

FOUR RIVERS SANITATION AUTHORITY

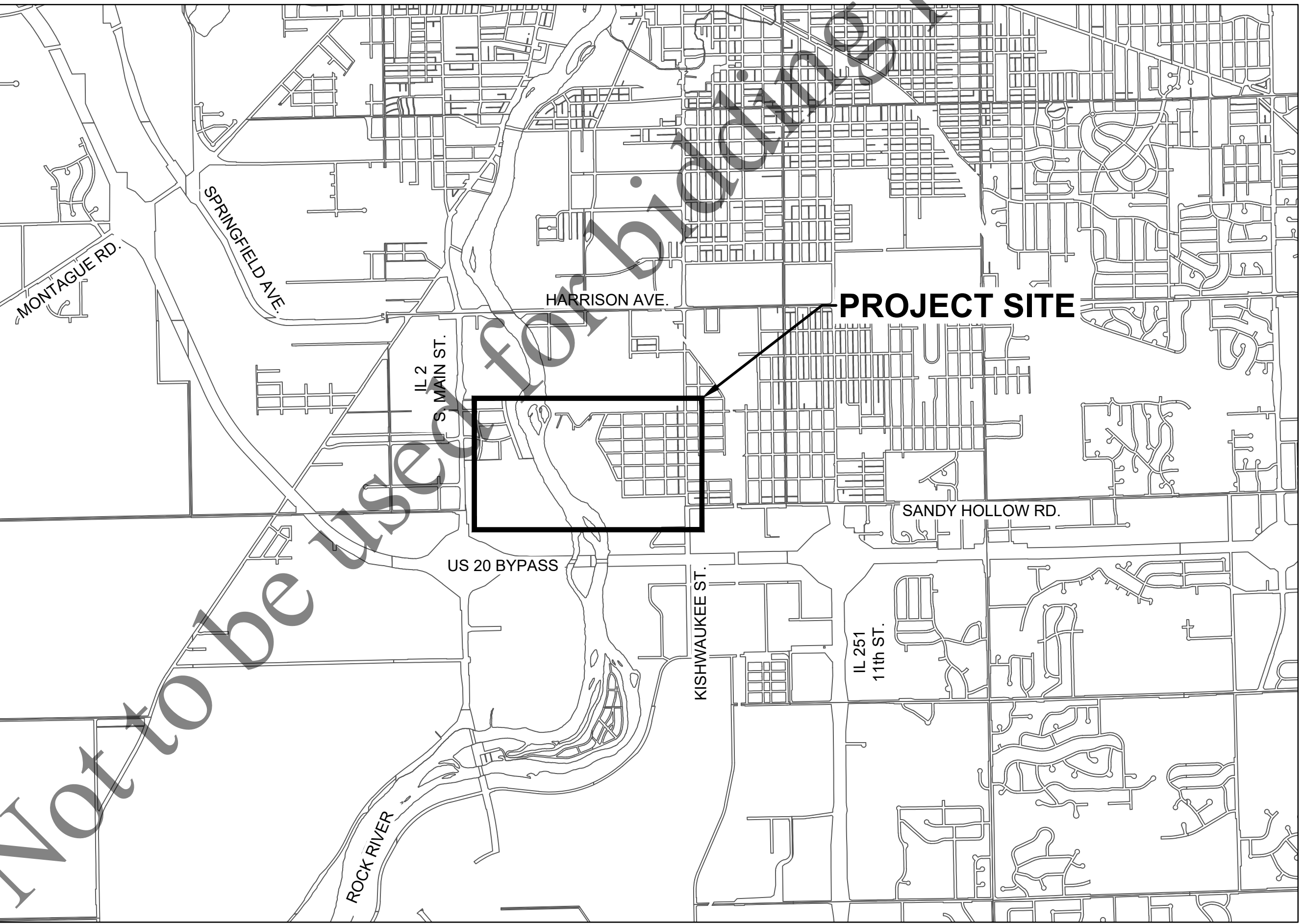
COLLECTION SYSTEMS ADMINISTRATION BUILDING SITE IMPROVEMENTS CAPITAL PROJECT #2206 2022

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WINNEBAGO COUNTY, ILLINOIS

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LEGEND		LEGEND		GENERAL NOTES		SPECIAL CONSIDERATIONS	
EXISTING	PROPOSED	EXISTING	PROPOSED	<div>1. THE CONTRACTOR IS SOLELY RESPONSIBLE FOR THE EXECUTION OF WORK TO THE LINES AND GRADES SHOWN ON THE PLANS. CONSTRUCTION SHALL NOT VARY FROM THE PLANS WITHOUT PRIOR APPROVAL FROM THE FOUR RIVERS SANITATION AUTHORITY (FRSA).</div> <div>2. THE PROJECT MANAGER ASSIGNED TO THIS PROJECT IS TYLER NELSON, (815-387-7651).</div> <div>3. FOR UTILITY LOCATES WITHIN PLANT BOUNDARIES, THE CONTRACTOR SHALL CONTACT THE ASSISTANT DIRECTOR OF PLANT OPERATIONS, MICHAEL CHRISTENSEN AT 815-262-5858, 48 HOURS, MINIMUM, PRIOR TO START OF CONSTRUCTION, TO ARRANGE FOR THE LOCATION OF PLANT INFRASTRUCTURE.</div> <div>4. FOR UTILITY LOCATES OUTSIDE OF PLANT BOUNDARIES, THE CONTRACTOR SHALL IDENTIFY ALL UTILITY LOCATIONS IN THE FIELD BY CONTACTING J.U.L.I.E. AT 811 OR 1-800-892-0123 AND ALL UTILITIES NOT ON THE J.U.L.I.E. NETWORK 48 HOURS, MINIMUM, PRIOR TO START OF CONSTRUCTION.</div> <div>5. ALL UTILITY OUTAGES SHALL BE COORDINATED WITH THE PROJECT MANAGER AND THE PLANT OPERATIONS MAINTENANCE DIVISION MANAGER. PROVIDE A MINIMUM OF 72 HOURS ADVANCED NOTICE PRIOR TO ANY SERVICE INTERRUPTION. DURING THE ENTIRE PERIOD OF THE CONTRACT, PROVIDE RESTORATION OF ANY UNSCHEDULED SERVICE INTERRUPTION WITHIN 30 MINUTES DURING NORMAL WORKING HOURS, OR WITHIN 2 HOURS OUTSIDE OF NORMAL WORKING HOURS. THE FRSA RESERVES THE RIGHT TO REQUEST ADDITIONAL ADVANCED NOTICE AND/OR COORDINATION MEETINGS FOR MAJOR OUTAGES.</div> <div>6. PRIOR TO CONSTRUCTION, THE CONTRACTOR SHALL FIELD VERIFY ALL EXISTING DIMENSIONS AND CONDITIONS AND SHALL IMMEDIATELY NOTIFY THE PROJECT MANAGER OF ANY DISCREPANCIES WITH THE PROJECT PLANS OR SPECIFICATIONS.</div> <div>7. ALL WORK ON FRSA PLANT GROUNDS MUST BE PERFORMED DURING NORMAL CONTRACTOR WORKING HOURS, FROM 6:00 AM TO 5:00 PM, M-F, EXCLUDING WEEKENDS AND FRSA-OBSERVED HOLIDAYS. THE CONTRACTOR SHALL NOTIFY THE PROJECT MANAGER 24 HOURS, MINIMUM, PRIOR TO PERFORMING WORK OUTSIDE OF THESE HOURS AND SHALL PROVIDE A LIST OF ALL EMPLOYEES, INCLUDING PRIMARY CONTACT(S), WHO WILL BE PRESENT FOR THE OFF-HOUR WORK.</div> <div>8. THE CONTRACTOR SHALL COMPLY WITH ALL REQUIREMENTS OF THE IEPA NPDES PERMIT AND THE ILLINOIS URBAN MANUAL FOR SOIL EROSION AND SEDIMENT CONTROL.</div>		<div>1. THE CONTRACTOR SHALL PROVIDE TEMPORARY RESTROOM FACILITIES FOR HIS WORKFORCE FOR THE DURATION OF THIS PROJECT.</div> <div>2. CONSTRUCTION STAGING SHALL BE EXCLUDED FROM THE AREA SOUTH AND WEST OF THE COLLECTIONS SYSTEMS ADMINISTRATION BUILDING DUE TO ON-GOING CONSTRUCTION ACTIVITIES IN AND AROUND THIS BUILDING. THE CONTRACTOR SHALL COORDINATE WITH THE FRSA AND OTHER CONTRACTORS ACCORDINGLY. THE FRSA OWNED PROPERTY NORTHWEST OF MARTIN RD / LYLE ST CAN BE USED FOR STAGING. THE CONTRACTOR SHALL REPAIR ALL TURF & OTHER DAMAGES AT NO ADDITIONAL COST TO THE FRSA.</div> <div>3. THE EXISTING CHAIN LINK GATE IS TO BE RELOCATED TO THE EAST END OF THE IMPROVEMENTS NEAR MARTIN RD / LYLE ST. ALL FENCE SHALL BE SECURED AT THE END OF EACH WORK DAY. THE CONTRACTOR SHALL USE THE STABILIZED CONSTRUCTION ENTRANCE AT ALL TIMES WHEN ENTERING AND LEAVING THE SITE. ANY DAMAGED FENCE MATERIALS OR OTHER RESTORATION REQUIRED (TURF, PAVEMENT, ETC.) SHALL BE REPLACED AT NO ADDITIONAL COST TO FRSA.</div>	
						STANDARDS	
<div>RIGHT OF WAY LINE</div> <div>PROPERTY LINE</div> <div>BUILDING</div> <div>WATER EDGE</div> <div>EASEMENT - PERMANENT SANITARY</div> <div>EASEMENT - TEMPORARY CONSTRUCTION</div> <div>VEGETATION / TREE LINE</div> <div>TREE DRIPLINE</div> <div>CONTOUR - MAJOR</div> <div>CONTOUR - MINOR</div> <div>FENCE</div> <div>FENCE - TEMPORARY CONSTRUCTION</div> <div>FENCE - SILT (PERIMETER EROSION BARRIER)</div> <div>ROADWAY CENTERLINE</div> <div>EDGE OF PAVEMENT</div> <div>CURB & GUTTER</div> <div>GUARD RAIL</div> <div>RAILROAD TRACKS</div> <div>CABLE - OVERHEAD</div> <div>CABLE - UNDERGROUND</div> <div>ELECTRIC - OVERHEAD</div> <div>ELECTRIC - UNDERGROUND</div> <div>FIBER OPTIC</div> <div>GAS LINE</div> <div>TELEPHONE - OVERHEAD</div> <div>TELEPHONE - UNDERGROUND</div> <div>PEDESTALS (CATV, ELEC, TELE), GAS METER, ELEC METER</div> <div>ELECTRIC MANHOLE, HANDHOLE</div> <div>SOIL BORING</div> <div>BENCHMARK & CONTROL POINT</div> <div>MAILBOX</div> <div>UTILITY POLE W/ GUY WIRE & MAST ARM LIGHT POLE</div> <div>TREE (DECIDUOUS & CONIFEROUS)</div> <div>BUSH & SHRUB</div> <div>GROUND / LANDSCAPE LIGHT</div> <div>SPOT ELEVATION</div>		<div>EXISTING</div> <div>PROPOSED</div> <div>SANITARY MANHOLE & SANITARY SEWER</div> <div>SANITARY SEWER SERVICE & CLEANOUT</div> <div>SANITARY FORCEMAIN</div> <div>TREATMENT PLANT PROCESS PIPING</div> <div>STORM SEWER</div> <div>STORM MANHOLE, CATCH BASIN, CURB & GUTTER INLET, CURB INLET SPECIAL</div> <div>DRAINAGE CULVERT, WITH END SECTION</div> <div>WATER MAIN</div> <div>WATER SERVICE & WATER SERVICE VALVE</div> <div>WATER MAIN VALVE</div> <div>WATER MAIN VALVE WITH BOX</div> <div>WATER MAIN VALVE WITH VAULT</div> <div>WATER MAIN REDUCER</div> <div>FIRE HYDRANT</div> <div>YARD HYDRANT</div> <div>WATER WELL</div> <div>SPRINKLER HEAD & SPRINKLER VALVE</div> <div>EXISTING SURFACE TYPE (HOT-MIX ASPHALT, AGGREGATE, CONCRETE, TURF)</div> <div>DITCH CHECK</div> <div>INLET OR PIPE PROTECTION</div> <div>PROPOSED</div> <div>EROSION CONTROL BLANKET</div> <div>HEAVY DUTY EROSION CONTROL BLANKET</div> <div>TEMPORARY EROSION CONTROL SEEDING</div> <div>SEEDING AREA, CLASS 1</div> <div>SEEDING AREA, CLASS 2, 3, OR 4</div> <div>STABILIZED CONSTRUCTION ENTRANCE</div> <div>RIP RAP</div> <div>PAVEMENT REPLACEMENT</div> <div>DRIVEWAY REPLACEMENT</div> <div>AGGREGATE REPLACEMENT</div>		<div>ABBREVIATIONS</div> <div>ABD = ABANDON(ED)</div> <div>CMP = CORRUGATED METAL PIPE</div> <div>CO = CLEAN OUT</div> <div>CTRL = CONTROL</div> <div>CY = CUBIC YARD(S)</div> <div>DI = DUCTILE IRON</div> <div>EA = EACH</div> <div>EL = ELEVATION</div> <div>EROS = EROSION</div> <div>EX = EXISTING</div> <div>FES = FLARED END SECTION</div> <div>FM = FORCE MAIN</div> <div>FRSA = FOUR RIVERS SANITATION AUTHORITY</div> <div>FT = FEET</div> <div>INV = INVERT</div> <div>LF = LINEAR FEET</div> <div>LINCIPP = LINED WITH CURED IN PLACE PIPE</div> <div>LS = LUMP SUM</div> <div>MH = MANHOLE</div> <div>PVMNT = PAVEMENT</div> <div>PRC = PRECAST REINFORCED CONCRETE</div> <div>PR = PROPOSED</div> <div>RCP = REINFORCED CONCRETE PIPE</div> <div>REM = REMOVE(D)</div> <div>REPL = REPLACE(D)</div> <div>R/R = REMOVE & REPLACE</div> <div>SAN = SANITARY</div> <div>SVC = SERVICE</div> <div>SY = SQUARE YARD(S)</div> <div>TY = TYPE</div> <div>UNK = UNKNOWN</div> <div>VCP = VITRIFIED CLAY PIPE</div> <div>WM = WATER MAIN</div>		<div>PROJECT LOCATION & ACCESS MAP</div> <div></div>	
<div>Four Rivers Sanitation Authority</div>		<div>COLLECTION SYSTEMS ADMINISTRATION BUILDING SITE IMPROVEMENTS</div> <div>CAPITAL PROJECT #2206</div>		<div>LEGEND & GENERAL NOTES</div>		<div>Sheet No. 2 of 18</div> <div>FOR-BID</div> <div>Date: 7/25/2022</div>	

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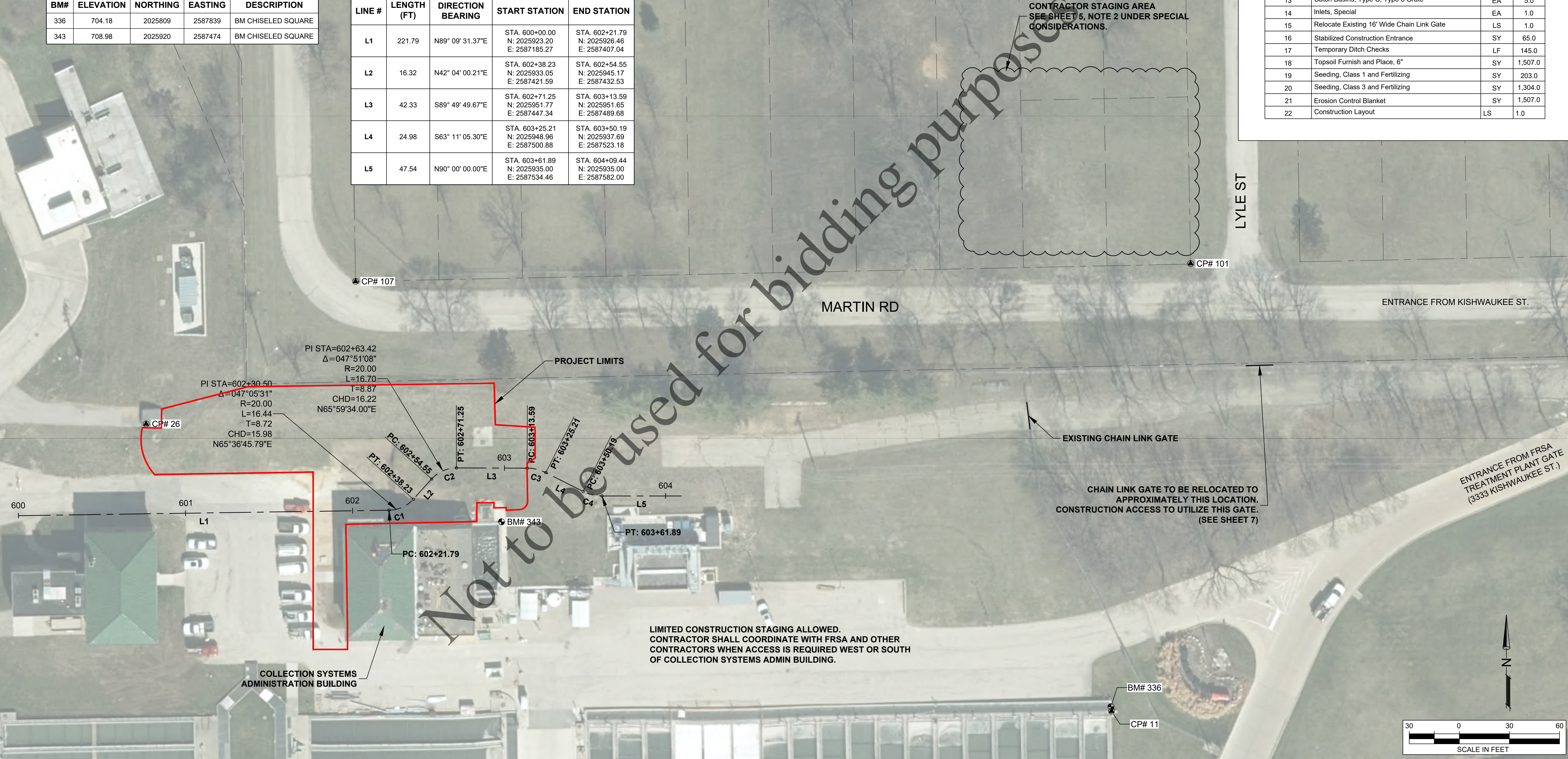
CONTROL POINT TABLE				
CP#	ELEVATION	NORTHING	EASTING	DESCRIPTION
11	704.22	2025806.30	2587839.41	CP CUT X
26	711.82	2025978.06	2587261.66	CP CUT X
101	719.70	2026074.09	2587886.74	MON 1/2
107	724.77	2026063.37	2587387.00	MON 3/4

BENCHMARK TABLE				
BM#	ELEVATION	NORTHING	EASTING	DESCRIPTION
336	704.18	2025809	2587839	BM CHISELED SQUARE
343	708.98	2025920	2587474	BM CHISELED SQUARE

ALIGNMENT CURVE TABLE						
CURVE #	DELTA	RADIUS (FT)	LENGTH (FT)	TANGENT (FT)	CHORD BEARING	CHORD DIST. (FT)
C1	286°28'44.03"	20.00	16.44	8.72	N65°36'45.79"E	15.98
C2	286°28'44.03"	20.00	16.70	8.87	N65°59'34.00"E	16.22
C3	229°10'59.22"	25.00	11.63	5.92	S76°30'27.49"E	11.52
C4	229°10'59.22"	25.00	11.70	5.96	S76°35'32.65"E	11.59

ALIGNMENT LINE TABLE				
LINE #	LENGTH (FT)	DIRECTION BEARING	START STATION	END STATION
L1	221.79	N89° 09' 31.37"E	STA. 600+00.00 N: 2025923.20 E: 2587185.27	STA. 602+21.79 N: 2025926.46 E: 2587407.04
L2	16.32	N42° 04' 00.21"E	STA. 602+38.23 N: 2025933.05 E: 2587421.59	STA. 602+54.55 N: 2025945.17 E: 2587432.53
L3	42.33	S89° 49' 49.67"E	STA. 602+71.25 N: 2025951.77 E: 2587447.34	STA. 603+13.59 N: 2025951.65 E: 2587489.68
L4	24.98	S63° 11' 05.30"E	STA. 603+25.21 N: 2025948.96 E: 2587500.88	STA. 603+50.19 N: 2025937.69 E: 2587523.18
L5	47.54	N90° 00' 00.00"E	STA. 603+61.89 N: 2025935.00 E: 2587534.46	STA. 604+09.44 N: 2025935.00 E: 2587582.00

SUMMARY OF QUANTITIES			
Item. No.	Item Description	Unit	Qty.
1	Site Clearing, Grubbing, and Incidental Removals	LS	1.0
2	Earth Excavation and Site Grading	LS	1.0
3	Sidewalk Removal	SF	21.0
4	Chainlink Fence Removal	LF	93.0
5	Aggregate Base Course, Type B	SY	90.0
6	Portland Cement Concrete Sidewalk, 6"	SF	790.0
7	Concrete Curb, Type B	LF	25.0
8	Segmental Concrete Block Wall	SF	1,458.0
9	Pedestrian Bridge, Complete	LS	1.0
10	Pipe Handrail, Special	LF	100.0
11	Storm Sewers, PVC, 6" Dia.	LF	81.0
12	Storm Sewers, PVC, 8" Dia.	LF	87.0
13	Catch Basins, Type C, Type 8 Grate	EA	5.0
14	Inlets, Special	EA	1.0
15	Relocate Existing 16' Wide Chain Link Gate	LS	1.0
16	Stabilized Construction Entrance	SY	65.0
17	Temporary Ditch Checks	LF	145.0
18	Topsoil Furnish and Place, 6"	SY	1,507.0
19	Seeding, Class 1 and Fertilizing	SY	203.0
20	Seeding, Class 3 and Fertilizing	SY	1,304.0
21	Erosion Control Blanket	SY	1,507.0
22	Construction Layout	LS	1.0



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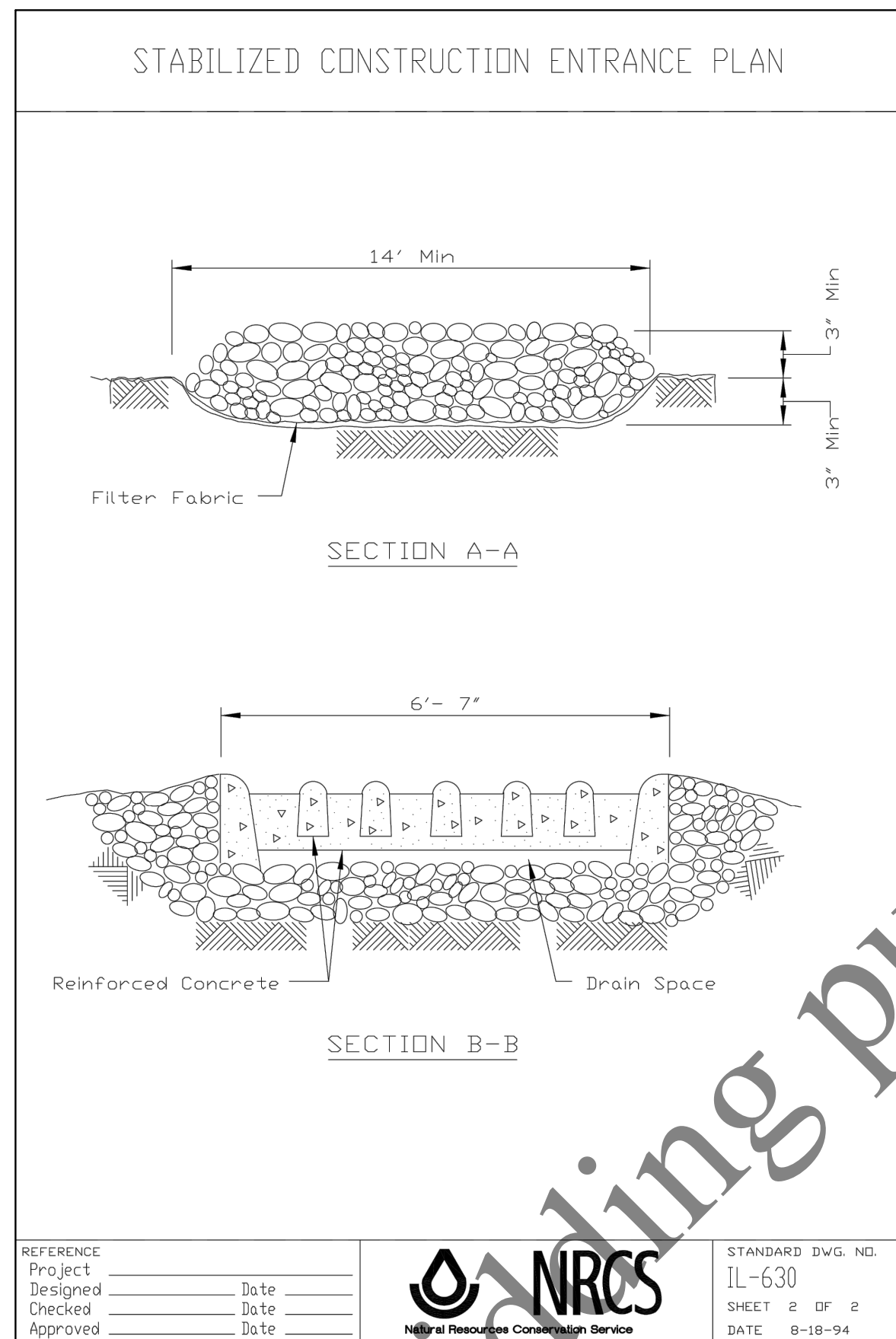
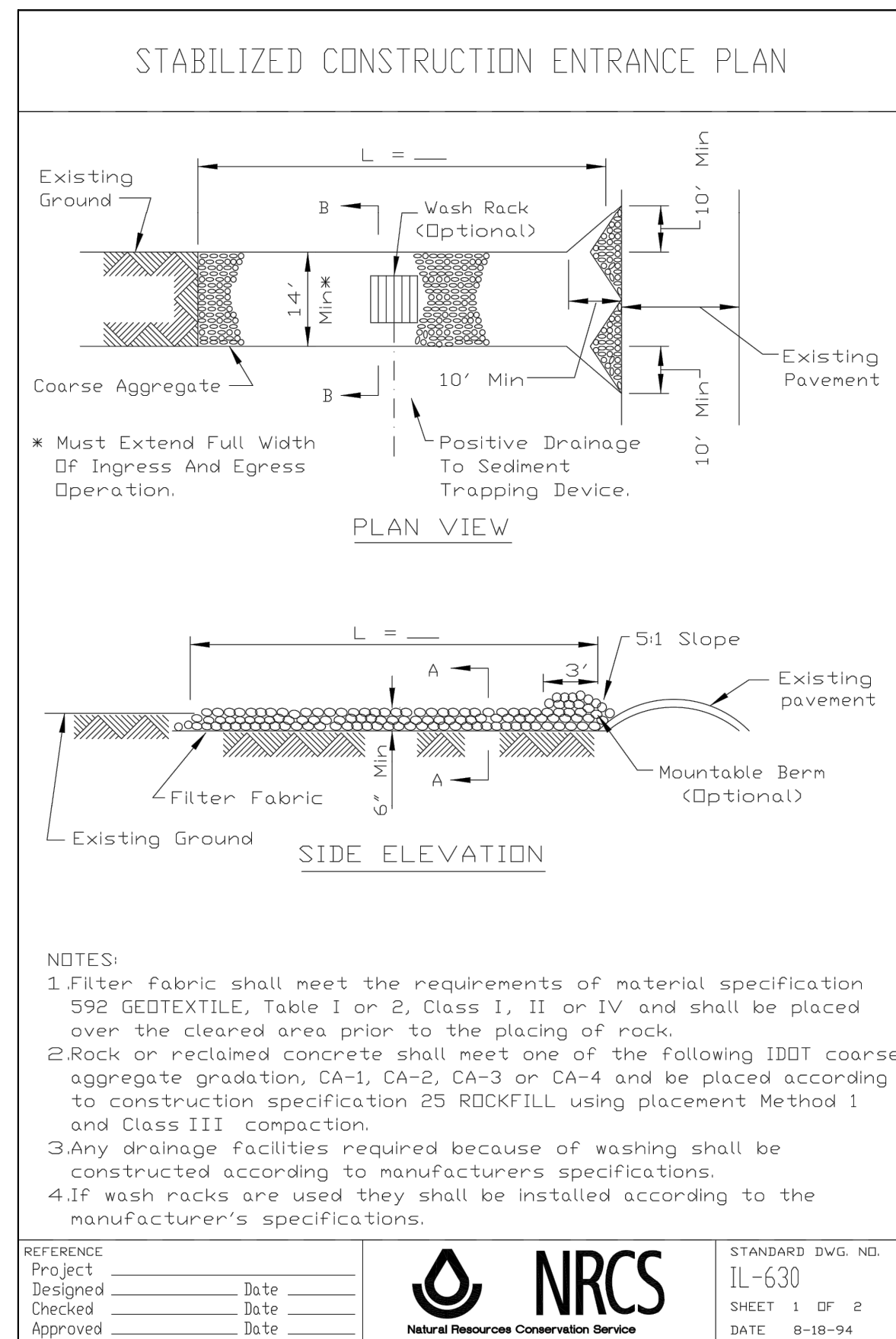
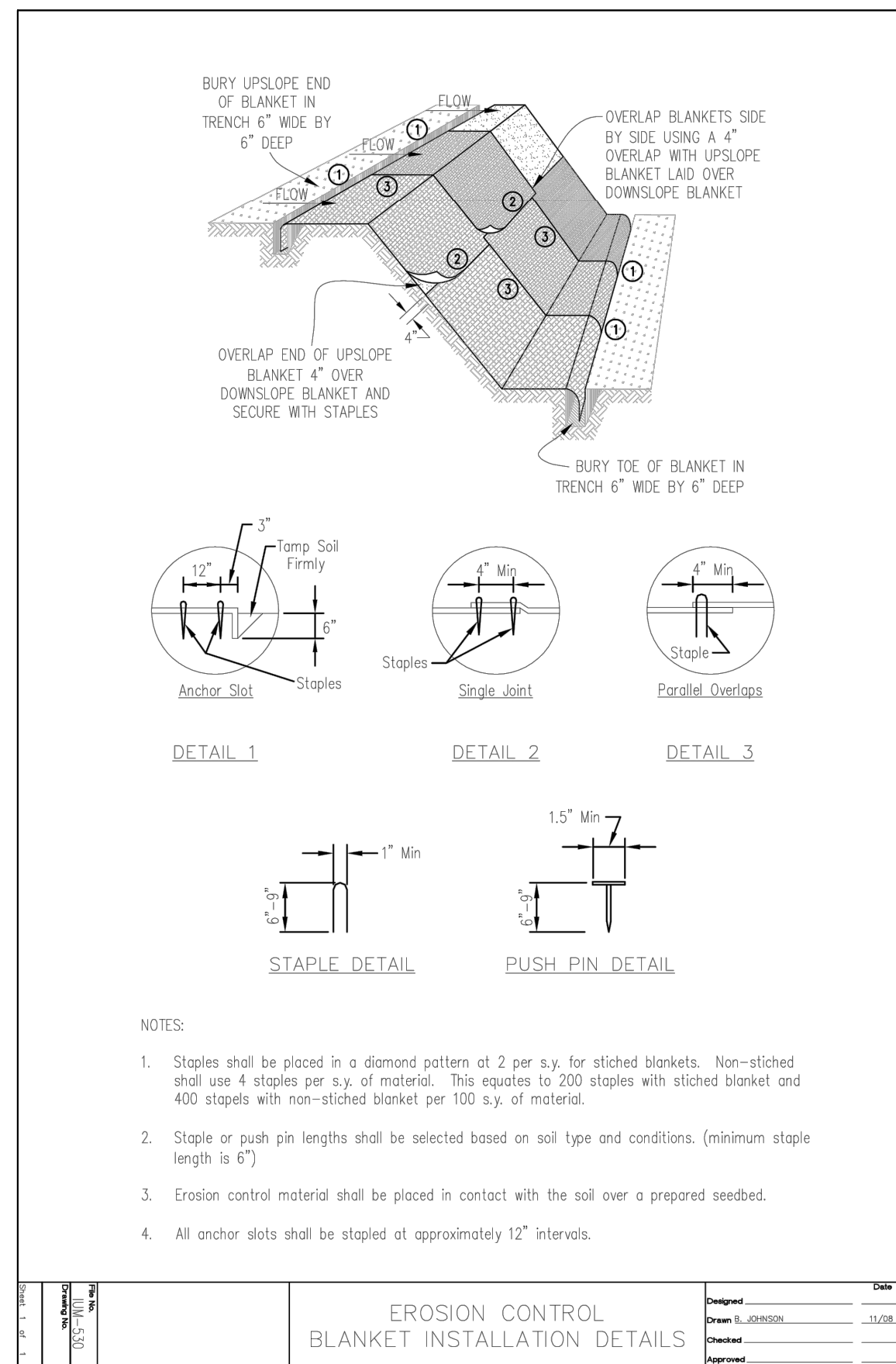
COLLECTION SYSTEMS ADMINISTRATION BUILDING SITE IMPROVEMENTS
CAPITAL PROJECT #2206

ALIGNMENT, TIES, & BENCHMARKS, SUMMARY OF QUANTITIES

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EROSION CONTROL NOTES

GENERAL NOTES

THE ESTIMATED AREA OF DISTURBANCE FOR THIS PROJECT IS LESS THAN 1 ACRE. THEREFORE, A NOTICE OF INTENT (NOI) WILL NOT BE FILED. AN EROSION CONTROL PLAN HAS BEEN PREPARED FOR THIS PROJECT. THE CONTRACTOR SHALL COMPLY WITH ALL APPLICABLE REQUIREMENTS OF THE ILLINOIS URBAN MANUAL, CURRENT EDITION, IDOT STANDARD SPECIFICATIONS FOR ROAD AND BRIDGE CONSTRUCTION, CURRENT EDITION, THE FOUR RIVERS SANITATION AUTHORITY (FRSA), AND THE PROJECT SPECIFICATIONS AND DETAILS.

THE EROSION CONTROL DEVICES, MATERIALS AND PROCEDURES SHOWN IN THESE PLANS ARE TO BE CONSIDERED A MINIMUM. ADDITIONAL DEVICES OR MATERIALS MAY BE REQUIRED BASED ON EXISTING SITE CONDITIONS, AT THE DIRECTION OF THE ENGINEER. ANY DEVICES, MATERIALS, OR PROCEDURES REQUIRED BY THE ENGINEER DUE TO THE CONTRACTOR'S ACTIONS OR NEGLIGENCE WILL BE AT NO ADDITIONAL COST TO THE FRSA.

ALL DISTURBED AREAS SHALL BE SEEDED UNLESS AGRICULTURAL OR OTHERWISE NOTED ON THE PLANS. THE CONTRACTOR IS RESTRICTED TO WORK IN TEMPORARY EASEMENTS OR WORK AREAS DELINEATED ON PLANS. THE CONTRACTOR SHALL TAKE WHATEVER ACTIONS AND MEASURES ARE DEEMED NECESSARY BY THE FRSA OR AUTHORIZED AGENCY TO ELIMINATE EXCESSIVE SILTATION OR EROSION AND TO STABILIZE THE PROJECT AREA. DISCHARGE OF HAZARDOUS SUBSTANCES INTO STORM WATER IS SUBJECT TO IEPA REPORTING AND CLEANUP REQUIREMENTS.

CONTROL MEASURES

EROSION AND SEDIMENT CONTROL MEASURES SHALL BE IN PLACE BEFORE CONSTRUCTION IN EACH AREA, AS DETERMINED BY THE ENGINEER, AND SHALL BE MAINTAINED THROUGHOUT CONSTRUCTION. CONSTRUCTION ACTIVITIES SHALL ENSURE THAT EXISTING VEGETATION IS PRESERVED WHERE PRACTICAL. THE FOLLOWING CONTROLS WILL BE PROVIDED AS A MINIMUM FOR THE DURATION OF THIS PROJECT:

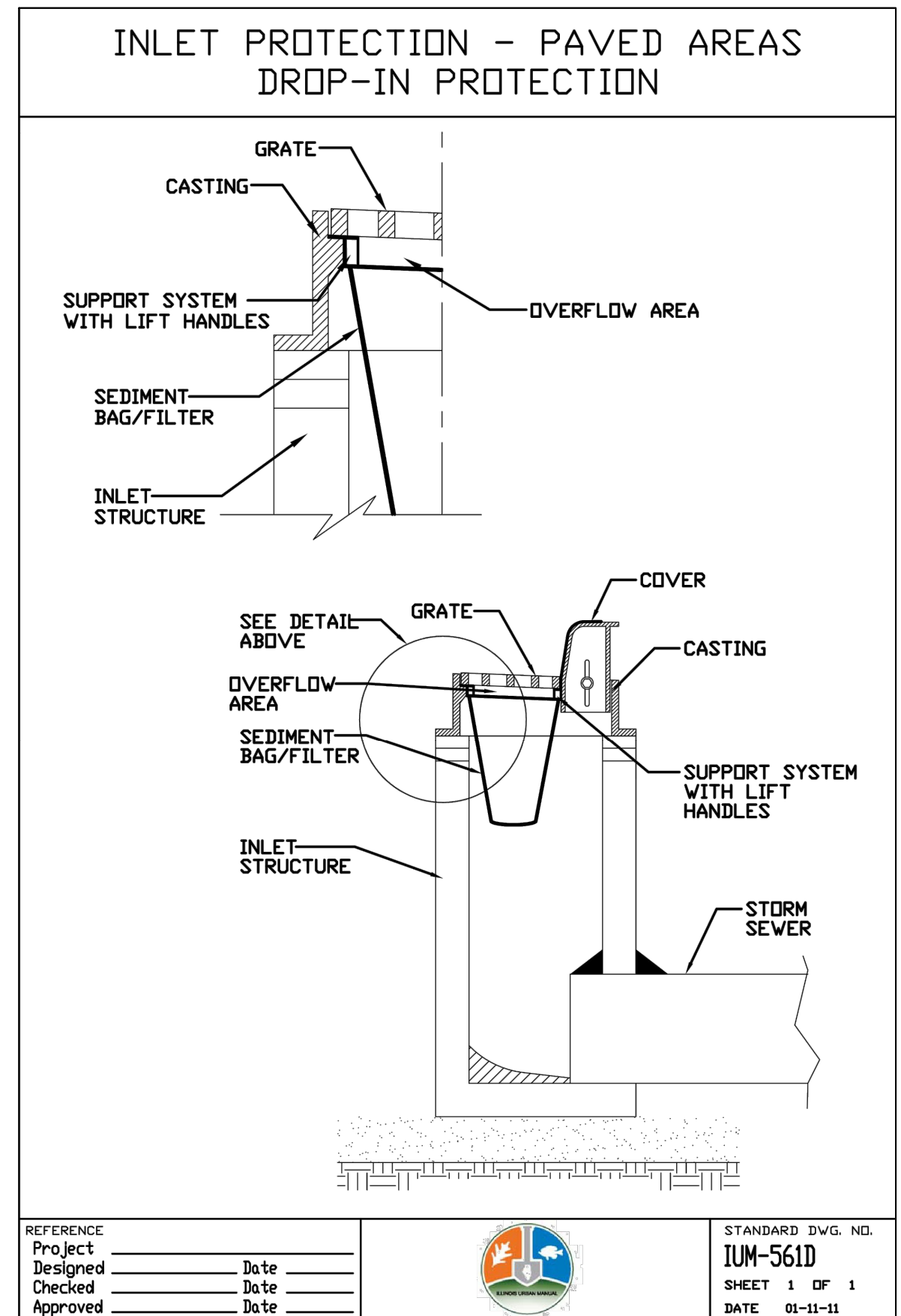
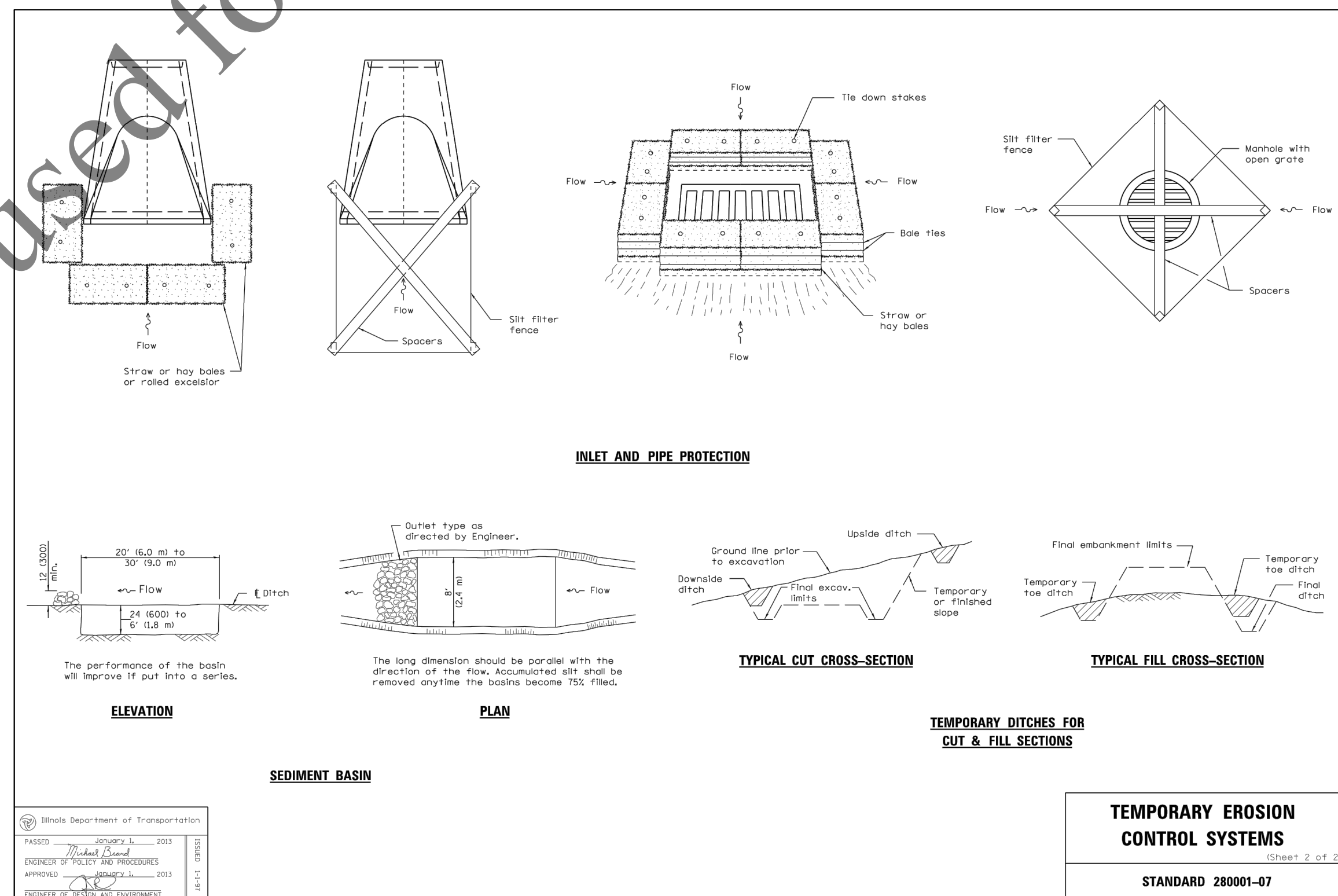
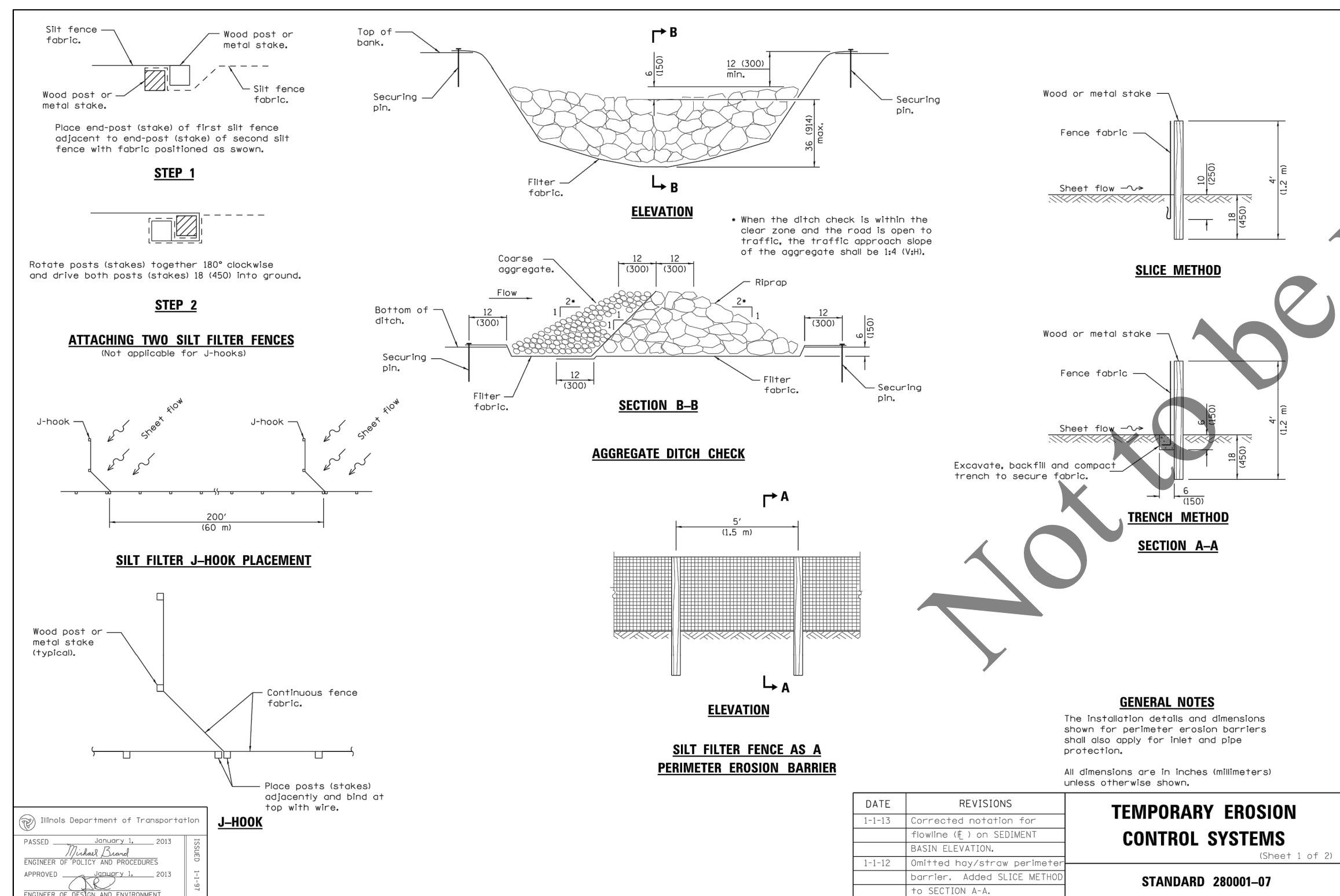
- SEDIMENT CONTROL SHALL BE PROVIDED DOWNSLOPE OF ALL STOCKPILE AREAS.
- STABILIZED CONSTRUCTION ENTRANCES MUST BE INSTALLED AS DETAILED AND WHERE REQUIRED BY THE ROADWAY AUTHORITY OR FRSA.
- INLET PROTECTION MUST BE INSTALLED FOR ALL INLETS THAT COULD BE SUBJECT TO SILTATION, AS DETERMINED BY THE ENGINEER.
- ALL ROADWAYS SHALL BE KEPT CLEAN OF DEBRIS, MUD, SOIL, AND CONSTRUCTION MATERIALS AND SHALL BE INSPECTED AT THE END OF EACH DAY AND CLEANED AS NECESSARY.
- ALL DISTURBED AREAS MUST BE STABILIZED WITHIN 7 DAYS IF THEY ARE TO REMAIN DISTURBED FOR MORE THAN 14 DAYS.

MAINTENANCE

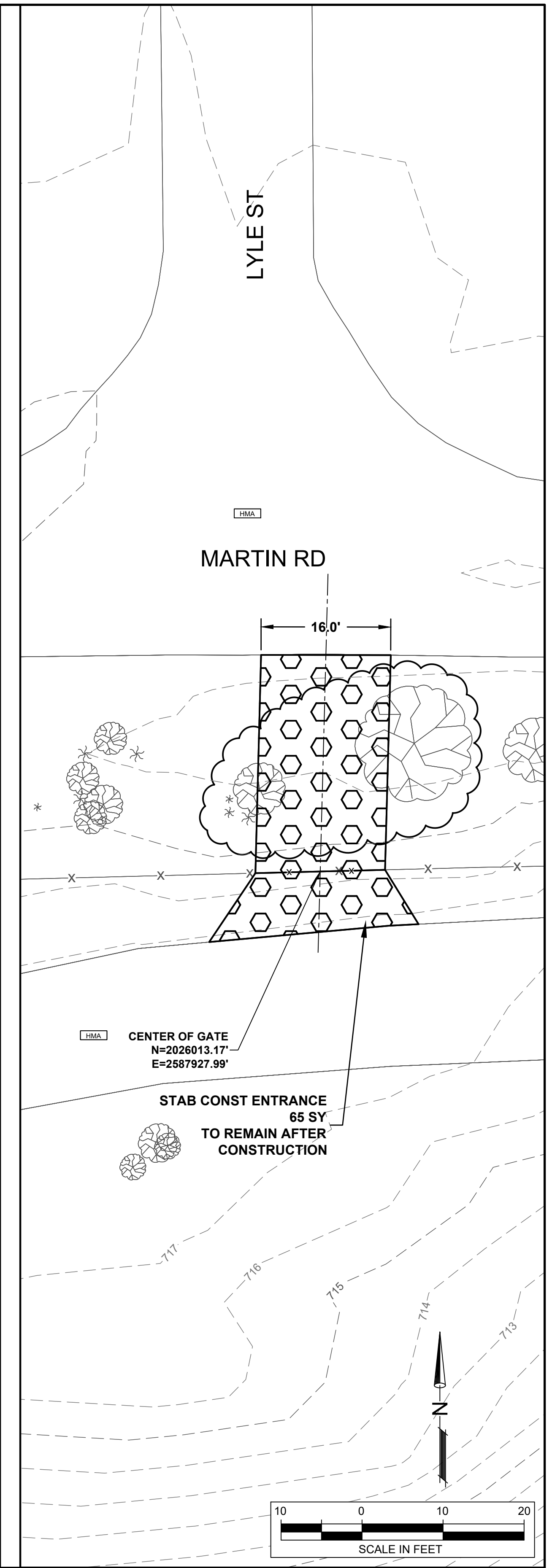
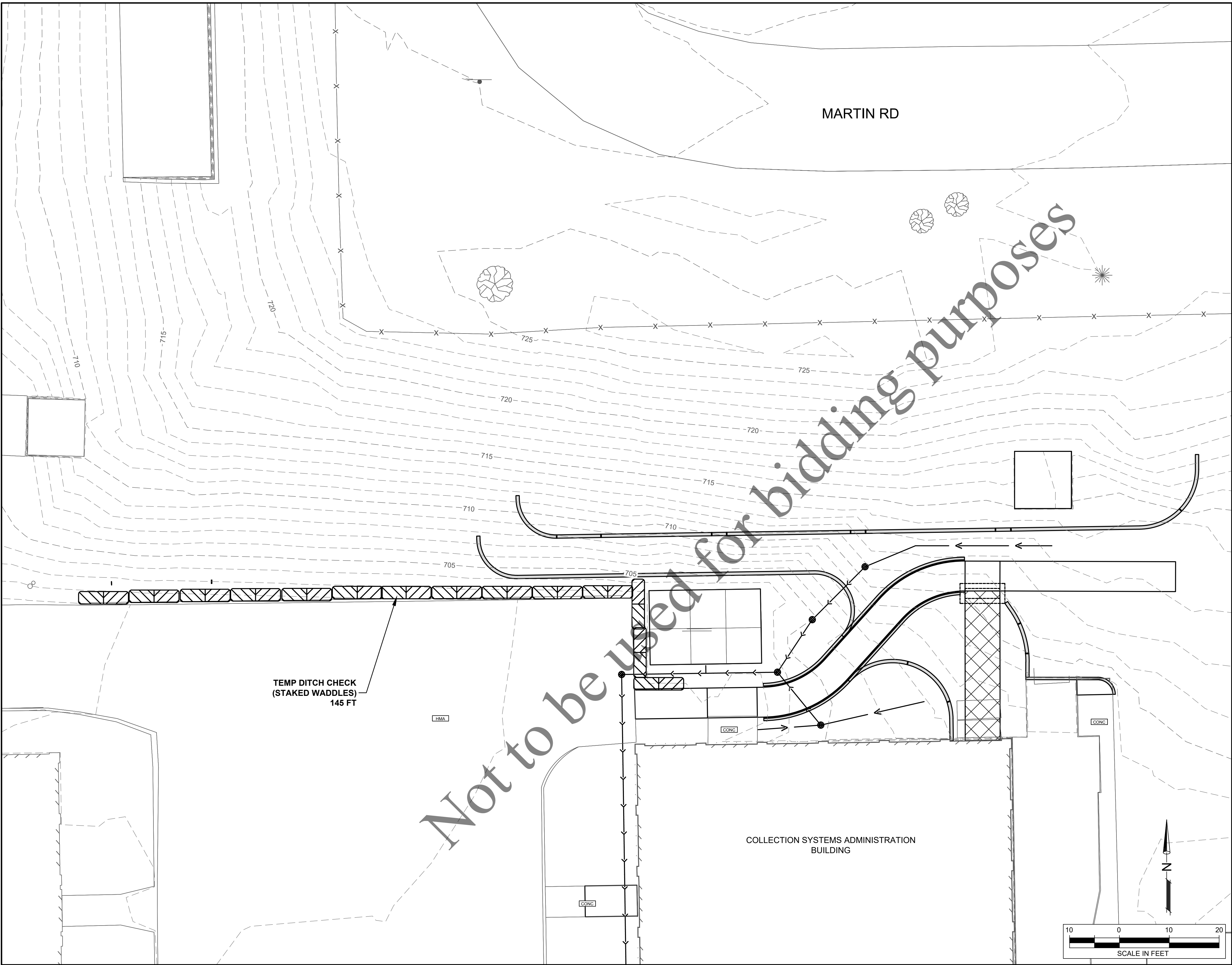
CONTRACTOR SHALL BE RESPONSIBLE FOR MAINTENANCE AND REPAIR OF ALL EROSION AND SEDIMENT CONTROL DEVICES AND PROTECTIVE MEASURES AS REQUIRED TO MAINTAIN THE INTENDED FUNCTION. SEDIMENT COLLECTED FROM THE CONSTRUCTION SITE SHALL BE DISPOSED OF ON THE SITE ON A REGULAR BASIS AS NEEDED. ANY DEBRIS OR SILT DEPOSITED IN THE FLOW LINE OF DRAINAGE STRUCTURES, DITCHES, ETC., THAT COULD OBSTRUCT FLOW SHALL BE REMOVED AT THE CLOSE OF EACH WORKING DAY. ALL DRAINAGE STRUCTURES SHALL BE FREE OF DIRT AND DEBRIS. THE CONTRACTOR SHALL REMOVE AND DISPOSE OF ALL TEMPORARY EROSION CONTROL DEVICES WITHIN 30 DAYS OF FINAL SITE STABILIZATION APPROVAL BY THE FRSA. THE SITE SHALL HAVE A MIN. OF 70% VEGETATIVE COVER TO BE CONSIDERED STABILIZED.

OTHER DISCHARGES

NON STORM WATER DISCHARGES INCLUDING WASHING OF VEHICLES, CONCRETE WASH-OUT, WATER FOR DUST CONTROL, AND TRENCH DEWATERING DISCHARGES SHALL BE DIRECTED AWAY FROM UNPROTECTED, BARE, OR UNSTABILIZED SOIL AND APPROPRIATE MEASURES SHALL BE IMPLEMENTED TO PREVENT EROSION OR RUNOFF FROM THE SITE. DEWATERING DISCHARGE MUST BE INTO SILT CONTAINMENT BAGS WITH PROPERLY ENGINEERED ANIONIC POLYMER AND FABRIC PORE SIZE. UNDER NO CIRCUMSTANCE SHALL DEWATERING DISCHARGE BE ALLOWED TO FLOW DIRECTLY INTO WATERWAYS. A DEWATERING DISCHARGE PLAN SHALL BE SUBMITTED TO THE FRSA FOR APPROVAL.



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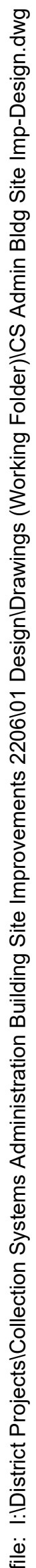
COLLECTION SYSTEMS ADMINISTRATION BUILDING SITE IMPROVEMENTS
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TEMPORARY EROSION CONTROL PLAN

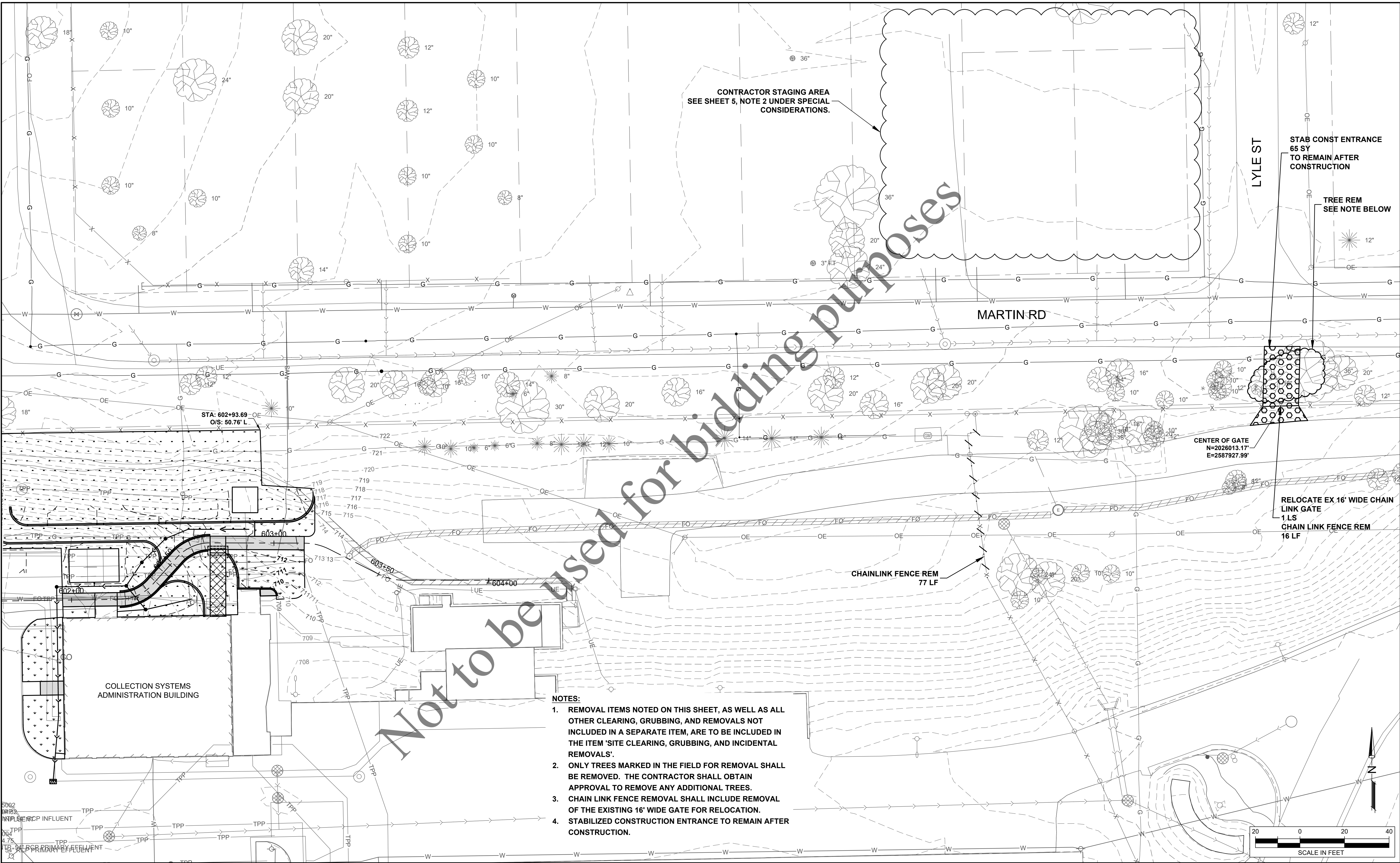
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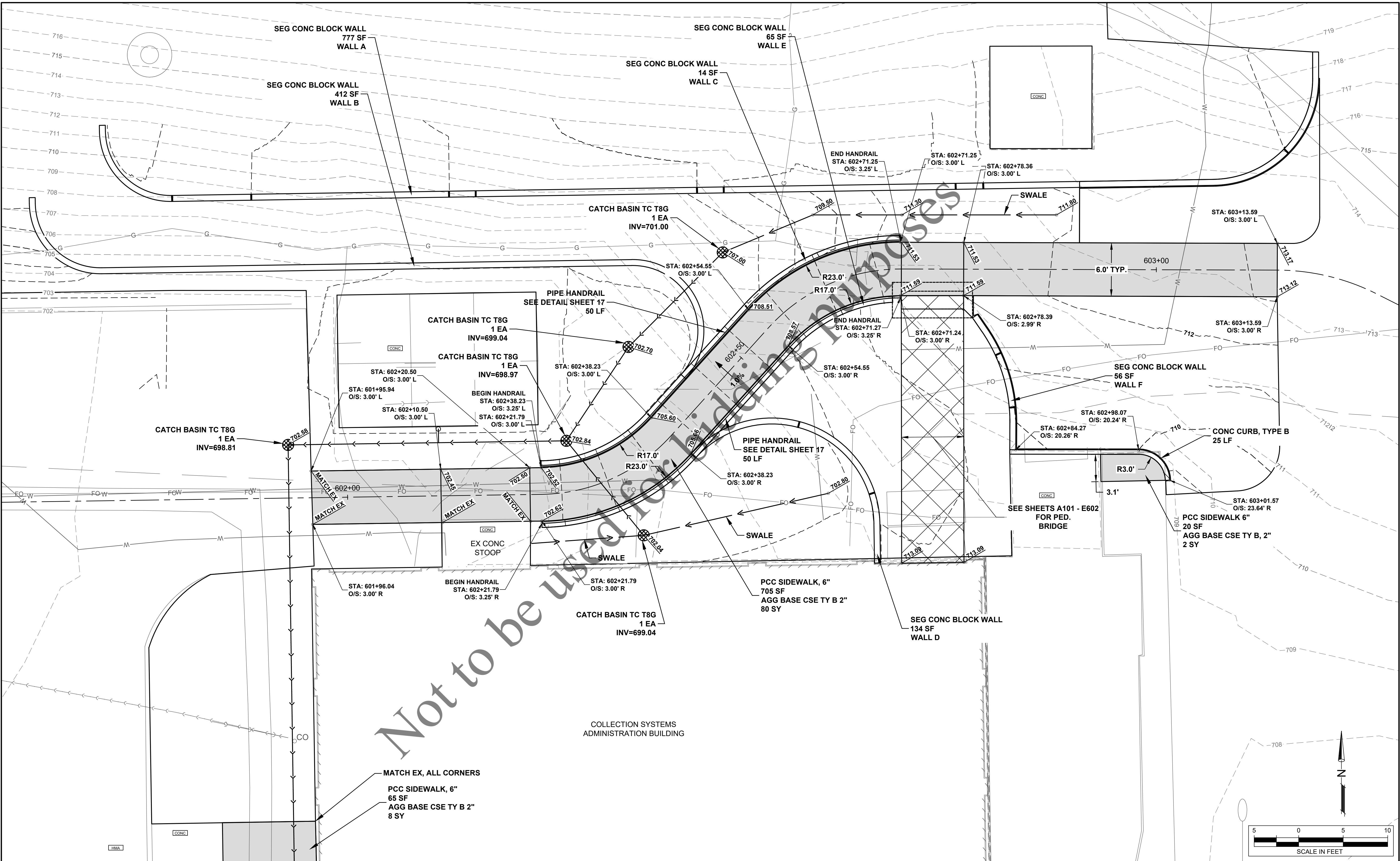
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SITE PLAN - MARTIN RD & LYLE ST

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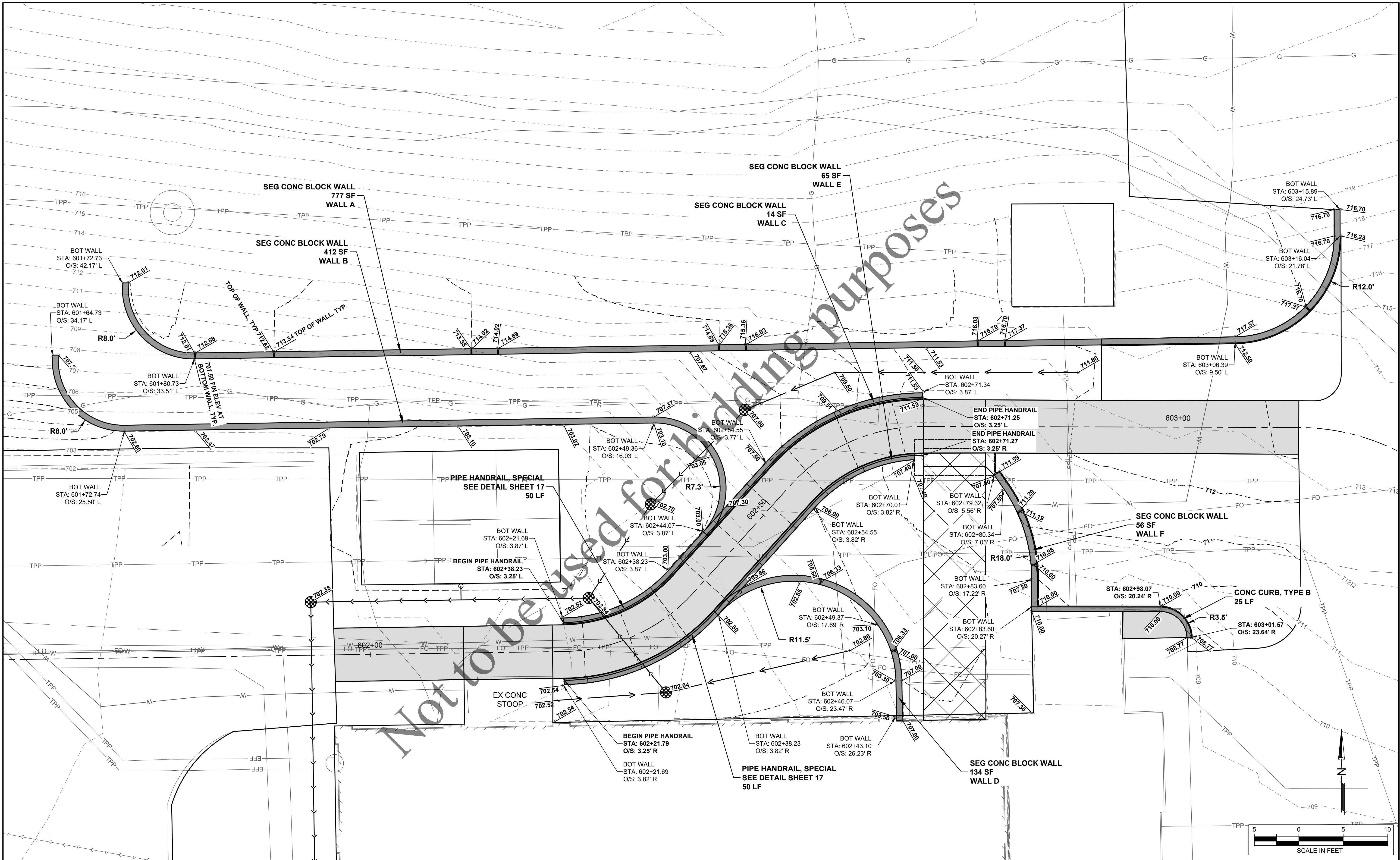
SIDEWALK LAYOUT & ELEVATIONS

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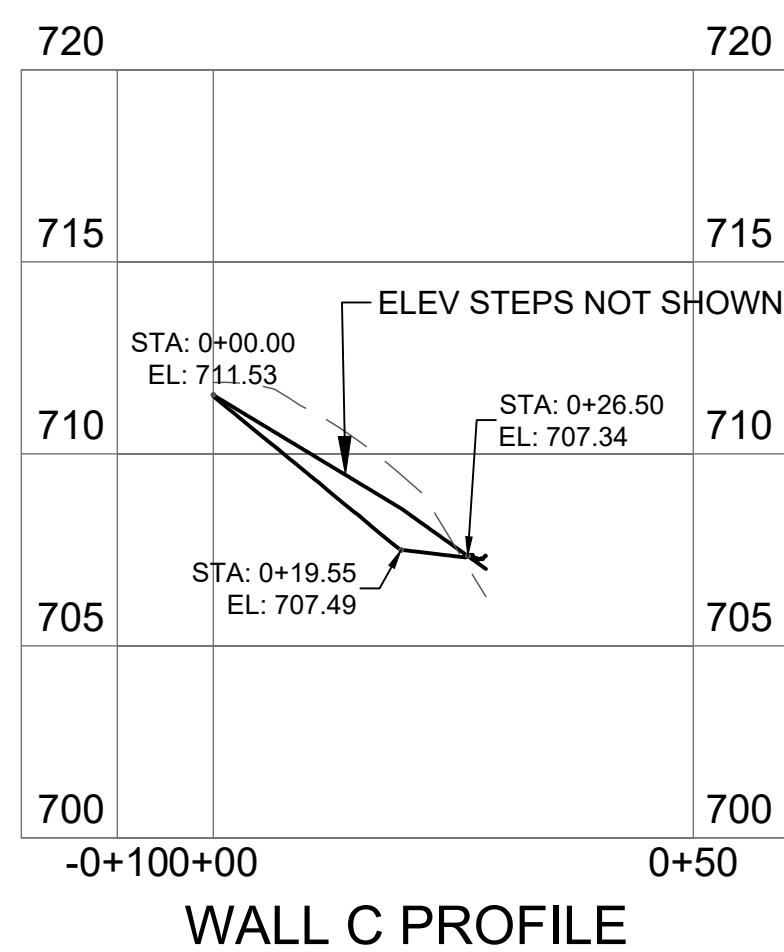
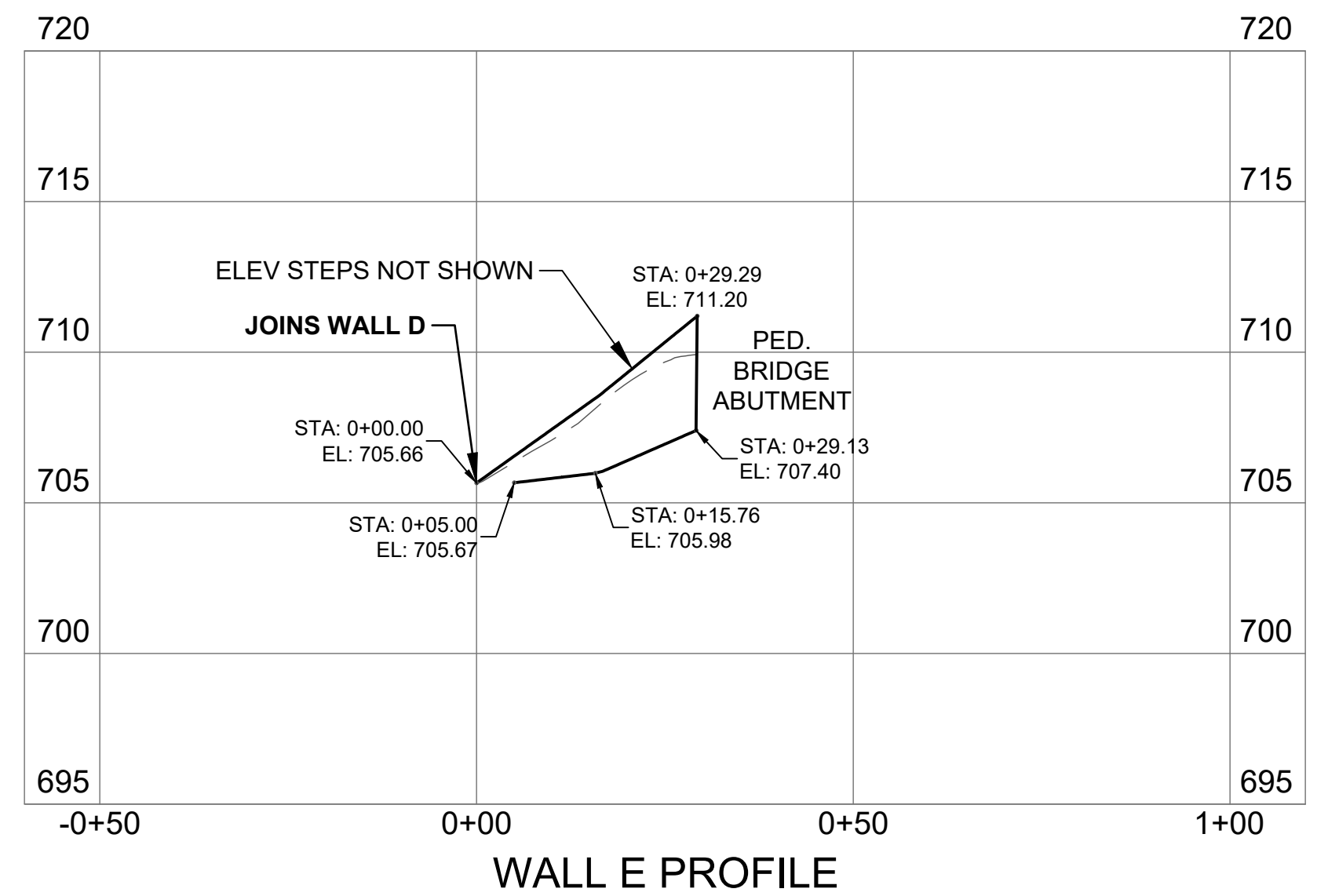
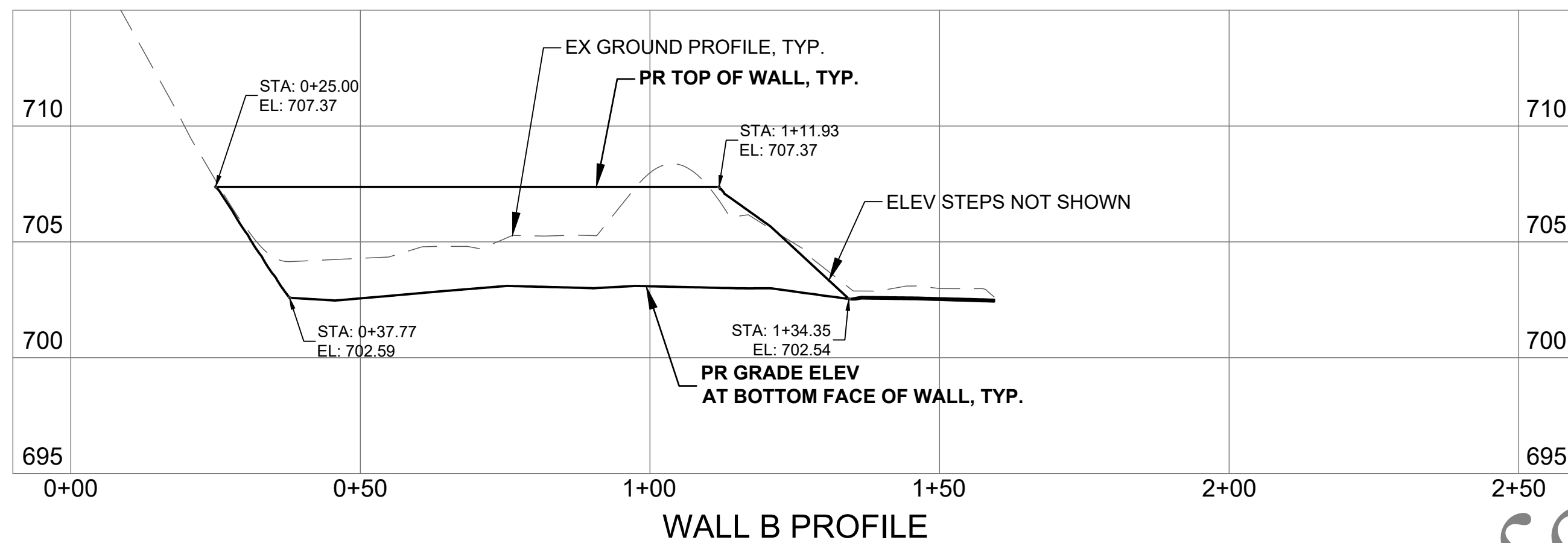
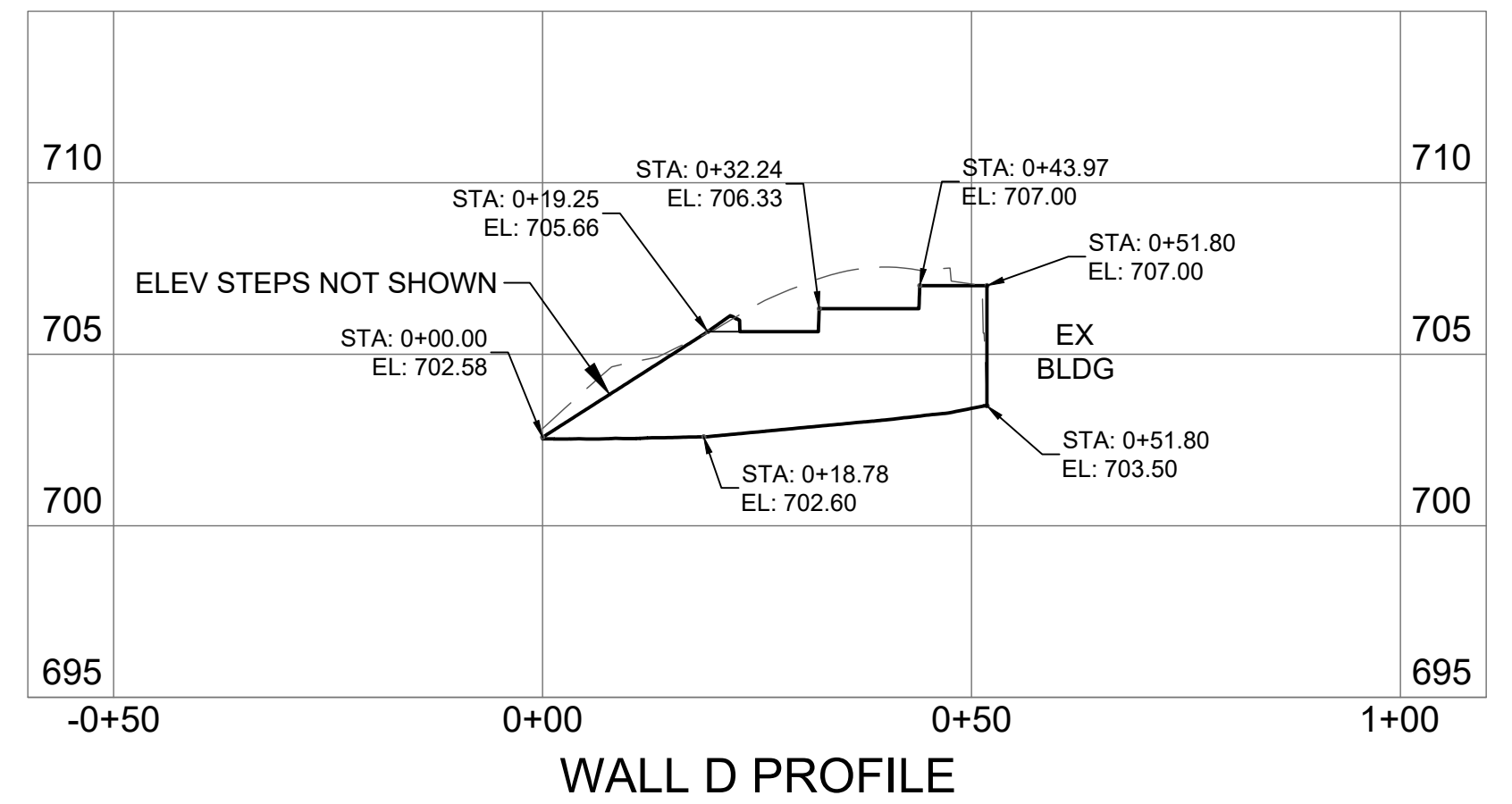
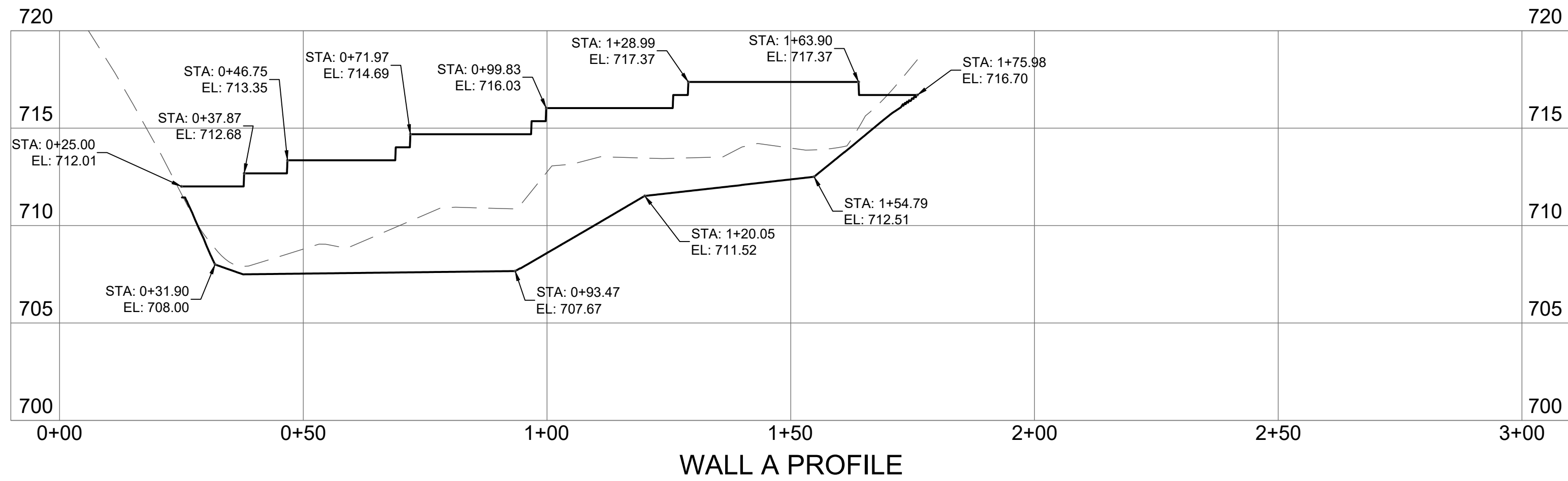


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RETAINING WALL LAYOUT

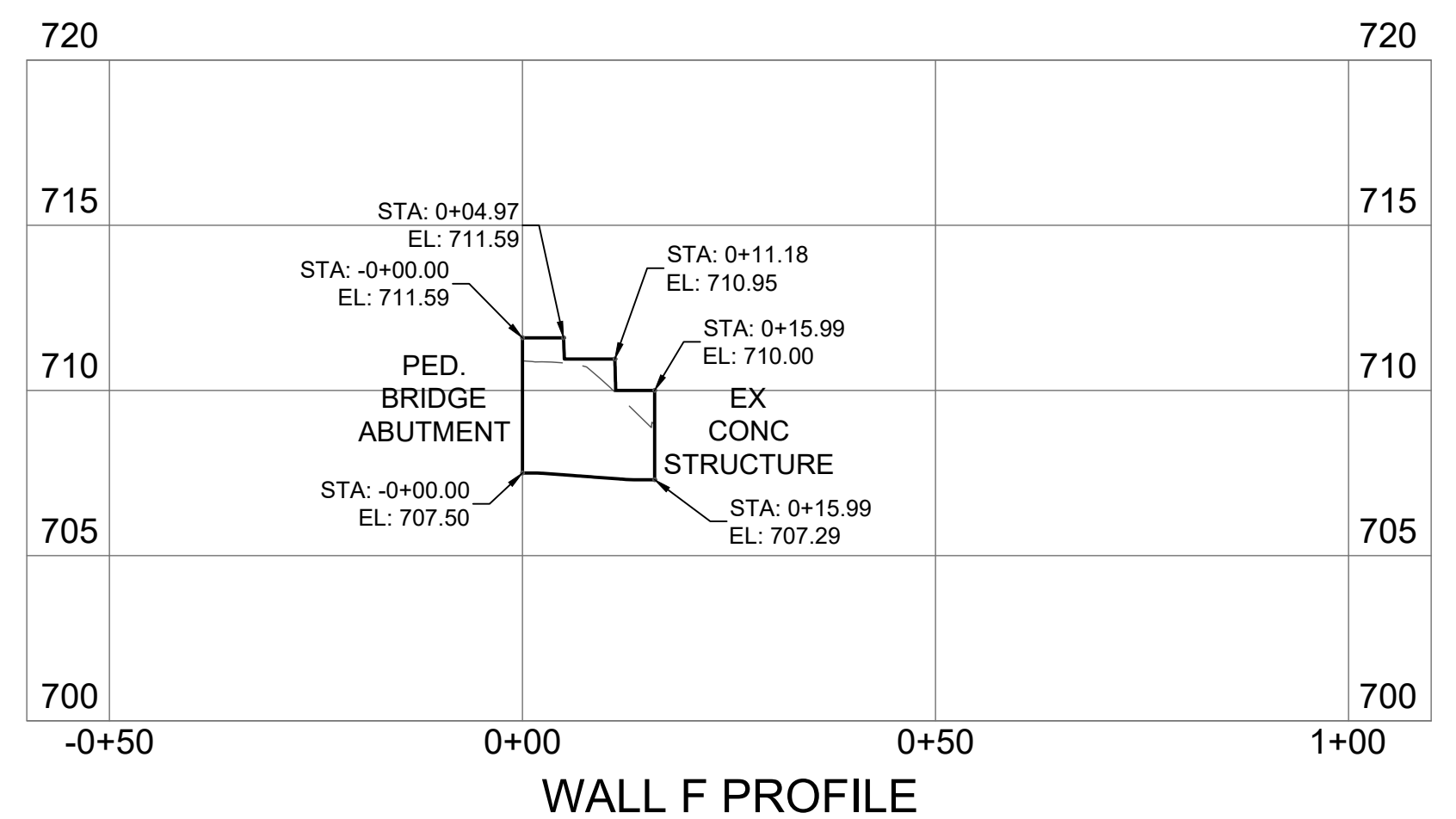
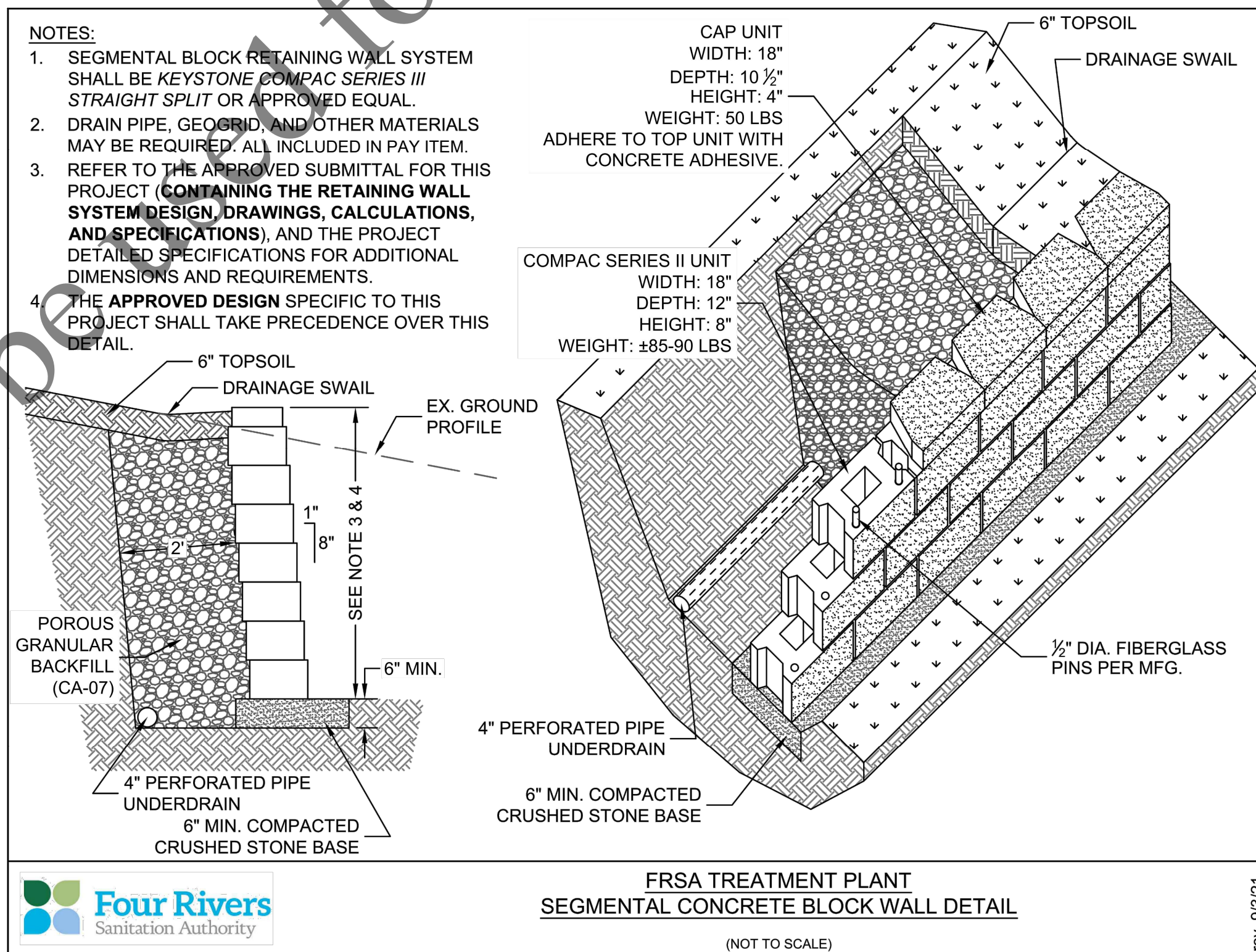
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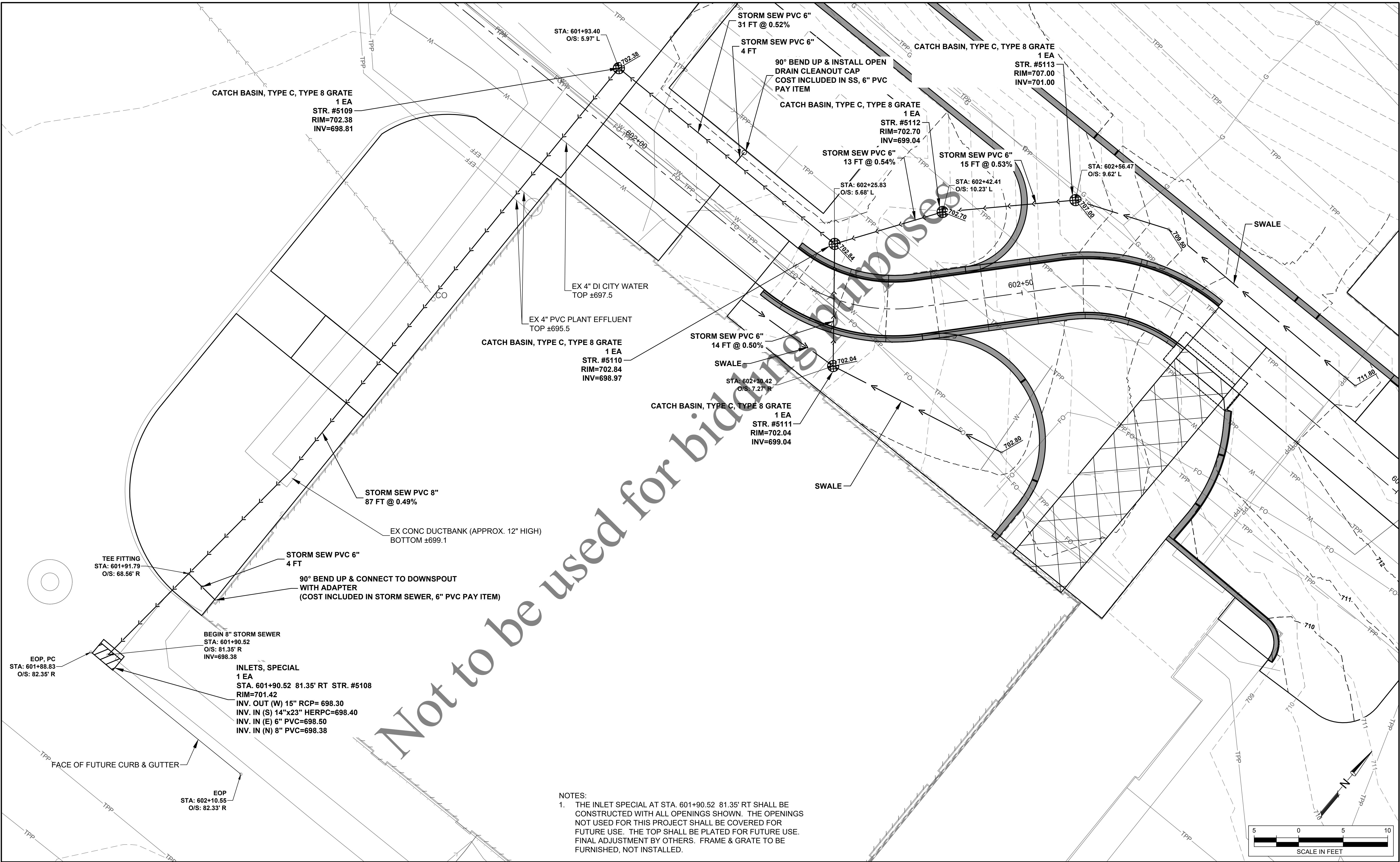
QUANTITIES

WALL	SQUARE FEET (FACE OF WALL)
A	777
B	412
C	14
D	134
E	65
F	56

- NOTES:
- WALL ALIGNMENTS & PROFILES ARE UNFOLDED ALONG FRONT FACE OF WALL.
 - NOT ALL TOP OF WALL ELEVATION STEPS ARE SHOWN.
 - BLOCK WALL ELEVATIONS ARE APPROXIMATE AND MAY VARY DEPENDING ON MANUFACTURER'S RECOMMENDATIONS.
 - CONTRACTOR SHALL SUBMIT SHOP DRAWINGS & DESIGN COMPUTATIONS PREPARED & SEALED BY AN ILLINOIS LICENSED STRUCTURAL ENGINEER TO FRSA FOR REVIEW.



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- NOTES:
1. THE INLET SPECIAL AT STA. 601+90.52 81.35' RT SHALL BE CONSTRUCTED WITH ALL OPENINGS SHOWN. THE OPENINGS NOT USED FOR THIS PROJECT SHALL BE COVERED FOR FUTURE USE. THE TOP SHALL BE PLATED FOR FUTURE USE. FINAL ADJUSTMENT BY OTHERS. FRAME & GRATE TO BE FURNISHED, NOT INSTALLED.



No.	DATE	REVISION	INT.

COLLECTION SYSTEMS ADMINISTRATION BUILDING SITE IMPROVEMENTS
CAPITAL PROJECT #2206

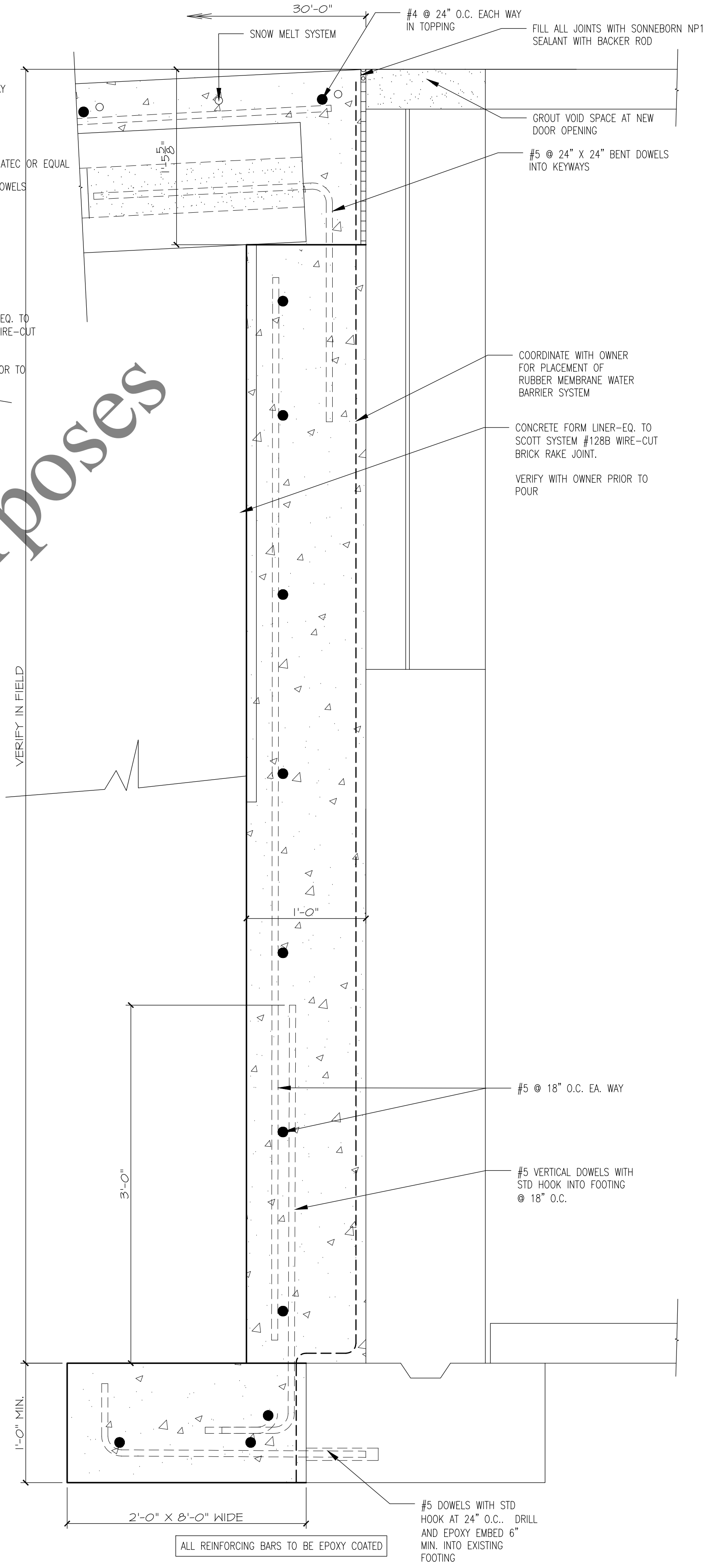
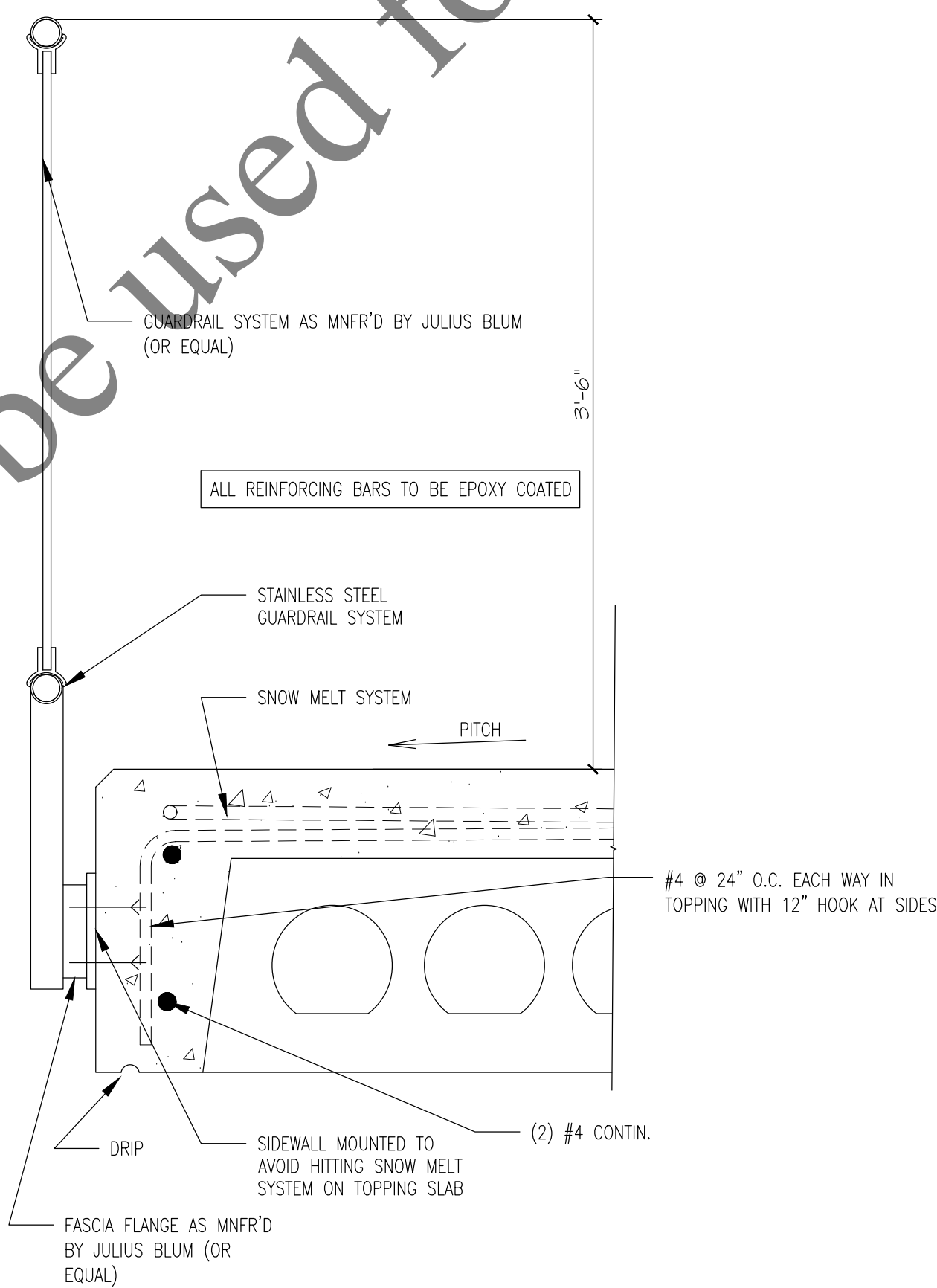
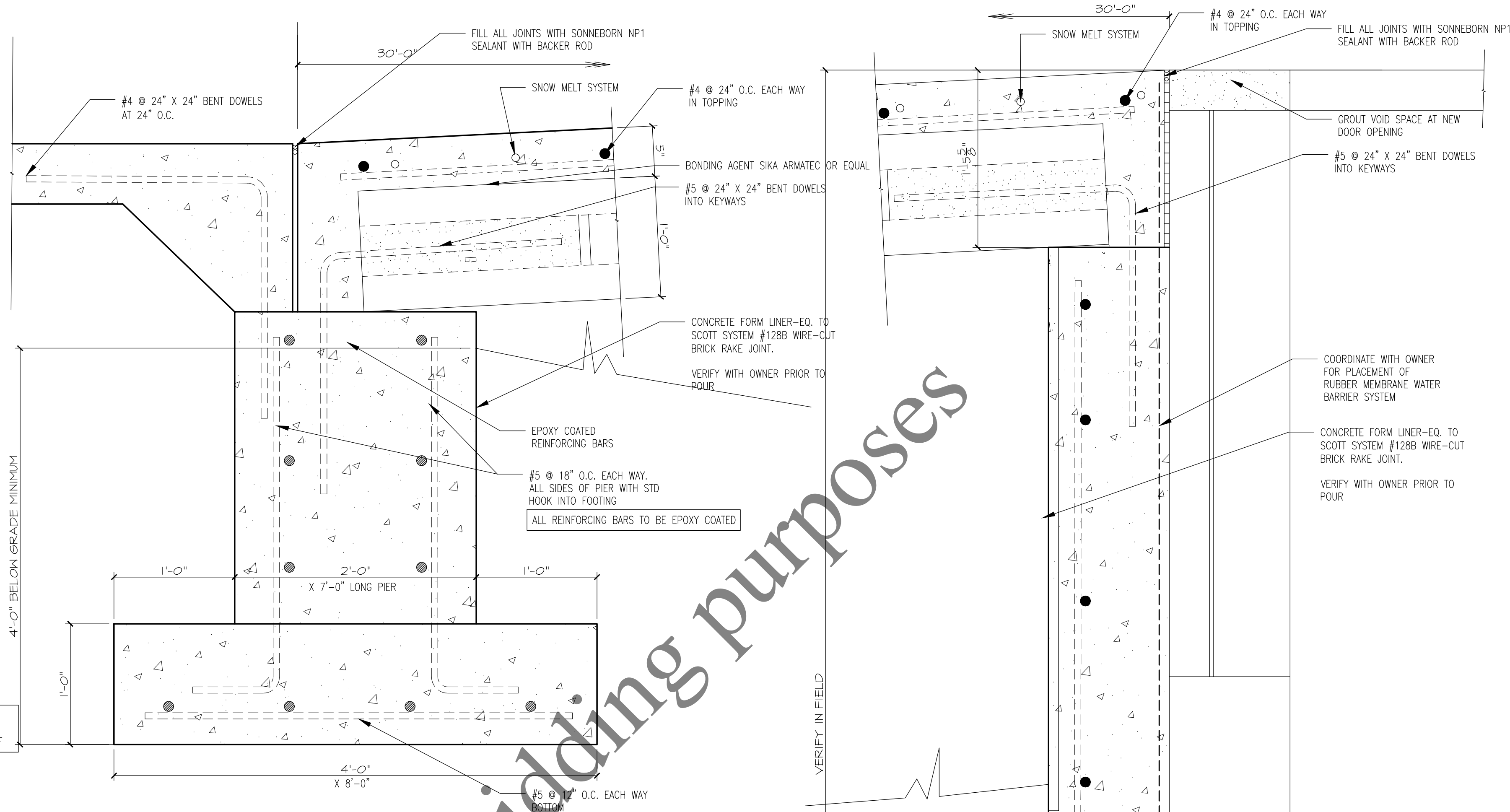
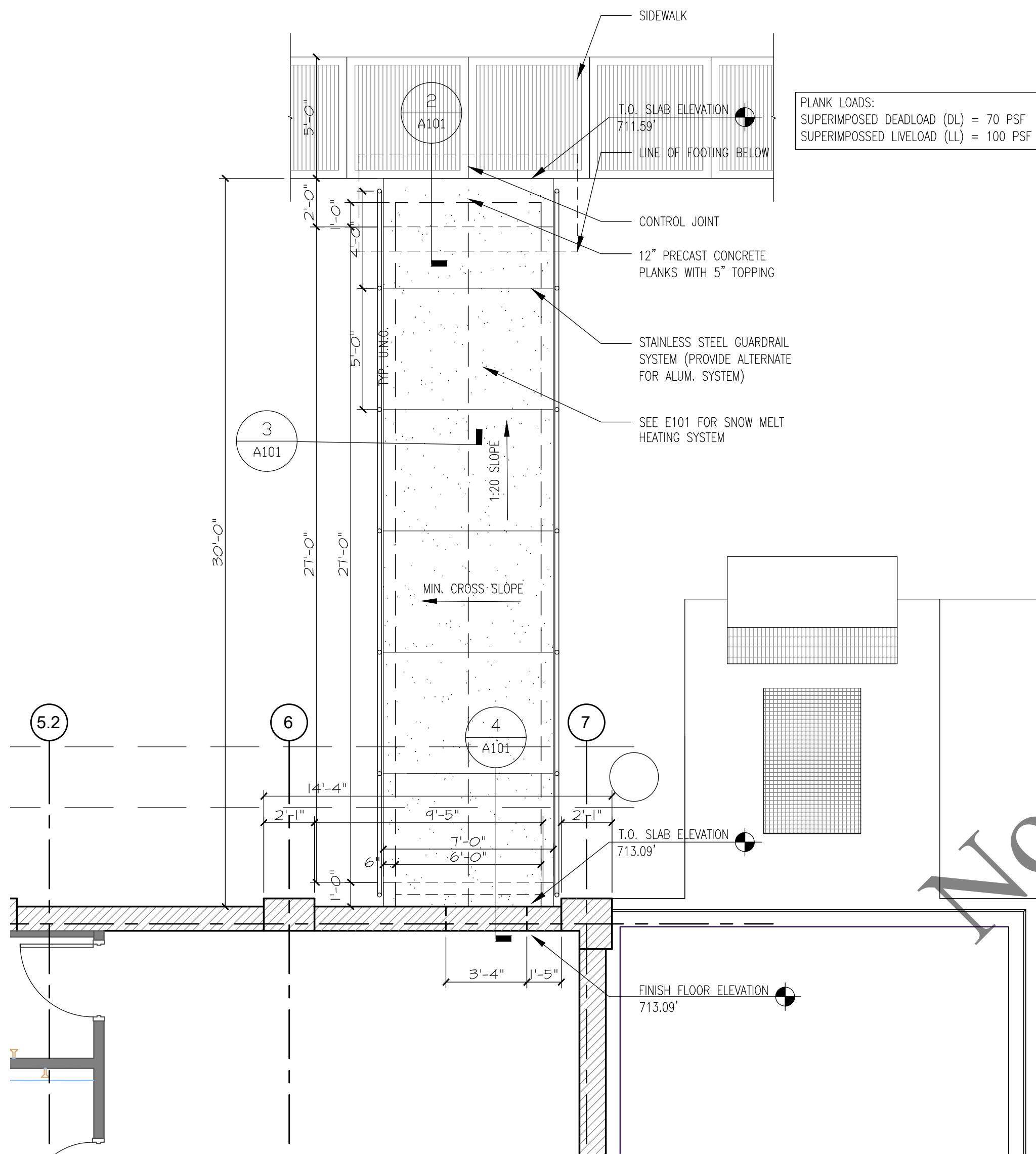
RETAINING WALL DRAINAGE

FOR-BID

Sheet No.
11 OF 18

Date:
7/22/2022

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Collections Systems
Administration
Building Site
Improvements Project

Capital Project No. 2306

for



3501 Kishwaukee Street
Rockford, Illinois

THE CONTRACTOR SHALL DETERMINE EXACT DIMENSIONS AND CONDITIONS AT THE SITE PRIOR TO SUBMITTING A BID. THE CONTRACTOR SHALL COORDINATE ALL DRAWINGS WITH ACTUAL FIELD CONDITIONS PRIOR TO PROCEEDING WITH THE WORK AND NOTIFY THE ARCHITECT OF ANY DISCREPANCIES. THIS DRAWING IS THE PROPERTY OF BLAKEMORE ARCHITECTS AND MAY NOT BE REPRODUCED WITHOUT THE PRIOR WRITTEN PERMISSION OF THE ARCHITECT.

NO.	DATE	DESCRIPTION
1.	06-16-2021	Initial Layout
2.	07-16-2021	Progress Review
3.	08-10-2021	Issued for Bids
4.	06-15-2022	Revisions

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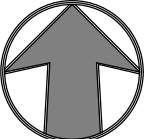
Scale

AS NOTED

Sheet Title

BRIDGE PLAN AND
DETAILS

Ref. North

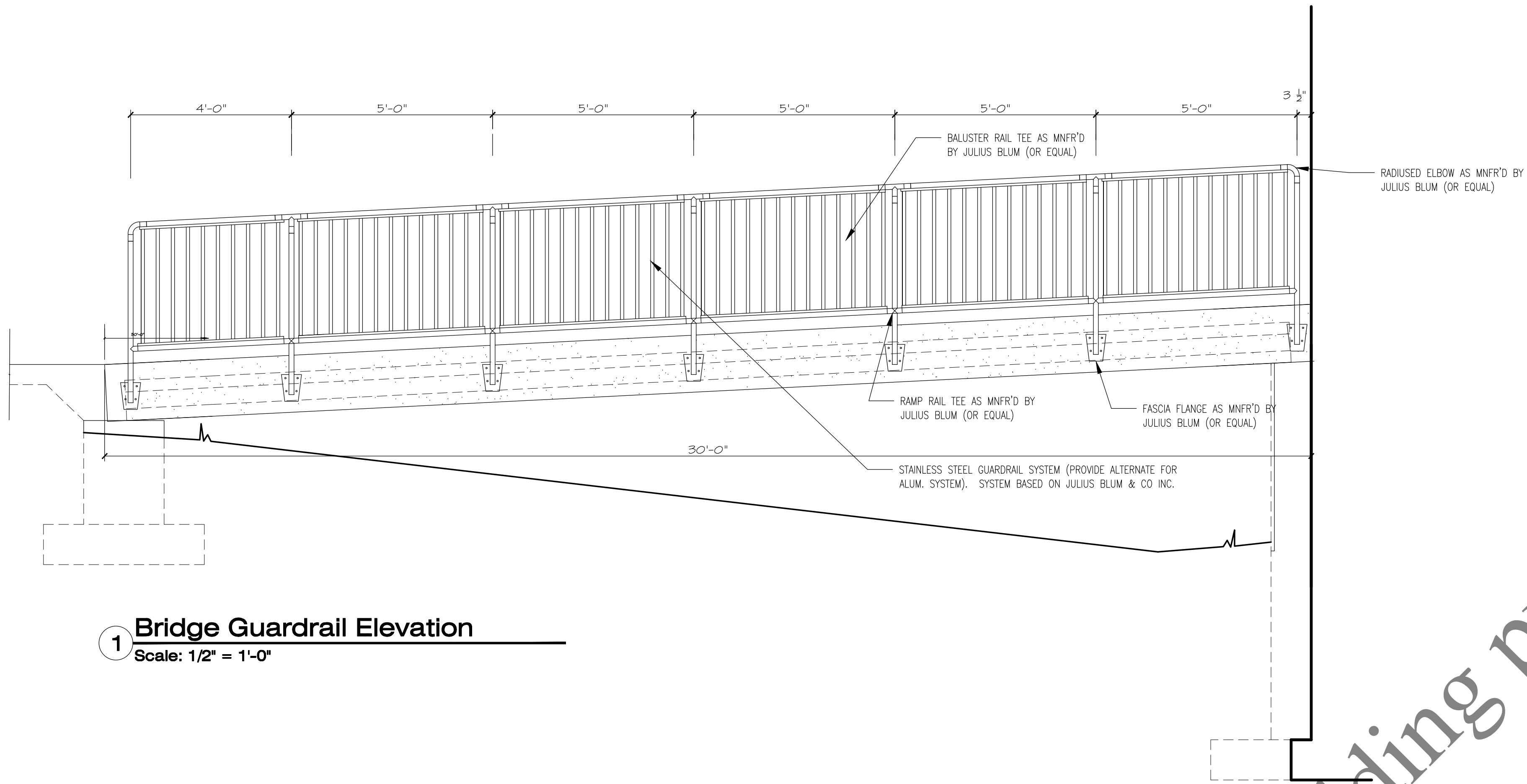


Sheet No.

A101

PROFESSIONAL DESIGN FIRM REGISTRATION #
184-003342

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1 Bridge Guardrail Elevation
Scale: 1/2" = 1'-0"

Not to be used for bidding purposes



BLAKEMORE

ARCHITECTS
400 N. First Street Rockford, IL 61107
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Email: Brian@blakemore-architects.com
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Collections Systems
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Scale

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GUARDRAIL ELEVATION

Ref. North

Sheet No.

A102

PROFESSIONAL DESIGN FIRM REGISTRATION #
184-003342

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DESIGN LOADS – DESIGN DATA		
Roof Live Load – IBC 1603.1.2	20 PSF	
Roof Snow Load – IBC 1603.1.3		
Ground snow load, P_g	30 PSF	
Flat roof snow load, P_f	17.5 PSF	
Snow exposure factor, C_e	1.0	
Snow load importance factor, I	1.0	
Snow load temperature factor, C_t	1.0	
Wind Load – IBC 1603.1.4		
Basic wind speed, mph	90 MPH	
Wind importance factor, I	1.0	
Wind exposure classification (local amend.)	B	
Internal pressure coefficient	+/- 0.18	
MWFRS (IBC 1609.6 Simplified Method)		
$P_{\text{roofmax}}=12.8/8.5 \text{ psf}$, $P_{\text{roofmin}}=15.4/-9.4 \text{ psf}$, $P_{\text{roofie}}=10.7/-7.2 \text{ psf}$		
Components per IBC Table 1609.6.2.1 (2) - Walls		
Interior Zone: 10 sq. ft. +5.9/-14.6 psf; 100 sq. ft. +4.7/-13.3 psf		
End Zone: 10 sq. ft. +5.9/-24.4 psf; 100 sq. ft. +4.7/-15.8 psf		
Corner Zone: 10 sq. ft. +5.9/-36.8 psf; 100 sq. ft. +4.7/-15.8 psf		
Earthquake Design Data – IBC 1603.1.5		
Seismic use group	B	
Spectral response coefficients, SDS and SD1	0.17/0.06	
Site class	D	
Design base shear	13,220 lbs.	
Analysis procedure	Equiv. Lat. Force ASCE7, 9.5.5	
Note: Seismic does not govern.		

GENERAL NOTES

GOVERNING CODE & DESIGN LOADS

Code:	IBC 2015 per Local Amendments
Wind:	115 mph/ exposure B-3 Sec Gust (Ultimate Load)
Roof:	30 PSF (plus snow drifting where applicable)

The roof system shown on these Drawings has been designed for code specified uniformly distributed roof snow loads, roof dead loads, and non-uniform effect of snow drift (if applicable) and a uniformly distributed loading of 3 psf to account for lighting, small pipes and ducts. In addition, the roof system has been designed for the specific concentrated loads shown or noted on the drawings. Any contractor intending to support equipment, piping, duct work, cranes or other items which will subject the roof system to concentrated loading must submit shop drawings showing weights, proposed support locations and details to BA (Blakemore Architects, Inc) for approval prior to erection. Any contractor who erects equipment without obtaining such approval will be required either to remove it and submit shop drawings or stand the cost of required reinforcement of roof members.

Unless superseded by provisions of the Code listed above, the structural design for this project has been based on the following code or specification, as appropriate, for each listed material.

Cast-in-place and precast concrete.....	ACI 318
Structural Steel.....	AISC Specifications for Structural Steel Buildings (ASD or LRFD)
Joists and Joist Girders.....	SJI – Standard Specifications
Metal Roof Deck and Steel Form Deck.....	SDI – Standard Specifications

MATERIAL STRENGTH REQUIREMENTS

2200	Assumed Soil Bearing Capacity 1,500 psf Contractor to contract with Soil Testing Engineer once ground is opened and test bearing capacity. Letter from testing engineer to be forwarded to Architect and Building Department once completed.
03200	Concrete Reinforcement Deformed Bars and Smooth Dowels: ASTM A615 Grade 60 Welded Wire Fabric: Plain ASTM A185, Deformed ASTM A497
03300	Cast-in-Place Concrete
	Structural Element f'c
	Footings 3,500 psi
	Lean Mix 500 psi
	All other 4,000 psi
05100	Structural Steel
	Rolled Shapes: ASTM A36; ASTM A572, Grade 50 if noted (50), ASTM A992 for W & WT Shapes. Plates and Bars: ASTM A36; ASTM A572, Grade 50 if noted (50). Pipes: ASTM A53 Type E Grade B HSS: ASTM A500 Grade B Structural Bolts: ASTM A325 unless noted as ASTM A490 on drawings Anchor Rods: ASTM F1554 (Fy=36ksi) Welding Electrodes: E70XX

GENERAL REQUIREMENTS

- Use of these drawings for the construction of this project carries with such use implicit acceptance of the requirements and obligations stated in the following paragraphs.
- The Contractor shall be solely responsible for supervising and directing the Work, using the Contractor's best skill and attention. The Contractor shall be solely responsible for and have control over construction means, methods, techniques, sequences and procedures and for coordinating all portions of the Work under the contract. The Contractor shall be responsible for inspection of portions of Work already performed under this contract to determine that such portions are in proper condition to receive subsequent Work.
- The Contractor shall be responsible for initiating, maintaining, and supervising all safety precautions and programs in connection with the performance of the Contract. The Contractor shall give notices and comply with all applicable laws, ordinances, rules, regulations and lawful orders of public authorities especially OSHA bearing on safety of persons or property or their protection from damage, injury or loss. The Contractor shall not load or permit any part of the construction site or construction on the site to be loaded so as to endanger its safety.
- In the event the Contractor encounters on the site material reasonably believed to be asbestos or polychlorinated biphenyl (PCB) or other known hazardous material which has not been rendered harmless, the Contractor shall immediately stop Work in the area affected and report the condition to the Owner in writing. The Work in the affected area shall not thereafter be resumed except by written agreement of the Owner and Contractor if in fact the material is hazardous and has not been rendered harmless. The Work in the affected area shall be resumed in the absence of asbestos or polychlorinated biphenyl (PCB), or other known hazardous material, or when it has been rendered harmless by written agreement of the Owner and Contractor.
- In no case shall structural alterations or work affecting a structural member be made, unless approved by BA in writing.
- Contractor shall field verify all dimensions and existing conditions and notify BA of any discrepancies before proceeding with the Work.
- Submittals shall be sent to BA based on the following procedure:

Shop Drawings – Submit one set of reproducible's and one set of prints for shop drawings specifically requested to be submitted in subsequent paragraphs of these notes for the various materials to MBA after review and approval by the Contractor. The reproducible will be returned.

BA will:

- review submittal information solely for conformance with the design concept
- approve or take other appropriate action
- stamp and return submittals to Contractor for appropriate distribution or resubmittal.

The BA review of submittals will be made for the limited purposes and are subject to the limitations and disclaimers set forth in the Contract Documents, these General Notes, and the MBA Proposal to our client. The BA review does not involve or include:

- review of submittal dimensions and quantities.
- acceptance or assumption of any responsibility to review, analyze or evaluate any submittals including shop drawings provided to BA, or acceptance or assumption of any part of Contractor's responsibilities which include the Contractor's responsibilities to review and approve of submittals, whether or not the BA review was made prior to the review and approval of the Contractor.
- review, evaluation or approval of project safety precautions or safety training.
- review, evaluation or approval of construction means, methods, techniques, procedures or sequences.

BA approval of a specific item does not include or indicate or constitute approval of a group or an assembly of which the item is a component.

The Contractor must notify BA, in writing, relative to any deviation from the Contract Documents, which appears in the shop drawings. Approval of the submittal containing such deviation does not constitute approval of the deviation. Approval or rejection of the deviation will only be provided by BA in a separate written communication to the Contractor.

In the event that BA reviews submittals (as a courtesy to the Contractor to reduce the time prior to the start of fabrication) such submittals having not first been reviewed and approved by the Contractor, such BA review shall not relieve the Contractor of his responsibility to perform review and approve all such submittals, nor will it create responsibility or liability on the part of BA as to the contents, accuracy or completeness of such shop drawings except as may be specifically described in the Contract Documents, these General Notes, and the Submittal Transmittal. Contractor is solely responsible for review and approval of shop drawings and other submittals, and Contractor is solely responsible for all requirements of the work of the contractor as provided for in the Contract Documents or on the agreement with the Owner.

In the event that the Contractor chooses, at its own discretion, to create shop drawings for use as erection drawings by using BA prepared Drawings or electronic files, Contractor does so at its own risk. No guarantee whatsoever is given by BA that BA Drawings are suitable for such use.

- The Contractor shall defend and indemnify and hold Blakemore Architects ("BA"), their agents and employees, harmless from all costs, damages, claims, actions and proceedings (including legal fees associated with threatened or actual lawsuits, mediations and arbitrations) of whatever nature arising out of the performance of the Work, and any modifications thereto, under the terms and conditions of the Contract Documents or arising out of, but not limited to, collapse, failure, shifting, leaning, misalignment, twisting, bending, or falling of the Work or any portion of the work whether or not said occurrence is a result of negligence on the part of the Contractor, so that the indemnity against said claims is in the nature of a strict obligation with the one exception of proved negligence (in a court of competent jurisdiction) that BA committed a design error which caused the collapse, failure, shifting, leaning, misalignment, twisting, bending or falling of the Work. Owner and Contractor acknowledge that BA has no responsibility for the manner and means of construction, including bracing, and that BA may rely on this paragraph. The indemnified claims include, without limitation, any damage to tangible property or loss of use thereof and any injury to persons including sickness, disease and death, and any fines, penalties, wages lost or cost of corrective measures sustained as a result of the Contractor's failure to comply with O.S.H.A. or any other applicable rules or regulations.

- The Contractor shall conform to all applicable local, state and federal regulations.
- The General Notes and Drawings contain performance standards, tolerances and material specification. It is the responsibility of the Contractor to provide a constructed product in conformance with these criteria. If some portion of the constructed product is not in compliance with these criteria, the Contractor is responsible to repair or remove and replace the faulty construction at no cost to the Owner. The proposed repair is subject to the written approval of the Engineer and the Owner and must restore the constructed product to perform its intended purpose.

- BA is the Project Structural Engineer of Record. Unless an activity or duty is specifically identified as being performed by the Project Structural Engineer of Record in Subpart R, it will not be performed by BA. It will be performed by others. The only exception to this is the design of bottom chord stability plates for joists adjacent to columns.

- BA will analyze repairs, replacements or field modifications to anchor rods as required by OSHA subpart R. However, requests for these assessments must be initiated by the "Controlling Contractor" or the "Steel Erector", not BA.

02200 EARTHWORK

- Conform to the following:

- All local, state and federal codes, ordinances and regulations including OSHA regulations.
- Use the following:
 - Soil Material (Definitions)
 - Satisfactory materials are those conforming to ASTM D2487 groups GW, GP, GM, GC, SW, SP, SM, SC and CL.
 - Unsatisfactory materials are: ASTM D2487 groups ML, OL, CH, MH, OH, PT. Cobbles and rock fragments over 3" maximum dimension Frozen material. Vegetation, roots, wood, cinders, trash Hazardous materials
 - Fill use and required compaction.

Type	Material	Size	Use	Compaction
Slab Base Course	Crushed limestone conforming to Traffic Bond consistency pass	100% pass 3/4" sieve and 7-10% 200 sieve	Base course under slabs on grade and pavements	95% ASTM D1557
Select	Course graded soil	100% pass 1/2" sieve and less than 10% pass 200 sieve	Under slab base course or under footings	95% ASTM D1557
Stone	Well graded washed crushed stone or gravel	100% pass 1" sieve less than 3% pass 200 sieve	Backfill against walls	80% ASTM D4253 D4254
General	Satisfactory soil except GP	100% pass 3" sieve	All other fill use	90% ASTM D1557

- Contractor shall:

- Notify Owner if any of the following are encountered:
Hazardous materials (Also stop work in area)
Subsurface conditions different than portrayed in geotechnical report
Underground structures or foundations.
- Excavate all materials encountered except bedrock defined as a natural material that cannot be removed with a power excavator having a breakout force of 80,000 lbs. for bucket and stick combined.
- Grade perimeter of excavation to drain water away and provide means to remove water that enters excavation.
- Protect bottom of excavations from freezing.
- Fill over-excavated areas with select fill or lean mix concrete at direction of Geotechnical Engineer.
- Proof roll areas to receive fill using rubber tired trucks or earth moving equipment having an axle load equivalent to that of a fully loaded five cubic yard dump truck.
- Place fill in 8" uncompacted lifts.
- Do not place fill over frozen soil or on surface with snow, ice or standing water.
- Filling against walls:
 - No construction equipment may operate closer to a wall than a distance equal to the height of the wall unless the wall is properly braced to accommodate the additional earth pressure forces from the equipment.
 - Do not backfill against concrete walls until the concrete has attained its specified 28 day unless the wall is braced. Backfill building foundation walls in a balanced condition to eliminate tipping.
 - Design, installation and maintenance of any temporary wall bracing system is solely the responsibility of the Contractor for a) and c) above.
 - Compact backfill using hand operated equipment.

03200 CONCRETE REINFORCEMENT

- Conform to the latest edition of the following:

- CRSI "Manual of Standard Practice" and CRSI "Placing Reinforcing Bars".
- Applicable requirements of ACI 301, ACI 315 and ACI 318 and Section 3 of ANSI A10.9.

- Use the following materials:

- Deformed bars: ASTM A615 Grade 60.
- Wire fabric: Plain ASTM A185, deformed ASTM A497.
- Smooth dowels: ASTM A615 Grade 60.

- Contractor shall:

- Submit shop drawings for approval by MBA.
- Cold-form rebars with bends to conform to ACI 315.
- Accurately place reinforcement per ACI 301 and approved shop drawings.
- Provide Class "B" lap splices in all rebar splices in walls, piers, columns, beams and slabs.
- Unless shown otherwise on Drawings, provide the following minimum clear cover on all rebars:

Concrete cast against and permanently exposed to earth	3"
Concrete exposed to earth or weather	2"
Slabs	3/4"
Beams, columns	1-1/2"

03300 CAST-IN-PLACE CONCRETE

- Conform to the latest edition of the following:

- ACI 117 "Standard Specifications for Tolerances for Concrete Construction and Material".
- ACI 301 Specification for Structural Concrete for Buildings.
- ACI 302.1R – Guide for Concrete Floor and Slab Construction.
- ACI 304R "Guide for Measuring, Mixing, Transporting and Placing Concrete".
- ACI 305R "Hot Weather Concreting".
- ACI 306.1 Standard Specification for Cold Weather Concreting.
- ACI 318 Building Code Requirements for Reinforced Concrete.
- ANSI A10.9 American National Standard for Construction and Demolition Operations.
- ASTM C31 Standard Method of Making and Curing Concrete Test Specimens in the field.
- ASTM C94 Standard Specification for Ready Mixed Concrete.

- Use the following materials.

- Water: Clean, potable.
- Portland Cement ASTM C150 Type I. Blast furnace slag cement is not permitted.
- Fine and Coarse Aggregate: ASTM C33 except as noted subsequently max. size aggregate for concrete to be placed in forms to conform to ACI 318, Sect. 3.3.
- Fly Ash: ASTM C618 – Type F or C. 3% max. loss on ignition.
- Air Entraining Admixture: ASTM C260. In-place air entrained concrete shall have 5-7% air. Use for all concrete exposed to freeze thaw conditions including during the construction phase as well as in service.
- Concreteumps shall be as follows with tolerance plus or minus 1":

All Concrete.	3-1/2"
Concrete water to cement ratio shall not exceed the following:	0.55

03300 CAST-IN-PLACE CONCRETE

- Chemical Admixtures: At producer's option for structural concrete only. Not permitted with slabs-on-ground or pavements.
Limited to the following:
 - Water reducing
 - Retarding
 - Accelerating
 - Water reducing & retarding
 - Water reducing & accelerating
 - Water reducing high range
 - Water reducing highrange & retarding

- Contractor shall:

- Submit concrete mix design for review.
- Place concrete per ACI 302 using appropriate placing procedures. Thoroughly consolidate concrete using suitable means. Use experienced finishers.
- Place and cure concrete in hot weather per ACI 305.
- Place and cure concrete in cold weather per ACI 306.
- Use air entrained concrete for all concrete exposed to freezing and thawing and/or required to be watertight.
- Arrange for cylinders to be made for test per ASTM C31. One test consists of four cylinders. Make one test per each 100 c.y. of concrete placed or fraction thereof.

03600 GROUT – BUILDING STRUCTURES

- Conform to the following:

- ASTM C1107.

- Use the following materials:

- Dry Non-shrink Hydraulic Cementitious Grout – ASTM C1107 Grade C, premixed, packaged, non-metallic. Minimum 28 day compressive strength is 5000 psi per ASTM C109.
- Water: potable.

- Contractor shall:

- Store and maintain packaged materials clean and dry and protected from dampness, freezing and foreign materials.
- Maintain grout at minimum 50 degrees F. and maximum 90 degrees F. prior to, during and 48 hours after completion of grout work.
- Saturate surface with clean water 24 hours prior to grouting operations. Remove any free standing water on surface and in anchor rod holes prior to grouting.
- Mix packaged materials in accordance with manufacturer's printed instruction.
- Place grout under base and bearing plates in accordance with manufacturer's printed instructions completely filling all voids. Do not vibrate grout. Bevel edges of concrete to be grouted.
- Complete grout installation prior to installation of wall sheeting, roof sheeting or supported floors.

SHOP DRAWING NOTES:

- SHOP DRAWINGS SHALL BE SUBMITTED FOR REVIEW PRIOR TO FABRICATION IN ACCORDANCE WITH THE PROJECT SPECIFICATIONS.
- PRIOR TO SUBMITTAL TO ARCHITECT/ ENGINEER, THE GENERAL CONTRACTOR SHALL REVIEW THE SHOP DRAWINGS AND MAKE ANY CORRECTIONS REQUIRED. THE GENERAL CONTRACTOR SHALL STAMP AND SIGN THE DRAWINGS THAT HE HAS REVIEWED THEM.
- SHOP DRAWINGS PREPARED BY THE SUBCONTRACTORS, SUPPLIERS, ETC., SHALL BE REVIEWED BY THE ARCHITECT FOR CONFORMANCE WITH THE DESIGN CONCEPT ONLY.
- SHOP DRAWINGS SHALL BE FURNISHED FOR ALL STRUCTURAL DESIGN COMPONENTS. ALL SHOP SUBMITTALS TO BE SENT VIA EMAIL IN PDF FORMAT. CONTRACTOR SHALL ALLOW IN THE SCHEDULE 2 WEEKS (10 WORKING DAYS) FOR REVIEW OF ALL SHOP DRAWING DOCUMENTS.

BA

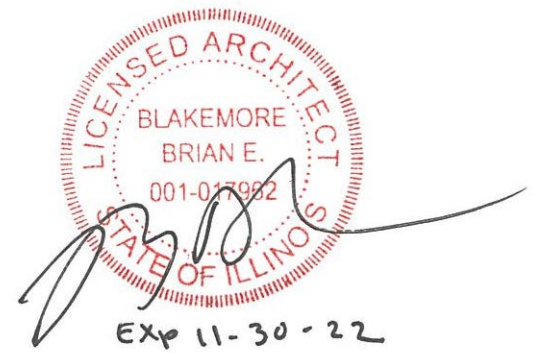
BLAKEMORE ARCHITECTS

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Collections Systems Administration Building Site Improvements Project

Capital Project No. 2306

for



3501 Kishwaukee Street
Rockford, Illinois

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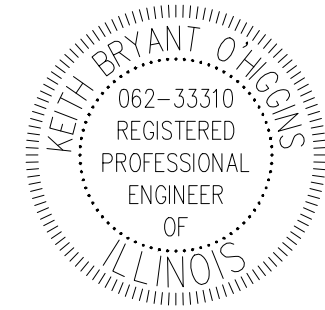
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GENERAL STRUCTURAL NOTES

Ref. North Sheet No.

S001

PROFESSIONAL DESIGN FIRM REGISTRATION #
184-003342



EXPIRES NOVEMBER 30, 2021
Keith Bryant
12-02-2021



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Bridge Project

for



3501 Kishwaukee Street
Rockford, Illinois

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Scale

as noted

Sheet Title

BRIDGE PLAN -
ELECTRICAL

Ref. North

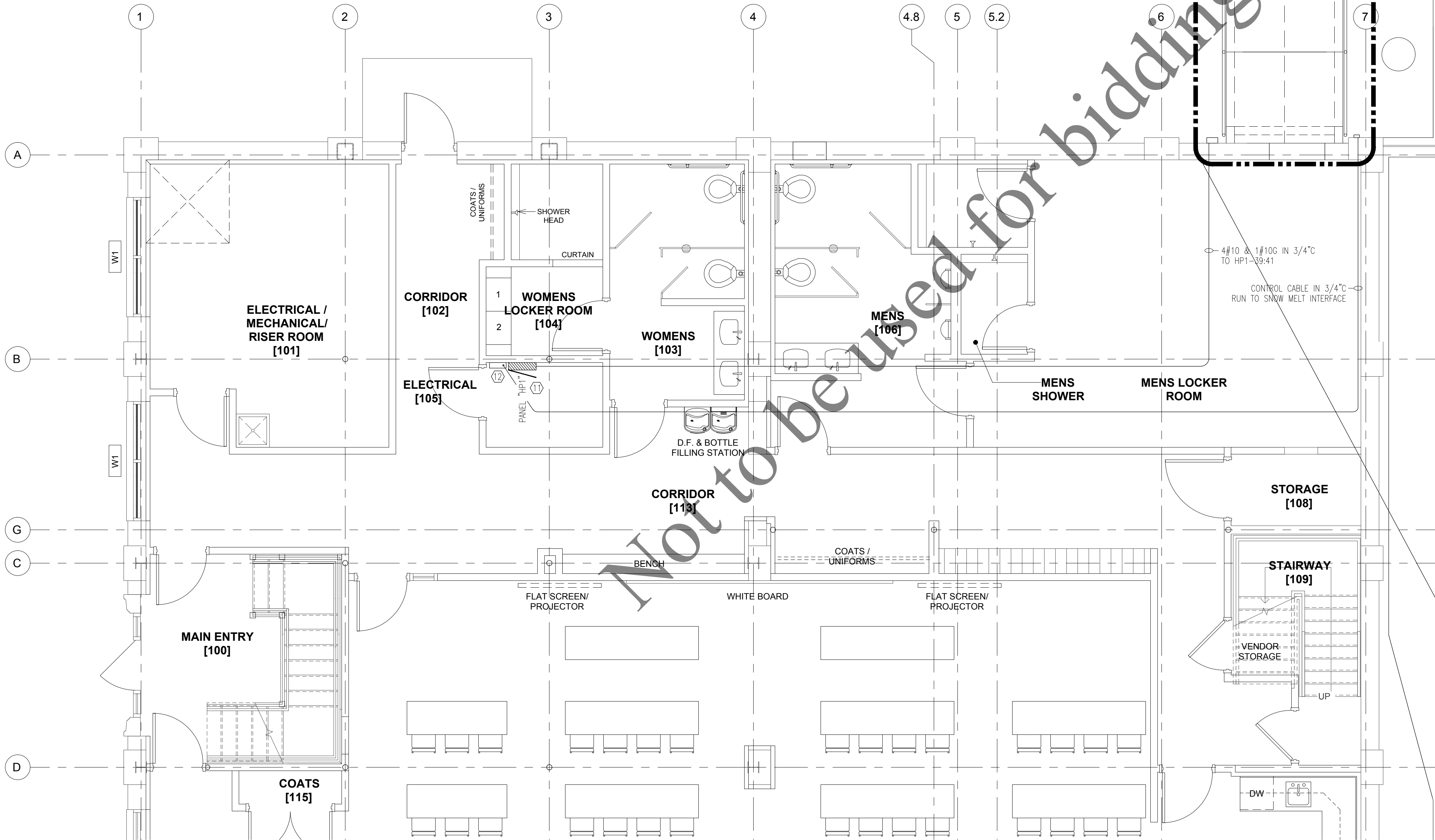
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E601

PROFESSIONAL DESIGN FIRM REGISTRATION #
184-003342

ELECTRICAL KEY NOTES:

- 1 SunTouch ProMelt ICE MELT CABLE, MODEL No. SC50277105, INSTALLED IN SLAB, 50W/SQ.FT., MOUNTED AT 3" SPACING O.C., 357 TOTAL FT. (TYP. OF 2). CABLE LENGTH IS PREDETERMINED AND CANNOT BE CUT IN FIELD. INSTALL PER MANUFACTURER REQUIREMENTS.
- 2 PROVIDE SPICE BETWEEN HEATING CABLE AND POWER CONDUCTORS PRIOR TO ENTERING CONDUIT. INSTALL PER MANUFACTURER REQUIREMENTS (TYP. OF 2).
- 3 2#10 Cu CONDUCTORS, RUN TO 30A 1P CIRCUIT BREAKER IN EXISTING PANEL "HP1", COORDINATE CCT. WITH AVAILABLE PANEL SPACE IN FIELD (TYP. OF 2).
- 4 RIGID METAL CONDUIT RUN FROM JUNCTION BOX TO IN-SLAB, A MINIMUM OF 2" INTO CONCRETE, PER MANUFACTURER REQUIREMENTS.
- 5 NEMA 4X JUNCTION BOX, SIZED AS REQUIRED, MOUNTED TO BUILDING EXTERIOR, WITH (1) 3/4" C RUN INTO BRIDGE SLAB, AND (1) 3/4" CORED INTO 1st FLOOR CEILING CAVITY. SEAL PENETRATION TO PREVENT MOISTURE INTRUSION.
- 6 3/4" C RUNNING FROM EXTERIOR JUNCTION BOX, THROUGH EXTERIOR WALL, TO EXISTING PANEL "HP1", RUN WITHIN 1st FLOOR CEILING SPACE. PROVIDE CONDUIT SUPPORT PER INDUSTRY STANDARD.
- 7 SunTouch SNOW AND ICE SENSOR 090, MOUNTED IN SENSOR SOCKET 091. INSTALL PER MANUFACTURER REQUIREMENTS.
- 8 3/4" RMC CONDUIT RUNNING IN SLAB FROM SENSOR SOCKET 091 TO JUNCTION BOX.
- 9 NEMA 4X JUNCTION BOX, SIZED AS REQUIRED, MOUNTED TO BUILDING EXTERIOR, WITH (1) 3/4" C RUN INTO BRIDGE SLAB, AND (1) 3/4" CORED INTO 1st FLOOR CEILING CAVITY.
- 10 3/4" C RUNNING FROM EXTERIOR JUNCTION BOX, THROUGH EXTERIOR WALL, TO NEW SENSOR INTERFACE 681, RUN WITHIN 1st FLOOR CEILING SPACE. PROVIDE CONDUIT SUPPORT PER INDUSTRY STANDARD. RUN CONTROL CABLE AND MAKE FINAL CONNECTIONS PER MANUFACTURER REQUIREMENTS.
- 11 PROVIDE (2) NEW 30A 1P CIRCUIT BREAKERS WITHIN EXISTING 480/277V PANEL "HP1", COORDINATE CCT. WITH AVAILABLE PANEL SPACE IN FIELD.
- 12 tekmar BACnet SNOW/ICE SENSOR INTERFACE 681. PROVIDE 120V 20A CIRCUIT TO POWER DEVICE. INSTALL AND PROGRAM PER MANUFACTURER REQUIREMENTS. COORDINATE FINAL LOCATION IN FIELD WITH OWNER AND EXISTING CONDITIONS, AND INSTALL AS REQUIRED.

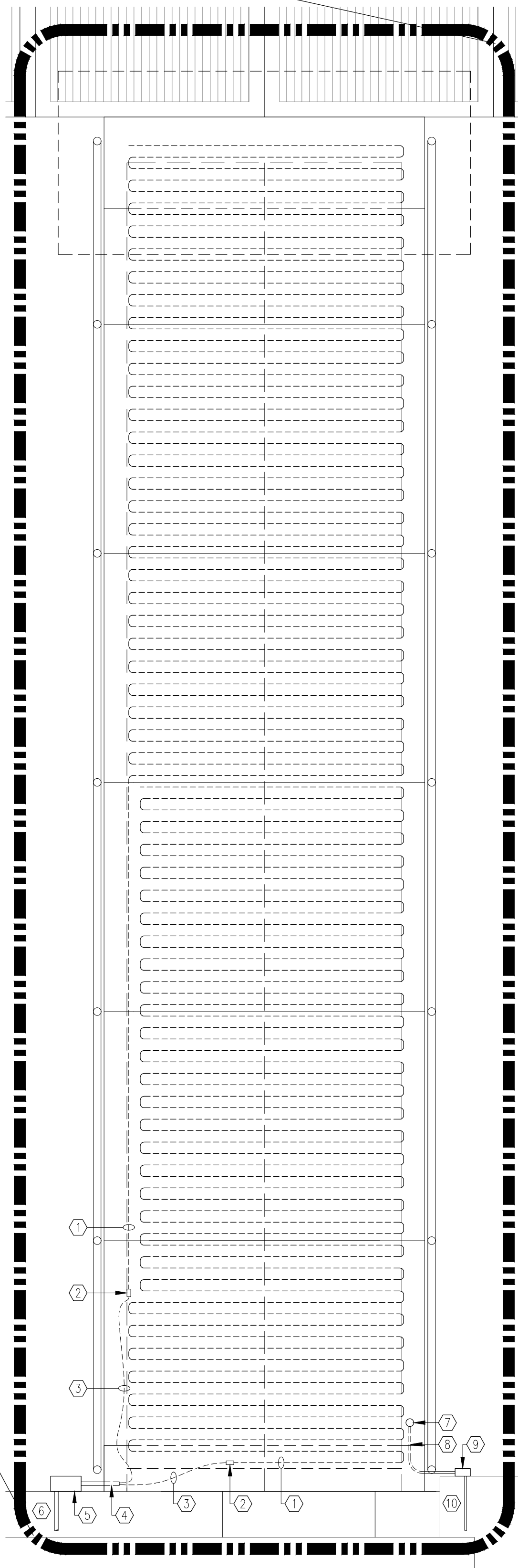


Bridge Plan - Electrical

1/4" = 1'-0"

Bridge Plan - Enlarged

1/2" = 1'-0"



Engineering Specifications

Job Name _____

Contractor _____

Job Location _____

Approval _____

Engineer _____

Contractor's P.O. No. _____

Approval _____

Representative _____

ProMelt™ Cable

Electric Snow and Ice Melt Cable

ProMelt Cable consist of a series resistance heating cable and a single power lead for easy single-point connection. The heating mat length cannot be cut to fit.

Specifications	
Supply Voltage	120V, 1-phase 208V, 1-phase 240V, 1-phase 277V, 1-phase
Maximum Heater Current	24 Amps
Maximum Circuit Load*	50 Amps
Wire Spacing	3" 4"

* Ground fault equipment protection is required for each circuit.

Heating Density				
	120V	208V	240V	277V
3" Wire Spacing		50 W/sf 170 BTU/sf		
4" Wire Spacing		38 W/sf 130 BTU/sf		

Application

ProMelt Cables are used to melt ice or snow from an exterior surface and are designed for outdoor use only, embedded in concrete, asphalt, or sand.

Application Parameters	
Min. Bend Radius	1 inch
Max. Exposure Temperature (continuous and storage)	221°F (105°C)
Max. Exposure Temperature (short-term for asphalt covering)	289°F (140°C)
Min. Installation Temperature	40°F (4.5°C)

NOTICE

The information contained herein is not intended to replace the full product installation and safety information available or the experience of a trained product installer. You are required to thoroughly read all installation instructions and product safety information before beginning the installation of this product.


SunTouch®

A WATTS Brand


ES-ST-ProMelt Cable

2111

Automate Your Snow Melting System




tekmar BACnet Snow/Ice Sensor Interface 681



Detect snow or ice and automatically operate snow melting systems with tekmar BACnet Snow/Ice Sensor Interface 681. Using tekmar snow/ice sensor technology, the 681 automatically interfaces with a Building Automation System through BACnet MS/TP to operate electric or hydronic snow melting systems.

tekmarControls.com




300090

Product: ProMelt Snow/Ice Sensor, Electric Snow Melting, Electric Snow Melting Control, ProMelt Snow and Ice Sensor 090


Part of the ProMelt Snow and Ice Sensor 090 Series

Ordering Code: 810180906

UPC: 840213205027




ProMelt Snow and Ice Sensor 090



Specifications:

ALMP Capacity	9999.00
Buy American Act Compliant	NO
Color	Black
Device Type	Sensor
Programming Capabilities	Does Not Apply To Product
Listing	N-No UL Code Rating

Share this Product



Junction Box

Power Lead

Splice not in conduit

Heating Cable

Conduit

Conduit 2"-6" (50.8 to 152.4 mm) into concrete

Concrete

ProMelt electrical leads transition from the slab to the control or electrical junction box via conduit.

120 VAC

Model No.	50 W/sft 3" Spacing (Sq Feet)	38 W/sft 4" Spacing (Sq Feet)	Cable Length (Feet)	Amp Draw	Ohms
SC50120008	8	10	29	3.3	31-39
SC50120015	15	20	59	6.3	15-19
SC50120020	20	26	78	8.3	13-17
SC50120030	30	39	118	12.5	7-9
SC50120040	40	53	158	16.7	5-7
SC50120053	53	69	208	22.1	4-6

240 VAC

Model No.	50 W/sft 3" Spacing (Sq Feet)	38 W/sft 4" Spacing (Sq Feet)	Cable Length (Feet)	Amp Draw	Ohms
SC50240015	15	20	59	3.1	64-79
SC50240025	25	33	98	5.2	46-57
SC50240030	30	39	118	6.3	30-38
SC50240040	40	53	158	8.3	26-33
SC50240045	45	59	178	9.4	20-25
SC50240055	55	72	218	11.5	18-23
SC50240060	60	79	238	12.5	14-18
SC50240065	65	85	257	13.5	12-16
SC50240075	75	98	297	15.6	11-15
SC50240080	80	105	317	16.7	10-13
SC50240090	90	118	357	18.8	9-12
SC50240105	105	137	417	21.9	8-11

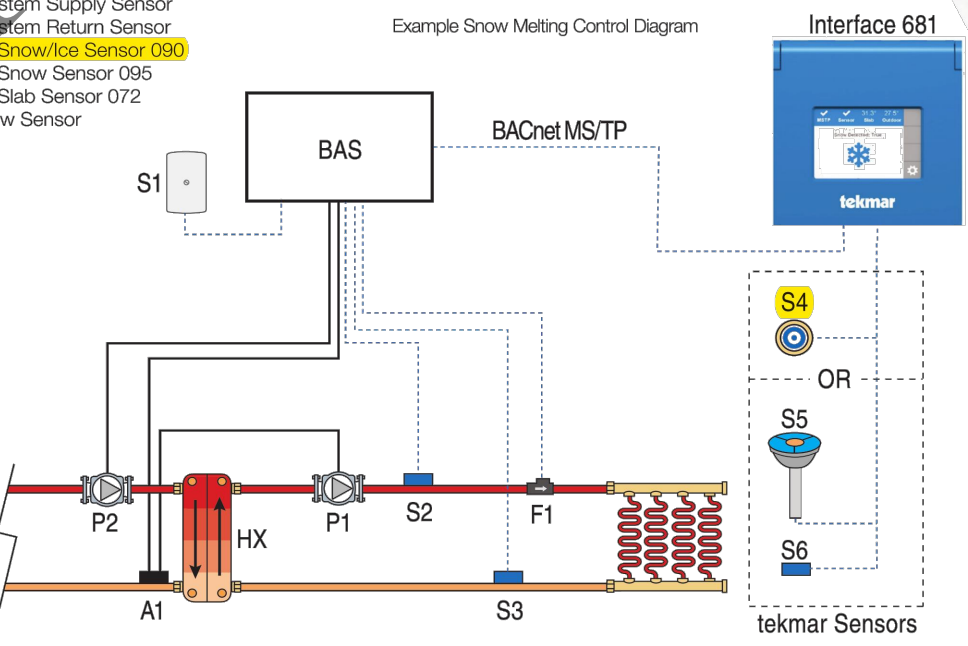
208 VAC

Model No.	50 W/sft 3" Spacing (Sq Feet)	38 W/sft 4" Spacing (Sq Feet)	Cable Length (Feet)	Amp Draw	Ohms
SC50208014	14	19	55	3.4	60-74
SC50208020	20	26	78	4.8	36-46
SC50208030	30	39	118	7.2	30-38
SC50208035	35	46	138	8.4	23-29
SC50208040	40	53	158	9.6	18-23
SC50208055	55	72	218	13.2	13-17
SC50208060	60	79	238	14.4	11-15
SC50208065	65	85	257	15.6	10-13
SC50208075	75	98	297	18.0	9-12
SC50208080	80	105	317	19.2	8-11
SC50208090	90	118	357	21.6	7-9


277 VAC

Model No.	50 W/sft 3" Spacing (Sq Feet)	38 W/sft 4" Spacing (Sq Feet)	Cable Length (Feet)	Amp Draw	Ohms
SC50277018	18	24	59	3.1	64-79
SC50277030	30	39	98	5.2	46-57
SC50277035	35	46	118	6.3	30-38
SC50277045	45	59	158	8.3	26-33
SC50277055	55	72	178	9.4	20-25
SC50277060	60	79	218	11.5	18-23
SC50277070	70	92	238	12.5	14-18
SC50277075	75	98	257	13.5	12-16
SC50277080	80	105	297	15.6	11-15
SC50277090	90	118	317	16.7	10-13
SC50277105	105	137	357	18.8	9-12
SC50277115	115	150	417	21.9	8-11


Example Snow Melting Control Diagram



tekmar Sensors



Scan to learn more




© 2021 tekmar

ES-ST-ProMelt Cable 2111

© 2021 Watts

Easy Integration with Your Building Automation System



tekmar 681 seamlessly integrates with your BAS to start snow melting when snow or ice is detected – and stop snow melting once it has melted.


tekmar 681 Features:

- Automatically detect snow and ice with aerial, in-slab, and slab sensor technology
- Interfaces with a Building Automation System to automatically operate snow melting systems
- Communicates through BACnet MS/TP protocol
- Increase energy savings with features like Warm Weather Shut Down, Cold Weather Cut Off, and Slab Target Temperature
- Supports DIN rail and panel mount applications


Legend

A1 = Freeze Protection Element
HX = Heat Exchanger
P2 = Snow Off Injection Pump
S1 = BAS Outdoor Sensor
S2 = BAS Return Supply Sensor
S3 = BAS System Return Sensor
S4 = tekmar Snow/Ice Sensor 090
S5 = tekmar Snow Sensor 095
S6 = tekmar Slab Sensor 072
F1 = BAS Flow Sensor

Interface 681




Scan to learn more



© 2021 tekmar

ProMelt Snow and Ice Sensor Socket 091



ProMelt Snow and Ice Sensor Socket 091 includes an insert that keeps the socket free of debris during complete or asphalt finishing. Secure conduit to sub-slab area to allow for installation of the Snow/Ice Sensor 090 once the surface is finished.

Features

- Includes mounting plate and protective cap

Select a Model

Select options below to identify the UPC, Order Code, and Repair Kit for a specific ProMelt Snow and Ice Sensor Socket 091.


© COPYRIGHT Blakemore Architects 2021

BA Project No. 2021-17


Scale 1/4" = 1'-0"

Sheet Title SNOW MELT SPECIFICATIONS ELECTRICAL

Ref. North Sheet No. E602



OAS
O'Higgins & Arnold
Sustainability, LLC
www.oasllc.net



EXPIRES NOVEMBER 30, 2021
12-02-2021

BLAKEMORE ARCHITECTS

400 N. First Street Rockford, IL 61107


Telephone: 815-227-0023

Email: Brian@blakemore-architects.com

Web: blakemore-architects.com

Bridge Project

for



THE CONTRACTOR SHALL DETERMINE EXACT DIMENSIONS AND CONDITIONS AT THE SITE PRIOR TO SUBMITTING A BID. THE CONTRACTOR SHALL COORDINATE ALL DRAWINGS WITH ACTUAL FIELD CONDITIONS PRIOR TO PROCEEDING WITH THE WORK AND NOTIFY THE ARCHITECT OF ANY DISCREPANCIES. THIS DRAWING IS THE PROPERTY OF BLAKEMORE ARCHITECTS AND MAY NOT BE REPRODUCED WITHOUT THE PRIOR WRITTEN PERMISSION OF THE ARCHITECT.

NO. DATE DESCRIPTION

1.	06-16-2021	Initial Layout
2.	07-16-2021	Progress Review
3.	08-10-2021	Issued for Bids

BA Project No. 2021-17

Scale 1/4" = 1'-0"

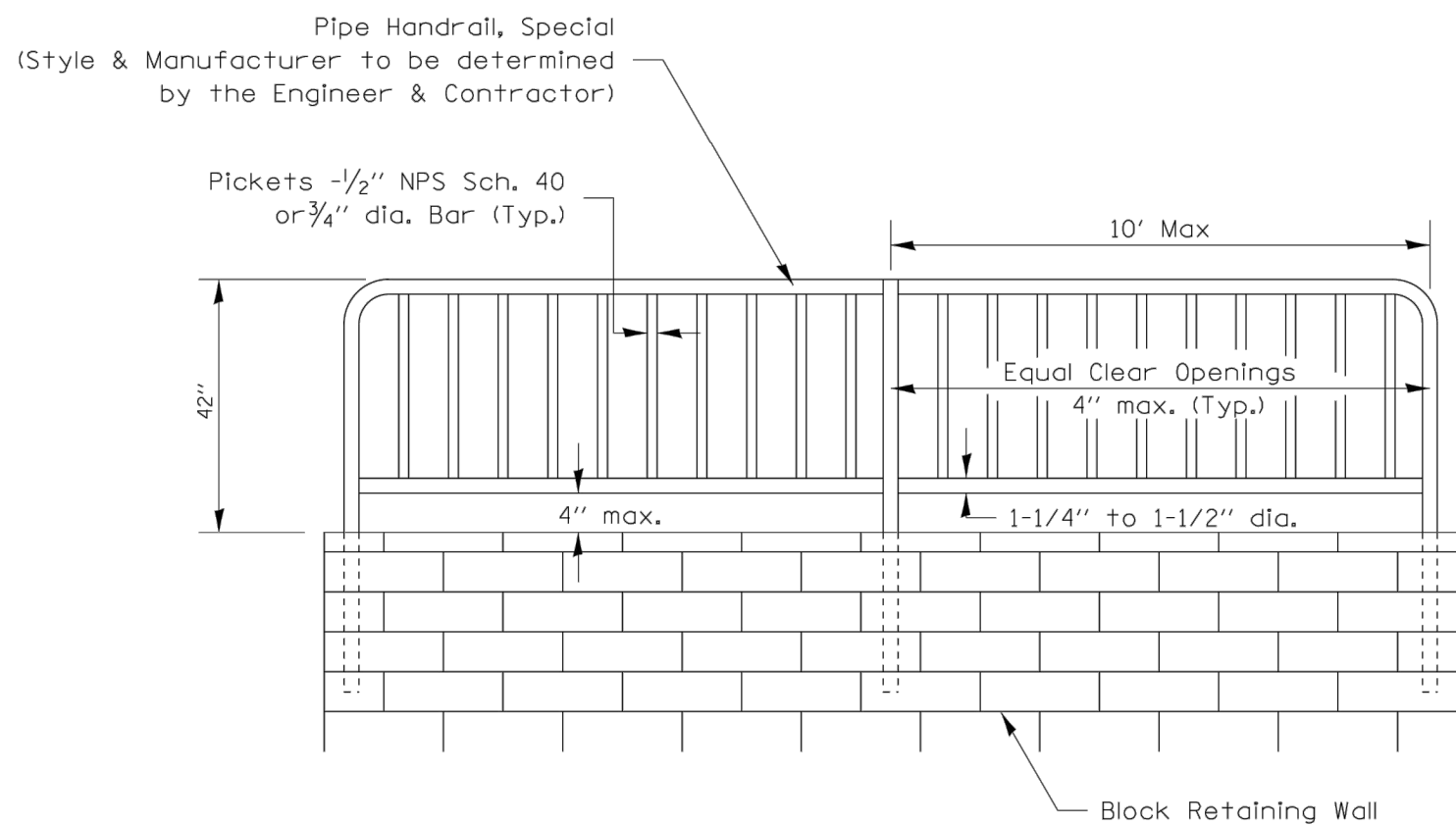
Sheet Title SNOW MELT SPECIFICATIONS ELECTRICAL

Ref. North Sheet No. E602

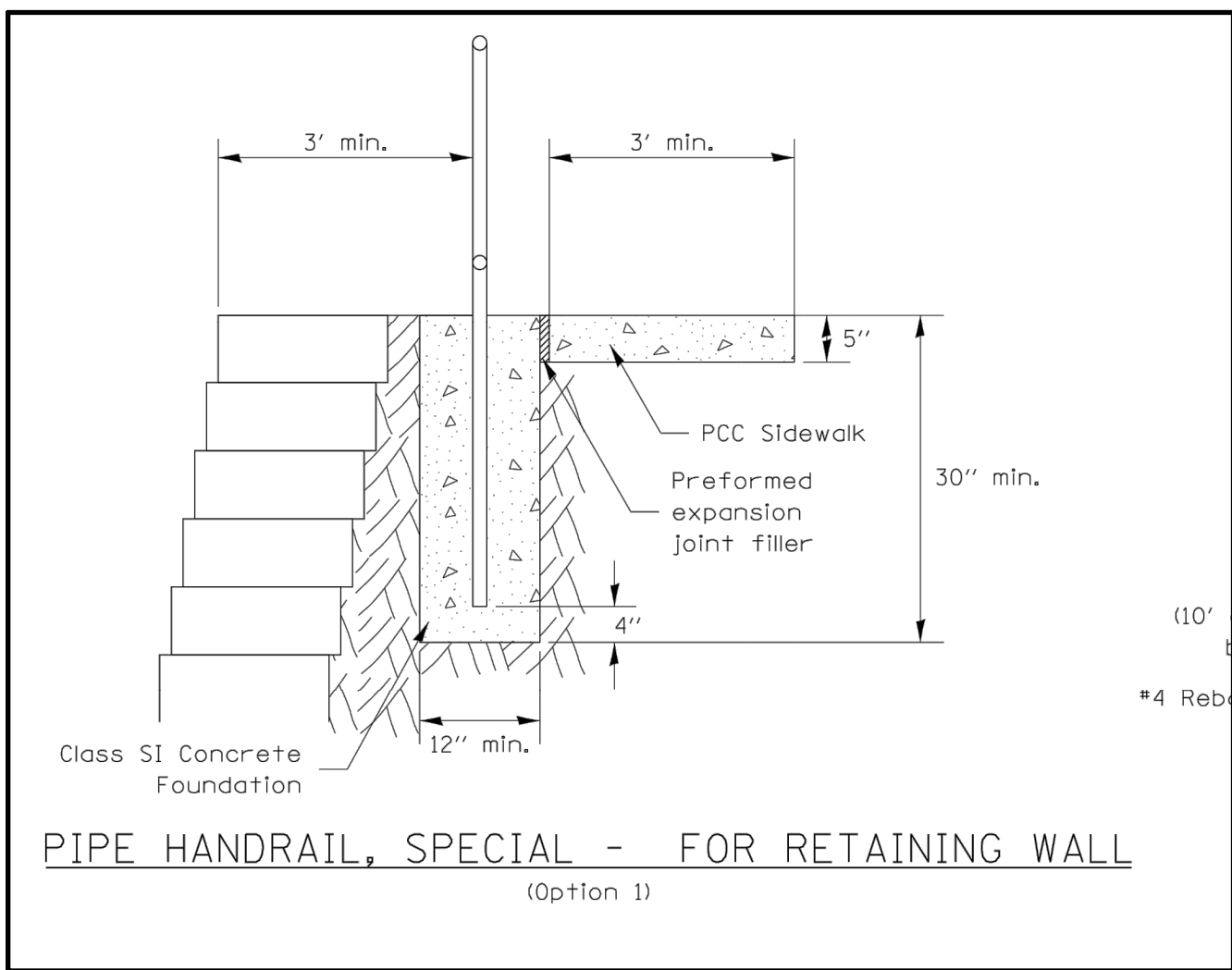
PROFESSIONAL DESIGN FIRM REGISTRATION # 184-003342

file: I:\District Projects\Collection Systems Administration Building Site Improvements 2206\01 Design\Drawings (Working Folder)\CS Admin Bldg Site Imp-Standard Sheets.dwg

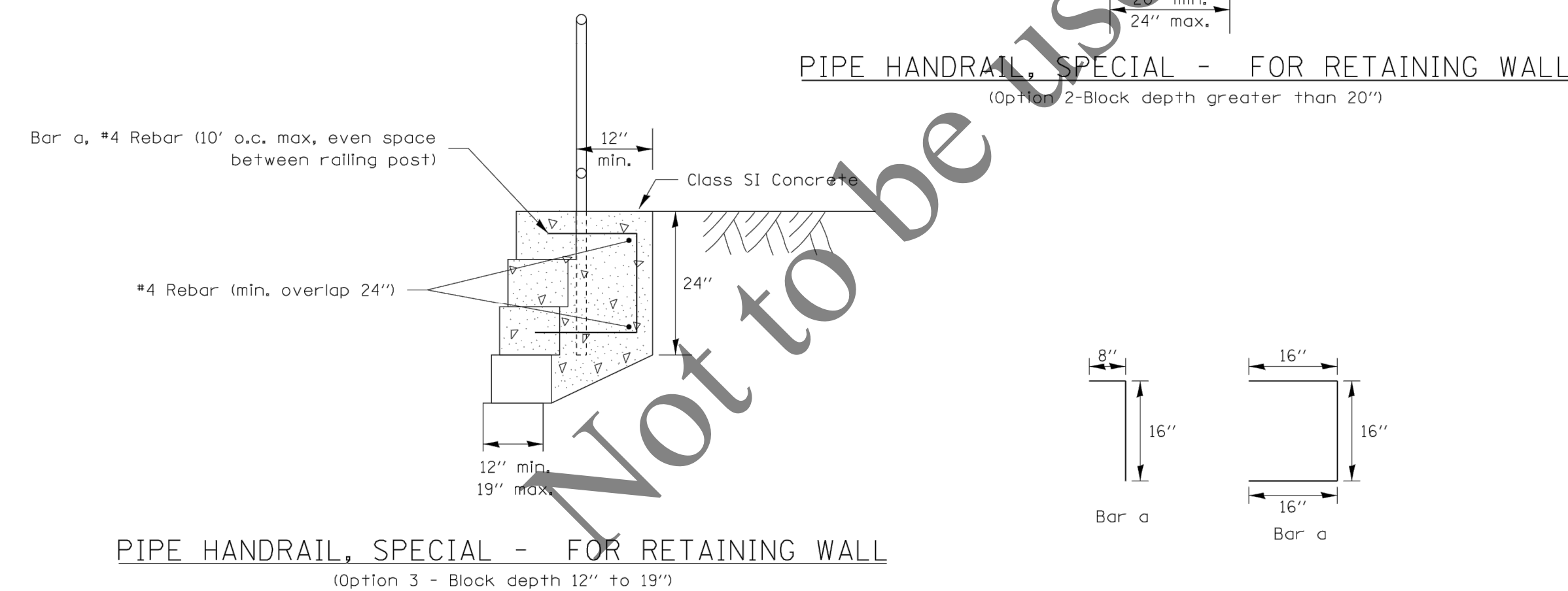
PIPE HANDRAIL, SPECIAL – FOR RETAINING WALLS



PIPE HANDRAIL, SPECIAL – FOR RETAINING WALL
(See details for installation options)



PIPE HANDRAIL, SPECIAL – FOR RETAINING WALL
(Option 1)



PIPE HANDRAIL, SPECIAL – FOR RETAINING WALL
(Option 3 - Block depth 12" to 19")

Notes:

Gripping surfaces shall be uninterrupted by construction elements, or obstructions.

Ends of handrail shall be rounded.

Handrail shall not rotate within their fittings.

Handrail shall conform to Section 509 with the exception that all pipe and connections shall be welded galvanized or aluminum according to Article 1006.30, or 1006.34.

The diameter of the gripping surface of the handrail shall be 1-1/4" to 1-1/2"

Handrail required when wall height difference is 4' or greater

Drilling of blocks will be necessary for reinforcement placement.

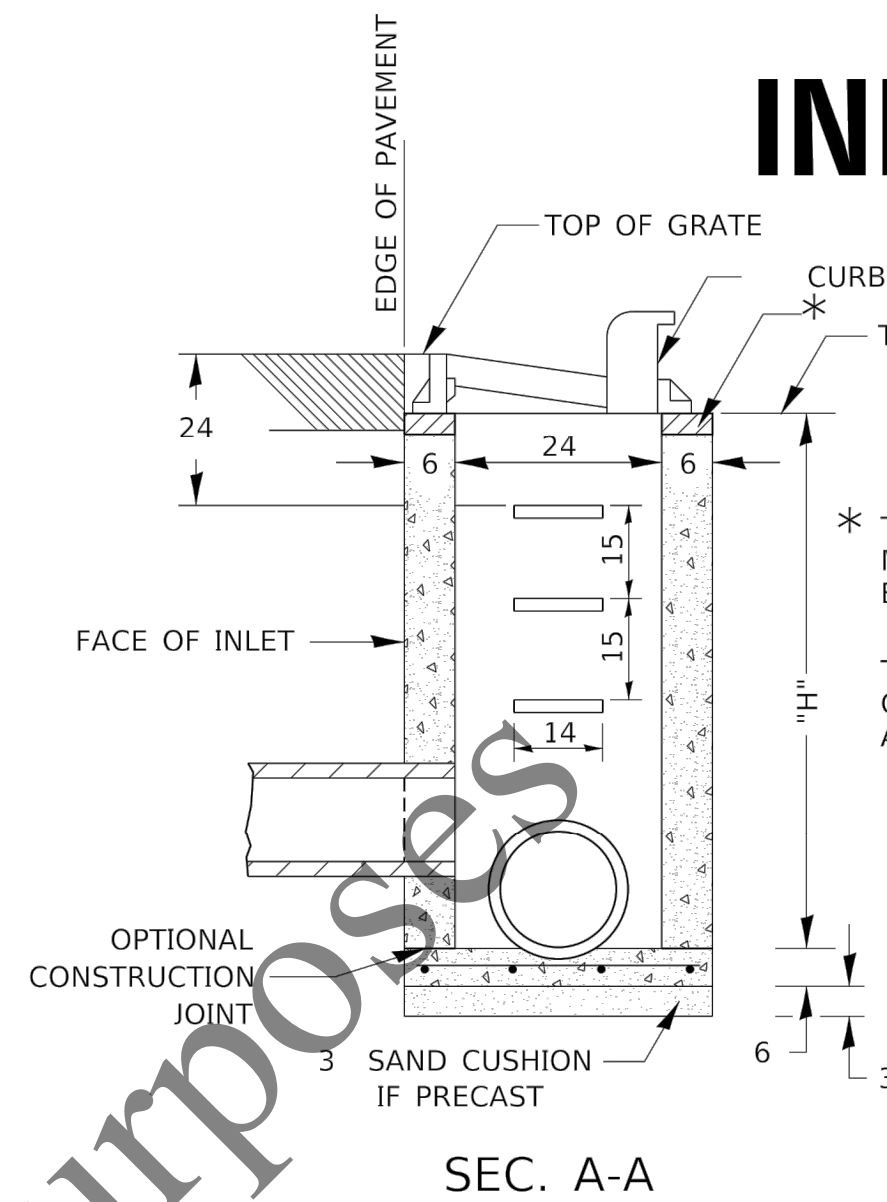
This work shall consist of furnishing and erecting Handrails as listed above and according to this detail. This work shall be paid for at the contract UNIT price per FOOT for PIPE HANDRAIL, SPECIAL.

PIPE HANDRAIL, SPECIAL – FOR RETAINING WALL
(Option 2-Block depth greater than 20")

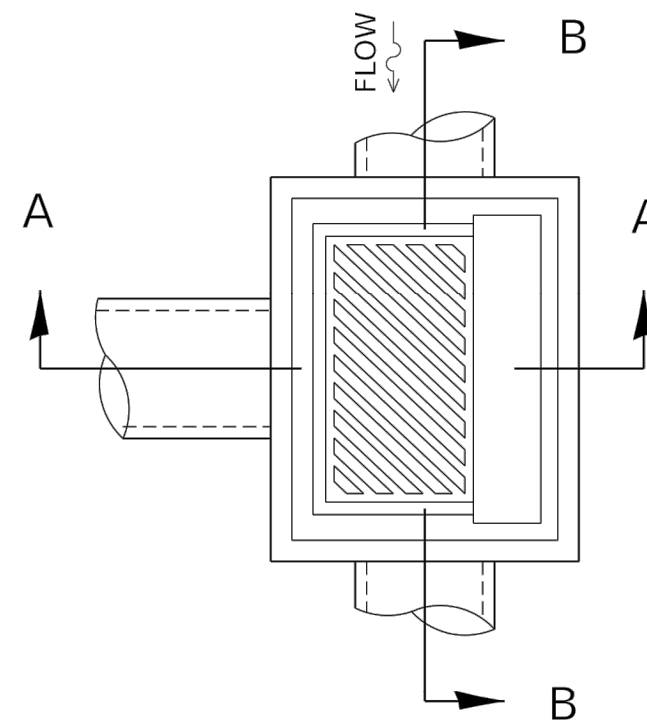
REVISED - 1-05-16	REGION 2 / DISTRICT 2 STANDARD				F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
REVISED - 12-03-14									
REVISED - 2-01-10									
REVISED -	SCALE: 1.0000' / in.	SHEET NO.	OF	SHEETS	STA.	TO STA.	CONTRACT NO.		

PIPE HANDRAIL, SPECIAL – FOR RETAINING WALLS 64.2

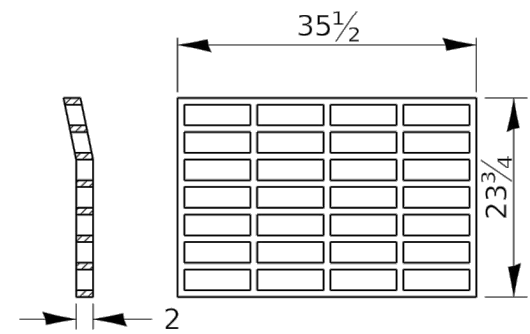
INLETS, SPECIAL



SEC. A-A

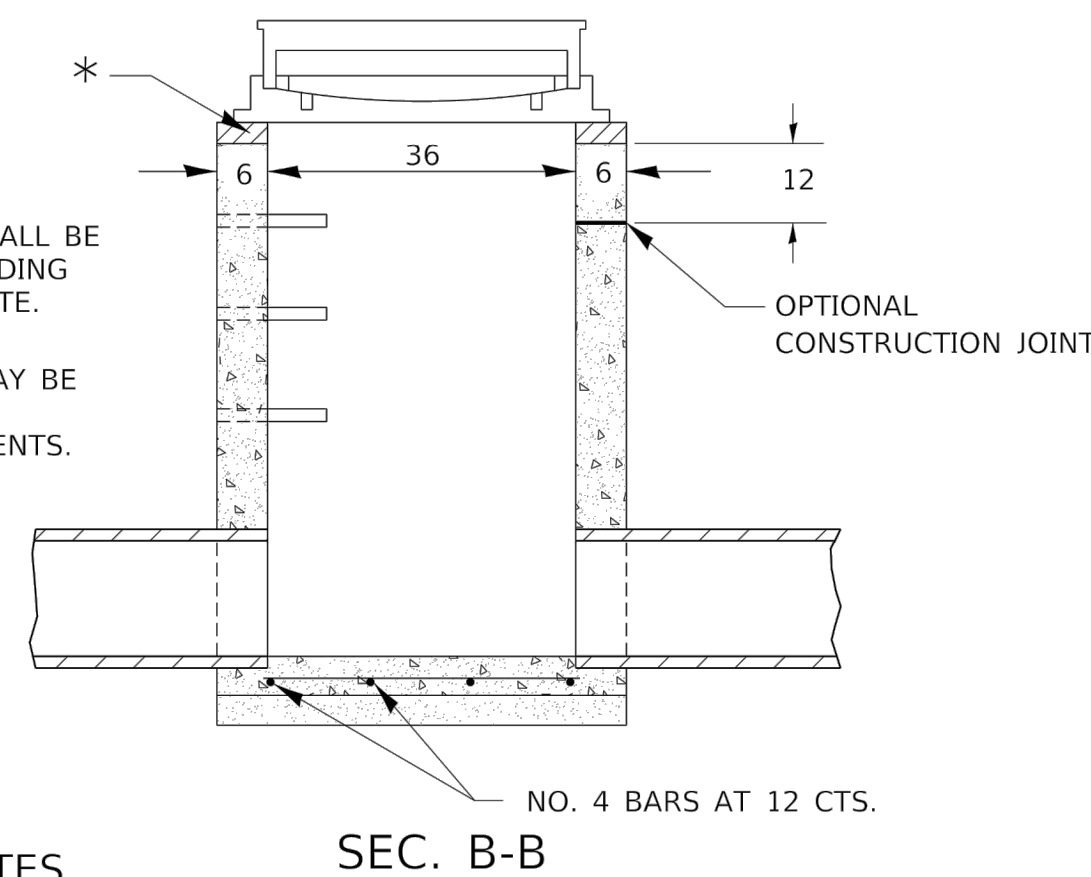


DETAIL OF FRAME & GRATE



PLAN OF GRATE *

* THIS GRATE TO BE USED WITHOUT CURB BOX WHEN INLET IS IN DRIVEWAY.



SEC. B-B

NOTES

SEE STANDARD 602701 FOR DETAILS OF STEPS.

EXCEPT AS NOTED HEREON INLET SPECIAL SHALL BE CONSTRUCTED IN ACCORDANCE WITH SECTION 602 OF THE STANDARD SPECIFICATIONS.

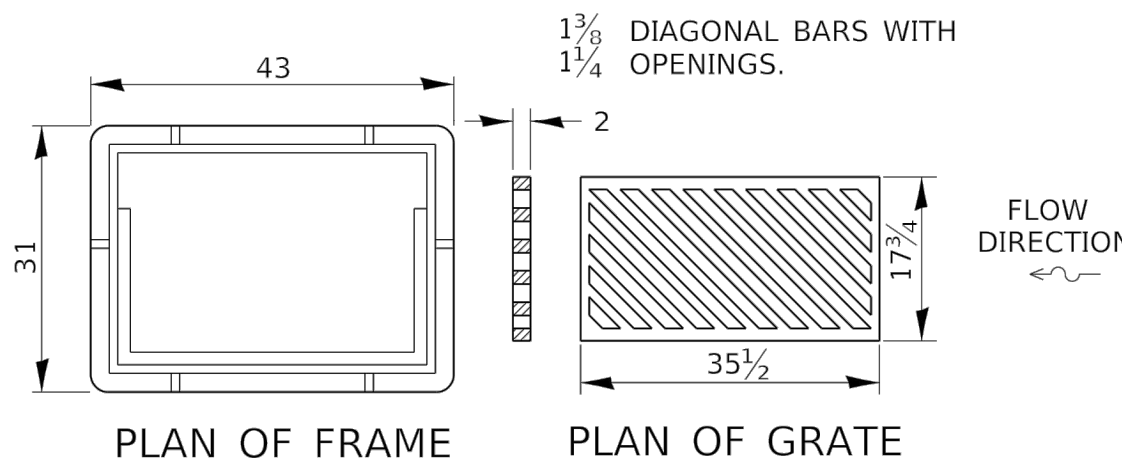
THE SIDE WALLS MAY BE BUILT AS PRECAST SEGMENTED SECTIONS.

ALL VOIDS AROUND PIPE ENTRANCE, BOTH INSIDE AND OUTSIDE, SHALL BE SEALED WITH MORTAR.

WEIGHT OF CAST IRON FRAME & GRATE = 530 lbs. ± . STEPS SHALL BE OMITTED WHEN DEPTH OF "H" IS LESS THAN 5 ft.

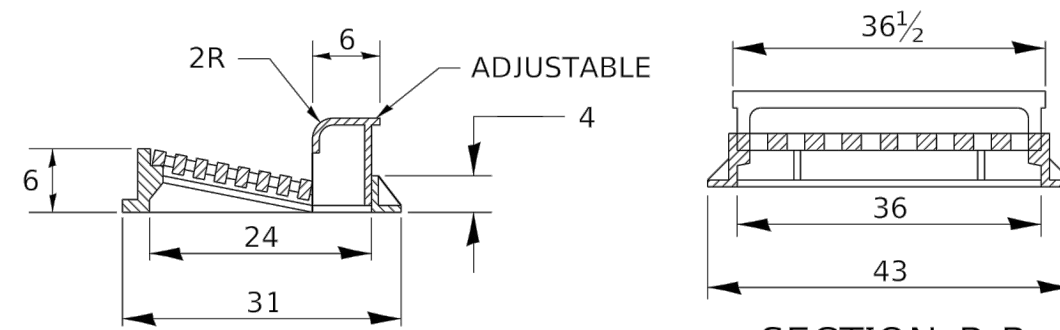
CLASS SI CONCRETE OR PRECAST CONCRETE SHALL BE USED THROUGHOUT. PRECAST CONCRETE SHALL BE IN ACCORDANCE WITH ARTICLES 504.01 THRU 504.05 OF THE STANDARD SPECIFICATIONS EXCEPT THAT CONCRETE STRENGTH SHALL BE 4,000 psi AFTER 28 DAYS.

THE CONTRACT UNIT PRICE EACH FOR INLETS, SPECIAL SHALL INCLUDE THE COST OF CONSTRUCTING THE INLET BOX, FURNISHING AND INSTALLING THE FRAME AND GRATE, THE CAST IRON STEPS (IF USED), THE PRECAST FLOOR SLABS, SAND CUSHION (WHEN USED) AND REINFORCEMENT BARS.



PLAN OF FRAME

PLAN OF GRATE



SECTION A-A

SECTION B-B

ALL DIMENSIONS ARE IN INCHES UNLESS OTHERWISE NOTED.

REVISED - 1-05-16	REGION 2 / DISTRICT 2 STANDARD				F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
REVISED - 6-27-14									
REVISED - 10-13-11									
REVISED -	SCALE: 1.0000' / in.	SHEET	OF	SHEETS	STA.	TO STA.	CONTRACT NO.		

INLETS, SPECIAL 10.2



No.	DATE	REVISION	INT.

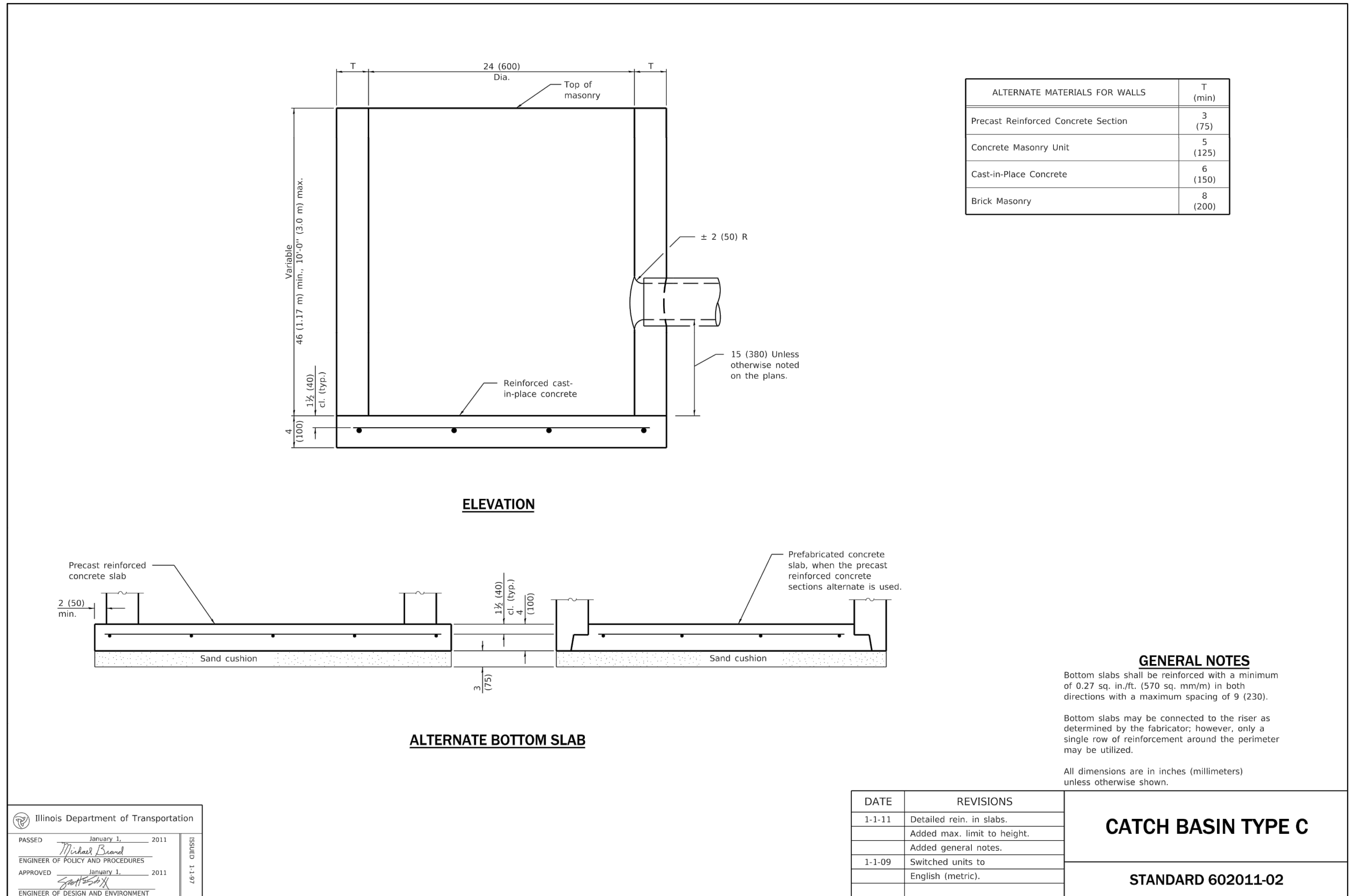
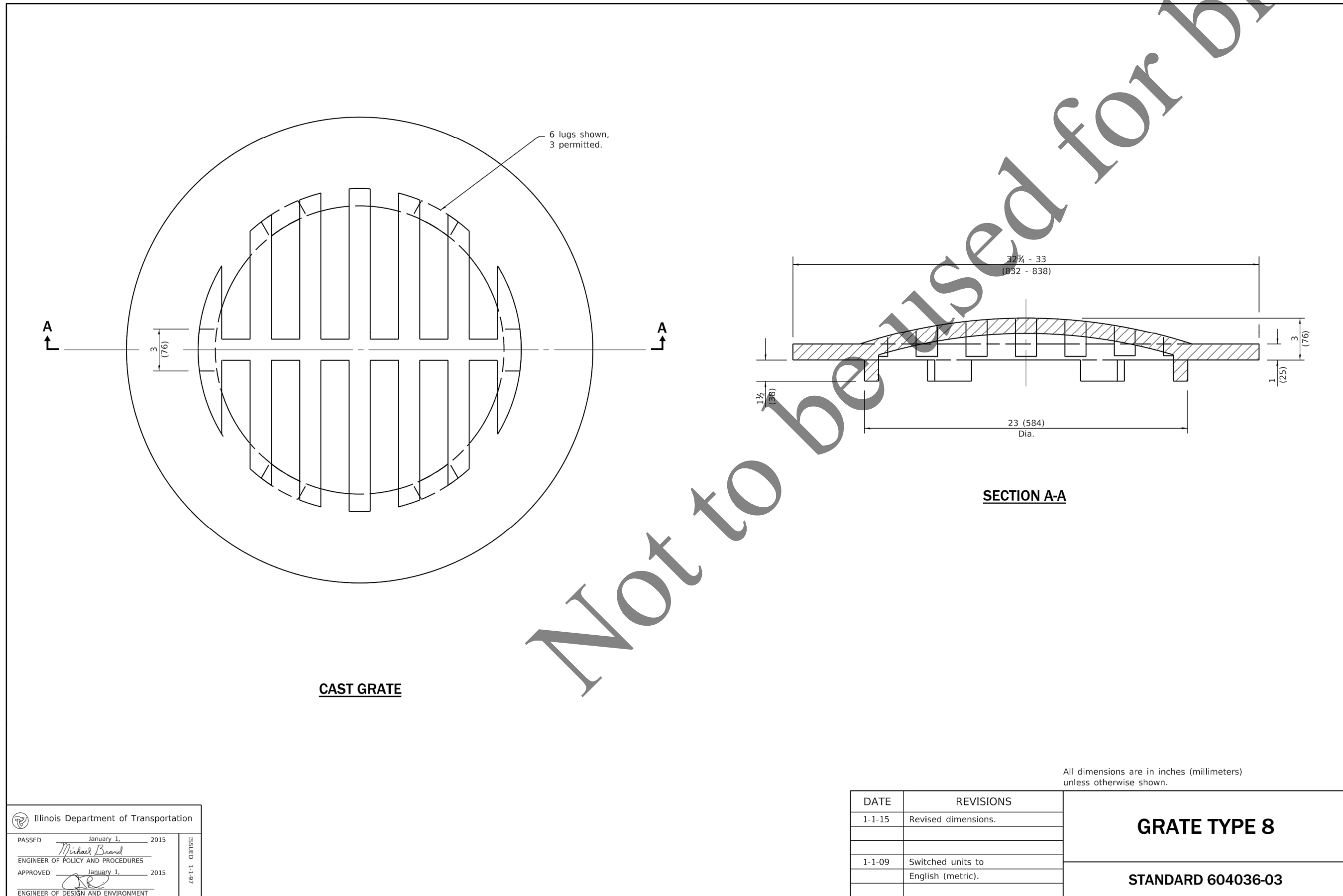
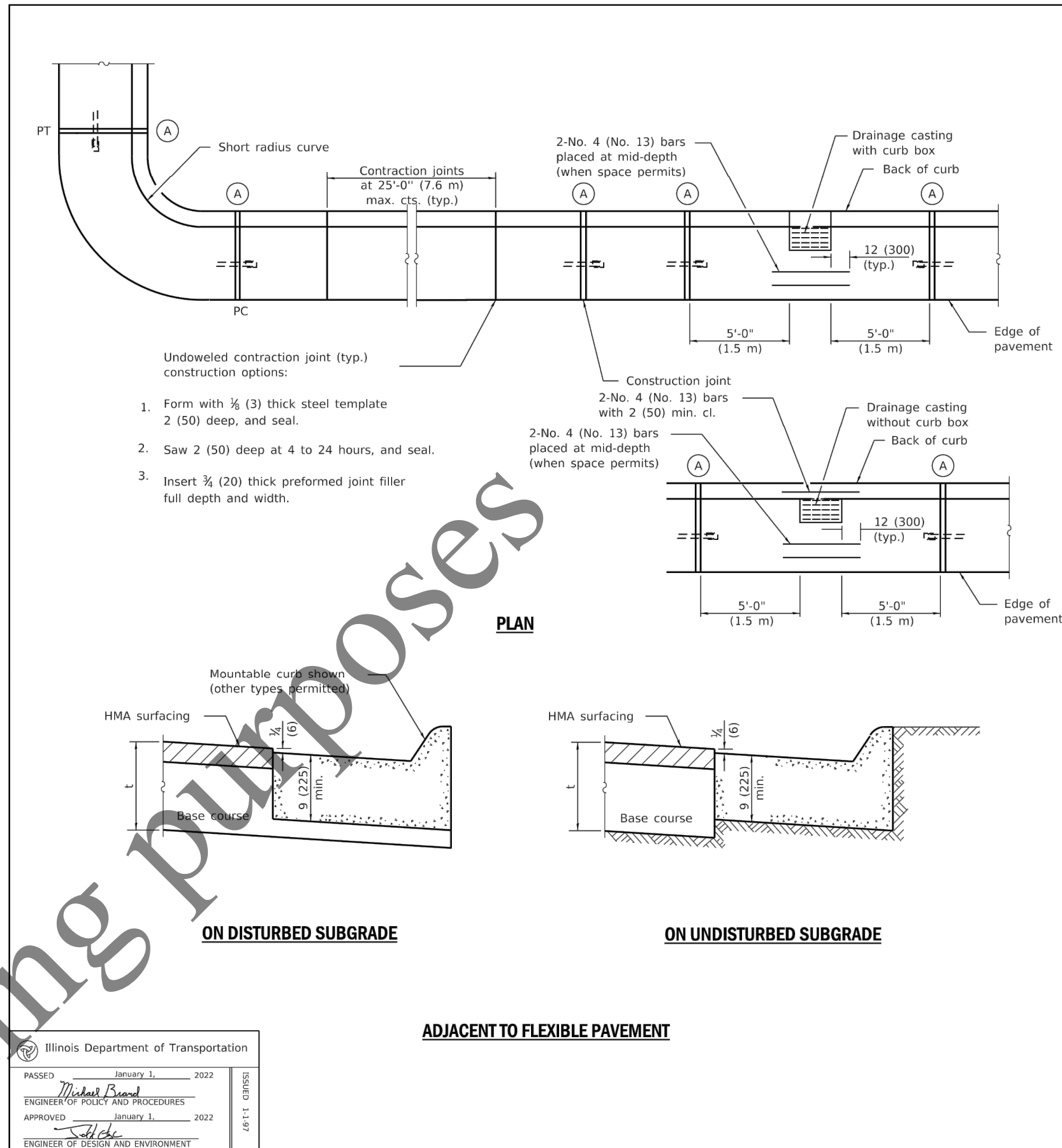
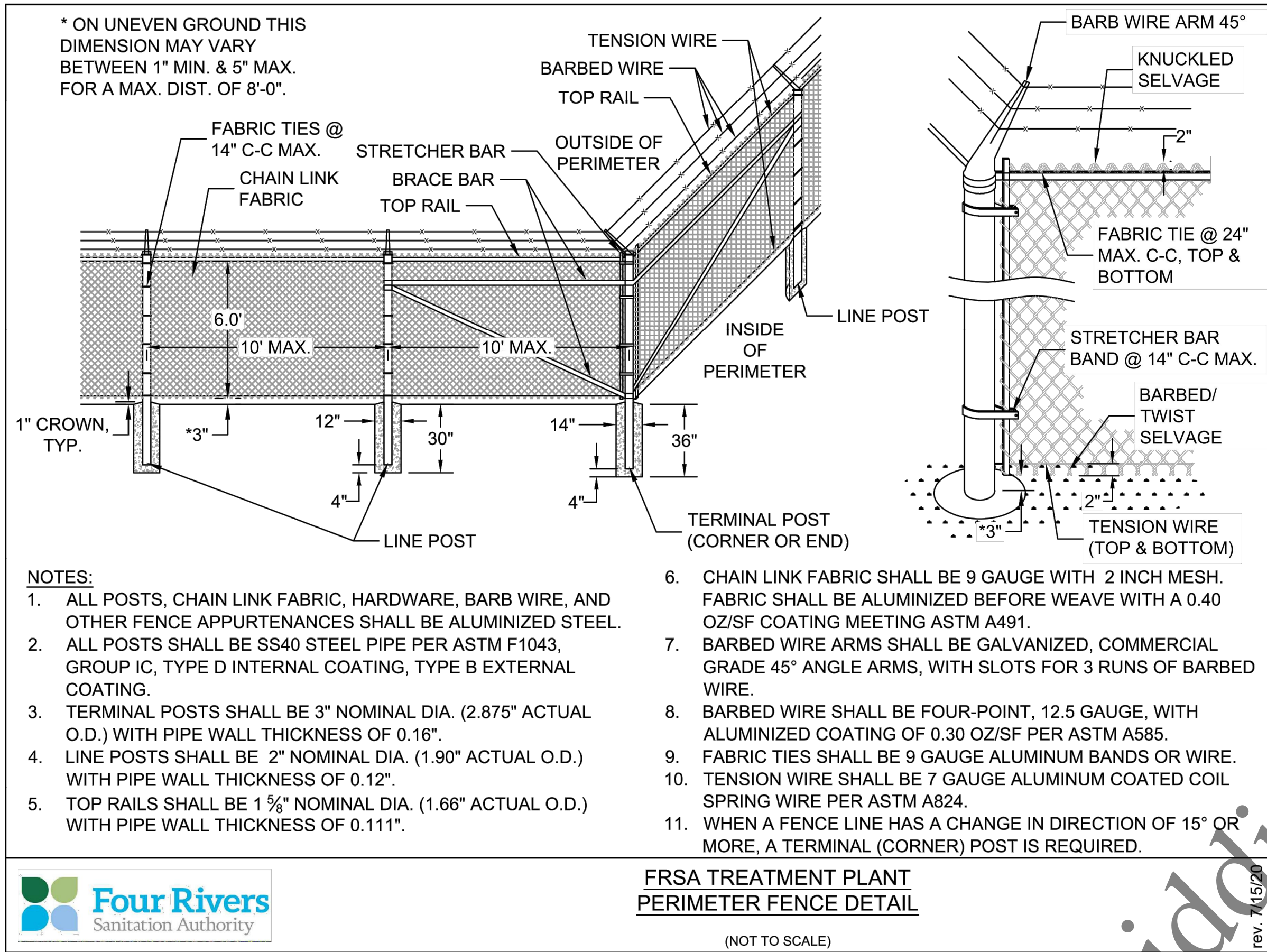
COLLECTION SYSTEMS ADMINISTRATION BUILDING SITE IMPROVEMENTS
CAPITAL PROJECT #2206

PROJECT DETAILS 1

FOR-BID

Sheet No.
17 of 18

Date:
7/22/2022



No.	DATE	REVISION	INT.