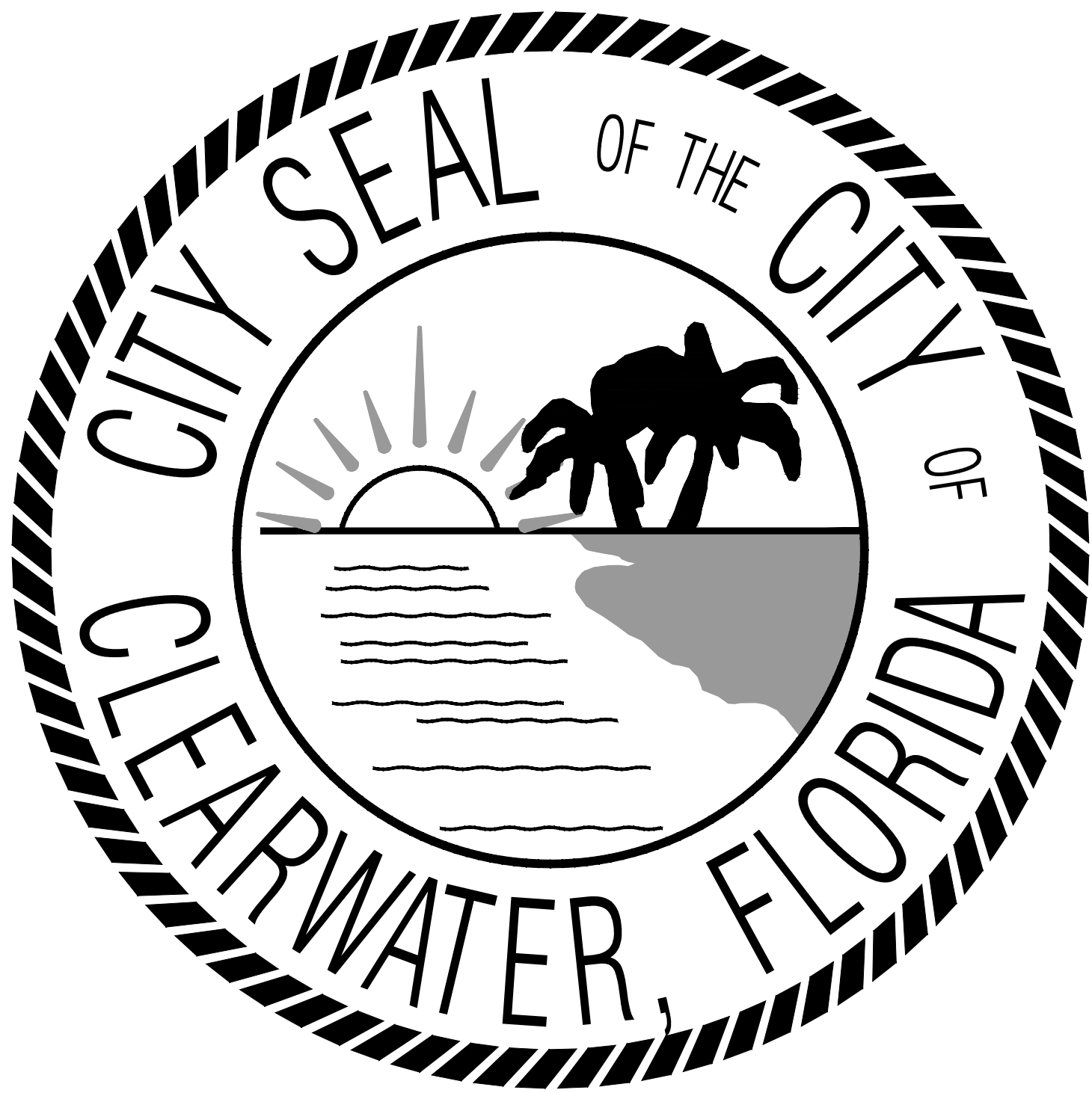




This item has been electronically signed and sealed by Michael Schmidt, PE on the date adjacent to the seal using a SHA authentication code. Printed copies of this document are not considered signed and sealed and the SHA authentication code must be verified on any electronic copies.



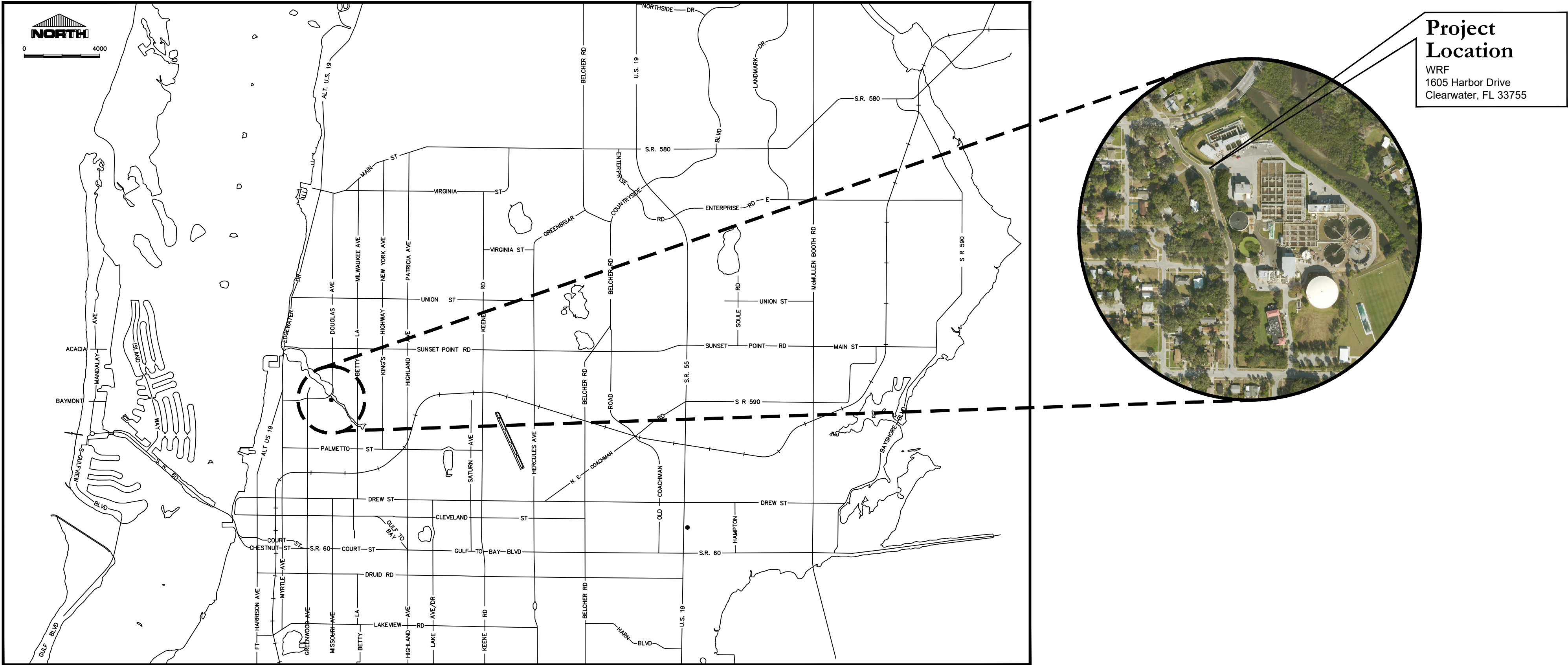
SHEET INDEX

SHEET NUMBER	SHEET NAME	SHEET TITLE
GENERAL		
1	G-0001	COVER SHEET
2	G-0002	GENERAL NOTES
3	G-0003	LEGEND AND ABBREVIATIONS
CIVIL		
4	C-1000	SITE PLAN
5	C-1001	DETAILS
ELECTRICAL		
6	E-1000	ELECTRICAL PLAN

MS
WRF CHLORINE
CONTACT CHAMBER

CITY OFFICIALS

Frank Hibbard	Mayor	Seat 1
Mark Bunker	Councilmember	Seat 2
Kathleen Beckman	Councilmember	Seat 3
David Allbritton	Councilmember	Seat 4
Hoyt Hamilton	Councilmember	Seat 5
William B. Horne II	City Manager	



TARA L. KIVETT, P.E.
City Engineer

Approved By _____
CITY ENGINEER TARA L. KIVETT, P.E. #86611

Date Approved _____

BID SET
City Project No. 18-0060-UT
Tetra Tech Project No. 200-41125-19003
Plan Set No. 2019036

1. All work performed shall comply with the regulations and ordinances of the various governmental agencies having jurisdiction over the work.
2. All workmanship and materials used in the construction of this project shall conform to the latest City of Clearwater standards, contract documents and specifications unless otherwise noted.
3. The Contractor shall obtain all required permits prior to construction.
4. The Contractor shall notify all utility companies at least forty eight (48) hours prior to start of construction, demolition and/or excavation in accordance with Florida Statutes.
5. Locations, elevations and dimensions of existing utilities, structures and other features are shown according to the best information available at the time of the preparation of these plans, but do not purport to be absolutely correct. The Contractor shall verify the location, elevations and dimensions of all existing utilities, structures and other features affecting the work prior to construction.
6. The Contractor shall be responsible to review the site to determine existing conditions. Anything not shown on these plans shall be brought to the attention of the City's Engineering Representative and shall not constitute additional scope of work approved by the Engineer.
7. The Contractor shall contact the City's Engineering Representative immediately concerning any conflicts arising during construction.
8. All construction activities must conform to the local noise ordinance.
9. Hours of work shall be in accordance with the local governmental agency.
10. These drawings do not include necessary components for construction safety. The Contractor is solely responsible for construction safety. Special precautions may be required in the vicinity of power lines and other utilities.
11. The Contractor shall furnish, erect and maintain all necessary traffic control and safety devices in accordance with the U.S. Department of Transportation, "Manual on Uniform Traffic Control Devices" and the latest Florida Department of Transportation "Design Standards".
12. The Contractor shall provide, erect and maintain effective barricades, danger signals, signs and pedestrian detours in all areas where required for the protection of the work and the safety of the public.
13. A registered Land Surveyor, at the Contractor's expense, shall reset all section corners or property corners dislocated or disturbed by any construction related activities.
14. Any National Geodetic Survey (NGS) Monument within the limits of construction is to be protected. If in danger of damage, contractor shall notify the city's field representative immediately and contact the National Geodetic Survey information center.
15. Unless noted on the plans, final grade is to generally be the same as existing grade. Restore uniformly and for proper yard drainage grade toward roadway.
16. The Contractor shall provide all sheeting, shoring and bracing required to protect adjacent structures or to minimize trench width. Where a separate pay item is not provided, the cost of all sheeting and bracing required shall be included in the contract price for the item of work for which sheeting, shoring and bracing is anticipated to be required in accordance with local, state, or federal regulations for construction.
17. All concrete shall have a minimum compressive strength of 3,000 psi (28-day strength), unless otherwise noted on drawings.
18. Materials interfering with construction shall be disposed of as directed by the City's Engineering Representative, unless otherwise noted on plans.
19. All excess soil resulting from construction activities that is not claimed by the Owner shall become the property of the Contractor and disposed of by the Contractor.
20. All disturbed landscaped and/or grassed areas shall be restored uniformly and be generally at the same elevation as existing grades.
21. All disturbed areas shall be replaced within fifteen (15) days to a condition equal to or better than existing conditions.
22. All voids after placement of sod shall be filled with prepared soil mix. The sod shall be rolled to meet the proposed grades. Sod placed on slopes 3:1 or steeper shall be pegged.
23. Areas of exposed earth resulting from construction shall be sodded in kind as directed by the City's Engineering Representative unless otherwise noted on plans.
24. The Contractor shall maintain an accurate set of marked-up drawings (As-Builts) at the construction site.
25. The bottom trench width in an unsupported trench shall be limited to the minimum practicable width allowing working space to place and compact the hunching material. The use of trench boxes and movable sheeting shall be performed in such a manner that removal, backfill and compaction will not disturb compacted haunching material or pipe alignment. Dewatering of the trench bottom shall be accomplished using adequate means to allow preparation of bedding, placement of the haunching material and pipe in the trench without standing water. Dewatering shall continue until sufficient backfill is placed above the pipe to prevent flotation or misalignment.
26. The Contractor shall dispose of all unsuitable materials, construction debris, and other waste materials offsite in accordance with applicable regulatory agency requirements at the Contractor's expense. All backfill shall be free of unsuitable materials.
27. The Contractor shall be responsible for providing a Hurricane Preparation Plan to the City's Engineering Representative for review and approval prior to commencing construction activities.
28. Any damage to city, county, or state roads caused by the Contractor shall be repaired by the Contractor in a timely manner and to the satisfaction of the City's Engineering Representative. Payment shall not be made for this work.
29. The Contractor shall protect private property.

1. The City of Clearwater Control Network's Horizontal Datum is: North American Datum (N.A.D.), Florida State Plane Coordinates, Florida West Zone 83(1999).
2. The City of Clearwater Control Network's Vertical Datum is: North American Vertical Datum (N.A.V.D.) 1988.

1. The Contractor will be responsible for adhering to all Tree Protection measures required by the City of Clearwater codes, ordinances and Standard Specifications. This will include all tree barricades, root pruning and tree trimming/pruning activities. These requirements will apply within the specified "limits of work" and will also be applicable in all areas where the Contractor and/or his subcontractors stage, store or park vehicles, equipment, materials and debris.
2. All tree pruning and/or root pruning on existing trees to be preserved will only be performed by or under the direct supervision of an International Society of Arboriculture (ISA) Certified Arborist. Furthermore, all tree work shall conform to the American National Standards Institute (ANSI) 2001, American National Standard for Tree Care Operations – Tree, Shrub and Other Woody Plant Maintenance – Standard Practices (Pruning) ANSI A-300.
3. Where called for on the plans, install tree barricades, erosion control/silt fencing or other approved protective barriers around all trees to be preserved, per City Standard Detail. Where applicable, and specifically approved by the City's Engineering Representative protective barriers may be placed in root prune trenches.
4. Prior to any field changes taking place, it will be the Contractor's responsibility to review the potential impacts to existing trees with his Certified Arborist, and include any and all recommended tree protection measures in his proposal to modify the approved design. The City's Engineering Representative must approve, in writing, any changes to the approved design prior to implementation of said change.
5. The Contractor will avoid any open excavations, fill or other construction activities whenever possible within the "critical root zone" of any existing tree (i.e., under the drip line/canopy).
6. No vehicles, equipment or materials shall be parked or stored under/within the drip line/protective barrier area of any tree.
7. Where construction activities are anticipated to last for an extended period of time near existing trees the Contractor shall install and maintain City approved tree barricades as shown in the Standard Details and as approved by the City's Engineering Representative.
8. Woodchips, mulch or another cushioning surface material approved by the City's Engineering Representative shall be placed to a minimum depth of ten (10) inches over areas where roots are present and construction traffic occurs.
9. All tree protection measures shall remain in place at all times during construction until the City's Engineering Representative authorizes removal.
10. The Contractor will coordinate with the City's Engineering Representative, Tim Kurtz, at (727) 562-4737, to obtain approval in advance of any and all work within the critical root zone of any existing tree.

1. It is the responsibility of the Contractor to control and prevent erosion and the transportation of sediment to surface drains and outfalls.
2. The Contractor shall prepare and submit a Stormwater Pollution Prevention Plan (SWPPP) in accordance with Florida Department of Environmental Protection (FDEP) Criteria for a National Pollution Discharge Elimination System (NPDES) Activities Permit.
3. The Contractor must obtain a FDEP Generic Permit for The Discharge of Produced Ground Water, if dewatering with offsite discharge will be required. The Contractor is responsible for all required preliminary water samples to satisfy the FDEP Generic Permit for the Discharge of Produced Ground Water. Sampling shall occur thirty (30) days prior to the start of dewatering.
4. Construction operations shall be carried out in such a manner that erosion and pollution shall be minimized. The submitted SWPPP shall be complied with. All applicable federal, state, and local laws shall be complied with at all times. Please note that no hay bales are allowed on City of Clearwater projects.

Bright House Networks
Attention: Mr. Ted Bingham
700 Corillon Parkway, Suite 6
St. Petersburg, Florida 33716-1123
Phone: (727) 329-2847

Verizon Telephone Operations
Attention: Mr. Raul Rivera
SLCW 5033
1280 Cleveland Street
Clearwater, Florida 33782
Phone: (727) 562-1130

Wide Open West (WOW!)
3001 Gandy Boulevard North
Pinellas Park, Florida 333782
Phone: (866) 745-3685 Office

Duke Energy
Attention: Ms. Sharon Dear
3300 Exchange Place
Lake Mary, Florida 32746
Phone: (407) 942-9421

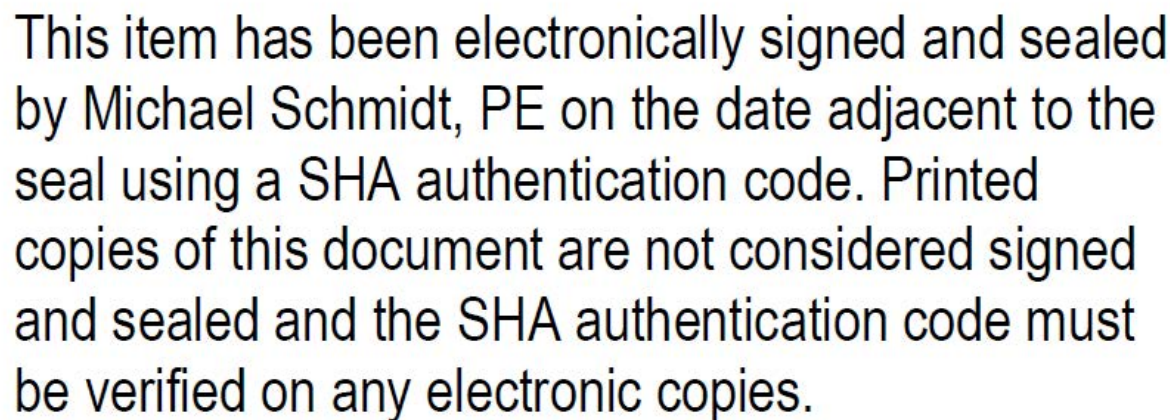
City of Clearwater
Clearwater Gas System
400 North Myrtle Avenue
Clearwater, Florida 33755
Phone: (727) 562-4900

City of Clearwater
Engineering Department - Traffic Division
Attention: Mr. Paul Bertels
100 South Myrtle Avenue, Room 220
Clearwater, Florida 33756-4748
Phone: (727) 562-4794

City of Clearwater
Engineering Department - Survey Division
Attention: Mr. Tom Mahony
100 South Myrtle Avenue, Room 220
Clearwater, Florida 33756-4748
Phone: (727) 562-4762

City of Clearwater
Engineering Department - Public Utilities
Attention: Mr. David Porter
1650 North Arcturus Avenue
Clearwater, Florida 33755
Phone: (727) 562-4960 Ext. 7248

City of Clearwater
Engineering Department - Construction Management
Attention: Mr. Timothy Kurtz
100 South Myrtle Avenue, Room 220
Clearwater, Florida 33756
Phone: (727) 562-4737

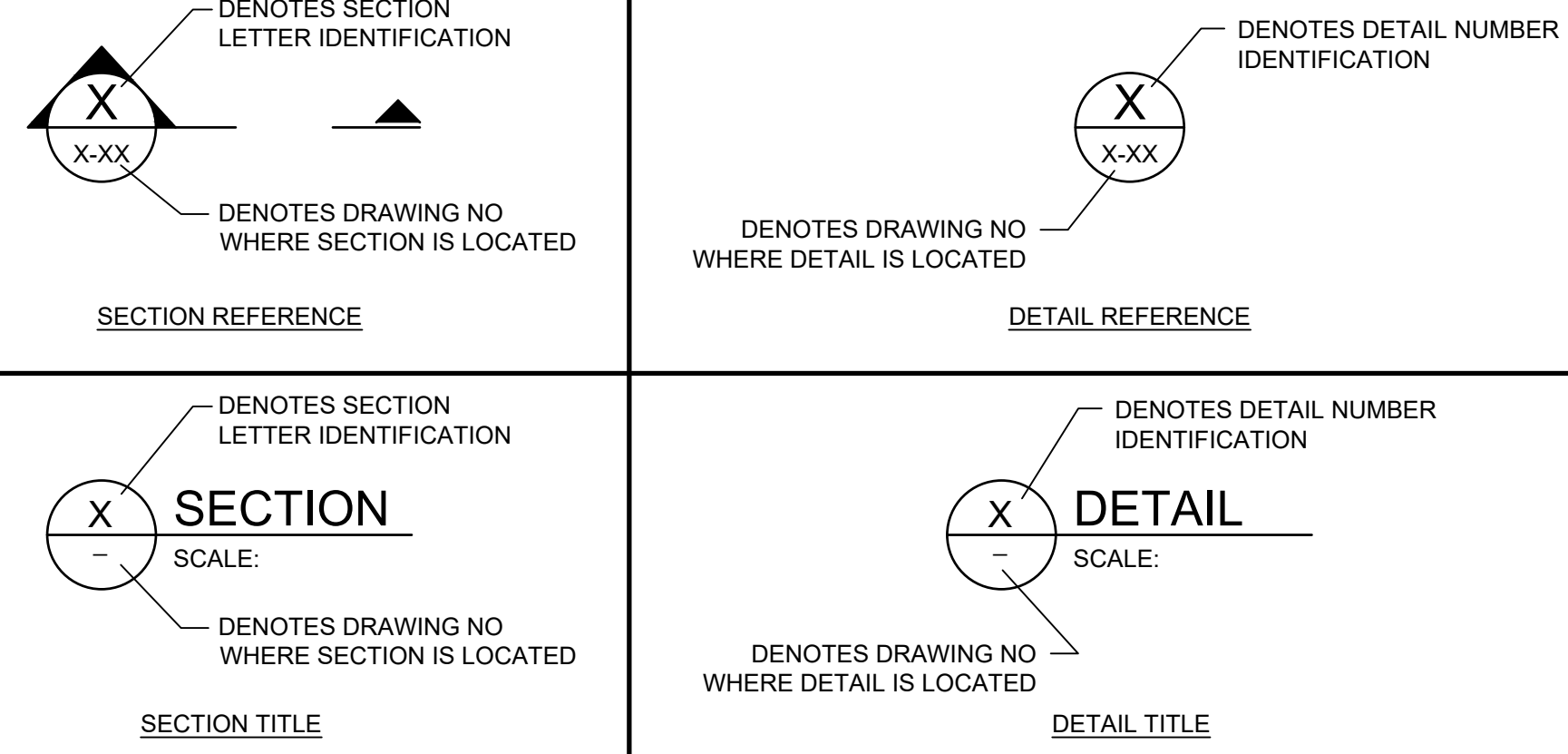


RECORD DRAWINGS					CITY OF CLEARWATER, FLORIDA ENGINEERING DEPARTMENT 100 S. MYRTLE AVE. CLEARWATER, FL 33756	<div><div>INVESTIGATE BEFORE YOU EXCAVATE</div><div>CALL 811</div><div>SUNSHINE STATE ONE CALL OF FLORIDA www.callsunshine.com (800) 432-4770 MOR. 48 HOURS BEFORE YOU EXCAVATE</div></div>	GENERAL NOTES				<div><div>DWG. NAME: G-0002</div><div>FIELD BOOK: N/A</div><div>SURVEYED BY: N/A</div><div>SCALE: VERT. N/A</div></div>					
SURVEYED BY:	DRAWN BY:										<div><div>CONTRACT NO.: 18-0060-UT</div><div>DATE DRAWN: 08-14-19</div><div>DRAWN BY: HCR</div><div>HORIZ. N/A</div></div>					
REVIEWED BY:											<div><div>JOB NO.: 200-41125-19003</div><div>DESIGNED BY: MJA</div><div>CHECKED BY: SLR</div><div>SHEET NO.: 2 OF 6</div></div>					
PROJECT ENGINEER		DATE									APPROVED FOR CONSTRUCTION					
APPROVED BY:											CITY ENGINEER TARA L. KIVETT, P.E. # 86611					
CITY ENGINEER TARA L. KIVETT, P.E. # 86611		DATE			REVISION	BY	DATE					CITY ENGINEER TARA L. KIVETT, P.E. # 86611				DATE

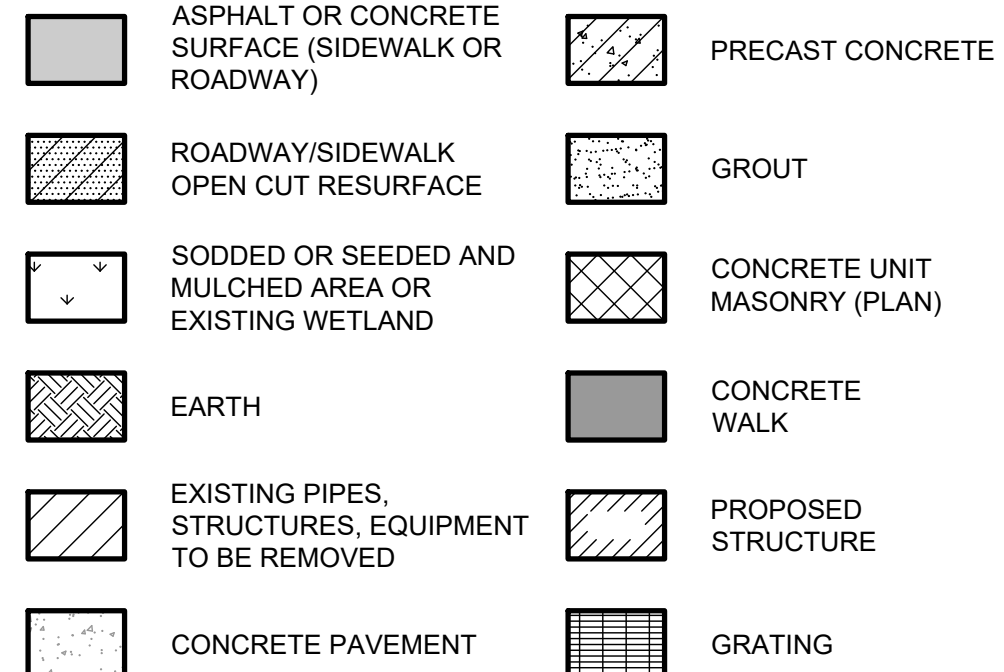
LIST OF STANDARD ABBREVIATIONS

A		DEPT	DEPARTMENT	HWY	HIGHWAY	PG	PRESSURE GAGE	TEFC	TOTALLY ENCLOSED FAN
AAP	ALARM ANNUNCIATOR PANEL	DESC	DESCRIPTION	HZ	HERTZ	PI	PRESSURE INDICATOR	TEL	TELEPHONE
ARV	AIR RELEASE VALVE	DET	DETAIL			PIT	PRESSURE INDICATOR TRANSMITTER	TENV	TOTALLY ENCLOSED NON-VENTILATED
AAV	AUTOMATIC AIR VENT	DI	DIESEL FUEL	I		PL	PLATE	THD	THREAD(ED)
AB	ANCHOR BOLT	DF	DUCTILE IRON	ID	INSIDE DIAMETER	P/V	PROPERTY LINE	THK	THICK(NESS)
ABAN	ABANDON(ED)	DIA	DIAMETER	IN	INCH(ES)	PNV	PINCH VALVE	TLM	TELEMETRY
ABRSV	ABRASIVE	DIFF	DIFFUSER	INT	INTERSECTION	POB	POINT OF BEGINNING	TOB	TOP OF BANK
ABS	ACRYLONITRILE BUTADIENE STYRENE	DIP	DUCTILE IRON PIPE	INTR	INTERIOR	POJ	PUSH-ON JOINT	TOC	TOP OF CURB
ABV	ABOVE	DISCH	DIRECTION	INV	INVERT	PP	POLYMER	TOS	TOE OF SLOPE
AC	ALTERNATING CURRENT	DIR	DIRECTION	IP	IRON PIPE	PPD	POWER POLE	TOT	TOTAL
ACOMP	ASPHALT-COATED CORRUGATED METAL PIPE	DMH	DROP MANHOLE	IPS	INTERNATIONAL PIPE STANDARD	PPM	POUNDS PER DAY	TP	TELEPHONE POLE
ACP	ASBESTOS CEMENT PIPE	DN	DOWN	IR	INTERNAL RECYCLE	PREFAB	PARTS PER MILLION	TS	THICKENED SLUDGE
ADDM	ADDENDUM	DR	DRAIN	IW	IRRIGATION WATER	PRESS	PREFABRICATED PRESSURE	TV	TELEVISION
ADH	ADHESIVE	DV	DIAPHRAGM VALVE			PRV	PRESSURE REDUCING VALVE	TYP	TYPICAL
AFF	ABOVE FINISHED FLOOR	DW	DRIVEWAY	J		PRW	PRESSURE	T&B	TOP AND BOTTOM
AFG	ABOVE FINISHED GRADE	DWG	DRAWING	JB	JUNCTION BOX JOINT	PSF	PROCESS WATER		
AFS	ABOVE FINISHED SLAB	DVV	DRAIN, WASTE, AND VENT	KT		PSH	POUNDS PER SQUARE FOOT		
AHD	AHEAD					PSI	HIGH PRESSURE SWITCH		
AL	ALUMINUM	E	EAST			PSIA	POUNDS PER SQUARE INCH ABSOLUTE	U	UNDERDRAIN
ALT	ALTERNATE	EA	EACH	K	KIP (1,000 LB)			UG	UNDERGROUND
AMP	AMPERE	ECC	ECCENTRIC	KPL	KICK PLATE	PSIG	POUNDS PER SQUARE INCH GAGE	ULT	ULTIMATE
AMT	AMOUNT	EF	EACH FACE	KV	KILOVOLT			UN	UNION
APRX	APPROXIMATE(LY)	EFF	EFFLUENT	KVA	KILOVOLT-AMPERE	PT	POINT OF TANGENCY	UON	UNLESS OTHERWISE NOTED
ARCH	ARCHITECT(URAL)	E/L	EASEMENT LINE	KW	KILOWATT	PV	POLYMER	UGE	UNDERGROUND ELECTRIC
AS	ALUM SOLUTION	EL	ELEVATION	KWH	KILOWATT-HOUR	PVC	POLYVINYL CHLORIDE	UTL	UNDERGROUND TELEPHONE CABLE
ASPH	ASPHALT	ELAST	ELASTOMERIC			PVMT	PAVEMENT		
ASSY	ASSEMBLY	ELEC	ELECTRICAL	L		PW	POTABLE WATER		
AVE	AVENUE	EMER	EMERGENCY	L	LEFT	PWR	POWER	V	VOLT(S)
AWPP	ADVANCED WATER PURIFICATION PLANT	EMC	ENCASE(MENT)	LAB	LABORATORY			V	VACUUM
A/C	AIR CONDITIONING	ENGR	ENGINEER	LAM	LAMINATE OR LAMINATION	Q		VAR	VARIABLES
AVV	AIR/VACUUM AIR VALVE	EP	EDGE OF PAVEMENT	LATL	LATERAL	Q	FLOW	VC	VERTICAL CURVE
		EPDM	ETHYLENE PROPYLENE DIENE MONOMER	LAV	LAVATORY	QTY	QUANTITY	VCP	VITRIFIED CLAY PIPE
B				LEN	LENGTH			VEL	VELOCITY
BAF	BAFFLE	EPRF	EXPLOSION PROOF EQUIPMENT	LB	POUNDS	R		VERT	VERTICAL
BCV	BALL CHECK VALVE	ER	ECCENTRIC REDUCER	LF	LINEAR FEET	RAD	RADIUS	VFD	VARIABLE FREQUENCY DRIVE
BF	BLIND FLANGE	EST	EASEMENT	LIT	LEVEL INDICATOR TRANSMITTER	RAS	RETURN ACTIVATED SLUDGE	VOL	VOLUME
BFV	BUTTERFLY VALVE	EST	ESTIMATE(D)	LP	LIGHT POLE	RC	REINFORCED CONCRETE	W	WATT, WEST
BHP	BRAKE HORSEPOWER	EW	EACH WAY	LS	LIME SLURRY	RCB	REINFORCED CONCRETE BOX	WAS	WASTE ACTIVATED SLUDGE
BI	BLACK IRON	EXC	EXCAVATE	LSS	LIME STABILIZED SLUDGE	RCP	REINFORCED CONCRETE PIPE	WCO	WALL CLEAN OUT
BITUM	BITUMINOUS OR BITUMASTIC	EXP	EXPANSION	LVR	LOUVER	RCPA	REINFORCED CONCRETE PIPE ARCH	WF	WIDE FLANGE
B/L	BASELINE	EX	EXISTING	LWL	LOW WATER LEVEL	RD	ROAD	WH	WALL HYDRANT
BLDG	BUILDING	EXST GR	EXISTING GRADE			RDCR	REDUCER	WL	WATER LINE
BLK	BLOCK	EXT	EXTENSION			REBAR	REINFORCING STEEL	WM	WATER MAIN
BM	BENCH MARK	EXTN	EXTENSION			REF	REFERENCE	WP	WATER PROOF(ING), WORKING POINT
BOC	BACK OF CURB					REINF	REINFORCE(D)(ING)(MENT)	WPR	WORKING PRESSURE
BOT	BOTTOM					REM	REMOVE(ABLE)	WS	WATER SURFACE
BP	BASE PLATE	F				REQ'D	REQUIRED	WSP	WELDED STEEL PIPE
BRG	BEARING	FAB	FABRICATE(D)			RF	RAISED FACE	WT	WEIGHT
BSP	BLACK STEEL PIPE	FCA	FLANGED COUPLING ADAPTER			RJ	RESTRAINED JOINT	WTP	WATER TREATMENT PLANT
BV	BALL VALVE	FB	FLAT BAR			RM	ROOM	WW	WASH WATER
BW	BOTH WAYS	FCV	FLOW-CONTROL VALVE			RPM	REDUCED PRESSURE	WWF	WELDED WIRE FABRIC
BWW	BACKWASH WATER	FD	FLOOR DRAIN			RPBP	REDUCED PRESSURE BACKFLOW PREVENTER	WWM	WELDED WIRE MESH
		FDN	FOUNDATION			RPM	REVOLUTIONS PER MINUTE	WWTP	WASTEWATER TREATMENT PLANT
		FE	FIRE HYDRANT			RR	RAILROAD	W/	WITH
C		FIG	FIGURE			RT	RIGHT	W/O	WITHOUT
CAP	CAPACITY	FIN	FINISH(ED)			RVT	RIVETED		
CA	COMPRESSED AIR	FIN FLR	FINISH FLOOR			RWM	RAW WATER		
CAV	COMBINATION AIR VALVE	FIN GR	FINISH GRADE			RWW	RAW WASTEWATER		
CB	CATCH BASIN	FL	FLUORIDE			R/W	RIGHT-OF-WAY		
CCC	CHLORINE CONTACT CHAMBER	FLG	FLANGE(D)						
CE	CHLORINATED EFFLUENT	FLG	FLANGE(D)						
CFM	CUBIC FEET PER MINUTE	FLM	FLOW LINE						
CFS	CUBIC FEET PER SECOND	FLTR	FILTER						
CV	CHECK VALVE	FM	FORCE MAIN						
CI	CAST IRON	FPM	FEET PER MINUTE						
CIP	CAST IRON PIPE	FPS	FEET PER SECOND						
CISP	CAST IRON SOIL PIPE	FRP	FIBERGLASS REINFORCED						
CJ	CONSTRUCTION JOINT	FT	FOOT OR FEET						
CKT	CIRCUIT	FUT	FOOT VALVE						
CL	CENTER LINE	FV	FINISHED WATER						
CL2	CHLORINE GAS	FWP	FACTORY WIRE PANEL						
CLF	CHAIN LINK FENCE	F/F	FACE TO FACE						
CLR	CLEAR OR CLEARANCE								
CLVT	CULVERT								
CMP	CORRUGATED METAL PIPE								
CMPA	CORRUGATED METAL PIPE ARCH								
CMU	CONCRETE MASONRY UNIT								
CND	CONDUIT								
CNR	CORNER								
CO	CLEAN OUT								
CO2	CARBON DIOXIDE								
COAG	COAGULANT								
COL	COLUMN								
COM	COMMON								
CONC	CONCRETE								
CONN	CONNECTION								
CONSTR	CONSTRUCTION								
CONT	CONTINUOUS								
CONTR	CONTRACT(OR)								
COORD	COORDINATE								
CO	COMPANY								
CP	CONCRETE PIPE								
CPA	CONCRETE PIPE ARCH								
CPLG	COUPLING								
CPVC	CHLORINATED POLYVINYL CHLORIDE								
CR	CONCENTRIC REDUCER								
CS	CHLORINE SOLUTION								
CSG	CASING								
CTV	CABLE TELEVISION								
CV	CHECK VALVE								
CY	CUBIC YARD								
CYL	CYLINDER								
C&G	CURB AND GUTTER								
C/C	CENTER TO CENTER								
D									
DAT	DATUM								
DBL	DOUBLE								
DC	DIRECT CURRENT								
DEMO	DEMOLITION								

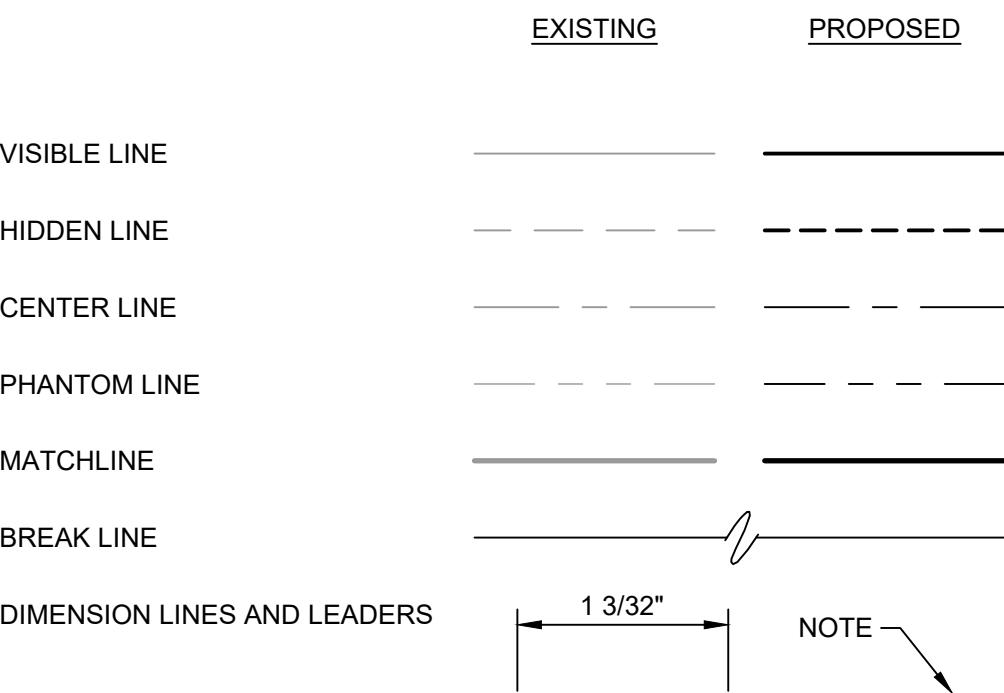
REFERENCE SYMBOLS



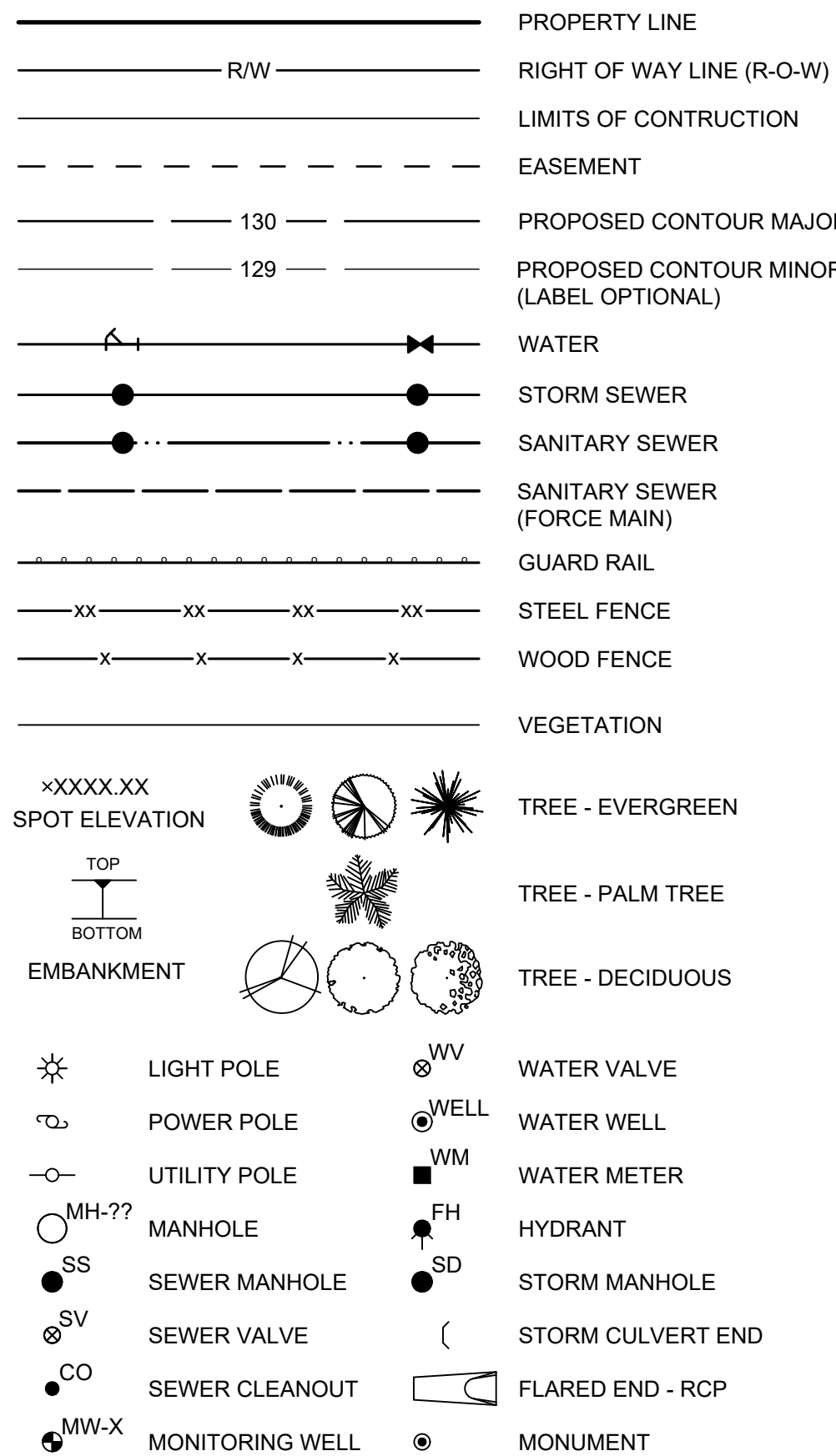
HATCHING LEGEND



MECHANICAL/DRAFTING LEGEND



CIVIL LEGEND



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CITY OF CLEARWATER, FLORIDA
ENGINEERING DEPARTMENT
100 S. MYRTLE AVE.
CLEARWATER, FL 33756

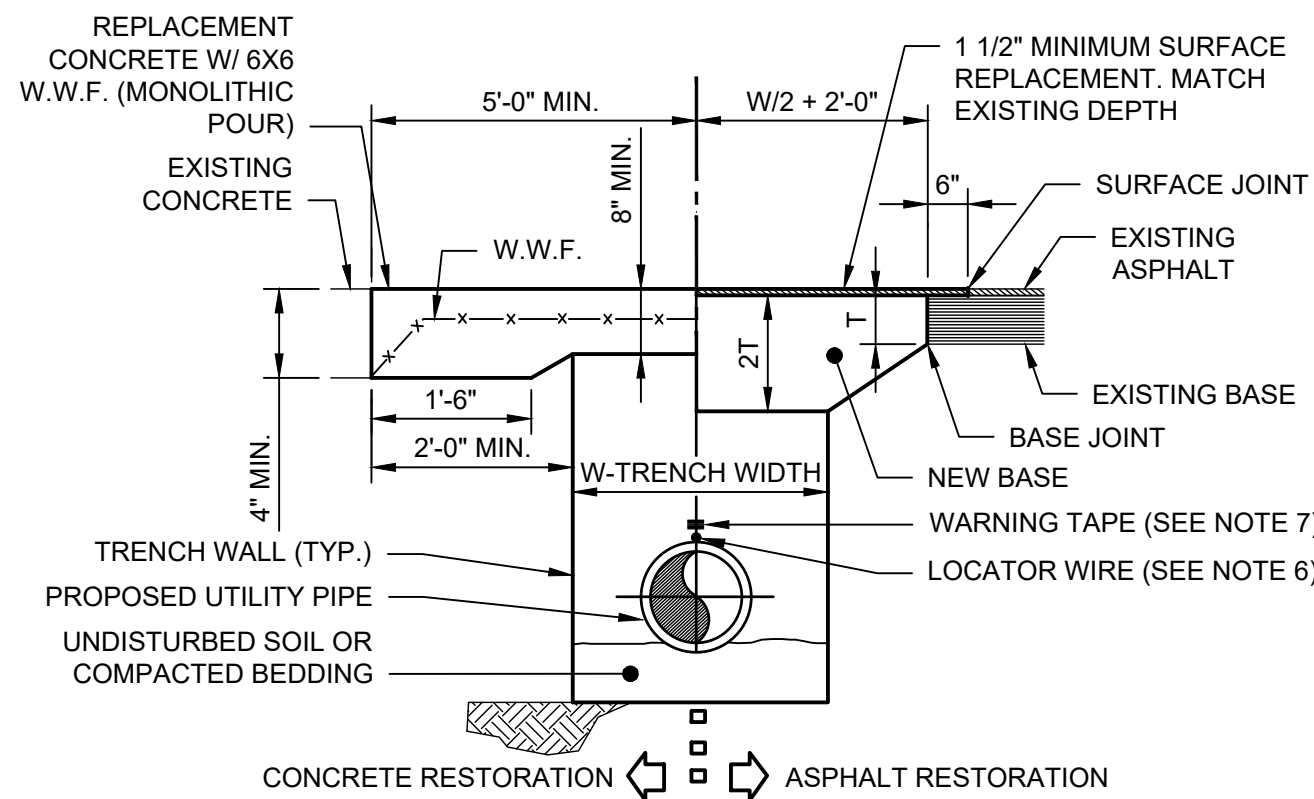


LEGEND AND ABBREVIATIONS

RECORD DRAWINGS					
SURVEYED BY:	DRAWN BY:				
REVIEWED BY:					
APPROVED BY:	PROJECT ENGINEER	DATE			
	CITY ENGINEER TARA L. KIVETT, P.E. # 86611	DATE	REVISION	BY	DATE

DWG NAME:	FIELD BOOK:	SURVEYED BY:	SCALE:
G-0003	N/A	N/A	VERT. N/A
CONTRACT NO.:	DATE DRAWN:	DRAWN BY:	HORIZ. N/A
18-0060-UT	08-14-19	HCR	
JOB NO.:	DESIGNED BY:	CHECKED BY:	SHEET NO.:
200-41125-19003	MJA	SLR	3 OF 6
APPROVED FOR CONSTRUCTION			
CITY ENGINEER TARA L. KIVETT, P.E. # 86611			

OPEN CUT PAVEMENT

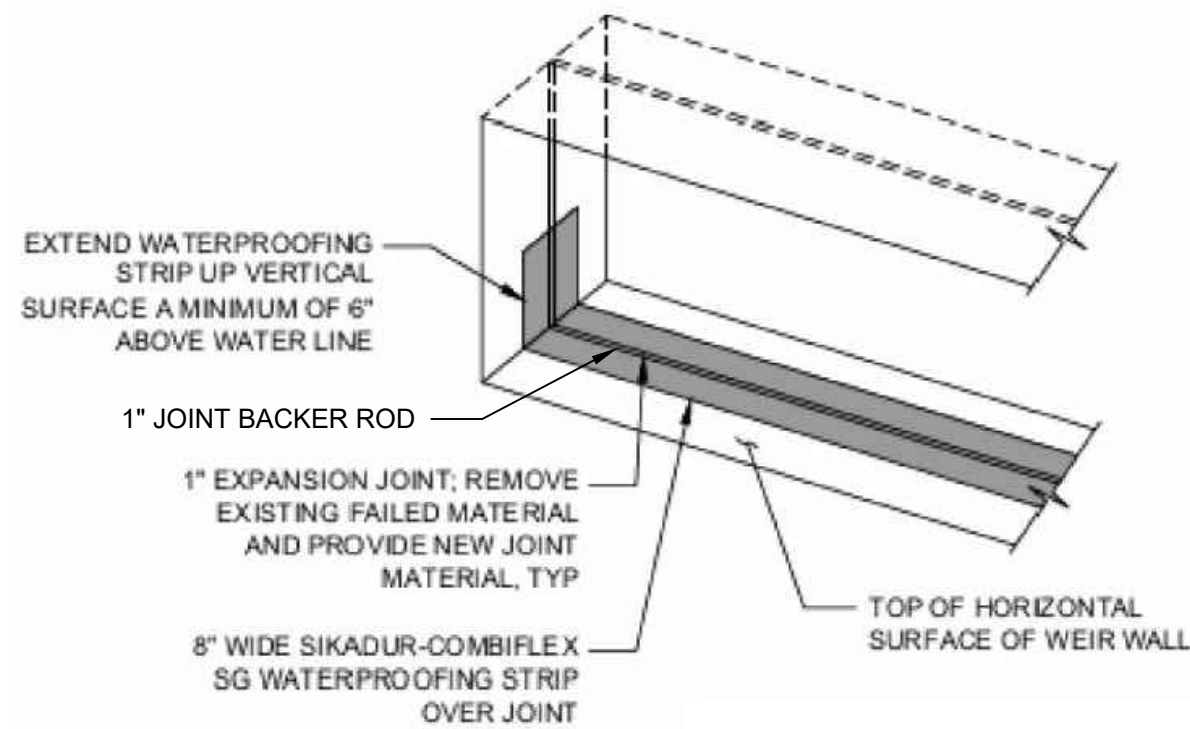


NOTES:

1. SURFACE AND BASE CUTS SHALL BE SAW-CUT.
2. LONGITUDINAL OR DIAGONAL CUTS REQUIRE OVERLAY/RESURFACING COMPLETE WIDTH OF ROAD.
3. CUTS AT INTERSECTIONS REQUIRE COMPLETE OVERLAY/RESURFACING TO END OF ALL RETURN RADS AND/OR 10' FT. BEYOND CUT, WHICHEVER IS GREATER.
4. CUTS THROUGH TURNOUTS AND CUL-DE-SACS REQUIRE COMPLETE OVERLAY/ RESURFACING.
5. COMPACTION OF FINAL BACKFILL SHALL BE 98% OF AASHTO T-180; COMPACTION AROUND PIPE SHALL BE 95%, EXCEPT AS OTHERWISE REQUIRED BY PERMITTING AUTHORITY.
6. TAPE CONTINUOUS BLUE COATED 14 GAUGE UF SOLID (FOR WATER) AND GREEN 12 GAUGE STRANDED (FOR SEWER) INSULATED COPPER WIRE, BELOW THE SPRING LINE OF THE PIPE. TERMINATE THESE LOCATOR WIRES AT TOP OF EACH VALVE PAD AND HYDRANT W/12\"/>
7. PLACE PRINTED WARNING TAPE 24\"/>

1 **DETAIL**
SCALE: NTS

WEIR WALL REPAIR



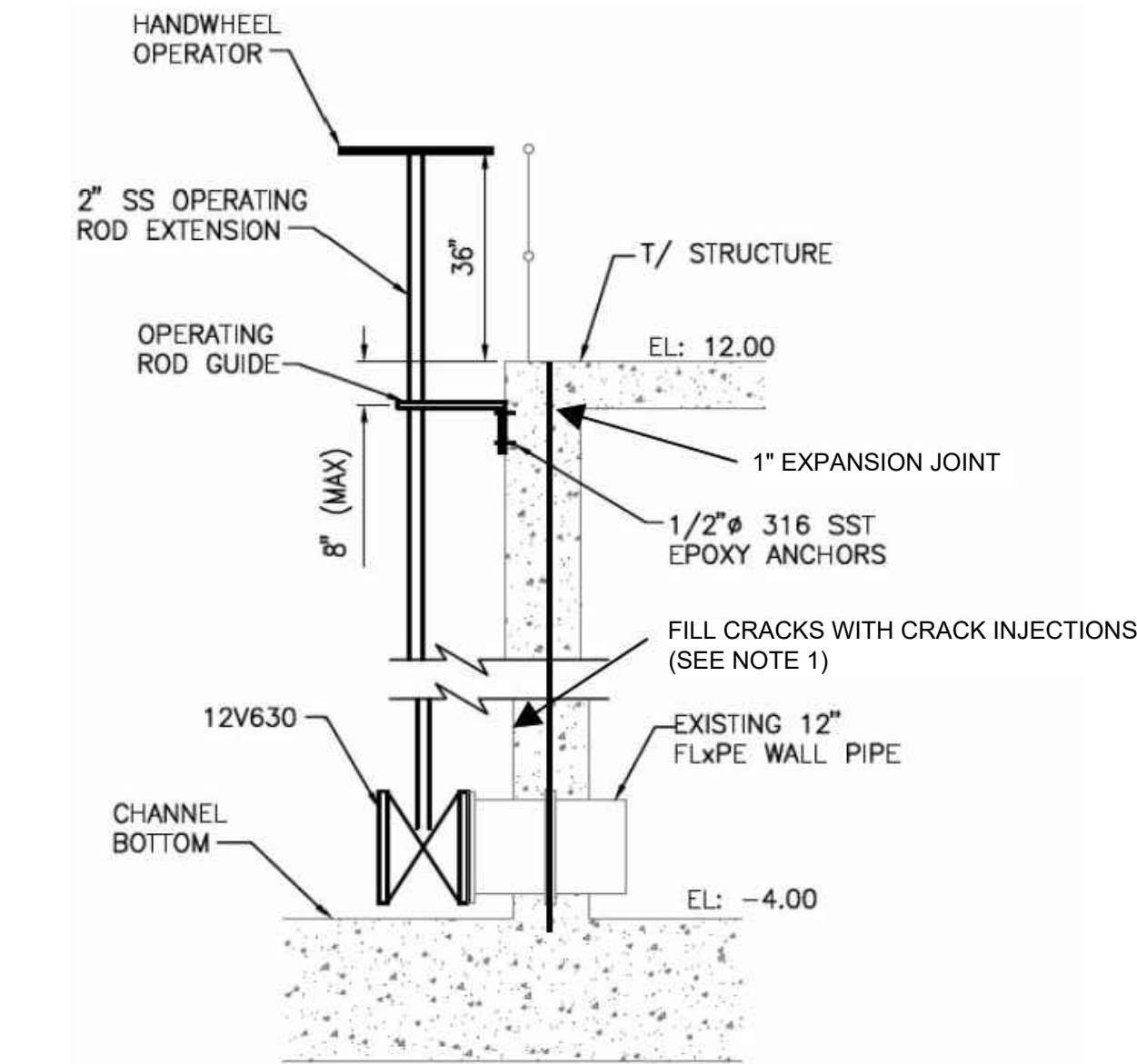
WEIR WALL REPAIR - ISOMETRIC VIEW

NOTES:

1. PREPARE ALL EXISTING SURFACES IN ACCORDANCE WITH THE MANUFACTURER'S RECOMMENDATIONS.
2. COORDINATE WITH CITY FOR OUTER CCC WEIR WALL REPAIR TO LOWER WATER LEVEL IN STRUCTURE.

2 **DETAIL**
SCALE: NTS

INNER CCC CRACK INJECTIONS



INNER CCC EFFLUENT WALL INJECTIONS

NOTES:

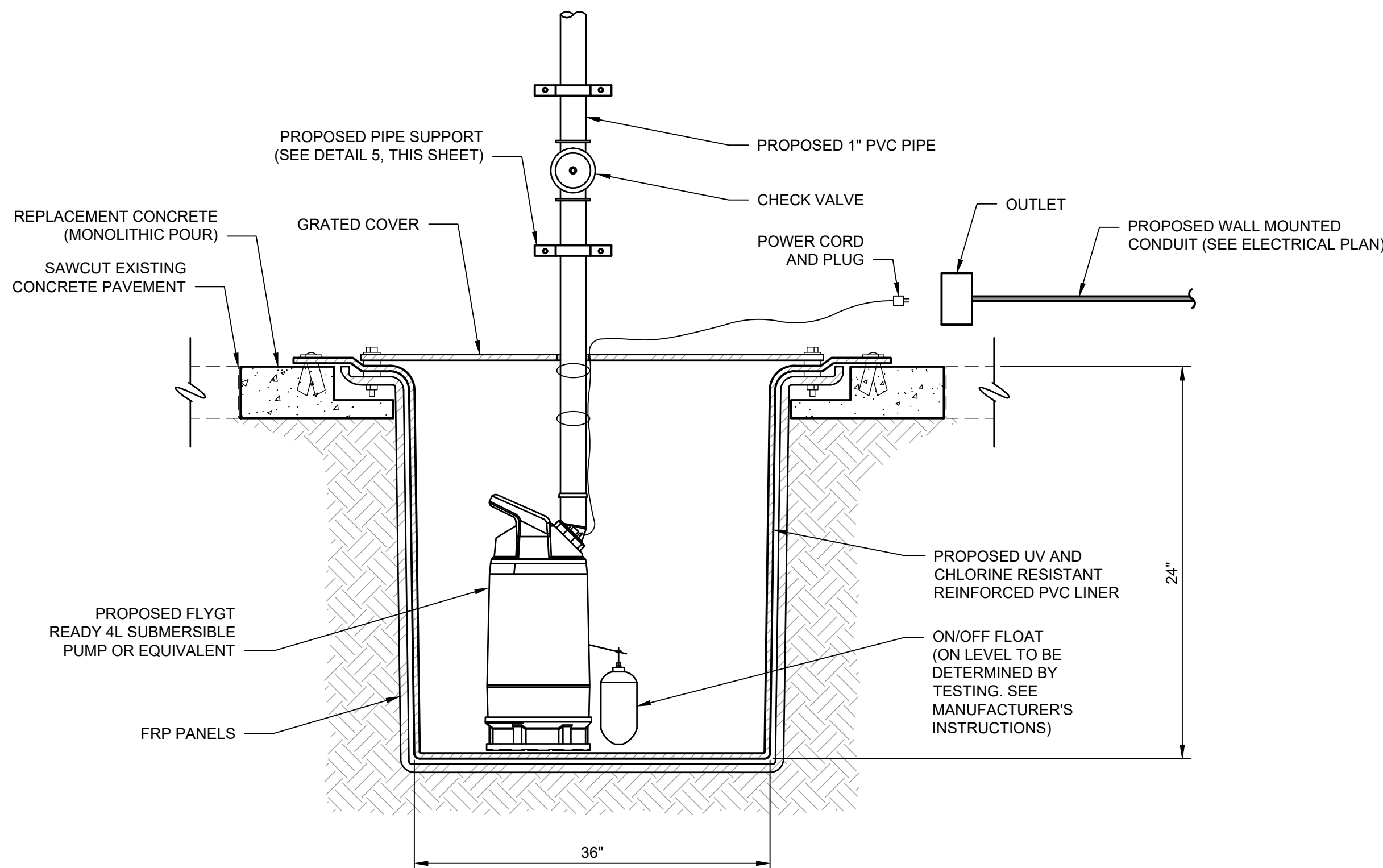
1. IDENTIFY CRACKS TO BE INJECTED. LOCATION OF CRACKS TO BE INJECTED ARE TO BE CONFIRMED AND APPROVED BY THE ENGINEER.
2. LOCATE REINFORCING STEEL IN CONCRETE STRUCTURE. LOCATE INJECTION HOLE POSITION AND WORK WITH CARE TO AVOID DAMAGE TO EXISTING REINFORCING STEEL. DRILL HOLE SIZES AS RECOMMENDED BY THE INJECTION MATERIAL MANUFACTURER, AT A 45 DEGREE ANGLE TO THE SURFACE, AND BEGINNING AT A DISTANCE AWAY FROM THE CRACK SO THAT THE DRILLED HOLE INTERCEPTS THE CRACK AT APPROXIMATELY ONE-HALF THE CONCRETE DEPTH.
3. INSERT INJECTION PACKERS, AS RECOMMENDED BY THE INJECTION MATERIAL MANUFACTURER, INTO THE DRILLED HOLES AND TIGHTEN.
4. CLEAN CONCRETE SURFACE IN ACCORDANCE WITH SPECIFICATIONS.
5. PUMP INJECTOR MATERIAL THROUGH THE INJECTION PACKER UNTIL THE HOLE WILL NOT TAKE MORE MATERIAL, OR THE MATERIAL IS NO LONGER VISIBLE SEEPING OUT OF THE CRACKS.
6. INJECTION MAY BE HORIZONTAL, VERTICAL OR OVERHEAD.
7. AFTER EPOXY ADHESIVE HAS SET, REMOVE INJECTION PORTS AND GRIND SURFACES SMOOTH.

3 **DETAIL**
SCALE: NTS



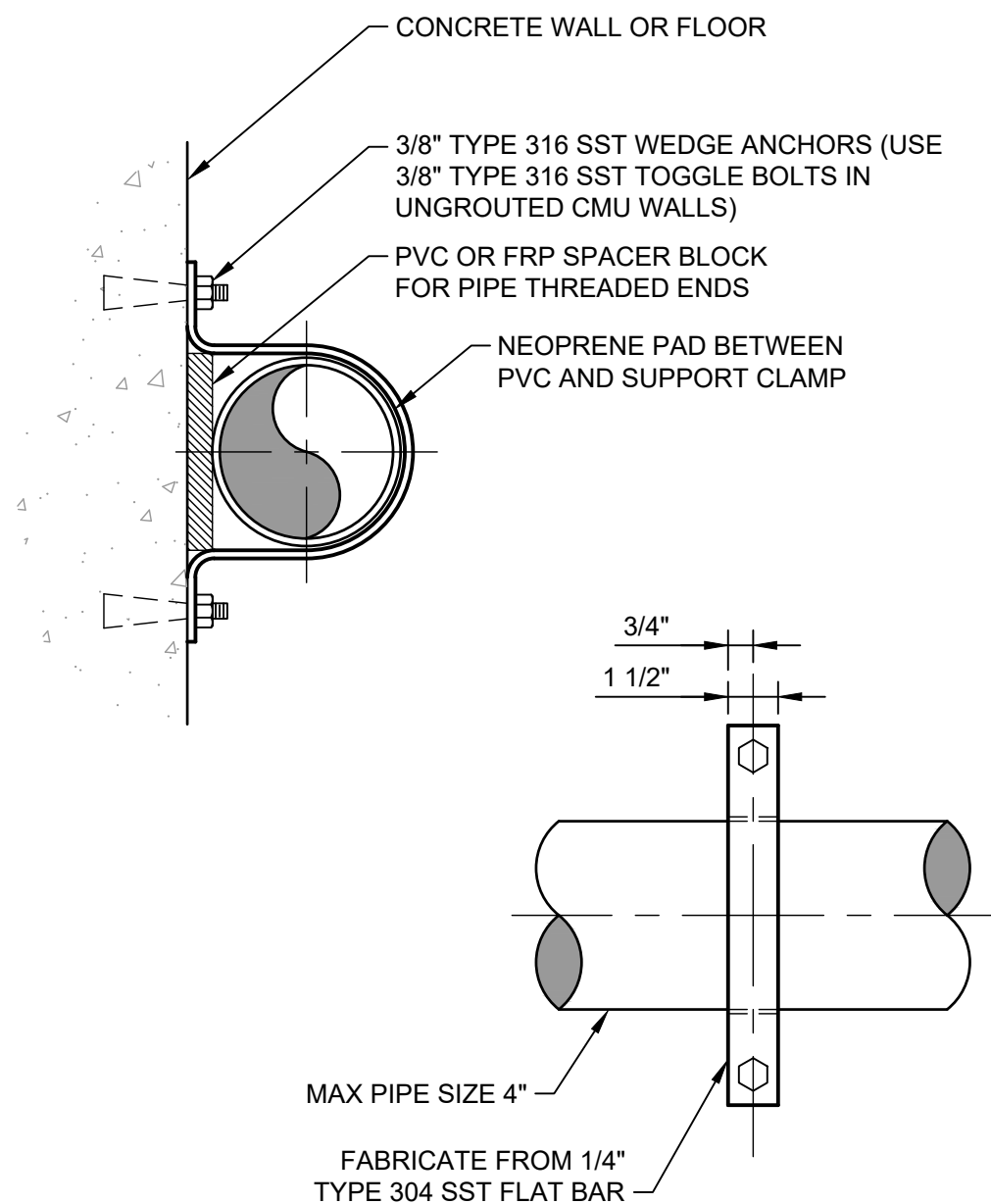
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SUMP AND PUMP



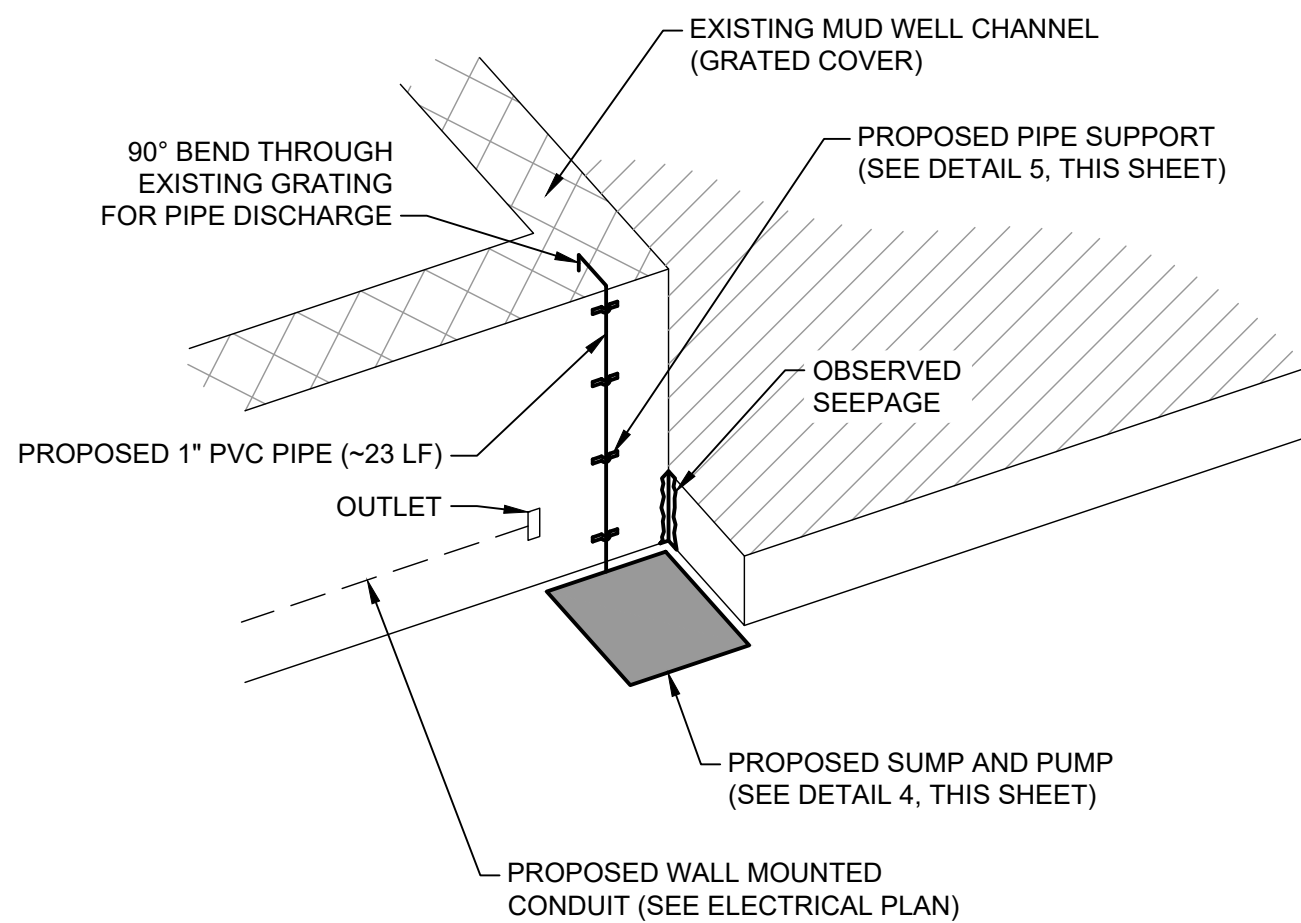
4 **DETAIL**
SCALE: NTS

PIPE SUPPORT - FLUSH



5 **DETAIL**
SCALE: NTS

PROPOSED 1" PVC PIPE



6 **DETAIL**
SCALE: NTS

RECORD DRAWINGS

SURVEYED BY:	DRAWN BY:
REVIEWED BY:	
APPROVED BY:	PROJECT ENGINEER
	DATE
	CITY ENGINEER TARA L. KIVETT, P.E. # 86611
	DATE

REVISION

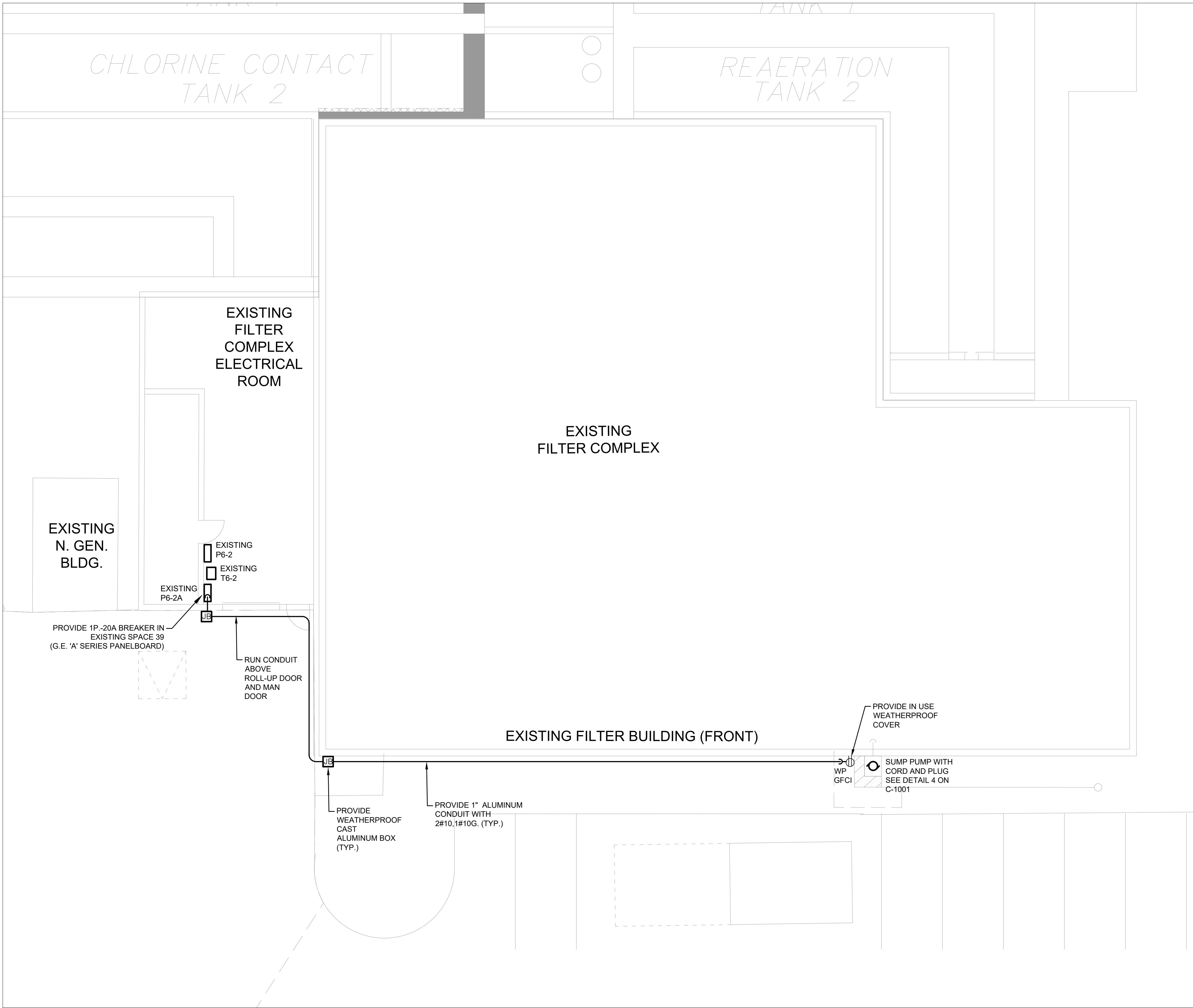
BY DATE

CITY OF CLEARWATER, FLORIDA
ENGINEERING DEPARTMENT
100 S. MYRTLE AVE.
CLEARWATER, FL 33756



DETAILS

DWG NAME: C-1001	FIELD BOOK: N/A	SURVEYED BY: N/A	SCALE: N/A
CONTRACT NO.: 18-0060-UT	DATE DRAWN: 03-14-19	DRAWN BY: HCR	HORIZ. N/A
JOB NO.: 200-41125-19003	DESIGNED BY: MJA	CHECKED BY: SLR	SHEET NO.: 5 OF 6
APPROVED FOR CONSTRUCTION CITY ENGINEER TARA L. KIVETT, P.E. # 86611			
DATE			

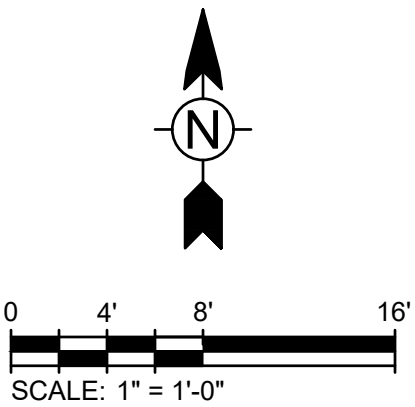


GENERAL SPECIFICATIONS

1. THE ELECTRICAL INSTALLATION SHALL COMPLY WITH N.E.C AND ALL STATE AND LOCAL CODES.
2. MAKE ALL CONNECTIONS TO ELECTRICAL EQUIPMENT SHOWN ON DRAWINGS.
3. THE ELECTRICAL CONTRACTOR SHALL PROVIDE WIRING AND CONDUIT FOR ALL EQUIPMENT UNLESS OTHERWISE NOTED. THE ELECTRICAL CONTRACTOR SHALL VERIFY VOLTAGE, PHASE AND CURRENT CHARACTERISTICS OF ALL EQUIPMENT BEFORE INSTALLATION OF CONDUIT, WIRE, ETC.
4. LOCATE OUTLETS AS INDICATED ON PLANS WITH MOUNTING HEIGHTS AS REQUIRED. COORDINATE INSTALLATION OF OTHER EQUIPMENT. ALL ELECTRICAL EQUIPMENT UNDER THIS CONTRACT SHALL CONFORM TO THE APPLICABLE REQUIREMENTS OF THE LATEST EDITION OF THE FOLLOWING PUBLICATIONS:
 - (1) UNDERWRITERS LABORATORIES INC. – U.L.
 - (2) NATIONAL FIRE PROTECTION ASSOCIATION – NFPA
 - (3) NATIONAL ELECTRICAL MANUFACTURES ASSOCIATION – NEMA
 - (4) NATIONAL ELECTRICAL CODE – NEC
5. ALL CIRCUITS SHALL BE 1" C. 2#10, 1#10 G. UNLESS OTHERWISE NOTED.
6. USE ONLY APPROVED LUBRICANT FOR WIRE PULLING PURPOSES.
7. ELECTRICAL CONTRACTOR SHALL SECURE ALL PERMITS.
8. ELECTRICAL DRAWINGS ARE CONSIDERED DIAGRAMATIC AND INDICATE GENERAL ARRANGEMENT ONLY.
9. CONDUCTORS SHALL BE COPPER, #10 AWG CLASS 'B' STRANDED THHN OR THWN, 600 VOLT. MINIMUM SIZE #10.
10. GROUND RECEPTACLE IN ACCORDANCE WITH NEC.
11. GROUND CONDUCTOR SHALL BE INSTALLED IN ALL BRANCH CIRCUIT CONDUITS. ALL EQUIPMENT GROUND CONDUCTORS SHALL BE COPPER AND SIZED PER NEC ART 250-122.
12. ALL CONDUITS SHALL BE A MIN. OF 1" UNLESS OTHERWISE NOTED. EXTERIOR CONDUITS ABOVE GRADE SHALL BE ALUMINUM.
13. ALL EXTERIOR ELECTRICAL DEVICES AND EQUIPMENT SHALL BE NEMA 3R OR WEATHERPROOF.
14. WIRING DEVICE SHALL BE SPECIFICATION GRADE. RECEPTACLES SHALL BE GFCI DUPLEX 2 WIRE, 3 POLE GROUNDED, 20 AMP 120 VOLT.

ELECTRICAL PLAN

SCALE: 1/8"=1'-0"



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CITY OF CLEARWATER, FLORIDA
ENGINEERING DEPARTMENT
100 S. MYRTLE AVE.
CLEARWATER, FL 33756



ELECTRICAL PLAN

RECORD DRAWINGS	
SURVEYED BY:	DRAWN BY:
REVIEWED BY:	
APPROVED BY:	PROJECT ENGINEER DATE
CITY ENGINEER TARA L. KIVETT, P.E. # 86611	DATE

REVISION	BY	DATE

DWG NAME: E-1000	FIELD BOOK: N/A	SURVEYED BY: N/A	SCALE: N/A
CONTRACT NO.: 18-0060-UT	DATE DRAWN: 09-28-20	DRAWN BY: DK	VERT. N/A
JOB NO.: 200-41125-19003	DESIGNED BY: DK	CHECKED BY: BRW	HORIZ. N/A
APPROVED FOR CONSTRUCTION		SHEET NO.: 6 OF 6	
CITY ENGINEER TARA L. KIVETT, P.E. # 86611		DATE	