DISPOSE OF ENOUGH 8" PVC SANITARY MAIN TO ALLOW PLACEMENT OF NEW MANHOLE. ABANDON REMAINING SANITARY MAIN AND FILL WITH FLOWABLE FILL.
- EXISTING UTILITY TUNNEL ACCESS LID. REMOVE ACCESS LID.
- SAW CUT EXISTING PAVEMENT TO FULL DEPTH AND CLEAN EDGE.
- REMOVE & DISPOSE OF EXISTING PARKING SIGNS.
- REMOVE AND DISPOSE OF ENOUGH 60" RCP STORM MAIN TO ALLOW PLACEMENT OF NEW JUNCTION BOX. ABANDON REMAINING STORM MAIN AND FILL WITH FLOWABLE FILL.
- REMOVE EXISTING LIGHT POLE.
- PLUG SOUTHEAST PIPE OPENING WITH BRICK AND MORTAR.
- REMOVE & DISPOSE OF CONCRETE PAVEMENT.
- EXISTING 8x8 CONCRETE STORM JUNCTION BOX. REMOVE & DISPOSE OF LID AND TOP 2 FT OF STRUCTURE. FILL STRUCTURE WITH FLOWABLE FILL.
- REMOVE AND DISPOSE OF EXISTING LANDSCAPING.

COORDINATE LEGEND

POINT LOCATION INDICATOR

DEMOLITION LEGEND

- SAW CUT LINE
- ASPHALT PAVEMENT TO BE REMOVED
- CONCRETE SIDEWALK TO BE REMOVED
- CONCRETE PAVEMENT TO BE REMOVED
- EXISTING TREE LINE
- EXISTING TREE LINE TO BE REMOVED



Kurt M. Yoder, Civil Engineer
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Saint Luke's
EAST HOSPITAL
ASC EXPANSION & RENOVATION
100 NE Saint Luke's Blvd
Lee's Summit, MO 64086
Construction Documents

Date 12/22/2022
Job Number 3-21037
Drawn By KMY
Checked By KMY

Revision
Number Date Description

C100

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DEMOLITION PLAN -
BUILDING EXPANSION

V:\033570-01_Akies east\04-DWG\Eng\Sheet\FSP\FSP-233570-SHFS-DEM0.dwg Layout: Demo Plan - PRWG EXP
Jan 11, 2023 - 12:10pm Plotted By: kurt.yoder

GENERAL NOTES

- Contractor shall verify the location, size, material and depth of all utilities prior to any excavation or construction activity.
- All materials shall be removed and disposed of off-site. It is the contractors responsibility to meet all applicable laws and regulations pertaining to the disposal of construction/demolition material.
- The Contractor shall ensure that any structures to remain which are damaged during demolition operations shall be repaired to meet current code, at no additional cost to the owner.
- The Contractor shall remove any and all existing debris which is encountered from the existing site. This shall include, but shall not be limited to, footings, concrete slabs, conduits, granular subgrade, utility services, and/or unsuitable structural fill material as determined by the owner's engineer. The cost for these removals shall be considered incidental to the project. Said debris shall become property of the contractor and it shall be the responsibility of the contractor to dispose of properly off-site.
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- All protection fencing shall be installed prior to demolition/construction activity. The Contractor shall provide a 6-foot security fence around the entire job site with locked gated access points, if required by the owner or the city.
- All existing utilities removed during construction shall have their trenches backfilled with structural fill and be compacted to the requirements for structural fill.
- All removals required to properly perform the work (whether shown on the plans or not) shall be performed by the Contractor at no additional cost to the owner.

DEMOLITION NOTES

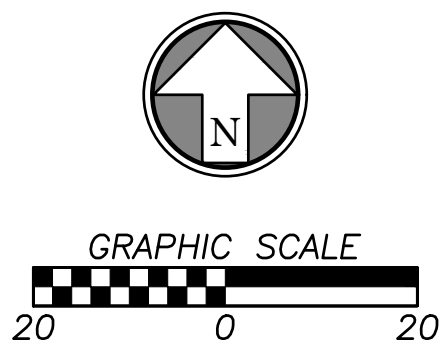
- REMOVE & DISPOSE OF EXISTING ASPHALT.
- REMOVE & DISPOSE OF EXISTING CURB.
- CURB INLET TO REMAIN. REMOVE THROAT AND REBUILD THROAT. PLUG STORM MAIN OPENING FROM THE EAST WITH BRICK AND MORTAR.
- REMOVE CURB INLET. ABANDON STORM MAIN TO THE WEST.
- REMOVE PARKING STALL STRIPING FROM PAVEMENT. PAVEMENT TO REMAIN HERE.
- REMOVE CURB INLET TOP. CURB INLET IS TO BE CONVERTED TO AN AREA GRATE INLET. SEE STORM PLANS.
- SAW CUT EXISTING PAVEMENT TO FULL DEPTH AND CLEAN EDGE.
- REMOVE & DISPOSE OF EXISTING PARKING SIGNS.
- NOT USED.
- REMOVE EXISTING LIGHT POLE.
- CLEAR TREES AND BRUSH TO ALLOW FOR GRADING.
- REMOVE & DISPOSE OF TRASH ENCLOSURE.
- REMOVE & DISPOSE OF CONCRETE PAVEMENT.
- REMOVE SPRINKLER EQUIPMENT
- REMOVE & DISPOSE OF CONCRETE STORM PIPES AND OUTLET STRUCTURE
- REMOVE & DISPOSE OF CONCRETE STORM PIPES AND HEADWALLS TO ALLOW FOR PLACEMENT OF JUNCTION BOXES. SEE STORM PLANS FOR LOCATIONS OF JUNCTION BOXES.
- NOT USED.
- REMOVE AND DISPOSE OF EXISTING LANDSCAPING.

Points		
PNT#	NORTHING	EASTING
001	1010665.3769	2822810.6325
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034	1010981.9767	2822476.0482
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049	1010745.5526	2822930.6172
050	1010753.8369	2822937.2920
051	1010746.2034	2822945.2360
052	1010737.9624	2822938.6043

DEMOLITION LEGEND

- SAW CUT LINE
- ASPHALT PAVEMENT TO BE REMOVED
- CONCRETE SIDEWALK TO BE REMOVED
- CONCRETE PAVEMENT TO BE REMOVED
- EXISTING TREE LINE
- EXISTING TREE LINE TO BE REMOVED



Kurt M. Yoder, Civil Engineer
License - Missouri #2021020064

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ARCHITECTS

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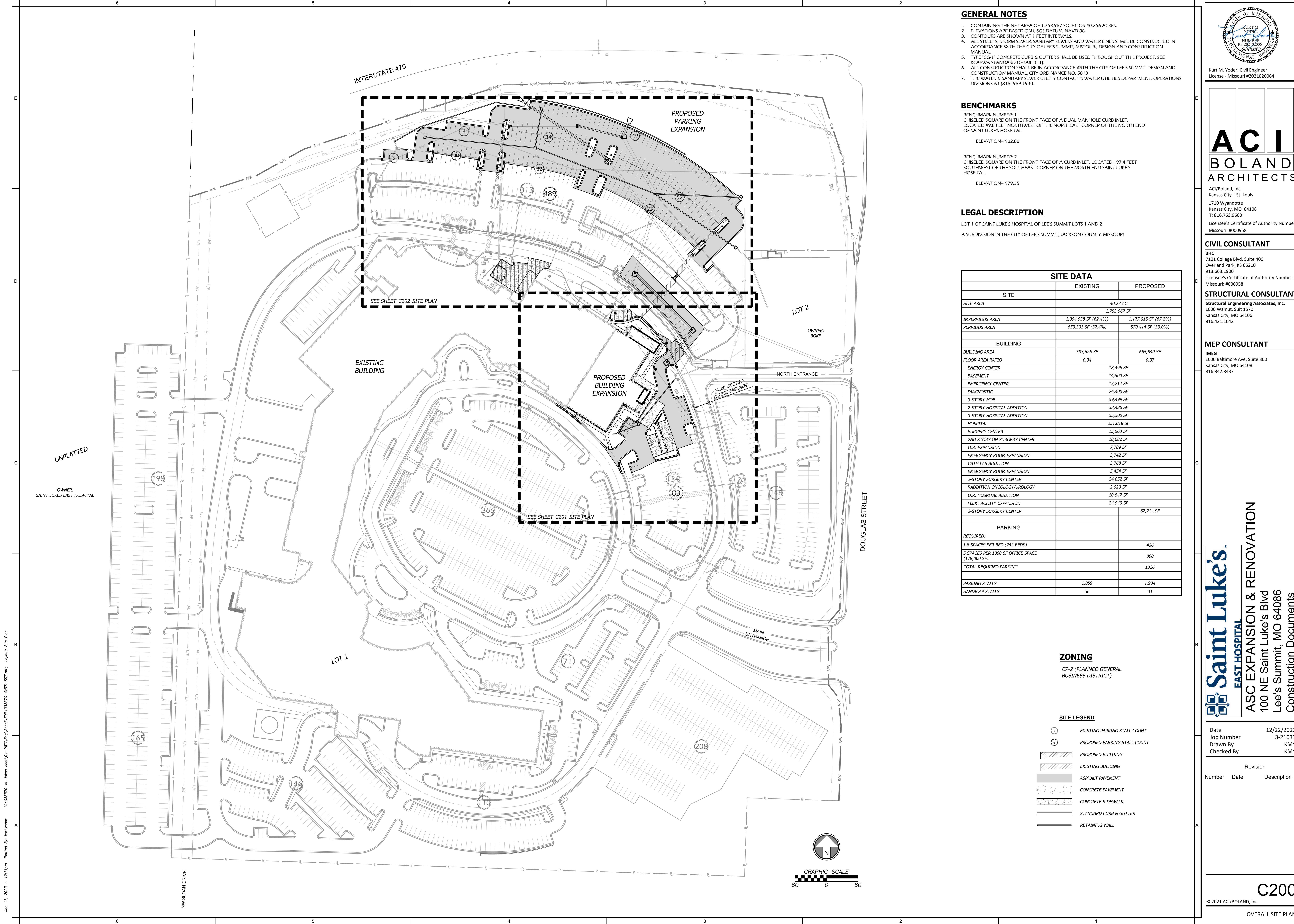
Revision
Number Date Description

C101

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DEMOLITION PLAN -
PARKING EXPANSION

Jan 11, 2023 -- 12:10pm Printed By: kurt.yoder V:\033570-01_kluka east\04-dwg\Eng\Sheet\SP\033570-SHRS-SITE.dwg Layout: Site Plan



GENERAL NOTES

1. CONTAINING THE NET AREA OF 1,753,967 SQ. FT. OR 40.266 ACRES.
2. ELEVATIONS ARE BASED ON USGS DATUM, NAVD 88.
3. CONTOURS ARE SHOWN AT 1' FEET INTERVALS.
4. ALL STREETS, STORM SEWER, SANITARY SEWERS AND WATER LINES SHALL BE CONSTRUCTED IN ACCORDANCE WITH THE CITY OF LEE'S SUMMIT, MISSOURI, DESIGN AND CONSTRUCTION MANUAL.
5. TYPE "CG-1" CONCRETE CURB & GUTTER SHALL BE USED THROUGHOUT THIS PROJECT. SEE KCAPWA STANDARD DETAIL (C-1).
6. ALL CONSTRUCTION SHALL BE IN ACCORDANCE WITH THE CITY OF LEE'S SUMMIT DESIGN AND CONSTRUCTION MANUAL, CITY ORDINANCE NO. 5813
7. THE WATER & SANITARY SEWER UTILITY CONTACT IS WATER UTILITIES DEPARTMENT, OPERATIONS DIVISIONS AT (816) 969-1940.

BENCHMARKS

BENCHMARK NUMBER: 1
CHISELED SQUARE ON THE FRONT FACE OF A DUAL MANHOLE CURB INLET,
LOCATED 49.8 FEET NORTHWEST OF THE NORTHEAST CORNER OF THE NORTH END
OF SAINT LUKE'S HOSPITAL.

ELEVATION~ 982.88

BENCHMARK NUMBER: 2
CHISELED SQUARE ON THE FRONT FACE OF A CURB INLET, LOCATED +97.4 FEET
SOUTHWEST OF THE SOUTHEAST CORNER ON THE NORTH END SAINT LUKE'S
HOSPITAL.

ELEVATION~ 979.35

LEGAL DESCRIPTION

LOT 1 OF SAINT LUKE'S HOSPITAL OF LEE'S SUMMIT LOTS 1 AND 2

A SUBDIVISION IN THE CITY OF LEE'S SUMMIT, JACKSON COUNTY, MISSOURI

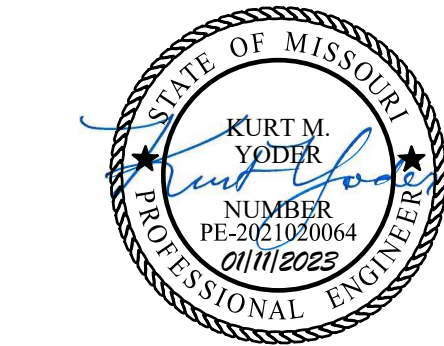
SITE DATA		
SITE	EXISTING	PROPOSED
SITE AREA	40.27 AC	
	1,753,967 SF	
IMPERVIOUS AREA	1,094,938 SF (62.4%)	1,177,915 SF (67.2%)
PERVIOUS AREA	653,391 SF (37.4%)	570,414 SF (33.0%)
BUILDING		
BUILDING AREA	593,626 SF	655,840 SF
FLOOR AREA RATIO	0.34	0.37
ENERGY CENTER		18,495 SF
BASEMENT		14,500 SF
EMERGENCY CENTER		13,212 SF
DIAGNOSTIC		24,400 SF
3-STORY MOB		59,499 SF
2-STORY HOSPITAL ADDITION		38,436 SF
3-STORY HOSPITAL ADDITION		55,500 SF
HOSPITAL		251,018 SF
SURGERY CENTER		15,563 SF
2ND STORY ON SURGERY CENTER		18,682 SF
O.R. EXPANSION		7,789 SF
EMERGENCY ROOM EXPANSION		3,742 SF
CATH LAB ADDITION		3,768 SF
EMERGENCY ROOM EXPANSION		5,454 SF
2-STORY SURGERY CENTER		24,852 SF
RADIATION ONCOLOGY/UROLOGY		2,920 SF
O.R. HOSPITAL ADDITION		10,847 SF
FLEX FACILITY EXPANSION		24,949 SF
3-STORY SURGERY CENTER		62,214 SF
PARKING		
REQUIRED:		
1.8 SPACES PER BED (242 BEDS)		436
5 SPACES PER 1000 SF OFFICE SPACE (178,000 SF)		890
TOTAL REQUIRED PARKING		1326
PARKING STALLS	1,859	1,984
HANDICAP STALLS	36	41

ZONING

CP-2 (PLANNED GENERAL
BUSINESS DISTRICT)

SITE LEGEND

- EXISTING PARKING STALL COUNT
- PROPOSED PARKING STALL COUNT
- PROPOSED BUILDING
- EXISTING BUILDING
- ASPHALT PAVEMENT
- CONCRETE PAVEMENT
- CONCRETE SIDEWALK
- STANDARD CURB & GUTTER
- RETAINING WALL



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100 NE Saint Luke's Blvd
Lee's Summit, MO 64086
Construction Documents

Date	12/22/2022
Job Number	3-21037
Drawn By	KMY
Checked By	KMY

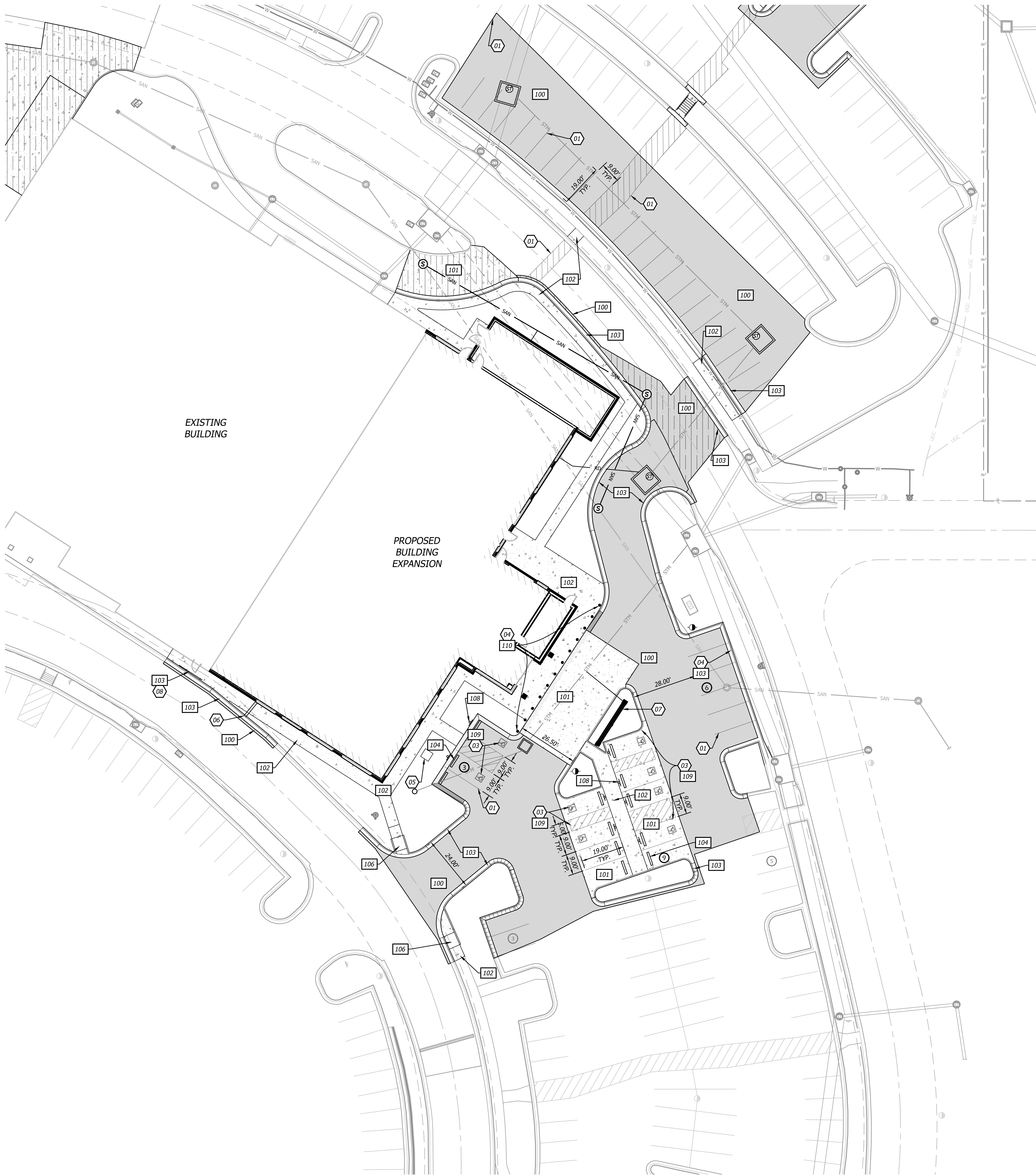
Revision		
Number	Date	Description

C200

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OVERALL SITE PLAN

V:\033570-et_lukes east\04-dwg\Eng\Sheet\SP\033570-SHRS-SITE-PARKING.dwg Layout: Site Plan Building Expansion
Jan 11, 2023 -- 12:11pm Plotted By: kurt.yoder



CONSTRUCTION NOTES

- 01 LEAD FREE, WATER-BORNE EMULSION BASED TRAFFIC PAINT FOR PARKING LOT STRIPING (WHITE ON ASPHALT & YELLOW ON CONCRETE).
- 02 PROPOSED SITE LIGHTING, REFER TO LIGHTING PLANS.
- 03 ADA PARKING AREA. 2% MAXIMUM SLOPE IN ANY DIRECTION.
- 04 INSTALL CONCRETE BOLLARDS 6 FT APART.
- 05 PROPOSED ACCESS LID TO EXISTING TUNNEL. DESIGN OF CONCRETE ACCESS AND LID BY STRUCTURAL.
- 06 PROPOSED 6" TRENCH DRAIN THROUGH SIDEWALK WITH SOLID LID FOR OVERFLOW DRAIN FROM BUILDING. TRENCH DRAIN TO DRAIN TO PAVEMENT THROUGH CURB.
- 07 PROPOSED CANOPY AND FOOTING. SEE ARCHITECTURAL DRAWINGS FOR DETAILS.
- 08 INSTALL 12 FT LENGTH OF HANDRAIL CENTERED ON THE BUILDING DOOR. HAND RAIL POSTS ARE TO BE 4" MINIMUM FROM BACK OF CURB PARALLEL WITH BUILDING WALL.

DETAILS

SEE CONSTRUCTION DETAILS - SHEETS C700-C702

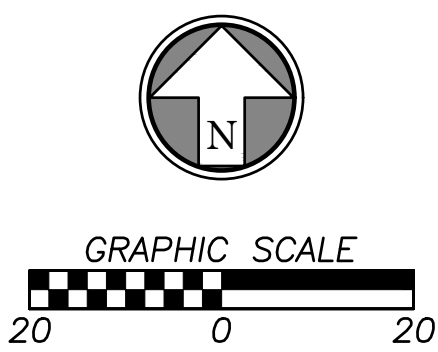
- 100 ASPHALT PAVEMENT
- 101 CONCRETE PAVEMENT
- 102 CONCRETE SIDEWALK SECTION
- 103 CONCRETE CURB & GUTTER
- 104 CONCRETE WHEEL STOP
- 106 SIDEWALK RAMP
- 108 (ADA) HANDICAP PARKING SIGNAGE
- 109 (ADA) HANDICAP PARKING STRIPING
- 110 STEEL/CONCRETE BOLLARD
- 111 HANDRAIL

ZONING

CP-2 (PLANNED COMMUNITY COMMERCIAL)

SITE LEGEND

- EXISTING PARKING STALL COUNT
- PROPOSED PARKING STALL COUNT
- PROPOSED BUILDING
- EXISTING BUILDING
- STANDARD CURB & GUTTER
- DRY CURB & GUTTER
- ZERO HEIGHT CURB
- TRANSITION CURB
- ASPHALT PAVEMENT
- HEAVY DUTY ASPHALT PAVEMENT
- CONCRETE SIDEWALK
- CONCRETE PAVEMENT
- HEAVY DUTY CONCRETE PAVEMENT



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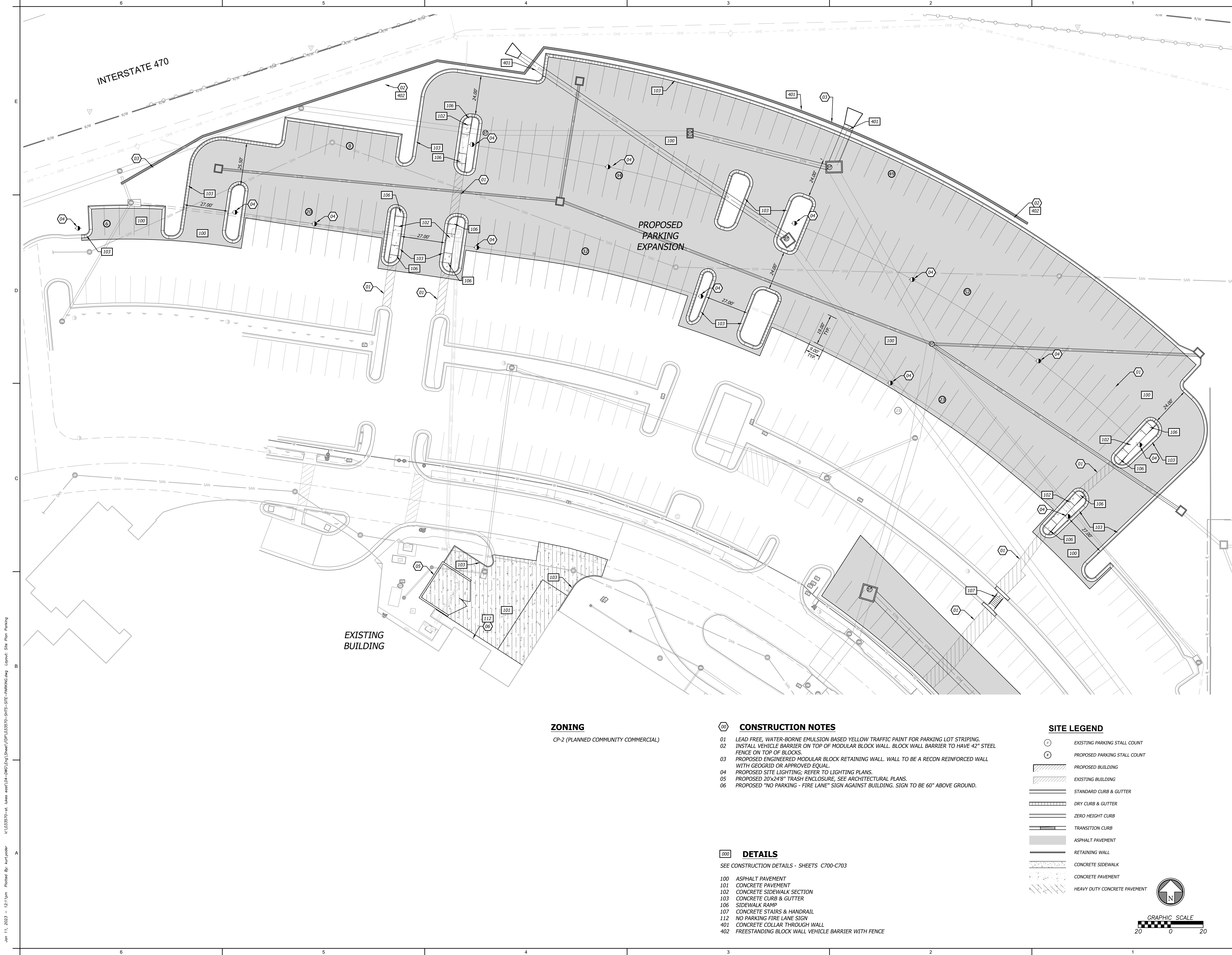
Revision		
Number	Date	Description

C201

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SITE PLAN - BUILDING
EXPANSION

Jan 11, 2023 -- 12:13pm Plotted By: kurt.yoder V:\033570-01_sikes east\04-dwg\Eng\Sheet\PSD\033570-SHFS-SITE-PARKING.dwg Layout: Site Plan Parking



ZONING

CP-2 (PLANNED COMMUNITY COMMERCIAL)

CONSTRUCTION NOTES

- 01 LEAD FREE, WATER-BORNE EMULSION BASED YELLOW TRAFFIC PAINT FOR PARKING LOT STRIPING.
- 02 INSTALL VEHICLE BARRIER ON TOP OF MODULAR BLOCK WALL. BLOCK WALL BARRIER TO HAVE 42" STEEL FENCE ON TOP OF BLOCKS.
- 03 PROPOSED ENGINEERED MODULAR BLOCK RETAINING WALL. WALL TO BE A RECON REINFORCED WALL WITH GEGRID OR APPROVED EQUAL.
- 04 PROPOSED SITE LIGHTING; REFER TO LIGHTING PLANS.
- 05 PROPOSED 20"x24"8" TRASH ENCLOSURE. SEE ARCHITECTURAL PLANS.
- 06 PROPOSED "NO PARKING - FIRE LANE" SIGN AGAINST BUILDING. SIGN TO BE 60" ABOVE GROUND.

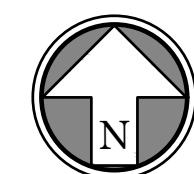
DETAILS

SEE CONSTRUCTION DETAILS - SHEETS C700-C703

- 100 ASPHALT PAVEMENT
- 101 CONCRETE PAVEMENT
- 102 CONCRETE SIDEWALK SECTION
- 103 CONCRETE CURB & GUTTER
- 106 SIDEWALK RAMP
- 107 CONCRETE STAIRS & HANDRAIL
- 112 NO PARKING FIRE LANE SIGN
- 401 CONCRETE COLLAR THROUGH WALL
- 402 FREESTANDING BLOCK WALL VEHICLE BARRIER WITH FENCE

SITE LEGEND

- EXISTING PARKING STALL COUNT
- PROPOSED PARKING STALL COUNT
- PROPOSED BUILDING
- EXISTING BUILDING
- STANDARD CURB & GUTTER
- DRY CURB & GUTTER
- ZERO HEIGHT CURB
- TRANSITION CURB
- ASPHALT PAVEMENT
- RETAINING WALL
- CONCRETE SIDEWALK
- CONCRETE PAVEMENT
- HEAVY DUTY CONCRETE PAVEMENT



GRAPHIC SCALE
20 0 20

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Date 12/22/2022
Job Number 3-21037
Drawn By KMY
Checked By KMY

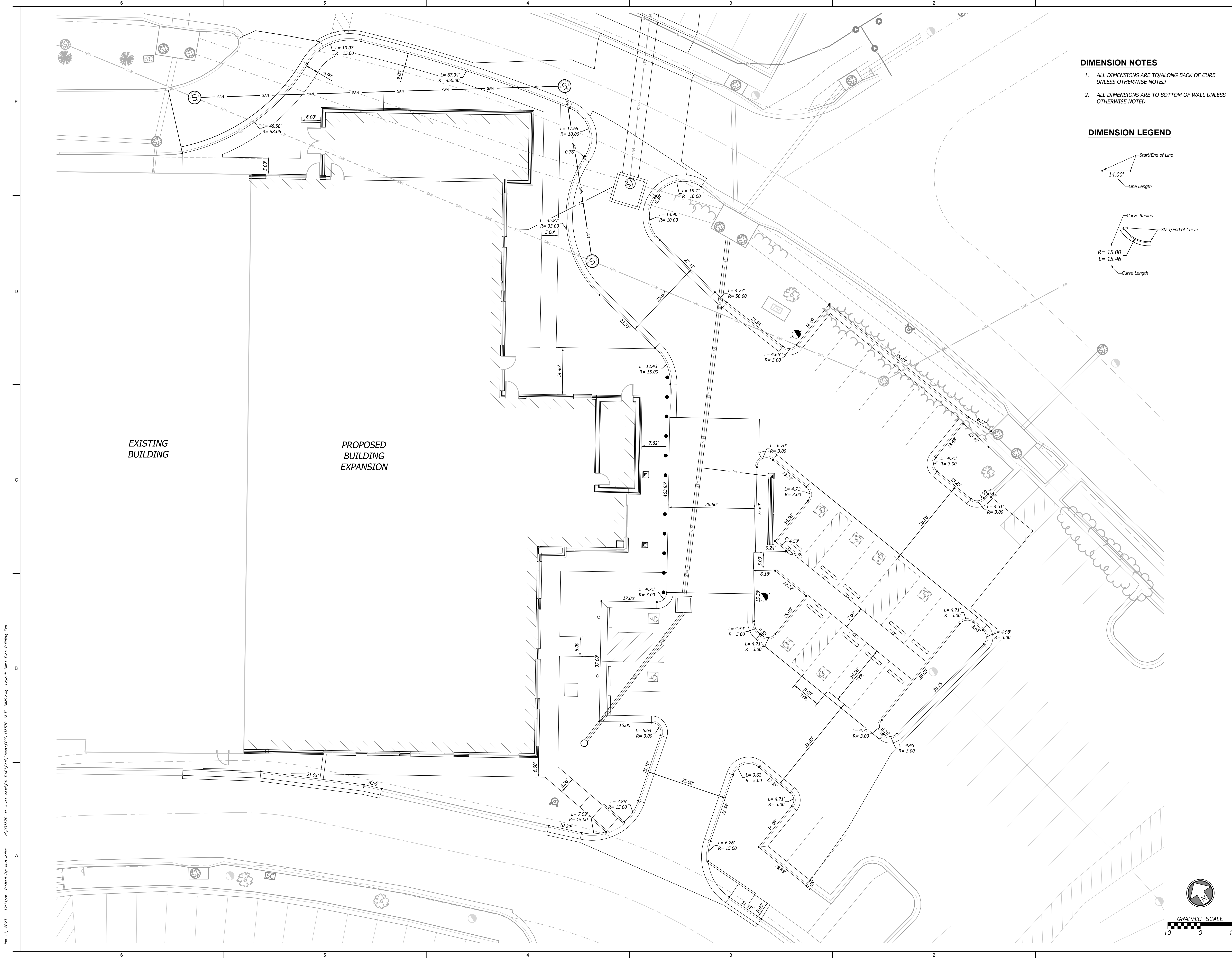
Revision
Number Date Description

C202

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SITE PLAN - PARKING EXPANSION

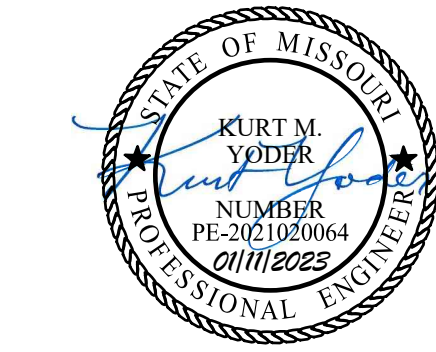
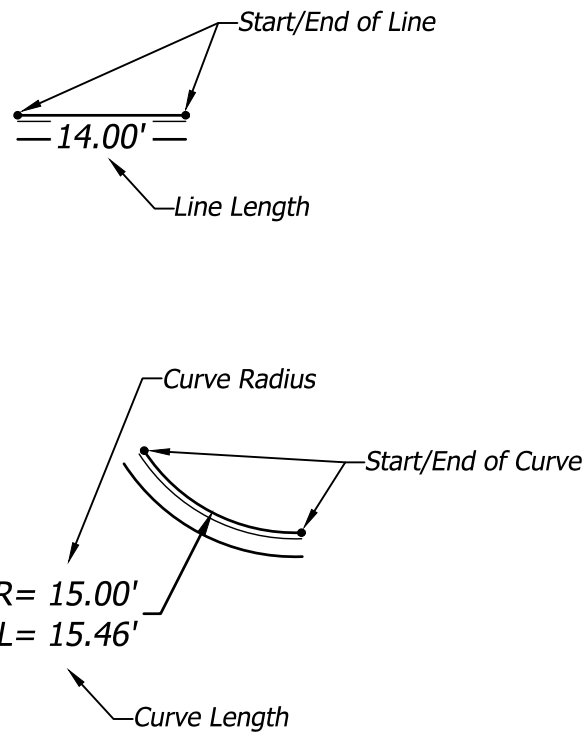
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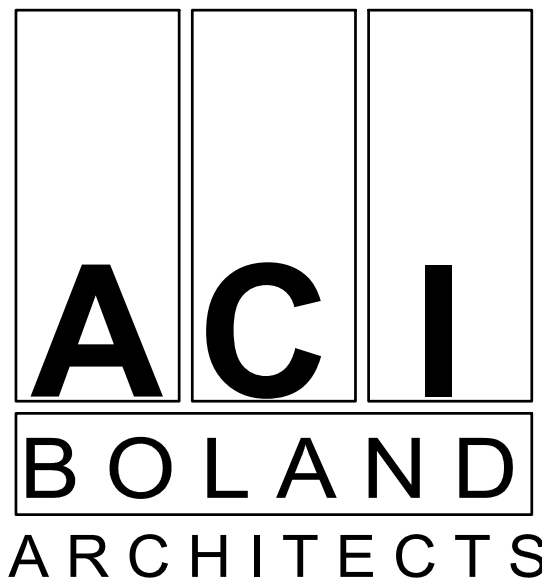
DIMENSION NOTES

- 1. ALL DIMENSIONS ARE TO/ALONG BACK OF CURB UNLESS OTHERWISE NOTED
- 2. ALL DIMENSIONS ARE TO BOTTOM OF WALL UNLESS OTHERWISE NOTED

DIMENSION LEGEND



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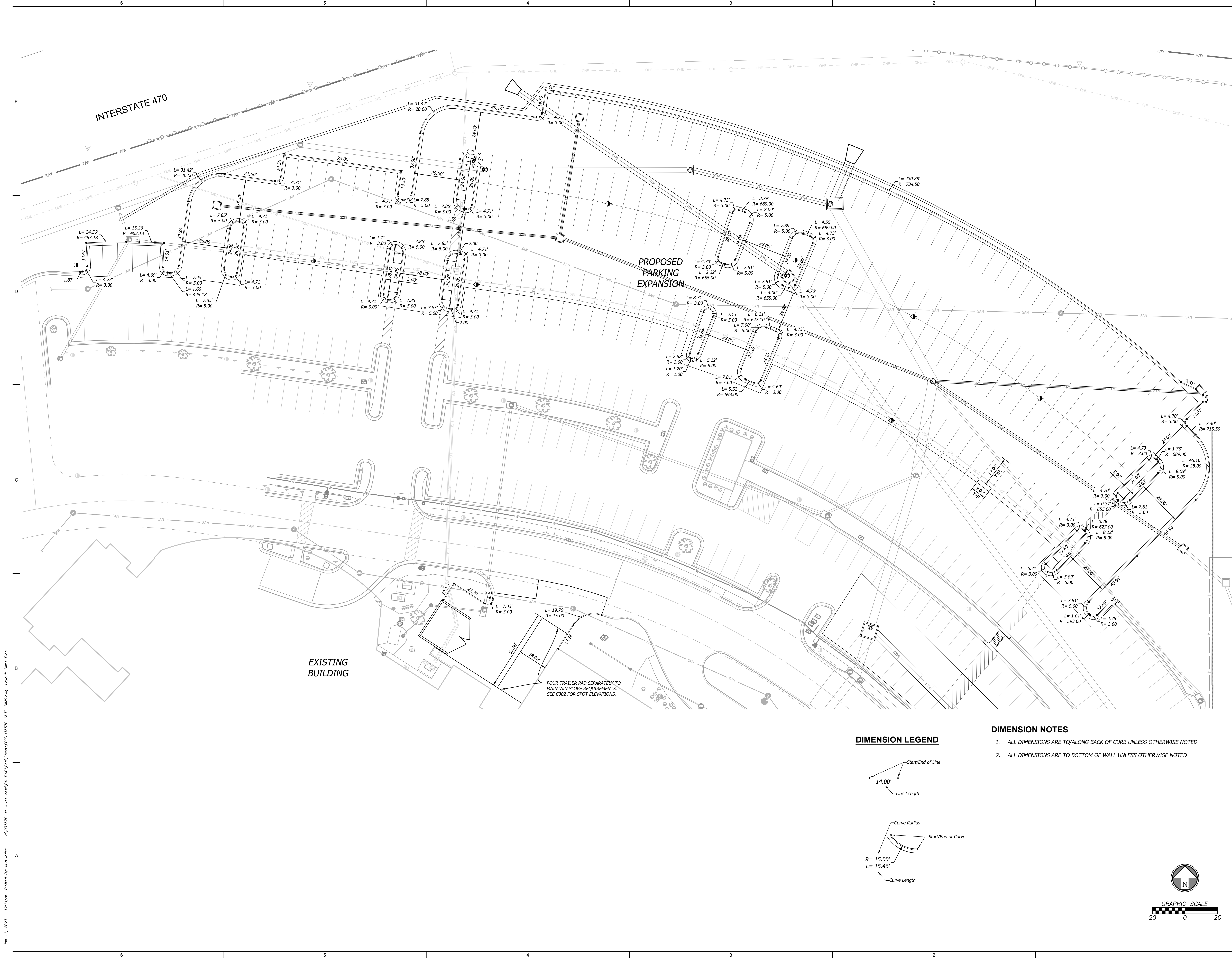
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Date	12/22/2022
Job Number	3-21037
Drawn By	KMY
Checked By	KMY

Number	Date	Description
Revision		

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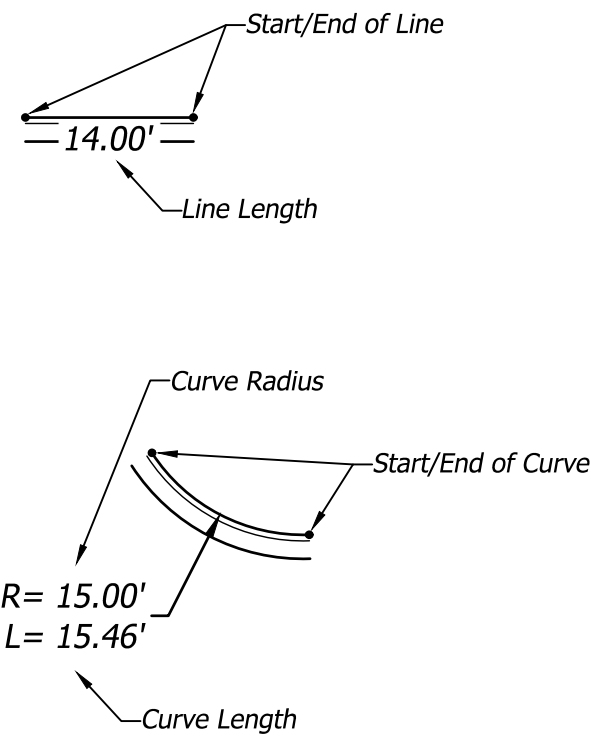


EXISTING
BUILDING

POUR TRAILER PAD SEPARATELY TO
MAINTAIN SLOPE REQUIREMENTS.
SEE C302 FOR SPOT ELEVATIONS.

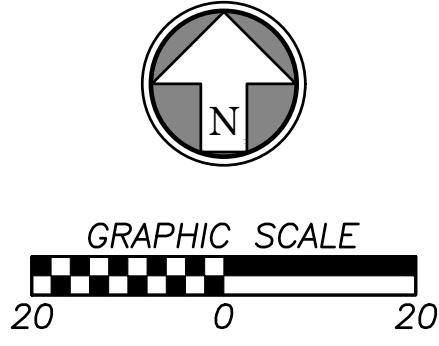
PROPOSED
PARKING
EXPANSION

DIMENSION LEGEND



DIMENSION NOTES

1. ALL DIMENSIONS ARE TO/ALONG BACK OF CURB UNLESS OTHERWISE NOTED
2. ALL DIMENSIONS ARE TO BOTTOM OF WALL UNLESS OTHERWISE NOTED



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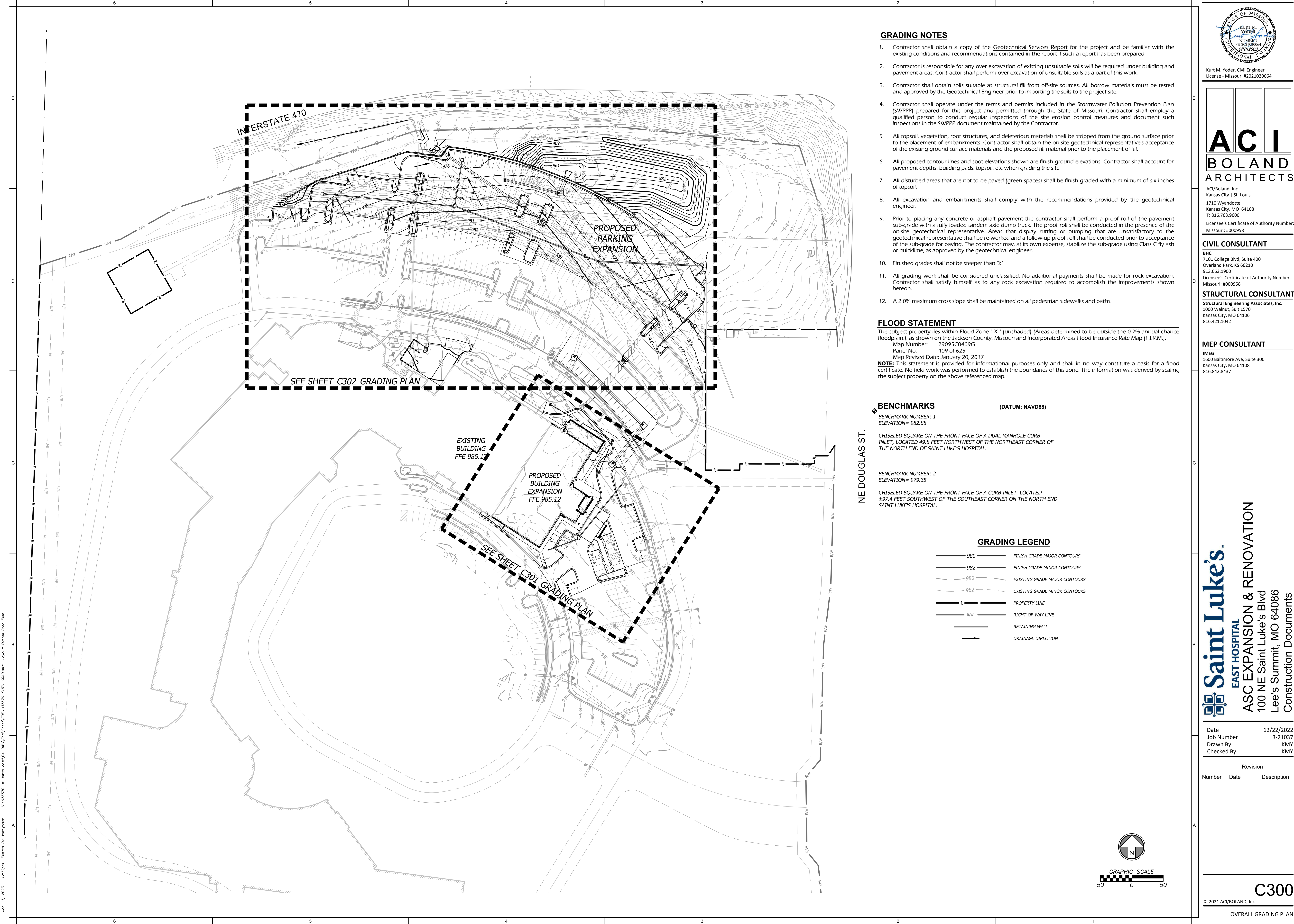
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Job Number	3-21037	
Drawn By	KMY	
Checked By	KMY	
Revision		
Number	Date	Description

C204

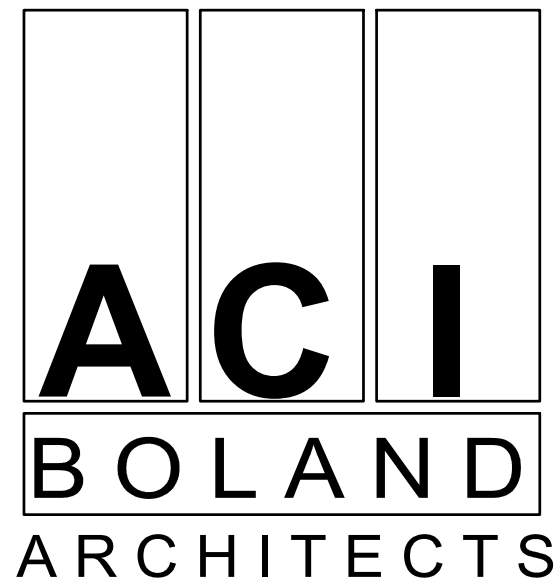
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DIMENSION PLAN -
PARKING EXPANSION

Jan 11, 2023 - 12:12pm Plotted By: kurt.yoder V:\033570-et_ Luke east\04-dwg\Eng\Sheet\PSD\033570-SHRS-0640.dwg Layout: Overall Grad Plan



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Construction Documents

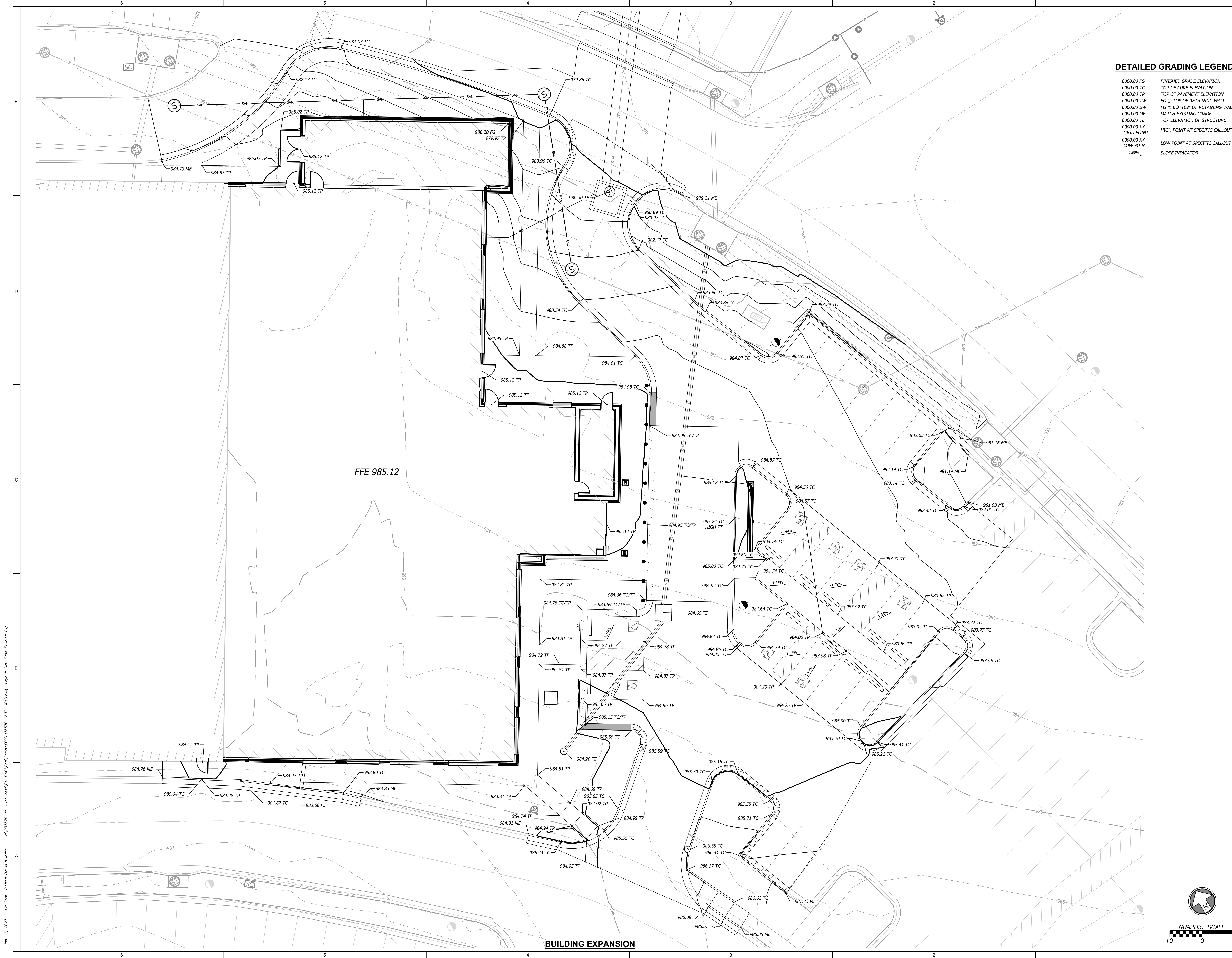
Date	12/22/2022
Job Number	3-21037
Drawn By	KMY
Checked By	KMY

Number	Date	Description

C300

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OVERALL GRADING PLAN

Jan 11, 2023 -- 12:12pm Printed By: kurt.yoder V:\033570--st. lukes east\04--DWG\Eng\Sheet\FDP\033570-SHS--G640.dwg Layout: Detl Grad Building Exp



DETAILED GRADING LEGEND

- 0000.00 FG FINISHED GRADE ELEVATION
- 0000.00 TC TOP OF CURB ELEVATION
- 0000.00 TP TOP OF PAVEMENT ELEVATION
- 0000.00 TW FG @ TOP OF RETAINING WALL
- 0000.00 BW FG @ BOTTOM OF RETAINING WALL
- 0000.00 ME MATCH EXISTING GRADE
- 0000.00 TE TOP ELEVATION OF STRUCTURE
- 0000.00 XX HIGH POINT AT SPECIFIC CALLOUT
- 0000.00 XX LOW POINT AT SPECIFIC CALLOUT
- 1.00% SLOPE INDICATOR

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Construction Documents

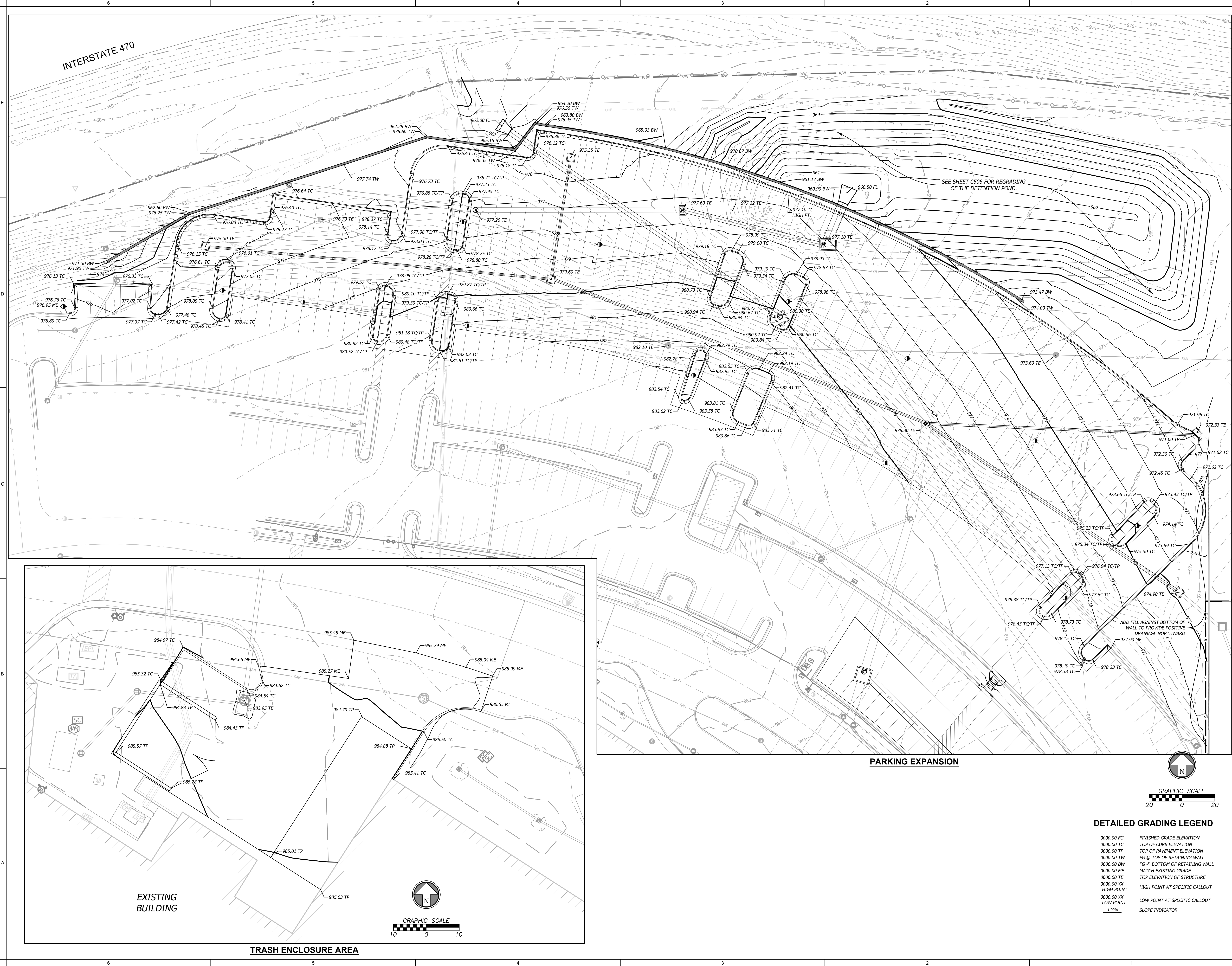
Date 12/22/2022
Job Number 3-21037
Drawn By KMY
Checked By KMY

Revision
Number Date Description

C301

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DETAILED GRADING PLAN - BUILDING EXPANSION

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Jan 11, 2023 - 12:12pm Plotted By: kurt.yoder



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Construction Documents

Date 12/22/2022
Job Number 3-21037
Drawn By KMY
Checked By KMY

Revision
Number Date Description

DETAILED GRADING LEGEND

0000.00 FG	FINISHED GRADE ELEVATION
0000.00 TC	TOP OF CURB ELEVATION
0000.00 TP	TOP OF PAVEMENT ELEVATION
0000.00 TW	FG @ TOP OF RETAINING WALL
0000.00 BW	FG @ BOTTOM OF RETAINING WALL
0000.00 ME	MATCH EXISTING GRADE
0000.00 TE	TOP ELEVATION OF STRUCTURE
0000.00 XX	HIGH POINT AT SPECIFIC CALLOUT
0000.00 XX	LOW POINT AT SPECIFIC CALLOUT
1.00%	SLOPE INDICATOR

C302
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DETAILED GRADING PLAN -
PARKING EXPANSION

Jan 11, 2023 -- 12:12pm Plotted By: kurt.yoder V:\033570-01_Lees east\04-DWG\Eng\Sheet\PSD\033570-SH05-ERSN.dwg Layout: Eran

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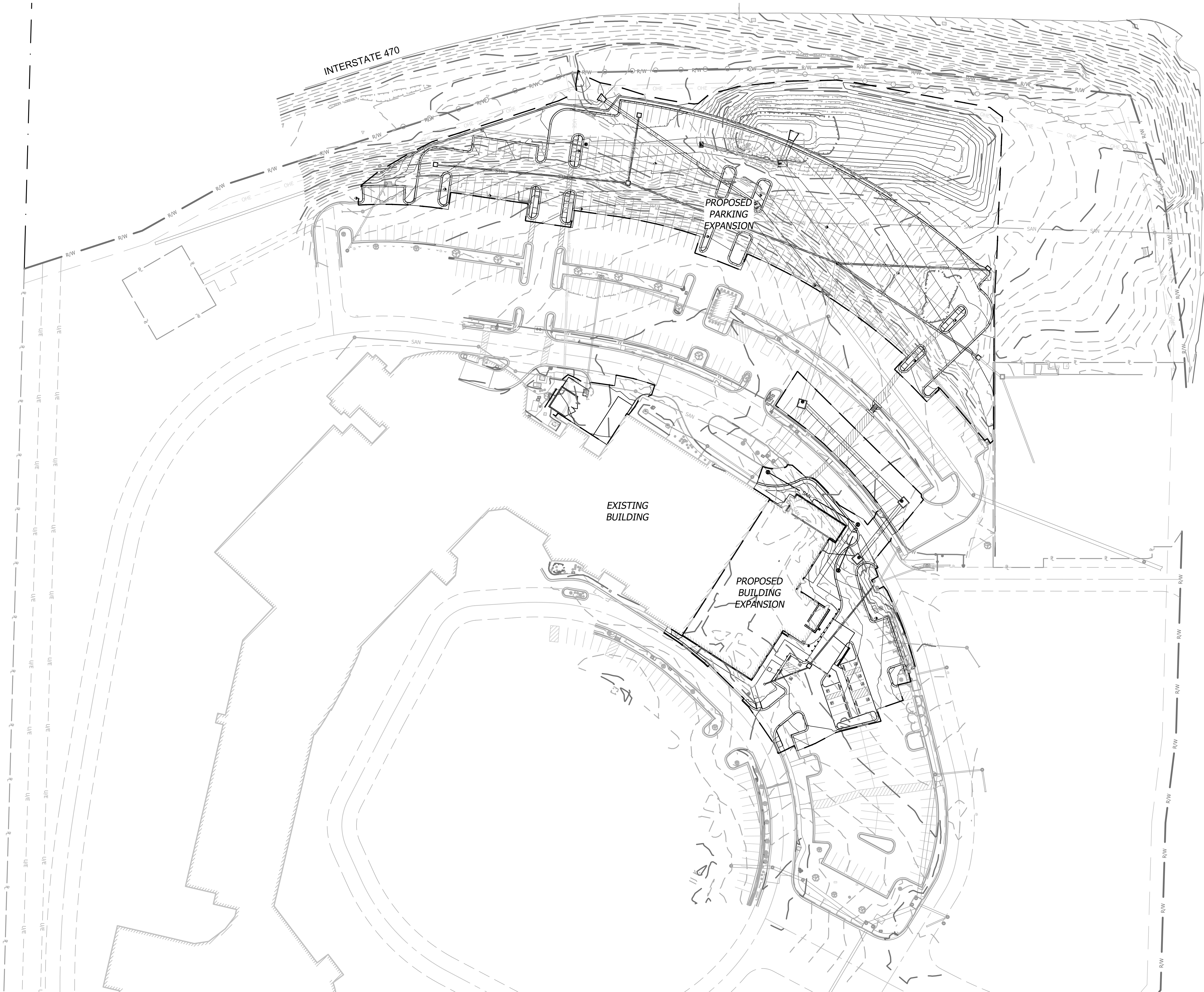
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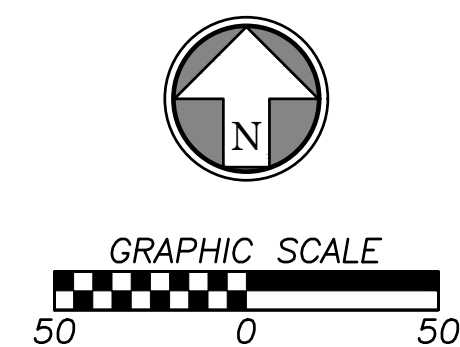
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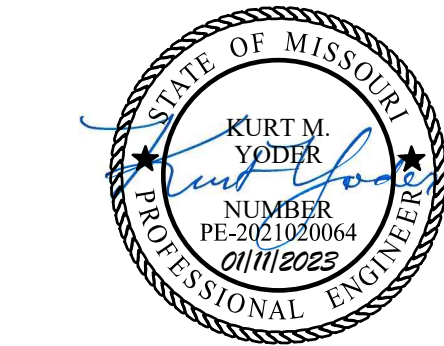


NE DOUGLAS ST.



EROSION AND SEDIMENT CONTROL GENERAL NOTES

- Prior to Land Disturbance activities, the contractor shall:
 - Delineate the outer limits of any natural stream corridor designated with construction fencing.
 - Install perimeter controls and request the inspection of the pre-construction erosion and sediment control measures designated on the approved erosion and sediment control plan. Land disturbance work shall not proceed until there is a satisfactory inspection.
 - Identify the limits of construction on the ground with easily recognizable indications such as construction staking, construction fencing, and placement of physical barriers or other means acceptable to the City inspector and in conformance with the erosion and sediment control plan.
- The contractor shall comply with all requirements of the Storm Water Pollution Prevention Plan, including but not limited to:
 - The contractor shall seed, mulch, or otherwise stabilize any disturbed area where the land disturbance activity has ceased for more than 14 days.
 - The contractor shall perform inspections of erosion and sediment control measures at the following minimum intervals:
 - During active construction phases - at least once per week
 - During periods of inactivity - at least once per 14 days
 - After each rainfall event of 1/2 inch or more - within 24 hours of the rain event
 - The contractor shall maintain an inspection log including the inspector's name, date of inspection, observations as to the effectiveness of the erosion and sediment control measures, actions necessary to correct deficiencies, when the deficiencies were corrected, and the signature of the person performing the inspection. The inspection log shall be available for review by the regulatory authority.
 - The contractor shall have the erosion and sediment control plan routinely updated to show all changes and amendments to the plan. A copy of the erosion and sediment control plan shall be kept on site and made available for review by the regulatory authority.
- Unless otherwise noted in the plans, all seeding must conform to Division II-Construction and Materials Specification-Section 2150 published by the Kansas City Metropolitan Chapter of the American Public Works Association dated May 21, 2008. Permanent seeding shall be installed after completion of final grading except when seeding will occur outside of the acceptable seeding season as specified in Section 2150. When temporary seeding is installed, permanent seeding shall be installed at the next seeding season. Temporary seeding shall not be used as a stabilization measure for a period exceeding 12 months. The Permit will not be closed until permanent seeding has been established to a minimum of 70% density over the entire disturbed area.
- The contractor shall maintain installed erosion and sediment control devices in a manner that preserves their effectiveness for preventing sediment from leaving the site or entering a sensitive area such as a natural stream corridor, areas of the site intended to be left undisturbed, a storm sewer, or an on-site drainage channel.
- The contractor is responsible for providing erosion and sediment control for the duration of a project. If the City determines that the BMPs in place do not provide adequate erosion and sediment control at any time during the project, the contractor shall install additional or alternate measures that provide effective control.
- Concrete wash or rinse water from concrete mixing equipment, tools and/or ready-mix trucks, tools, etc. may not be discharged into or be allowed to run directly into any existing water body or storm inlet. One or more locations for concrete wash out will be designated on site, such that discharges during concrete washout will be contained in a small area where waste concrete can solidify in place.
- Chemicals or materials capable of causing pollution may only be stored onsite in their original container. Materials stored outside must be in closed and sealed water-proof containers and located outside of drainage ways or areas subject to flooding. Locks and other means to prevent or reduce vandalism shall be used. Spills will be reported as required by law and immediate actions taken to contain them.
- Silt fences and erosion control BMPs which are shown along the back of curb must be installed within two weeks of curb backfill and prior to placement of base asphalt. Exact locations of these erosion control methods may be field adjusted to minimize conflicts with utility construction; however, anticipated disturbance by utility construction shall not delay installation.
- Interior Silt Fence as necessary during construction. Portions may be limited as vegetation is established and hardscape is installed. Entire length may be installed at the contractor's option to aid in stabilizing slopes.
- Private Erosion & Sediment Control inspections are required in accordance with NPDES schedule and requirements. After inspections, provide the City of Lee's Summit with reports and documentation.



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Construction Documents

Date	12/22/2022
Job Number	3-21037
Drawn By	KMY
Checked By	KMY

Number	Date	Description

Revision

C303

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OVERALL EROSION CONTROL PLAN

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EROSION AND SEDIMENT CONTROL GENERAL NOTES

See Sheet C303 for Erosion Control Notes.



EROSION & SEDIMENT CONTROL STAGING CHART					
Phase	Project Stage	BMP Plan Ref. No.	BMP Description	Remove After Stage:	Notes:
Phase I (PRE-CON)	A - Place BMP's Prior to Land Disturbance	01	Perimeter Silt Fence	E	Place as shown on plan
		02	Construction Entrance & Staging Area	D	Place as shown on plan
		03	Concrete Wash-Out	D	Place as shown on plan
		04	Existing Inlet Protection	E	Place as shown on plan
Phase II (MID-CON)	B - After Stripping, Grubbing, & Mass Grading	05	Interior Silt Fence	E	Place as shown on plan
	C - After Utility Storm Sewer Construction	06	Storm Inlet Protection	D	Place as shown on plan
Phase III (POST-CON)	D - After Construction of Building and Parking Lot	07	Steep Slope Protection	E	Place as shown on plan
	E - Final Grading, Paving & Landscaping	08	Final Seeding, Sod, and Landscaping	N/A	Silt fencing & inlet protect may be removed once seed & sodded areas are established on 80% of site.

EROSION CONTROL LEGEND

— DISTURBED AREA (4.21 AC)

FINAL SEEDING (SOD &/OR LANDSCAPING)

INLET PROTECTION FILTER BAGS

— SF — SILT/SEDIMENT FENCE

DETAILS

• SEE EROSION CONTROL DETAIL SHEET FOR THE FOLLOWING

400 TEMPORARY CONSTRUCTION ENTRANCE

401 FILTER FABRIC SILT FENCE

402 STORM INLET PROTECTION

403 CONCRETE WASH-OUT

STATE OF MISSOURI

KURT M. YODER

PE-2021020064

PROFESSIONAL ENGINEER

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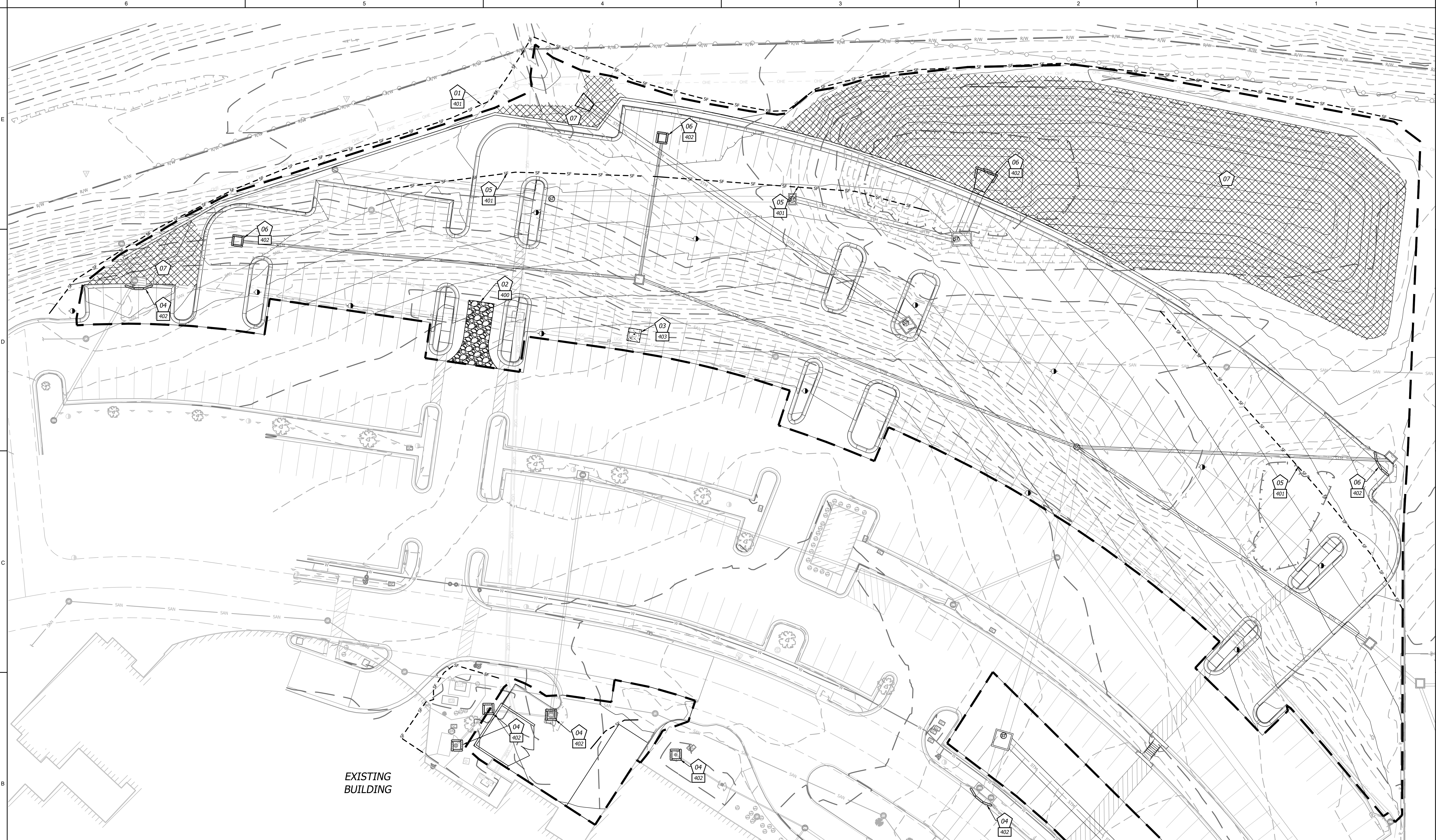
C304

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EROSION CONTROL PLAN

- BUILDING EXPANSION

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EROSION AND SEDIMENT CONTROL GENERAL NOTES

See Sheet C303 for Erosion Control Notes.

EROSION & SEDIMENT CONTROL STAGING CHART					
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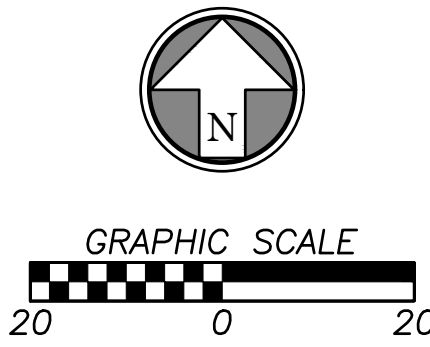
000 DETAILS

SEE EROSION CONTROL DETAIL SHEET FOR THE FOLLOWING

- 400 TEMPORARY CONSTRUCTION ENTRANCE
- 401 FILTER FABRIC SILT FENCE
- 402 STORM INLET PROTECTION
- 403 CONCRETE WASH-OUT

EROSION CONTROL LEGEND

- SF --- DISTURBED AREA (4.21 AC)
- SILT/SEDIMENT FENCE
- INLET PROTECTION FILTER BAGS
- CONSTRUCTION ENTRANCE
- CONCRETE CLEANOUT
- STEEP SLOPE PROTECTION



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Number Date Description

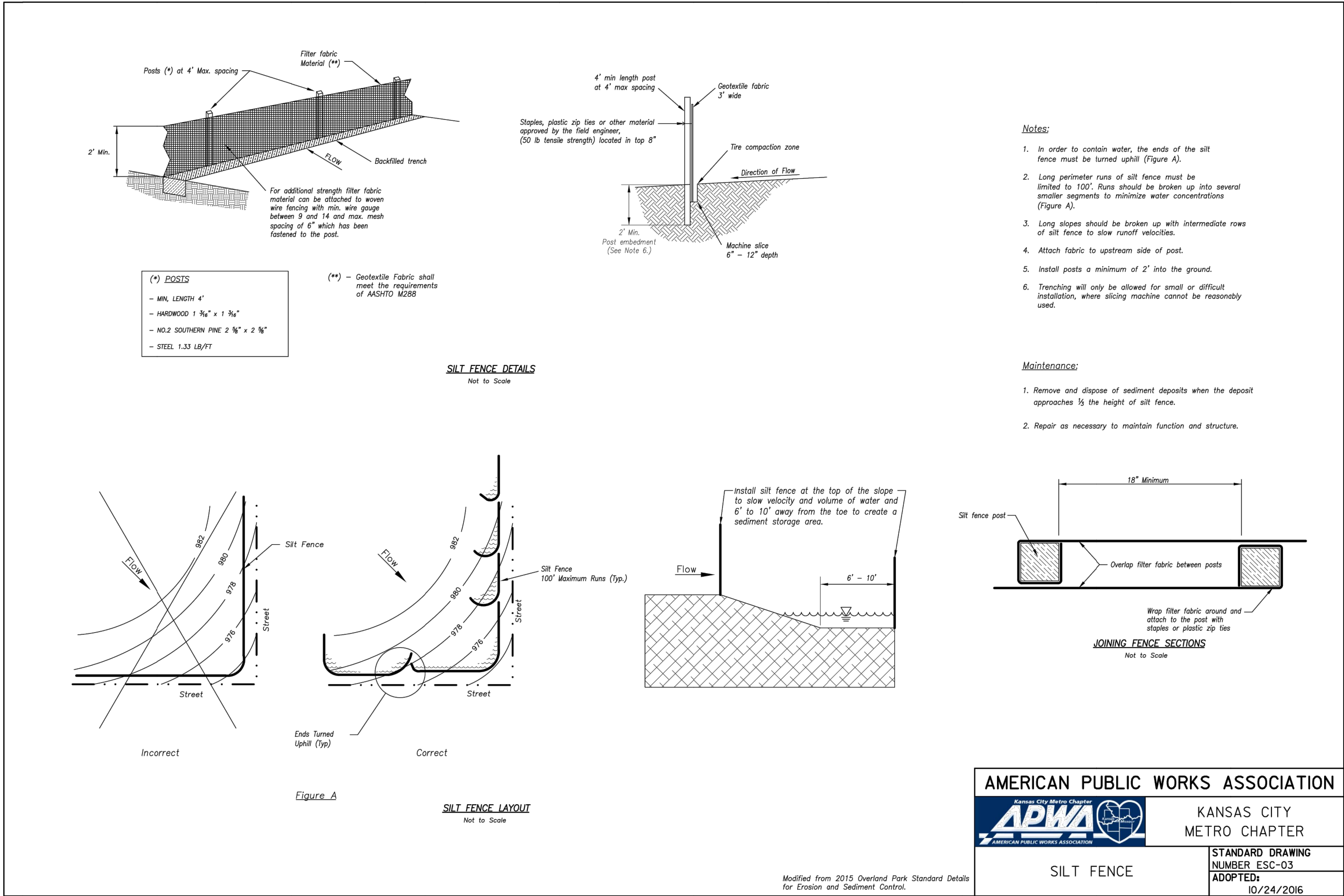
C305

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EROSION CONTROL PLAN
- PARKING EXPANSION

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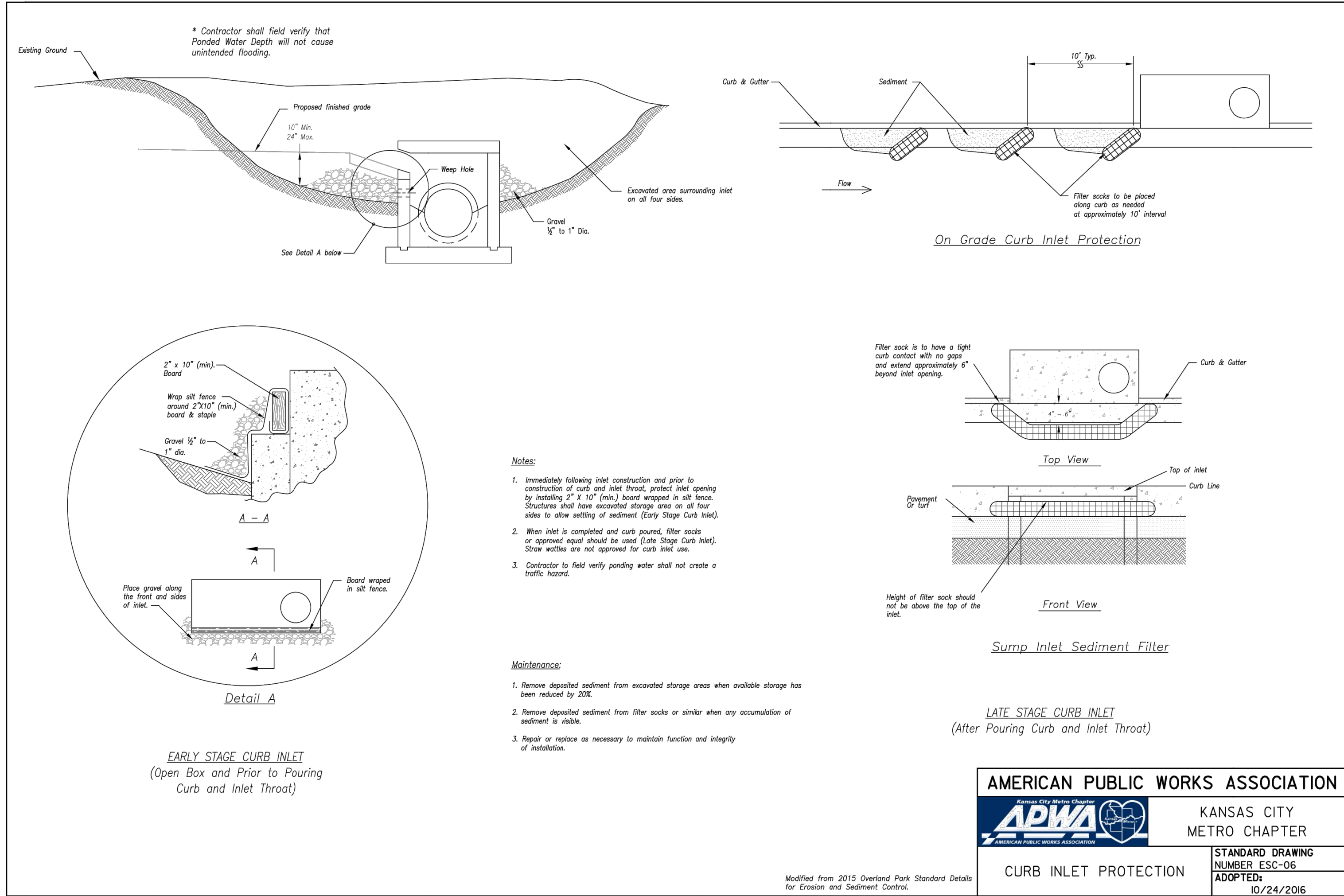
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Temporary Construction Entrance and Concrete Washout



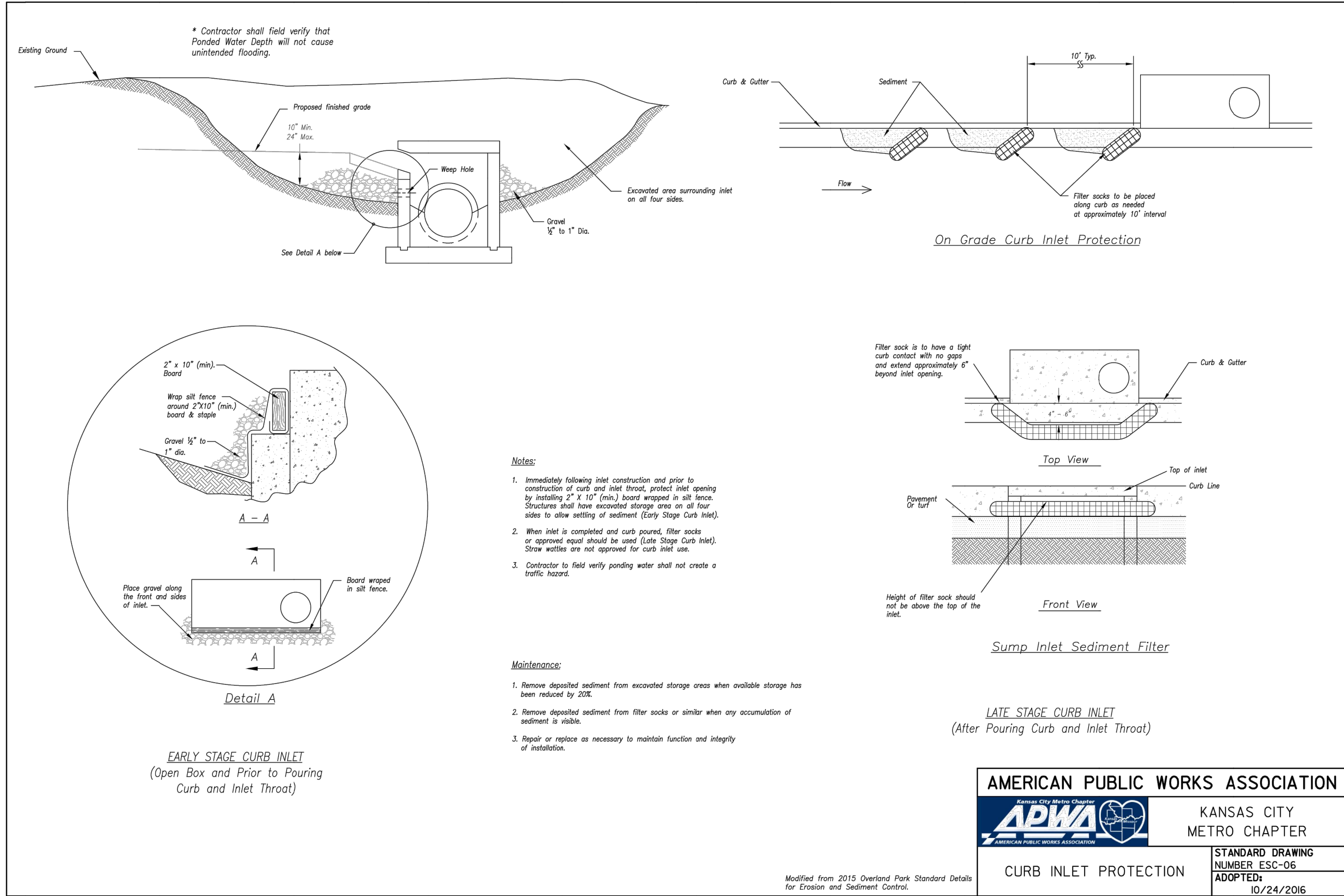
602
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Steep Slope Protection



604
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Inlet Protection



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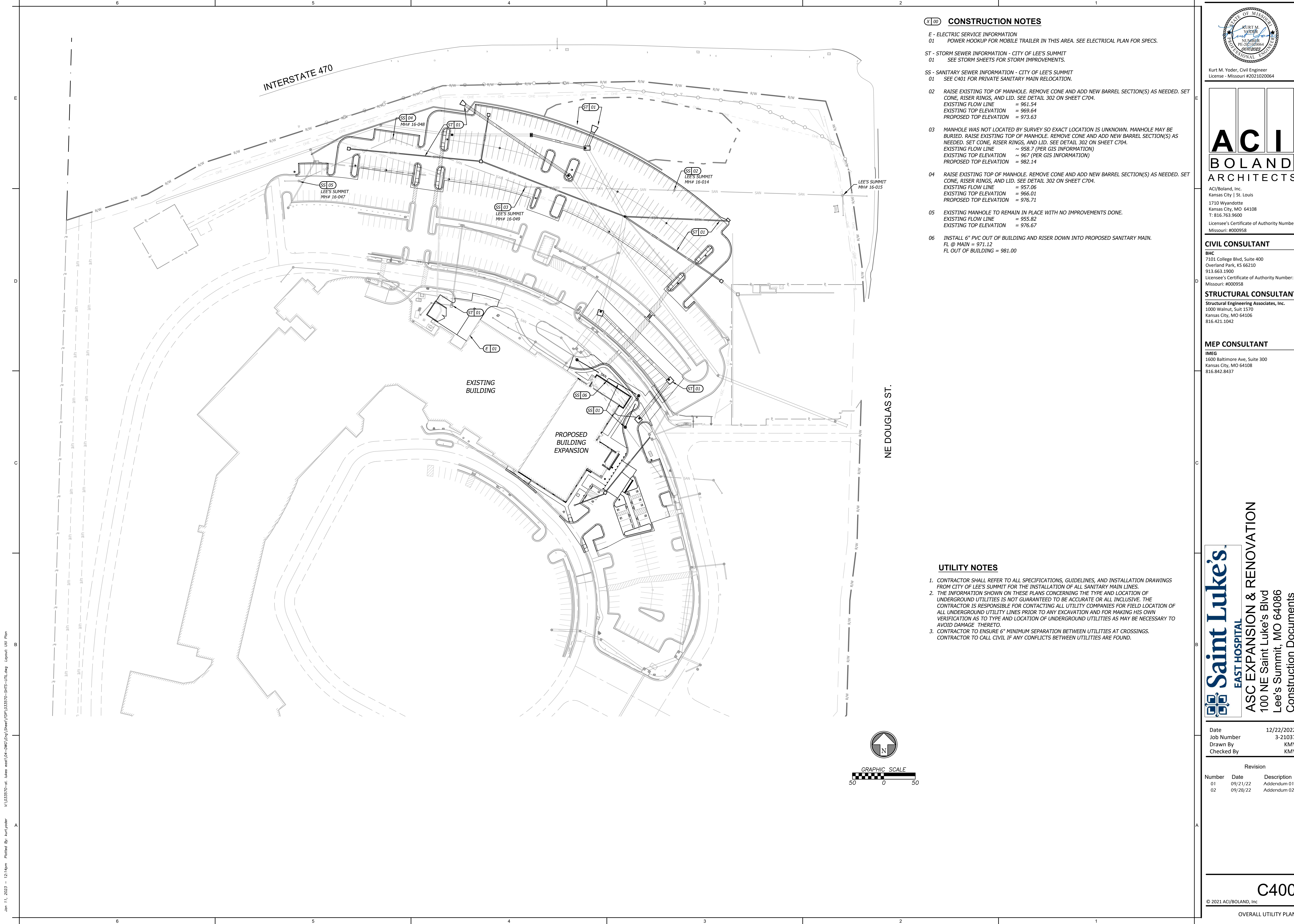
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EROSION CONTROL DETAILS

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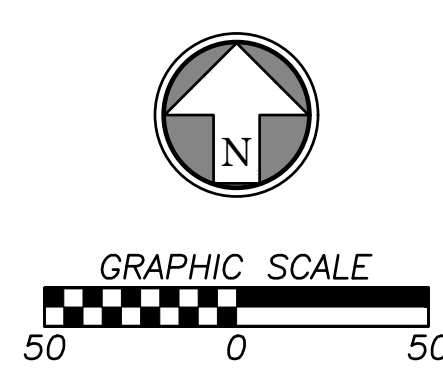


CONSTRUCTION NOTES

- E - ELECTRIC SERVICE INFORMATION
01 POWER HOOKUP FOR MOBILE TRAILER IN THIS AREA. SEE ELECTRICAL PLAN FOR SPECS.
- ST - STORM SEWER INFORMATION - CITY OF LEE'S SUMMIT
01 SEE STORM SHEETS FOR STORM IMPROVEMENTS.
- SS - SANITARY SEWER INFORMATION - CITY OF LEE'S SUMMIT
01 SEE C401 FOR PRIVATE SANITARY MAIN RELOCATION.
- 02 RAISE EXISTING TOP OF MANHOLE. REMOVE CONE AND ADD NEW BARREL SECTION(S) AS NEEDED. SET CONE, RISER RINGS, AND LID. SEE DETAIL 302 ON SHEET C704.
EXISTING FLOW LINE = 961.54
EXISTING TOP ELEVATION = 969.64
PROPOSED TOP ELEVATION = 973.63
- 03 MANHOLE WAS NOT LOCATED BY SURVEY SO EXACT LOCATION IS UNKNOWN. MANHOLE MAY BE BURIED. RAISE EXISTING TOP OF MANHOLE. REMOVE CONE AND ADD NEW BARREL SECTION(S) AS NEEDED. SET CONE, RISER RINGS, AND LID. SEE DETAIL 302 ON SHEET C704.
EXISTING FLOW LINE ~ 958.7 (PER GIS INFORMATION)
EXISTING TOP ELEVATION ~ 967 (PER GIS INFORMATION)
PROPOSED TOP ELEVATION = 982.14
- 04 RAISE EXISTING TOP OF MANHOLE. REMOVE CONE AND ADD NEW BARREL SECTION(S) AS NEEDED. SET CONE, RISER RINGS, AND LID. SEE DETAIL 302 ON SHEET C704.
EXISTING FLOW LINE = 957.06
EXISTING TOP ELEVATION = 966.01
PROPOSED TOP ELEVATION = 976.71
- 05 EXISTING MANHOLE TO REMAIN IN PLACE WITH NO IMPROVEMENTS DONE.
EXISTING FLOW LINE = 955.82
EXISTING TOP ELEVATION = 976.67
- 06 INSTALL 6" PVC OUT OF BUILDING AND RISER DOWN INTO PROPOSED SANITARY MAIN.
FL @ MAIN = 971.12
FL OUT OF BUILDING = 981.00

UTILITY NOTES

1. CONTRACTOR SHALL REFER TO ALL SPECIFICATIONS, GUIDELINES, AND INSTALLATION DRAWINGS FROM CITY OF LEE'S SUMMIT FOR THE INSTALLATION OF ALL SANITARY MAIN LINES.
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. CONTRACTOR TO ENSURE 6" MINIMUM SEPARATION BETWEEN UTILITIES AT CROSSINGS. CONTRACTOR TO CALL CIVIL IF ANY CONFLICTS BETWEEN UTILITIES ARE FOUND.



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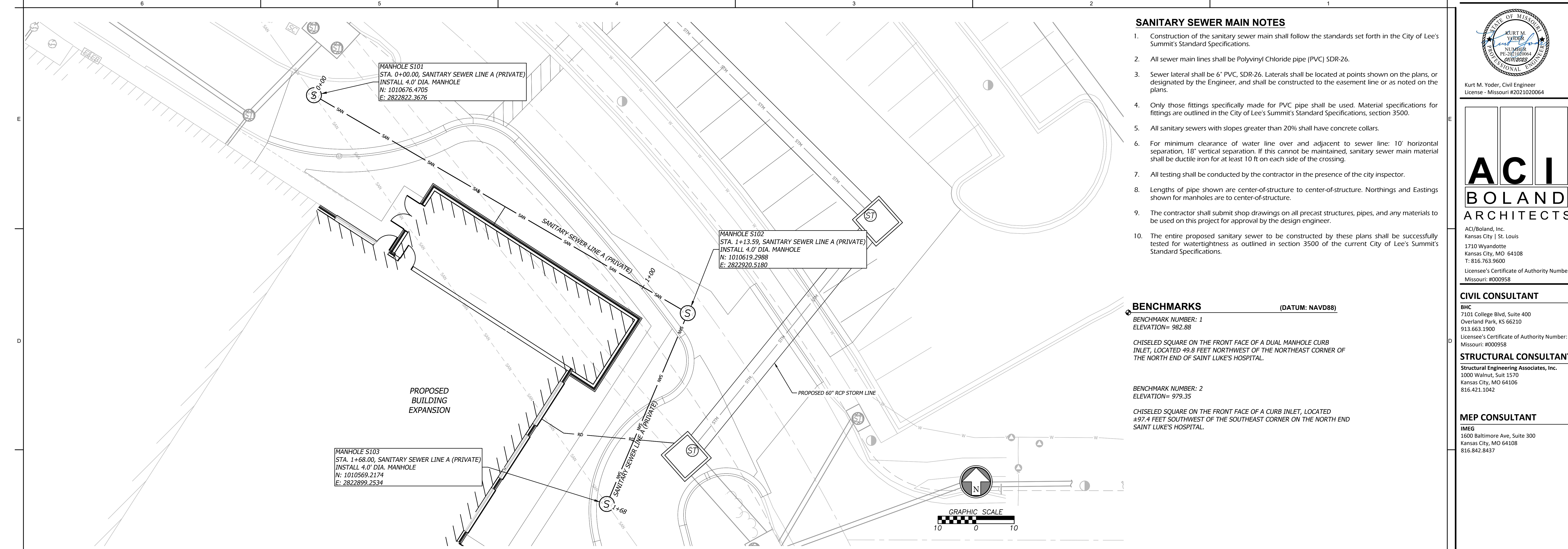
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Number	Date	Description
01	09/21/22	Addendum 01
02	09/28/22	Addendum 02

C400

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OVERALL UTILITY PLAN

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SANITARY SEWER MAIN NOTES

- Construction of the sanitary sewer main shall follow the standards set forth in the City of Lee's Summit's Standard Specifications.
- All sewer main lines shall be Polyvinyl Chloride pipe (PVC) SDR-26.
- Sewer lateral shall be 6" PVC, SDR-26. Laterals shall be located at points shown on the plans, or designated by the Engineer, and shall be constructed to the easement line or as noted on the plans.
- Only those fittings specifically made for PVC pipe shall be used. Material specifications for fittings are outlined in the City of Lee's Summit's Standard Specifications, section 3500.
- All sanitary sewers with slopes greater than 20% shall have concrete collars.
- For minimum clearance of water line over and adjacent to sewer line: 10' horizontal separation, 18' vertical separation. If this cannot be maintained, sanitary sewer main material shall be ductile iron for at least 10 ft on each side of the crossing.
- All testing shall be conducted by the contractor in the presence of the city inspector.
- Lengths of pipe shown are center-of-structure to center-of-structure. Northings and Eastings shown for manholes are to center-of-structure.
- The contractor shall submit shop drawings on all precast structures, pipes, and any materials to be used on this project for approval by the design engineer.
- The entire proposed sanitary sewer to be constructed by these plans shall be successfully tested for watertightness as outlined in section 3500 of the current City of Lee's Summit's Standard Specifications.

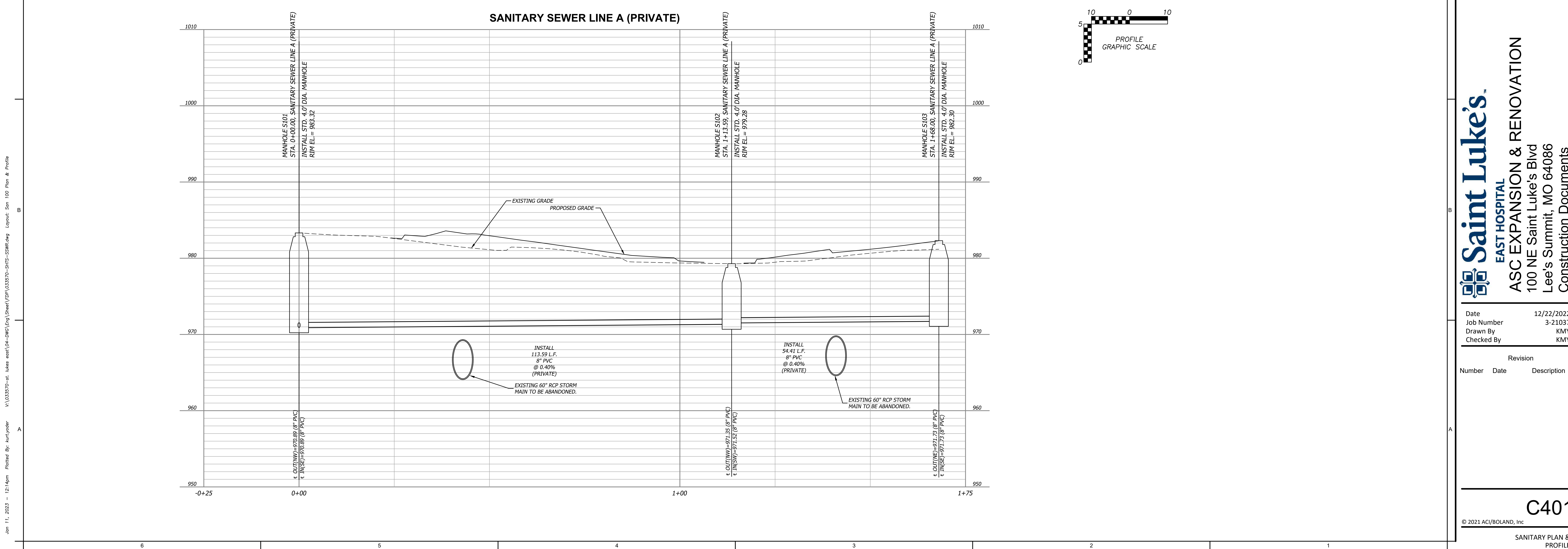
BENCHMARKS (DATUM: NAVD88)

BENCHMARK NUMBER: 1
ELEVATION= 982.88

CHISELED SQUARE ON THE FRONT FACE OF A DUAL MANHOLE CURB INLET, LOCATED 49.8 FEET NORTHWEST OF THE NORTHEAST CORNER OF THE NORTH END OF SAINT LUKE'S HOSPITAL.

BENCHMARK NUMBER: 2
ELEVATION= 979.35

CHISELED SQUARE ON THE FRONT FACE OF A CURB INLET, LOCATED ±97.4 FEET SOUTHWEST OF THE SOUTHEAST CORNER ON THE NORTH END SAINT LUKE'S HOSPITAL.



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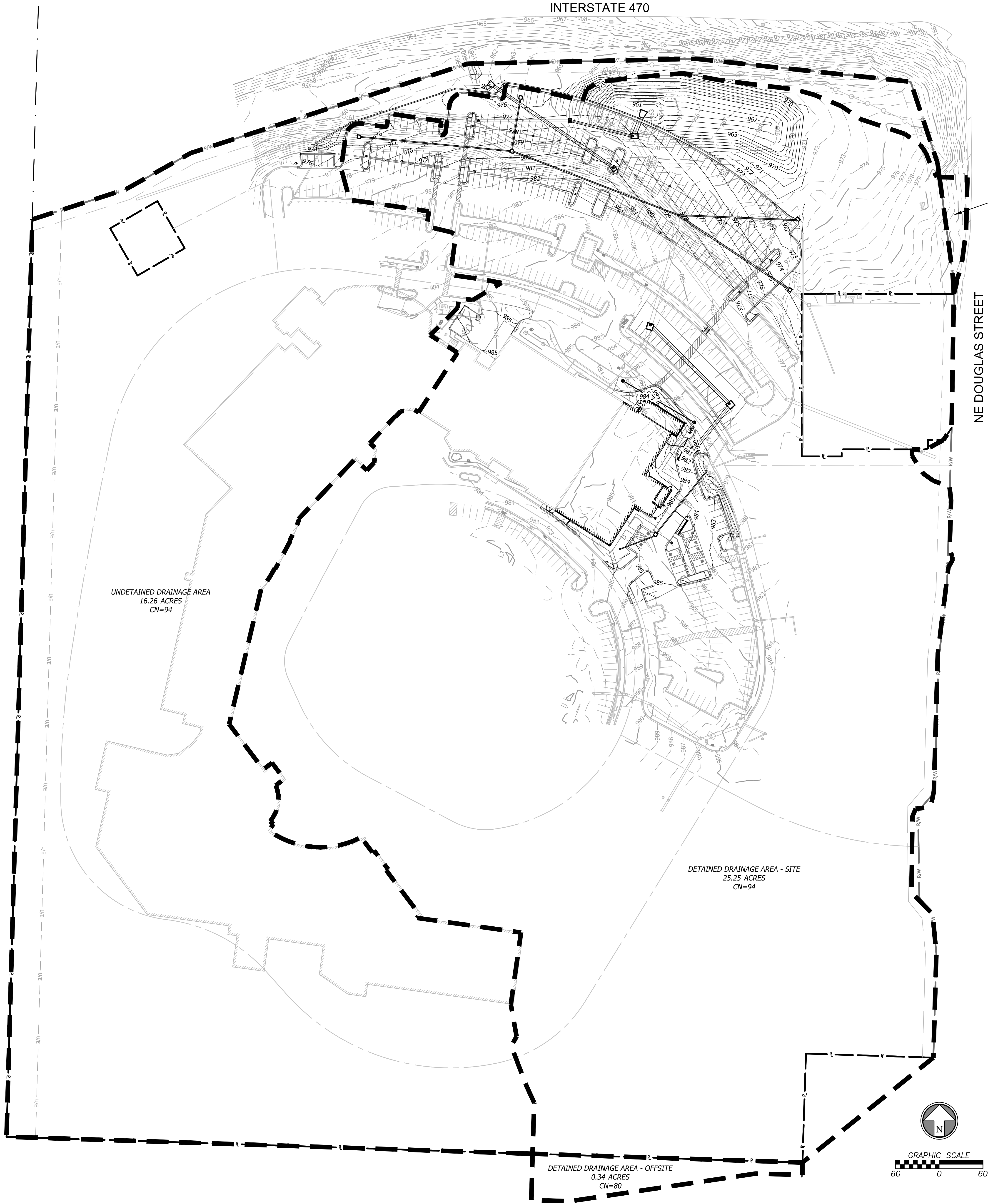
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DRAINAGE LEGEND	
	DRAINAGE AREA BOUNDARY
	PROPOSED STRUCTURE IDENTIFIER
	DRAINAGE DIRECTION
	AREA/DIRECTION OF DRAINAGE BOUNDARY
	PROPOSED FINISH GRADE
	MAJOR CONTOUR
	PROPOSED FINISH GRADE
	MINOR CONTOUR
	EXISTING GRADE
	MAJOR CONTOUR
	EXISTING GRADE
	MINOR CONTOUR
	PROPOSED STORM SEWER LINE
	RD
	PROPOSED ROOF LINE DRAIN
	PROPERTY LINE
	R/W
	RIGHT-OF-WAY LINE



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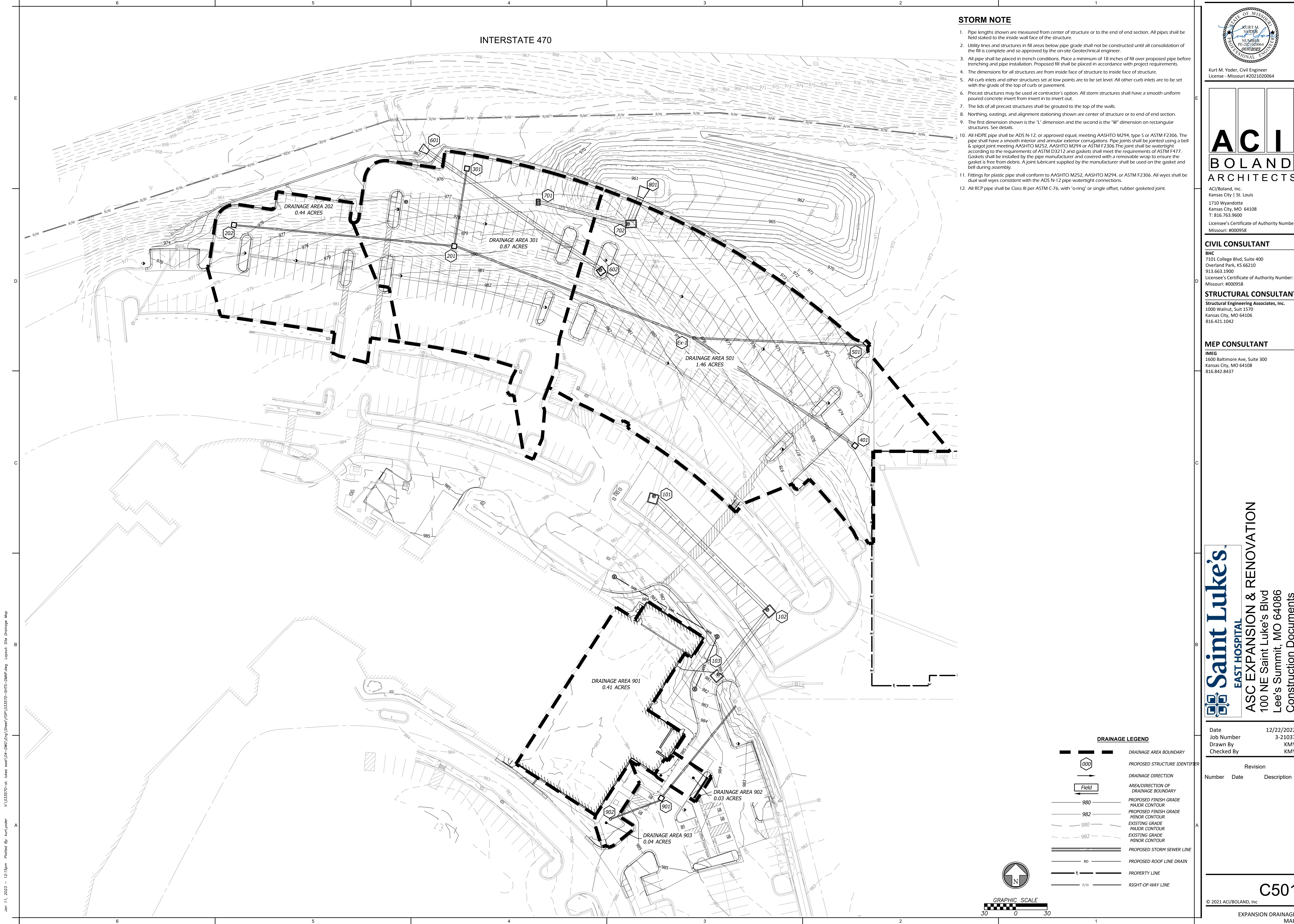
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Number	Date	Description

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OVERALL DRAINAGE
MAP

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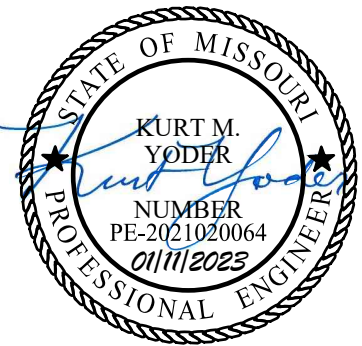
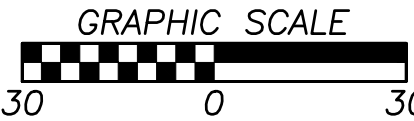
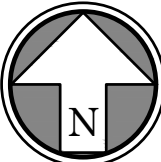


STORM NOTE

1. Pipe lengths shown are measured from center of structure or to the end of end section. All pipes shall be field staked to the inside wall face of the structure.
2. Utility lines and structures in fill areas below pipe grade shall not be constructed until all consolidation of the fill is complete and so approved by the on-site Geotechnical engineer.
3. All pipe shall be placed in trench conditions. Place a minimum of 18 inches of fill over proposed pipe before trenching and pipe installation. Proposed fill shall be placed in accordance with project requirements.
4. The dimensions for all structures are from inside face of structure to inside face of structure.
5. All curb inlets and other structures set at low points are to be set level. All other curb inlets are to be set with the grade of the top of curb or pavement.
6. Precast structures may be used at contractor's option. All storm structures shall have a smooth uniform poured concrete invert from invert in to invert out.
7. The lids of all precast structures shall be grouted to the top of the walls.
8. Northing, eastings, and alignment stationing shown are center of structure or to end of end section.
9. The first dimension shown is the "L" dimension and the second is the "W" dimension on rectangular structures. See details.
10. All HDPE pipe shall be ADS N-12, or approved equal, meeting AASHTO M294, type S or ASTM F2306. The pipe shall have a smooth interior and annular exterior corrugations. Pipe joints shall be jointed using a bell & spigot joint meeting AASHTO M252, AASHTO M294 or ASTM F2306. The joint shall be watertight according to the requirements of ASTM D3212 and gaskets shall meet the requirements of ASTM F477. Gaskets shall be installed by the pipe manufacturer and covered with a removable wrap to ensure the gasket is free from debris. A joint lubricant supplied by the manufacturer shall be used on the gasket and bell during assembly.
11. Fittings for plastic pipe shall conform to AASHTO M252, AASHTO M294, or ASTM F2306. All wyes shall be dual wall wyes consistent with the ADS N-12 pipe watertight connections.
12. All RCP pipe shall be Class III per ASTM C-76, with "o-ring" or single offset, rubber gasketed joint.

DRAINAGE LEGEND

- DRAINAGE AREA BOUNDARY
- PROPOSED STRUCTURE IDENTIFIER
- DRAINAGE DIRECTION
- AREA/DIRECTION OF DRAINAGE BOUNDARY
- PROPOSED FINISH GRADE MAJOR CONTOUR
- PROPOSED FINISH GRADE MINOR CONTOUR
- EXISTING GRADE MAJOR CONTOUR
- EXISTING GRADE MINOR CONTOUR
- PROPOSED STORM SEWER LINE
- PROPOSED ROOF LINE DRAIN
- PROPERTY LINE
- RIGHT-OF-WAY LINE



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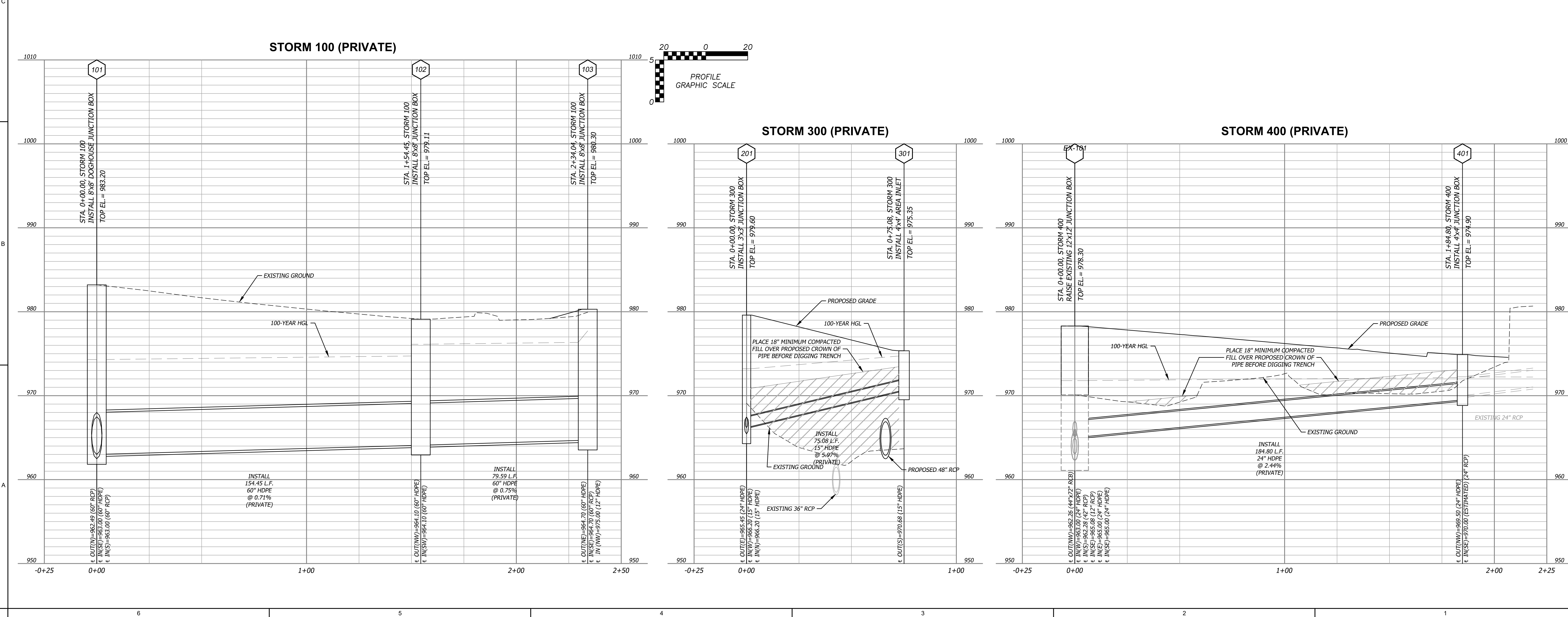
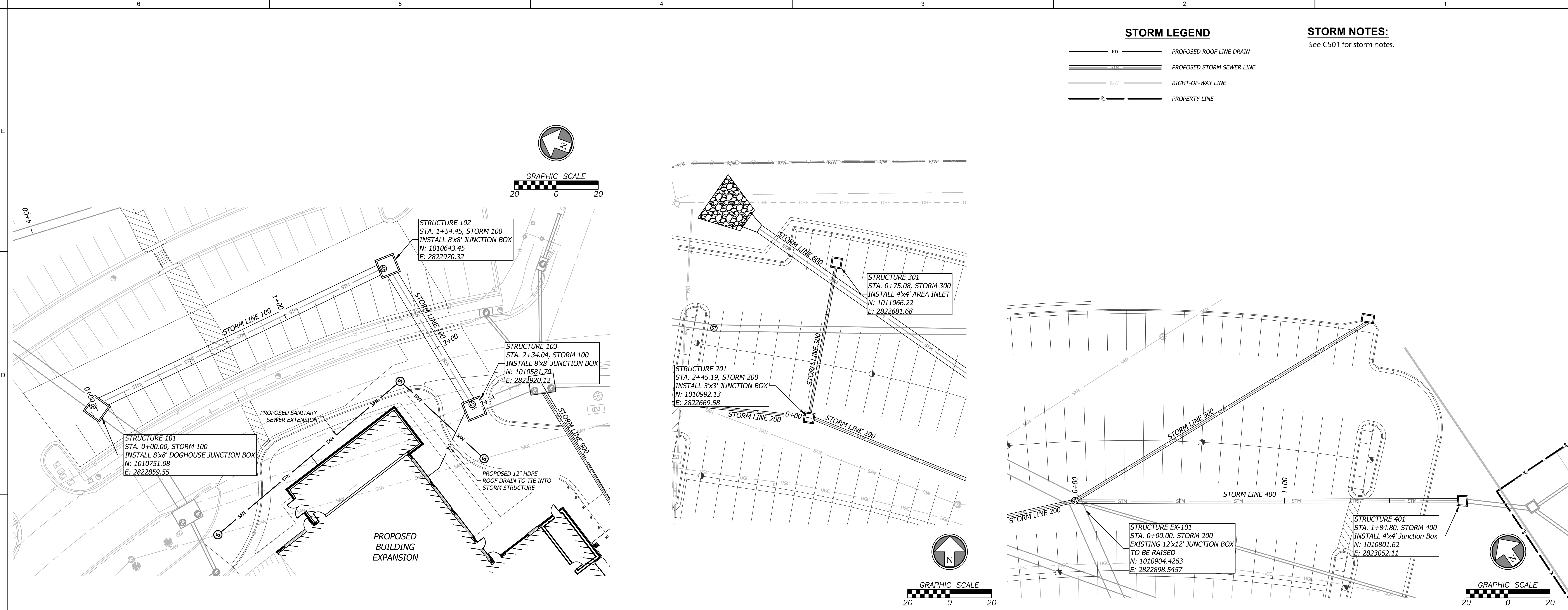
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EXPANSION DRAINAGE
MAP

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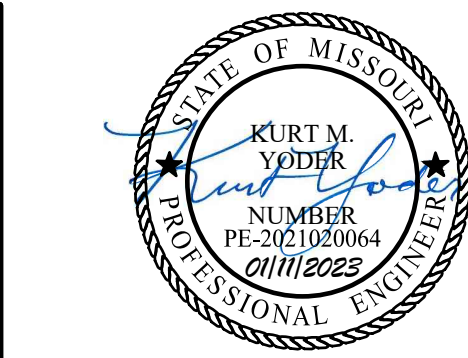
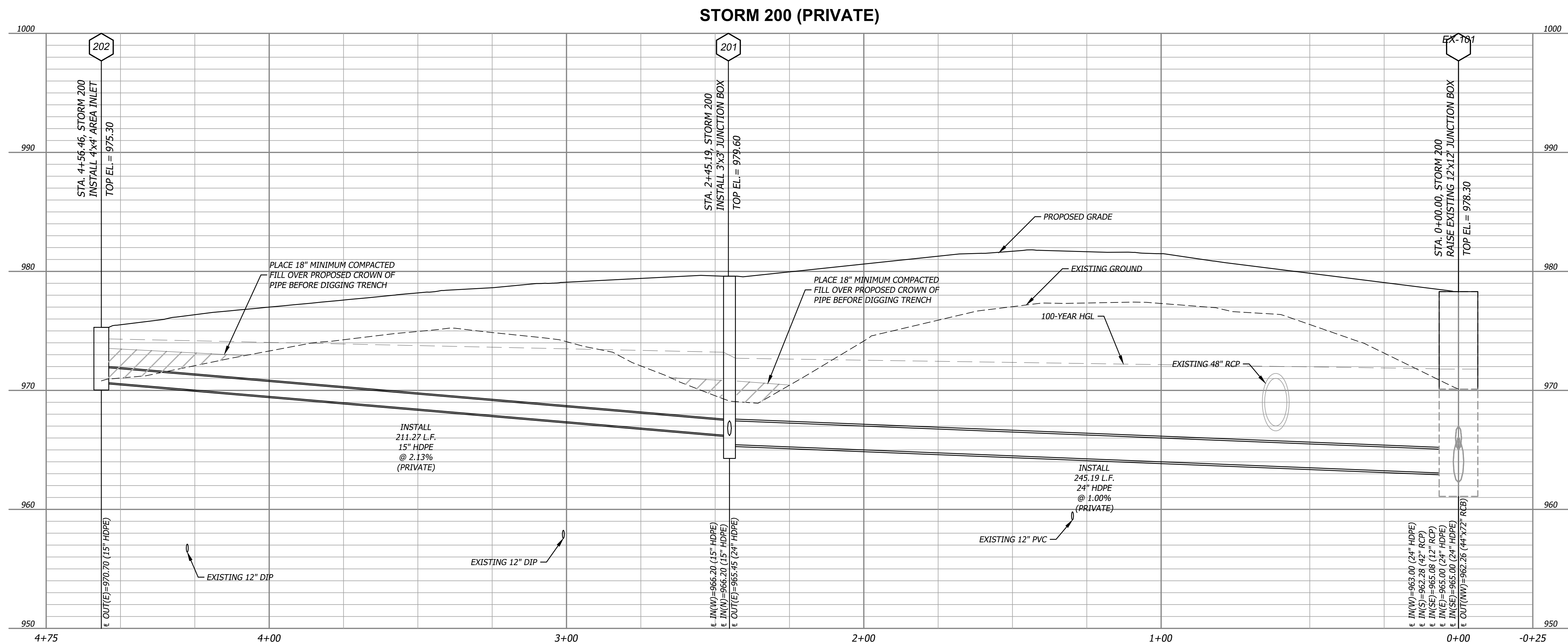
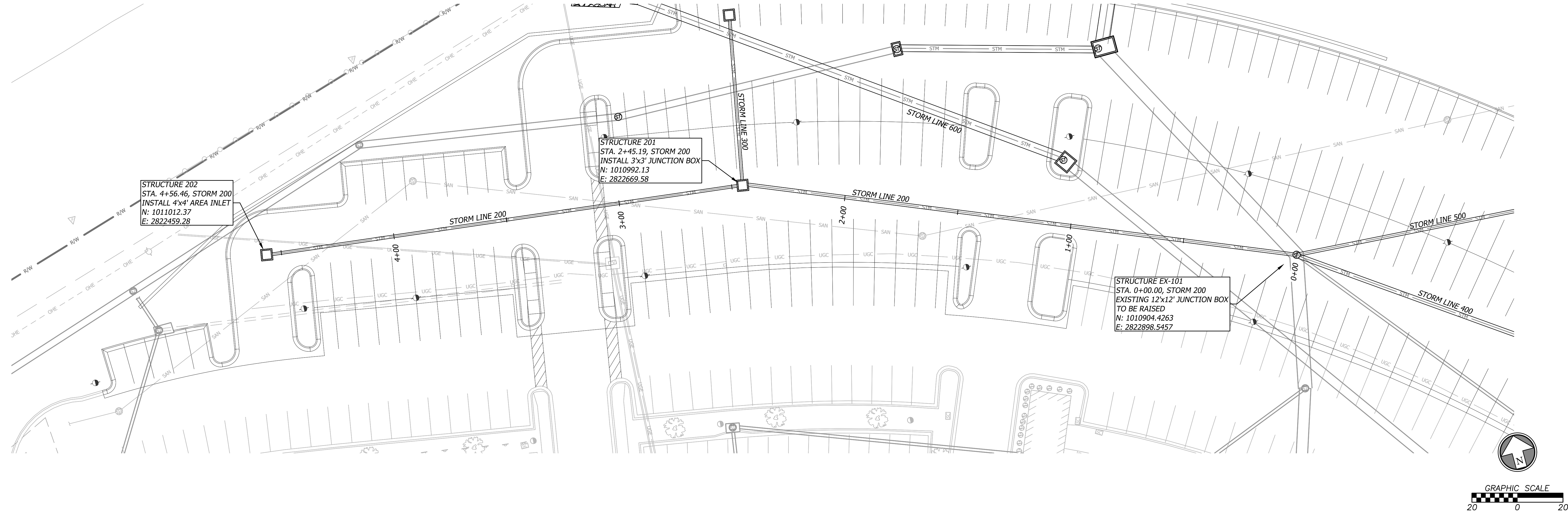
Number	Date	Description
12/22/2022	3-21037	
Drawn By	KMY	
Checked By	KMY	

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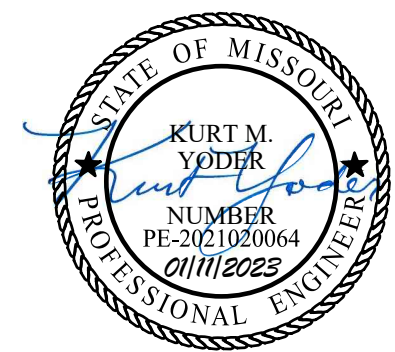
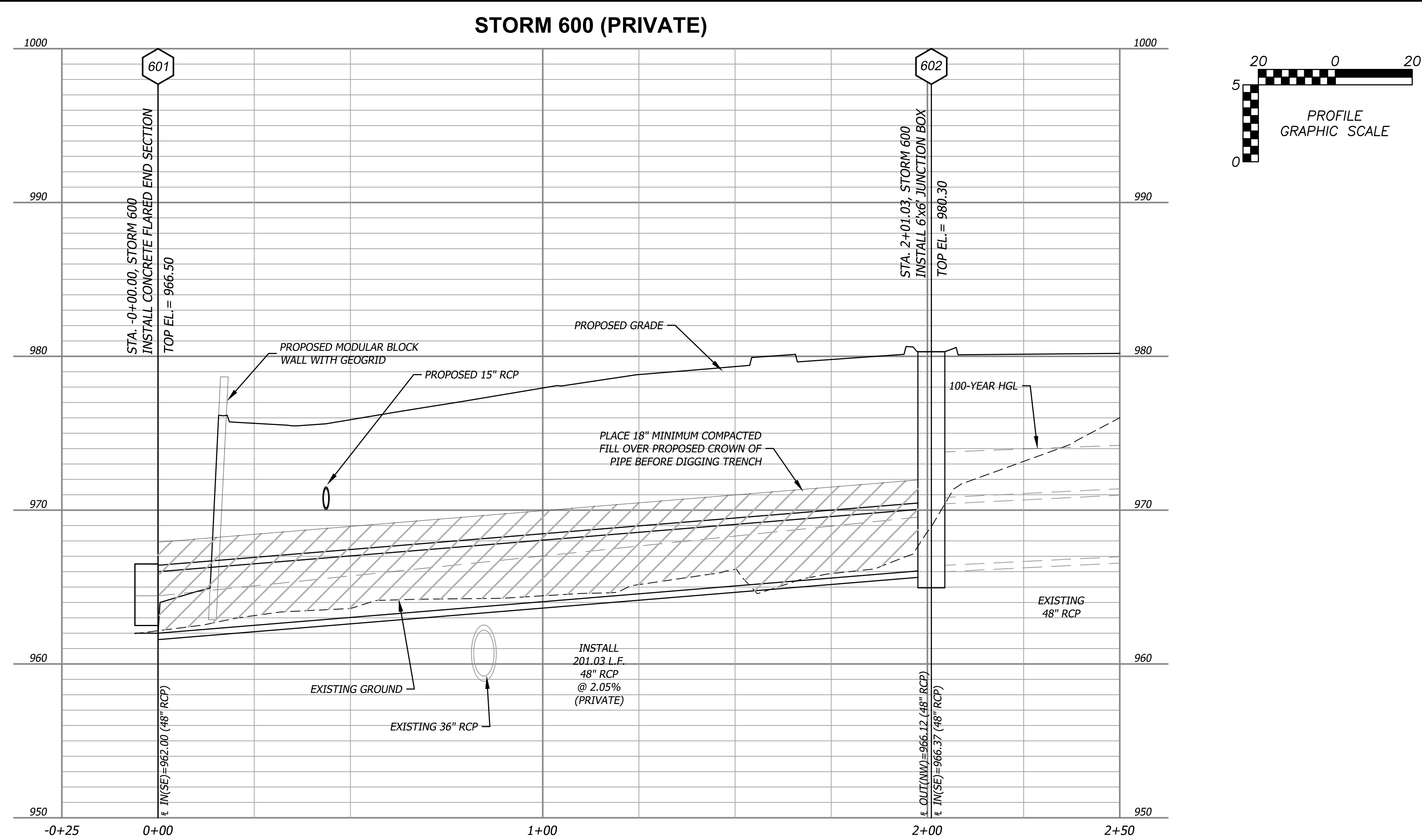
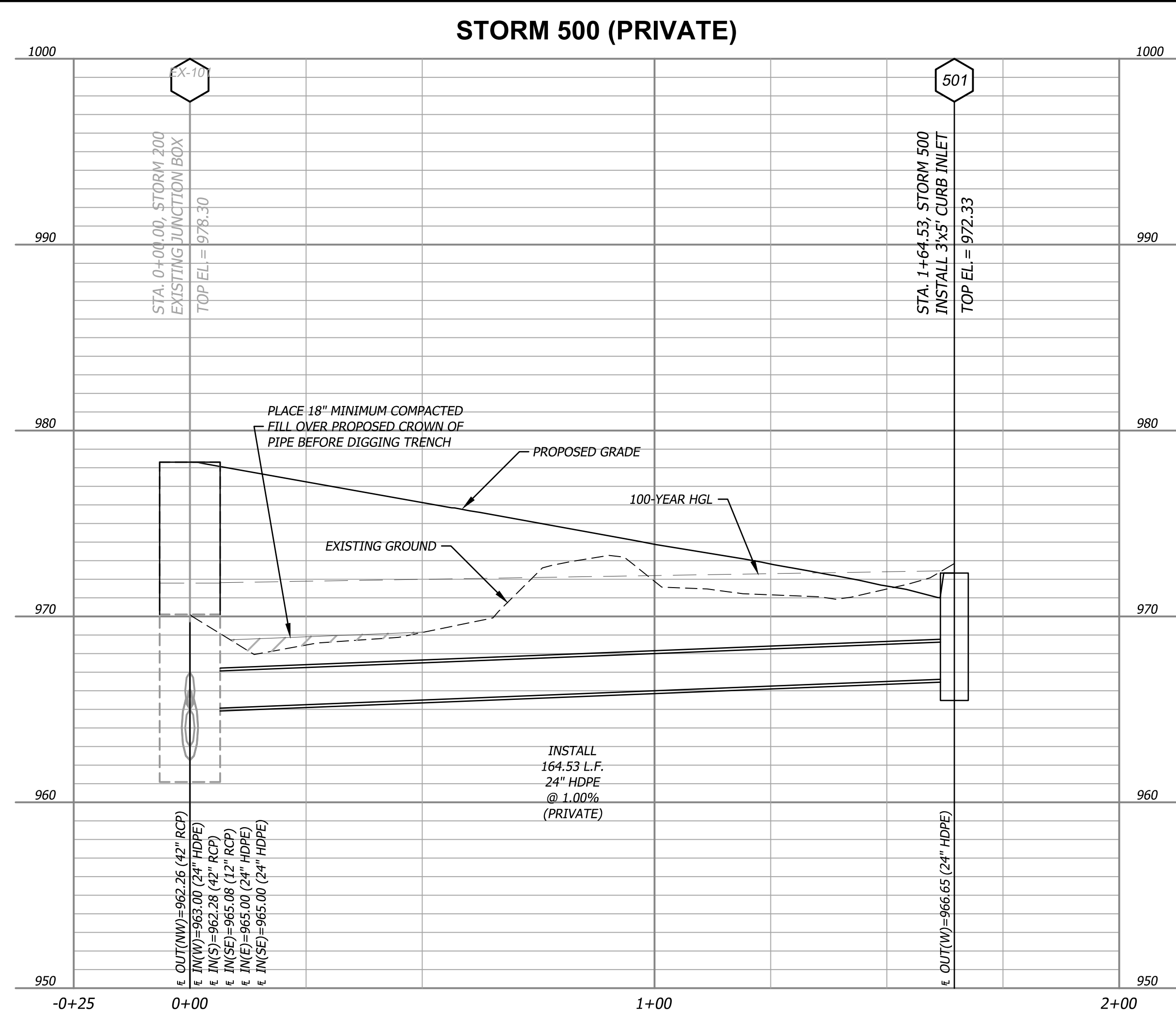
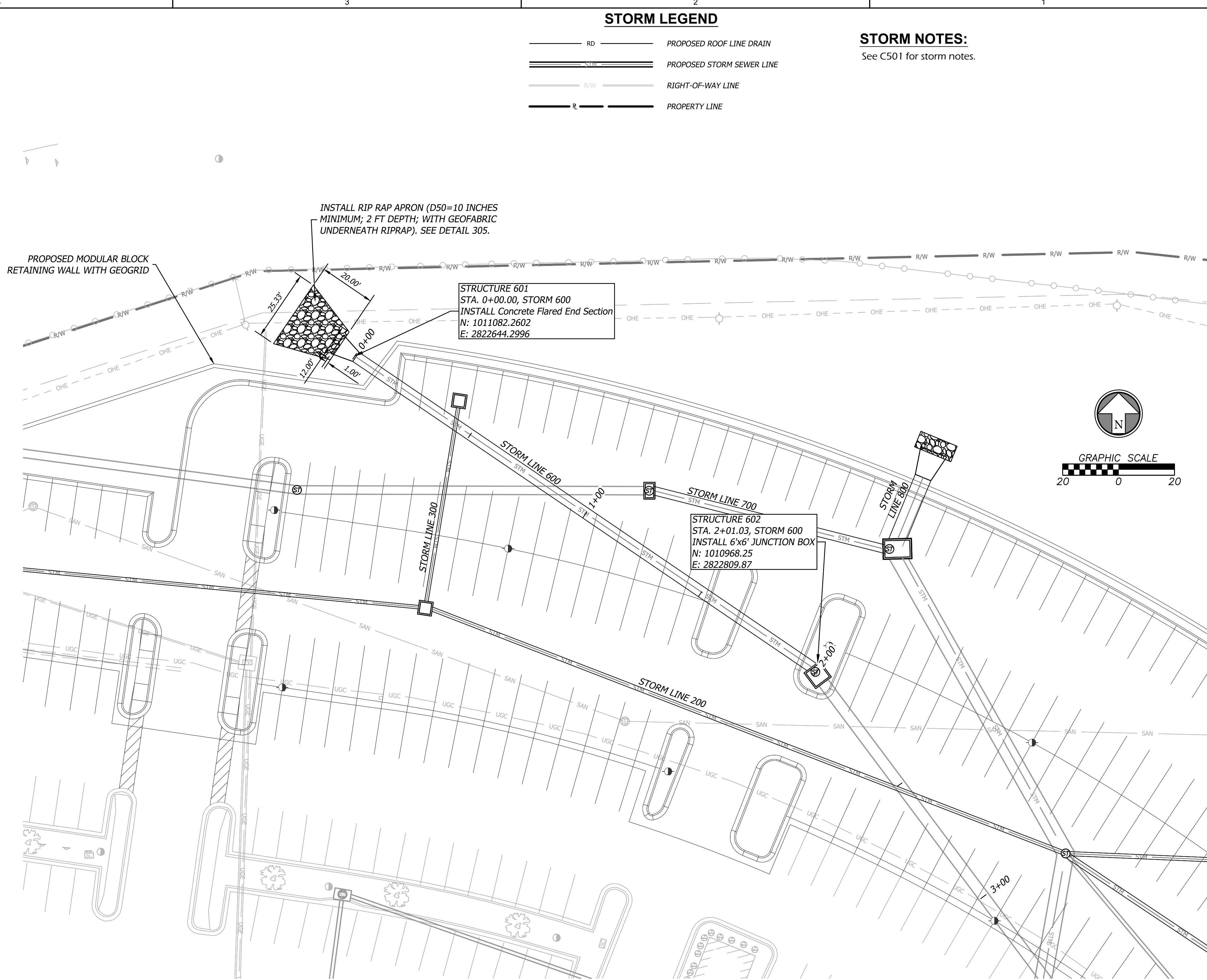
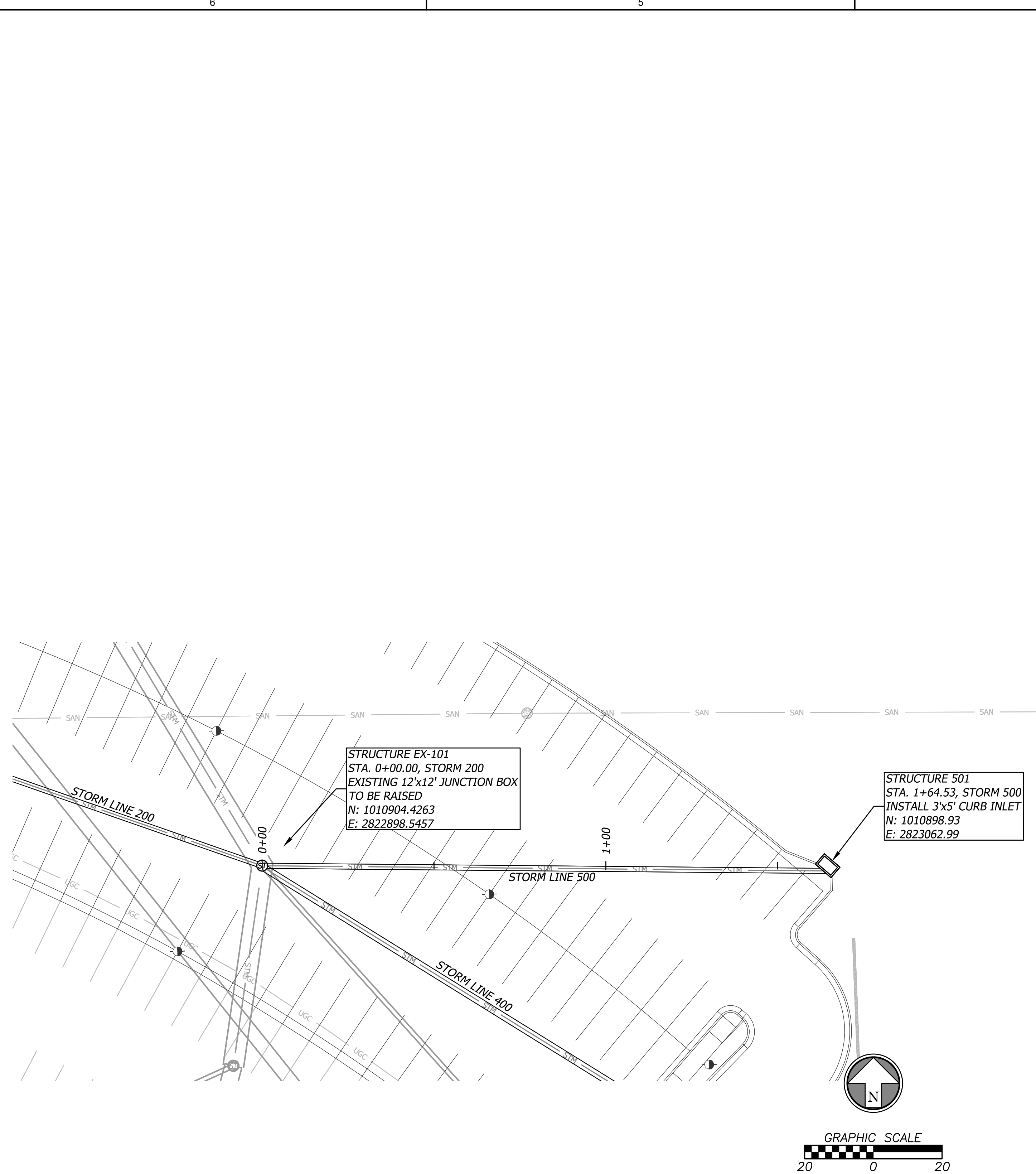
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Job Number	3-21037
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Job Number	3-21037
Drawn By	KMY
Checked By	KMY

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Number	Date	Description

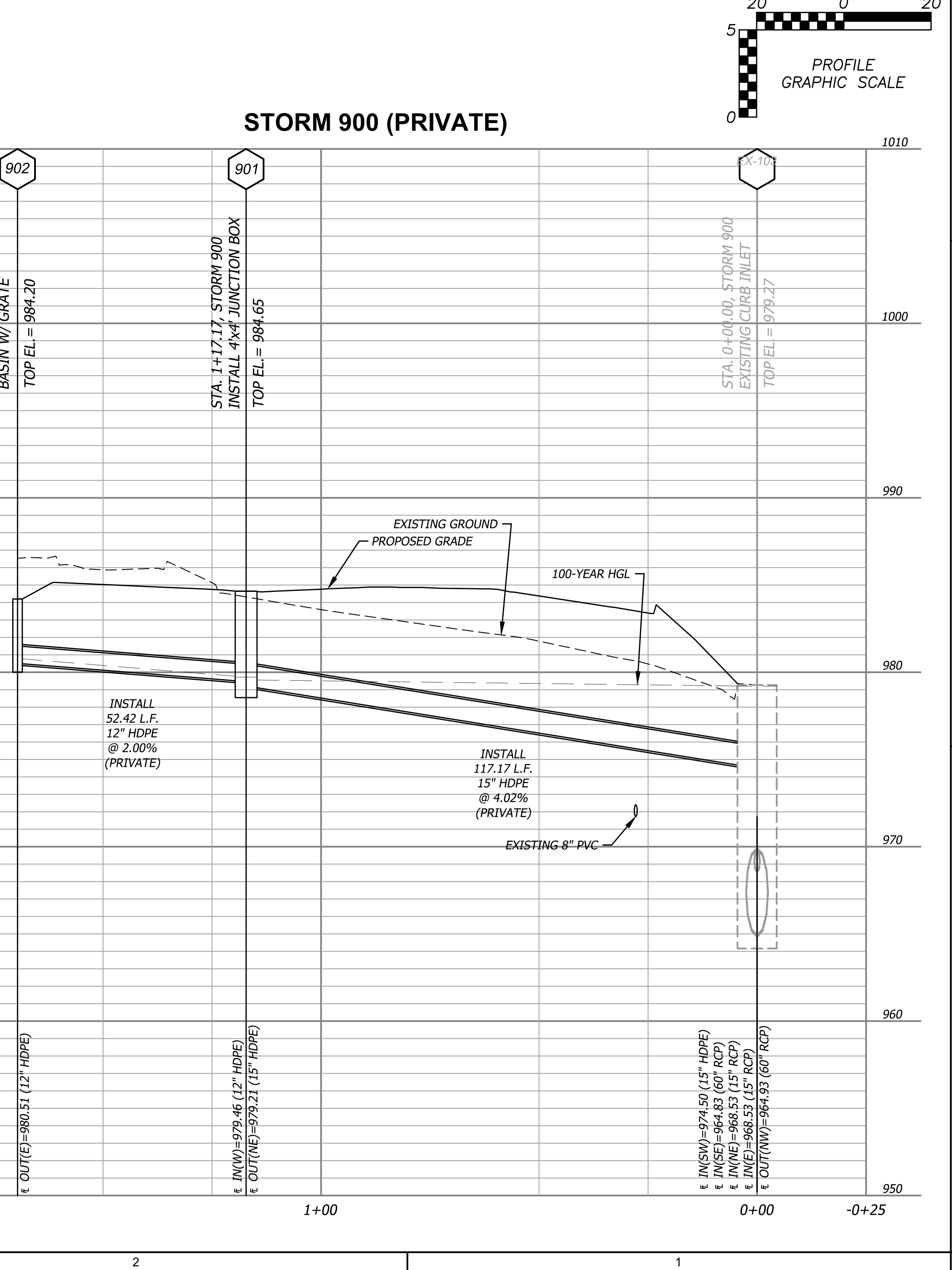
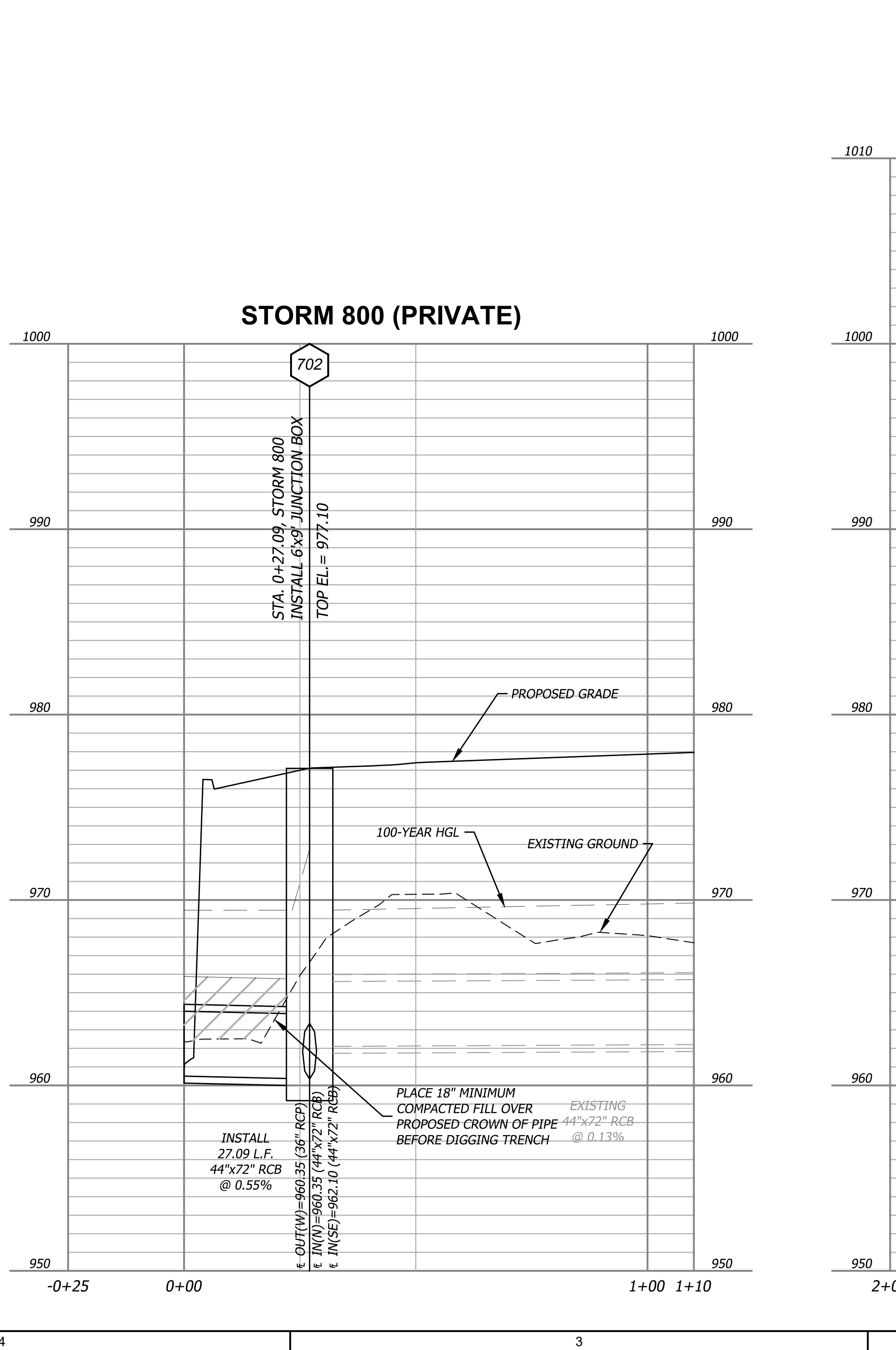
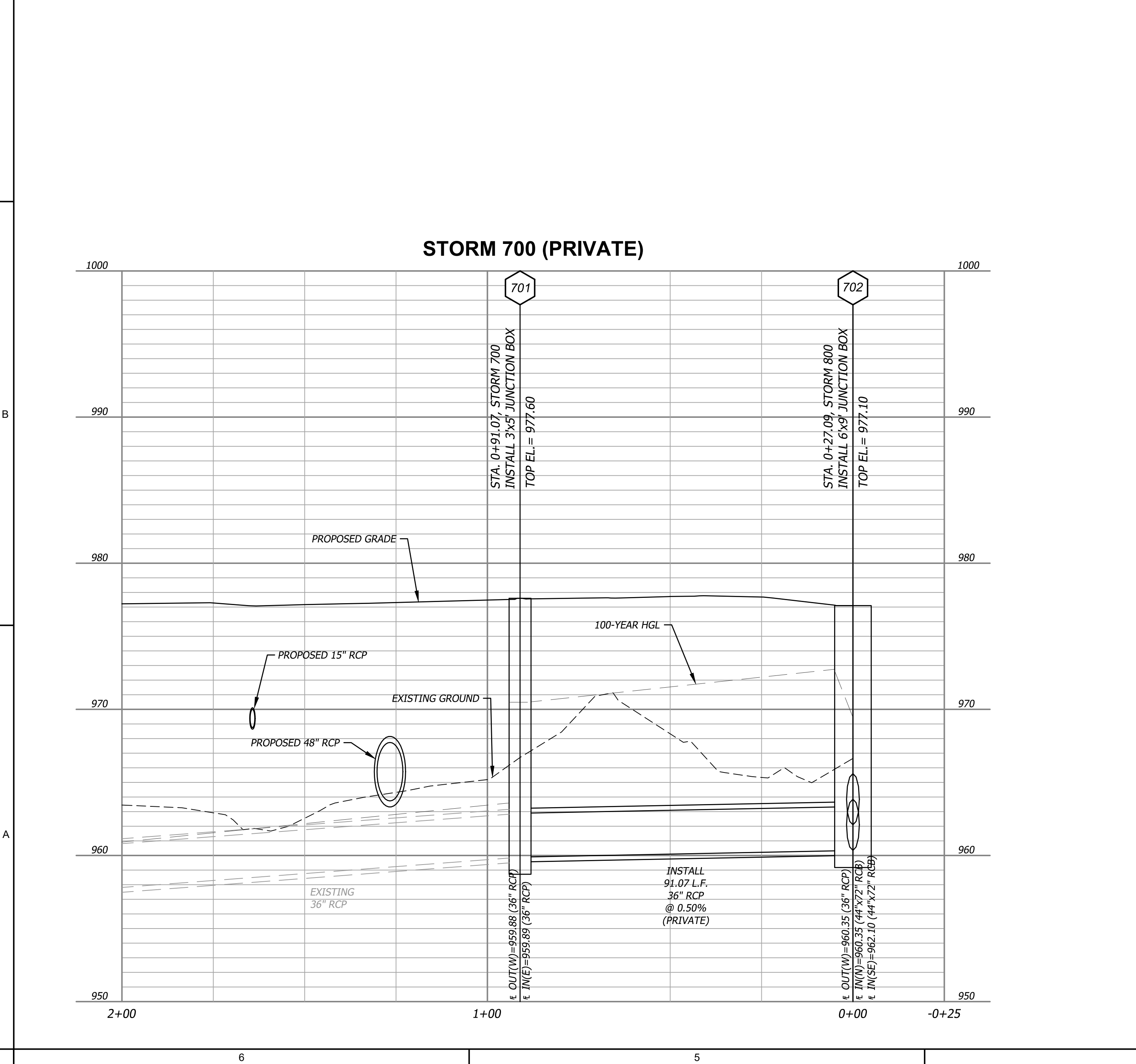
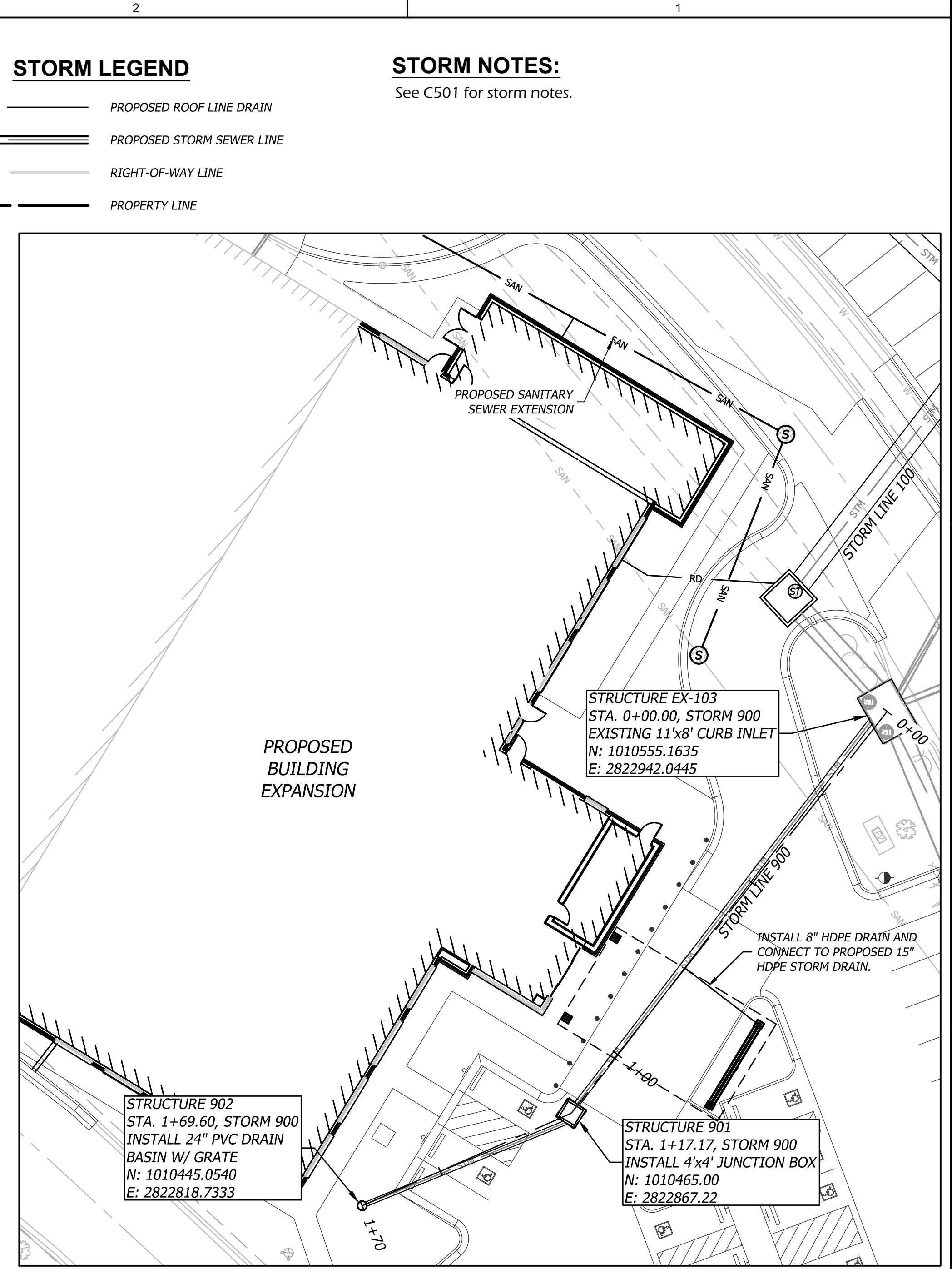
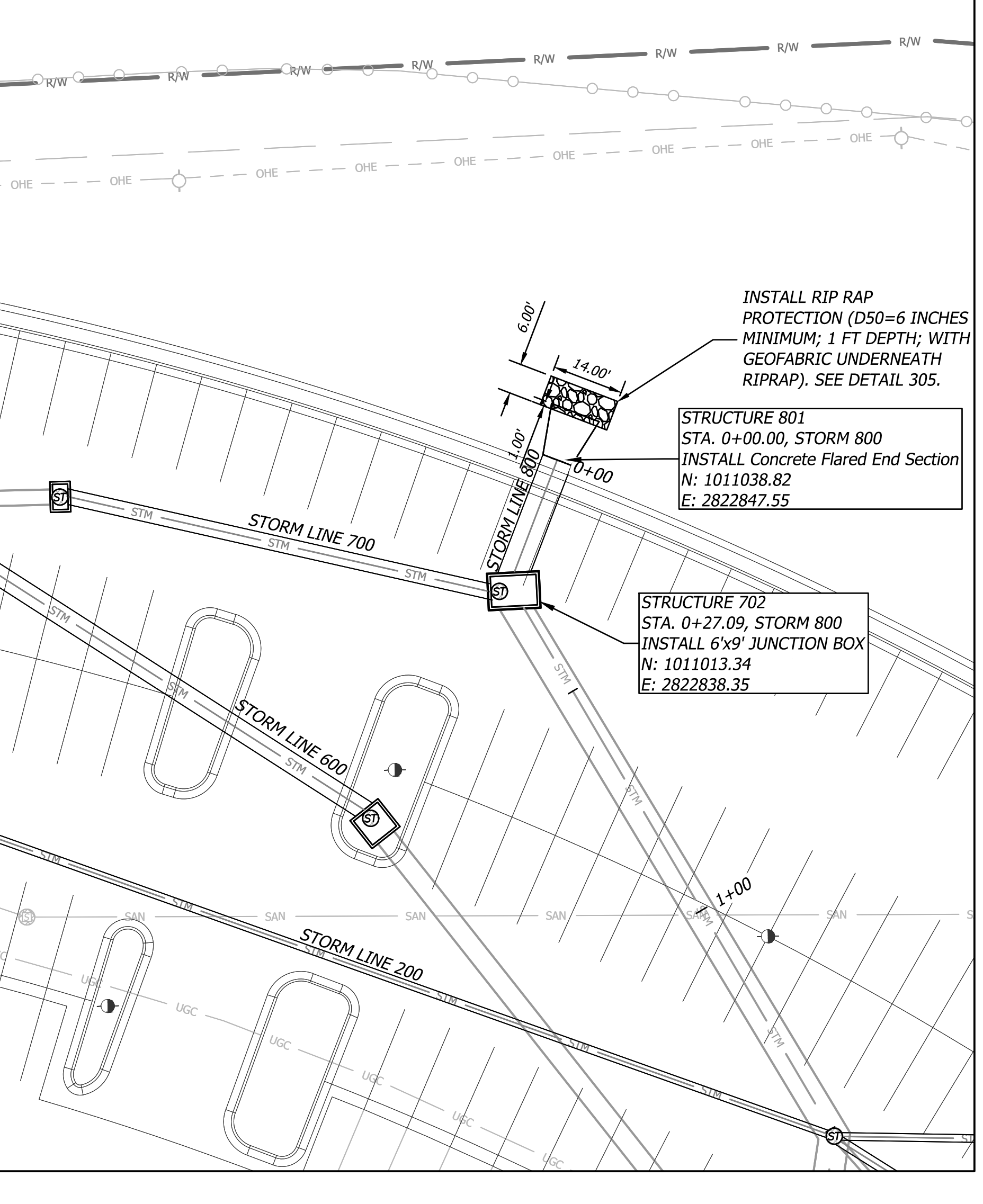
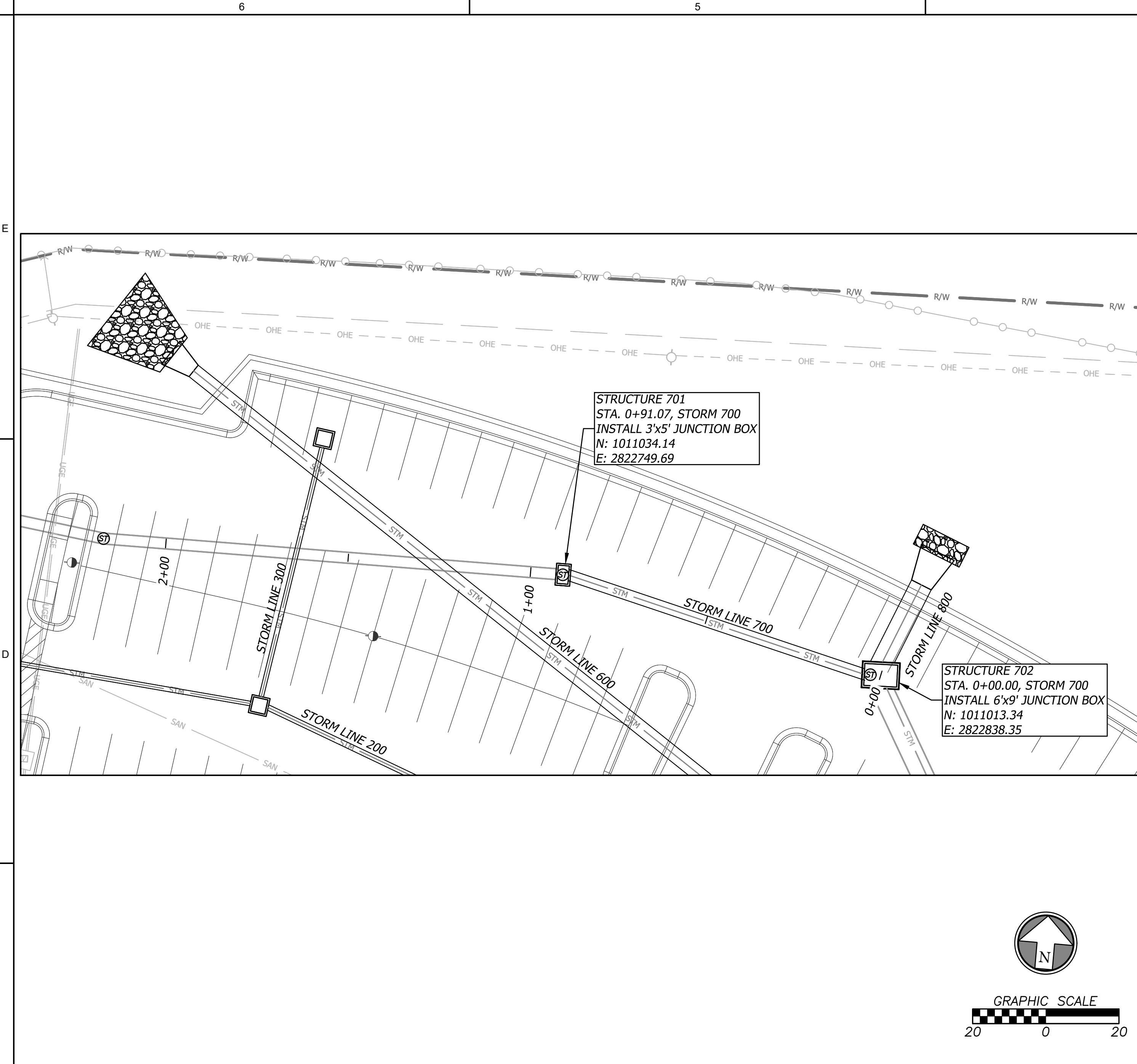
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Construction Documents

Date	12/22/2022
Job Number	3-21037
Drawn By	KMY
Checked By	KMY

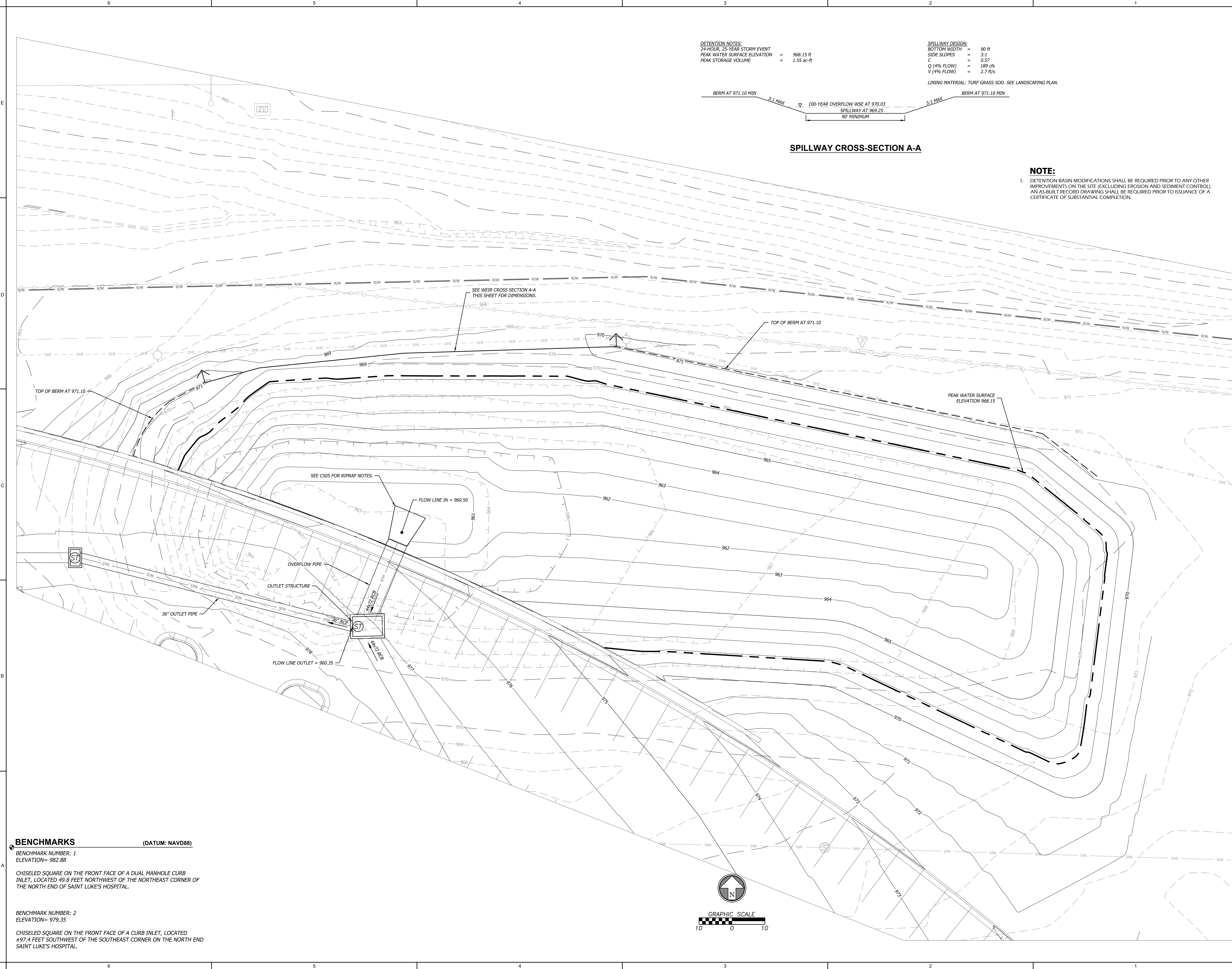
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Number	Date	Description

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STORM PLAN & PROFILE

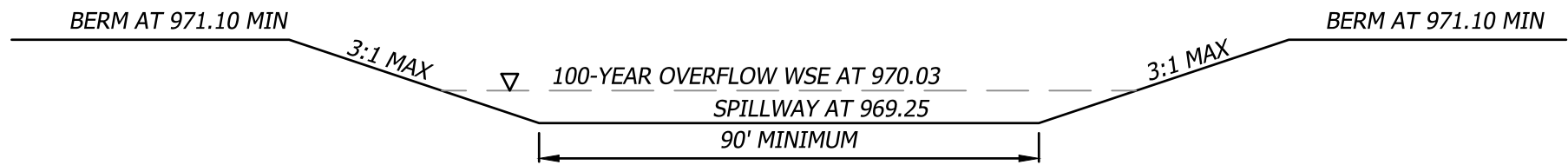
Jan 11, 2023 12:16pm Plotted By: kurt.yoder V:\033570-et_lukes-east\04-dwg\Eng\Sheet\DP\033570-SHRS-POND.dwg Layout: Detention Basin Plan



DETENTION NOTES:
24-HOUR, 25-YEAR STORM EVENT
PEAK WATER SURFACE ELEVATION = 968.15 ft
PEAK STORAGE VOLUME = 1.55 ac-ft

SPILLWAY DESIGN:
BOTTOM WIDTH = 90 ft
SIDE SLOPES = 3:1
C = 0.57
Q (4% FLOW) = 189 cfs
V (4% FLOW) = 2.7 ft/s

LINING MATERIAL: TURF GRASS SOD. SEE LANDSCAPING PLAN.



SPILLWAY CROSS-SECTION A-A

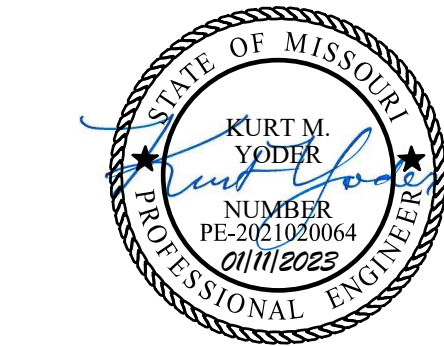
NOTE:

1. DETENTION BASIN MODIFICATIONS SHALL BE REQUIRED PRIOR TO ANY OTHER IMPROVEMENTS ON THE SITE (EXCLUDING EROSION AND SEDIMENT CONTROL). AN AS-BUILT RECORD DRAWING SHALL BE REQUIRED PRIOR TO ISSUANCE OF A CERTIFICATE OF SUBSTANTIAL COMPLETION.

BENCHMARKS (DATUM: NAVD88)

BENCHMARK NUMBER: 1
ELEVATION= 982.88
CHISELED SQUARE ON THE FRONT FACE OF A DUAL MANHOLE CURB INLET, LOCATED 49.8 FEET NORTHWEST OF THE NORTHEAST CORNER OF THE NORTH END OF SAINT LUKE'S HOSPITAL.

BENCHMARK NUMBER: 2
ELEVATION= 979.35
CHISELED SQUARE ON THE FRONT FACE OF A CURB INLET, LOCATED ±97.4 FEET SOUTHWEST OF THE SOUTHEAST CORNER ON THE NORTH END SAINT LUKE'S HOSPITAL.



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DETENTION BASIN PLAN

Jan 11, 2023 -- 12:16pm
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Layout: Wall Specifications
Printed By: kurt.yoder

ReCon Specification (April 2017) 3.2 EXCAVATION A. Contractor shall excavate to the lines and grades shown on the construction drawings. The contractor shall be careful not to disturb the base beyond the lines indicated. B. Foundation soils shall be excavated as required for footing base / leveling pad dimensions shown on the construction drawings, or as directed by the wall engineer. C. Over-excavated areas shall be filled with suitable base or backfill material and compacted to 95 percent standard proctor. 3.3 FOUNDATION SOILS PREPARATION A. Foundation soils shall be evaluated by a Geotechnical Engineer or Owners Representative to ensure that the bearing soils meet or exceed the design conditions or assumptions. B. Compact foundation soil zone to 95 percent standard proctor prior to installing base / leveling pad. 3.4 BASE / LEVELING PAD A. Base shall be located as indicated on the Construction Drawings and shall have a minimum thickness of 6-inches. Base materials are to be as specified by the wall engineer (generally crushed stone, 3/4-inch minus, or similar). B. Width of the base pad must extend a minimum of 6-inches in front and 6-inches in back of the ReCon Base Block footprint. C. Base material shall be compacted so as to provide a smooth, hard surface on which to place the first course of units. D. Compact base material to 95 percent of standard proctor. E. Base shall be prepared to ensure full contact of the wall unit with base material. Spacing or gaps between units shall not exceed 1/2-inch. F. Contractor may elect to substitute a portion of the specified granular base materials with a lean, unreinforced concrete topping. G. When a reinforced footing is required by the Construction Drawings, it shall be located below the frost line. 3.5 UNIT INSTALLATION A. First course of units shall be Base Block units and shall be placed in full contact with the base material. B. Check units for level from side-to-side, front to back, and check to maintain unit batter front-to-back. C. Place unit faces in contact side to side and avoid any gaps greater than 1/2-inch. D. Fill and compact fill to grade in front of embedded units prior to compaction behind the wall units. E. Fill voids between ReCon units with 3/4-inch clean crushed rock to a distance of one foot behind the unit depth unless otherwise instructed in the Construction Drawings. F. Sweep and clean the top of each course before setting additional courses. G. Lay each successive course making sure that the bottom recess is in full contact with the unit locators of the course below. Pull unit forward as far as possible. Backfill and compact soil behind the units. H. Check and maintain level and wall batter by use of shims when necessary. I. Follow ReCon recommended procedures to maintain acceptable running bond when constructing curved walls and / or corners. Build in accordance with Construction Drawings or ReCon Construction Detail Drawings. J. Handle units with proper lifting devices that have been certified for the loads associated with the weights of the units. Avoid applying forces to the lifting loops in excess of the normal force associated with the weight of the unit (i.e., avoid dynamic loads from bouncing or swinging of a unit). If the unit is to be transported over a significant distance in the field, it is recommended that a CABLE be used in lieu of a chain. PRECAST MODULAR BLOCK RETAINING WALL SECTION 32 32 16 - 5	ReCon Specification (April 2017) 3.6 GEOGRID INSTALLATION A. Install geosynthetic reinforcement in accordance with manufacturer's recommendations and the Construction Drawings. B. Locate geosynthetic reinforcement at elevations and to the lengths shown on the Construction Drawings. C. Prior to installation of geosynthetic reinforcement, level and compact backfill material to the level of the reinforcement layer. D. Reinforcement design strength direction must be oriented perpendicular to wall face. E. Position reinforcement on ReCon units over the tongue and groove and to within 2-inches of the front exposed face. The next course of units shall be placed such that the geogrid is deformed over the tongue and groove. The next course of units must be laid forward such that the back edge of the groove on this unit is up against the back edge of the tongue on the lower unit with the geogrid pinched between the tongue and groove. Hold in place by installing the next course of units. F. Remove all wrinkles or folds in reinforcement by pulling taut prior to backfill placement. Secure using soil staples, stakes or hand tension until reinforcement is covered with sufficient fill to maintain tensioned position. G. Reinforcement shall be continuous throughout the embedment length. Splicing along reinforcement strength direction is not allowed. H. Position reinforcement sections side-by-side to provide 100 percent coverage along wall face. I. Where curved wall sections cause overlap areas in reinforcement, maintain at least 3-inches of soil between layers where overlap occurs. 3.7 REINFORCED BACKFILL PLACEMENT A. Wall fill material shall be placed in lifts no greater than 8-inches in depth and shall be less if necessary to achieve necessary compaction. B. Compact backfill material to 95 percent of standard proctor. C. Only hand-operated compaction equipment shall be used within 3-feet of the back of the ReCon unit. Heavy-duty compaction equipment should be kept a minimum of 5-feet from the back of the ReCon unit to avoid wall rotation. D. Wherever possible, backfill should be placed beginning at the face of the wall. Backfill shall be placed, spread, and compacted in a manner that minimizes the development of wrinkles, folds or movement of geogrid. E. Tracked construction equipment shall not be operated directly on the geogrid. A minimum backfill thickness of 6-inches is required prior to operation of tracked vehicles over the geogrid. Turning of tracked vehicles should be kept to a minimum to prevent tracks from displacing the fill and damaging the geogrid. F. Rubber tired equipment may pass over the geogrid reinforcement at slow speeds, (less than 10 MPH). Avoid sudden braking and sharp turning. G. At the conclusion of each day's work, slope backfill at both the crest and bottom of wall away from wall face to prevent surface drainage from scouring or ponding. H. During wall construction, the General Contractor shall be responsible for coordination of other project site operations so as to avoid adjacent construction site drainage from affecting wall construction area. I. Upon completion of wall construction work, the General Contractor shall: 1. Ensure finished grading directs normal drainage away from the finished wall. 2. Ensure other trades do not operate heavy equipment or excavate near the wall and reinforced soil zone. 3.8 OTHER CONSTRUCTION DETAILS A. ReCon provides a number of Construction Detail Drawings (see Section 1.2F) which can be found on ReCon's website (www.reconwalls.com) and should be referred to for guidance on wall specific applications. PRECAST MODULAR BLOCK RETAINING WALL SECTION 32 32 16 - 6	ReCon Specification (April 2017) 3.9 SITE TOLERANCES A. Straight walls 1. Vertical Alignment: +/- 1.5-inches over any 12-foot distance and no more than +/- 3-inches over the entire length of wall. B. Horizontal Alignment Control: 2. Corners and radius location: +/- 1-foot to theoretical location indicated on the Grading Plan. 3. Radii: +/- 2-feet from theoretical lines indicated on the Grading Plan. C. Wall Batter at Completion of Work: +/- 2-degrees from the design batter and no batter less than 2-degrees. 3.10 FIELD QUALITY CONTROL A. Contractor shall be responsible for proper installation and quality control of all ReCon wall components and appurtenant materials. B. Owner shall, at their expense, retain a qualified professional to monitor and perform quality assurance checks of the installer's work. C. Quality Assurance should include foundation soil inspection, frequent backfill compaction testing, verification of geotechnical design parameters and compliance with Construction Drawings and Project Specifications. 3.11 CLEANING A. After completion of wall installation, remove construction debris and restore any adjacent finished areas affected by wall construction to their pre-construction state. B. Wash wall face to remove soiling and stains. Do not use acid or detergents that may "burn" or discolor face. PRECAST MODULAR BLOCK RETAINING WALL SECTION 32 32 16 - 7
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Construction Documents

Date	12/22/2022
Job Number	3-21037
Drawn By	KMY
Checked By	KMY

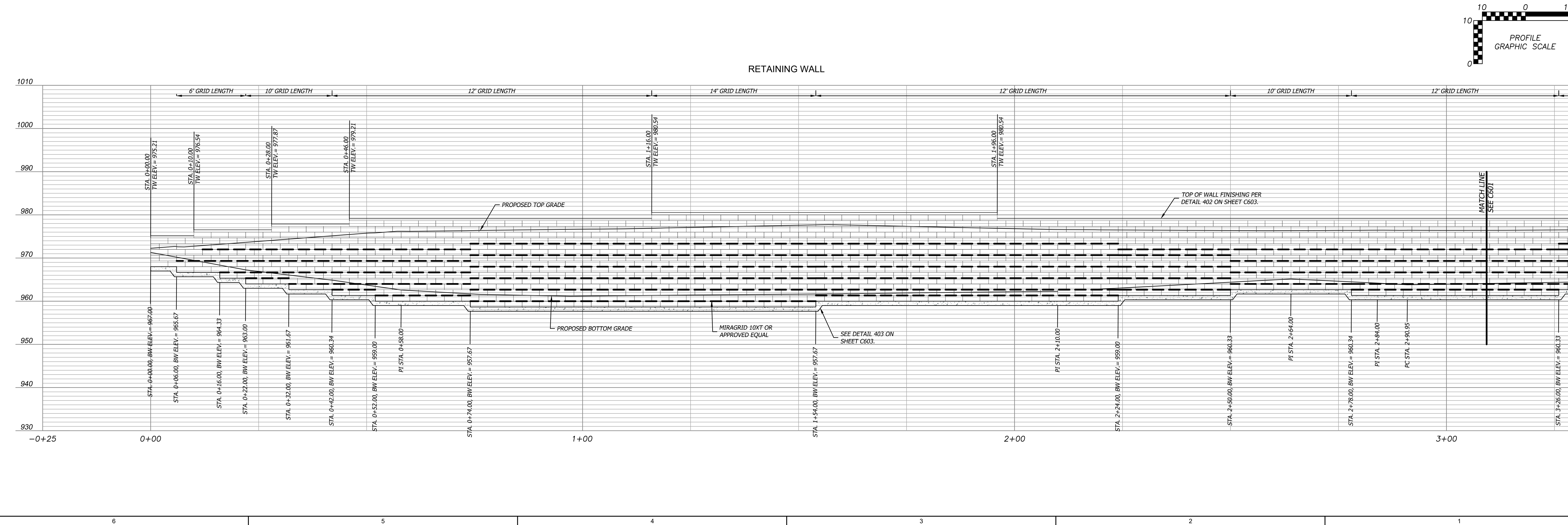
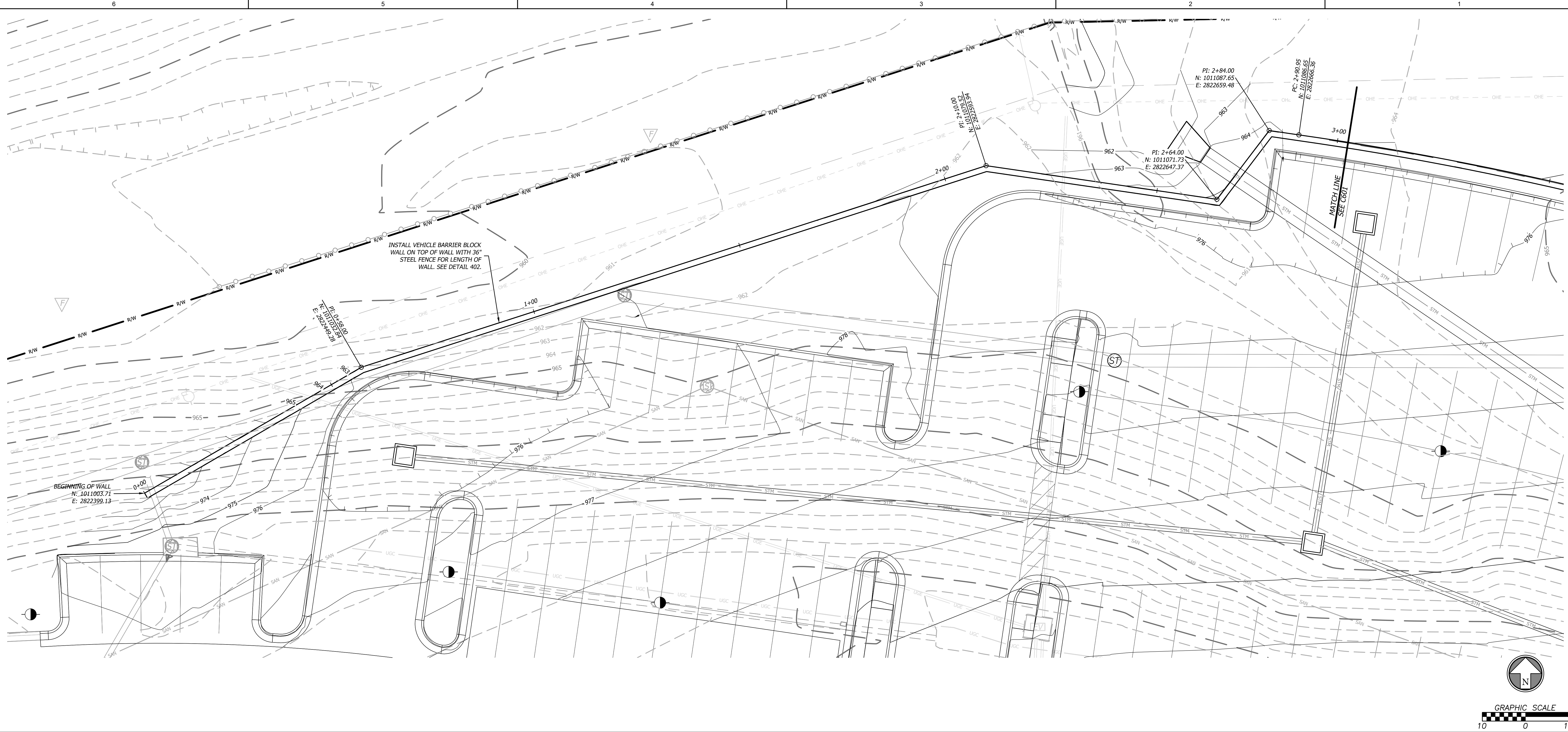
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Number	Date	Description

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WALL SPECIFICATIONS

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Job Number: 3-21037
Drawn By: KMY
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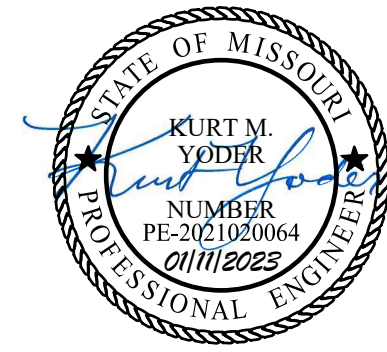
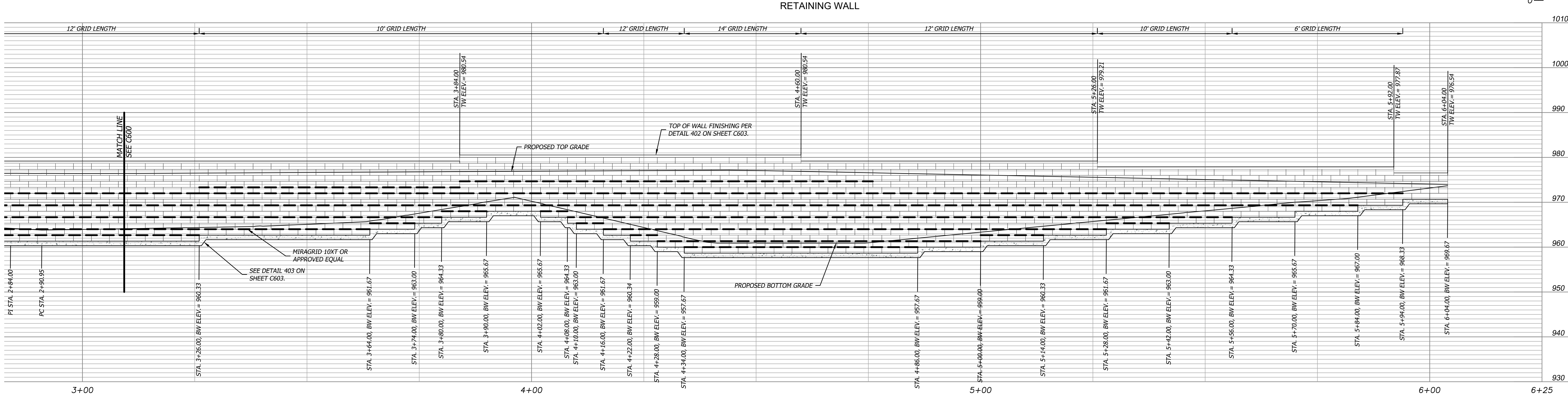
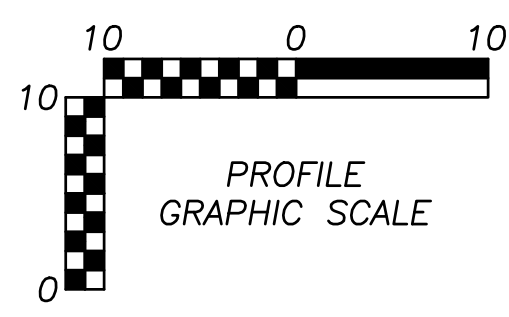
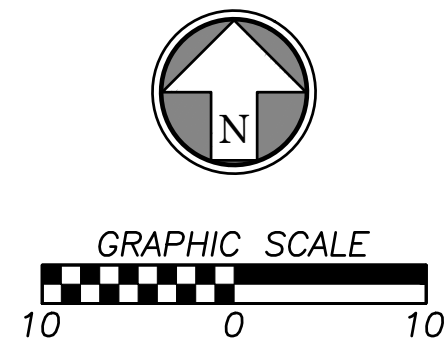
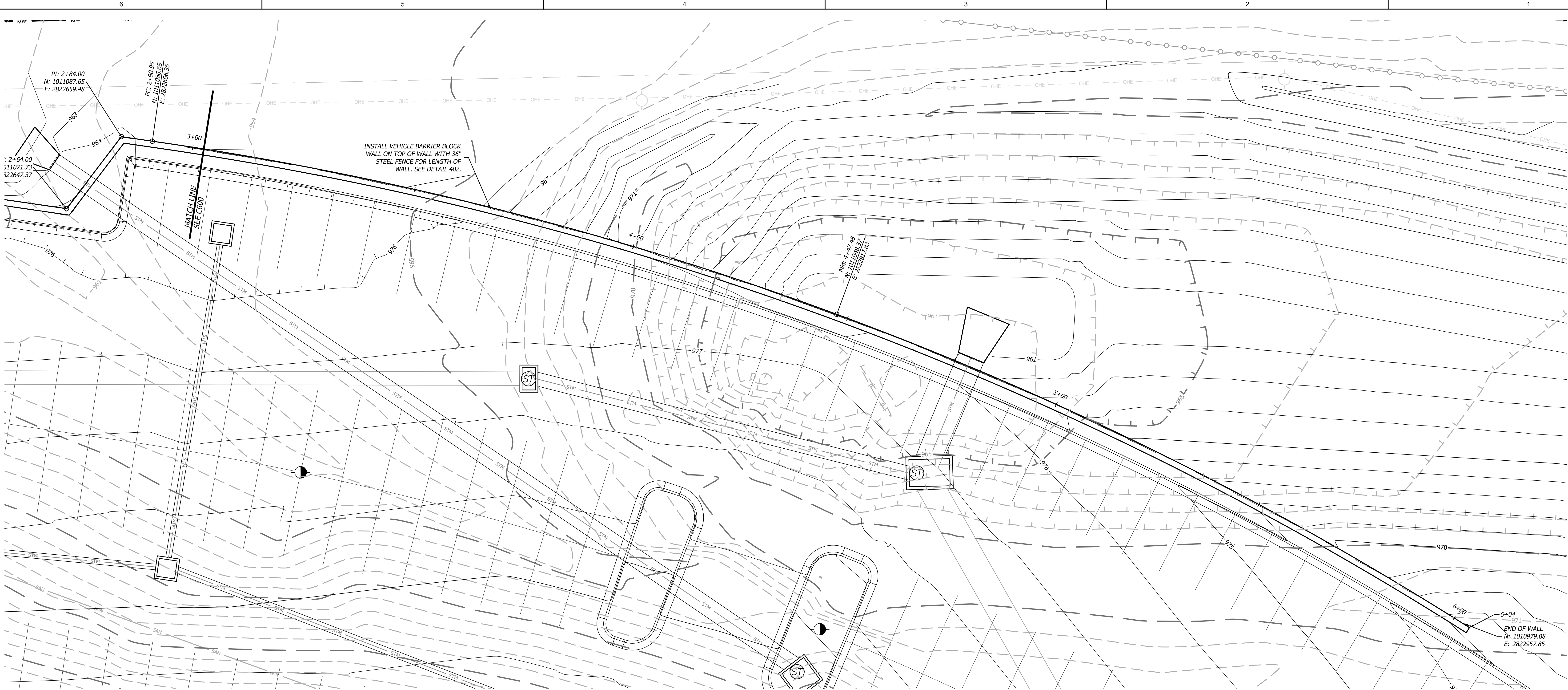
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RETAINING WALL PLAN & PROFILE 1

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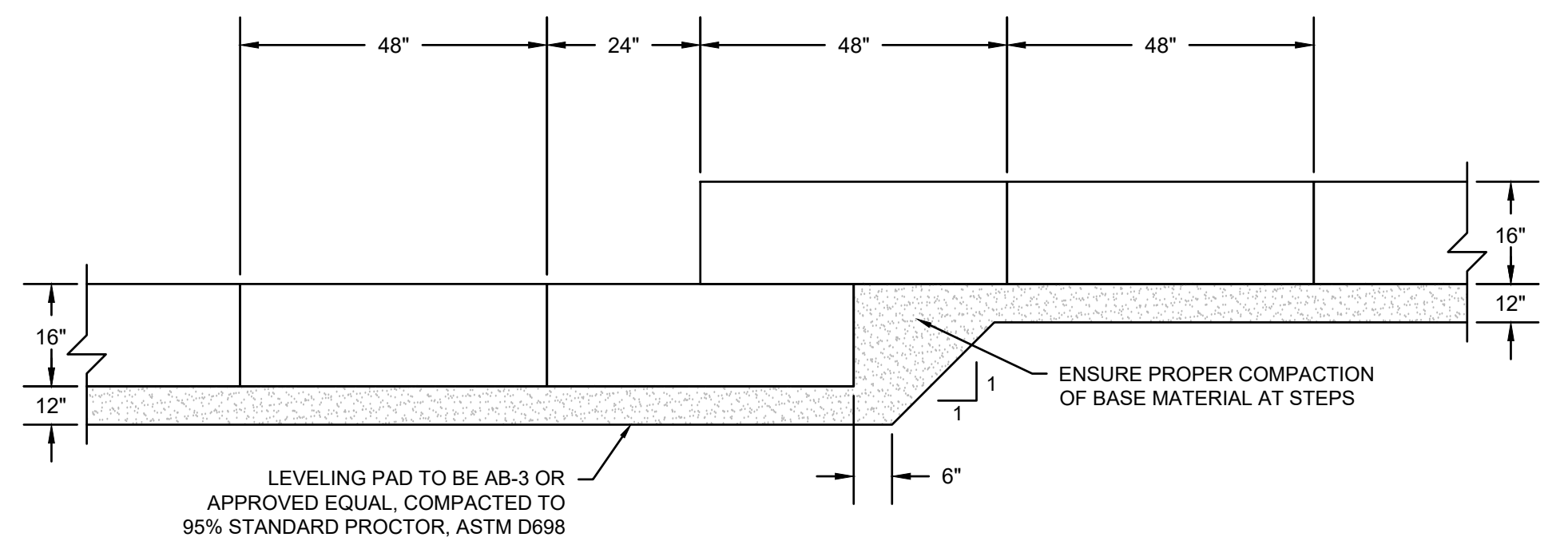
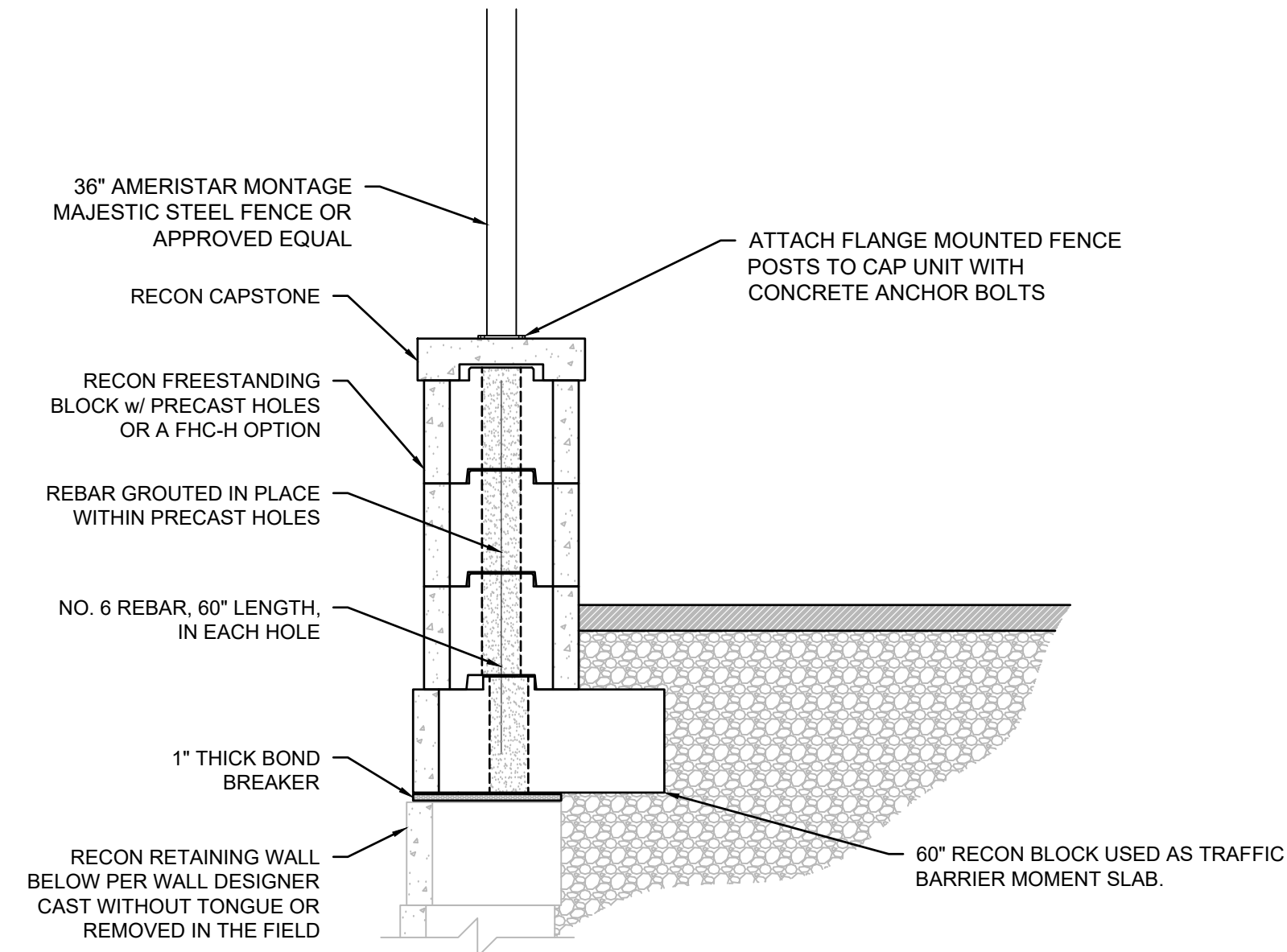
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RETAINING WALL PLAN
& PROFILE 2

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Layout: Wall Details 1

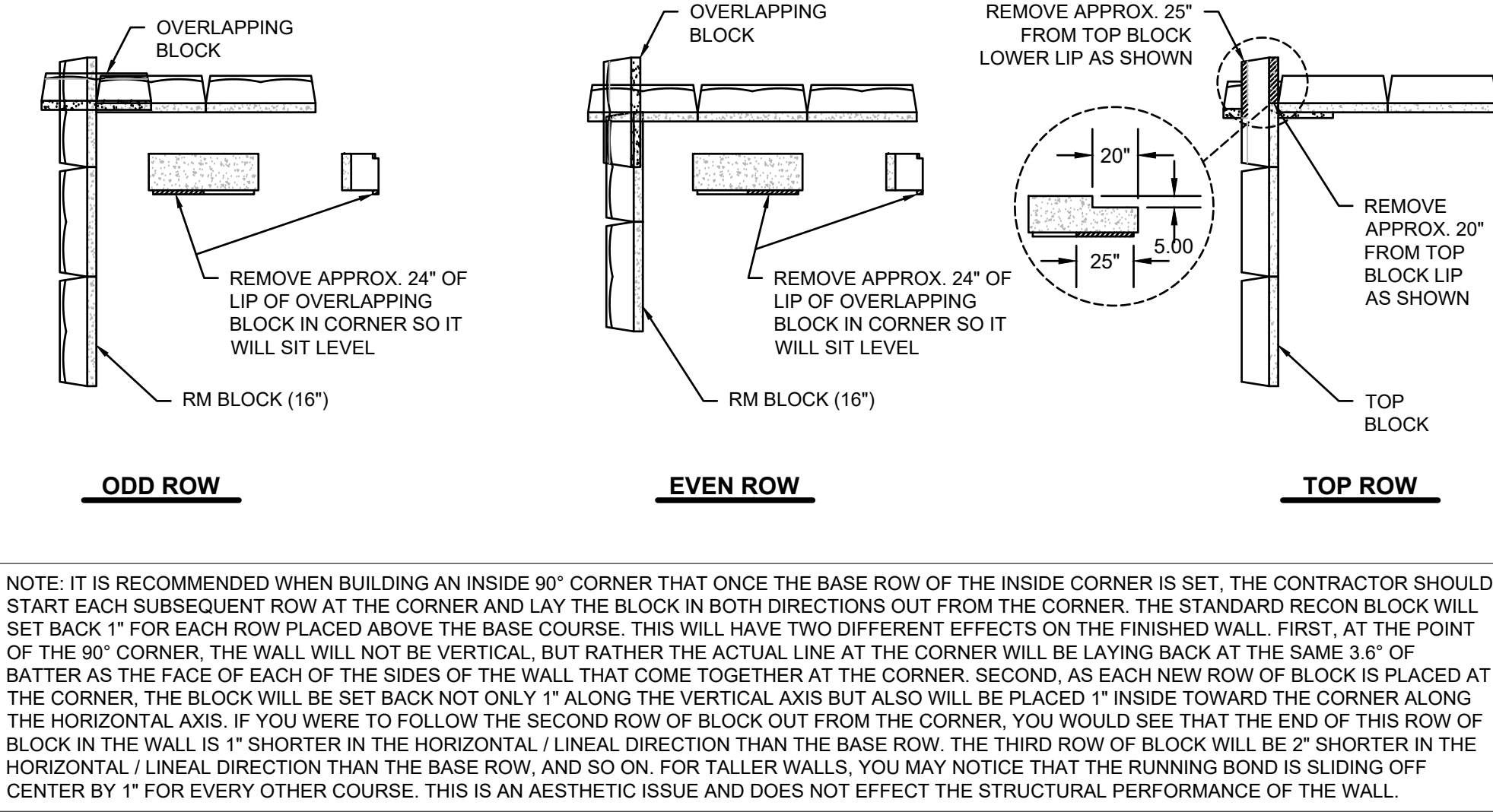
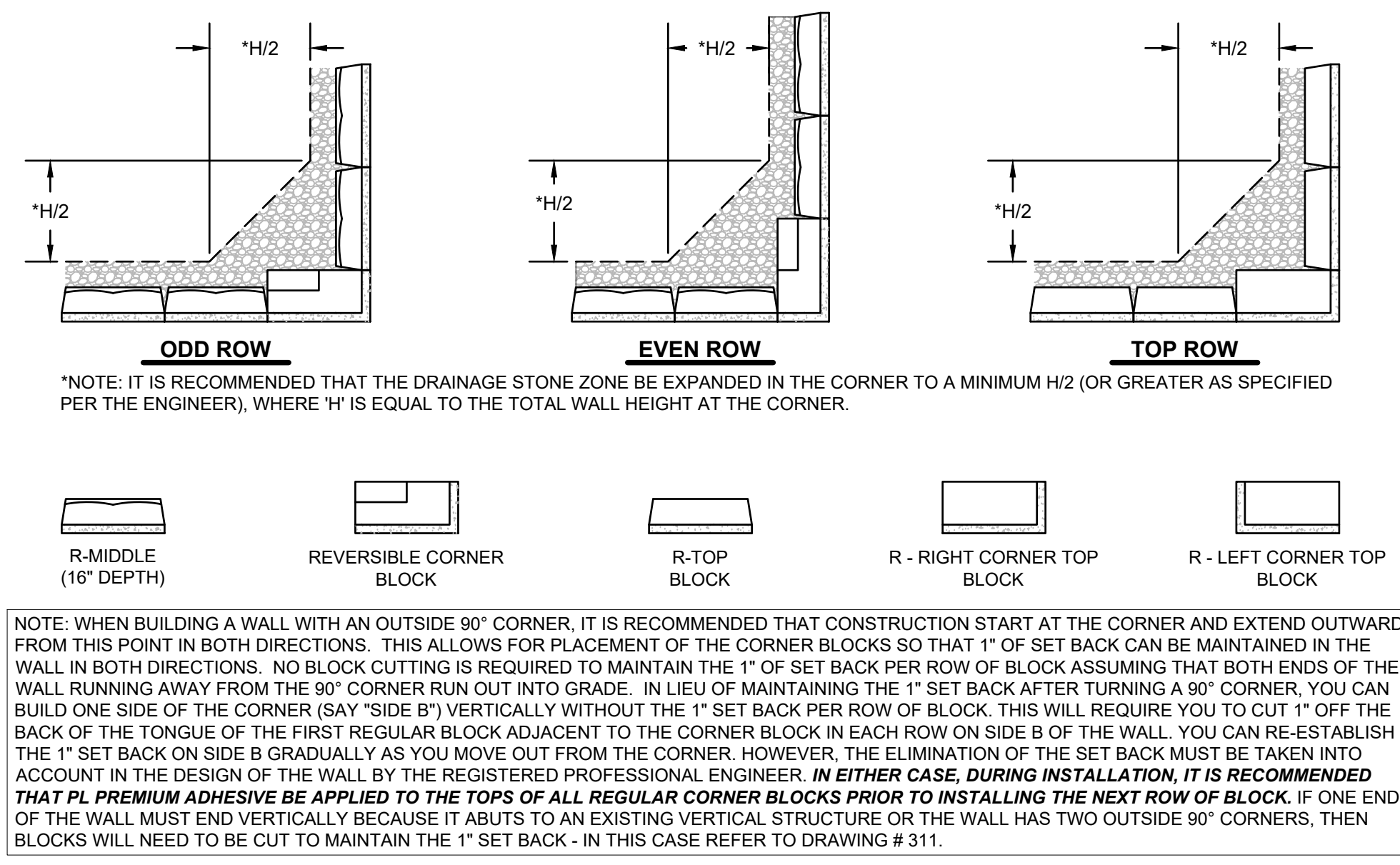
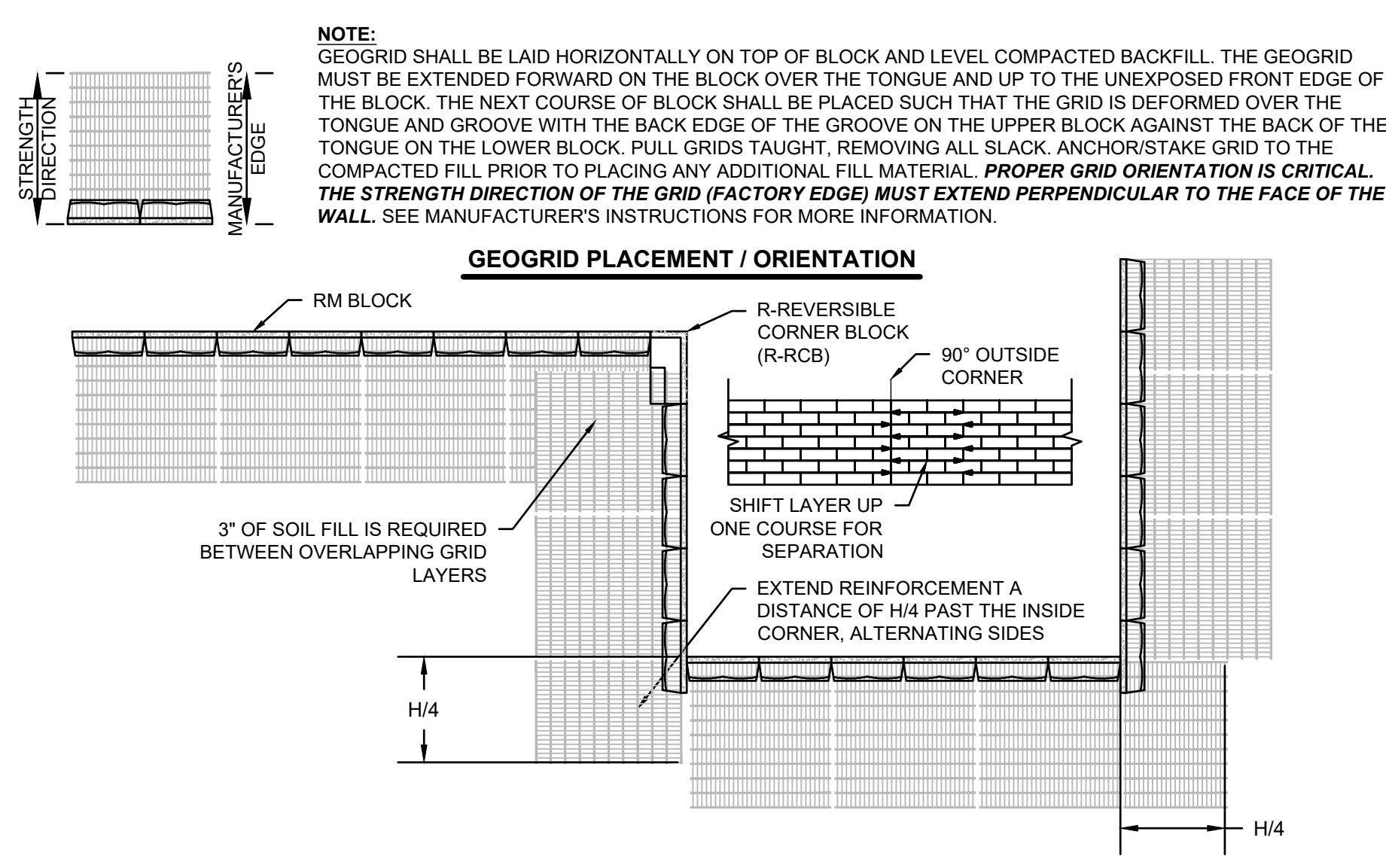
- NOTES:**
1. LEVELING PAD SHOULD BE AS SPECIFIED BY THE DESIGN ENGINEER IN THE PROJECT PLAN SET.
 2. THE WIDTH OF THE LEVELING PAD MUST EXTEND 6" (MINIMUM) IN FRONT AND 6" (MINIMUM) IN BACK OF THE BASE BLOCK. AS A RESULT THE TYPICAL WIDTH OF LEVELING PAD WOULD BE 16" DEEP LIPPED BLOCK. LEVELING PAD WIDTH IS 28"
 3. TRENCH A 2" WIDE, 2" DEEP CHANNEL APPROXIMATELY 6" FROM THE BACK OF THE LEVELING PAD.
 4. SET THE BASE BLOCK. THE LIP WILL BE SET INTO THE 2" WIDE CHANNEL. CHECK FOR LEVEL FROM FRONT TO BACK.
 5. EMBEDMENT SHOULD BE 20" MINIMUM.
 6. COMPACTION TO THE SPECIFIED EMBEDMENT DEPTH SHALL BE DONE IN FRONT OF THE BASE BLOCK **BEFORE** COMPACTION IS DONE BEHIND THE BASE BLOCK. THIS REDUCES THE CHANCE THAT COMPACTION BEHIND THE BASE BLOCK WILL ROLL THE BASE BLOCK FORWARD.
 7. SEE BLOCK SPECIFICATION & INSTALLATION INSTRUCTIONS FOR MORE DETAILS.



401
Not to Scale
Block Embedment

402
Not to Scale
Freestanding Block Wall/Traffic Barrier

403
Not to Scale
Leveling Pad and Stepping Base



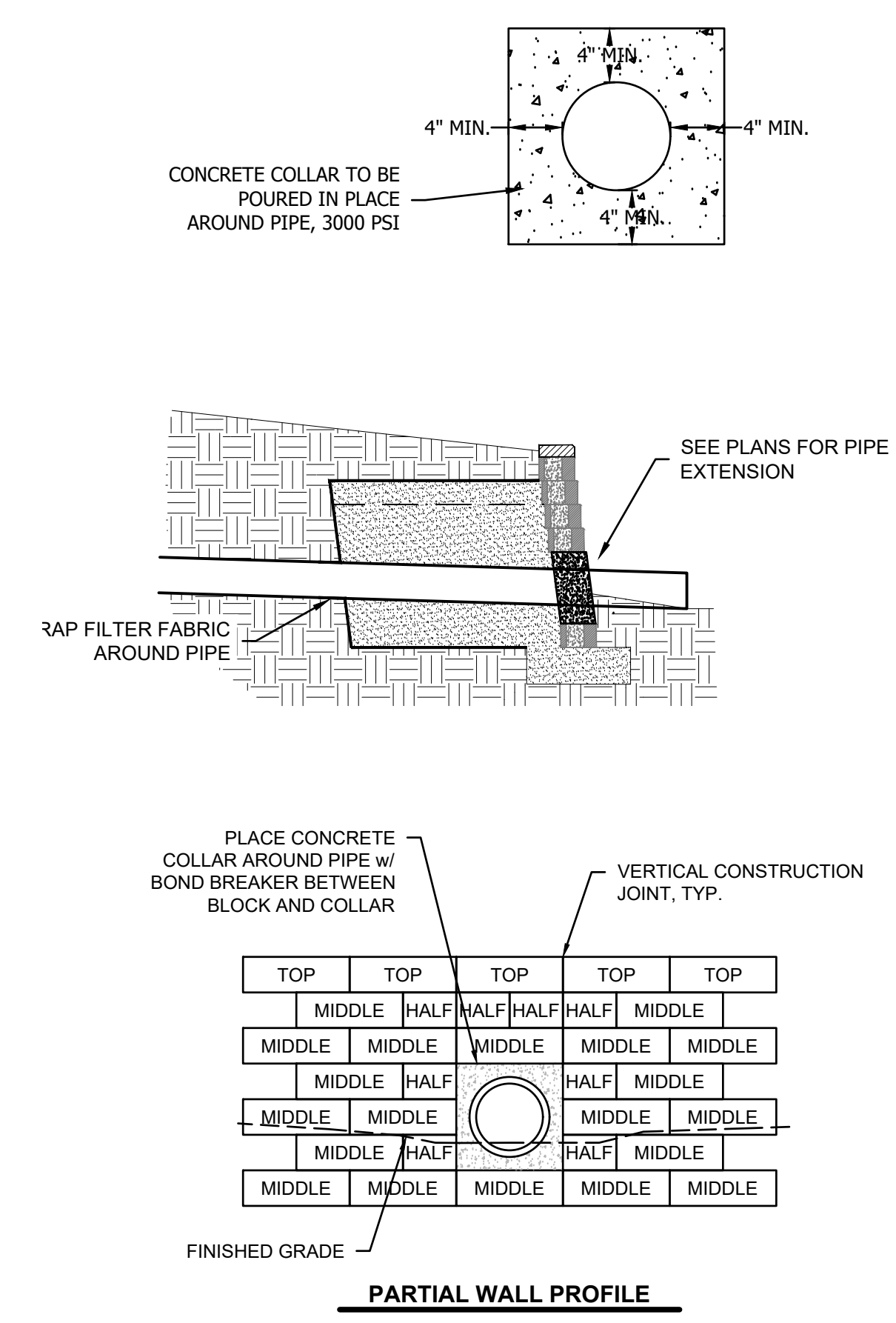
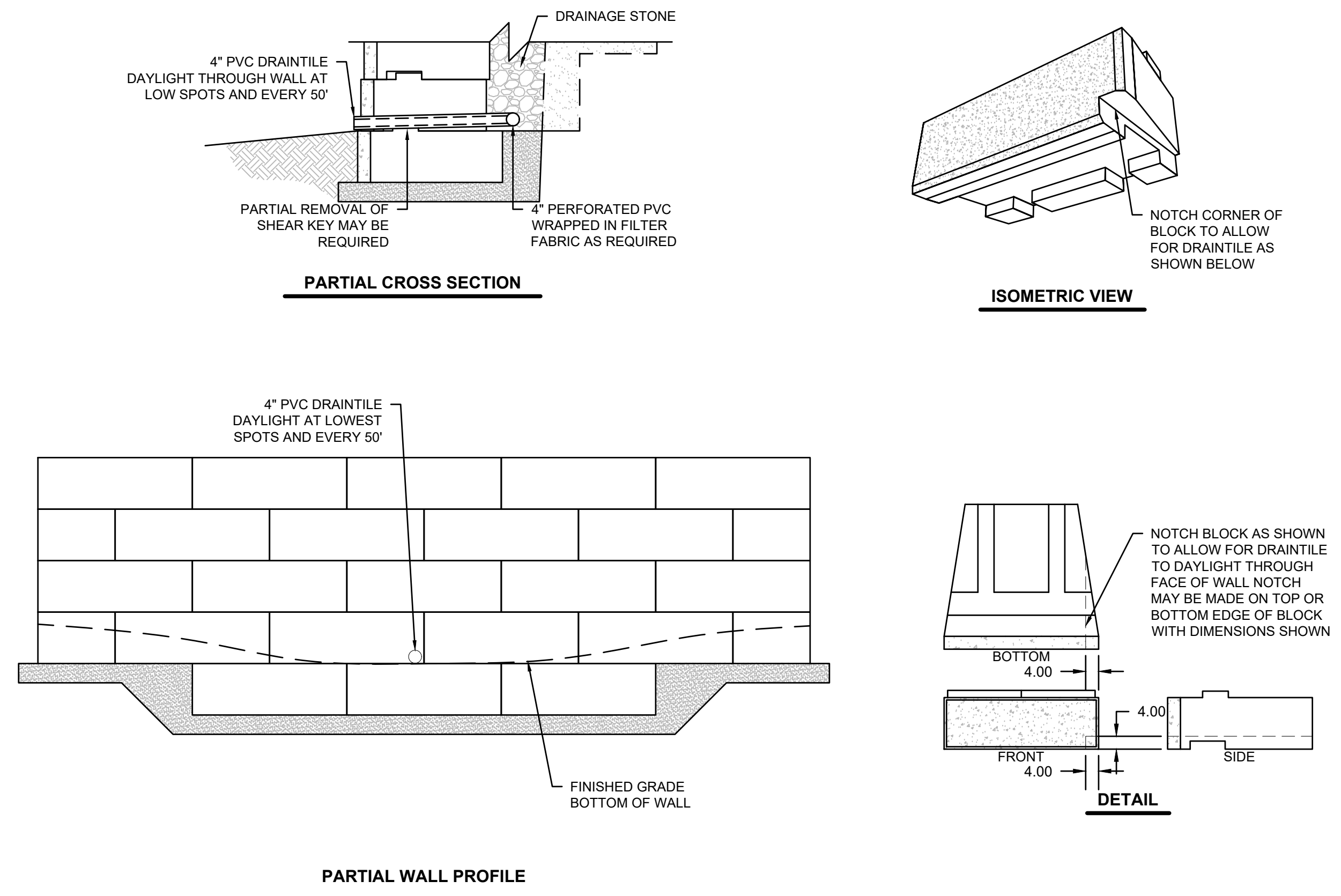
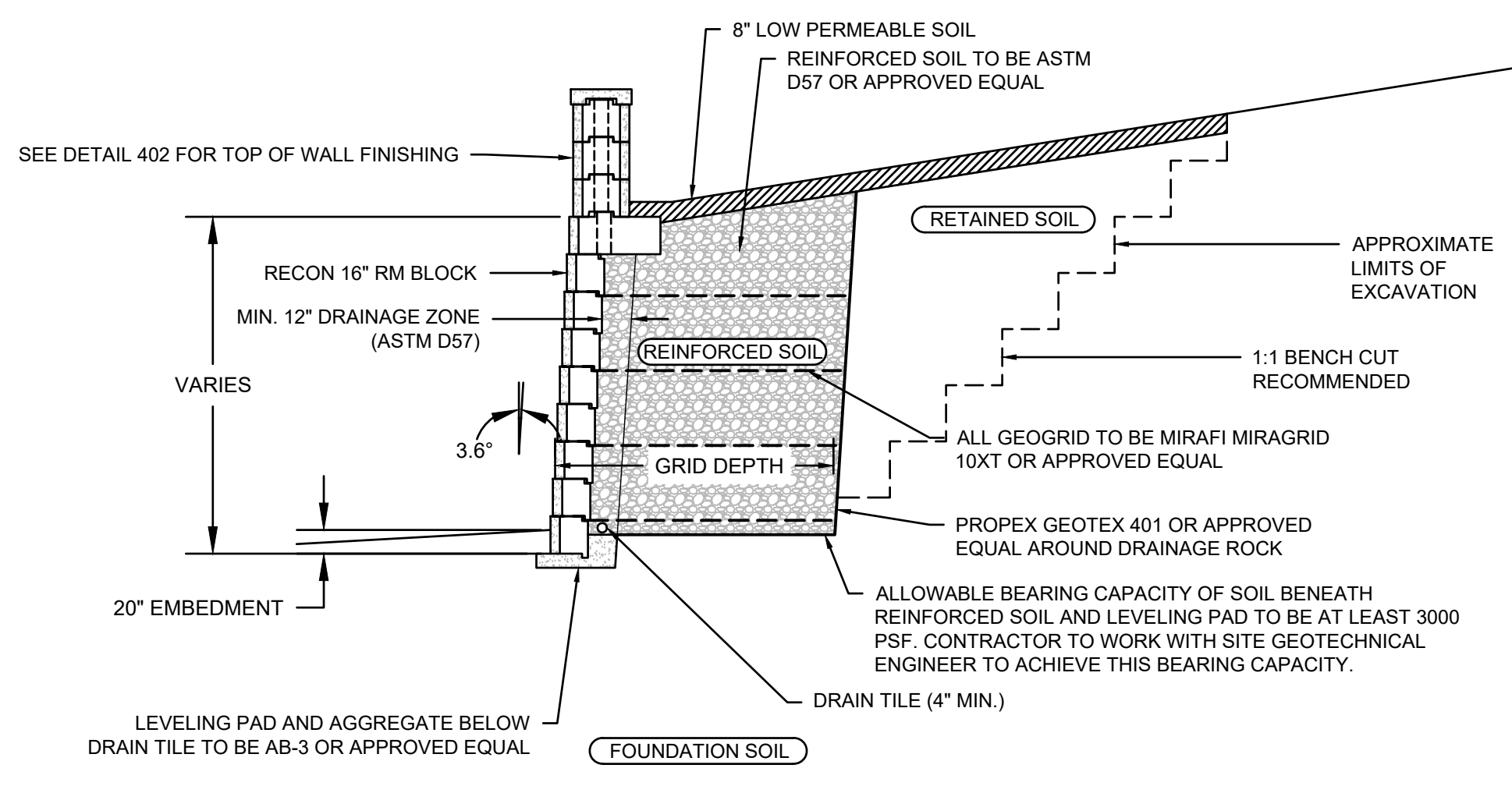
404
Not to Scale
Geogrid Installation at Corners

405
Not to Scale
Outside Corner Block Installation

406
Not to Scale
Inside Corner Block Installation

WALL AREA FOUNDATION REQUIREMENTS:

1. ALL WORK SHALL BE IN ACCORDANCE WITH THE REQUIREMENTS OF THIS PROJECT.
2. WALL AREA FOUNDATION AND SUBGRADE PAD SHALL MEET OR EXCEED THE REQUIREMENTS OF THE SPECIFICATION EXCEPT AS HEREIN NOTED ON THESE CONSTRUCTION DRAWINGS.
3. REMOVE SURFACE VEGETATION, TOPSOIL, ROOT SYSTEMS, ROCK FRAGMENTS LARGER THAN 6", ORGANIC MATERIAL, EXISTING UNSUITABLE FILL, AND SOFT OR OTHERWISE UNSUITABLE MATERIAL FROM THE WALL AREA.
4. AREAS ENCOUNTERED OF SOFT SUBGRADE SHOULD BE REMEDIATED AS DIRECTED BY GEOTECHNICAL ENGINEER.
5. AREAS EXPOSED BY EXCAVATION OR STRIPPING AND ON WHICH THE WALL SUBGRADE PREPARATIONS ARE TO BE PERFORMED SHALL BE SCARIFIED TO A MINIMUM OF 12 INCHES AND COMPACTED TO MINIMUM OF 95 PERCENT OF MAXIMUM DENSITY, IN ACCORDANCE WITH ASTM D 698, AT MOISTURE OF 0 TO 4 PERCENT BELOW OPTIMUM MOISTURE CONTENT. THE CONTRACTOR SHALL COORDINATE WITH THE TESTING LABORATORY TO CONDUCT DENSITY TESTS DURING FILL PLACEMENT AND/OR SOIL MODIFICATION AND MAKE ANY OTHER OBSERVATIONS NECESSARY TO DETERMINE THAT THE REQUIREMENT OF THE PLANS AND SPECIFICATIONS ARE BEING ACHIEVED. EXCAVATE AND RECOMPACT AREAS OF FAILURE OR UNSUITABLE SOILS AS SPECIFIED HEREIN. CONTINUAL FAILURE AREAS SHALL BE STABILIZED AND REPORTED TO THE ENGINEER.
6. FILL MATERIALS SHALL BE FREE OF ALL ORGANIC AND OTHER DELETERIOUS MATERIALS. ONLY FILL SOILS HAVING A LIQUID LIMIT LESS THAN 50 AND PLASTICITY INDEX LESS THAN 20 SHALL BE USED IN THE WALL FOUNDATION AREA. PLACE FILL MATERIALS IN THE WALL FOUNDATION AREA IN LIFTS OF LAYERS NOT TO EXCEED 6-INCHES LOOSE MEASURED AND COMPACTED TO A MINIMUM DENSITY OF 95 PERCENT OF MAXIMUM DENSITY, IN ACCORDANCE WITH ASTM D 698 AT OPTIMUM MOISTURE CONTENT $\pm 3\%$.



407
Not to Scale
Wall Section

408
Not to Scale
Weep Hole Location

409
Not to Scale
Concrete Collar

Kurt M. Yoder, Civil Engineer
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Construction Documents

Date 12/22/2022
Job Number 3-21037
Drawn By KMY
Checked By KMY

Revision
Number Date Description

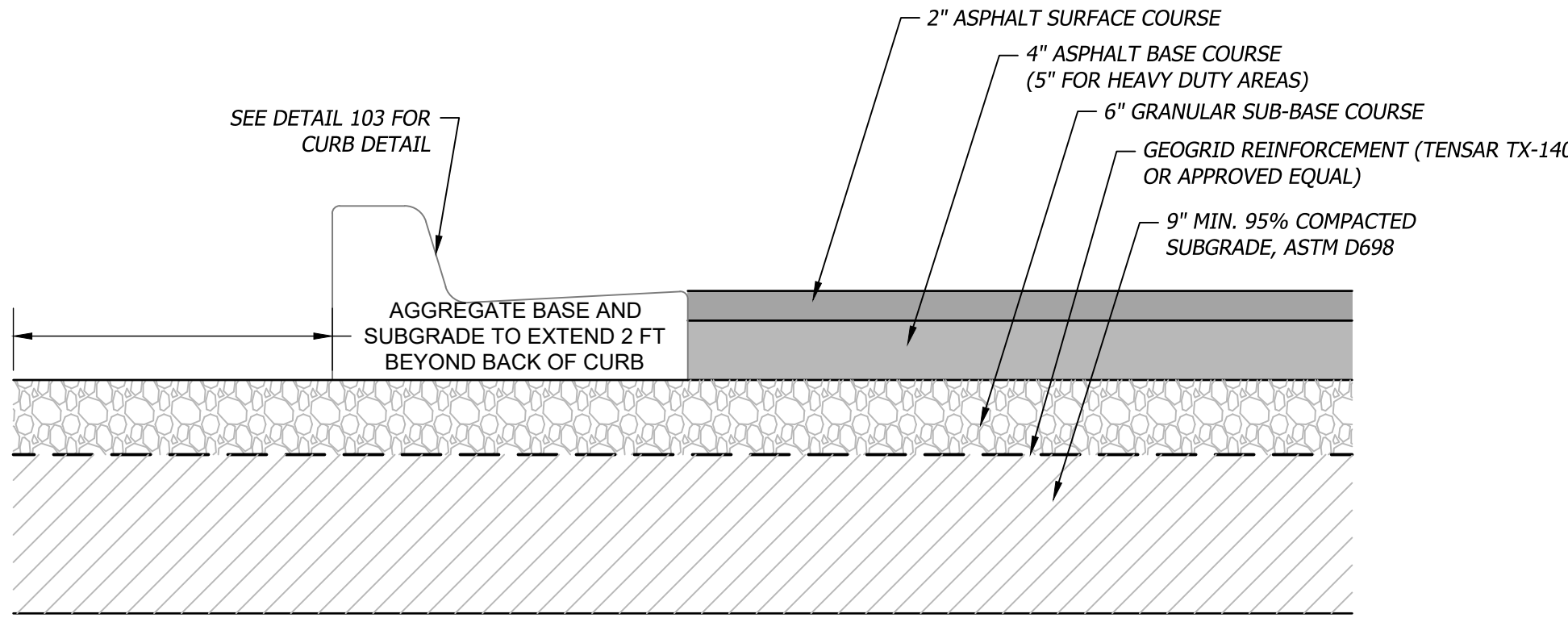
C603

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WALL DETAILS

Jan 11, 2023 -- 12:18pm
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Printed By: kurt.yoder

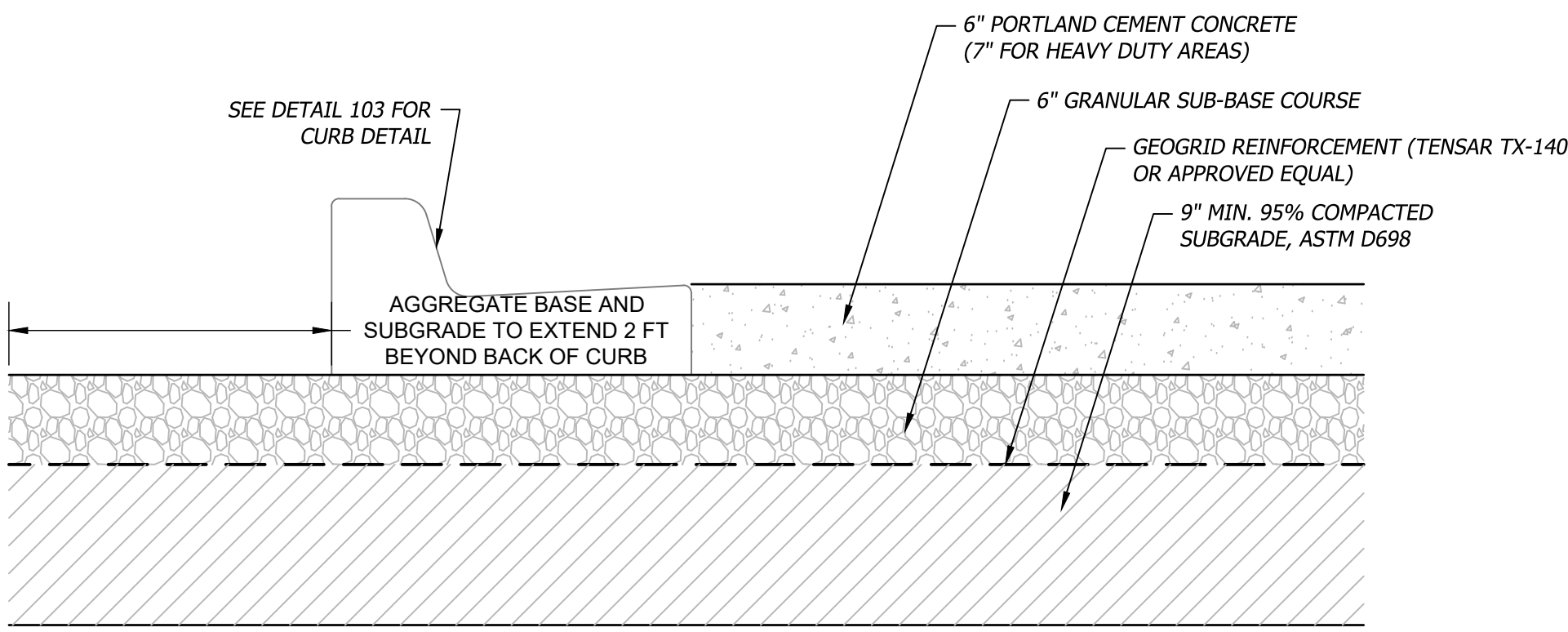
NOTES:

- SHOP DRAWINGS FOR ASPHALT SHALL BE SUBMITTED PRIOR TO BATCHING. DENSITY TESTING FOR ASPHALT SHALL BE AT A MINIMUM OF 3 PER LIFT PER DAY DURING THE ASPHALT LAYING OPERATION. FINAL THICKNESS OF ASPHALT SHALL BE MEASURED AT 3 RANDOM LOCATIONS WITHIN THE SITE BY CORING THE PAVEMENT. THE AVERAGE OF THESE 3 CORES MUST BE GREATER THAN THE MINIMUM THICKNESS SPECIFIED IN THE PLANS.
- ASPHALT PAVEMENT CONSTRUCTION SHALL ONLY COMMENCE WHEN AMBIENT TEMPERATURE IS 34 DEGREES FAHRENHEIT AND RISING.
- THICKNESS SHOWN IS MINIMUM.



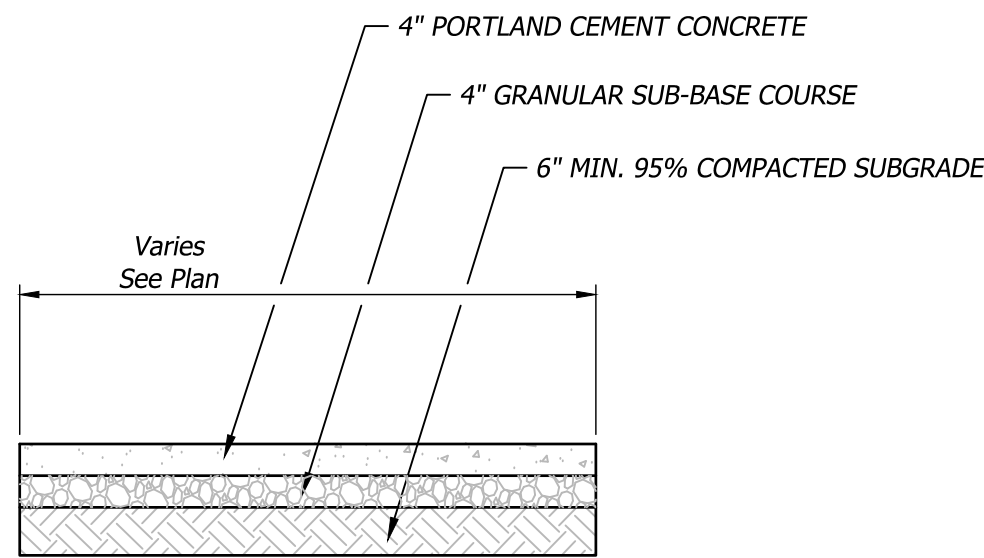
NOTES:

- ALL EXTERIOR CONCRETE SHALL HAVE A BROOM FINISH.
- 4000 PSI AT 28 DAYS, 4-INCH MAXIMUM SLUMP, AND 5%-7% AIR ENTRAINED MIX.
- CONCRETE PAVEMENT CONSTRUCTION SHALL ONLY COMMENCE WHEN AMBIENT TEMPERATURE IS 34 DEGREES FAHRENHEIT AND RISING. COLD WEATHER PROCEDURES MAY BE UTILIZED FOR CONCRETE INSTALLATIONS WHEN TEMPERATURES ARE NOT SUITABLE FOR CONVENTIONAL PLACEMENT.
- CONTRACTOR TO SUBMIT CONCRETE MIX DESIGN TO ENGINEER PRIOR TO PLACEMENT.
- REFER TO JOINTING DETAILS FOR DETAILS OF CONCRETE JOINTS.



NOTES:

- CONTROL JOINT SPACING SHALL MATCH WIDTH OF SIDEWALK.
- ISOLATION JOINTS SHALL BE PLACED @ 250' CENTERS OR WHERE WALKS ABOUT CURBS, BUILDINGS, ETC....
- ALL EXTERIOR CONCRETE SHALL HAVE A BROOM FINISH.



100 Asphalt Pavement

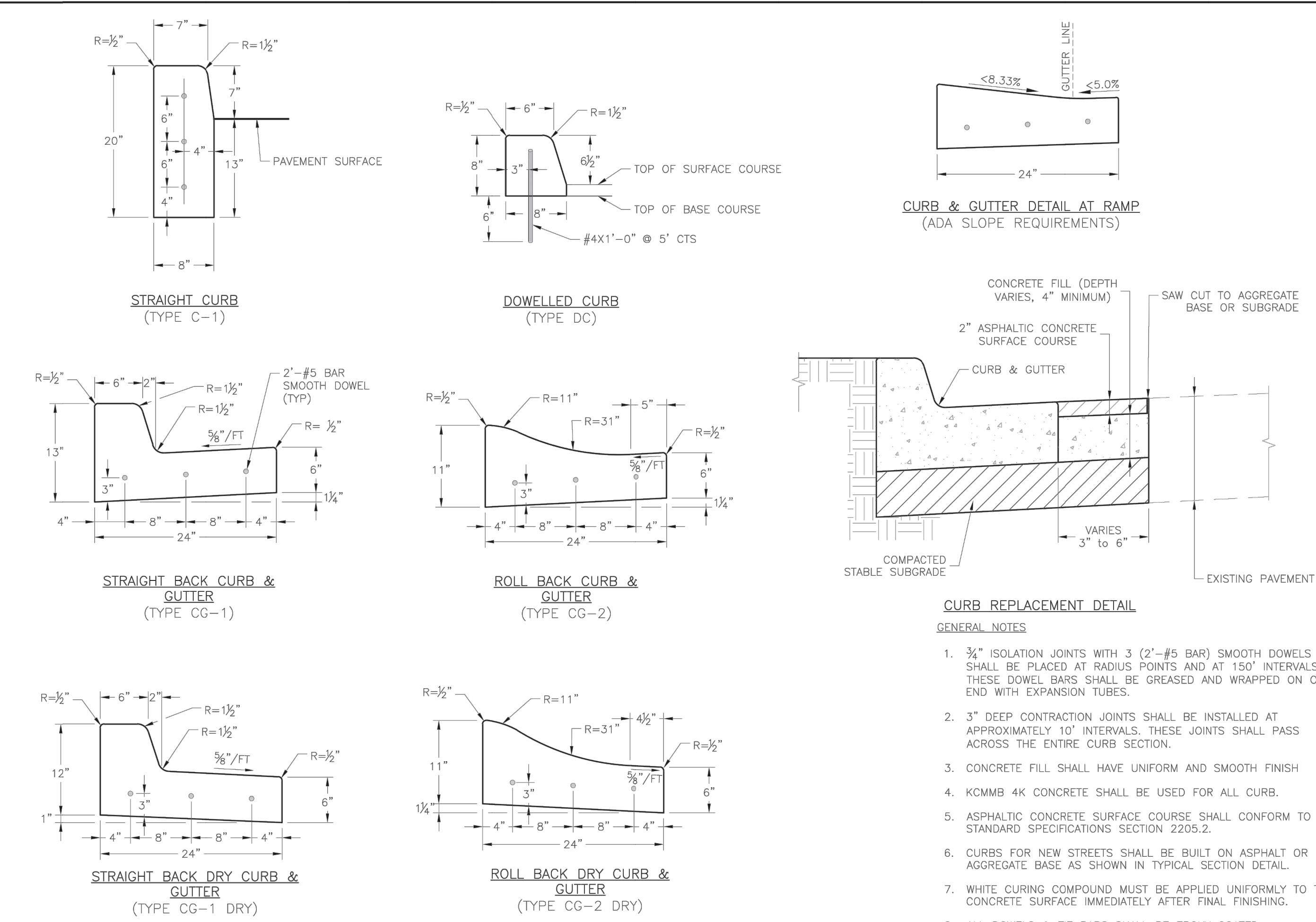
Not to Scale

101 Concrete Pavement

Not to Scale

102 Concrete Sidewalk

Not to Scale



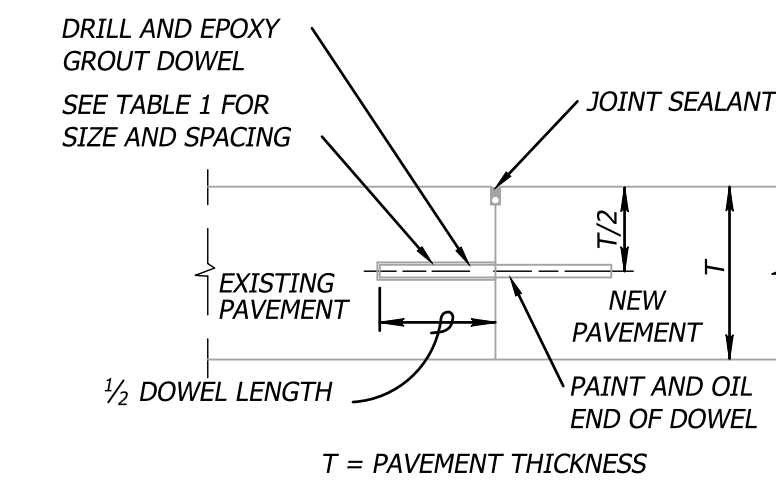
LEE'S SUMMIT
MISSOURI
PUBLIC WORKS ENGINEERING DIVISION | 1205 E. GREEN STREET | LEE'S SUMMIT, MO 64086

STANDARD DETAILS
CITY OF LEE'S SUMMIT, MO
LEE'S SUMMIT, JACKSON COUNTY, MO
CURB & GUTTER DETAIL

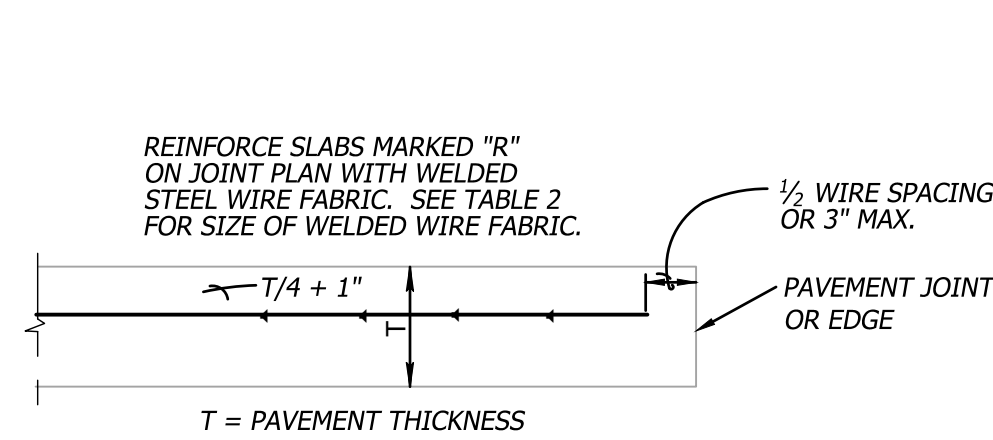
GEN-4

JOINTING AND DOWEL NOTES

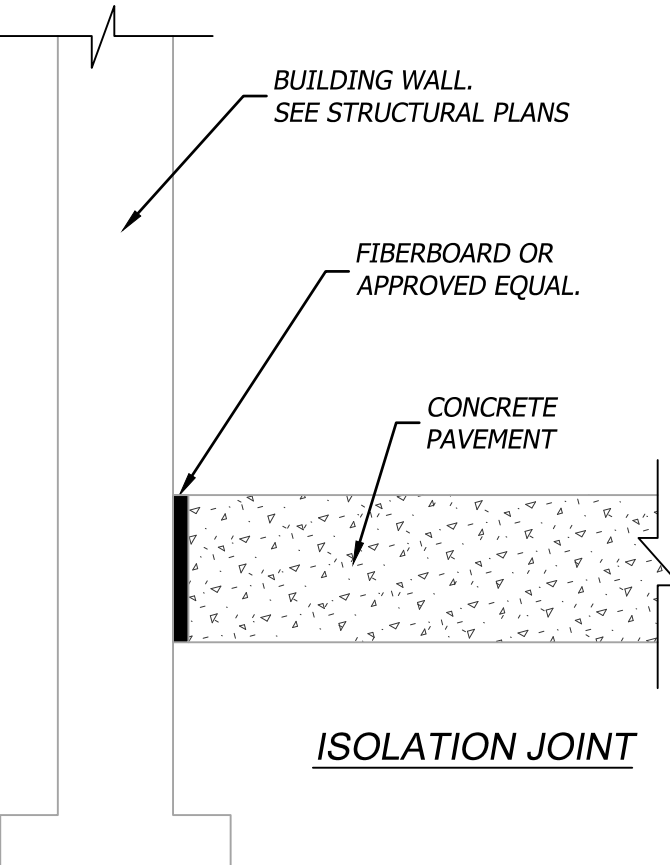
- WIDTH TO LENGTH RATIO OF SLABS NOT TO EXCEED 1.25 TIMES.
- LENGTH OF ANY PANEL TO NOT EXCEED 12.5 FEET IN PAVEMENT AREAS AND 10 FEET IN SIDEWALK AREAS.
- SLABS WHICH DO NOT FOLLOW THE WIDTH TO LENGTH RATIO ABOVE OR ARE NOT RECTANGULAR SHALL BE REINFORCED WITH STEEL WELDED WIRE FABRIC OF THE SIZES SHOWN IN TABLE 2. OTHER WWF SIZES MAY BE USED PROVIDED THE STEEL AREA (SQ INCHES/FOOT) IN THE LONGITUDINAL AND TRANSVERSE DIRECTIONS IS EQUAL TO OR EXCEEDS THAT SHOWN IN TABLE 2.
- EPOXY COATED DOWEL BARS SHALL BE DRILLED BY USE OF A MECHANICAL RIG. DRILLING BY HAND OR PUSHING DOWEL BARS INTO GREEN CONCRETE IS NOT ACCEPTABLE.
- DRILLING, CLEANING, AND GROUTING SHALL BE PERFORMED PER THE EPOXY MANUFACTURER'S REQUIREMENTS FOR THIS SPECIFIC APPLICATION.
- ASSURE SAW JOINTS ARE CLEAN AND DRY PRIOR TO THE APPLICATION OF THE JOINT SEALANT.
- FOR EPOXY GROUT, THE HOLE DIAMETER SHALL BE NOT MORE THAN 1/8" LARGER THAN DOWEL DIAMETER OR AS DIRECTED BY THE EPOXY MANUFACTURER.
- INSTALL CLOSED CELL BACKER RODS AFTER JOINTS HAVE BEEN CLEANED AND DRIED IN ACCORDANCE WITH SEALANT MANUFACTURER'S REQUIREMENTS.
- INSTALL BACKER ROD AT CONSISTENT AND UNIFORM DEPTH.
- JOINT SEALANT APPLICATION SHALL BE IN STRICT COMPLIANCE WITH SEALANT MANUFACTURER'S REQUIREMENTS.
- ALL JOINTS ALONG THE ACCESSIBLE ROUTE SHALL NOT EXCEED 1/4" IN WIDTH.
- CONTRACTOR TO INSTALL BULKHEAD AND DOWEL EXPANSION JOINTS AT DAY'S END POUR.



DOWELED JOINT BETWEEN
NEW & EXISTING PAVEMENT (CONSTRUCTION JOINT)

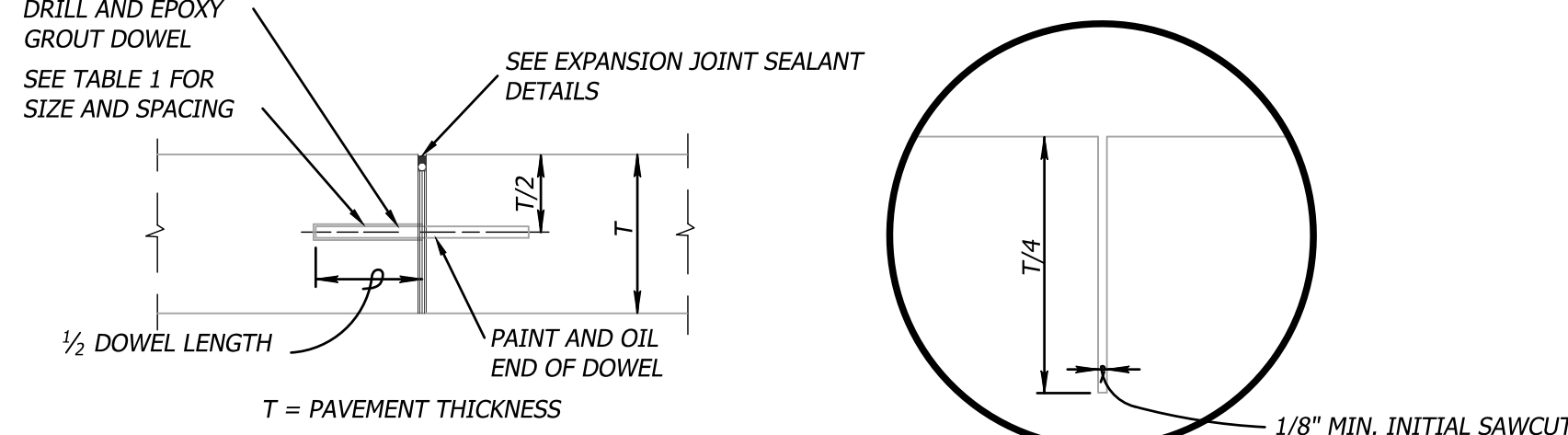


SLAB REINFORCING DETAIL

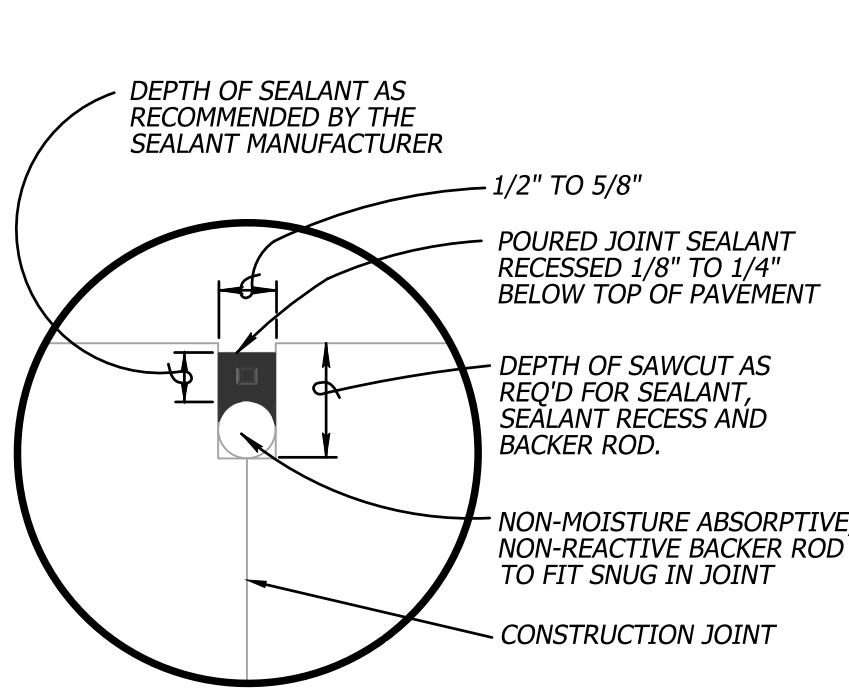


105 Concrete Pavement Joints

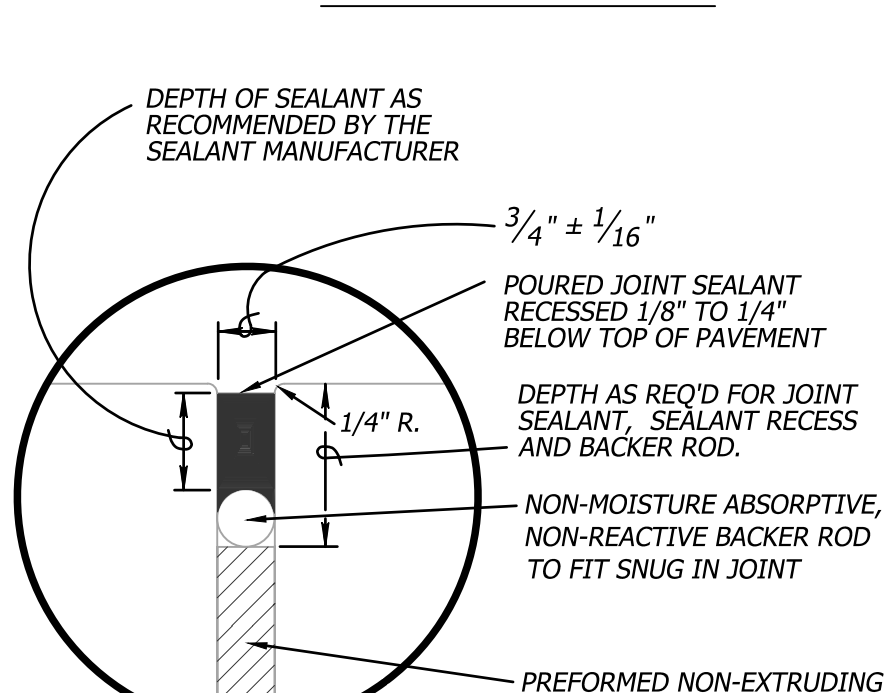
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DOWELED EXPANSION JOINT



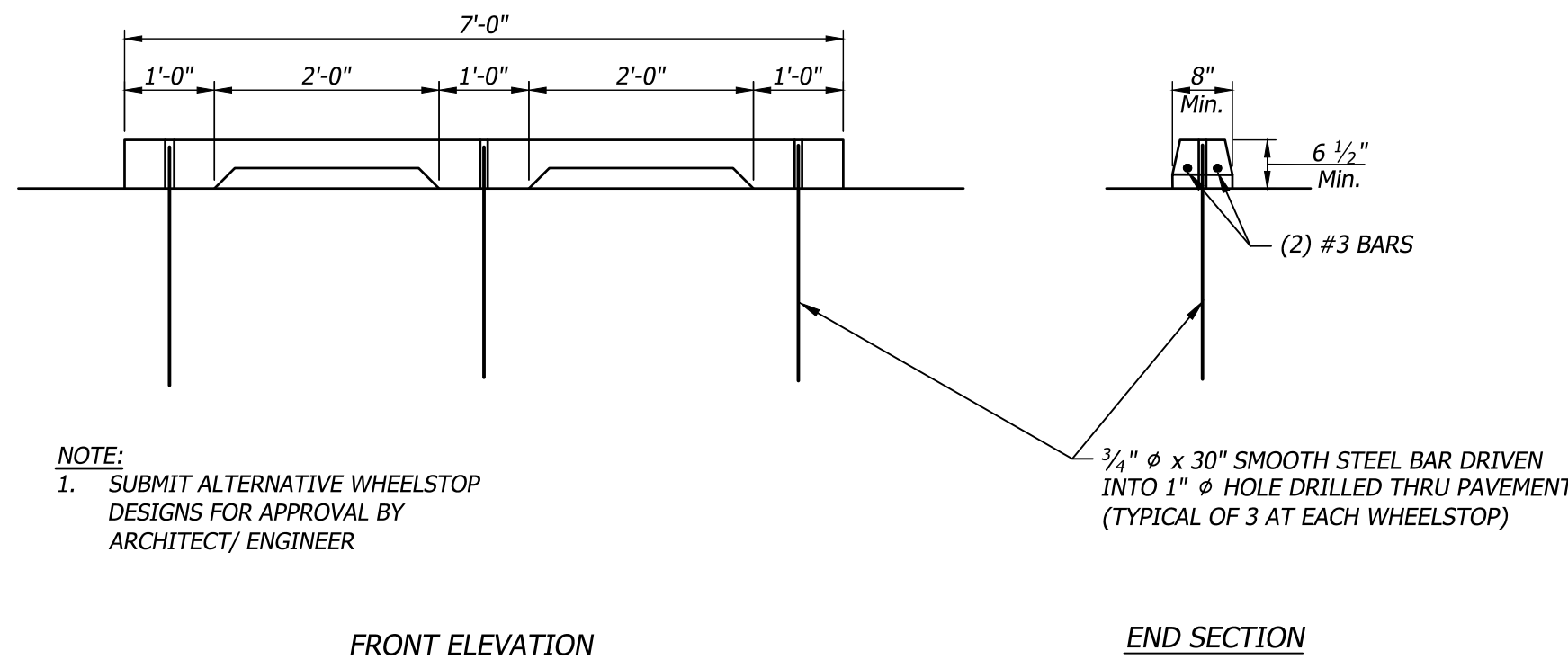
COMPLETED CONSTRUCTION
JOINT SEALANT DETAIL



COMPLETED EXPANSION
JOINT SEALANT DETAIL

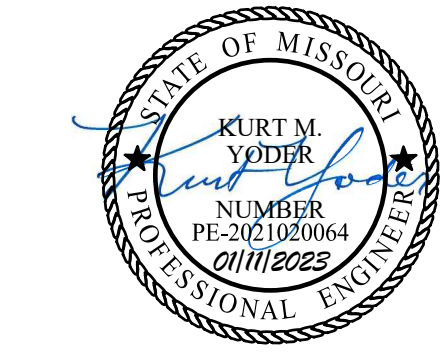
103 Concrete Curb & Gutter (CG-1)

Not to Scale



104 Concrete Wheelstop

Not to Scale



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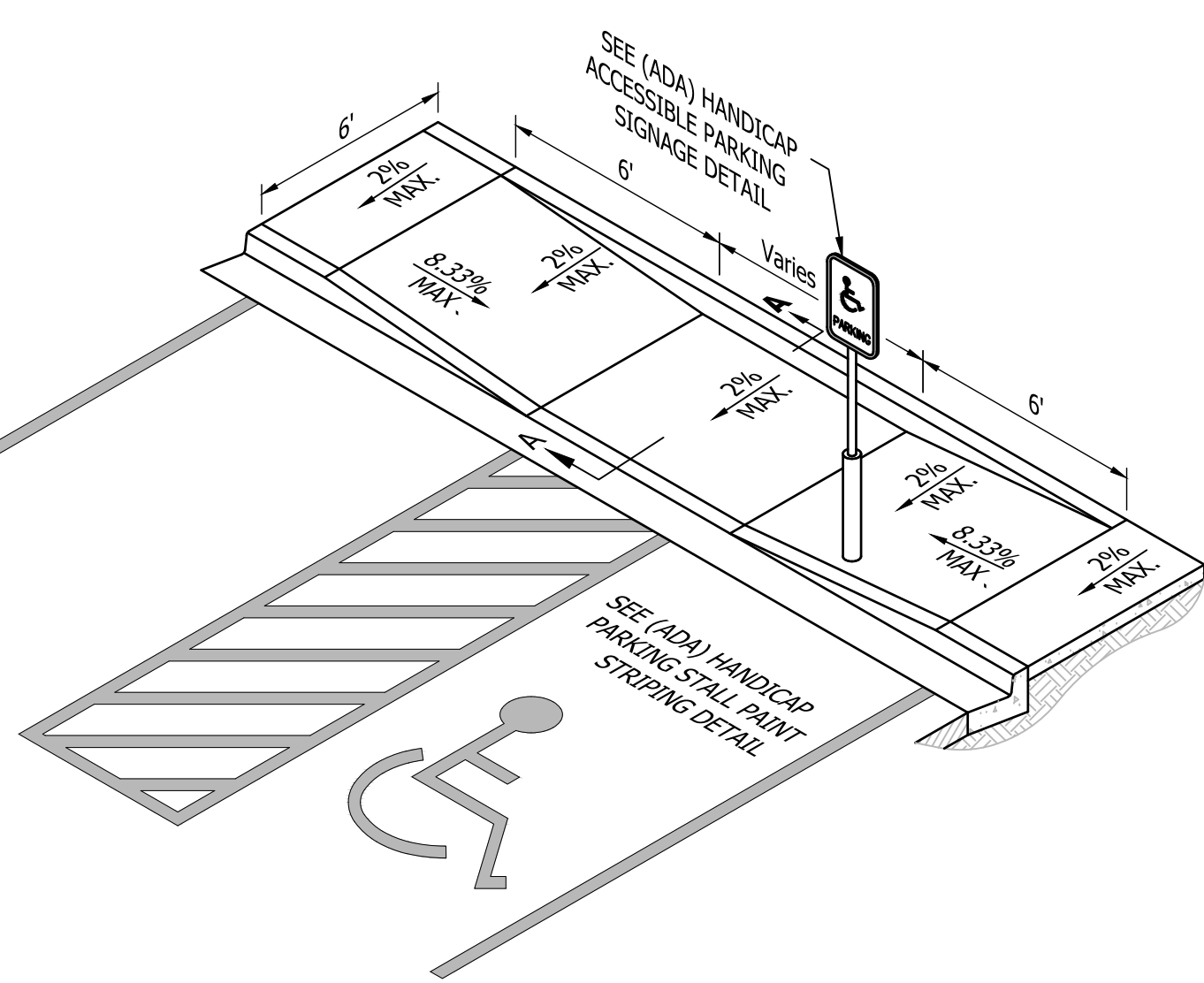
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Job Number 3-21037
Drawn By KMY
Checked By KMY

Revision
Number Date Description

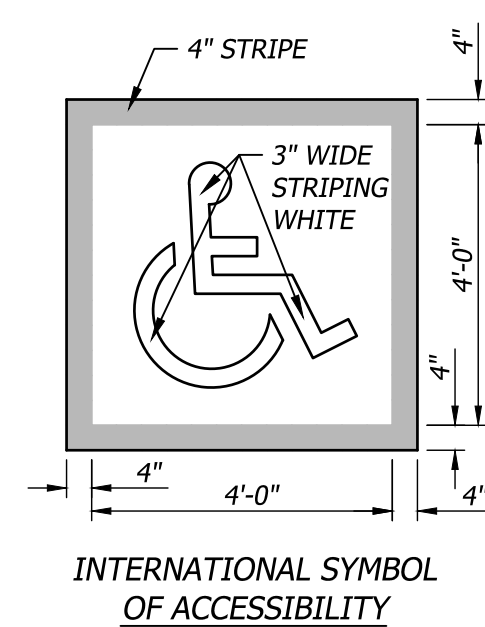
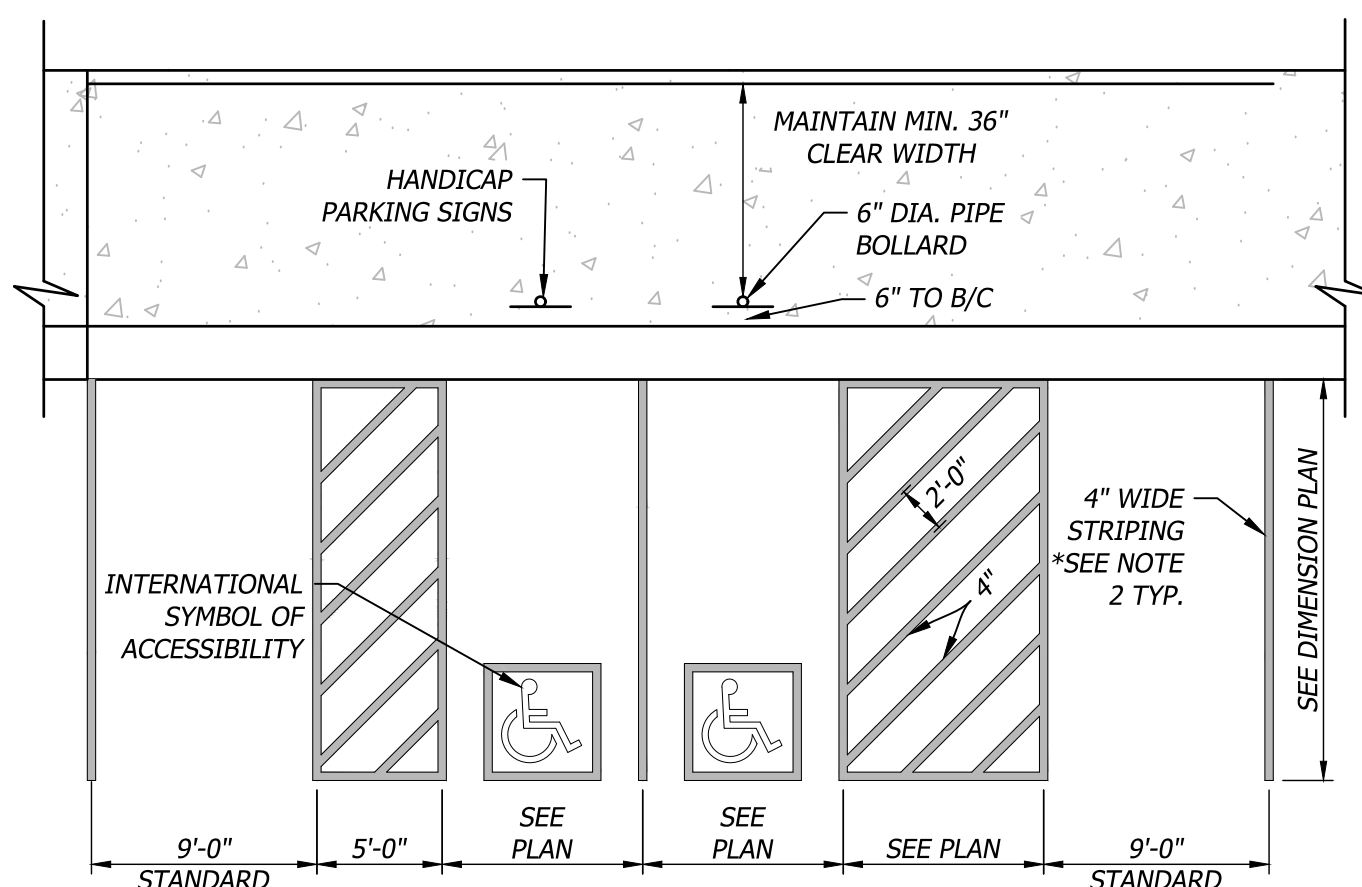
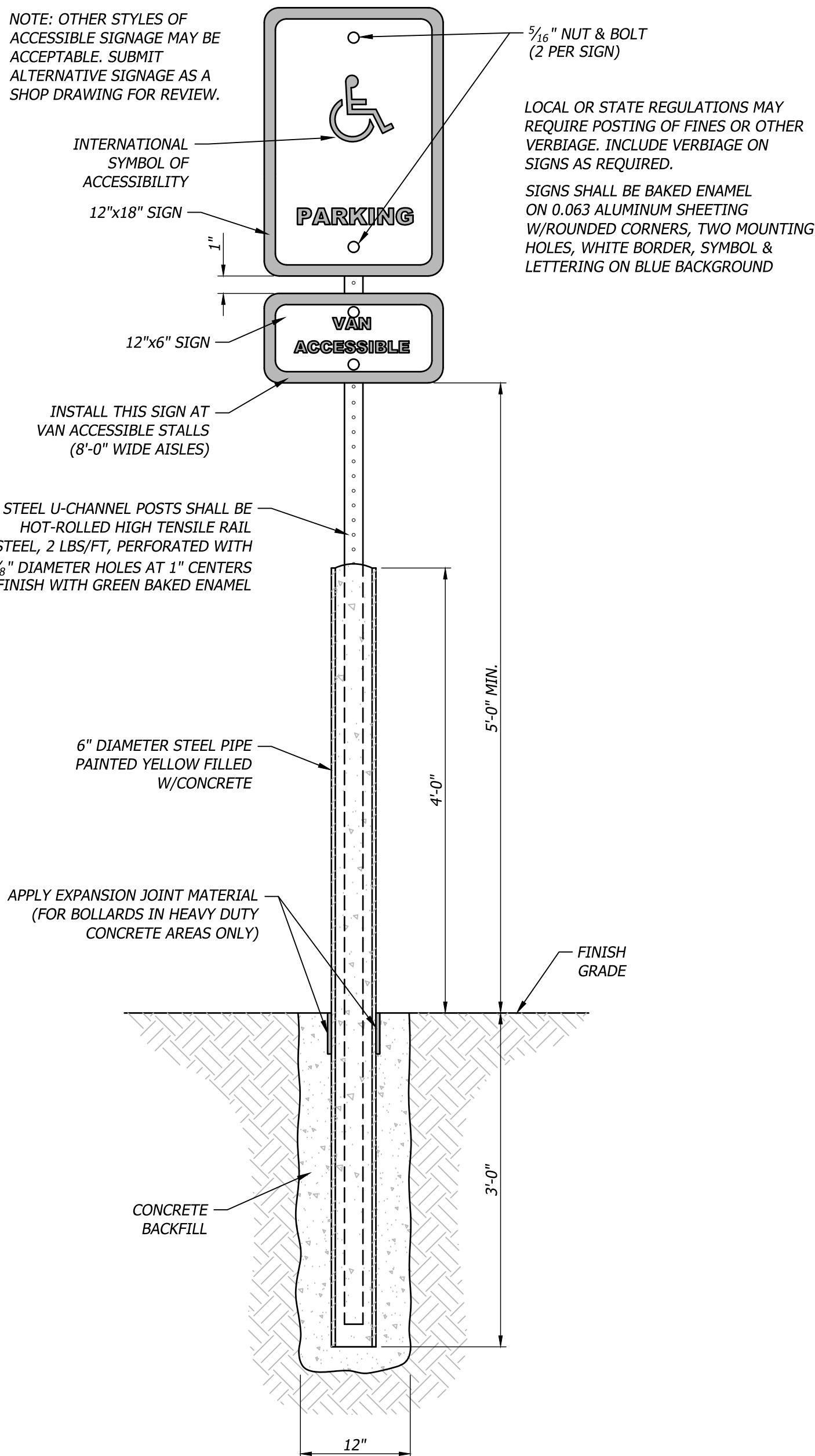
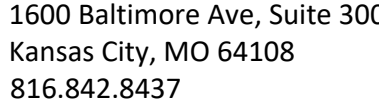
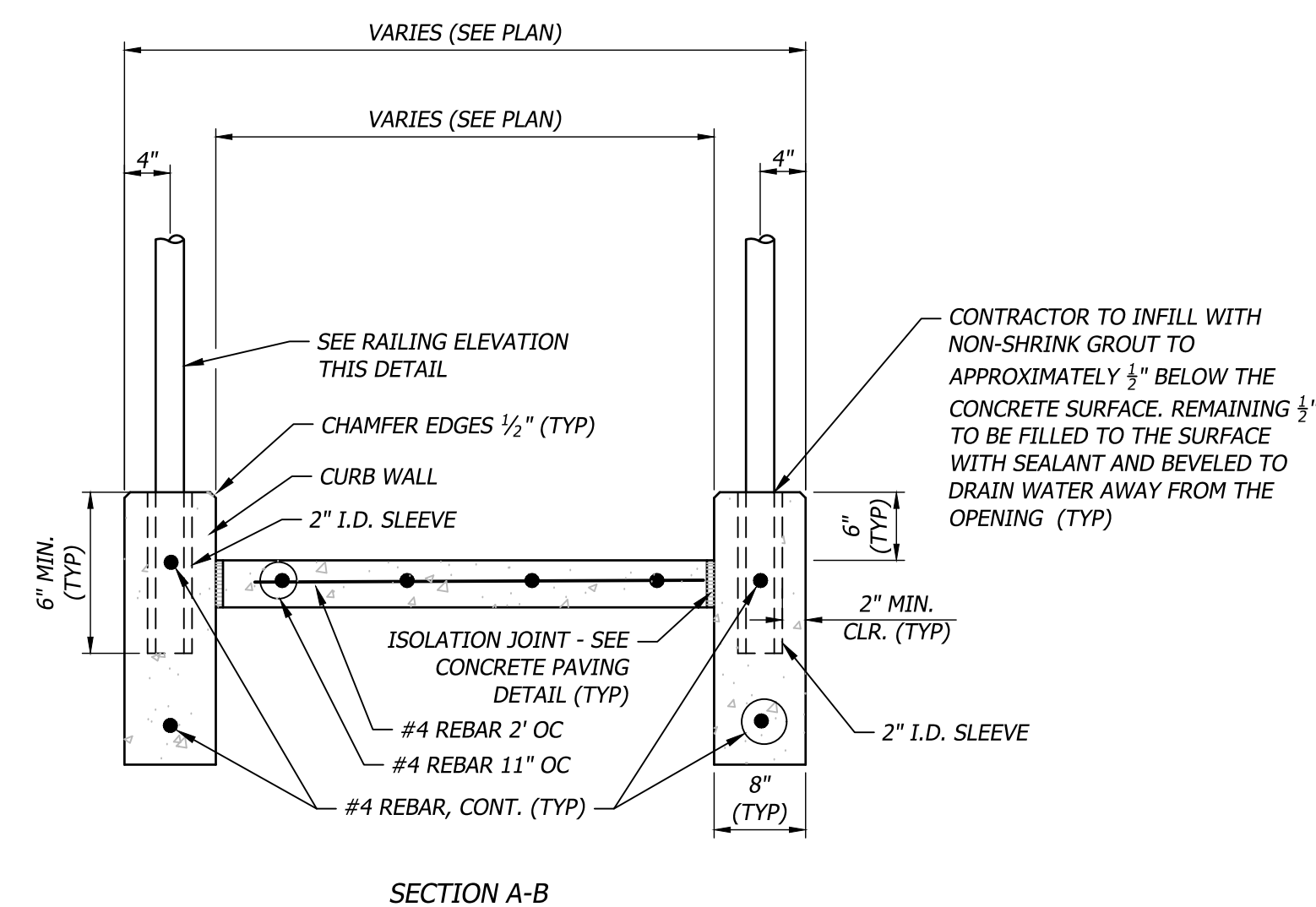
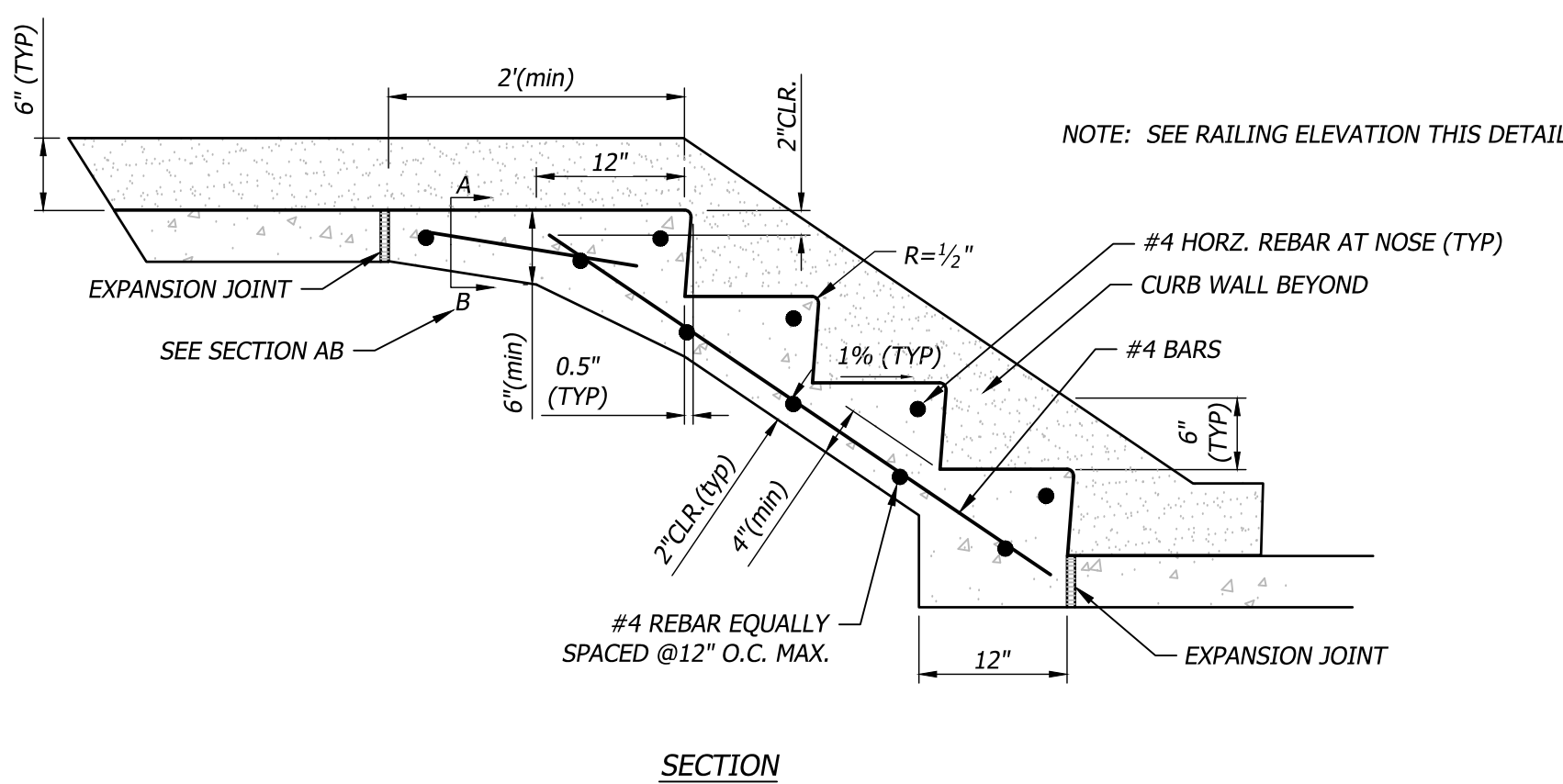
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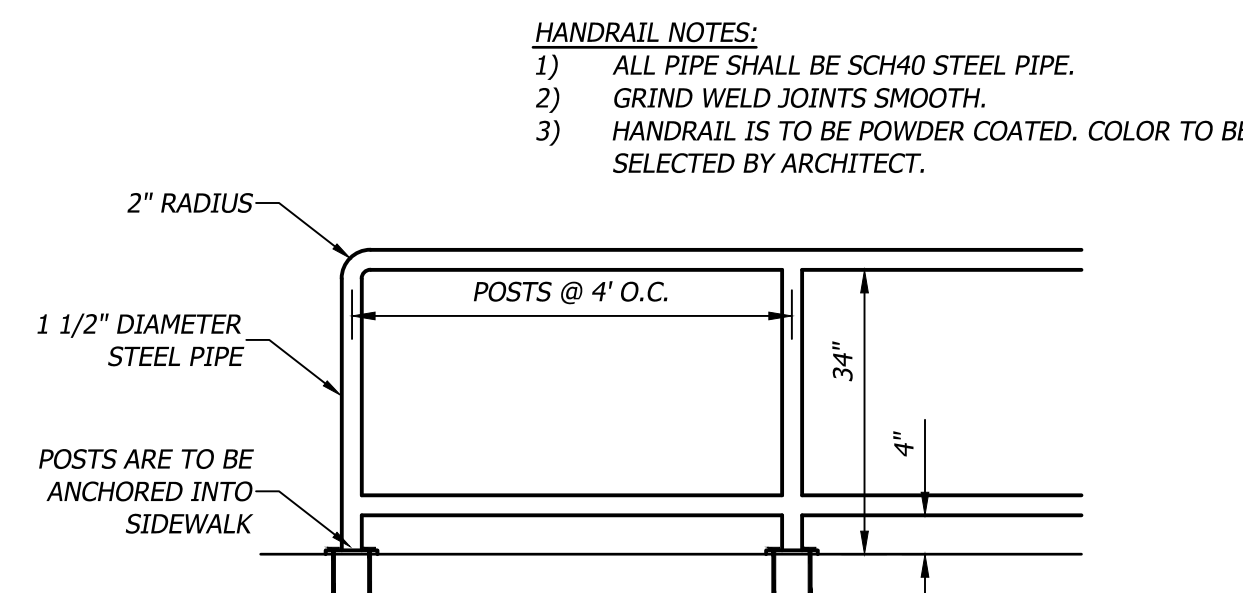
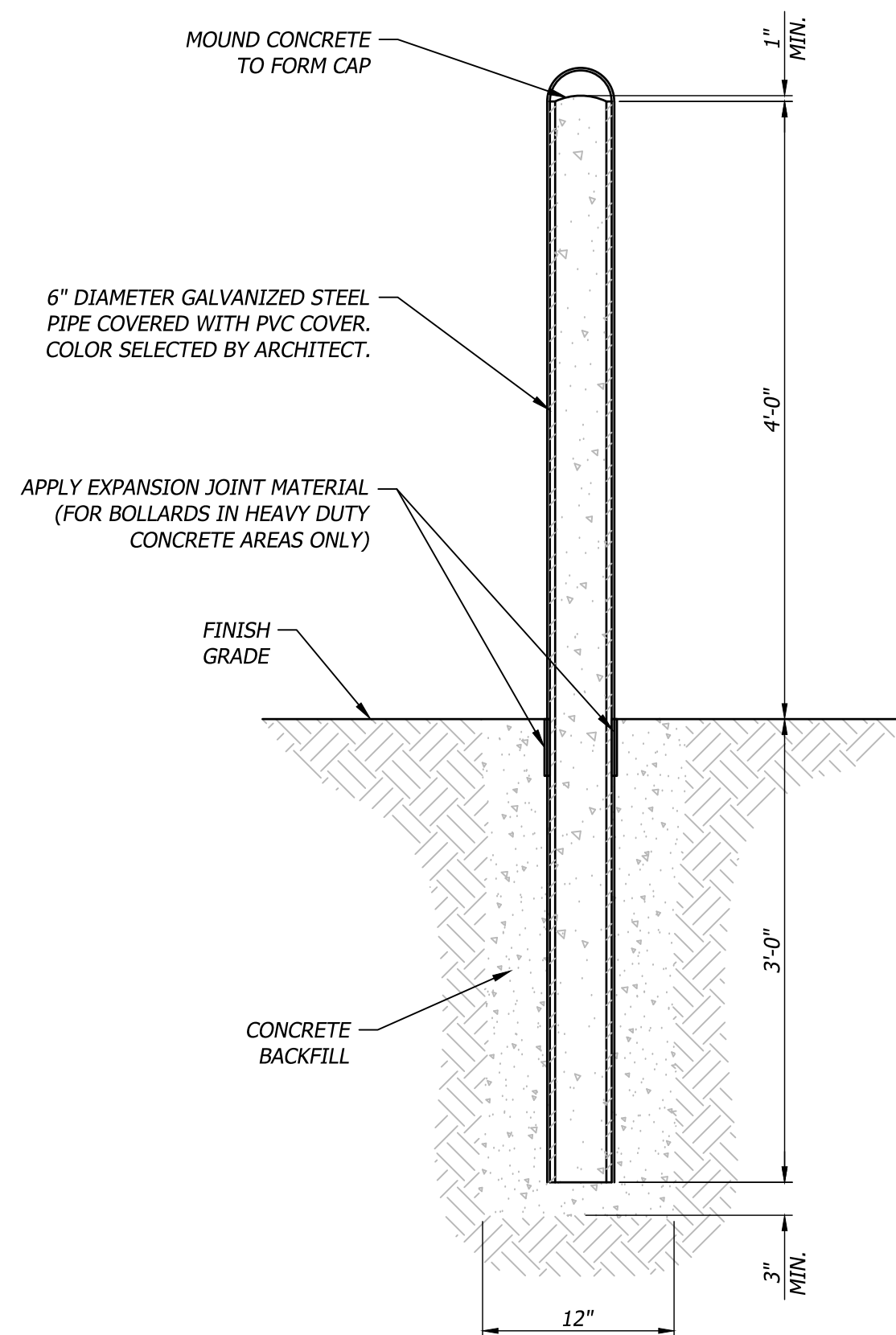
CIVIL DETAILS 1



- GENERAL NOTES:**
1. PLACE TRUNCATED DOME DETECTABLE WARNING PANELS @ BASE OF CURB RAMP.
INSTALL ACROSS FULL WIDTH OF RAMP 24" MIN. DEPTH.
 2. TOOLED JOINTS ARE REQUIRED AT ALL SIDEWALK RAMP SLOPE BREAKS.
 3. THICKEN CONCRETE UNDER DETECTABLE WARNING PANEL.
 4. IN FREEZE THAW ZONES, LEAVE $\frac{1}{8}$ " GAP IN BETWEEN PANELS & SEAL W/ SIKAFLEX 1 SEALANT OR APPROVED EQUAL.



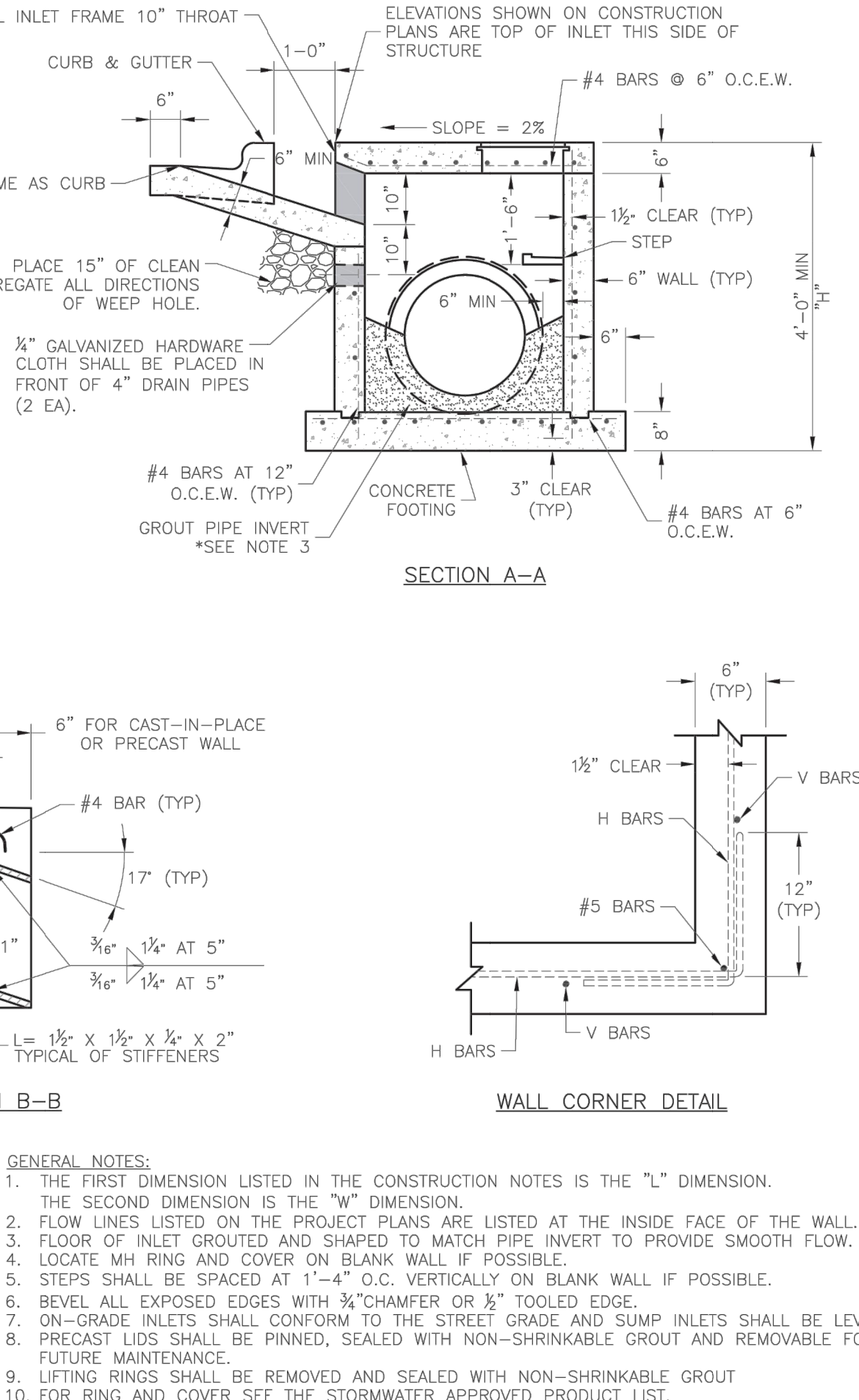
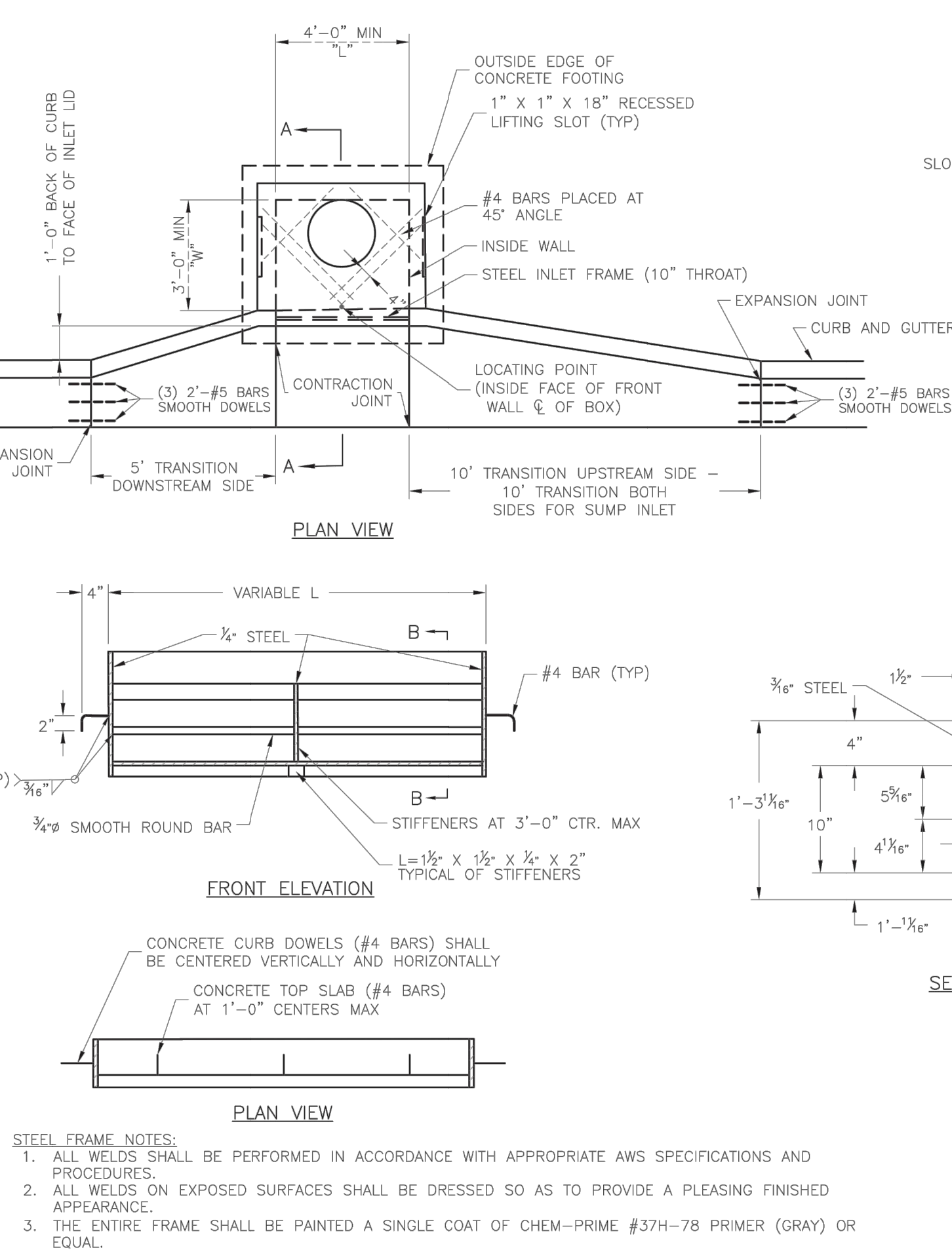
- NOTE:**
1. SEE SITE GRADING AND DRAINAGE PLAN FOR PAVEMENT AND CURB ELEVATIONS, AND ASSOCIATED ALLOWABLE SLOPES FOR ACCESSIBLE PARKING



- NOTES:
1. SIGN TO BE 12x18 ALUMINUM SIGN.
 2. BOTTOM OF SIGN TO BE 60" ABOVE FINISHED GRADE.



Jan 11, 2023 - 12:15pm Plotted By: kurt.yoder V:\033570-et_klee east\04-dwg\Eng\Sheet\FDP\033570-SHRS-DTLS.dwg Layout: Civil Details 3



LS

LEE'S SUMMIT

MISSOURI

STANDARD DETAILS

CITY OF LEE'S SUMMIT, MO

LEE'S SUMMIT, JACKSON COUNTY, MO

PROJECT NUMBER

CURB INLET DETAIL

Drawn By: MAF

Checked By: DL

Date: 05/2023

File No:

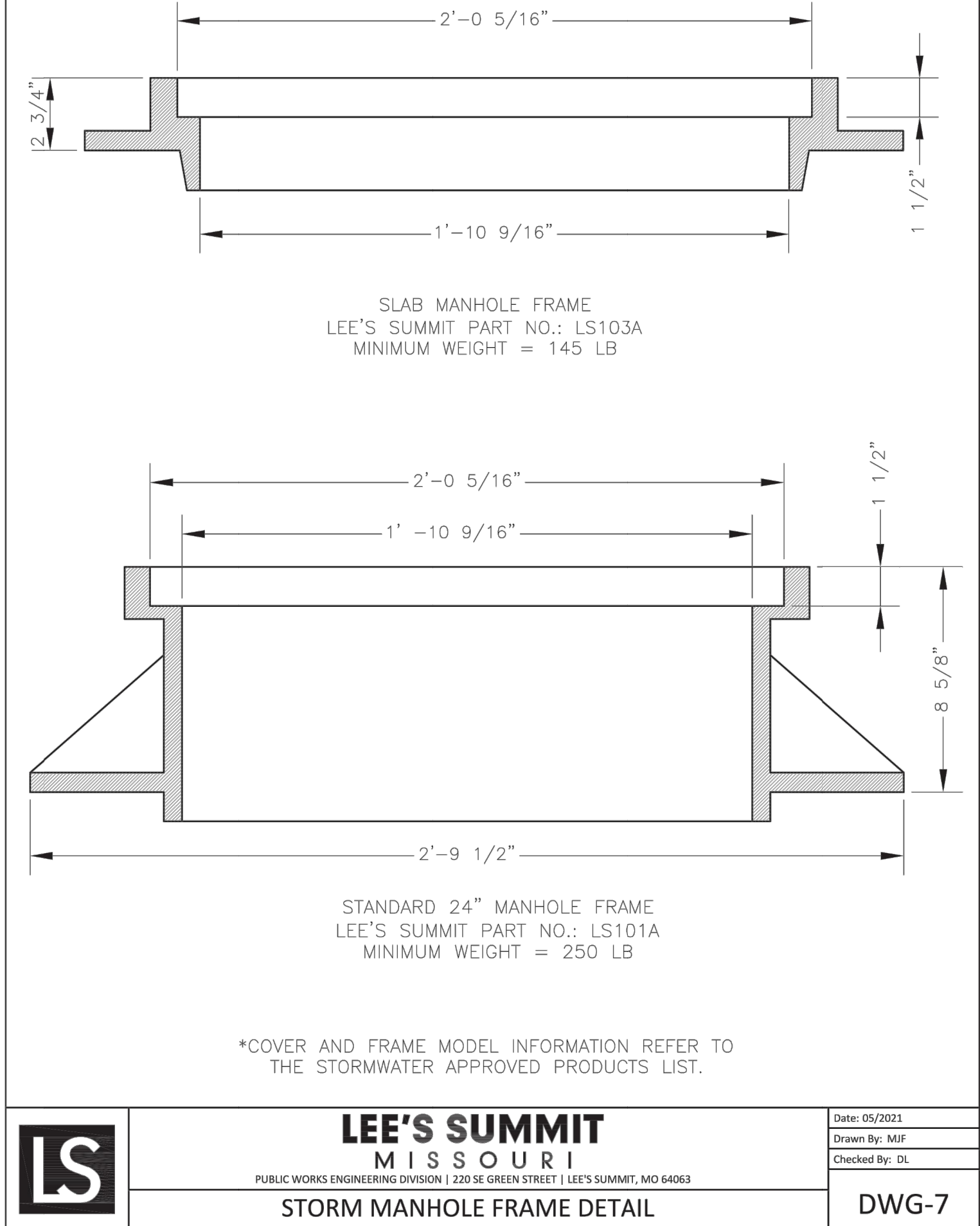
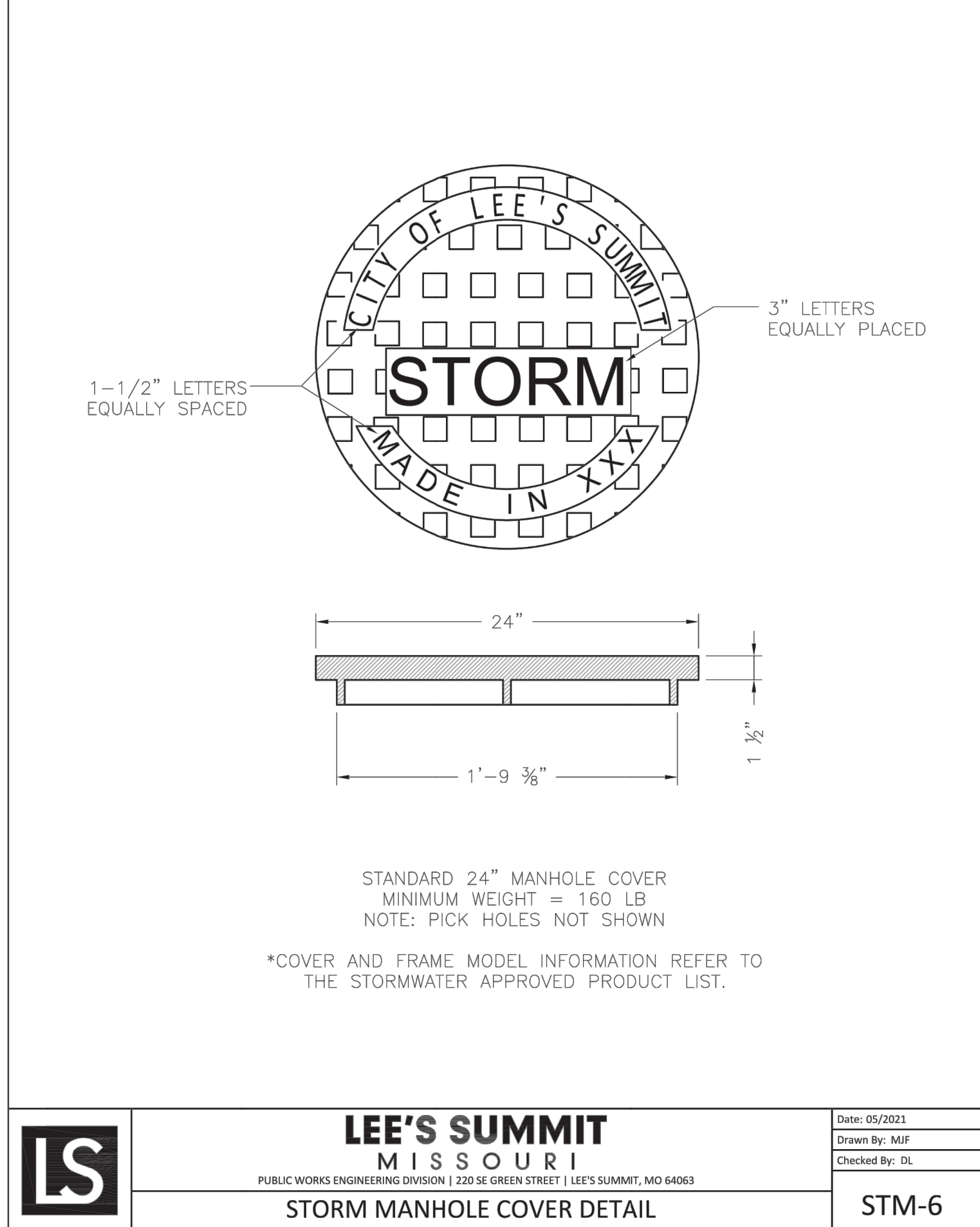
STM-1

203
Not to Scale

Curb Inlet

201
Not to Scale

Junction Box



LS

LEE'S SUMMIT

MISSOURI

STANDARD DETAILS

CITY OF LEE'S SUMMIT, MO

LEE'S SUMMIT, JACKSON COUNTY, MO

PROJECT NUMBER

STORM MANHOLE FRAME DETAIL

Drawn By: MAF

Checked By: DL

Date: 05/2023

File No:

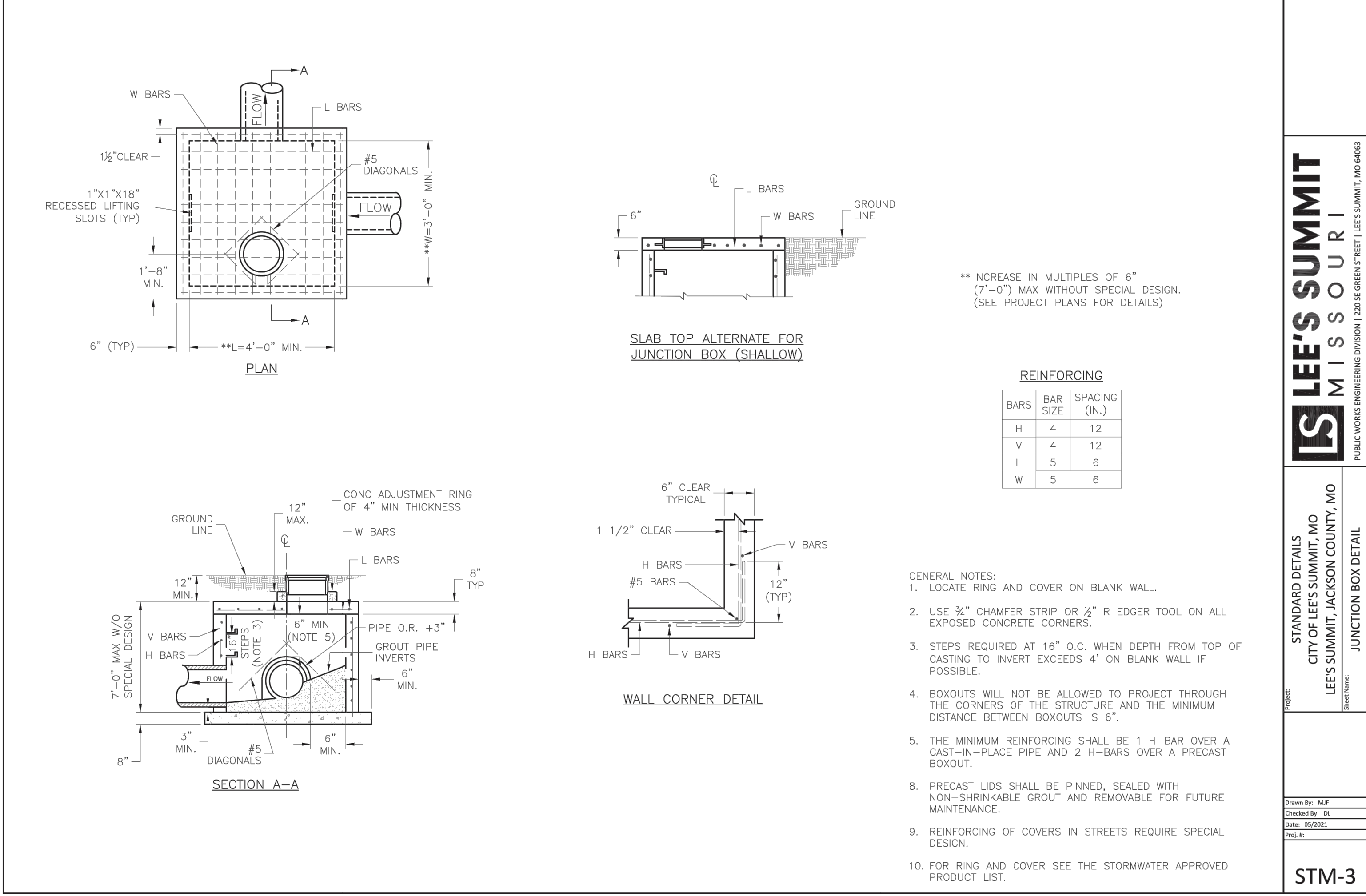
DWG-7

203
Not to Scale

Curb Inlet

202
Not to Scale

Area Inlet



LS

LEE'S SUMMIT

MISSOURI

STANDARD DETAILS

CITY OF LEE'S SUMMIT, MO

LEE'S SUMMIT, JACKSON COUNTY, MO

PROJECT NUMBER

JUNCTION BOX DETAIL

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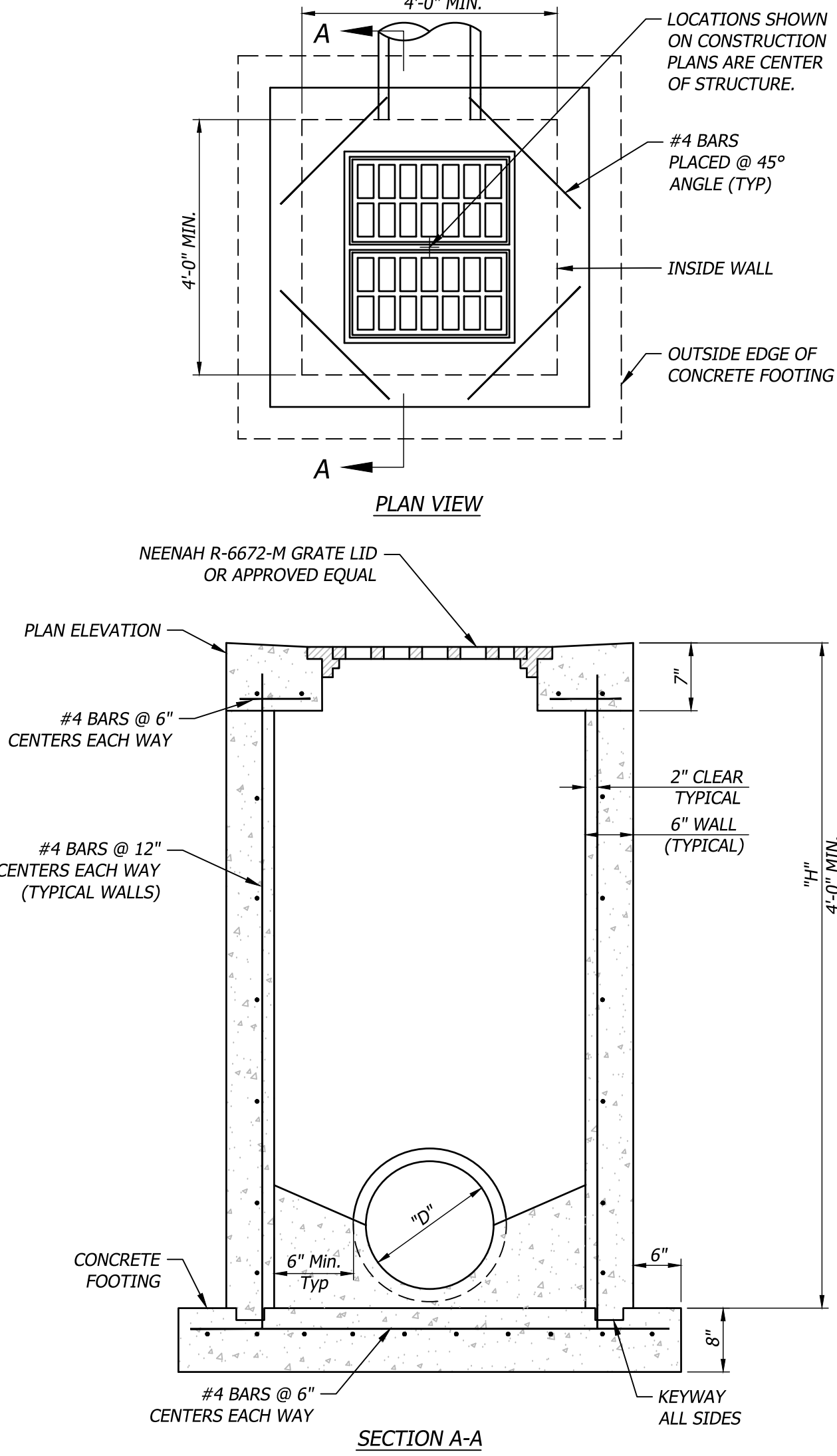
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Date: 05/2023

File No:

STM-3

- NOTES
- ALL CONCRETE SHALL BE 4000 PSI.
 - THE FIRST DIMENSION LISTED IN THE CONSTRUCTION NOTES IS THE "L" DIMENSION. THE SECOND DIMENSION IS THE "W" DIMENSION.
 - FLOOR OF INLET SHALL BE SHAPED WITH NON-REINFORCED CONCRETE INVERT TO PROVIDE SMOOTH FLOW.
 - EXPANSION JOINTS SHALL BE EITHER HOT OR COLD POURED JOINT SEALING COMPOUND, OR PREMOLED EXPANSION JOINT FILLER.
 - STEEL INLET FRAME SPACERS SHALL BE PLACED AT EQUAL SPACINGS NOT TO EXCEED 4'-0".
 - BEVEL ALL EXPOSED EDGES WITH TRIANGULAR MOLDING.
 - ALL DIMENSIONS RELATIVE TO REINFORCING STEEL ARE TO CENTERLINE OF BARS. 2" CLEARANCE SHALL BE PROVIDED THROUGHOUT UNLESS NOTED OTHERWISE. TOLERANCE OF $\pm 1/8"$ SHALL BE PERMITTED.
 - ALL LAP SPLICES NOT SHOWN SHALL BE A MINIMUM OF 40 BAR DIAMETERS IN LENGTH.
 - ALL DOWELS SHALL BE ACCURATELY PLACED AND SECURELY TIED IN PLACE PRIOR TO PLACEMENT OF BOTTOM SLAB CONCRETE. STICKING OF DOWELS INTO FRESH OR PARTIALLY HARDENED CONCRETE WILL NOT BE ACCEPTABLE.
 - ALL REINFORCING STEEL SHALL BE SUPPORTED ON FABRICATED STEEL BAR SUPPORTS @ 3'-0" MAXIMUM SPACING.
 - DO NOT SCALE THESE DRAWINGS FOR DIMENSIONS OR CLEARANCES. ANY QUESTIONS REGARDING DIMENSIONS SHALL BE BROUGHT TO THE ATTENTION OF THE ENGINEER PRIOR TO CONSTRUCTION.
 - THE BOTTOM SLAB SHALL BE AT LEAST 24 HOURS OLD BEFORE PLACING SIDEWALL CONCRETE. ALL SIDEWALL FORMS SHALL REMAIN IN PLACE A MINIMUM OF 24 HOURS AFTER SIDEWALLS ARE POURED BEFORE REMOVAL, AND AFTER REMOVAL SHALL BE IMMEDIATELY TREATED WITH MEMBRANE CURING COMPOUND.
 - RCP CONNECTIONS TO PRECAST STRUCTURES SHALL HAVE A MINIMUM OF 6" OF CONCRETE AROUND THE ENTIRE PIPE WITHIN 2' OF THE STRUCTURE.
 - THE CONCRETE THICKNESS AND REINFORCEMENT SHOWN IS FOR BOXES WITH (11'x4') AND (8'x4') LESS THAN OR EQUAL TO 10'. FOR BOXES WITH EITHER OF THESE CALCULATIONS GREATER THAN 20, A SPECIAL DESIGN IS REQUIRED.



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PE-2021020064

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Saint Luke's

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Lee's Summit, MO 64086

Construction Documents

Date

12/22/2022

Job Number

3-21037

Drawn By

KMY

Checked By

KMY

Revision

Number

Date

Description

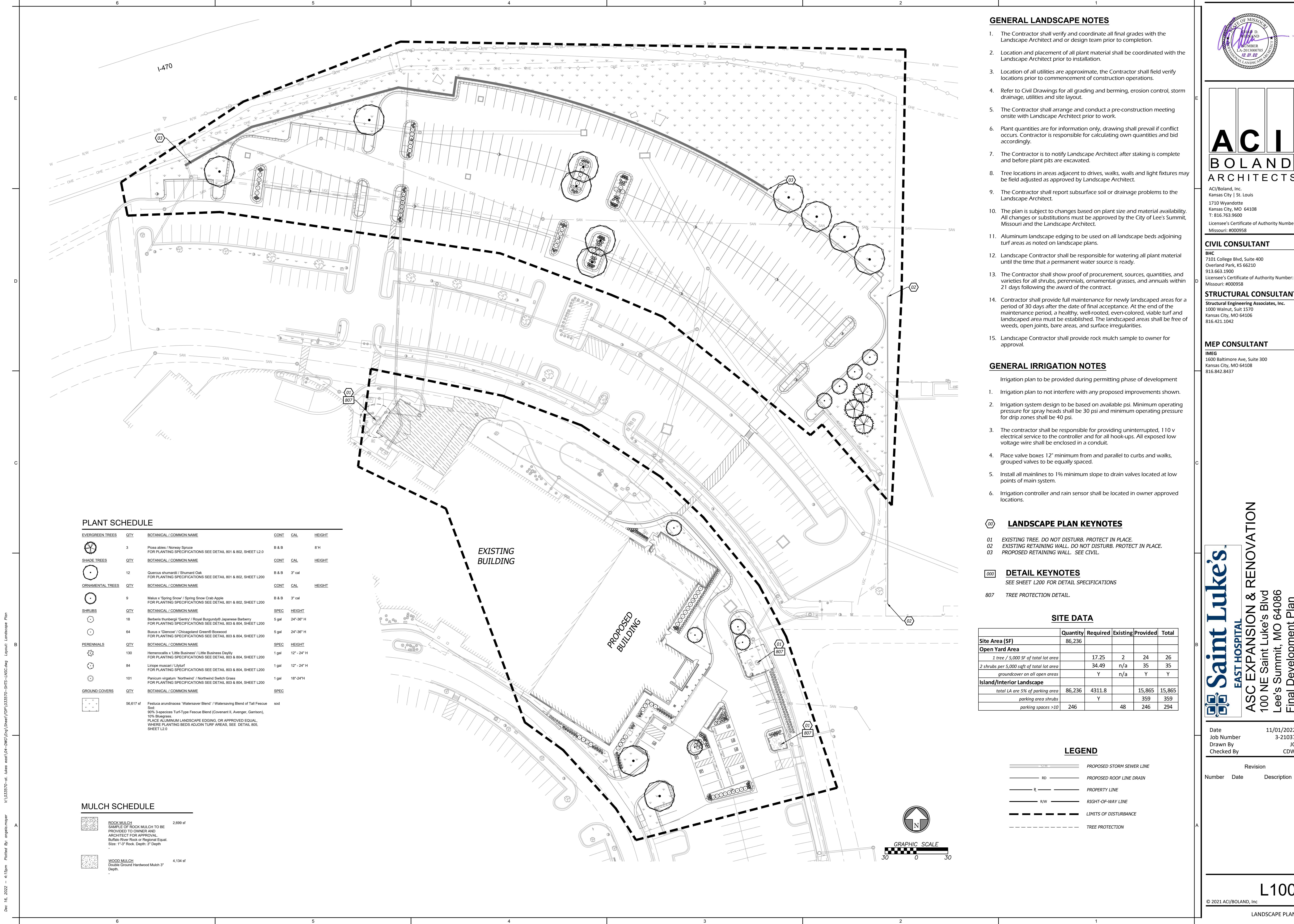
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CIVIL DETAILS 3



Dec 16, 2022 - 4:15pm Plotted By: angela.moyer V:\032570-01- lukes east\04-DWG\Eng\Sheet\JPA\032570-SH05-MSD.dwg Layout: Landscape Plan



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Final Development Plan

Date 11/01/2022
Job Number 3-21037
Drawn By JG
Checked By CDW

Revision
Number Date Description

L100

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LANDSCAPE PLAN

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6

4

3

2

1

E

D

C

B

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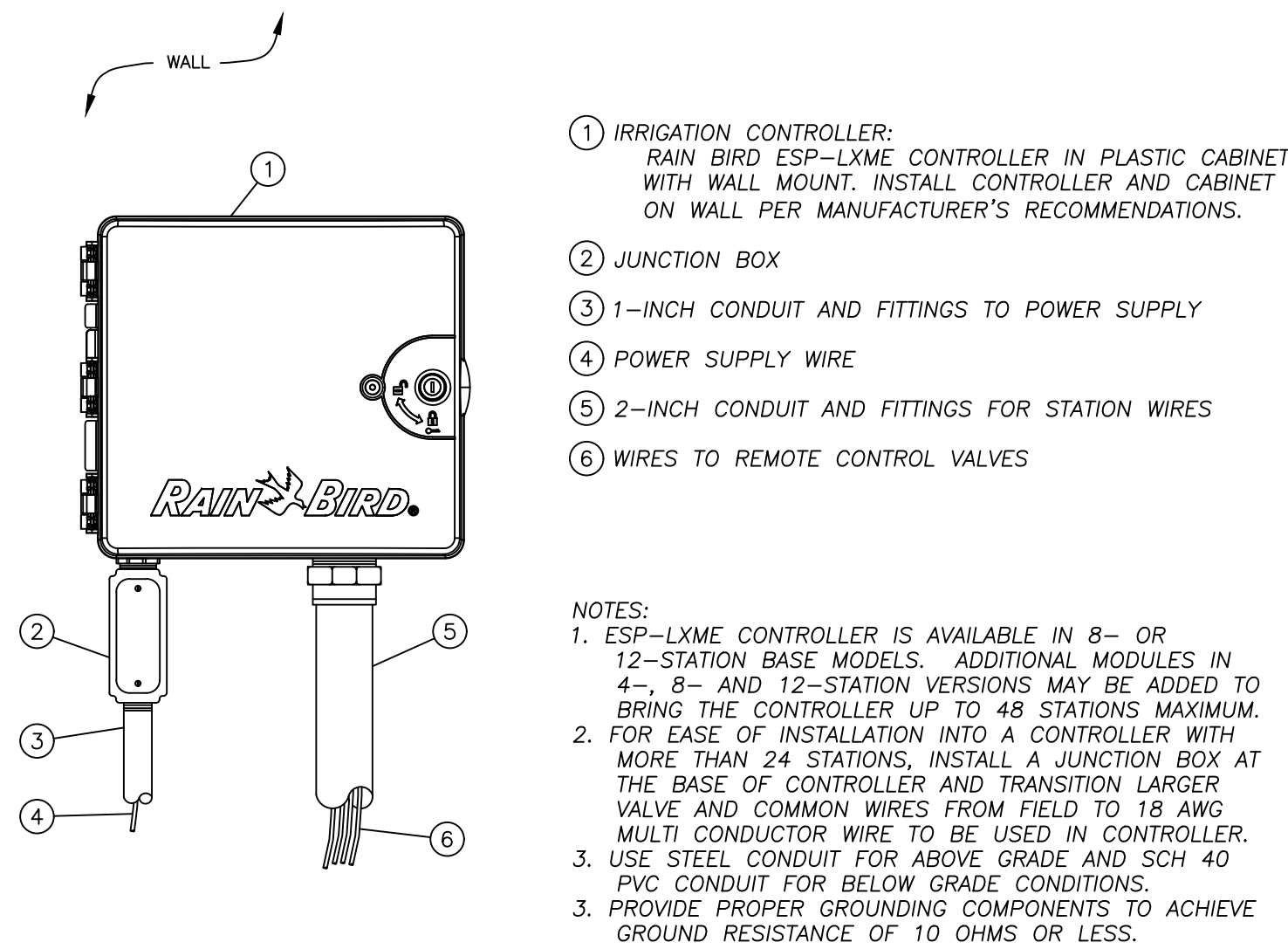
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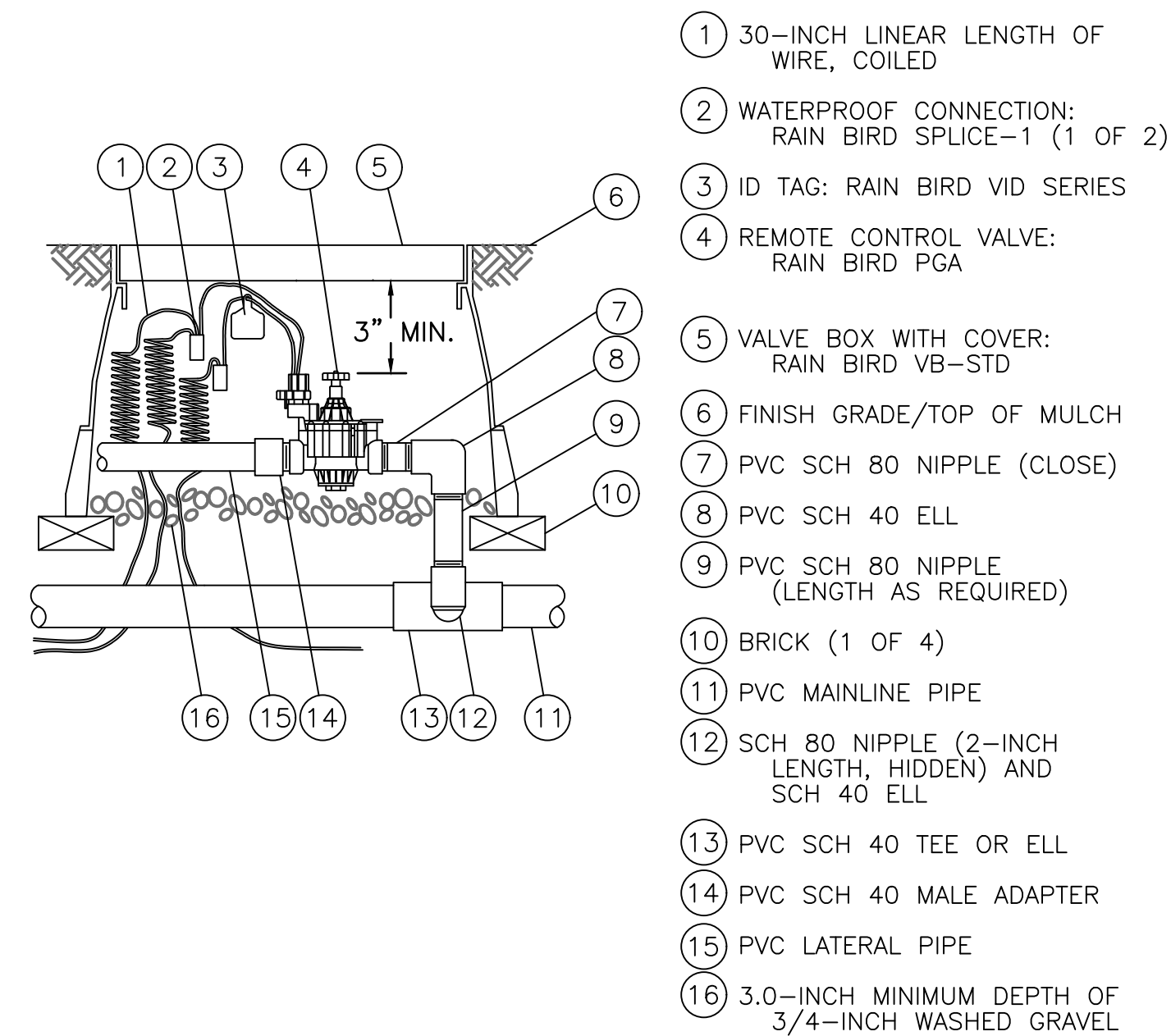
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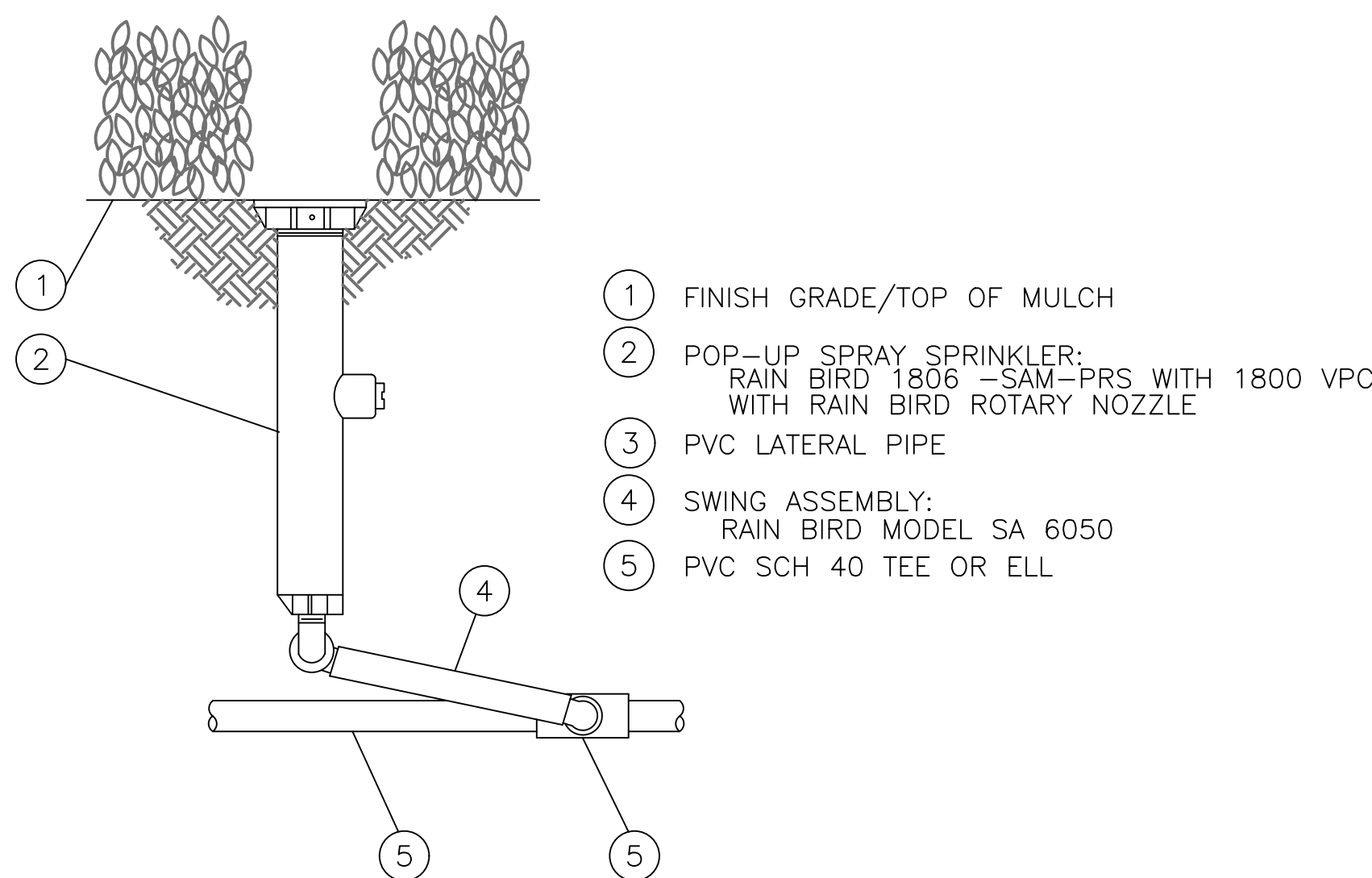
901 RAINBIRD ESP-LXME CONTRILLER DETAIL

Not to Scale



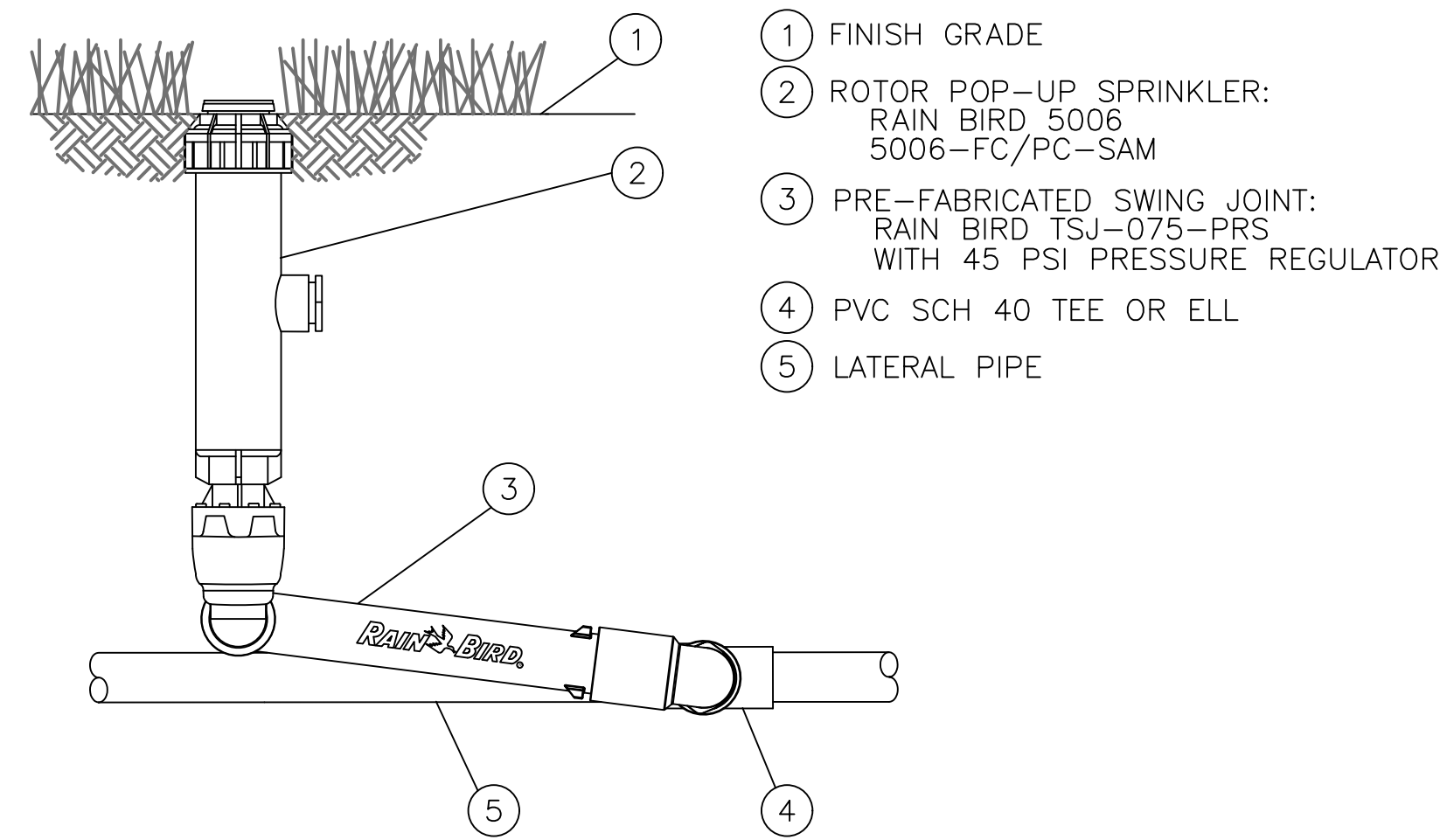
902 RAINBIRD REMOTE CONTROL VALVE DETAIL

Not to Scale



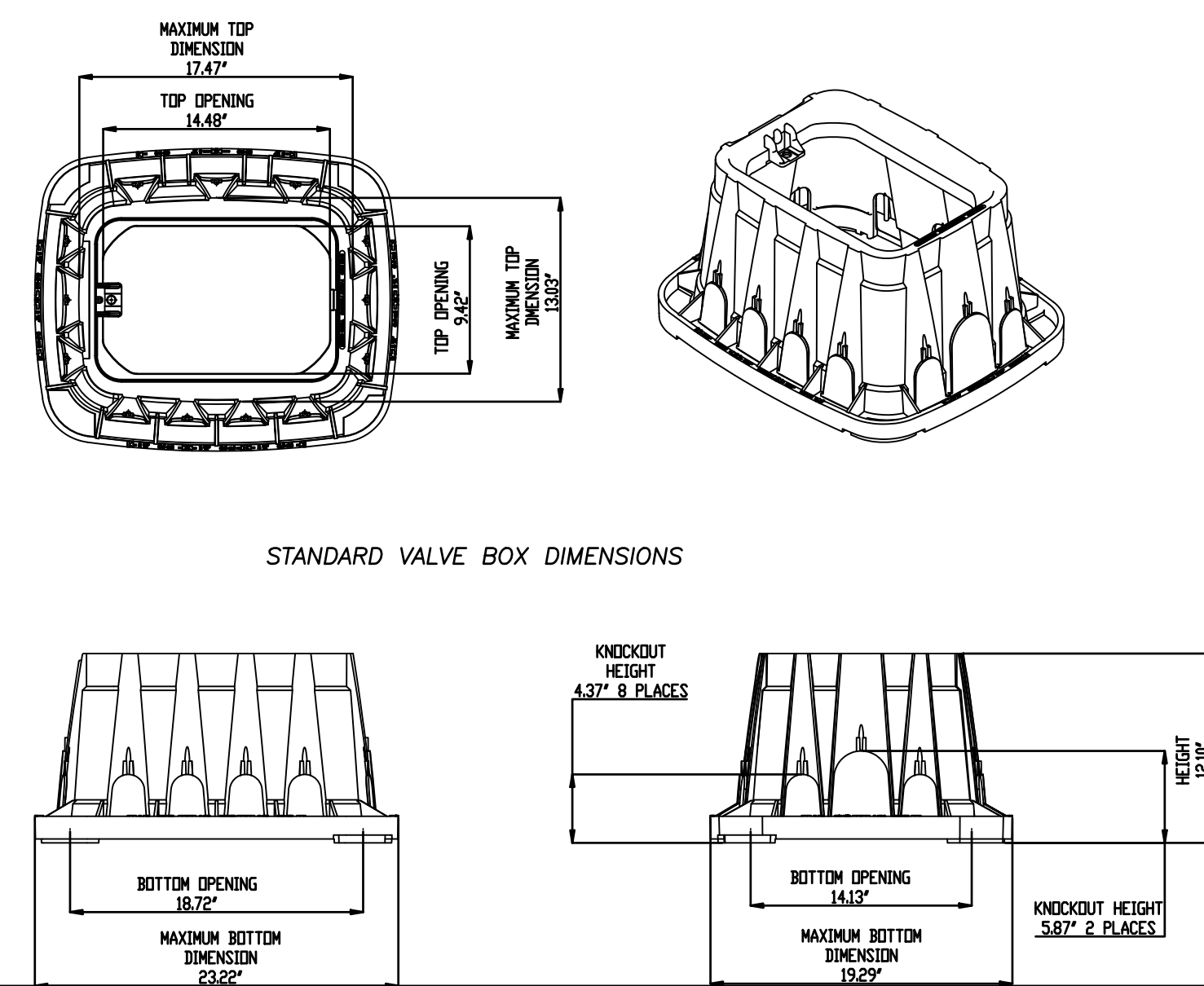
903 POP-UP SPRINKLER W/SWING PIPE DETAIL

Not to Scale



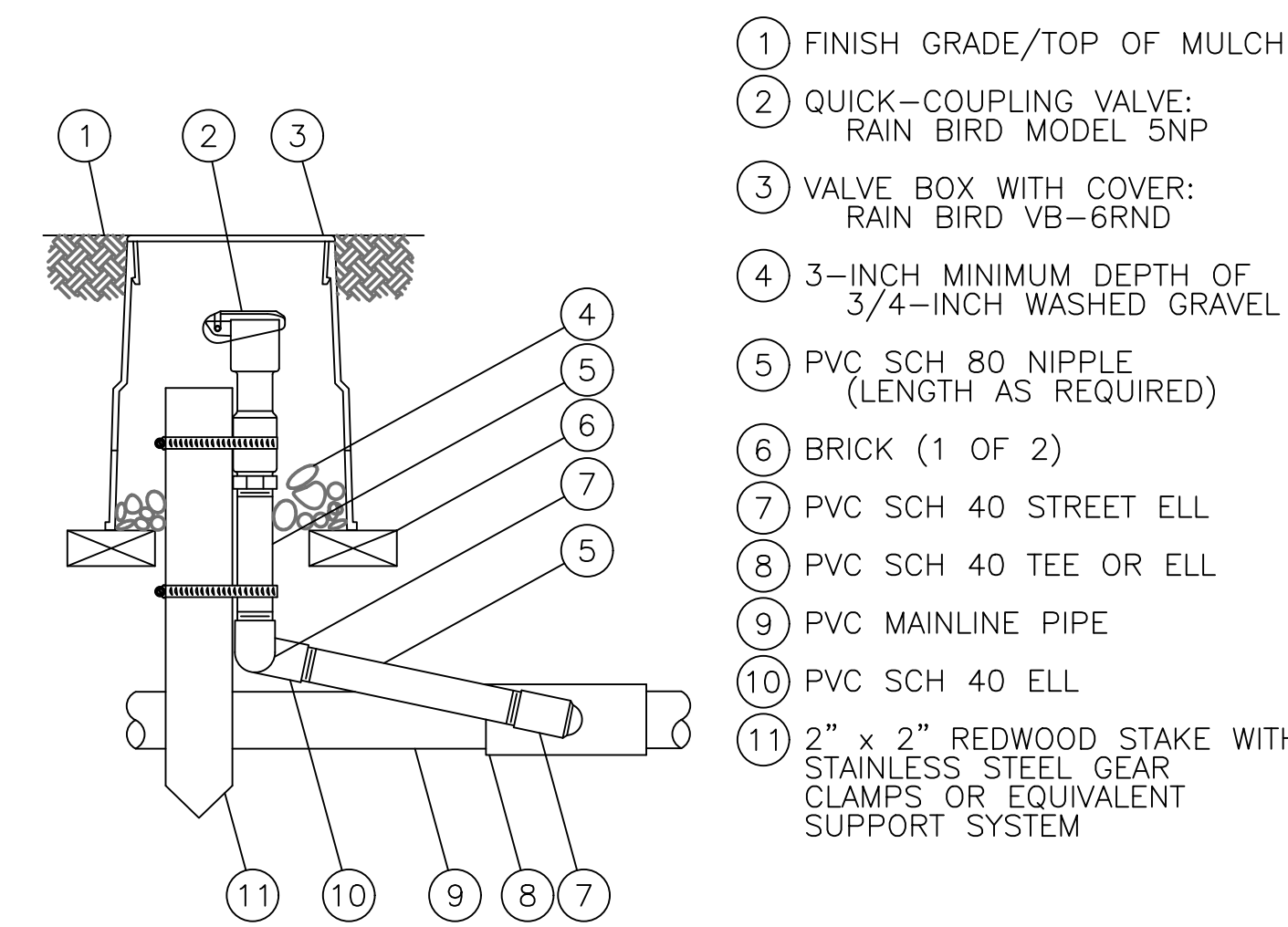
904 RAINBIRD ROTOR POP-UP SPRINKLER DETAIL

Not to Scale



905 STANDARD VALVE BOX DETAIL

Not to Scale



NOTE:
FURNISH FITTINGS AND PIPING NOMINALLY SIZED IDENTICAL TO
NOMINAL QUICK COUPLING VALVE INLET SIZE.

906 RAIN BIRD QUICK COUPLER VALVE DETAIL

Not to Scale

IRRIGATION NOTES

- The system design assumes a minimum available static pressure for the irrigation system of 75 psi at the 1 inch meter. Contractor to verify pressure and flow on site prior to construction and report and discrepancies between these assumptions and actual field conditions in writing to the owner's representative.
- Read thoroughly and become familiar with the specifications and instillation details for this and related work prior to construction.
- Coordinate location and marking of underground utilities prior to construction. Notify the owner's representative of any conflict with any underground utility.
- Do not proceed with the instillation of the irrigation system when it is obvious in the field that obstructions or grade differences existing that might not have been considered in the engineering, or if discrepancies in construction details, legend, notes, or specifications are discovered. Bring all such obstructions or discrepancies to the attention of the owner's representative in writing prior to construction.
- These drawings are diagrammatic, therefore, the following should be noted:
 - Avoid conflicts between the irrigation system, planting materials and architectural features. Install irrigation pipe and wiring in landscaped areas whenever possible.
 - Use only standard tees and elbow fittings. use of cross type fittings is not permitted.
 - Irrigation pipe and valves may be shown outside of the planting area, in the hardscape, or outside of property lines for graphic clarity only. Install all irrigation components within landscapes areas or through sleeving and within the property boundary.
- Provide the following components to the owner's representative prior to the completion of the project.
 - Two operating keys for each type of manually operated valves.
 - Two of each servicing wrench or tool needed for complete access, adjustment, and repair of all sprinklers and emitters.
- Select nozzles for spray and rotary sprinklers with arcs that provide complete and uniform coverage with minimum overspray for the site conditions. To minimize overspray, install pressure compensating nozzles or pressure compensating screens if uniform lateral pressure cannot be attained with pressure adjustment at the remote control valve. Carefully adjust the radius of the throw and arc of coverage of each spray and rotary sprinkler to provide the best performance.
- The irrigation contractor is responsible for coordinating with the general contractor for the instillation of irrigation sleeving. All sleeving will be schedule 40 PVC. All pipe and wire will be installed in separate sleeves at all paved surfaces, sidewalks, driveways, walls, footings, and hardscape areas. All sleeves may not be shown and/or sized in the plans. The general contractor is responsible for coordinating with the irrigation contractor for the instillation of all required sleeving, proper sizing, and coordinating instillation of sleeving with other trades. Any pipe or wire which passes beneath existing hardscape where sleeving was not installed, requires horizontal boring by the irrigation contractor. Sleeve and conduit sizes shall be a minimum of twice the aggregate diameter of all pipe and wire contained within sleeve or conduit pipe. Minimum sleeve size is 2-inch. Indicate all sleeve locations on "as-built" record drawings.
- Coordinate and install all electrical power to the irrigation control system in accordance with the national electric code and all applicable local electric utility codes.
- Gate valves shall be ported to provide for full flow. Labeled and nominal size of valve opening shall be the same.
- All materials and workmanship shall be true to type, form, finish and of the highest standards of the trade. Damaged or inferior materials shall be removed from the site without delay.
- Install pressure regulating module for all drip valve assemblies, set discharge pressure to 35 psi.
- Install irrigation pipe and components a minimum of 8 feet from tree root balls. Pipe routings shown on drawings are diagrammatic.
- Provide #12-1 AWG bare copper tracing wire along the entire mainline routing. Provide 24 inch coil of tracing wire in each valve box along mainline routing.
- Contractor shall furnish and install material and equipment pertaining to the irrigation system herein specified or shown on the drawings. This shall include all items necessary to complete installation.
- Irrigation contractor to cap all flush ends hand tight prior to backfill.
- Irrigation contractor shall coordinate work with planting plans to avoid conflicting locations between piping and plant pits.
- All materials shall be installed as detailed in the plans. If the contract drawings and/or specifications do not thoroughly describe the method or techniques to be used, then the contractor shall install as per manufacturers specifications. If a contradiction occurs, notify the landscape architect immediately.
- Irrigation contractor to use Teflon tape on all threaded joints.
- No pipes shall be installed parallel and directly over another line.
- Brand each valve box with 1" lettering showing zone number and controller letter. This stamp is to match the zone and controller associates with the valve's operation.
- Contractor shall perform the following:
 - Visit site and verify existing grades, construction and conditions.
 - Notify landscape architect of discrepancies between plan and field conditions.
 - Restore contractor damaged existing work to the satisfaction of the engineer or landscape architect without cost to the owner.
 - Be satisfied that the plan can be constructed, functional and complete.
- All equipment shall be maintained while under construction. Maintenance includes: water scheduling, replacement of defective or damaged equipment, adjustment and re-adjustment of heads and other equipment.
- Contractor to ensure the following:
 - Lines and valves are to be placed within planting beds and project limits. These plans are schematic. contractor shall size all pipe.
 - 100% coverage of irrigation system to all plants regardless of size or type and shall confirm all non-irrigated areas prior to submitting a bid.
- Install two (2) spare #14-1 AWG control wires for each unused station and one spare #12-1 AWG common wire from the respective controller to this location for use as a spare wires in each remote control valve box along the entire wire routing for this controller. Seal wire ends water tight and contain within valve box at this location.
- Should field adjustments be made to the site plan, irrigation contractor shall make all necessary adjustments to the irrigation system to ensure proper functionality. Landscape architect is to be notified of any and all changes made to the irrigation system, prior to instillation of said changes.



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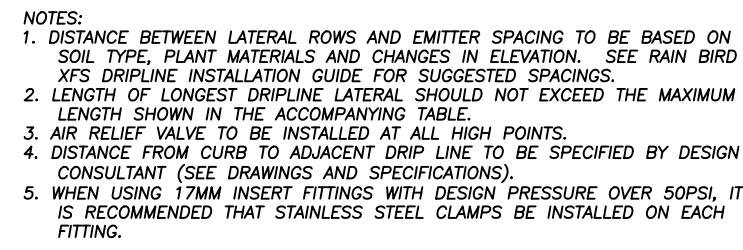
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Final Development Plan

Date	11/01/2022
Job Number	3-21037
Drawn By	JG
Checked By	CDW

Number	Date	Description
Revision		

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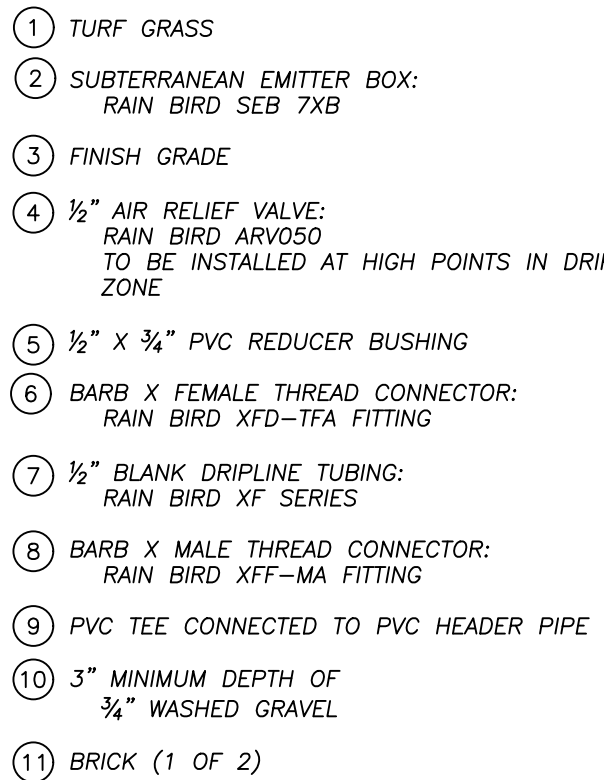
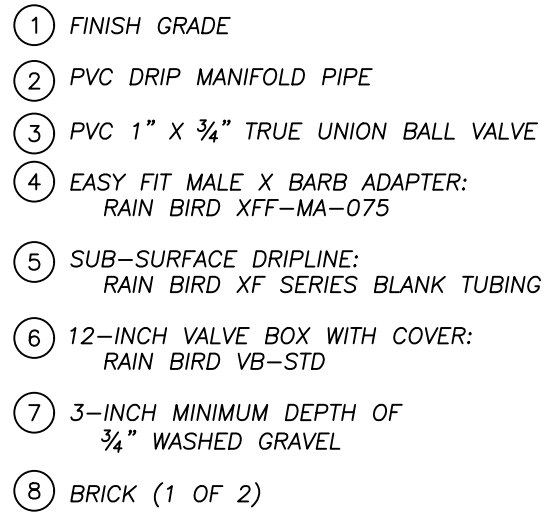
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IRRIGATION DETAILS 1



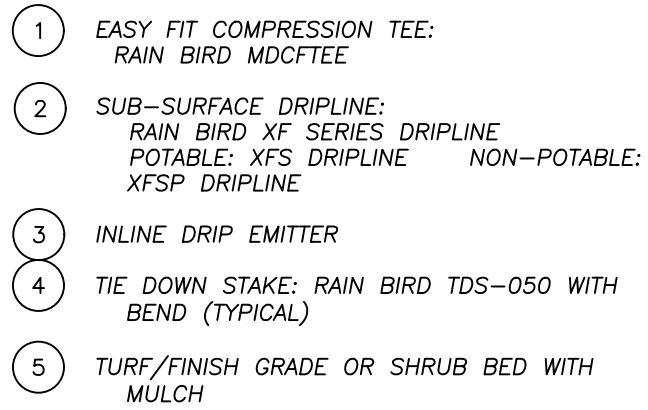
Inlet Pressure psi	12" Spacing		18" Spacing		24" Spacing	
	Nominal Flow (gph)		Nominal Flow (gph)		Nominal Flow (gph)	
	0.6	0.9	0.6	0.9	0.6	0.9
15	273	195	314	250	424	322
20	318	169	353	294	506	388
30	360	230	413	350	586	414
40	386	255	465	402	652	474
50	417	285	528	420	720	488
60	460	290	596	455	780	514

- 1) BARS X BARS INSERT-TIE OR CROSS:
SEE RAIN BIRD DETAILS "XTS FISH CONTROL"
- 2) SUB-SURFACE DRAINPIPE LINE:
RAIN BIRD VS. SENSORS (DRAINPIPE
PORTABLE) VS. DRAINPIPE
NON-PORTABLE "XPS DRAINPIPE"
- 3) PERIMETER AREA
- 4) REFER TO DRAWINGS AND SPECIFICATIONS FOR
DRAINPIPE/RAINPIPE PIPE DISTANCE TO EDGE.
- 5) BARS X MALE FITTING:
RAIN BIRD XXT-MA FITTING (TYPICAL)
- 6) PVC SCH 40 TEE OR EL (TYPICAL)
- 7) PVC SUPPLY MANHOLE
- 8) FLUSH POINT (TYPICAL)
SEE RAIN BIRD DETAILS "XTS FISH CONTROL"
- 9) PVC SUPPLY PIPE FROM RAIN CONTROL ZONE
RIT (SIZED TO MEET LATERAL FLOW DEMAND)
- 10) PVC SCH 40 RISER PIPE
- 11) PVC SCH 40 SLEEVE PIPE SIZED TWICE SIZE OF
MANHOLE PIPE SIZE
- 12) PAVEMENT AND CURB
- 13) "N" AIR RELIEF VALVE: RAIN BIRD MODEL: ARV550
SEE RAIN BIRD XTS DETAILS FOR AIR RELIEF
INSTALLATION

Not to Scale



908



- NOTES:
1. PLACE TIE DOWN STAKES EVERY THREE FEET IN SAND, FOUR FEET IN LOAM, AND FIVE FEET IN CLAY.
 2. AT FITTINGS WHERE THERE IS A CHANGE OF DIRECTION SUCH AS TEES OR ELBOWS, USE TIE-DOWN STAKES ON EACH LEG OF THE CHANGE OF DIRECTION.
 3. INSERTION PLOW AND TRENCHED INSTALLATIONS DO NOT REQUIRE TIE DOWN STAKES.

909



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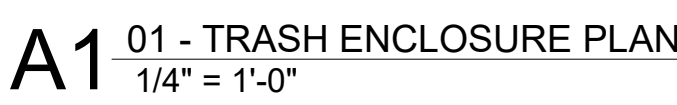
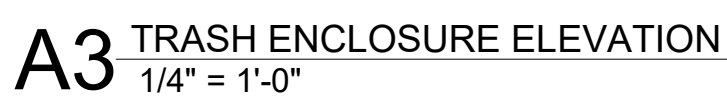
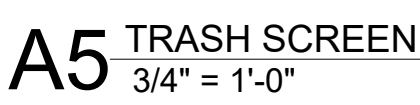
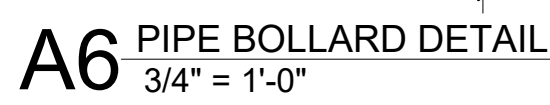
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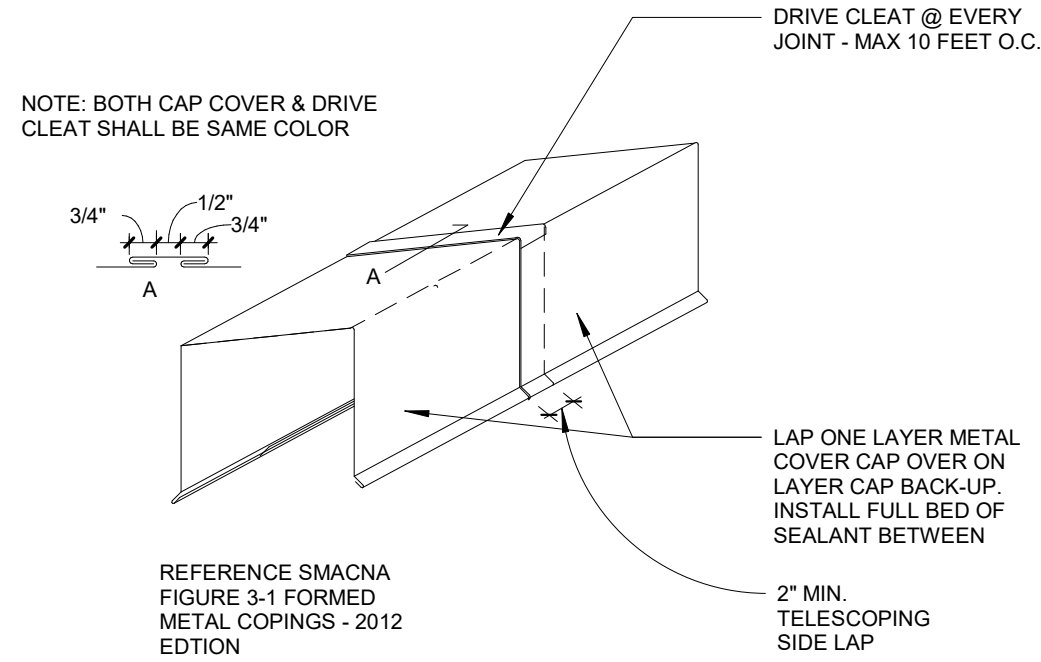
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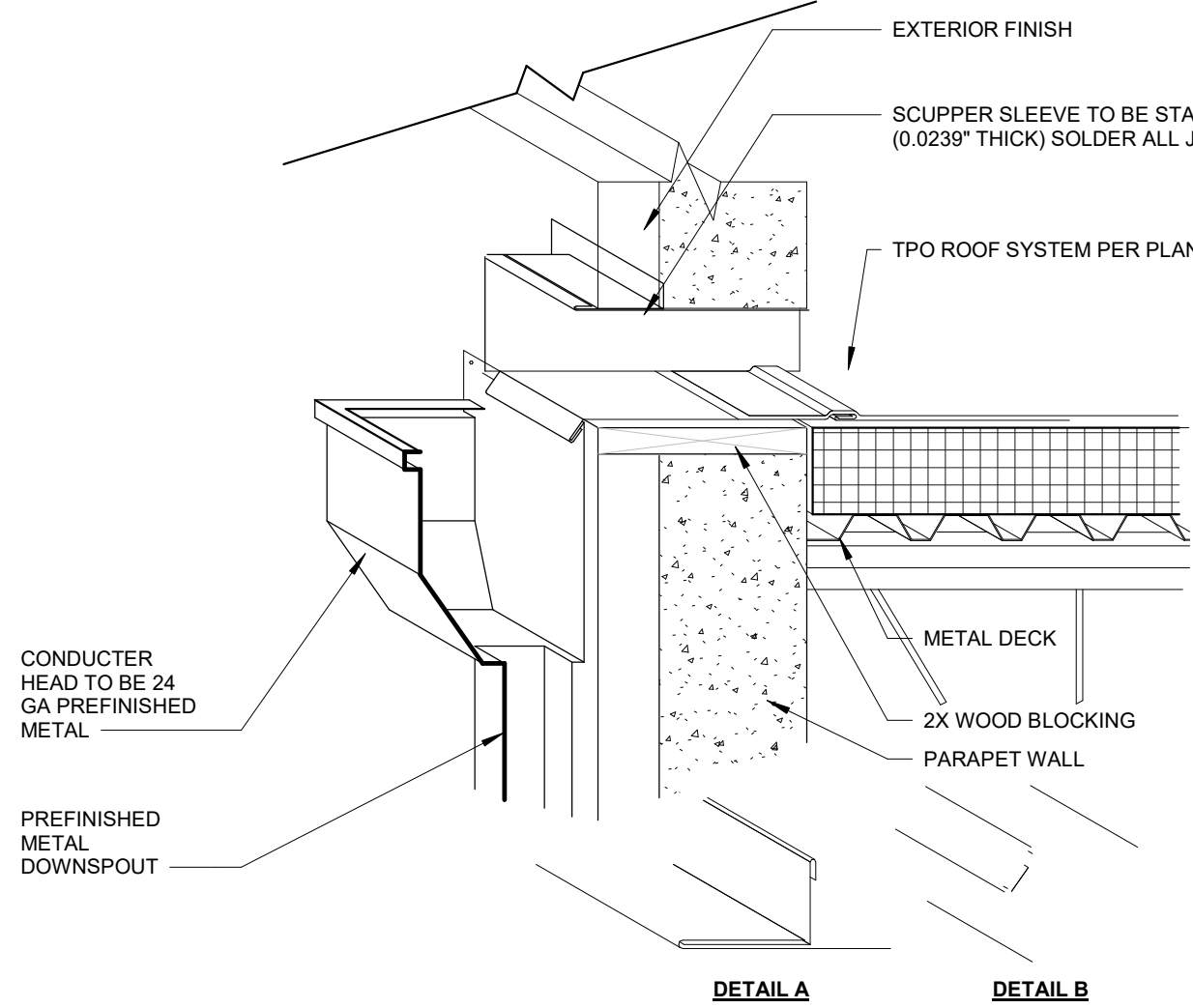
E6 COPING DRIVE CLEAT

3/4" = 1'-0"



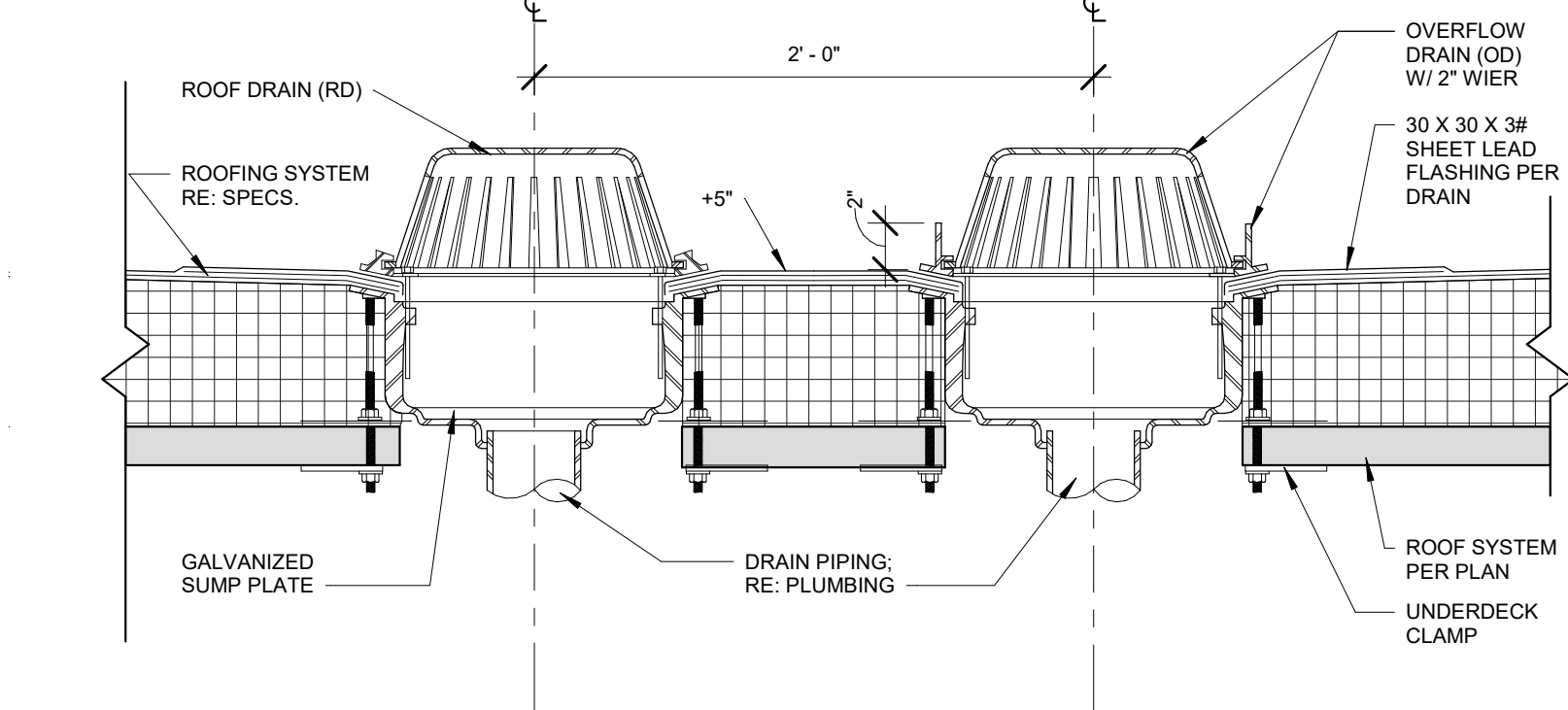
D6 ROOF SCREEN

3/4" = 1'-0"



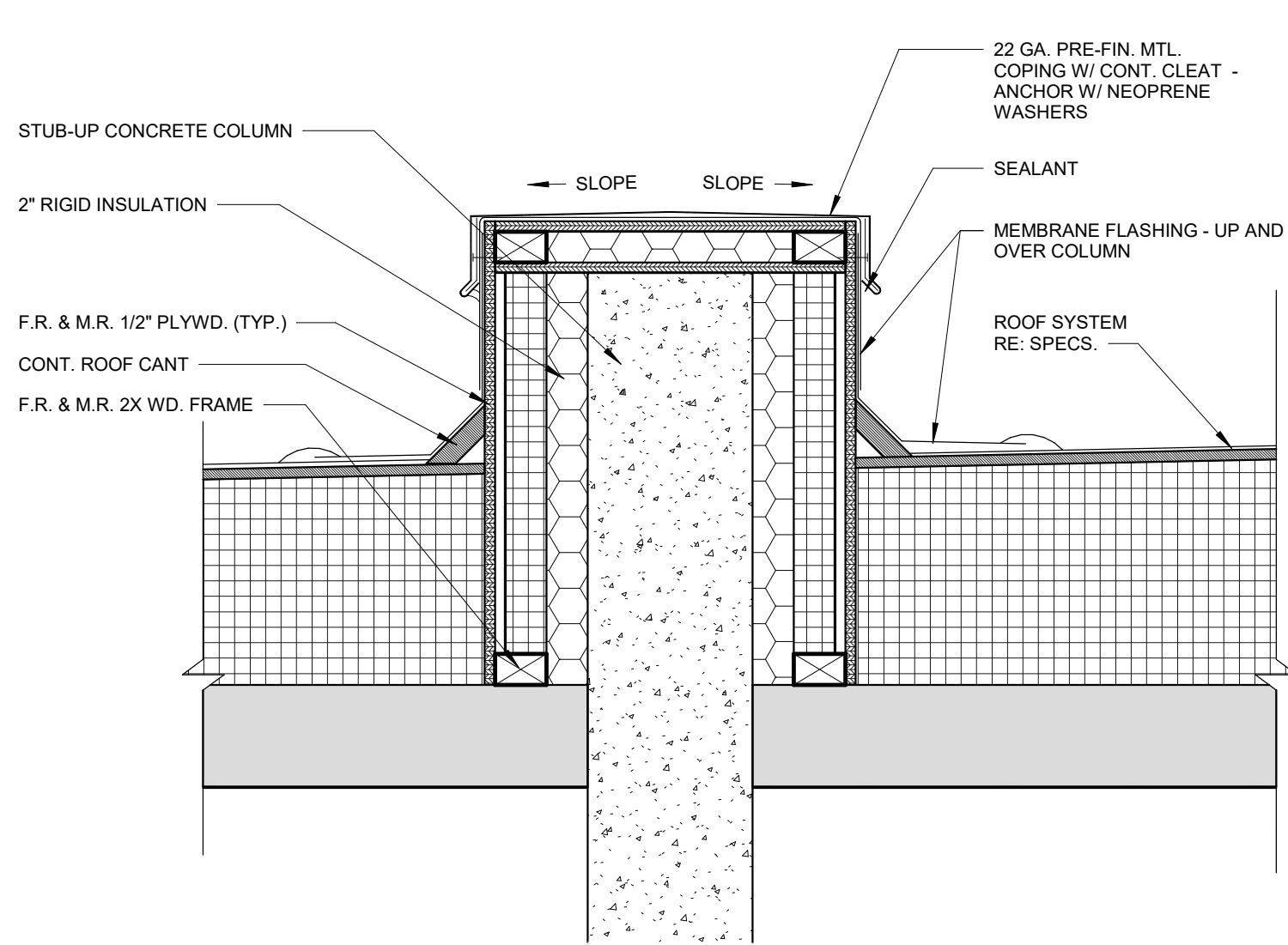
C6 SCUPPER DETAIL

1 1/2" = 1'-0"



B6 ROOF DRAIN AND OVERFLOW DETAIL

1 1/2" = 1'-0"

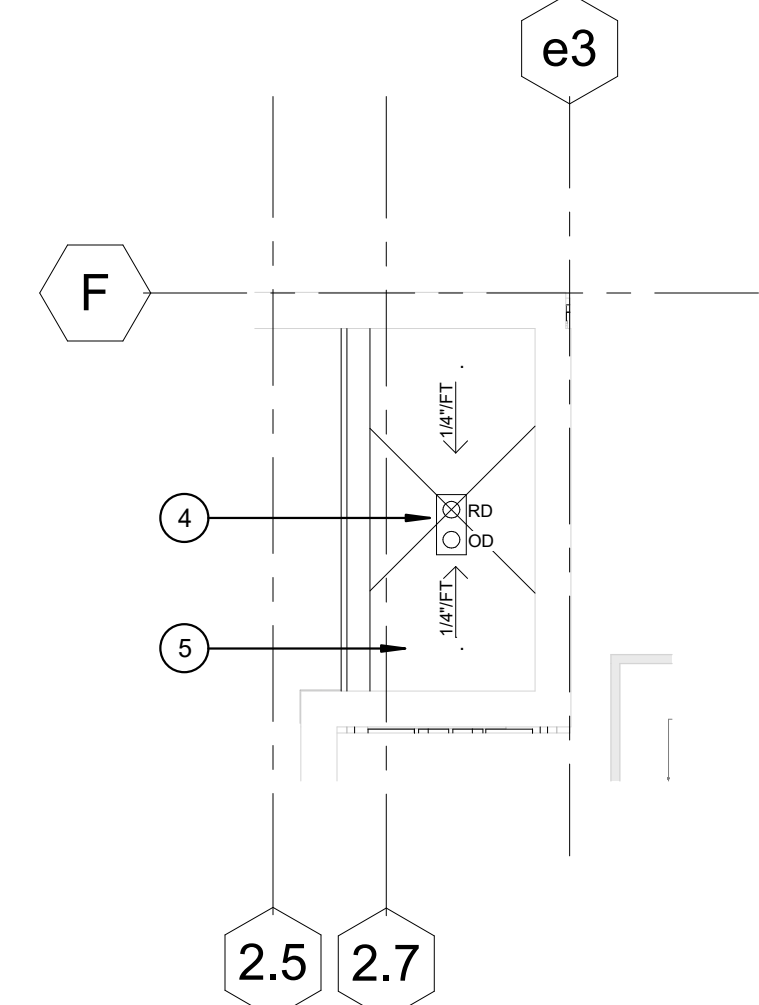


A6 ROOF COLUMN STUB-UP DETAIL

1 1/2" = 1'-0"

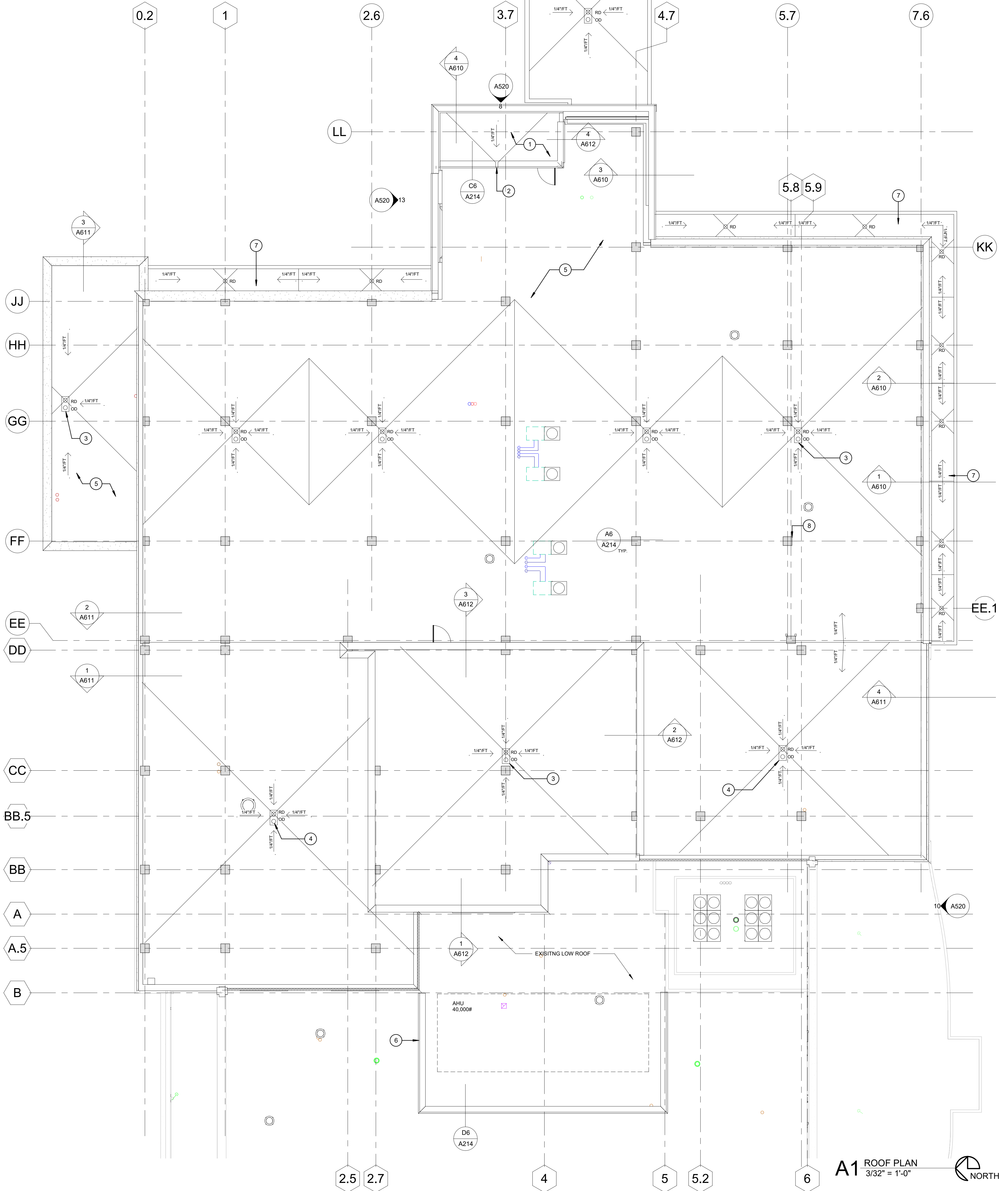
A5 ROOF PLAN @ NEW EGRESS STAIR

3/32" = 1'-0"



KEYNOTES - ROOF PLAN

Number	Comments
1	UPPER ROOF AT STAIRS: 1/4"12" SLOPE. DRAIN TO PRE-FINISHED SCUPPER AND DOWNSPOUT.
2	IF FLOOR SCUPPER, REF. DETAIL C6.
3	INTERNAL ROOF DRAIN WITH OVERFLOW. REF. DETAIL B6.
4	INTERNAL ROOF DRAIN WITH OVERFLOW. TIE INTO EXISTING ROOF DRAINAGE SYSTEM. REF. PLUMBING. REF. A5A2.10 TYP.
5	NEW ROOFING AND 1/4"12" TAPERED INSULATION.
6	NEW MECH ROOF SCREEN. REF. STRUCT.
7	NEW CANOPY AT 2ND FLOOR WITH INTERNAL ROOF DRAINS AND 1/4"12" TAPERED INSULATION. OVERFLOW SCUPPERS TO ALIGN WITH ROOF DRAIN LOCATIONS.
8	THROUGH ROOF COLUMN CAP. REF. DETAIL A6.



A1 ROOF PLAN

3/32" = 1'-0"



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FINAL DEVELOPMENT PLAN

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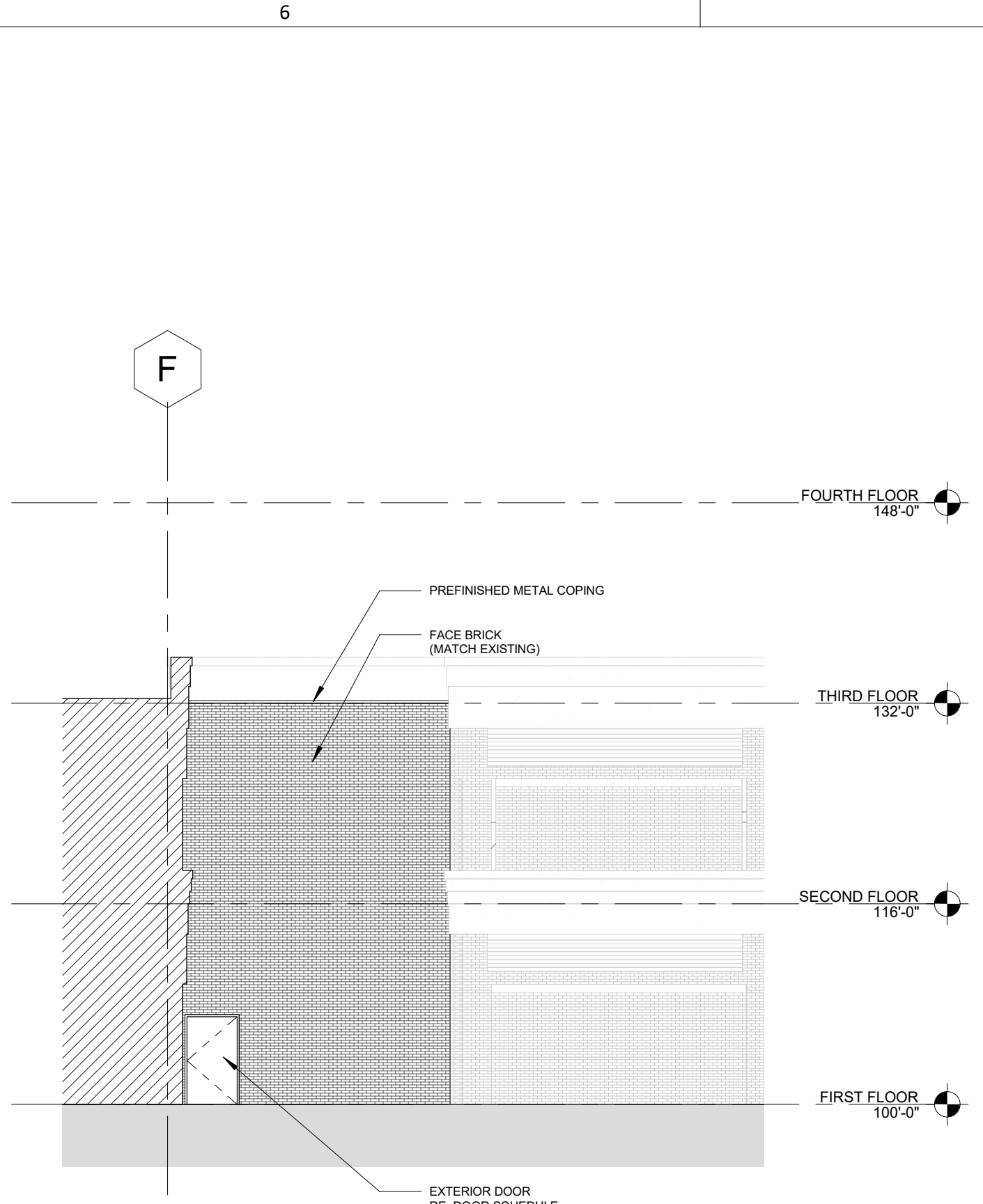
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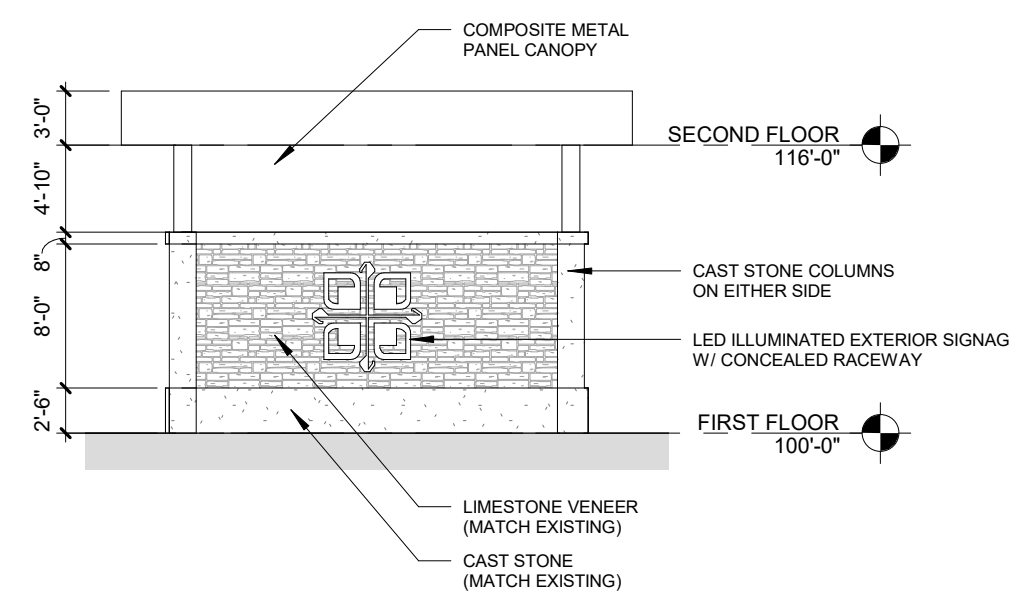
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ROOF PLAN AND DETAILS

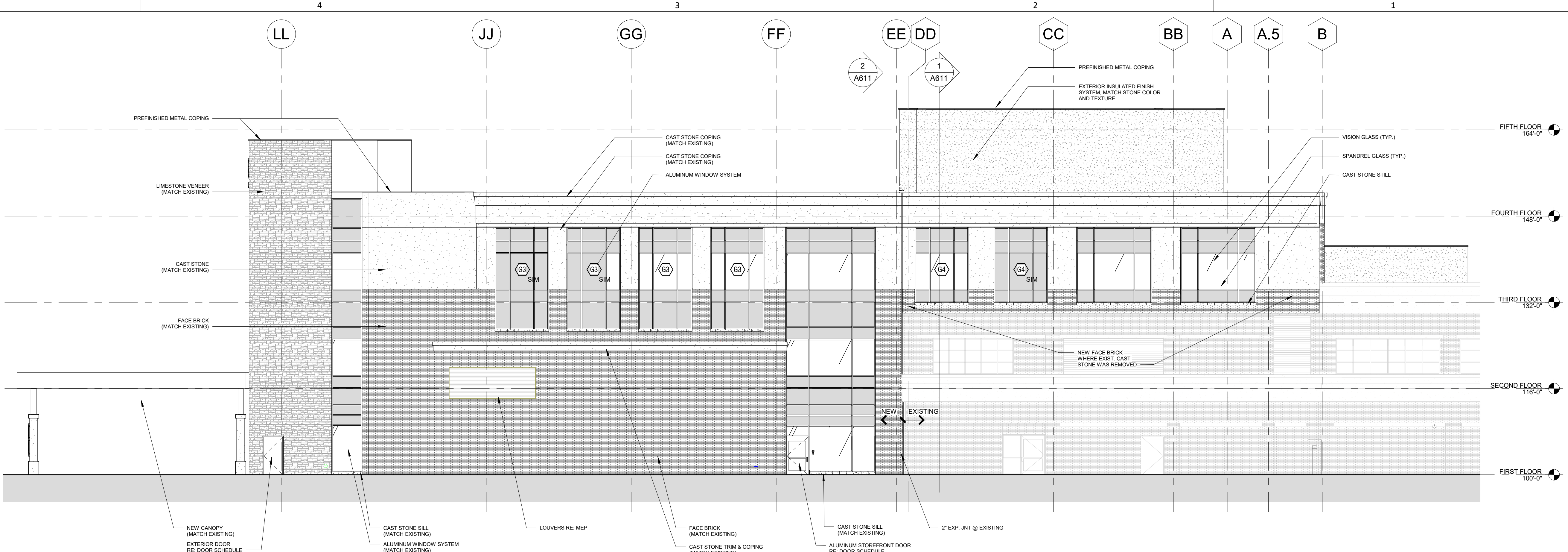
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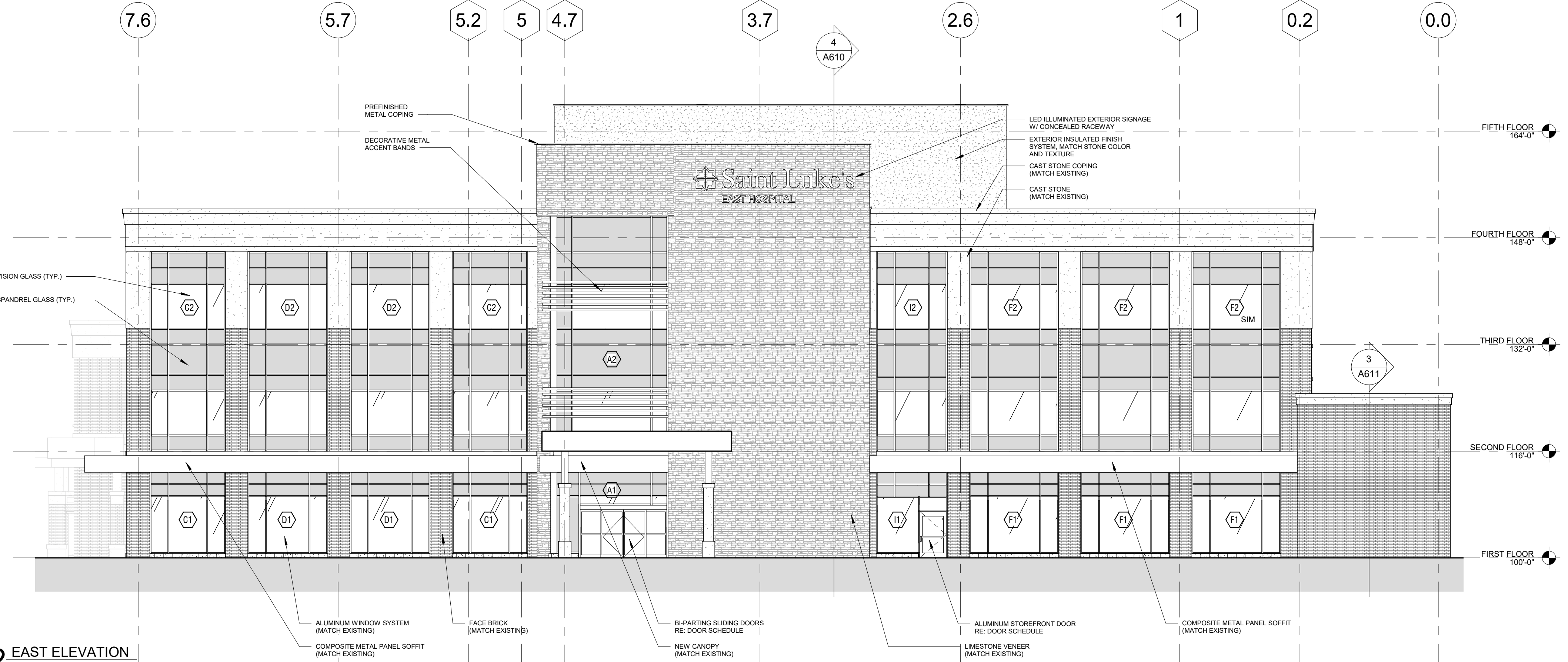
5 ELEVATION @ NEW EGRESS STAIR
3/32" = 1'-0"



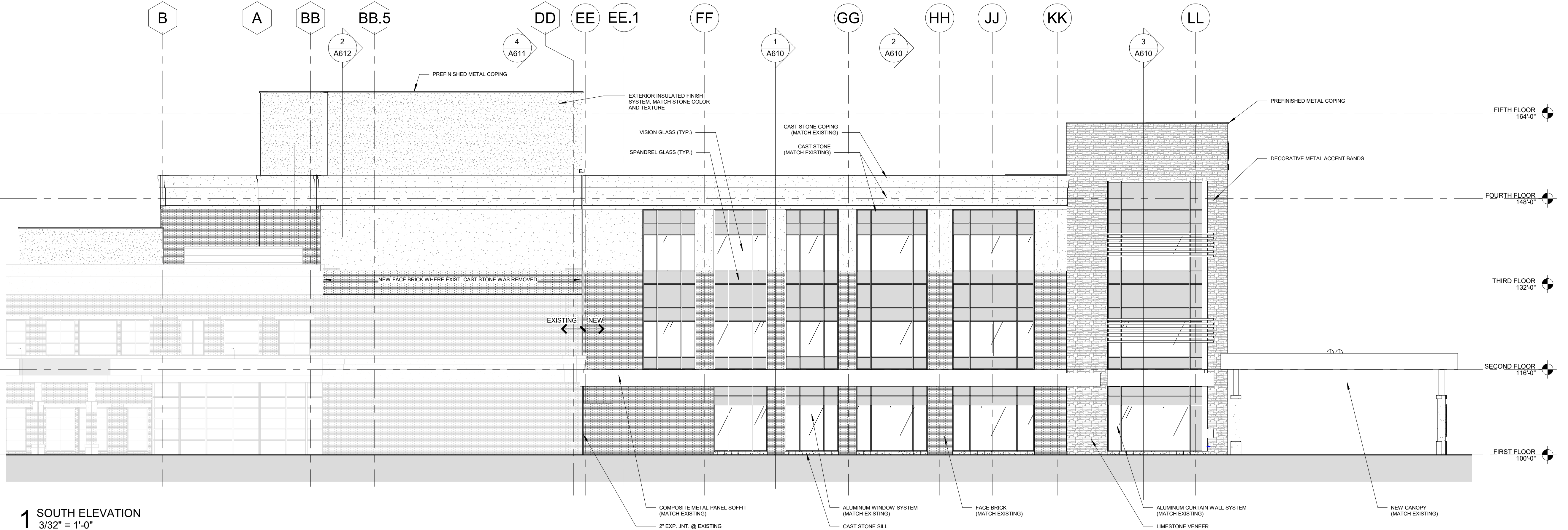
4 EAST CANOPY ELEVATION
3/32" = 1'-0"



3 NORTH ELEVATION
3/32" = 1'-0"



2 EAST ELEVATION
3/32" = 1'-0"



1 SOUTH ELEVATION
3/32" = 1'-0"

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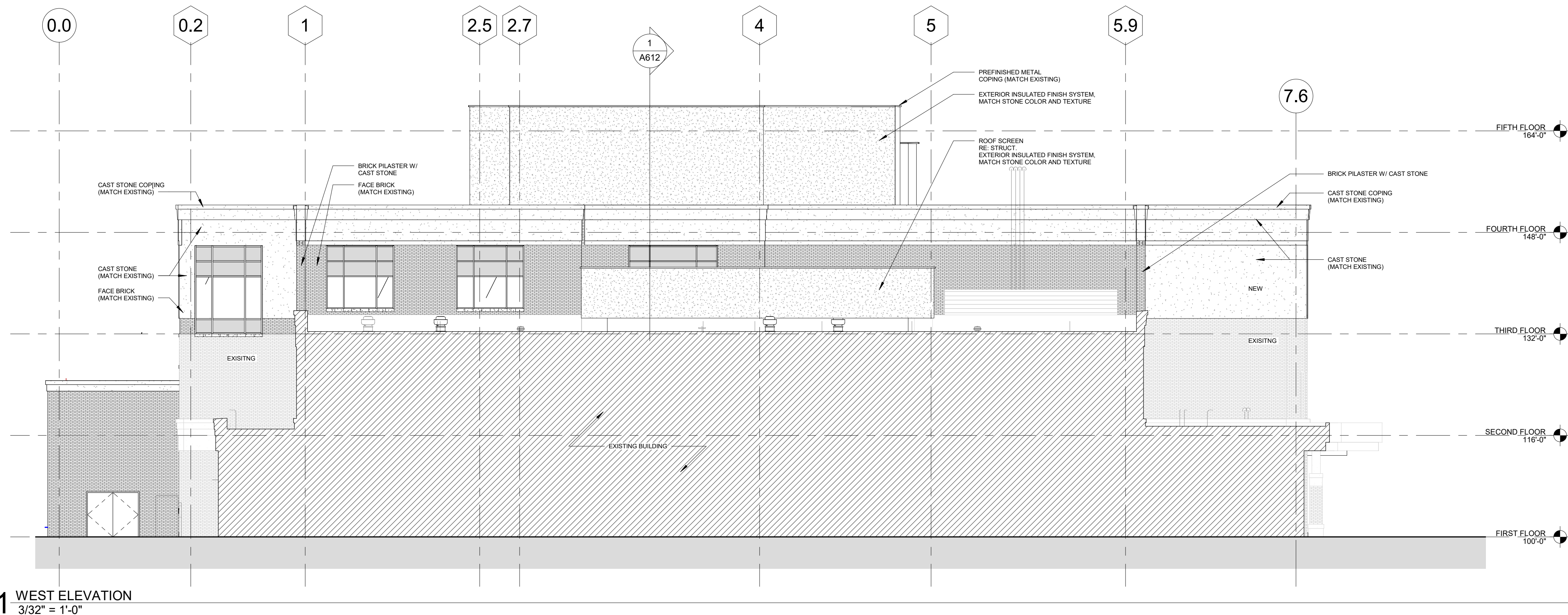
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