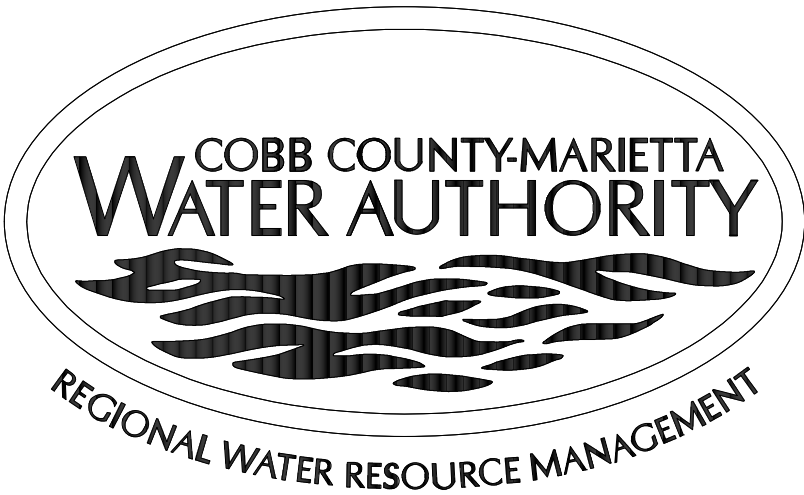


COBB COUNTY-MARIETTA WATER AUTHORITY
MARIETTA, GEORGIA

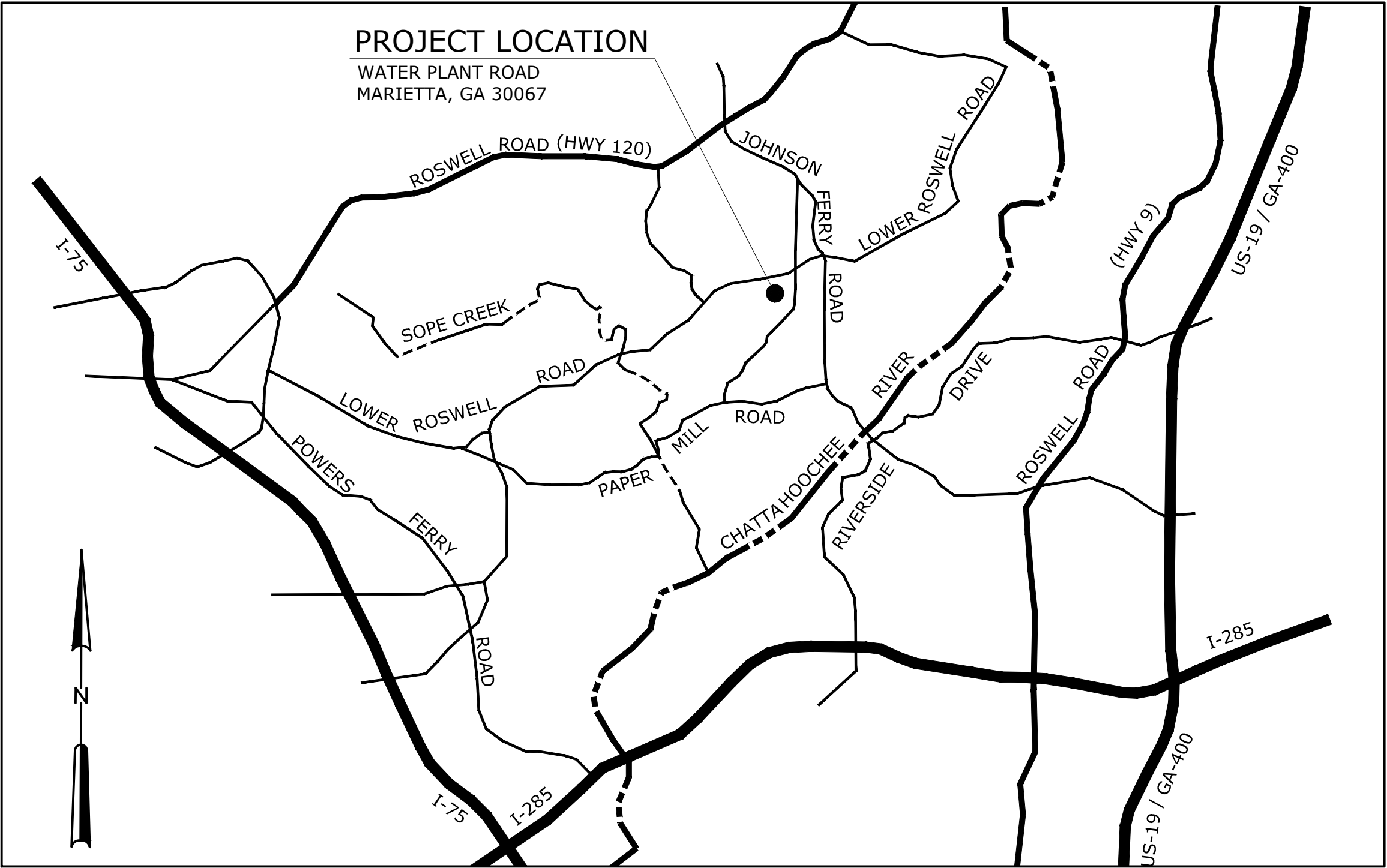


SITE PLAN REVIEW PROJECT NO.:
SPR-2023-00416
DISTRICT 01, LAND LOT 0009 (006)

JAMES E. QUARLES WTP
RESERVOIR CLEANING AND
IMPROVEMENTS PROJECT

HAZEN NO.: 32485-017 & 026
CCMWA PROJECT NO.: 505-9005-38-20-9000
SEPTEMBER 2024

NO COBB COUNTY APPROVAL STAMPS ON THIS PLAN SET ARE VALID WITHOUT THE SIGNED SEAL OF THE DESIGN ENGINEER		
DOT	SPR	CCWS
ZONING	ESC	SWM
ARBORIST		STRUCTURAL
FIRE	CEMETERY	OSC
	HISTORIC	DESIGN OVERLAY



LOCATION MAP
NOT TO SCALE



HAZEN AND SAWYER
1300 ALTMORE AVENUE
SUITE 520
ATLANTA, GEORGIA 30342
(404) 459-6363
GBPE LIC #: PEF003685 EXP: 6/30/2026

NOTICE:
THESE CONTRACT DOCUMENTS HAVE BEEN REVISED TO REFLECT CHANGES AND REVISIONS INCLUDED IN ALL ADDENDA AND MAY NOT REPRESENT THE ORIGINAL BID DOCUMENTS IN CONTENT. THESE REVISED DOCUMENTS ARE SOLELY FOR THE CONVENIENCE OF THE OWNER, ENGINEER, AND CONTRACTOR, AND ARE NOT WARRANTED TO BE COMPLETE AND ACCURATE IN ALL RESPECTS.

REFERENCE SHALL ALWAYS BE MADE TO THE ORIGINAL BID DOCUMENTS AND ADDENDA FOR RESOLUTION OF CONFLICTS AND CLARIFICATIONS.

BOARD MEMBERS	
JAMES C. SCOTT JR.	- CHAIRMAN
T. DANIEL BUYERS	- VICE CHAIR
GRIFFIN L. CHALFANT	- MEMBER
CHARLIE N. CROWDER	- SECRETARY
LISA N. CUPID	- MEMBER
JAMES A. BALLI	- MEMBER
CHARLES A. WELCH	- MEMBER

GENERAL MANAGER: COLE E. BLACKWELL, C.P.A.
DIRECTOR OF ENGINEERING: RITA NEELY, P.E.
PLANNING AND TECHNICAL SERVICES MANAGER:
THOMAS M. GINN, P.E.

24-HOUR CONTACT (CONTRACTOR)

NAME: _____
COMPANY: _____
PHONE: _____

OWNER CONTACT

BRANDON L. SMITH, QUARLES DIVISION MANAGER COBB COUNTY-MARIETTA WATER AUTHORITY 4402 LOWER ROSWELL ROAD MARIETTA, GA 30068 (404) 640-8627 CCMWA MAIN NUMBER: (770) 514-5300 QUARLES WTP MAIN NUMBER: (770) 514-5250	THOMAS M. GINN, P.E. COBB COUNTY-MARIETTA WATER AUTHORITY 1170 ATLANTA INDUSTRIAL DRIVE MARIETTA, GA 30066 (770) 514-5215
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DESIGN ENGINEER CONTACT

H. CRAIG ROBINSON, P.E.
HAZEN AND SAWYER
1300 ALTMORE AVENUE
SUITE 520
ATLANTA, GA 30342
(404) 459-6363

*CRITICAL AREAS WHERE CONTRACTOR SHALL UTILIZE ADDITIONAL MEASURES TO AVOID EXCESSIVE DISTURBANCE OF EXISTING CONDITIONS IN THE VICINITY OF THE WORK INCLUDE:

- EXISTING DAM AND SPILLWAY
- AREA FROM STA ~3+00 TO EX JUNCTION BOX AT STA 4+27 FOR 18"/24" RCP DRAIN PIPE
- INTERMITTENT OR EPHEMERAL FEATURES AND/OR DRAINAGE DITCHES THAT ARE POTENTIAL STATE WATERS LOCATED OUTSIDE OF THE LIMITS OF CONSTRUCTION INDICATED, INCLUDING TO THE SOUTHEAST OF THE CONTRACTOR LAYDOWN AND STAGING AREA

THESE SPECIAL MANAGEMENT MEASURES SHALL INCLUDE, BUT NOT BE LIMITED TO, THE INSTALLATION OF SENSITIVE TYPE C SILT FENCE WHERE APPROPRIATE, FREQUENT STABILIZATION OF SOIL CONDITIONS, AND ONLY DISTURBING THE AREA(S) ABSOLUTELY NECESSARY FOR PERFORMANCE OF THE WORK. CONTRACTOR SHALL INFORM ENGINEER IF ANY ABNORMAL OR UNEXPECTED EXISTING CONDITIONS OR PHYSICAL FEATURES ARE ENCOUNTERED IN THESE AREAS.

- TOTAL DISTURBED AREA: 13.30 ACRES
- TOTAL IMPERVIOUS AREA INCREASE IS APPROXIMATELY 2800 SQUARE FEET. SINCE TOTAL INCREASE IS LESS THAN 5000 SQUARE FEET, PROJECT IS EXEMPT FROM STORMWATER REQUIREMENTS.



CONFORMED SET

File: C:\32485-ATL\32485-017CAD_BIMGEN\G4.2 INDEX OF DRAWINGS AND GENERAL NOTES Saved by MBALLARD Save date: 1/17/2023 5:18 PM
PLOT DATE: 3/7/2025 3:55 PM BY: MBALLARD

INDEX OF DRAWINGS					GENERAL NOTES																																																																																																																																																																																																																																																																																		
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PROFILE</td></tr><tr><td colspan="2">C08</td><td colspan="3">18-INCH DRAIN PIPING PROFILE</td></tr><tr><td colspan="2">C09</td><td colspan="3">PIPING DETAILS</td></tr><tr><td colspan="2">EROSION CONTROL</td><td colspan="3"></td></tr><tr><td colspan="2">ESC01</td><td colspan="3">PHASES I, II & III</td></tr><tr><td colspan="2">ESC02</td><td colspan="3">NOTES 1</td></tr><tr><td colspan="2">ESC03</td><td colspan="3">NOTES 2</td></tr><tr><td colspan="2">ESC04</td><td colspan="3">DETAILS</td></tr><tr><td colspan="2">ESC05</td><td colspan="3">CHECKLIST</td></tr><tr><td colspan="2">STRUCTURAL</td><td colspan="3"></td></tr><tr><td colspan="5">GENERAL</td></tr><tr><td colspan="2">S01</td><td colspan="3">GENERAL NOTES</td></tr><tr><td colspan="2">S02</td><td colspan="3">CONCRETE REPAIR DETAILS</td></tr><tr><td colspan="5">DEMOLITION</td></tr><tr><td colspan="2">S03</td><td colspan="3">STRUCTURES A AND B</td></tr><tr><td colspan="2">S04</td><td colspan="3">STRUCTURES C, D, AND E</td></tr><tr><td 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EXISTING INFORMATION SHOWN ON THESE DRAWINGS INCLUDING LOCATION, DIMENSIONS, ELEVATIONS, AND CONFIGURATIONS IS DERIVED FROM RECORD DRAWINGS FROM COBB COUNTY-MARIETTA WATER AUTHORITY OR AVAILABLE SURVEY DATA AND IS NOT GUARANTEED TO BE COMPLETE OR CORRECT.</div><div>2. CONTOURS VERTICALLY SPACED AT ONE (1) FOOT INTERVALS, WITH FIVE (5) FOOT MAJOR AND ONE (1) FOOT MINOR CONTOURS, UNLESS NOTED OTHERWISE.</div><div>3. THE CONTRACTOR IS RESPONSIBLE FOR VERIFYING ALL EXISTING INFORMATION IN THE FIELD AS REQUIRED FOR DEMOLITION AND MODIFICATIONS.</div><div>4. CONTRACTOR SHALL REMOVE ITEMS FROM THE SITE SHOWN AS DEMOLISHED. PIPES OR STRUCTURES SHALL NOT BE ABANDONED IN PLACE, UNLESS DESIGNATED.</div><div>5. DRAWINGS AND SPECIFICATIONS ARE INTENDED TO COVER A COMPLETE PROJECT, READY FOR USE, AND ALL ITEMS NECESSARY FOR A COMPLETE AND WORKABLE JOB SHALL BE FURNISHED AND INSTALLED.</div><div>6. CONTRACTOR SHALL NOT DEVIATE FROM THE PLANS WITHOUT WRITTEN APPROVAL OF THE ENGINEER AND CCMWA.</div><div>7. CONTRACTOR SHALL BE SOLELY RESPONSIBLE FOR CONSTRUCTION MEANS, METHODS, SEQUENCE, TECHNIQUES, AND JOB SAFETY IN ACCORDANCE WITH ALL FEDERAL, STATE, AND LOCAL REQUIREMENTS.</div><div>8. EXISTING UTILITIES AS SHOWN ARE BASED ON VISIBLE LOCATIONS AND THE BEST AVAILABLE INFORMATION. PRIOR TO CONSTRUCTION, THE CONTRACTOR SHALL VERIFY AND MARK LOCATIONS AND MAINTAIN DURING CONSTRUCTION PERIOD.</div><div>9. ALL EXISTING UTILITIES MUST BE PROTECTED FROM CONSTRUCTION TRAFFIC AND REMAIN OPERATIONAL THROUGHOUT PROJECT.</div><div>10. WITH EXCEPTION OF TIE-IN WORK REQUIRED FOR CONSTRUCTION OF NEW RAW WATER BYPASS LINE, WTP OPERATIONS SHALL NOT BE INTERRUPTED AND REMAIN IN OPERATION DURING CONSTRUCTION PERIOD. ANY WORK IMPACTING WTP OPERATION SHALL BE APPROVED BY OWNER IN ADVANCE.</div><div>11. CONTRACTOR SHALL REPAIR ALL DAMAGES, INCLUDING DAMAGE TO STREETS, DRIVEWAYS, UTILITIES, FENCES, SIGNS, TREES, ETC. AT NO ADDITIONAL COST TO OWNER.</div><div>12. ALL SEDIMENT, UNSUITABLE MATERIALS, AND CONSTRUCTION WASTE MATERIALS SHALL BE REMOVED FROM THE SITE AND PROPERLY DISPOSED.</div><div>13. CONTRACTOR SHALL COMPLY WITH ALL LOCAL, STATE, AND FEDERAL REGULATIONS, TO INCLUDE OSHA SAFETY REGULATIONS.</div><div>14. FINISHED GRADE, INCLUDING CONTOURS, REFERS TO TOP ELEVATION OF GROUND COVERING SPECIFIED (E.G. TOP OF CONCRETE, GRAVEL, SOIL, RIPRAP, ETC.), EXCEPT THAT NEW FABRIC-FORMED CONCRETE SLOPE PROTECTION SHALL BE INSTALLED ON TOP OF FINISHED GRADE.</div><div>15. NO WORK SHALL OCCUR WITHOUT A REPRESENTATIVE OF THE ENGINEER ON-SITE.</div><div>16. RESTORE ALL CONSTRUCTION IMPACTED AREAS TO ORIGINAL, PRE-CONSTRUCTION CONDITION UNLESS OTHERWISE NOTED.</div><div>17. MULTIPLE CCMWA CONSTRUCTION PROJECTS MAY BE CONCURRENT. CONTRACTOR TO COORDINATE SITE ACTIVITIES THROUGHOUT CONSTRUCTION PERIOD WITH CCMWA</div></div><div><div>SITE DATUM NOTES</div><div>1. ALL COORDINATES AND ELEVATIONS SHOWN ON THE DRAWINGS ARE BASED ON A LOCAL SITE DATUM NOT STATE PLANE COORDINATES.</div><div>2. THREE BRASS SURVEY MARKERS ARE LOCATED ON-SITE AND REFERENCE TO THE LOCAL SITE DATUM: CCMWA-02, CCMWA-03, AND CCMWA-04. REFER TO DRAWING G04 FOR LOCAL SITE DATUM COORDINATES AND ELEVATIONS.</div><div>3. FOR INFORMATION PURPOSES ONLY, THE BRASS SURVEY MARKER'S GA STATE PLANE COORDINATES ARE: CCMWA-02 N-1,440,971.5660 E-2,218,877.2780 EL-1,026.36; CCMWA-03 N-1,441,356.7550 E-2,218,674.1750 EL-1,018.82; CCMWA-04 N-1,440,926.8120 E-2,218,343.4400. THE LOCAL SITE DATUM USED FOR THIS PROJECT IS NOT EQUAL TO STATE PLANE COORDINATES, STATE PLANE COORDINATES SHALL NOT BE USED.</div></div><div><div>PROJECT DATA:</div><div>1 PROJECT NAME: JAMES E. QUARLES WTP RESERVOIR CLEANING AND IMPROVEMENTS PROJECT</div><div>2 PROJECT LOCATION: PARCEL NUMBER 4400 IN COBB COUNTY, GEORGIA</div><div>3 PROJECT ADDRESS: 4402 LOWER ROSWELL ROAD, MARIETTA, GA 30068</div><div>4 PRESENT AND PROPOSED USE: MUNICIPAL WATER TREATMENT PLANT</div><div>5 OWNER/DEVELOPER: COBB COUNTY-MARIETTA WATER AUTHORITY 1170 ATLANTA INDUSTRIAL DRIVE MARIETTA, GA 30066 (770) 514-5300</div><div>6 ENGINEER: HAZEN AND SAWYER 1300 ALTMORE AVENUE, SUITE 520 ATLANTA, GEORGIA 30342 (404) 459-6363</div><div>7 SURVEYOR: TERRAMARK LAND SURVEYING, INC 1396 BELLS FERRY ROAD MARIETTA, GEORGIA 30066 (770) 421-1927</div><div>8 ZONING: E1 - EXEMPT - PUBLIC PROPERTY</div></div><div><div>PROJECT DESCRIPTION</div><div>PHASE I</div><div>1. DRAIN AND MAINTAIN RESERVOIR IN DRY CONDITION. WORK TO BE COORDINATED WITH CCMWA.</div><div>2. PROVIDE EARLY ACCESS TO INTERIOR OF RESERVOIR FOR ENGINEER TO PERFORM STRUCTURAL ENGINEERING INSPECTION OF INLET AND OUTLET STRUCTURES AND BRIDGES. PERFORM REPAIRS OF DEFECTIVE CONCRETE SURFACES.</div><div>3. PERFORM PRE-CONSTRUCTION SURVEYS, MATERIAL VERIFICATIONS, AND ORDER ALL MATERIALS WITH EXTENDED LEAD TIMES, INCLUDING PIPE, VALVES, GATES, BRIDGES, ETC.</div><div>4. CONSTRUCT TEMPORARY ACCESS RAMP AND CONSTRUCTION ACCESS.</div><div>5. MOISTURE CONDITION, REMOVE, AND DISPOSE OF SEDIMENTS ACCUMULATED WITHIN RESERVOIR TO OFFSITE LOCATION. SEDIMENTS TO BE REMOVED VIA TEMPORARY ACCESS RAMP. POTENTIAL REUSE AND LANDFILL OPTIONS FOR DISPOSED SEDIMENT HAVE BEEN PROVIDED FOR CONTRACTOR CONSIDERATION.</div><div>6. CONSTRUCT NEW PERMANENT RESERVOIR ACCESS RAMP. REMOVE IMPACTED FABRIC-FORMED CONCRETE SLOPE PROTECTION. PREPARE EXPOSED EARTH SUBGRADES, PLACE AND COMPACT NEW EARTH FILL. CONSTRUCT NEW CONCRETE SLOPE PAVEMENTS AND STAIRS, AND INSTALL NEW FABRIC-FORMED CONCRETE SLOPE PROTECTION.</div><div>7. REPAIR EXISTING AND CONSTRUCT NEW FABRIC-FORMED CONCRETE SLOPE PROTECTION IN AREAS SURROUNDING INLET STRUCTURES. REPAIR TO SLOPE, RESERVOIR BOTTOM, CLAY BLANKET, AND EXISTING FABRIC-FORMED CONCRETE SLOPE PROTECTION MAY BE REQUIRED AS DETERMINED BY THE ENGINEER BASED ON ENGINEERING INSPECTION FOLLOWING SEDIMENT REMOVAL.</div><div>8. REMOVE TEMPORARY ACCESS RAMP. REPAIR IMPACTED SLOPES, ACCESS ROAD, AND FABRIC-FORMED CONCRETE SLOPE PROTECTION. POTENTIAL REUSE OF TEMPORARY ACCESS RAMP FILL MATERIALS FOR CONSTRUCTION OF PERMANENT ACCESS RAMP MAY BE CONSIDERED.</div><div>9. REFILL RESERVOIR. WORK TO BE COORDINATED WITH CCMWA. MAINTAIN PROJECT ACCESS AND PERFORM REQUIRED INSPECTIONS AND MAINTENANCE OF BMP'S.</div><div>PHASE II</div><div>10. AFTER CONFIRMED DELIVERY SCHEDULE FOR PIPE, VALVES, GATES, BRIDGES AND ACCESSORIES, DRAIN RESERVOIR A SECOND TIME AND MAINTAIN RESERVOIR IN DRY CONDITION. WORK TO BE COORDINATED WITH CCMWA.</div><div>11. MOISTURE CONDITION, REMOVE, AND DISPOSE OF ANY REMAINING OR NEW SEDIMENTS ACCUMULATED SINCE REFILLING WITHIN RESERVOIR TO OFFSITE LOCATION. SEDIMENTS TO BE REMOVED VIA NEW PERMANENT ACCESS RAMP. POTENTIAL REUSE AND LANDFILL OPTIONS FOR DISPOSED SEDIMENT HAVE BEEN PROVIDED FOR CONTRACTOR CONSIDERATION.</div><div>12. INSTALL NEW 48-INCH DIP RAW WATER BYPASS LINE WITH VALVES AND FITTINGS FROM EXISTING PIPING SOUTH OF SPLITTER BOX TO 48-INCH DIP ON WEST SIDE OF SPLITTER BOX. SLOPED EXCAVATIONS AND EARTHWORK OPERATIONS WITHIN DAM EMBANKMENT LIMITS WILL BE IN ACCORDANCE WITH GEORGIA SAFE DAMS CATEGORY I EMBANKMENT DESIGN AND CONSTRUCTION. REQUIRES REMOVAL OF A PORTION OF THE EXISTING 48-INCH DIP SUPPLY LINE AND REPAIR OF SPLITTER BOX.</div><div>13. INSTALL NEW 18-INCH DIP DRAIN WITH VALVE FROM WEST SIDE OF SPLITTER BOX TO EXISTING STORM INLET. REQUIRES EXCAVATION, REMOVAL, AND ABANDONMENT OF SOME OF THE EXISTING 48-INCH PIPE ALONG THE WEST SIDE OF THE SPLITTER BOX AS WELL AS STRUCTURAL CONNECTION OF NEW 18-INCH DIP DRAIN TO SPLITTER BOX. SLOPED EXCAVATIONS AND EARTHWORK OPERATIONS WITHIN DAM EMBANKMENT LIMITS WILL BE IN ACCORDANCE WITH GEORGIA SAFE DAMS CATEGORY I EMBANKMENT DESIGN AND CONSTRUCTION.</div><div>14. PROVIDE ACCESS FOR ENGINEER TO PERFORM STRUCTURAL ENGINEERING EVALUATION OF SPLITTER BOX ONCE TAKEN OUT OF SERVICE. PERFORM STRUCTURAL REPAIRS OF DEFECTIVE SURFACES AS DETERMINED. INSTALL NEW DEFLECTOR HOOD ON WEST WALL TO PROTECT ELECTRICAL EQUIPMENT. INSTALL NEW CONCRETE PAD AROUND BASE OF SPLITTER BOX.</div><div>15. DECONSTRUCT ALL SLIDE GATES, HARDWARE, AND OPERATORS ON STRUCTURES A, B, C, D AND E. REPLACE ALL SLIDE GATES, HARDWARE, AND OPERATORS WITH NEW, LIKE-KIND ELEMENTS. COMPLETE REPAIRS OF DEFECTIVE CONCRETE SURFACES.</div><div>16. DECONSTRUCT ALL BRIDGES AND END ABUTMENTS. CONSTRUCT STRUCTURAL MODIFICATIONS, NEW STRUCTURES, AND INSTALL NEW BRIDGES. COMPLETE REPAIRS OF DEFECTIVE CONCRETE SURFACES. REPAIR AND REPLACE EMBANKMENT AND REVETMENT.</div><div>17. PERFORM STRUCTURAL, ELECTRICAL, AND GATE UPGRADES TO RESERVOIR INLET, OUTLET, AND SPLITTER BOX STRUCTURES, AS REQUIRED.</div></div></div></div>				
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GAS: ATLANTA GAS LIGHT: 1 (877) 427-4321	
ELECTRIC: GEORGIA POWER: (404) 506-6520	
TELEPHONE: AT&T: 611	

ABBREVIATIONS

AB	ANCHOR BOLT	E	EAST / EASEMENT	J	JOIST	QTY	QUANTITY	UG	UNDERGROUND
ABAND	ABANDON / ABANDONED	EA	EACH	JB	JUNCTION BOX			UGE	UNDERGROUND ELECTRIC
AC	ALTERNATING CURRENT / ASBESTOS CEMENT	ECC	ECCENTRIC	JCT	JUNCTION			UH	UNIT HEATER
ACT	ACOUSTIC TILE	EF	EACH FACE	JT	JOINT	R	RADIUS / RISER	UNFIN	UNFINISHED
AD	AREA DRAIN	EFF	EFFLUENT			RCP	REINFORCED CONCRETE PIPE	UNO	UNLESS NOTED OTHERWISE
ADDL	ADDITIONAL	EIP	EXIST IRON PIPE			RD	ROAD/ROOF DRAIN	UR	URINAL
ADJ	ADJUSTABLE	EL	ELEVATION	L	LENGTH / ANGLE	RECIR	RECIRCULATION	UTIL	UTILITY
AFF	ABOVE FINISHED FLOOR	ELEC	ELECTRIC / ELECTRICAL	LA	LINE AHEAD	RECP	RECEPTACLE	VAC	VACUUM
AGGR	AGGREGATE	ELL	ELBOW	LAB	LABORATORY	RECT	RECTANGULAR	VAT	VINYL ASBESTOS TILE
AL	ALUMINUM	ENGR	ENGINEER	LAM	LAMINATED	RED	REDUCER	VCP	VITRIFIED CLAY PIPE
ALLOW	ALLOWANCE / ALLOWABLE	ENT	ENTRANCE	LAT	LATERAL	REF	REFERENCE	VEL	VELOCITY
ALT	ALTERNATE	EOG	EDGE OF GRAVEL	LAV	LAVATORY	REG	REGISTER	VENT	VENTILATING / VENTILATION
APPROX	APPROXIMATE	EOP	EDGE OF PAVEMENT	LB	POUND / LINE BACK	REINF	REINFORCING	VERT	VERTICAL
ARCH	ARCHITECTURAL	EQ	EQUAL	LF	LINEAR FEET	REM	REMOVE	VOL	VOLUME
ARV	AIR RELEASE VALVE	EQPT	EQUIPMENT	LG	LONG	REOD	REQUIRED	VP	VENT PIPE
ASB	ASBESTOS	ESEW	EMERGENCY SHOWER & EYEWASH	LL	LIVE LOAD	REST	RESTRAINED	VWC	VINYL WALL COVERING
ASPH	ASPHALT	EW	EACH WAY	LLH	LONG LEG HORIZONTAL	REV	REVISE		
AT	ASPHALT TILE	EX	EXISTING	LLV	LONG LEG VERTICAL	RF	ROOF		
		EXC	EXCAVATE	LP	LIGHT POLE	RFG	ROOFING		
		EXH	EXHAUST	LPT	LOW POINT	RJ	RESTRAINED JOINT	W	WEST / WIDTH
		EXP	EXPANSION	LT	LIGHT	RM	ROOM	WI	WITH
		EXT	EXTERIOR	LTG	LIGHTING	RND	ROUND	WC	WATER CLOSET
B	BORING			LVR	LOUVER	RO	ROUGH OPENING	WF	WIDE FLANGE
BD	BOARD			LWL	LOW WATER LEVEL	RPM	REVOLUTIONS PER MINUTE	WH	WALL HYDRANT
BFE	BOTTOM OF FITTING ELEVATION					RR	RAILROAD	WI	WROUGHT IRON
BFV	BUTTERFLY VALVE					RT	RIGHT	WL	WATER LEVEL
BITUM	BITUMINOUS					RTU	REMOTE TERMINAL UNIT	W/L	WATER LINE
BL	BASELINE / BUILDING LINE	FAB	FABRICATE			RW	RAW WATER	WO	WINDOW OPENING
BLDG	BUILDING	F&C	FRAME AND COVER	MAINT	MAINTENANCE	R/W	RIGHT OF WAY	W/O	WITHOUT
BLK	BLOCK	F&G	FRAME AND GRATE	MATL	MATERIAL			WP	WATERPROOF
BM	BENCH MARK	FC	FLUSHING CONNECTION	MAX	MAXIMUM	S	SOUTH/SLOPE	WPFG	WATER PROOFING
BOC	BACK OF CURB	FD	FLOOR DRAIN	MECH	MECHANICAL	SAN	SANITARY	WPT	WALL PENETRATING TYPE
BOT	BOTTOM	FDN	FOUNDATION	MEMB	MEMBRANE	SBL	SURVEY BASELINE	WSE	WATER SURFACE ELEVATION
BRG	BEARING	FE	FIRE EXTINGUISHER	MET	METAL	SCH	SCHEDULE	WSP	WEATHERSTRIP
BRK	BRICK	FF	FINISH FLOOR	MFR	MANUFACTURER	SD	STORM/SITE DRAIN	WT	WEIGHT
BRZ	BRONZE	FH	FIRE HYDRANT	MG	MILLION GALLONS	SECT	SECTION	WV	WATER VALVE
BSMT	BASEMENT	FIN	FINISH	MGD	MILLION GALLONS PER DAY	SERV	SERVICE	WWF	WELDED WIRE FABRIC
BT	BOLT	FIX	FIXTURE	MH	MANHOLE	SEW	SEWER	YD	YARD
BUR	BUILT-UP ROOFING	FL	FLASHING / FLOOR	MIN	MINIMUM	SF	SQUARE FEET	YH	YARD HYDRANT
BV	BALL VALVE	FLEX	FLEXIBLE	MISC	MISCELLANEOUS	SHT	SHEET	YR	YEAR
		FLG	FLANGE	MJ	MECHANICAL JOINT	SI	SQUARE INCH		
		FLUOR	FLUORESCENT	MLDG	MOLDING	SJ	STEEL JOIST	A	PROCESS AIR
		FLXC	FLEXIBLE CONNECTION	MO	MASONRY OPENING	SPEC	SPECIFICATION	ALS	ALUM SOLUTION
C	CLOSET / CARPET / CHANNEL	FM	FORCE MAIN	MOD	MODIFY / MODIFIED	SQ	SQUARE	BWD	BACKWASH
CAB	CABINET	FPRF	FIREPROOF	MON	MONUMENT	SS	SANITARY SEWER	C	CENTRATE
CB	CATCH BASIN	FRP	FIBERGLASS REINFORCED	MOT	MOTOR	SST	STAINLESS STEEL	CLS	CHLORINE SOLUTION
C/C	CENTER TO CENTER		POLYESTER LAMINATE	MTD	MOUNTED	ST	STREET	CAS	CAUSTIC SOLUTION
CE	CONSTRUCTION EASEMENT	FT	FEET	MTG	MOUNTING	STIR	STIRRUP	CW	CHILLED WATER
CEM	CEMENT	FTG	FOOTING / FITTING	MULT	MULTIPLE	STL	STEEL	D	DRAIN
CER	CERAMIC	FURR	FURRING / FURRED			STR	STRUCTURAL	DS	DIGESTED SLUDGE
CF	CUBIC FEET					STRU	STRUCTURE	FA	FOUL AIR
CFM	CUBIC FEET PER MINUTE	G	GAS / GAS LINE			SUB	SUBSTITUTE	FBP	FILTER BYPASS
CI	CAST IRON / CUBIC INCHES	GA	GAUGE	N	NORTH	SUP	SUPPLY	FD	FLOOR DRAIN
CIP	CAST IRON PIPE	GAL	GALLON	NA	NOT APPLICABLE	SUPT	SUPERINTENDENT	FE	FILTER EFFLUENT
CL	CENTER LINE / CHLORINE	GALV	GALVANIZED	NF	NEAR FACE	SUR	SURFACE	GR	GRIT
CLG	CEILING	GC	GENERAL CONTRACTOR	NIC	NOT IN CONTRACT	SUSP	SUSPENDED	HS	HEAVY SLUDGE
CLKG	CAULKING	GEN	GENERATOR	NMH	NEW MANHOLE	SW	SWITCH	LD	LAND DISPOSAL
CLR	CLEAR	GI	GALVANIZED IRON	NO	NUMBER	SWBD	SWITCHBOARD	ML	MIXED LIQUOR
CMP	CORRUGATED METAL PIPE	GL	GLASS	NOM	NOMINAL	SWD	SIDE WATER DEPTH	NG	NATURAL GAS
CMU	CONCRETE MASONRY UNIT	GPM	GALLONS PER MINUTE	NPW	NON POTABLE WATER	SYM	SYMMETRICAL	NPW	NON-POTABLE WATER
CO	CLEANOUT	GR	GRADE	NTS	NOT TO SCALE	T	TREAD	P	POLYMER
COL	COLUMN	GV	GATE VALVE			T&B	TOP AND BOTTOM	PE	PRIMARY EFFLUENT
CONC	CONCRETE	GW	GUY WIRE	OC	ON CENTER	T&G	TONGUE AND GROOVE	PRD	PRESSURE RELIEF DISCHARGE
CONST	CONSTRUCTION	GWV	GYPSUM WALL BOARD	OD	OUTSIDE DIAMETER	TAN	TANGENT	PS	PRIMARY SLUDGE
CONT	CONTINUOUS	GWV	GLAZED WALL FINISH	OF	OUTSIDE FACE	TBM	TEMPORARY BENCH MARK	PW	POTABLE WATER
CONTR	CONTRACTOR	GYP	GYPSUM	OFF	OFFICE	TCE	TEMPORARY CONSTRUCTION EASEMENT	RAS	RETURN ACTIVATED SLUDGE
CORP	CORPORATION			OPER	OPERATOR	TDH	TOTAL DYNAMIC HEAD	RBR	RECLAIM BASIN RETURN
CORR	CORRIDOR			OPNG	OPENING	TECH	TECHNICAL	RD	ROOF DRAIN
CP	CONCRETE PLANK	H	HEIGHT	OPNG	OPENING	TEL	TELEPHONE	RS	RAW SEWAGE
CRS	COURSE	HDW	HARDWARE	OPNG	OPENING	TEMP	TEMPERATURE / TEMPORARY	S	SAMPLE
CT	CERAMIC TILE	HEX	HEXAGONAL	ORIG	ORIGINAL	TER	TERRAZZO	SA	SERVICE AIR
CTJ	CONTROL JOINT	HM	HOLLOW METAL	OT	OPEN TRUSS	THERMO	THERMOSTAT	SC	SCUM
CU	COPPER	HORZ	HORIZONTAL	OVHD	OVERHEAD	THK	THICK	SD	STORM DRAIN
CV	CHECK VALVE	HP	HORSEPOWER			THRU	THROUGH	SDO	SLUDGE DRAWOFF
CW	COLD WATER	HPT	HIGH POINT	PAR	PARALLEL	TOC	TOP OF CURB	SE	SECONDARY EFFLUENT
CY	CUBIC YARD	HTR	HEATER	PC	POINT OF CURVE / PIECE	TOD	TOP OF DECK	SL	SLUDGE
		HVAC	HEATING, VENTILATION AND	PCC	POINT OF COMPOUND CURVE	TOF	TOP OF FOOTING	SLF	SLUDGE FEED
			AIR CONDITIONING	PCF	POUNDS PER CUBIC FOOT	TOG	TOP OF GRATING	SPD	SUMP PUMP DISCHARGE
		HW	HOT WATER	PE LINING	POLYETHYLENE LINING	TOM	TOP OF MASONRY / MANHOLE	SR	SCRUBBER RECIRCULATION
		HVL	HIGH WATER LEVEL	PERF	PERFORATED	TOS	TOP OF SLAB	SRD	SLUDGE RECIRCULATION DISCHARGE
DC	DIRECT CURRENT	HWY	HIGHWAY	PERP	PERPENDICULAR	TOW	TOP OF WALL	SRS	SLUDGE RECIRCULATION SUCTION
DET	DETAIL	HYD	HYDRAULIC	PI	POINT OF INTERSECTION	TOL	TOLERANCE	SS	SANITARY SEWER
DF	DRINKING FOUNTAIN			PL	PROPERTY LINE / PLATE	TPS	TWISTED PAIR SHIELDED	SU	SUPERNATANT
DIA (Ø)	DIAMETER			PNL	PANEL	TRANS	TRANSFORMER	TDS	THICKENED DIGESTED SLUDGE
DIAG	DIAGONAL			PP	POWER POLE	TYP	TYPICAL	TE	TERTIARY EFFLUENT
DIM	DIMENSION	I	IRON	PREFAB	PREFABRICATED			TS	THICKENED SLUDGE
DIP	DUCTILE IRON PIPE	ID	INSIDE DIAMETER	PRV	PRESSURE RELIEF VALVE			TWAS	THICKENED WAS
DISCH	DISCHARGE	IF	INSIDE FACE	PS	PUMPING STATION			V	VENT
DIST	DISTRIBUTION	IN	INCH	PSF	POUNDS PER SQUARE FOOT			W	WATER
DJ	DOUBLE JOIST	INCL	INCLUDED	PT	POINT OF TANGENT / POINT			WAS	WASTE ACTIVATED SLUDGE
DL	DEAD LOAD	INF	INFLUENT	PTN	PARTITION				
DN	DOWN	INS	INSULATION	PV	PLUG VALVE				
DOZ	DOZEN	INT	INTERIOR	PVC	POLYVINYL CHLORIDE				
DR	DOOR	INV	INVERT	PVMT	PAVEMENT				
DWG	DRAWING			PW	POTABLE WATER				
DWL	DOWEL								

LEGEND

MATERIALS

	GRADE OR EARTH		CONC. MASONRY UNIT		GRATING
	ASPHALT PAVING		BRICK		CHECKERED PLATE
	SAND		ROCK		GLASS
	GRAVEL		CLAY BLANKET		WOOD BLOCKING
	CONCRETE		INSULATION		ARTICULATED CONCRETE BLOCK
	CONC. FILL OR GROUT		WATER SURFACE		FABRIC-FORMED CONCRETE

SYMBOLS

	GATE VALVE		WALL PENETRATION
	BUTTERFLY VALVE		WELDED JOINT
	PLUG VALVE		FLANGED JOINT
	SWING CHECK VALVE		MECHANICAL, PUSH ON OR RESTRAINED JOINT
	GLOBE VALVE		SLUICE GATE
	PINCH VALVE		SLIDE GATE/STOP GATE
	DIAPHRAGM VALVE		FLUSHING CONNECTION
	BALL VALVE		HOSE BIBB
	BALL CHECK VALVE		QUICK DISCONNECT FITTING
	FLANGED COUPLING ADAPTER		YARD HYDRANT
	HARNESSED SLEEVE TYPE COUPLING		FIRE HYDRANT
	SLEEVE TYPE COUPLING		SOIL BORING
	HARNESSED FLEXIBLE COUPLING		AIR PIPING FIXED SUPPORT
	MECHANICAL COUPLING		AIR PIPING SLIDING SUPPORT
			AIR PIPING BURIED EXPANSION COUPLING

SECTION AND DETAIL KEYING

DRAWINGS ARE CROSS REFERENCED IN THE FOLLOWING METHOD: (A) A SECTION CUT ON DRAWING A3 IS IDENTIFIED AS FOLLOWS:	
	SECTION LETTER DRAWING WHERE SECTION IS SHOWN
(B) THE SECTION SHOWN ON DRAWING A6 IS IDENTIFIED AS FOLLOWS:	
	SECTION LETTER DRAWING FROM WHERE SECTION WAS TAKEN
DETAILS ARE CROSS REFERENCED IN A SIMILAR MANNER, EXCEPT DETAILS ARE IDENTIFIED BY A SQUARE WITH A NUMBER IN THE UPPER HALF. STANDARD DETAILS ARE REFERENCED BY A UNIQUE SEVEN DIGIT NUMBER AND ARE SHOWN ON THE CONTRACT DRAWINGS BY ONE OF TWO METHODS:	
	REFERENCED ITEM
OR: 	REFERENCED ITEM
STANDARD DETAILS ARE COMPILED IN APPROXIMATE NUMERICAL ORDER IN THE BACK OF THE CONTRACT DRAWINGS ON THE D* DRAWINGS.	

LINETYPES

	PROPOSED ITEMS
	EXISTING ITEMS
	HIDDEN ITEMS
	DEMOLITION ITEMS
	CENTER LINE
	MATCH LINE
	EXISTING CONTOUR
	PROPOSED CONTOUR
	SF SILT FENCE
	LOD LIMITS OF DISTURBANCE
	FENCE

	CONFORMED SET	03/2025	KJR	PROJECT ENGINEER: K. RAY
				DESIGNED BY: M. BALLARD
				DRAWN BY: M. GAO
				CHECKED BY: C. ROBINSON
				IF THIS BAR DOES NOT MEASURE 1" THEN DRAWING IS NOT TO FULL SCALE
REV	ISSUED FOR	DATE	BY	

CONFORMED DRAWING

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GBPE LIC #: PEF003685 EXP: 6/30/2026

Hazen

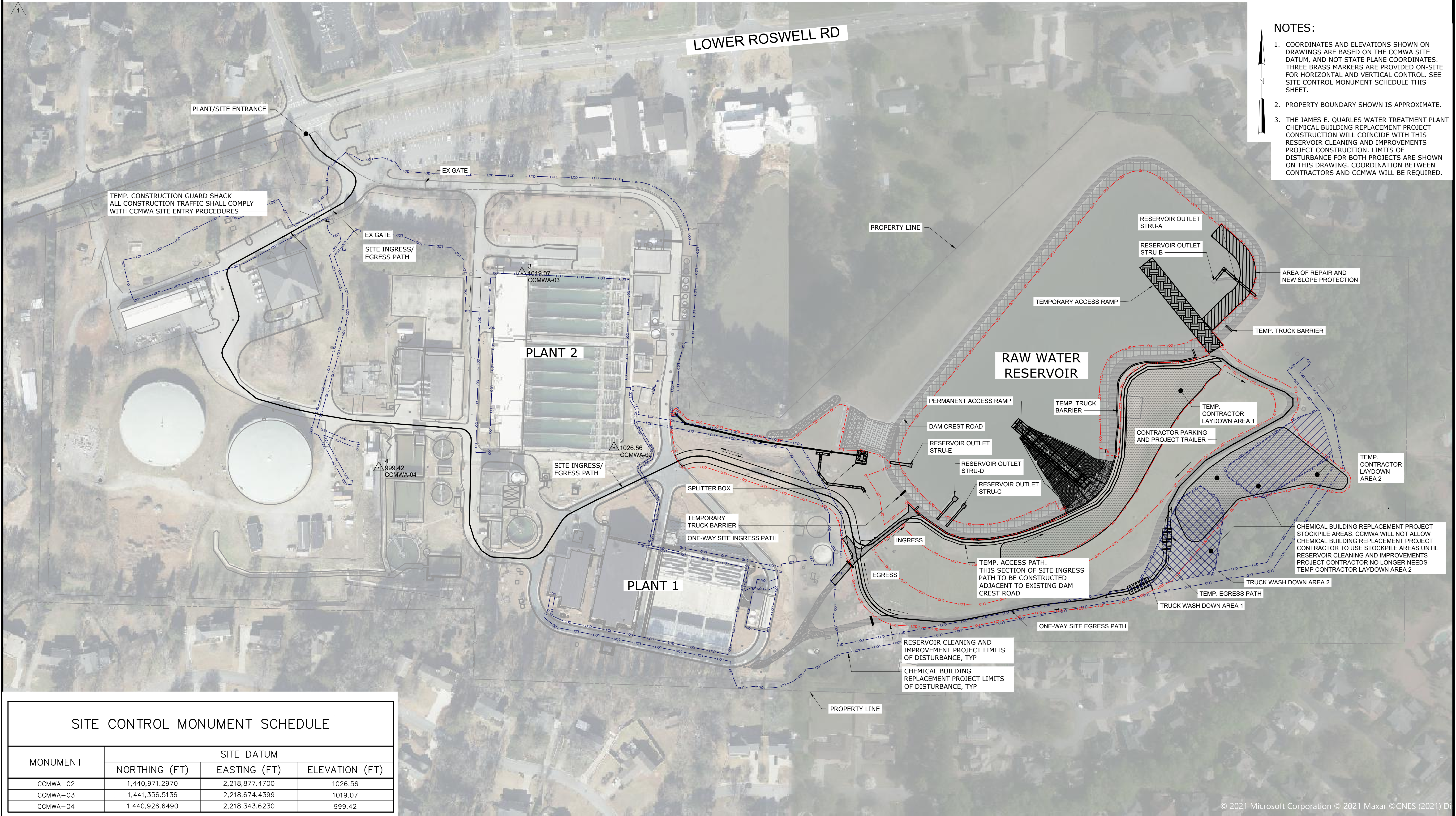
HAZEN AND SAWYER
1300 ALTMORE AVENUE
SUITE 520
ATLANTA, GEORGIA 30342
(404) 459-6363

COBB COUNTY-MARIETTA
WATER AUTHORITY

JAMES E. QUARLES WTP
RESERVOIR CLEANING AND IMPROVEMENTS
PROJECT

GENERAL
ABBREVIATIONS, LEGEND,
AND SYMBOLS

DATE: SEPTEMBER 2024
HAZEN NO.: 32485-017 & 026
CONTRACT NO.: 017 & 026
DRAWING NUMBER: G03



- NOTES:**
- COORDINATES AND ELEVATIONS SHOWN ON DRAWINGS ARE BASED ON THE CCMWA SITE DATUM, AND NOT STATE PLANE COORDINATES. THREE BRASS MARKERS ARE PROVIDED ON-SITE FOR HORIZONTAL AND VERTICAL CONTROL. SEE SITE CONTROL MONUMENT SCHEDULE THIS SHEET.
 - PROPERTY BOUNDARY SHOWN IS APPROXIMATE.
 - THE JAMES E. QUARLES WATER TREATMENT PLANT CHEMICAL BUILDING REPLACEMENT PROJECT CONSTRUCTION WILL COINCIDE WITH THIS RESERVOIR CLEANING AND IMPROVEMENTS PROJECT CONSTRUCTION. LIMITS OF DISTURBANCE FOR BOTH PROJECTS ARE SHOWN ON THIS DRAWING. COORDINATION BETWEEN CONTRACTORS AND CCMWA WILL BE REQUIRED.

SITE CONTROL MONUMENT SCHEDULE			
MONUMENT	SITE DATUM		
	NORTHING (FT)	EASTING (FT)	ELEVATION (FT)
CCMWA-02	1,440,971.2970	2,218,877.4700	1026.56
CCMWA-03	1,441,356.5136	2,218,674.4399	1019.07
CCMWA-04	1,440,926.6490	2,218,343.6230	999.42

- SITE CONTROL MONUMENT INFORMATION TAKEN FROM PARTIAL TOPOGRAPHIC SURVEY FOR QUARLES WATER TREATMENT PLANT BY TERRAMARK LAND SURVEYING, INC.
- SITE DATUM IS NOT EQUAL TO STATE PLANE COORDINATES.

	CONFORMED SET	03/2025	KJR	PROJECT ENGINEER: K. RAY
				DESIGNED BY: M. BALLARD
				DRAWN BY: M. BALLARD
				CHECKED BY: C. ROBINSON
1	ADDENDUM NO.2	01/10/25	MPB	IF THIS BAR DOES NOT MEASURE 1" THEN DRAWING IS NOT TO FULL SCALE
REV	ISSUED FOR	DATE	BY	

CONFORMED DRAWING

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GBPE LIC #: PEF003685 EXP: 6/30/2026

Hazen

HAZEN AND SAWYER
1300 ALTMORE AVENUE
SUITE 520
ATLANTA, GEORGIA 30342
(404) 459-6363

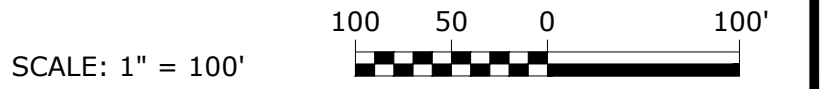
COBB COUNTY-MARIETTA
WATER AUTHORITY

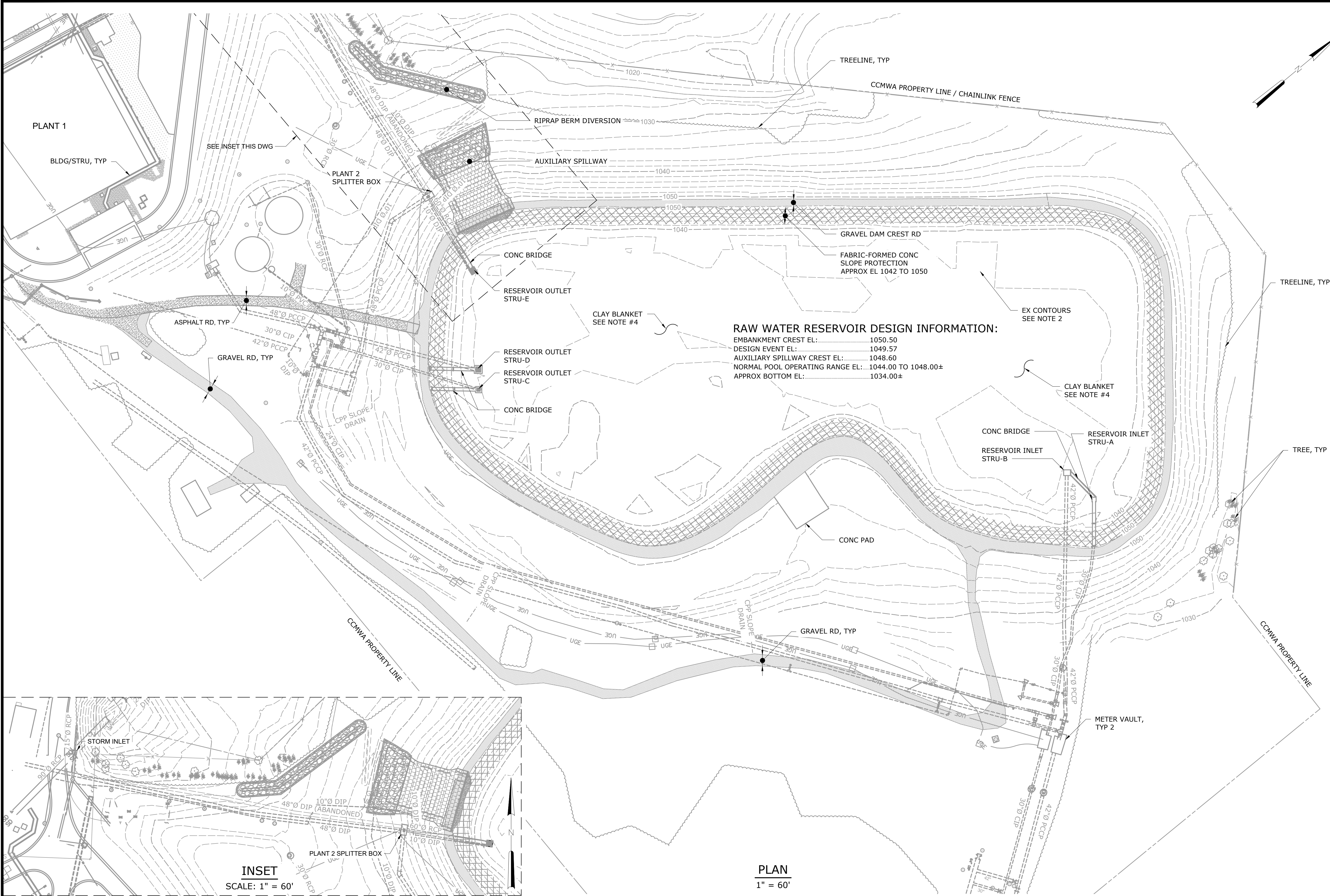
JAMES E. QUARLES WTP
RESERVOIR CLEANING AND IMPROVEMENTS
PROJECT

GENERAL
SITE ACCESS PLAN

G04

DATE:	SEPTEMBER 2024
HAZEN NO.:	32485-017 & 026
CONTRACT NO.:	017 & 026
DRAWING NUMBER:	

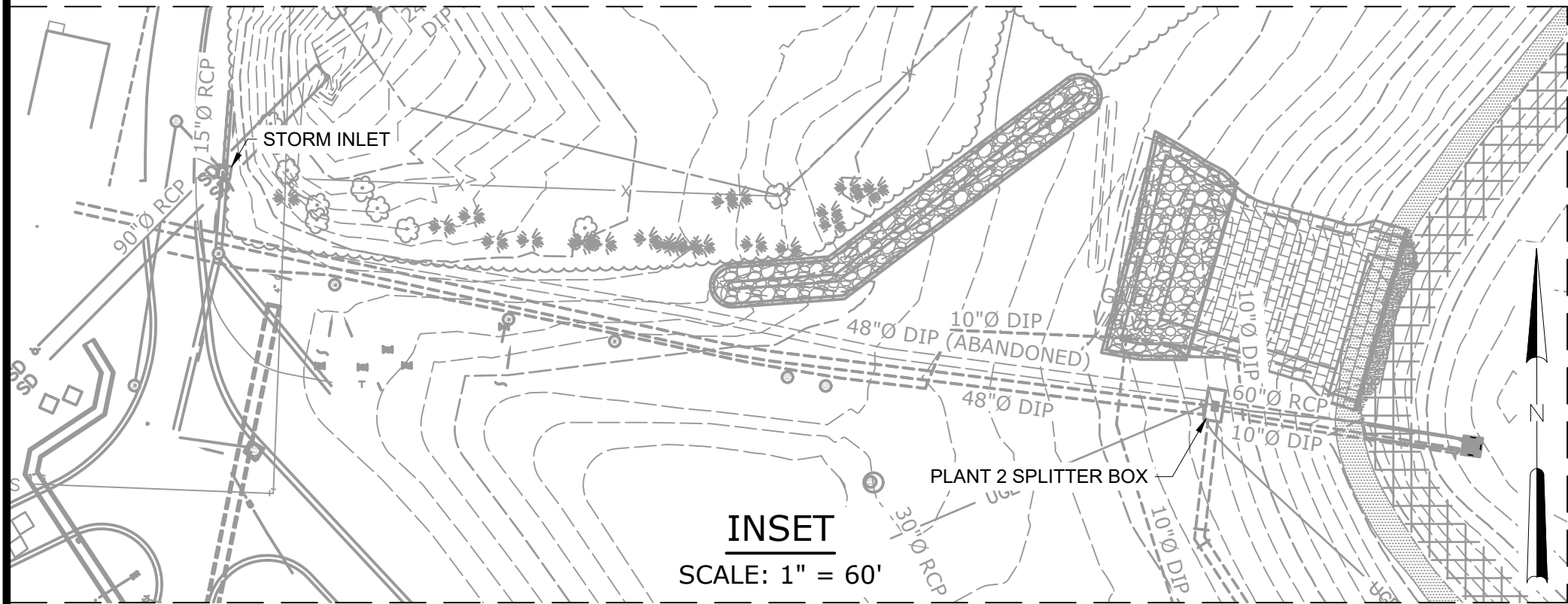




- NOTES:
1. PRIOR TO CONSTRUCTION ACTIVITIES, CONTRACTOR SHALL FIELD VERIFY ALL LOCATIONS, DIMENSIONS, AND ELEVATIONS OF EXISTING FEATURES WITHIN LIMITS OF WORK, INCLUDING BUT NOT LIMITED TO, PIPES, STRUCTURES, GAS/WATER/ELECTRIC/TELECOMMUNICATIONS UTILITIES, ROADWAYS/PARKING LOTS/SIDEWALKS, FENCING, TREES, AND BUILDINGS. DISCREPANCIES SHALL BE BROUGHT TO THE ATTENTION OF THE ENGINEER PRIOR TO COMMENCEMENT OF CONSTRUCTION ACTIVITIES.
 2. CONTOURS SHOWN INSIDE OF RAW WATER RESERVOIR BASED ON SEDIMENT MEASUREMENT POINT DATA PROVIDED BY AQUASCAPE ENVIRONMENTAL FROM SAMPLING ACTIVITIES PERFORMED AUGUST 2019, MARCH 2020, AUGUST 2020, AND MARCH 2021. CONTOURS REPRESENT TOP OF SATURATED SEDIMENT. VOLUMES DETERMINED FROM TOPOGRAPHY SHALL BE CONSIDERED APPROXIMATE. ACTUAL SEDIMENT VOLUME TO BE DETERMINED AT THE TIME OF CONSTRUCTION IN ACCORDANCE WITH PROCEDURES ESTABLISHED IN SPECIFICATIONS.
 3. EXISTING FABRIC-FORMED CONCRETE FOR SLOPE PROTECTION IS LOCATED ABOVE ELEVATION +/- 1042.00 AT A SLOPE OF 3:1 WITH TURNDOWNS AT CREST AND ALONG BOTTOM OF SLOPE. FABRIC-FORMED CONCRETE SHALL NOT BE DAMAGED OR REMOVED EXCEPT AS NEEDED FOR NEW CONSTRUCTION.
 4. EXISTING CLAY BLANKET IS LOCATED UNDER AND BELOW FABRIC-FORMED CONCRETE, EXTENDING DOWN TO AND ACROSS RESERVOIR BOTTOM. CLAY BLANKET SHALL BE CONSIDERED TO COMPLETELY COVER RESERVOIR INTERIOR AT A THICKNESS OF 2 FEET MEASURED NORMAL TO SURFACE.

RAW WATER RESERVOIR DESIGN INFORMATION:

EMBANKMENT CREST EL: 1050.50
DESIGN EVENT EL: 1049.57
AUXILIARY SPILLWAY CREST EL: 1048.60
NORMAL POOL OPERATING RANGE EL: 1044.00 TO 1048.00±
APPROX BOTTOM EL: 1034.00±



PLAN

1" = 60'

	CONFORMED SET	03/2025	KJR	PROJECT ENGINEER: K. RAY
				DESIGNED BY: K. RAY
				DRAWN BY: M. BALLARD
				CHECKED BY: C. ROBINSON
				IF THIS BAR DOES NOT MEASURE 1" THEN DRAWING IS NOT TO FULL SCALE
REV	ISSUED FOR	DATE	BY	

CONFORMED DRAWING

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GBPE LIC #: PEF003685 EXP: 6/30/2026

Hazen

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1300 ALTMORE AVENUE
SUITE 520
ATLANTA, GEORGIA 30342
(404) 459-6363

COBB COUNTY-MARIETTA
WATER AUTHORITY

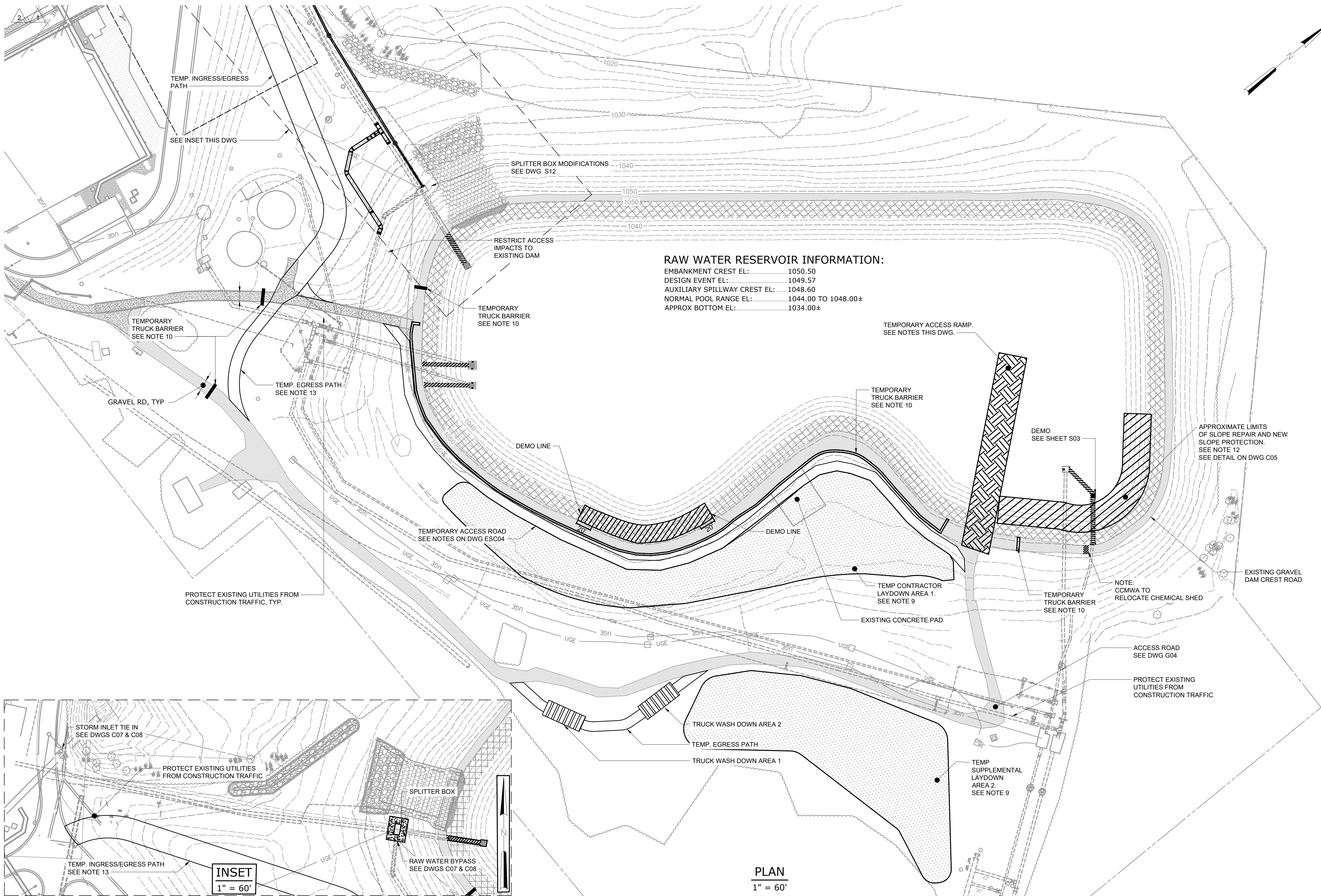
JAMES E. QUARLES WTP
RESERVOIR CLEANING AND IMPROVEMENTS
PROJECT

CIVIL
EXISTING SITE PLAN

C01

DATE:	SEPTEMBER 2024
HAZEN NO.:	32485-017 & 026
CONTRACT NO.:	017 & 026
DRAWING NUMBER:	

File: O:\32485-AT\32485-017CAD_BIMC\DWG\DEMOLITION PLAN.dwg Saved by MBALLARD Save date: 3/7/2025 3:08 PM
PLOT DATE: 3/7/2025 3:37 PM BY: MBALLARD



RAW WATER RESERVOIR INFORMATION:

EMBANKMENT CREST EL.: 1050.50
DESIGN EVENT EL.: 1049.57
AUXILIARY SPILLWAY CREST EL.: 1048.60
NORMAL POOL RANGE EL.: 1044.00 TO 1048.00±
APPROX BOTTOM EL.: 1034.00±

PLAN
1" = 60'

NOTES:

- CONTRACTOR SHALL CONSTRUCT TEMPORARY ACCESS RAMP AT APPROXIMATE LOCATION SHOWN FOR REMOVAL OF ALL SEDIMENT AND OTHER CONSTRUCTION. TEMPORARY ACCESS RAMP SHALL PROTECT EXISTING SLOPE PROTECTION FROM DAMAGE. DAMAGED SLOPE PROTECTION SHALL BE REPAIRED AS DIRECTED BY THE ENGINEER AT NO ADDITIONAL COST.
- TEMPORARY ACCESS RAMP SHALL BE INSTALLED SUCH THAT THE SEDIMENT REMOVAL ACTIVITIES DO NOT CAUSE DAMAGE TO THE EXISTING DAM EMBANKMENT. CONTRACTOR SHALL MAINTAIN TEMPORARY ACCESS RAMP THROUGHOUT SEDIMENT REMOVAL AND OTHER CONSTRUCTION ACTIVITIES. TEMPORARY ACCESS RAMP SHALL HAVE A MINIMUM OF 3 FEET OF SOIL OVER EXISTING EMBANKMENT GRADE.
- SEDIMENT TO BE REMOVED VIA TEMPORARY REMOVAL ACCESS RAMP FOR PHASE 1 AND VIA THE PERMANENT RAMP FOR PHASE 2.
- ALL SEDIMENT SHALL ONLY BE REMOVED THROUGH USE OF INGRESS/EGRESS ROUTE SHOWN ON DWG G04. CONTRACTOR SHALL PROTECT ALL EXISTING UTILITIES FROM DAMAGE ALONG ROUTE DUE TO CONSTRUCTION ACTIVITIES.
- CONTRACTOR SHALL EXCAVATE AND REMOVE ALL SEDIMENT, ORGANICS, WATER DAMAGED SOIL MATERIALS AND DEBRIS TO EXPOSE EMBANKMENT SLOPES AND RESERVOIR BOTTOM. RESTORE CONDITIONS TO UNIFORM RESERVOIR BOTTOM TO EL. 1034 FEET AND 3(H):1(V) SLOPES WITH FABRIC-FORMED CONCRETE ABOVE +/- EL. 1042 FEET EXCEPT WHERE NOTED. ADDITIONAL EXCAVATION AND FILL PLACEMENT SHALL BE PERFORMED ON SLOPES BELOW FABRIC-FORMED CONCRETE AND ACROSS RESERVOIR BOTTOM. EXCAVATIONS BELOW DESIGN GRADES WILL BE DIRECTED BY ENGINEER. CARE SHALL BE TAKEN TO NOT OVER-EXCAVATE EMBANKMENT SLOPES AND RESERVOIR BOTTOM. PERFORM ALL EXCAVATION AND FILL IN ACCORDANCE WITH SPECIFICATION SECTIONS 31 00 01 AND 31 00 02.
- REMOVE TEMPORARY ACCESS RAMP UPON COMPLETION OF PHASE 1. CONTRACTOR SHALL REMOVE IN SUCH A WAY AS TO NOT DAMAGE THE EXISTING EMBANKMENT SLOPE AND SLOPE PROTECTION. TEMPORARY ACCESS RAMP MATERIALS MAY BE CONSIDERED FOR REUSE FOR THE PERMANENT ACCESS RAMP CONSTRUCTION.
- DAMAGE TO THE EMBANKMENT SLOPES OR CREST FROM CONSTRUCTION ACTIVITIES SHALL BE REPAIRED BY THE CONTRACTOR PER THE DIRECTION OF THE ENGINEER AND OWNER TO CONFORM TO GEORGIA SAFE DAMS PROGRAM REQUIREMENTS AT NO ADDITIONAL COST TO THE OWNER.
- CONTRACTOR SHALL NOT CUT INTO EXISTING GRADE AT ANY TIME DURING CONSTRUCTION EXCEPT AS SHOWN ON DRAWINGS OR AS PRE-APPROVED BY ENGINEER.
- CONTRACTOR ACCESS AND LAYDOWN AREAS SHALL NOT OVERLAP THE DAM EMBANKMENT AT ANY POINT. ALL EQUIPMENT AND MATERIALS SHALL BE STORED IN LAYDOWN AREAS. NO EQUIPMENT OR MATERIALS SHALL BE STORED ON DAM EMBANKMENT. LAYDOWN AREAS SHALL, AT A MINIMUM, BE PROTECTED FROM CONSTRUCTION DAMAGE BY PLACEMENT OF SACRIFICIAL TYPE I SEPARATOR GEOTEXTILE AND 12 INCHES OF GRADED AGGREGATE BASE MATERIALS. DAMAGE TO SUBGRADES SHALL BE REPAIRED IMMEDIATELY. GEOTEXTILE AND GRADED AGGREGATE BASE SHALL BE REMOVED UPON PROJECT COMPLETION.
- ACCESS TO DAM CREST AND SLOPES SHALL BE LIMITED TO LIGHT-WEIGHT VEHICLES UNLESS PRE-APPROVED BY ENGINEER. EMBANKMENT CREST SHALL BE PROTECTED USING TEMPORARY, WATER-FILLED, TRUCK BARRIERS. LAYDOWN AREA GRADES SHALL BE PROTECTED AND RESTORED AT END OF CONSTRUCTION.
- STRUCTURES A, B, C, D, AND E, SHALL BE MADE COMPLETELY ACCESSIBLE AS EARLY AS POSSIBLE DURING SEDIMENT REMOVAL PROCESS FOR ENGINEER AND CONTRACTOR INSPECTIONS. ALL STRUCTURES SHALL BE PROTECTED FROM OTHER RESERVOIR CONSTRUCTION.
- SLOPES SURROUNDING EXISTING INLET STRUCTURES HAVE EROSION DAMAGE, ALTHOUGH LIMITS AND EXTENTS ARE UNKNOWN. AFTER RESERVOIR DRAWDOWN, AND INTERNAL SEDIMENT REMOVAL, ENGINEER WILL INSPECT SLOPE AND PROVIDE REPAIR GUIDANCE.
- UPON REMOVAL OF TEMPORARY INGRESS/EGRESS PATH, CONTRACTOR TO RESTORE AREAS TO EXISTING CONDITIONS INCLUDING EXISTING GRADES, SOD, TREES, AND LANDSCAPING.

	CONFORMED SET	03/2025	KJR	PROJECT ENGINEER:	K. RAY
				DESIGNED BY:	M. BALLARD
				DRAWN BY:	M. BALLARD
				CHECKED BY:	C. ROBINSON
2	ADDENDUM NO.3	01/17/25	MPB	IF THIS BAR DOES NOT MEASURE 1" THEN DRAWING IS NOT TO FULL SCALE	
1	ADDENDUM NO.2	01/10/25	MPB		
REV	ISSUED FOR	DATE	BY		

CONFORMED DRAWING

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GBPE LIC #: PEF003685 EXP: 6/30/2026

Hazen

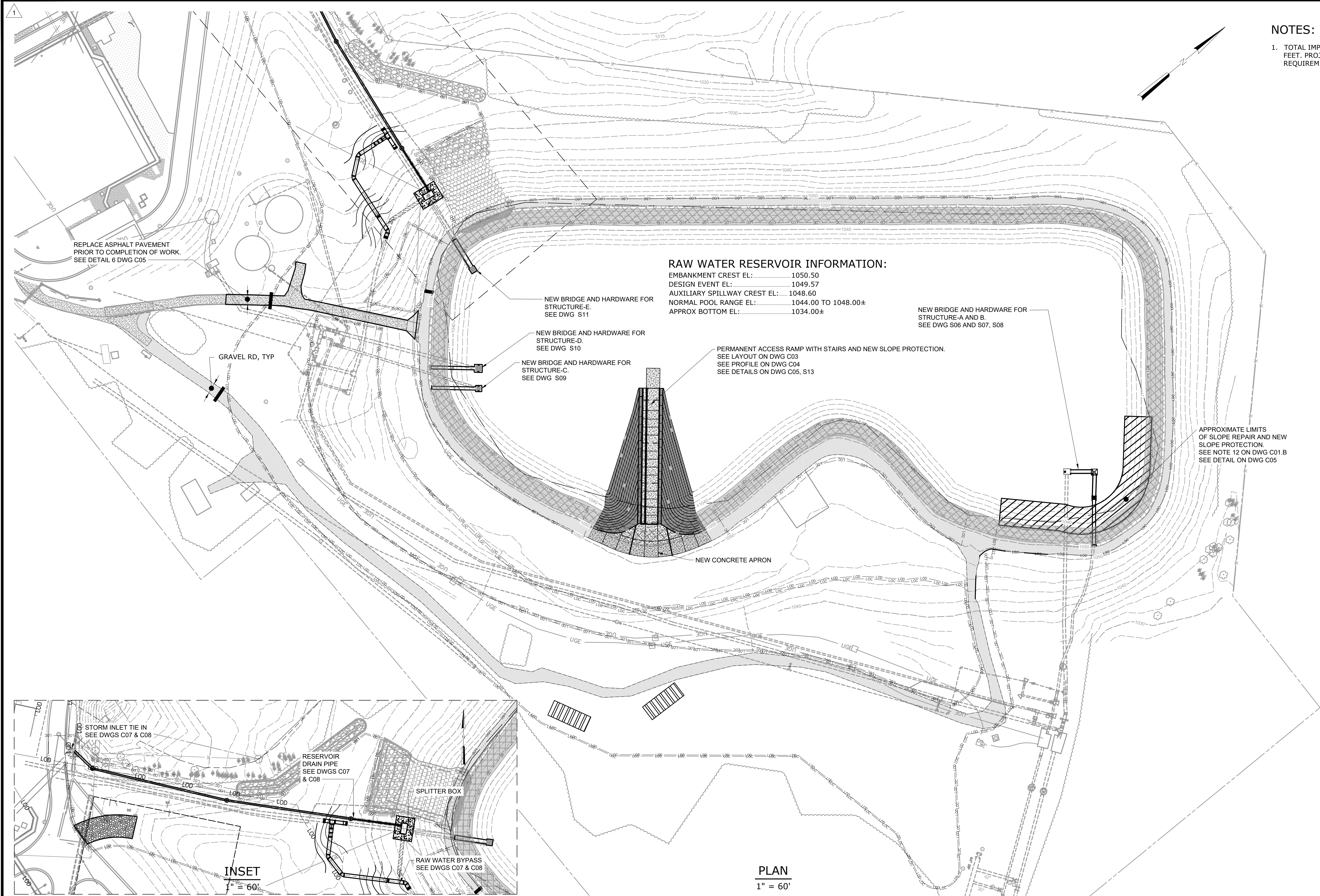
HAZEN AND SAWYER
1300 ALTMORE AVENUE
SUITE 520
ATLANTA, GEORGIA 30342
(404) 459-6363

COBB COUNTY-MARIETTA
WATER AUTHORITY

JAMES E. QUARLES WTP
RESERVOIR CLEANING AND IMPROVEMENTS
PROJECT

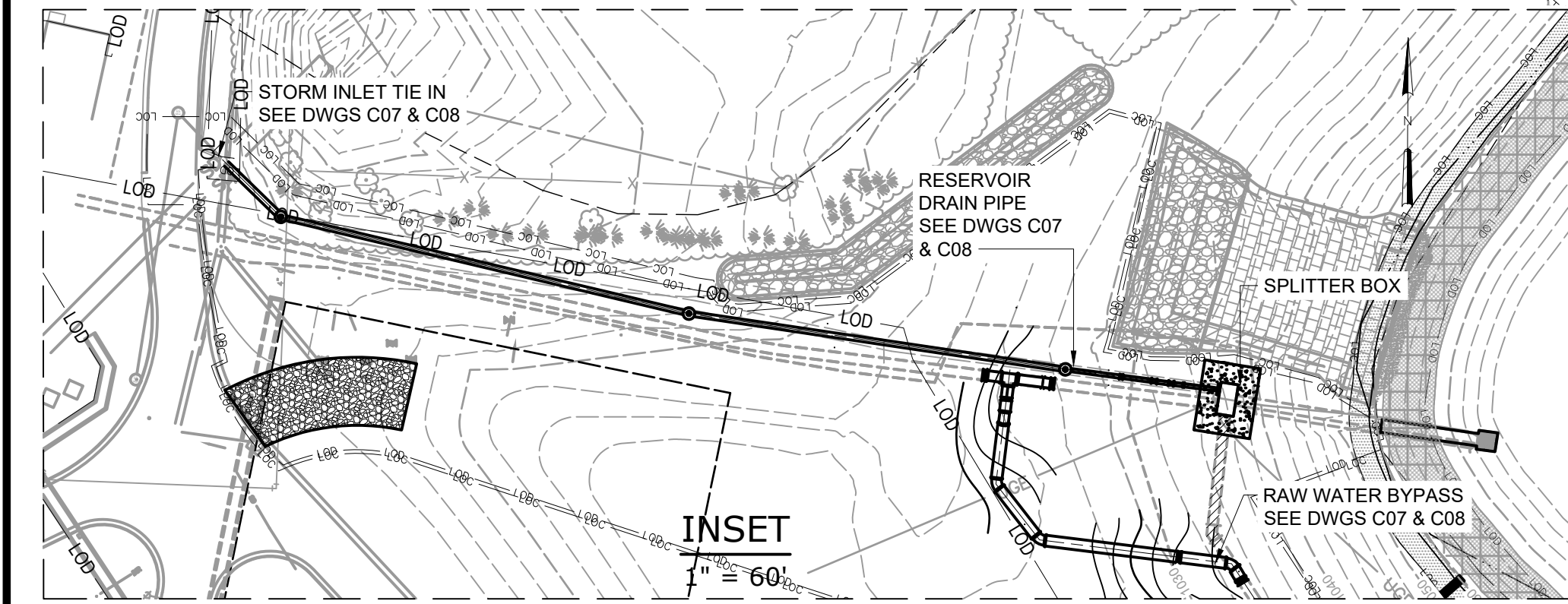
CIVIL
DEMOLITION AND
TEMPORARY
CONSTRUCTION PLAN

DATE:	SEPTEMBER 2024
HAZEN NO.:	32485-017 & 026
CONTRACT NO.:	017 & 026
DRAWING NUMBER:	C01.B



NOTES:

1. TOTAL IMPERVIOUS AREA INCREASE IS LESS THAN 5000 SQUARE FEET. PROJECT IS THEREFORE EXEMPT FROM STORMWATER REQUIREMENTS.



	CONFORMED SET	03/2025	KJR	PROJECT ENGINEER: K. RAY
				DESIGNED BY: M. BALLARD
				DRAWN BY: M. BALLARD
				CHECKED BY: C. ROBINSON
1	ADDENDUM NO.2	01/10/25	MPB	IF THIS BAR DOES NOT MEASURE 1" THEN DRAWING IS NOT TO FULL SCALE
REV	ISSUED FOR	DATE	BY	

CONFORMED DRAWING

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GBPE LIC #: PEF003685 EXP: 6/30/2026

Hazen
HAZEN AND SAWYER
1300 ALTMORE AVENUE
SUITE 520
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(404) 459-6363

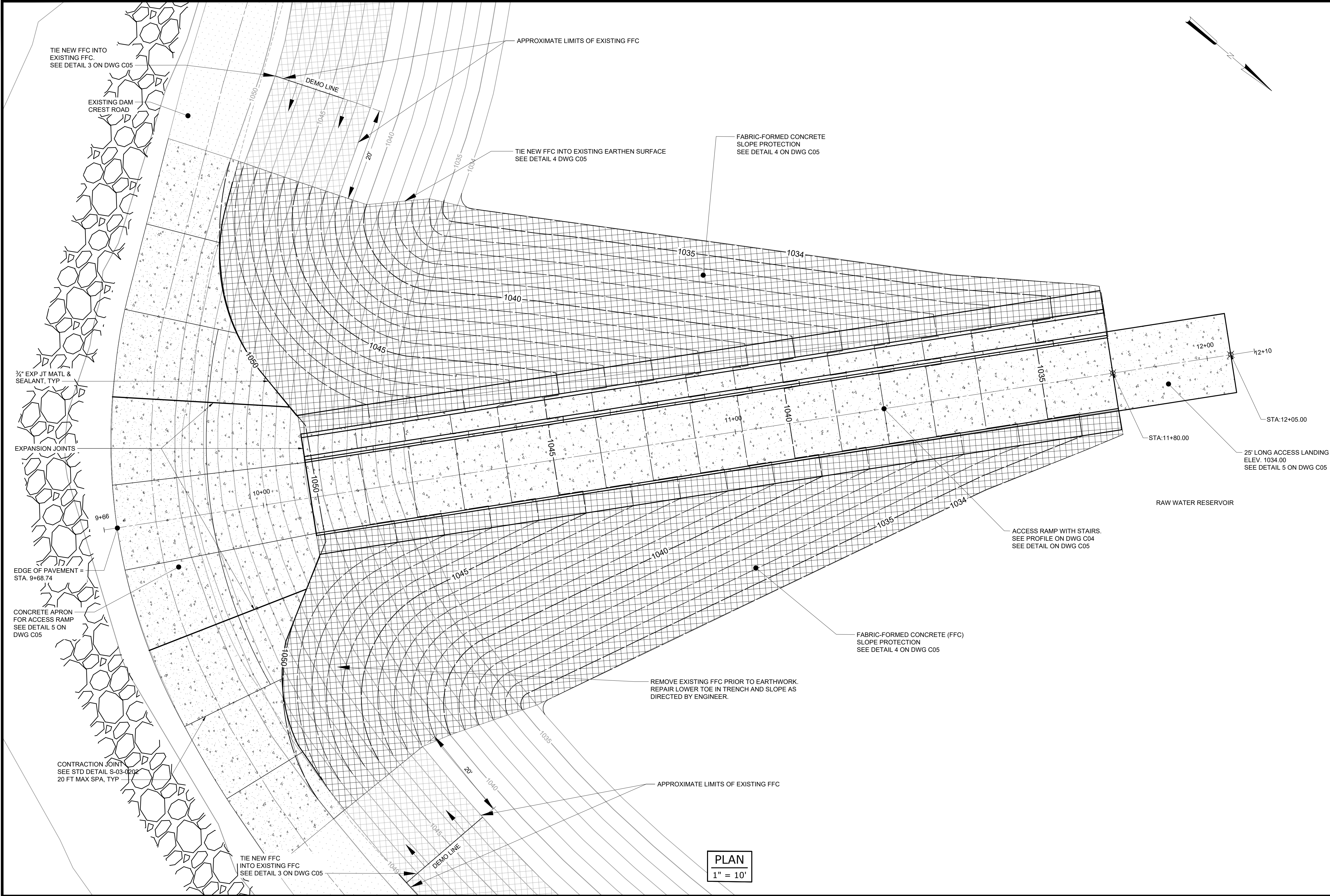
COBB COUNTY-MARIETTA
WATER AUTHORITY

JAMES E. QUARLES WTP
RESERVOIR CLEANING AND IMPROVEMENTS
PROJECT

CIVIL
SITE PLAN

DATE:	SEPTEMBER 2024
HAZEN NO.:	32485-017 & 026
CONTRACT NO.:	017 & 026
DRAWING NUMBER:	C02

File: C:\32485-ATL\32485-017\CAD_BIM\CIVIL\C03 ACCESS RAMP LAYOUT PLAN Saved by MBALLARD Save date: 3/7/2025 2:58 PM
PLOT DATE: 3/7/2025 3:39 PM BY: MBALLARD



- NOTES:
- EXISTING FABRIC-FORMED CONCRETE (FFC) SHALL BE FIELD CUT USING ACCEPTABLE CONCRETE CUTTING TECHNIQUES TO CREATE UNIFORM DEMOLITION LINE.
 - FFC SHALL BE INSTALLED ON TOP OF THE FINISHED FILL GRADES.
 - FFC SHALL BE HYDROTEX UNIFORM SECTION US400 MANUFACTURED BY SYNTHETEX, LLC.
 - FFC SHALL BE INSTALLED PER MANUFACTURER RECOMMENDATIONS AND GUIDELINES.
 - ALL SUBGRADES WILL BE EVALUATED BY ENGINEER PRIOR TO SUBSEQUENT CONSTRUCTION.
 - TOP OF NEW FFC SHALL MATCH EXISTING FFC.

	CONFORMED SET	03/2025	KJR
REV	ISSUED FOR	DATE	BY

PROJECT ENGINEER:	K. RAY
DESIGNED BY:	M. BALLARD
DRAWN BY:	M. BALLARD
CHECKED BY:	C. ROBINSON
IF THIS BAR DOES NOT MEASURE 1" THEN DRAWING IS NOT TO FULL SCALE	0 1/2" 1"

CONFORMED DRAWING

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Hazen

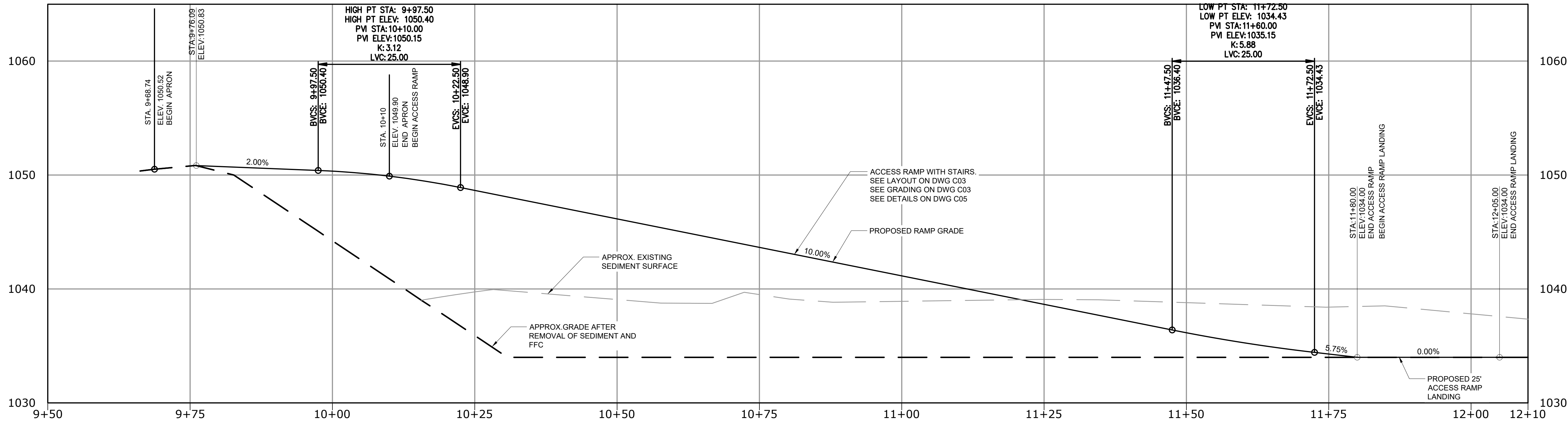
HAZEN AND SAWYER
1300 ALTMORE AVENUE
SUITE 520
ATLANTA, GEORGIA 30342
(404) 459-6363

COBB COUNTY-MARIETTA
WATER AUTHORITY

JAMES E. QUARLES WTP
RESERVOIR CLEANING AND IMPROVEMENTS
PROJECT

CIVIL PERMANENT ACCESS RAMP PLAN	DATE: SEPTEMBER 2024
	HAZEN NO.: 32485-017 & 026
	CONTRACT NO.: 017 & 026
	DRAWING NUMBER:
	C03

- NOTES:
1. PROFILE INFORMATION SHOWN ALONG ACCESS RAMP BASELINE AS SHOWN ON DWG C03.
 2. ALL SEDIMENT AND EXISTING FFC SHALL BE REMOVED PRIOR TO RAMP CONSTRUCTION.
 3. ALL SUBGRADES WILL BE EVALUATED BY THE ENGINEER PRIOR TO RAMP CONSTRUCTION.
 4. EXISTING FFC SHALL BE FIELD CUT USING ACCEPTABLE CONCRETE CUTTING TECHNIQUES TO RESULT IN UNIFORM DEMOLITION.
 5. EXISTING SUBGRADES MAY REQUIRE ADDITIONAL EXCAVATION AND FILL REPAIR PRIOR TO RAMP CONSTRUCTION AS DETERMINED BY ENGINEER.



ACCESS RAMP PROFILE

HORIZONTAL : 1" = 10'
VERTICAL SCALE: 1"= 5'

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PLOT DATE: 3/7/2025 3:39 PM BY: MBALLARD

	CONFORMED SET	03/2025	KJR	PROJECT ENGINEER: K. RAY
				DESIGNED BY: M. BALLARD
				DRAWN BY: M. BALLARD
				CHECKED BY: C. ROBINSON
				IF THIS BAR DOES NOT MEASURE 1" THEN DRAWING IS NOT TO FULL SCALE
REV	ISSUED FOR	DATE	BY	

CONFORMED DRAWING

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Hazen

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1300 ALTMORE AVENUE
SUITE 520
ATLANTA, GEORGIA 30342
(404) 459-6363

COBB COUNTY-MARIETTA
WATER AUTHORITY

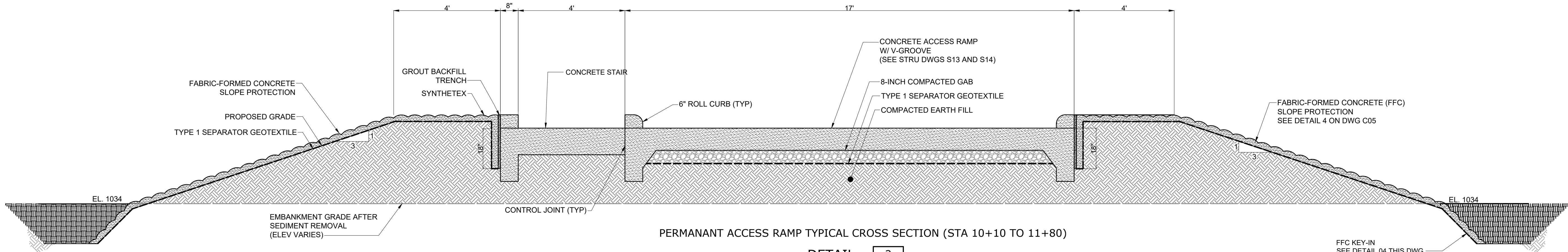
JAMES E. QUARLES WTP
RESERVOIR CLEANING AND IMPROVEMENTS
PROJECT

CIVIL
PERMANENT ACCESS
RAMP PROFILE

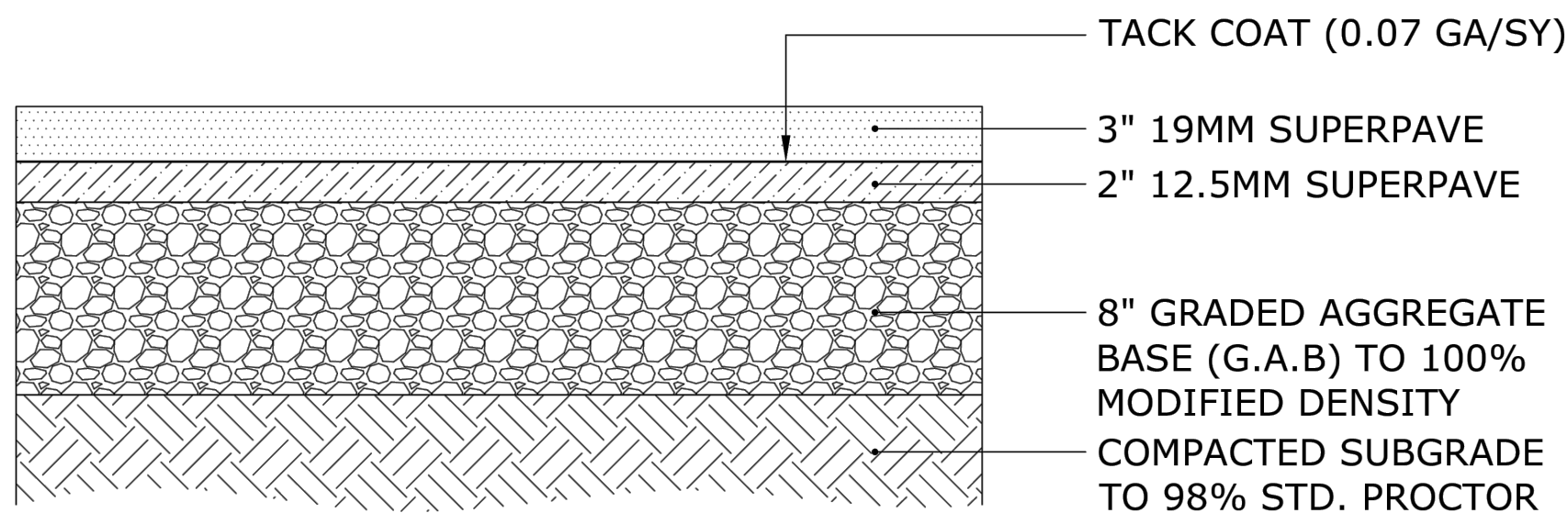
C04

DATE:	SEPTEMBER 2024
HAZEN NO.:	32485-017 & 026
CONTRACT NO.:	017 & 026
DRAWING NUMBER:	

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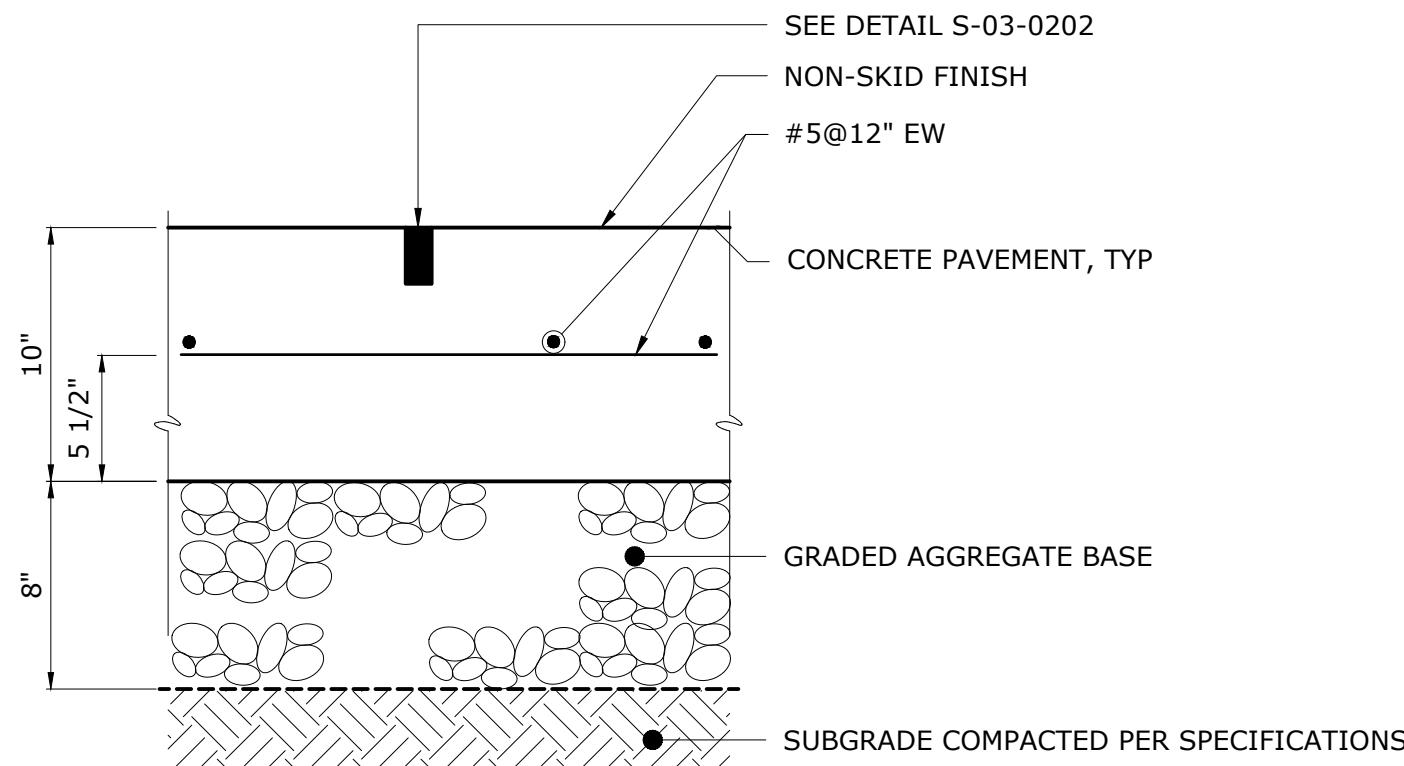


DETAIL 2
SCALE: 1"=2'
C05



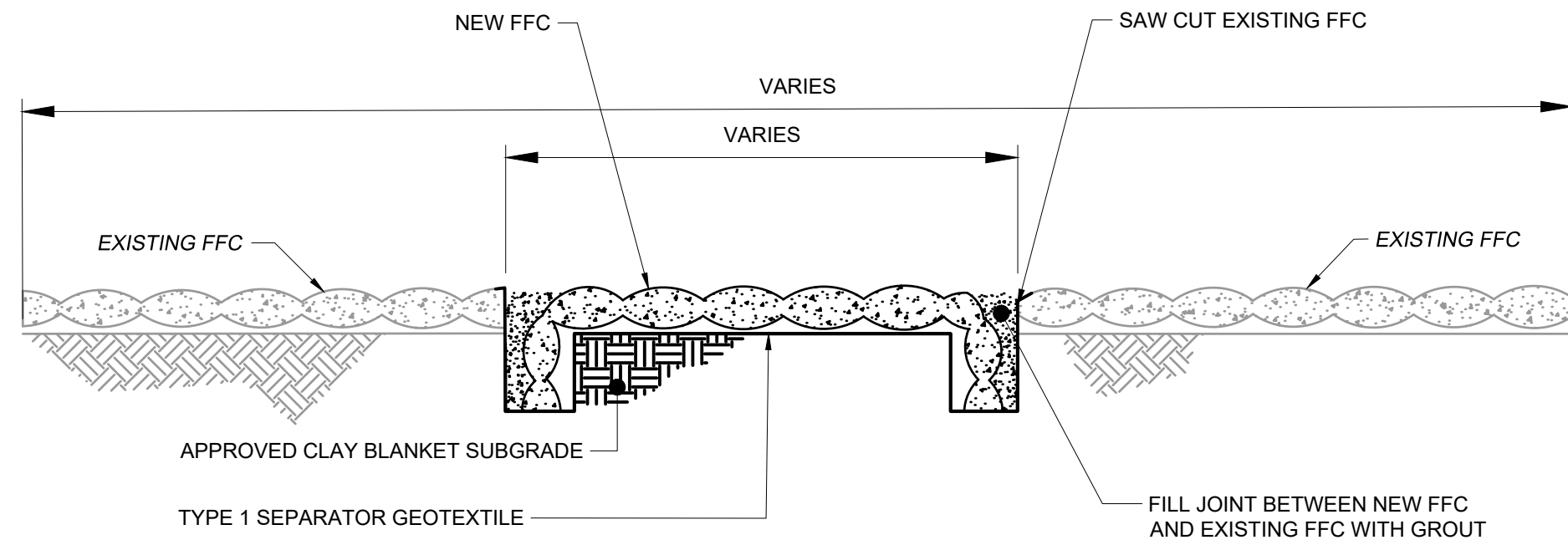
ASPHALT PAVEMENT

DETAIL 6
NTS
C05



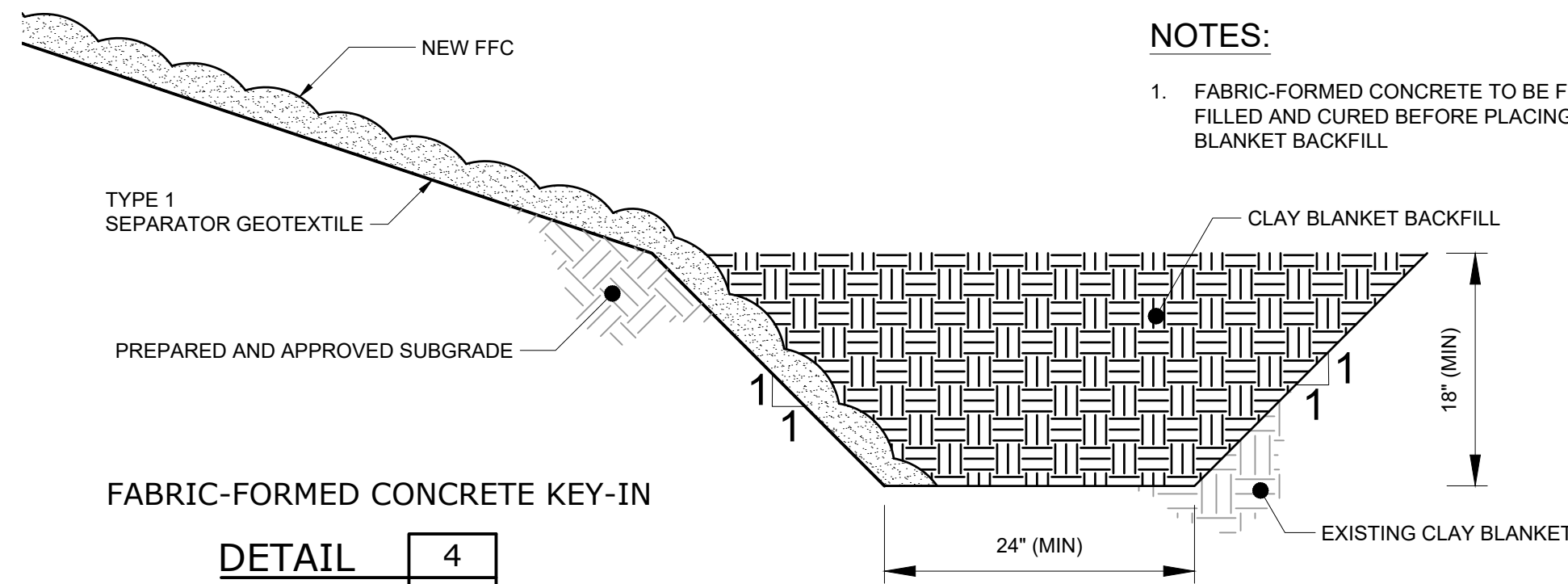
CONCRETE PAVEMENT TYPICAL SECTION

DETAIL 5
N.T.S.
C05



FABRIC-FORMED CONCRETE

DETAIL 3
SCALE: 1:1
C05



FABRIC-FORMED CONCRETE KEY-IN

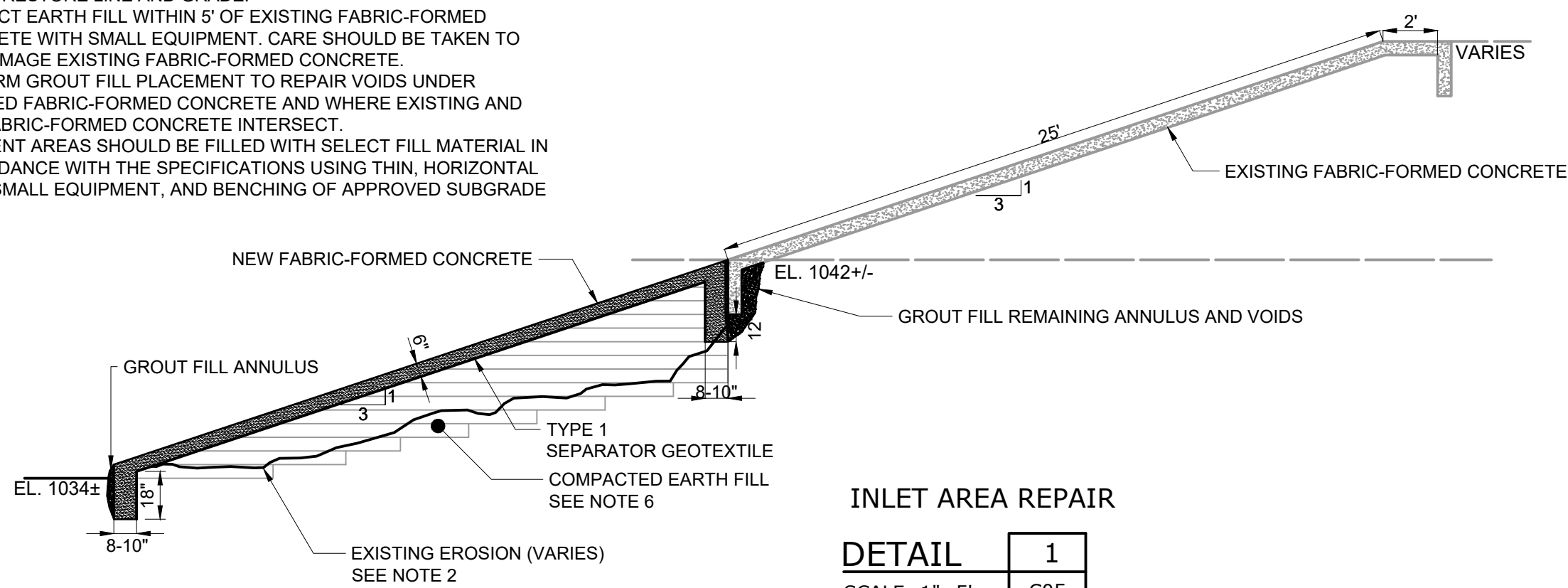
DETAIL 4
NTS
C05

NOTES:

1. LIMITS OF FABRIC-FORMED CONCRETE REPAIR AND NEW FABRIC-FORMED CONCRETE TO BE DETERMINED BY ENGINEER FOLLOWING SEDIMENT REMOVAL.
2. REMOVE ALL SEDIMENTS AND DAMAGED/DISTURBED MATERIALS AS DIRECTED BY ENGINEER ON SLOPES AND RESERVOIR BOTTOM AND RESTORE TO DESIGNED LINE AND GRADE.
3. REPLACE DEFICIENT SUBGRADE AREAS WITH COMPACTED EARTH FILL TO RESTORE LINE AND GRADE.
4. COMPACT EARTH FILL WITHIN 5' OF EXISTING FABRIC-FORMED CONCRETE WITH SMALL EQUIPMENT. CARE SHOULD BE TAKEN TO NOT DAMAGE EXISTING FABRIC-FORMED CONCRETE.
5. PERFORM GROUT FILL PLACEMENT TO REPAIR VOIDS UNDER EXPOSED FABRIC-FORMED CONCRETE AND WHERE EXISTING AND NEW FABRIC-FORMED CONCRETE INTERSECT.
6. DEFICIENT AREAS SHOULD BE FILLED WITH SELECT FILL MATERIAL IN ACCORDANCE WITH THE SPECIFICATIONS USING THIN, HORIZONTAL LIFTS, SMALL EQUIPMENT, AND BENCHING OF APPROVED SUBGRADE

NOTES:

1. FABRIC-FORMED CONCRETE TO BE FULLY GROUT FILLED AND CURED BEFORE PLACING ANY CLAY BLANKET BACKFILL



INLET AREA REPAIR

DETAIL 1
SCALE: 1"=5'
C05

	CONFORMED SET	03/2025	KJR	PROJECT ENGINEER: K. RAY
				DESIGNED BY: M. BALLARD
				DRAWN BY: M. BALLARD
				CHECKED BY: C. ROBINSON
				IF THIS BAR DOES NOT MEASURE 1" THEN DRAWING IS NOT TO FULL SCALE
REV	ISSUED FOR	DATE	BY	

CONFORMED DRAWING

THIS DOCUMENT ORIGINALLY ISSUED AND SEALED BY KRISTIN J. RAY, 034202, ON 09/19/2024 AND THE ENTITY'S COA INFORMATION. THIS MEDIUM SHALL NOT BE CONSIDERED A CERTIFIED DOCUMENT.

GBPE LIC #: PEF003685 EXP: 6/30/2026

Hazen

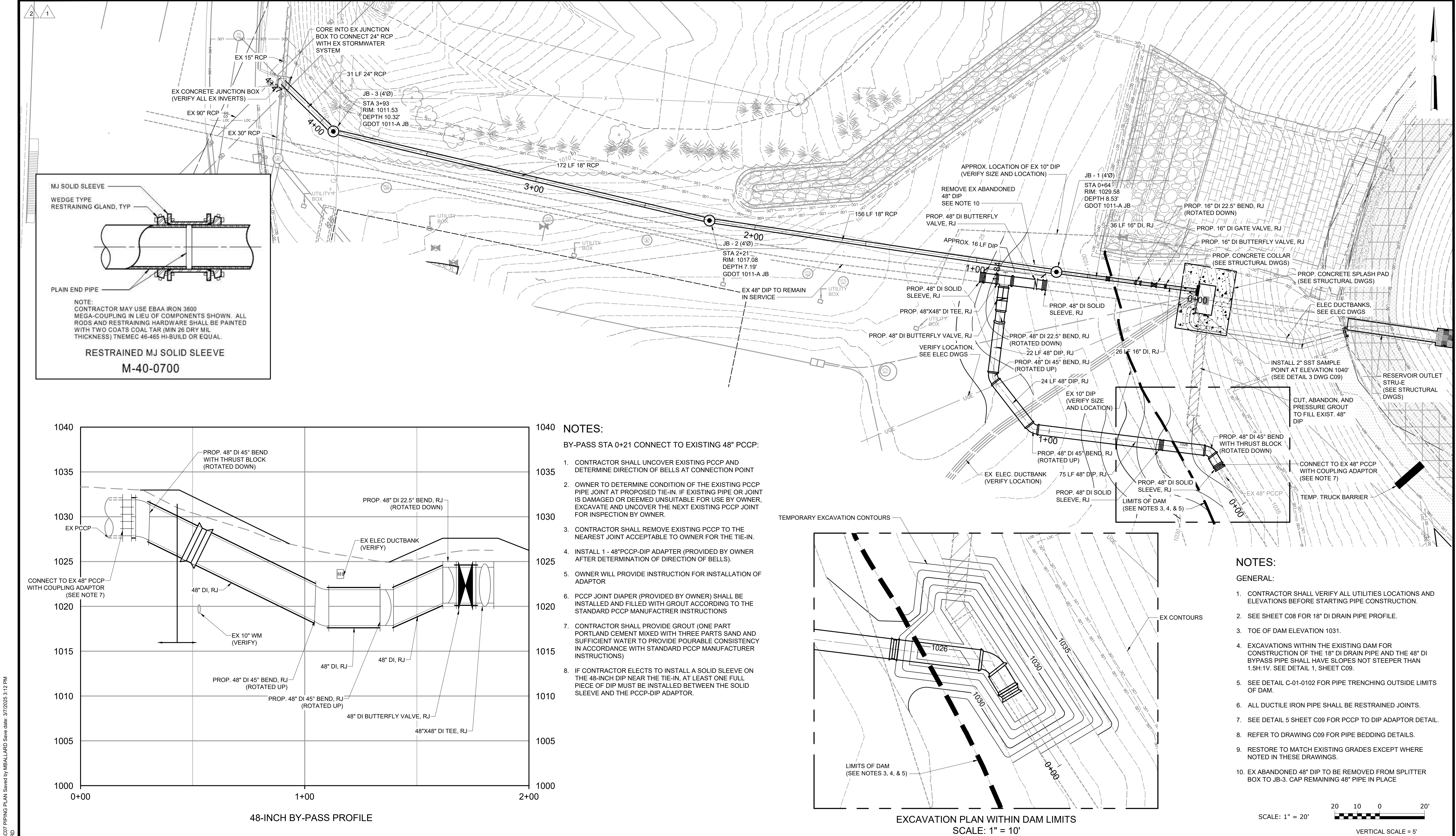
HAZEN AND SAWYER
1300 ALTMORE AVENUE
SUITE 520
ATLANTA, GEORGIA 30342
(404) 459-6363

COBB COUNTY-MARIETTA
WATER AUTHORITY

JAMES E. QUARLES WTP
RESERVOIR CLEANING AND IMPROVEMENTS
PROJECT

CIVIL
ACCESS RAMP DETAILS

DATE:	SEPTEMBER 2024
HAZEN NO.:	32485-017 & 026
CONTRACT NO.:	017 & 026
DRAWING NUMBER:	C05

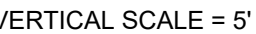
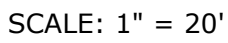



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PLOT DATE: 3/7/2025 3:41 PM BY: MBALLARD

GENERAL:

1. CONTRACTOR SHALL VERIFY ALL PIPE LOCATIONS AND ELEVATIONS BEFORE STARTING PIPE CONSTRUCTION.
2. SEE DRAWING C07 FOR 18" DI DRAIN PIPE PLAN.
3. 24" DI MINIMUM SLOPE 1.0%, MAXIMUM SLOPE 10%.
4. ALL PIPE SUBGRADES WITHIN LIMITS OF DAM TO BE BACKFILLED ACCORDING TO DETAIL 1, DRAWING C09. CARE SHOULD BE TAKEN TO NOT UNDERMINE ACTIVE 48" PIPE.



				PROJECT ENGINEER:	K. RAY
	CONFORMED SET	03/2025	KJR	DESIGNED BY:	C. GOBLISCH
				DRAWN BY:	C. GOBLISCH
				CHECKED BY:	A. BOWLING
1	ADDENDUM NO.2	01/10/25	MPB	IF THIS BAR DOES NOT MEASURE 1" THEN DRAWING IS NOT TO FULL SCALE	<div style="display: flex; align-items: center;"> <div style="margin-right: 10px;">0 1/2" 1"</div>  </div>
REV	ISSUED FOR	DATE	BY		

CONFORMED DRAWING

THIS DOCUMENT ORIGINALLY ISSUED
AND SEALED BY WALTER CHARLES
GOLBISCH IV, 041059, ON 09/18/2024
AND THE ENTITY'S COA INFORMATION
THIS MEDIUM SHALL NOT BE
G CONSIDERED A CERTIFIED
DOCUMENT.

GBPE LIC #: PEF003685 EXP: 6/30/2026

Hazen

HAZEN AND SAWYER
1300 ALTMORE AVENUE
SUITE 520
ATLANTA, GEORGIA 30342
(404) 459-6363

COBB COUNTY-MARIETTA
WATER AUTHORITY

JAMES E. QUARLES WTP
RESERVOIR CLEANING AND IMPROVEMENTS
PROJECT

CIVIL DRAIN PIPING PROFILE

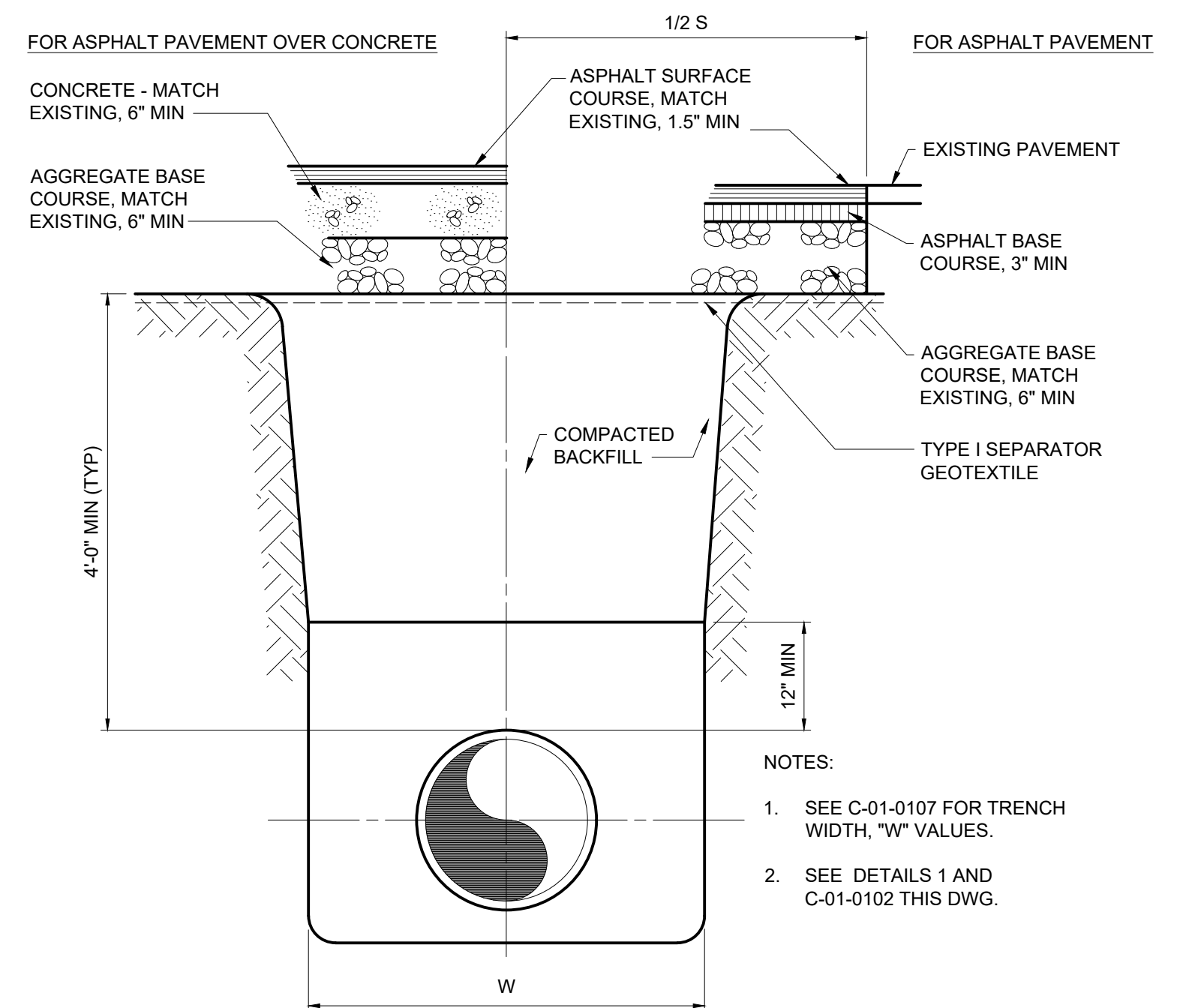
DATE: SEPTEMBER 2024

HAZEN NO.: 32485-017 & 026

CONTRACT NO.: 017 & 026

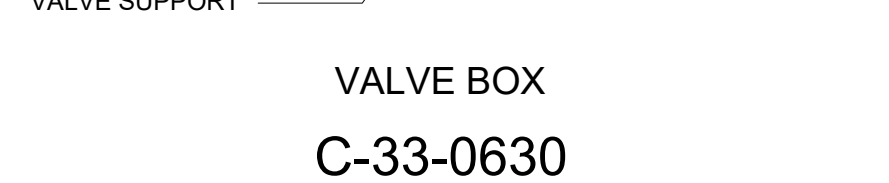
DRAWING
NUMBER:

C08

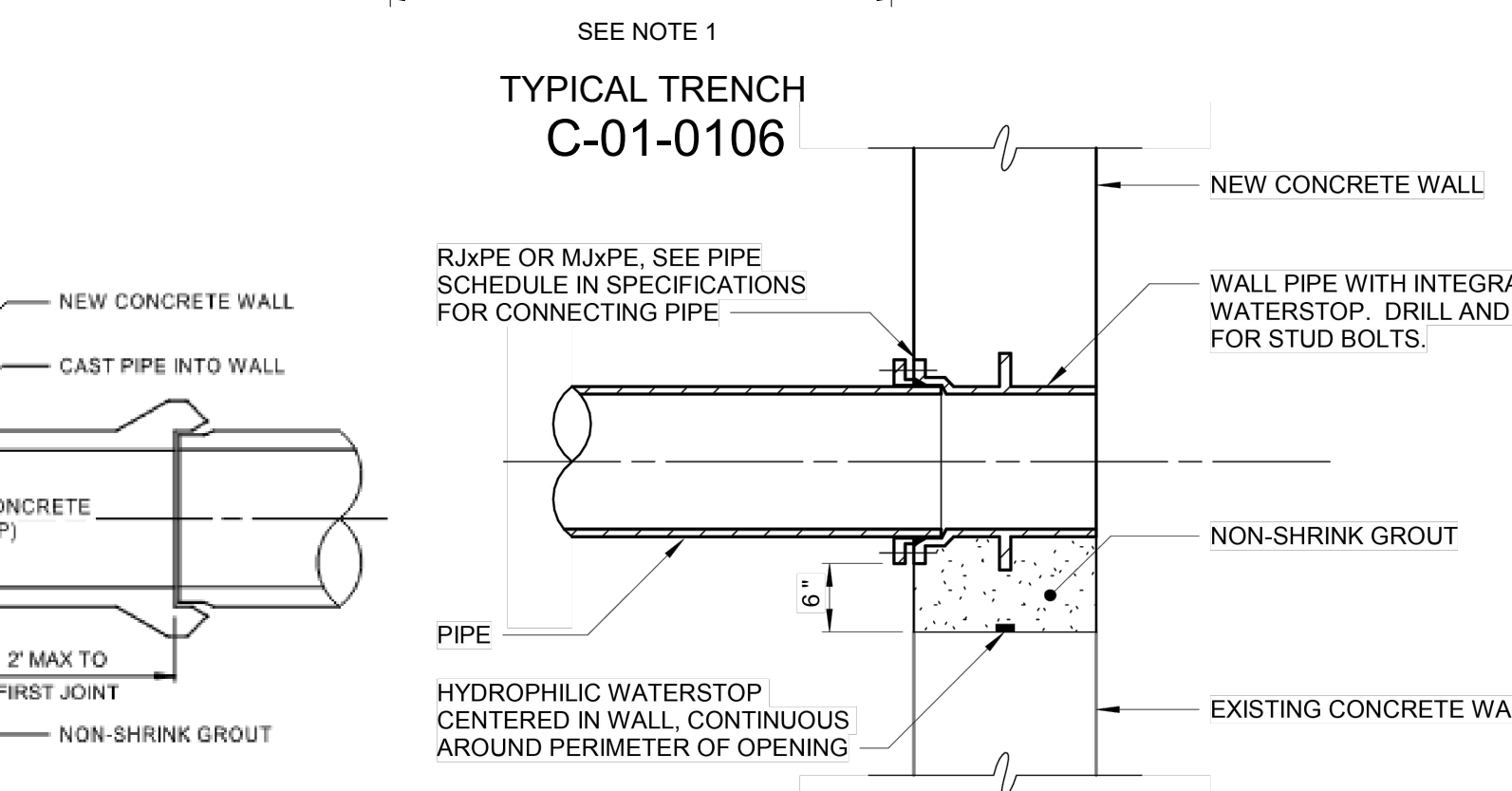


NOTES:

1. ENGRAVING SHALL BE MINIMUM 3/16" TALL CAPITAL LETTERS IN A BLOCK FONT SIMILAR TO ARIAL, CENTERED AND SPACED AS SHOWN.
2. ALL MARKINGS SHALL BE NEATLY MACHINE ENGRAVED.
3. ALTERNATELY, MARKINGS MAY BE HAND STAMPED, PROVIDED STAMPING IS DEEP ENOUGH TO WITHSTAND NORMAL TRAFFIC AND WEATHERING. STAMPING OF DISK SHALL BE ACCOMPLISHED PRIOR TO SETTING IN CONCRETE VALVE BOX PAD.
4. SUBMIT ONE SAMPLE FOR APPROVAL PRIOR TO ENGRAVING ALL MARKERS.
5. REGARDLESS OF ENGRAVING METHOD SELECTED, CONTRACTOR SHALL PROVIDE COMPATIBLE STAMP SET AND ANVIL TO OWNER UPON COMPLETION OF PROJECT FOR FUTURE REPAIR OF ENGRAVINGS.



C-33-0632



NOTES:

1. SEE C-01-0107 FOR TRENCH WIDTH, "W" VALUES.
2. SEE DETAILS 1 AND C-01-0102 THIS DWG.

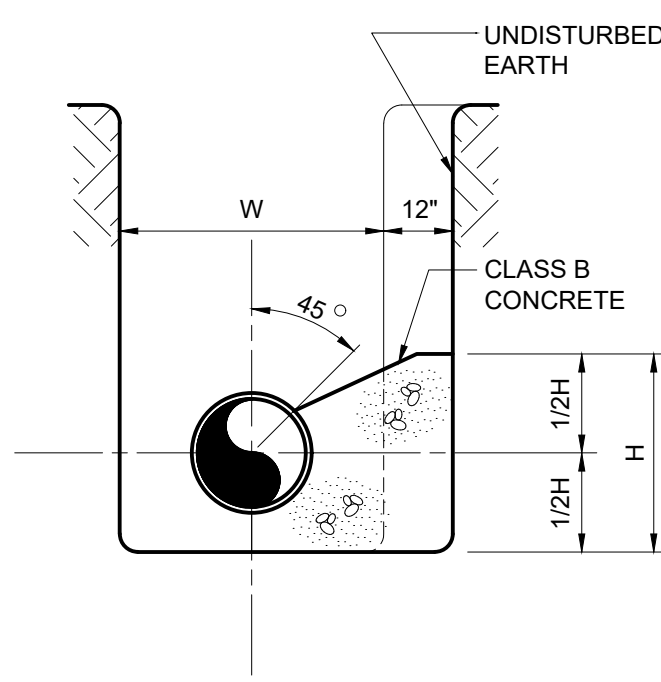
TYPICAL TRENCH
C-01-0106

PIPE BEDDING OUTSIDE LIMITS OF DAM

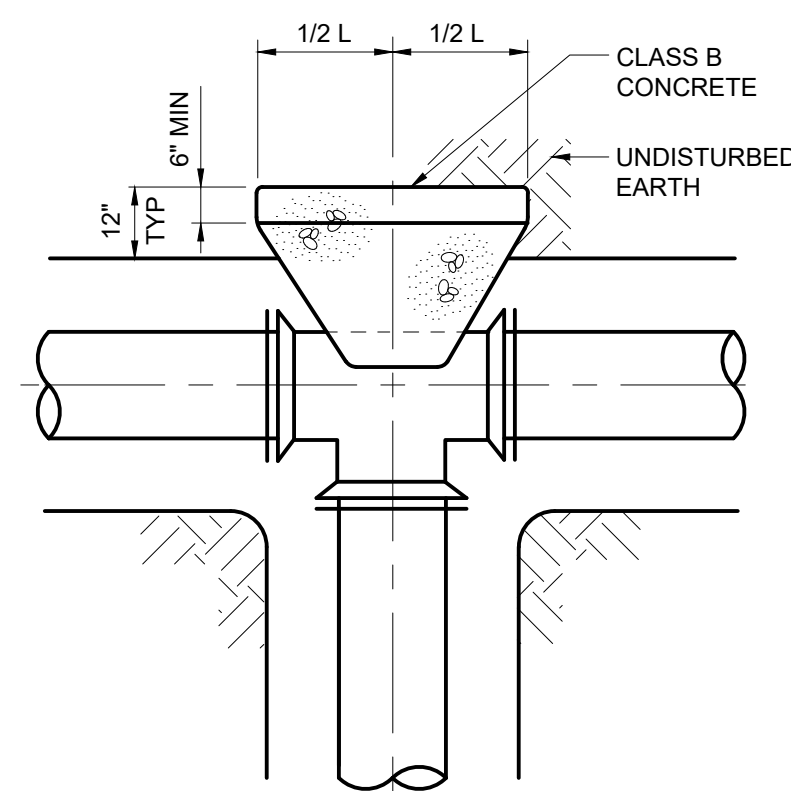
TYPE B
C-01-0102

TRENCH EXCAVATION LIMITS		
INTERNAL DIAMETER OF PIPE	W	
	MAX	W=MIN
4"-6"	3'-9"	2'-0"
8"-10"	3'-9"	2'-2"
12"	3'-9"	O.D.+2'
14"-16"	4'-2"	O.D.+2'
18"	4'-4"	O.D.+2'
20",21"	4'-8"	O.D.+2'
24"	4'-11"	O.D.+2'
27"	5'-9"	O.D.+2'
30"	6'-7"	O.D.+2'
36"	7'-4"	O.D.+2'
42"	8'-2"	O.D.+2'
48"	8'-9"	O.D.+2'
54"	9'-4"	O.D.+2'
60"	9'-10"	O.D.+2'
72"	11'-0"	O.D.+2'
78"	11'-8"	O.D.+2'
84"	12'-0"	O.D.+2'
90"	12'-6"	O.D.+2'
96"	13'-0"	O.D.+2'
108"	14'-0"	O.D.+2'
DEPTH OF CUT	S	
	MAXIMUM PAVEMENT REPLACEMENT WIDTH	
0-6'	S=W+4'	
>6-8'	S=W+8'	
>8-10'	S=W+12'	
>10-12'	S=W+16'	
>12-14'	S=W+20'	
>14-16'	S=W+24'	
>16-18'	S=W+28'	
>18'	S=W+32'	
W = TRENCH WIDTH AT BOTTOM OF PIPE. TRENCH SIDE SLOPES SHALL BE IN ACCORDANCE WITH OSHA REQUIREMENTS.		

C-01-0107



TYPICAL SECTION
TEE OR BEND

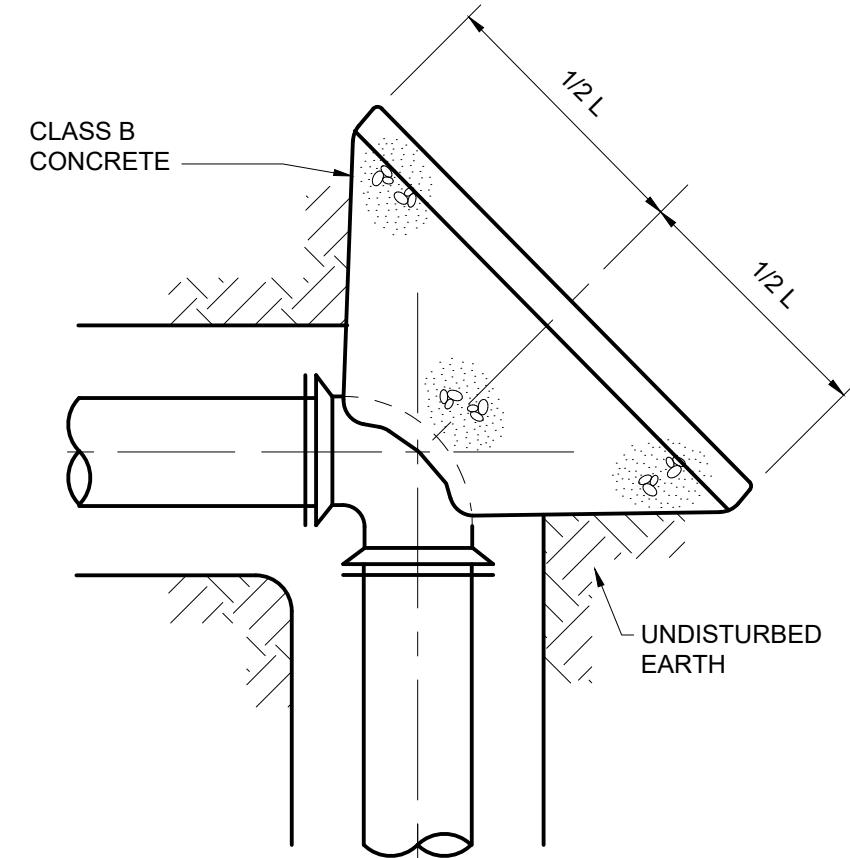


PLAN - TEE

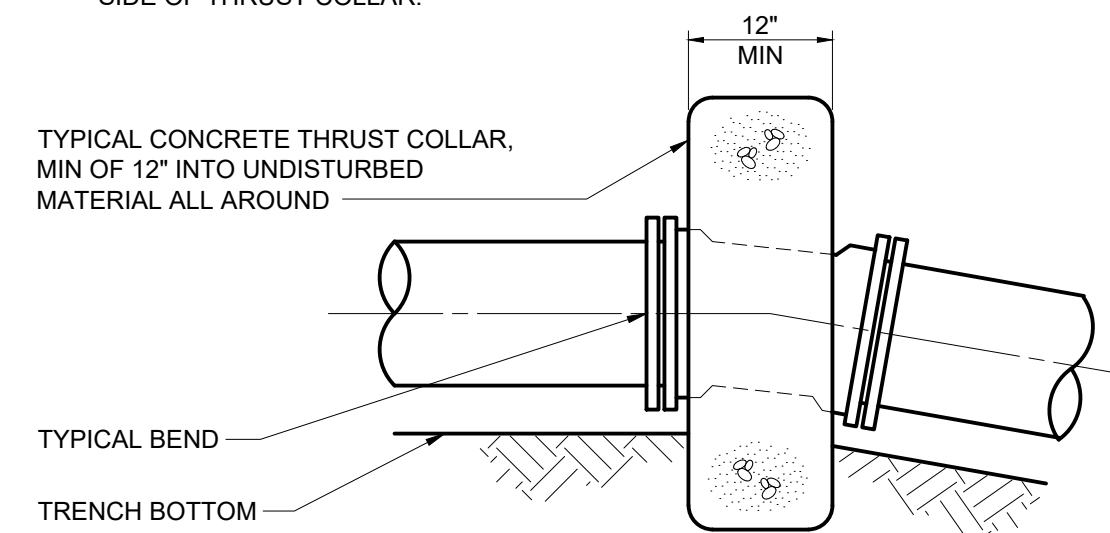
CONCRETE THRUST BLOCK SCHEDULE*								
PIPE SIZE (IN)	BEND						DESIGN PRESSURE (PSI)	
	90°/TEE		45°		22 1/2°			11 1/4°
	H	L	H	L	H	L	H	L
6	14	2.8	10	2.1	0.7	1.5	0.5	1.0
8	18	3.7	14	2.7	1.0	1.9	0.7	1.4
12	27	5.4	20	4.0	1.4	2.8	1	2.0
16	36	7.1	26	5.2	1.9	3.7	1.3	2.6
24	53	10.5	39	7.7	2.8	5.5	2.0	3.9
30	65	13.1	48	9.6	3.4	6.9	2.4	4.9
36	78	15.6	58	11.5	4.1	8.2	2.9	5.8
42	91	18.2	67	13.4	4.8	9.5	3.4	6.8
48	104	20.7	76	15.3	5.4	10.9	3.9	7.7
54	117	23.3	86	17.1	6.1	12.2	4.3	8.7

* BASED ON AVERAGE SOIL PASSIVE BEARING STRENGTH OF 2000 PSF USING SF OF 1.5. DIMENSIONS FOR BLOCKS IN FEET

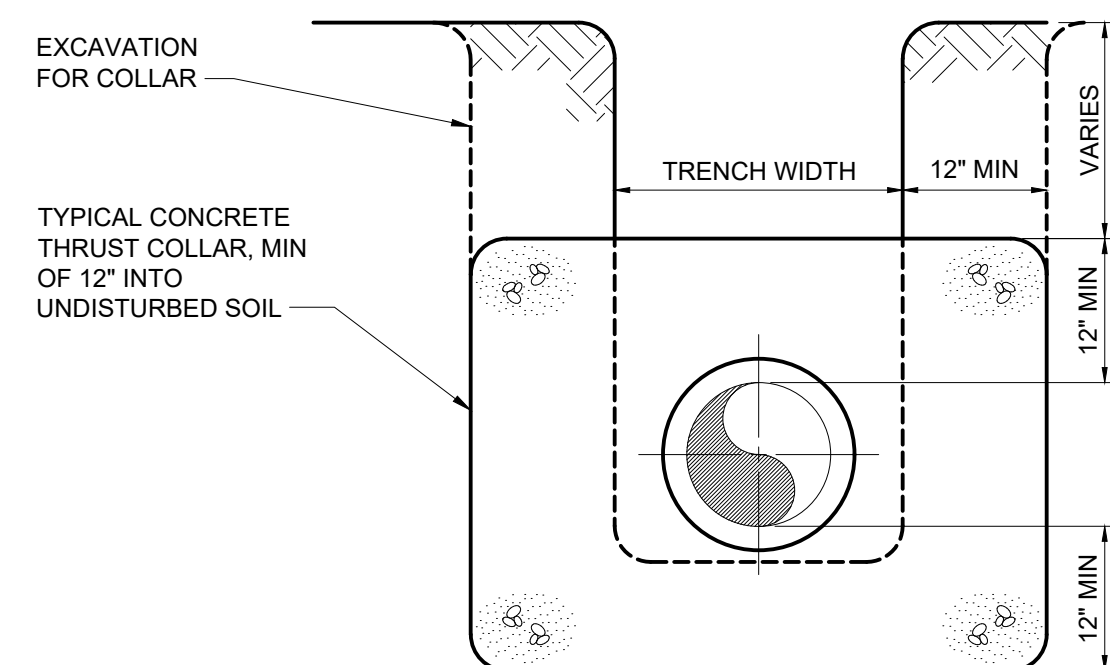
C-01-0112



PLAN - BEND

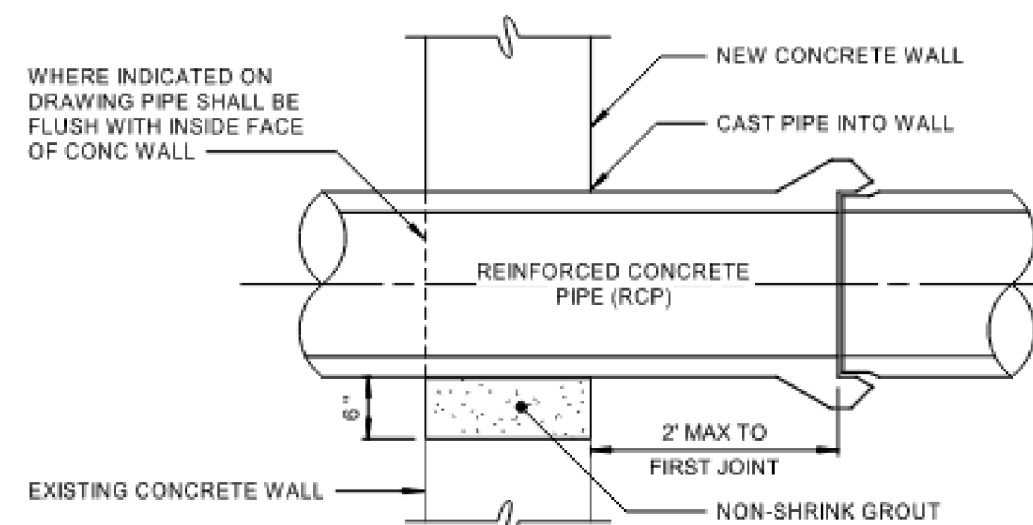


ELEVATION



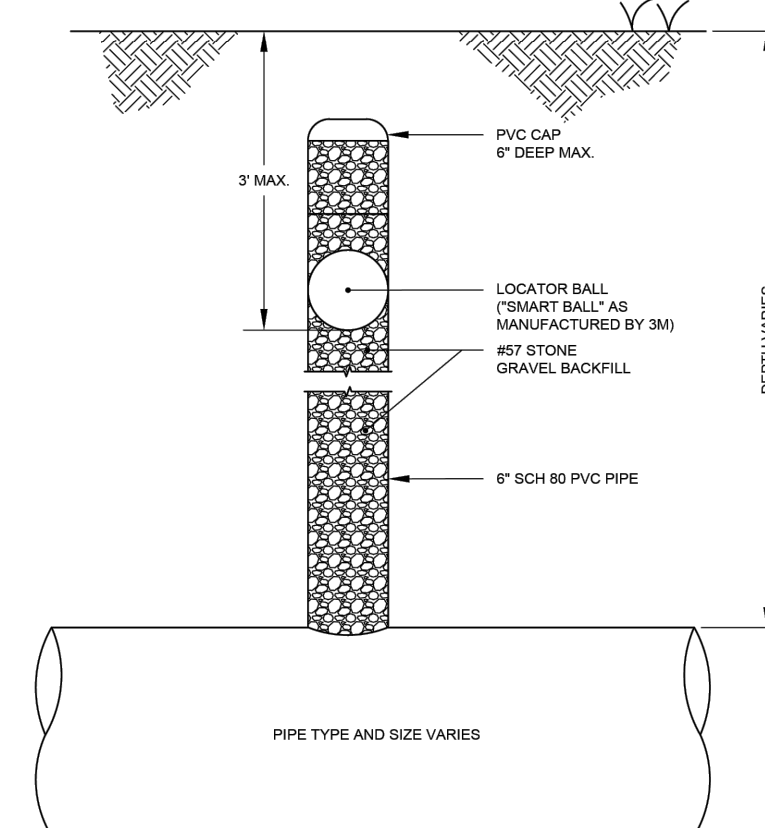
THRUST COLLAR

C-01-0111



REINFORCED CONCRETE PIPE WALL PENETRATION

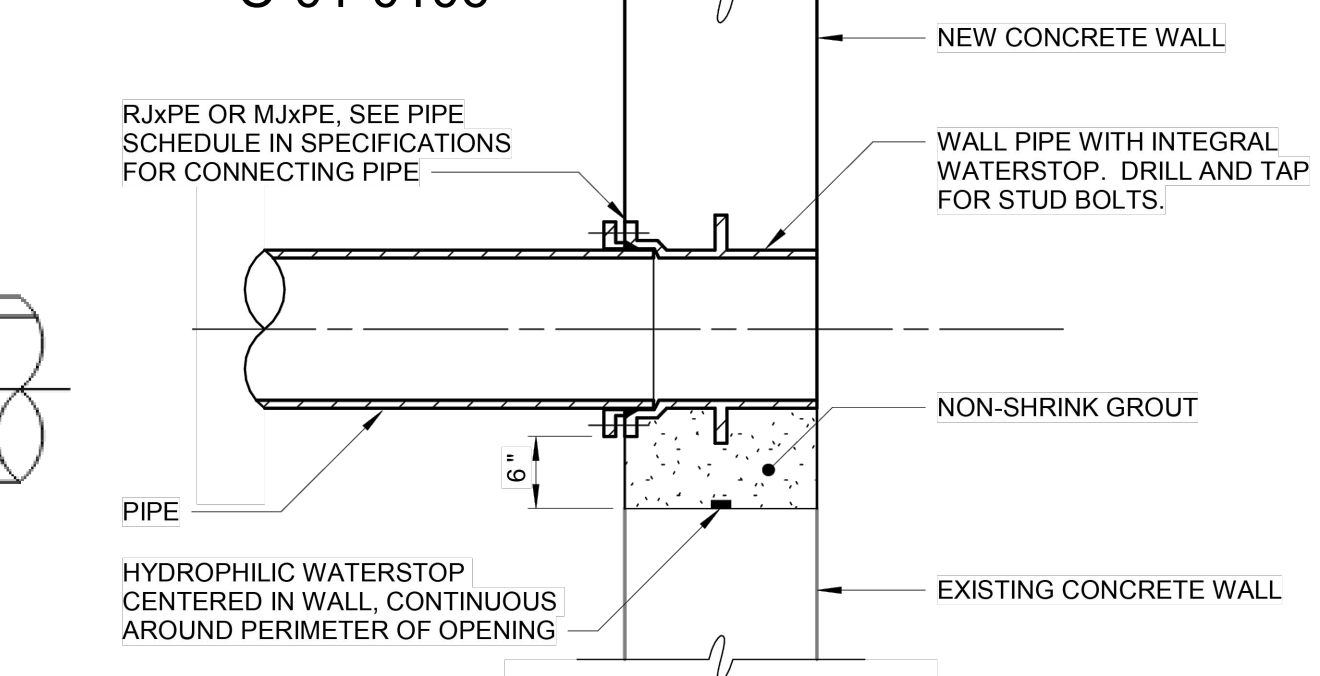
M-40-0203



NOTE:
LOCATOR BALL TO BE PLACED AT ALL FITTINGS, CONNECTIONS TO EXISTING LINES,
AND AT EVERY 3RD JOINT OF PIPE ON STRAIGHT RUNS.

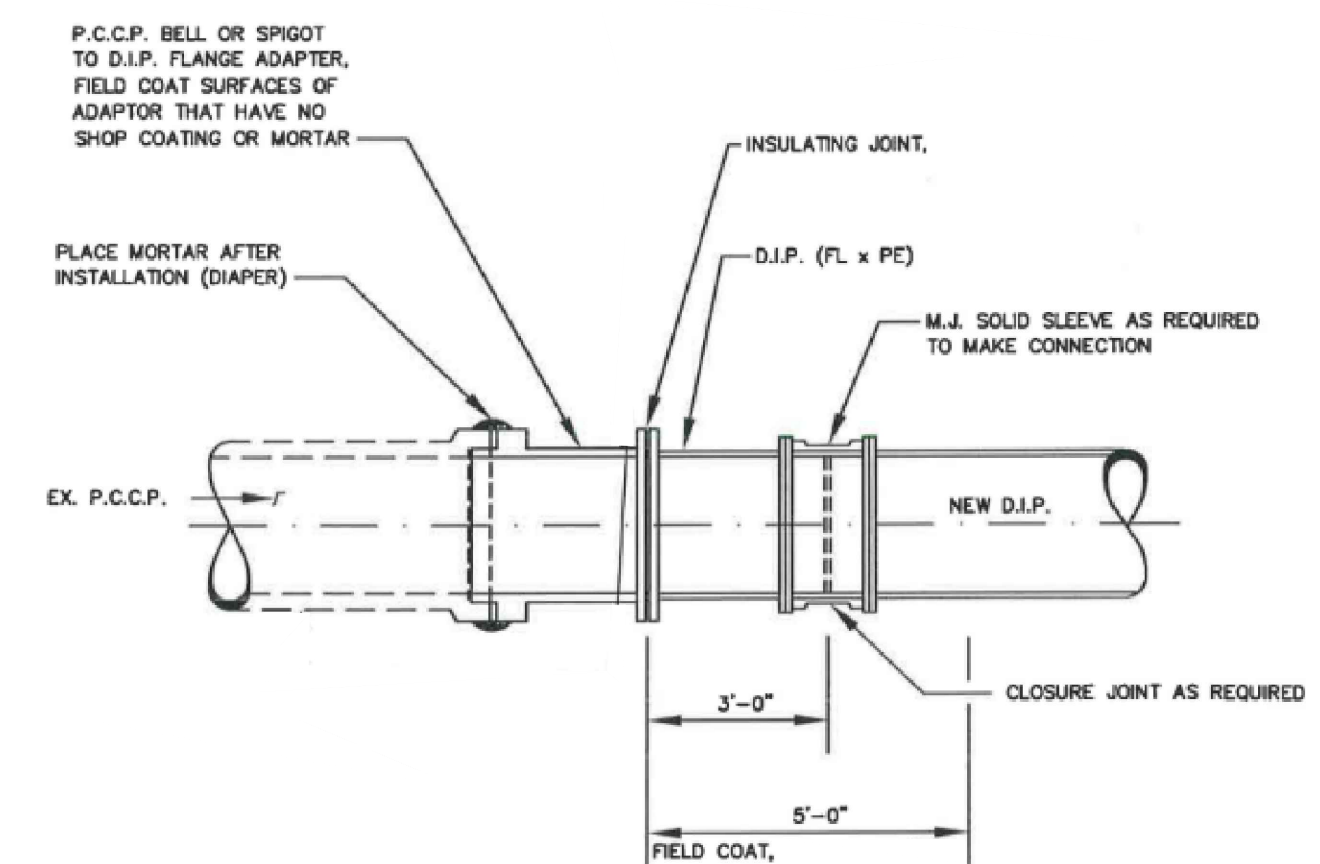
**PVC AS-BUILT LOCATOR INSTALLATION DE
(INSIDE AND OUTSIDE OF PAVEMENT)**

N.T.S. 110-B




PIPE PENETRATION

DETAIL	4
NTS	C09



PCCP X DIP TIE-IN DETAIL

DETAIL	5
NTS	C0

	CONFORMED SET	03/2025	KJR	PROJECT ENGINEER:	K. RAY
				DESIGNED BY:	C. GOBLISCH
				DRAWN BY:	C. GOBLISCH
				CHECKED BY:	A. BOWLING
				IF THIS BAR DOES NOT MEASURE 1" THEN DRAWING IS NOT TO FULL SCALE	<div> 0 1/2" 1"  </div>
	REV	ISSUED FOR	DATE	BY	

CONFORMED DRAWING

THIS DOCUMENT ORIGINALLY ISSUED
AND SEALED BY WALTER CHARLES
GOLBISCH IV, 041059, ON 09/18/2024
AND THE ENTITY'S COA INFORMATION
THIS MEDIUM SHALL NOT BE
CONSIDERED A CERTIFIED
DOCUMENT.

GBPE LIC #: PEF003685 EXP: 6/30/2026

Hazen

HAZEN AND SAWYER
1300 ALTMORE AVENUE
SUITE 520
ATLANTA, GEORGIA 30342
(404) 459-6363

COBB COUNTY-MARIETTA
WATER AUTHORITY

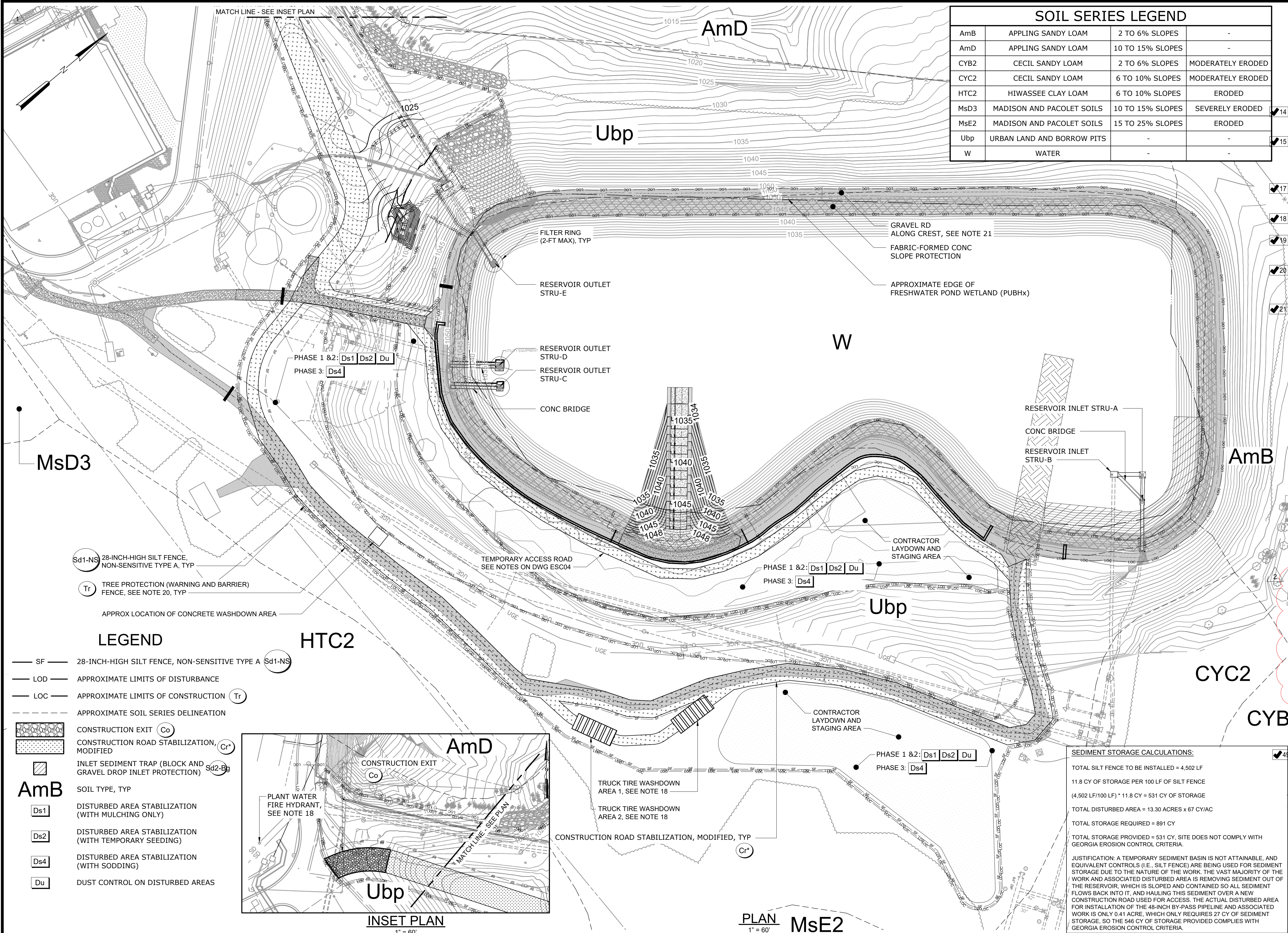
JAMES E. QUARLES WTP
RESERVOIR CLEANING AND IMPROVEMENTS
PROJECT

CIVIL PIPING DETAILS

DATE:	SEPTEMBER 2024
HAZEN NO.:	32485-017 & 026
CONTRACT NO.:	017 & 026
DRAWING NUMBER:	

C09

File: C:\32485-AT\32485-017CAD_BIMC\FILES\ESC01 Saved by MBALLARD Save date: 3/7/2025 3:19 PM
PLOT DATE: 3/7/2025 3:43 PM BY: MBALLARD



SOIL SERIES LEGEND			
AmB	APPLING SANDY LOAM	2 TO 6% SLOPES	-
AmD	APPLING SANDY LOAM	10 TO 15% SLOPES	-
CYB2	CECIL SANDY LOAM	2 TO 6% SLOPES	MODERATELY ERODED
CYC2	CECIL SANDY LOAM	6 TO 10% SLOPES	MODERATELY ERODED
HTC2	HIWASSEE CLAY LOAM	6 TO 10% SLOPES	ERODED
MsD3	MADISON AND PACOLET SOILS	10 TO 15% SLOPES	SEVERELY ERODED
MsE2	MADISON AND PACOLET SOILS	15 TO 25% SLOPES	ERODED
Ubp	URBAN LAND AND BORROW PITS	-	-
W	WATER	-	-

- NOTES:**
- ALL EROSION, SEDIMENTATION, AND POLLUTION CONTROL WORK SHALL BE PERFORMED IN ACCORDANCE WITH THE 2016 EDITION (OR LATEST UPDATE) OF THE MANUAL FOR EROSION AND SEDIMENT CONTROL IN GEORGIA (THE "GREEN BOOK") ADOPTED BY THE GEORGIA SOIL AND WATER CONSERVATION COMMISSION AND SPECIFICATION SECTION 31 25 00 - EROSION AND SEDIMENTATION CONTROL. SEE DRAWING ESC04 FOR SELECT BMP DETAILS FROM THE "GREEN BOOK".
 - REFER TO GEORGIA UNIFORM CODING SYSTEM ON DRAWING ESC02 FOR SYMBOLS LEGEND.
 - THE DESIGN PROFESSIONAL WHO PREPARED THE ES&PC PLAN IS TO INSPECT THE INSTALLATION OF THE INITIAL SEDIMENT STORAGE REQUIREMENTS AND PERIMETER CONTROL BMPs WITHIN 7 DAYS AFTER INSTALLATION.
 - NON-EXEMPT ACTIVITIES SHALL NOT BE CONDUCTED WITHIN THE 25 OR 50-FOOT UNDISTURBED STREAM BUFFERS AS MEASURED FROM THE POINT OF WRESTED VEGETATION OR WITHIN 25-FEET OF THE COASTAL MARSHLAND BUFFER AS MEASURED FROM THE JURISDICTIONAL DETERMINATION LINE WITHOUT FIRST ACQUIRING THE NECESSARY VARIANCES AND PERMITS.
 - AMENDMENTS/REVISIONS TO THE ES&PC PLAN WHICH HAVE A SIGNIFICANT EFFECT ON BMPs WITH A HYDRAULIC COMPONENT MUST BE CERTIFIED BY THE DESIGN PROFESSIONAL.
 - WASTE MATERIALS SHALL NOT BE DISCHARGED TO WATERS OF THE STATE, EXCEPT AS AUTHORIZED BY A SECTION 404 PERMIT.
 - THE ESCAPE OF SEDIMENT FROM THE SITE SHALL BE PREVENTED BY THE INSTALLATION OF EROSION AND SEDIMENT CONTROL MEASURES AND PRACTICES PRIOR TO LAND DISTURBING ACTIVITIES.
 - EROSION CONTROL MEASURES WILL BE MAINTAINED AT ALL TIMES. IF FULL IMPLEMENTATION OF THE APPROVED PLAN DOES NOT PROVIDE FOR EFFECTIVE EROSION CONTROL, ADDITIONAL EROSION AND SEDIMENT CONTROL MEASURES SHALL BE IMPLEMENTED TO CONTROL OR TREAT THE SEDIMENT SOURCE.
 - ANY DISTURBED AREA LEFT EXPOSED FOR A PERIOD GREATER THAN 14 DAYS SHALL BE STABILIZED WITH MULCH OR TEMPORARY SEEDING.
 - THE LIMITS OF CONSTRUCTION ON THE PROJECT SITE ARE NOT LOCATED WITHIN A 100-YEAR FLOODPLAIN, FLOODWAY AREA, OR OTHER FLOOD AREA. THE SOURCE OF INFORMATION IS FEMA FIRM PANEL 133 FOR COBB COUNTY, GEORGIA (MAP NUMBER 13067C0133J), REVISED MARCH 4, 2013.
 - STATE WATERS DO NOT EXIST WITHIN 200 FEET OF THE LIMITS OF CONSTRUCTION ON THE PROJECT SITE.
 - TOTAL PROJECT ACRES = 14.52 ACRES.
 - TOTAL DISTURBED ACRES = 13.30 ACRES. THIS DISTURBED ACREAGE INCLUDES A 2.5-FOOT-WIDE STRIP ALONG ALL SILT FENCE SHOWN FOR ITS INSTALLATION.
 - SEDIMENT STORAGE MAINTENANCE INDICATORS MUST BE INSTALLED IN SEDIMENT STORAGE STRUCTURES, INDICATING THE 1/3 FULL VOLUME.
 - THE RECEIVING WATER IS AN UNNAMED TRIBUTARY TO SOPE CREEK, AND DISCHARGE IS RECEIVED THROUGH A MS4 OPERATED BY COBB COUNTY-MARIETTA WATER AUTHORITY. SOPE CREEK, BUT NOT THE UNNAMED TRIBUTARY ITSELF, IS CLASSIFIED AS AN IMPAIRED RIVER (BIO F) PER GEORGIA'S 2022 303(d) LIST. SOPE CREEK ULTIMATELY DISCHARGES INTO A PORTION OF THE CHATTAHOOCHEE RIVER THAT DOES NOT SUPPORT WARM WATER FISHERIES.
 - TOTAL WETLAND ACRES WITHIN THE LIMITS OF CONSTRUCTION ON THE PROJECT SITE ARE 6.27 ACRES (A MAJORITY OF THE RESERVOIR ITSELF).
 - THE TOPOGRAPHY OF THE SITE, LOCATION OF THE WORK, AND LOCATIONS OF ADDITIONAL SITE CONSIDERATIONS LIMIT THE ABILITY TO EFFECTIVELY INCORPORATE A TEMPORARY SEDIMENTATION BASIN TO TREAT SEDIMENT POLLUTION. TO MEET THE GOALS OF LIMITING SEDIMENT POLLUTION, THE SEDIMENT CONTROL PROGRAM WILL BE EXECUTED BY THE CONTRACTOR TO LIMIT LAND DISTURBANCE ACTIVITY TO SPECIFIED LOCATIONS UNTIL THE WORK IS COMPLETE AND THE AREA IS STABILIZED BEFORE MOVING TO THE NEXT AREA OF DISTURBANCE.
 - CONTRACTOR SHALL SUBMIT PLAN AND PROCEDURES, INCLUDING THE ANTICIPATED LABOR, EQUIPMENT, AND MATERIALS TO BE PROVIDED, FOR USE OF THE TWO TRUCK TIRE WASHDOWN AREAS IN SERIES TO ENGINEER FOR APPROVAL. SUBMITTAL SHALL INCLUDE PLAN AND PROCEDURES FOR DISPOSAL OF WATER GENERATED FROM WASHDOWN ACTIVITIES. THE TRUCK TIRE WASH DOWN AREAS WILL BE REQUIRED TO PERFORM SUCH THAT NO SEDIMENTS ARE TRACKED, DRIPPED, NOR DEPOSITED BEYOND WASHDOWN AREA 2. THE PLANT WATER FIRE HYDRANT INDICATED ON THE INSET PLAN THIS DRAWING IS THE CLOSEST HYDRANT TO THE WASHDOWN AREAS THAT IS AVAILABLE FOR THE CONTRACTOR'S USE FOR THIS PURPOSE. CONTRACTOR SHALL OBTAIN AND INSTALL A COBB COUNTY- APPROVED BACKFLOW PREVENTER ON THE HOSE/PIPE CONNECTED TO THE FIRE HYDRANT. HOSE/PIPE MAY BE INSTALLED ABOVE GROUND OR IN A TRENCH BELOWGROUND FROM FIRE HYDRANT TO THE VICINITY OF EACH TRUCK WASHDOWN AREA, EXCEPT IT SHALL BE INSTALLED IN A TRENCH BELOW GROUND AND BE BACKFILLED WITH GRAVEL IN PLACES WHERE HOSE/PIPE IS LOCATED BELOW EXISTING ASPHALT AND GRAVEL ROADWAYS.
 - CONTRACTOR SHALL ALSO PROVIDE FILTER BAGS AND DEWATERING SUMP'S PER SPECIFICATION SECTION 31 25 00 - EROSION AND SEDIMENTATION CONTROL DURING RESERVOIR CLEANING ACTIVITIES SO ANY SEDIMENT CONTAINED IN THE WATER BEING DRAINED/PUMPED FROM THE RESERVOIR IS CAPTURED AND THE ASSOCIATED WATER CAN BE DISCHARGED ONSITE. CAPTURED SEDIMENT FROM DRAINING/PUMPING ACTIVITIES SHALL BE DISPOSED OF OFFSITE.
 - TREE PROTECTION (WARNING AND BARRIER) FENCE IN ACCORDANCE WITH SPECIFICATION SECTION 31 10 00 - CLEARING, GRUBBING, AND SITE PREPARATION SHALL BE PROVIDED ALONG ALL LIMITS OF CONSTRUCTION, EXCEPT FOR THE PORTIONS OF THE LIMITS OF CONSTRUCTION THAT CROSS EXISTING PAVEMENT OR ARE LOCATED WITHIN THE INTERIOR RESERVOIR SLOPES.
 - CONTRACTOR'S USE OF GRAVEL ROAD ALONG RESERVOIR CREST SHALL BE RESTRICTED TO PICKUP TRUCKS ONLY. THE USE OF HEAVY CONSTRUCTION EQUIPMENT ON THE GRAVEL ROAD ALONG RESERVOIR CREST IS STRICTLY PROHIBITED.

	CONFORMED SET	03/2025	KJR	PROJECT ENGINEER:	K. RAY
				DESIGNED BY:	D. SEBUSCH
				DRAWN BY:	M. BALLARD
				CHECKED BY:	K. RAY
2	ADDENDUM NO.4	01/22/25	MPB	IF THIS BAR DOES NOT MEASURE 1" THEN DRAWING IS NOT TO FULL SCALE	
1	ADDENDUM NO.3	01/17/25	MPB		
REV	ISSUED FOR	DATE	BY		

CONFORMED DRAWING

THIS DOCUMENT ORIGINALLY ISSUED AND SEALED BY DANIEL D. SEBUSCH, 030101, ON 09/17/2024 AND THE ENTITY'S COA INFORMATION. THIS MEDIUM SHALL NOT BE CONSIDERED A CERTIFIED DOCUMENT.

GBPE LIC # PEF003685 EXP: 6/30/2026

Hazen

HAZEN AND SAWYER
1300 ALTMORE AVENUE
SUITE 520
ATLANTA, GEORGIA 30342
(404) 459-6363

COBB COUNTY-MARIETTA
WATER AUTHORITY

JAMES E. QUARLES WTP
RESERVOIR CLEANING AND IMPROVEMENTS
PROJECT

EROSION SEDIMENTATION &
POLLUTION CONTROL PLAN
PHASES I, II & III

DATE:	SEPTEMBER 2024
HAZEN NO.:	32485-017 & 026
CONTRACT NO.:	017 & 026
DRAWING NUMBER:	ESC01

CERTIFICATIONS

DESIGN PROFESSIONAL

- ✓12

1. I CERTIFY UNDER PENALTY OF LAW THAT THIS PLAN WAS PREPARED AFTER A SITE VISIT TO THE LOCATIONS DESCRIBED HEREIN BY MYSELF OR MY AUTHORIZED AGENT, UNDER MY SUPERVISION.
- ✓13

2. I CERTIFY THAT THE PERMITEE'S EROSION, SEDIMENTATION AND POLLUTION CONTROL PLAN PROVIDES FOR AN APPROPRIATE AND COMPREHENSIVE SYSTEM OF BEST MANAGEMENT PRACTICES REQUIRED BY THE GEORGIA WATER QUALITY CONTROL ACT AND THE DOCUMENT "MANUAL FOR EROSION AND SEDIMENT CONTROL IN GEORGIA" (MANUAL) PUBLISHED BY THE GEORGIA SOIL AND WATER CONSERVATION COMMISSION AS OF JANUARY 1 OF THE YEAR IN WHICH THE LAND-DISTURBING ACTIVITY WAS PERMITTED. PROVIDES FOR THE SAMPLING OF THE RECEIVING WATER(S) OR THE SAMPLING OF THE STORM WATER OUTFALLS AND THAT THE DESIGNED SYSTEM OF BEST MANAGEMENT PRACTICES AND SAMPLING METHODS IS EXPECTED TO MEET THE REQUIREMENTS CONTAINED IN THE GENERAL NPDES PERMIT NO. GAR 100001.

DANIEL D SEBUSCH
GSWCC LEVEL II CERTIFIED DESIGN PROFESSIONAL #0000054172

PRIMARY PERMITTEE

1. I CERTIFY THAT THE RECEIVING WATER(S) OR THE OUTFALL(S) OR A COMBINATION OF RECEIVING WATER(S) AND OUTFALL(S) WILL BE MONITORED IN ACCORDANCE WITH THE EROSION, SEDIMENTATION AND POLLUTION CONTROL PLAN.

OPERATOR'S PRINTED NAME:

SIGNATURE: _____ DATE: _____

EROSION CONTROL NOTES

- ✓6

1. TOTAL PROJECT AREA: 14.52 ACRES
DISTURBED PROJECT AREA, ALL PHASES: 13.30 ACRES
- ✓7

2. GPS LOCATION OF CONSTRUCTION EXIT FOR SITE: LATITUDE: 33.960925°, LONGITUDE: -84.42249°
- ✓47

3. SOILS TYPE: AS PER NRCS WEB SOIL SURVEY, SOIL TYPES FOR THIS PROJECT ARE DELINEATED ON DRAWING ESC01. A SOIL TYPE LEGEND, WITH DESCRIPTIONS, IS PROVIDED ON DRAWING ESC01.
- ✓42

4. TOTAL WETLAND AREAS WITHIN THE LIMITS OF CONSTRUCTION ON THE PROJECT SITE ARE 6.27 ACRES (A MAJORITY OF THE RESERVOIR ITSELF).
- ✓21

5. ALL STATE WATERS LOCATED ON AND WITHIN 200 FEET OF THE PROJECT SITE HAVE BEEN IDENTIFIED AND WILL BE PROTECTED BY APPROPRIATE EROSION CONTROL MEASURES. SEE DWG ESC01 FOR DELINEATION.
- ✓16

6. BUFFER ENCKOACHMENTS: THE CONSTRUCTION OF THIS PROJECT DOES NOT IMPACT THE 25-FOOT STATE BUFFER NOR REQUIRES A GAEPD STREAM BUFFER VARIANCE PERMIT PER GAEC RULE 391-7-7.05(1) (a) AND (b).
- ✓45

7. BASED UPON PROPOSED CHANGES AND MODELING RESULTS, THE DIFFERENCE BETWEEN EXISTING AND PROPOSED CONDITIONS CURVE NUMBERS ARE NEGLIGIBLE POST CONSTRUCTION DETENTION IS NOT REQUIRED AS LESS THAN 5,000 SF OF IMPERVIOUS SURFACE IS BEING ADDED TO SITE.
- ✓49

8. NO SIGNIFICANT TOPOGRAPHIC CHANGES ARE EXPECTED FOR THE PROPOSED PROJECT; PROPOSED GRADING AND DRAINAGE WILL MAINTAIN THE EXISTING GENERAL DRAINAGE PATTERN AROUND THE EXISTING STRUCTURES/FACILITIES ON SITE. THE STORMWATER FACILITIES SHALL BE PROTECTED FROM SEDIMENT AND EROSION DURING CONSTRUCTION ACTIVITIES.
- ✓11

9. INCORPORATION OF A CENTRALIZED SEDIMENT STORAGE BASIN TO ADEQUATELY TREAT SEDIMENT POLLUTION IS INFEASIBLE GIVEN THE TOPOGRAPHY OF THE PROJECT SITE LIMITS AND THE NATURE OF LAND DISTURBANCE ACTIVITIES. TO MEET THE GOALS OF LIMITING SEDIMENT POLLUTION, THE SEDIMENT CONTROL PROGRAM WILL BE EXECUTED BY THE CONTRACTOR ACCORDING TO THE SPECIFICATIONS HEREIN WHILE LIMITING THE EXTENT OF LAND DISTURBANCE.
- ✓22

10. RECEIVING WATERS AND SENSITIVE AREAS: THE RECEIVING WATERS OF THIS PROJECT ARE TRIBUTARY TO SLOPE CREEK #2. THE RECEIVING WATERS ARE DESIGNATED AS IMPAIRED ACCORDING TO THE 2020 GAEPD 305(B)/303(D) LIST UNDER CATEGORY 4B FOR C2CL4. A TMDL HAS NOT BEEN DEVELOPED FOR THIS STREAM SEGMENT. IN COMPLIANCE WITH GSWCC FOR DISCHARGING TO AN IMPAIRED WATER BODY (PART III.C), THE FOLLOWING ADDITIONAL MEASURES WILL BE TAKEN:
- ✓23

a. A LARGE SIGN (MINIMUM 4 FEET X 8 FEET) MUST BE POSTED ON SITE BY THE ACTUAL START DATE OF CONSTRUCTION. THE SIGN MUST BE VISIBLE FROM A PUBLIC ROADWAY. THE SIGN MUST IDENTIFY THE FOLLOWING: (1) CONSTRUCTION SITE, (2) THE PERMITEE(S), (3) THE CONTACT PERSON(S) AND TELEPHONE NUMBER(S), AND (4) THE PERMITEE-HOSTED WEBSITE WHERE THE PLAN CAN BE VIEWED MUST BE PROVIDED ON THE SUBMITTED NOI. THE SIGN MUST REMAIN ON SITE AND THE PLAN MUST BE AVAILABLE ON THE PROVIDED WEBSITE UNTIL A NOT HAS BEEN SUBMITTED.

b. CONDUCT TURBIDITY SAMPLING AFTER EVERY RAIN EVENT OF 0.5 INCH OR GREATER WITHIN ANY 24 HOUR PERIOD, RECOGNIZING THE EXCEPTIONS SPECIFIED IN SECTION IV.D.6.D. OF THE NPDES PERMITS.

c. USE MULCH FILTER BERMS, IN ADDITION TO A SILT FENCE, ON THE SITE PERIMETER WHEREVER CONSTRUCTION STORM WATER (INCLUDING SHEET FLOW) MAY BE DISCHARGED. MULCH FILTER BERMS CANNOT BE PLACED IN WATERWAYS OR AREAS OF CONCENTRATED FLOW.

d. CONDUCT INSPECTIONS DURING THE INTERMEDIATE GRADING AND DRAINAGE BMP PHASE AND DURING THE FINAL BMP PHASE OF THE PROJECT BY THE DESIGN PROFESSIONAL WHO PREPARED THE PLAN IN ACCORDANCE WITH SECTION IV.A.5 OF THE PERMIT.
- PROJECT NARRATIVE
- THE RESERVOIR CLEANING PROJECT IS LOCATED IN MARIETTA, GEORGIA, AND IS LOCATED WITHIN J. E. QUARLES WTP GROUNDS. THE PROJECT IS WITHIN 250 LF OF AN ADJACENT, PRIVATELY OWNED LAKE. NO OTHER STREAM BUFFERS ARE PRESENT WITHIN OR ADJACENT TO THE PROJECT SITE. FOLLOWING DRAINING PROPOSED ACTIVITIES, THE PROJECT CONSISTS OF MECHANICAL DREDGING OF SEDIMENTS WITHIN THE RAW WATER RESERVOIR AND ADDITIONAL MAINTENANCE REPAIRS TO THE RESERVOIR EMBANKMENT AND STRUCTURES. STRUCTURE UPGRADES INCLUDE RESERVOIR ACCESS RAMP AND INSPECTION BRIDGES WITHIN THE EXISTING RESERVOIR FOOTPRINT. THE PROJECT WILL INCLUDE DEMOLITION, CLEARING, AND GRADING WITHIN THE EXISTING RESERVOIR FOOTPRINT TO ACHIEVE DESIRED STORAGE CAPACITY. FOLLOWING DREDGING ACTIVITIES THE PROPOSED STRUCTURES WILL BE CONSTRUCTED.
- ✓26

NINE (9) TYPES OF VEGETATIVE AND STRUCTURAL EROSION CONTROL PRACTICES WILL BE UTILIZED IN THE CONSTRUCTION OF THE PROJECT:

1. SILT FENCE FOR NON-SENSITIVE AREAS (Sd1-NS) SHALL BE INSTALLED AT APPROPRIATE LOCATIONS TO PREVENT SEDIMENT FROM BEING WASHED OFF OF THE SITE. THESE LOCATIONS INCLUDE, BUT ARE NOT LIMITED TO, THE SITE PERIMETER.

2. INLET SEDIMENT TRAPS (Sd2), INCLUDING BLOCK AND GRAVEL DROP INLET PROTECTION (Sd2-Bg), SHALL BE USED TO PREVENT SEDIMENT FROM ENTERING STORM DRAINAGE SYSTEMS PRIOR TO PERMANENT STABILIZATION OF THE DISTURBED AREA DRAINING TO THE INLET.

3. DISTURBED AREA STABILIZATION (WITH MULCHING ONLY) (Ds1) SHALL BE USED TO REDUCE RUNOFF AND EROSION, TO CONSERVE MOISTURE, TO PREVENT SURFACE COMPACTION OR CRUSTING, TO CONTROL UNDESIRABLE VEGETATION, TO MODIFY SOIL TEMPERATURE, AND TO INCREASE BIOLOGICAL ACTIVITY IN THE SOIL.

4. DISTURBED AREA STABILIZATION (WITH TEMPORARY SEEDING) (Ds2) SHALL BE USED TO REDUCE RUNOFF AND SEDIMENT DAMAGE OF DOWN STREAM RESOURCES, TO PROTECT THE SOIL SURFACE FROM EROSION, TO IMPROVE WILDLIFE HABITAT, TO IMPROVE AESTHETICS, AND TO IMPROVE TILTH, INFILTRATION AND AERATION AS WELL AS ORGANIC MATTER FOR PERMANENT PLANTINGS.

5. DISTURBED AREA STABILIZATION (WITH SODDING) (Ds4) SHALL BE USED TO ESTABLISH IMMEDIATE GROUND COVER; REDUCE RUNOFF AND EROSION; IMPROVE AESTHETICS AND LAND VALUE; REDUCE DUST AND SEDIMENTS; STABILIZE WATERWAYS, CRITICAL AREAS; FILTER SEDIMENTS, NUTRIENTS AND BUGS; REDUCE DOWNSTREAM COMPLAINTS; REDUCE LIKELIHOOD OF LEGAL ACTION; REDUCE LIKELIHOOD OF WORK STOPPAGE DUE TO LEGAL ACTION; AND INCREASE "GOOD NEIGHBOR" BENEFITS.

6. A CONSTRUCTION EXIT (Co) SHALL BE USED TO REDUCE OR ELIMINATE THE TRANSPORT OF MUD FROM THE CONSTRUCTION AREA ONTO PUBLIC RIGHTS-OF-WAY BY MOTOR VEHICLES OR BY RUNOFF.

7. CONSTRUCTION ROAD STABILIZATION (Cr) SHALL BE USED TO PROVIDE A FIXED TRAVEL ROUTE FOR CONSTRUCTION TRAFFIC AND REDUCE EROSION AND SUBSEQUENT REGRAIDING OF PERMANENT ROADBEDS BETWEEN TIME OF INITIAL GRADING AND FINAL STABILIZATION.

8. TREE PROTECTION FENCING (Tr) SHALL BE INSTALLED ALONG TREE LINES ADJACENT TO CONSTRUCTION AREAS WHERE CONSTRUCTION ACTIVITIES MAY DAMAGE EXISTING TREES.

9. DUST CONTROL ON DISTURBED AREAS (Du) SHALL BE USED TO PREVENT SURFACE AND AIR MOVEMENT OF DUST FROM EXPOSED SOIL SURFACES AND TO REDUCE THE PRESENCE OF AIRBORNE SUBSTANCES THAT MAY BE HARMFUL OR INJURIOUS TO HUMAN HEALTH, WELFARE, OR SAFETY, OR TO ANIMALS OR PLANT.
- CONSTRUCTION SCHEDULE
- | ACTIVITY | MONTH | | | | | | | | | | | | | | | |
|---|-------|---|---|---|---|---|---|---|---|----|----|----|----|----|----|----|
| | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 | 13 | 14 | 15 | 16 |
| NOTICE TO PROCEED | | | | | | | | | | | | | | | | |
| INSTALLATION OF EROSION CONTROL | | | | | | | | | | | | | | | | |
| INSTALL PERIMETER CONTROL & SED STORAGE | | | | | | | | | | | | | | | | |
| MAINTENANCE OF EROSION CONTROL | | | | | | | | | | | | | | | | |
| INSTALLATION OF TREE PROTECTION DEVICES | | | | | | | | | | | | | | | | |
| MAINTENANCE OF TREE PROTECTION DEVICES | | | | | | | | | | | | | | | | |
| EARTHMOVING OPERATIONS | | | | | | | | | | | | | | | | |
| TEMPORARY AND PERMANENT GRASSING | | | | | | | | | | | | | | | | |
| CLEAN-UP | | | | | | | | | | | | | | | | |
- CONSTRUCTION ACTIVITIES ARE EXPECTED TO BEGIN IN MAY 2025 AND LAST 16 MONTHS.
- 24-HOUR CONTACT RESPONSIBLE FOR ES&PC
- NAME: _____
PHONE NUMBER: _____
- PRIMARY PERMITTEE (CONTRACTOR)
- NAME: _____
ADDRESS: _____
EMAIL ADDRESS: _____
PHONE NUMBER: _____
- EROSION, SEDIMENTATION & POLLUTION CONTROL NOTES
- GENERAL
1. THIS PROJECT LIES WITHIN ZONE X, OTHER AREAS (OUTSIDE OF 0.2% ANNUAL CHANCE FLOODPLAIN, PER FEMA FIRM PANEL 13067-01133), DATED MARCH 4, 2013.

2. EXISTING SITE INFORMATION SOURCED FROM SURVEY BY PRECISION PLANNING, INC. DATED NOVEMBER 2019.

3. ACCEPTANCE AND/OR SUBSEQUENT ACCEPTANCE OF THESE PLANS DOES NOT CONSTITUTE APPROVAL BY COBB COUNTY NOR MARIETTA OF ANY LAND DISTURBING ACTIVITIES WITHIN WETLAND AREAS, JURISDICTIONAL WATERS OF THE STATE, AREAS OF THREATENED/ENDANGERED SPECIES, OR AREAS OF HISTORICAL SIGNIFICANCE. IT IS THE PERMITEE'S RESPONSIBILITY TO CONTACT THE APPROPRIATE REGULATORY AGENCY FOR ANY REQUIRED APPROVALS.

4. ALL EROSION AND SEDIMENT CONTROL MEASURES SHALL CONFORM WITH THE GUIDELINES OF THE "MANUAL FOR EROSION AND SEDIMENT CONTROL", LATEST EDITION.

5. MAINTENANCE OF ALL EROSION AND SEDIMENTATION CONTROL MEASURES AND PRACTICES, WHETHER TEMPORARY OR PERMANENT, SHALL BE AT ALL TIMES THE RESPONSIBILITY OF THE CONTRACTOR.

6. PRIMARY PERMITTEE MUST SUBMIT NPDES NOTICE OF INTENT (NOI) AT LEAST 14 DAYS PRIOR TO BEGINNING OF LAND DISTURBANCE ACTIVITIES.

7. EROSION CONTROL MEASURES SHALL BE INSTALLED PRIOR TO ANY OTHER CONSTRUCTION ACTIVITY AND MAINTAINED UNTIL PERMANENT GROUND COVER IS ESTABLISHED.

8. IT SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR TO ENSURE THAT UNDER NO CIRCUMSTANCES ANY SEDIMENT, TRASH, OR DEBRIS BE ALLOWED ONTO ADJACENT PROPERTIES, PUBLIC LANDS, OR OUTSIDE OF THE CONSTRUCTION LIMITS.

9. THE PRIMARY PERMITTEE AND TERTIARY PERMITEE(S) MUST RETAIN THE DESIGN PROFESSIONAL WHO PREPARED THE EROSION, SEDIMENTATION AND POLLUTION CONTROL PLAN (ES&PC), EXCEPT WHEN THE PERMITEE HAS REQUESTED IN WRITING AND EPD HAS AGREED TO AN ALTERNATE DESIGN PROFESSIONAL, TO INSPECT THE INSTALLATION OF THE INITIAL SEDIMENT STORAGE REQUIREMENTS AND PERMETER CONTROL BMPs WHICH THE DESIGN PROFESSIONAL DESIGNED WITHIN SEVEN (7) DAYS AFTER INSTALLATION. THE DESIGN PROFESSIONAL SHALL DETERMINE IF THESE BMPs HAVE BEEN INSTALLED AND ARE BEING MAINTAINED AS DESIGNED. THE DESIGN PROFESSIONAL SHALL REPORT THE RESULTS OF THE INSPECTION TO THE PERMITTEE WITHIN SEVEN (7) DAYS AND THE PERMITTEE MUST CORRECT ALL DEFICIENCIES WITHIN TWO (2) BUSINESS DAYS OF RECEIPT OF THE INSPECTION REPORT FROM THE DESIGN PROFESSIONAL UNLESS WEATHER RELATED SITE CONDITIONS ARE SUCH THAT ADDITIONAL TIME IS REQUIRED.

10. EROSION AND SEDIMENT CONTROL WILL BE PERFORMED IN ACCORDANCE WITH THE BMPs SHOWN IN THESE PLANS.

11. EROSION AND SEDIMENT CONTROL DEVICES SHOWN ARE THE MINIMUM REQUIRED. ADDITIONAL DEVICES MAY BE REQUIRED AS NECESSARY.

12. FAILURE TO PROPERLY INSTALL AND MAINTAIN EROSION CONTROL PRACTICES SHALL RESULT IN CONSTRUCTION BEING HALTED.

13. LAND DISTURBANCE WILL BE LIMITED TO LIMIT EXPOSURE OF BARE SOIL TO EROSION ELEMENTS.

14. CONSTRUCTION ROAD SHALL BE TOP DRESSED WITH ADDITIONAL GRAVEL PERIODICALLY TO MAINTAIN GRAVEL DEPTH OF 6 INCHES.

15. A COBB COUNTY LAND DISTURBANCE PERMIT MUST BE DISPLAYED ON-SITE AT ALL TIMES DURING CONSTRUCTION AND IN PLAN VIEW FROM A COUNTY ROAD OR STREET.

16. IT SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR TO ENSURE THAT UNDER NO CIRCUMSTANCES ANY SEDIMENT, TRASH, OR DEBRIS BE ALLOWED ONTO ADJACENT PROPERTIES, PUBLIC LANDS, OR OUTSIDE OF THE CONSTRUCTION LIMITS.

17. THE APPLICABLE PORTION OF THE ES&PC PLAN SHALL BE PROVIDED TO EACH SECONDARY PERMITTEE PRIOR TO THE SECONDARY CONDUCTING ANY CONSTRUCTION ACTIVITY. EACH SECONDARY PERMITTEE SHALL SIGN THE PLAN OR ANY PORTION OF THE PLAN APPLICABLE TO THEIR SITE. A LIST OF NAMES AND ADDRESSES OF ANY SECONDARY PERMITEES SHALL BE PROVIDED TO COBB COUNTY PRIOR TO THE SECONDARY PERMITTEE CONDUCTING ANY CONSTRUCTION ACTIVITY.
- POLLUTION CONTROL
1. OFF-SITE VEHICLE TRACKING DIRT, SOILS, AND SEDIMENTS, AND THE GENERATION OF DUST SHALL BE MINIMIZED OR ELIMINATED TO THE MAXIMUM EXTENT PRACTICAL. THE FOLLOWING BMPs SHALL BE IMPLEMENTED AS APPROPRIATE: CONSTRUCTION EXIT (Co), MULCH (Ds1), VEGETATIVE COVER (Ds2/Ds4), TREE PROTECTION FENCE (Tr), SILT FENCE (Sd1), INLET PROTECTION (Sd2), CONSTRUCTION ROAD STABILIZATION (Cr).

2. CONTRACTOR SHALL SELECT A DESIGNATED WASTE COLLECTION AREA AND PROVIDE LIDS FOR WASTE CONTAINMENT. SOLID WASTE SHALL BE REMOVED AND DISPOSED OFFSITE AT A REGULAR SCHEDULE.

3. ALL WASTEWATER AND FROM CONSTRUCTION ACTIVITIES AND OR CLEANING OPERATIONS SHALL NOT BE DISCHARGED ON THE GROUND OR STORMWATER SYSTEM.

4. OFF-SITE VEHICLE TRACKING OF SEDIMENT

4.A. A STABILIZED STONE PAD WILL BE LOCATED AT THE CONSTRUCTION ENTRANCE TO REDUCE TRANSPORT OF MUD FROM THE CONSTRUCTION SITE.

4.B. THE STONE PAD WILL BE PERIODICALLY DRESSED. MUD AND DEBRIS TRACKED OR SPILLED ONTO ROADWAYS WILL BE REMOVED IMMEDIATELY.

4.C. CONTRACTOR WILL CONTROL SURFACE AND AIR MOVEMENT OF DUST BY SPRAYING WATER ONTO DISTURBED SOIL.

5. MATERIALS HANDLING/STORAGE:

5.A. ALL BUILDING MATERIALS AND PRODUCTS STORED ON-SITE SHALL BE TIED DOWN AND/OR COVERED TO PROVIDE PROTECTION FROM UV DAMAGE, WIND, AND RAIN.

6. SANITARY WASTES

6.A. ONE PORTABLE SANITARY UNIT WILL BE PROVIDED TO EVERY TEN (10) WORKERS ON THE SITE (MINIMUM). ALL SANITARY WASTE WILL BE COLLECTED FROM THE PORTABLE UNITS ONE TIME PER WEEK (MINIMUM) BY A LICENSED PORTABLE FACILITY PROVIDER IN COMPLETE COMPLIANCE WITH LOCAL AND STATE REGULATIONS.

6.B. ALL SANITARY WASTE UNITS WILL BE LOCATED WHERE THE LIKELIHOOD OF THE UNIT CONTRIBUTING TO STORMWATER DISCHARGE IS NEGLIGIBLE. ADDITIONAL CONTAINMENT BMPs MUST BE IMPLEMENTED, SUCH AS GRAVEL BAGS OR SPECIALLY DESIGNED PLASTIC SKID CONTAINERS AROUND THE BASE, TO PREVENT WASTES FROM CONTRIBUTING TO STORM WATER DISCHARGES.

7. WASHOUT OF THE DRUM OF A CONCRETE TRUCK AT THE CONSTRUCTION SITE IS PROHIBITED.

8. CONCRETE WASHDOWN OF TOOLS, CONCRETE MIXER CHUTES, HOPPERS, AND THE REAR OF VEHICLES WILL ONLY BE ALLOWED IN THE DESIGNATED AREA(S) PROVIDED FOR THIS PURPOSE AS SHOWN IN THE DRAWINGS. THE FOLLOWING BEST MANAGEMENT PRACTICES WILL BE AS FOLLOWS:

8.A. CONTAIN ALL WASH WATER ON SOIL. IN A BOWL-SHAPED AREA CREATED IN THE DESIGNATED WASH AREA TO PREVENT WASH WATER FROM EXITING THE WASHOUT AREA.

8.B. USE THE MINIMUM AMOUNT OF WATER TO WASH DOWN THE TOOLS, CONCRETE MIXER CHUTES, HOPPERS, AND THE REAR OF VEHICLES.

8.C. REMOVE ANY CONCRETE SEDIMENT FROM THE AREA SURROUNDING THE WASHOUT AREA BEFORE IT HARDENS.

8.D. REMOVE ALL CONCRETE RESIDUE FROM THE DESIGNATED AREA ONCE IT HAS HARDENED.
- OTHER REQUIRED NOTES
1. THIS PROJECT LIES WITHIN DISTRICT 16, LAND LOTS 1116 AND 1117, AND DISTRICT 1, LAND LOTS 8 AND 9, OF COBB COUNTY, GEORGIA.

2. ADDITIONAL EROSION CONTROL DEVICES TO BE USED AS REQUESTED BY COBB COUNTY.

3. APPLICABLE PORTIONS OF THE ES&PC PLAN IS TO BE PROVIDED TO EACH SECONDARY PERMITTEE PRIOR TO THE SECONDARY CONDUCTING ANY CONSTRUCTION ACTIVITY. EACH SECONDARY SHALL SIGN THE PLAN OR PORTION OF THE PLAN APPLICABLE TO THEIR SITE. CONTRACTOR TO PROVIDE A LIST OF THE NAMES AND ADDRESSES OF ALL SECONDARY PERMITEES.

4. A COBB COUNTY LAND DISTURBANCE PERMIT MUST BE DISPLAYED ON-SITE AT ALL TIMES DURING CONSTRUCTION AND IN PLAN VIEW FROM A COUNTY ROAD OR STREET.

5. EROSION CONTROL PRACTICES MUST COMPLY WITH THE MINIMUM BEST MANAGEMENT PRACTICES FOR EROSION CONTROL, COBB COUNTY CODE SECTION 50-75 AND SHALL COMPLY WITH THE STANDARDS/SPECIFICATIONS IN THE MANUAL FOR EROSION AND SEDIMENT CONTROL IN GEORGIA (LATEST EDITION).

6. EROSION AND SEDIMENT CONTROL DEVICES MUST BE INSTALLED AND INSPECTED PRIOR TO ANY GRADING ON SITE. PLEASE CALL (770) 528-2134 WITH ENOUGH LEAD TIME FOR AN INSPECTION TO MEET YOUR SCHEDULE.
- GEORGIA UNIFORM CODING SYSTEM
FOR SOIL EROSION AND SEDIMENT CONTROL PRACTICES
GEORGIA SOIL AND WATER CONSERVATION COMMISSION
- STRUCTURAL PRACTICES
- | CODE | PRACTICE | DETAIL | MAP SYMBOL | DESCRIPTION |
|------|---------------------------------|--------|------------|---|
| Cd | CHECKDAM | | | A small temporary barrier or dam constructed across a swale, drainage ditch or area of concentrated flow. |
| Co | CONSTRUCTION EXIT | | | A crushed stone pad located at the construction site exit to provide a place for removing mud from tires thereby protecting public streets. |
| Cr | CONSTRUCTION ROAD STABILIZATION | | | A travelway constructed as part of a construction plan including access roads, subdivision roads, parking areas and other on-site vehicle transportation routes. |
| Sd1 | SEDIMENT BARRIER | | | A barrier to prevent sediment from leaving the construction site. It may be sandbags, bales of straw or hay, brush, logs and poles, gravel, or a silt fence. |
| Sd2 | INLET SEDIMENT TRAP | | | An impounding area created by excavating around a storm area drop inlet. The excavated area will be filled and stabilized on completion of construction activities. |
| Tr | TREE PROTECTION | | | To protect desirable trees from injury during construction activity. |
- VEGETATIVE PRACTICES
- | CODE | PRACTICE | DETAIL | MAP SYMBOL | DESCRIPTION |
|------|---|--------|------------|---|
| Ds1 | DISTURBED AREA STABILIZATION (WITH MULCHING ONLY) | | | Establishing temporary protection for disturbed areas where seedlings may not have a suitable growing season to produce an erosion retarding cover. |
| Ds2 | DISTURBED AREA STABILIZATION (WITH TEMPORARY SEEDING) | | | Establishing a temporary vegetative cover with fast growing seedlings on disturbed areas. |
| Ds4 | DISTURBED AREA STABILIZATION (WITH SODDING) | | | A permanent vegetative cover using sods on highly erodible or critically eroded lands. |
| Du | DUST CONTROL ON DISTURBED AREAS | | | Controlling surface and air movement of dust on construction site, roadways and similar sites. |
- STORMWATER DISCHARGE POLLUTANT REDUCTION
1. ALL POLLUTANTS FROM WASTE DISPOSAL PRACTICES, SOIL ADDITIVES, REMEDIATION OF SPILLS AND LEAKS OF PETROLEUM PRODUCTS, CONCRETE TRUCK WASHOUT, ETC., SHOULD ANY OF THESE OCCUR, WILL BE CONTROLLED BY THE IMPLEMENTATION OF APPROPRIATE BEST MANAGEMENT PRACTICES.

2. THE SITE WILL BE IN COMPLIANCE WITH ALL APPLICABLE STATE AND LOCAL WASTE DISPOSAL, SANITARY SEWER OR SEPTIC SYSTEM REGULATIONS.

3. PRODUCT SPECIFIC PRACTICES:

3.A. PETROLEUM BASED PRODUCTS - CONTAINERS FOR PRODUCTS SUCH AS FUELS, LUBRICANTS AND TARS WILL BE INSPECTED DAILY FOR LEAKS AND SPILLS. THIS INCLUDES ONSITE VEHICLE AND MACHINERY DAILY INSPECTIONS AND REGULAR PREVENTIVE MAINTENANCE OF SUCH EQUIPMENT. EQUIPMENT MAINTENANCE AREAS WILL BE LOCATED AWAY FROM STATE WATER, NATURAL DRAINS AND STORMWATER DRAINAGE INLETS. IN ADDITION, TEMPORARY FUELING TANKS SHALL HAVE A SECONDARY CONTAINMENT LINER TO PREVENT/MINIMIZE SITE CONTAMINATION. DISCHARGE OF OILS, FUELS AND LUBRICANTS IS PROHIBITED. PROPER DISPOSAL METHODS WILL INCLUDE COLLECTION IN A SUITABLE CONTAINER AND DISPOSAL AS REQUIRED BY LOCAL AND STATE REGULATIONS.

3.B. PAINTS/FINISHES/SOLVENTS - ALL PRODUCTS WILL BE STORED IN TIGHTLY SEALED ORIGINAL CONTAINERS WHEN NOT IN USE. EXCESS PRODUCTS WILL NOT BE DISCHARGED TO THE STORMWATER COLLECTION SYSTEM. EXCESS PRODUCT MATERIALS USED WITH THESE PRODUCTS AND PRODUCT CONTAINERS WILL BE DISPOSED OF ACCORDING TO MANUFACTURER'S SPECIFICATIONS AND RECOMMENDATIONS.

3.C. CONCRETE TRUCK WASHING - NO CONCRETE TRUCKS WILL BE ALLOWED TO WASH OR DISCHARGE SURPLUS CONCRETE OR DRUM WASH WATER ONSITE.

3.D. FERTILIZER/HERBICIDES - THESE PRODUCTS WILL BE APPLIED AT RATES THAT DO NOT EXCEED THE MANUFACTURER'S SPECIFICATIONS OR ABOVE THE GUIDELINES SET FORTH IN THE CROP ESTABLISHMENT OR IN THE GSWCC MANUAL FOR EROSION AND SEDIMENT CONTROL IN GEORGIA. ANY STORAGE OF THESE MATERIALS WILL BE UNDER ROOF IN SEALED CONTAINERS.

3.E. BUILDING MATERIALS - NO BUILDING OR CONSTRUCTION MATERIALS WILL BE BURIED OR DISPOSED OF ONSITE. ALL SUCH MATERIAL WILL BE DISPOSED OF IN PROPER WASTE DISPOSAL PROCEDURES.
- SPILL CLEANUP AND CONTROL PRACTICES
1. LOCAL, STATE AND MANUFACTURER'S RECOMMENDED METHODS FOR SPILL CLEANUP WILL BE CLEARLY POSTED AND PROCEDURES WILL BE MADE AVAILABLE TO SITE PERSONNEL.

2. MATERIAL AND EQUIPMENT NECESSARY FOR SPILL CLEANUP WILL BE KEPT IN THE MATERIAL STORAGE AREAS. TYPICAL MATERIALS AND EQUIPMENT INCLUDES, BUT IS NOT LIMITED TO, BROOMS, DUSTPANS, MOPS, RAGS, GLOVES, GOGGLES, CAT LITTER, SAND, SAWDUST AND PROPERLY LABELED PLASTIC AND METAL WASTE CONTAINERS.

3. SPILL PREVENTION PRACTICES AND PROCEDURES WILL BE REVIEWED AFTER A SPILL AND ADJUSTED AS NECESSARY TO PREVENT FUTURE SPILLS. ALL SPILLS WILL BE CLEANED UP IMMEDIATELY UPON DISCOVERY.

4. ALL SPILLS WILL BE REPORTED AS REQUIRED BY LOCAL, STATE AND FEDERAL REGULATIONS.

4.A. FOR SPILLS THAT IMPACT SURFACE WATER (LEAVE A SHEEN ON SURFACE WATER), THE NATIONAL RESPONSE CENTER (NRC) WILL BE CONTACTED WITHIN 24 HOURS AT 1-800-424-8802.

4.B. FOR SPILLS OF AN UNKNOWN AMOUNT, THE NATIONAL CENTER (NRC) WILL BE CONTACTED WITHIN 24 HOURS AT 1-800-424-8802.

4.C. FOR SPILLS GREATER THAN 25 GALLONS AND NO SURFACE WATER IMPACTS, THE GEORGIA EPD WILL BE CONTACTED WITHIN 24 HOURS.

4.D. FOR SPILLS LESS THAN 25 GALLONS AND NO SURFACE WATER IMPACTS, THE SPILL WILL BE CLEANED UP AND LOCAL AGENCIES WILL BE CONTACTED AS REQUIRED.

5. THE CONTRACTOR SHALL NOTIFY THE LICENSED PROFESSIONAL WHO PREPARED THIS PLAN IF MORE THAN 1,320 GALLONS OF PETROLEUM IS STORED ONSITE (THIS INCLUDES CAPACITIES OF EQUIPMENT) OR IF ANY ONE PIECE OF EQUIPMENT HAS A CAPACITY GREATER THAN 660 GALLONS. THE CONTRACTOR WILL NEED A SPILL PREVENTION CONTAINMENT AND COUNTERMEASURES PLAN PREPARED BY THAT LICENSED PROFESSIONAL.
- BUILDING MATERIAL AND BUILDING PRODUCTS COVER
1. FOR BUILDING MATERIALS, BUILDING PRODUCTS, CONSTRUCTION WASTES, TRASH, LANDSCAPE MATERIALS, FERTILIZERS, PESTICIDES, HERBICIDES, DETERGENTS, SANITARY WASTE AND OTHER MATERIALS PRESENT ON THE SITE, PROVIDE COVER (E.G. PLASTIC SHEETING, TEMPORARY ROOFS) TO MINIMIZE THE EXPOSURE OF THESE PRODUCTS TO PRECIPITATION AND TO STORMWATER, OR A SIMILARLY EFFECTIVE MEANS DESIGNED TO PREVENT MINIMIZE THE EXPOSURE OF THESE PRODUCTS TO PRECIPITATION AND TO STORMWATER. EXPOSURE IS NOT REQUIRED IN CASES WHERE EXPOSURE TO PRECIPITATION AND TO STORMWATER WILL NOT RESULT IN A DISCHARGE OF POLLUTANTS, OR WHERE EXPOSURE OF A SPECIFIC MATERIAL OR PRODUCT POSES LITTLE RISK TO STORMWATER CONTAMINATION (SUCH AS FINAL PRODUCTS AND MATERIALS INTENDED FOR OUTDOOR USE).
- PHASE I – INITIAL PHASE: SITE PREPARATION AND PRE-CONSTRUCTION OPERATIONS
- INSTALL / CONSTRUCT / MAINTAIN ALL BMPs AS PROVIDED ON DRAWING ESC01.
1. THE FOLLOWING INITIAL EROSION CONTROL MEASURES SHALL BE IMPLEMENTED PRIOR TO ANY OTHER CONSTRUCTION ACTIVITY:

1.1. THE CONSTRUCTION EXITS SHALL BE PLACED AS SHOWN ON THE PLANS.

1.2. IMMEDIATELY AFTER THE ESTABLISHMENT OF CONSTRUCTION EXITS, ALL PERIMETER EROSION CONTROL AND STORMWATER MANAGEMENT DEVICES SHALL BE INSTALLED AS SHOWN ON THE PLANS.

1.3. TREE PROTECTION FENCING SHALL BE INSTALLED PRIOR TO THE START OF ANY LAND DISTURBING ACTIVITY.

1.4. SEDIMENT INLET PROTECTIONS SHALL BE INSTALLED PRIOR TO THE START OF ANY LAND DISTURBANCE ACTIVITY.

2. WITHIN SEVEN (7) DAYS AFTER INSTALLATION OF INITIAL EROSION CONTROL MEASURES, THE SITE CONTRACTOR SHALL SCHEDULE AN INSPECTION BY THE PROJECT DESIGN PROFESSIONAL. NO OTHER CONSTRUCTION ACTIVITIES SHALL OCCUR UNTIL THE PROJECT PROFESSIONAL APPROVES THE INSTALLATION OF SAID EROSION CONTROL MEASURES. IF UNFORESEEN CONDITIONS EXIST IN THE FIELD THAT WARRANT ADDITIONAL EROSION CONTROL MEASURES, THE CONTRACTOR MUST CONSTRUCT ANY ADDITIONAL EROSION CONTROL DEVICES DEEMED NECESSARY BY THE PROJECT PROFESSIONAL DURING THE SITE INSPECTION.

3. AFTER APPROVAL OF INITIAL EROSION CONTROL INSTALLATION, THE CONTRACTOR MAY PROCEED WITH CLEARING AND GRUBBING ACTIVITIES.

4. ALL SILT FENCES MUST MEET THE REQUIREMENTS OF SECTION 171-TEMPORARY SILT FENCE FOR THE DEPARTMENT OF TRANSPORTATION, STATE OF GEORGIA, STANDARD SPECIFICATIONS, 1983 EDITION.

5. MULCH OR TEMPORARY GRASSING SHALL BE APPLIED TO ALL EXPOSED AREAS WITHIN 7 DAYS OF LAND DISTURBANCE. ALL DISTURBED AREAS LEFT MULCHED MORE THAN 30 DAYS SHALL BE STABILIZED WITH TEMPORARY VEGETATION.

6. SEDIMENT AND EROSION CONTROL MEASURES MUST BE CHECKED AFTER EACH RAIN EVENT. EACH DEVICE IS TO BE MAINTAINED OR REPLACED IF SEDIMENT ACCUMULATION HAS REACHED HALF THE CAPACITY OF THE DEVICE. ADDITIONAL DEVICES MUST BE INSTALLED IF NEW CHANNELS HAVE DEVELOPED.

7. THE CONSTRUCTION EXIT SHALL BE MAINTAINED IN A CONDITION WHICH WILL PREVENT TRACK OR FLOW OF MUD ONTO PUBLIC RIGHT-OF-WAY. THIS MAY REQUIRE PERIODIC TOP DRESSING WITH 1"-3" OF STONE, AS CONDITIONS DEMAND. ALL MATERIALS SPILLED, DROPPED, WASHED OR TRACKED FROM A VEHICLE ONTO PUBLIC ROADWAY OR INTO STORM DRAIN MUST BE REMOVED IMMEDIATELY.

8. CONTRACTOR SHALL INSPECT EROSION CONTROL MEASURES AT THE END OF EACH WORKING DAY TO ENSURE PROPER FUNCTIONING.
- PHASE II - INTERMEDIATE PHASE: CONSTRUCTION ACTIVITIES
- INSTALL / CONSTRUCT / MAINTAIN ALL BMPs AS PROVIDED ON DRAWING ESC01.
1. THE CONTRACTOR SHALL MAINTAIN CAREFUL SCHEDULING AND PERFORMANCE TO ENSURE THAT LAND STRIPPED OF ITS NATURAL GROUND COVER IS EXPOSED ONLY IN SMALL QUANTITIES AND LIMITED DURATIONS BEFORE PERMANENT EROSION PROTECTION IS ESTABLISHED.

2. EARTHWORK NEAR STREAM BUFFERS SHALL BE CAREFULLY CONTROLLED TO AVOID DUMPING OR SLOUGHING INTO THE BUFFER AREAS.

3. EROSION CONTROL DEVICES SHALL BE INSTALLED IMMEDIATELY AFTER GROUND DISTURBANCE OCCURS. IT IS THE CONTRACTOR'S RESPONSIBILITY TO ACCOMPLISH EROSION CONTROL. NO OTHER CONSTRUCTION ACTIVITIES SHALL OCCUR UNTIL THE PROJECT PROFESSIONAL APPROVES THE INSTALLATION OF SAID EROSION CONTROL DEVICES ACCORDINGLY.

4. THE CONTRACTOR SHALL ESTABLISH BARRIERS AT THE TOP OF ALL SLOPES UNDER CONSTRUCTION. CUT AND FILL SLOPES SHALL NOT EXCEED 2:1.

5. ALL DRAINAGE SWALES AND GRADED AREAS SHALL BE APPLIED WITH VEGETATIVE COVER AS SOON AS FINAL GRADE IS ACHIEVED. MULCH OR TEMPORARY GRASSING SHALL BE APPLIED TO ALL EXPOSED AREAS WITHIN 7 DAYS OF LAND DISTURBANCE. ALL DISTURBED AREAS LEFT MULCHED FOR MORE THAN 30 DAYS SHALL BE STABILIZED WITH TEMPORARY GRASSING.

6. MULCH OR TEMPORARY GRASSING SHALL BE APPLIED TO ALL EXPOSED AREAS WITHIN 7 DAYS OF LAND DISTURBANCE. ALL DISTURBED AREAS LEFT MULCHED FOR MORE THAN 30 DAYS SHALL BE STABILIZED WITH TEMPORARY GRASSING.

7. SEDIMENT AND EROSION CONTROL MEASURES MUST BE CHECKED AFTER EACH RAIN EVENT. EACH DEVICE IS TO BE MAINTAINED OR REPLACED IF SEDIMENT ACCUMULATION HAS REACHED HALF THE CAPACITY OF THE DEVICE. ADDITIONAL DEVICES MUST BE INSTALLED IF NEW CHANNELS HAVE DEVELOPED.

8. THE CONSTRUCTION EXIT SHALL BE MAINTAINED IN A CONDITION WHICH WILL PREVENT TRACK OR FLOW OF MUD ONTO PUBLIC RIGHT-OF-WAY. THIS MAY REQUIRE PERIODIC TOP DRESSING WITH 1"-3" OF STONE, AS CONDITIONS DEMAND. ALL MATERIALS SPILLED, DROPPED, WASHED OR TRACKED FROM A VEHICLE ONTO PUBLIC ROADWAY OR INTO STORM DRAIN MUST BE REMOVED IMMEDIATELY.

9. CONTRACTOR SHALL INSPECT EROSION CONTROL MEASURES AT THE END OF EACH WORKING DAY TO ENSURE PROPER FUNCTIONING.
- PHASE III - FINAL PHASE: CONSTRUCTION COMPLETION AND FINAL STABILIZATION
- INSTALL / CONSTRUCT / MAINTAIN ALL BMPs AS PROVIDED ON DRAWING ESC01. SUBMIT NOTICE OF TERMINATION.
1. ALL DISTURBED AREAS TO RECEIVE PERMANENT GRASS SHOULD BE GRASSED AS SOON AS FINAL GRADE IS ACHIEVED.

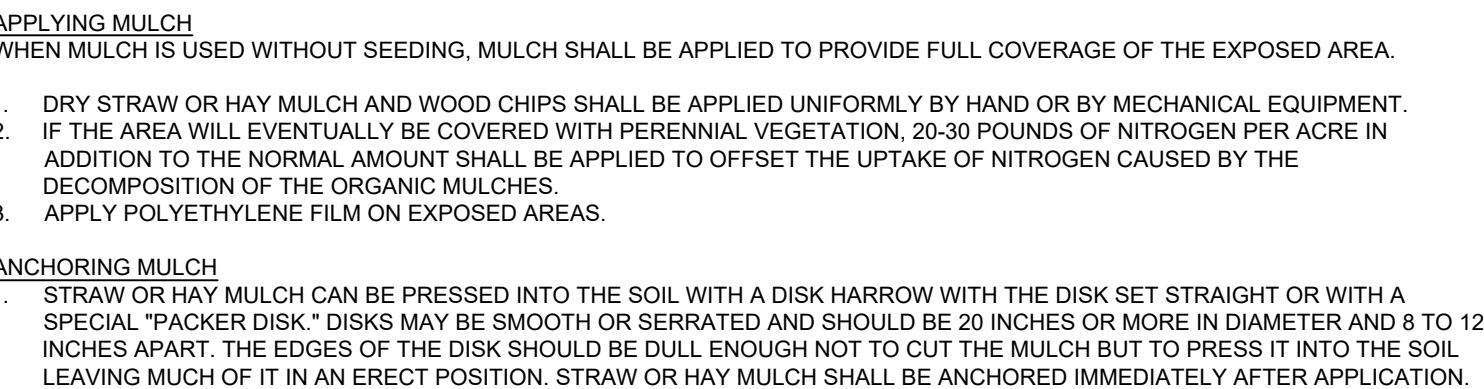
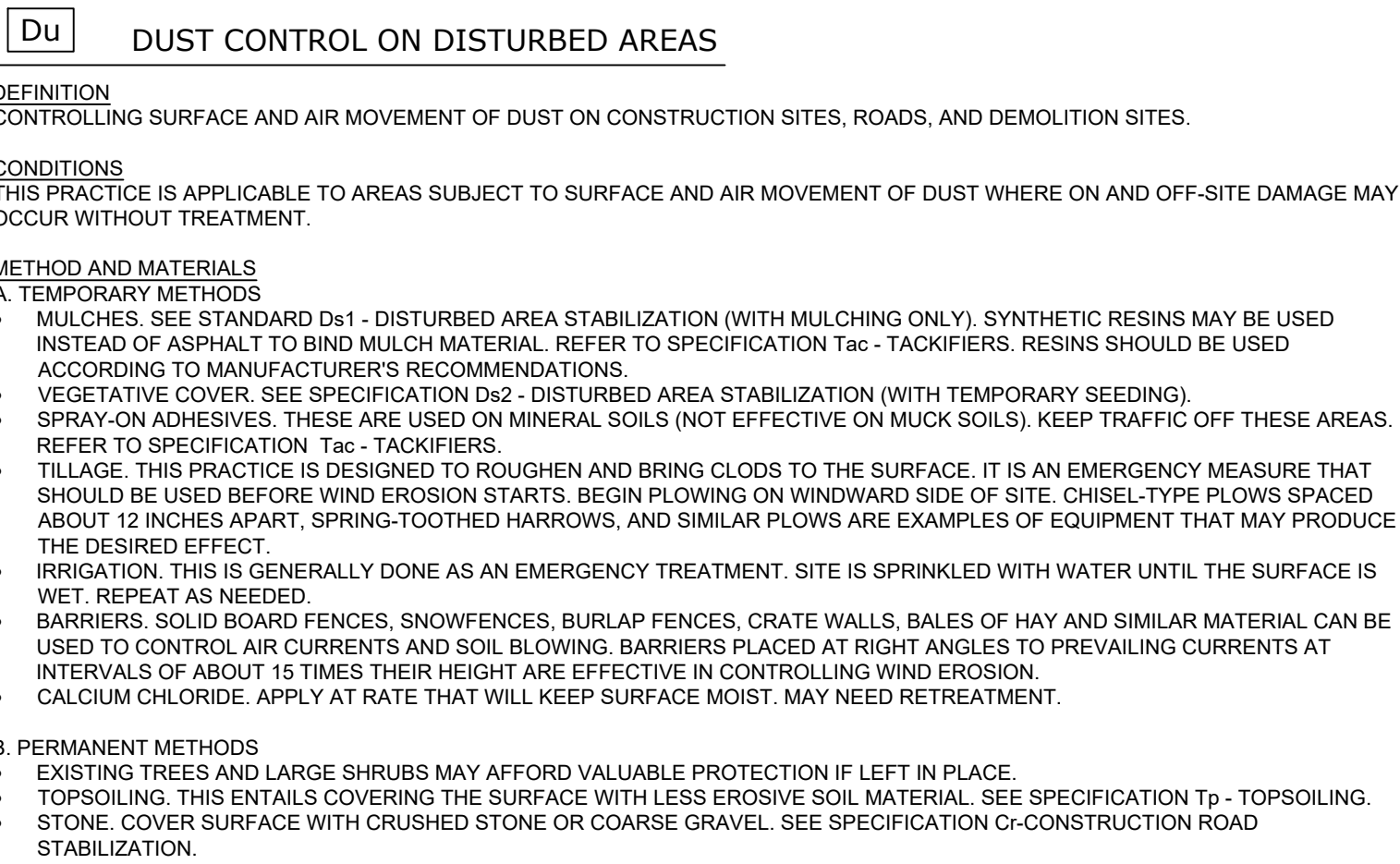
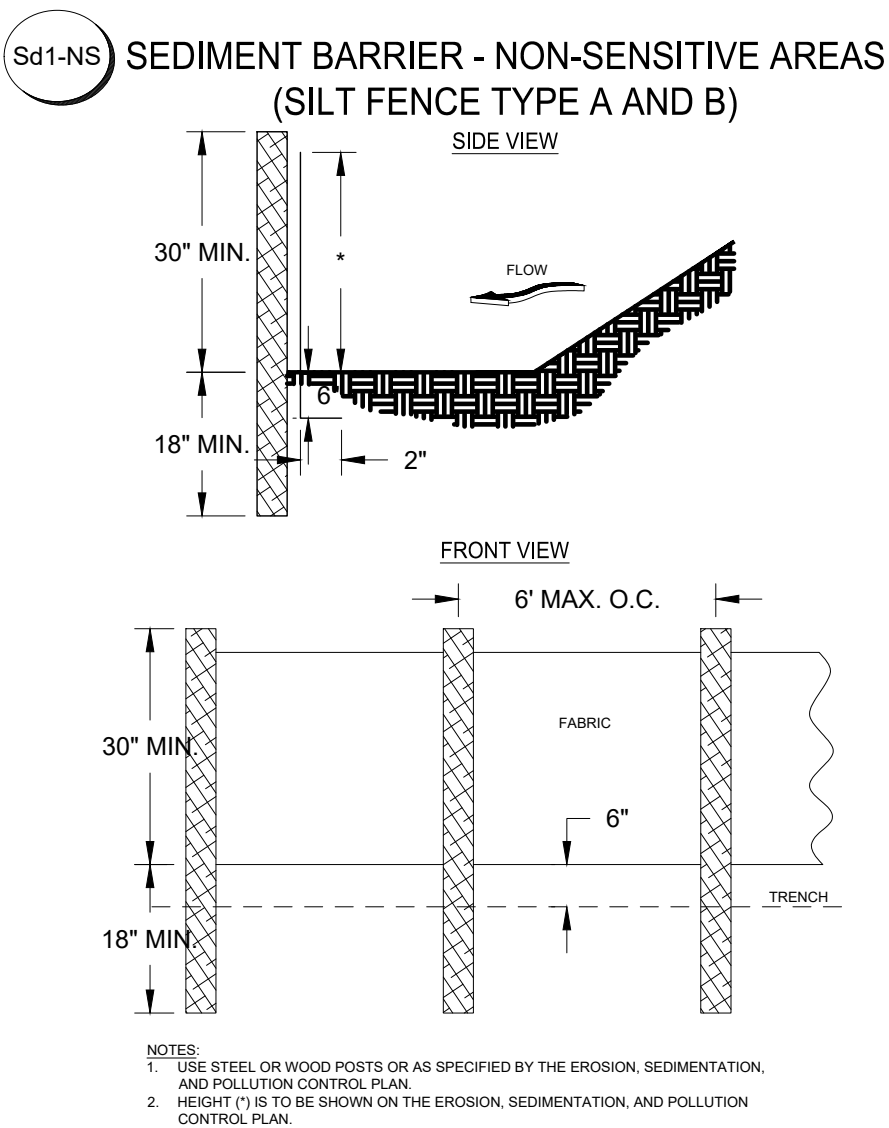
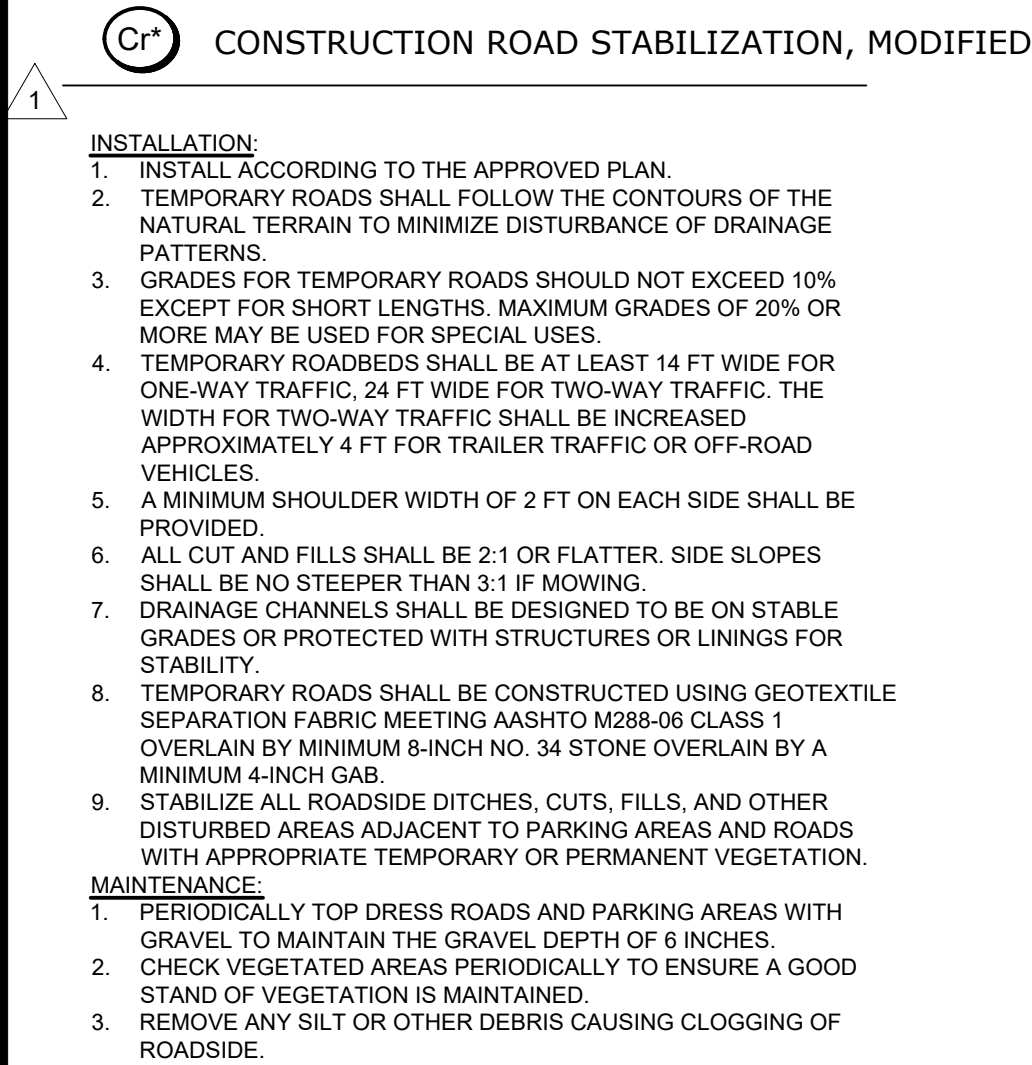
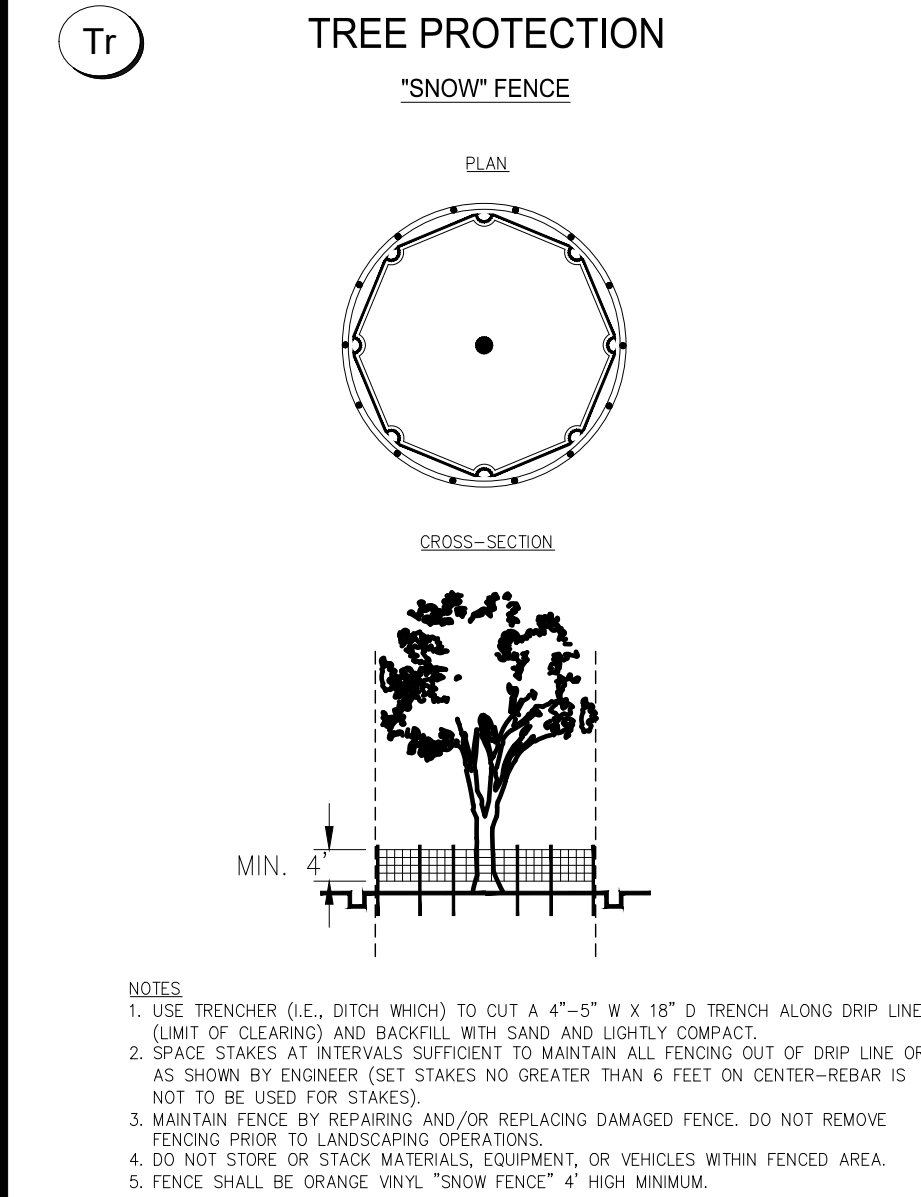
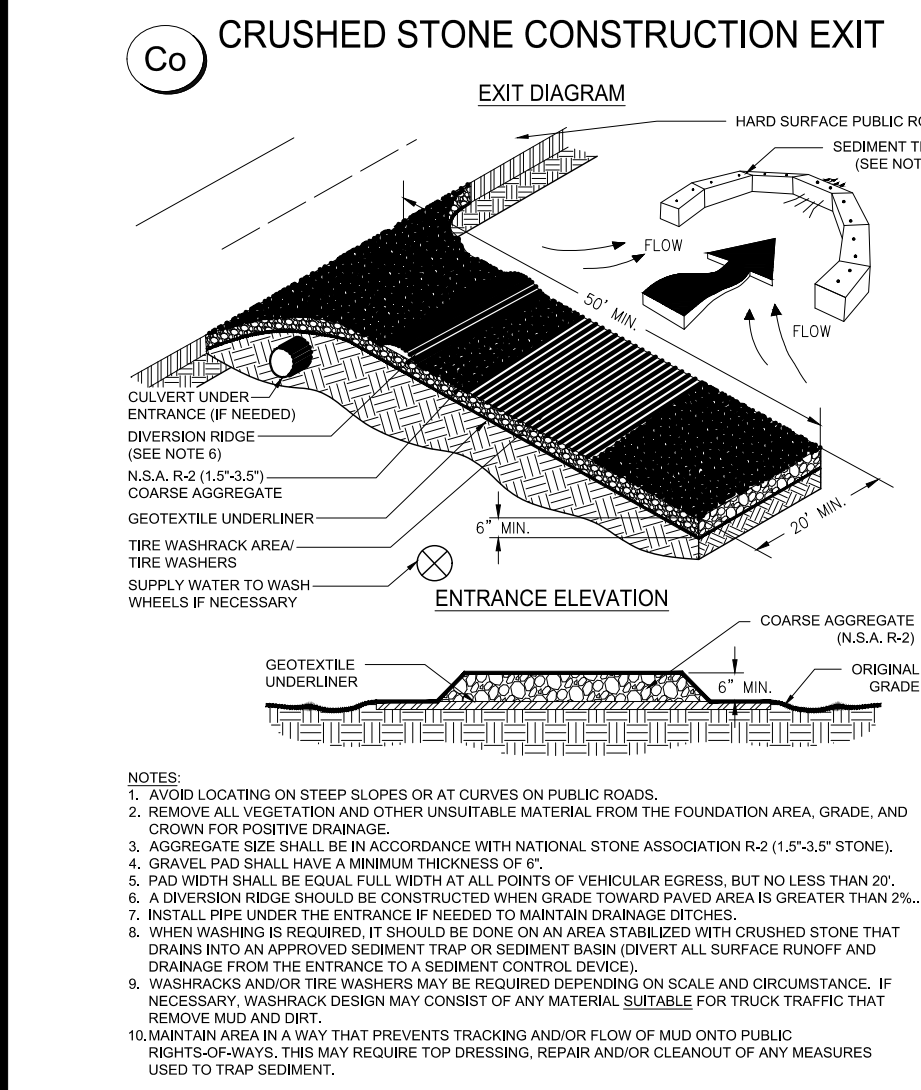
2. A TEMPORARY COVER OF HEAVY MULCH, MULCH WITH TEMPORARY SEEDING, OR TEMPORARY SEEDING, SHALL BE PLACED ON ALL AREAS WHERE PERMANENT COVER CAN NOT IMMEDIATELY BE ESTABLISHED DUE TO SEASONAL LIMITATIONS.

3. WHEN HAND PLANTING, MULCH (HAY OR STRAW) SHOULD BE UNIFORMLY SPREAD OVER SEEDED AREAS WITHIN 24 HOURS OF SEEDING.

4. UPON COMPLETION OF THE PROJECT AND RECEIPT OF THE CERTIFICATE OF COMPLETION, THE CONTRACTOR SHALL REMOVE ALL TEMPORARY EROSION CONTROL MEASURES AND DISPOSE OF THEM UNLESS NOTED OTHERWISE ON PLANS.

5. THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE ESTABLISHMENT OF A STRONG STAND OF GRASS BEFORE BEING RELEASED FROM CONTRACTUAL OBLIGATIONS. THE CONTRACTOR SHALL BE HELD RESPONSIBLE FOR A PERIOD OF TWELVE MONTHS AFTER ACCEPTANCE OF THE PROJECT TO REPAIR ANY WASHOUT AREAS OR AREAS OF VEGETATIVE COVER NOT CONSIDERED TO BE GOOD (100% COVERAGE WITH > 75% DENSITY).
-
- Georgia Soil and Water
Conservation Commission
- Daniel D Sebusch
Level II Certified Design Professional
- CERTIFICATION NUMBER 0000054172
- ISSUED: 06/25/2023
- EXPIRES: 06/25/2026
- File: O:\32485-ATL\32485-017CAD_BIMCIVIL\ES02 Saved by MBALLARD Save date: 3/7/2025 3:21 PM
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|-----|---------------|----------|-----|---|
| | CONFORMED SET | 03/2025 | KJR | PROJECT ENGINEER: K. RAY |
| | | | | DESIGNED BY: D. SEBUSCH |
| | | | | DRAWN BY: M. BALLARD |
| | | | | CHECKED BY: K. RAY |
| 1 | ADDENDUM NO.3 | 01/17/25 | MPB | IF THIS BAR DOES NOT MEASURE 1" THEN DRAWING IS NOT TO FULL SCALE |
| REV | ISSUED FOR | DATE | BY | |
- CONFORMED DRAWING
- THIS DOCUMENT ORIGINALLY ISSUED AND SEALED BY DANIEL D. SEBUSCH, 030101, ON 09/17/2024 AND THE ENTITY'S COA INFORMATION. THIS MEDIUM SHALL NOT BE CONSIDERED A CERTIFIED DOCUMENT.

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Georgia Soil & Water Conservation Commission																			
Manual for Erosion and Sediment Control in Georgia (amended 2016)																			
Table 6-4.1 - Plants, planting rates and planting dates for TEMPORARY COVER or COMPANION CROPS																			
Major Land Resource Area (MLRA): Southern Piedmont (P), per Figure 6-4.1																			
Species	Broadcast Rates		Planting Dates*												Remarks				
	per acre (lbs.)	per 1000 sq.ft. (lbs.)	J	F	M	A	M	J	J	A	S	O	N	D					
Lovegrass, weeping (Eragrostis curvula)															1,500,000 seed per pound. May last for several years. Mix with Sericea lespedeza.				
alone	4	0.1				X	X	-											
in mixtures	2	0.05																	
Millet, browntop (Panicum fasciculatum)															137,000 seed per pound. Quick dense cover. Will provide too much competition in mixtures if seeded at high rates.				
alone	40	0.9				X	X	-											
in mixtures	10	0.2																	
Ryegrass, annual (Lolium temulentum)															227,000 seed per pound. Dense cover. Very competitive and is not used in mixtures.				
alone	40	0.9	-	-	-	-				X	X	X	X						

* 'X' are optimum dates; '-' are permissible but marginal dates

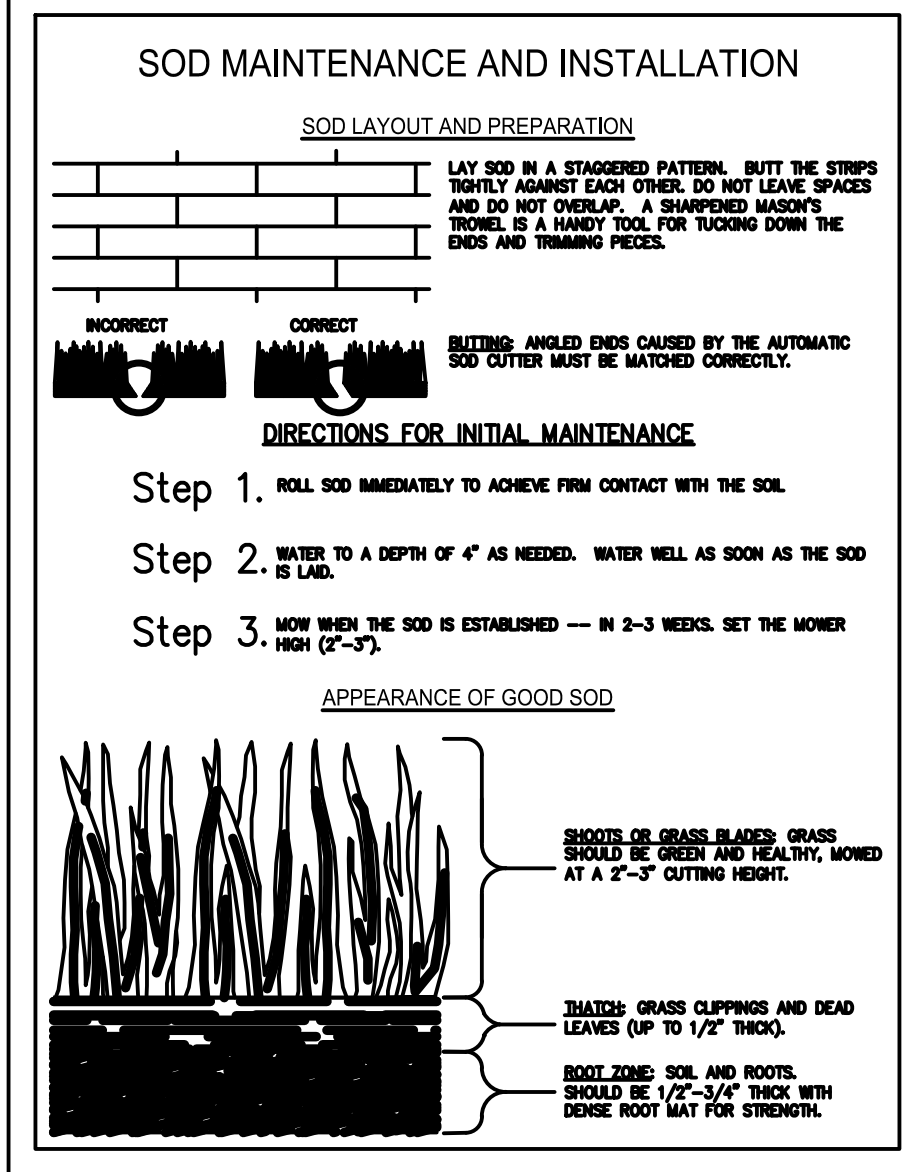
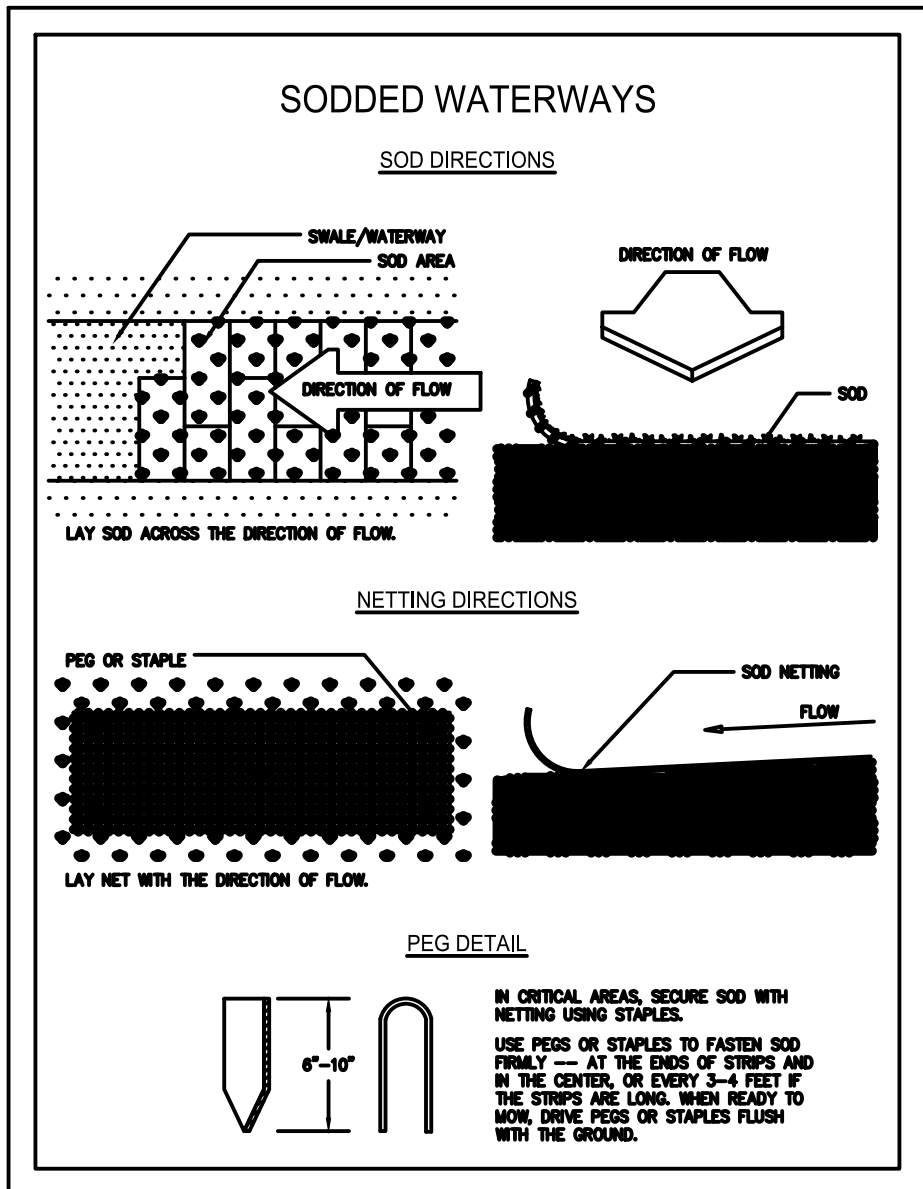


Table 6-6.2 Sod Planting Requirements			
Grass	Varieties	Resource Area	Growing Season
Bermudagrass	Common Tifway Tifgreen Tiflawn	M-L, P, C P, C P, C	warm weather
St. Augustine	Birds Blue Raleigh	C	warm weather
Zoysia	Emerald Myer	C	warm weather
Tall fescue	Kentucky	M-L, P	cool weather

Table 6-6.3 Fertilizer Requirements for Sod				
Types of Species	Planting Year	Fertilizer (N-P-K)	Rate (lbs./acre)	Nitrogen Top Dressing Rate (lbs./acre)
cool season grasses	first	6-12-12	1500	50-100
	second maintenance	6-12-12 10-10-10	1000 400	- 30
warm season grasses	first	6-12-12	1500	50-100
	second maintenance	6-12-12 10-10-10	800 400	50-100 30

Table 6-6.1. Fertilizer Requirements for Soil Surface Application			
Fertilizer Type	Fertilizer Rate (lbs/acre)	Fertilizer Rate (lbs/sq ft)	Season
10-10-10	1000	.025	Fall

NOTES:

1. ALL DETAILS FOR REQUIRED EROSION AND SEDIMENT CONTROL ARE NOT SHOWN. REFER TO THE CURRENT EDITION OF THE MANUAL FOR EROSION AND SEDIMENT CONTROL IN GEORGIA FOR ADDITIONAL DETAILS AND INFORMATION RELATED TO EROSION AND SEDIMENT CONTROL.
2. BERMUDAGRASS IS THE ONLY ALLOWABLE SOD INDICATED ON TABLE 6-6.2

	CONFORMED SET	03/2025	KJR	PROJECT ENGINEER: K. RAY
				DESIGNED BY: D. SEBUSCH
				DRAWN BY: M. BALLARD
				CHECKED BY: K. RAY
1	ADDENDUM NO.3	01/17/25	MPB	IF THIS BAR DOES NOT MEASURE 1" THEN DRAWING IS NOT TO FULL SCALE
REV	ISSUED FOR	DATE	BY	

CONFORMED DRAWING

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GBPE LIC #: PEF003685 EXP: 6/30/2026

Hazen

HAZEN AND SAWYER
1300 ALTMORE AVENUE
SUITE 520
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(404) 459-6363

COBB COUNTY-MARIETTA
WATER AUTHORITY

JAMES E. QUARLES WTP
RESERVOIR CLEANING AND IMPROVEMENTS
PROJECT

EROSION SEDIMENTATION &
POLLUTION CONTROL PLAN
DETAILS

DATE:	SEPTEMBER 2024
HAZEN NO.:	32485-017 & 026
CONTRACT NO.:	017 & 026
DRAWING NUMBER:	ESC04

File: O:\32485-ATL\32485-017CAD_BIMCIVIL\ES05 Saved by MBALLARD Save date: 3/7/2025 3:30 PM
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EROSION, SEDIMENTATION & POLLUTION CONTROL PLAN CHECKLIST
STAND ALONE CONSTRUCTION PROJECTS
SWCD: Region 1, Cobb County (LUA)

Project Name: James E. Quarles WTP Reservoir Cleaning and Improvements Address: 4402 Lower Roswell Road, Marietta, GA 30068
City/County: Marietta/Cobb Date on Plans: August 2023

Name & email of person filling out checklist: Daniel D Sebusch, dsebusch@hazenandsawyer.com

Plan Page #	Included Y/N	TO BE SHOWN ON ES&PC PLAN
ESC05	Y	
ESC	Y	
-	N	
ESC02	Y	
ESC02	Y	
ESC01&2	Y	
ESC01&2	Y	
ESC	Y	
ESC02	Y	
COVER	Y	
ESC02	Y	
ESC02	Y	
ESC02	Y	
ESC01	Y	
ESC01	Y	
ESC02	Y	
ESC01	Y	
ESC01	Y	
ESC02	Y	
ESC01	Y	
ESC01	Y	

1 The applicable Erosion, Sedimentation and Pollution Control Plan Checklist established by the Commission as of January 1 of the year in which the land-disturbing activity was permitted.
(The completed Checklist must be submitted with the ES&PC Plan or the Plan will not be reviewed)

2 Level II certification number issued by the Commission, signature and seal of the certified design professional. (Signature, seal and level II number must be on each sheet pertaining to ES&PC plan or the Plan will not be reviewed)

3 Limits of disturbance shall be no greater than 50 acres at any one time without prior written authorization from the GAEPD District Office. If GAEPD approves the request to disturb 50 acres or more at any one time, the Plan must include at least 4 of the BMPs listed in Appendix 1 of this checklist and the GAEPD approval letter. *
(A copy of the written approval by GAEPD must be attached to the plan for the Plan to be reviewed.)

4 The name and phone number of the 24-hour contact responsible for erosion, sedimentation and pollution controls.

5 Provide the name, address, email address, and phone number of primary permittee.

6 Note total and disturbed acreages of the project or phase under construction.

7 Provide the GPS location of the construction exit for the site. Give the Latitude and Longitude in decimal degrees.

8 Initial date of the Plan and the dates of any revisions made to the Plan including the entity who requested the revisions.

9 Description of the nature of construction activity and existing site conditions.

10 Provide vicinity map showing site's relation to surrounding areas. Include designation of specific phase, if necessary.

11 Identify the project receiving waters and describe all sensitive adjacent areas including streams, lakes, residential areas, wetlands, marshlands, etc. which may be affected.

12 Design professional's certification statement and signature that the site was visited prior to development of the ES&PC Plan as stated on **Part IV page 19** of the permit.

13 Design professional's certification statement and signature that the permittee's ES&PC Plan provides for an appropriate and comprehensive system of BMPs and sampling to meet permit requirements as stated on **Part IV page 15** of the permit. *

14 Clearly note the statement that "The design professional who prepared the ES&PC Plan is to inspect the installation of the initial sediment storage requirements and perimeter control BMPs within 7 days after installation."
in accordance with **Part IV.A.5 page 25** of the permit. *

15 Clearly note the statement that "Non-exempt activities shall not be conducted within the 25 or 50-foot undisturbed stream buffers as measured from the point of wrested vegetation or within 25-feet of the coastal marshland buffer as measured from the Jurisdictional Determination Line without first acquiring the necessary variances and permits."

16 Provide a description of any buffer encroachments and indicate whether a buffer variance is required.

17 Clearly note the statement that "Amendments/revisions to the ES&PC Plan which have a significant effect on BMPs with a hydraulic component must be certified by the design professional." *

18 Clearly note the statement that "Waste materials shall not be discharged to waters of the State, except as authorized by a Section 404 permit." *

ESC01Y

19 Clearly note statement that "The escape of sediment from the site shall be prevented by the installation of erosion and sediment control measures and practices prior to land disturbing activities."

ESC01Y

20 Clearly note statement that "Erosion control measures will be maintained at all times. If full implementation of the approved Plan does not provide for effective erosion control, additional erosion and sediment control measures shall be implemented to control or treat the sediment source."

ESC01Y

21 Clearly note the statement "Any disturbed area left exposed for a period greater than 14 days shall be stabilized with mulch or temporary seeding."

ESC02Y

22 Any construction activity which discharges storm water into an Impaired Stream Segment, or within 1 linear mile upstream of and within the same watershed as, any portion of an Biota Impaired Stream Segment must comply with Part III. C. of the permit. Include the completed Appendix 1 listing all the BMPs that will be used for those areas of the site which discharge to the Impaired Stream Segment. *

-N

23 If a TMDL Implementation Plan for sediment has been finalized for the Impaired Stream Segment (identified in Item 22 above) at least six months prior to submittal of NOI, the ES&PC Plan must address any site-specific conditions or requirements included in the TMDL Implementation Plan. *

ESC02Y

24 BMPs for concrete washdown of tools, concrete mixer chutes, hoppers and the rear of the vehicles. Washout of the drum at the construction site is prohibited. *

ESC02Y

25 Provide BMPs for the remediation of all petroleum spills and leaks.

ESC02Y

26 Description of the measures that will be installed during the construction process to control pollutants in storm water that will occur after construction operations have been completed. *

ESC02Y

27 Description of practices to provide cover for building materials and building products on site. *

ESC02Y

28 Description of the practices that will be used to reduce the pollutants in storm water discharges. *

ESC02Y

29 Description and chart or timeline of the intended sequence of major activities which disturb soils for the major portions of the site (i.e., initial perimeter and sediment storage BMPs, clearing and grubbing activities, excavation activities, utility activities, temporary and final stabilization).

ESC03Y

30 Provide complete requirements of Inspections and record keeping by the primary permittee. *

ESC03Y

31 Provide complete requirements of Sampling Frequency and Reporting of sampling results. *

ESC03Y

32 Provide complete details for Retention of Records as per Part IV.F. of the permit. *

ESC03Y

33 Description of analytical methods to be used to collect and analyze the samples from each location. *

ESC03Y

34 Appendix B rationale for NTU values at all outfall sampling points where applicable. *

ESC01Y

35 Delineate all sampling locations, perennial and intermittent streams and other water bodies into which storm water is discharged. *

ESC02Y

36 A description of appropriate controls and measures that will be implemented at the construction site including: (1) initial sediment storage requirements and perimeter control BMPs, (2) intermediate grading and drainage BMPs, and (3) final BMPs. For construction sites where there will be no mass grading and the initial perimeter control BMPs, intermediate grading and drainage BMPs, and final BMPs are the same, the Plan may combine all of the BMPs into a single phase. *

ESC01Y

37 Graphic scale and North arrow.

ESC01Y

38 Existing and proposed contour lines with contour lines drawn at an interval in accordance with the following:

Map Scale	Ground Slope	Contour Intervals, ft.
1 inch = 100ft or larger scale	Flat 0 - 2% Rolling 2 - 8% Steep 8% +	0.5 or 1 1 or 2 2.5 or 10

-N

39 Use of alternative BMPs whose performance has been documented to be equivalent to or superior to conventional BMPs as certified by a Design Professional (unless disapproved by GAEPD or the Georgia Soil and Water Conservation Commission). Please refer to the Alternative BMP Guidance Document found at www.gaswcc.georgia.gov.

-N

40 Use of alternative BMP for application to the Equivalent BMP List. Please refer to Appendix A-2 of the Manual for Erosion & Sediment Control in Georgia 2016 Edition. *

ESC01Y

41 Delineation of the applicable 25-foot or 50-foot undisturbed buffers adjacent to state waters and any additional buffers required by the Local Issuing Authority. Clearly note and delineate all areas of impact.

ESC02Y

42 Delineation of on-site wetlands and all state waters located on and within 200 feet of the project site.

ESC03Y

43 Delineation and acreage of contributing drainage basins on the project site.

ESC03Y

44 Provide hydrology study and maps of drainage basins for both the pre- and post-developed conditions. *

ESC03Y

45 An estimate of the runoff coefficient or peak discharge flow of the site prior to and after construction activities are completed.

-N

46 Storm-drain pipe and weir velocities with appropriate outlet protection to accommodate discharges without erosion. Identify/Delineate all storm water discharge points.

ESC01Y

47 Soil series for the project site and their delineation.

ESC01Y

48 The limits of disturbance for each phase of construction.

ESC02Y

49 Provide a minimum of 67 cubic yards of sediment storage per acre drained using a temporary sediment basin, retrofitted detention pond, and/or excavated inlet sediment traps for each common drainage location. Sediment storage volume must be in place prior to and during all land disturbance activities until final stabilization of the site has been achieved. A written justification explaining the decision to use equivalent controls when a sediment basin is not attainable must be included in the Plan for each common drainage location in which a sediment basin is not provided. A written justification as to why 67 cubic yards of storage is not attainable must also be given. Worksheets from the Manual included for structural BMPs and all calculations used by the storage design professional to obtain the required sediment when using equivalent controls. When discharging from sediment basins and impoundments, permittees are required to utilize outlet structures that withdraw water from the surface, unless infeasible. If outlet structures that withdraw water from the surface are not feasible, a written justification explaining this decision must be included in the Plan.

ESC01Y

50 Location of Best Management Practices that are consistent with and no less stringent than the Manual for Erosion and Sediment Control in Georgia. Use uniform coding symbols from the Manual, Chapter 6, with legend.

ESC04Y

51 Provide detailed drawings for all structural practices. Specifications must, at a minimum, meet the guidelines set forth in the Manual for Erosion and Sediment Control in Georgia.

ESC01Y

52 Provide vegetative plan, noting all temporary and permanent vegetative practices. Include species, planting dates and seeding, fertilizer, lime and mulching rates. Vegetative plan shall be site specific for appropriate time of the year that seeding will take place and for the appropriate geographic region of Georgia.

*If using this checklist for a project that is less than 1 acre and not part of a common development but within 200 ft of a perennial stream, the * checklist items would be N/A.

Effective January 1, 2022



Georgia Soil and Water Conservation Commission

Daniel D Sebusch

Level II Certified Design Professional

CERTIFICATION NUMBER 0000054172

ISSUED: 06/25/2023 EXPIRES: 06/25/2026

	CONFORMED SET	03/2025	KJR	PROJECT ENGINEER: K. RAY
				DESIGNED BY: D. SEBUSCH
				DRAWN BY: M. BALLARD
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GBPE LIC #: PEF003685 EXP: 6/30/2026



HAZEN AND SAWYER
1300 ALTMORE AVENUE
SUITE 520
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(404) 459-6363

COBB COUNTY-MARIETTA
WATER AUTHORITY

JAMES E. QUARLES WTP
RESERVOIR CLEANING AND IMPROVEMENTS
PROJECT

EROSION SEDIMENTATION &
POLLUTION CONTROL PLAN
CHECKLIST

ESC05

DATE:	SEPTEMBER 2024
HAZEN NO.:	32485-017 & 026
CONTRACT NO.:	017 & 026
DRAWING NUMBER:	

GENERAL STRUCTURAL NOTES

- G-1THESE NOTES ARE GENERAL AND SUPPLEMENT THE SPECIFICATIONS. THESE NOTES APPLY TO THE ENTIRE PROJECT UNLESS MODIFIED OR NOTED OTHERWISE IN THE CONTRACT DOCUMENTS.
- G-2STANDARD DETAILS SHALL BE USED WHEN REFERRED TO OR WHEN NO MORE RESTRICTIVE OR DIFFERENT DETAILS ARE SHOWN ON THE DRAWINGS.
- G-3DESIGN IS IN ACCORDANCE WITH AND CONSTRUCTION SHALL COMPLY WITH THE PROVISIONS OF THE GEORGIA STATE MINIMUM STANDARD BUILDING CODE, WHICH IS THE INTERNATIONAL BUILDING CODE, 2018 EDITION, WITH 2020 AND 2022 GEORGIA AMENDMENTS. THE DESIGN LOADS AND OTHER DESIGN VALUES GIVEN IN NOTES G-4 THROUGH G-7 WERE USED FOR DESIGN OF STRUCTURES UNLESS NOTED OTHERWISE ON THE DRAWINGS.
- G-4ALL STAIRWAYS, LANDINGS AND PLATFORMS ARE DESIGNED FOR A LIVE LOAD = 100 PSF UNLESS NOTED OTHERWISE.
- G-5SNOW LOAD:

GROUND SNOW LOAD (Pg) = 5 PSF
- G-6WIND DESIGN CRITERIA:

ULTIMATE DESIGN WIND SPEED (Vult) = 119 MPH (ASCE 7-16)
NOMINAL DESIGN WIND SPEED (Vasd) = 92 MPH (ASCE 7-16)
RISK CATEGORY = IV
WIND IMPORTANCE FACTOR (Iw) = 1.0
WIND EXPOSURE = C
- G-7SEISMIC LOAD:

RISK CATEGORY = IV
SEISMIC IMPORTANCE FACTOR (Ie) = 1.50
SITE CLASS = D
MAPPED SPECTRAL RESPONSE ACCELERATIONS (Ss/S1) = 0.153/0.079
SPECTRAL RESPONSE ACCELERATIONS (SMS/SM1) = 0.244/0.189
SPECTRAL RESPONSE COEFFICIENTS (SDS/SD1) = 0.163/0.126
SEISMIC DESIGN CATEGORY = C
- G-8ALL DIMENSIONS INDICATED FOR EXISTING STRUCTURES SHALL BE VERIFIED BY FIELD MEASUREMENT. ALL DIMENSIONS THAT ARE CONTROLLED BY OR RELATED TO EQUIPMENT SHALL BE VERIFIED BY THE CONTRACTOR WITH THE MANUFACTURER SHOP DRAWINGS PRIOR TO CONSTRUCTION.
- G-9THE CONTRACTOR IS RESPONSIBLE FOR VERIFYING ALL EXISTING INFORMATION IN THE FIELD AS REQUIRED FOR NEW WORK.
- G-10IF A CONFLICT IS FOUND BETWEEN DIFFERENT PORTIONS OF THE CONTRACT DOCUMENTS, THE CONTRACTOR SHALL NOTIFY THE ENGINEER IMMEDIATELY. CONTINUED CONSTRUCTION OF THE AREA IN CONFLICT SHALL BE AT THE CONTRACTOR'S OWN RISK UNTIL THE CONFLICT IS RESOLVED.
- G-11EQUIPMENT ANCHOR SIZES, TYPES, EMBEDMENT AND PATTERNS SHALL BE VERIFIED WITH THE MANUFACTURER. ALL ANCHOR PATTERNS SHALL BE TEMPLATED TO INSURE ACCURACY OF PLACEMENT.
- G-12STRUCTURAL DRAWINGS SHALL BE USED IN COORDINATION WITH THE DRAWINGS OF ALL OTHER DISCIPLINES AND MANUFACTURER'S SHOP DRAWINGS.
- G-13STRUCTURES HAVE BEEN DESIGNED FOR OPERATIONAL LOADS ON THE COMPLETED STRUCTURE. DURING CONSTRUCTION, THE STRUCTURES SHALL BE PROTECTED BY BRACING AND TEMPORARY SUPPORTS WHEREVER EXCESSIVE CONSTRUCTION LOADS MAY OCCUR. OVERSTRESSING OF ANY STRUCTURAL ELEMENT IS PROHIBITED.
- G-14IF CONTRACTOR DESIRES TO TEMPORARILY PLACE OR MOVE LOADS ON OR ADJACENT TO EXISTING STRUCTURES OR UTILITIES DURING CONSTRUCTION PROCESS, CONTRACTOR IS EXCLUSIVELY RESPONSIBLE FOR MAINTAINING STRUCTURAL INTEGRITY AND AVOIDING OVERSTRESSING AND DAMAGING EXISTING STRUCTURES AND UTILITIES. CONTRACTOR SHALL SUBMIT STRUCTURAL CALCULATIONS AND DRAWINGS VERIFYING PROPOSED CONSTRUCTION INCLUDING APPLICATION OF TEMPORARY CONSTRUCTION LOADS WILL NOT OVERSTRESS OR DAMAGE EXISTING STRUCTURES AND UTILITIES. DRAWINGS AND CALCULATIONS SHALL BE SEALED BY A PROFESSIONAL ENGINEER CURRENTLY REGISTERED IN THE STATE OF GEORGIA.
- G-15NO BACKFILL SHALL BE PLACED AGAINST ANY SUBSTRUCTURE WALLS UNLESS ALL ADJACENT SUPPORTING ELEMENTS HAVE ACHIEVED DESIGN STRENGTH, OR WALLS HAVE BEEN PROPERLY BRACED, AND IN ANY CASE NOT SOONER THAN 28 DAYS AFTER THE PLACING OF CONCRETE UNLESS APPROVED BY THE ENGINEER. SUPPORTING ELEMENTS SHALL INCLUDE ADJACENT WALLS, SLABS, BEAMS AND COLUMNS.
- G-16LEAKAGE TESTING OF HYDRAULIC STRUCTURES SHALL NOT BEGIN UNTIL ALL STRUCTURAL ELEMENTS HAVE REACHED THE SPECIFIED MINIMUM CONCRETE STRENGTH. BACKFILL SHALL NOT BE PLACED AROUND ANY HYDRAULIC STRUCTURE UNTIL THE LEAKAGE TEST HAS BEEN COMPLETED UNLESS APPROVED BY THE ENGINEER.

STRUCTURAL METALS

- M-1DETAIL, FABRICATE, AND ERECT STRUCTURAL STEEL IN ACCORDANCE WITH ANSI/AISC 360 SPECIFICATION FOR STRUCTURAL STEEL BUILDINGS, LATEST EDITION.
- M-2STEEL MATERIAL:
A) STRUCTURAL HSS:ASTM A500, GRADE C (46/50 KSI) OR A1085 GRADE A (50 KSI)
B) STRUCTURAL PIPE:ASTM A53, GRADE B (35 KSI)
C) PLATES, BARS AND ANGLES:ASTM A36 UNO (36 KSI)
D) STRUCTURAL W, C, & MC SHAPES:ASTM A992 (50 KSI)
E) STRUCTURAL M & S SHAPES:ASTM A36 (36 KSI)
F) STRUCTURAL HP:ASTM A572 GRADE 50 (50 KSI)
G) ANCHOR RODS:ASTM F1554 GRADE 55 (55 KSI)
- M-3PROVIDE MINIMUM 3/4" DIAMETER ASTM F3125 GRADE A325 TYPE 1 OR GRADE F1852 TYPE 1 HIGH STRENGTH BOLTS WITH SNUG TIGHTENED TYPE N CONNECTIONS FOR STRUCTURAL STEEL UNLESS NOTED OTHERWISE. HOLES FOR BOLTS SHALL BE STANDARD SIZE UNLESS NOTED OTHERWISE.
- M-4PROVIDE TYPICAL STEEL BEAM CONNECTIONS FOR A CAPACITY OF NOT LESS THAN ONE HALF OF THE TOTAL UNIFORM LOAD CAPACITY TABULATED IN THE AISC TABLES FOR ALLOWABLE LOADS OF BEAMS UNLESS NOTED OTHERWISE.
- M-5DO NOT PAINT STEEL SURFACES WHICH ARE TO BE WELDED OR ARE TO BE ENCASED IN CONCRETE.
- M-6ALL STAINLESS STEEL FABRICATIONS EXPOSED TO UNDERWATER SERVICE SHALL BE TYPE 316. ALL OTHER STAINLESS STEEL FABRICATIONS SHALL BE TYPE 304 UNLESS NOTED OTHERWISE.
- M-7ALUMINUM SHALL BE ALLOY 6061-T6 UNLESS NOTED OTHERWISE.
- M-8ALL BOLTS, ANCHORS, AND CONCRETE ANCHORS CONNECTING ALUMINUM SHALL BE STAINLESS STEEL TYPE 316 FOR UNDERWATER APPLICATIONS AND TYPE 304 FOR ALL OTHER APPLICATIONS.
- M-9DETAIL, FABRICATE, AND ERECT ALUMINUM IN ACCORDANCE WITH THE LATEST EDITION OF THE ALUMINUM ASSOCIATION ALUMINUM DESIGN MANUAL.
- M-10ALUMINUM SHALL BE ISOLATED FROM CONTACT WITH CONCRETE AND DISSIMILAR METALS.
- M-11ALL GROOVE AND BUTT WELDS SHALL BE FULL PENETRATION.
- M-12FILLET WELD SIZES SHALL NOT BE LESS THAN THE MINIMUM SIZE REQUIRED BY AISC CODE FOR PLATE SIZES TO BE CONNECTED AND SHALL BE APPLIED TO THE ENTIRE JOINT CONTACT LENGTH, AND NOT LESS THAN 3/16".
- M-13BOTTOM SURFACES OF BASE PLATES SHALL BE GROUTED TO ENSURE FULL BEARING CONTACT WITH CONCRETE SLAB.
- M-14WHENEVER ONE MEMBER IS FASTENED TO ANOTHER WITH FASTENINGS (BOLTS, WELDS, ETC.) SET AT A UNIFORM SPACING, THERE SHALL BE A MINIMUM OF TWO FASTENINGS PER PIECE CONNECTED AND THE FIRST AND LAST FASTENINGS SHALL BE LOCATED NOT TO EXCEED 0.25 OF FASTENER SPACING FROM EACH END.
- M-15BOLTED CONNECTIONS FOR STRUCTURAL STEEL SHALL BE ASSEMBLED AND INSPECTED IN ACCORDANCE WITH RCSC (SPECIFICATIONS FOR STRUCTURAL JOINTS USING ASTM HIGH STRENGTH BOLTS).
- M-16STRUCTURAL WELDED JOINTS SHALL CONFORM TO THE PROVISIONS OF AWS D1.1, STRUCTURAL WELDING CODE BY AMERICAN WELDING SOCIETY. PROOF OF WELDER CERTIFICATION SHALL BE AVAILABLE AT THE JOB SITE DURING TIMES OF INSPECTION.
- M-17GRATING PANELS SHALL BE CONFINED TO PREVENT MOVEMENT PER STANDARD DETAIL S-05-0706. SOLE USE OF GRATING CLIP ATTACHMENT IS NOT ACCEPTABLE TO PREVENT GRATING MOVEMENT.

FOUNDATIONS

- F-1CONCRETE (CAST-IN-PLACE) NOTES APPLY TO FOUNDATIONS.
- F-2ALLOWABLE SOIL BEARING PRESSURE

PARAMETER STRUCTURE	ALLOWABLE SOIL BEARING PRESSURE
STRUCTURE A	2,000 PSF

DEMOLITION

- D-1FOR DEMOLITION REQUIREMENTS, REFER TO SPECIFICATION 01 73 00 - EXECUTION OF WORK.
- D-2CONCRETE DEMOLITION WITHIN STRUCTURES BEING MODIFIED SHALL BE SELECTIVE DEMOLITION BY CORE DRILLING OR SAWCUTTING AND CAREFUL REMOVAL OF CONCRETE SHOWN TO BE REMOVED. NO OVER CUTTING OF AREAS TO BE DEMOLISHED SHALL BE PERMITTED. CONTRACTOR SHALL CORE DRILL CORNERS OF OPENING PRIOR TO SAWCUTTING. EXPLOSIVES AND VIBRATORY HAMMERS SHALL NOT BE USED FOR DEMOLITION WORK.
- D-3UNLESS ANCHORING DEVICES AND/OR REINFORCEMENT IS NOTED TO REMAIN FOLLOWING DEMOLITION, REMOVE AND/OR BURN BACK ANCHORS AND REINFORCEMENT STEEL 1/2" MIN BELOW SURFACE AND VOIDS CREATED SHALL BE FILLED WITH EPOXY RESIN BINDER.
- D-4EMBEDDED CONDUIT ENCOUNTERED DURING DEMOLITION WORK LIMITS SHALL BE PERMANENTLY REROUTED AS NECESSARY. CONTRACTOR SHALL SUBMIT PROPOSED MEANS OF REROUTING ANY INTERFERING CONDUIT.
- D-5WHERE DRAWINGS INDICATE A CONCRETE EQUIPMENT PAD TO BE DEMOLISHED, THE FLOOR SLAB SURFACE SHALL BE REPAIRED AS APPROVED BY ENGINEER. FOLLOWING SELECT DEMOLITION AND REMOVAL OF THE EQUIPMENT PAD REMOVAL THE REPAIR SHALL BE:
A. SAWCUT THE FLOOR AROUND THE EQUIPMENT PAD PERIMETER TO A DEPTH OF 1/4".
B. SCARIFY AND REMOVE SLAB CONCRETE WITHIN THE PERIMETER TO A NOMINAL 1/4" DEPTH CLEAN AND REMOVE ALL CONCRETE LAITANCE.
C. RESURFACE THE AREA BY APPLYING A POLYMER MODIFIED OR SILICA FUME ENHANCED CEMENTITIOUS REPAIR MORTAR, APPROVED BY THE ENGINEER, FOLLOWING THE MANUFACTURER'S SURFACE PREPARATION AND APPLICATION RECOMMENDATIONS. LEVEL AND FINISH THE SURFACE TO MATCH THE FLOOR SLAB SURROUNDING AREA.
- D-6PRIOR TO DEMOLITION OF SMALL OPENINGS (LESS THAN 6 INCHES IN SIZE) FOR PENETRATIONS, ETC., CONTRACTOR SHALL USE NON-DESTRUCTIVE MEANS TO FIELD LOCATE REINFORCEMENT. OPENINGS SHALL BE LOCATED TO AVOID CUTTING THROUGH EXISTING REINFORCEMENT, IF POSSIBLE. EXISTING REINFORCEMENT SHALL NOT BE CUT WITHOUT APPROVAL OF ENGINEER.
- D-7CONCRETE SURFACES LEFT EXPOSED FOLLOWING DEMOLITION SHALL BE SEALED WITH EPOXY RESIN COATING SUCH AS DURALKOTE 240 BY EUCLID CHEMICAL, OR APPROVED EQUAL.
- D-8GUARD EMBEDMENT SLEEVES SHALL BE FILLED WITH NON-SHRINK GROUT FOLLOWING REMOVAL OF GUARD COMPONENTS. GUARD BASE PLATE CONCRETE ANCHORS SHALL BE REMOVED PER NOTE D-3.
- D-8DETAILED CONSTRUCTION AND DEMOLITION PLAN SHALL BE SUBMITTED TO THE ENGINEER AND APPROVED BY THE ENGINEER AND OWNER PRIOR TO BEGINNING CONSTRUCTION. ANY SHUTDOWNS SHALL BE SUBMITTED TO, COORDINATED WITH, AND APPROVED BY THE OWNER. ONCE APPROVED, CONTRACTOR SHALL PROVIDE A MINIMUM OF THREE (3) WEEKS NOTICE TO OWNER PRIOR TO SHUTDOWN.

FOUNDATIONS, CONTINUED

- F-3MINIMUM DEPTH FROM ADJACENT FINISHED GRADE TO BOTTOM OF FOUNDATION = 12 INCHES.

PRECAST CONCRETE

- PC-1PRECAST VAULTS AND MANHOLES SHALL BE DESIGNED BY A PROFESSIONAL ENGINEER REGISTERED IN THE STATE OF GEORGIA. STRUCTURAL DRAWINGS SHALL INDICATE DESIGN IS IN COMPLIANCE WITH THE GEORGIA BUILDING CODE.

CONCRETE (CAST-IN-PLACE)

- C-1DESIGN OF CONCRETE ELEMENTS INCLUDING WALLS, FORMED SLABS, BEAMS, AND COLUMNS IS IN ACCORDANCE WITH ACI 318 (CODE REQUIREMENTS FOR STRUCTURAL CONCRETE) AND 350 (CODE REQUIREMENTS FOR ENVIRONMENTAL ENGINEERING CONCRETE STRUCTURES).
- C-2FOR CONCRETE MIX DESIGN SEE SPECIFICATION SECTION 03 30 00.
- C-3CONCRETE STRENGTH CLASSES (28-DAY COMPRESSIVE STRENGTH):

A) CLASS A1 CONCRETE (4,500 PSI); NORMAL WEIGHT STRUCTURAL CONCRETE TO BE USED IN ALL STRUCTURES AND PAVEMENT.
B) CLASS B CONCRETE (3,000 PSI); NORMAL WEIGHT STRUCTURAL CONCRETE USED FOR DUCT BANK ENCASEMENTS, CATCH BASINS, FENCE AND GUARD POST EMBEDMENT, CONCRETE FILL, AND OTHER AREAS WHERE SPECIFICALLY NOTED ON CONTRACT DRAWINGS.
- C-4ALL BAR REINFORCING SHALL CONFORM TO ASTM A615, GRADE 60. WHERE REINFORCEMENT IS TO BE WELDED IN ACCORDANCE WITH AWS D1.4, ASTM A706 GRADE 60 SHALL BE USED. WELDED WIRE FABRIC SHALL CONFORM TO ASTM A185.
- C-5CONCRETE COVER FOR REINFORCING (UNLESS NOTED OTHERWISE ON THE DRAWINGS):

A) UNFORMED SURFACES IN CONTACT WITH FOUNDATION:4"
B) CONCRETE DEPOSITED DIRECTLY AGAINST SOIL:3"
C) CONCRETE EXPOSED TO WEATHER (#5 OR SMALLER):1 1/2"
CONCRETE EXPOSED TO WEATHER (#6 OR LARGER):2"
D) SLABS:1 1/2"
AT SURFACES CONTACTING FLUID:2"
AT SURFACES SUBJECT TO CAVITATION OR ABRASION:6"
E) BEAMS AND COLUMNS (TO MAIN REINFORCEMENT):2"
BEAMS AND COLUMNS (TO COLUMN TIES OR STIRRUPS):1 1/2"
F) WALLS 12" OR MORE:2"
WALLS LESS THAN 12" (#5 OR SMALLER):1 1/2"
WALLS LESS THAN 12" (#6 OR LARGER):2"
G) STILLING BASIN WALLS, CHUTE SPILLWAY SLABS AND CHANNEL LINING SLABS ON GRADE:4"
SURFACES EQUAL TO OR GREATER THAN 24 INCHES THICK:3"
SURFACES GREATER THAN 12 INCHES AND LESS THAN 24 INCHES THICK:3"
H) FOR SURFACES EXPOSED TO FLUID IN BEAMS, COLUMNS AND WALLS:ADD 1/2" TO ABOVE VALUES
- C-6SPICES SHALL BE CLASS "B" CONFORMING TO THE PROVISIONS OF ACI 318 UNLESS NOTED OTHERWISE. SPLICE LENGTH FOR TWO DIFFERENT SIZED BARS TO BE LAP SPLICED TOGETHER SHALL BE THE LENGTH OF THE LARGER BAR UNLESS NOTED OTHERWISE.
- C-7CONSTRUCTION JOINTS SHALL BE LOCATED AS SHOWN ON THE DRAWINGS. CONSTRUCTION JOINTS NOT SHOWN SHALL BE SUBMITTED BY THE CONTRACTOR FOR THE APPROVAL OF THE ENGINEER PRIOR TO SUBMITTING REBAR SHOP DRAWINGS. VERTICAL CONSTRUCTION JOINTS IN WALLS AND HORIZONTAL JOINTS IN SLABS SHALL BE PROVIDED AT A SPACING NOT GREATER THAN 45 FEET ON CENTER. FOR EXPOSED WALLS WITH FLUID OR EARTH ON THE OPPOSITE SIDE, THE SPACING BETWEEN VERTICAL AND HORIZONTAL JOINTS SHALL BE A MAXIMUM OF 25 FEET.
- C-8WHERE HORIZONTAL CONSTRUCTION JOINTS, LOCATED ABOVE THE FOUNDATION SLAB, EXTEND BEYOND WHERE NEEDED, THEY SHALL BE TERMINATED AT A VERTICAL CONSTRUCTION JOINT APPROVED BY THE ENGINEER.
- C-9ALL JOINTS WHICH ARE IN MEMBERS IN CONTACT WITH LIQUID OR BELOW GRADE SHALL HAVE A WATERSTOP. CONSTRUCTION JOINTS SHALL HAVE A 6" PVC RIBBED WATERSTOP. EXPANSION JOINTS SHALL HAVE A 9" PVC CENTER BULB RIBBED WATERSTOP. IN VERTICAL JOINTS, WATERSTOPS SHALL TERMINATE NO LESS THAN 18" ABOVE THE MAXIMUM WATER SURFACE OR 18" ABOVE GRADE, WHICHEVER IS HIGHER.
- C-10ALL EXPOSED CORNERS SHALL HAVE A 3/4" CHAMFER.
- C-11EQUIPMENT SUPPORTS, ANCHORAGES, OPENINGS, RECESSES AND REVEALS NOT SHOWN ON THE STRUCTURAL DRAWINGS BUT REQUIRED BY OTHER CONTRACT DOCUMENTS, SHALL BE PROVIDED FOR PRIOR TO PLACING CONCRETE.
- C-12REINFORCING BARS AND ACCESSORIES SHALL NOT BE IN CONTACT WITH ANY METAL PIPE, PIPE FLANGE, METAL CONDUIT, OR OTHER METAL PARTS EMBEDDED IN CONCRETE. A MINIMUM CLEARANCE OF 2" SHALL BE PROVIDED.
- C-13DOWELS, ANCHOR BOLTS, PIPES, WATERSTOPS AND OTHER EMBEDDED ITEMS SHALL BE HELD SECURELY IN POSITION WHILE CONCRETE IS BEING PLACED.
- C-14CONDUITS AND OTHER SIMILAR ITEMS EMBEDDED IN OR PENETRATING THROUGH CONCRETE SHALL BE SPACED ON CENTER NOT LESS THAN 3 TIMES THEIR OUTSIDE DIMENSION, BUT NOT LESS THAN 2 1/2" CLEAR. WHEN SUCH ITEMS ARE EMBEDDED IN WALLS OR SLABS, THEY SHALL NOT OCCUPY MORE THAN 1/3 OF THE MEMBER THICKNESS.
- C-15AT ALL TYPICAL CURBS, EQUIPMENT PADS, AND PIPE SUPPORT PIERS, REINFORCING DOWELS SHOWN MAY BE REPLACED WITH MATCHING DOWELS SET IN EPOXY IN DRILLED HOLES AS SPECIFIED. DOWELS LOCATED CLOSER THAN 3" FROM ANY EDGE OF CONCRETE SHALL NOT BE REPLACED WITH DRILLED DOWELS.
- C-16DRILLED ADHESIVE DOWELS AND CONCRETE ANCHORS (WHERE DOWELS OR ANCHORS ARE SHOWN TO BE PLACED INTO HARDENED CONCRETE):

A) THE HOLE DIAMETER SHALL BE NO LARGER THAN 1/8" GREATER THAN THE DIAMETER OF THE REINFORCING BAR AT THE DEFORMATIONS FOR DOWELS. THE HOLE DIAMETER SHALL BE IN ACCORDANCE WITH THE MANUFACTURER'S INSTRUCTIONS FOR ANCHORS.
B) THE DEPTH OF EMBEDMENT SHALL BE 12 BAR DIAMETERS, UNLESS NOTED OTHERWISE.
C) ADJUST THE DOWEL OR ANCHOR LOCATIONS AS NEEDED TO AVOID DRILLING THROUGH ANY REINFORCING BARS. IF THE LOCATION NEEDS TO BE MODIFIED, CONTACT THE ENGINEER. CONTRACTOR SHALL USE NON-DESTRUCTIVE MEANS TO FIELD LOCATE REINFORCEMENT PRIOR TO DRILLING HOLES FOR DOWELS OR ANCHORS.
- C-17CLEAR DISTANCE FROM ANCHOR RODS TO ANY CONCRETE EDGE SHALL BE 4" MINIMUM UNLESS NOTED OTHERWISE.
- C-18CONCRETE COMPRESSIVE STRENGTH TESTS SHALL BE AVAILABLE ON THE JOB SITE FOR REVIEW BY THE ENGINEER.

	CONFORMED SET	03/2025	KJR	PROJECT ENGINEER: K. RAY
				DESIGNED BY: F. POWELL
				DRAWN BY: J. BURROUGHS
				CHECKED BY: A. THURSTON
				IF THIS BAR DOES NOT MEASURE 1" THEN DRAWING IS NOT TO FULL SCALE
REV	ISSUED FOR	DATE	BY	

CONFORMED DRAWING

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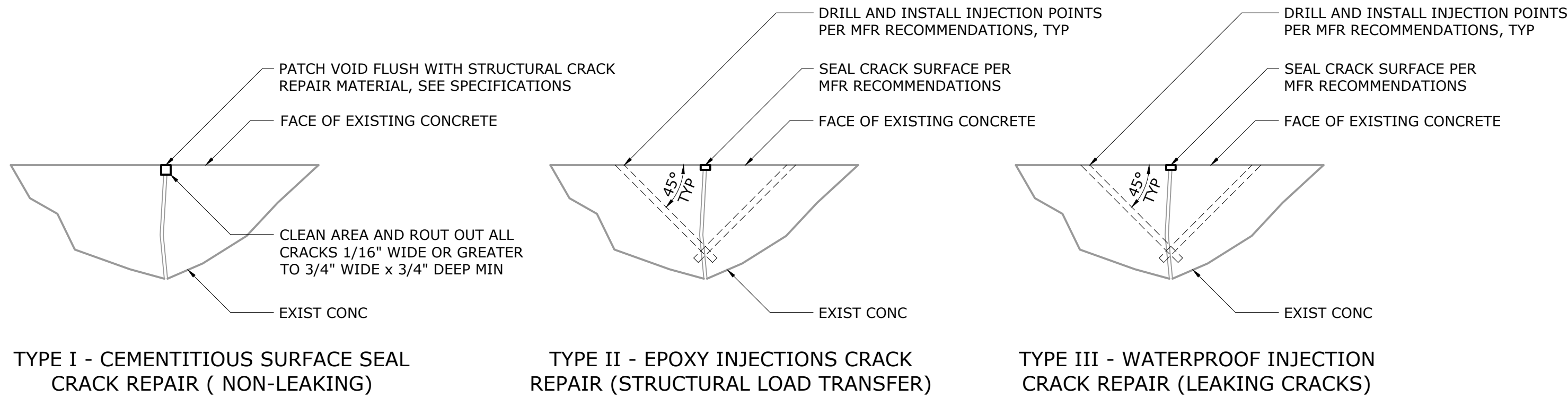
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(404) 459-6363

COBB COUNTY-MARIETTA
WATER AUTHORITY

JAMES E. QUARLES WTP
RESERVOIR CLEANING AND IMPROVEMENTS
PROJECT

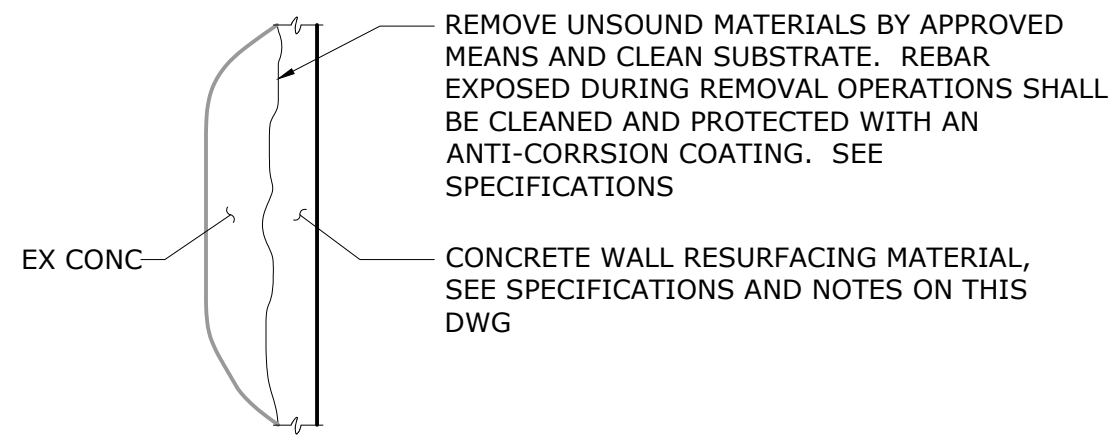
GENERAL
STRUCTURAL
GENERAL NOTES

DATE: SEPTEMBER 2024
HAZEN NO.: 32485-017 & 026
CONTRACT NO.: 017 & 026
DRAWING NUMBER: S01



CRACK REPAIR

DETAIL	1
1 1/2" = 1'-0"	

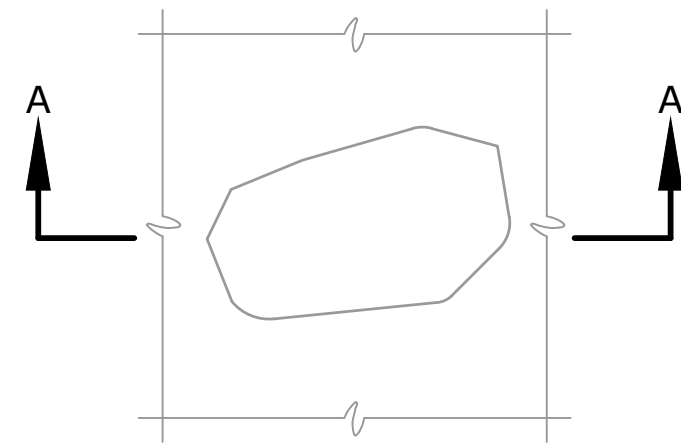


CONC WALL RESURFACING

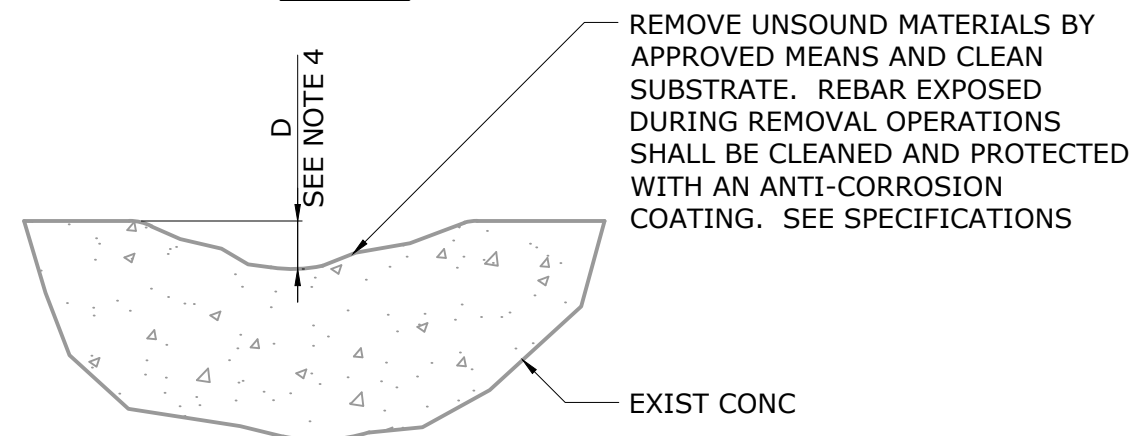
DETAIL	2
NTS	

NOTES:

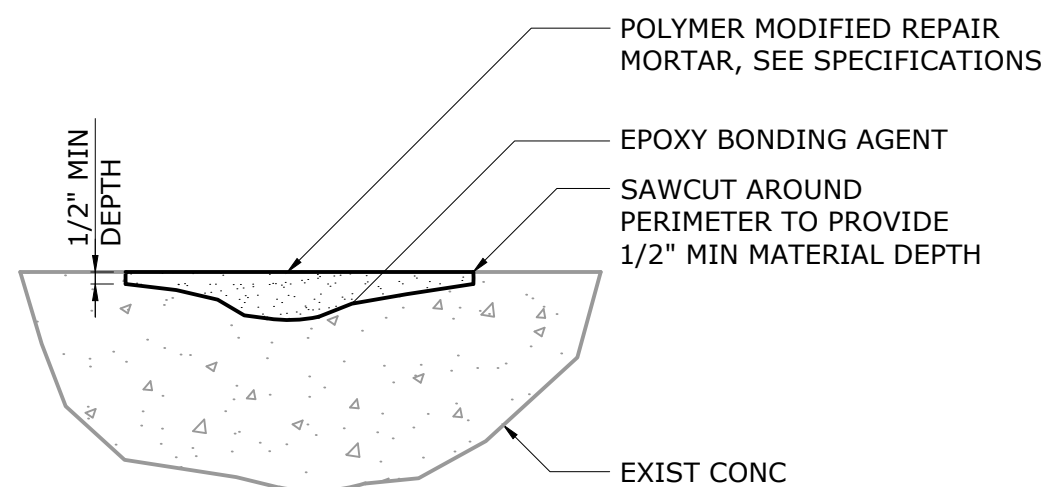
1. CONCRETE REPAIR WORK SHALL BE PERFORMED PER SPECIFICATION SECTION 03 01 30 AND THE DETAILS ON THIS DRAWING.
2. THE CONTRACTOR, IN CONJUNCTION WITH THE ENGINEER, SHALL DETERMINE THE EXTENT OF CRACKED OR DETERIORATED CONCRETE TO BE REHABILITATED AND/OR RESURFACED. FOR EACH STRUCTURE A SUMMARY OF WORK SHALL BE SUBMITTED TO THE ENGINEER PRIOR TO COMMENCEMENT OF THE WORK.
3. SPALLED AND/OR DETERIORATED AREAS WHERE DEPTH "D" TO BE REPAIRED IS LESS THAN OR EQUAL TO 4" SHALL BE REPAIRED PER DETAIL 3. AREAS WHERE DEPTH "D" IS GREATER THAN 4" SHALL BE REPAIRED PER DETAIL 4.
4. ALL STRUCTURE E AND SPLITTER BOX INTERIOR AND EXTERIOR WALL SURFACES SHALL BE PREPARED AND RESURFACED IN ACCORDANCE WITH SPECIFICATION SECTION 03 01 30 - CONCRETE REPAIRS AND DETAIL 2.
5. CONCRETE REPAIRS SHALL INCLUDE ALL WORK RELATING TO CONCRETE REPAIRS AS INDICATED HEREIN AND SPECIFIED IN SPECIFICATION SECTION 03 01 30 - CONCRETE REPAIRS. CONCRETE REPAIRS, WITH THE EXCEPTION OF CONCRETE RESURFACING DEFINED IN NOTE 6, SHALL BE PAID AS UNIT PRICE ITEMS PER SPECIFICATION SECTION 01 20 00 - MEASUREMENT AND PAYMENT AS APPROVED BY ENGINEER.
6. STRUCTURE E INTERIOR AND EXTERIOR CONCRETE WALLS AND SPLITTER BOX INTERIOR AND EXTERIOR CONCRETE WALLS SHALL BE RESURFACED WITH 1/2" MINIMUM THICKNESS OF CONCRETE RESURFACING MATERIAL. THE ITEM 1 LUMP SUM BID AMOUNT INCLUDES ALL WORK REQUIRED TO REMOVAL UNSOUND MATERIAL, PREPARE THE CONCRETE SURFACES, ADHESION TESTING OF THE CONCRETE SUBSTRATE, APPLICATION OF CONCRETE WALL RESURFACING MATERIAL AT 1/2" INCH THICKNESS, AND FINISHING AND CURING.
7. IF THE QUANTITY OF CONCRETE WALL RESURFACING MATERIAL EXCEEDS 100 CUBIC FEET (THE LUMP SUM AMOUNT) THEN IT SHALL BE PAID AS ADDITIONAL CONCRETE WALL RESURFACING MATERIAL PER UNIT PRICE PER SPECIFICATION SECTION 01 20 00 - MEASUREMENT AND PAYMENT AS APPROVED BY ENGINEER. QUANTITIES SHALL BE BASED ON CUBIC FEET OF CONCRETE WALL RESURFACING MATERIAL INSTALLED.



PLAN



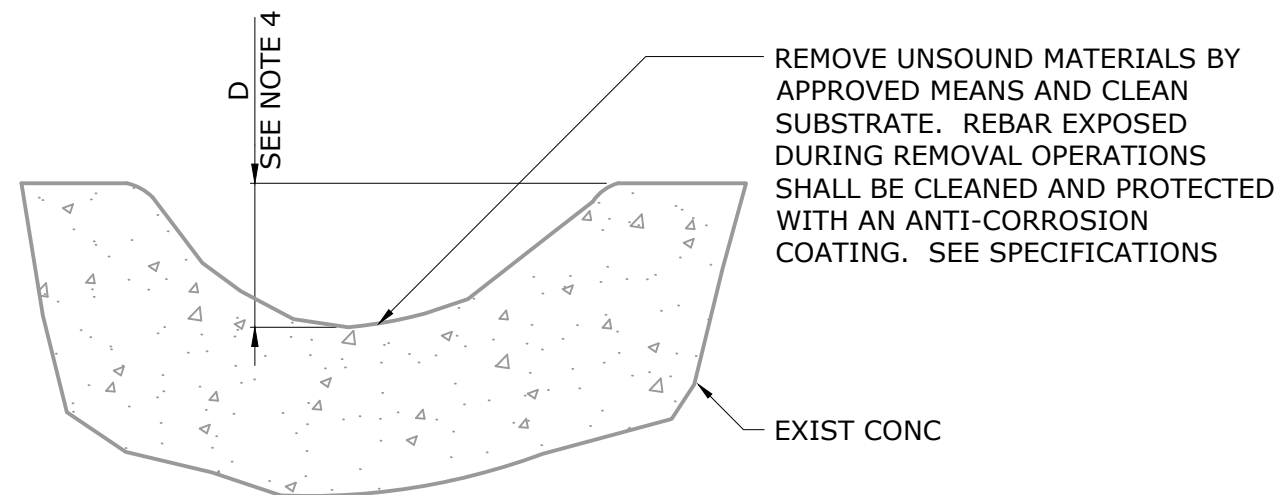
DEMOLITION SECTION A-A



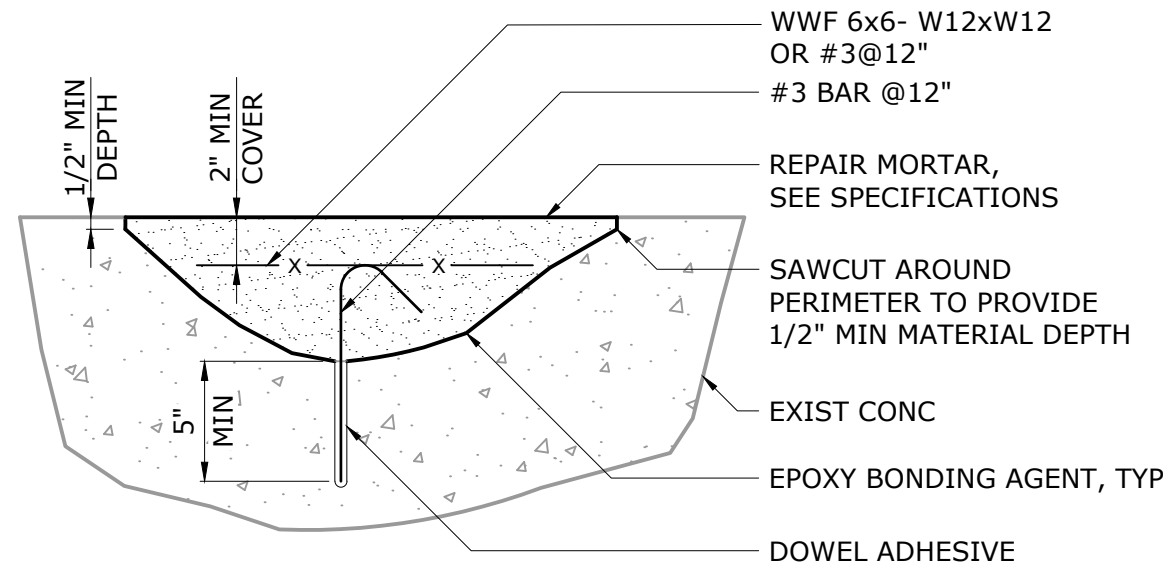
NEW SECTION A-A

SPALL REPAIR

DETAIL	3
1 1/2" = 1'-0"	



CAVITY REPAIR



DETAIL	4
1 1/2" = 1'-0"	

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PLOT DATE: 3/10/2025 9:14 AM BY: MBALLARD

	CONFORMED SET	03/2025	KJR	PROJECT ENGINEER: K. RAY
				DESIGNED BY: F. POWELL
				DRAWN BY: J. BURROUGHS
				CHECKED BY: A. THURSTON
				IF THIS BAR DOES NOT MEASURE 1" THEN DRAWING IS NOT TO FULL SCALE
REV	ISSUED FOR	DATE	BY	

CONFORMED DRAWING

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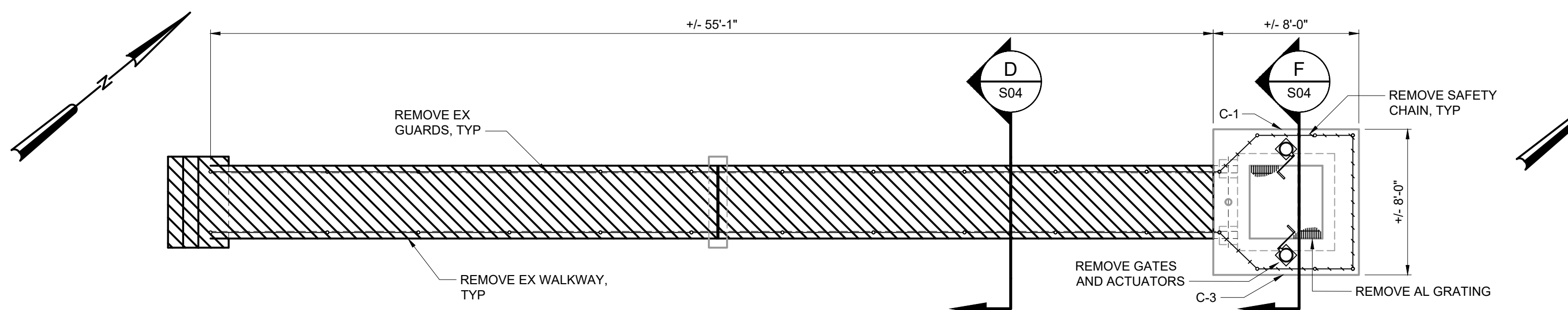
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SUITE 520
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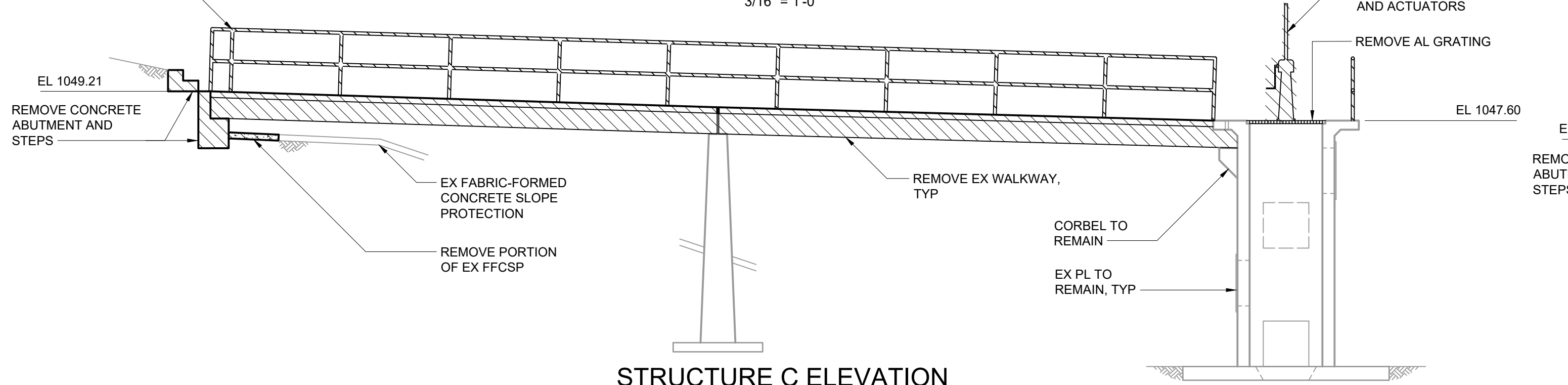
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PROJECT

GENERAL
STRUCTURAL
CONCRETE REPAIR DETAILS

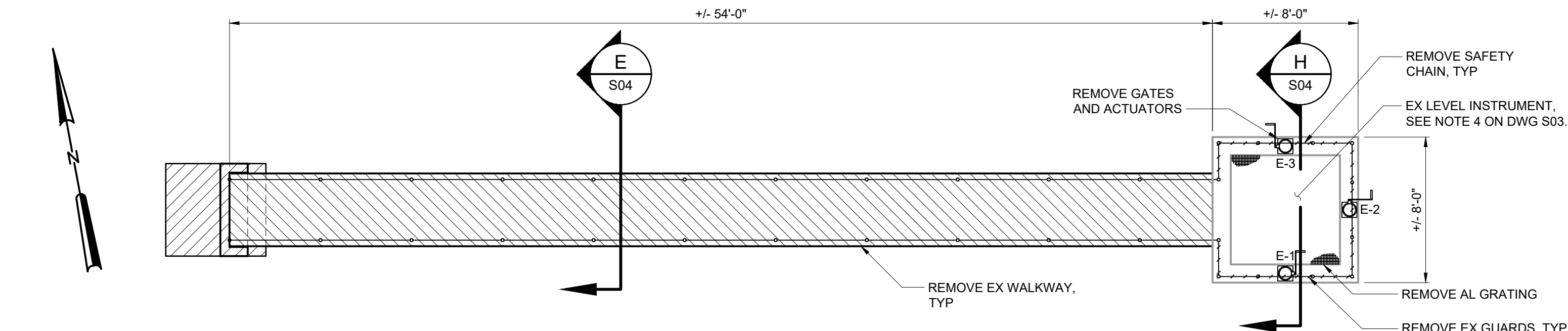
DATE:	SEPTEMBER 2024
HAZEN NO.:	32485-017 & 026
CONTRACT NO.:	017 & 026
DRAWING NUMBER:	S02



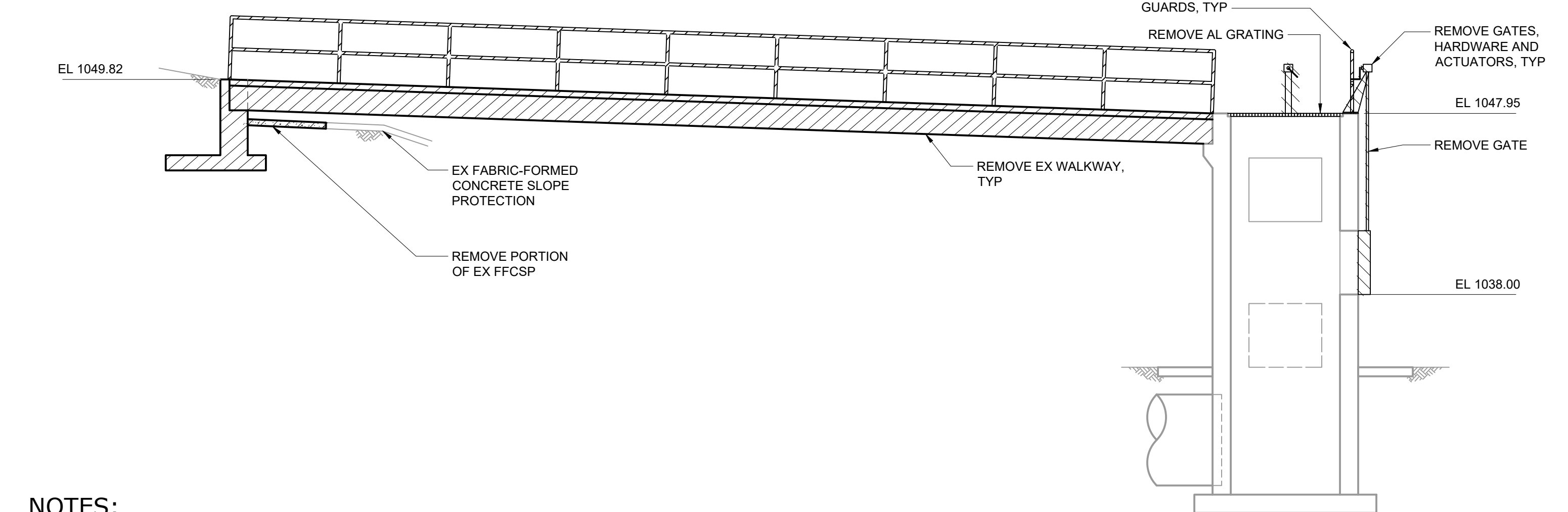
STRUCTURE C PLAN
3/16" = 1'-0"



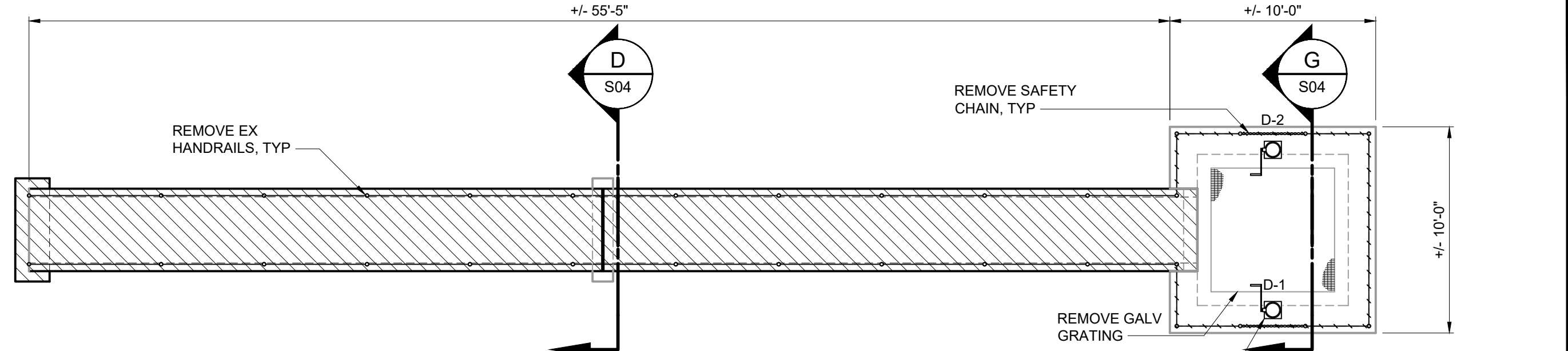
STRUCTURE C ELEVATION
3/16" = 1'-0"



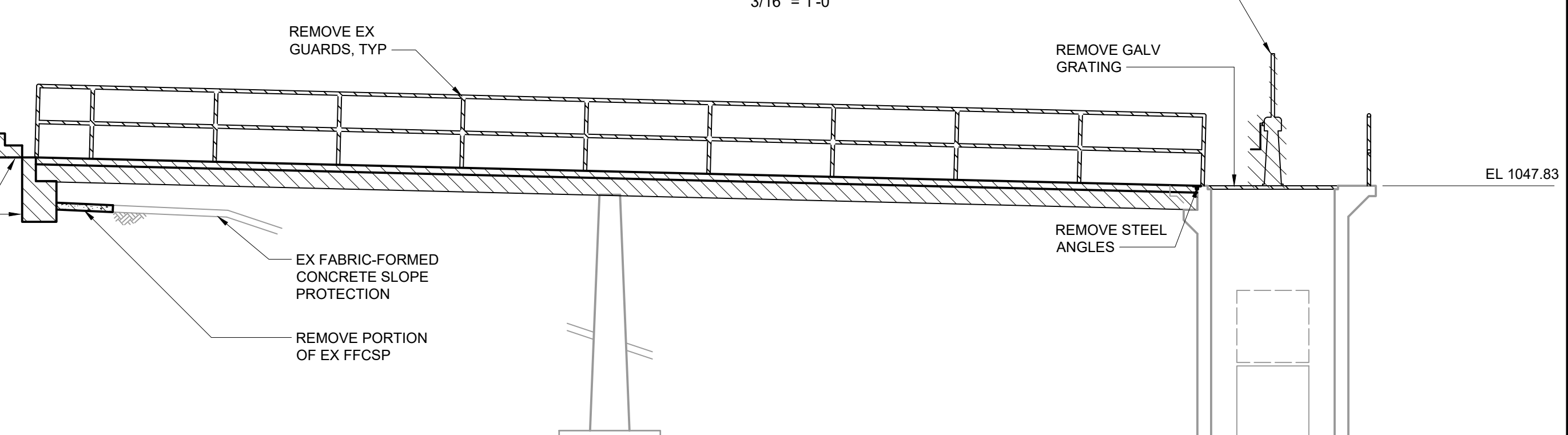
STRUCTURE E PLAN
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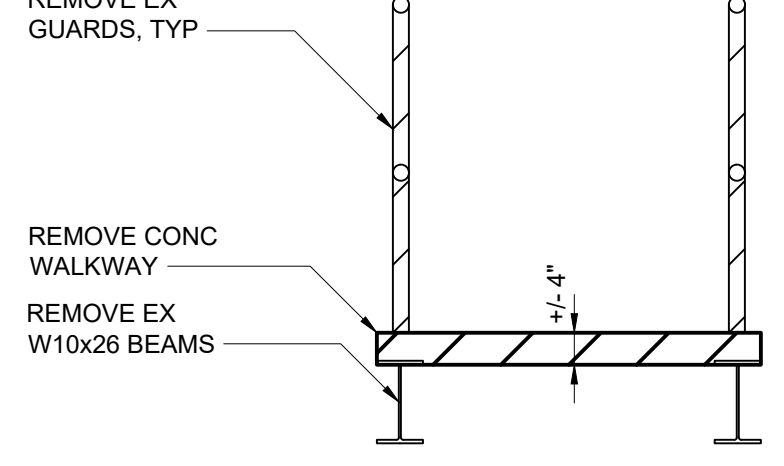
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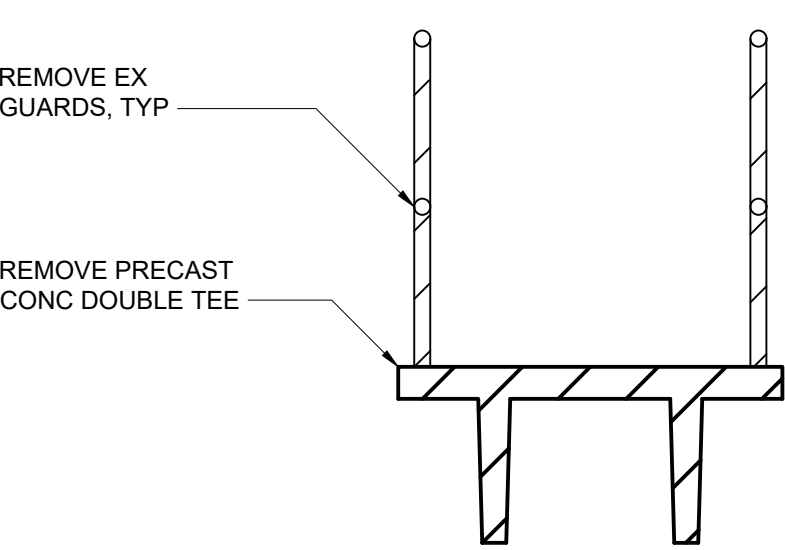
STRUCTURE D PLAN
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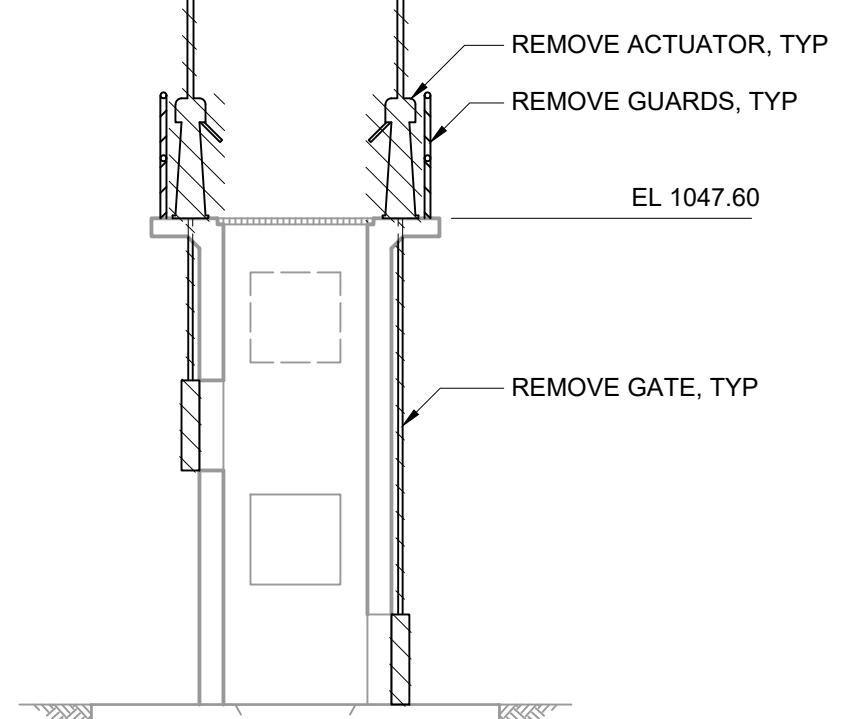
STRUCTURE D ELEVATION
3/16" = 1'-0"



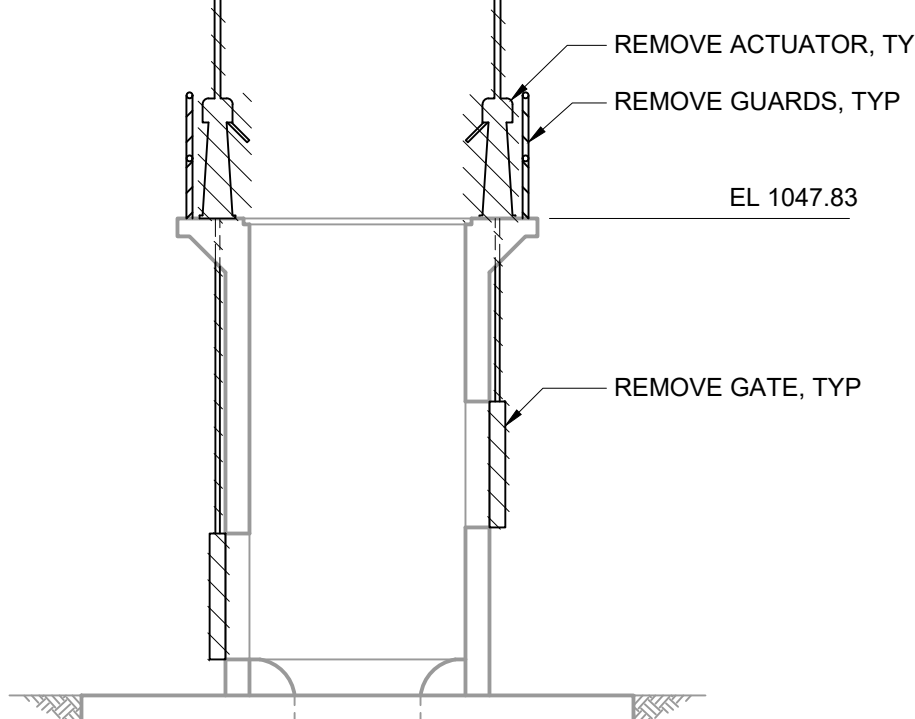
SECTION D
1/2" = 1'-0"



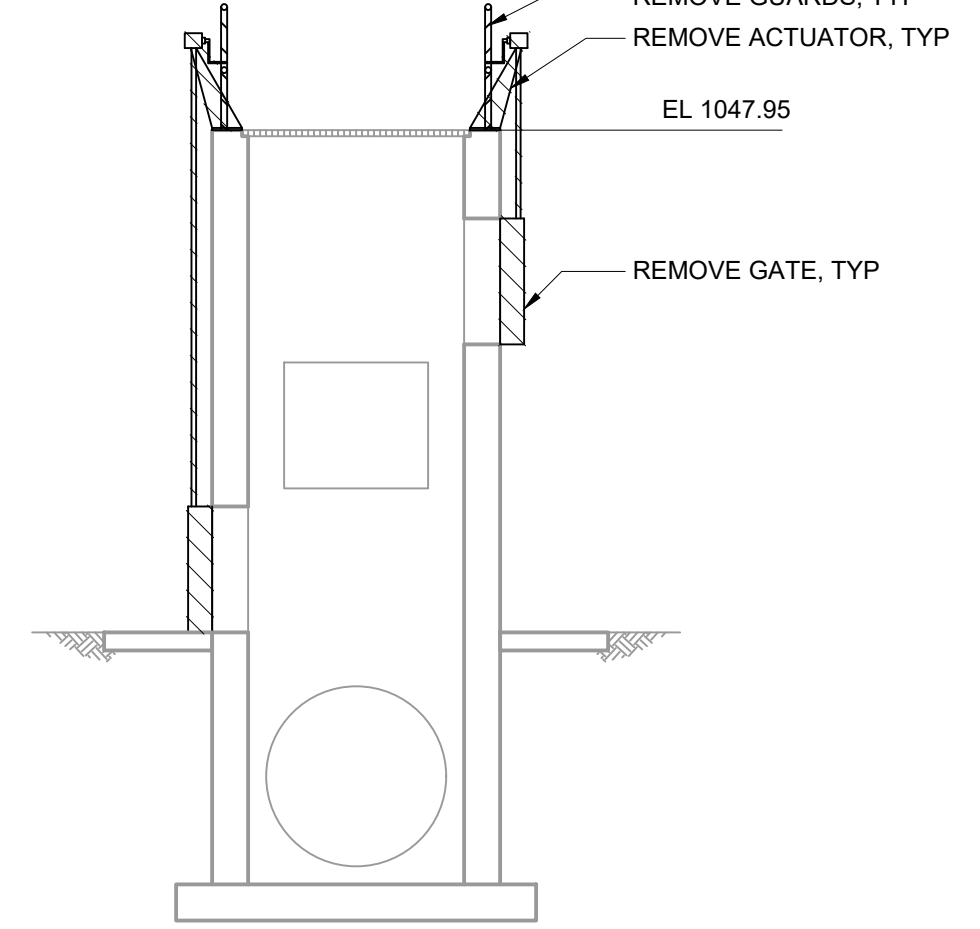
SECTION E
1/2" = 1'-0"



STRUCTURE C
SECTION F
3/16" = 1'-0"



STRUCTURE D
SECTION G
3/16" = 1'-0"



STRUCTURE E
SECTION H
3/16" = 1'-0"

- NOTES:
- ALL SLUICE GATES, STEMS, STEM GUIDES, HARDWARE AND ACTUATORS TO BE REMOVED AND REPLACED WITH LIKE KIND EQUIPMENT.
 - SEE DEMOLITION NOTES ON DRAWING S01.
 - FFC REMOVAL TO USE CONCRETE CUTTING METHODS. FFC REMOVAL LIMITS AND DAMAGE TO FFC SHOULD BE MINIMIZED.
 - MINIMIZE DAMAGE TO EMBANKMENT SLOPE AND CREST.

CONFORMED SET	03/2025	KJR	PROJECT ENGINEER: K. RAY
			DESIGNED BY: F. POWELL
			DRAWN BY: J. BURROUGHS
			CHECKED BY: A. THURSTON
REV	ISSUED FOR	DATE	BY

CONFORMED DRAWING

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Hazen

HAZEN AND SAWYER
1300 ALTMORE AVENUE
SUITE 520
ATLANTA, GEORGIA 30342
(404) 459-6363

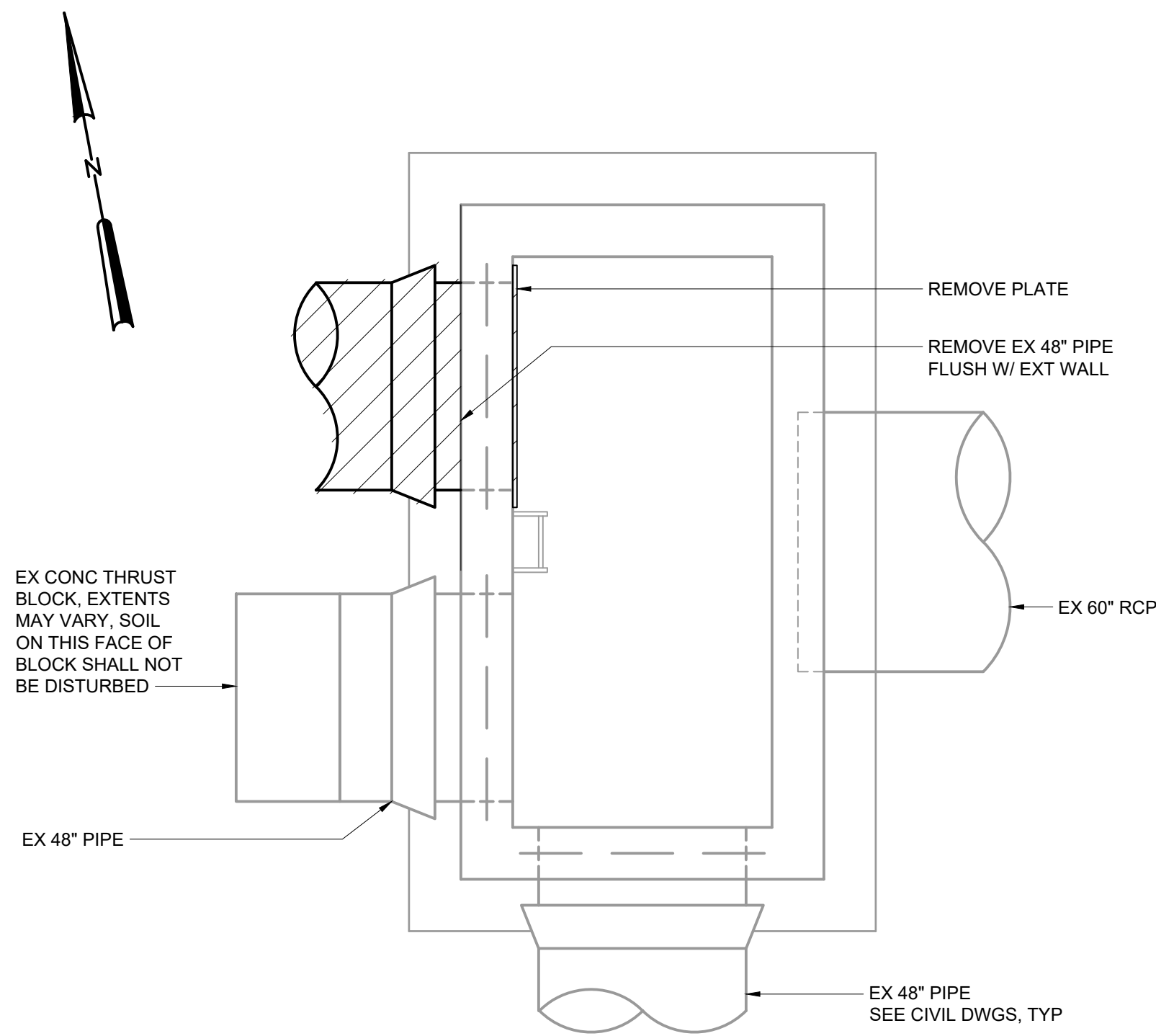
COBB COUNTY-MARIETTA
WATER AUTHORITY

JAMES E. QUARLES WTP
RESERVOIR CLEANING AND IMPROVEMENTS
PROJECT

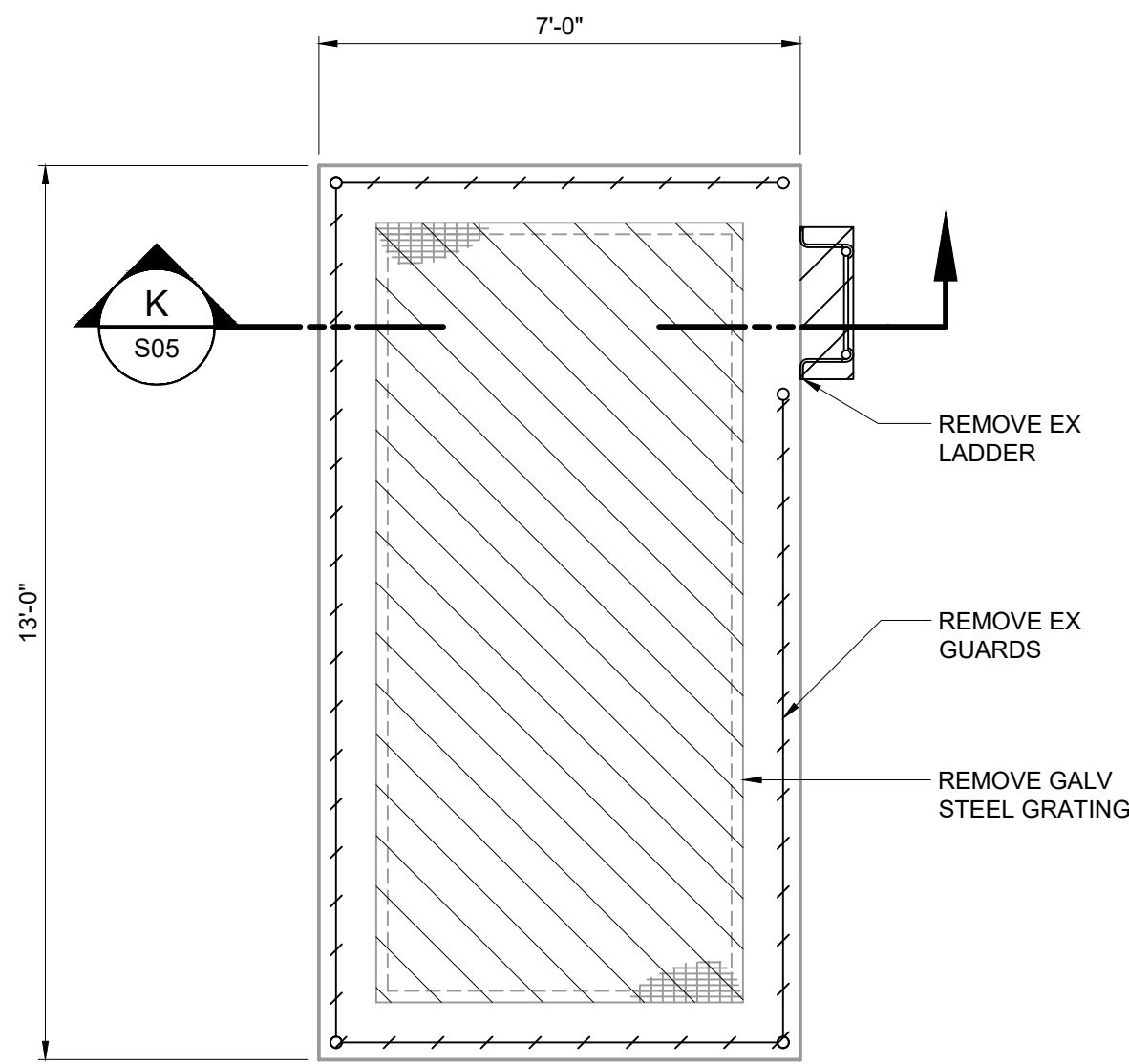
STRUCTURAL
DEMOLITION
STRUCTURES C, D, AND E

DATE:	SEPTEMBER 2024
HAZEN NO.:	32485-017 & 026
CONTRACT NO.:	017 & 026
DRAWING NUMBER:	S04

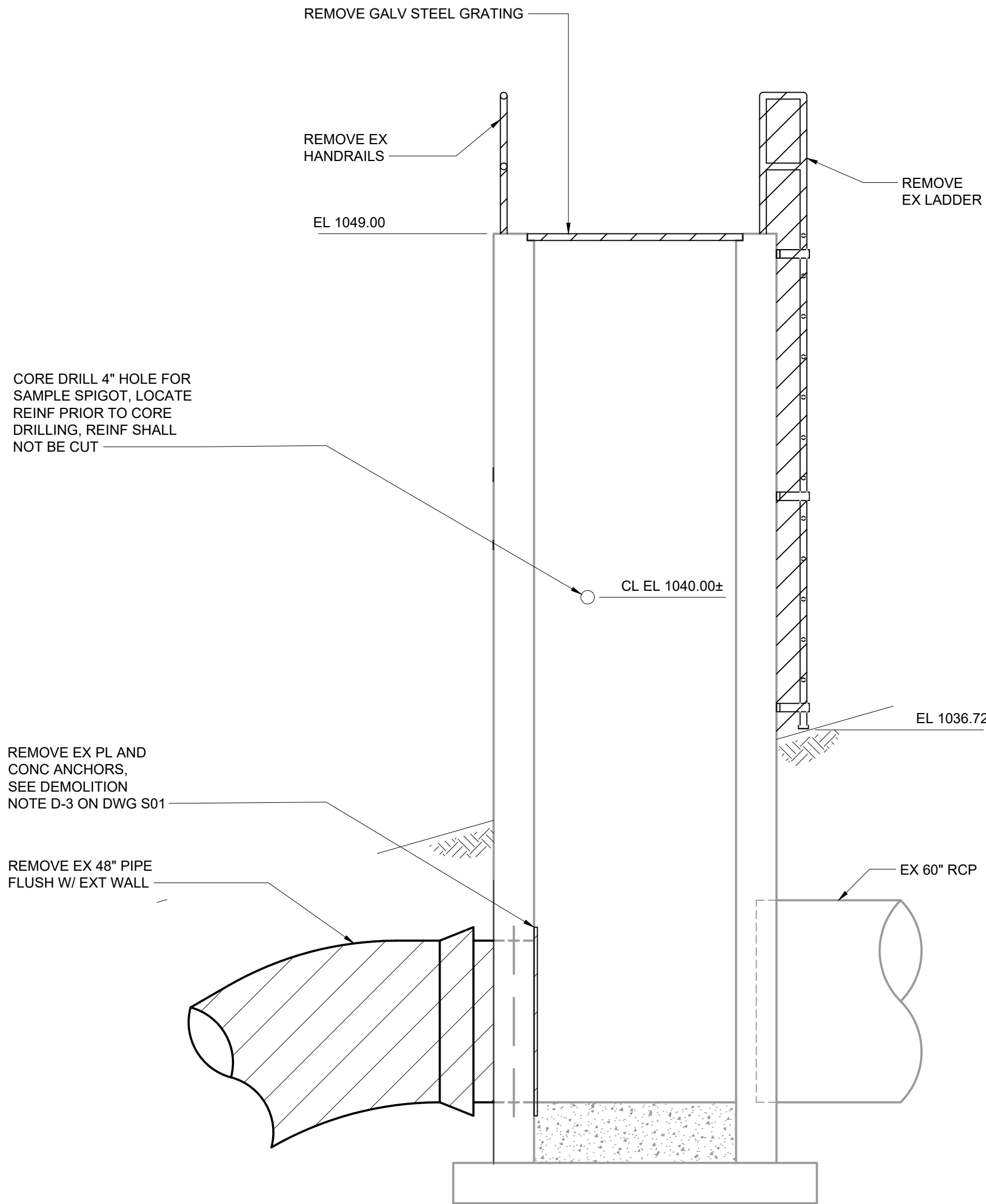
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DEMOLITION BOTTOM PLAN
3/8" = 1'-0"



DEMOLITION TOP PLAN
3/8" = 1'-0"



DEMOLITION SECTION
SECTION K
3/8" = 1'-0"

- NOTES:
- SEE STRUCTURAL GENERAL DRAWINGS FOR DEMOLITION NOTES.
 - COORDINATE LOCATION OF CORE DRILLED HOLE FOR SAMPLE SPIGOT WITH ENGINEER.

File: O:\32485-ATL\32485-017\CAD_BIM\STRUCT\US05 Saved by FPOWELL Save date: 9/6/2023 5:08 PM
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	CONFORMED SET	03/2025	KJR	PROJECT ENGINEER: K. RAY
				DESIGNED BY: J. BURROUGHS
				DRAWN BY: J. BURROUGHS
				CHECKED BY: A. THURSTON
				IF THIS BAR DOES NOT MEASURE 1" THEN DRAWING IS NOT TO FULL SCALE
REV	ISSUED FOR	DATE	BY	

CONFORMED DRAWING

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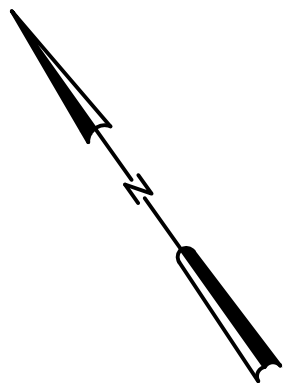
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RESERVOIR CLEANING AND IMPROVEMENTS
PROJECT

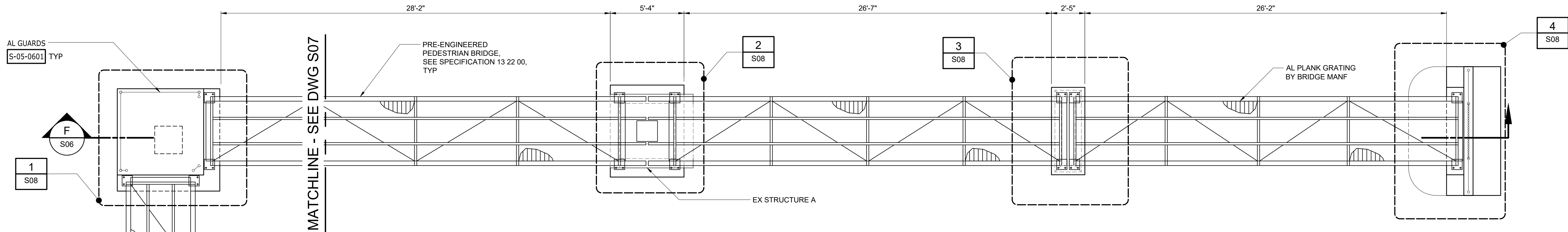
STRUCTURAL
DEMOLITION
SPLITTER BOX

DATE:	SEPTEMBER 2024
HAZEN NO.:	32485-017 & 026
CONTRACT NO.:	017 & 026
DRAWING NUMBER:	S05

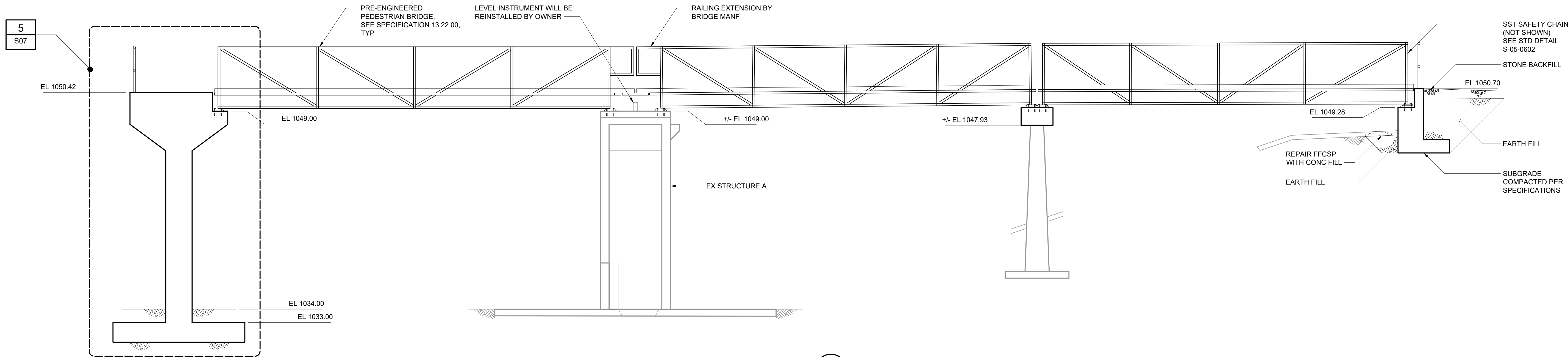
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PLOT DATE: 3/10/2025 9:18 AM BY: MBALLARD



- NOTES:
1. CONTRACTOR SHALL FIELD SURVEY EXISTING DIMENSIONS AND ELEVATIONS PRIOR TO FABRICATION OF GATES, GUARDS, AND BRIDGES. CONTRACTOR SHALL SUBMIT DRAWINGS SHOWING EXISTING GEOMETRY.
 2. EXCAVATION SLOPES SHALL NOT BE STEEPER THAN 1.5 HORIZONTAL TO 1 VERTICAL.



STRUCTURE A PLAN
1/4" = 1'-0"



SECTION F
1/4" = 1'-0"

	CONFORMED SET	03/2025	KJR	PROJECT ENGINEER: K. RAY
				DESIGNED BY: F. POWELL
				DRAWN BY: J. BURROUGHS
				CHECKED BY: A. THURSTON
				IF THIS BAR DOES NOT MEASURE 1" THEN DRAWING IS NOT TO FULL SCALE
REV	ISSUED FOR	DATE	BY	

CONFORMED DRAWING

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GBPE LIC #: PEF003685 EXP: 6/30/2026

Hazen
HAZEN AND SAWYER
1300 ALTMORE AVENUE
SUITE 520
ATLANTA, GEORGIA 30342
(404) 459-6363

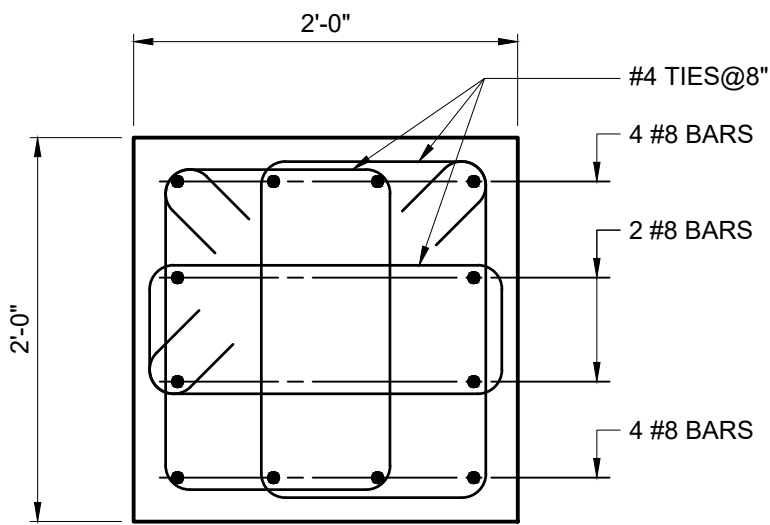
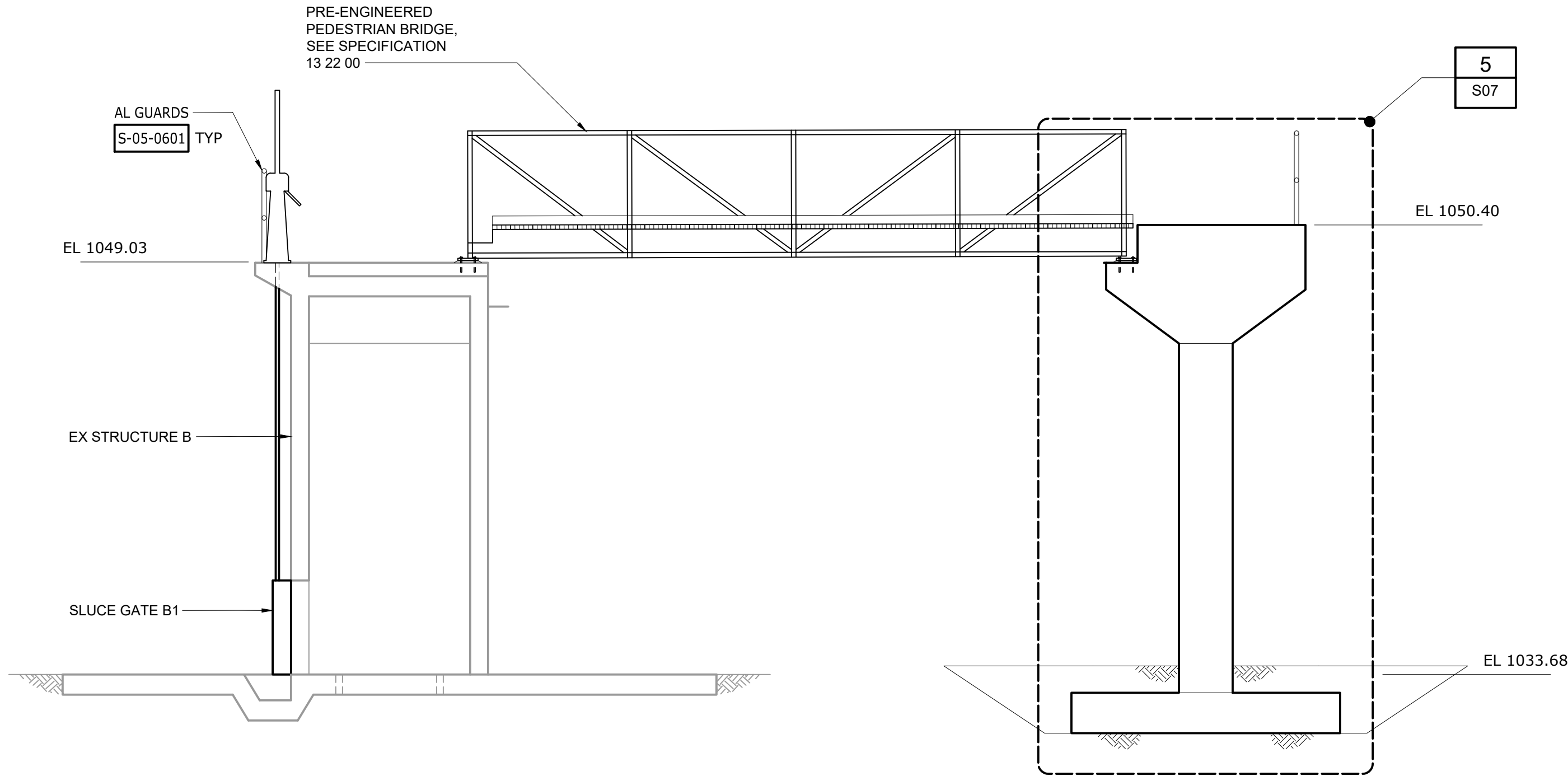
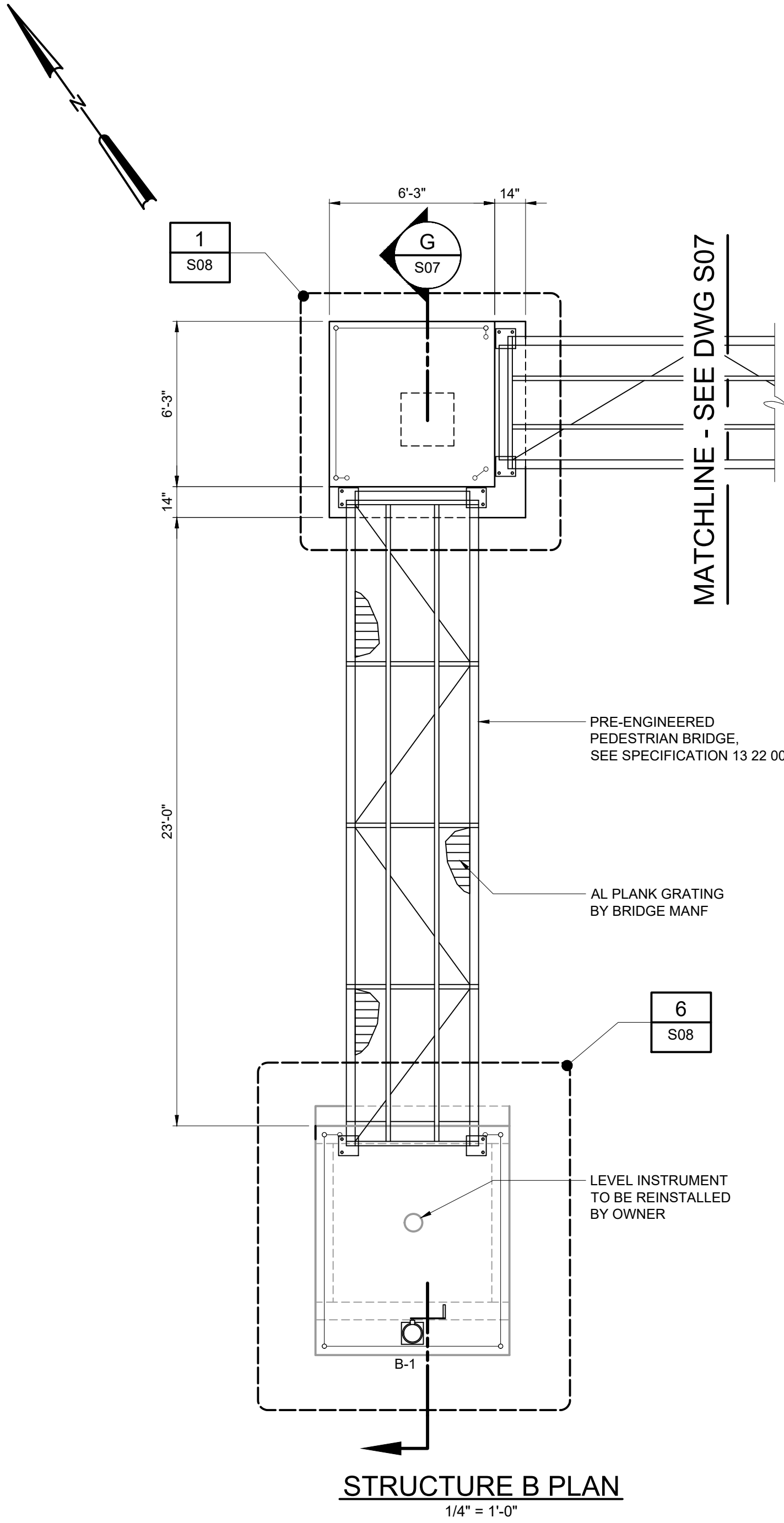
COBB COUNTY-MARIETTA
WATER AUTHORITY

JAMES E. QUARLES WTP
RESERVOIR CLEANING AND IMPROVEMENTS
PROJECT

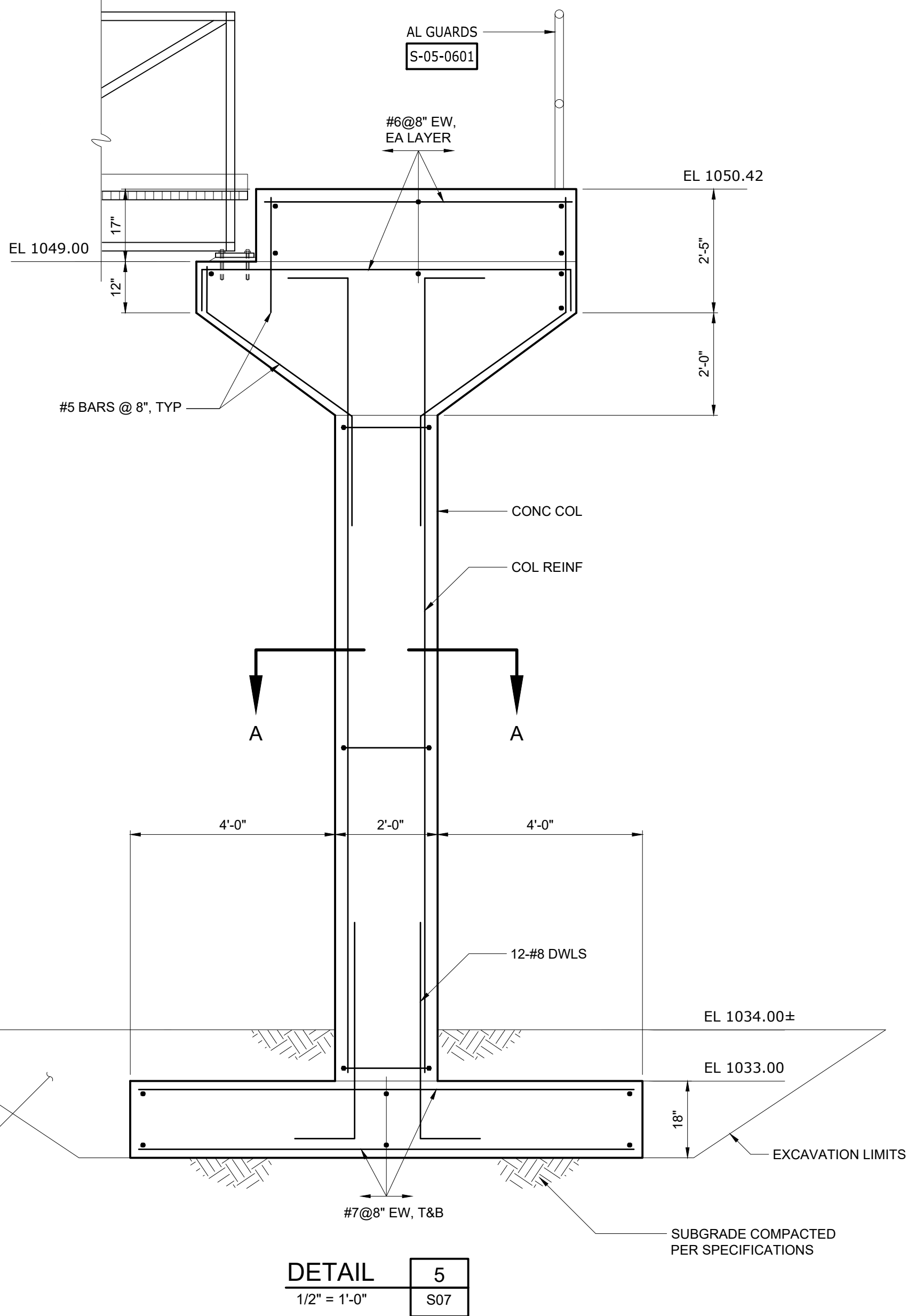
STRUCTURAL
STRUCTURE A
PLAN AND SECTION

DATE:	SEPTEMBER 2024
HAZEN NO.:	32485-017 & 026
CONTRACT NO.:	017 & 026
DRAWING NUMBER:	S06

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PLOT DATE: 3/10/2025 9:18 AM BY: MBALLARD



NOTE: SEE STANDARD DETAIL S-03-0802 FOR COLUMN ELEVATION.



NOTES:

- CONTRACTOR SHALL FIELD SURVEY EXISTING DIMENSIONS AND ELEVATIONS PRIOR TO FABRICATION OF GATES, GUARDS, AND BRIDGES. CONTRACTOR SHALL SUBMIT DRAWINGS SHOWING EXISTING GEOMETRY.
- MINIMUM SOIL BEARING PRESSURE = 2,000 PSF. THE SUBGRADE SHALL BE VERIFIED BY THE ENGINEER PRIOR TO CONCRETE PLACEMENT.
- SLUCE GATE B-1 SHALL BE REPLACED, SEE SPECIFICATION 40 05 59.20

	CONFORMED SET	03/2025	KJR	PROJECT ENGINEER: K. RAY
				DESIGNED BY: F. POWELL
				DRAWN BY: J. BURROUGHS
				CHECKED BY: A. THURSTON
REV	ISSUED FOR	DATE	BY	IF THIS BAR DOES NOT MEASURE 1" THEN DRAWING IS NOT TO FULL SCALE

CONFORMED DRAWING

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GBPE LIC #: PEF003685 EXP: 6/30/2026

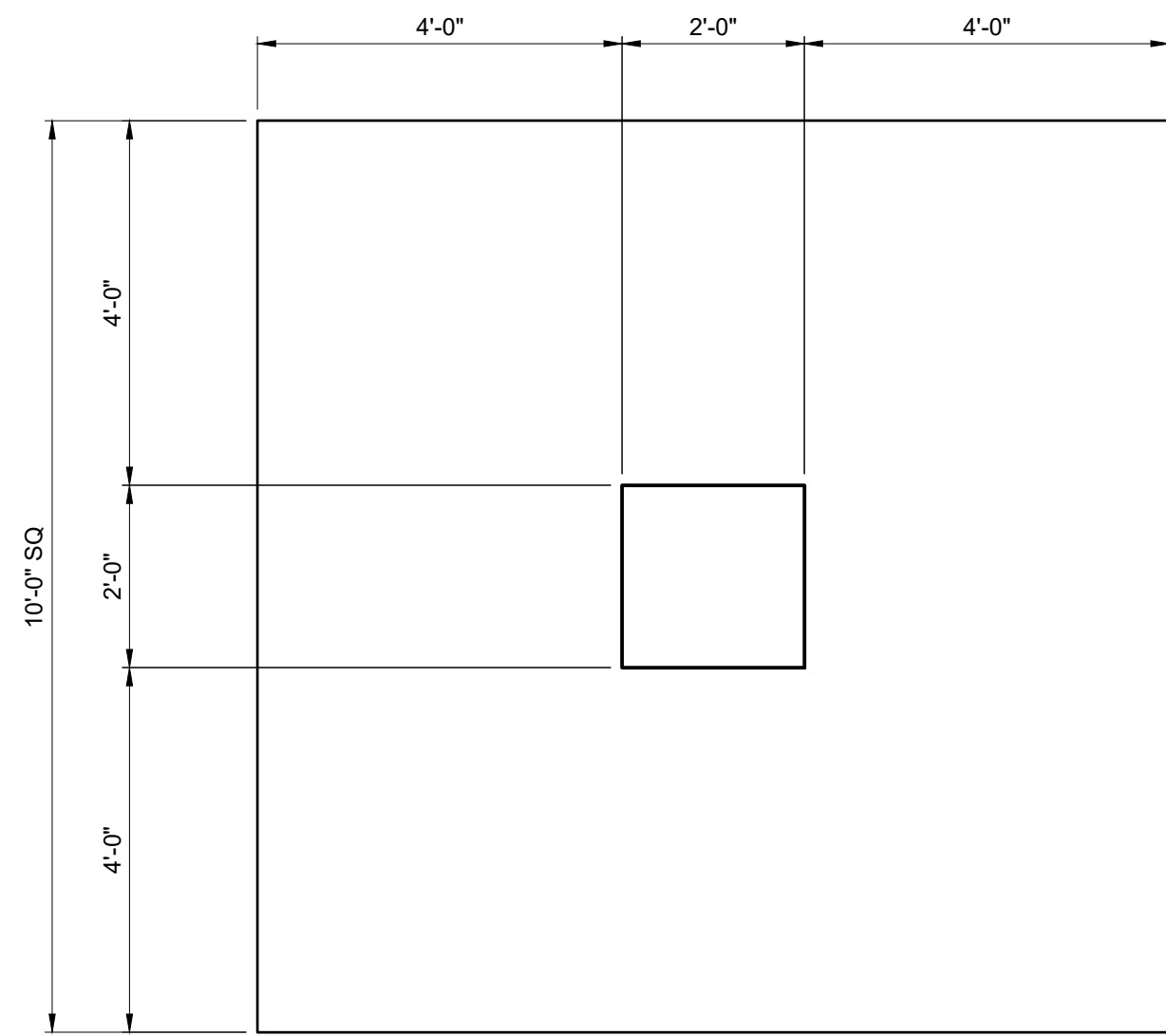
Hazen
HAZEN AND SAWYER
1300 ALTMORE AVENUE
SUITE 520
ATLANTA, GEORGIA 30342
(404) 459-6363

COBB COUNTY-MARIETTA
WATER AUTHORITY

JAMES E. QUARLES WTP
RESERVOIR CLEANING AND IMPROVEMENTS
PROJECT

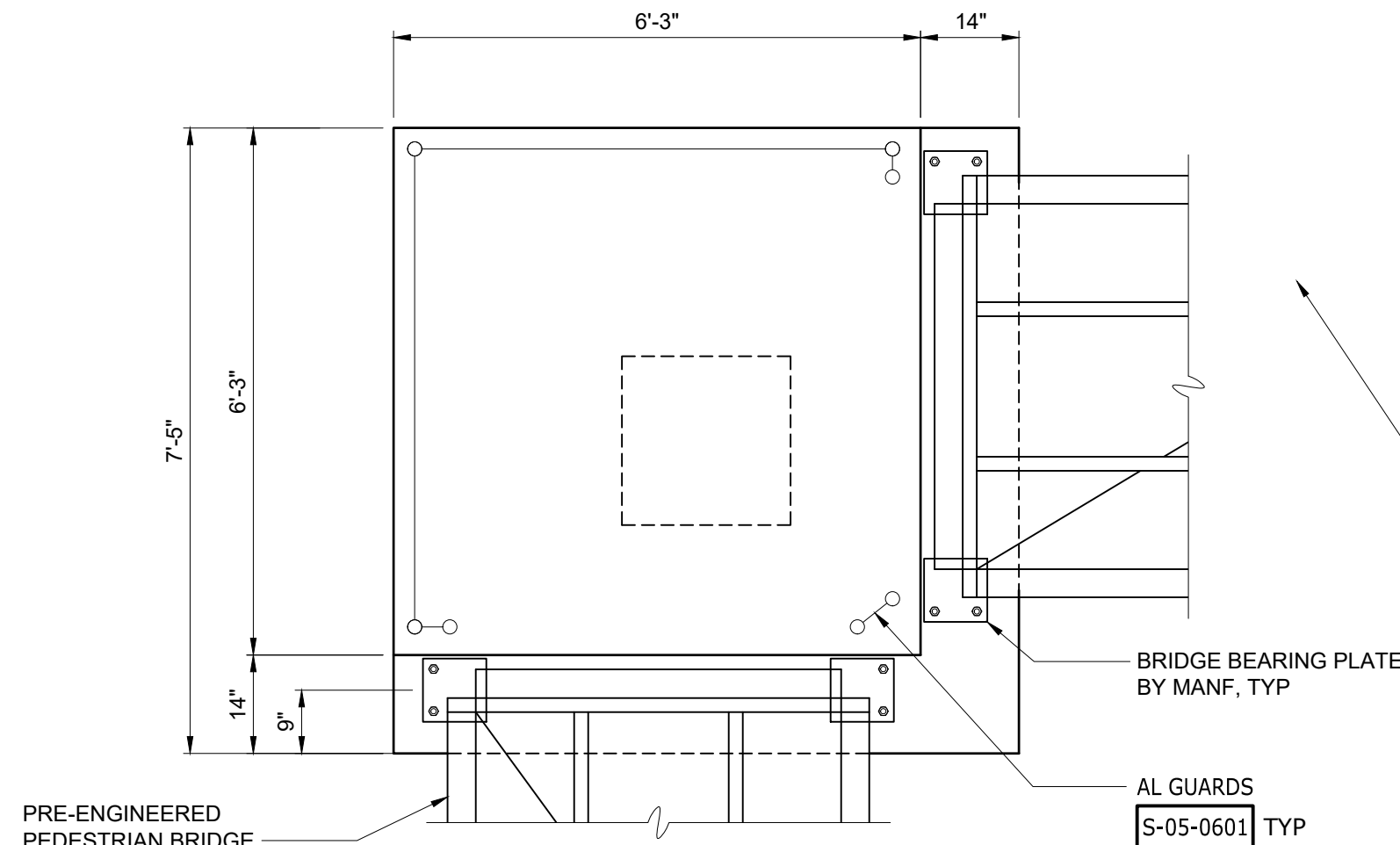
STRUCTURAL
STRUCTURE B
PLAN AND SECTION

DATE:	SEPTEMBER 2024
HAZEN NO.:	32485-017 & 026
CONTRACT NO.:	017 & 026
DRAWING NUMBER:	S07



FOUNDATION PLAN

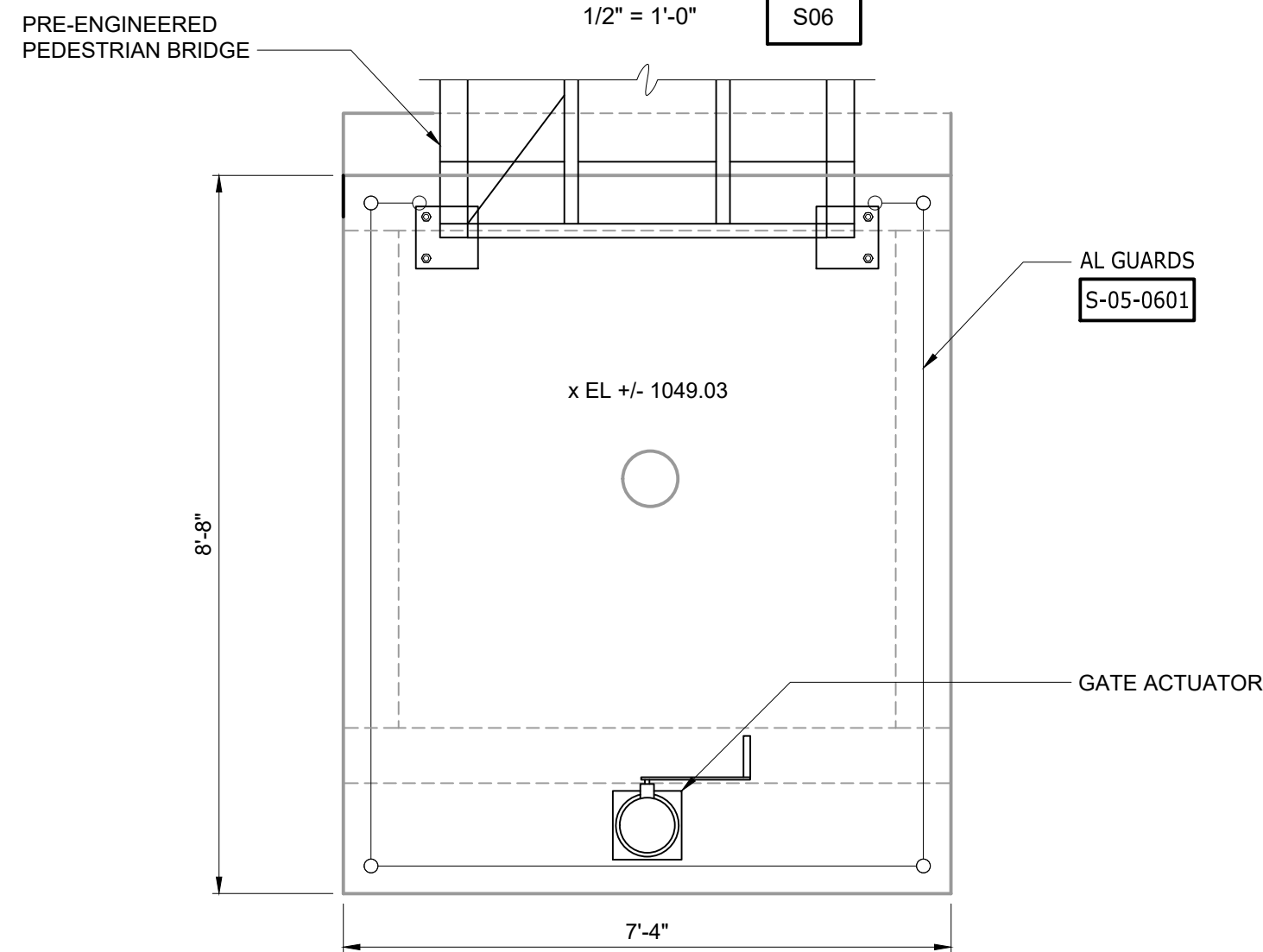
1/2" = 1'-0"



DETAIL 1

1/2" = 1'-0"

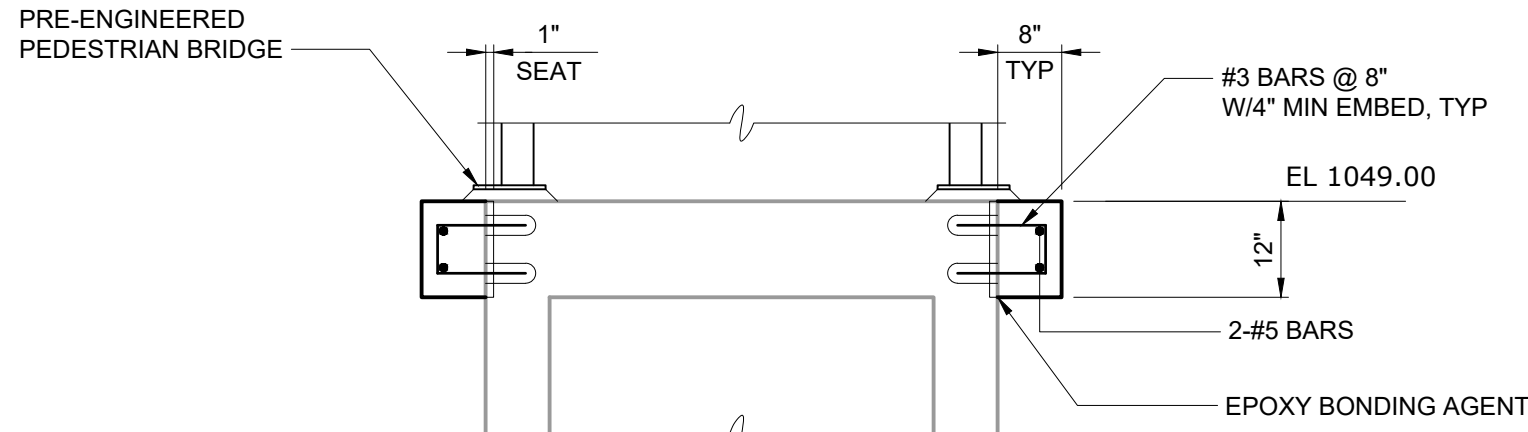
S06



DETAIL 6

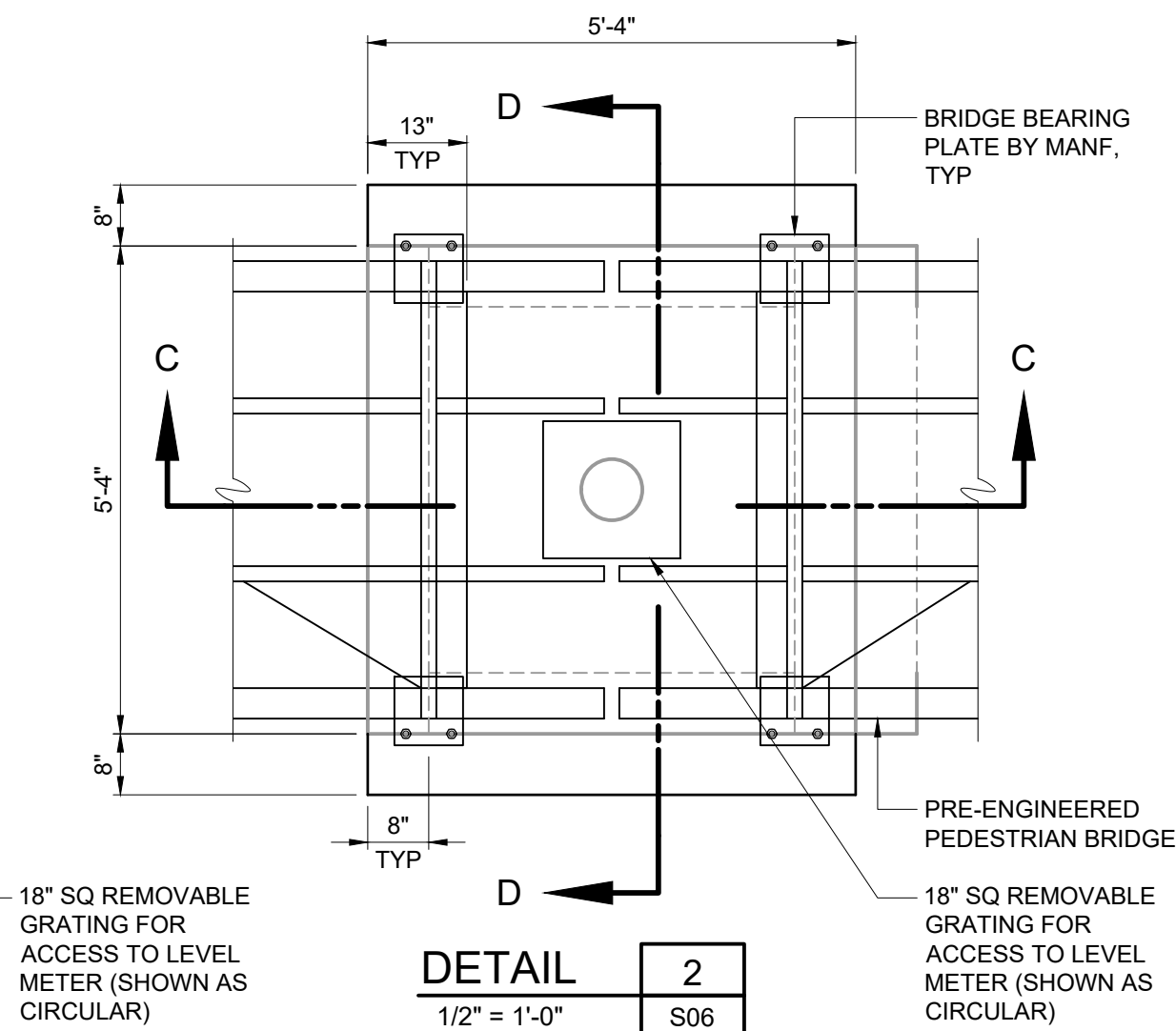
1/2" = 1'-0"

S07



SECTION D-D

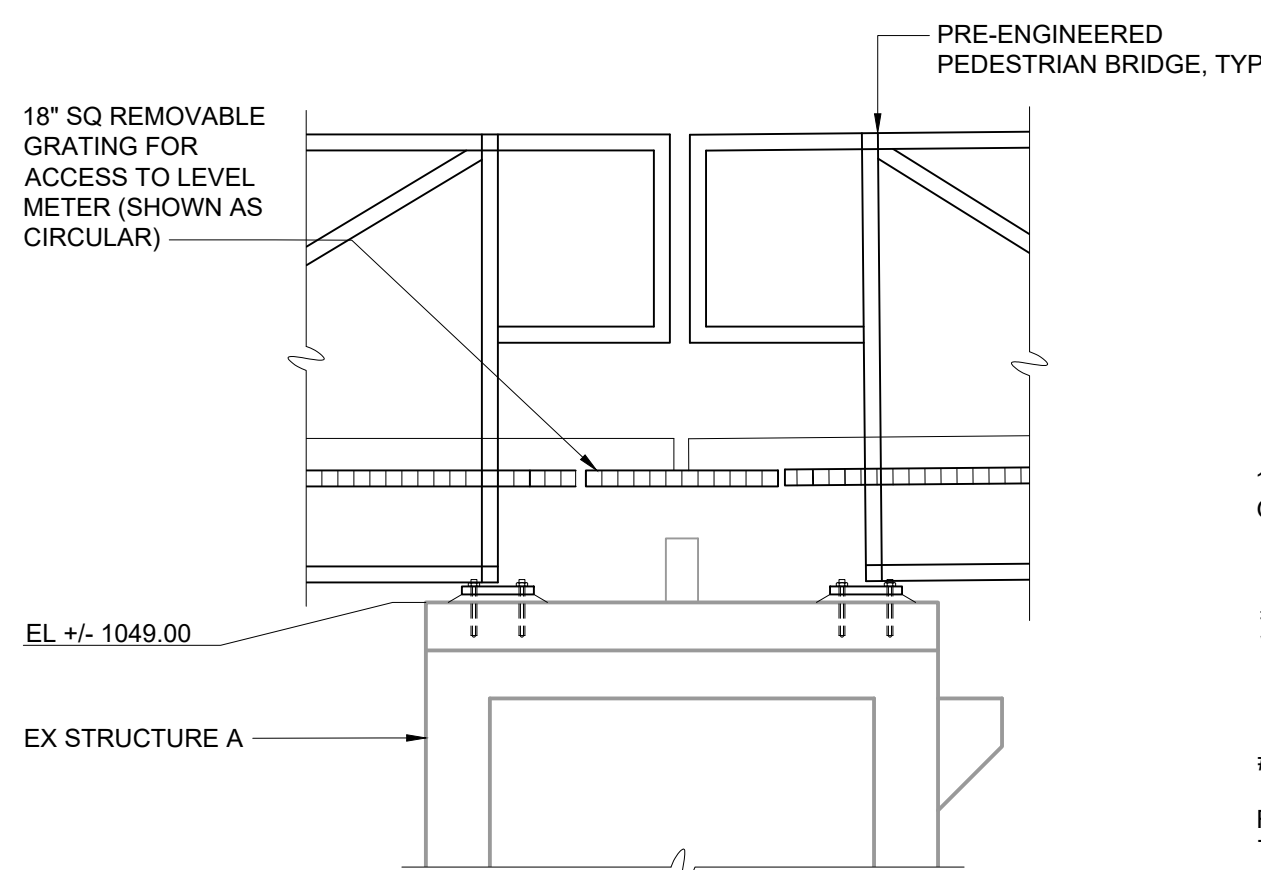
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DETAIL 2

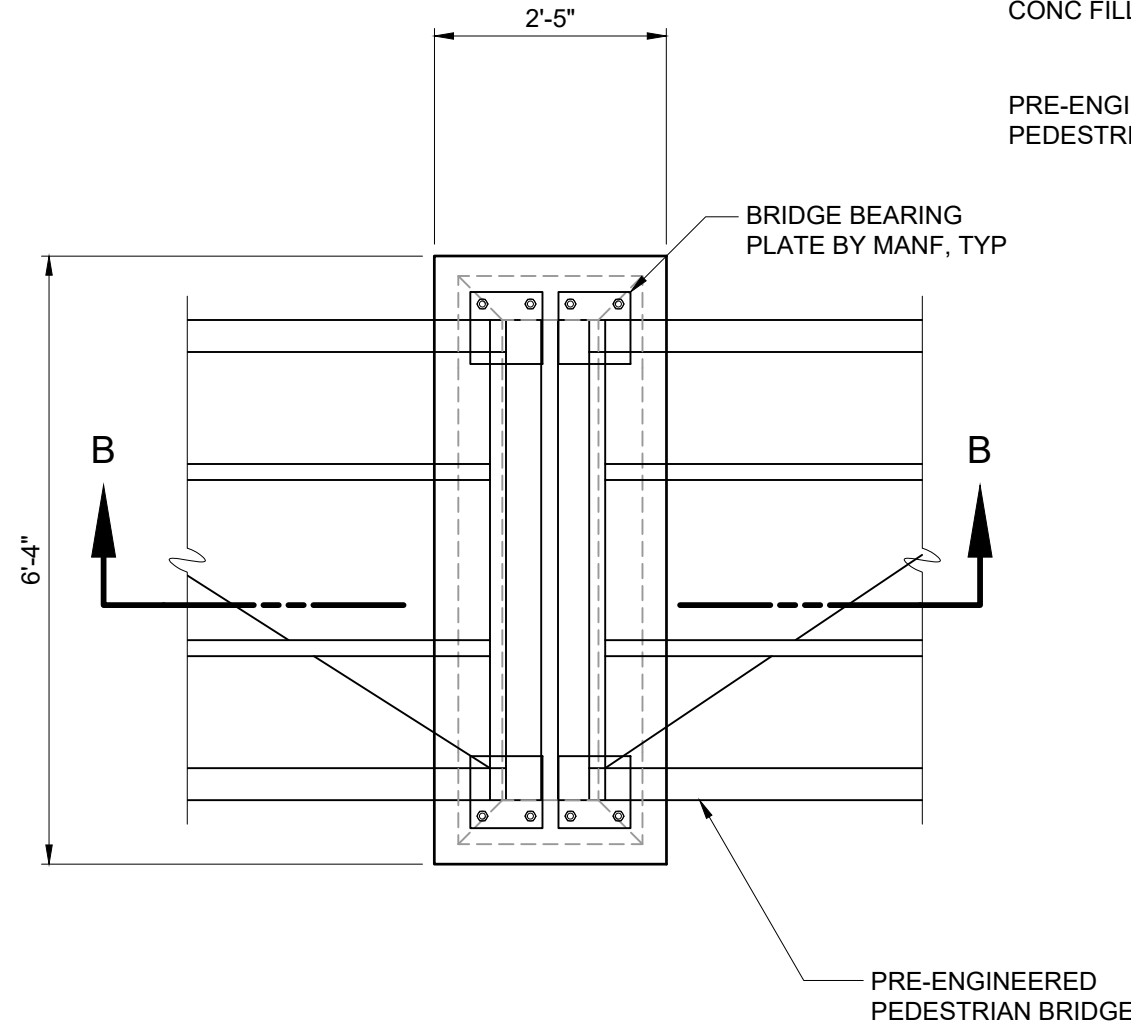
1/2" = 1'-0"

S06



SECTION C-C

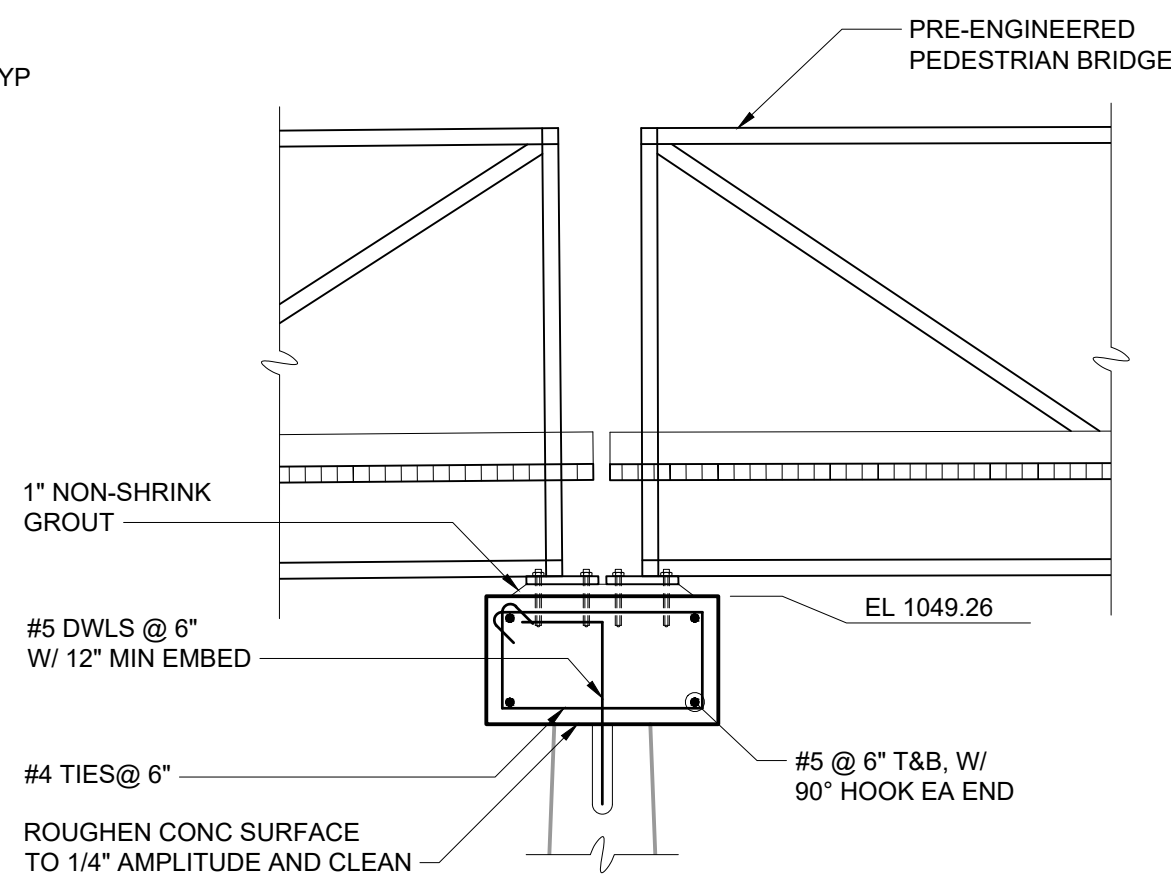
1/2" = 1'-0"



DETAIL 3

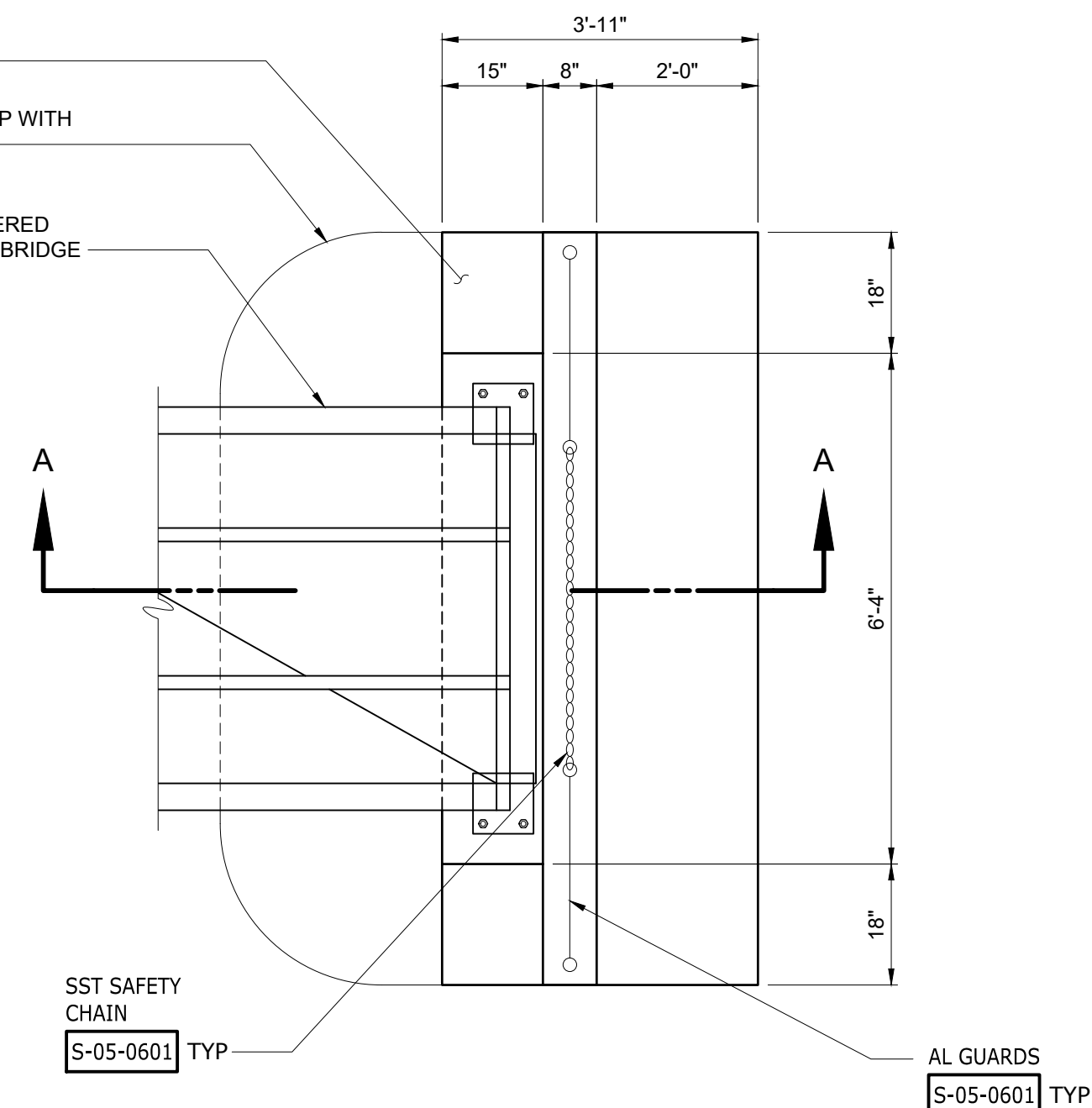
1/2" = 1'-0"

S06



SECTION B-B

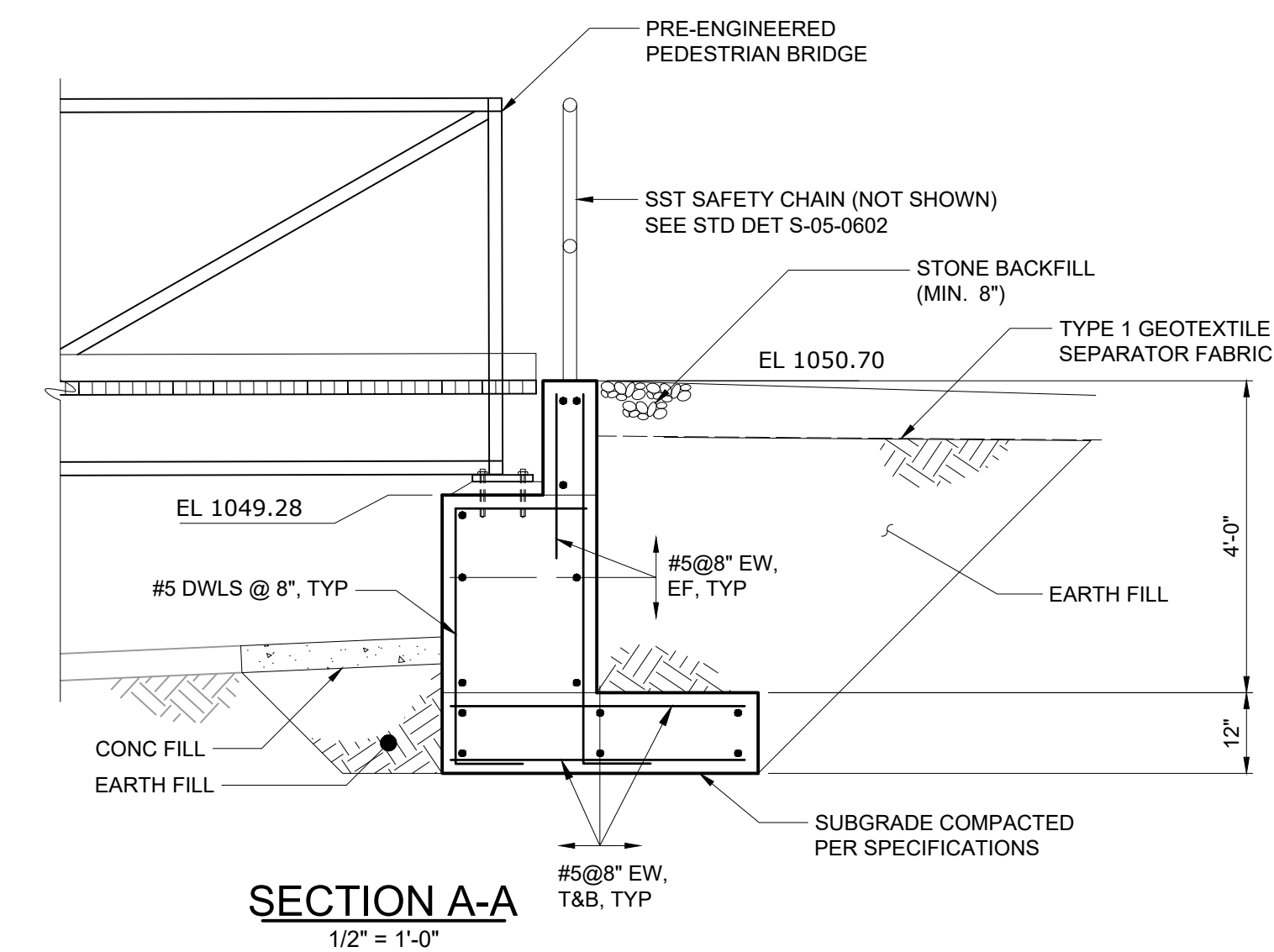
1/2" = 1'-0"



DETAIL 4

1/2" = 1'-0"

S06



SECTION A-A

1/2" = 1'-0"

S06

NOTES:

- COORDINATE BRIDGE SEAT ELEVATIONS WITH PRE-ENGINEERED BRIDGE MANUFACTURER.

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PLOT DATE: 3/10/2025 9:19 AM BY: MBALLARD

CONFORMED SET	03/2025	KJR	PROJECT ENGINEER: K. RAY
			DESIGNED BY: F. POWELL
			DRAWN BY: J. BURROUGHS
			CHECKED BY: A. THURSTON
			IF THIS BAR DOES NOT MEASURE 1" THEN DRAWING IS NOT TO FULL SCALE
REV	ISSUED FOR	DATE	BY

CONFORMED DRAWING

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GBPE LIC #: PEF003685 EXP: 6/30/2026

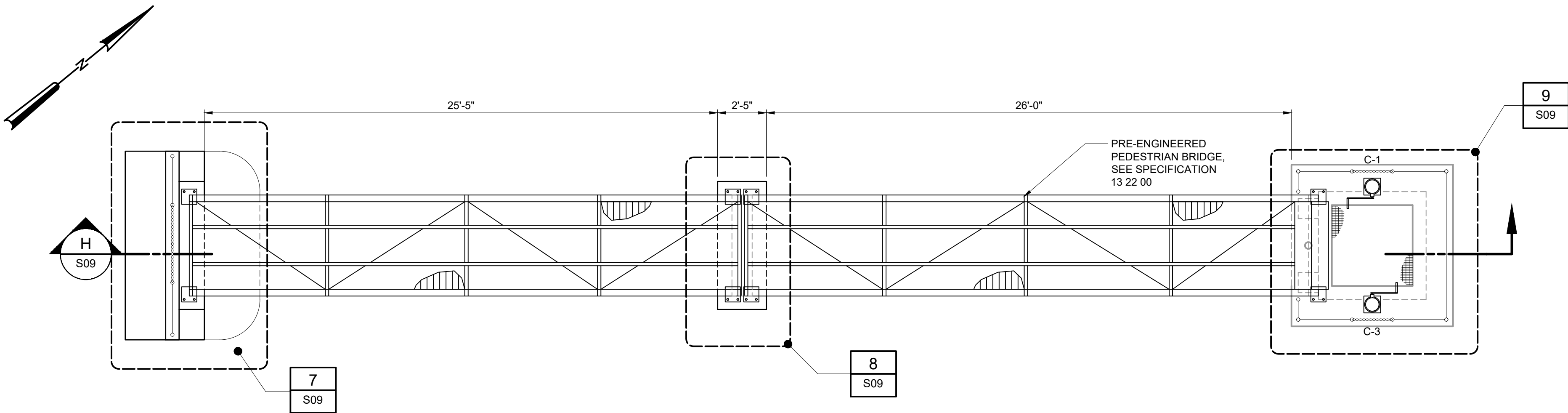
Hazen
HAZEN AND SAWYER
1300 ALTMORE AVENUE
SUITE 520
ATLANTA, GEORGIA 30342
(404) 459-6363

COBB COUNTY-MARIETTA
WATER AUTHORITY

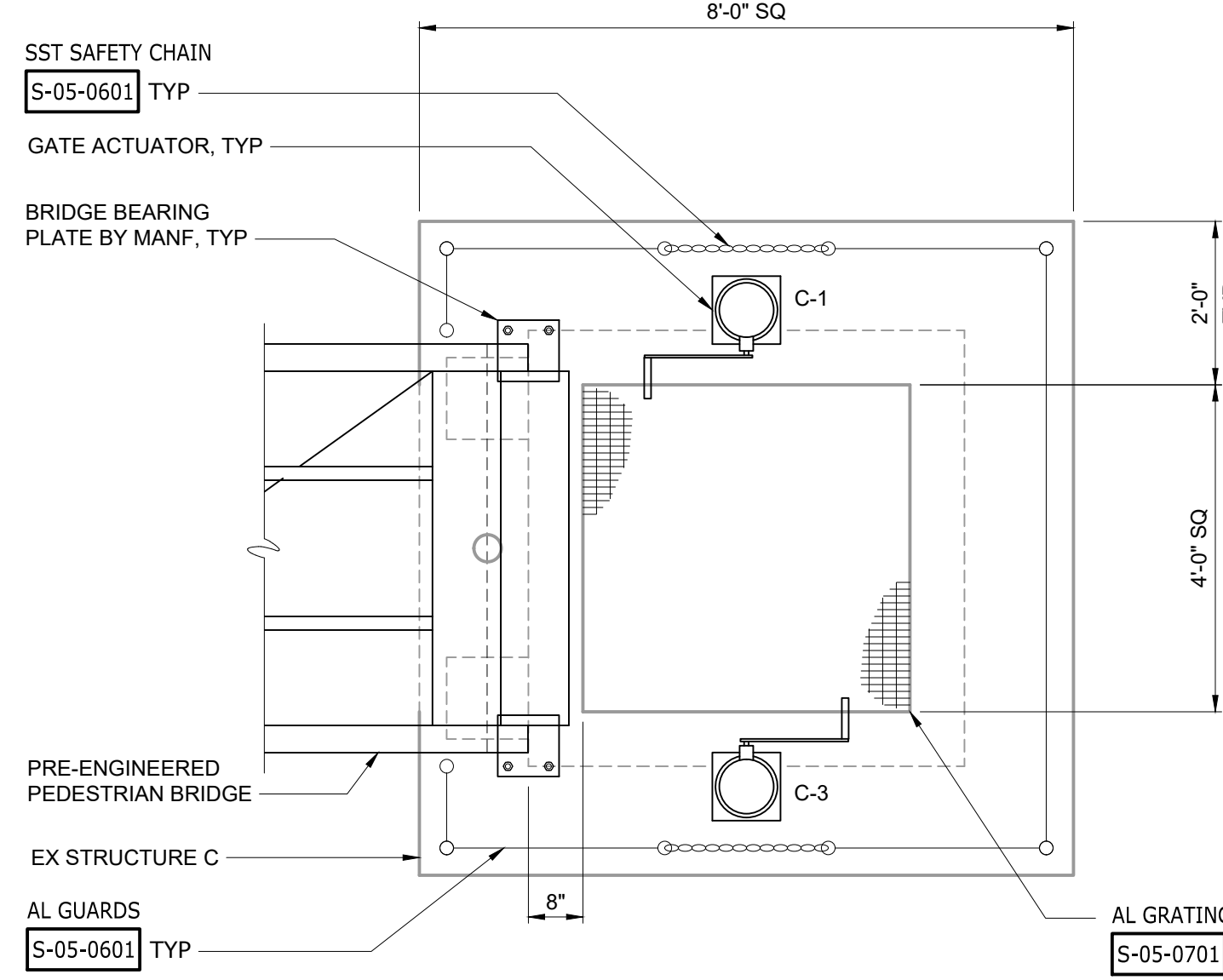
JAMES E. QUARLES WTP
RESERVOIR CLEANING AND IMPROVEMENTS
PROJECT

STRUCTURAL
STRUCTURE A AND B
DETAILS

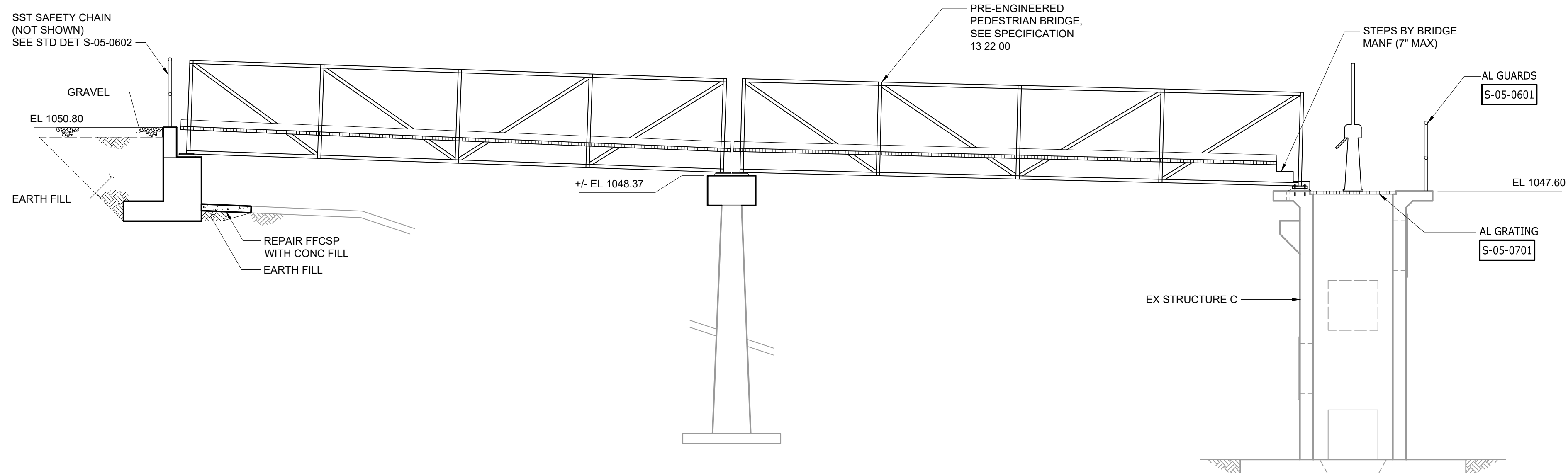
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HAZEN NO.:	32485-017 & 026
CONTRACT NO.:	017 & 026
DRAWING NUMBER:	S08



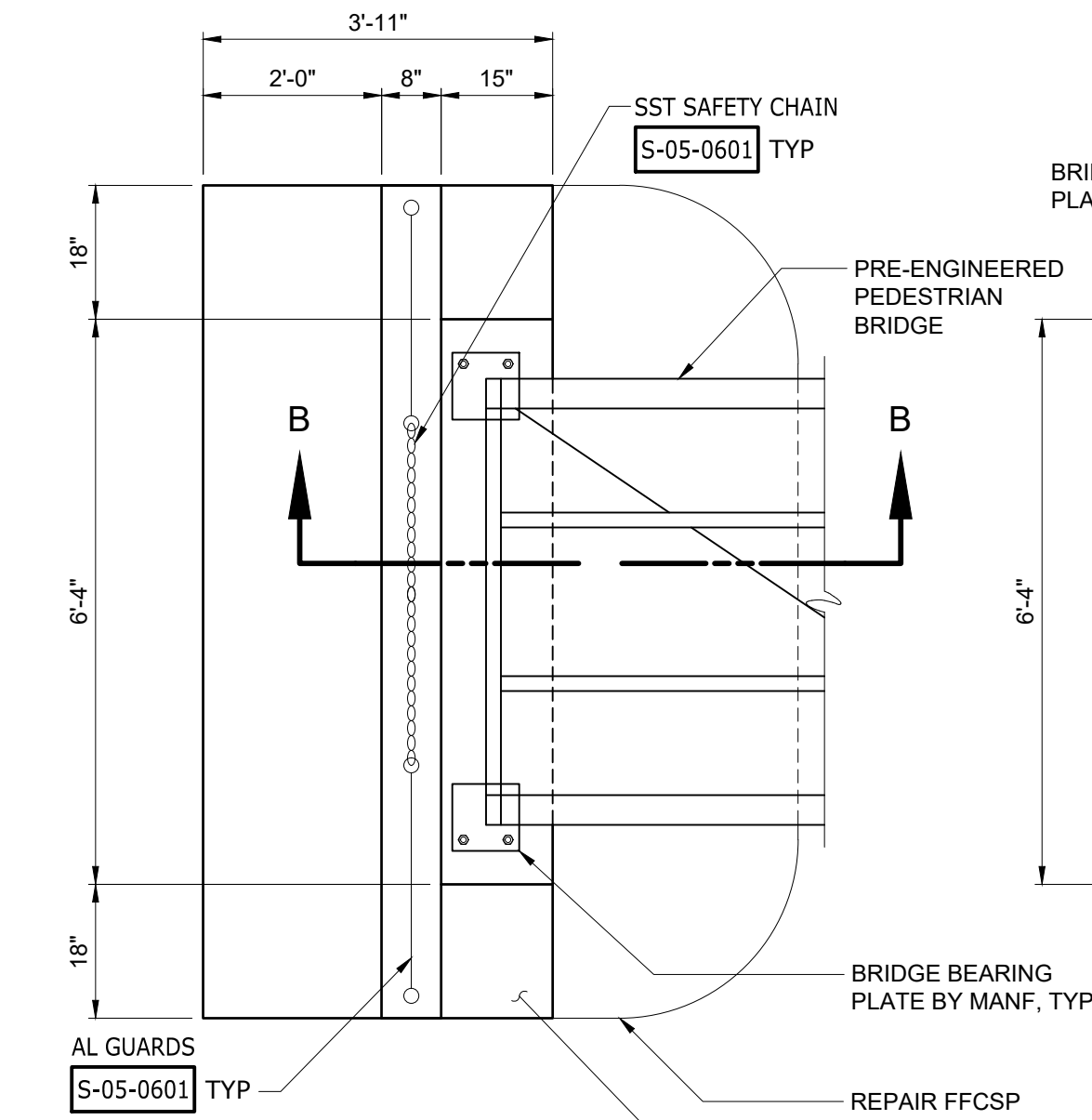
STRUCTURE C PLAN
1/4" = 1'-0"



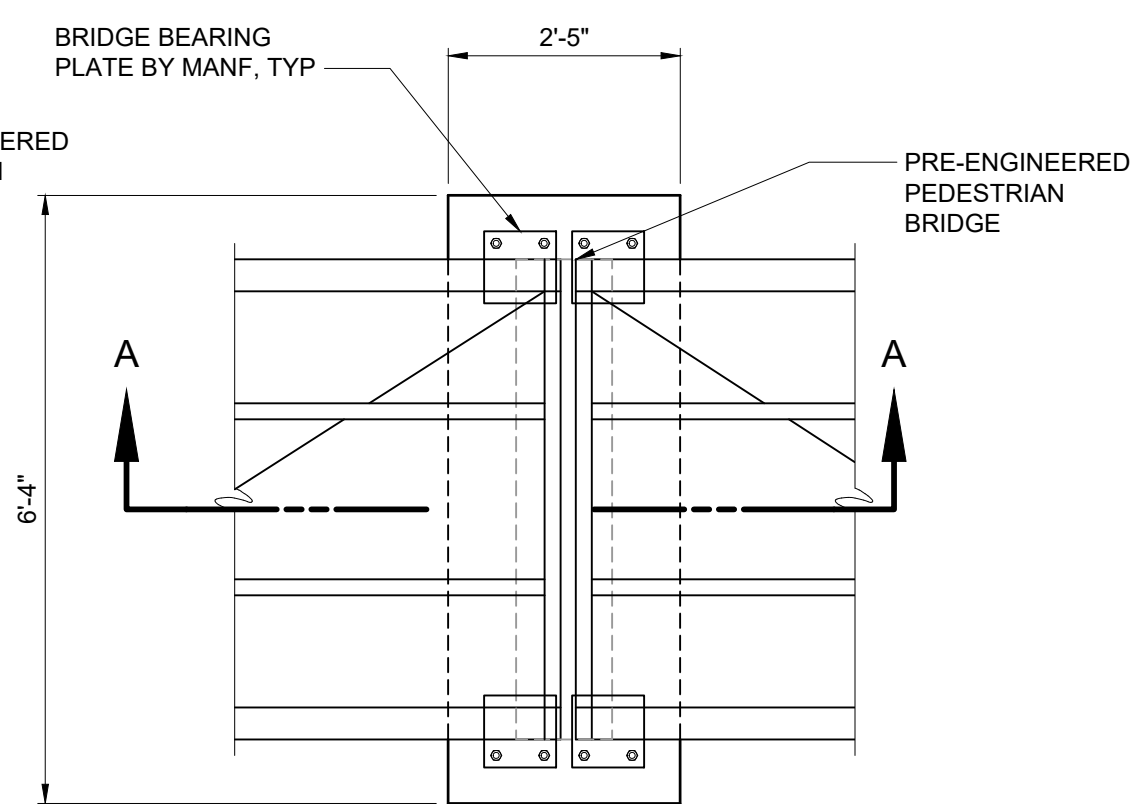
DETAIL 9
1/2" = 1'-0"



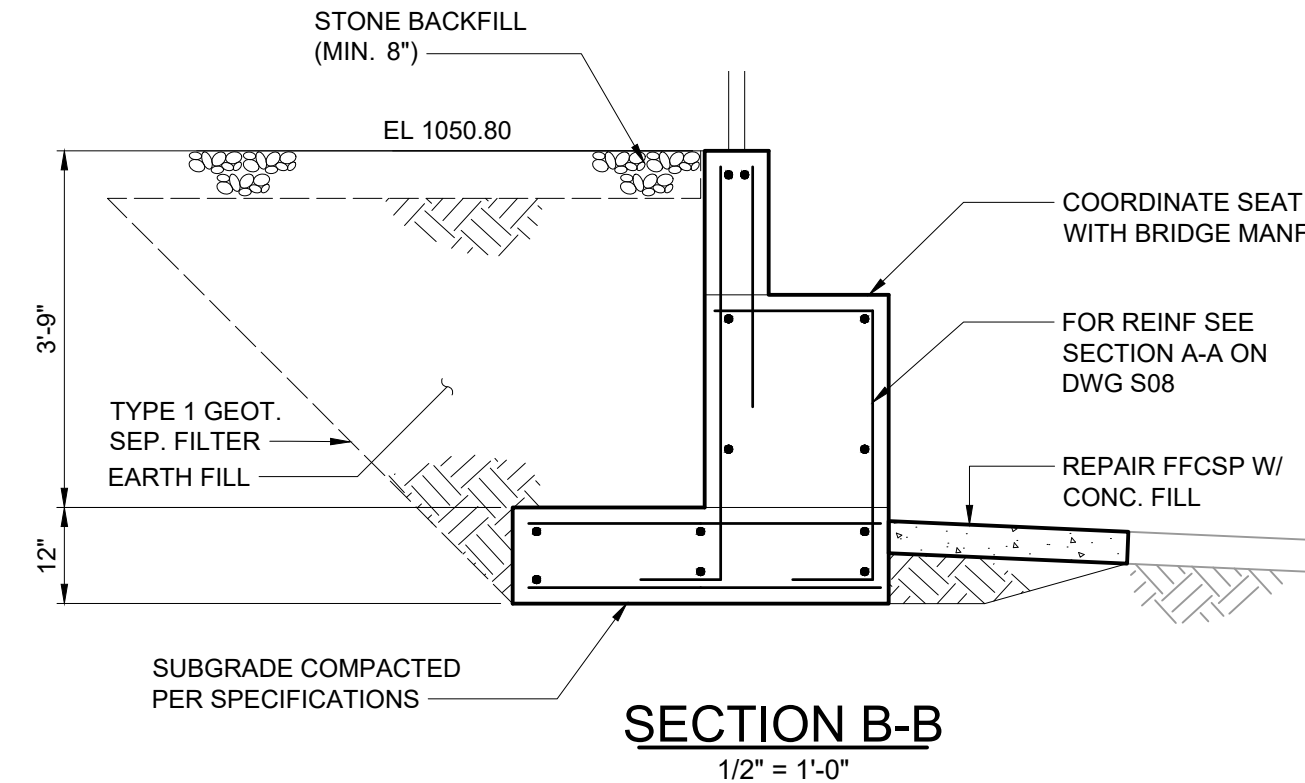
SECTION H
1/4" = 1'-0"



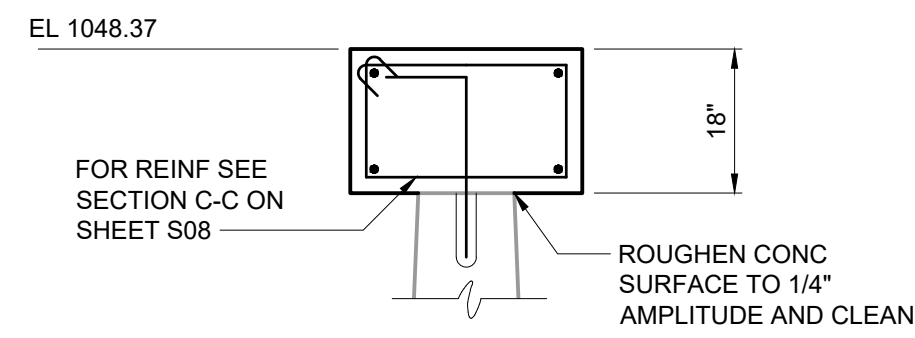
DETAIL 7
1/2" = 1'-0"



DETAIL 8
1/2" = 1'-0"



SECTION B-B
1/2" = 1'-0"



SECTION A-A
1/2" = 1'-0"

- NOTES:
- CONTRACTOR SHALL FIELD SURVEY EXISTING DIMENSIONS AND ELEVATIONS PRIOR TO FABRICATION OF GATES, GUARDS, AND BRIDGES. CONTRACTOR SHALL SUBMIT DRAWINGS SHOWING EXISTING GEOMETRY.
 - SLUCE GATES C-1 AND C-3 SHALL BE REPLACED, SEE SPECIFICATION SECTION 40 05 59-20.
 - EXCAVATION SLOPES SHALL NOT BE STEEPER THAN 1.5 HORIZONTAL TO 1 VERTICAL.

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PLOT DATE: 3/10/2025 9:20 AM BY: MBALLARD

	CONFORMED SET	03/2025	KJR	PROJECT ENGINEER: K. RAY
				DESIGNED BY: F. POWELL
				DRAWN BY: J. BURROUGHS
				CHECKED BY: A. THURSTON
REV	ISSUED FOR	DATE	BY	IF THIS BAR DOES NOT MEASURE 1" THEN DRAWING IS NOT TO FULL SCALE

CONFORMED DRAWING

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GBPE LIC #: PEF003685 EXP: 6/30/2026

Hazen

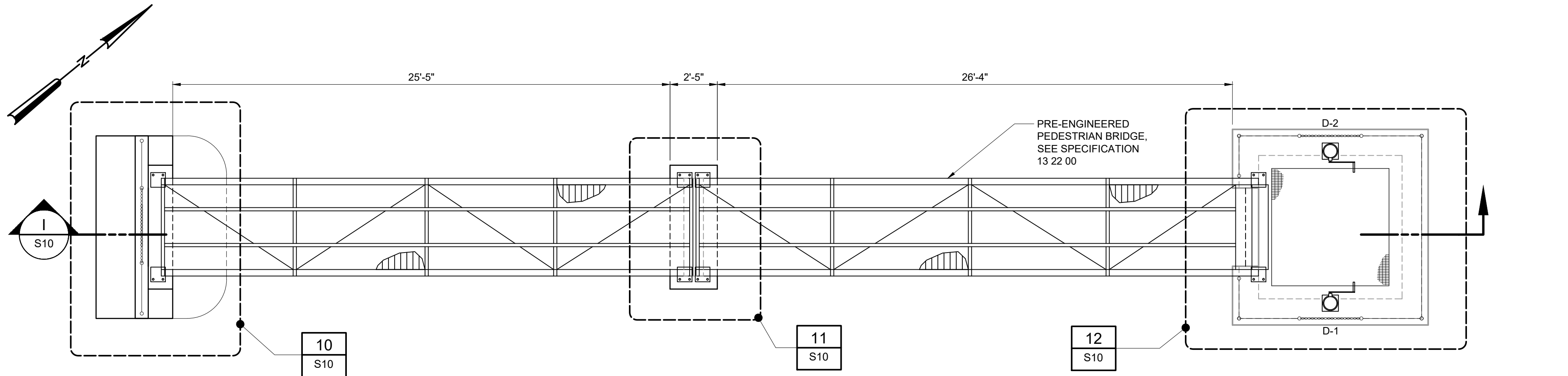
HAZEN AND SAWYER
1300 ALTMORE AVENUE
SUITE 520
ATLANTA, GEORGIA 30342
(404) 459-6363

COBB COUNTY-MARIETTA
WATER AUTHORITY

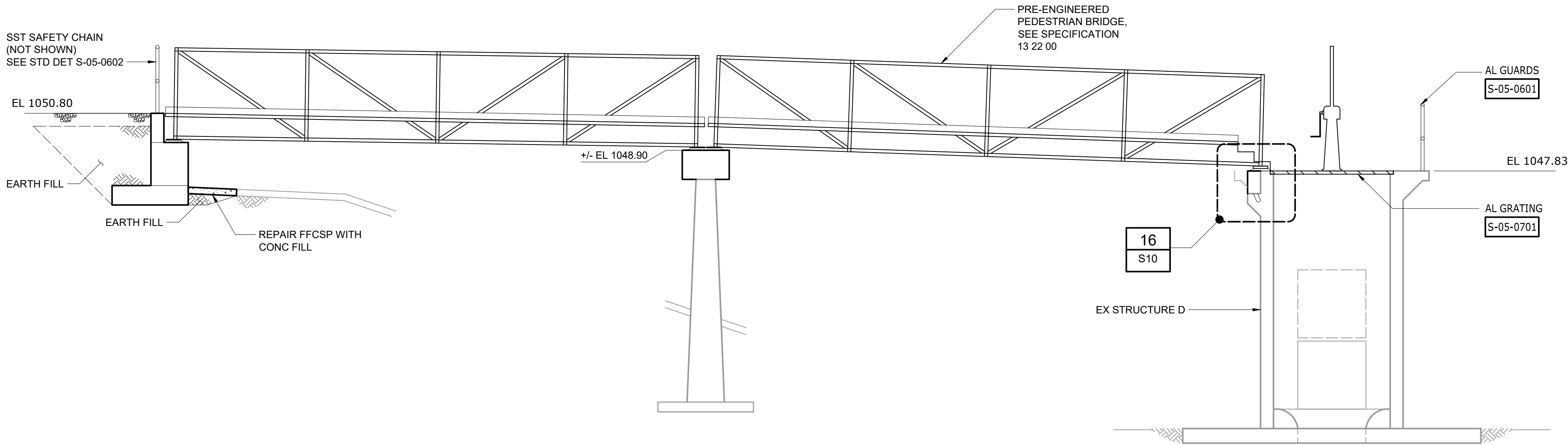
JAMES E. QUARLES WTP
RESERVOIR CLEANING AND IMPROVEMENTS
PROJECT

STRUCTURAL
STRUCTURE C
PLAN AND SECTION

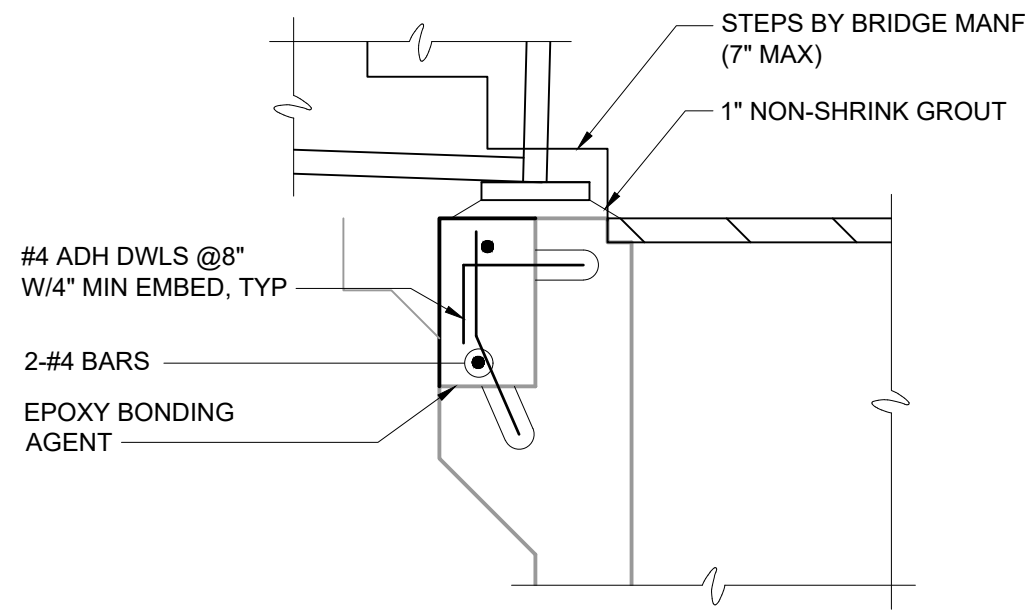
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HAZEN NO.: 32485-017 & 026
CONTRACT NO.: 017 & 026
DRAWING NUMBER: S09



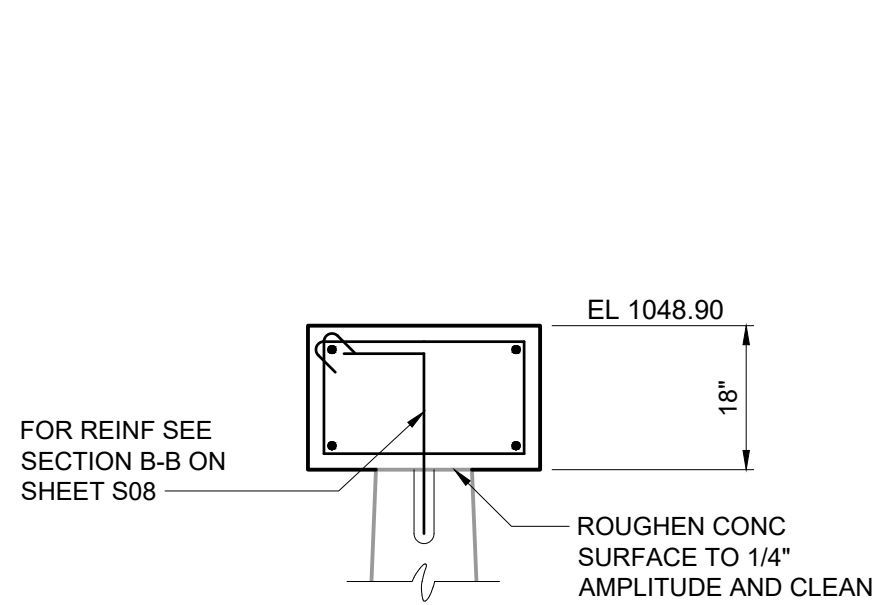
SECTION D PLAN
1/4" = 1'-0"



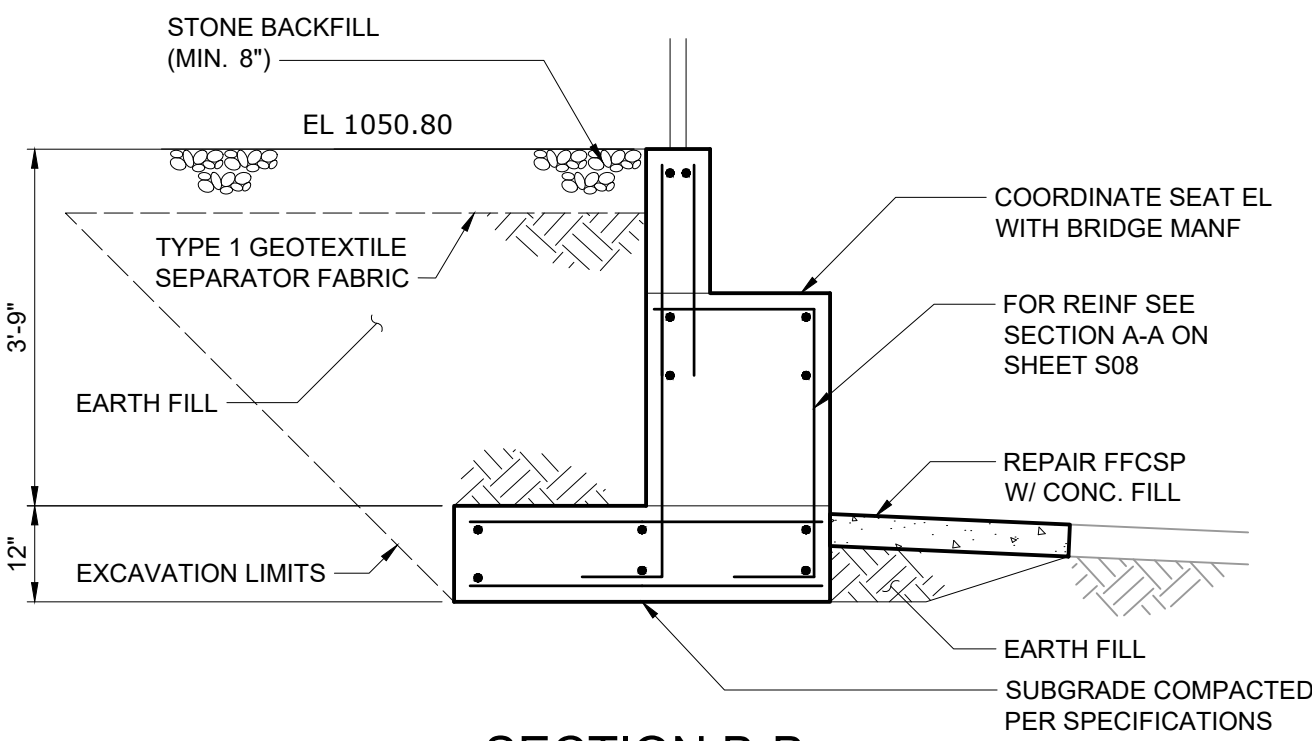
SECTION I
1/4" = 1'-0"



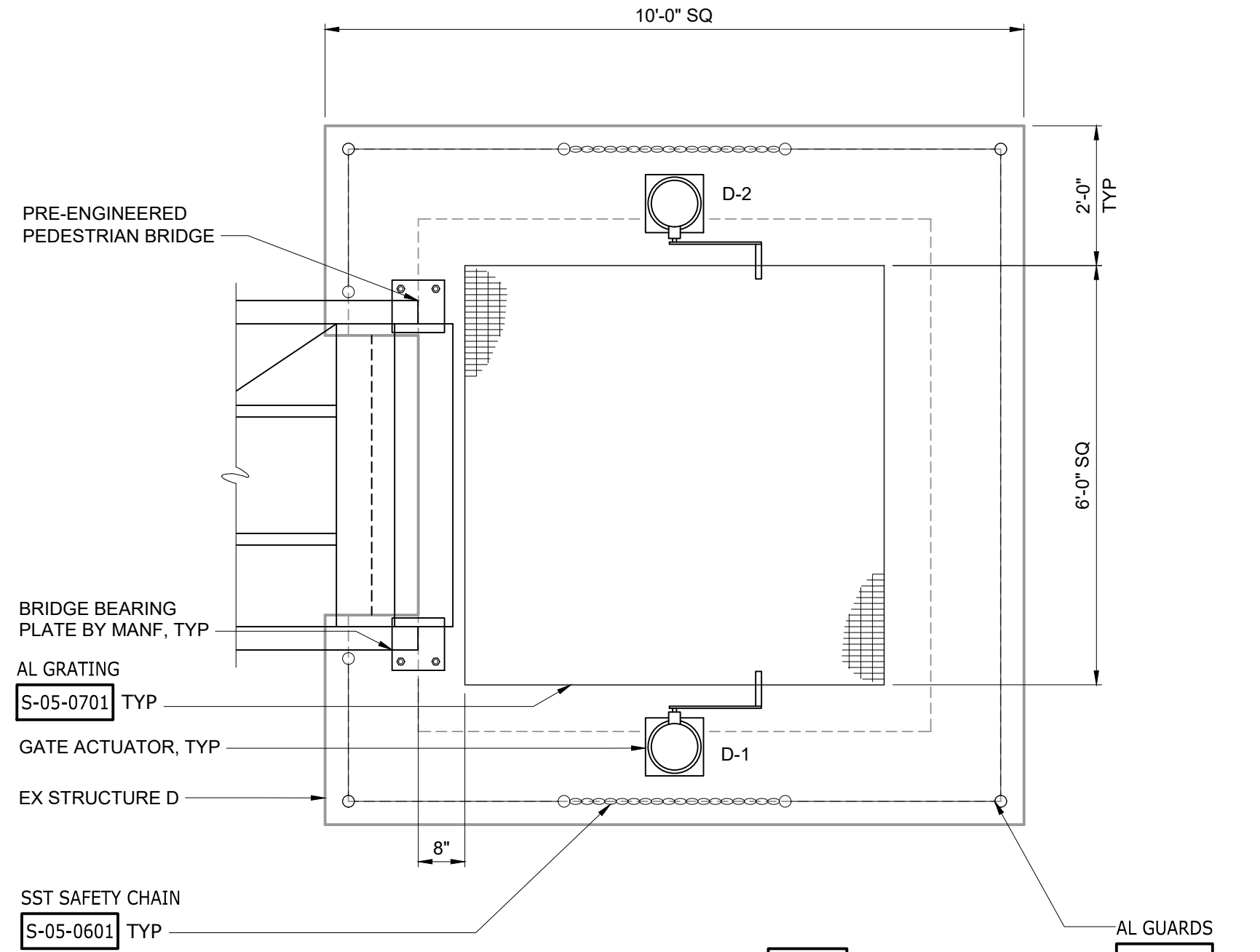
DETAIL 16
3/4" = 1'-0"



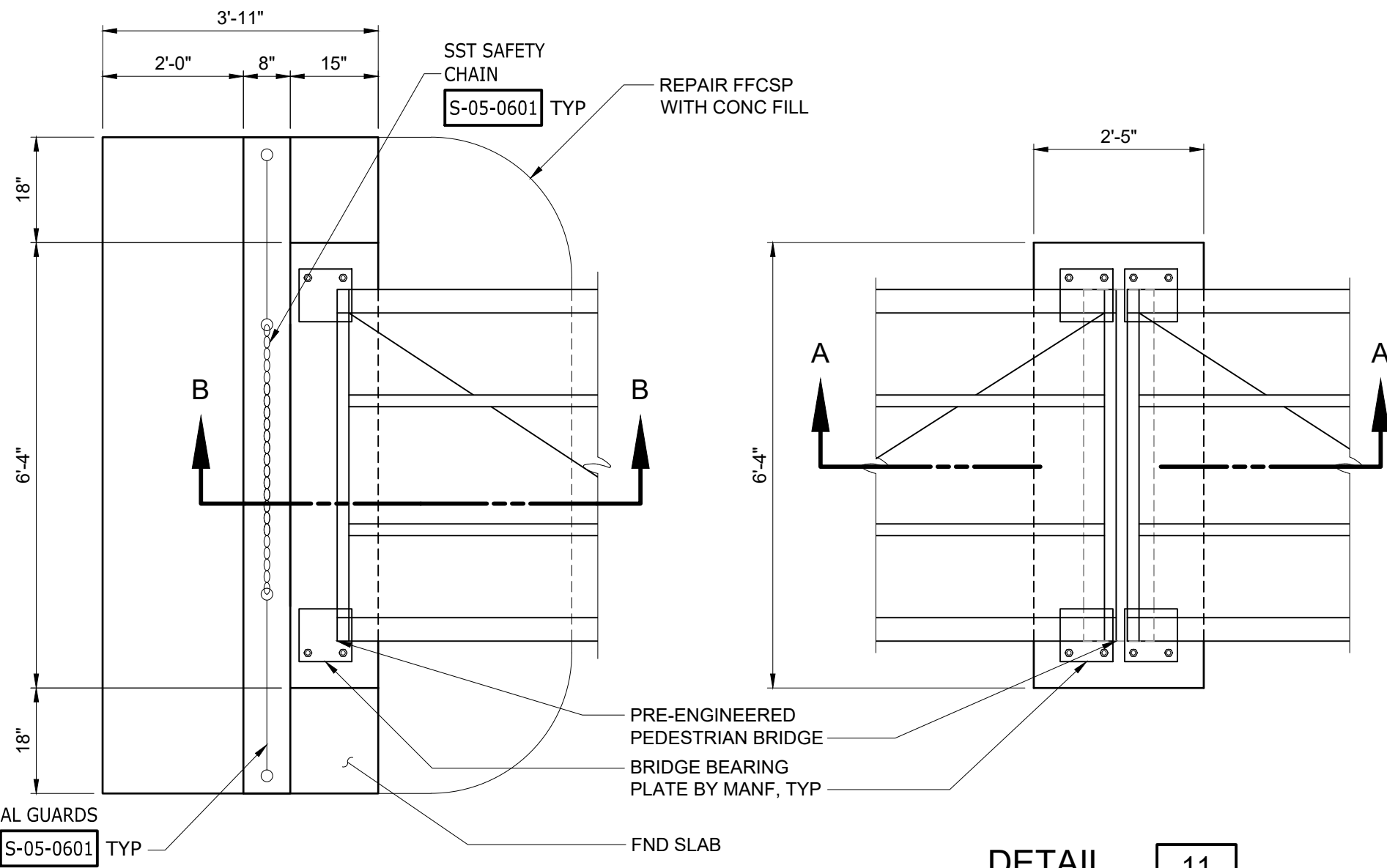
SECTION A-A
1/2" = 1'-0"



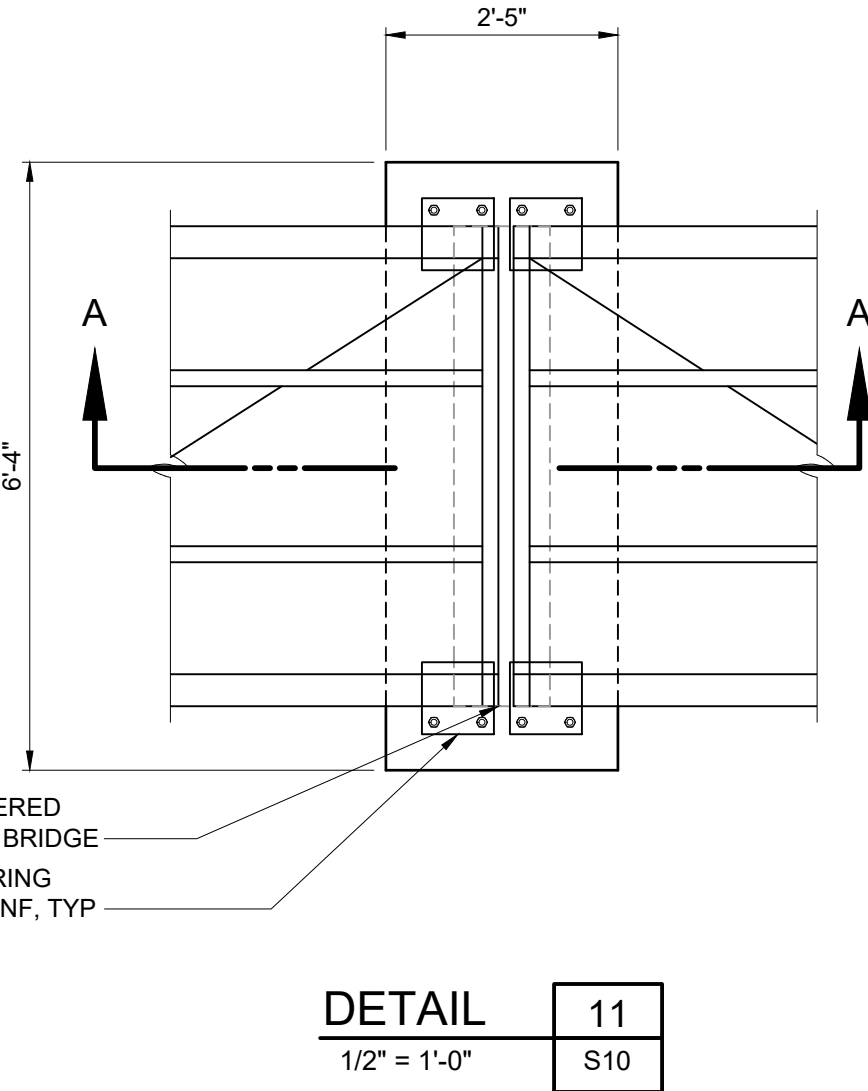
SECTION B-B
1/2" = 1'-0"



DETAIL 12
1/2" = 1'-0"



DETAIL 10
1/2" = 1'-0"



DETAIL 11
1/2" = 1'-0"

NOTES:

1. CONTRACTOR SHALL FIELD SURVEY EXISTING DIMENSIONS AND ELEVATIONS PRIOR TO FABRICATION OF GATES, GUARDS, AND BRIDGES. CONTRACTOR SHALL SUBMIT DRAWINGS SHOWING EXISTING GEOMETRY.
2. EXISTING GRATING FRAME SHALL BE ABRASIVE BLASTED AND COATED PER SPECIFICATION SECTION 09 99 00.
3. SLUICE GATES D-1 AND D-2 SHALL BE REPLACED, SEE SPECIFICATION 40 05 59.20.
4. EXCAVATION SLOPES SHALL NOT BE STEEPER THAN 1.5 HORIZONTAL TO 1 VERTICAL.

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PLOT DATE: 3/10/2025 9:21 AM BY: MBALLARD

CONFORMED SET	03/2025	KJR	PROJECT ENGINEER: K. RAY
			DESIGNED BY: F. POWELL
			DRAWN BY: J. BURROUGHS
			CHECKED BY: A. THURSTON
REV	ISSUED FOR	DATE	BY

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	GBPE LIC #: PEF003685 EXP: 6/30/2026

Hazen

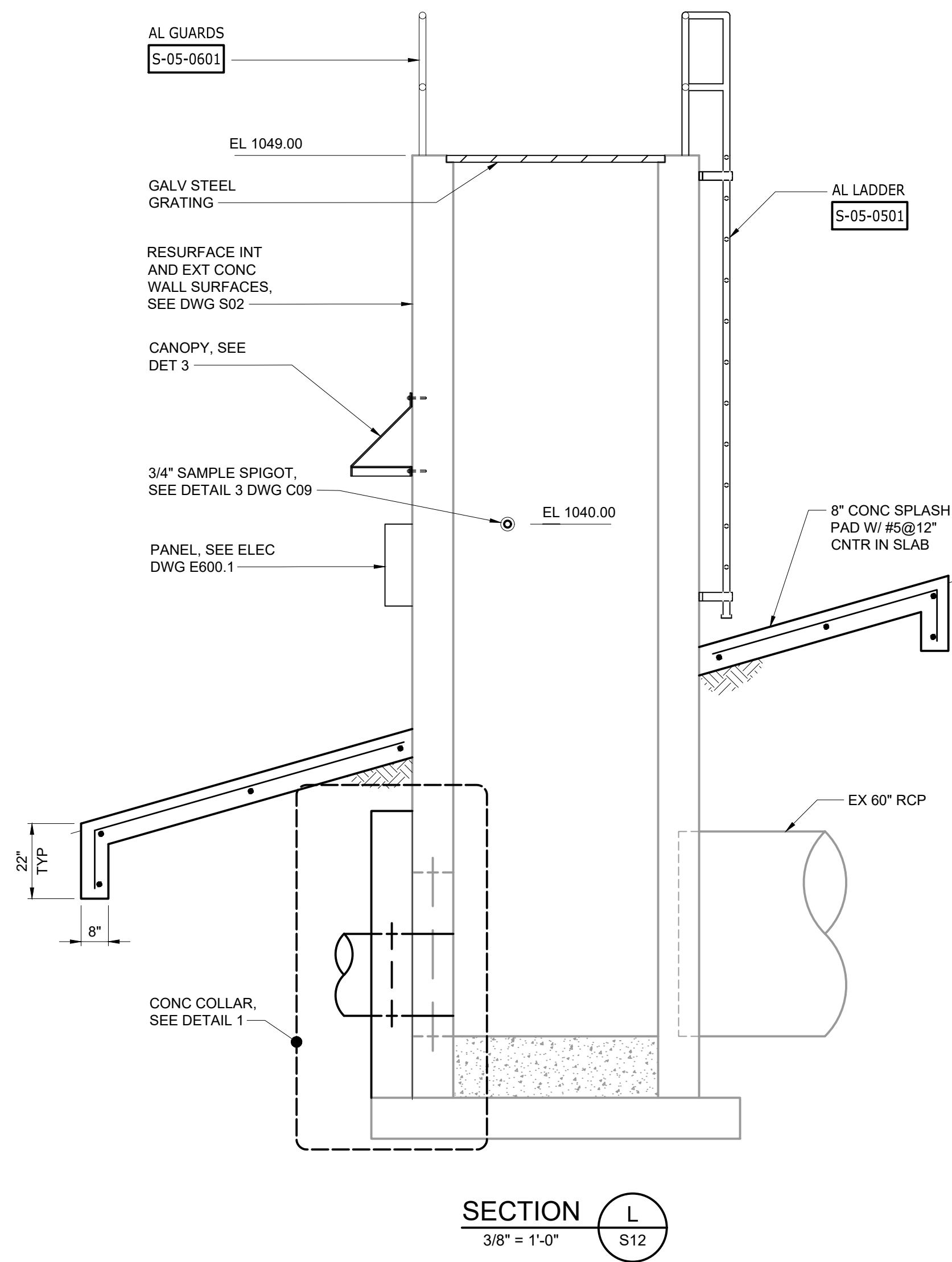
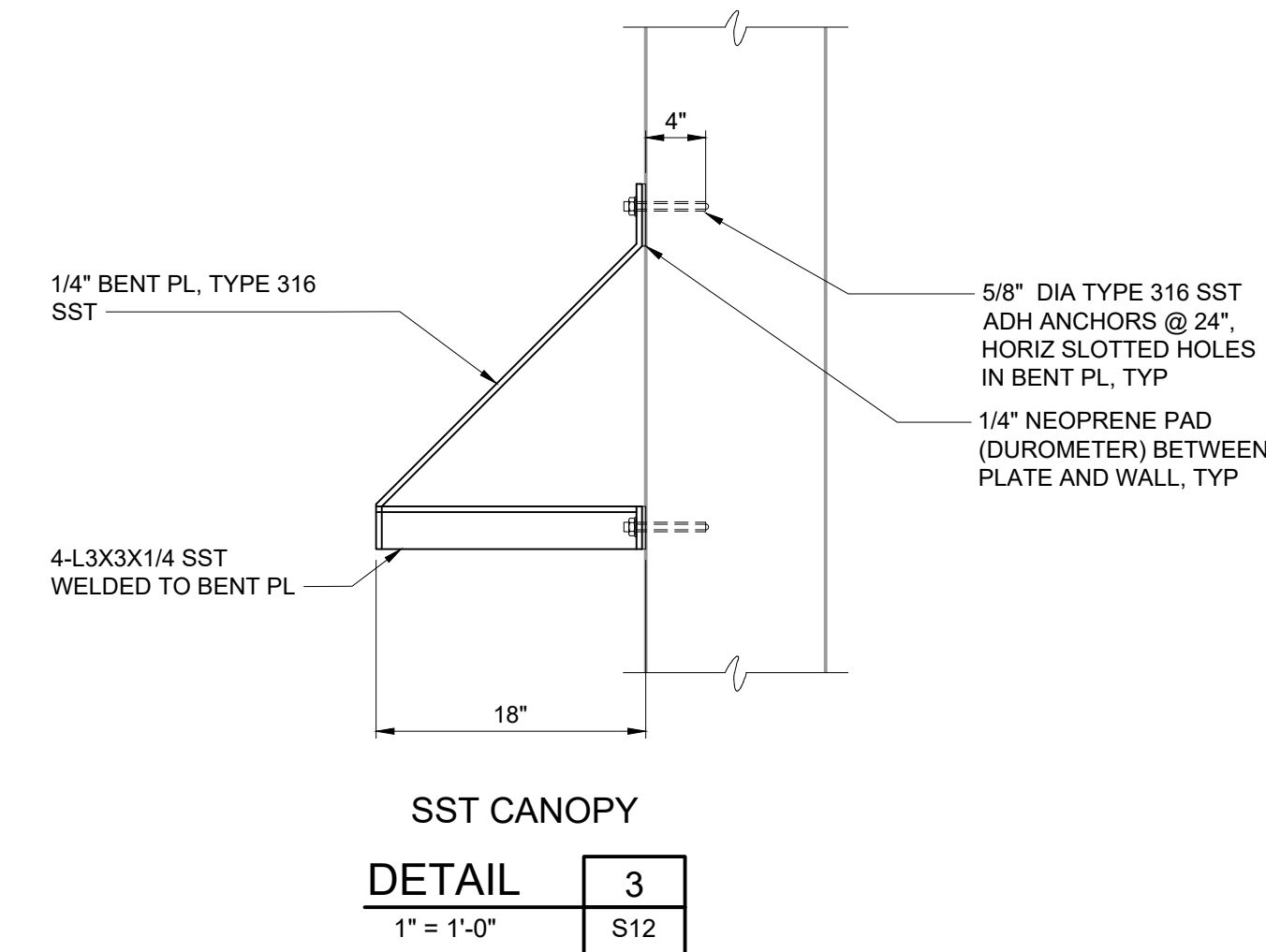
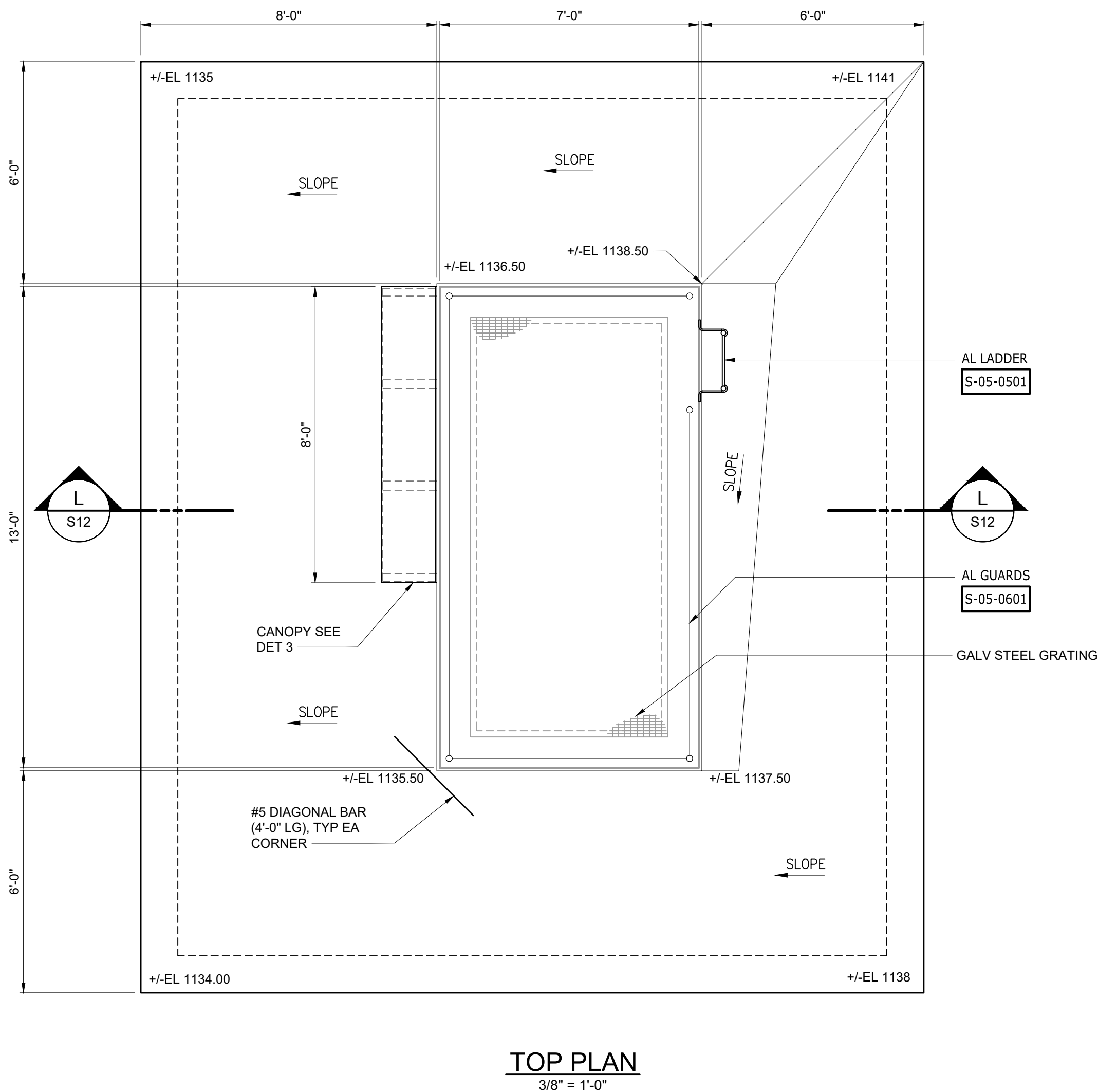
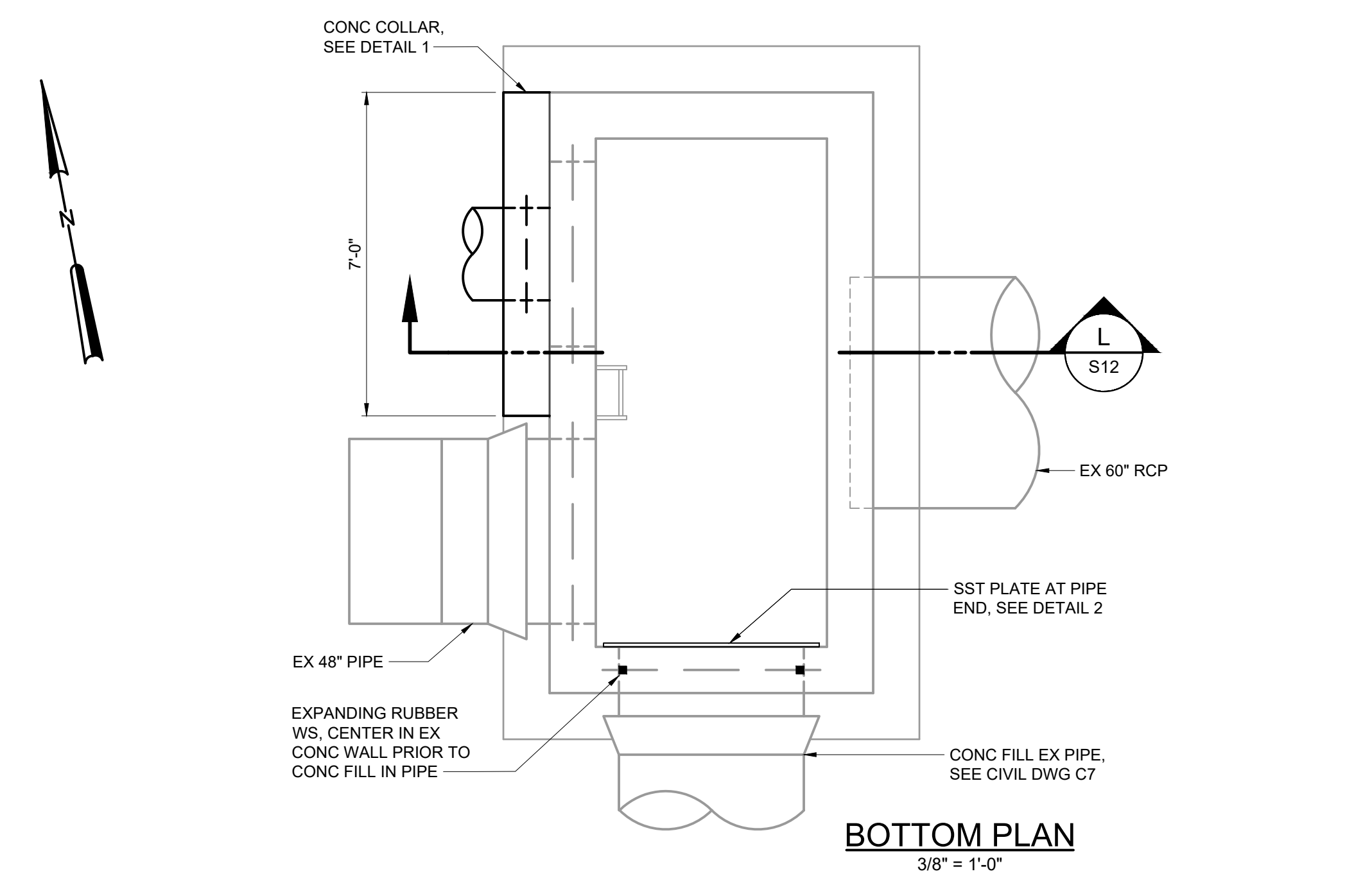
HAZEN AND SAWYER
1300 ALTMORE AVENUE
SUITE 520
ATLANTA, GEORGIA 30342
(404) 459-6363

COBB COUNTY-MARIETTA
WATER AUTHORITY

JAMES E. QUARLES WTP
RESERVOIR CLEANING AND IMPROVEMENTS
PROJECT

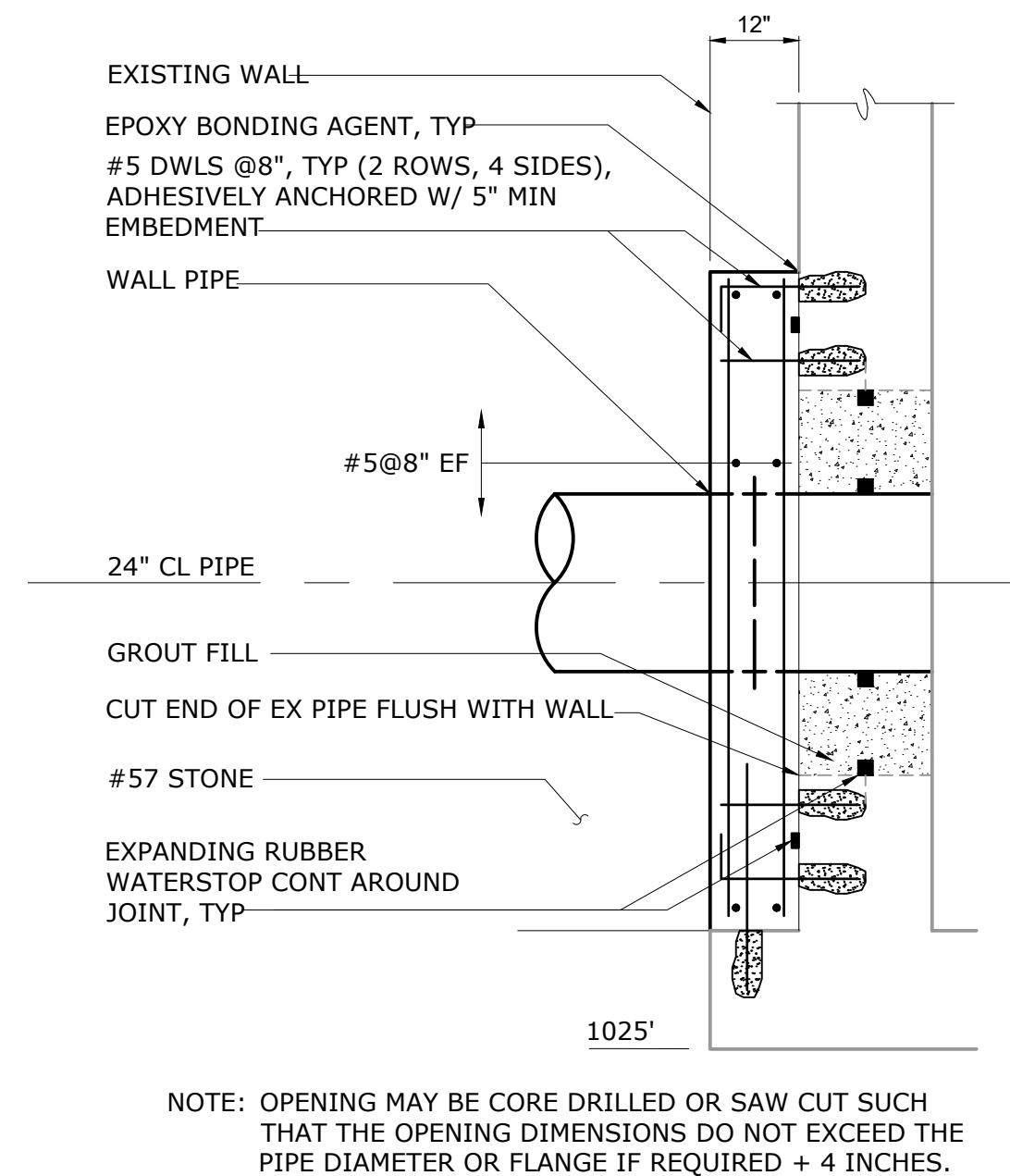
STRUCTURAL
STRUCTURE D
PLAN AND SECTION

DATE: SEPTEMBER 2024
HAZEN NO.: 32485-017 & 026
CONTRACT NO.: 017 & 026
DRAWING NUMBER: S10



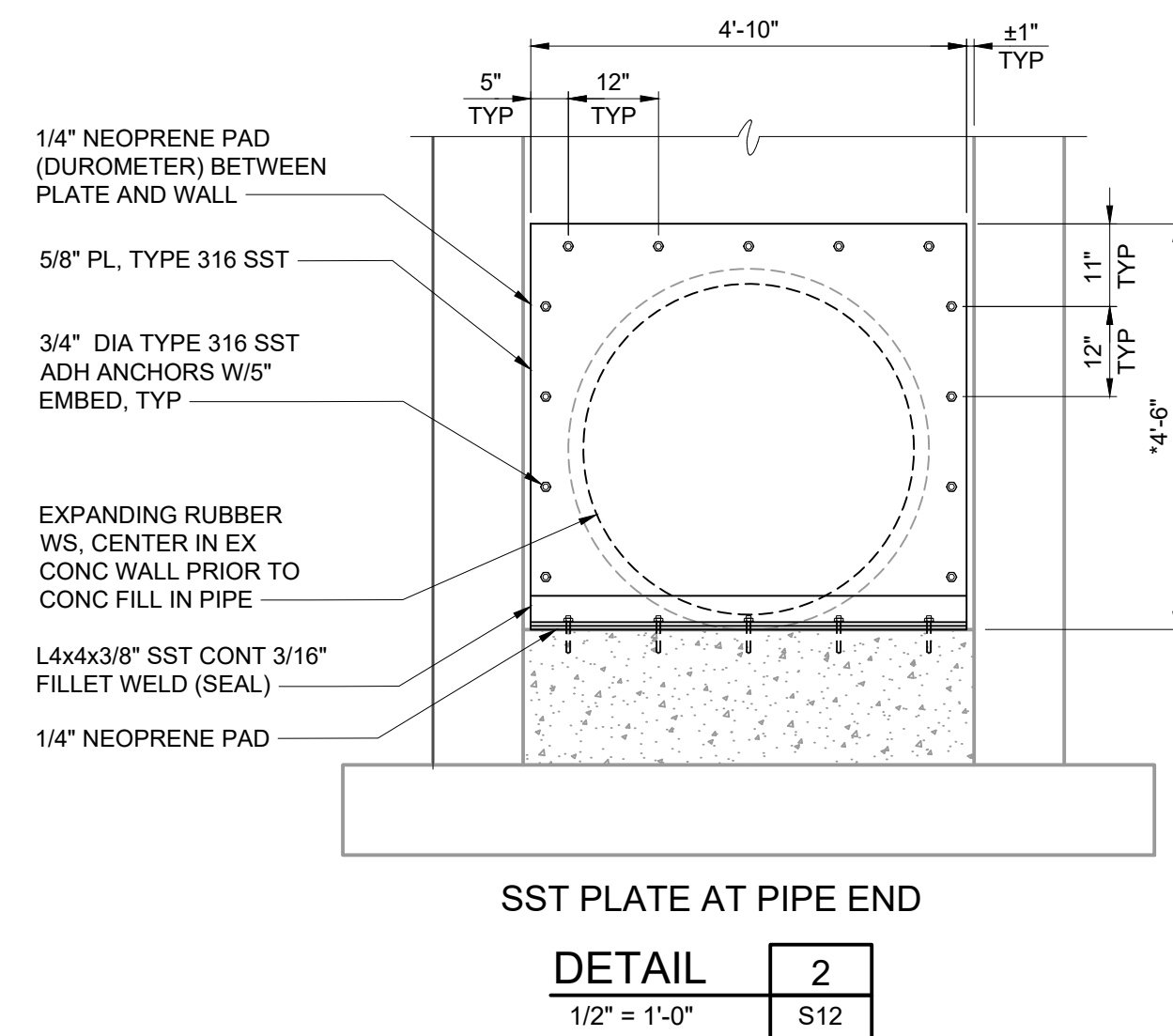
NOTES:

- COORDINATE TOP OF CONCRETE ELEVATIONS TO MATCH EXISTING GRADE AND PROVIDE CLEARANCE ABOVE EXISTING ELECTRICAL DUCT BANK.
- CANOPY FRAMING AND CONCRETE ANCHORS SHALL BE TYPE 316 STAINLESS STEEL.
- EXISTING GRATING FRAME SHALL BE COATED WITH ZINC RICH PAINT PER SPECIFICATION SECTION 09 90 00.



WALL PENETRATION CONC COLLAR

DETAIL 1
1/2" = 1'-0"



File: O:\32485-ATL\32485-017\CAD_BIM\STRUS12 Saved by FPOWELL Save date: 11/13/2023 1:27 PM
PLOT DATE: 3/10/2025 9:22 AM BY: MBALLARD

	CONFORMED SET	03/2025	KJR	PROJECT ENGINEER: K. RAY
				DESIGNED BY: F. POWELL
				DRAWN BY: J. BURROUGHS
				CHECKED BY: A. THURSTON
				IF THIS BAR DOES NOT MEASURE 1" THEN DRAWING IS NOT TO FULL SCALE
REV	ISSUED FOR	DATE	BY	

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GBPE LIC #: PEF003685 EXP: 6/30/2026

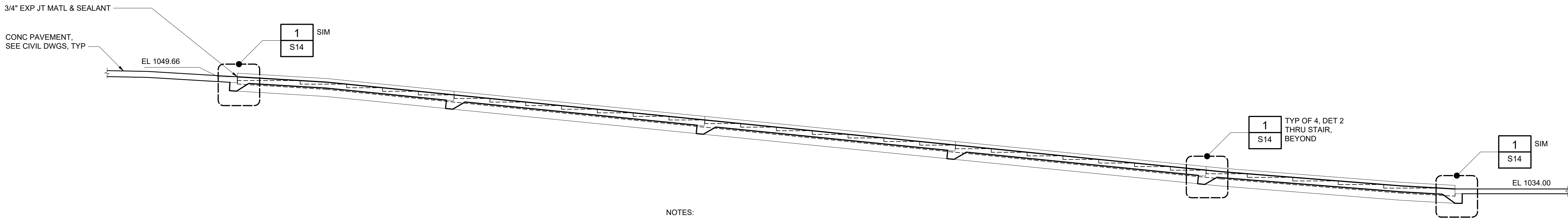
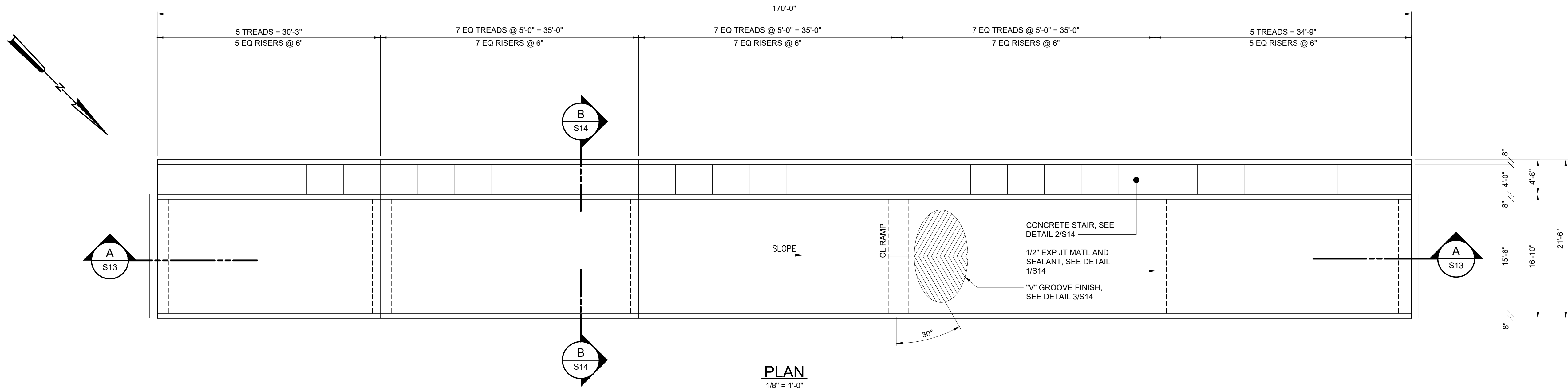
Hazen
HAZEN AND SAWYER
1300 ALTMORE AVENUE
SUITE 520
ATLANTA, GEORGIA 30342
(404) 459-6363

COBB COUNTY-MARIETTA
WATER AUTHORITY

JAMES E. QUARLES WTP
RESERVOIR CLEANING AND IMPROVEMENTS
PROJECT

NEW CONSTRUCTION
STRUCTURAL
SPLITTER BOX PLANS AND
SECTIONS

DATE:	SEPTEMBER 2024
HAZEN NO.:	32485-017 & 026
CONTRACT NO.:	017 & 026
DRAWING NUMBER:	S12



- NOTES:
1. VERTICAL CURVE NOT SHOWN, SEE CIVIL DWGS.
 2. REINFORCEMENT NOT SHOWN.

	CONFORMED SET	03/2025	KJR	PROJECT ENGINEER: K. RAY
				DESIGNED BY: F. POWELL
				DRAWN BY: G. JOHNSON
				CHECKED BY: A. THURSTON
				IF THIS BAR DOES NOT MEASURE 1" THEN DRAWING IS NOT TO FULL SCALE
REV	ISSUED FOR	DATE	BY	

CONFORMED DRAWING

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GBPE LIC #: PEF003685 EXP: 6/30/2026

Hazen
HAZEN AND SAWYER
1300 ALTMORE AVENUE
SUITE 520
ATLANTA, GEORGIA 30342
(404) 459-6363

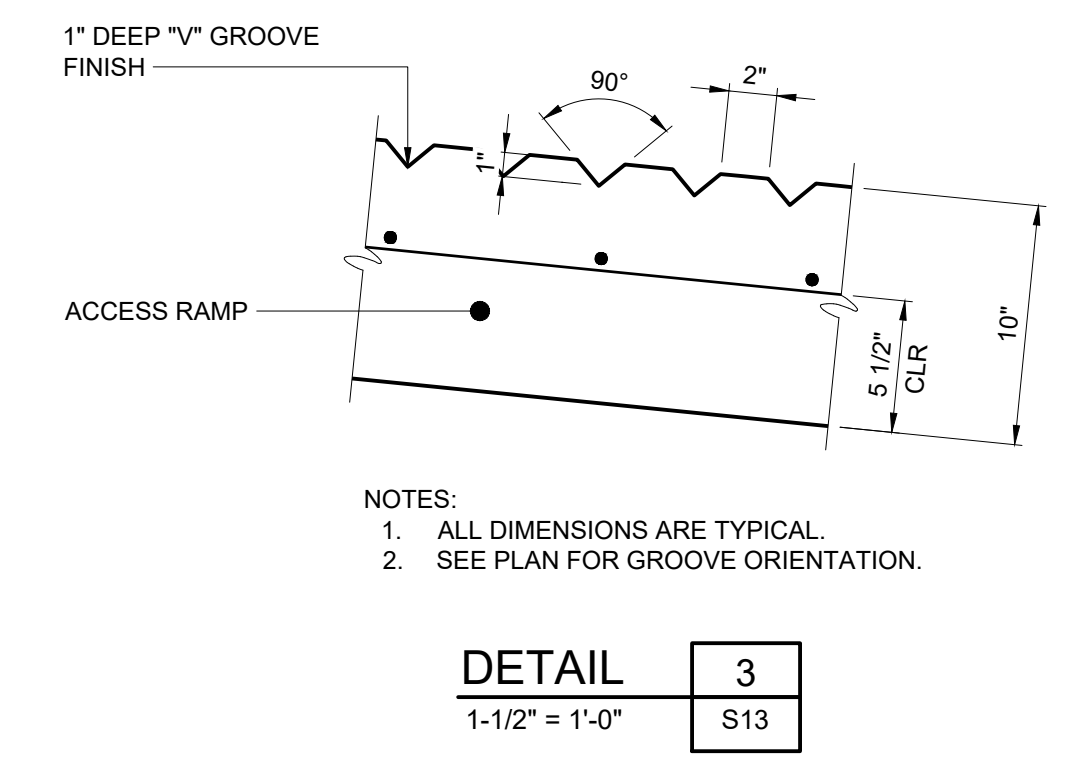
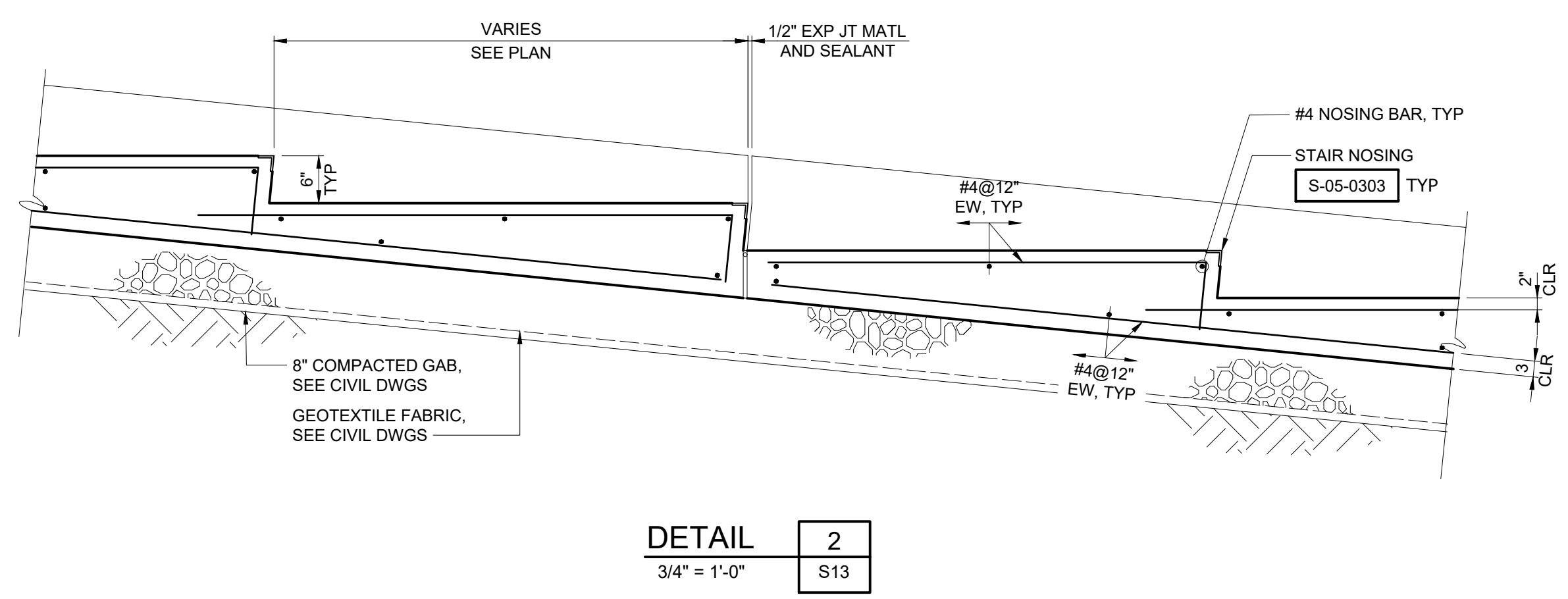
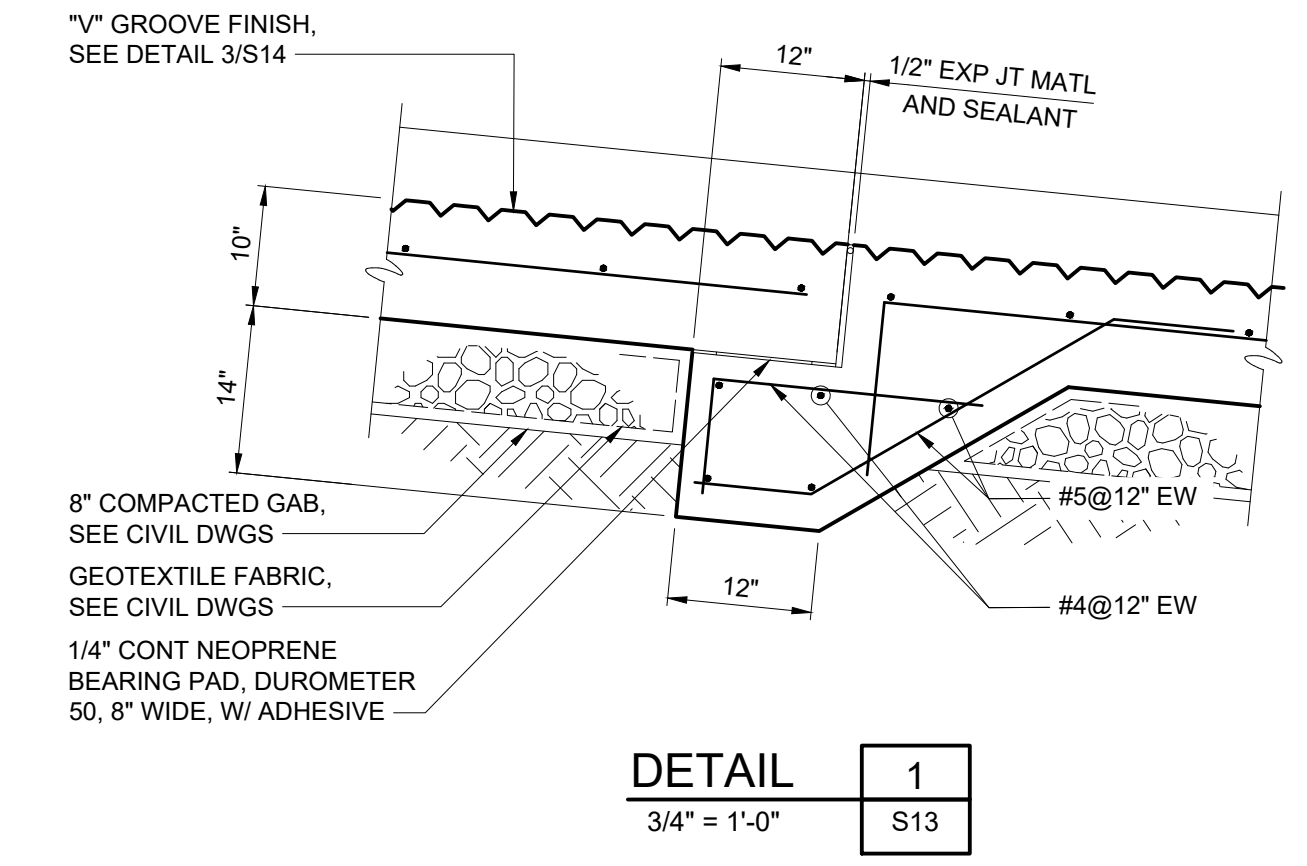
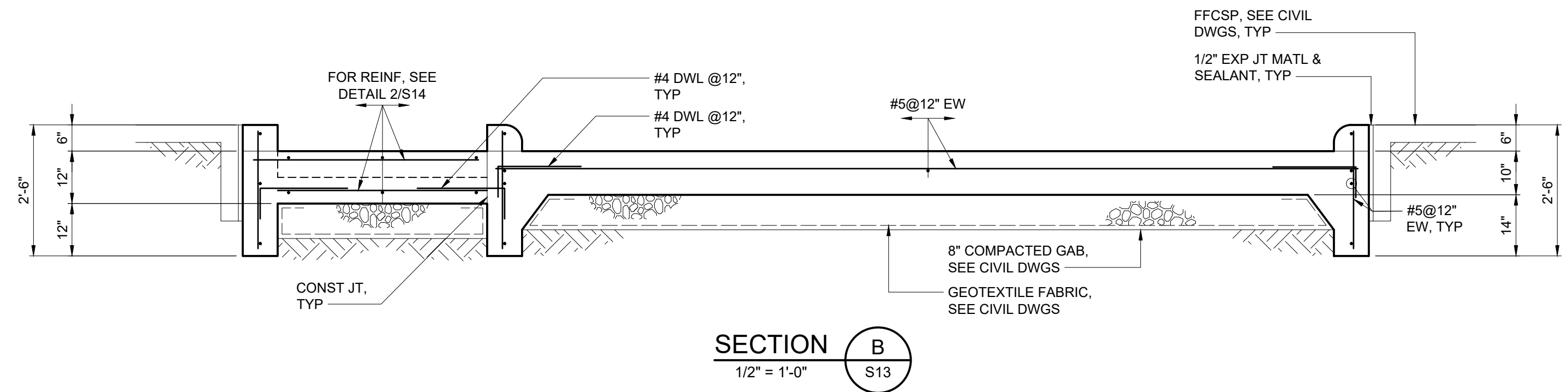
COBB COUNTY-MARIETTA
WATER AUTHORITY
JAMES E. QUARLES WTP
RESERVOIR CLEANING AND IMPROVEMENTS
PROJECT

NEW CONSTRUCTION
STRUCTURAL
ACCESS RAMP PLAN AND
SECTION

DATE:	SEPTEMBER 2024
HAZEN NO.:	32485-017 & 026
CONTRACT NO.:	017 & 026
DRAWING NUMBER:	S13

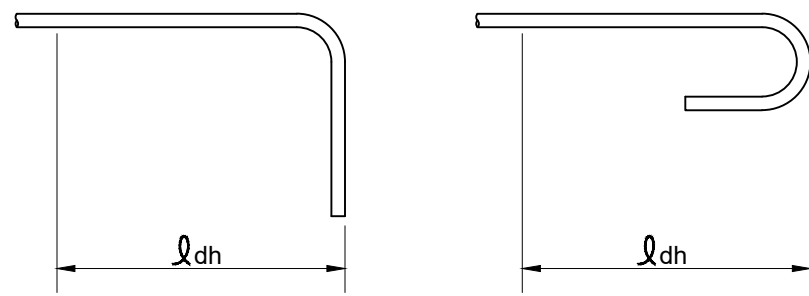
NOTES:

1. CONCRETE FOR THE ACCESS RAMP AND STAIRS SHALL BE CLASS A CONCRETE.



File: O:\32485-ATL\32485-017\CAD_BIM\STRUS14 Saved by FPOWELL Save date: 9/5/2023 9:21 AM
PLOT DATE: 3/10/2025 9:24 AM BY: MBALLARD

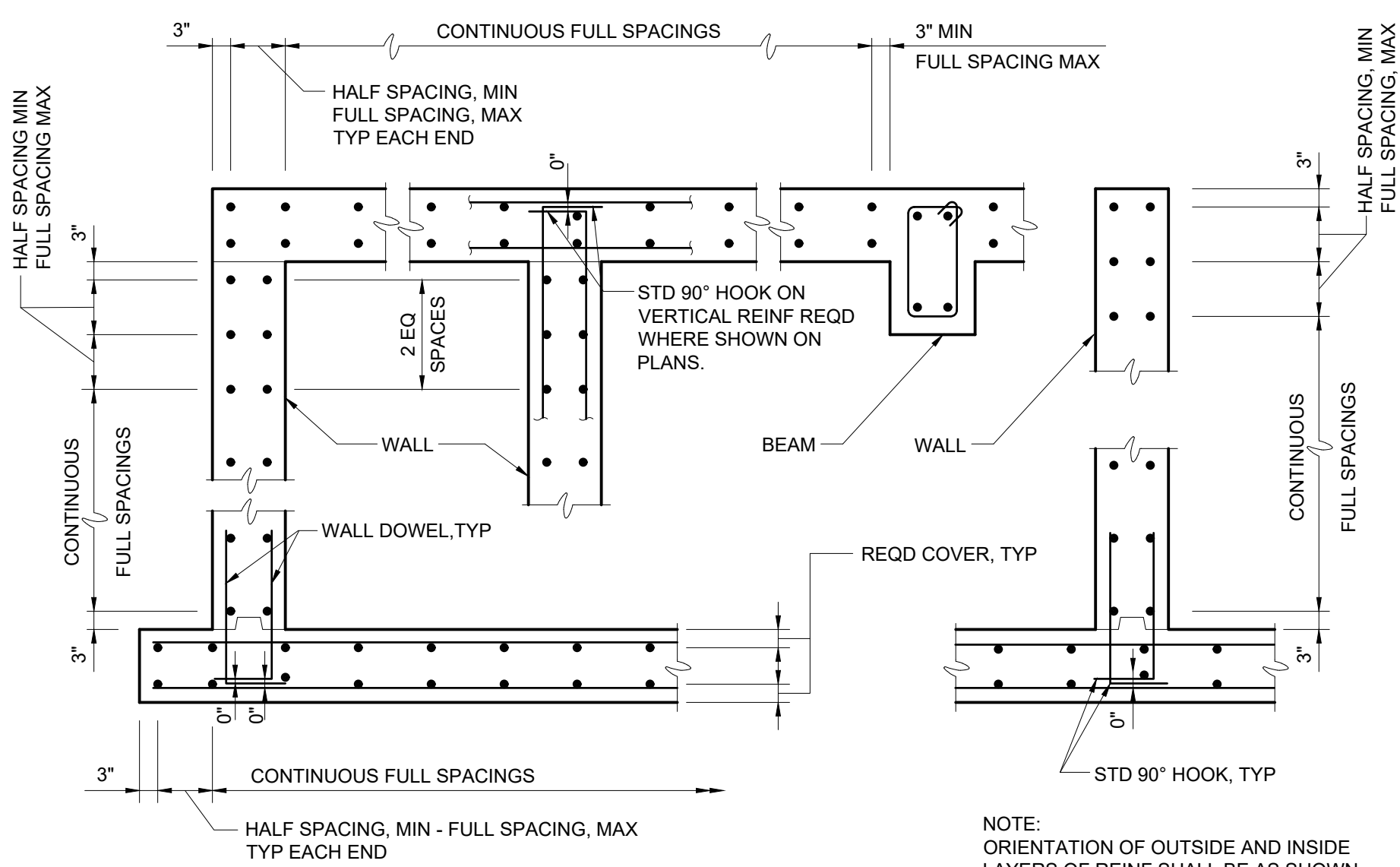
				PROJECT ENGINEER: K. RAY		CONFORMED DRAWING	THIS DOCUMENT ORIGINALLY ISSUED AND SEALED BY FREDERICK P. POWELL, 029283, ON 09/18/2024 AND THE ENTITY'S COA INFORMATION. THIS MEDIUM SHALL NOT BE CONSIDERED A CERTIFIED DOCUMENT.	<div>Hazen</div> <div>HAZEN AND SAWYER 1300 ALTMORE AVENUE SUITE 520 ATLANTA, GEORGIA 30342 (404) 459-6363</div>	COBB COUNTY-MARIETTA WATER AUTHORITY	JAMES E. QUARLES WTP RESERVOIR CLEANING AND IMPROVEMENTS PROJECT	NEW CONSTRUCTION STRUCTURAL ACCESS RAMP SECTION AND DETAILS	DATE: SEPTEMBER 2024
				DESIGNED BY: F. POWELL								HAZEN NO.: 32485-017 & 026
				DRAWN BY: G. JOHNSON								CONTRACT NO.: 017 & 026
				CHECKED BY: A. THURSTON								DRAWING NUMBER:
				IF THIS BAR DOES NOT MEASURE 1" THEN DRAWING IS NOT TO FULL SCALE								S14
REV	ISSUED FOR	DATE	BY	0 1/2" 1" 		GBPE LIC #: PEF003685 EXP: 6/30/2026						

DEVELOPMENT LENGTH OF STANDARD HOOKS FOR UNCOATED BARS IN TENSION		
fy = 60,000 psi fc' = 4500 psi OR GREATER		
BAR SIZE	DEVELOPMENT LENGTH, l_{dh}	
	BASIC	W/ CONC COVER *
#3	7"	6"
#4	9"	7"
#5	1'-0"	8"
#6	1'-2"	10"
#7	1'-4"	11"
#8	1'-6"	1'-1"
#9	1'-9"	1'-3"
#10	1'-11"	1'-4"
#11	2'-2"	1'-6"
* SIDE COVER NORMAL TO PLANE OF HOOK AT LEAST 2 1/2", AND FOR 90° HOOK, END COVER BEYOND OUTSIDE END OF HOOK AT LEAST 2".		
		

S-03-0105

BASIC DEVELOPMENT LENGTH AND SPLICE LENGTH FOR UNCOATED BARS IN TENSION									
fy = 60,000 psi CLEAR COVER≥ 1.5 INCHES					fc' = 4500 psi OR GREATER NORMAL WEIGHT CONCRETE				
BASIC DEVELOPMENT LENGTH l_d				BAR SIZE	CLASS B SPLICE LENGTH $1.3 \times l_d$				
CLEAR SPACING≥ 3"		CLEAR SPACING <3"			CLEAR SPACING≥ 3"		CLEAR SPACING <3"		
BASIC	TOP *	BASIC	TOP *		BASIC	TOP *	BASIC	TOP *	
1'-0"	1'-0"	1'-0"	1'-3"	# 3	1'-0"	1'-2"	1'-3"	1'-7"	
1'-0"	1'-2"	1'-6"	2'-0"	# 4	1'-2"	1'-7"	2'-0"	2'-7"	
1'-2"	1'-6"	2'-2"	2'-10"	# 5	1'-6"	1'-11"	2'-10"	3'-8"	
1'-5"	1'-9"	2'-11"	3'-9"	# 6	1'-9"	2'-4"	3'-9"	4'-11"	
2'-3"	2'-11"	4'-7"	6'-0"	# 7	2'-11"	3'-9"	6'-0"	7'-9"	
2'-10"	3'-8"	5'-8"	7'-4"	# 8	3'-8"	4'-9"	7'-4"	9'-6"	
3'-6"	4'-6"	6'-4"	8'-3"	# 9	4'-6"	5'-10"	8'-3"	10'-8"	
4'-3"	5'-6"	7'-2"	9'-3"	# 10	5'-6"	7'-2"	9'-3"	12'-0"	
5'-1"	6'-7"	7'-11"	10'-3"	# 11	6'-7"	8'-7"	10'-3"	13'-4"	
* TOP REINFORCEMENT IS ANY HORIZONTAL REINFORCEMENT SO PLACED THAT MORE THAN 12 INCHES OF FRESH CONCRETE IS CAST IN THE MEMBER BELOW THE REINFORCEMENT.									
** FOR MATERIALS OR CONDITIONS DIFFERENT FROM THOSE STATED, LENGTHS SHOWN IN CHART SHALL BE MODIFIED TO CONFORM TO THE PROVISIONS OF ACI 318, SECTION 12.2.									

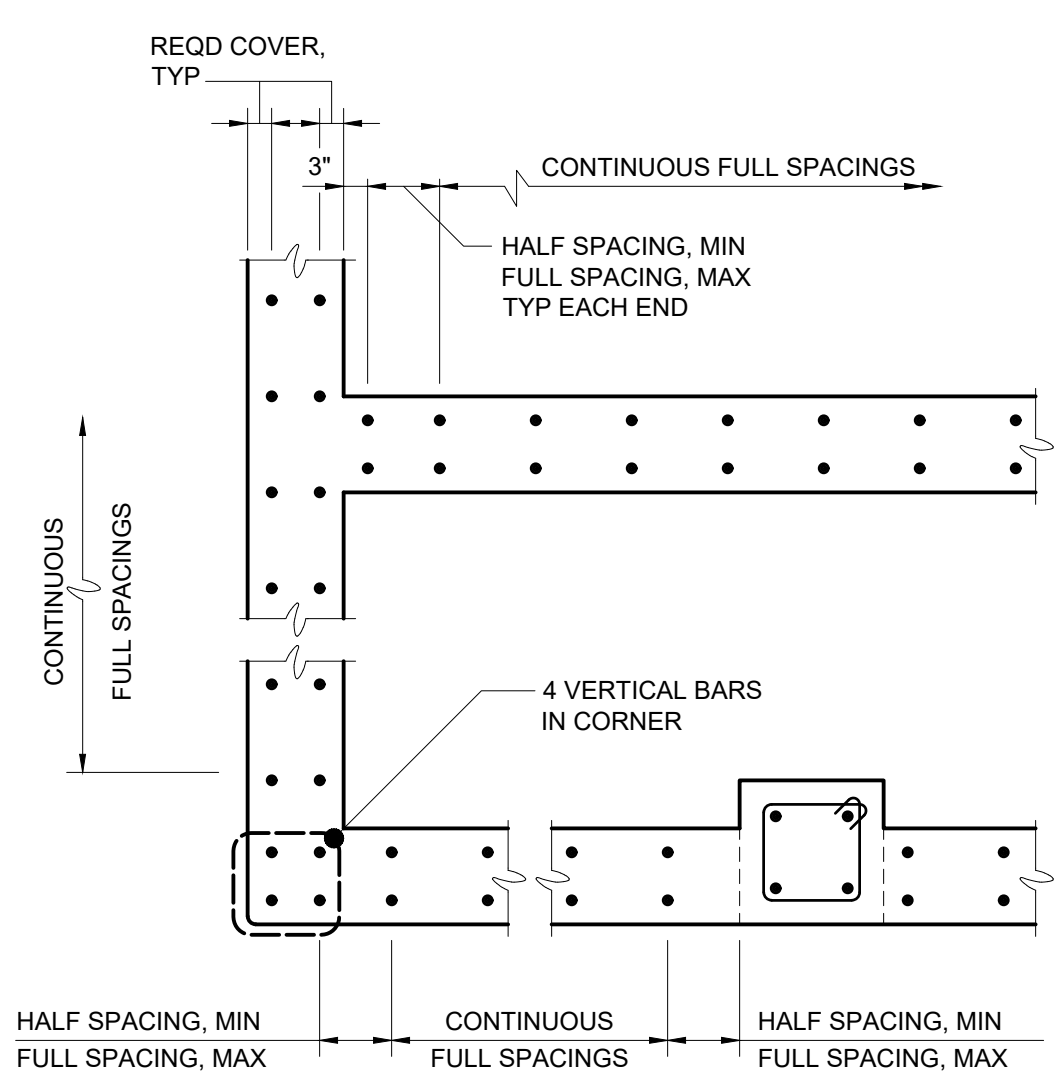
S-03-0104



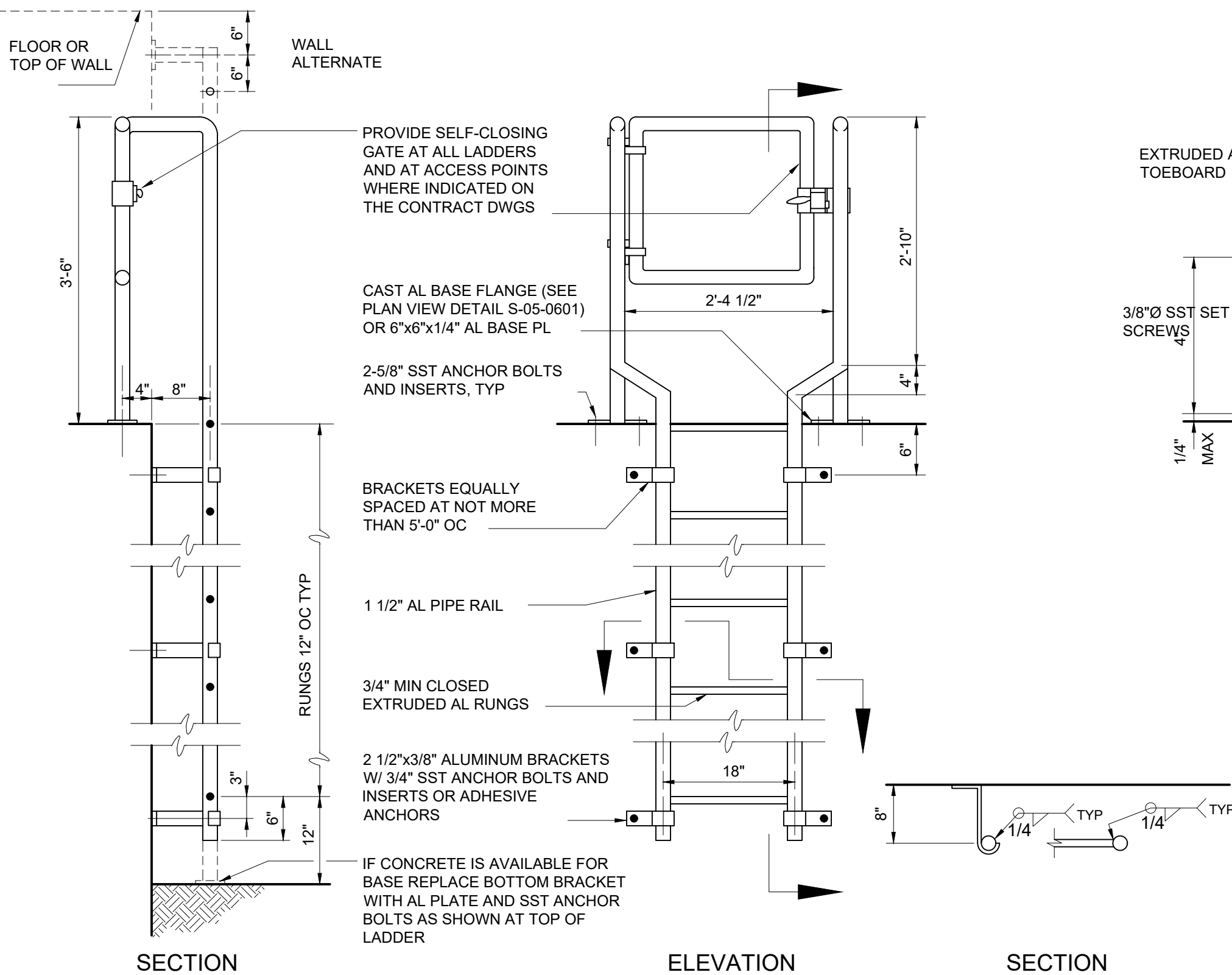
SECTION - WALLS AND SLABS

BAR PLACEMENT

S-03-0110

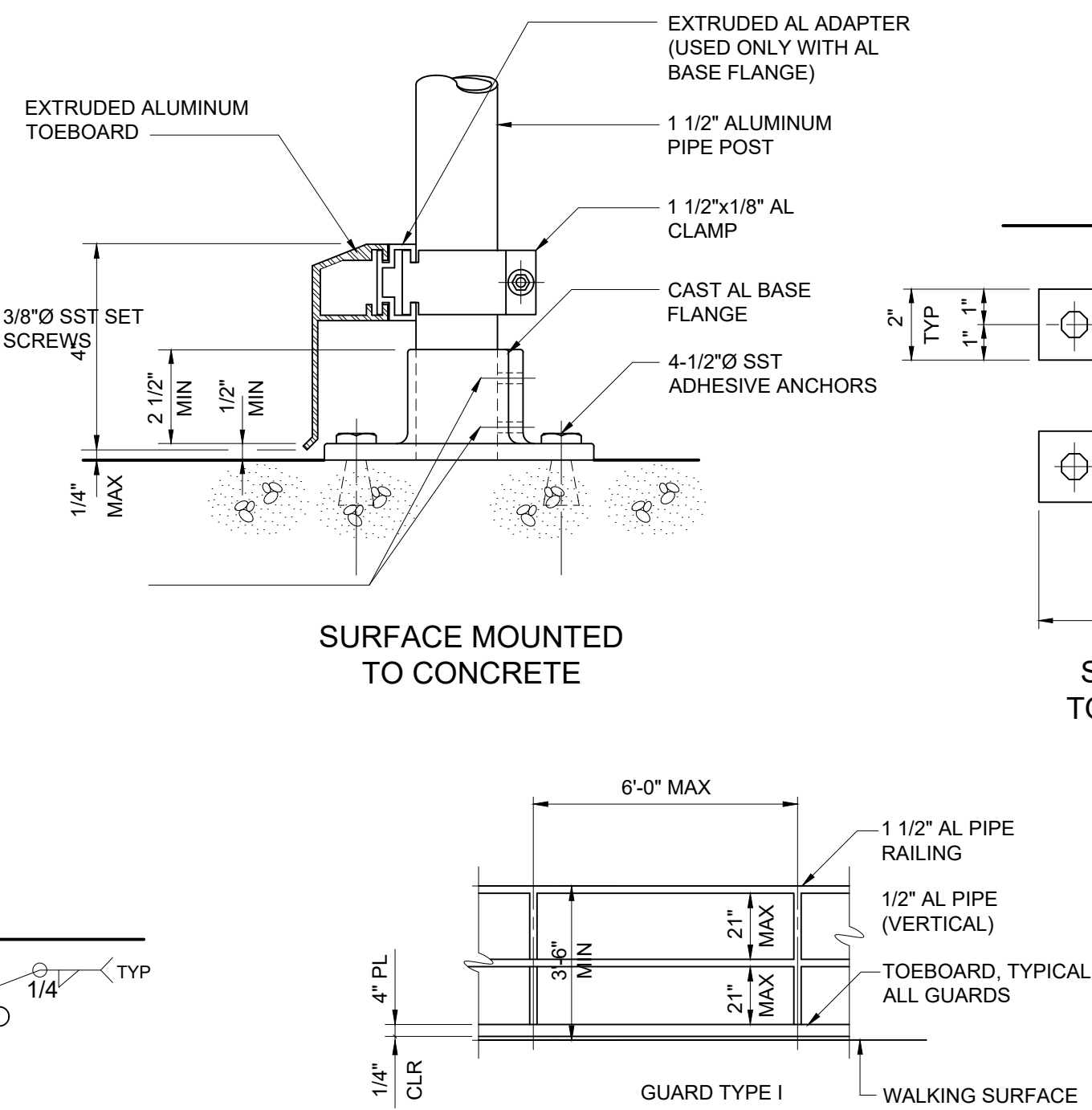


PLAN - WALLS



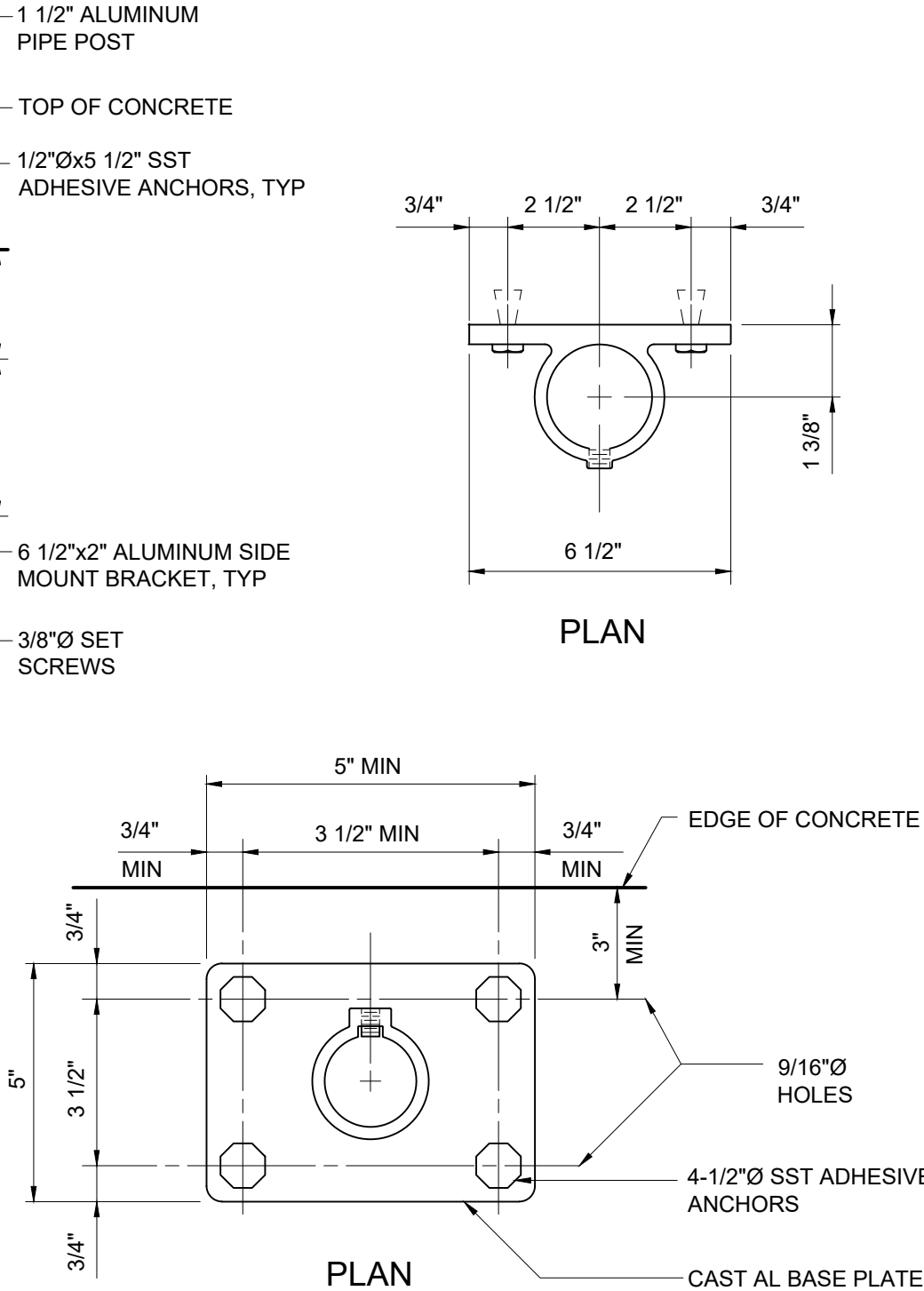
ALUMINUM LADDER

S-05-0501

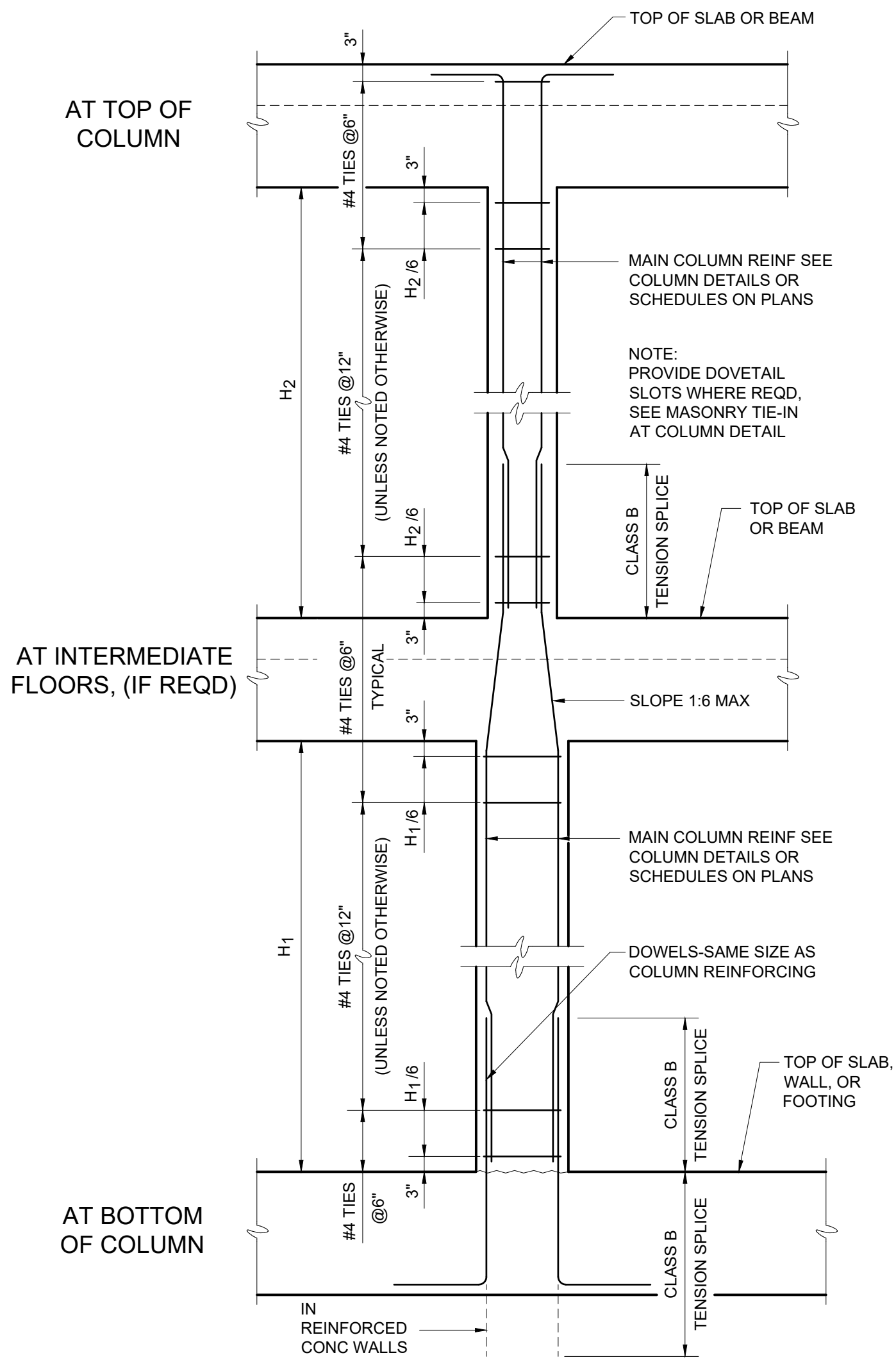


ALUMINUM GUARDS AND HANDRAILS

S-05-0601



PLAN



COLUMN ELEVATION

S-03-0802

	CONFORMED SET	03/2025	KJR	PROJECT ENGINEER: K. RAY
				DESIGNED BY: F. POWELL
				DRAWN BY: J. BURROUGHS
				CHECKED BY: A. THURSTON
				IF THIS BAR DOES NOT MEASURE 1" THEN DRAWING IS NOT TO FULL SCALE
REV	ISSUED FOR	DATE	BY	

CONFORMED DRAWING

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GBPE LIC #: PEF003685 EXP: 6/30/2026

Hazen
HAZEN AND SAWYER
1300 ALTMORE AVENUE
SUITE 520
ATLANTA, GEORGIA 30342
(404) 459-6363

COBB COUNTY-MARIETTA
WATER AUTHORITY

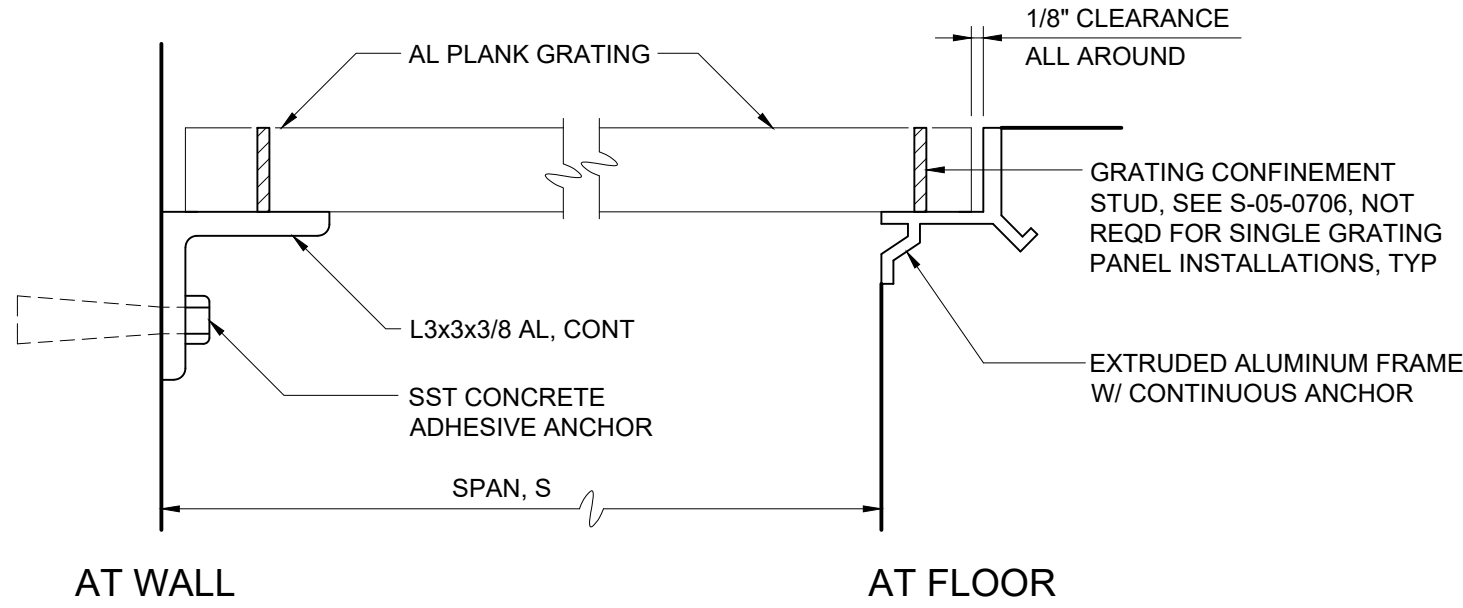
JAMES E. QUARLES WTP
RESERVOIR CLEANING AND IMPROVEMENTS
PROJECT

NEW CONSTRUCTION
STRUCTURAL
STANDARD DETAILS

DATE:	SEPTEMBER 2024
HAZEN NO.:	32485-017 & 026
CONTRACT NO.:	017 & 026
DRAWING NUMBER:	SD1

SPAN, S	DEPTH (MIN)	CONCRETE ANCHOR (SIZE AND SPACING)
0'-0" < S ≤ 5'-6"	1 1/2"	5/8"Øx6" @ 18"
5'-6" < S ≤ 6'-0"	1 3/4"	
6'-0" < S ≤ 6'-6"	2"	
6'-6" < S ≤ 7'-0"	2 1/4"	
7'-0" < S ≤ 8'-0"	2 1/2"	

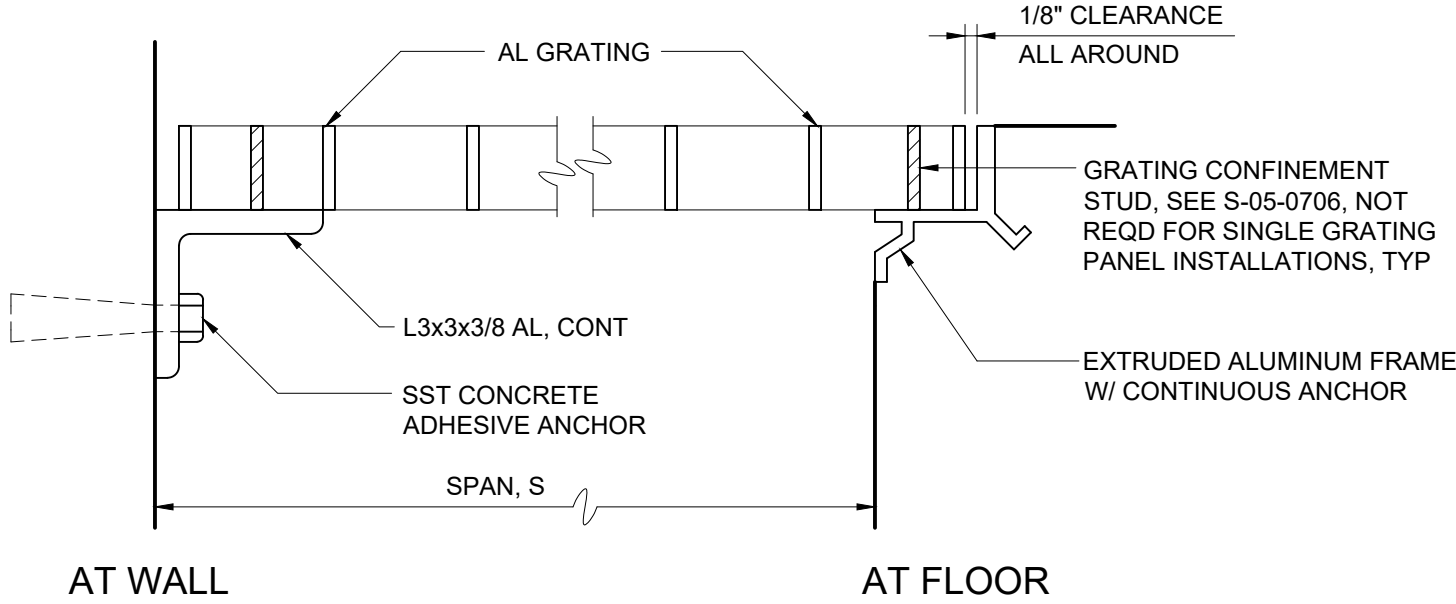
SCHEDULE BASED ON 150 PSF



ALUMINUM PLANK GRATING
S-05-0707

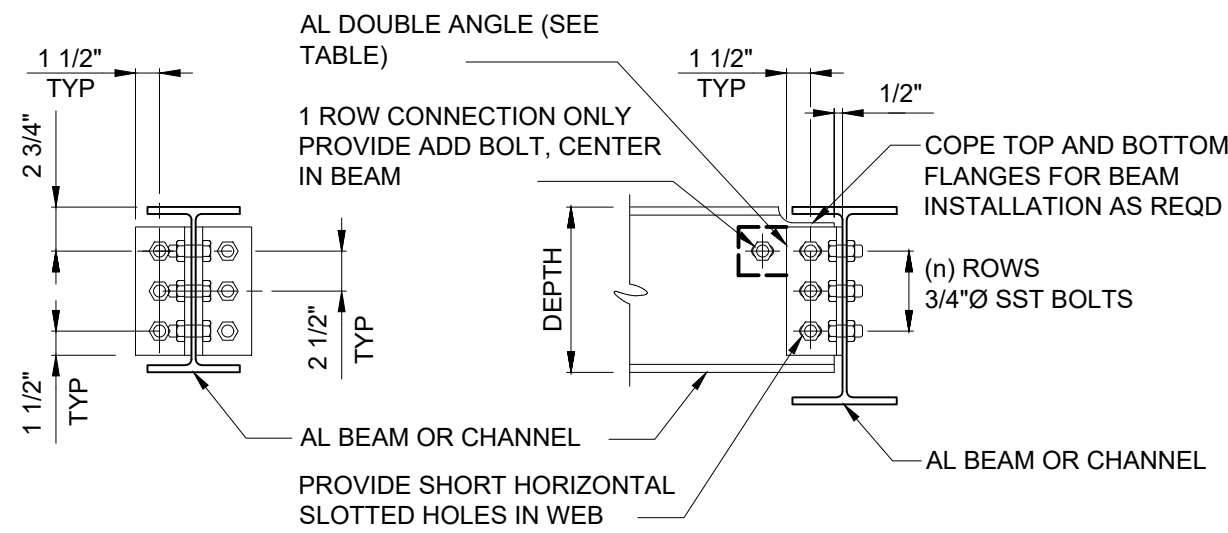
SPAN, S	DEPTH (MIN)	CONCRETE ANCHOR (SIZE AND SPACING)
0'-0" < S ≤ 4'-0"	1 1/2"	1/2"Øx5 1/2" @ 18"
4'-0" < S ≤ 5'-0"	1 3/4"	5/8"Øx6" @ 18"
5'-0" < S ≤ 5'-6"	2"	
5'-6" < S ≤ 6'-0"	2 1/4"	
6'-0" < S ≤ 6'-6"	2 1/2"	

SCHEDULE BASED ON 150 PSF

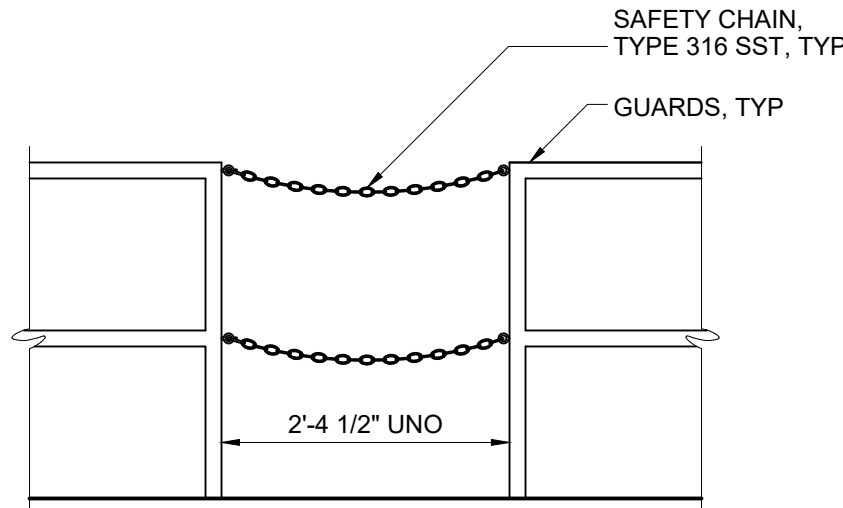


ALUMINUM GRATING
S-05-0701

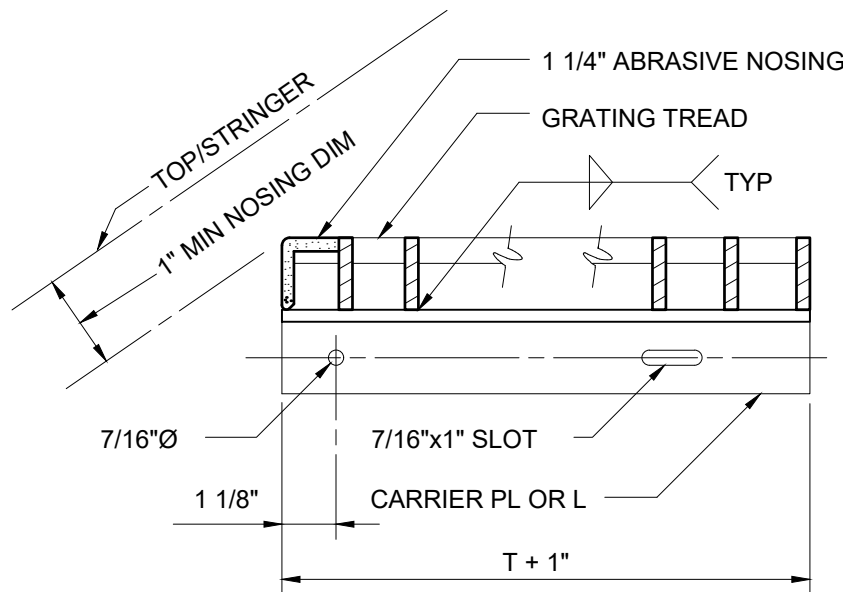
AL MEMBER DEPTH	AL DOUBLE ANGLES	(N) ROWS
4", 5", 6"	2-L6x4x3/8x0'-3" LONG	1
8"	2-L4x4x5/16x0'-5 1/2"	2
10", 12", 15"	2-L4x4x5/16x0'-8"	3



ALUMINUM FRAMING CONNECTION
S-05-0202



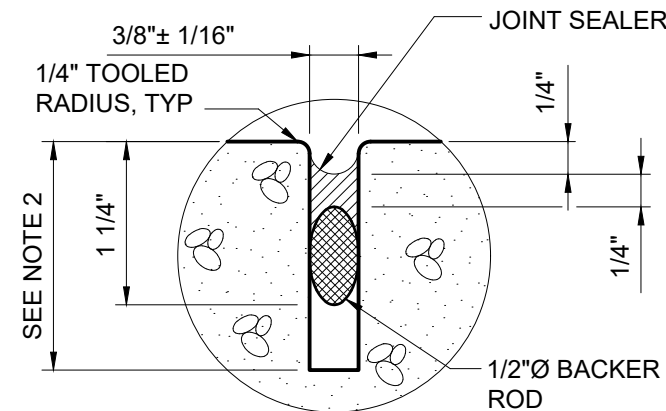
SAFETY CHAIN GATE
S-05-0602



TREAD DETAIL
S-05-0511

NOTES

1. VERTICAL JOINTS SHALL BE FORMED BY AN APPROVED JOINT INSERT. HORIZONTAL JOINTS SHALL BE FORMED BY AN APPROVED JOINT INSERT OR SAWCUTTING PERFORMED PER SPECIFICATION
2. DEPTH SHALL BE 2 1/2" IN REINF CONC DEPTH SHALL BE 1/3 OF CONCRETE THICK- NESS IN UNREINFORCED CONCRETE PAVEMENT.



SEALED JOINT
S-03-0202

File: C:\32485-ATL\32485-017\CAD_BIM\STRUSD2 Saved by PPOWELL Save date: 9/5/2023 10:00 AM
PLOT DATE: 3/10/2025 9:25 AM BY: MBALLARD

	CONFORMED SET	03/2025	KJR	PROJECT ENGINEER: K. RAY
				DESIGNED BY: HAZEN
				DRAWN BY: HAZEN
				CHECKED BY: HAZEN
				IF THIS BAR DOES NOT MEASURE 1" THEN DRAWING IS NOT TO FULL SCALE
REV	ISSUED FOR	DATE	BY	

CONFORMED DRAWING

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GBPE LIC #: PEF003685 EXP: 6/30/2026

Hazen

HAZEN AND SAWYER
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ATLANTA, GEORGIA 30342
(404) 459-6363

COBB COUNTY-MARIETTA
WATER AUTHORITY

JAMES E. QUARLES WTP
RESERVOIR CLEANING AND IMPROVEMENTS
PROJECT

NEW CONSTRUCTION
STRUCTURAL
STANDARD DETAILS

SD2

DATE:	SEPTEMBER 2024
HAZEN NO.:	32485-017 & 026
CONTRACT NO.:	017 & 026
DRAWING NUMBER:	

File: Q:\32485-ATL\32485-017\CAD_BIM\ELECTED2 Saved by JONES Save date: 9/1/2023 3:38 PM
PLOT DATE: 3/10/2025 1:55 PM BY: MBALLARD

LIGHTING FIXTURE SCHEDULE			
FIXTURE TYPE	LAMP/ FIXTURE WATTAGE	DESCRIPTION	MANUFACTURER AND MODEL
LL5	134W (MAX)	POLE-MOUNTED, 120-277VAC, LED LIGHT FIXTURE, COLOR TEMPERATURE OF 4000K, 70 CRI, 15,500 LUMEN MINIMUM, TYPE 2 DISTRIBUTION, HOUSE SIDE SHIELDS, DIMMABLE DRIVER, DARK BRONZE HOUSING, ARM MOUNTING, AND WET LOCATION LISTED.	LITHONIA CSX1 CONTOUR SERIES LED, OR ENGINEER APPROVED EQUAL.
		SQUARE, STRUCTURE-MOUNTED, STRAIGHT, 8 FT, ANODIZED BRONZE POLE.	
		POLE MOUNT, MOTION AND PHOTO SENSOR, ADJUSTABLE TIME DELAYS AND LIGHT LEVELS RESPONDING TO MOTION AND DAYLIGHT CONDITIONS, RATED FOR OUTDOOR APPLICATIONS, 120VAC LINE POWERED, DARK BRONZE FINISH.	RSBOR 10 BY NLIGHT AIR, OR APPROVED EQUAL.

ABBREVIATIONS		ABBREVIATIONS, CONT.	
AE	ANALYSIS ELEMENT	(*)PB	PULLBOX*
AHU	AIR HANDLING UNIT	PC	PHOTOCELL
AIC	AMPERE INTERRUPTING CAPACITY	PCC	POINT OF COMMON COUPLING
AIT	ANALYSIS INDICATING TRANSMITTER	PE	PRESSURE ELEMENT
ANSI	AMERICAN NATIONAL STANDARDS INSTITUTE	PIT	PRESSURE INDICATING TRANSMITTER
ASCE	AMERICAN SOCIETY OF CIVIL ENGINEERS	PLC	PROGRAMMABLE LOGIC CONTROLLER
ASME	AMERICAN SOCIETY OF MECHANICAL ENGINEERS	PP	POWER PANEL
AF	AMPERE FRAME	PST	PHASE SHIFTING TRANSFORMER
AT	AMPERE TRIP	PT	POTENTIAL TRANSFORMER
ATS	AUTOMATIC TRANSFER SWITCH	PTT	PUSH TO TEST
BC	BYPASS CONTACTOR	RCS	REMOTE CONTROL STATION
BKR	BREAKER	RECP	RECEPTACLE
(L/F/V)/CP	(LOCAL/FACTORY/VENDOR) CONTROL PANEL	RIO	REMOTE I/O
CPT	CONTROL POWER TRANSFORMER	RM	ROOM
CT	CURRENT TRANSFORMER	RTD	RESISTANCE THERMAL DEVICE
DB	DUCTBANK	RTU	REMOTE TELEMETRY UNIT
DSW	DISCONNECT SWITCH	RVAT	REDUCED VOLTAGE AUTO TRANSFORMER
EO	ELECTRICALLY OPERATED	RVSS	REDUCED VOLTAGE SOLID STATE
ERMS	ENERGY REDUCTION MAINTENANCE SWITCHING	SA	SUPPLY AIR
ETM	ELAPSED TIME METER	S.E.	SERVICE ENTRANCE
ETU	ELECTRONIC TRIP UNIT	SP. C.	SPARE CONDUIT
FAAP	FIRE ALARM ANNUNCIATOR PANEL	SPD	SURGE PROTECTIVE DEVICE
FACP	FIRE ALARM CONTROL PANEL	SSOL	SOLID STATE OVERLOAD
FS	FLOW SWITCH	SST	STAINLESS STEEL
FSL	FLOW SWITCH LOW	TB	TEST BLOCK
FVNR	FULL VOLTAGE NON-REVERSING	TC	TIMED CLOSE
FVR	FULL VOLTAGE REVERSING	(*)TJB	TERMINAL JUNCTION BOX*
GFCI	GROUND FAULT CIRCUIT INTERRUPTER	TO	TIMED OPEN
GFCT	GROUND FAULT CURRENT TRANSFORMER	TSH	TWISTED SHIELDED
GNG	GO-NO GO	TX	TRANSFORMER
GND	GROUND	TYP	TYPICAL
(*)HH	HAND HOLE*	UPS	UNINTERRUPTIBLE POWER SUPPLY
HOA	HAND-OFF-AUTO	VFD	VARIABLE FREQUENCY DRIVE
HPU	HYDRAULIC POWER UNIT	WPCR	WEATHER PROOF CORROSION RESISTANT
IC	INPUT CONTACTOR	WT	WALK THROUGH
IEEE	INSTITUTE OF ELECTRICAL AND ELECTRONICS ENGINEERS	XFMR	TRANSFORMER

*DESIGNATED ABBREVIATIONS CAN HAVE THE FOLLOWING PREFIXES:

E	ELECTRIC
P	POWER
C	CONTROL
I	INSTRUMENTATION
F	FIBER

- NOTES:
- UNLESS SPECIFICALLY NOTED OTHERWISE, ALL UNDERGROUND CONCRETE ENCASED ELECTRICAL CONDUITS SHALL BE PER STANDARD DETAIL E-33-0101R.
 - BOND ALL NEW CONCRETE ENCASED GROUND CONDUCTORS TO EXISTING GROUND CONDUCTORS IN ALL MANHOLES, PULL BOXES, CABLE TRAYS, AND SIMILAR LOCATIONS WHERE APPLICABLE.
 - UNLESS OTHERWISE SPECIFIED OR NOTED, ALL WALL MOUNTED ELECTRICAL PANELS, ENCLOSURES, AND SIMILAR EQUIPMENT SHALL BE MOUNTED 6'-6" (MAX) FROM THE TOP OF THE PANEL TO FINISHED FLOOR OR GRADE.
 - UNLESS OTHERWISE NOTED, ALL LIGHTING SWITCHES, CONTROL SWITCHES, AND SIMILAR EQUIPMENT SHALL BE MOUNTED WITH THEIR CENTERLINE APPROXIMATELY 4'-0" ABOVE FINISHED FLOOR, SLAB, OR GRADE.
 - A SEPARATE EQUIPMENT GROUNDING CONDUCTOR SHALL BE PROVIDED FOR EACH CIRCUIT (SEPARATE CONDUCTOR IN THE CONDUIT). THE CONDUCTOR SHALL BE TERMINATED AT THE PROPER DEVICE, TERMINAL, OR LUG AT THE POWER SOURCE (MCC GROUND BUS, PANELBOARD GROUND BUS, ETC.). GROUND CONDUCTOR SIZE SHALL BE PER THE LATEST EDITION OF THE NEC.
 - REFERENCE SECTION 01 14 00 FOR CONSTRUCTION SEQUENCING REQUIREMENTS.
 - CONDUIT HOMERUNS ARE NOT SHOWN ON THE DRAWINGS. CONTRACTOR SHALL REFER TO CONDUIT AND WIRE SCHEDULES, RISER DIAGRAMS, SINGLE LINE DIAGRAMS, AND OTHER DRAWINGS FOR CONDUIT AND WIRE REQUIREMENTS.
 - SEAL ALL CONDUIT PENETRATIONS INTO PANELBOARDS, ENCLOSURES, AND JUNCTION BOXES.

				PROJECT ENGINEER:	K. RAY
	CONFORMED SET	03/2025	KJR	DESIGNED BY:	N. LIMA
				DRAWN BY:	J. JONES
				CHECKED BY:	V. KANCHEVA
REV	ISSUED FOR	DATE	BY	IF THIS BAR DOES NOT MEASURE 1" THEN DRAWING IS NOT TO FULL SCALE	0 1/2" 1"

CONFORMED DRAWING

THIS DOCUMENT ORIGINALLY ISSUED AND SEALED BY NUBEA LIMA, 024756, ON 09/12/2024 AND THE ENTITY'S COA INFORMATION. THIS MEDIUM SHALL NOT BE CONSIDERED A CERTIFIED DOCUMENT.

GBPE LIC #: PEF003685 EXP: 6/30/2026

Hazen

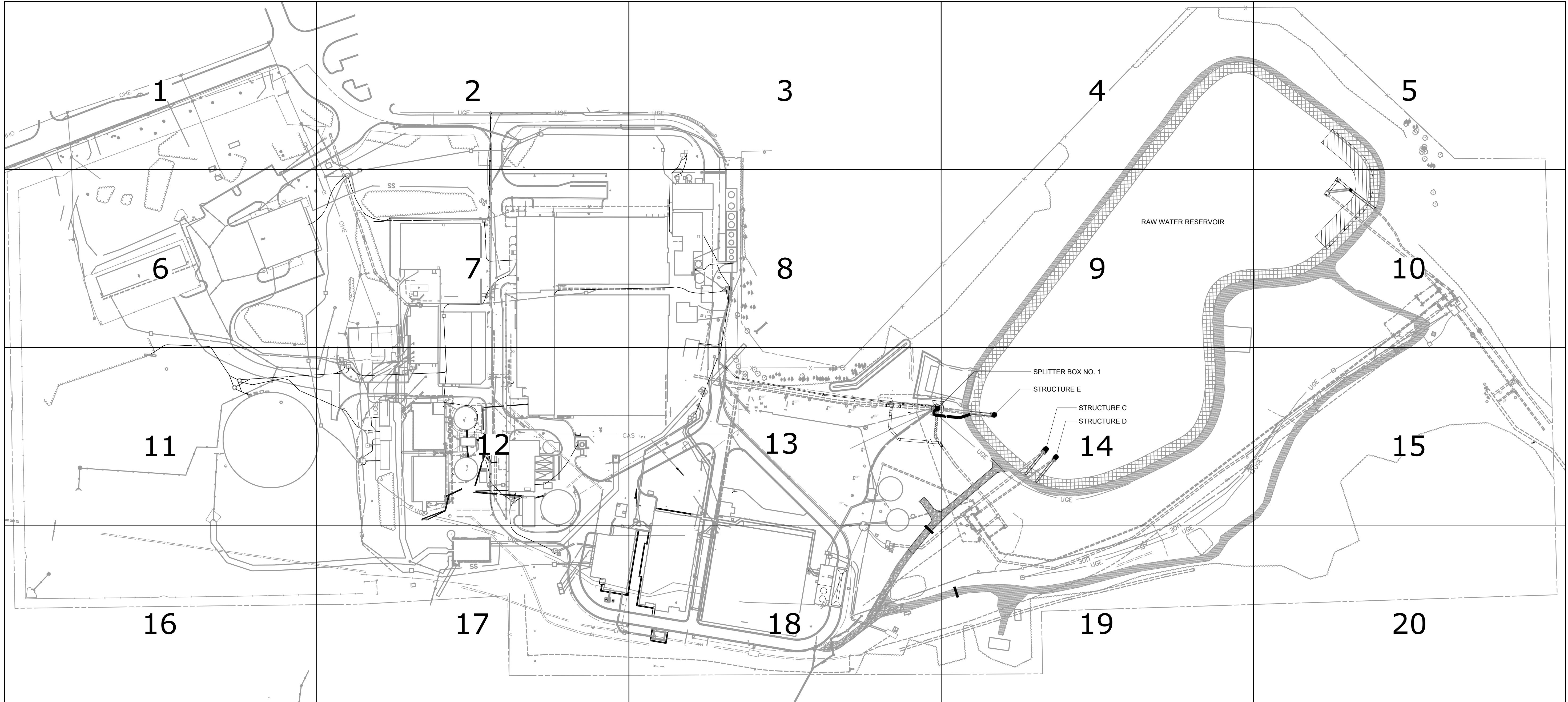
HAZEN AND SAWYER
1300 ALTMORE AVENUE
SUITE 520
ATLANTA, GEORGIA 30342
(404) 459-6363

COBB COUNTY-MARIETTA
WATER AUTHORITY

JAMES E. QUARLES WTP
RESERVOIR CLEANING AND IMPROVEMENTS
PROJECT

ELECTRICAL
LIGHTING FIXTURE SCHEDULE,
ABBREVIATIONS, AND GENERAL NOTES

DATE:	SEPTEMBER 2024
HAZEN NO.:	32485-017 & 026
CONTRACT NO.:	017 & 026
DRAWING NUMBER:	E0.2



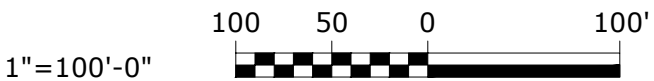
NOTES:

1. CONTRACTOR SHALL VERIFY LOCATIONS AND DEPTHS OF EXISTING UNDERGROUND UTILITIES AND STRUCTURES PRIOR TO COMMENCING CONSTRUCTION OPERATIONS. LOCATIONS AND DEPTHS OF EXISTING UTILITIES SHOWN ARE APPROXIMATE, BASED ON RECORD DRAWING INFORMATION, AND MAY NOT REFLECT THE ACTUAL FIELD CONDITIONS. CONTRACTOR SHALL BE RESPONSIBLE FOR FIELD VERIFYING EXACT LOCATION AND ELEVATION OF UTILITIES AND OTHER UNDERGROUND LINES USING "NO-CUTS" AND TEST PITS. CONFLICTS BETWEEN NEW AND EXISTING UTILITIES SHALL BE IMMEDIATELY BROUGHT TO ENGINEER'S ATTENTION.
2. NOT ALL EXISTING UNDERGROUND UTILITIES, SUCH AS DIRECT-BURIED CONDUITS, ARE SHOWN ON THE DRAWING. CONTRACTOR TO EXERCISE CAUTION WHEN DIGGING NEW DUCTBANKS.

OVERALL PLAN
1" = 100'-0"

1	2	3	4	5
6	7	8	9	10
11	12	13	14	15
16	17	18	19	20

SITE - KEY PLAN



	CONFORMED SET	03/2025	KJR	PROJECT ENGINEER: K. RAY
				DESIGNED BY: N. LIMA
				DRAWN BY: J. JONES
				CHECKED BY: V. KANCHEVA
				IF THIS BAR DOES NOT MEASURE 1" THEN DRAWING IS NOT TO FULL SCALE
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GBPE LIC #: PEF003685 EXP: 6/30/2026

Hazen

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SUITE 520
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(404) 459-6363

COBB COUNTY-MARIETTA
WATER AUTHORITY

JAMES E. QUARLES WTP
RESERVOIR CLEANING AND IMPROVEMENTS
PROJECT

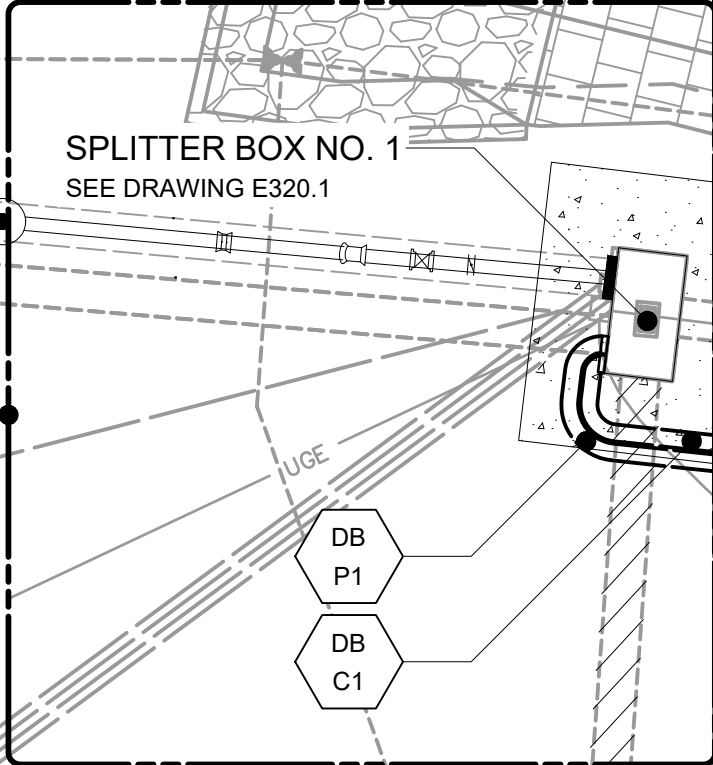
SITE
ELECTRICAL
OVERALL PLAN

E4.00

DATE:	SEPTEMBER 2024
HAZEN NO.:	32485-017 & 026
CONTRACT NO.:	017 & 026
DRAWING NUMBER:	

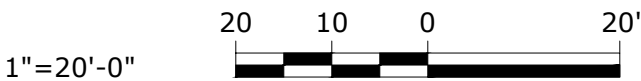


- NOTES:
- SEE DRAWING E4.14 FOR DUCTBANK SCHEDULES.
 - SEE DRAWING E320.1 FOR CONDUIT ROUTING REQUIREMENTS.
 - THERE ARE ABANDONED AND IN-USE UNDERGROUND UTILITIES IN THIS AREA, SHOWN AND NOT SHOWN ON THESE DRAWINGS. LOCATION IS APPROXIMATE. EXERCISE CAUTION WHEN EXCAVATING.



EXISTING SPLITTER BOX NO. 1
PHOTOGRAPHS

PARTIAL PLAN
1" = 20'-0"



1	2	3	4	5
6	7	8	9	10
11	12	13	14	15
16	17	18	19	20

	CONFORMED SET	03/2025	KJR	PROJECT ENGINEER: K. RAY
				DESIGNED BY: N. LIMA
				DRAWN BY: J. JONES
				CHECKED BY: V. KANCHEVA
				IF THIS BAR DOES NOT MEASURE 1" THEN DRAWING IS NOT TO FULL SCALE
REV	ISSUED FOR	DATE	BY	

CONFORMED DRAWING

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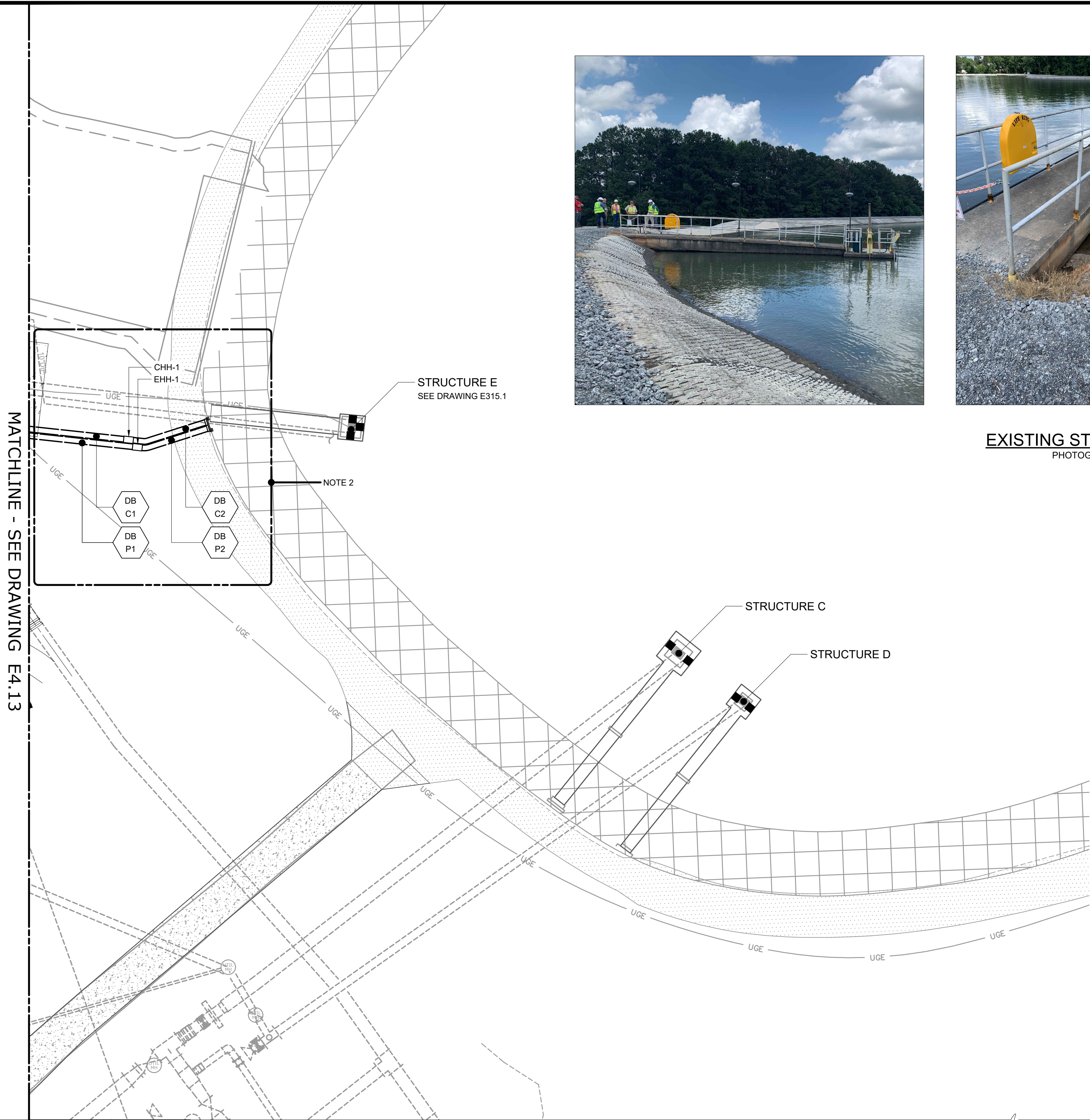
COBB COUNTY-MARIETTA
WATER AUTHORITY

JAMES E. QUARLES WTP
RESERVOIR CLEANING AND IMPROVEMENTS
PROJECT

SITE
ELECTRICAL
PARTIAL PLAN

DATE: SEPTEMBER 2024
HAZEN NO.: 32485-017 & 026
CONTRACT NO.: 017 & 026
DRAWING NUMBER:
E4.13

File: O:\32485-ATL\32485-017\CAD_BIM\ELEC\E4.14.dwg Saved by MBALLARD Save date: 3/10/2025 2:10 PM
PLOT DATE: 3/10/2025 2:35 PM BY: MBALLARD



1	2	3	4	5
6	7	8	9	10
11	12	13	14	15
16	17	18	19	20

PARTIAL PLAN
1" = 20'-0"

NOTES:

- SEE DRAWING E315.1 FOR CONDUIT ROUTING REQUIREMENTS.
- THERE ARE ABANDONED AND IN-USE UNDERGROUND UTILITIES IN THIS AREA, SHOWN AND NOT SHOWN ON THESE DRAWINGS. LOCATION IS APPROXIMATE. EXERCISE CAUTION WHEN EXCAVATING.



EXISTING STRUCTURE E
PHOTOGRAPHS

DUCTBANK	No.	CONDUIT NO.	SIZE	DESCRIPTION	CONDUIT		NOTES
					FROM	TO	
DB-P1	1	P-005	1"	6#12, #12GND	PTJB-320	EHH-1	LTG, REC, EX LEVEL TRANSMITTER
	2	P-006	1"	EMPTY W/ PULLSTRING	PTJB-320	EHH-1	FUTURE WATER SAMPLING
	3	P-007	1"	EMPTY W/ PULLSTRING	PTJB-320	EHH-1	FUTURE SECURITY CAMERA
DB-P2	1	P-010	1"	6#12, #12GND	EHH-1	PPB-315	LTG, REC, EX LEVEL TRANSMITTER
	2	P-011	1"	EMPTY W/ PULLSTRING	EHH-1	PPB-315	FUTURE WATER SAMPLING
	3	P-012	1"	EMPTY W/ PULLSTRING	EHH-1	PPB-315	FUTURE SECURITY CAMERA
DB-C1	1	I-000	1"	2/C#16TSH	CTJB-320	CHH-1	EX LEVEL TRANSMITTER
	2	I-001	1"	EMPTY W/ PULLSTRING	CTJB-320	CHH-1	FUTURE WATER SAMPLING
	3	I-002	1"	EMPTY W/ PULLSTRING	CTJB-320	CHH-1	FUTURE SECURITY CAMERA
DB-C2	1	I-005	1"	2/C#16TSH	CHH-1	CPB-315	EX LEVEL TRANSMITTER
	2	I-006	1"	EMPTY W/ PULLSTRING	CHH-1	CPB-315	FUTURE WATER SAMPLING
	3	I-007	1"	EMPTY W/ PULLSTRING	CHH-1	CPB-315	FUTURE SECURITY CAMERA

1" = 20'-0"
20 10 0 20'

	CONFORMED SET	03/2025	KJR	PROJECT ENGINEER: K. RAY
				DESIGNED BY: N. LIMA
				DRAWN BY: J. JONES
				CHECKED BY: V. KANCHEVA
				IF THIS BAR DOES NOT MEASURE 1" THEN DRAWING IS NOT TO FULL SCALE
REV	ISSUED FOR	DATE	BY	

CONFORMED DRAWING

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GBPE LIC #: PEF003685 EXP: 6/30/2026

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HAZEN AND SAWYER
1300 ALTMORE AVENUE
SUITE 520
ATLANTA, GEORGIA 30342
(404) 459-6363

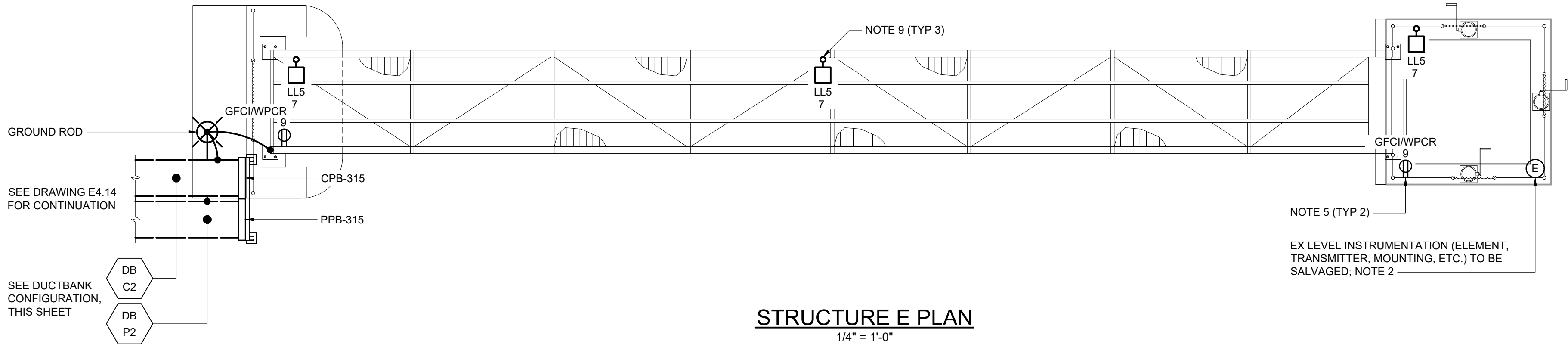
COBB COUNTY-MARIETTA
WATER AUTHORITY

JAMES E. QUARLES WTP
RESERVOIR CLEANING AND IMPROVEMENTS
PROJECT

SITE
ELECTRICAL
PARTIAL PLAN AND DUCTBANK SCHEDULES

DATE: SEPTEMBER 2024
HAZEN NO.: 32485-017 & 026
CONTRACT NO.: 017 & 026
DRAWING NUMBER:

E4.14

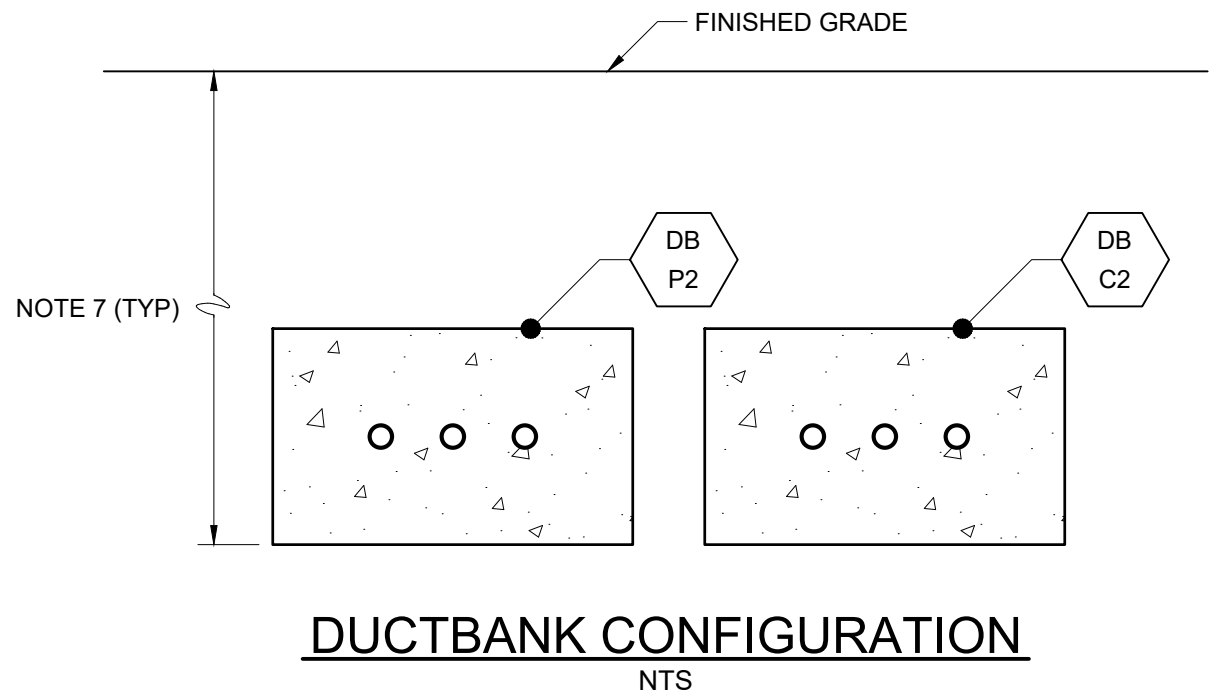


GROUNDING NOTES:

- A. BOND STRUCTURAL FOUNDATION REBAR TO THE GROUND ROD.
- B. GROUNDING CONDUCTOR TO STRUCTURAL STEEL SHALL BE #4/0 BARE COPPER.
- C. EACH DUCT BANK GROUNDING SHALL BE EXOTHERMICALLY WELDED TO THE GROUND ROD AS SHOWN.
- D. BOND HANDRAIL TO GROUND ROD AS SHOWN.

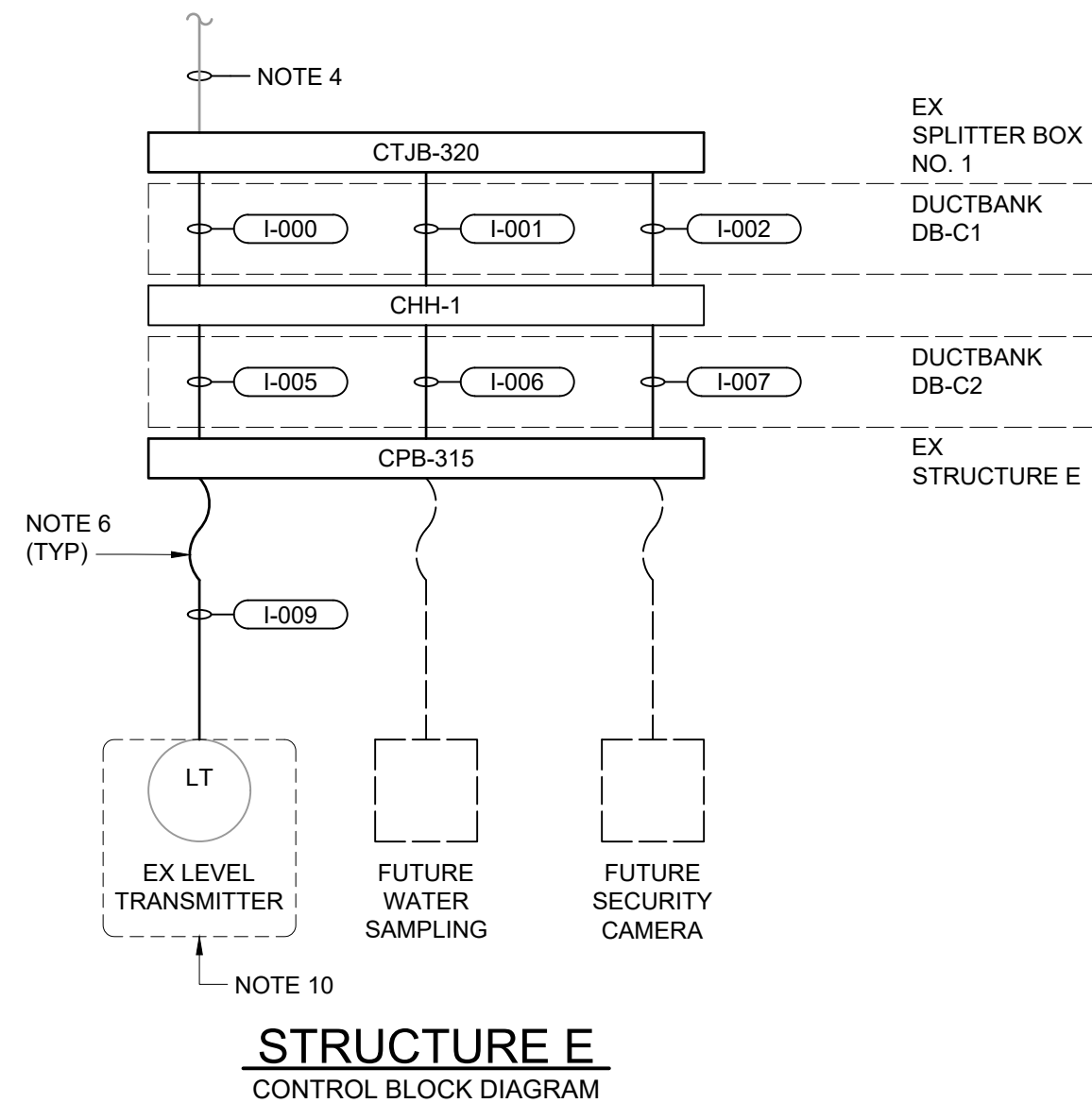
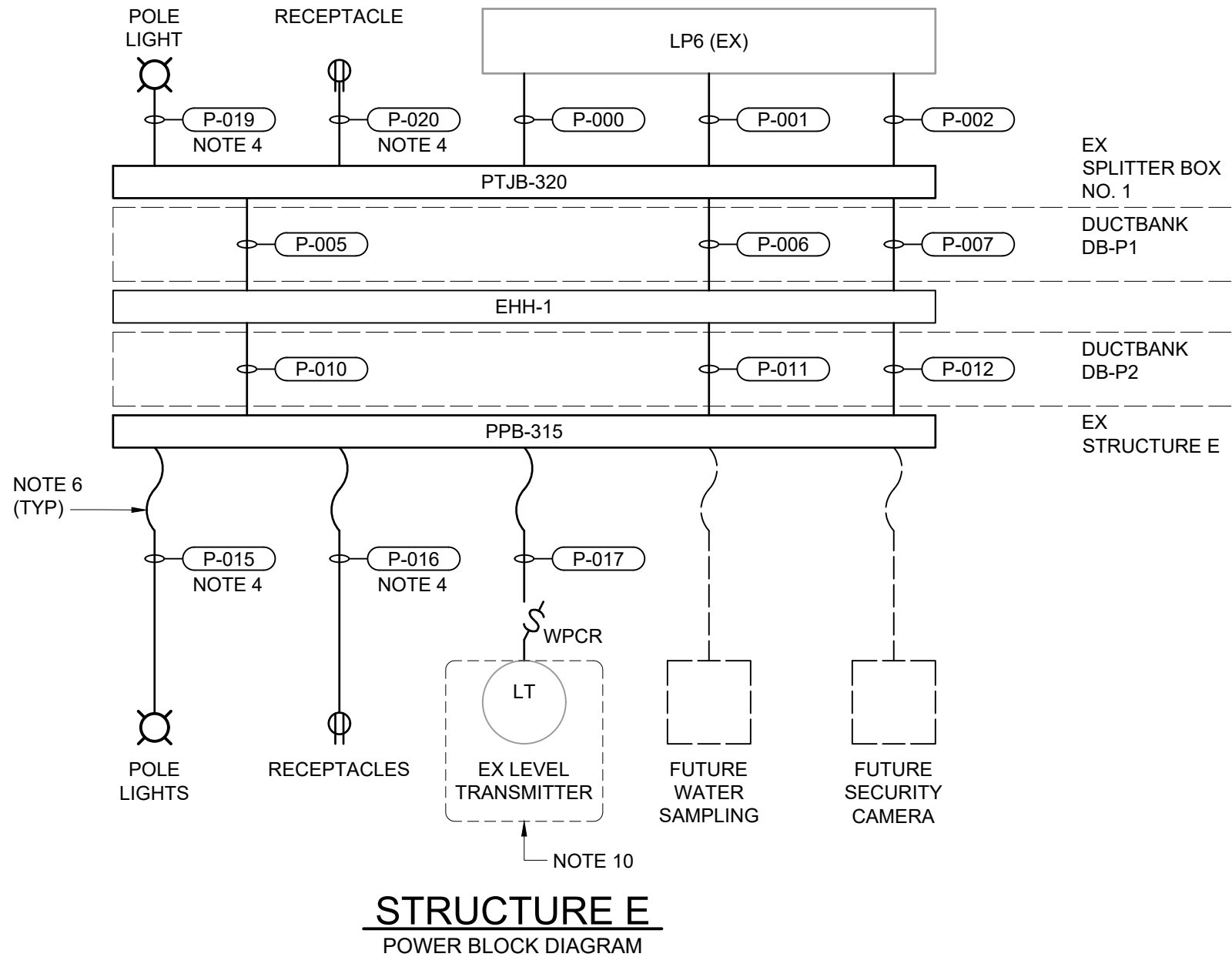
NOTES:

- 1. REMOVE EXISTING LIGHTING, RECEPTACLES, AND WIRING ASSOCIATED WITH DEMOLISHED WALKWAY TO THE POWER SOURCE. REMOVE ALL ASSOCIATED EXPOSED CONDUITS.
- 2. REMOVE EXISTING LEVEL ELEMENT AND TRANSMITTER AND TURN OVER TO CCMWA. SEE PHOTOGRAPHS ON DRAWING E4.14.
- 3. SEE BLOCK DIAGRAMS ON THIS SHEET FOR CONDUIT AND WIRE REQUIREMENTS.
- 4. PROVIDE A TERMINAL JUNCTION BOX, PTJB-320, AT THE SPLITTER BOX AS SHOWN TO SPLIT POWER FOR LIGHTING AND RECEPTACLE CIRCUITS AT SPLITTER BOX NO. 1 AND STRUCTURE E. JUNCTION BOX SHALL INCLUDE TERMINALS TO AVOID SPLICING THE CIRCUITS.
- 5. PROVIDE WEATHERPROOF-WHILE-IN-USE COVER.
- 6. INSTALL FLEX CONDUIT BETWEEN PULLBOXES LOCATED ON SHORE AND THE GANGWAY OF STRUCTURE E. TRANSITION TO PVC COATED RIGID CONDUIT. ATTACH ALL POWER AND CONTROL CONDUITS TO THE SIDE OF THE STRUCTURE TO KEEP IT OUT OF THE WAY OF PERSONNEL AND AVOID CREATING TRIPPING HAZARDS.
- 7. AT CREST OF DAM, INVERT OF DUCTBANK SHALL BE AT ELEVATION 1048.00. CONDUIT TO BE ARRANGED IN A SINGLE ROW.
- 8. INSTALL DUCTBANKS PER STANDARD DETAIL E-33-0107.
- 9. COORDINATE MOUNTING OF LIGHT POLES WITH BRIDGE AND PLATFORM MANUFACTURER, SEE SECTION 13 22 00.
- 10. COORDINATE WITH CCMWA FOR INSTALLATION OF EXISTING LEVEL TRANSMITTER.



CONDUIT NO.	SIZE	FROM	TO	CONDUCTORS	REMARKS
P-000	1"	LP6 (EX)	PTJB-320	6#12, #12GND	LTG, REC, EX LEVEL TRANSMITTER
P-001	1"	LP6 (EX)	PTJB-320	EMPTY W/ PULLSTRING	FUTURE WATER SAMPLING
P-002	1"	LP6 (EX)	PTJB-320	EMPTY W/ PULLSTRING	FUTURE SECURITY CAMERA
P-003				NOT USED	
P-004				NOT USED	
P-005	1"	PTJB-320	EHH-1	6#12, #12GND	LTG, REC, EX LEVEL TRANSMITTER
P-006	1"	PTJB-320	EHH-1	EMPTY W/ PULLSTRING	FUTURE WATER SAMPLING
P-007	1"	PTJB-320	EHH-1	EMPTY W/ PULLSTRING	FUTURE SECURITY CAMERA
P-008				NOT USED	
P-009				NOT USED	
P-010	1"	EHH-1	PPB-315	6#12, #12GND	LTG, REC, EX LEVEL TRANSMITTER
P-011	1"	EHH-1	PPB-315	EMPTY W/ PULLSTRING	FUTURE WATER SAMPLING
P-012	1"	EHH-1	PPB-315	EMPTY W/ PULLSTRING	FUTURE SECURITY CAMERA
P-013				NOT USED	
P-014				NOT USED	
P-015	3/4"	PPB-315	STRUCTURE E POLE LIGHTS	2#12, #12GND	
P-016	3/4"	PPB-315	STRUCTURE E RECEPTACLES	2#12, #12GND	
P-017	3/4"	PPB-315	EX LEVEL TRANSMITTER	2#12, #12GND	VIA DSW
P-018				NOT USED	
P-019	3/4"	PTJB-320	SPLITTER BOX NO. 1 POLE LIGHT	2#12, #12GND	
P-020	3/4"	PTJB-320	SPLITTER BOX NO. 1 RECEPTACLE	2#12, #12GND	
P-021				NOT USED	
P-022				NOT USED	

CONDUIT NO.	SIZE	FROM	TO	CONDUCTORS	REMARKS
I-000	1"	CTJB-320	CHH-1	2/C#16TSH	EX LEVEL TRANSMITTER
I-001	1"	CTJB-320	CHH-1	EMPTY W/ PULLSTRING	FUTURE WATER SAMPLING
I-002	1"	CTJB-320	CHH-1	EMPTY W/ PULLSTRING	FUTURE SECURITY CAMERA
I-003				NOT USED	
I-004				NOT USED	
I-005	1"	CHH-1	CPB-315	2/C#16TSH	EX LEVEL TRANSMITTER
I-006	1"	CHH-1	CPB-315	EMPTY W/ PULLSTRING	FUTURE WATER SAMPLING
I-007	1"	CHH-1	CPB-315	EMPTY W/ PULLSTRING	FUTURE SECURITY CAMERA
I-008				NOT USED	
I-009	1"	CPB-315	EX LEVEL TRANSMITTER	2/C#16TSH	
I-010				NOT USED	



1/4"=1'-0"

	CONFORMED SET	03/2025	KJR	PROJECT ENGINEER: K. RAY
				DESIGNED BY: N. LIMA
				DRAWN BY: J. JONES
				CHECKED BY: V. KANCHEVA
				IF THIS BAR DOES NOT MEASURE 1" THEN DRAWING IS NOT TO FULL SCALE
REV	ISSUED FOR	DATE	BY	

CONFORMED DRAWING

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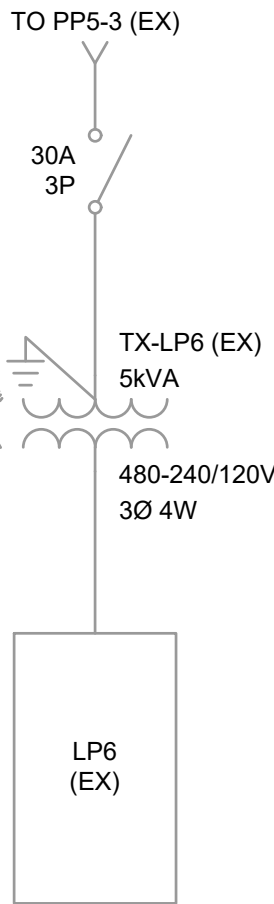
COBB COUNTY-MARIETTA
WATER AUTHORITY

JAMES E. QUARLES WTP
RESERVOIR CLEANING AND IMPROVEMENTS
PROJECT

STRUCTURE E
ELECTRICAL
PLAN, DIAGRAMS, AND CONDUIT AND WIRE
SCHEDULES

DATE:	SEPTEMBER 2024
HAZEN NO.:	32485-017 & 026
CONTRACT NO.:	017 & 026
DRAWING NUMBER:	E315.1

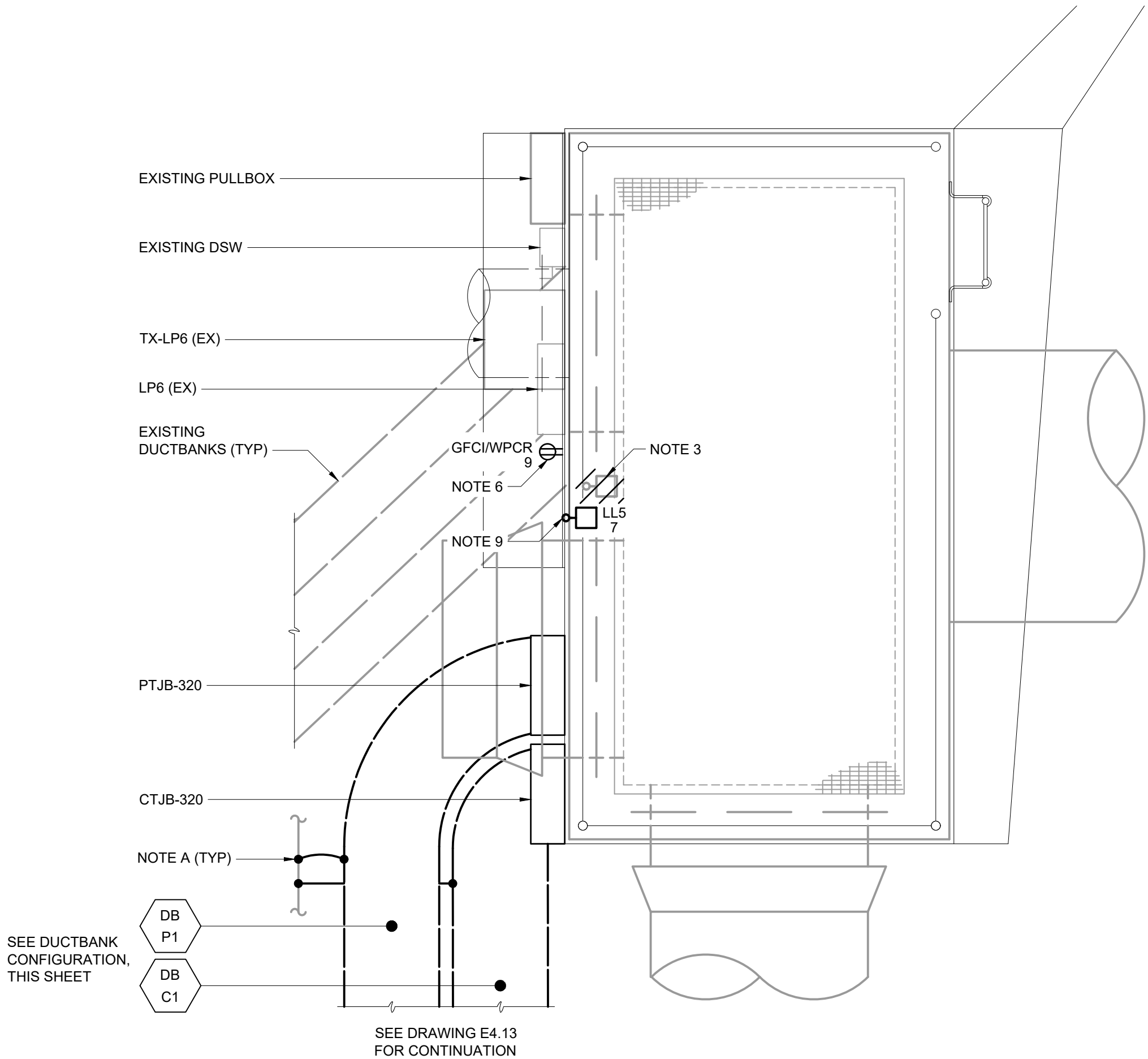
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PLOT DATE: 3/10/2025 1:59 PM BY: MBALLARD



EXISTING SPLITTER BOX NO. 1
SINGLE LINE DIAGRAM
SHOWN FOR REFERENCE ONLY



EXISTING PANELBOARD LP6
PHOTOGRAPH



SPLITTER BOX NO. 1 PLAN
1/2" = 1'-0"

NOTES:

1. EXISTING PANELBOARD LP6 IS SIEMENS, CATALOG NUMBER SW1224L3125.
2. SEE BLOCK DIAGRAMS ON DRAWING E315.1 FOR CONDUIT AND WIRE REQUIREMENTS.
3. REMOVE EXISTING LIGHT FIXTURE, POLE, PHOTOCELL CONTROLLER, AND ASSOCIATED WIRING TO THE POWER SOURCE. REMOVE ALL ASSOCIATED EXPOSED CONDUITS. SEE PHOTOGRAPHS ON DRAWING E4.13.
4. DEMOLISH EXISTING LIGHTING FIXTURES AND RECEPTACLE SUPPLIED BY CIRCUITS 7 AND 9. UTILIZE EXISTING CIRCUIT BREAKERS FOR NEW LIGHTING FIXTURES AND RECEPTACLES.
5. PROVIDE MATCHING TYPE CIRCUIT BREAKER IN EXISTING SPACE. UPDATE PANELBOARD DIRECTORY.
6. PROVIDE WEATHERPROOF-WHILE-IN-USE COVER.
7. TOP OF DUCTBANK TO BE 12-INCHES BELOW THE SLAB AT THE SPLITTER BOX AND 24-INCHES (MIN) BELOW GRADE BEYOND THE SLAB. CONDUIT TO BE ARRANGED IN A SINGLE ROW.
8. INSTALL DUCTBANKS PER STANDARD DETAIL E-33-0107.
9. SIDE MOUNT LIGHT POLE TO FACE OF CONCRETE WALL; AVOID MOUNTING ON HANDRAIL.

GROUNDING NOTES:

- A. EXCAVATE TO LOCATE THE EXISTING GROUND LOOP AND BOND IN ACCORDANCE WITH THESE GROUNDING NOTES.
- B. REFER TO N.E.C. ARTICLE 250.52(A)(3) FOR BONDING OF GROUND RING TO STRUCTURAL FOUNDATION REBAR.
- C. EACH DUCT BANK GROUND CONDUCTOR CROSSING THE GROUND RING SHALL BE EXOTHERMICALLY WELDED TO THE GROUND RING CONDUCTOR.
- D. ALL TRANSFORMERS AND PANELBOARDS SHALL BE BONDED TO THE GROUND RING CONDUCTOR.
- E. BOND HANDRAIL AND LADDER TO GROUND RING.

208/120 VOLTS

3 PHASE, 4 WIRE

LP6 (EX)

MAIN BREAKER

30A 3P

TYPE: NEMA 3R

MOUNT: SURFACE

MODS	DESCRIPTION	WIRE	TRIP	POLE	CKT No.	VOLT-AMPERES		
						A	B	C
-	SERVICE DISCONNECT		30	3	1	-		
					3		-	
					5			-
-	LIGHTS - SPLITTER BOX & STR E	NOTE 2	20	1	7	596		
-	RECP - SPLITTER BOX & STR E	NOTE 2	20	1	9		540	
-	SPACE				11			-

TOTAL

5965400

PHASE TOTAL

6965400

MODIFICATION (MODS) LEGEND:

EPD - GROUND FAULT CIRCUIT INTERRUPTER (30mA)

GFCI - GROUND FAULT CIRCUIT INTERRUPTER (5mA)

LOD - LOCK-ON DEVICE

LFD - LOCK-OFF DEVICE

VOLT-AMPERES			CKT No.	POLE	TRIP	WIRE	DESCRIPTION	MODS
A	B	C						
100			2	1	20	NOTE 2	LEVEL TRANSMITTER	-
	-		4	1	20	NOTE 2	WATER SAMPLING (FUTURE)	-
		-	6	1	20	NOTE 2	SECURITY CAMERA (FUTURE)	-
-			8	1	20		SPARE	-
	-		10	1	20		SPARE	-
		-	12	1			SPACE	-

10000

TOTAL LOAD (VA)

1,236

TOTAL LOAD (A)

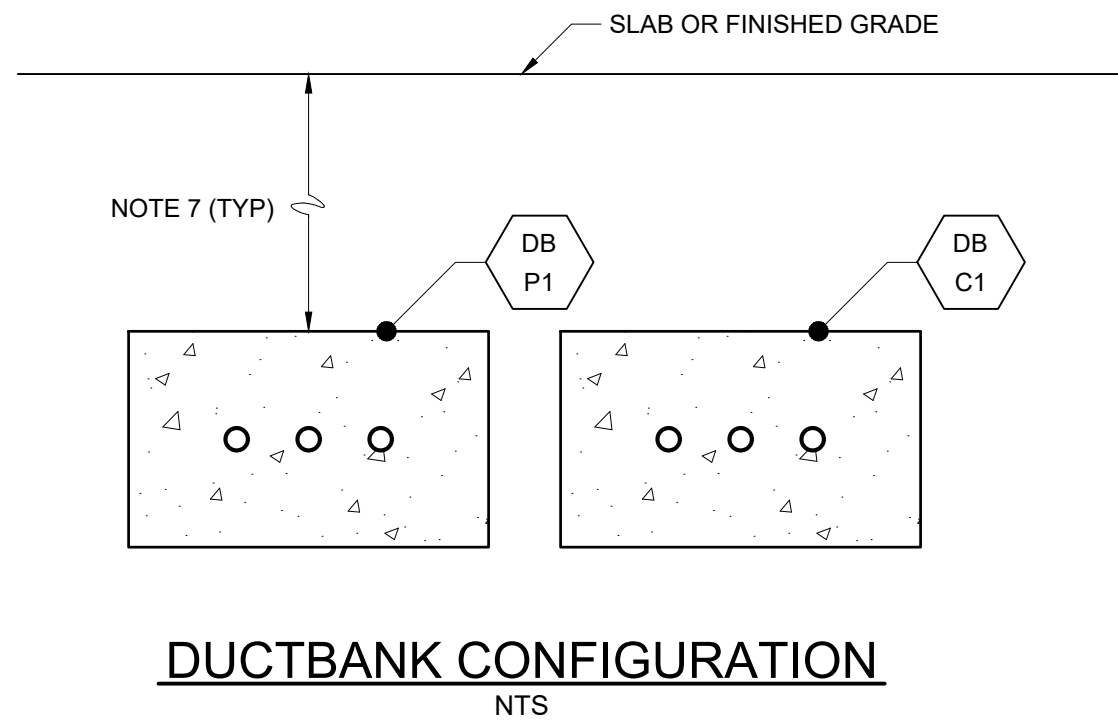
3

NOTES:

10kA RMS SYMMETRICAL

NOTE 4

NOTE 5



DUCTBANK CONFIGURATION
NTS

1/2" = 1'-0"

	CONFORMED SET	03/2025	KJR	PROJECT ENGINEER: K. RAY
				DESIGNED BY: N. LIMA
				DRAWN BY: J. JONES
				CHECKED BY: V. KANCHEVA
				IF THIS BAR DOES NOT MEASURE 1" THEN DRAWING IS NOT TO FULL SCALE
REV	ISSUED FOR	DATE	BY	

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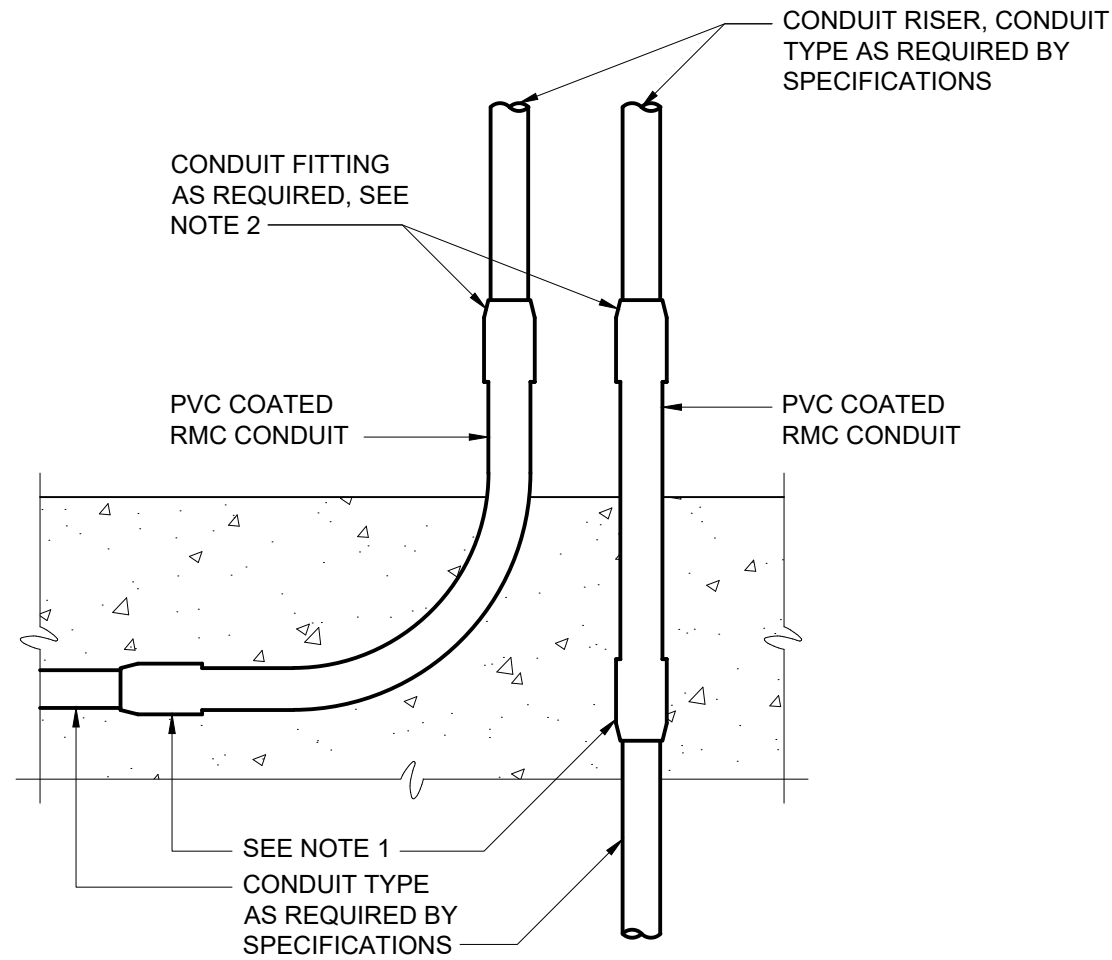
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COBB COUNTY-MARIETTA
WATER AUTHORITY

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PROJECT

SPLITTER BOX NO. 1
ELECTRICAL
PLAN, SINGLE LINE DIAGRAM, AND
PANELBOARD SCHEDULE

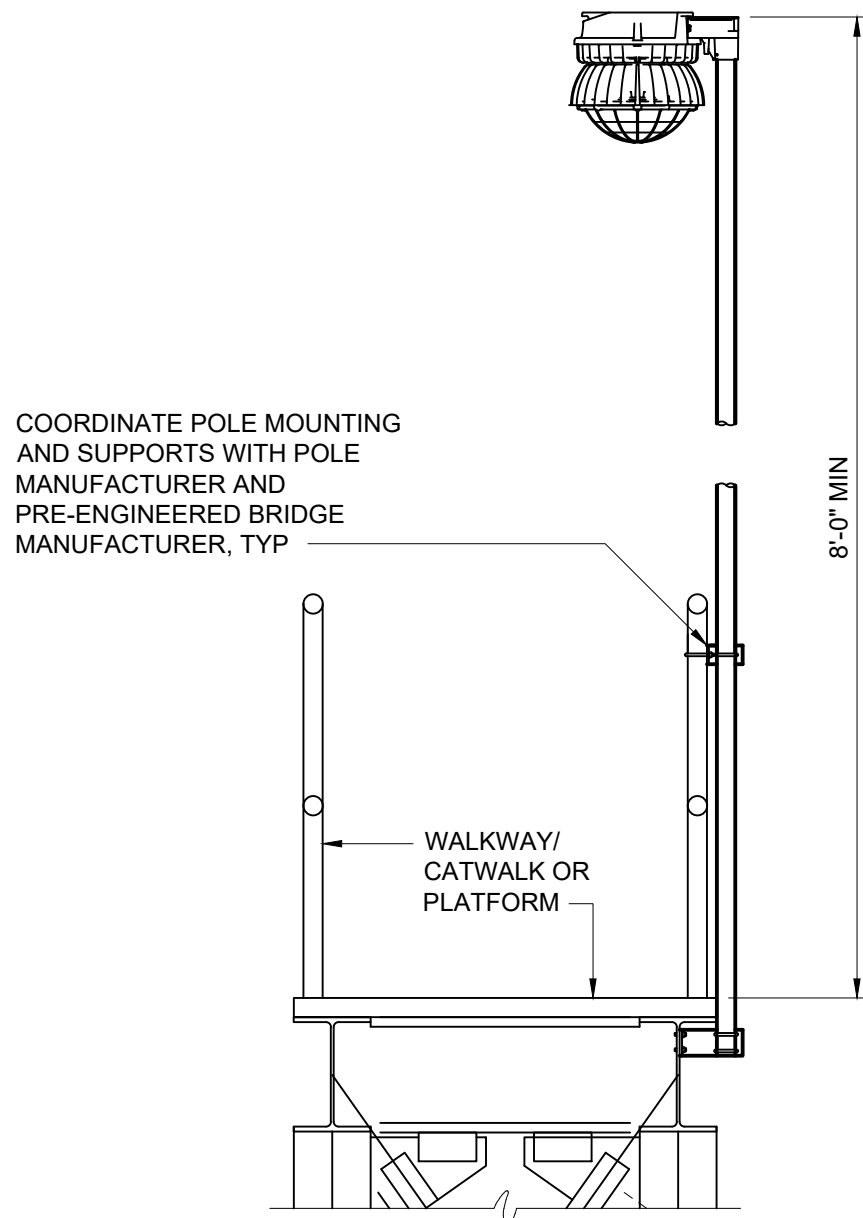
DATE:	SEPTEMBER 2024
HAZEN NO.:	32485-017 & 026
CONTRACT NO.:	017 & 026
DRAWING NUMBER:	E320.1



NOTES:

- FOR ENCASED PVC CONDUIT USE PVC TERMINAL ADAPTER. FOR ALL OTHER CONDUIT TYPES, USE PVC COATED RMC COUPLINGS.
- IF ANY THREADS OF THE PVC COATED RMC CONDUIT ARE EXPOSED AFTER INSTALLATION OF THE CONDUIT FITTING, THE CONDUIT FITTING SHALL BE PVC COATED TYPE WITH APPROPRIATE PVC SKIRTS. IF THE THREADS OF THE PVC COATED RMC CONDUIT ARE PROPERLY CUT SO THAT THEY ARE NOT EXPOSED AFTER INSTALLATION OF THE CONDUIT FITTING, THE CONDUIT MATERIAL SHALL BE AS REQUIRED BY THE SPECIFICATIONS, BASED ON THE MATERIAL OF THE CONDUIT RISER.

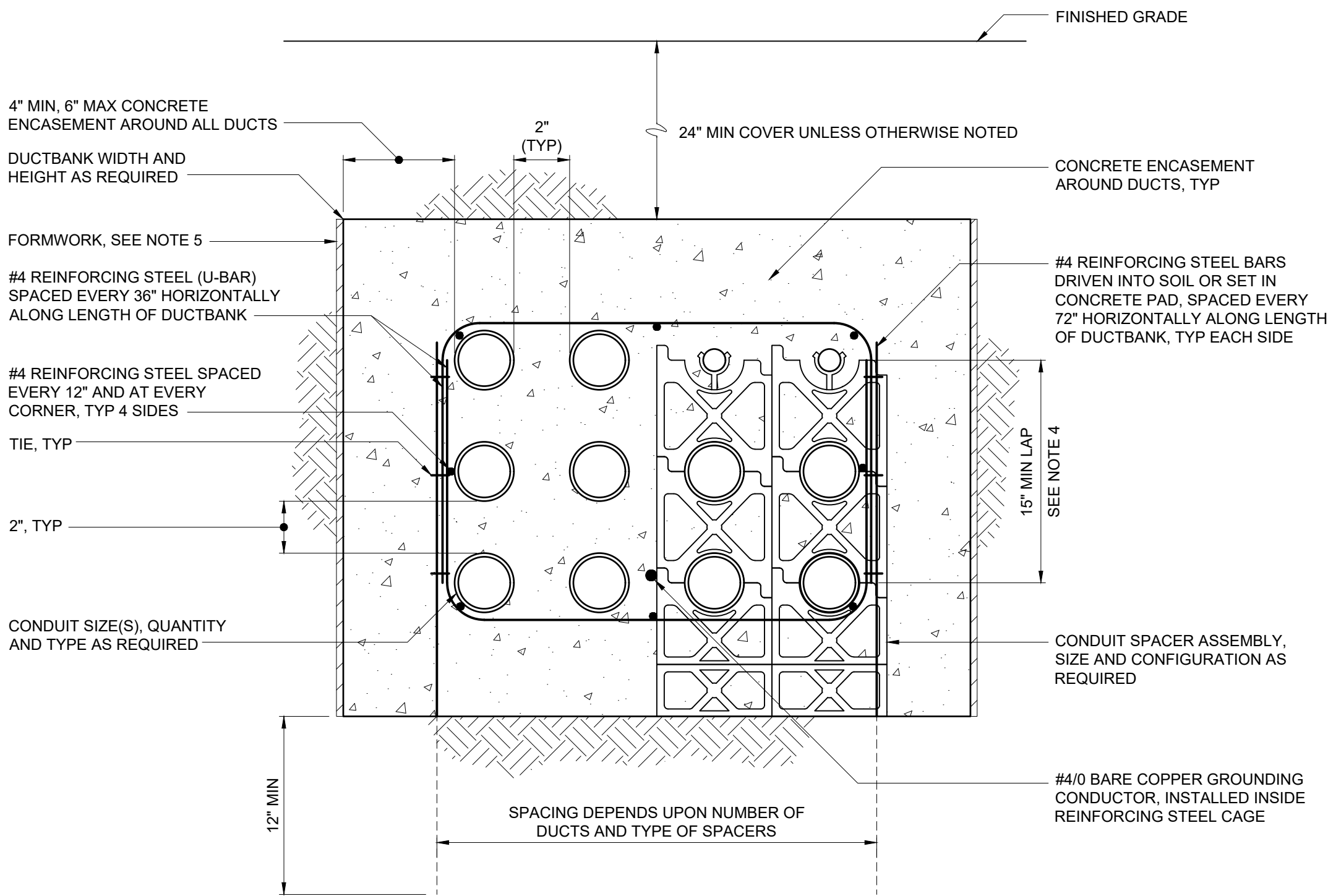
CONDUIT EXITING CONCRETE ENCASEMENT
E-26-0102



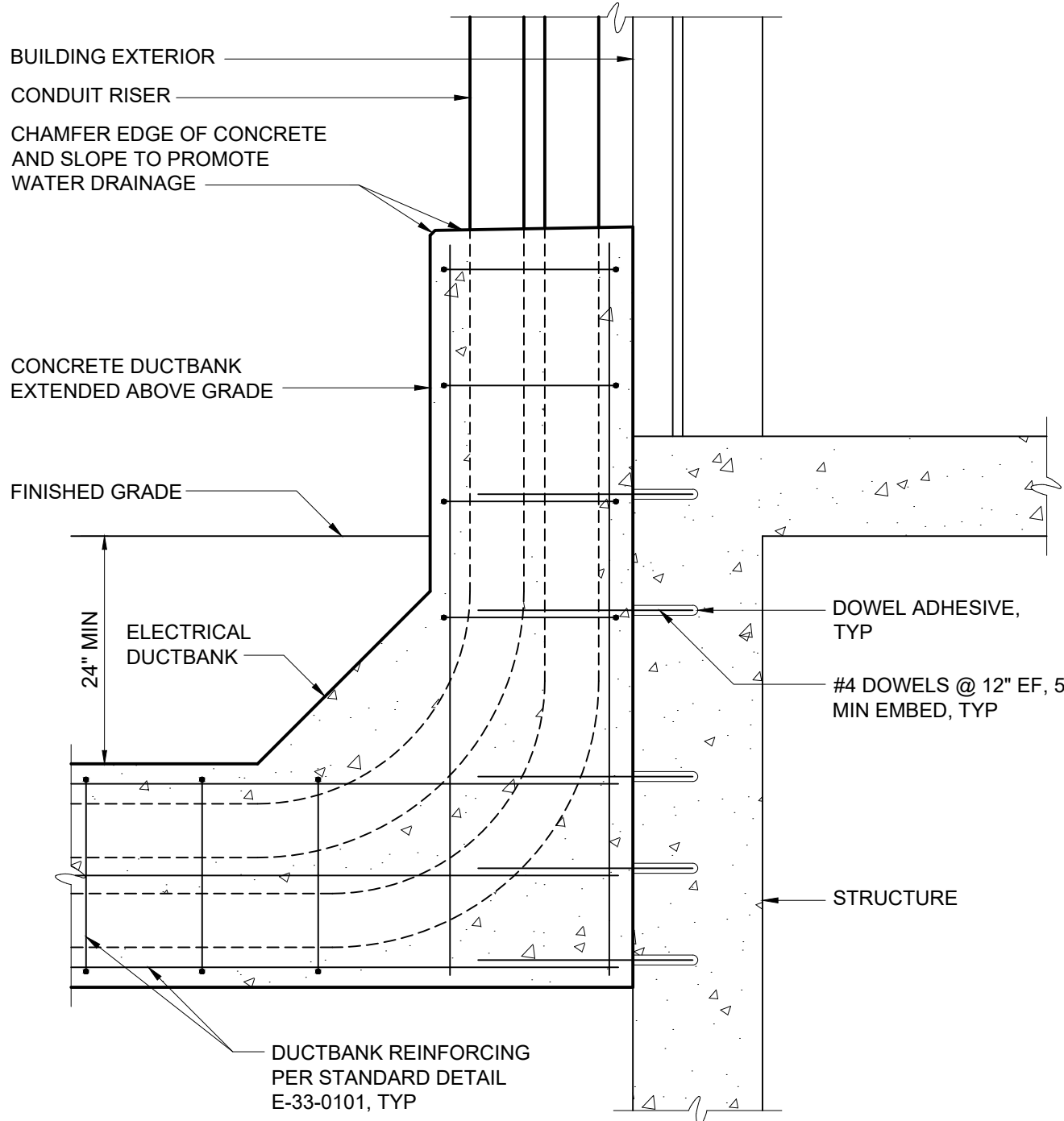
NOTES:

- POLE AND FIXTURE SHALL BE AS SPECIFIED ON DRAWING E-02.

WALKWAY OR PLATFORM
POLE MOUNTED FIXTURE
E-26-0604R



TYPICAL DUCTBANK SECTION
E-33-0101R



NOTES:

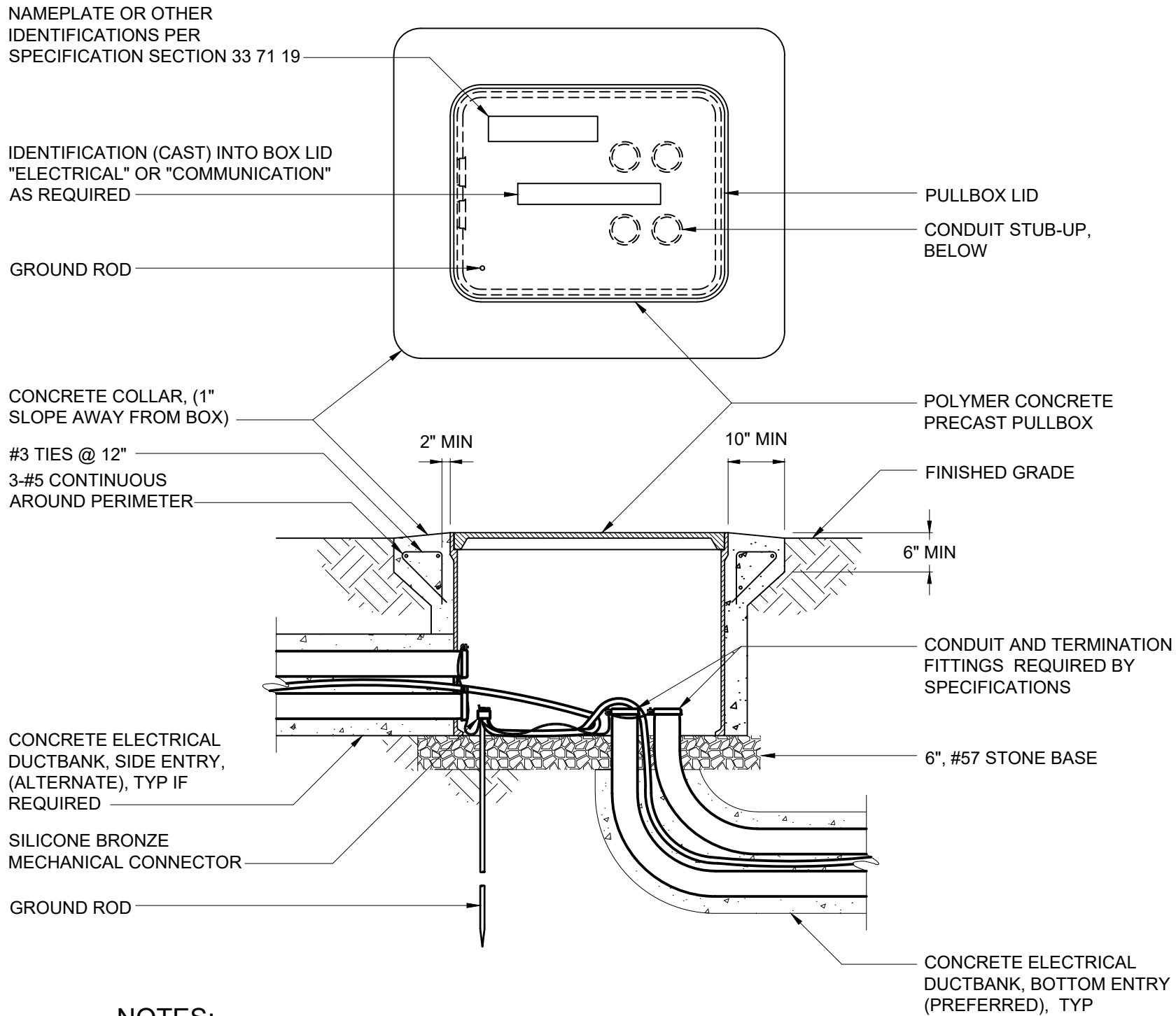
- PROVIDE DOWEL ADHESIVE AS REQUIRED BY SPECIFICATION SECTION 03 21 00.

DUCTBANK ATTACHMENT TO STRUCTURE
E-33-0107

NOTES:

- CONCRETE SHALL BE FURNISHED AND INSTALLED IN ACCORDANCE WITH SPECIFICATION SECTION 03 30 00.
- REINFORCING STEEL AND TIES SHALL BE FURNISHED AND INSTALLED IN ACCORDANCE WITH SPECIFICATION SECTION 03 21 00. OVERLAP FOR REINFORCING STEEL SPLICES ALONG THE DUCTBANK LENGTH SHALL BE 15", MINIMUM.
- CONDUIT SPACERS ARE REQUIRED IN ACCORDANCE WITH SPECIFICATION SECTION 33 71 19. HORIZONTAL SPACING OF CONDUIT SPACER ASSEMBLIES ALONG LENGTH OF DUCTBANK SHALL BE AS SHOWN IN THE TABLE.
- FOR DUCTBANKS LESS THAN 15" IN HEIGHT, THE LAP SHALL BE THE HEIGHT OF THE DUCTBANK.
- IN POOR SOIL CONDITIONS, DUCTBANKS SHALL BE FORMED WITH FORMING MATERIALS TO MAINTAIN 4" MINIMUM ENCASEMENT. WHERE SOIL CONDITIONS PERMIT AND THE EXCAVATION IS MAINTAINED FOR A 4" MINIMUM TO 10" MAXIMUM ENCASEMENT, THE FORMWORK CAN BE OMITTED.

MAX SPACING BETWEEN CONDUIT SPACER ASSEMBLIES	
CONDUIT SIZE	SPACING
1"	3 FT
1 1/4-2"	5 FT
2 1/2-3"	6 FT
3 1/2-5"	7 FT
6"	8 FT



NOTES:

- FOR SIDE ENTRY, CONDUIT DUCTBANK SHALL ENTER PULLBOX AT LOWEST POINT.
- GROUND CONDUCTORS WITHIN DUCTBANK SHALL BE BOLTED TOGETHER AND TO GROUND ROD.
- CONDUIT BONDING BUSHINGS (IF REQUIRED) SHALL BE BONDED TO GROUND ROD.
- FOR SIDE ENTRY, CONDUIT SHALL ENTER IN INDIVIDUAL CIRCULAR HOLES APPROPRIATELY SIZED FOR THE CONDUIT. LARGE SINGLE RECTANGULAR OPENINGS FOR MULTIPLE CONDUITS ARE NOT ACCEPTABLE.
- DUCTBANK REINFORCING REBAR SHALL PENETRATE THE SIDEWALLS OF THE BOX NO LONGER THAN 1".

POLYMER CONCRETE ELECTRICAL HANDHOLE
E-33-0103

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	CONFORMED SET	03/2025	KJR	PROJECT ENGINEER:	K. RAY
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STANDARD DETAILS
ELECTRICAL
MISCELLANEOUS STANDARD DETAILS

DATE:	SEPTEMBER 2024
HAZEN NO.:	32485-017 & 026
CONTRACT NO.:	017 & 026
DRAWING NUMBER:	ED0.1