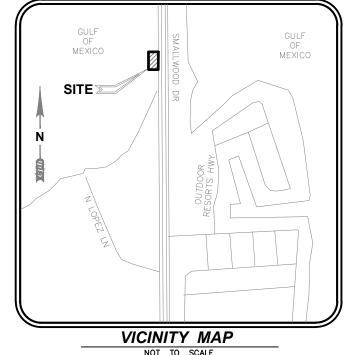
# CITY OF EVERGLADES CITY

# **TASK AUTHORIZATION NO.5** CHOKOLOSKEE MASTER PUMP STATION REHABILITATION

LYING IN COLLIER COUNTY, FLORIDA





**PROJECT AREA** 

SITE N	SWALLWOOD DR  RESIDENT  WEXICO
VICIN	IITY MAP

MAYOR	HOWELL GRIMM JR.
CITY CLERK	DOROTHY JOINER
FINANCE ADMINISTRATOR	TAMMIE PERNAS
UTILITIES DIRECTOR	LLOYD BEATY
CITY COUNCIL MEMBER	VICKY WELLS
CITY COUNCIL MEMBER	PARKER OGLESBY
CITY COUNCIL MEMBER	TONY PERNAS
CITY COUNCIL MEMBER	MICHAEL McCOMAS
CITY COUNCIL MEMBER	DIANA VALDES

CITY COMMISSION

AL. or ALUM.	Aluminum	MATL.	Material
ASPH.	Asphalt	MAX.	Maximum
Ba.V.	Ball Valve	MG	Million Gallons
BLDG.	Building	MGD	Million Gallons Per Day
BM	Bench Mark	NG	Natural Grade
BT	Buried Telephone	NIC	Not in Contract
BTS	Biological Treatment System	NPW	Non-potable Water
B.F.V.	Butterfly Valve	NTS	Not To Scale
CFS	Cubic Feet Per Second	NWL	Normal Water Level
CIP or CI		OC	
	Cast Iron Pipe	OD	On Center
CONC.	Concrete		Outside Diameter
CONST.	Construction	OH. E.	Overhead Electric
CONT.	Continued	PE	Plain End
CMU	Concrete Masonry Unit	PL.	Plate
C.V.	Check Valve	PP	Power Pole
C.Y.	Cubic Yards	PROP.	Proposed
DIA.	Diameter	PT	Pressure Treated
DIP or DI	Ductile Iron Pipe	P.V.	Plug Valve
DOT	Dept. Of Transportation	PVC	Polyvinyl Chloride
DR. or DW.	Drive Or Driveway	PVMT.	Pavement
EA	Each	PW	Potable Water
ED	Equipment Drain	R	Radius
ESM'T	Easement	RAS	Return Activated Sludge
EF	Each Face	RCP	Reinforced Concrete Pipe
EFF.	Effluent	RED.	Reducer
ELEC.	Electrical	REINF.	Reinforced
ELEV. or EL.	Elevation	REQ'D	Required
EQUIP.	Equipment	Reuse	Reuse Water
EXIST.	Existing	RT.	Right
EXP.	Expansion	RWM	Reclaimed Water Main
EXT.	Extended	R/W	Right-of-way
EW	Each Way	SAN	Sanitary
FD	•	S.F.	Square Feet
	Floor Drain	SPEC.	•
FDOT	Florida Department of Transportation	STA.	Specification
F.E.	Fire Extinguisher		Station
F.F.	Finish Floor	SQ.	Square
FLEX.	Flexible	SS	Stainless Steel
FLG.	Flanged	STN. STL.	Stainless Steel
FM	Force Main	SWD	Side Water Depth
GALV.	Galvanized	SW (S/W).	Sidewalk
GM	Gas Main	S.Y.	Square Yards
GPM	Gallons Per Minute	T	Telephone Cable
GS	Galvanized Steel	TBM	Temporary Benchmark
GSP	Galvanized Steel Pipe	TOF	Top Of Floor
G.V.	Gate Valve	TRANS.	Transformer
НВ	Hose Bibb	TYP.	Typical
HORIZ.	Horizontal	UE	Underground Electric
HP	Horsepower	UG	Underground
HWL	High Water Level	UT	Underground Telephone
ID	Identification	VCP	Vitrified Clay Pipe
I.D.	Inside Diameter	VAC.	Vacuum
ו.ט. INF.	Influent	VAC. VERT.	Vertical
		WAS	
I.P.	Iron Pipe		Waste Activated Sludge
INV.	Invert	W.L.	Water Line
L.F.	Linear Feet	W.F.	Water Fountain
MANF. MATL.	Manufacturer	WM	Water Main
	Material		

**ABBREVIATIONS** 

		INDEX OF SHEETS	
	G0.1	COVER	
,	G0.2	GENERAL NOTES	
	V1.0	TOPOGRAPHIC SURVEY	
	C1.0	DEMOLITION PLAN	
	C2.0	SITE PLAN AND PROFILE	
	C3.0	CIVIL DETAILS	
	C4.0	CIVIL DETAILS	
	E0.0	ELECTRICAL NOTES, LEGEND, AND ABBREVIATIONS	
	E1.0	ELECTRICAL DESIGN	
	E2.0	ELECTRICAL DETAILS	
e pe	E2.1	ELECTRICAL DETAILS	
	E2.2	ELECTRICAL DETAILS	



**VERTICAL DATUM: NAVD88** 

THE SIZE OF THESE PLANS MAY HAVE BEEN SLIGHTLY ALTERED BY REPRODUCTION PROCESSES, THIS MUST BE CONSIDERED WHEN SCALING ANY REPRODUCED PLANS FOR THE PURPOSE OF



Sheet No.

A Full Service A & E Firm

Connecticut

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10/16/2025

## **GENERAL CONSTRUCTION NOTES:**

ALL WORK AND REQUIREMENTS FROM THE NOTES IN THIS PAGE SHALL BE A REQUIREMENT OF THE CONTRACT AND EXECUTED BY THE CONTRACTOR AT NO ADDITIONAL COST.

- 1. ALL CONSTRUCTION CONNECTING TO CITY OF PEMBROKE PINES SYSTEM SHALL CONFORM TO THE CONTRACT DOCUMENTS AND CITY'S STANDARDS.
- 2. THE UTILITIES IMPROVEMENTS AND ADJUSTMENTS SHOWN ON THESE DRAWINGS ARE INTENDED TO MAINTAIN THE INTEGRITY OF THE CITY'S WATER, WASTEWATER, AND RAW WATER SYSTEMS. ALL MATERIALS AND CONSTRUCTION TO BE IN ACCORDANCE WITH THE CONTRACT DOCUMENTS. THE DRAWINGS DO NOT INCLUDE WORK PERFORMED ON, OR FOR UTILITY SYSTEMS OWNED BY OTHERS.
- 3. LOCATIONS OF EXISTING UTILITIES AS SHOWN ARE APPROXIMATE. THE CONTRACTOR SHALL FIELD VERIFY THE EXISTENCE AND LOCATION OF ALL ABOVE GROUND AND UNDERGROUND UTILITIES. CONTRACTOR SHALL CONTACT SUNSHINE ONE CALL PER STATE LAW PRIOR TO EXCAVATION. ALL EXISTING UTILITIES SHALL REMAIN AND ARE TO BE PROTECTED AND SUPPORT AS NEEDED FOR WATER MAIN INSTALLATION.
- 4. ALL EXISTING AND NEW WATER AND SEWER VALVES, VALVE BOXES, AND MANHOLES SHALL BE PROTECTED AND ADJUSTED TO FINISHED GRADE AS SHOWN ON THE DRAWINGS. VALVE AND VALVE BOXES SHALL REMAIN ACCESSIBLE AT ALL TIMES. ANY VALVES THAT MIGHT BE COVERED DURING CONSTRUCTION SHALL BE MARKED WITH A MARKER (GREEN FOR SEWER AND BLUE FOR WATER), A MINIMUM OF FOUR (4) FEET ABOVE GRADE. ALL VALVES UNDER CONSTRUCTION ARE TO REMAIN CLOSED DURING CONSTRUCTION AND REMAIN CLOSED UNTIL DIRECTION TO OPEN IS ISSUED BY CITY.
- 5. THE CONTRACTOR SHALL PROTECT EXISTING SERVICE CONNECTIONS AND MAINS DURING CONSTRUCTION AND SHALL COORDINATE THE RELOCATION OF SERVICES WITH CITY AND EOR PROJECT REPRESENTATIVE(S). THE CONTRACTOR WILL RELOCATE EXISTING SERVICES AS NECESSARY AND AS DIRECTED BY CITY PERSONNEL.
- 6. SEE DETAIL SHEET FOR SEPARATION REQUIREMENTS BETWEEN WATER MAINS, SEWER MAINS AND OTHER PIPELINES AND MAINS. NO CONCRETE ENCASEMENT OF PIPES WILL BE PERMITTED.
- 7. WHEN USING SCALED DATA CONSIDER THAT THESE PLANS MAY HAVE BEEN ALTERED IN SIZE DURING REPRODUCTION.
- 8. LOCATIONS AND DIMENSIONS OF EXISTING RIGHT-OF-WAYS AND EASEMENTS ARE BASED ON BEST AVAILABLE INFORMATION. CONTRACTOR SHALL VERIFY AND STAKE THE LIMITS OF THE RIGHT-OF-WAYS AND EASEMENTS IN ORDER TO
- 9. WHEN OBTAINING DATA AND INFORMATION FROM THE PLANS, NUMERICAL FIGURES SHALL BE USED IN PREFERENCE TO
- 10. PIPE LENGTHS SHOWN ON PLANS ARE APPROXIMATE. ACTUAL LENGTHS ARE TO BE DETERMINED DURING CONSTRUCTION.
- 11. NOTIFY FIBER OPTICS COMPANIES SEVEN (7) DAYS PRIOR TO ANY CONSTRUCTION. EXTREME CAUTION SHALL BE EXERCISED IN THE AREAS OF FIBER OPTICS.

SCALED DIMENSIONS AND LARGER SCALE DRAWINGS IN PREFERENCE TO SMALLER SCALE DRAWINGS.

12. ALL STATIONS AND OFFSETS REFER TO THE BASELINE OF STATIONING.

AVOID ENCROACHMENTS BEFORE CONSTRUCTION.

- 13. MAINTAIN ACCESS TO ALL BUSINESSES AND RESIDENCES AT ALL TIMES.
- 14. ALL FITTINGS ON EXISTING MAINS ARE ASSUMED TO HAVE THRUST BLOCKS. CONTRACTOR SHALL USE CAUTION WHEN WORKING IN THESE AREAS.
- 15. LOCAL RESIDENTIAL ACCESS SHALL BE MAINTAINED AT ALL TIMES. PROVIDE WRITTEN NOTIFICATION TO RESIDENTS SEVEN (7) DAYS PRIOR TO IMPLEMENTING ANY ROADWAY OR DRIVEWAY CLOSURE. A SECOND NOTICE WILL BE GIVEN 24 HOURS IN ADVANCE OF CLOSURE.
- 16. SUPPORT & PROTECT ALL EXISTING UTILITIES. CONTRACTOR SHALL CONTACT UTILITY OWNERS FOR LOCATION OF ALL EXISTING FACILITIES. CONTRACTOR SHALL BE RESPONSIBLE FOR COORDINATING WITH UTILITY OWNERS AND BE RESPONSIBLE FOR PROVIDING TEMPORARY SUPPORT FOR UTILITY POLES AND ALL OTHER UTILITIES.
- 17. THE CONTRACTOR SHALL EXERCISE EXTREME CAUTION WHEN EXCAVATING IN PROXIMITY OF WATER MAINS, WASTEWATER FORCE MAINS, GRAVITY MAINS, AND RECLAIMED WATER MAINS. MAIN LOCATIONS SHOWN ON PLANS ARE NOT EXACT OR GUARANTEED. CONTRACTOR IS RESPONSIBLE FOR FIELD VERIFYING EXISTING UTILITY LOCATIONS.
- 18. ALL FORCE MAINS SHALL BE CONSTRUCTED AS SHOWN ON THE PLANS. A MINIMUM COVER OF 48 INCHES SHALL BE MAINTAINED ON ALL FORCE MAINS UNDER ASPHALT, WHERE IT IS NOT OTHERWISE SPECIFIED ON PLANS OR DIRECTED BY THE ENGINEER. ALL DIRECTION CHANGES IN THE PIPE BOTH HORIZONTAL AND VERTICAL SHALL BE BY JOINT DEFLECTION UNLESS OTHERWISE NOTED OR DIRECTED BY THE ENGINEER. JOINT DEFLECTION SHALL NOT EXCEED 50% OF THE MANUFACTURER'S RECOMMENDED DEFLECTION.
- 19. ALL PIPE SHALL BE RESTRAINED IN ACCORDANCE WITH THE RESTRAINT TABLES SHOWN ON THE DETAIL SHEETS. IN ADDITION, ALL FITTINGS AND PIPE SHALL BE MECHANICAL JOINT RESTRAINED. NO THRUST BLOCKS SHALL BE PERMITTED UNLESS SHOWN. (RESTRAIN EXISTING PIPE JOINTS IN ACCORDANCE WITH THE RESTRAINT TABLES).
- 20. COMPLETE ALL CONSTRUCTION WITHIN RIGHT OF WAY LIMITS AND EASEMENT LIMITS.
- 21. PIPE SIZES SHOWN ON PLANS ARE MINIMUM NOMINAL INSIDE DIAMETER.
- 22. ALL CONNECTIONS TO EXISTING MAINS SHALL BE MADE BY THE CONTRACTOR ONLY AFTER THE PROPOSED CONNECTION PROCEDURE AND WORK SCHEDULE HAVE BEEN REVIEWED AND ACCEPTED BY THE OWNER. THE CONTRACTOR SHALL SUBMIT A WRITTEN REQUEST TO THE OWNER A MINIMUM OF FIVE (5) WORKING DAYS PRIOR TO SCHEDULING ANY CONNECTIONS. ALL CONNECTIONS TO BE COMPLETED IN THE PRESENCE OF AUTHORIZED CITY PERSONNEL. THE REQUEST SHALL REFERENCE THE PROFESSIONAL LAND SURVEYOR CERTIFIED COMPLETED AS-BUILT RECORD DRAWINGS PREVIOUSLY SUBMITTED AND SHALL OUTLINE THE FOLLOWING:
- a. POINTS OF CONNECTION, FITTINGS TO BE USED, METHODS OF FLUSHING AND DISINFECTION AND VERIFICATION OF
- RESTRAINT ON EXISTING PIPE.
  b. ESTIMATED CONSTRUCTION TIME FOR THE CONNECTIONS.
- THE OWNER SHALL REVIEW THE SUBMITTAL WITHIN FIVE (5) WORKING DAYS AFTER RECEIVING IT AND INFORM THE CONTRACTOR REGARDING APPROVAL OR DENIAL OF THE REQUEST. IF THE OWNER REJECTS THE REQUEST, THE CONTRACTOR SHALL RESUBMIT THE REQUEST MODIFYING IT IN A MANNER ACCEPTABLE TO THE OWNER. ALL CONNECTIONS SHALL ONLY BE MADE ON THE AGREED UPON DATE AND TIME.
- SHOULD THE CONTRACTOR NOT INITIATE AND COMPLETE THE CONNECTION WORK IN THE AGREED UPON MANNER, HE SHALL BE REQUIRED TO RESCHEDULE THE CONNECTION BY FOLLOWING THE PROCEDURE OUTLINED ABOVE.
- 23. THE CONTRACTOR SHALL NOT OPERATE ANY VALVES IN THE SYSTEM WITHOUT THE PRESENCE AND AUTHORIZATION OF CITY PERSONNEL.
- 24. MAINS SHALL NOT BE PLACED IN SERVICE UNTIL CLEARANCE IS RECEIVED FROM FDEP.
- 25. PROTECT EXISTING IMPROVEMENTS TO THE MAXIMUM EXTENT POSSIBLE.
- 26. RESTORE ALL EXISTING IMPROVEMENTS AND DISTURBED AREAS TO ORIGINAL OR BETTER CONDITION. PAVEMENT TO BE RESTORED IN ACCORDANCE WITH THE PAVEMENT RESTORATION DETAILS SHOWN ON THE CONSTRUCTION DETAIL SHEETS. CONTRACTOR TO PROVIDE OWN SURVEY AS NEEDED TO MATCH EXISTING CONDITIONS.
- 27. ASPHALTIC CONCRETE RESURFACING SHALL BE COMPLETED TO THE ORIGINAL EDGE OF PAVEMENT. THE CONTRACTOR IS RESPONSIBLE FOR MAINTAINING THE EXISTING PAVEMENT OUTSIDE OF RESURFACING LIMITS. THE CONTRACTOR SHALL BE RESPONSIBLE FOR REPAIRING ALL DAMAGE TO THE EXISTING ROADWAY OUTSIDE THE LIMITS OF THE RESURFACING.
- 28. THE CONTRACTOR SHALL BE RESPONSIBLE FOR SATISFYING ALL REQUIREMENTS OF REGULATORY AGENCY PERMITS FOR CONSTRUCTION ACTIVITIES AND RELATED ACTIVITIES.
- 29. BENCHMARK LOCATIONS AND ELEVATION ARE SHOWN IN THE PLANS AS REPRESENTED BY SURVEYOR AT THE TIME OF SURVEY. CONTRACTOR SHALL INSTALL HIS OWN TEMPORARY BENCHMARKS AS DEEMED NECESSARY. ANY DISCREPANCIES SHALL BE IMMEDIATELY BROUGHT TO THE ATTENTION OF CITY INSPECTOR.

- 30.IMMEDIATELY AT ONSET OF CONSTRUCTION, CONTRACTOR SHALL FIELD VERIFY HORIZONTAL AND VERTICAL LOCATIONS OF ALL EXISTING UTILITIES CRITICAL TO COMPLETING THE PROJECT (INCLUDING WATER, SEWER, POWER, TELEPHONE, GAS, AND CABLE TV) AND SHALL EVALUATE POTENTIAL CONFLICTS IN A WRITTEN REPORT. ANY CONFLICTS SHALL BE REPORTED TO ENGINEER/OWNER IMMEDIATELY UPON DISCOVERY AND DETAILED IN THE REPORT. CONTRACTOR SHALL ASSUME ALL EXISTING UTILITIES SHALL REMAIN AND WILL BE SUPPORTED BY THE CONTRACTOR DURING CONSTRUCTION.
- 31. NO VALVE BOXES, METERS, PORTIONS OF MANHOLES, OR OTHER APPURTENANCES OF ANY KIND RELATING TO ANY UNDERGROUND UTILITIES SHALL BE LOCATED IN ANY PORTION OF A CURB-AND-GUTTER OR SIDEWALK SECTION. CONTRACTOR SHALL ADVISE EOR IMMEDIATELY UPON DISCOVERY OF A POTENTIAL CONFLICT.
- 32. WHERE REQUIRED, AT NO ADDITIONAL COST TO THE CITY, THE CONTRACTOR SHALL USE TEMPORARY SHEETING OR TRENCH BOXES TO MINIMIZE THE SIZE OF EXCAVATIONS AND PROTECT EXISTING ROADWAYS, UTILITIES, STORM WATER SYSTEMS AND OTHER FACILITIES. CONTRACTOR TO COMPLY WITH OSHA TRENCH SAFETY REQUIREMENTS AT ALL TIMES. CITY PERSONNEL ARE AUTHORIZED TO SHUT DOWN ANY UNSAFE OPERATIONS IF WITNESSED, WITHOUT REPERCUSSION OR LIABILITY FOR DELAY, OR COST IMPACT.
- 33. THE CONTRACTOR SHALL RECOGNIZE AND ABIDE BY ALL OSHA EXCAVATION SAFETY STANDARDS, INCLUDING THE FLORIDA TRENCH SAFETY ACT (90-96, LAWS OF FLORIDA). ANY MATERIAL, CONSTRUCTION METHODS, OR MATERIAL COST TO COMPLY WITH THESE LAWS SHALL BE INCIDENTAL TO THE CONTRACT.
- 34. ALL COMPACTION SHALL BE 98% OF AASHTO T-180.
- 35. PAVED / CONCRETE DRIVEWAYS SHALL BE TEMPORARILY RESTORED WITHIN 24 HOURS WITH AN ALL WEATHER PATCH. ALL DIRT DRIVEWAYS SHALL BE RESTORED TO SAME TYPE OR BETTER CONDITION WITHIN 24 HOURS.
- 36. CONTRACTOR SHALL PROVIDE A DETAILED RESTORATION SCHEDULE WHICH SHALL BE SUBMITTED FOR REVIEW PRIOR TO
- 37. CONTRACTOR SHALL MAINTAIN DRAINAGE IN DITCHES AND SWALES AT ALL TIMES. THIS INCLUDES ALL TURBIDITY BARRIERS, SYNTHETIC HAY BAILS, ADDITIONAL FILL MATERIAL, BYPASS PUMPING AND SWALE RESTORATION INCLUDING SODDING. ALL DITCH WORK SHALL MEET THE TEMPORARY EROSION AND SEDIMENT CONTROL REQUIREMENT OF INDEX 102 AND INDEX 103 OF THE LATEST FDOT DESIGN STANDARDS. PAYMENT FOR DITCH AND SWALE MAINTENANCE SHALL BE INCLUDED IN THE PRICE OF THE PIPE AND NO SEPARATE PAYMENT WILL BE CONSIDERED.
- 38. PRIOR TO THE CONNECTION TO ANY EXISTING MAIN, THE PROPOSED FORCE MAIN SHALL BE FLUSHED, BACTERIOLOGICALLY TESTED, DISINFECTED, ENGINEER APPROVED PRESSURE TESTING, AND HAVE FDEP CLEARANCE. REFER TO FDEP PERMIT FOR ANY ADDITIONAL REQUIREMENTS. ALL CONNECTIONS SHALL BE MADE IN THE PRESENCE OF CITY PERSONNEL.
- 39. THE CONTRACTOR SHALL INSTALL TEMPORARY WATER TIGHT BULKHEADS, APPROVED BY THE ENGINEER, WITHIN THE END OF THE NEW PIPELINE, WHENEVER PIPE LAYING OPERATIONS ARE NOT TAKING PLACE.
- 40. ALL EXISTING TRAFFIC SIGNS WITHIN THE PROPOSED CONSTRUCTION LIMITS ARE TO BE PROTECTED. CAUTION SHOULD BE EXERCISED WHILE RELOCATING EXISTING SIGNS WHERE DIRECTED. IF THE SIGNS ARE DAMAGED BEYOND USE, AS DETERMINED BY THE ENGINEER, THE DAMAGED SIGNS SHALL BE REPLACED AT THE CONTRACTORS EXPENSE.
- 41. CONTRACTOR SHALL PROVIDE ALL TEMPORARY FILL AND STORM PIPING NECESSARY TO INSTALL NEW CONSTRUCTION. RESTORE ALL DISTURBED AREAS TO PRE EXISTING CONDITIONS OR BETTER.
- 42.ALL DISTURBED SOD SHALL BE REPLACED WITH SOD. NO SEEDING IN ALLOWED.
- 43. CONTRACTOR SHALL BE RESPONSIBLE FOR ALL SURVEYING DURING CONSTRUCTION. AS-BUILTS SHALL BE ELECTRONICALLY SUBMITTED TO EOR FOR REVIEW PRIOR TO ACCEPTANCE AND FINAL COMPLETION OF WORK.
- 44.PROVIDE PRE AND POST CONSTRUCTION VIDEO.
- 45. CONTRACTOR TO PROVIDE ALL BY-PASS PUMPING AND PIPING NEEDED TO COMPLETE THE PROJECT.
- 46.PROVIDE ALL SHEET, SHORING, BREADING NEEDED TO COMPLETE WORK.
- 47.PIPING OR STRUCTURE SHALL NOT BE INSTALLED IN WET CONDITIONS. CONTRACTOR TO PROVIDE ALL DEWATERING SYSTEMS NEEDED TO INSTALL ALL IMPROVEMENTS IN DRY CONDITIONS.
- 48. CONTRACTOR SHALL SUPPLY ALL NUTS, BOLTS, WASHERS, AND GASKETS NECESSARY TO PERFORM CONSTRUCTION AS SHOWN ON THESE PLANS.
- 49. ANY DISCREPANCIES BETWEEN DESIGN DATA AND FIELD VERIFICATIONS MUST BE REPORTED TO THE DESIGN TEAM TO OBTAIN GUIDANCE ABOUT THE SPECIFIC SITUATION.
- 50. WETWELLS SHOWN IN CALCULATIONS ARE SCHEMATIC. FOLLOW PLANS FOR DETAILED DIMENSIONS AND ELEVATIONS.

## PERMITS, PLANS, SHOP DRAWINGS:

- 1. PERMITS OR LETTERS OF DETERMINATION FROM FDEP SHALL BE OBTAINED FOR THE SANITARY SEWER COLLECTION SYSTEM AND WATER DISTRIBUTION SYSTEM PRIOR TO COMMENCEMENT OF CONSTRUCTION.
- 2. A STAMPED APPROVED SET OF PLANS BY THE CITY SHALL BE PRESENT ON THE SITE AT ALL TIMES. APPROVED PLANS ARE VALID FOR 12 MONTHS FROM THE DATE OF APPROVAL. IF CONSTRUCTION DOES NOT BEGIN WITHIN THE 12 MONTH PERIOD, THE DEVELOPER MUST CONTACT THE CITY FOR A PROJECT STATUS REVIEW AND APPROVAL EXTENSION.
- 3. A MINIMUM OF THREE SETS OF SHOP DRAWINGS SHALL BE SUBMITTED TO CITY AND EOR FOR REVIEW AND APPROVAL PRIOR TO CONSTRUCTION.
- 4. INSTALLATION OF MATERIALS AND/OR STRUCTURES PRIOR TO SHOP DRAWING APPROVAL IS DONE AT THE CONTRACTOR'S
- 5. TWO HARD COPIES AND ONE ELECTRONIC COPY OF RECORD DRAWINGS SHALL BE SUBMITTED TO CITY AND EOR AT OR BEFORE THE FINAL INSPECTION. RECORD DRAWINGS SHALL CONFORM TO CITY STANDARDS, SPECIFICATIONS AND DETAILS.

## M.O.T. NOTES:

- 1. THE MAINTENANCE OF TRAFFIC FOR THIS PROJECT SHALL BE IN ACCORDANCE WITH U.S. DEPARTMENT OF TRANSPORTATION "MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES" (MUTCD), LATEST EDITION, AND THE FLORIDA DEPARTMENT OF TRANSPORTATION'S "ROADWAY AND TRAFFIC DESIGN STANDARDS" LATEST EDITION. CONTRACTOR SHALL BE RESPONSIBLE FOR PREPARING AND SUBMITTING A M.O.T. PLAN IN ACCORDANCE WITH FDOT GUIDELINES, REGULATIONS AND STANDARDS TO THE CITY OR COUNTY(WHICHEVER IS APPLICABLE) FOR APPROVAL PRIOR TO COMMENCING WORK. THE CONTRACTOR'S M.O.T. PLAN SHALL BE SEALED BY A FLORIDA REGISTERED CIVIL ENGINEER WITH KNOWLEDGE OF PREPARING TRAFFIC CONTROL PLANS.
- 2. THE POSTED SPEED LIMITS ALONG THE ROADWAYS UNDER CONSTRUCTION SHALL BE IN FORCE, UNLESS IT IS DEEMED APPROPRIATE THAT THE SPEED BE REDUCED.
- 3. THE CONTRACTOR SHALL MAINTAIN EXISTING DRAINAGE PATTERNS DURING CONSTRUCTION ACTIVITIES.
- 4. THE CONTRACTOR SHALL NOTIFY BUSINESSES AND RESIDENCES WITHIN THE CONSTRUCTION AREA AT LEAST (5) WORKING DAYS PRIOR TO CONSTRUCTION AND SHALL MAINTAIN ACCESS AT ALL TIMES.
- 5. THE CONTRACTOR SHALL ADJUST THE MAINTENANCE OF TRAFFIC SIGNS AND BARRICADES AS NEEDED PER FIELD CONDITIONS.
- 6. CONTRACTOR SHALL MAINTAIN PEDESTRIAN AND VEHICULAR TRAFFIC PER FDOT REQUIREMENTS. CONTRACTOR SHALL PROVIDE ALL WARNING SIGNALS, SIGNS, LIGHTS AND FLAG MEN AS REQUIRED BY FDOT IN THE "MANUAL OF TRAFFIC CONTROL AND SAFE PRACTICES" (FDOT INDEXES 600 8501, TO ENSURE SAFE PASSAGE OF VEHICULAR AND PEDESTRIAN TRAFFIC DURING CONSTRUCTION ACTIVITIES.

### **EROSION AND SEDIMENT CONTROLS:**

1. AN EROSION CONTROL PLAN SHALL BE PREPARED BY THE CONTRACTOR AND SUBMITTED TO THE ENGINEER FOR APPROVAL PRIOR TO THE PRE-CONSTRUCTION MEETING. THE CONTRACTOR SHALL EXECUTE ALL MEASURES NECESSARY TO LIMIT THE TRANSPORT OF SEDIMENTS OUTSIDE THE LIMITS OF THE PROJECT TO THE VOLUME AND AMOUNT AS THAT ARE EXISTING PRIOR TO THE COMMENCEMENT OF CONSTRUCTION PERIOD. PROVISION MUST BE MADE TO PRESERVE THE INTEGRITY AND CAPACITY OF CHECK WEIRS, SEDIMENT BASINS, SLOPE DRAINS, GRADING PATTERNS, ETC. REQUIRED TO MEET THIS PROVISION THROUGHOUT THE LIFE OF THE CONSTRUCTION. THE CONTRACTOR SHALL PROVIDE HAY BALES, SILT BARRIERS, TEMPORARY GRASSING, ETC. AS REQUIRED TO FULLY COMPLY WITH THE INTENT OF THIS SPECIFICATION. PROVIDE STORM WATER BY-PASS PIPING OF PUMPING TO MAINTAIN DRAINAGE IN ALL LOCATIONS NECESSARY FOR EQUIPMENT STAGING.

### A. STOCKPILING MATERIA

NO EXCAVATED MATERIAL SHALL BE STOCKPILED IN SUCH A MANNER AS TO DIRECT RUNOFF DIRECTLY OFF THE PROJECT SITE OR INTO ANY ADJACENT WATER BODY OR STORMWATER COLLECTION FACILITY.

### B. EXPOSED AREA LIMITATION

THE SURFACE AREA OF OPEN, RAW ERODABLE SOIL EXPOSED BY CLEARING AND GRUBBING OPERATIONS OR EXCAVATION AND FILLING OPERATIONS SHALL BE CONTROLLED, SO THAT THIS OPERATION WILL NOT SIGNIFICANTLY AFFECT OFFSITE DEPOSIT SEDIMENTS.

## C. INLET PROTECTION

INLETS AND CATCH BASINS SHALL BE PROTECTED FROM SEDIMENT LADEN STORMWATER RUNOFF UNTIL THE COMPLETION OF THE ALL CONSTRUCTION OPERATIONS THAT MAY CONTRIBUTE SEDIMENT TO THE INLET.

### D. TEMPORARY SEEDING

AREAS OPENED BY CONSTRUCTION OPERATIONS THAT ARE NOT ANTICIPATED TO BE DRESSED OR RECEIVE FINAL GRASSING TREATMENT WITHIN THIRTY (30) DAYS SHALL BE SEEDED WITH A QUICK GROWING GRASS SPECIES WHICH WILL PROVIDE AN EARLY COVER, DURING THE SEASON IN WHICH IT IS PLANTED. TEMPORARY SEEDING SHALL BE CONTROLLED SO AS TO NOT ALTER OR COMPETE WITH PERMANENT GRASSING. THE RATE OF SEEDING SHALL BE 30 POUNDS PER ACRE.

### E. TEMPORARY SEEDING AND MULCHING

SLOPES STEEPER THAN 6:1 THAT FALL WITHIN THE CATEGORY ESTABLISHED IN 4 ABOVE, SHALL ADDITIONALLY RECEIVE MULCHING OF APPROXIMATELY TWO (2) INCHES, LOOSE MEASURE, OF MULCH MATERIAL CUT INTO THE SOIL OF THE SEEDED AREA TO A DEPTH OF FOUR (4) INCHES.

### F. <u>TEMPORARY GRASSING</u>

SEEDED OR SEEDED AND MULCHED AREA(S) SHALL BE ROLLED AND WATERED AS REQUIRED TO ASSURE OPTIMUM GROWING CONDITIONS FOR THE ESTABLISHMENT OF A GOOD GRASS COVER.

### G. <u>TEMPORARY RE-GRASSIN</u>

IF, AFTER 14 DAYS, THE TEMPORARY GRASSED AREAS HAVE NOT ATTAINED A MINIMUM OF 75% GOOD GRASS COVER, THE AREA WILL BE REWORKED AND ADDITIONAL SEEDS APPLIED TO ESTABLISH THE DESIRED VEGETATION COVER.

### H MAINITENIANO

ALL FEATURES OF THE PROJECT SHALL BE CONSTRUCTED TO PREVENT EROSION AND SEDIMENT AND SHALL BE MAINTAINED DURING THE LIFE OF THE CONSTRUCTION SO AS TO FUNCTION PROPERLY WITHOUT THE TRANSPORT OF SEDIMENTS OUTSIDE THE LIMITS OF THE PROJECT.

- 2. TEMPORARY SILT FENCES AND STAKED SILT BARRIERS, SHALL BE IN ACCORDANCE WITH F.D.O.T. STANDARD SPECIFICATION, SEC. 104.6, 104.7 AND SEC. 985 AND SHALL BE INSTALLED ALONG THE WESTERN LIMITS OF THE PROJECT.
- 3. ALL DISTURBED AREAS SHALL BE RESTORED WITH SOD (NO SEED AND MULCH) WITH THE SAME TYPE OF SOD UNLESS NOTED OTHERWISE ON PLANS.

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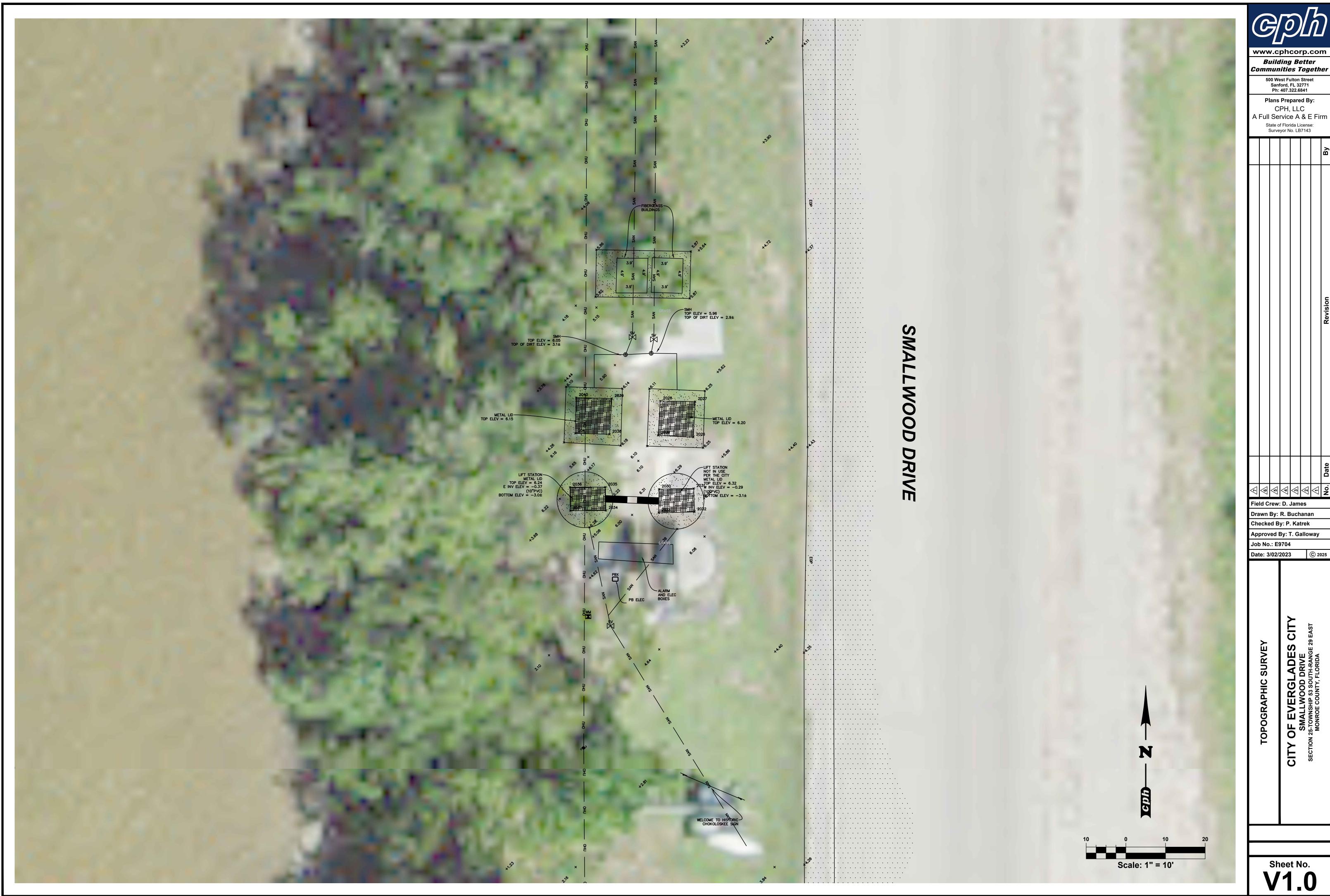
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NOTES
HOKOLOSKEE
N REHABILITATION
NSHIP 63 SOUTH

EVERGLADES CITY CHIASTER PUMP STATION F

Sheet No.

G-0.2



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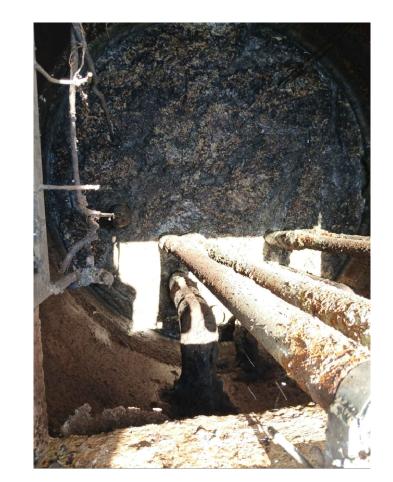


SITE CONDITION





WESTERN WET WELL & VALVE VAULT

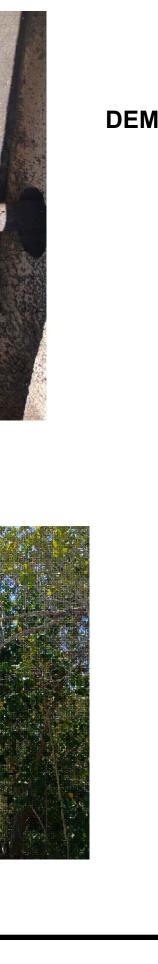




**EASTERN WET WELL & VALVE VAULT** 







DEMOLISH EXISTING **VALVES AND DEMOLISH EXISTING** -**MANHOLES** FIBERGLASS BUILDINGS BUILDINGS **Graphic Scale in Feet** TOP ELEV = 5.96TOP OF DIRT ELEV = 2.9± TOP ELEV = 6.05 TOP OF DIRT ELEV = 3.1± DEMOLISH AND BACKFILL **EXISTING VALVE VAULTS.** SEE NOTE 1. METAL LID--METAL LID TOP ELEV = 6.20 TOP ELEV = 6.15**EXISTING CONDITIONS LEGEND** LIFT STATION METAL LID TOP ELEV = 6.24 E INV ELEV = -0.37**EXISTING ASPHALT** W INV ELEV = -0.29(10"PVC) (10"PVC)BOTTOM ELEV =  $-3.1\pm$ BOTTOM ELEV  $= -3.0\pm$ **EXISTING CONCRETE** ITEMS TO BE REMOVED AND / OR DEMOLISHED - REMOVE EXISTING INACTIVE AND EL WET WELL SLAB, EXISTING PUMPS, BOXES RISER PIPES, VALVES, FLOATS, AND ASSOCIATED FITTINGS **PLAN NOTES** 1. CONTRACTOR SHALL REMOVE VAULT HATCH AND DEMOLISH AND BACKFILL LID. BACKFILL TO MATCH EXISTING GRADE WITH **EXISTING WETWELL** COMPACT DIRT, 6" STONE AND 6" CONCRETE. CONTRACTOR IS RESPONSIBLE FOR REMOVING ALL RUBBLE AND DEBRIS CAUSED BY REUSE EXISTING INACTIVE DEMOLITION AND DISPOSING OF MATERIAL IN A PROPER MANNER OFF PROJECT SITE. WET WELL STRUCTURE EXISTING UTILITIES ARE TO BE MAINTAINED **IN PLACE** DURING CONSTRUCTION AND CONTRACTOR SHALL NOTIFY CITY AND EOR OF ANY DISRUPTIONS 48 HOURS IN ADVANCE AND PROVIDE INTERIM/BY-PASSING UTILITIES AS REQUIRED. REMOVE ELECTRICAL — **RACK AND** 4. EXISTING INFLUENT AND EFFLUENT LOCATIONS ARE AN APPROXIMATION BASED ON AS-BUILTS. **ELECTRICAL CONDUIT** CONTRACTOR TO PERFORM EXPLORATORY EXCAVATIONS TO CONFIRM DEPTH AND LOCATION OF THE INFLUENT AND EFFLUENT PIPING AND CAN MAKE MODIFICATIONS AS NEEDED TO FACILITATE THEIR CONNECTION. WELCOME TO HISTORIC CHOKOLOSKEE SIGN SITE BENCHMARK #102 TOP OF MAG NAIL & DISK 30 MPH~ 100% SUBMITTAL WITH "BM" LB #7143 ELEV = 4.34 (NAVD'88)SIGN N: 539977.10 E: 537949.87

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**Architects Engineers Environmental Landscape Architects** M/E/P

**Planners** Structural Surveyors **Traffic / Transportation** 

Offices in: Florida Puerto Rico Connecticut

Maryland

Designed by: A.W.

Drawn by: A.W. Checked by: K.B

Approved by: K.B. E9704

10/16/2025 Plans Prepared By:

1992 SW 1st. St. Miami, FL 33135 Ph: 305.274.4805

Eng. C.O.A. No. 3215 Survey L.B. No. 7143 Arch. Lic. No. AA2600926 Lndscp. Lic. No. LC0000298

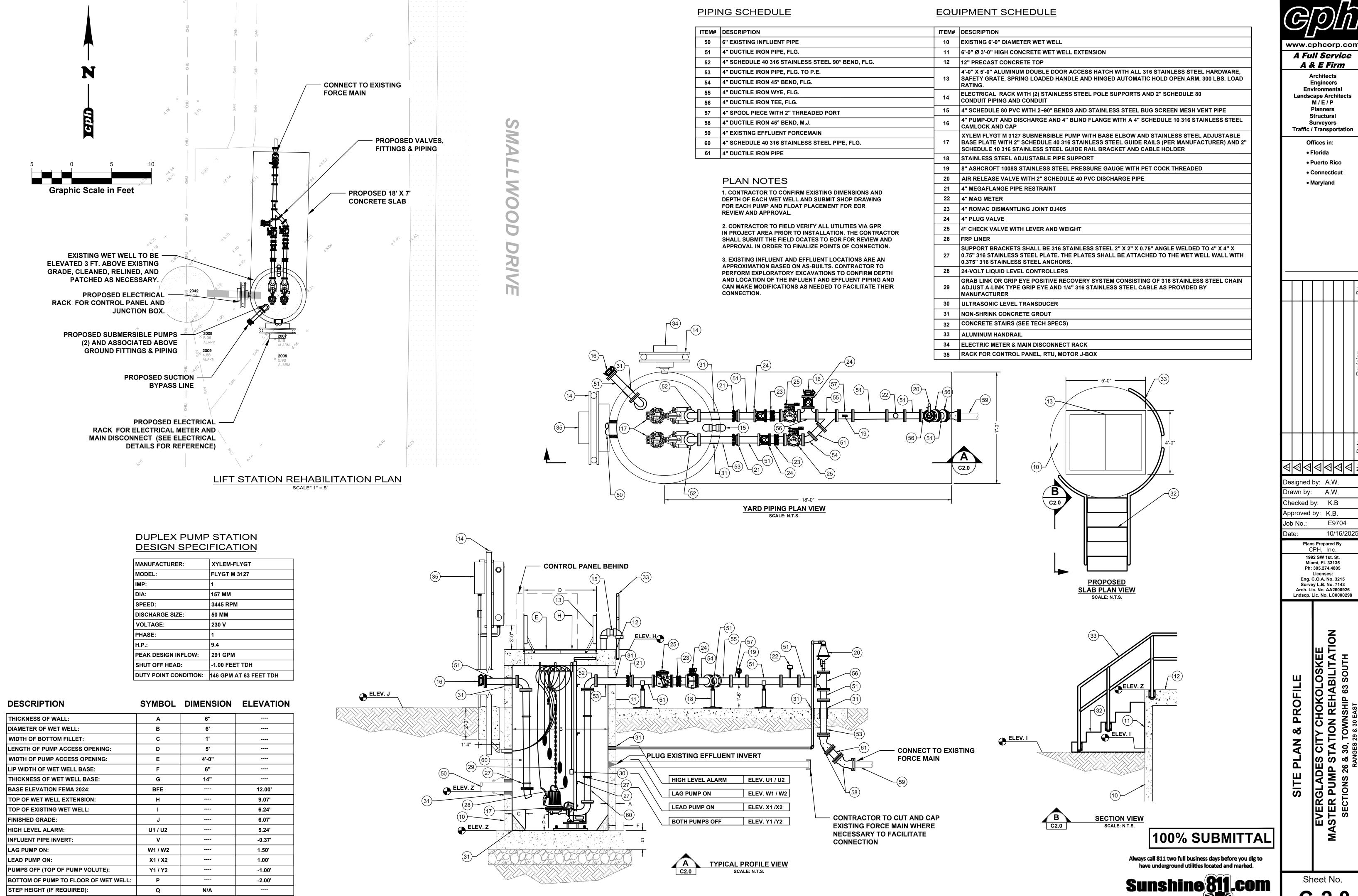
**DEMOLITION** 

Always call 811 two full business days before you dig to have underground utilities located and marked.

Sunshine 811.com

Sheet No.

C-1.0



Z

FLOOR OF WET WELL:

-3.00'

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 Puerto Rico Connecticut

Orawn by: A.W. Checked by: K.B

E9704 10/16/202

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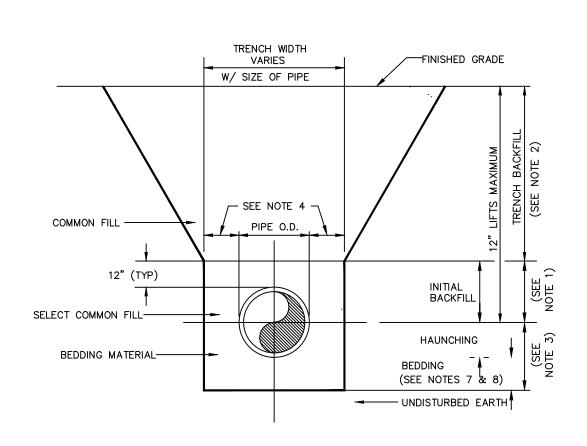
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MOIL

Sheet No.

C-2.0



- 1. INITIAL BACKFILL: SELECT COMMON FILL COMPACTED TO 95% (98% UNDER PAVEMENT) OF THE MAXIMUM DENSITY AS PER AASHTO T-180.
- 2. TRENCH BACKFILL: COMMON FILL COMPACTED TO 95% (98% UNDER PAVEMENT) OF THE MAXIMUM DENSITY AS PER AASHTO T-180.
- 3. TYPE A BEDDING MATERIAL SHALL CONFORM TO FDOT NO. 57 AGGREGATE.
- 4. 15" MAX. (12" MIN.) FOR PIPE DIAMETER LESS THAN 24" AND 24" MAX (12" MIN) FOR PIPE DIAMETER 24" AND LARGER.
- 5. WATER SHALL NOT BE PERMITTED IN THE TRENCH DURING CONSTRUCTION.

TO REACH SUITABLE FOUNDATION.

- 6. ALL PIPE TO BE INSTALLED WITH BELL FACING UPSTREAM TO THE DIRECTION OF THE FLOW.
- 7. BEDDING DEPTH SHALL BE 4" MINIMUM FOR PIPE DIAMETER UP TO 12" AND 6" MINIMUM FOR PIPE DIAMETER 16" AND LARGER.
- 8. DEPTH FOR REMOVAL OF UNSUITABLE MATERIAL SHALL GOVERN DEPTH OF BEDDING ROCK BELOW THE PIPE. UTILITIES SHALL DETERMINE IN THE FIELD REQUIRED REMOVAL OF UNSUITABLE MATERIAL
- 9. FINAL RESTORATION IN IMPROVED AREAS SHALL BE IN COMPLIANCE WITH ALL APPLICABLE REGULATIONS OF GOVERNING AGENCIES. SURFACE RESTORATION WITHIN CITY RIGHT-OF-WAY SHALL

	TRENCH WIDTH VARIES W/ SIZE OF PIPE	FINISHED GR	ADE	
COMMON FILL	SEE NOTE 4 - PIPE O.D.		TRENCH BACKFILL (SEE NOTE 2)	' LIFTS MAXIMUM
12" (TYP)  SELECT COMMON FILL  UNDISTURBED EARTH	-	INITIAL BACKFILL HAUNCHING	(SEE NOTE 1)	12"
(SEE NOTE 3)		<b>†</b>		

- 1. INITIAL BACKFILL AND HAUNCHING: SELECT COMMON FILL COMPARED TO 95% (98% UNDER PAVEMENT) OF THE MAXIMUM DENSITY AS PER AASHTO T-180.
- 2. TRENCH BACKFILL: COMMON FILL COMPACTED TO 95% (98% UNDER PAVEMENT) OF THE MAXIMUM DENSITY AS PER AASHTO T-180.
- 3. PIPE BEDDING UTILIZING SELECT COMMON FILL OR BEDDING ROCK IN ACCORDANCE WITH TYPE A
- BEDDING AND TRENCHING DETAIL MAY BE REQUIRED AS DIRECTED BY UTILITIES. 4. 15" MAX. (12" MIN.) FOR PIPE DIAMETER LESS THAN 24" AND 24" MAX (12" MIN) FOR PIPE DIAMETER 24"
- 5. WATER SHALL NOT BE PERMITTED IN THE TRENCH DURING CONSTRUCTION.
- 6. ALL PIPE TO BE INSTALLED WITH BELL FACING UPSTREAM TO THE DIRECTION OF THE FLOW.
- 7. FINAL RESTORATION IN IMPROVED AREAS SHALL BE IN COMPLIANCE WITH ALL APPLICABLE REGULATIONS OF GOVERNING AGENCIES. SURFACE RESTORATION WITHIN CITY RIGHT-OF-WAY SHALL COMPLY WITH CITY REQUIREMENTS.

		MINIML	JM HORIZ	ONTAL A	ND VERTI	CAL SEP	ARATION	REQUIRE	MENTS		
PROPOSED UTILITY	POTABLE	E WATER	RECLAIME	D WATER	SANITAR' FORCE		SANITAR GRAVIT		STORM SEWER OR VACUUM TYPE SANITARY SEWER		
	HORIZONTAL	VERTICAL	HORIZONTAL	VERTICAL	HORIZONTAL	VERTICAL	HORIZONTAL	VERTICAL	HORIZONTAL	VERTICAL	
POTABLE	į		3' 12"		6'	12"	61 ***	6" ABOVE	3'	6" ABOVE	
WATER			3	12		12	•	12" BELOW	3	12" BELOW	
RECLAIMED WATER	3'	12"	-	-	3'	12"	3'	12"	•	-	
NITARY SEWER FORCE MAIN	6'	12"	3,	<b>12</b> "	_	-	-	-	1	-	
NITARY SEWER	6' ***	6" ABOVE	3'	12*	-	_		_	_		
GRAVITY MAIN	•	12" BELOW	3	12							
FIRE HYDRANT W/UNDERGROUND DRAINS	1	_	3'	_	6'	_	6'	_	3'	_	
ORM SEWER OR	3'	6" ABOVE	_		_			_	1	_	
SANITARY SEWER	<b>5</b>	12" BELOW									

. THE TABLE REPRESENTS THE MINIMUM SEPARATION REQUIREMENTS AS DESCRIBED IN FDEP RULES PER THE FLORIDA ADMINISTRATION CODE (F.A.C.). THESE SEPARATION REQUIREMENTS SHALL APPLY BETWEEN NEWLY PROPOSED UTILITY LINES AND EXISTING OR

PROPOSED UTILITY LINES.

- FOR THE PURPOSE OF THIS TABLE RECLAIMED WATER SHALL MEAN UNRESTRICTED PUBLIC ACCESS REUSE WATER AS DEFINED BY F.A.C. 62-610. OTHER TYPES OF RECLAIMED WATER ARE CONSIDERED RAW SEWAGE AND SEPARATION LISTED FOR SANITARY SEWER SHALL
- 3. ALL SEPARATION DISTANCES ARE FROM OUTSIDE OF PIPE TO OUTSIDE
- 4. THE MINIMUM HORIZONTAL SEPARATION BETWEEN POTABLE WATER AND GRAVITY SANITARY SEWER MAY BE REDUCED TO 3 FEET IF THE BOTTOM OF THE WATER MAIN IS LOCATED AT LEAST 6 INCHES ABOVE
- THE TOP OF THE GRAVITY SEWER. 5. AT UTILITY CROSSINGS ONE FULL LENGTH OF WATER MAIN SHALL BE CENTERED ABOVE OR BELOW THE OTHER UTILITY PIPELINE
- MAXIMIZING THE SEPARATION OF PIPELINE JOINTS. ALTERNATIVELY, A. AT LEAST 3' FROM ALL JOINTS IN VACUUM TYPE SANITARY SEWERS, STORM SEWERS, STORM WATER FORCE MAINS, OR UNRESTRICTED
- PUBLIC ACCESS RECLAIMED WATER. B. AT LEAST 6' FROM ALL JOINTS IN GRAVITY OR PRESSURE SANITARY SEWERS. WASTEWATER FORCE MAINS, AND ALL OTHER TYPES OF RECLAIMED WATER.

FIELDS, AND GREASE TRAPS.

CITY OF EVERGLADES CITY

- 6. NO WATER PIPE SHALL PASS THROUGH OR BE CONSTRUCTED TOUCHING ANY PART OF A SANITARY MANHOLE OR STORM SEWER MANHOLE OR INLET STRUCTURE.
- 7. NEW OR RELOCATED WATER MAINS AND FIRE HYDRANTS WITH UNDERGROUND DRAINS MUST BE AT LEAST 10 FEET FROM ANY EXISTING OR PROPOSED "ON-SITE SEWAGE TREATMENT SYSTEM (OSTADS) AS DEFINED IN SECTION 381,00659(2), F.S., AND RULE 64E-6.002 F.A.C. EXAMPLES OF OSTADS INCLUDE SEPTIC TANKS, DRAIN

- 8. THE FOLLOWING ARE ACCEPTABLE ALTERNATIVE CONSTRUCTION VARIANCES WHERE IT IS NOT POSSIBLE TO MEET THE SEPARATION REQUIREMENTS AND ARE ONLY TO BE IMPLEMENTED UPON RECEIPT OF EXPRESSED WRITTEN CONSENT FROM THE ENGINEER AND APPROVAL FROM FDEP ON A CASE BY CASE BASIS, IMPLEMENTATION OF THESE MEASURES WITHOUT THE EXPRESSED WRITTEN CONSENT OF THE ENGINEER AND APPROVAL BY FDEP COULD RESULT IN THE REQUIREMENT THAT THE INSTALLED UNAPPROVED MEASURES BE REMOVED AND REPLACED AT NO COST
- A WHERE A WATER MAIN IS BEING LAID LESS THAN THE REQUIRED MINIMUM HORIZONTAL DISTANCE AND/OR WHERE A WATER MAIN CROSSING HAS LESS THAN THE MINIMUM REQUIRED DISTANCE BETWEEN JOINTS:

1. USE OF PRESSURE RATED PIPE CONFORMING TO AWWA

- STANDARDS, FOR A GRAVITY OR VACUUM TYPE PIPE LINE. 2. USE OF WELDED, FUSED OR OTHERWISE RESTRAINED JOINTS FOR 3. USE OF WATERTIGHT CASING PIPE OR CONCRETE ENCASEMENT
- AT LEAST 4" THICK FOR EITHER PIPE. B. WHERE A WATER MAIN IS BEING LAID LESS THAN 3 FEET HORIZONTALLY FROM ANOTHER PIPE LINE AND/OR WHERE A WATER

MAIN IS BEING LAID WITH LESS THAN THE REQUIRED MINIMUM

1. USE OF PIPE OR CASING PIPE, HAVING HIGH IMPACT STRENGTH (AT LEAST EQUAL TO 0.25" THICK D.I.P.), OR CONCRETE ENCASEMENT AT LEAST 4" THICK FOR THE WATER MAIN AND THE OTHER PIPELINE IF THE OTHER PIPE LINE CONVEYS WASTEWATER OR RECLAIMED WATER.

## MINIMUM LENGTH (FT) TO BE RESTRAINED ON EACH SIDE OF FITTING(S)

	TYPE			P	VC A	ND E	DUCT	TLE I	RON	I PIP	E SIZ	ZE (IN	۷)		
	11112	4	6	8	12	16	20	24	30	36	42	48	54	60	64
	90° BEND	21	29	37	52	65	78	104	122	143	154	167	180	188	195
	45° BEND	9	12	16	22	27	33	43	51	60	64	70	75	78	81
	22-1/2° BEND	5	6	8	11	13	16	21	25	29	31	34	36	38	39
HORIZONTAL	11-1/4° BEND	2	3	4	6	7	8	11	12	15	16	17	18	19	20
ORIZ	5 5/8° BEND OR MJ SLEEVE	1	2	2	3	4	4	6	6	8	8	9	9	10	10
	PLUG OR BRANCH OF TEE OR DEAD END	43	59	78	109	139	167	277	330	415	424	465	506	529	551
	VALVE OR LINE STOP	22	30	39	55	70	84	139	165	208	212	233	253	265	276
	HDPE CONNECTION	19	26	34	49	62	75	125	151	174	203	223			

1. FITTINGS SHALL HAVE RESTRAINED JOINTS UNLESS

- OTHERWISE INDICATED. INSTALL FULL LENGTH JOINTS WITH TOTAL LENGTH EQUAL TO OR GREATER THAN LENGTH SHOWN IN THE TABLE. 3. WHERE TWO OR MORE FITTINGS ARE IN SERIES, SELECT FITTING RESTRAINT LENGTH THAT YIELDS THE LONGEST
- RESTRAINT DISTANCE. 4. ALL INLINE VALVES SHALL BE RESTRAINED. 5. WHERE INTERNAL RESTRAINED JOINTS ARE USED, THE
- ENTIRE BELL SHALL BE PAINTED RED. 6. LENGTHS SHOWN IN THE TABLE WERE CALCULATED IN ACCORDANCE WITH PROCEDURES OUTLINED IN "THRUST RESTRAINT DESIGN FOR DUCTILE IRON PIPE" GUIDELINES

PUBLISHED BY DIPRA, USING THE ASSUMPTIONS SHOWN WORKING PRESSURE: 150 PS SOIL DESIGNATION: SM (SAND SILT)

LAYING CONDITIONS: 3

AND PROPOSED MAINS.

CITY OF EVERGLADES CITY

DEPTH OF COVER: SAFETY FACTOR: THE DESIGN ENGINEER SHALL INCREASE THE VALUES IN THE TABLE AS WARRANTED BY SITE-SPECIFIC PARAMETERS, SUCH AS SOIL DESIGNATIONS AND LAYING CONDITIONS.

7. 90° BENDS ON VERTICAL PIPE ARE SUBJECT TO REVIEW AND APPROVAL OF UTILITIES. 8. IF 4-IN THRU 20-IN PIPE IS POLYETHLYENE ENCASED, USE 1.25 MULTIPLIER ON RESTRAINT LENGTH.

9. RESTRAINING REQUIREMENTS APPLY TO BOTH EXISTING

PER HORIZONTAL TABLE (MIN) ANGLE OF DIRECTION CHANGE **PLAN VIEW** 

CITY OF EVERGLADES CIT

STANDARD CONSTRUCTION DETAIL

**BEDDING & TRENCHING - TYPE A** 

DETAIL NO:

CITY OF EVERGLADES CITY

STANDARD CONSTRUCTION DETAIL BEDDING & TRENCHING - TYPE B

5/2023 DETAIL NO:

STANDARD CONSTRUCTION DETAIL MINIMUM HORIZONTAL AND VERTICAL SEPARATION REQUIREMENTS

DETAIL NO:

DATE:

STANDARD CONSTRUCTION DETAIL

RESTRAINED HORIZONTAL PIPE -WASTEWATER FORCE & RECLAIMED WATER MAINS (150 PSI)

5/2023 DETAIL NO:

Designed by: A.W.

Checked by: K.B

Approved by: K.B.

CPH, Inc.

1992 SW 1st. St. Miami, FL 33135 Ph: 305.274.4805

Eng. C.O.A. No. 3215

Survey L.B. No. 7143 Arch. Lic. No. AA2600926

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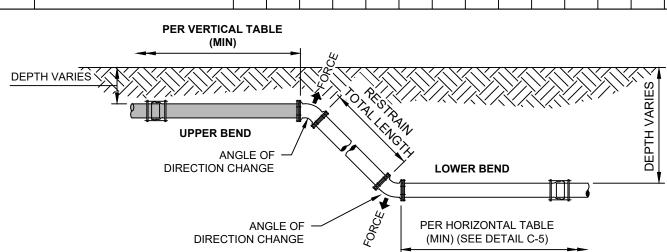
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Maryland

Florida

# MINIMUM LENGTH (FT) TO BE RESTRAINED ON EACH SIDE OF FITTING(S)

	TYPE	PVC AND DUCTILE IRON PIPE SIZE (IN)													
		4	6	8	12	16	20	24	30	36	42	48	54	60	64
(i)	90° BEND	43	59	78	109	139	167	277	330	415	424	465	506	529	551
(UPPER)	45° BEND	18	25	32	45	58	69	115	137	172	176	193	210	219	229
I .	22-1/2° BEND	9	12	16	22	28	34	56	66	83	85	93	101	106	110
VERTICAL	11-1/4° BEND	5	6	8	11	14	17	28	33	41	42	46	50	53	55
>	5 5/8° BEND OR MJ SLEEVE	3	3	4	6	7	9	14	17	21	21	23	25	26	28



PROFILE VIEW

1. FITTINGS SHALL HAVE RESTRAINED JOINTS UNLESS OTHERWISE INDICATED.

8. IF 4-IN THRU 20-IN PIPE IS POLYETHYLENE ENCASED, USE 1.25 MULTIPLIER ON RESTRAINT LENGTH.

9. RESTRAINING REQUIREMENTS APPLY TO BOTH EXISTING AND PROPOSED MAINS.

2. INSTALL FULL LENGTH JOINTS WITH TOTAL LENGTH EQUAL TO OR GREATER THAN LENGTH SHOWN IN THE TABLE. 3. WHERE TWO OR MORE FITTINGS ARE IN SERIES, SELECT FITTING RESTRAINT LENGTH THAT YIELDS THE LONGEST RESTRAINT

DISTANCE 4. ALL INLINE VALVES SHALL BE RESTRAINED.

5. WHERE INTERNAL RESTRAINED JOINTS ARE USED, THE ENTIRE BELL SHALL BE PAINTED RED 6. LENGTHS SHOWN IN THE TABLE WERE CALCULATED IN ACCORDANCE WITH PROCEDURES OUTLINED IN "THRUST RESTRAINT DESIGN FOR DUCTILE IRON PIPE" GUIDELINES PUBLISHED BY DIPRA, USING THE ASSUMPTIONS SHOWN BELOW:

WORKING PRESSURE: 150 PSI SOIL DESIGNATION: SM (SAND SILT) LAYING CONDITIONS: 3

DEPTH OF COVER: SAFETY FACTOR: THE DESIGN ENGINEER SHALL INCREASE THE VALUES IN THE TABLE AS WARRANTED BY SITE-SPECIFIC PARAMETERS, SUCH AS SOIL DESIGNATIONS AND LAYING CONDITIONS. 7. 90° BENDS ON VERTICAL PIPE ARE SUBJECT TO REVIEW AND APPROVAL OF UTILITIES.

LBS/SF SOIL RESTRAINT BEARING.

ENGINEER.

COMPACTION SHALL BE AS SPECIFIED ELSEWHERE IN THE

4. ALL FORM BOARDS SHALL BE REMOVED PRIOR TO BACKFILL.

AND THE THRUST COLLAR. 6. DESIGN PRESSURE: 150 PSI. 7. REQUIRED FOR LINE STOPS IF

CANNOT BE MET.

HDD ENTRY POINT (PIPE EXIT) HDD EXIT POINT ARROWS (PIPE ENTRY) INDICATE LOCATION OF **DIRECTION OF** RESTRAINED FITTING · DRILL RIG PIPE PULLBACK (TYP), HDPE MJ ADAPTER IS REQUIRED FOR HDPE **2**====== CERTALOCK L2" L4" L2' DEPTH OF COVER PATH OF BORE BENEATH CROSSING AND PIPE

**PROFILE VIEW** 

2. POINTS A, B, C & D PULL FORCE ON PIPE.

5. L3 - ADDITIONAL DISTANCE TO TRAVERSE AT DESIRED DESIGN DEPTH.

8. a1 - PIPE ENTRY ANGLE SHALL NOT EXCEED 15 DEGREES AND THE MANUFACTURERS

10. MANDREL TESTING SHALL BE PERFORMED THROUGH THE ENTIRE LENGTH OF THE INSTALLED PIPE, FOR ALL PIPE 16-IN IN DIAMETER AND LARGER. THE MANDREL SIZE SHALL

BE 90% OF THE INSIDE DIAMETER OF THE PIPE. MANDREL TESTING ON SMALLER PIPE MAY BE REQUIRED BY UTILITIES.

12. ALL WORK TO BE PERFORMED WITHIN ROW OR EASEMENT.

13. ENTIRE DIRECTIONAL DRILL TO BE SHOWN IN PLAN VIEW AND PROFILE VIEW ON CONSTRUCTION PLAN.

- HEAVY DUTY LID W/ EXTENDED SKIRT ALIGNMENT INSTALL TO RING (TYP) MID-RANGE - EXTENSTION STEM (SEE NOTE 4) SECURE TO **OPERATING** NUT (SELF-SECURING ALIGNMENT SURFACE) RING (TYP) TIF KNOT NEAR (OR) TOP OF PIPE STABILIZER -- LOCATING WIRE

1. HEAVY DUTY VALVE BOX LIDS ARE REQUIRED FOR ALL

2. TOP SECTION SHALL BE INSTALLED AT MID-RANGE FOR FUTURE ADJUSTMENT.

4. EXTENSION STEMS AND ALIGNMENT RING/WALL BRACKETS SHALL BE PROVIDED ON ALL BURIED VALVES SO THAT THE OPERATING NUT SHALL BE NO MORE THAN 36-IN BELOW FINISHED GRADE. MATERIAL SHALL BE

SCREW EXTENSION EXCEEDS 24-IN.

6. STACKING OF VALVE BOX BOTTOM SECTIONS IS NOT

7. VALVE BOX SHALL REST ON BEDDING ROCK, NOT ON VALVE, AND SHALL BE CENTERED ON OPERATING NUT.

CITY OF EVERGLADES CITY

STANDARD CONSTRUCTION DETAIL **RESTRAINED VERTICAL PIPE -**WASTEWATER FORCE & RECLAIMED WATER MAINS (150 PSI)

CITY OF EVERGLADES CITY DATE: 5/2023 DETAIL NO:

STANDARD CONSTRUCTION DETAIL THRUST COLLAR -**WASTEWATER FORCE & RECLAIMED WATER** MAINS (150 PSI)

CITY OF EVERGLADES CITY

DATE:

5/2023

DETAIL NO:

C-8

STANDARD CONSTRUCTION DETAIL DIRECTIONAL DRILL

5/2023 DETAIL NO:

DATE:

STANDARD CONSTRUCTION DETAIL TYPICAL VALVE BOX

5/2023 DETAIL NO:

DATE:

Sheet No.

LIMITS . - #4 BARS @ 6" OC ALL AROUND (MIN 2" CLEAR AROUND PIPE) TIE RODS (ASTM A307 B) 4" x 4" x 0.5" STEEL -INCLUDING NUTS AND BEARING PLATE WASHERS (SEE SCHEDULE BELOW) UNDISTURBED \* SEE TRENCH DETAILS EARTH FOR PIPE BEDDING D (9' MIN) REQUIREMENTS **ENCASE TIE RODS** DOUBLE MECHANICAL 1.5" PVC SLEEVE 3" COVER BELL RESTRAINT HARNESS #4 BARS WITH DOUBLE NUT

	SCHEDUL	E OF DIME	ENSIONS A	AND MATE	RIALS	
5:55 6:35			PIPE	SIZE		
PIPE SIZE (IN)		DIMENSI	ONS (FT)		TIE ROD	S REQ'[
	Α	В	С	D	DIA	NO.
6	2.0	2.0	1.0		0.75	2
8	2.5	2.5	1.0		0.75	2
10	3.5	3.0	1.0		0.75	4
12	5.0	3.0	1.0		0.75	4
16	6.0	4.0	1.5		0.75	4
20	8.0	5.0	1.5		0.75	6
24	9.0	6.0	1.5		0.75	10
30	12.0	7.0	1.5		1.0	10
36	15.0	8.0	1.5		1.0	14
42	16.0	9.0	2		1.0	16
48	19.0	10.0	2		1.0	20
54	22.0	10.0	3		1.0	24
60	27.0	10.0	3		1.125	24
64	31.0	10.0	3		1.25	20

1. ADDITIONAL REINFORCEMENTS SHALL BE AS SPECIFIED BY THE

2. MINIMUM COMPRESSIVE STRENGTH FOR CONCRETE SHALL BE 3,000 PSI. 3. BEDDING, BACKFILL AND

STANDARD DRAWINGS.

5. NO ALLOWANCE SHALL BE MADE FOR FRICTION BETWEEN THE PIPE WALL

RESTRAINT TABLE REQUIREMENTS

воттом

1. SHALL BE DESIGNED PER ASTM F1962-11.

RECOMMENDATIONS ON DEFLECTION.

11. ISOLATION VALVES SHALL BE DESIGNED AND INSTALLED AT BOTH ENDS OF THE

DIRECTIONAL DRILL.

7. H - DEPTH OFF BORE HOLE FROM GROUND ELEVATION. RECOMMENDATIONS ON DEFLECTION.

3. L1 - ADDITIONAL LENGTH OF PIPE REQUIRED FOR HANDLING AND THERMAL CONTRACTION. 4. L2 - HORIZONTAL DISTANCE TO ACHIEVE DESIRED DESIGN DEPTH.

6. L4 - HORIZONTAL DISTANCE TO RISE TO SURFACE.

9. a2 - PIPE EXIT ANGLE SHALL NOT EXCEED 12 DEGREES AND THE MANUFACTURERS

VALVE BOXES.

3. HEAVY DUTY VALVE BOX LID SHALL HAVE A 5-IN MIN DEPTH AND WEIGH A MINIMUM OF 22-LBS. LID SHALL HAVE POWDER COATING PAINT AT A MIN OF 3 MILL.

MINIMUM 304 SST. 5. ADD ADD'L SCREW EXTENSION AS REQUIRED AFTER

PERMITTED.

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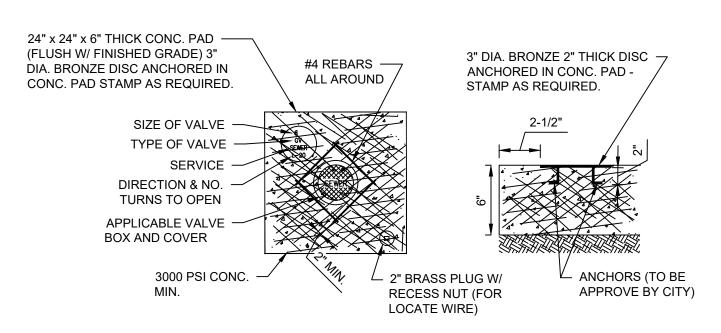
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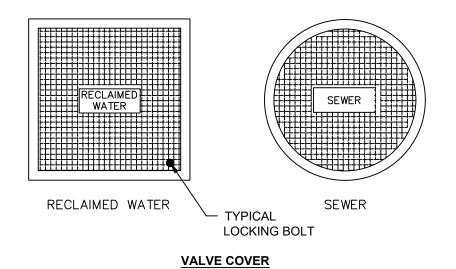
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### **CONCRETE PAD - VALVES 3 INCHES AND LARGER**



1. APPLY TWO COATS OF EXTERIOR ENAMEL PAINT:

PURPLE - RECLAIMED WATER

2. BRONZE, BRASS, OR STAINLESS STEEL IDENTIFICATION DISC SHALL BE

REQUIRED FOR ALL VALVES. 3. LOCATING WIRE SHALL BE CONTINUOUS WITH NO SPLICES AND SHALL EXTEND

12-IN WIRE SHALL BE COILED BACK INTO BOX AWAY FROM VALVE STEM.

4. NO VALVE SHALL BE DESIGNED OR INSTALLED WITHIN THE CURB.

5. ROUND OR SQUARE VALVE PAD TO BE UNIFORM PER PROJECT.

LOCATING WIRE -FINISHED GRADE NYLON STRAP TO BE LOOPED AROUND LOCATE WIRE WASTEWATER, OR RECLAIMED MAIN FIRE HYDRANT **PERMANENT** SPLICE (SEE LOCATING WIRE NOTES 5 & 6) CONNECTOR (SEE NOTE 5) LOCATE WIRE - LOCATING WIRE & ID TAG (SEE NOTE 7) (TYP) KNOT (TYP) VALVE (TYP) — KNOT (TYP) WIRE CONNECTOR (SEE NOTE 5) (TYP) LOCATING NYLON STRAPS - 3 PER -WIRE JOINT (SEE NOTE 1)

1. ALL PIPE SHALL REQUIRE INSULATED LOCATING WIRE (10 GAUGE SOLID COPPER) CAPABLE OF DETECTION BY A CABLE LOCATOR AND SHALL BE WRAPPED WITH NYLON STRAPS, LOOPED AND SECURED TO TOP CENTERLINE OF THE PIPE.

2. LOCATING WIRE SHALL BE CONTINUOUS INSIDE VALVE BOXES AND SHALL EXTEND 12-IN

ABOVE TOP OF COLLAR. 3. WIRE INSULATION SHALL BE COLOR CODED FOR THE TYPE OF PIPE BEING INSTALLED. 4. WIRE SHALL BE CONTINUOUS AND CONNECTED FOR LOCATING IN ALL DIRECTIONS. 5. PERMANENT SPLICES MUST BE MADE IN THE LENGTH OF THE WIRE USING WIRE

GEL OR MOISTURE-RESISTANT GREASE FILLED. 6. AT ALL TRACING WIRE SPLICES, TEES, AND VALVE COLLARS, A KNOT IN THE WIRE SHALL BE MADE TO PREVENT THE WIRE FROM COMING APART.

7. REFER TO VALVE DETAILS FOR LOCATE WIRE UP AND IN VALVE BOX

CONNECTORS SPECIFICALLY DESIGNED FOR DIRECT BURIAL, DIELECTRIC SILICONE

MOUNTING HOLE (4-TYP.) — **PLAN VIEW** PIPE SUPPORT FLANGE -\_1/4 " NEOPRENE GASKET ON STAINLESS STEEL ARCH SUPPORT SHAFT-THREADED ~ HEIGHT ADJUSTMENT NUT ~ STAINLESS STEEL LAG BOLT (4 TYP.) WELD --BASE (STAINLESS STEEL) **SECTION VIEW** 

### **SEWER CONSTRUCTION GENERAL NOTES:**

UTILITIES STANDARDS HANDBOOK.

- 1. REFER TO THE OVERALL CONSTRUCTION GENERAL NOTES AND UTILITIES STANDARDS HANDBOOK RELATED TO PIPE, MANHOLES, VALVES, FITTINGS, TRENCHING, TESTING AND OTHER REQUIREMENTS RELATED TO SEWER SYSTEM CONSTRUCTION.
- 2. PVC SEWER PIPE SHALL BE GREEN PVC SDR 26, ASTM D-3034. IN PLACES WHERE A MINIMUM COVER OF 3.0' CANNOT BE MAINTAINED, AWWA C900 GREEN PVC DR-25, CLASS 100 OR CONCRETE ENCASEMENT SHALL BE USED. SEWER LINES CONSTRUCTED BETWEEN MANHOLES SHALL FOLLOW A STRAIGHT ALIGNMENT. BENDING OF SEWER PIPE IN ANY DIRECTION IS PROHIBITED.
- 3. GRAVITY SANITARY SEWER LINE CONSTRUCTION SHALL BE ACCOMPLISHED BY THE USE OF A LASER INSTRUMENT UNLESS ANOTHER METHOD IS PREVIOUSLY APPROVED BY THE CITY.
- 4. MANHOLE RIMS SHALL MATCH FLUSH WITH THE FINISH GRADE ELEVATION IN PAVED AREAS AND A MINIMUM OF 0.2 FEET AND MAXIMUM OF 0.5 FEET ABOVE GRADE GENERALLY IN UNPAVED AREAS.
- 5. THE CONTRACTOR SHALL CONSTRUCT SANITARY SEWER MANHOLES IN SUCH A WAY THAT SEWER
- 6. RUBBER BOOTS AND 316 STAINLESS STEEL BANDS SHALL BE UTILIZED IN THE CONNECTION OF THE SEWER MAIN TO THE MANHOLES PER THE STANDARD CONSTRUCTION DETAIL.

LINES DO NOT INTERSECT SEALED JOINTS BETWEEN SECTIONS OF THE MANHOLE.

- 7. NEW SEWER MANHOLES SHALL BE COATED INSIDE AND OUT WITH TWO (2) COATS OF WATER BASED POLYAMINE EPOXY COATING, MIN. 8 MILS THICK PER COAT. EXISTING AND NEW MANHOLES THAT RECEIVE NEWLY CONSTRUCTED FORCE MAIN DISCHARGE SHALL BE COATED OR LINED PER THE
- 8. THE CONTRACTOR SHALL TAKE ALL MEASURES NECESSARY TO PREVENT FLOATATION OF MANHOLES AND PIPE DUE TO HIGH GROUND WATER TABLE.
- 9. INDIVIDUAL SANITARY SERVICE ON NEW CONSTRUCTION SHALL NOT BE CONNECTED DIRECTLY INTO MANHOLES, AND MUST BE CONNECTED TO SEWER MAIN LINES BY USE OF WYE CONNECTIONS, UNLESS OTHERWISE APPROVED BY THE CITY.
- 10. FOR SINGLE FAMILY HOMES, SINGLE FOUR INCH SEWER SERVICES LATERALS SHALL BE CONSTRUCTED AT EACH LOT OR UNIT AND LOCATED ON THE DOWNSTREAM SIDE OF THE LOT CENTERLINE. THESE SERVICES SHALL BE EXTENDED 4 FEET ABOVE GROUND AT THE PROPERTY LINE WITH A PVC RISER AND PLUS BEING EASILY VISIBLE FROM THE ROAD. RUBBER SEAL FITTINGS SHALL BE USED ON ALL LINES. NO GLUED JOINTS ARE PERMITTED ON LATERALS.
- 11. ALL GRAVITY SEWER LINES WHICH ARE CONSTRUCTED OUTSIDE OF PUBLIC RIGHTS-OF-WAY WITHIN EASEMENTS IN SIDE YARDS, BACKYARDS, AND OTHER POORLY ACCESSIBLE AREAS SHALL BE CONSTRUCTED USING PRESSURE RATED C900 DR21 PVC PIPE. IN THE EVENT FITTINGS ARE REQUIRED THEY SHALL BE D.I. PER THE UTILITIES STANDARDS MANUAL.
- 12. SEWER LATERAL LOCATIONS SHALL BE MARKED ALONG THE OUTSIDE OF THE CURB WITH A SAW CUT "S", OR BY A METAL TAB SET INTO THE PAVEMENT.
- 13. AS A GENERAL RULE, THE NUMBER OF JOINTS BETWEEN MANHOLES SHALL BE LIMITED WHENEVER POSSIBLE. IN SPECIAL CASES WHERE A POINT REPAIR TO AN 8" TO 12" PVC GRAVITY SEWER LINE IS REQUIRED, THE PROPER RIGID WRAP AROUND SLEEVE SUCH AS A JCM-210 OVERSIZED DUCTILE IRON COUPLING OR AN APPROVED EQUAL MAY BE ALLOWED BY SPECIAL APPROVAL BY THE CITY.

CITY OF EVERGLADES CITY

CITY OF EVERGLADES CITY

## STANDARD CONSTRUCTION DETAIL

TYPICAL VALVE BOX COVER AND PAD

DETAIL NO:

CITY OF EVERGLADES CITY

STANDARD CONSTRUCTION DETAIL PIPE LOCATING WIRE

DETAIL NO:

CITY OF EVERGLADES CITY

## STANDARD CONSTRUCTION DETAIL PIPE SUPPORT

CITY OF EVERGLADES CITY DATE: DETAIL NO:

## STANDARD CONSTRUCTION DETAIL

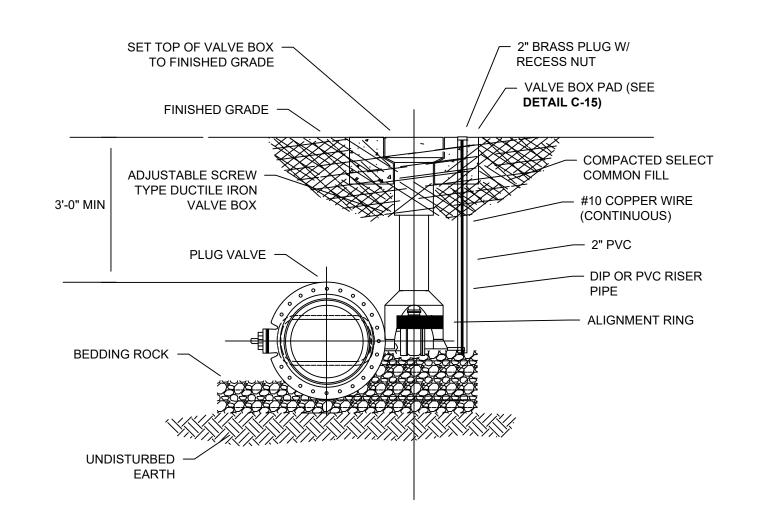
SEWER CONSTRUCTION GENERAL NOTES

DATE: 5/2023 DETAIL NO:

(PAGE 1 OF

14. ALL CORING OF EXISTING MANHOLES SHALL BE PERFORMED BY THE CONTRACTOR AND WITNESSED BY THE CITY AND REQUIRES A MINIMUM 2 BUSINESS DAYS NOTIFICATION TO THE CITY. THE CONNECTION SHALL BE SCHEDULED TO COMMENCE BETWEEN 8:00 AM AND NOON ON THE SCHEDULED DAY, WITH RESPECT TO TIE-IN CONNECTIONS AND CORING OPERATIONS. THE CITY RESERVES THE RIGHT TO REQUIRE CONNECTIONS TO BE PERFORMED DURING PERIODS OF LOW FLOW (MIDNIGHT TO 6:00 AM) IN ORDER TO MINIMIZE SERVICE DISRUPTION TO EXISTING CUSTOMERS.

- 15. THE CONTRACTOR SHALL PROVIDE AND PAY FOR BYPASSING OR HAULING OF WASTEWATER DURING APPROVED INTERRUPTIONS OF WASTEWATER FLOWS AND CONNECTIONS. SUBMIT THE BYPASS PLAN FOR APPROVAL. AS A MINIMUM, THE BYPASS PLAN SHALL INCLUDE PROPOSED DISCHARGE LOCATIONS AND PROPOSED PUMPS. REFER TO THE UTILITIES STANDARDS HANDBOOK FOR ADDITIONAL REQUIREMENTS OF THE BYPASS PUMPING.
- 16. THE CITY MAY REQUIRE ALL NEW SANITARY SEWER GRAVITY SYSTEMS TO BE SMOKE TESTED PRIOR TO FINAL ACCEPTANCE. ALL TESTING MUST BE DONE IN THE PRESENCE OF THE CITY'S DESIGNATED SITE INSPECTOR, AND SHALL BE AT THE CONTRACTOR'S EXPENSE.
- 17. THE CITY RESERVES THE RIGHT TO REQUIRE THE CONTRACTOR TO PERFORM VACUUM TESTING OF ALL SANITARY MANHOLES, AIR TEST SEWER MAINS, AND REQUIRES THAT ALL SANITARY SEWER MAIN LINES BE TELEVISED PRIOR TO FINAL ACCEPTANCE. LATERALS SHALL BE TELEVISED UPON DEMAND BY THE CITY PRIOR TO FINAL ACCEPTANCE WHEN IT IS SUSPECTED THAT A PROBLEM EXISTS. ALL TESTING SHALL BE AT THE CONTRACTOR'S EXPENSE.
- 18. ALL GRAVITY SEWER LINES, PRIOR TO FINAL ACCEPTANCE BY THE CITY AND PRIOR TO ANY FINAL PAVING OPERATIONS, SHALL BE TELEVISED AT THE CONTRACTOR'S EXPENSE AND SUBMITTED TO THE CITY USING A "PAN AND TILT CAMERA" WITH DEPTH GAUGE IN FRONT OF THE CAMERA BY A CITY APPROVED CONTRACTOR. THE CAMERA SHALL RUN FROM THE DOWNSTREAM MANHOLE TO THE UPSTREAM MANHOLE. CITY INSPECTOR SHALL BE NOTIFIED IN ADVANCE AND BE PRESENT DURING THE TELEVISING OF THE SEWER SYSTEM. THE VIDEO SHALL BE NON-STOP WITH AUDIO DESCRIBING WHAT IS BEING REVIEWED. WRITTEN VIDEO LOGS DESCRIBING THE CONDITION OF THE LINES SHALL ACCOMPANY THE VIDEO SUBMISSION TO THE CITY PRIOR TO COMMENCING ANY INSTALLATION OF ASPHALT OR CONCRETE PAVEMENT. THE CITY MAY REQUIRE ADDITIONAL VIDEO TAPING OF THE MAIN OR LATERALS, AND/OR INFILTRATION/EXFILTRATION TESTS IF DEFECTS ARE APPARENT OR WORKMANSHIP IS QUESTIONABLE.
- 19. THE CONTRACTOR SHALL, AT ITS EXPENSE, CONDUCT DEFLECTION TESTING OF GRAVITY SEWER PIPELINE AFTER THE FINAL BACKFILL HAS BEEN IN PLACE AT LEAST 30 DAYS. MAXIMUM ALLOWABLE PIPE DEFLECTION IS 5%. THE CITY INSPECTOR SHALL BE NOTIFIED IN ADVANCE AND BE PRESENT DURING THE DEFLECTION TESTING. MEASURE DEFLECTION BY MANUALLY PULLING A MANDREL THROUGH THE PIPE. THE MINIMUM MANDREL OUTER DIAMETER SHALL BE IN ACCORDANCE WITH THE FOLLOWING: 6" SEWER = 5.45" MANDREL; 8" SEWER = 7.28" MANDREL; 10" SEWER = 9.08" MANDREL; 12" SEWER = 10.79" MANDREL.
- 20. ALL FORCE MAIN VALVES SHALL BE ADJUSTED TO FINISHED GRADE AND THE VALVE BOX LIDS PAINTED GREEN PER THE UTILITIES STANDARDS HANDBOOK.
- 21. ALL FORCE MAIN VALVES SHALL BE CAST IRON SUITABLE FOR WASTEWATER SERVICE WITH PRESSURES UP TO 250 PSIG, AND SHALL BE QUARTER-TURN, NON-LUBRICATED, ECCENTRIC TYPE WITH RESILIENT FACED PLUG, MANUFACTURED AND TESTED IN ACCORDANCE WITH AWWA C517. PORT
- AREAS OF NOT LESS THAT 100% OF PIPE AREA SHALL BE SUPPLIED ON ALL VALVES. 22. ALL PLUG VALVES SHALL BE MARKED WITH AN "X" SAW CUT INTO THE CURB OR BY METAL TABS SET INTO THE PAVEMENT. TAPPING VALVES SHALL BE MARKED WITH AN "X" SAW CUT INTO THE CURB OR PAVEMENT WITH THE ARROW POINTING TO THE DIRECTION OF THE PRESSURE MAIN RUN.



1. THE VALVE ACTUATING NUT SHALL BE EXTENDED TO BE WITHIN 3' OF FINISHED GRADE. 2. LOCATING WIRE SHALL BE CONTINUOUS WITH NO SPLICES AND SHALL EXTEND 12" ABOVE TOP OF COLLAR. WIRE SHALL BE COLOR CODED TO MATCH THE UTILITY INSTALLED.

## **LIFT STATION CONSTRUCTION GENERAL NOTES**

- 1. REFER TO THE OVERALL CONSTRUCTION GENERAL NOTES AND UTILITIES STANDARDS HANDBOOK RELATED TO LIFT STATIONS, INCLUDING PUMPS, VALVES, FITTINGS, PIPE, FENCING, TRENCHING, TESTING AND OTHER REQUIREMENTS RELATED TO LIFT STATION CONSTRUCTION.
- 2. ALL EXPOSED ABOVE GRADE PIPE, VALVES, AND FITTINGS SHALL BE PAINTED PER THE UTILITIES STANDARDS HANDBOOK.
- 3. PRESSURE GAUGES SHALL BE STAINLESS STEEL WITH A STAINLESS STEEL DIAPHRAGM; 4-1/2" DIAL AND HAVE SUFFICIENT RANGE TO READ 20% ABOVE THE DESIGN HEAD CONDITION (0-50 PSI).
- 4. THE INTERIOR OF THE WET WELL SHALL BE LINED WITH HDPE, MINIMUM OF 5.0 MM THICKNESS. AS PER APPROVED MANUFACTURERS LIST. THE OUTSIDE OF THE WET WELL SHALL BE COATED WITH TWO (2) COATS OF WATER BASED POLYAMINE EPOXY COATING, MIN. 8 MILS THICK PER COAT.
- 5. WET WELL ACCESS HATCHES SHALL BE ALUMINUM AND SHALL BE NO LESS THAN 36"X48". A LARGER WET WELL HATCH SIZE MAY BE REQUIRED PER THE PUMP MANUFACTURER, ALL HATCHES SHALL BE NO LESS THAN H20 LOAD RATED, DOORS SHALL HAVE FLUSH ALUMINUM DROP HANDLE WITH A LOCKSET AND AN AUTOMATIC HOLD OPEN ARM WITH RELEASE HANDLE. ALL FASTENERS AND ACCESSORIES SHALL BE 316 STAINLESS STEEL. HATCH FRAMES TO BE INTEGRALLY CAST INTO CONCRETE TOPS. THE HATCHES SHALL BE FLOOD TIGHT.
- 6. THE UNDERSIDE OF ALUMINUM ACCESS COVERS AND ALL ALUMINUM SURFACES IN CONTACT WITH CONCRETE SHALL BE COATED WITH A SUITABLE BITUMINOUS PAINT. ALL NUTS, BOLTS, WASHERS AND MISCELLANEOUS HARDWARE ARE TO BE 316 STAINLESS STEEL.
- 7. THE CONTRACTOR SHALL COORDINATE WITH POWER COMPANY FOR ELECTRICAL SERVICE TO THE LIFT STATION SITE, AND SHALL MEET ALL POWER COMPANY REQUIREMENTS AND SHALL PAY ALL FEES ASSESSED BY THE POWER COMPANY.
- 8. THE CONTRACTOR SHALL TAKE ALL MEASURES NECESSARY TO PREVENT FLOTATION OF THE WET WELL DUE TO HIGH GROUND WATER TABLE.
- 9. ALL WET WELL CONSTRUCTION JOINTS TO BE SEALED WITH "RAM-NECK" TAPE AND ANHYDROUS CEMENT TO A LEAK FREE STATE.
- 10. ALL EXPOSED AND EMBEDDED CONDUITS TO BE PVC.
- 11. TESTING OF THE FORCE MAIN AND LIFT STATION IS REQUIRED. THE LIFT STATION SHALL BE TESTED WITH FIRST PUMP ON, SECOND PUMP ON, AND BOTH PUMPS ON. GENERATOR TESTING SHALL BE IN ACCORDANCE WITH THE UTILITIES STANDARDS

## LIFT STATION CONSTRUCTION GENERAL NOTES (CONT.):

- 12. ALL SUPPORTS AND HARDWARE FOR ELECTRICAL EQUIPMENT SHALL BE ALUMINUM OR STAINLESS STEEL.
- 13. NO PENETRATIONS THROUGH THE TOP OF THE CONTROL CABINET FOR LIGHTS OR HORNS SHALL BE PERMITTED.
- 14. THE LIFT STATION SHALL BE EQUIPPED WITH A PROGRAMMABLE LOGIC CONTROLLER (PLC) / RTU WITH CONFIGURABLE I/O TO ALLOW MONITORING AND CONTROL OF THE PUMP STATION. INTERFACE TO THE PLC WILL BE BY 2 LINE DISPLAY AND KEYPAD. SAMPLE SCREENS SHALL BE PROVIDED TO THE CITY OF EVERGLADES CITY FOR APPROVAL. THE PLC SHALL INCLUDE AN INTEGRATED CELLULAR TEXT MODEM SYSTEM THAT COMPLIES WITH ALL APPLICABLE FCC REQUIREMENTS. TEXT MESSAGING WILL BE THE PRIMARY MEANS OF COMMUNICATION. THE CELLULAR ANTENNA SHALL BE A MULTI-BAND EXTERNAL ANTENNA, FREQUENCY RANGE: 824-960/1710-1990 MHZ, 2 DBI GAIN. REFER TO THE UTILITIES STANDARDS HANDBOOK FOR ADDITIONAL REQUIREMENTS.

Designed by: A.W. 

Checked by: K.B Approved by: K.B.

E9704 Job No.: 10/16/2025

> Plans Prepared By: 1992 SW 1st. St. Miami, FL 33135

Ph: 305.274.4805 Eng. C.O.A. No. 3215 Survey L.B. No. 7143

Arch. Lic. No. AA2600926 Lndscp. Lic. No. LC0000298

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CITY OF EVERGLADES CITY CITY OF EVERGLADES CITY CITY OF EVERGLADES CITY DATE: DATE: DATE: DATE: STANDARD CONSTRUCTION DETAIL STANDARD CONSTRUCTION DETAIL STANDARD CONSTRUCTION DETAIL STANDARD CONSTRUCTION DETAIL 5/2023 5/2023 5/2023 5/2023 SEWER CONSTRUCTION GENERAL NOTES PLUG VALVE LIFT STATION CONSTRUCTION LIFT STATION CONSTRUCTION DETAIL NO: DETAIL NO: DETAIL NO: DETAIL NO: **GENERAL NOTES GENERAL NOTES** S-1 S-8 S-10 (PAGE 1 OF 2) (PAGE 2 OF 2 (PAGE 2 OF 2)

Sheet No.

## **ELECTRICAL SYMBOL LEGEND:**

(NOTE: NOT ALL SYMBOLS SHOWN IN LEGEND ARE NECESSARILY USED ON PLANS)

(NOTE: NOT ALL SYMBOLS SHO	WN IN LEGEND ARE NECESSARILY USED ON PLANS)
SYMBOL	DESCRIPTION
	CONDUIT ABOVE GRADE
	CONDUIT BELOW GRADE (MIN OF 24")
РВ	13"X24", 18" DEEP PULL BOX WITH TIER 15 COVER, LOGO "ELECTRIC". QUAZ PG1324BA18 BOX WITH PG 1324HA0017 COVER OR EQUAL
	CONDUIT UP FROM BELOW GRADE
	NEMA 3R CONVENIENCE IN- USE RECEPTACLE.
	120/240V PANELBOARD
T	PAD MOUNTED FPL TRANSFORMER

FPL POLE MOUNTED TRANSFOMER

	ELECTRICAL AB	DDE\/	/IATIONS
_		1	
A	AMP	MIN	MINIMUM
AFF AFG	ABOVE FINISHED FLOOR ABOVE FINISHED GRADE	MNTG	MOUNTING
AFG	ABOVE FINISHED GRADE	NA NA	NOT APPLICABLE
BFP	BACKFLOW PREVENTER	NC NC	NORMALLY CLOSED
BS	BELOW SLAB	NIC	NOT IN CONTRACT
		NO	NORMALLY OPEN
CP	CONTROL PANEL	NSF	NATIONAL SANITATION FOUNDATION
		NTS	NOT TO SCALE
DPDT	DOUBLE-POLE DOUBLE-THROW		
D/S	DISCONNECT SWITCH	OD	OUTSIDE DIAMETER
ELEV	ELEVATION	PH	PHASE
EQUIP	EQUIPMENT	PPP	PRECISION PLUMBING PRODUCTS
EXIST	EXISTING	PSI	POUNDS PER SQUARE INCH
°F	DEGREES FAHRENHEIT	RECPTL	RECEPTACLE
FIN	FINISH	RTU	REMOTE TERMINAL UNIT
FLR	FLOOR	RW	RECLAIMED WATER
FT	FEET		
GFI	GROUND FAULT CIRCUIT INTERRUPTER	SCADA	SUPERVISORY CONTROL AND DATA ACQUISITION
011	CROOND FACET CIRCOTT INTERROOT TER	SPD	SURGE PROTECTIVE DEVICE
НВ	HOSE BIBB	SS	STAILESS STEEL
HD	HUB DRAIN	SPEC	SPECIFICATIONS
HP	HORSEPOWER	ST	STORM
HR	HOUR	STD	STANDARD
HW	HOT WATER		
HWR	HOT WATER RETURN	TCU	TELEMETRY CONTROL UNIT
HZ	HERTZ	TYP	TYPICAL
ΙE	INVERT ELEVATION	UL	UNDERWRITER'S LABORATORY
ID	INTERNAL DIAMETER	UNO	UNLESS NOTED OTHERWISE
IN	INCHES		<del>-</del>
IPS	INTERNATIONAL PIPE STANDARD	V	VOLTS
10		VLV	VALVE
KW	KILOWATT	VOL	VOLUME
		W	WATTS
		WP	WEATHERPROOF
		I	

NOT ALL SYMBOLS USED

## **ELECTRICAL GENERAL NOTES**

- 1. SUBMITTALS ARE REQUIRED TO BE SUBMITTED TO COLLIER COUNTY UTILITIES FOR REVIEW.
- 2. PROVIDE SHOP DRAWINGS FROM A FLORIDA REGISTERED PROFESSIONAL ENGINEER CERTIFYING THAT THE ALUMINUM POST FOUNDATION AND RACK SHOWN IN RISER DIAGRAM MEET CURRENT FLORIDA BUILDING CODE AND WIND LOAD REQUIREMENTS.
- 3. COLLIER COUNTY WATER SEWER DISTRICT UTILITIES STANDARDS MANUAL SHALL GOVERN ALL MATERIALS AND INSTALLATION.
- 4. REFER TO COLLIER COUNTY WATER SEWER DISTRICT UTILITIES STANDARDS MANUAL SECTION 2 TECHNICAL SPECIFICATIONS, DIVISION 33, SECTION 333200, PARAGRAPH M FOR MAG METER REQUIREMENTS.
- 5. REFERENCES SHOWN IN PARENTHESES IN ELECTRICAL SHEET INDEX ARE TO COLLIER COUNTY WATER-SEWER DISTRICT UTILITIES STANDARDS MANUAL, SECTION 3, UTILITIES DETAIL DRAWINGS.
- 6. COORDINATE WITH LCEC DISTRIBUTION ENGINEER (JUAN GARCIA) 239-656-2356.

	ELECTRICAL DRAWING INDEX	
SHEET	DESCRIPTION	•
E0.0 E1.0 E2.0 E2.1 E2.2	ELECTRICAL NOTES, LEGEND, AND ABBREVIATIONS ELECTRICAL DESIGN ELECTRICAL DETAILS ELECTRICAL DETAILS ELECTRICAL DETAILS	   

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Designed by: A.W.

Drawn by: A.W.

Checked by: K.B.

Approved by: K.B.

Job No.: E9704

Date: 10/16/2025

Plans Prepared By: CPH, Inc.

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Eng. C.O.A. No. 3215
Survey L.B. No. 7143
Arch. Lic. No. AA2600926

Lndscp. Lic. No. LC0000298

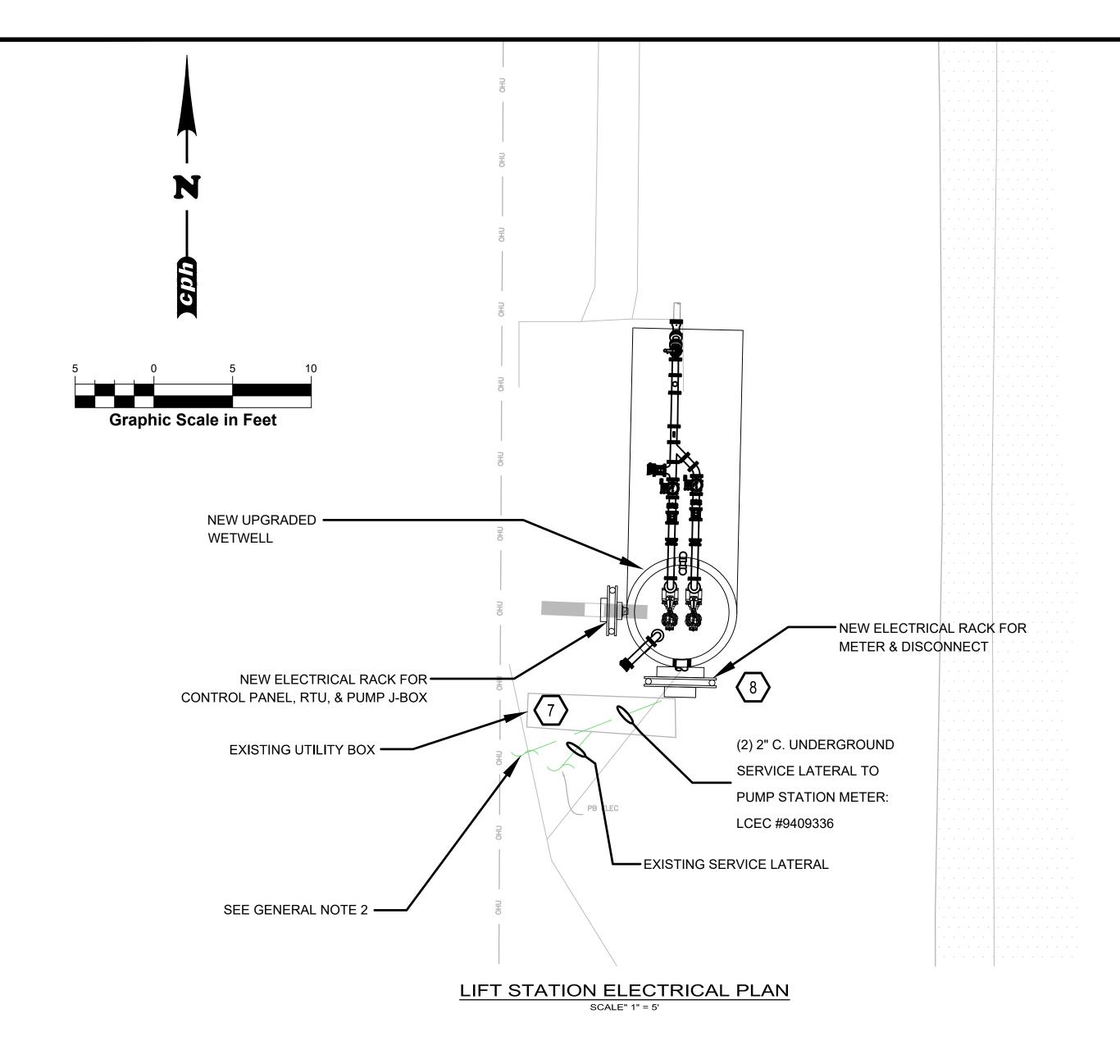
100% SUBMITTAL

Always call 811 two full business days before you dig to have underground utilities located and marked.



Sheet No.

E-0.0



## ELECTRICAL GENERAL NOTES

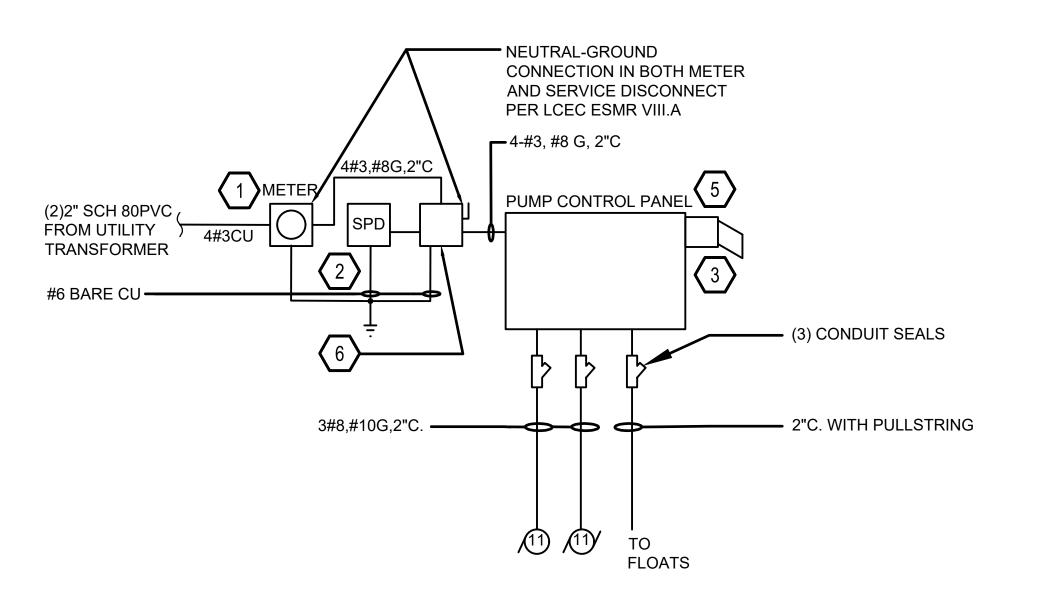
1. ADDRESS IS:

320 SMALLWOOD DR., CHOKOLOSKEE, FL 34138 LIFT STATION IS LOCATED TO THE WEST OF SMALLWOOD DR.

2. CONTRACTOR TO VISIT SITE BEFORE BIDDING. PROVIDE BID FOR 200' SERVICE LATERAL {(4)#3,(2)2"C.} BASED ON COLLIER COUNTY MAXIMUM SERVICE LATERAL LENGTH. CONTRACTOR SHALL LOCATE UTILITY TRANSFORMER AND ISSUE CREDIT FOR SERVICE LATERAL LESS THAN 200'.

# (#) KEY NOTES:

- EXISTING LCEC METER.
- 2. SURGE PROTECTIVE DEVICE: SEE COUNTY APPROVED PRODUCT LIST, APPENDIX F.
- 3. GEN INLET RCPTL: 100A
- 4. #6 BARE CU TO GROUNDING TRIAD SHOWN IN PUMP STATION PLAN SHEET E-2.1. PROVIDE VISIBLE NEUTRAL-GROUND CONNECTION IN METER SOCKET PER LCEC ESMR FIG. 1
- 5. PUMP CONTROL PANEL- SEE COUNTY APPROVED PRODUCT LIST, APPENDIX F.
- 6. BASIS OF DESIGN IS SE RATED FUSED DISCONNECT 100A, 240V, 3P, SN, 10KAIC., NEMA 4X(304SS). CONTRACTOR TO OBTAIN AFC LETTER FROM LCEC. CONTRACTOR TO COORDINATE WITH ENGINEER OF RECORD IF FAULT CURRENT VALUE IS ABOVE BASIS OF DESIGN.
- 7. REMOVE EXISTING SERVICE LATERAL CONDUCTORS. CAP CONDUIT BELOW GRADE.
- 8. REMOVE EXISTING EQUIPMENT AND RACK. RETAIN LCEC METER FOR REUSE. REMOVE CONDUIT AND CONDUCTORS TO WET WELL AND VALVE VAULT. SEE PUMP STATION CONTROL PANEL DETAIL ON E14 FOR NEW RACK AND EQUIPMENT.



## **ELECTRICAL ONE-LINE DIAGRAM**

N.T.S.



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Maryland

Designed by: A.W.

Checked by: K.B Approved by: K.B.

> 10/16/2025 Plans Prepared By: CPH, Inc.

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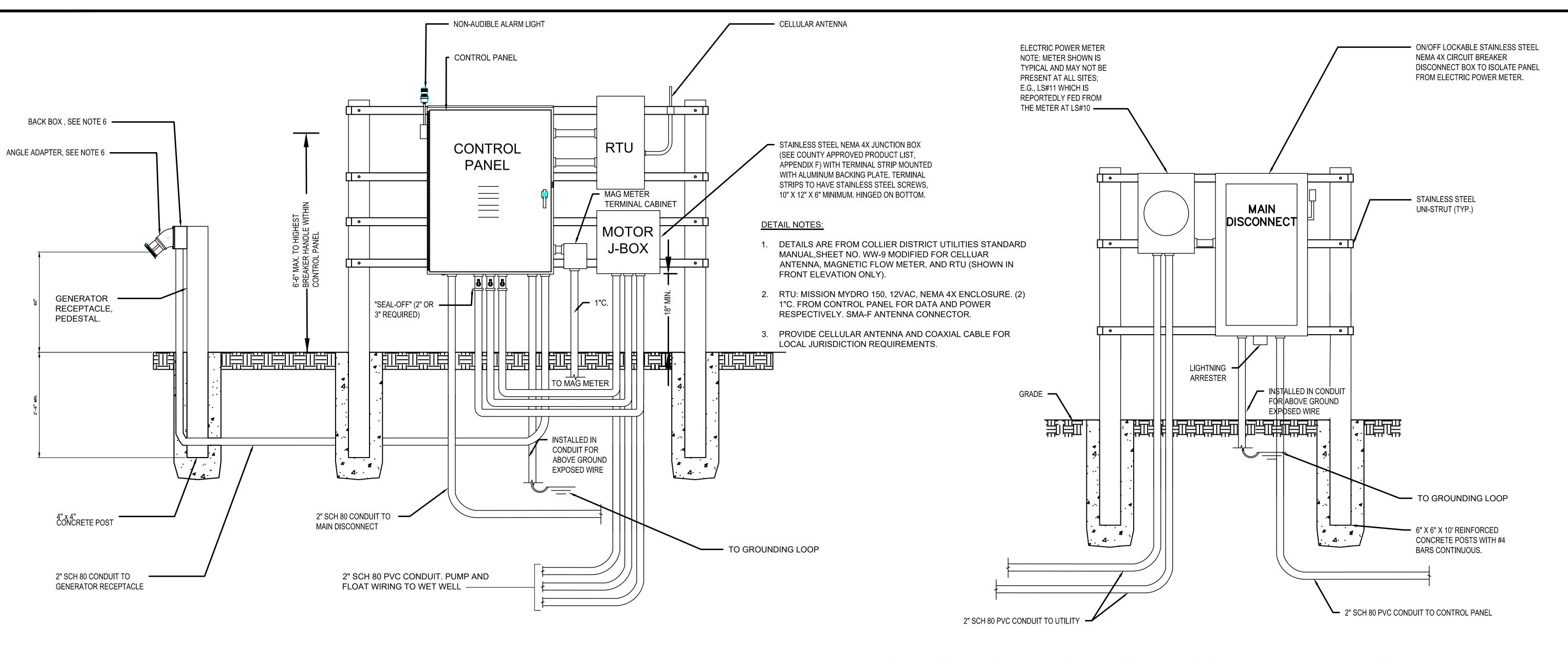
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**ELECTRICAL DESIGN** 

EVERGLADES CITY CHOKOLOSKEE
MASTER PUMP STATION REHABILITATION
SECTIONS 26 & 30, TOWNSHIP 63 SOUTH

Sheet No.

E-1.0



# PUMP STATION CONTROL PANEL DETAIL - WEST ELEVATION

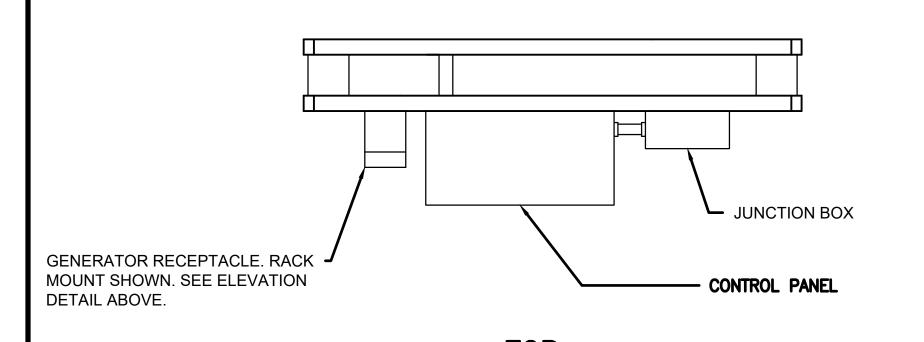
# ELECTRICAL SERVICE RISER - SOUTH ELEVATION

SCALE: 1" = 4'-0"

ELECTRIC POWER METER

## **GENERAL NOTES:**

- 1. #10 STRAND MINIMUM FROM CONTROL PANEL TO J-BOX.
- 2. LIGHTNING ARRESTER (SEE COUNTY APPROVED PRODUCT LIST, APPENDIX F) MUST BE INSTALLED EXTERNALLY ON LOAD SIDE OF DISCONNECT BETWEEN DISCONNECT AND MAIN BREAKER. THE PENETRATION THROUGH THE DISCONNECT MUST BE MADE BELOW THE WORKING MECHANISM OF THE DISCONNECT.
- 3. PUMP CONTROL PANEL (SEE COUNTY APPROVED PRODUCT LIST, APPENDIX F) WITH ALL COMPONENTS FOR OPERATING TWO PUMPS AND LIQUID LEVEL REGULATORS; GENERATOR RECEPTACLE AND ANGLE ADAPTER (SEE COUNTY APPROVED PRODUCT LIST, APPENDIX F) AND NEMA 4X STAINLESS STEEL ENCLOSURE.
- 4. GROUND WIRE FROM SERVICE SHALL BE INSTALLED IN SCH 80 PVC CONDUIT.
- 5. ALL CONDUIT SHALL BE SCH 80 PVC
- . GENERATOR RECEPTACLE AND ANGLE ADAPTER (SEE COUNTY APPROVED PRODUCT LIST, APPENDIX F).
- CONFIGURATION OF PUMP STATION COMPONENTS MAY BE RE-ARRANGED WITH APPROVAL OF ENGINEER AND UTILITY DEVIATION REVIEW, BUT MUST OTHERWISE CONFORM TO THIS DETAIL.



SCALE: 1" = 4'-0"

SCALE: 1" = 4'-0"

PUMP STATION CONTROL PANEL DETAIL - PLAN VIEW

PUMP STATION CONTROL ELECTRICAL SERVICE RISER - PLAN VIEW

SCALE: 1" = 4'-0"

ON/OFF LOCKABLE STAINLESS

BREAKER DISCONNECT BOX TO

ISOLATE PANEL FROM ELECTRIC

STEEL NEMA 4X CIRCUIT

POWER METER.

100% SUBMITTAL

 Puerto Rico Connecticut Maryland Designed by: A.W. Checked by: K.B Approved by: K.B. E9704 10/16/202 Miami, FL 33135 Ph: 305.274.4805 Eng. C.O.A. No. 3215 Survey L.B. No. 7143 Arch. Lic. No. AA2600926 Lndscp. Lic. No. LC0000298

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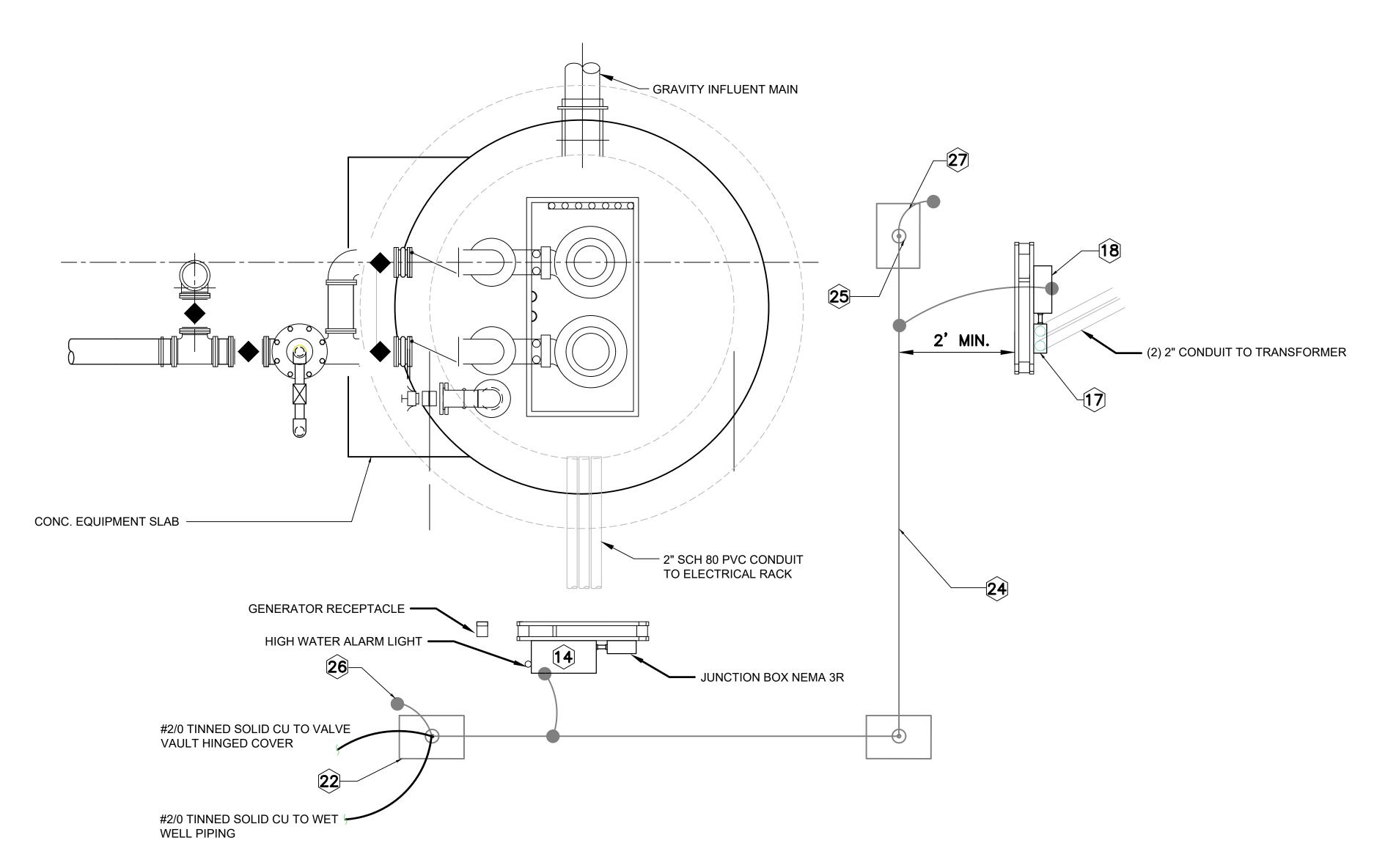
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Sheet No.

E-2.0



DIMENSION TABLE		
(A)	WETWELL INSIDE DIAMETER	
(M)	WETWELL HATCH OPENING	
(N)	WETWELL HATCH OPENING	
(Q)	SEPARATION OF DISCHARGE RISER PIPING	

NOTE: CONFIGURATION OF PUMP STATION COMPONENTS MAY BE MIRRORED FROM THAT SHOWN BUT MUST OTHERWISE CONFORM TO THIS DETAIL, UNLESS AN ALTERNATE CONFIGURATION IS APPROVED BY UTILITY DEVIATION REVIEW.

# PUMP STATION PLAN

SCALE: N,T.S.

## **EQUIPMENT SPECIFICATIONS**

- PUMP CONTROL PANEL: SEE TECHNICAL SPECIFICATIONS SECTION 333200, 2.1.I. AND DETAIL ON SHEET E-2.0.
- ALL ELECTRICAL SERVICE TRANSFORMERS SHALL BE INSTALLED OUTSIDE OF PUMP STATION FENCE LINE
- 17 POWER METER
- SERVICE ENTRANCE RATED CIRCUIT BREAKER DISCONNECT WITH PADLOCKABLE HINGE
- SEE GROUND TEST WELL DETAIL ON SHEET E-2.2 FOR ADDITIONAL REQUIREMENTS (TYP.)
- #4/0 BARE COPPER. SEE GROUND MAT DETAIL ON SHEET E-2.2 FOR ADDITIONAL REQUIREMENTS (TYP.)
- 3/4" X 20' COPPER-CLAD GROUND ROD (TYP.)
- EXOTHERMICALLY WELDED CONNECTION (TYP.)
- #2 SOLID TINNED COPPER JUMPER (TYP.)

NOTE: DETAIL IS FROM COLLIER COUNTY PUBLIC WATER SEWER DISTRICT UTILITIES MANUAL, SHEET NO. WW-8 AND ALL UNUSED KEYNOTES HAVE BEEN REMOVED.

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Maryland

Designed by: A.W.

Drawn by: A.W. Checked by: K.B Approved by: K.B. E9704

Job No.:

10/16/2025

Miami, FL 33135 Ph: 305.274.4805

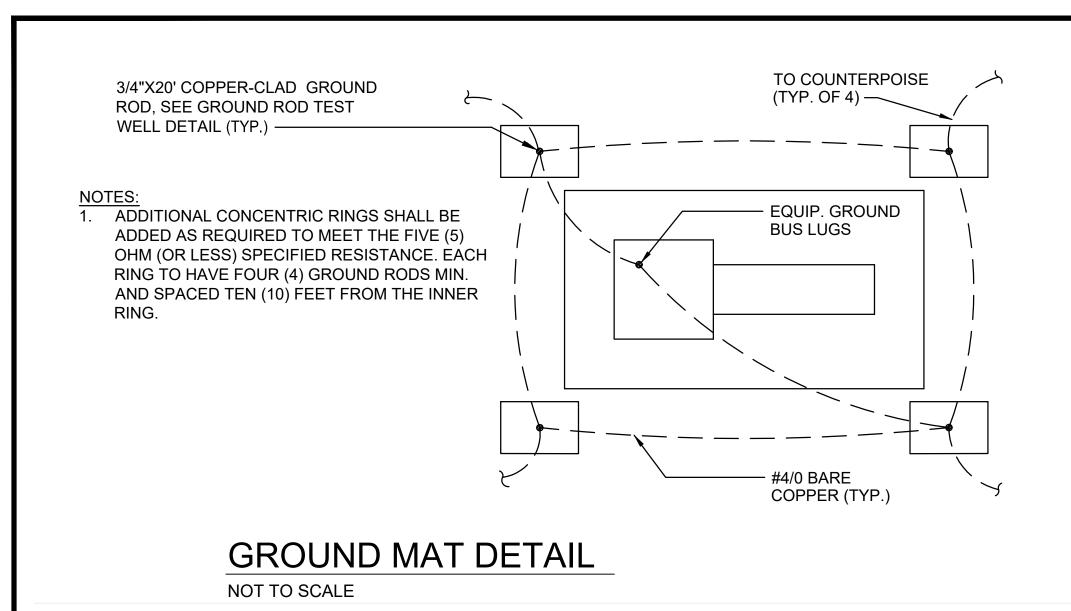
Eng. C.O.A. No. 3215 Survey L.B. No. 7143 Arch. Lic. No. AA2600926 Lndscp. Lic. No. LC0000298

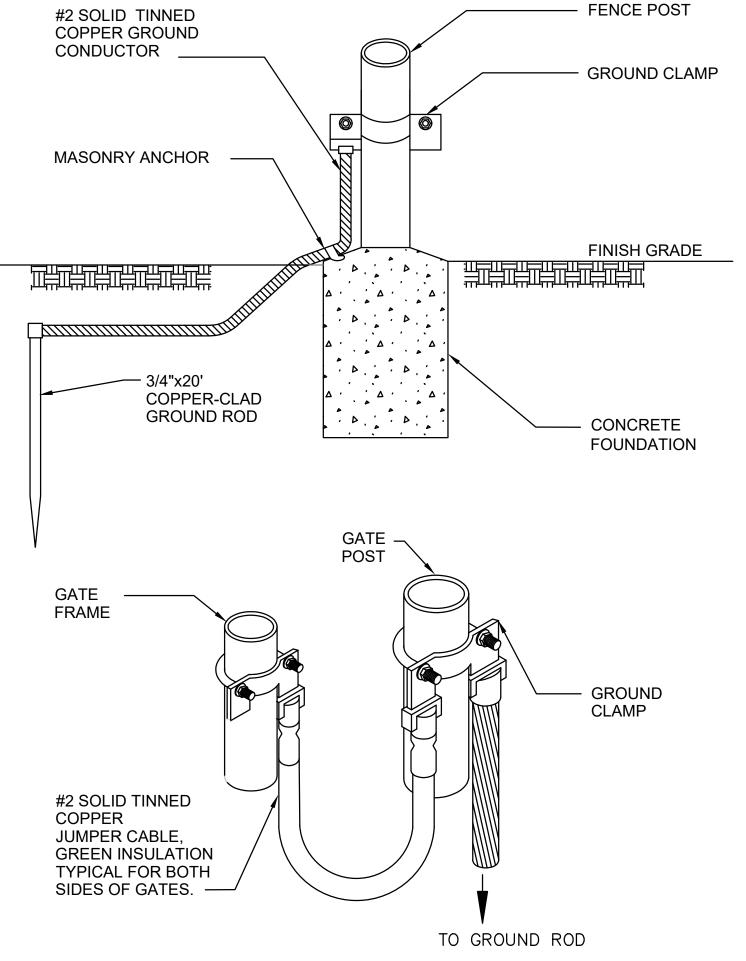
'Y CHOKOLOSKEE ION REHABILITATION FOWNSHIP 63 SOUTH

100% SUBMITTAL

Sheet No.

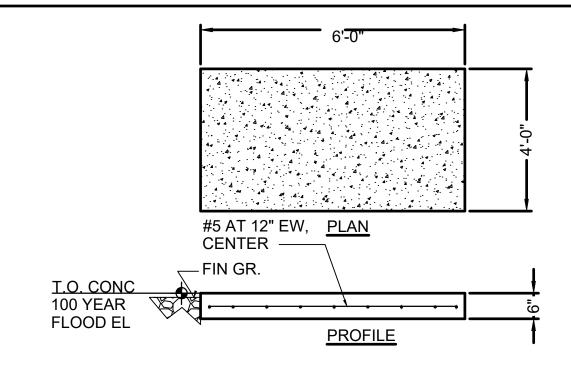
E-2.1





## FENCE POST/GATE BONDING DETAIL

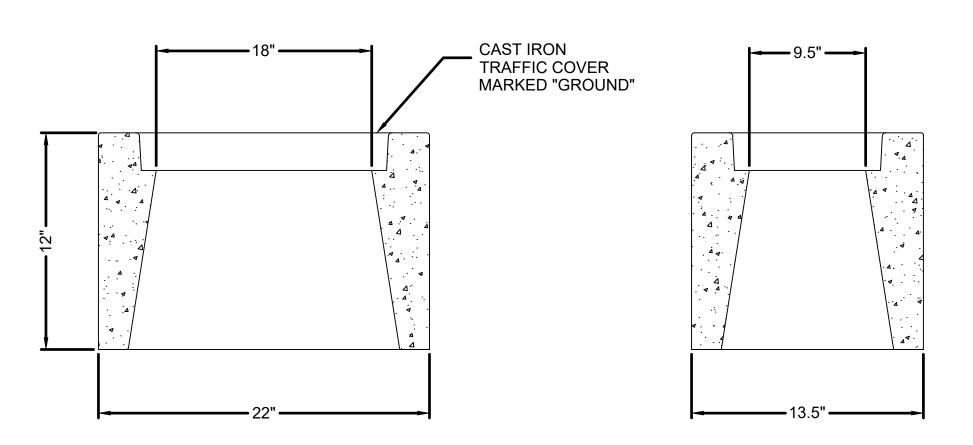
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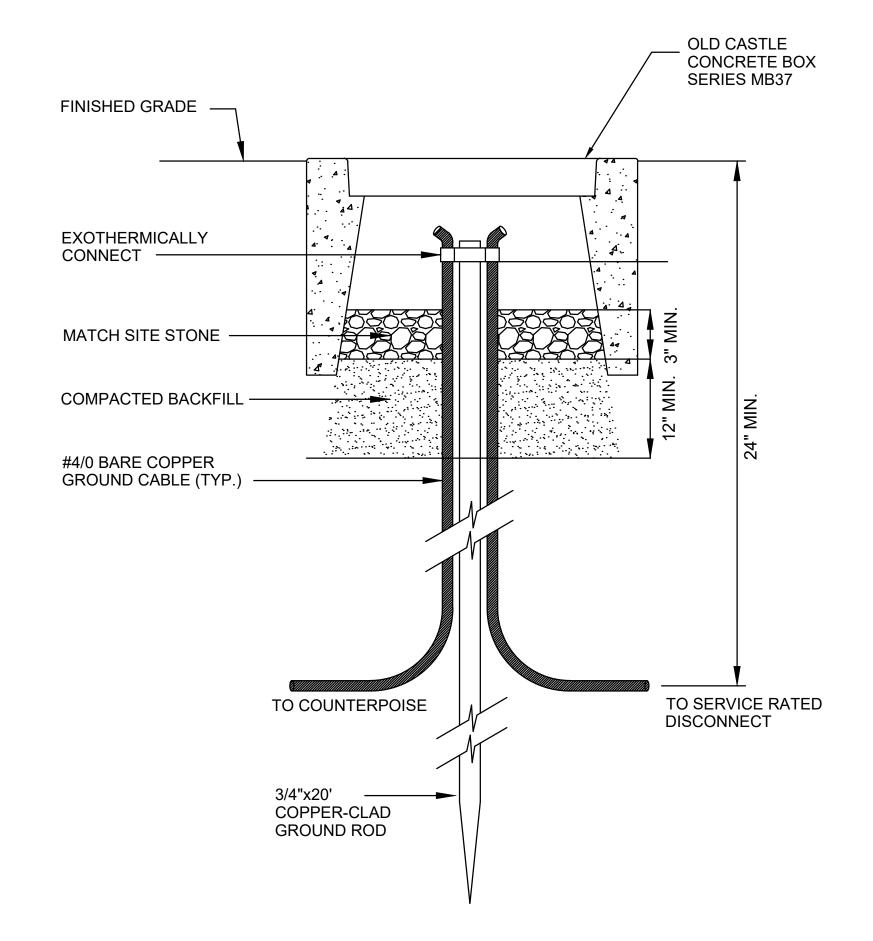


## <u>PUMP CONTROL PANEL PAD (TYPICAL) -</u> N.T.S

## PUMP STATION CONCRETE DETAILS

NOT TO SCALE

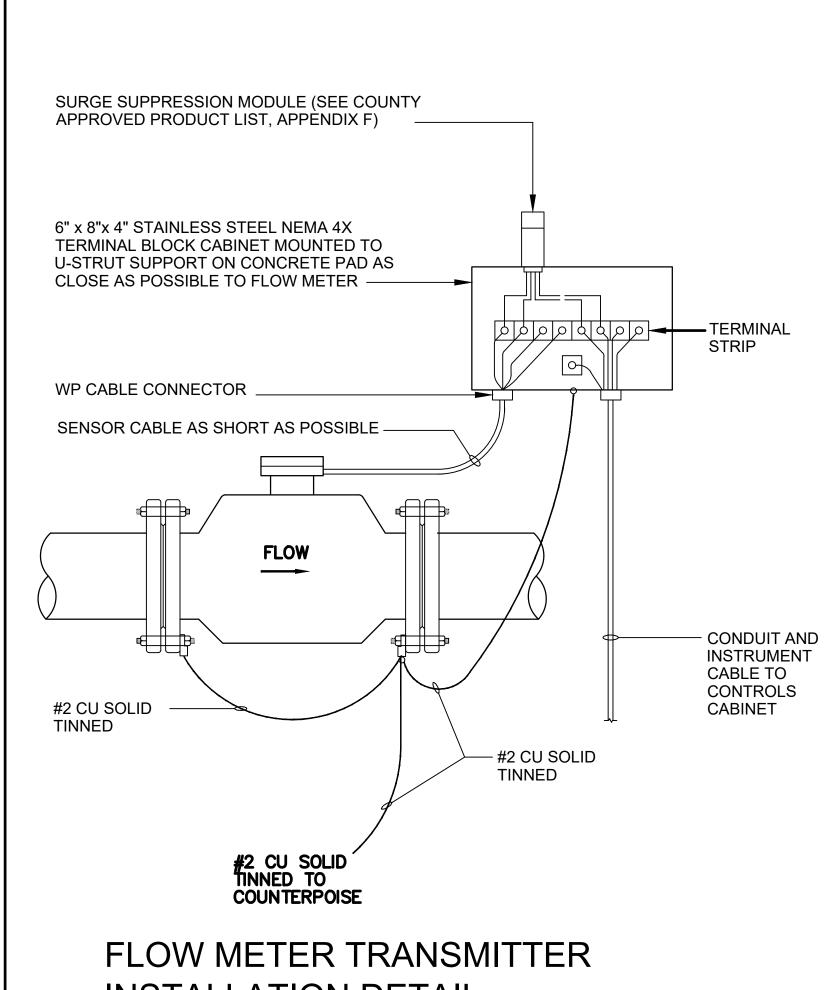




## GROUND TEST WELL DETAIL

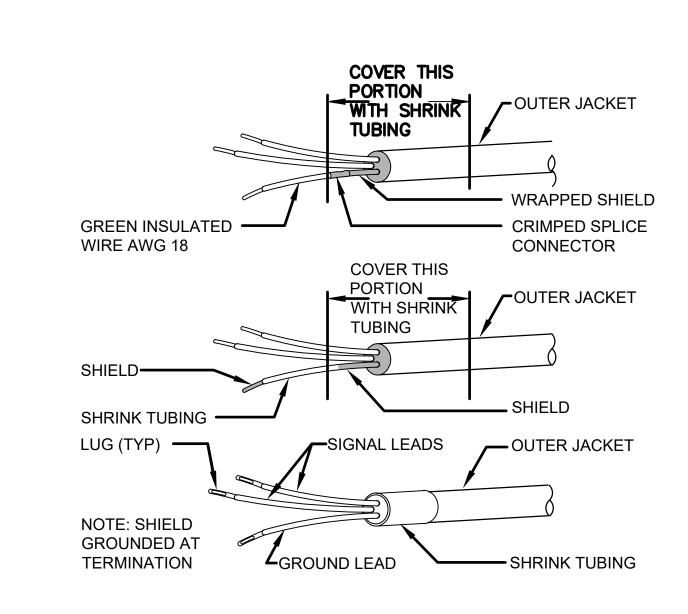
NOT TO SCALE

DETAILS ARE FROM PUBLIC WATER SEWER DISTRIC UTILITIES MANUAL.



# INSTALLATION DETAIL

NTO TO SCALE



TERMINATIONOF SHEILDED INSTRUMENT AND CONTROL CABLE DETAIL

NTO TO SCALE

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**DETAILS** 

Sheet No.

E-2.2