CONSTRUCTION DRAWINGS FOR THE

MORRIS BRIDGE EAST GROUND STORAGE TANK IMPROVEMENTS

MORRIS BRIDGE SECTION 23 TOWNSHIP 27 RANGE 19 TAMPA, HILLSBOROUGH COUNTY, FLORIDA

PREPARED FOR

CITY OF TAMPA WATER DEPARTMENT

City of Tampa Water Department 306 E. Jackson Street, 5N Tampa, FL 33602



ISSUED FOR BID

FEBRUARY 2021

REI Project No. 0818

C 02/2021 ISSUED FOR BID AJM B 01/2021 100% DRAWINGS AJM A 09/2020 60% DRAWINGS AJM REV DATE DESCRIPTION BY



PROJECT TEAM



REISS ENGINEERING, INC.

1016 SPRING VILLAS POINT WINTER SPRINGS, FL 32708 TEL: (407) 679-5358 FAX: (407) 679-5003

CERTIFICATE OF AUTHORIZATION #818



THIS ITEM HAS BEEN DIGITALLY SIGNED AND SEALED BY WESTON T. HAGGEN OF THE DATE ADJACENT TO THE SEAL.

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THE ABOVE NAMED PROFESSIONAL ENGINEER SHALL BE RESPONSIBLE FOR THE FOLLOWING SHEETS IN ACCORDANCE WITH THE PROVISIONS OF SECTION 471.025, F.S., AND RULE 61G15-23, F.A.C.

GENERAL
G01, G02, G03, G04
CIVIL
C01, C02
DETAILS
C03



BROADWAY ENGINEERING, P. A

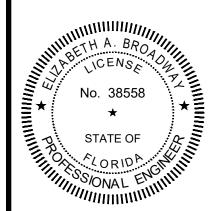
CIVIL, MECHANICAL, STRUCTURAL AND BUILDING DESIGN

See Us. At www. Broadway.—Fra Com.

1335 W. Cass Street Tampa, Florida 33606 813-251-9244

Tampa, Florida 33606

Fax 813-251-9330 Bus. Email: Info@



THIS ITEM HAS BEEN DIGITALLY SIGNED AND SEALED BY ELIZABETH A. BROADWAY ON THE DATE ADJACENT TO THE SEAL.

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STRUCTURAL S01, S02, S03, S04 2. THE CONTRACTOR SHALL VERIFY THE LOCATION, ELEVATION AND DIMENSIONS OF EXISTING UTILITIES, STRUCTURES AND OTHER FEATURES AFFECTING HIS WORK AND SHALL COMPLY WITH ALL STATE, AND LOCAL ORDINANCES AND OBTAIN ANY NECESSARY WORK PERMITS THAT MAY BE REQUIRED PRIOR TO CONSTRUCTION.

3. CONTRACTOR'S OPERATIONS, INCLUDING STAGING, PARKING, STORAGE OF MATERIALS, ETC, SHALL BE CONFINED TO THE PROJECT SITE.
THE PROVISION OF ADDITIONAL SPACE FOR SUCH USE SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR.

4. THE CONTRACTOR SHALL ENDEAVOR TO PROTECT PRIVATE PROPERTY. ANY DAMAGE CAUSED BY THE CONTRACTOR IN THE PERFORMANCE OF HIS WORK SHALL BE CORRECTED TO THE SATISFACTION OF THE OWNER AT THE CONTRACTOR'S EXPENSE. PAYMENT SHALL NOT BE MADE FOR THIS WORK.

5. ANY DISTURBANCE CAUSED BY CONTRACTOR'S OPERATIONS TO ROADS, SIDEWALKS, GUTTERS OR OTHER STRUCTURES SHALL BE REPAIRED BY THE CONTRACTOR TO THE SATISFACTION OF THE OWNER. NO PAYMENT SHALL BE MADE FOR SUCH WORK.

6. THE CONTRACTOR SHALL NOTIFY THE ENGINEER IMMEDIATELY WHEN CONFLICTS BETWEEN DRAWINGS AND ACTUAL CONDITIONS ARE

7. CONTRACTOR SHALL SUBMIT SHOP DRAWINGS TO THE ENGINEER FOR REVIEW PRIOR TO ORDERING EQUIPMENT OR MATERIALS. ALL SUBMITTALS SHALL BE STAMPED AND SIGNED BY THE CONTRACTOR TO INDICATE CONFORMANCE WITH THE DRAWINGS AND SPECIFICATIONS. SUBMITTALS THAT ARE NOT STAMPED AND SIGNED WILL BE RETURNED WITHOUT REVIEW. PROCUREMENT OF ANY EQUIPMENT OR MATERIALS PRIOR TO ENGINEER'S REVIEW AND ACCEPTANCE OF SHOP DRAWINGS SHALL BE AT CONTRACTOR'S OWN

8. "SCREENED" (LIGHT) DELINEATION INDICATED ON THE DRAWINGS DENOTES EXISTING FACILITIES. "SCREENED" INFORMATION WAS TAKEN FROM EXISTING CONSTRUCTION DRAWINGS AND DATA, IS FOR REFERENCE ONLY, AND SHALL BE FIELD VERIFIED BY THE CONTRACTOR PRIOR TO THE ORDERING OF MATERIALS AND BEGINNING OF CONSTRUCTION. "BOLD" DELINEATION IS NEW WORK TO BE CONSTRUCTED UNDER THIS CONTRACT.

9. THE CONTRACTOR'S OPERATIONS SHALL CONFORM TO THE RULES AND REGULATIONS OF THE STATE CONSTRUCTION SAFETY ORDERS PERTAINING TO EXCAVATION AND TRENCHING.

10. THE DRAWINGS INDICATE TYPES OF PIPE SUPPORT SYSTEMS AT VARIOUS LOCATIONS. HOWEVER, ALL PIPE SUPPORTS, HANGERS, BRACKETS, INSERTS OR BRACES ARE NOT SHOWN. CONTRACTOR SHALL REFER TO THE SPECIFICATIONS AND PROVIDE A COMPLETE

SUPPORT SYSTEM AS REQUIRED.

11. PRIOR TO COMMENCING WITH WORK ASSOCIATED WITH CONNECTIONS TO EXISTING INFRASTRUCTURE, CONTRACTOR SHALL FIELD VERIFY PRECISE LOCATION, ELEVATION, AND REQUIRED ARRANGEMENT OF CONNECTIONS. THIS SHALL INCLUDE EXPOSING EXISTING INFRASTRUCTURE TO THE EXTENT NECESSARY TO CONDUCT THESE INVESTIGATIONS. CONTRACTOR SHALL PROVIDE ALL FITTINGS, ADAPTERS, CLOSURE ASSEMBLIES, OFFSETS (TO ACCOUNT FOR DIFFERING CENTERLINE ELEVATIONS), ETC REQUIRED TO SUCCESSFULLY MAKE THE SUBJECT CONNECTION AS PER THE DESIGN INTENT.

12. ALL WORK ON THE CITY OF TAMPA'S POTABLE WATER INFRASTRUCTURE SHALL BE PERFORMED IN ACCORDANCE WITH THE PROJECT'S TECHNICAL SPECIFICATIONS, CONSTRUCTION DETAILS, AND THE TAMPA WATER DEPARTMENT TECHNICAL MANUAL (LATEST EDITION). IN THE EVENT OF A DISCREPANCY, THE MOST STRINGENT CRITERIA SHALL APPLY.

13. NORMAL WORKING HOURS SHALL BE WEEKDAYS FROM 7:30 AM TO 4:00 PM UNLESS OTHERWISE APPROVED BY THE

ENGINEER/INSPECTOR.

14. CONSTRUCTION OF POTABLE WATER INFRASTRUCTURE SHALL BE COORDINATED WITH THE WATER DEPARTMENT PRIOR TO THE START OF THE CONSTRUCTION. CONTRACTOR TO CONTACT CITY OF TAMPA CONTRACT ADMINISTRATION DEPARTMENT @ 813-635-3432 TO COORDINATE/SCHEDULE A PRE-CONTRUCTION MEETING WITH THE CITY FOR REVIEW OF INSTALLATION TECHNIQUES AND PROCEDURES A MINIMUM OF 10 WORKING DAYS PRIOR TO THE PLANNED CONSTRUCTION.

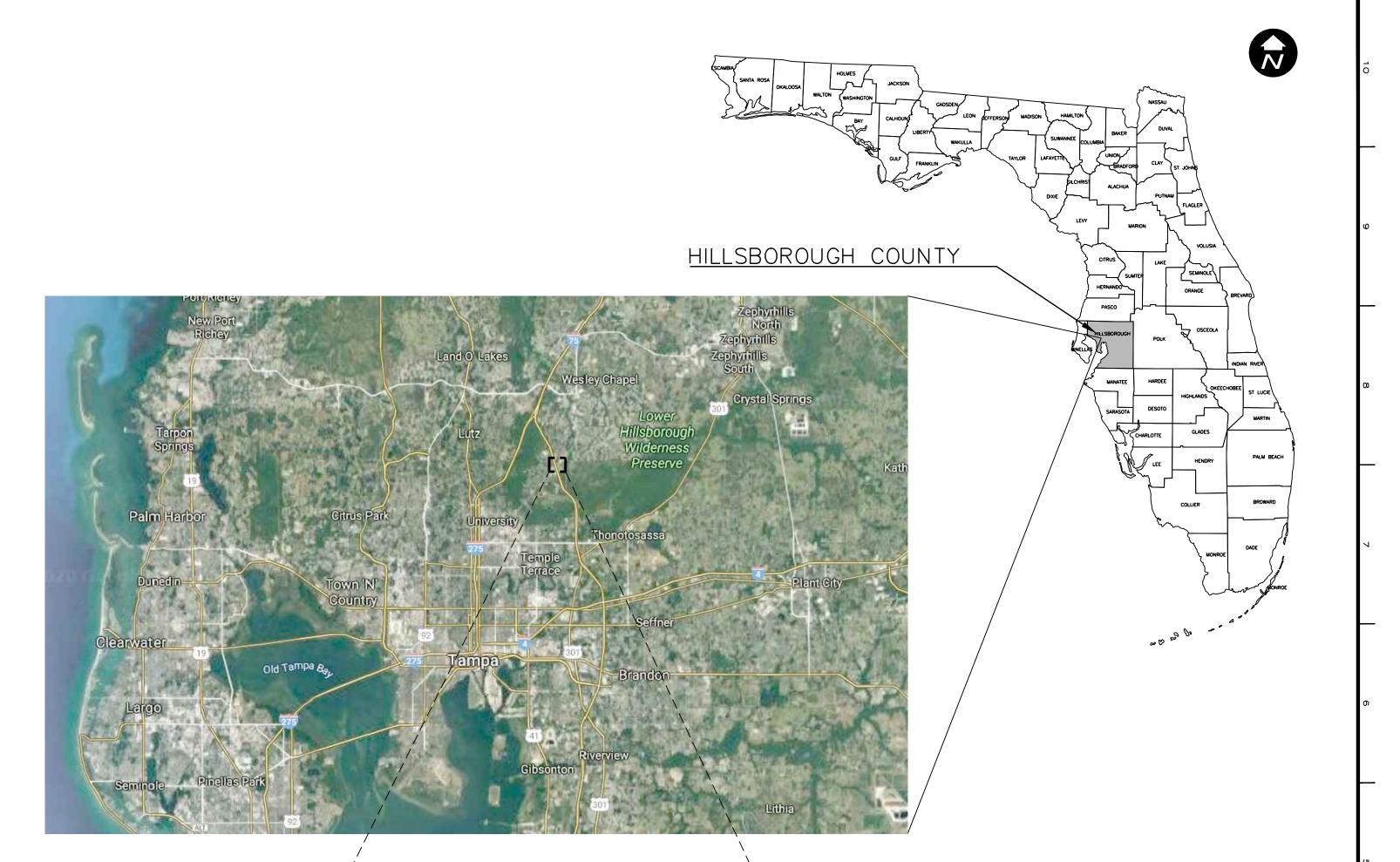
15. VALVES ON EXISTING PUBLIC WATER MAINS TO BE OPERATED BY CITY PERSONNEL ONLY.

16. THE CONTRACTOR WILL BE RESPONSIBLE FOR SALVAGING EXISTING INFRASTRUCTURE TO THE CITY IF REQUESTED. THE CONTRACTOR SHALL BE RESPONSIBLE FOR DISPOSAL OF ALL MATERIAL NOT RETURNED TO THE CITY.

17. CONTRACTOR SHALL CONFORM TO 2017 FLORIDA BUILDING CODE, SIXTH EDITION.

DRAWING INDEX

SHEET	DRAWING	DESCRIPTION
GENERAL	.	
01	G01	COVER
02	G02	LOCATION MAP, GENERAL NOTES, AND DRAWING INDEX
03	G03	ABBREVIATIONS
04	G04	SYBMOLS AND LEGENDS
CIVIL	•	·
05	C01	EXISTING SITE
06	C02	MORRIS BRIDGE EAST GST STORAGE TANK COATING PLAN AND SECTION
DETAILS	•	·
07	C03	DETAILS
STRUCTU	RAL	·
09	S01	STORAGE TANK STRUCTURAL REPAIR PLAN
10	S02	STORAGE TANK STRUCTURAL PLAN & ELEVATIONS
11	S03	STORAGE TANK STRUCTURAL DETAILS
12	S04	STORAGE TANK STRUCTURAL GENERAL NOTES





MORRIS BRIDGE EAST GST 17010 DONA MICHELLE DR TAMPA, FL 33647

LOCATION MAP
SCALE: N.T.S.



	С	02/2021	ISSUED FOR BID	AJM	
ı	В	01/2021	100% DRAWINGS	AJM	
	Α	09/2020	60% DRAWINGS	AJM	
	REV	DATE	DESCRIPTION	BY	

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Designed.	ESW
Drawn	PFH
Checked	WTH
Reviewed	GWD
Approved	WTH
<mark>■ LINE</mark> FUI	IS 1" AT LL SIZE ►

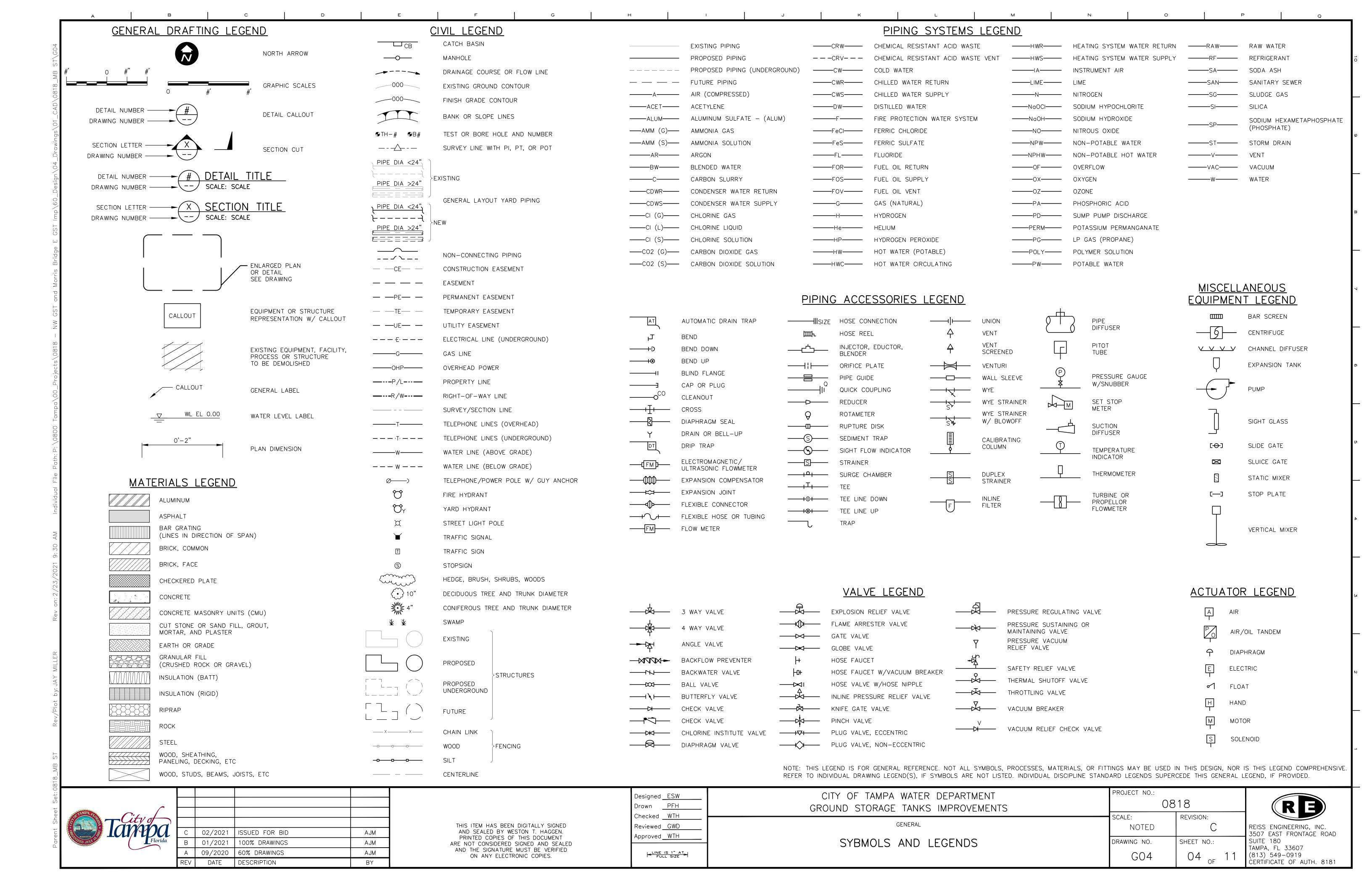
	CITY OF TAMPA WATER DEPARTMENT	PROJECT NO.:		
	GROUND STORAGE TANKS IMPROVEMENTS	08		
	GENERAL	scale: NOTED	revision: C	
	LOCATION MAP, GENERAL NOTES, AND DRAWING INDEX	DRAWING NO.	SHEET NO.:	
AT -		G02	02 5 11	

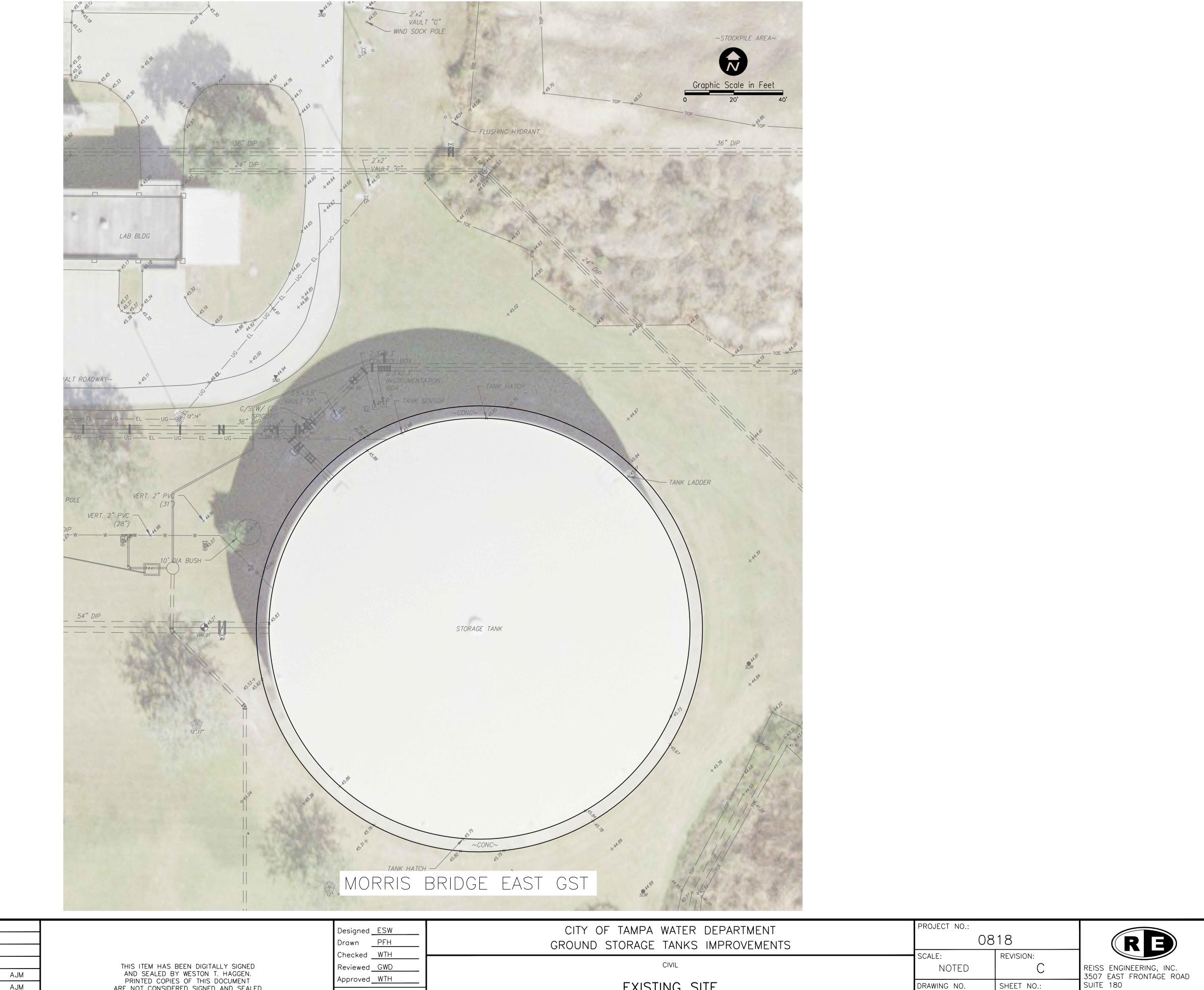


CERTIFICATE OF AUTH. 8181

	<u>ABBRE VIATIONS</u>										
A AB	ACID, AIR ANCHOR BOLT	DBL DEG	DOUBLE DEGREE	H HB	HIGH, HOUR, HYDROGEN HOSE BIBB	N N/A	NORTH(ING) NOT APPLICABLE	S SA	SOUTH SAMPLE LINE	W W/	WEST, WIDE, WATER WITH
ABAN ABS	ABANDON(ED) ACRYLONITRILE BUTADIENE STYRENE	DEPT DET	DEPARTMENT DETAIL	HDD HDPE	HORIZONTAL DIRECTIONAL DRILL HIGH-DENSITY POLYETHYLENE	NaOCI NBC	SODIUM HYPOCHLORITE NAIL IN BOTTLE CAP	SAN SCH	SANITARY SCHEDULE	WAS WD	WASTE ACTIVATED SLUDGE WOOD, WIDTH
A/C ACCMP	AIR CONDITIONER, (ING) ASPHALT—COATED CORRUGATED METAL PIPE	DF DI	DIESEL FUEL DROP INLET, DUCTILE IRON	HE HEX	HEAT EXCHANGER HEXAGONAL	N.C. NE	NORMALLY CLOSED NORTHEAST	SCV	SILENT CHECK VALVE STORM DRAIN	WF WH	WALL FITTING, WIDE FLANGE WALL HYDRANT, WATER HEATER
ACP ADD	ASBESTOS CEMENT PIPE ADDITIONAL	DIA DIFF	DIAMETER DIFFUSER	HF HFA	HOSE FAUCET HYDROFLUOSILICIC ACID	NF N.I.C.	NANOFILTRATION NOT IN CONTRACT	SD SE SEC	SOUTHEAST SECOND	WL WM	WATER LEVEL WATER MAIN
ADH ADJ	ADHESIVE ADJUSTABLE, ADJACENT	DIM DIP	DIMENSION DUCTILE IRON PIPE	HFCA HH	HARNESSED FLANGED COUPLING ADAPTER HANDHOLE	N.O. NO.(S)	NORMALLY OPEN NUMBER(S)	SECT SEFF	SECTION SECONDARY EFFLUENT	WO W/O	WINDOW OPENING WITHOUT
ADMIN AFF	ADMINISTRATION ABOVE FINISH FLOOR	DISCH DISP DIST	DISCHARGE DISPENSER	HLS HMC	HIGH LEVEL SWITCH HARNESSED MECHANICAL COUPLING	NOM NORM	NOMINAL NORMAL	SF SG	SQUARE FOOT SLUICE GATE	WP WR	WATERPROOF, WORKING POINT WASTE RECEPTACLE
O AHU ALT	AIR HANDLING UNIT ALTERNATE, (IVE)	DIV	DISTRIBUTION DIVISION	HMJ HORIZ	HARNESSED MECHANICAL JOINT HORIZONTAL	NPT NPW	NATIONAL PIPE TAPER NONPOTABLE WATER	SHT SIM	SHEET SIMILAR	WS WSP	WATERSTOP WELDED STEEL PIPE
ALUM AOD	ALUMINUM ANGLE OF DEFLECTION	DJ DM	DISMANTLING JOINT DAMPER MOTOR	HP HPA	HIGH POINT, HORSEPOWER HIGH PRESSURE AIR	NS N.T.S.	NEAR SIDE NOT TO SCALE	SL SM	SLUDGE SHEET METAL	WT WTF	WEIGHT WATER TREATMENT FACILITY
APPR APPR	ACCESS PANEL APPROACH	DMH DMJ	DROP MANHOLE DOUBLE MECHANICAL JOINT	HR HS	HOUR, HANDRAIL HIGH STRENGTH	NW	NORTHWEST	SP SPA	SUMP PUMP SPACING, SPACES	WTP WW	WATER TREATMENT PLANT WET WELL, WASH WATER
APPROX ARCH	APPROXIMATE, (LY) ARCHITECTURAL	DN DO	DOWN DOOR OPENING, DISSOLVED OXYGEN	HSP HT	HIGH SERVICE PUMP HEIGHT	OC OD	ON CENTER, ODOR CONTROL OUTSIDE DIAMETER	SPEC(S) SPLY	SPECIFICATION(S) SUPPLY	WWF WWM	WELDED WIRE FABRIC WELDED WIRE MESH
ARV ARVV	AIR RELEASE VALVE AIR RELEASE AND VACUUM VALVE	DRN DS	DRAIN DOWNSPOUT DRAIN VALVE, DIAPHRAGM VALVE	HV HVA HVAC	HOSE VALVE HYDRAULIC VALVE ACTUATOR	OF OH	OUTSIDE FACE, OVERFLOW OVERHEAD	SQ SS	SQUARE SANITARY SEWER	WWTF WWTP	WASTEWATER TREATMENT FACILITY WASTEWATER TREATMENT PLANT
ASSY AUTO	ASSEMBLY AUTOMATIC	DV DW	DISINFECTED WATER	HW HWL	HEATING, VENTILATING AND AIR CONDITIONING HOT WATER HIGH WATER LEVEL	O&M OP	OPERATION AND MAINTENANCE ORIFICE PLATE	SSE SST ST	SUBSTANDARD EFFLUENT STAINLESS STEEL	X	BY, TIMES
AUX E AVS	AUXILIARY AUTOMATIC VALVE STATION	DWG(S) DWL(S)	DRAWING(S) DOWEL(S)	HWY HYD	HIGHWAY HYDRAULIC	OPER OPNG	OPERATING OPENING	STA STD	SELF TAPPING STATION STANDARD	XLHDPE	
AWG	AMERICAN WIRE GAGE	DWV	DRAIN, WASTE, AND VENT	HYDRO	HYDROPNEUMATIC	OPP OPT	OPPOSITE OPTIONAL	STL STM	STANDARD STEEL STORMWATER	YD YH YR	YARD YARD HYDRANT
BC BCV	BEGIN CURVE BALL CHECK VALVE	EA	EAST(ING), ELECTRICAL EACH	ID I	INDICATOR INSIDE DIAMETER	OZ	OUNCE	STOR STR	STORMWATER STORAGE STRAIGHT) K	YEAR AND
BFP BFP	BLIND FLANGE BACKFLOW PREVENTER	ECC EEW	END CURVE ECCENTRIC	IF IN	INSIDE FACE INCH(ES)	PBV PC PCC	PLASTIC BALL VALVE POINT OF CURVE POINT OF COMPOUND CURVATURE	STRUC SV	STRUCTURAL SHUTOFF VALVE, SOLENOID VALVE	∞ @ /	AT DEFLECTION ANGLE
BFV SI BGO	BUTTERFLY VALVE BURIED GEAR OPERATOR	EF EFF	EMERGENCY EYEWASH EACH FACE EFFLUENT	INC INCL	INCORPORATED INCLUDING	PCCP PE	POINT OF COMPOUND CORVATORE PRESTRESSED CONCRETE CYLINDER PIPE PLAIN END	SVC SVW	SERVICE SERVICE WATER	>	GREATER THAN LESS THAN
BIP BITUM	BLACK IRON BLACK IRON PIPE BITUMINOUS	EGO F I	ELEVATED GEAR OPERATOR EXPANSION JOINT	INCR INF	INCREASE INFLUENT	PEP PERM	POLYETHYLENE PIPE PERMEATE	SW SWD	SOUTHWEST SIDE WATER DEPTH	#	NUMBER PERCENT
BKR BLDG	BREAKER BUILDING	EL ELAST	ELEVATION ELASTOMERIC	INST INSUL	INSTRUMENT, (ATION) INSULATE, (ED), (ING)	PG PH	PRESSURE GAUGE PIPE HANGER, POST HYDRANT	SWR SWS	SEWER SEAL WATER SOLENOID	~~	i zitoziti
BLK BM	BLOCK BENCHMARK	ELEC ELEV	ELECTRIC, (AL) ELEVATOR	INT	INTERIOR, INTERNAL INVERT	PI PIVC	POINT OF INTERSECTION POINT OF INTERSECTION ON VERTICAL CURVE	SY SYM	SQUARE YARD SYMBOL		
≥ BOC BOF	BACK OF CURB BOTTOM OF FOOTING	ELL EMER	ELBOW — PLUMBING SMALLER THAN 4" EMERGENCY	IP IPS	IRON PIPE INTERNATIONAL PIPE STANDARD	PJ P/L	PUSH-ON JOINT PROPERTY LINE	SYMM SYS	SYMMETRICAL SYSTEM		-
BOS ∞ BOT	BOTTOM OF SLAB, BOTTOM OF SLOPE BOTTOM	ENC ENCL	ENCASEMENT ENCLOSURE	IR IW	INTERNAL RECYCLE IRRIGATION WATER	PL PM	PLATE PROCESS MECHANICAL	Т	TELEPHONE, TOP		
BRG B&S	BEARING BELL AND SPIGOT	ENT EOL	ENTRANCE END OF LINE	JB	JUNCTION BOX	PNL(S) PNV	PANEL(S) PINCH VALVE	TAN T&B	TANGENT TOP AND BOTTOM		
BSP BSMT	BASEMENT BLACK STEEL PIPE	EOP EPDM	EDGE OF PAVEMENT ETHYLENE PROPYLENE DIENE MONOMER	JF JT	JOINT FILLER JOINT	POB POI	POINT OF BEGINNING POINT OF INTERSECTION	TB TBE	TERMINAL BOX THREAD BOTH ENDS		
BTU BTUH	BRITISH THERMAL UNIT BRITISH THERMAL UNIT—HOUR	EQ EQUIP	EQUAL EQUIPMENT	KGV	KNIFE GATE VALVE	POLY PPD	POLYMER POUNDS PER DAY	TC TBM	TEMPORARY BENCHMARK TOP OF CURB		
BU BV	BELL-UP BALL VALVE	EST EVA	ESTIMATE ELECTRIC VALVE ACTUATOR	KO	KNOCK OUT	PPM PROP	PARTS PER MILLION PROPOSED	TDH TEL TEMP	TOTAL DYNAMIC HEAD TELESCOPING		
BVC BWW	BEGIN VERTICAL CURVE BACKWASH WATER	EW EWEF	EACH WAY EACH WAY EACH FACE	L LAB	LEVEL, LOUVER LABORATORY	PRS PRV	PRESSURE REDUCING STATION PRESSURE REDUCING VALVE	TERM TH	TEMPERATURE, TEMPORARY TERMINAL TEST HOLE		<u> </u>
C/C	CENTER TO CENTER	EXCH EXIST	EXCHANGER EXISTING	LAM LAT	LAMINATE(D) LATERAL	PRW PS	PROCESS WATER PIPE SUPPORT, PUMP STATION	THK THRD	THICK, THICKNESS THREADED		
CATV CAV	CABLE TELEVISION COMBINATION AIR VALVE	EXP EXT	EXPANSION, EXPOSED EXTENSION, EXTERIOR, EXTERNAL	LAV LB(S)	LAVATORY POUNDS	PSF PSI	POUNDS PER SQUARE FOOT POUNDS PER SQUARE INCH	TJ TOB	TIED JOINT TOP OF BANK		
CB CCC	CATCH BASIN CHLORINE CONTACT CHAMBER	F/F	FACE TO FACE	LF LG	LINEAR FEET LENGTH, LONG	PT PV	POINT, POINT OF TANGENCY PLUG VALVE	TOC TOF	TOP OF CONCRETE TOP OF FOOTING		
4 CF CFM	CUBIC FOOT CUBIC FEET PER MINUTE	FAB FC	FABRICATED FLEXIBLE CONNECTION, FLOW CONTROL	LH LHDPE	LEFT HAND LINEAR HGH-DENSITY POLYETHYLENE	PVC PVC-D	POLYVINYL CHLORIDE POLYVINYL CHLORIDE (DOUBLE CONTAINED)	TOS TRANS	TOP OF SLAB TRANSFORMER, TRANSMITTER, TRANSF	ΞR	
CFS C&G	CUBIC FEET PER SECOND CURB AND GUTTER	FCA FCV	FLANGED COUPLING ADAPTER FLOW-CONTROL VALVE	LIN LO	LINEAL, LINEAR LOUVER OPENING	PVCP PVDF	POLYVINYL CHLORIDE PIPE POLYVINYLIDENE FLUORIDE (KYNAR)	TS TV	THICKENED SLUDGE TELEVISION		-
CHKD CI	CHECKERED CAST IRON, CUBIC INCH	FDN	FLOOR DRAIN, FOUNDATION DRAIN FOUNDATION	LK LS	LONG RADIUS LIFT STATION LEFT	PVMT PW	PAVEMENT POTABLE WATER	TWP TYP	TOWNSHIP TYPICAL		
CIMH CIMHS CIP	CAST IRON MANHOLE CAST IRON MANHOLE STEPS CAST IRON PIPE	FF FF	FILTER EFFLUENT FINISH FLOOR FIBERGLASS	LWL	LOW WATER LEVEL	QTY	QUANTITY	UD	UNDERDRAIN		
CISP CJ	CAST IRON THE CAST IRON SOIL PIPE CONSTRUCTION JOINT	FH FIG	FIBERGLASS FIRE HYDRANT FIGURE	MACH MAINT	MACHINE MAINTENANCE	R RAS	RADIUS, RISER RETURN ACTIVATED SLUDGE	UDM UG	ULTRASONIC DENSITY METER UNDERGROUND		
≥ CJT < CL	CONTROL JOINT CENTERLINE	FIN FI	FINISH FLOOR, FLOW LINE	MAN MAX	MANUAL MAXIMUM	RAW	RAW WATER REINFORCED CONCRETE BOX	UGE UNO	UNDERGROUND ELECTRIC UNLESS NOTED OTHERWISE		
OCLF CLR	CHAIN LINK FENCE CLEAR, (ANCE)	FLEX FLG	FLEXIBLE FLANGE	MC MCC	MECHANICAL COUPLING MOTOR CONTROL CENTER	RCB RCCP RCHEP	REINFORCED CONCRETE BOX REINFORCED CONCRETE CYLINDER PIPE REINFORCED CONCRETE HORIZONTAL ELLIPTICAL PIPE	USGS UTC	UNITED STATES GEOLOGICAL SURVEY UNDERGROUND TELEPHONE CABLE		
CMD	CORRUGATED METAL PIPE CONCRETE MASONRY UNIT	FM FOB	FORCE MAIN, FLOW METER FLAT ON BOTTOM	MECH MED	MECHANICAL MEDIUM	RCP RCW	REINFORCED CONCRETE PIPE RECLAIM WATER	UTIL UV	UTILITY ULTRAVIOLET		
CO COD	CLEAN OUT, COMPANY CHEMICAL OXYGEN DEMAND	FOT FPM	FLAT ON TOP FEET PER MINUTE	MET MES	METAL MITERED END SECTION	RD RECIRC	ROOF DRAIN, ROAD RECIRCULATING	V VAC	VALVE, VENT VACUUM		
COMB COMB SWR	COMBINATION COMBINED SEWER	FPS FRP	FEET PER SECOND FIBERGLASS REINFORCED PLASTIC	MF MFM	MICROFILTRATION MAGNETIC FLOWMETER	RECP RED	RECEPTACLE REDUCER, REDUCING	VB VC	VACUUM VALVE BOX VERTICAL CURVE, VICTAULIC COUPLING		
COMP CONC	COMPRESSOR, (ED) CONCRETE	FS FT	FAR SIDE, FLOOR SLEEVE, FLOAT SWITCH FOOT	MFR(S) MG	MANUFACTURER(S) MILLION GALLONS	RECP RED REEW REG	REUSE EFFLUENT WATER REGULATOR, REGULATING	VCD VCP	VERTICAL CONTROL DAMPER VITRIFIED CLAY PIPE		
© CONN CONSTR	CONNECTION CONSTRUCT, CONSTRUCTION	FURN FV	FURNISH, FURNISHED FLAP VALVE	MGD MH	MILLION GALLONS PER DAY MANHOLE	REF REINF	REFERENCE REINFORCING	VERT VF	VERTICAL VACUUM FILTER		
CONT COP	CONTINUOUS(LY), CONTINUATION COPPER PIPE	FW FWD	FINISHED WATER FORWARD	MIN MIN	MILE MINIMUM, MINUTE	REJ REM REQD	REJECT REMOVABLE	VFD VIB	VARIABLE FREQUENCY DRIVE VIBRATION		<u>-</u>
COR CORR	CORNER CORRIDOR, CORRUGATED	G GA	GAS GAUGE	MISC MJ MJRG	MISCELLANEOUS MECHANICAL JOINT MECHANICAL JOINT RETAINER GLAND	REQU RET	REQUIRED RETURN	VS VTR	VARIABLE SPEED VENT THROUGH ROOF		
CP CPLG	CONCRETE PIPE COUPLING CONCRETE PRESSURE PIPE	GAL GALV	GAUGE GALLON GALVANIZED	MJRG MJTR MI	MECHANICAL JOINT RETAINER GLAND MECHANICAL JOINT WITH TIE ROD MIXED LIQUOR	REV REW RG	REVISION, REVISED, REVERSED RETURN EFFLUENT WATER RETAINER GLAND	VV VVB	VENT VALVE VACUUM BREAKER		
	CONCRETE PRESSURE PIPE CHLORINATED POLYVINYL CHLORIDE CHLORINE SOLUTION	GC/MS GEN	GALVANIZED GAS CHROMATOGRAPH/MASS SPECTROMETER GENERAL, GENERATOR	MO MP	MASONRY OPENING, MOTOR OPERATED METERING PUMP	RG RJ RMJ	RETAINER GLAND RESTRAINED JOINT (BELL) RESTRAINED MECHANICAL JOINT				
<pre> CS CTR(S) CTRI </pre>	CHLORINE SOLUTION CENTER(S) CONTROL	GEN GIP GJ	GALVANIZED IRON PIPE GROOVE JOINT	MPH MRPP	MILES PER HOUR METAL REINFORCED PLASTIC PIPE	RNG	RESTRAINED MECHANICAL JOINT RANGE REVERSE OSMOSIS				
CTRL CW	CONTROL CHECK VALVE COLD WATER	GM GND	GAS METER GROUND	MSL MTD	MEAN SEA LEVEL MOUNTED	RO ROC RPM	REVERSE USMUSIS RADIUS OF CURVATURE REVOLUTIONS PER MINUTE				
CY CY	CUBIC YARD	GO GPD	GEAR OPERATED GALLONS PER DAY	MTL MTR	MATERIAL MOTOR	RPZBP RR	REDUCED PRESSURE ZONE BACKFLOW PREVENTER RAILROAD				
		GPH GPM	GALLONS PER HOUR GALLONS PER MINUTE	M V M W	MOTORIZED VALVE MANWAY	RS RT	RAW SLUDGE, RAW SEWAGE RIGHT				
		GPS GR	GALLONS PER SECOND GRADE	MWL	MEAN WATER LEVEL	R/W RWW	RIGHT OF WAY RAW WASTEWATER				
S		GS GSP	GALVANIZED STEEL GALVANIZED STEEL PIPE					V DE HOES "	THE DECION NOD TO THE CONTROL OF THE	ELIENOU E 55	
M_M		GSR GST	GROUND STORAGE RESERVOIR GROUND STORAGE TANK		NO.		ND IS FOR GENERAL REFERENCE. NOT ALL ABBREVIATIONS MA VIATIONS ARE NOT LISTED. INDIVIDUAL DISCIPLINE STANDARD L			ehensive. Ref	FER TO INDIVIDUAL DRAWING LEGEND(S),
et: 08.		GV	GATE VALVE		Designed ESW		CITY OF TAMPA WATER DEPART	MFNT	PROJECT NO.	:	
o to MP					Drawn <u>PFH</u>		GROUND STORAGE TANKS IMPROV			0818	RE
She	Tarrota		THIS ITEM HAS	BEEN DIGITALLY SI	Checked <u>WTH</u> GNED Reviewed GWD		GENERAL		SCALE:	REVIS	BION:
MASCOTTE MASCOTTE	C 02/2021 ISSUED FOR B 01/2021 100% DRAWIN		AJM AND SEALED E PRINTED COPIE	BY WESTON T. HAG ES OF THIS DOCUM ERED SIGNED AND	GEN. ENT Approved WTH		ABBREVIATIONS		DRAWING NO.		3507 EAST FRONTAGE ROAD SUITE 180
T. William	A 09/2020 60% DRAWING	SS	AJM AND THE SIGNA ON ANY E	ATURE MUST BE VEI ELECTRONIC COPIES.	RIFIED		ADDIVENIATIONS		G03		TAMPA, FL 33607 (813) 549-0919 CERTIFICATE OF AUTH. 8181
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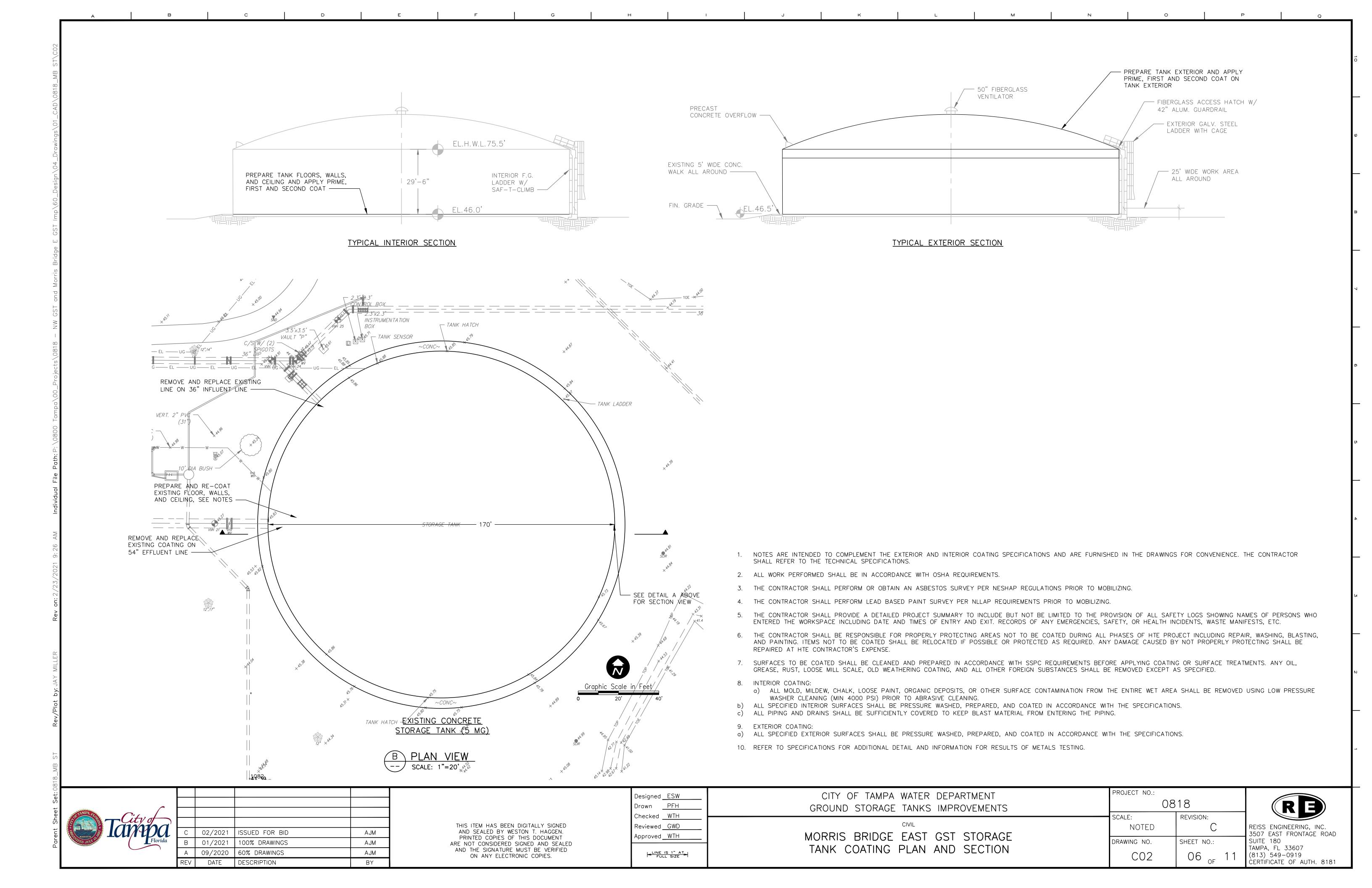
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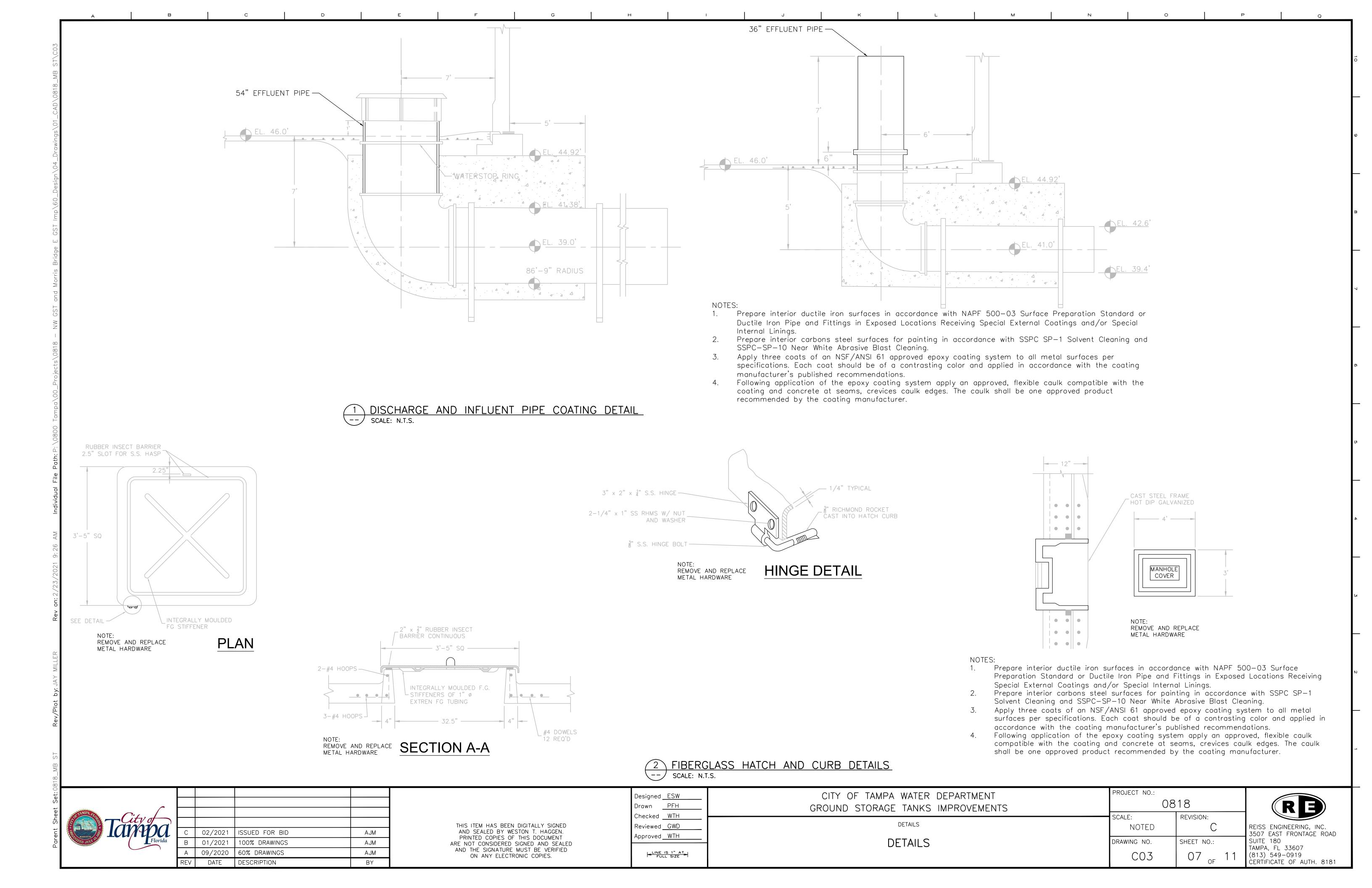
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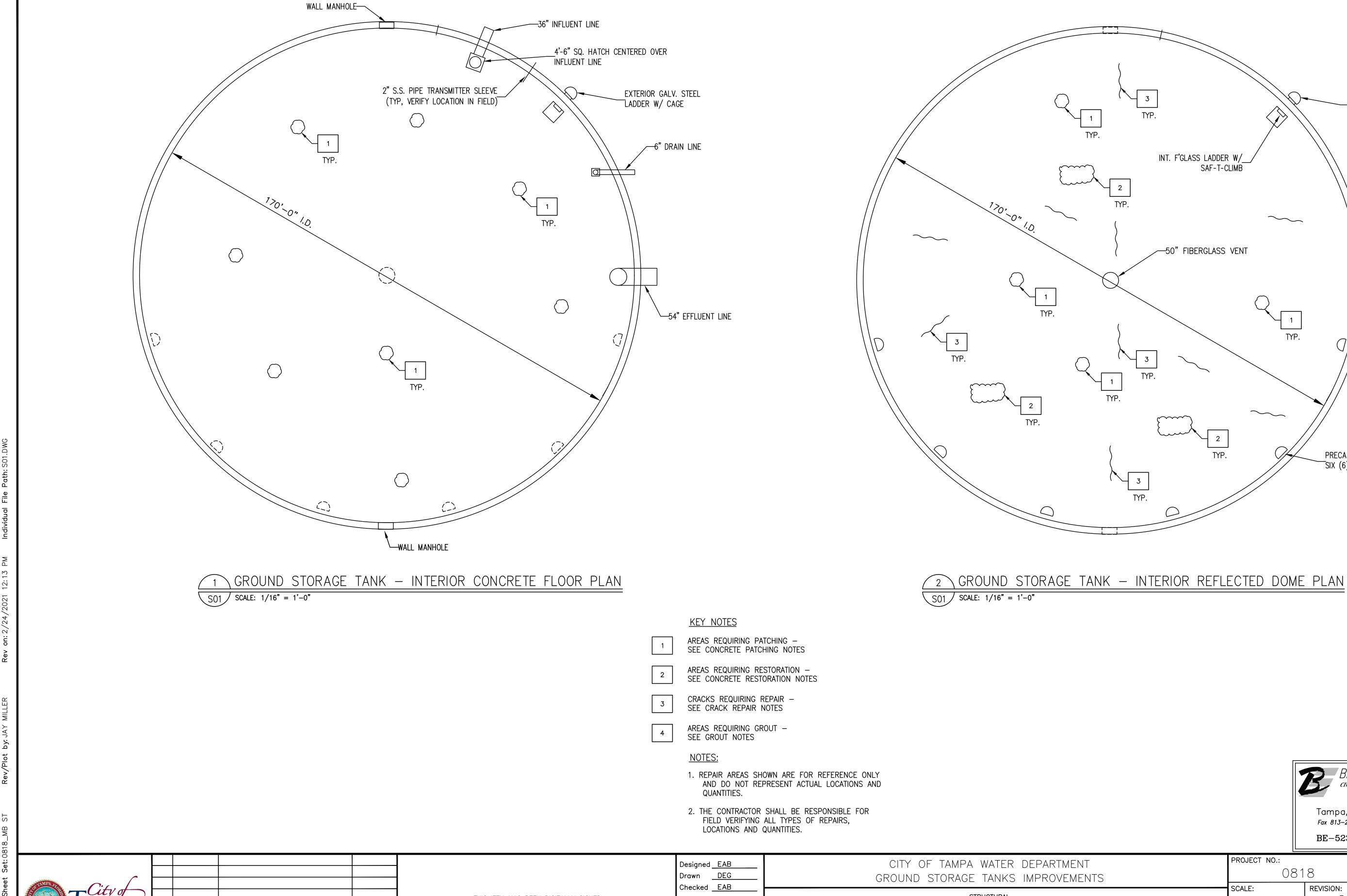
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GROUND STORAGE TANKS IMPROVEMENTS	0818			
CIVIL	scale: NOTED	REVISI		
EXISTING SITE	DRAWING NO.	SHEET OS		

REISS ENGINEERING, INC.
3507 EAST FRONTAGE ROAD
SUITE 180
TAMPA, FL 33607
(813) 549-0919
CERTIFICATE OF AUTH. 8181







0818 **REVISION:** STRUCTURAL NOTED REISS ENGINEERING, INC. 3507 EAST FRONTAGE ROAD STORAGE TANK STRUCTURAL REPAIR PLAN SUITE 180 DRAWING NO. TAMPA, FL 33607 S01 (813) 549-0919

BROADWAY ENGINEERING, P.A. CIVIL, MECHANICAL, STRUCTURAL AND BUILDING DESIGN See Us At www.Broadway—Eng.Com

EXTERIOR GALV. STEEL

LADDER W/ CAGE

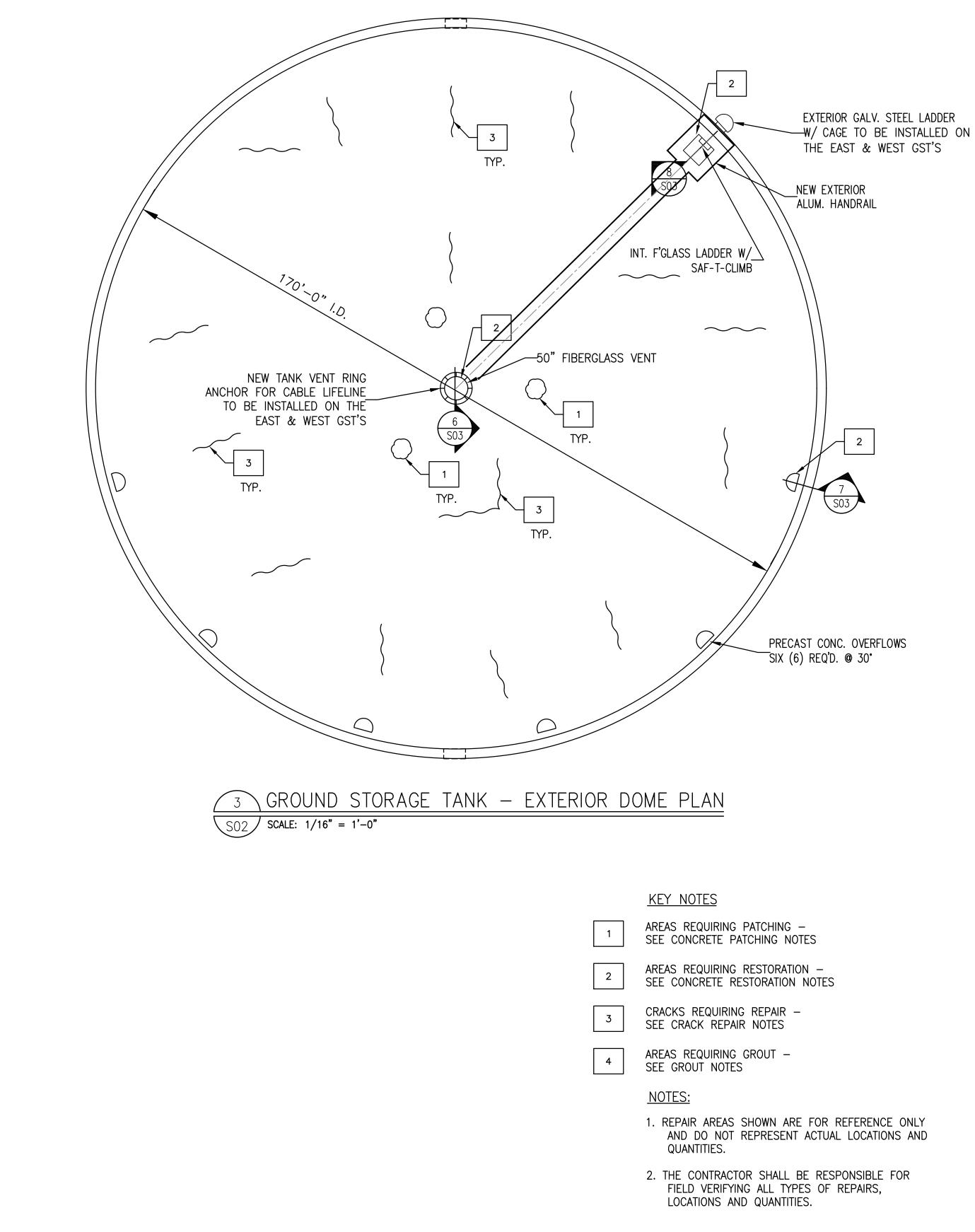
PRECAST CONC. OVERFLOWS
SIX (6) REQ'D. @ 30°

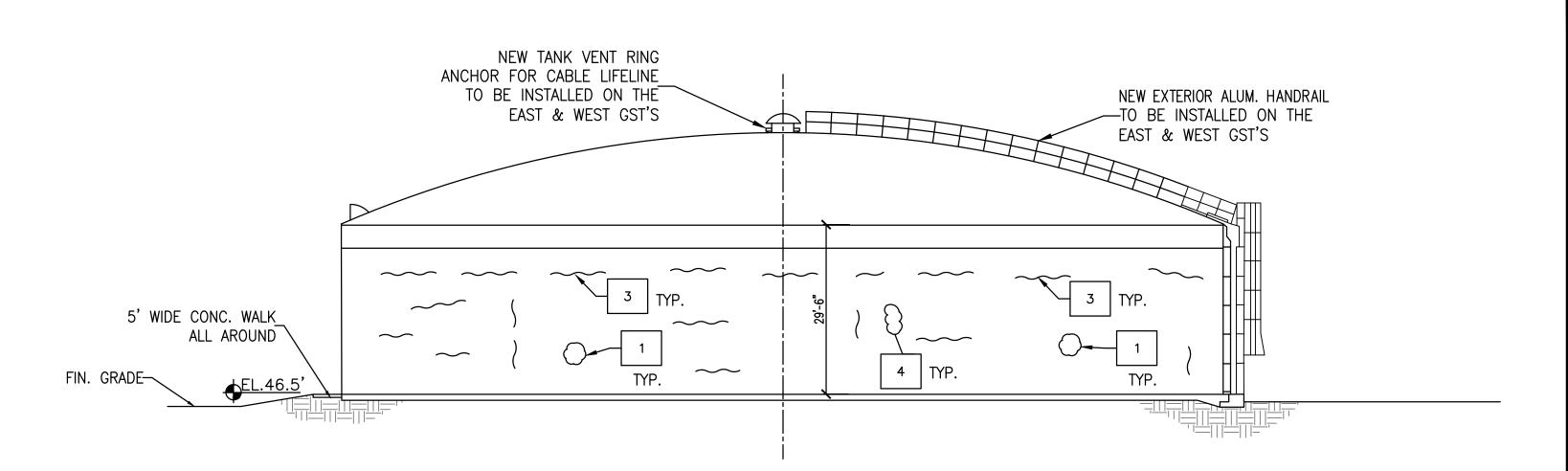
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Tampa, Florida 33606 813-251-9244 Fax 813–251–9330 Bus. Email: Info@Broadway–Eng.Com Cadd. Email: DGorr@Broadway–Eng.Com

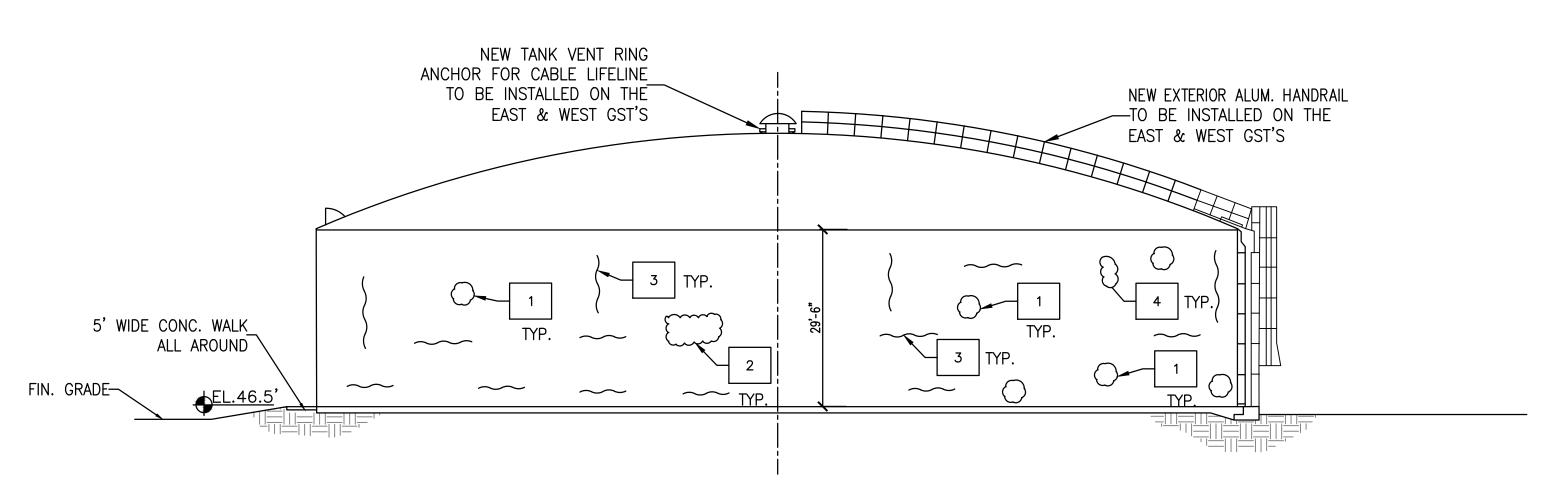
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GROUND STORAGE TANK - TYPICAL EXTERIOR SIDE ELEVATION S02 SCALE: 1/16" = 1'-0"



5 GROUND STORAGE TANK - TYPICAL INTERIOR ELEVATION S02 | SCALE: 1/16" = 1'-0"

PROJECT NO.:

BROADWAY ENGINEERING, P.A. CIVIL, MECHANICAL, STRUCTURAL AND BUILDING DESIGN
See Us At www.Broadway—Eng.Com

1335 W. Cass Street Tampa, Florida 33606 813-251-9244 Fax 813–251–9330 Bus. Email: Info@Broadway–Eng.Com Cadd. Email: DGorr@Broadway–Eng.Com

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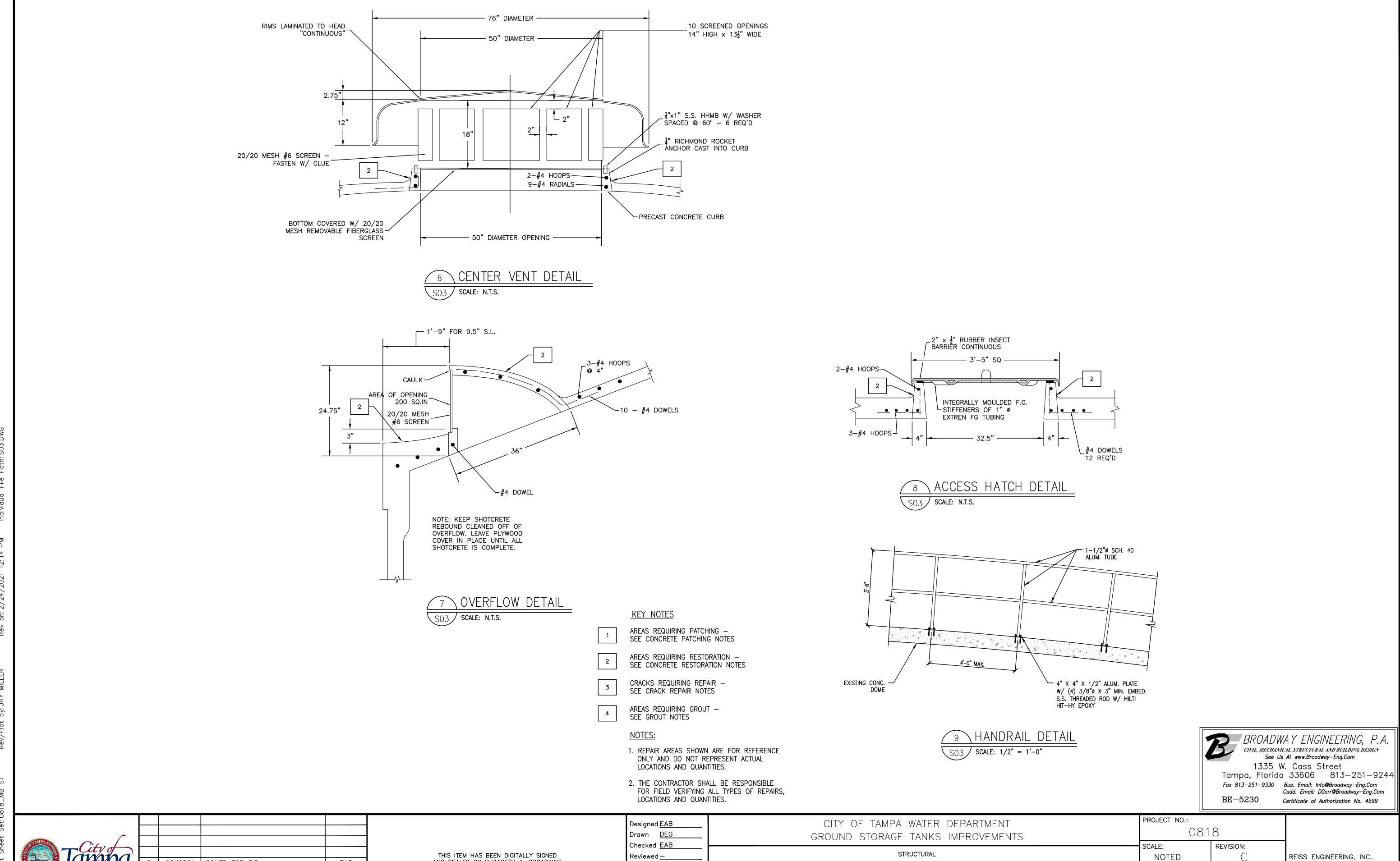
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Approved_	EAB
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CITY OF TAMPA WATER DEPARTMENT 0818 GROUND STORAGE TANKS IMPROVEMENTS REVISION: STRUCTURAL REISS ENGINEERING, INC. 3507 EAST FRONTAGE ROAD NOTED SUITE 180 STORAGE TANK STRUCTURAL PLAN & ELEVATIONS DRAWING NO. TAMPA, FL 33607 S02 (813) 549-0919



Approved EAB

FULL SIZE

STORAGE TANK STRUCTURAL DETAILS

3507 EAST FRONTAGE ROAD

SUITE 180

TAMPA, FL 33607

(813) 549-0919

DRAWING NO.

S03

SHEET NO.:

AND SEALED BY ELIZABETH A. BROADWAY.

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02/2021

01/2021

09/2020

DATE

ISSUED FOR BID

100% DRAWINGS

60% DRAWINGS

DESCRIPTION

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- 3.- AS A MINIMUM, CONSTRUCTION SHALL COMPLY WITH CITY OF TAMPA, THE 2017 (6TH ED.) FLORIDA BUILDING CODE, AND LATEST ACI SPECIFICATIONS.
- 4.— ALL DETAILS AND SECTIONS SHOWN ON THE DRAWINGS ARE INTENDED TO BE TYPICAL AND SHALL BE CONSTRUED TO APPLY TO ANY SIMILAR SITUATION ELSEWHERE ON THE PROJECT, EXCEPT WHERE A DIFFERENT DETAIL IS SHOWN.
- 5.- ALL DIMENSIONS AND CONDITIONS MUST BE VERIFIED IN THE FIELD. DO NOT SCALE THE DRAWINGS. FOLLOW WRITTEN DIMENSIONS ONLY. ANY DISCREPANCIES SHALL BE BROUGHT TO THE ATTENTION OF THE ENGINEER PRIOR TO PROCEEDING WITH THE AFFECTED PART OF THE WORK.
- 6.— ALL EXISTING STRUCTURES NOT DESIGNED BY BROADWAY ENGINEERING ARE ASSUMED TO BE ADEQUATE AND NOT THE RESPONSIBILITY OF BROADWAY ENGINEERING.
- 7.— CONTRACTOR SHALL TAKE ALL NECESSARY PRECAUTIONS TO MINIMIZE DAMAGE TO EXISTING STRUCTURES. ANY DAMAGE CAUSED BY CONTRACTOR SHALL BE REPAIRED AT NO EXTRA COST TO OWNER.
- 8.- MEANS, METHODS, TECHNIQUES, SEQUENCES OR PROCEDURES, AND SAFETY PRECAUTIONS ARE SOLELY THE RESPONSIBILITY OF THE CONTRACTOR.
- 9.- FIELD VERIFY EXISTING CONDITIONS, DIMENSIONS, SIZE, VOLTAGE, AND LOCATION OF UTILITIES PRIOR TO NEW OR REMODELING WORK.
- 10.- DEVIATIONS FROM DRAWINGS SHALL BE APPROVED BY THE ENGINEER.
- 11.— INFORM ENGINEER OF CONSTRUCTION CONFLICTS FOUND AMONG TRADES FOR ANY REQUIRED CHANGES FROM THESE DRAWINGS.
- 12.- REFER TO "TANK INSPECTION REPORT" PREPARED BY CROM ENGINEERING & CONSTRUCTION SERVICES, DATED MAY 13, 2016, FOR ADDITIONAL INFORMATION.

SHOP DRAWING REVIEW

- 1.- SHOP DRAWINGS SHALL BE REVIEWED FOR GENERAL COMPLIANCE WITH THE DESIGN INTENT OF THE CONTRACT DOCUMENTS ONLY.
- 2.- IT SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR TO VERIFY COMPLIANCE WITH THE CONTRACT DOCUMENTS AS TO QUANTITY, LENGTH, ELEVATIONS, DIMENSIONS, ETC.
- 3.- IN ALL INSTANCES. THE CONTRACT DOCUMENTS SHALL GOVERN THE SHOP DRAWINGS UNLESS OTHERWISE SPECIFIED IN WRITING BY THE ENGINEER.

FORMWORK (IF REQUIRED)

1.- FORMWORK, SHORING, AND BRACING FOR ALL CONCRETE BEAMS, SLABS, COLUMNS, AND WALLS SHALL BE DESIGNED AND CONSTRUCTED IN ACCORDANCE WITH AC1 347, "RECOMMENDED PRACTICE FOR CONCRETE FORMWORK".

REINFORCING STEEL (IF REQUIRED)

- 1.- REBAR SHALL BE ASTM A615 GRADE 60 DEFORMED BARS, FREE FROM OIL, SCALE, AND RUST.
- 2.- REINFORCING BARS SHALL BE PLACED IN ACCORDANCE WITH THE TYPICAL BENDING DIAGRAM AND PLACING DETAILS OF THE ACI STANDARDS AND SPECIFICATIONS.
- 3.- HORIZONTAL AND VERTICAL BARS SHALL LAP A MINIMUM OF 5 X BAR NO. = INCHES, (40 BAR DIAMETERS) UNLESS OTHERWISE NOTED.

WELDED WIRE MESH FIBERS (IF REQUIRED)

- 1.- WELDED WIRE MESH IF USED, SHALL BE ASTM A185, GRADE 65, FREE FROM OIL, SCALE, AND RUST.
- 2.- WIRE MESH SHALL BE PLACED IN ACCORDANCE WITH ACI DETAILS.
- 3.- MINIMUM WIRE MESH LAP SHALL BE ONE WIRE SPACE PLUS TWO INCHES.

CONCRETE PATCHING

- 1.— CONCRETE PATCHING SHALL BE PERFORMED AT LOCATIONS THAT ARE DEFINED AS AREAS OF CONCRETE ON THE FLOOR, WALLS, OR DOME, INTERIOR OR EXTERIOR, THAT ARE CHIPPED OR SPALLED WITHOUT EXPOSED REBAR OR WIRE MESH.
- 2.- CONCRETE RESTORATION PRODUCT SHALL BE MASTEREMACO N424 AS MANUFACTURED BY BASF OR APPROVED EQUAL.
- 3.- BONDING AGENT FOR CONCRETE SHALL BE LIQUID EPOXY SUCH AS MASTEREMACO ADH 326 AS MANUFACTURED BY BASF OR APPROVED EQUAL.
- 4.- SURFACES TO BE REPAIRED SHALL BE PREPARED IN ACCORDANCE WITH CONCRETE RESTORATION PRODUCT MANUFACTURER'S RECOMMENDATIONS AND SHALL INCLUDE, BUT NOT BE LIMITED TO, THE FOLLOWING:
 - A. SAW CUT THE PERIMETER OF THE AREA BEING REPAIRED INTO A SQUARE OR RECTANGLE WITH A MINIMUM DEPTH OF 1/4".
 - B. THE SURFACE MUST BE CLEAN AND FREE OF ALL DUST. DIRT.
- 5.- BONDING AGENT SHALL BE APPLIED TO CONCRETE PRIOR TO PATCHING IN ACCORDANCE WITH THE MANUFACTURER'S INSTRUCTIONS.
- 6.- CONCRETE RESTORATION PRODUCT SHALL BE MIXED IN ACCORDANCE WITH THE MANUFACTURER'S INSTRUCTIONS.
- 7.- CONCRETE RESTORATION PRODUCT SHALL BE APPLIED IN ACCORDANCE WITH THE MANUFACTURER'S INSTRUCTIONS.
- 8.- CONCRETE RESTORATION PRODUCT SHALL BE APPLIED WITHIN THE TEMPERATURE RANGE RECOMMENDED BY THE MANUFACTURER. FOLLOW ACI 305 AND 306 IF PRODUCT WILL BE APPLIED OUTSIDE OF THE MANUFACTURER'S RECOMMENDED TEMPERATURE RANGE.
- 9.- ALLOW CONCRETE RESTORATION PRODUCT TO CURE IN ACCORDANCE WITH THE MANUFACTURER'S INSTRUCTIONS PRIOR TO SANDING, COATING, OR PAINTING.

CONCRETE RESTORATION

- 1.— CONCRETE RESTORATION SHALL BE PERFORMED AT LOCATIONS THAT ARE DEFINED AS AREAS OF CONCRETE ON THE FLOOR, WALLS, OR DOME, INTERIOR OR EXTERIOR, THAT ARE CHIPPED OR SPALLED AND HAVE EXPOSED REBAR OR WIRE MESH.
- 2.- CONCRETE RESTORATION PRODUCT SHALL BE MASTEREMACO N424 AS MANUFACTURED BY BASF OR APPROVED EQUAL.
- 3.- PRIMER FOR STEEL REINFORCEMENT SHALL BE ONE-COMPONENT ZINC-RICH EPOXY SUCH AS MASTERPROTECT P8100AP AS MANUFACTURED BY BASF OR APPROVED EQUAL.
- 4.- BONDING AGENT FOR CONCRETE SHALL BE LIQUID EPOXY SUCH AS MASTEREMACO ADH 326 AS MANUFACTURED BY BASF OR APPROVED EQUAL.
- 5.- SURFACES TO BE REPAIRED SHALL BE PREPARED IN ACCORDANCE WITH CONCRETE RESTORATION PRODUCT AND PRIMER MANUFACTURER'S RECOMMENDATIONS AND SHALL INCLUDE, BUT NOT BE LIMITED TO, THE FOLLOWINGS
 - A. SAW CUT THE PERIMETER OF THE AREA BEING REPAIRED INTO A SQUARE OR RECTANGLE WITH A MINIMUM DEPTH OF 1/4".
 - B. FULLY EXPOSE ANY CORRODED STEEL IN THE REPAIR AREA.
 - REMOVE ALL LOOSE SCALE AND CORROSION DEPOSITS, PAYING PARTICULAR ATTENTION TO THE BACK OF EXPOSED STEEL.
 - MECHANICALLY ABRADE ALL EXPOSED STEEL TO REMOVE CORROSION FROM PITS AND IMPERFECTIONS WITHIN THE SURFACE.
 - THE SURFACE MUST BE CLEAN AND FREE OF ALL DUST, DIRT, RUST, OR GREASE.
- 6.- PRIMER SHALL BE MIXED IN ACCORDANCE WITH THE MANUFACTURER'S INSTRUCTIONS.
- 7.- PRIMER SHALL BE APPLIED IN ACCORDANCE WITH THE MANUFACTURER'S INSTRUCTIONS.
- 8.- PRIMER SHALL BE ALLOWED TO COMPLETELY DRY PRIOR TO APPLYING CONCRETE RESTORATION PRODUCT.
- 9.- CONCRETE RESTORATION PRODUCT SHALL BE APPLIED TO EXPOSED STEEL WITHIN 7 DAYS OF THE PRIMER APPLICATION.

10.- BONDING AGENT SHALL BE APPLIED TO CONCRETE PRIOR TO PATCHING IN ACCORDANCE

11.- CONCRETE RESTORATION PRODUCT SHALL BE MIXED IN ACCORDANCE WITH THE MANUFACTURER'S INSTRUCTIONS.

- 12.- CONCRETE RESTORATION PRODUCT SHALL BE APPLIED IN ACCORDANCE WITH THE MANUFACTURER'S INSTRUCTIONS.
- 13.- CONCRETE RESTORATION PRODUCT SHALL BE APPLIED WITHIN THE TEMPERATURE RANGE RECOMMENDED BY THE MANUFACTURER. FOLLOW ACI 305 AND 306 IF PRODUCT WILL BE APPLIED OUTSIDE OF THE MANUFACTURER'S RECOMMENDED TEMPERATURE RANGE.
- 14.- ALLOW CONCRETE RESTORATION PRODUCT TO CURE IN ACCORDANCE WITH THE MANUFACTURER'S INSTRUCTIONS PRIOR TO SANDING, COATING, OR PAINTING.

CRACK REPAIR

- 1.- CRACK REPAIR SHALL BE PERFORMED AT LOCATIONS THAT ARE DEFINED AS AREAS OF CONCRETE ON THE FLOOR, WALLS, OR DOME, INTERIOR OR EXTERIOR, THAT ARE CRACKED LESS THAN 1/4" WIDE WITHOUT EXPOSED REBAR OR WIRE MESH.
- 2.- EPOXY CAULK SHALL BE SIKADUR AS MANUFACTURED BY SIKA OR APPROVED EQUAL.
- 3.- SURFACES TO BE REPAIRED SHALL BE PREPARED IN ACCORDANCE WITH CAULK MANUFACTURER'S RECOMMENDATIONS AND SHALL INCLUDE, BUT NOT BE LIMITED TO, THE FOLLOWING:
 - A. ROUT ALL CRACKS TO A SMOOTH EVEN FINISH.
- THE SURFACE MUST BE CLEAN AND FREE OF ALL DUST, DIRT, OR GREASE.
- 4.- CAULK SHALL BE MIXED IN ACCORDANCE WITH THE MANUFACTURER'S
- 5.- CAULK SHALL BE APPLIED IN ACCORDANCE WITH THE MANUFACTURER'S INSTRUCTIONS.
- 6.- ALLOW CAULK TO CURE IN ACCORDANCE WITH THE MANUFACTURER'S INSTRUCTIONS PRIOR TO COATING OR PAINTING.

GROUT

- 1.- GROUTING SHALL BE PERFORMED AT LOCATIONS THAT ARE DEFINED AS AREAS OF CONCRETE ON THE WALLS THAT HAVE VOIDS WHERE THE SHOTCRETE HAS DELAMINATED.
- 2.- EPOXY GROUT SHALL BE MASTERFLOW 647 AS MANUFACTURED BY BASF OR APPROVED EQUAL.
- 3.- SURFACES TO BE REPAIRED SHALL BE PREPARED IN ACCORDANCE WITH GROUT MANUFACTURER'S RECOMMENDATIONS AND SHALL INCLUDE, BUT NOT BE LIMITED TO, THE FOLLOWING:
 - THE CONCRETE MUST BE AS CLEAN, SOUND, AND AS OIL- AND WATER-FREE AS POSSIBLE.
- 4.- GROUT SHALL BE MIXED IN ACCORDANCE WITH THE MANUFACTURER'S INSTRUCTIONS.
- 5.- GROUT SHALL BE APPLIED IN ACCORDANCE WITH THE MANUFACTURER'S INSTRUCTIONS.
- 6.- CONCRETE RESTORATION PRODUCT SHALL BE APPLIED WITHIN THE TEMPERATURE RANGE RECOMMENDED BY THE MANUFACTURER.
- 7.- ALLOW GROUT TO CURE IN ACCORDANCE WITH THE MANUFACTURER'S INSTRUCTIONS.

ALUMINUM HANDRAIL

- 1.- THE MATERIAL, FABRICATION, AND ERECTION OF STRUCTURAL ALUMINUM SHALL COMPLY WITH THE ALUMINUM DESIGN MANUAL BY THE ALUMINUM ASSOCIATION.
- 2.- STRUCTURAL ALUMINUM PIPE SHALL BE MIN. ASTM B529, 6063-T5 ALLOY, Fty = 16 KSI.
- 3.- THREADED ROD ANCHOR BOLTS SHALL BE AISI 316 STAINLESS STEEL.
- 4.- WELDING SHALL BE DONE BY AWS CERTIFIED WELDERS USING THE MOST RECENT AWS APPROVED TECHNIQUES.
- 5.- HANDRAIL DESIGN SHALL COMPLY WITH THE REQUIREMENTS OF 2017 (6TH ED.) FLORIDA BUILDING CODE, CHAPTER 16, TO RESIST A LINEAR LOAD OF 50 PLF AND A CONCENTRATED LOAD OF 200 LB. HANDRAIL SHALL ALSO COMPLY WITH ALL APPLICABLE OSHA REQUIREMENTS.

CONCRETE

1.- CONCRETE SHALL ACHIEVE MINIMUM 28 DAY COMPRESSIVE STRENGTHS AS LISTED BELOW:

4000 PSI FOR SLABS ON GRADE, AND FOOTINGS.

- 2.- CONCRETE SLUMP SHALL NOT EXCEED 4"±1" (EXCEPT FOR GROUTS).
- 3.- CONCRETE SHALL COMPLY WITH ALL THE REQUIREMENTS OF ACI 301 AND ASTM C94 FOR MEASURING, MIXING, TRANSPORTING, ETC.
- 4.- CONCRETE TICKETS SHALL BE STAMPED WHEN CONCRETE IS BATCHED.
- 5.- THE MAXIMUM TIME ALLOWED FROM THE TIME THE WATER IS ADDED TO CONCRETE UNTIL IT IS DEPOSITED IN ITS FINAL POSITION SHALL NOT EXCEED ONE AND ONE-HALF (1-1/2) HOURS.
- 6.- IF FOR ANY REASON THERE IS A LONGER DELAY THAN THAT STATED ABOVE, THE CONCRETE SHALL BE DISCARDED.
- 7.- IT SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR'S RETAINED TESTING LAB TO NOTIFY THE OWNER'S REPRESENTATIVE AND THE ENGINEER OF ANY NONCOMPLIANCE WITH THE ABOVE.
- 8.- ALL CONCRETE SHALL BE CURED USING CURING COMPOUND MEETING ASTM STANDARD C309 TYPE 1 AND SHALL HAVE A FUGITIVE DYE.
- 9.- THE CURING COMPOUND SHALL BE PLACED AS SOON AS THE FINISHING IS COMPLETED OR AS SOON AS THE VISIBLE WATER HAS LEFT THE UNFINISHED CONCRETE.
- 10.- ALL SCUFFED OR BROKEN AREAS IN THE CURING MEMBRANE SHALL BE RECOATED DAILY.
- 11.- CALCIUM CHLORIDES SHALL NOT BE UTILIZED; OTHER ADMIXTURES MAY BE USED ONLY WITH THE APPROVAL OF THE ENGINEER.
- 12.- REQUIRED CONCRETE COVERAGE OVER REBAR SHALL BE AS FOLLOWS:
 - A: 3" FOR CONCRETE CAST AGAINST AND PERMANENTLY EXPOSED TO EARTH.
 - B: FOR CONCRETE EXPOSED TO EARTH AND/OR WEATHER: 1-1/2" FOR #5 AND SMALLER 2" FOR #6 AND LARGER
 - C: FOR CONCRETE NOT EXPOSED TO EARTH OR WEATHER: 3/4" FOR SLABS, WALLS, AND JOISTS 1-1/2" FOR BEAM AND COLUMN PRIMARY REINF., TIES, AND STIRRUPS.

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GROUND STORAGE TANKS IMPROVEMENTS

STORAGE TANK STRUCTURAL GENERAL NOTES

CITY OF TAMPA WATER DEPARTMENT

STRUCTURAL

0818 CALE: **REVISION:** NOTED DRAWING NO. SHEET NO .:

3507 EAST FRONTAGE ROAD

REISS ENGINEERING, INC.

Certificate of Authorization No. 4599



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WITH THE MANUFACTURER'S INSTRUCTIONS.

FULL SIZE

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Designed <u>EAB</u>

Drawn <u>DEG</u>

Checked EAB

Reviewed -

S04

PROJECT NO .:

SUITE 180 TAMPA, FL 33607 (813) 549-0919