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City of Tampa
Contract Administration Department
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Tampa, FL 33602
(813)274-8456

CITY of TAMPA



WASTEWATER DEPARTMENT

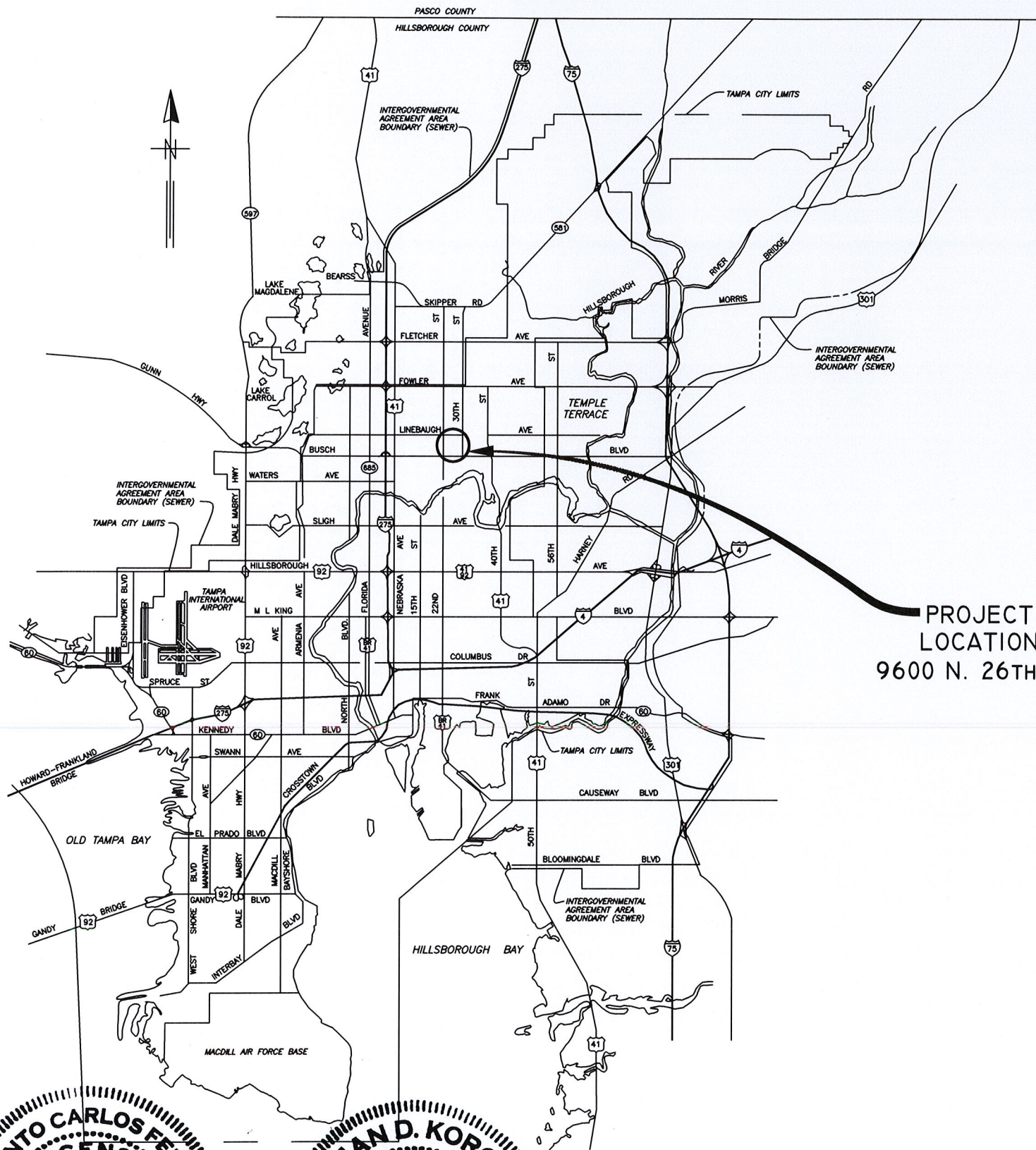
PLANS FOR

26TH ST. PUMPING STATION REHABILITATION

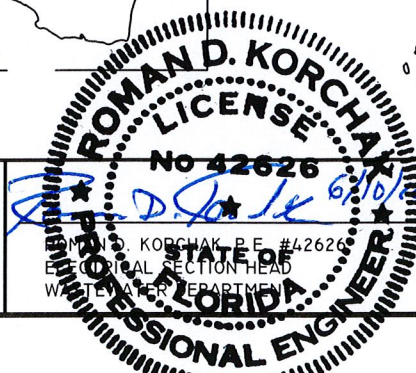
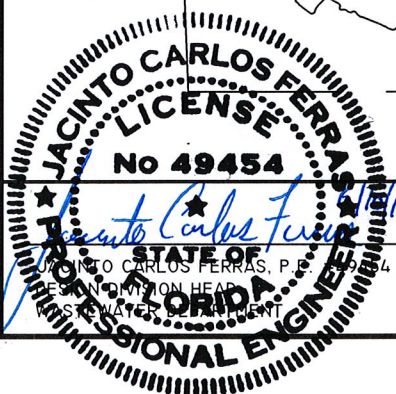
CONTRACT No.

14-C-00038

LOCATION MAP



PROJECT LOCATION
9600 N. 26TH ST.



No.	DATE	REVISIONS
3		
2		
1		

DES: VT / LG
DRN: JHJ
CKD: JF
DATE: 5/30/14

CITY of TAMPA
WASTEWATER DEPARTMENT

26TH ST. PUMPING STATION REHABILITATION
COVER SHEET

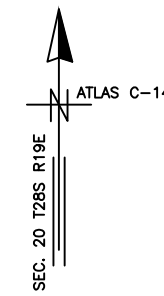
W.O. 5979
SHEET
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LEGEND

EX SEWERS	UP to 36" & SMALLER	36" & LARGER
EX FORCE MAIN		
EX SAN SEWER & MANHOLES		
EX STORM SEWER & MANHOLES		
PROP SEWERS		
PROP FORCE MAIN		
PROP SANITARY SEWER & MANHOLES		
PROP STORM SEWER & MANHOLES		
OTHER FEATURES		
RIGHT of WAY LINE	R/W	
EDGE of PAVEMENT		
WATER LINE		
GAS LINE		
ELECTRICAL CABLE or DUCT		
TELEPHONE CABLE or DUCT		
TV CABLE		
VALVE, AIR RELEASE VALVE		
HYDRANT		
CATCH BASIN, GRATE		
POWER POLE		
TELEPHONE POLE		
GUY POLE		
GUY WIRE		
VALVE VAULT		
WATER METER		
ELECTRICAL MANHOLE or VAULT		
TELEPHONE MANHOLE or VAULT		
TRAFFIC BOX or VAULT		
BUILDING LIMIT		
PROPERTY OWNERSHIP		
FENCE		
CONIFER		
PALM		
OAK		
OTHER		
SHRUB		
HEDGE		
RAILROAD TRACKS		
IRON PIPE		
CONTROL POINT		
CONCRETE MONUMENT		
OPEN DITCHES		
EXISTING WYE		
PROPOSED WYE		
CLEAN OUT		

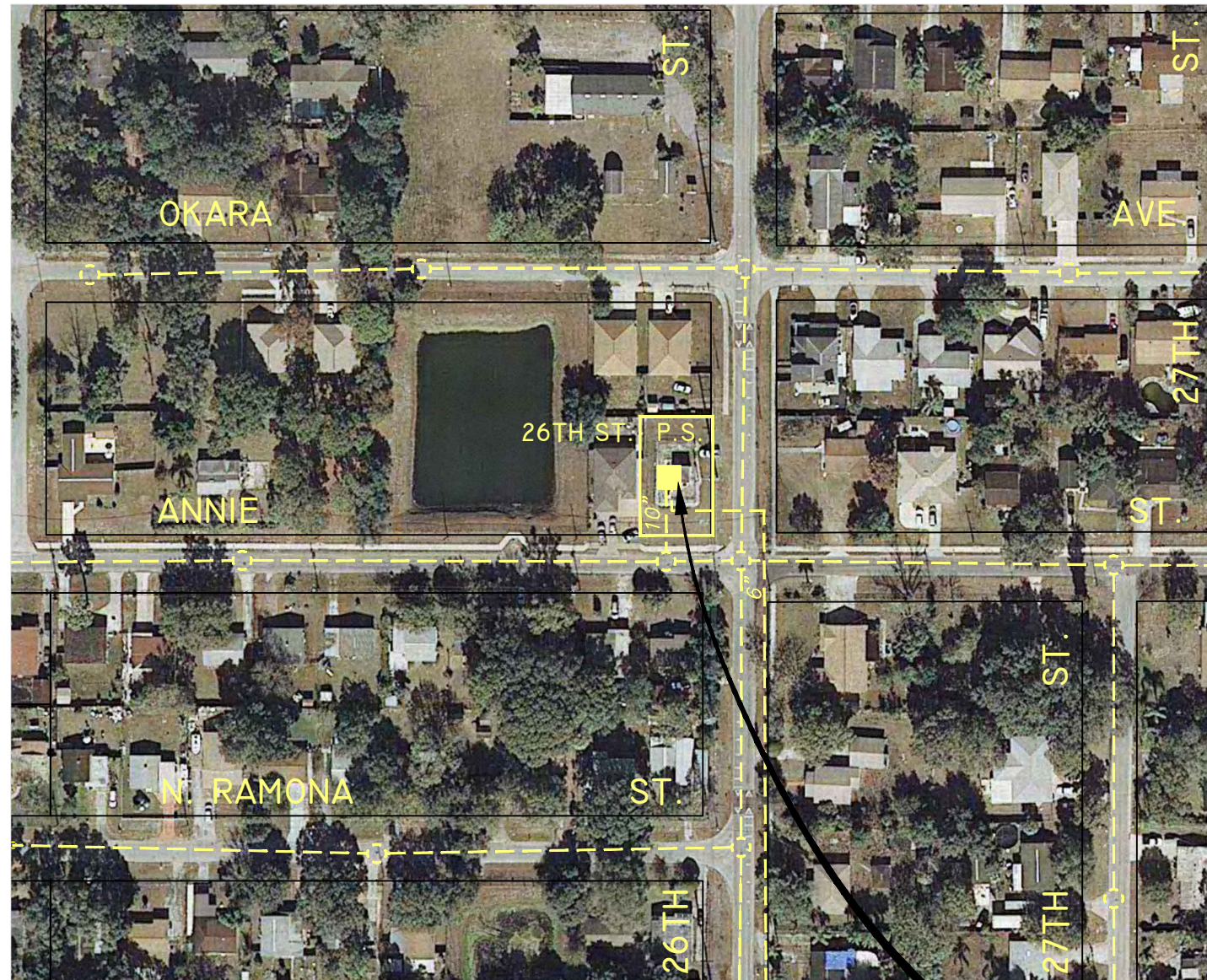
ABBREVIATIONS

AIR RELEASE VALVE	ARV	MAINTENANCE OF TRAFFIC	MOT
APPROXIMATE LOCATION	AL	MANHOLE	MH or M
BENCH MARK	BM	PLUG VALVE	PV
BURIED TELEPHONE	BT	POINT of INTERSECTION	PI
CONCRETE PIPE	CP	POLYVINYL CHLORIDE PIPE	PVC
DIAMETER RATIO	DR	REINFORCED CONCRETE PIPE	RCP
DUCTILE IRON PIPE	DIP	RESTRAINED MECHANICAL JOINT	RMJ
EDGE OF PAVEMENT	EOP	RIGHT of WAY	R/W
FIBER OPTIC CABLE	FOC	TOP of PIPE	TOP
FLORIDA DEPT. OF TRANSPORTATION	FDOT	VERIFIED VERT. AND HORZ. LOCATION	Vvh
FORCE MAIN	FM	VITRIFIED CLAY PIPE	VCP
HIGH DENSITY POLYETHYLENE PIPE	HDPE	WASTEWATER	WW
EL INVERT ELEVATION	IE or INV		



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NOTE: ALL WASTEWATER LINES ARE 8" OR LESS UNLESS OTHERWISE NOTED.

PROJECT MAP
N.T.S.

User: es13 Drawing Name: K:\WW\Projects\2014\5929_26th St PS Rehab Cover Legend SURVEY.dwg Layout: B081-090 Last Saved: Jun 10, 2014 - 12:29pm

JACINTO CARLOS FERRAS, P.E., #49454
DESIGN DIVISION HEAD
WASTEWATER DEPARTMENT

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WASTEWATER DEPARTMENT

LEGEND, PROJECT MAP & INDEX

W.O. 5979

SHEET
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DEMOLITION NOTES

- D-1. SALVAGEABLE MATERIAL, AS DETERMINED BY DEPARTMENT PERSONNEL, SHALL BE DELIVERED TO THE PARTS WAREHOUSE LOCATED ON THE TREATMENT PLANT SITE. NON-SALVAGEABLE MATERIALS ARE TO BE REMOVED FROM THE SITE AND PROPERLY DISPOSED OF AT THE CONTRACTOR'S EXPENSE.
- D-2. THE CONSTRUCTION SITE SHALL BE MAINTAINED IN AS NEAT AND ORDERLY CONDITION AS POSSIBLE DURING CONSTRUCTION OPERATIONS. SITE SHALL BE SECURED WITH TEMPORARY FENCING AND STRUCTURES DURING HOURS WHEN CONTRACTOR IS NOT PRESENT TO ENSURE SAFETY OF CITY EMPLOYEES AND THE PUBLIC.
- D-3. CONTRACTOR SHALL RESTORE ALL LANDSCAPING, SODDING, SPRINKLER SYSTEM PIPING AND PAVEMENT THAT MAY HAVE BEEN DAMAGED DURING CONSTRUCTION TO ITS ORIGINAL CONDITION OR BETTER. CONTRACTOR SHALL SOD ALL UNPAVED AREAS.

GENERAL NOTES

- G-1. CONTRACTOR SHALL COORDINATE ALL CONSTRUCTION ACTIVITIES WITH THE CONTRACT ADMINISTRATION DEPARTMENT, WASTEWATER PERSONNEL AND PUMPING STATION OPERATIONS.
- G-2. CONTRACTOR IS RESPONSIBLE FOR OBTAINING ALL NECESSARY RIGHT-OF-WAY PERMITS FOR THE PUMPING STATION WORK.
- G-3. THE CITY WILL OBTAIN ALL NECESSARY BUILDING PERMITS AND FDEP WASTEWATER PERMITS.
- G-4. CONTRACTOR SHALL CALL SUNSHINE (1-800-432-4770) AT LEAST 48 HOURS PRIOR TO ANY CONSTRUCTION ACTIVITY.
- G-5. NORMAL WORKING HOURS SHALL BE WEEKDAYS FROM 7:30 AM TO 4:00 PM UNLESS OTHERWISE APPROVED BY THE ENGINEER.
- G-6. PROPOSED PUMPS ARE (2) FLYGT PUMPS, MODEL NP3127.185 HT 10HP PUMPS SHALL BE SUPPLIED WITH FLYGT MIX-FLUSH VALVES (215MM IMPELLER OPERATING AT 400 GPM @ 55'). ALL PROPOSED PUMP BASES SHALL BE 4-INCH DIAMETER DISCHARGE ELBOWS.
- G-7. REMOVAL OF EXISTING PAVEMENT AND BASE MATERIAL SIDEWALK, CURB, POLES, UNDERGROUND PIPES, STRUCTURES, FOUNDATIONS, AND OTHER MISCELLANEOUS ITEMS SHALL BE INCLUDED IN THE LUMP SUM PRICE AND NO SEPARATE PAYMENT WILL BE MADE.
- G-8. CONTRACTOR SHALL VERIFY QUANTITIES OF ALL NECESSARY PIPES, REDUCERS, FITTINGS, SUPPORTS, AND ANY MISCELLANEOUS BRACKETS.
- G-9. DIMENSIONS SHOWN ARE NOT NECESSARILY ACCURATE TO THE DEGREE REQUIRED FOR FABRICATION. EXISTING DIMENSIONS AND VIEWS ARE SHOWN BASED ON THE BEST INFORMATION AVAILABLE. CONTRACTOR SHALL FIELD VERIFY ALL PERTINENT DIMENSIONS AND REFLECT THEM ON DETAILED SHOP DRAWINGS FOR APPROVAL BEFORE ANY FABRICATION.
- G-10. SHOP DRAWINGS SHALL BE SUBMITTED AND APPROVED BY THE CITY FOR ALL PROPOSED ITEMS. ALL SUBMITTALS AND SHOP DRAWINGS SHALL BE ORIGINALS OR HIGH QUALITY COPIES (CLEARLY LEGIBLE). NO FAXED SHEETS OR POOR QUALITY COPIES WILL BE ACCEPTED FOR SUBMITTAL REVIEW.
- G-11. PUMP DISCHARGE PIPING IN WET WELL SHALL BE 6-INCH DIAMETER HDPE (PE4710), SDR-11, GREEN STRIPE, DIPS-OD. HDPE JOINTS SHALL BE FLANGED WITH 316 SS BACK UP RINGS. HDPE ELECTROFUSION JOINTS WILL BE ALLOWED, BUT ONLY IN THE WET WELL WITHIN 5 FEET FROM THE BOTTOM OF THE TOP SLAB.
- G-12. PLUG VALVES SHALL BE DEZURIK, PEF 100% PORT, ECCENTRIC PLUG VALVES OR APPROVED EQUAL. ALL ABOVE GROUND PLUG VALVES SHALL BE PROVIDED WITH 2" NUTS AND NO HANDWHEELS.
- G-13. CHECK VALVES SHALL BE APCO RUBBER FLAPPER SWING CHECK VALVES, SERIES 100. THIS EQUIPMENT IS A STANDARDIZED ITEM AT THIS FACILITY AND NO "OR EQUAL" SUBMITTALS WILL BE CONSIDERED.
- G-14. ALL HARDWARE, UNLESS OTHERWISE NOTED, SHALL BE TYPE 316 STAINLESS STEEL.
- G-15. PIPE SUPPORTS SHALL BE CONSTRUCTED AS SHOWN IN THE PIPE SUPPORT DETAIL.
- G-16. ALL CEMENTITIOUS CONCRETE AND GROUT, UNLESS OTHERWISE NOTED, SHALL BE CLASS "B", 4000 PSI COMPRESSIVE STRENGTH AT 28 DAYS. ALL REINFORCING STEEL SHALL BE GRADE 60.
- G-17. OSHA STANDARD SAFETY EQUIPMENT SUCH AS SAFETY HARNESSSES, GAS MONITORS, LOWER EXPLOSIVE LIMIT (LEL) DETECTORS, BREATHING APPARATUS, ETC. SHALL BE UTILIZED WHERE THE WORK DICTATES THEIR USE.
- G-18. ALL METAL PIPE, FITTINGS, VALVES, ETC. SHALL RECEIVE:
 - 1) SHOP COAT - ONE COAT, 4-6 MILS (DRY) TNEMEC N140-1211 EPOXY PRIMER.
 - 2) FIELD COAT - ONE COAT, 5-7 MILS (DRY) TNEMEC SERIES 446 PERMA-SHIELD MCU
 - 3) FIELD COAT
 - A) ABOVE GRADE : ONE COAT, 4-6 MILS (DRY) TNEMEC 1074U ENDURASHIELD (WITH FACTORY ADDED UV BLOCKER)
 - B) BELOW GRADE : ONE COAT, 5-7 MILS (DRY) TNEMEC SERIES 446 PERMA-SHIELD MCU
- G-19. BACKFILL (NO CLAY OR CLAYEY MATERIAL) SHALL BE COMPACTED IN 12-INCH LAYERS (MAX.) TO 98% MAXIMUM DRY DENSITY OF MODIFIED PROCTOR IN CONFORMANCE WITH AASHTO T-180, METHOD A. REFER TO SUBSURFACE INVESTIGATION REPORT BY PSI, INC. FOR PROJECT AREA GEOTECHNICAL INFORMATION.

- G-20. ALL STAINLESS STEEL PARTS TO BE WELDED SHALL BE THE LOW-CARBON VERSION OF THE GRADE OF STAINLESS STEEL THAT IS CALLED FOR, SUCH AS: T-316L OR T-304L.
- G-21. CONTRACTOR SHALL PROVIDE A REDUCED PRESSURE BACKFLOW-PREVENTION DEVICE IN WATER SERVICE LINE, AS SHOWN IN DETAILS, AT A PLACE TO BE SPECIFIED DURING CONSTRUCTION. BACKFLOW PREVENTION DEVICE SHALL BE 1" WILKINS, MODEL #975 XL, OR EQUAL.
- G-22. ALUMINUM ACCESS COVERS SHALL BE DESIGNED FOR A PEDESTRIAN LIVE LOADING OF 300 PSF WITH 316 STAINLESS STEEL HARDWARE, HINGES AND AUTOMATIC HOLD-OPEN ARM AS MANUFACTURED BY US FOUNDRY AND MANUFACTURING CORPORATION OR APPROVED EQUAL. THE ACCESS DOORS SHALL ALSO BE EQUIPPED WITH A FLUSH LIFTING HANDLE, TAMPERPROOF FASTENERS AND EXPOSED PADLOCK STAPLES.
- G-23. THE ACCESS COVER SHALL CLOSE FLUSH WITH THE FRAME. ALL ALUMINUM SURFACES THAT CONTACT CONCRETE SHALL BE COATED WITH TWO COATS OF COAL TAR EPOXY OR BITUMINOUS COATING OR EQUAL. THE CONTRACTOR SHALL SUBMIT SHOP DRAWINGS DETAILING THE INSTALLATION AND CONFIGURATION OF THE ACCESS COVERS.
- G-24. PROPOSED PRECAST WET WELL SHALL BE CONSTRUCTED IN ACCORDANCE WITH ASTM C-76, CLASS II WALL B. MINIMUM STEEL REINFORCEMENT SHALL BE INNER CAGE 0.57 IN²/FT AND OUTER CAGE 0.34 IN²/FT. (SEE SPECIFICATIONS)
- G-25. ALL DIP PIPE AND FITTING SHALL BE CLASS 53 WITH PROTECTO 401 INTERIOR COATING.
- G-26. PVC GRAVITY PIPE AND FITTINGS SHALL BE SDR-26 (HEAVY WALL) IN COMPLIANCE TO ASTM D3034. PVC FM PIPE AND FITTINGS SHALL BE C-900 (DR-18)
- G-27. ALL CONCRETE PAVEMENT, UNLESS OTHERWISE NOTED, SHALL BE MINIMUM 6" THICK CONCRETE WITH 4x4 W6xW6 WWR. CONCRETE SHALL BE CONSTRUCTED ON COMPACTED SUB-BASE (MINIMUM 98% MODIFIED PROCTOR) WITH 1.5" DEEP CONTROL JOINTS SAW-CUT @ 15' MAX, CUT WITHIN 12 HRS OF CONCRETE PLACEMENT.
- G-28. CONTRACTOR TO SUBMIT METHOD FOR 100% WATERTIGHT SEALING AT PIPE PENETRATIONS THROUGH STRUCTURES, PROPOSED LINK SEAL OR APPROVED EQUAL.
- G-29. THE CITY DOES NOT BELIEVE THAT ASBESTOS IS PRESENT IN THE BUILDING. PER EPC REQUIREMENTS, CONTRACTOR WILL BE REQUIRED TO PROCURE A THIRD PARTY ASBESTOS SURVEY FROM A LICENSED ASBESTOS CONSULTANT. DEMOLITION OF PUMP STATION BUILDING CANNOT BEGIN UNTIL (3) WEEKS AFTER THE ASBESTOS SURVEY IS SUBMITTED TO THE ENGINEER. THE CITY WILL FURNISH EPC WITH THE REQUIRED NOTIFICATION. IF THE SURVEY DISCOVERS THE PRESENCE OF ASBESTOS, THE CITY WILL UTILIZE CONTINGENCY FUNDS FOR THE ASBESTOS REMOVAL IN ACCORDANCE WITH EPC STANDARDS.
- G-30. ELEVATION INFORMATION SHOWN ON THESE PLANS IS REFERENCED TO NGVD 1929 UNLESS OTHERWISE STATED.
- G-31. DURING CONSTRUCTION, CONTRACTOR SHALL MAINTAIN A CLEAR PATH TO EXISTING PUMPING STATION FOR CITY STAFFS TO ACCESS AND MAINTAINING THE EXISTING PUMPING STATION.
- G-32. CONTRACTOR SHALL PROTECT ALL TREES IN THE VICINITY OF THE PROPOSED CONSTRUCTION IN ACCORDANCE WITH CHAPTER 13 OF THE CITY OF TAMPA CODE. NO TREES SHALL BE PRUNED WITHOUT PRIOR APPROVAL FROM THE CITY OF TAMPA PARKS AND RECREATION DEPARTMENT, NATURAL RESOURCES DIVISION, AND SHALL BE COMPLETED BY A CERTIFIED ARBORIST. ROOT PRUNING MAY BE REQUIRED AT CERTAIN LOCATIONS AND COMPLETED IN ACCORDANCE WITH CHAPTER 13 TECHNICAL MANUAL SPECIFICATIONS.

BYPASSING NOTES

- B-1. SEWER SERVICE TO CUSTOMERS SHALL NOT BE DISRUPTED DURING CONSTRUCTION. CONTRACTOR SHALL SUBMIT DETAILED PROPOSAL FOR PUMPING STRATEGY.
- B-2. IT IS THE ENGINEER'S INTENT THAT THE NEW PUMPING STATION WILL BE CONSTRUCTED WHILE THE EXISTING PUMPING STATION REMAINS IN OPERATION. HOWEVER, A SECTION OF THE EXISTING FM WILL HAVE TO BE RELOCATED AS SHOWN. DURING THE START-UP OF THE NEW PUMP STATION, THE EX. PUMP STATION MUST BE CAPABLE OF OPERATING IN THE EVENT THERE ARE PROBLEMS WITH THE NEW PUMP STATION. AS AN ALTERNATIVE OF KEEPING THE OLD PUMP STATION OPERATIONAL, THE CONTRACTOR MAY PROVIDE BYPASS PUMPING SYSTEM RATED FOR 400 GPM @ 57' TDH.

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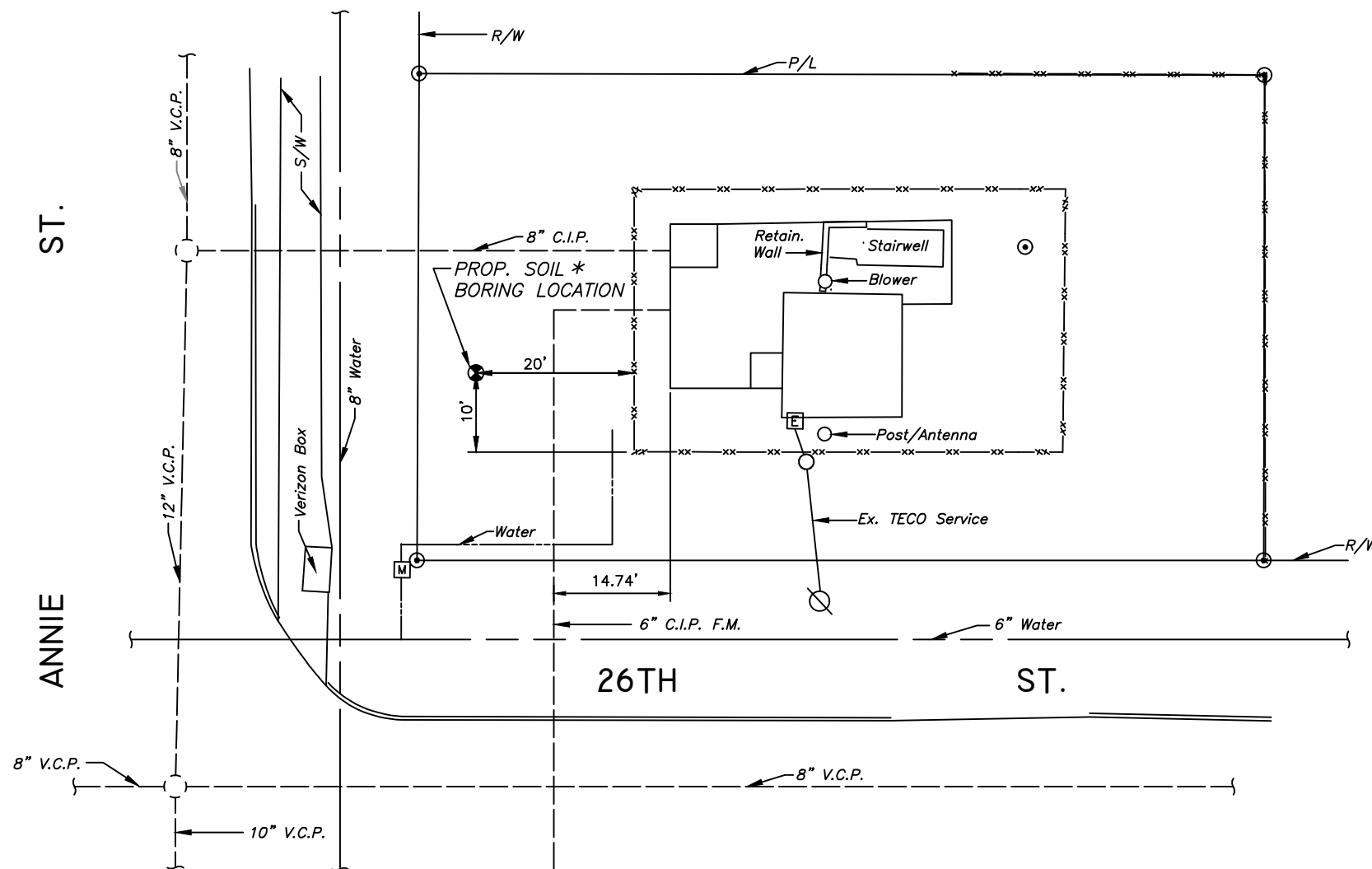
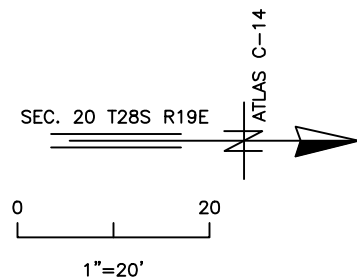
JACINTO CARLOS FERRAS, P.E., #49454 DESIGN DIVISION HEAD WASTEWATER DEPARTMENT	No.	DATE	REVISIONS	DES: VT DRN: JHJ CKD: JF DATE: 5/30/14	CITY of TAMPA WASTEWATER DEPARTMENT	26TH ST. PUMPING STATION REHABILITATION GENERAL NOTES	W.O. 5979
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STANDARD SITE PLAN NOTES:

1. ALL WORK SHALL COMPLY WITH THE REGULATIONS, REQUIREMENTS AND ORDINANCES OF THE VARIOUS GOVERNING AGENCIES HAVING JURISDICTION OVER SAID WORK, INCLUDING, AND NOT LIMITED TO: HILLSBOROUGH COUNTY, E.P.C., CITY OF TAMPA AND F.D.E.P. AND OTHERS AS MAY BE APPLICABLE.
2. THE CONTRACTOR SHALL MAINTAIN COPIES OF ALL APPLICABLE PERMITS ON-SITE AND SHALL BE RESPONSIBLE TO ADHERE TO ALL PERMIT CONDITIONS DURING CONSTRUCTION.
3. LOCATION, DIMENSION, ELEVATION, AND IDENTIFICATION OF EXISTING UTILITIES, STRUCTURES AND OTHER TOPOGRAPHIC FEATURES ARE APPROXIMATE ONLY, ACCORDING TO THE BEST INFORMATION AVAILABLE AT THE TIME OF PREPARATION OF THESE PLANS. THERE MAY BE ADDITIONAL EXISTING DETAILS ON-SITE AND OFF-SITE, THE PRESENCE OF WHICH IS NOT KNOWN OR DETECTED AT THIS TIME. ENGINEER/SURVEYOR SHALL NOT BE HELD RESPONSIBLE FOR UNDETECTED UNDERGROUND UTILITIES. PRIOR TO CONSTRUCTION, IT IS THE CONTRACTOR'S RESPONSIBILITY TO VERIFY THE LOCATIONS, DIMENSION, ELEVATION AND IDENTIFICATION OF ALL UTILITIES, STRUCTURES AND TOPOGRAPHIC FEATURES (I.E. BUILDINGS, SIDEWALKS, CANOPY SUPPORTS, FENCES, PAVEMENT, UNDERGROUND UTILITIES, UTILITY POLES/GUY WIRES, MANHOLES, INLETS, A/C UNITS, TREES, LANDSCAPING, ETC.) IF ANY OF THE EXISTING OR PROPOSED CONDITIONS EITHER;
 - A). CONFLICT WITH THE PROPOSED IMPROVEMENTS, OR
 - B). ARE NOT SHOWN OR SHOWN INCORRECTLY ON THE PLANS, IT IS THE CONTRACTORS RESPONSIBILITY TO CONTACT THE ENGINEER PRIOR TO THE COMMENCING ANY WORK ACTIVITIES.
4. THE CONSTRUCTION TESTING/INSPECTION SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO SCHEDULE AND COMPLETE ANY AND ALL TESTS AS REQUIRED WITH ALL SITE CIVIL IMPROVEMENTS CONSTRUCTED ON AND OFF SITE. IT SHALL ALSO BE THE CONTRACTORS RESPONSIBILITY TO PRE-TEST IMPROVEMENTS PRIOR TO GIVING THE ENGINEER-OF-RECORD ANY GOVERNING AGENCY FIELD REPRESENTATIVE 48 HOURS ADVANCE NOTICE OF ANY FORMAL TESTS.
5. ENGINEER/SURVEYOR SHALL NOT BE HELD RESPONSIBLE FOR UNDETECTED UNDERGROUND UTILITIES AND/OR SOIL CONDITIONS. SITE PREPARATION TO BE IN ACCORDANCE WITH A GEOTECHNICAL ENGINEERS RECOMMENDATIONS AND AS A MINIMUM STANDARD MUST CONFORM WITH THE FOLLOWING:
 - A). UNSUITABLE MATERIAL TO BE REMOVED UPON ENGINEERS APPROVAL.
 - B). FILL MATERIAL TO BE CLEAN WITH NO ORGANICS, MUCK, CLAY, TRASH, ETC.
 - C). FILL TO BE PLACED IN 12" LIFTS AND COMPACTED TO 98% MODIFIED PROCTOR.
 - D). 4:1 MAXIMUM SLOPE UNLESS NOTED OTHERWISE.
6. FLORIDA STATUTE 553.851 (1979) REQUIRES A MINIMUM OF 2 DAYS AND MAXIMUM OF 5 DAYS NOTICE BEFORE EXCAVATION. EFFECTIVE DECEMBER 1, 1993, A NEW TELEPHONE NUMBER, SUNSHINE STATE ONE CALL OF FLORIDA, 1-800-432-4770 MUST BE CALLED FOR UNDERGROUND UTILITY LOCATION PURPOSES BEFORE YOU DIG.
7. CONTRACTOR TO MAINTAIN POSITIVE STORMWATER DRAINAGE AND FLOOD CONTROL DURING CONSTRUCTION.
8. THE CONTRACTOR SHALL USE APPROPRIATE MEASURES TO PREVENT EROSION AND TRANSPORT OF SEDIMENT TO SURFACE DRAINS. THE CONTRACTOR SHALL USE HAY BALES AND/OR SILT BARRIERS TO MITIGATE ADVERSE IMPACTS TO EXISTING SURFACE WATER QUALITY.
9. ALL PIPE LENGTHS ARE PLUS OR MINUS AND ARE MEASURED FROM CENTER OF FITTINGS AND/OR STRUCTURES.
10. UPON COMPLETION OF THE WORK, ALL SURFACES AND FACILITIES WILL BE RETURNED TO A MINIMUM STANDARD OF PROFILE AND CONDITION AS EXISTED PRIOR TO COMMENCEMENT OF WORK.
11. CONTRACTOR TO COORDINATE SCHEDULING OF EXISTING SITE LIGHTING DEMOLITION AND PROPOSED SITE LIGHTING INSTALLATION WITH TAMPA ELECTRIC COMPANY.
12. CONTRACTOR TO TEMPORARILY SUPPORT ALL EXISTING ADJACENT UTILITIES/STRUCTURES DURING PIPELINE/EXCAVATION WORK. CONTACT LOCAL UTILITY FOR TEMPORARY SECURING OF POWER POLES, AS NECESSARY. ALIGNMENT MAY VARY DUE TO FIELD CONDITIONS, CONTACT ENGINEER. PRIOR TO BACKFILL OF PIPE TRENCH, CONTACT ENGINEER.

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JACINTO CARLOS FERRAS, P.E., #49454 DESIGN DIVISION HEAD WASTEWATER DEPARTMENT	No.	DATE	REVISIONS	DES: VT	CITY of TAMPA WASTEWATER DEPARTMENT	26TH ST. PUMPING STATION REHABILITATION GENERAL NOTES	W.O. 5979
	3			DRN: JHJ			SHEET
	2			CKD: JF			4
	1			DATE: 5/30/14			



* SEE SPECIFICATION FOR GEOTECHNICAL REPORT
PREPARED BY PSI, INC.

EXISTING SITE PLAN

SCALE 1" = 20'

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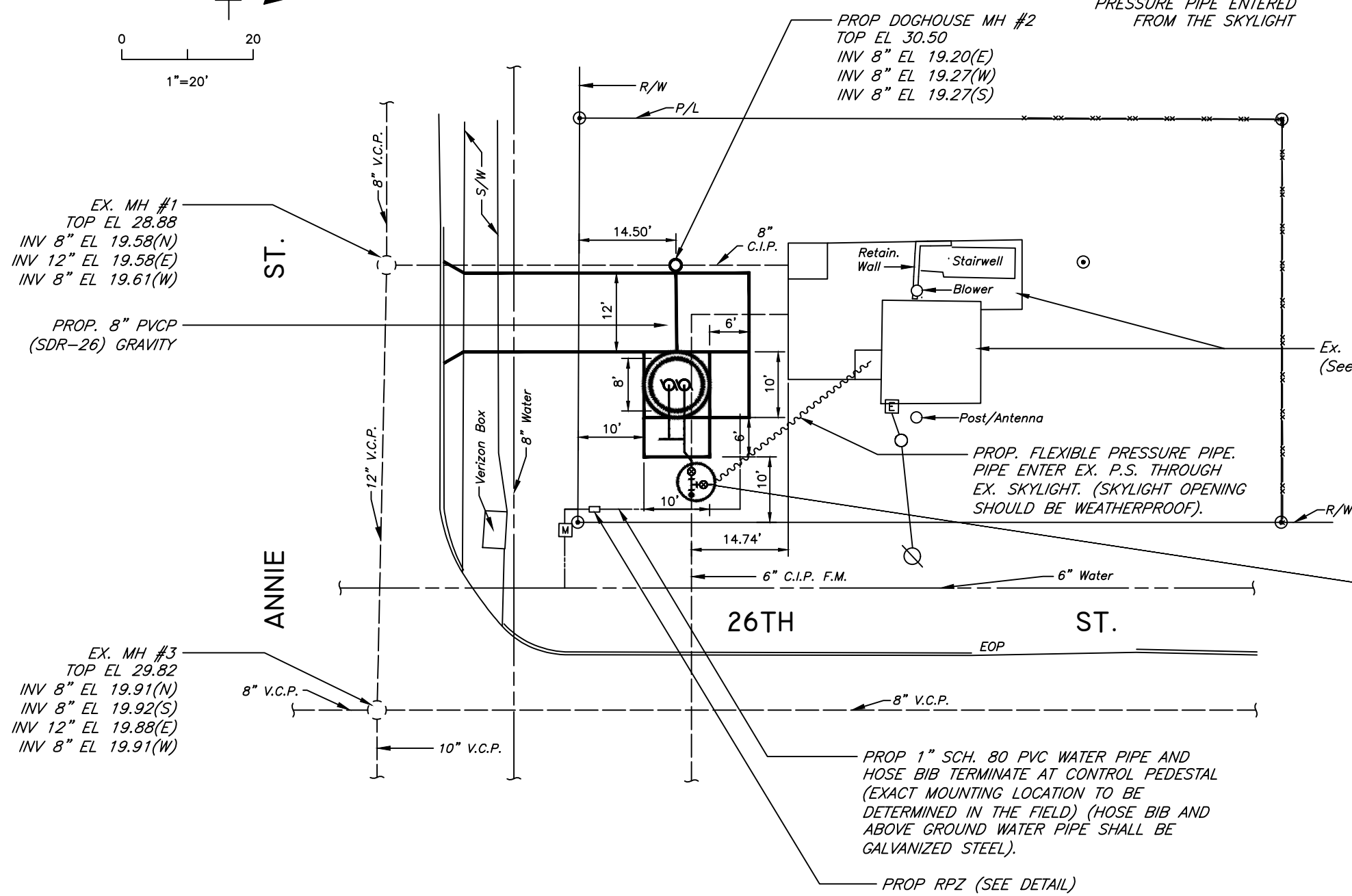
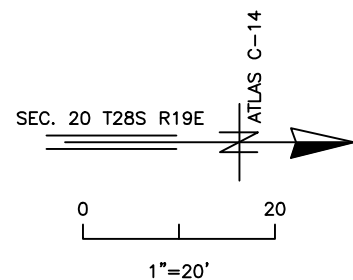
CITY of TAMPA
WASTEWATER DEPARTMENT

26TH ST. PUMPING STATION REHABILITATION
EXISTING SITE PLAN

W.O. 5979

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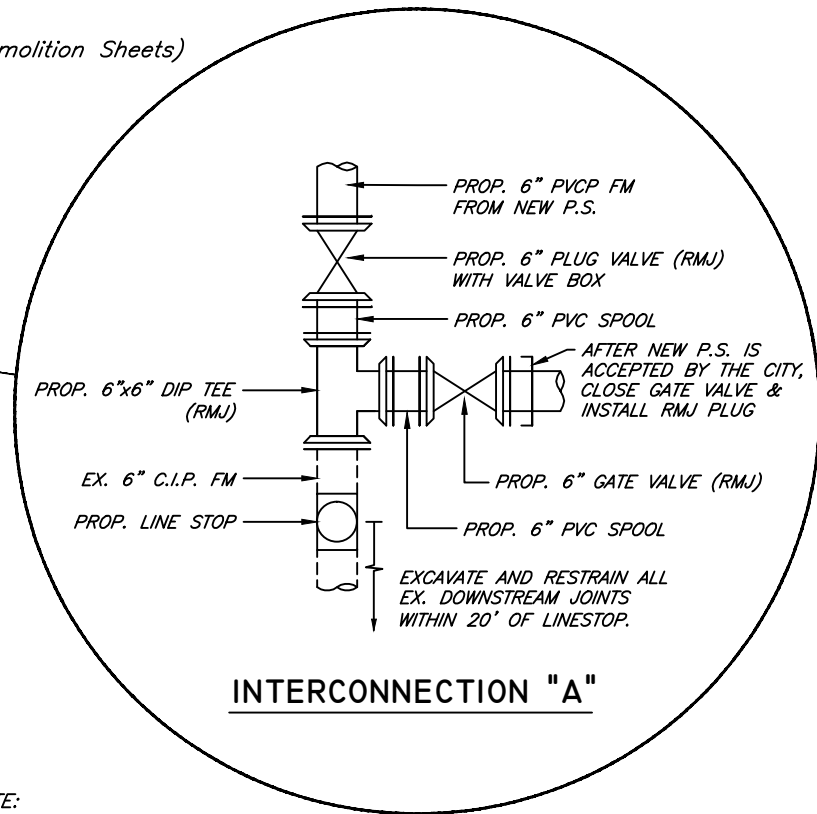
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PROPOSED SITE PLAN
SCALE 1" = 20'



INTERCONNECTION "B"



INTERCONNECTION "A"

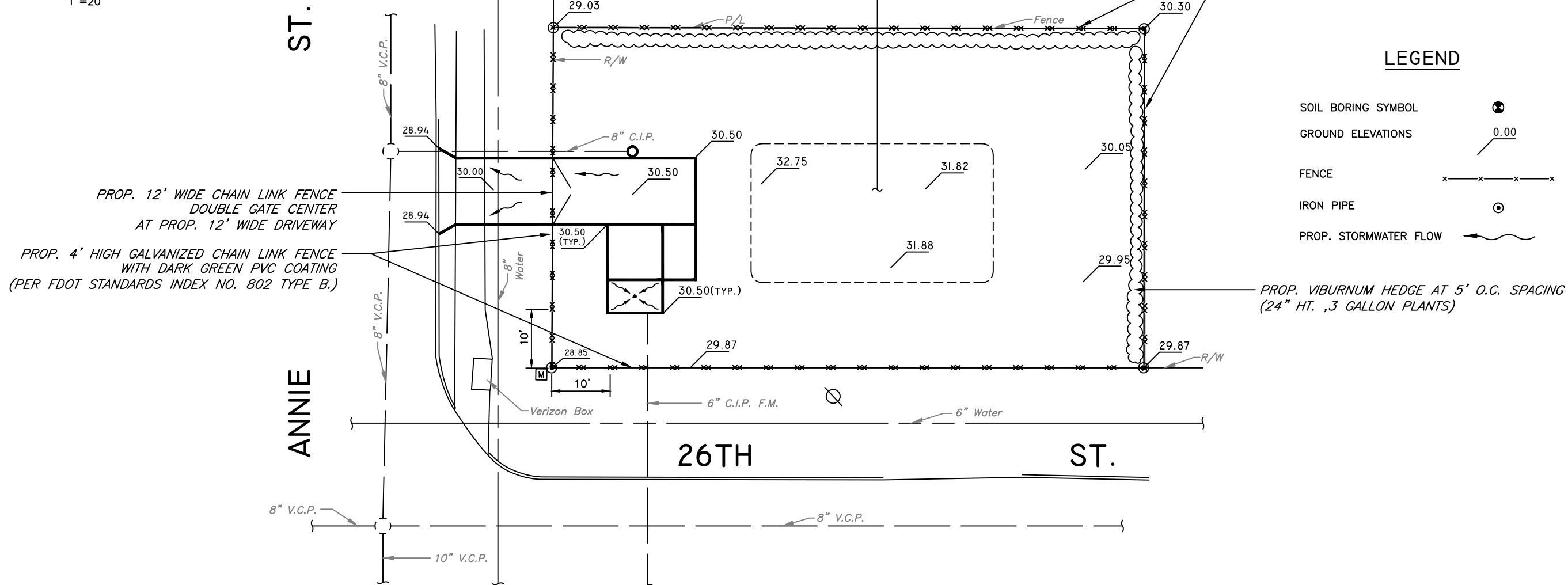
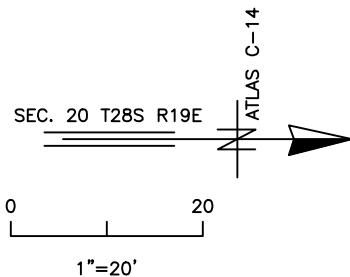
NOTE:

1. CONTRACTOR SHALL EXPOSE EX. 6" CIP FM FROM TEMPORARY BYPASS TEE TO EOP AND RESTRAIN ALL JOINTS WITH MEGALUG OR APPROVED EQUAL.
2. BOTH INTERCONNECTION "A" AND "B" SHALL BE PERFORMED CONCURRENTLY (2 CREWS) DURING LOW FLOW PERIOD (SUCH AS NIGHT). CONTRACTOR MUST COMPLETE INTERCONNECTIONS WITHIN 3 HOURS.
3. TEMPORARY FLEXIBLE PRESSURE PIPE & FITTINGS SHALL BE FLANGED OR FUSED HDPE (MIN. DR-17)

User: est3 Drawing Name: K:\WW\Projects\2014\2014_5929_26th St PS Rehab Cover Legend SURVEY.dwg Layout: B081-094 Last Saved: Jun 10, 2014 10:38am

JACINTO CARLOS FERRAS, P.E., #49454 DESIGN DIVISION HEAD WASTEWATER DEPARTMENT	No.	DATE	REVISIONS	DES: VT	CITY of TAMPA WASTEWATER DEPARTMENT	26TH ST. PUMPING STATION REHABILITATION PROPOSED SITE PLAN	W.O. 5979
	3			DRN: JHJ			SHEET
	2			CKD: JF			6
	1			DATE: 5/30/14			

EX. SITE HAS A RIDGE LOCATED IN THIS GENERAL AREA. CONTRACTOR SHALL RE-GRADE SITE TO REMOVE RIDGE. NEW GROUND ELEVATION IN THIS AREA SHALL BE APPROXIMATELY EL 30.00±. ALL SURPLUS MATERIAL SHALL BE REMOVED AND DISPOSED BY THE CONTRACTOR. DISTURBED AREA SHALL BE SODDED WITH BAHIA OR SEEDED.



GEOMETRIC LAYOUT AND GRADING PLAN

SCALE 1" = 20'

User: sst3 Drawing Name: K:\WW_Projects\2014\2014_5979_26th St PS Rehab Cover Legend SURKET.dwg Layout: B081-095 Last Saved: Jun 10, 2014 - 10:36am

JACINTO CARLOS FERRAS, P.E., #49454
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WASTEWATER DEPARTMENT

No.	DATE	REVISIONS
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DES: VT
DRN: JHJ/WA
CKD: JF
DATE: 5/30/14

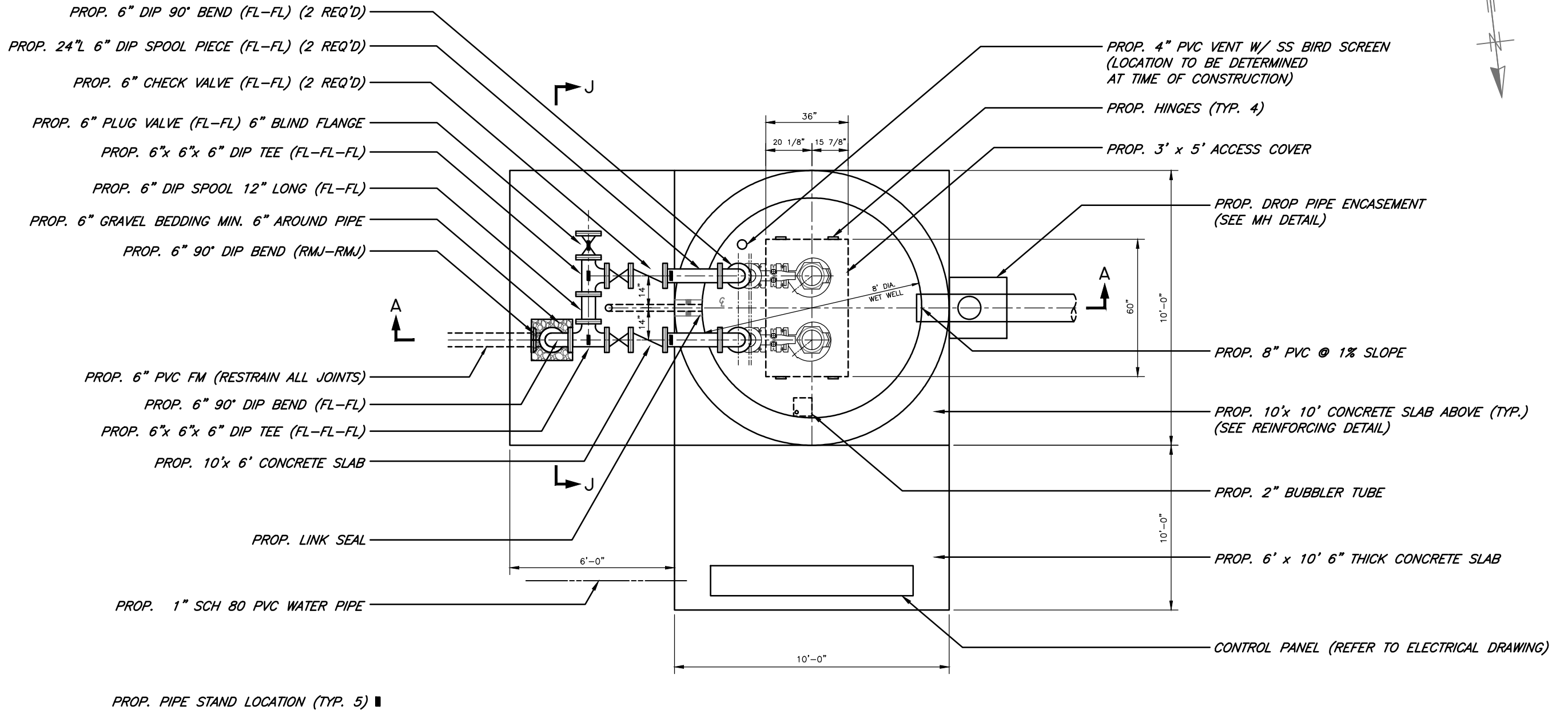
CITY of TAMPA
WASTEWATER DEPARTMENT

26TH ST. PUMPING STATION REHABILITATION
GEOMETRIC LAYOUT AND GRADING PLAN

W.O. 5979

SHEET

7



User: ss13 Drawing Name: K:\W\Projects\2014\2014_5979_26th St PS Rehabilitation\DWG\26th St PS Rehabilitation.dwg Layout: Jun 10, 2014 - 11:14am

JACINTO CARLOS FERRAS, P.E., #49454
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WASTEWATER DEPARTMENT

No.	DATE	REVISIONS
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DES: VT
DRN: JHJ
CKD: JF
DATE: 5/30/14

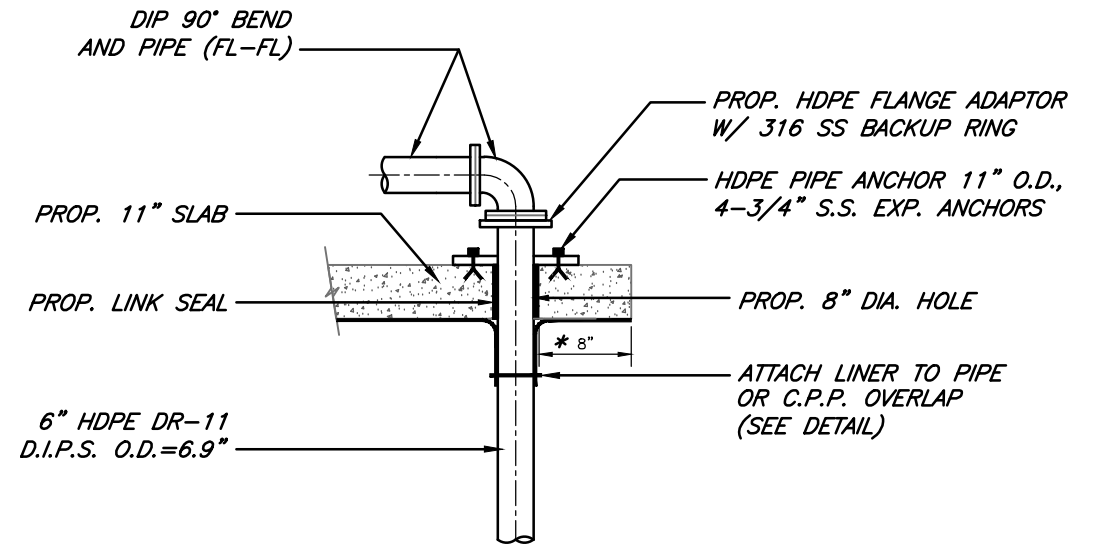
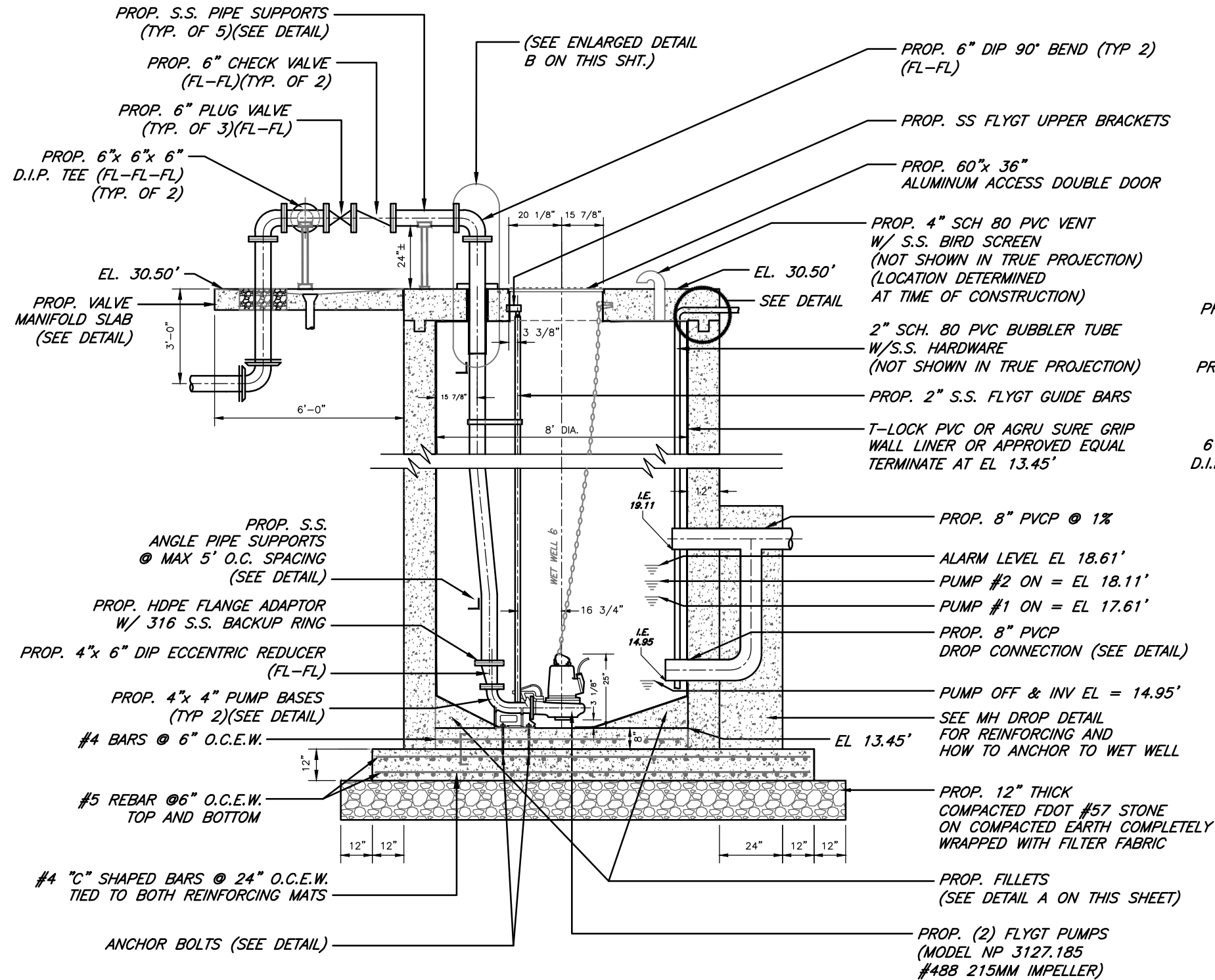
CITY of TAMPA
WASTEWATER DEPARTMENT

26TH ST. PUMPING STATION REHABILITATION
PLAN VIEW

W.O. 5979

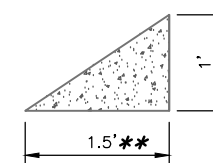
SHEET

8



DETAIL B
N.T.S.

DEFLECT HDPE PIPE OR
INSTALL FUSED BENDS TO
* ACHIEVE REQUIRED OFFSET



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

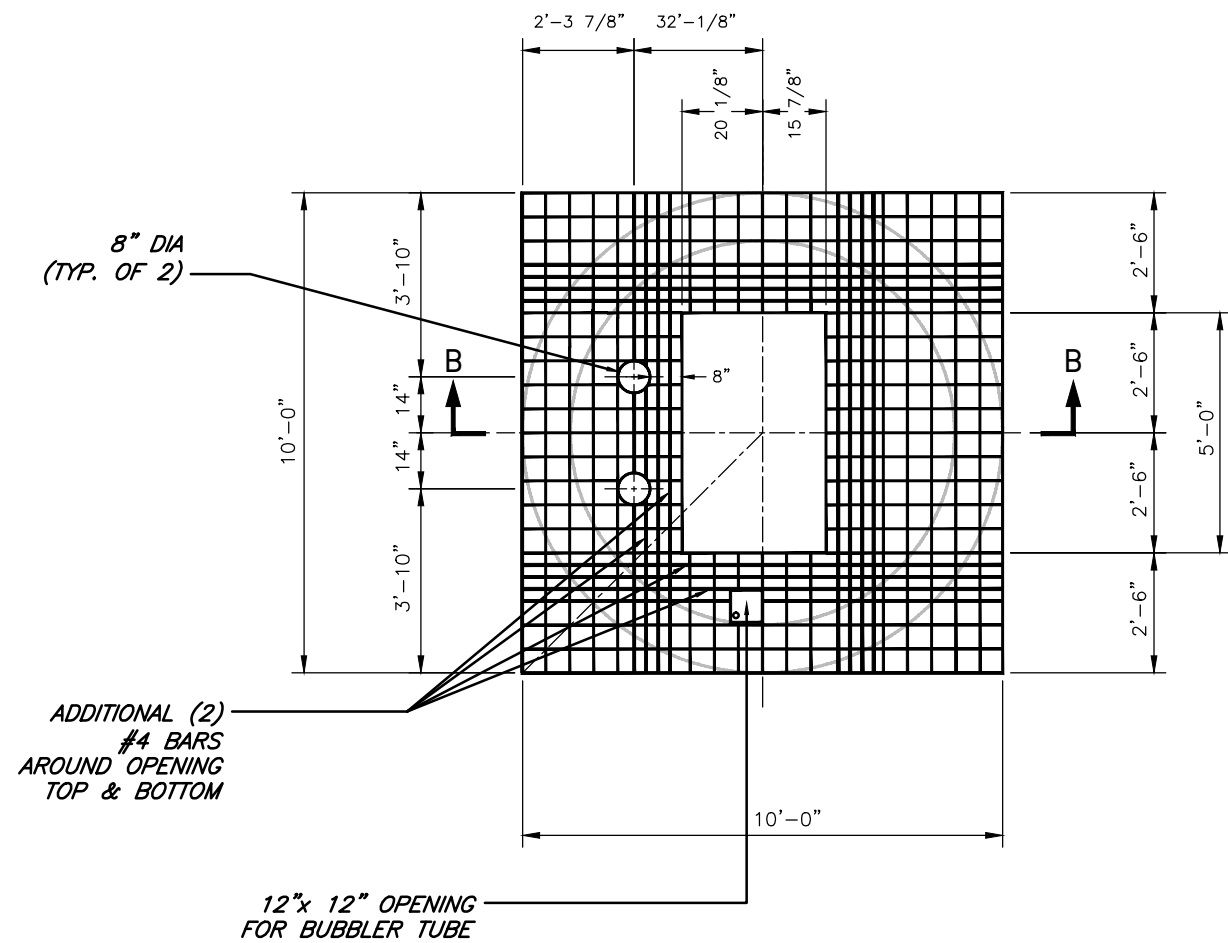
** REDUCE AT BUBBLER TUBE
AND INLET PIPE.

NOTE: FOR DIMENSION AND REINFORCING INFORMATION OF TOP SLAB
AND MANIFOLD SLAB, SEE PLAN VIEW AND SECTIONS
ON SHT. 10 AND SHT. 11.

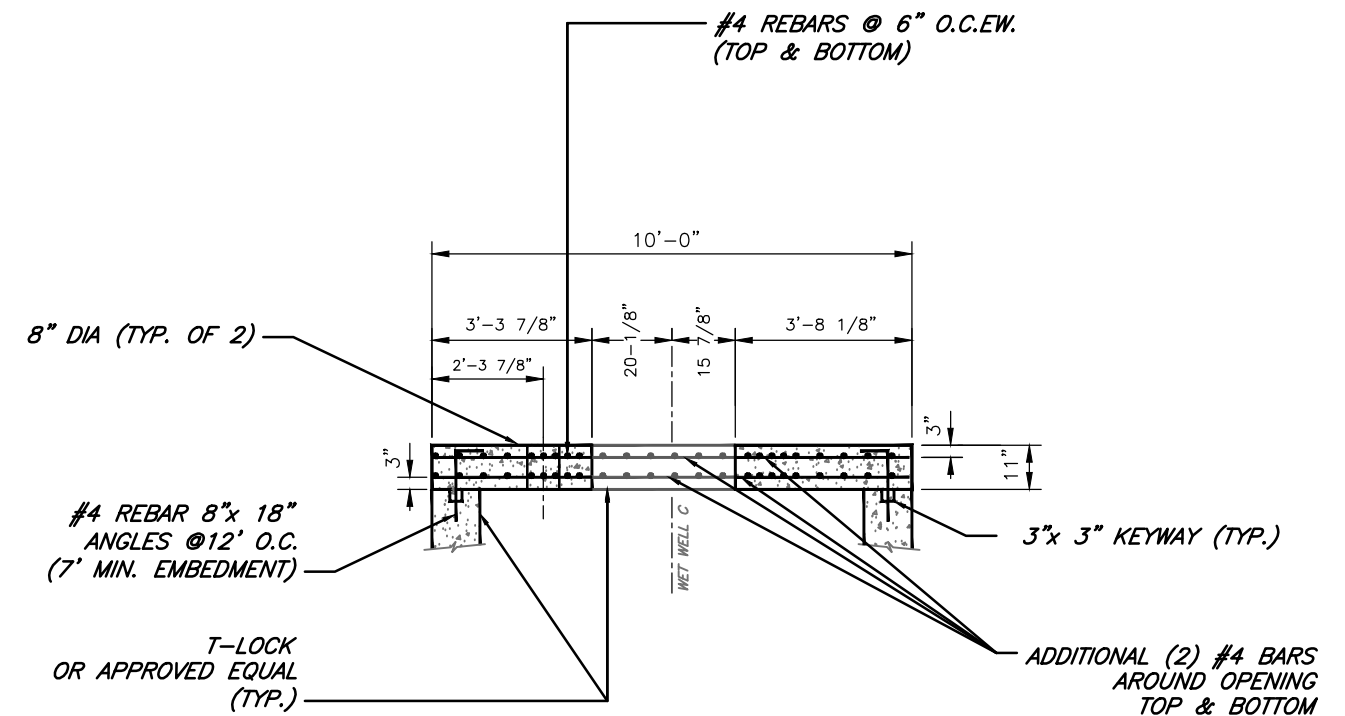
SECTION A-A
1/4" = 1'-0"

User: ss13 Drawing Name: K:\NWL_Projects\2014\2014_5979_26th St PS Rehabilitation\DWG\26th St PS Rehabilitation.dwg Layout: Jun 10, 2014 - 11:14am

JACINTO CARLOS FERRAS, P.E., #49454 DESIGN DIVISION HEAD WASTEWATER DEPARTMENT	No.	DATE	REVISIONS	DES: VT DRN: JHJ CKD: JF DATE: 5/30/14	CITY of TAMPA WASTEWATER DEPARTMENT	26TH ST. PUMPING STATION REHABILITATION SECTION A-A / DETAILS	W.O. 5979
	3						SHEET
	2						9
	1						



WET WELL TOP SLAB PLAN
1/4" = 1'-0"



WET WELL TOP SLAB SECTION B-B
1/4" = 1'-0"

User: ss13 Drawing Name: K:\WML Projects\2014\2014_5979_26th St. PS Rehabilitation\DWG\26th St. PS Rehabilitation.dwg Layout: Jun 10, 2014 - 11:14am

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DESIGN DIVISION HEAD
WASTEWATER DEPARTMENT

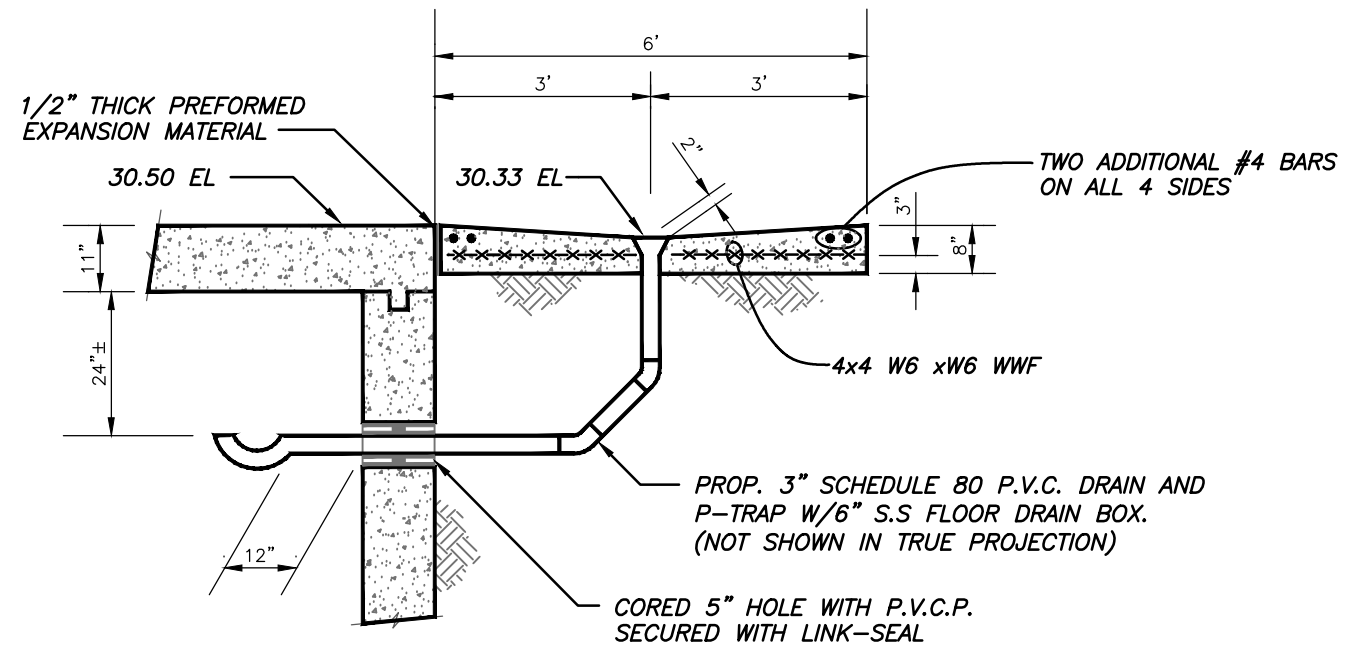
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DES: VT
DRN: JHJ
CKD: JF
DATE: 5/30/14

CITY of TAMPA
WASTEWATER DEPARTMENT

26TH ST. PUMPING STATION REHABILITATION
WET WELL TOP SLAB PLAN / SECTION B-B VIEW

W.O. 5979
SHEET
10



VALVE MANIFOLD SLAB SECTION

3/8" = 1'

NOTE: THICKNESS OF ALL CONC. SLABS SHALL BE AS SHOWN AND NOT LESS THAN 6".

User: ss13 Drawing Name: K:\M\Projects\2014\2014_5979_26th St PS Rehabilitation\DWG\26th St PS Rehabilitation.dwg Layout: Jun 03, 2014 - 3:58pm

JACINTO CARLOS FERRAS, P.E., #49454
DESIGN DIVISION HEAD
WASTEWATER DEPARTMENT

No.	DATE	REVISIONS
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CKD: JF
DATE: 5/30/14

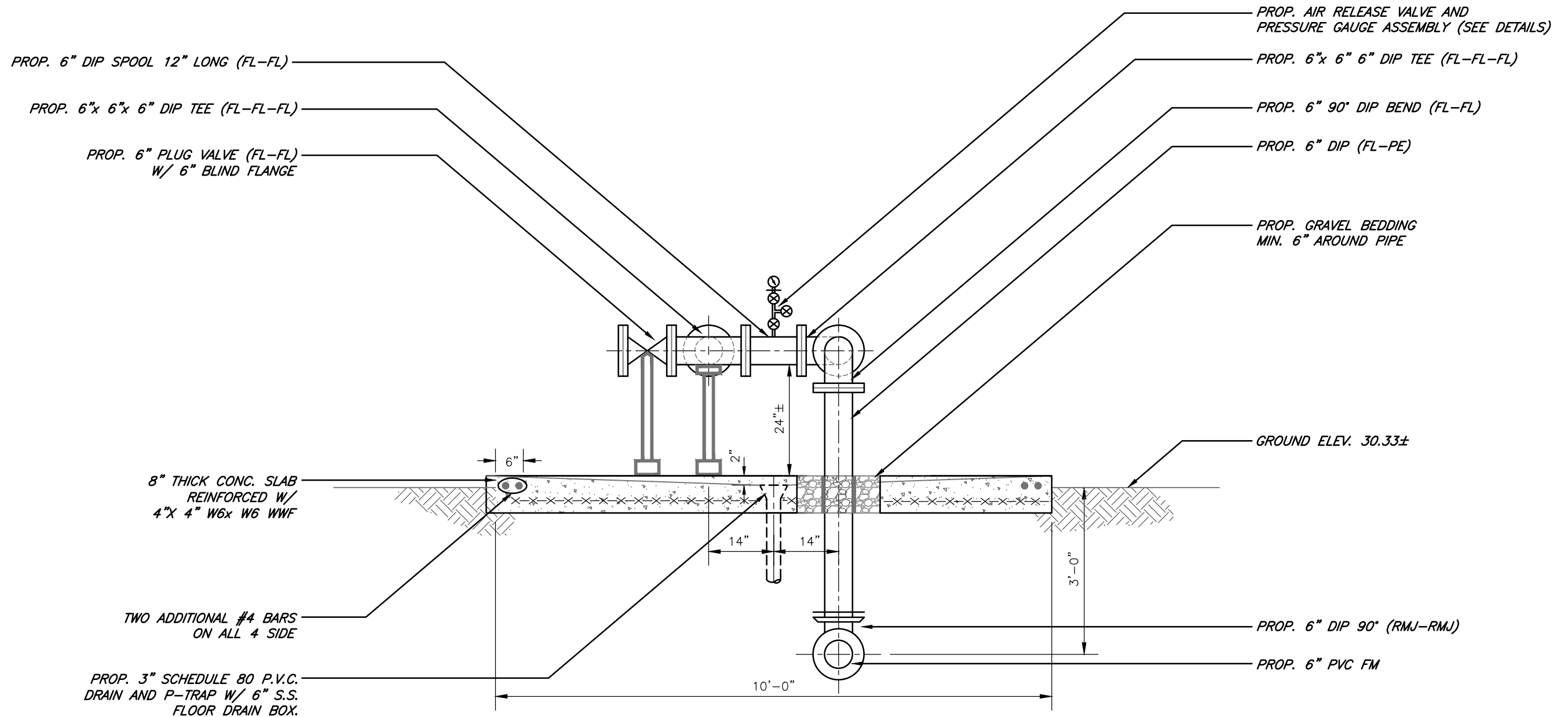
CITY of TAMPA
WASTEWATER DEPARTMENT

26TH ST. PUMPING STATION REHABILITATION
VALVE MANIFOLD SLAB

W.O. 5979

SHEET

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VALVE MANIFOLD SLAB SECTION J-J

SCALE: 1/2" = 1'

User: ss13 Drawing Name: K:\W\Projects\2014\2014_5979_26th St PS Rehabilitation\DWG\26th St PS Rehabilitation.dwg Layout: Jun 10, 2014 - 11:14am

JACINTO CARLOS FERRAS, P.E., #49454
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 WASTEWATER DEPARTMENT

No.	DATE	REVISIONS
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DES: VT
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 DATE: 5/30/14

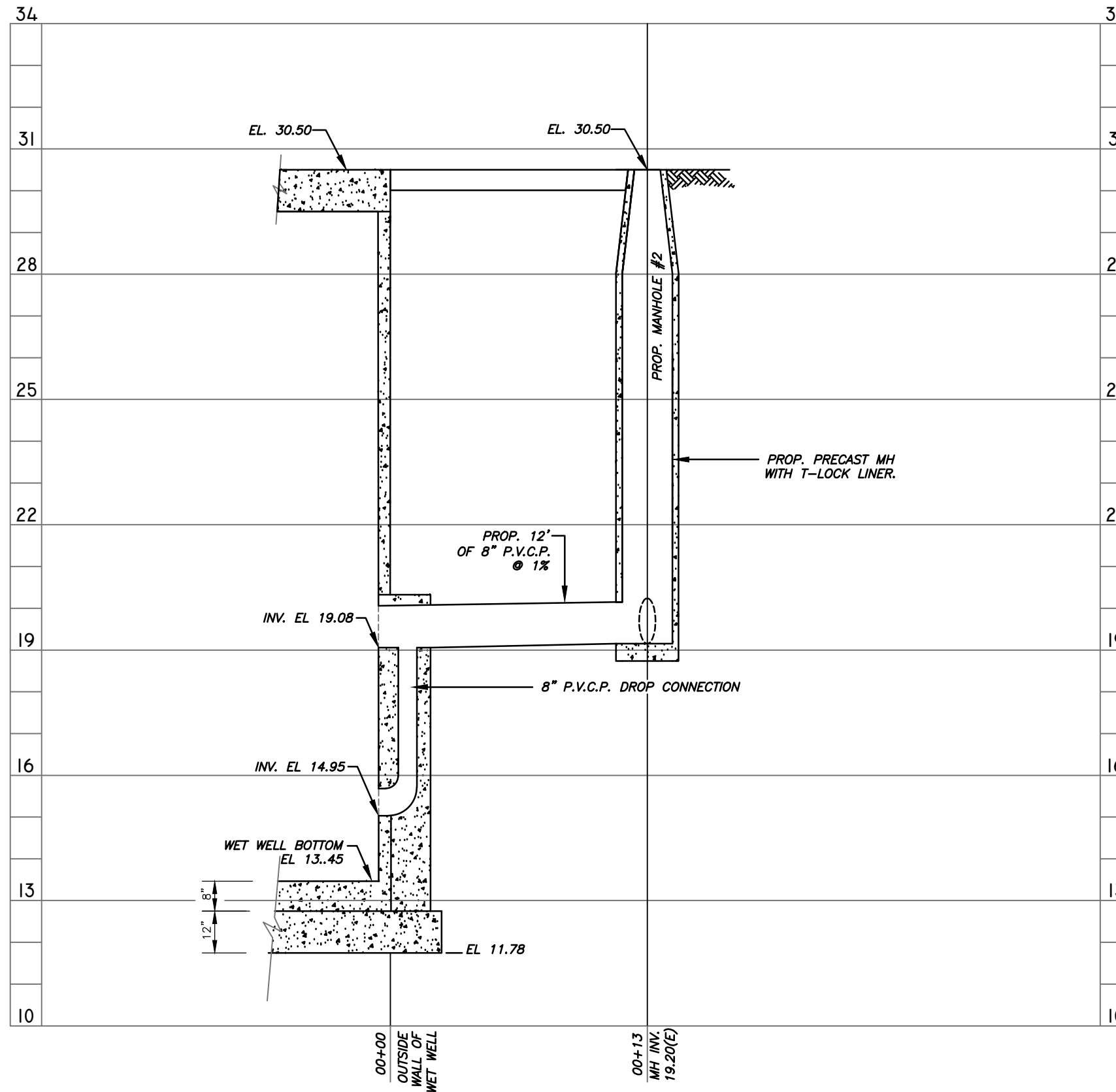
CITY of TAMPA
 WASTEWATER DEPARTMENT

26TH ST. PUMPING STATION REHABILITATION
 VALVE MANIFOLD SLAB SECTION J-J

W.O. 5979

SHEET

12



M.H. #2
 STA. 0+13
 PROP. DOG-HOUSE MANHOLE
 TOP EL = 30.50'
 INV EL = 19.20'(E)
 INV EL = 19.27(S)
 FILL 8" CIP (NORTH) WITH GROUT.
 AFTER ACCEPTANCE OF NEW PUMP STATION,
 SEAL NORTH OPENING WITH CONCRETE AND
 RECONSTRUCT MANHOLE BENCH TO ACCOMMODATE
 NEW FLOW DIRECTION.

PROPOSED PROFILE

1" = 5' HORIZ.
 1" = 3' VERT.

User: ss13 Drawing Name: K:\MFL Projects\2014\2014_5979_26th St PS Rehabilitation\DWG\26th St PS Rehabilitation.dwg Layout: Jun 10, 2014 - 11:14am

JACINTO CARLOS FERRAS, P.E., #49454
 DESIGN DIVISION HEAD
 WASTEWATER DEPARTMENT

No.	DATE	REVISIONS
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DES: VT
 DRN: JHJ
 CKD: JF
 DATE: 5/30/14

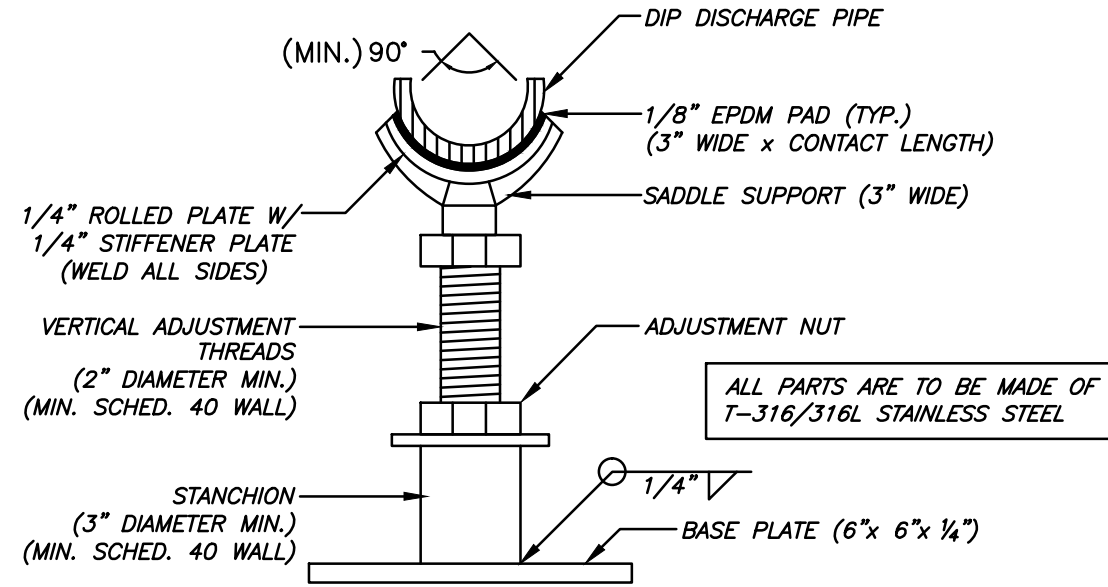
CITY of TAMPA
 WASTEWATER DEPARTMENT

26TH ST. PUMPING STATION REHABILITATION
 PROPOSED PROFILE

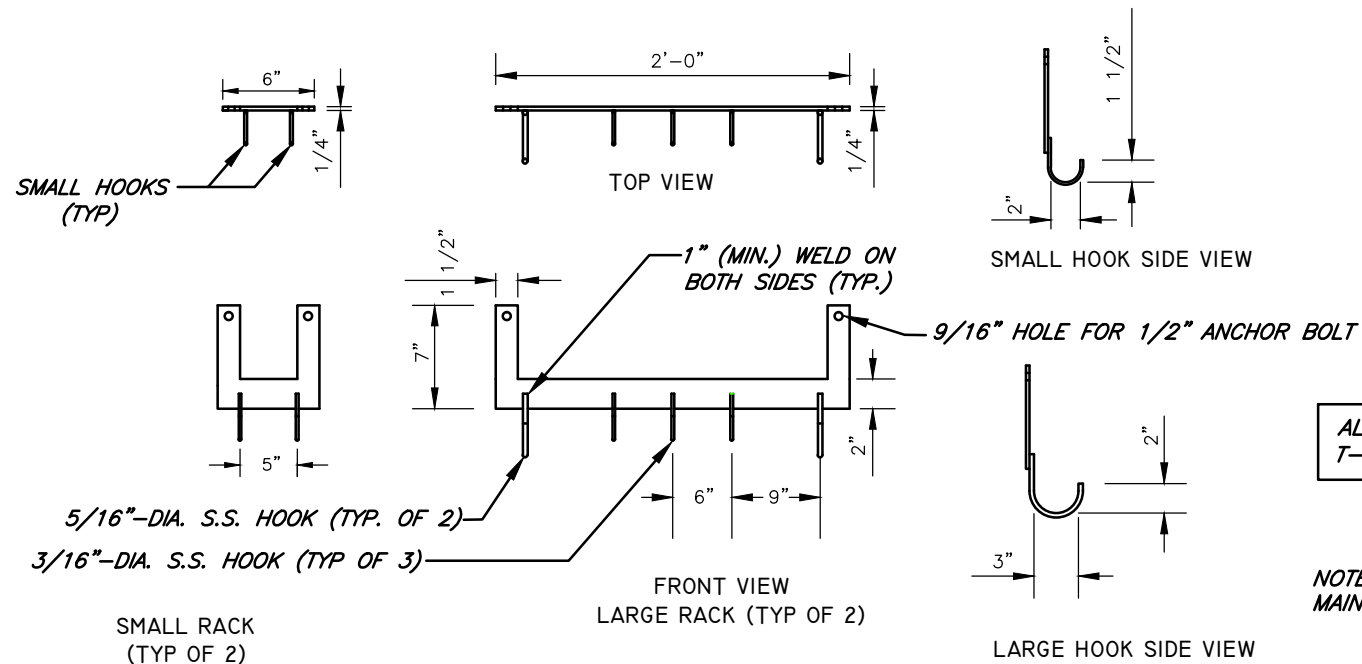
W.O. 5979

SHEET

13



SECTION VIEW - STAINLESS STEEL STANCHION SADDLE SUPPORT
N.T.S.



DETAIL "E" PROP. STAINLESS STEEL HOOK RACKS
N.T.S.

ALL PARTS ARE TO BE MADE OF
T-316/316L STAINLESS STEEL

NOTE: INSTALL FLOATS IN A MANNER TO
MAINTAIN PROPER OPERATIONAL CLEARANCE.

User: ss13 Drawing Name: K:\W\Projects\2014\2014_5979_26th St PS Rehabilitation\DWG\26th St PS Rehabilitation.dwg Layout: Jun 10, 2014 - 11:46am

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WASTEWATER DEPARTMENT

No.	DATE	REVISIONS
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DES: VT
DRN: JHJ
CKD: JF
DATE: 5/30/14

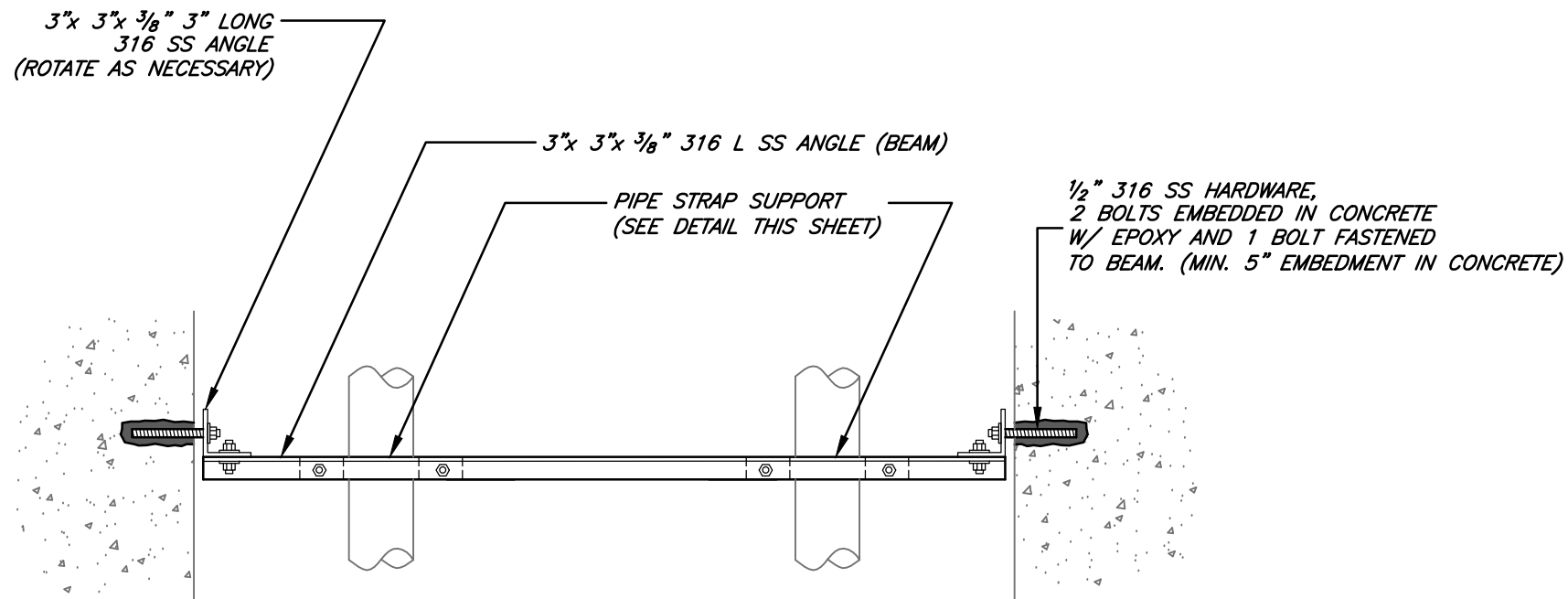
CITY of TAMPA
WASTEWATER DEPARTMENT

26TH ST. PUMPING STATION REHABILITATION
PIPE SUPPORT AND HOOK RACK DETAILS

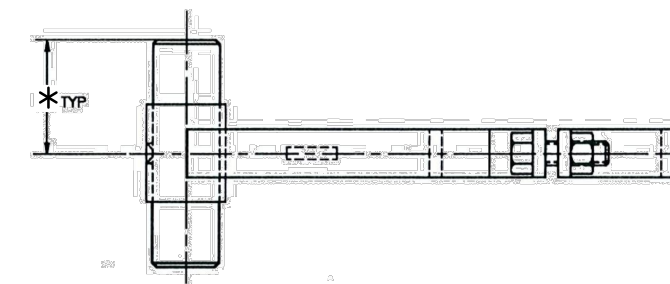
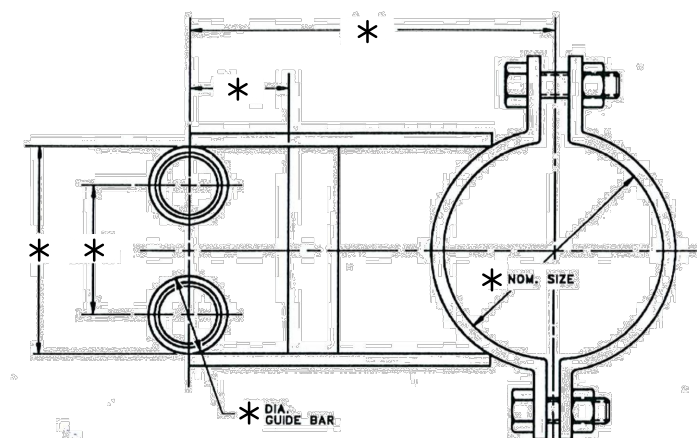
W.O. 5979

SHEET

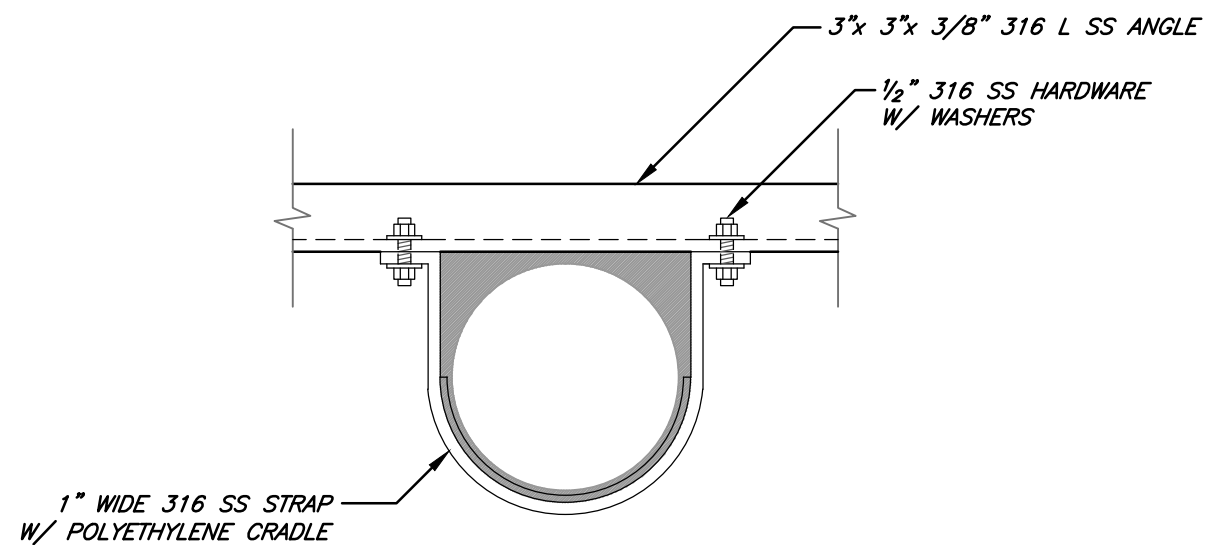
14



PIPE SUPPORT ASSEMBLY
N.T.S.



INTERMEDIATE GUIDE BAR BRACKETS
N.T.S.



PIPE STRAP SUPPORT
N.T.S.

* PER PUMP MANUFACTURER'S RECOMMENDATION

User: ss13 Drawing Name: K:\M\Projects\2014\2014_5979_26th St PS Rehabilitation\DWG\26th St PS Rehabilitation.dwg Layout: Jun 10, 2014 - 11:14am

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DESIGN DIVISION HEAD
WASTEWATER DEPARTMENT

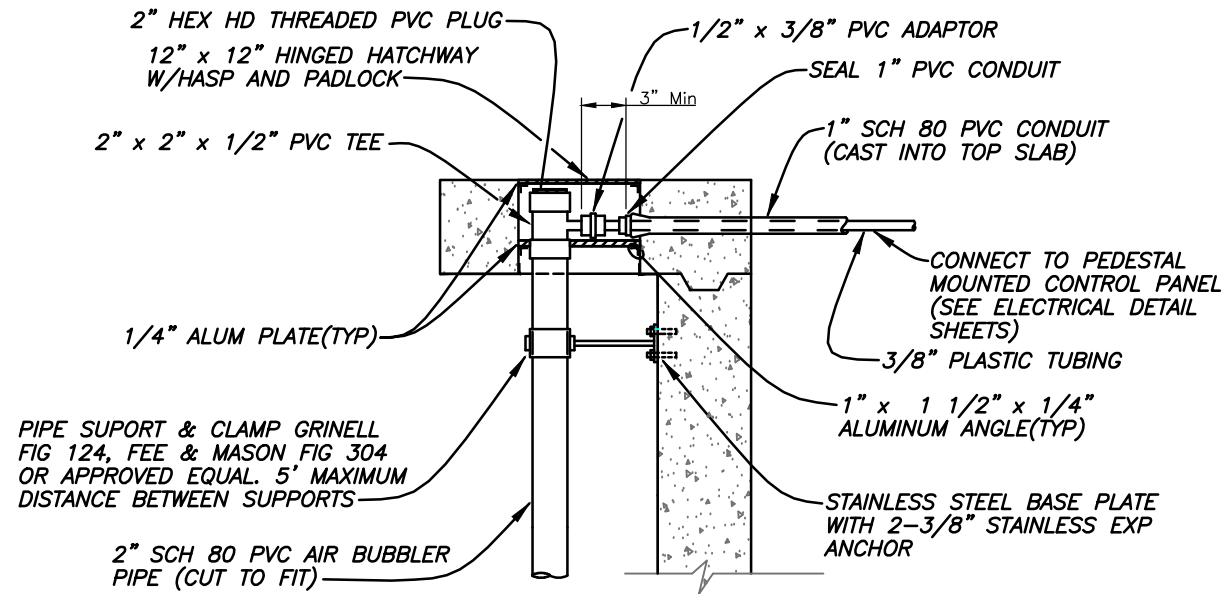
No.	DATE	REVISIONS
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DES: VT
DRN: JHJ
CKD: JF
DATE: 5/30/14

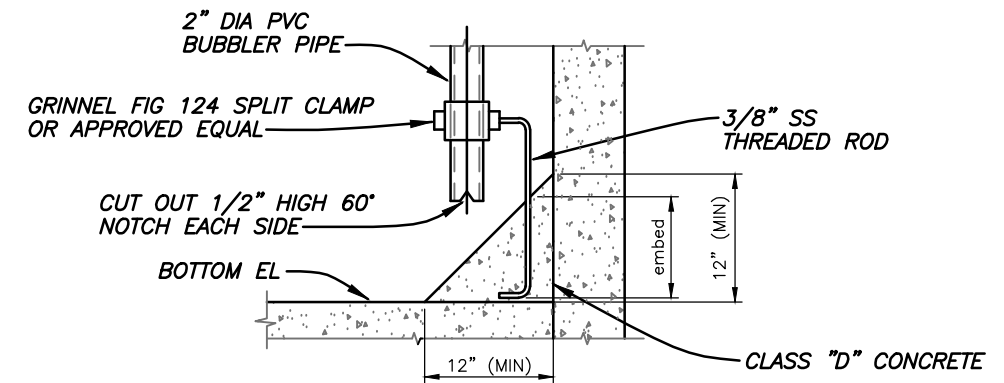
CITY of TAMPA
WASTEWATER DEPARTMENT

McBERRY PUMPING STATION REHABILITATION
DETAILS (I)

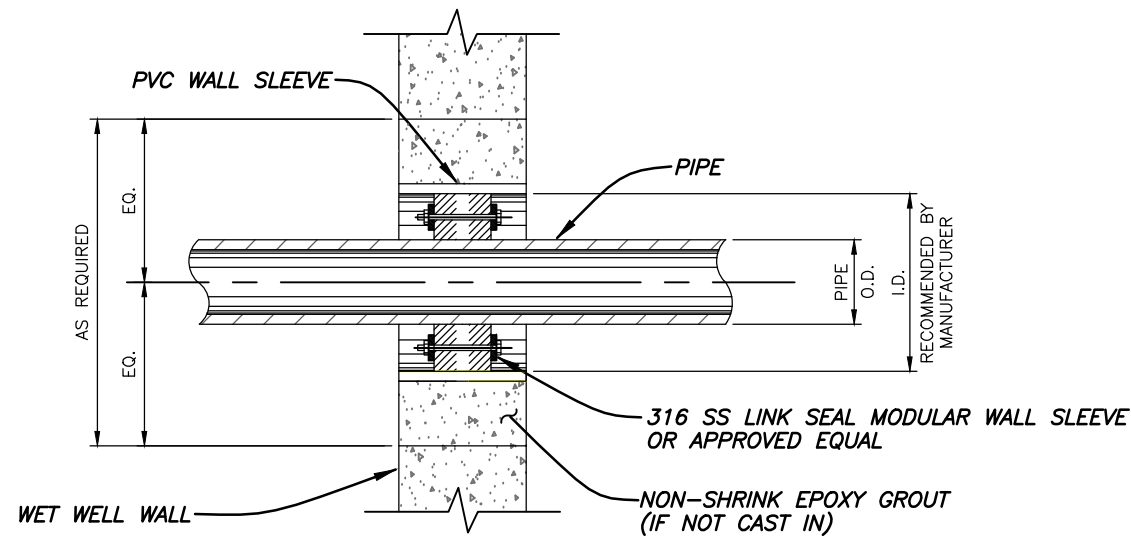
W.O. 5979
SHEET
15



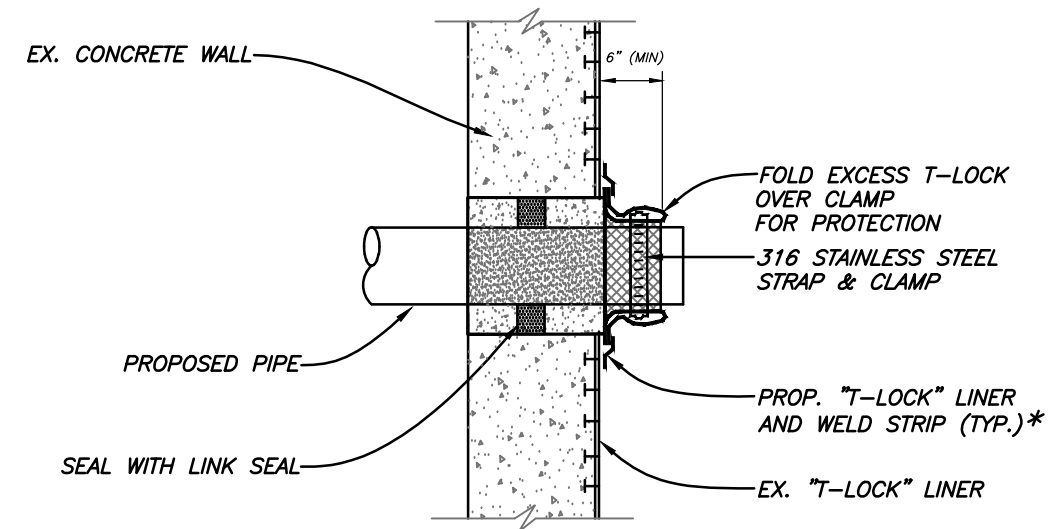
BUBBLER DETAIL
N.T.S.



BUBBLER DETAIL
N.T.S.



LINK SEAL DETAIL
N.T.S.



PIPE TO LINED STRUCTURE
N.T.S.

*ALTERNATIVE: CONTRACTOR MAY COAT WITH 125 MILS C.P.P. AND OVERLAP EXISTING T-LOCK BY 3".

User: ss13 Drawing Name: K:\M\Projects\2014\2014_5979_26th St. PS Rehabilitation\DWG\26th St. PS Rehabilitation.dwg Layout: Jun 10, 2014 - 11:14am

JACINTO CARLOS FERRAS, P.E., #49454
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WASTEWATER DEPARTMENT

No.	DATE	REVISIONS
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DES: VT
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CKD: JF
DATE: 5/30/14

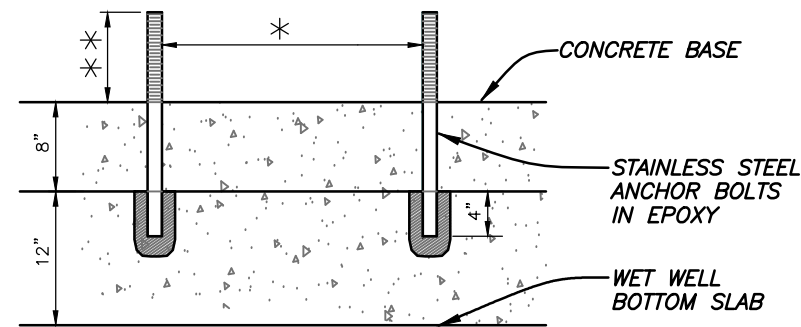
CITY of TAMPA
WASTEWATER DEPARTMENT

26TH ST. PUMPING STATION REHABILITATION
DETAILS (2)

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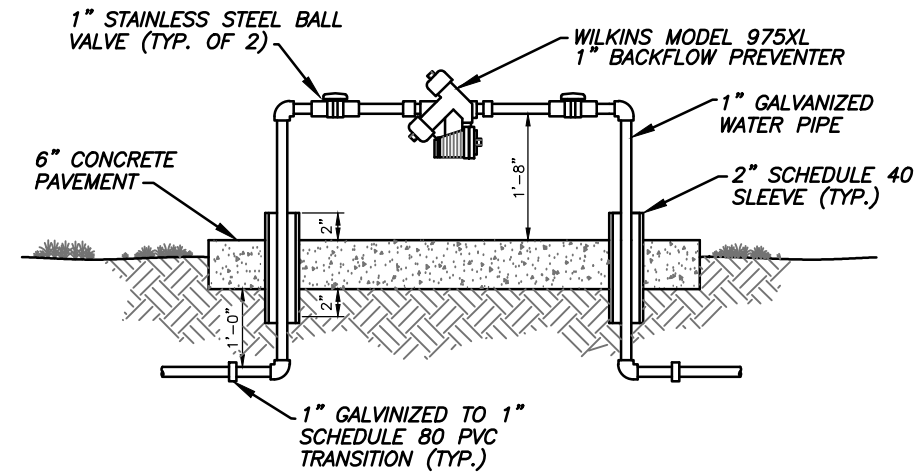
SHEET

16



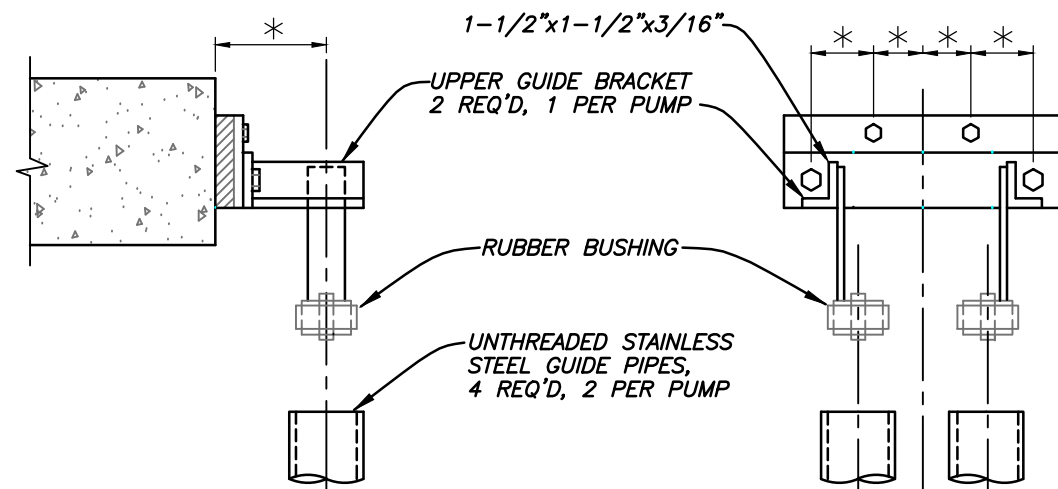
- * ALIGNMENT OF ANCHOR BOLTS SHALL BE AS RECOMMENDED BY PUMP MANUFACTURER.
- ** CONTRACTOR SHALL PROVIDE A MINIMUM 1/2 INCH BOLT PROTRUSION ABOVE THE FINAL NUT LOCATION AFTER THE NUT IS TIGHTENED TO MANUFACTURER'S RECOMMENDATION.

ANCHOR BOLT DETAIL
N.T.S.

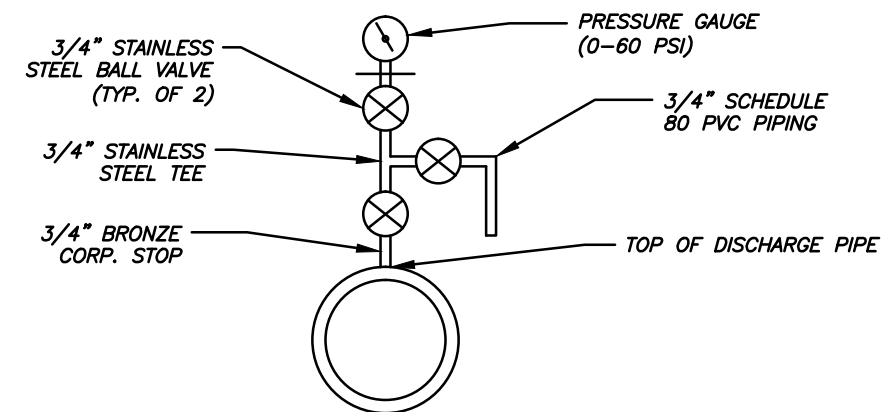


BACKFLOW PREVENTER DETAIL
N.T.S.

* PER PUMP MANUFACTURER'S RECOMENDATION



GUIDE BRACKET DETAIL (SUPPLIED WITH PUMPS)
N.T.S.

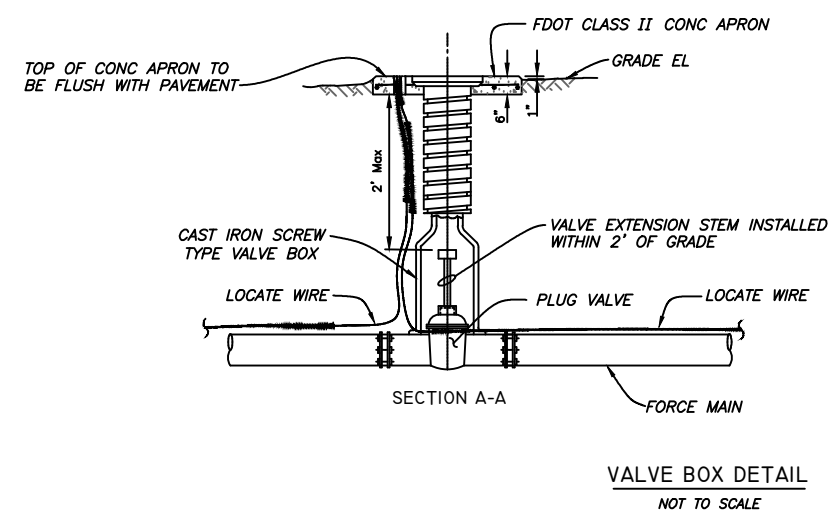


AIR RELEASE AND PRESSURE GAUGE
N.T.S.

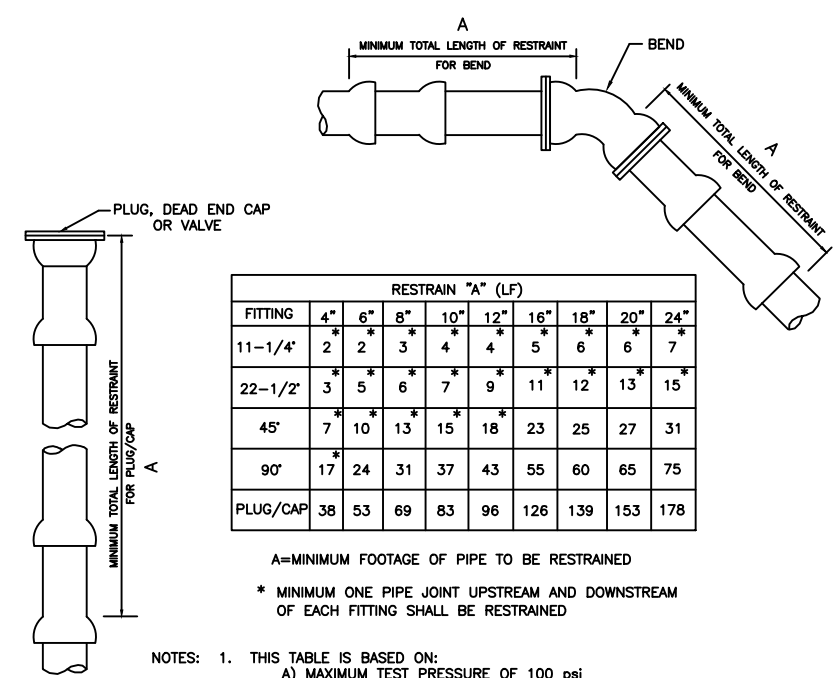
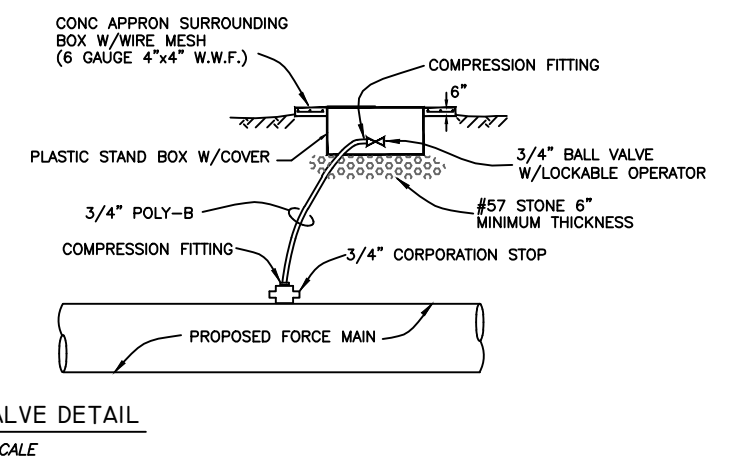
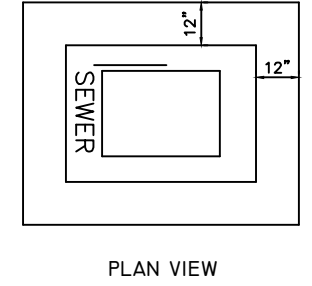
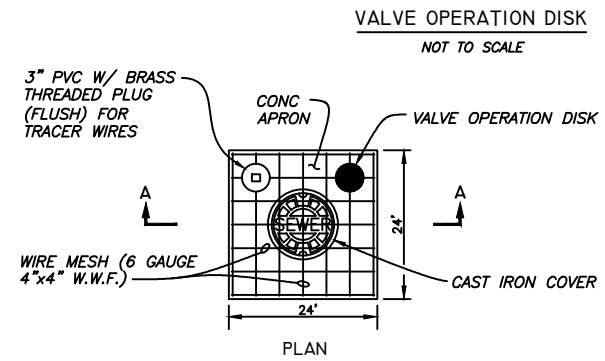
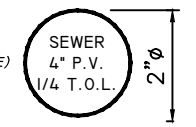
CONTRACTOR SHALL TAP AND DRILL ONE 3/4" CORPORATION STOP WITH AIR RELEASE VALVE AND PRESSURE GAUGE ASSEMBLY. PVC PIPE AND FITTINGS SHALL BE PROVIDED TO DIRECT FLOW FROM THE BALL VALVE DOWNWARD TO THE FLOOR DRAIN.

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JACINTO CARLOS FERRAS, P.E., #49454 DESIGN DIVISION HEAD WASTEWATER DEPARTMENT	No.	DATE	REVISIONS	DES: VT DRN: JHJ CKD: JF DATE: 5/30/14	CITY of TAMPA WASTEWATER DEPARTMENT	26TH ST. PUMPING STATION REHABILITATION DETAILS (3)	W.O. 5979
	3						SHEET
	2						17
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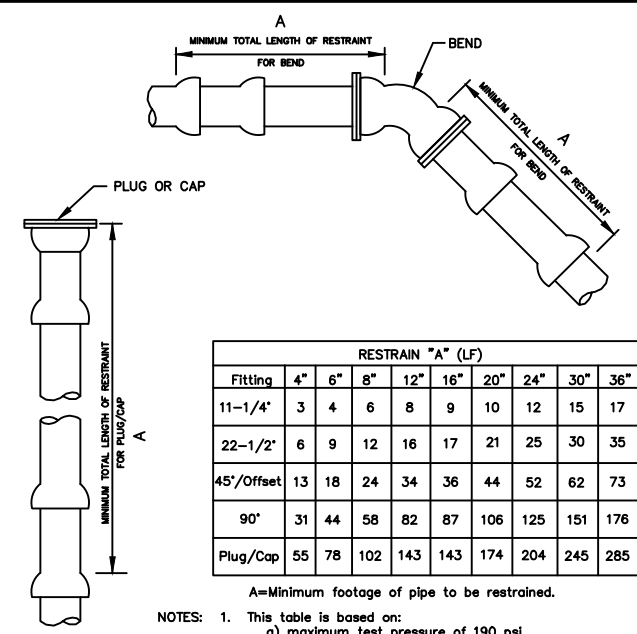


IMPORTANT - FOR EACH OPERABLE VALVE:
 PROVIDE A BRASS IDENTIFICATION TAG ANCHORED TO THE CONCRETE APRON THAT IS A MINIMUM 2" IN DIAMETER AND 1/8" THICK. THE TAG SHALL BE ENGRAVED WITH 'SEWER', SIZE OF VALVE, TYPE OF VALVE, AND DIRECTION AND NUMBER OF TURNS TO OPEN.
 FOR EXAMPLE, A 4-INCH PLUG VALVE ON A WASTEWATER FORCE MAIN THAT REQUIRES 1/4 TURNS TO THE LEFT (COUNTERCLOCKWISE) TO BE FULLY OPEN WOULD REQUIRE THE FOLLOWING ON AN IDENTIFICATION TAG:



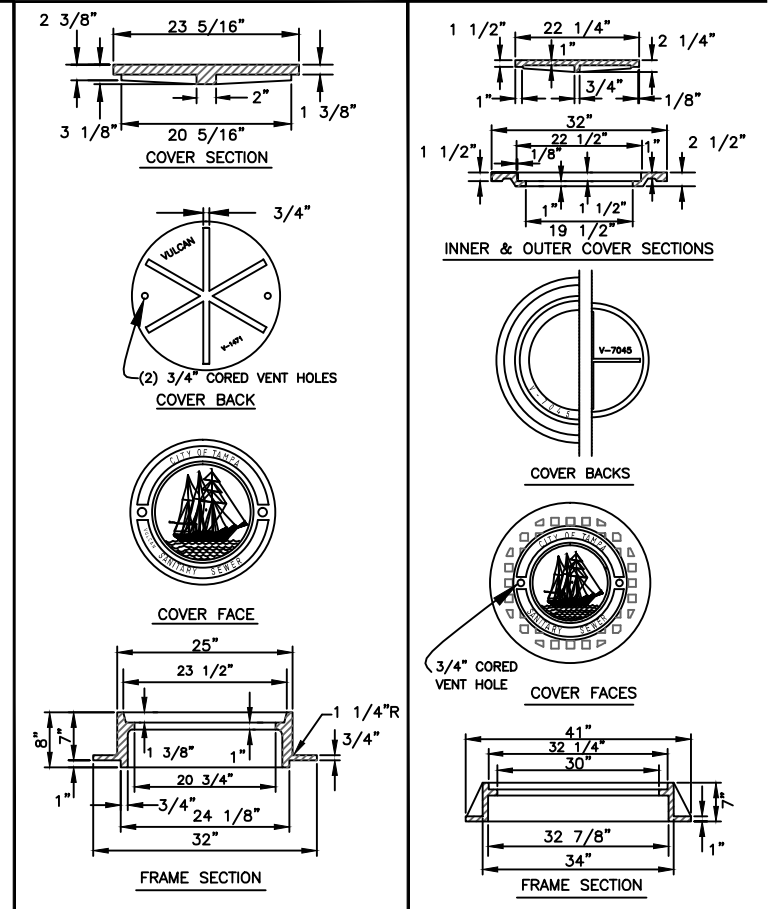
- NOTES:
- THIS TABLE IS BASED ON:
 - A) MAXIMUM TEST PRESSURE OF 100 PSI
 - B) LAYING CONDITION CLASS 'C'
 - C) POOR SOIL CONDITIONS
 - D) HORIZONTAL BENDS ONLY (SEE NOTE 2)
 - E) USING PVC
 - RESTRAINED LENGTHS FOR VERTICAL BENDS AND TEES ARE TO BE DETERMINED ON A CASE BY CASE BASIS, AND SPECIFIED ON THE DESIGN PLANS.
 - RESTRAINING DEVICES FOR PVC PIPE SHALL BE BY MEGALUG OR EQUAL, MEETING UNI-B-13.
 - ANY ADDITIONAL FITTINGS WITHIN THE RESTRAINED SECTION SHALL BE RESTRAINED ACCORDINGLY.

FITTING RESTRAINT DETAIL
 (AWWA C900/C905 PVC PIPE)



- NOTES:
- This table is based on:
 - a) maximum test pressure of 190 psi
 - b) laying condition type 2 (see Details 2.01 and 2.02)
 - c) poor soil conditions
 - d) using D.I.P.
 - e) 3 feet of cover for 12" and smaller mains; 4 feet of cover for 16" and larger mains
 - f) Horizontal bends only - Engineer to submit calculations for vertical restraints
 - For polywrapped D.I.P., multiply the footage by 1.25
 - For PVC pipe, multiply footage by 1.2
 - Restrained pipe shall be manufactured restrained pipe, push-on restraints or mechanical joint pipe restrained by Megalug or equivalent.
 - Any additional fittings within the restrained section shall be restrained accordingly.

WATER PIPE RESTRAINT DETAIL



FOR MH'S OF SEWERS 24" OR LESS IN DIAMETER: VULCAN FOUNDRY NO. V-1471, U.S. FOUNDRY NO. 575-AT, OR EQUAL
 FOR MH'S OF SEWERS 27" OR GREATER IN DIAMETER: VULCAN FOUNDRY NO. V-7045, U.S. FOUNDRY NO. 230-AB-M, OR EQUAL

HEAVY DUTY CAST IRON MANHOLE FRAME & COVER DETAILS

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JACINTO CARLOS FERRAS, P.E., #49454
 DESIGN DIVISION HEAD
 WASTEWATER DEPARTMENT

No.	DATE	REVISIONS
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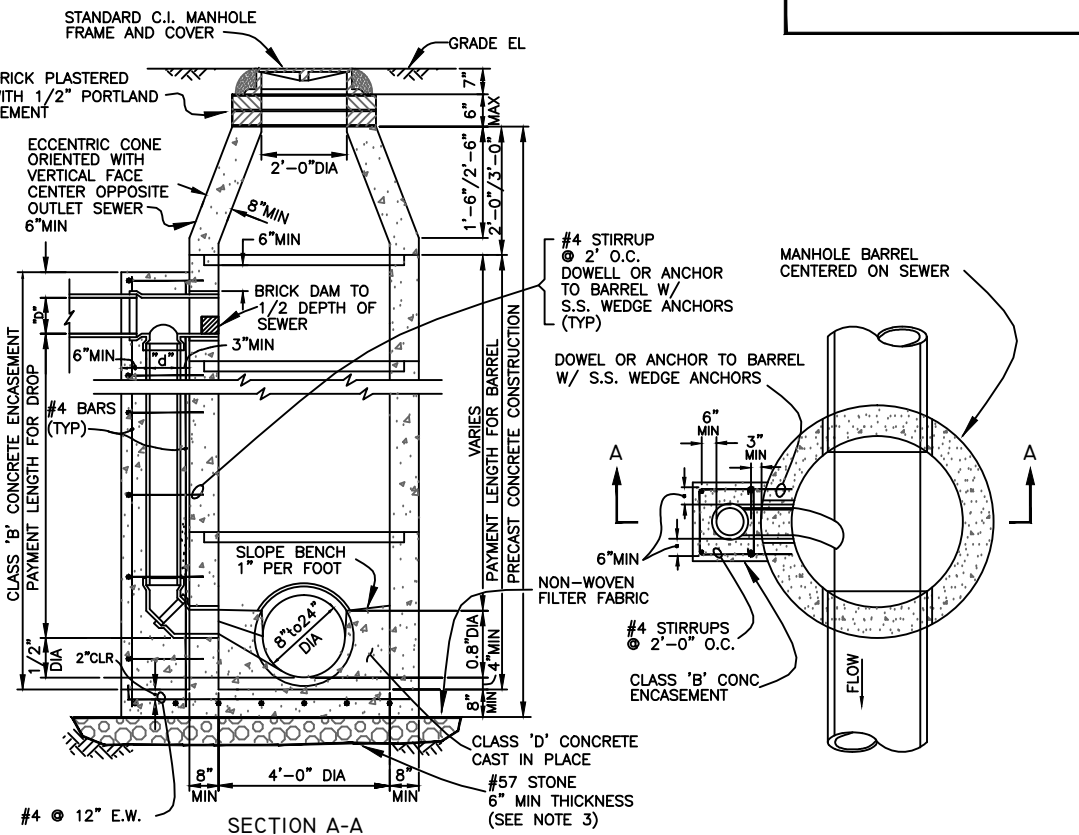
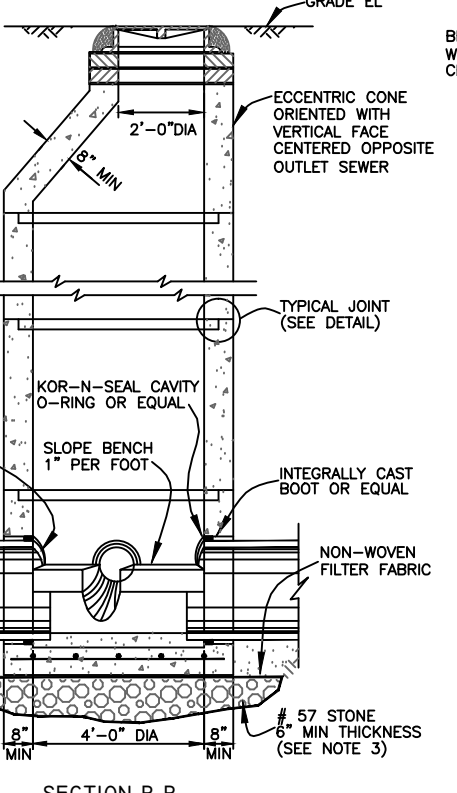
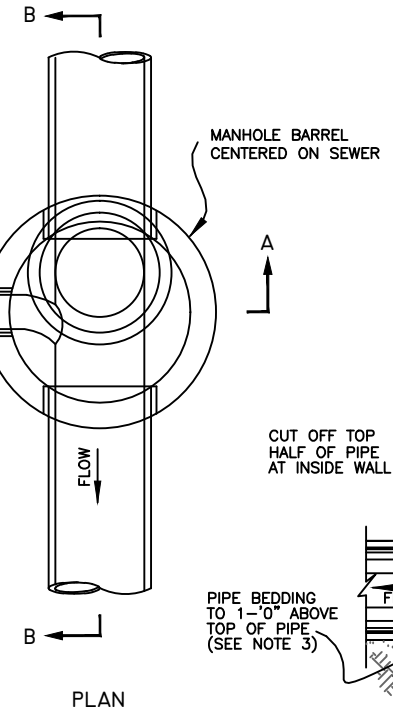
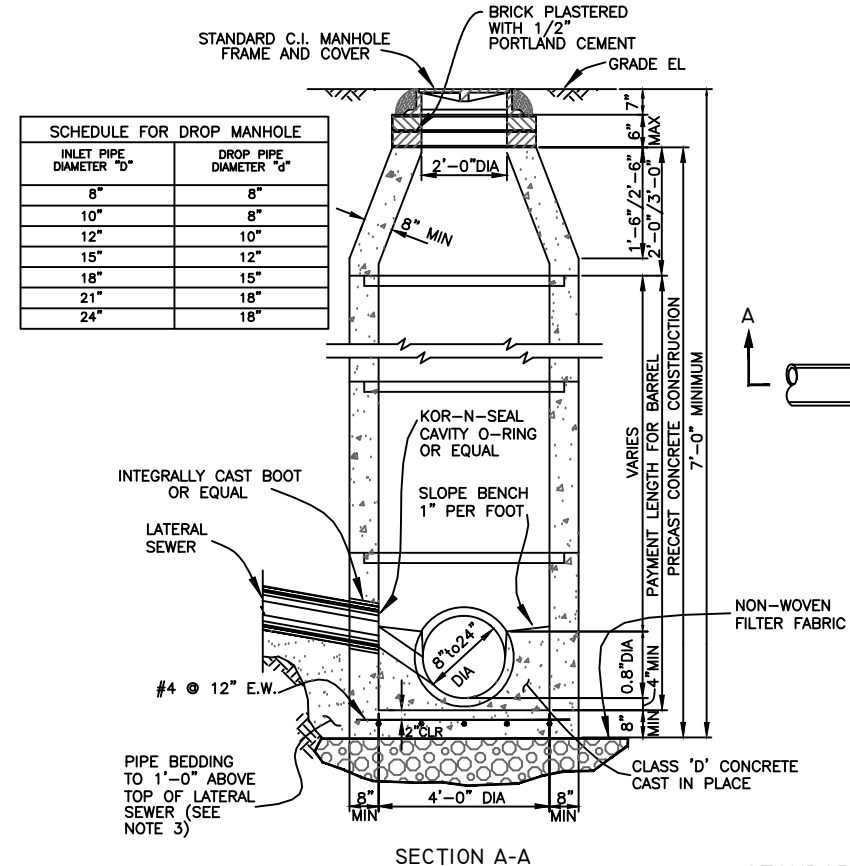
CITY of TAMPA
 WASTEWATER DEPARTMENT

26TH ST. PUMPING STATION REHABILITATION
 DETAILS (4)

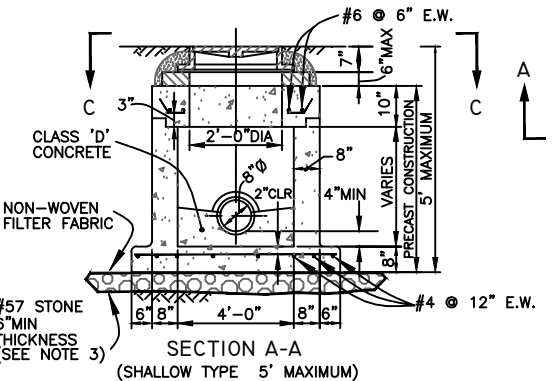
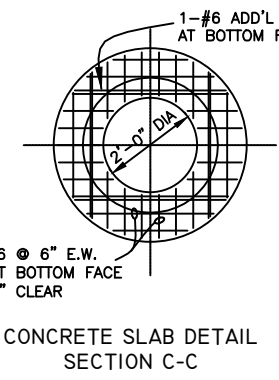
W.O. 5979

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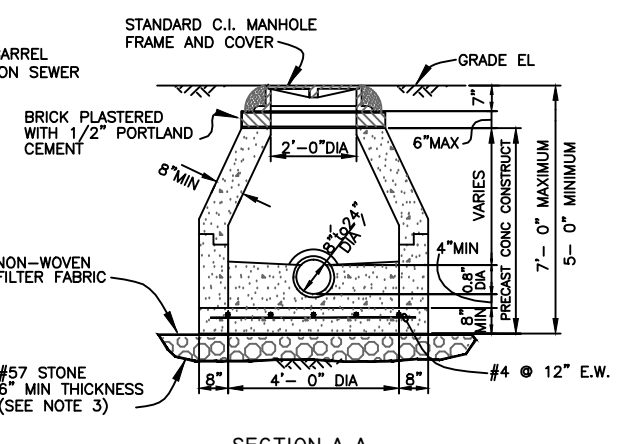
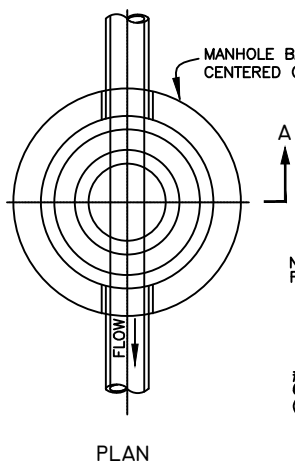
18



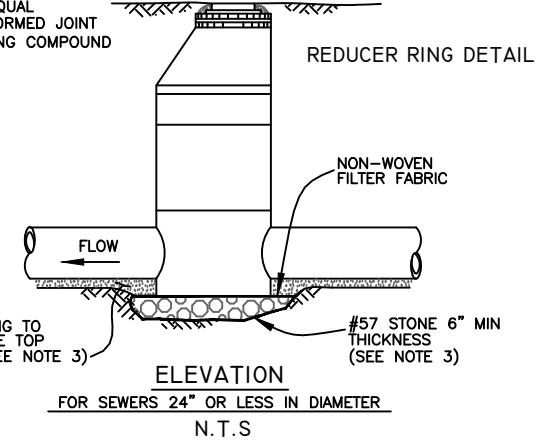
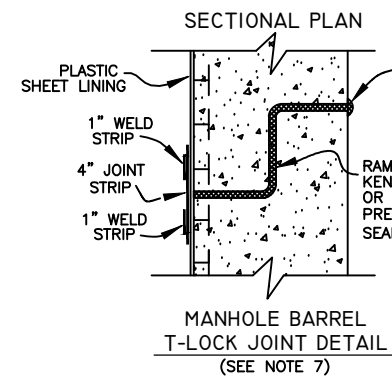
STANDARD DROP MANHOLE
FOR SEWERS 24" OR LESS IN DIAMETER
N.T.S



STANDARD MANHOLE - SHALLOW TYPE
FOR SEWERS 24" OR LESS IN DIAMETER
N.T.S



SECTION A-A
5'-0" TO 7'-0" DEEP
(SEE NOTE 4)



STANDARD MANHOLE - DEEP TYPE
FOR SEWERS 24" OR LESS IN DIAMETER
N.T.S

NOTES

1. REINFORCING STEEL FOR ALL MANHOLES SHALL CONFORM TO ASTM-C478 AND PLACED AS DESCRIBED IN THE SPECIFICATIONS.
2. ALL PIPE STUBS FROM MANHOLES FOR FUTURE CONNECTIONS OR OTHER CONTRACT DIVISIONS SHALL BE PROVIDED WITH WATER TIGHT PLUGS PLACED FROM WITHIN THE MANHOLE.
3. SEE SPECIFICATIONS FOR MATERIALS REQUIREMENTS AND PLACEMENTS AND COMPACTION OF PIPE AND STRUCTURE BEDDING.
4. STANDARD SHALLOW-TYPE MANHOLES WITH DEPTHS BETWEEN A MAXIMUM OF 7'-0" AND A MINIMUM OF 5'-0" MUST HAVE A CONCRETE CONE FOR THE TOP SECTION.
5. ALL MANHOLE JOINTS MUST BE SEALED WITH AN ACCEPTABLE JOINT SEALING COMPOUND REGARDLESS OF WHETHER AN O-RING GASKET IN A PREFORMED GROOVE IS USED.
6. FILTER FABRIC SHALL BE NON-WOVEN FABRIC PER D.O.T. SPECIFICATION SECTIONS 514 AND 985 AND SHALL BE WRAPPED ENTIRELY AROUND THE #57 STONE.
7. PLASTIC SHEET LINER SHALL BE "T-LOCK" BY AMERON INTERNATIONAL OR APPROVED EQUAL.

MANHOLE SHALL BE "T-LOCK" LINED

No.	DATE	REVISIONS
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1		

DES: VT
DRN: JHJ
CKD: JF
DATE: 5/30/14

CITY of TAMPA
WASTEWATER DEPARTMENT

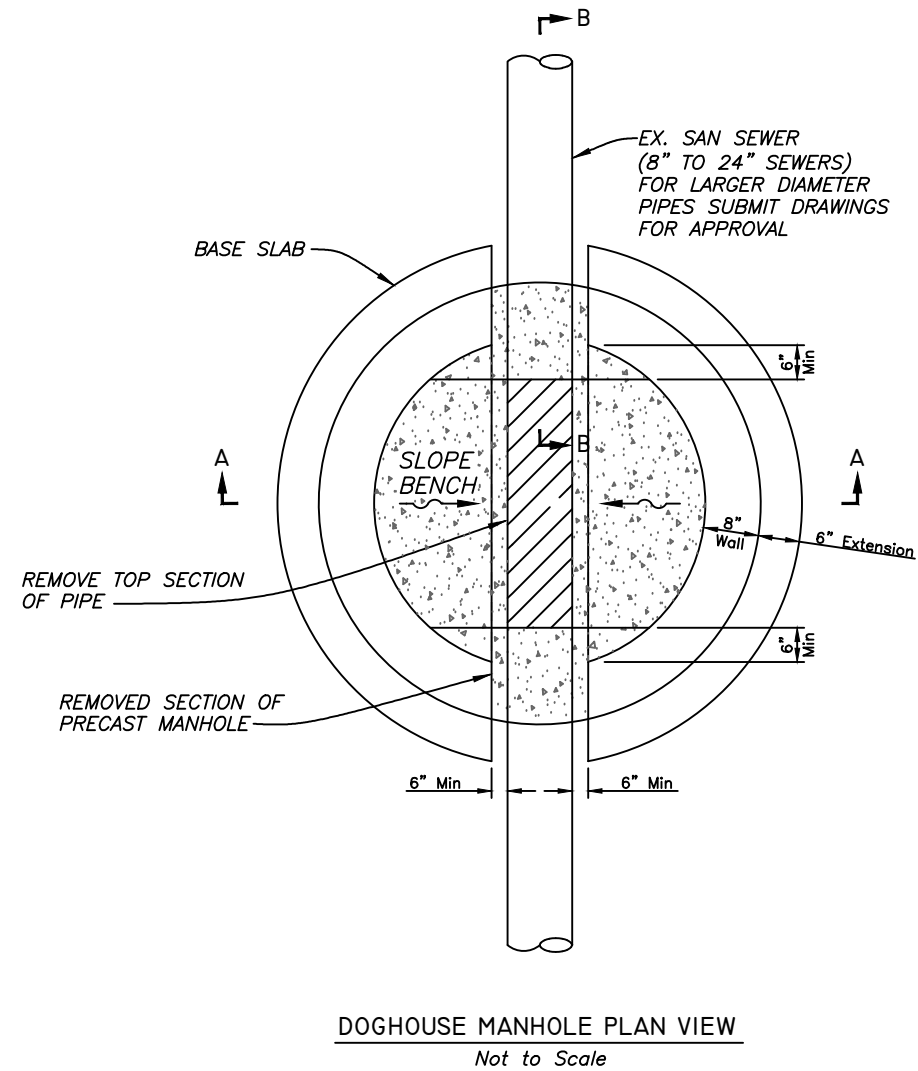
26TH ST. PUMPING STATION REHABILITATION
MANHOLE DETAILS

W.O. 5979

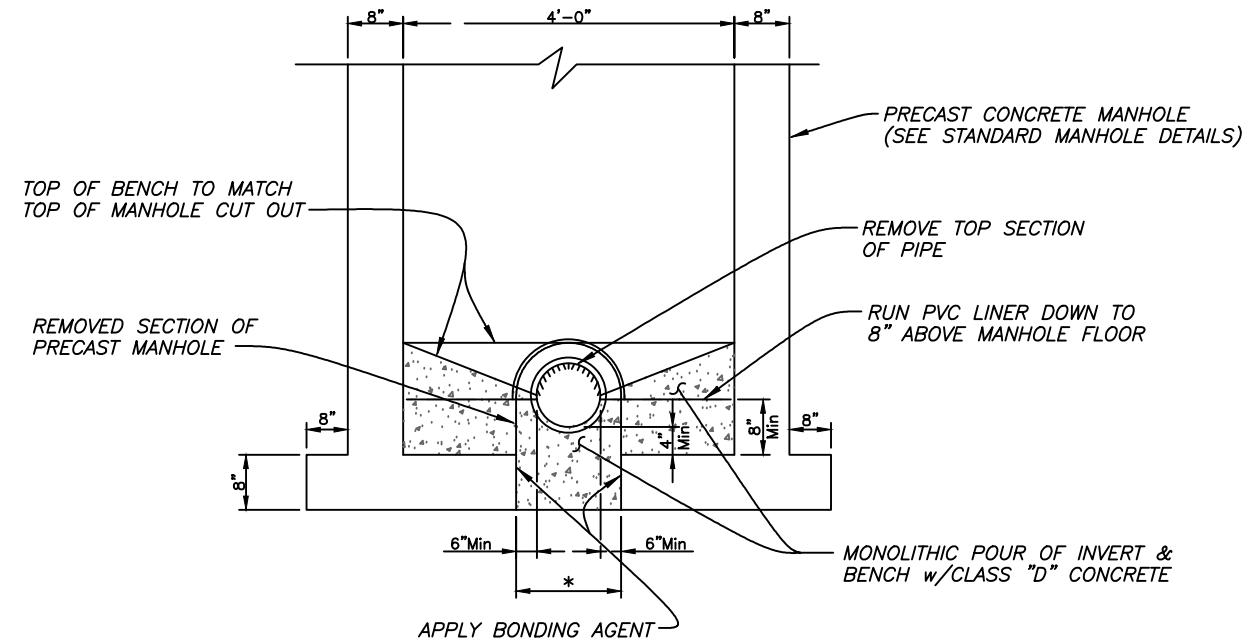
SHEET

19

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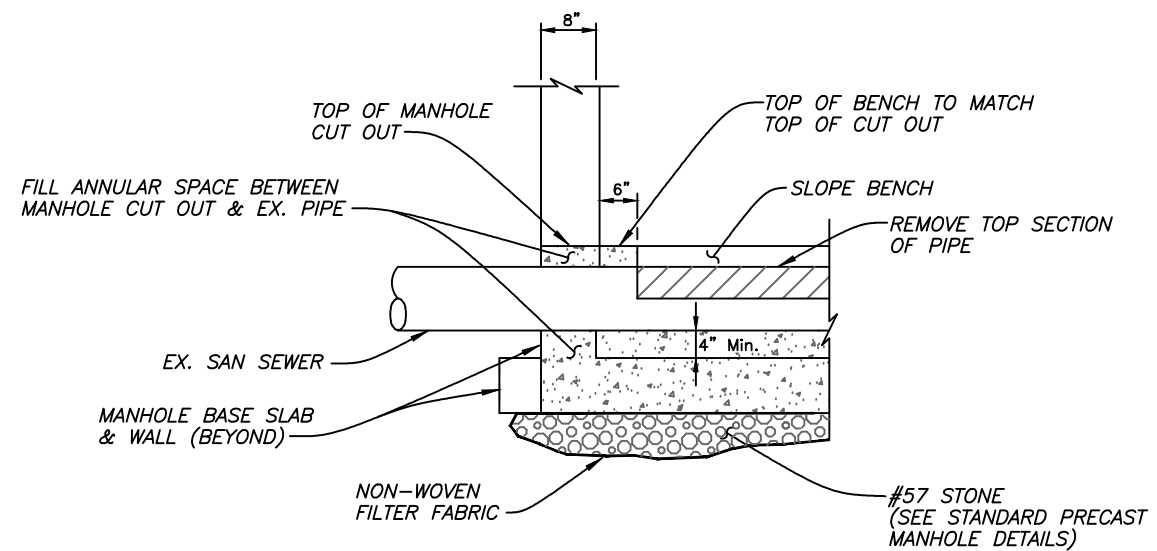


DOGHOUSE MANHOLE PLAN VIEW
Not to Scale



SECTION A-A
Not to Scale

* TYPICAL WIDTH OF OPENING IS 24" FOR AN EX. 8" PIPE



SECTION B-B
Not to Scale

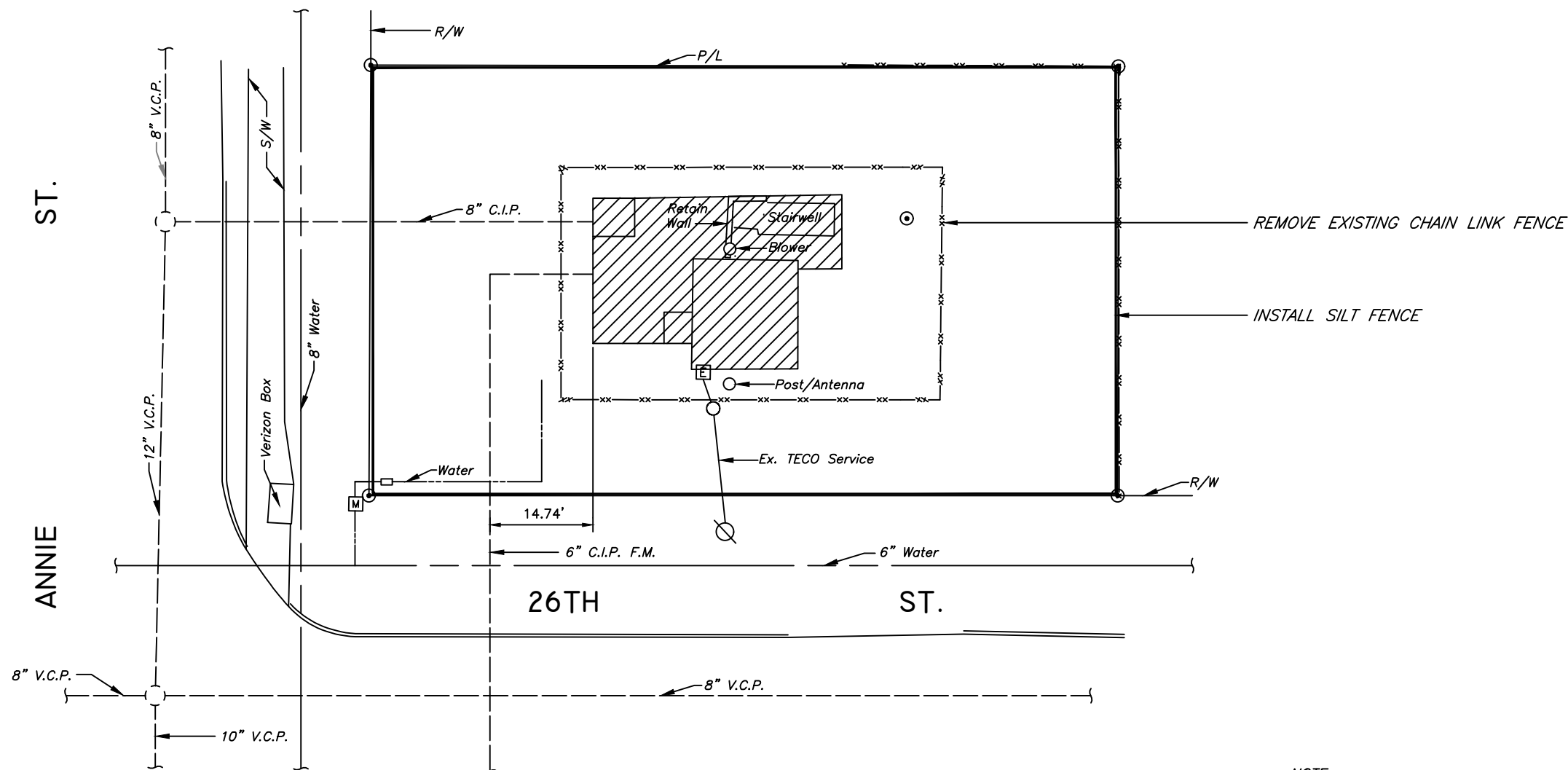
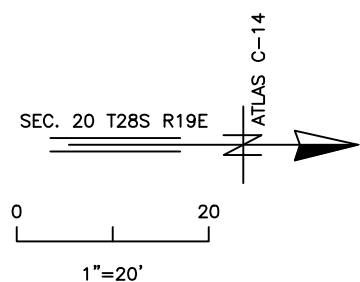
NOTES

1. PLASTIC SHEET LINER SHALL BE "T-LOCK" BY AMERON INTERNATIONAL OR APPROVED EQUAL.


MANHOLE SHALL BE "T-LOCK" LINED

User: ss13 Drawing Name: K:\M\Projects\2014\2014_5979_26th St PS Rehabilitation\DWG\26th St PS Rehabilitation.dwg Layout: Jun 10, 2014 - 11:14am

JACINTO CARLOS FERRAS, P.E., #49454 DESIGN DIVISION HEAD WASTEWATER DEPARTMENT	No.	DATE	REVISIONS	DES: VT DRN: JHJ CKD: JF DATE: 5/30/14	CITY of TAMPA WASTEWATER DEPARTMENT	26TH ST. PUMPING STATION REHABILITATION DOGHOUSE MANHOLE DETAILS	W.O. 5979
	3						SHEET
	2						20
	1						



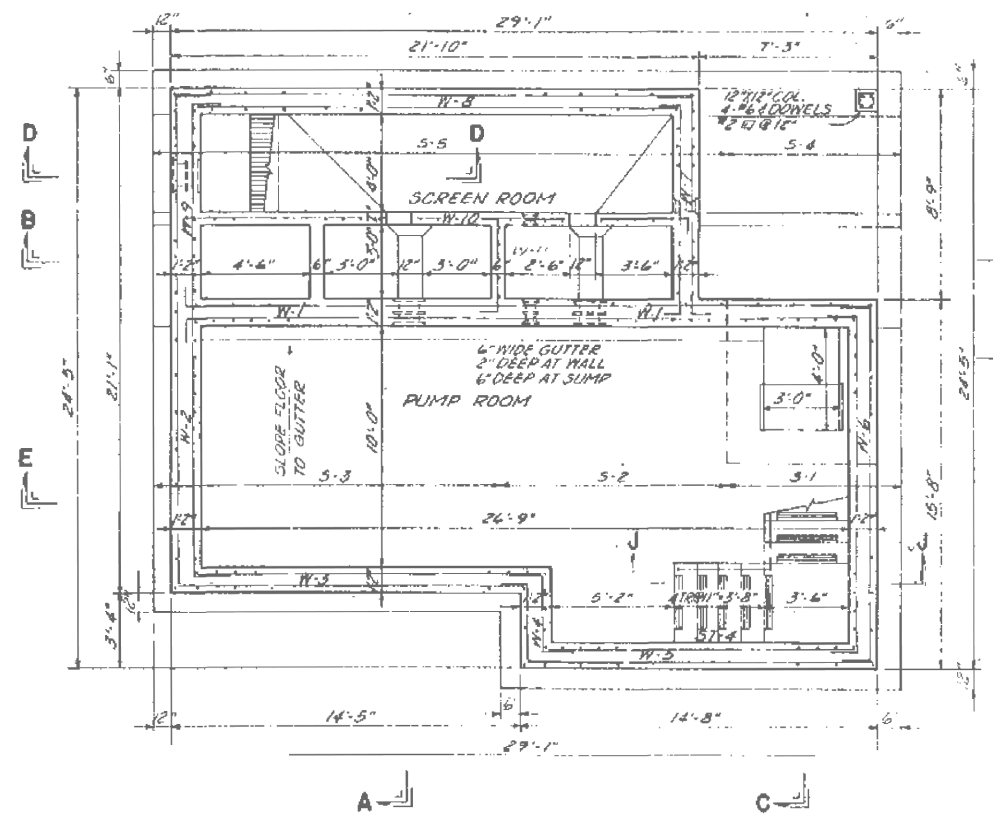
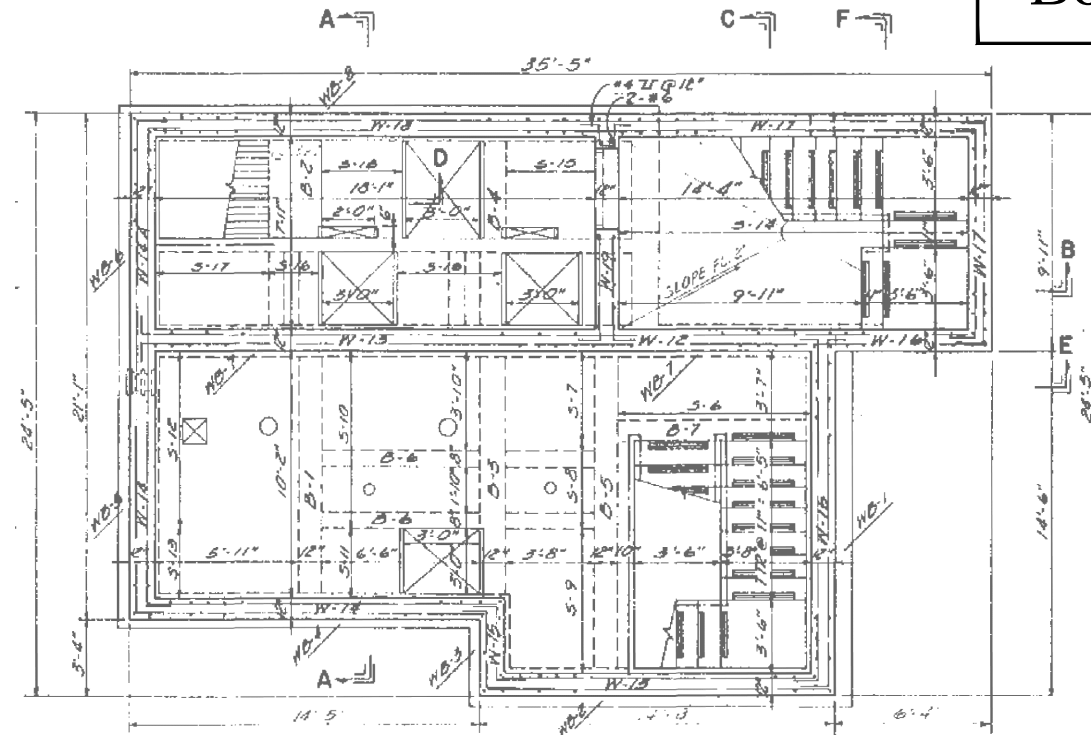
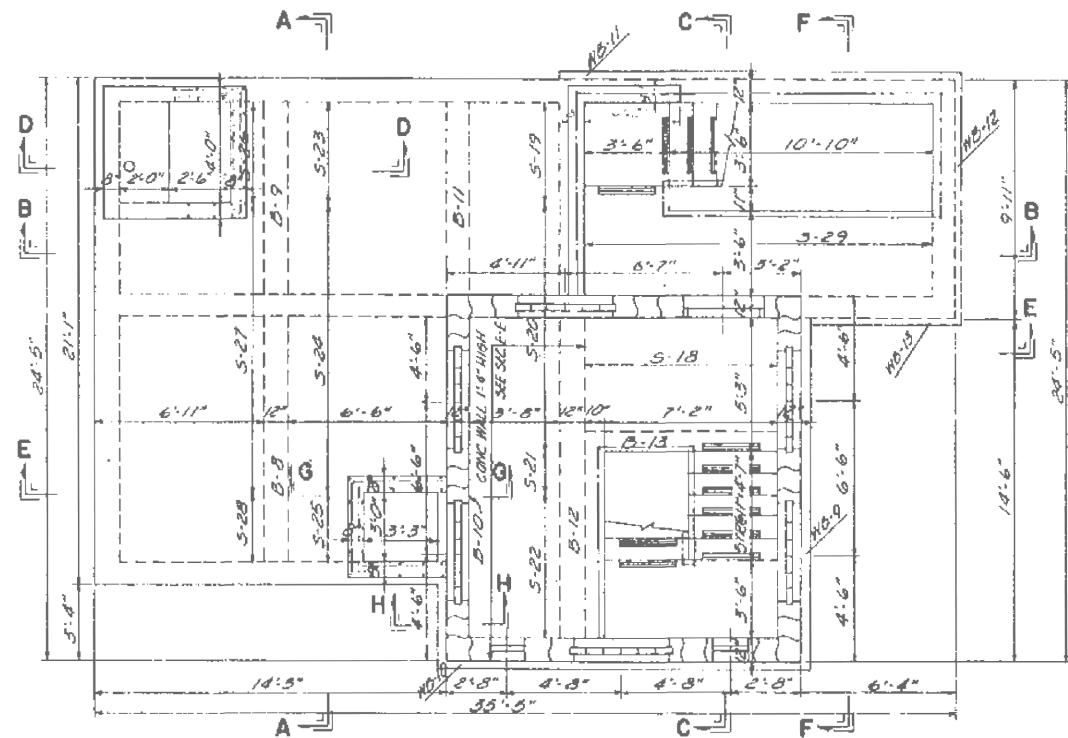
- NOTE:**
1. CONTRACTOR TO SET SILT FENCE PRIOR TO THE START OF CONSTRUCTION. SILT FENCE TO REMAIN IN PLACE UNTIL COMPLETION OF CONSTRUCTION.
 2. EXISTING PUMP STATION TO REMAIN IN PLACE AND OPERATING UNTIL NEW PUMP STATION IS PLACED INTO SERVICE.

 HATCHED AREAS ON THIS SHEET INDICATE PIPING AND EQUIPMENT TO BE REMOVED

SITE DEMOLITION PLAN
SCALE 1" = 20'

User: sst3 Drawing Name: K:\WW\Projects\2014_5929_26th St. PS Rehab\DWG\26TH ST. PS REHAB COVER LEGEND SURVEY.dwg Layout: B081-109 Last Saved: Jun 10, 2014 - 10:38am

JACINTO CARLOS FERRAS, P.E., #49454 DESIGN DIVISION HEAD WASTEWATER DEPARTMENT	No.	DATE	REVISIONS	DES: VT	CITY of TAMPA WASTEWATER DEPARTMENT	26TH ST. PUMPING STATION REHABILITATION SITE DEMOLITION PLAN	W.O. 5979
	3			DRN: JHJ/WA			SHEET
	2			CKD: JF			21
	1			DATE: 5/30/14			



NOTES:

1. DEMOLISH ALL ITEMS DOWN TO 4-FT± BELOW EXISTING GROUND ELEVATION.
2. FILL REMAINING VOIDS WITH FDOT FLOWABLE FILL
3. MAY USE CONCRETE, MASONRY METAL OR OTHER NON- DEGRABLE MATERIALS AS FILLER IN THE FLOWABLE FILL.
4. BACKFILL WITH CLEAN COMPACTED EARTH FILL TO MATCH EXISTING GROUND ELEVATIONS.

User: ss13 Drawing Name: K:\W\Projects\2014\2014_5979_26th St PS Rehabilitation\DWG\26th St PS Rehabilitation.dwg Layout: Jun 10, 2014 - 11:14am

JACINTO CARLOS FERRAS, P.E., #49454
DESIGN DIVISION HEAD
WASTEWATER DEPARTMENT

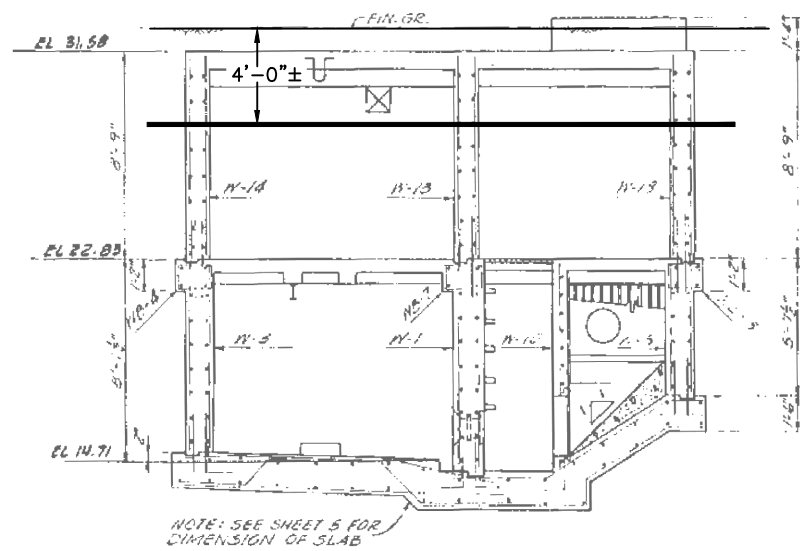
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DES: VT
DRN: JHJ
CKD: JF
DATE: 5/30/14

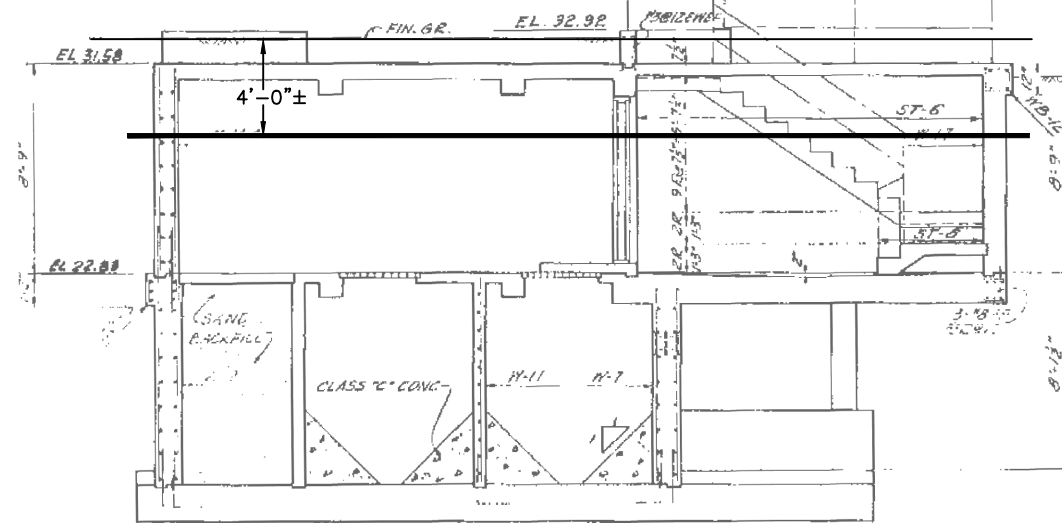
CITY of TAMPA
WASTEWATER DEPARTMENT

26TH ST. PUMPING STATION REHABILITATION
DEMOLITION PLAN VIEWS
ENTRANCE / MOTOR / FOUNDATION FLOOR PLAN

W.O. 5979
SHEET
22

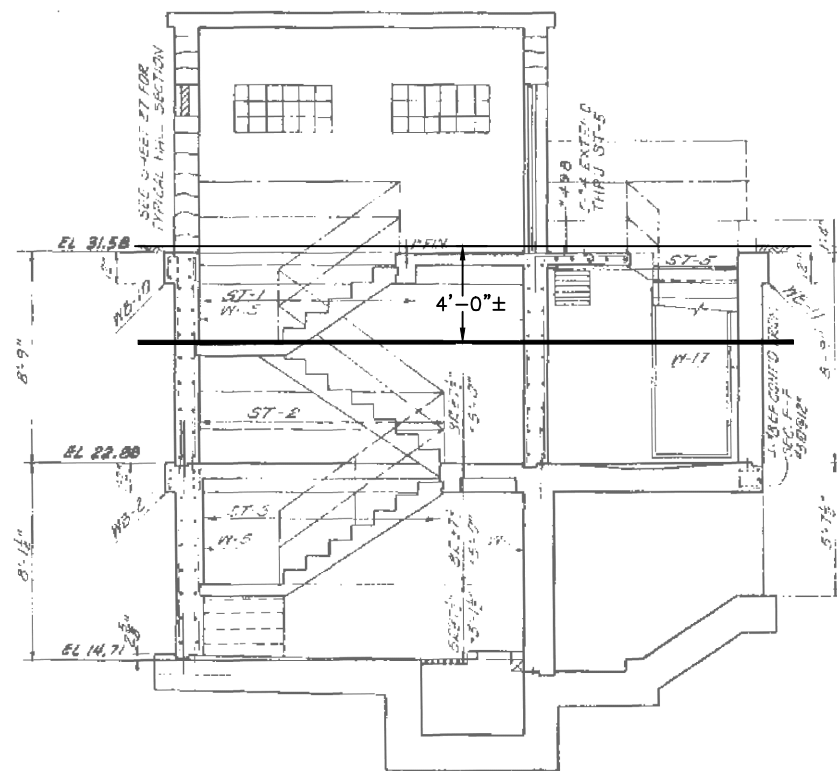


DEMOLITION SECTION A-A
SCALE: 1/8" = 1'-0"

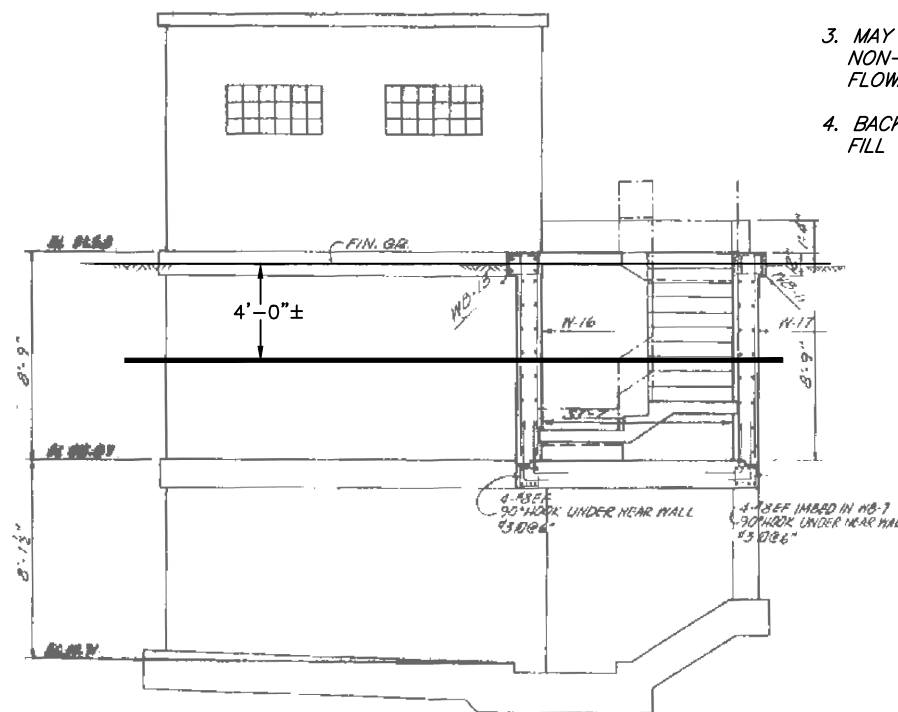


DEMOLITION SECTION B-B
SCALE: 1/8" = 1'-0"

- NOTE:
1. DEMOLISH ALL ITEMS TO 4-FT BELOW EXISTING GROUND ELEVATION.
 2. FILL REMAINING VOIDS WITH FDOT FLOWABLE FILL.
 3. MAY USE CONCRETE, MASONRY METAL OR OTHER NON-DEGRADABLE MATERIALS AS FILLER IN THE FLOWABLE FILL.
 4. BACKFILL WITH CLEAN COMPACTED EARTH FILL TO MATCH EXISTING GROUND ELEVATIONS.



DEMOLITION SECTION C-C
SCALE: 1/8" = 1'-0"



DEMOLITION SECTION F-F
SCALE: 1/8" = 1'-0"

User: ss13 Drawing Name: K:\M\Projects\2014\2014_5979_26th St PS Rehabilitation\DWG\26th St PS Rehabilitation.dwg Layout: Jun 10, 2014 - 11:14am

JACINTO CARLOS FERRAS, P.E., #49454
DESIGN DIVISION HEAD
WASTEWATER DEPARTMENT

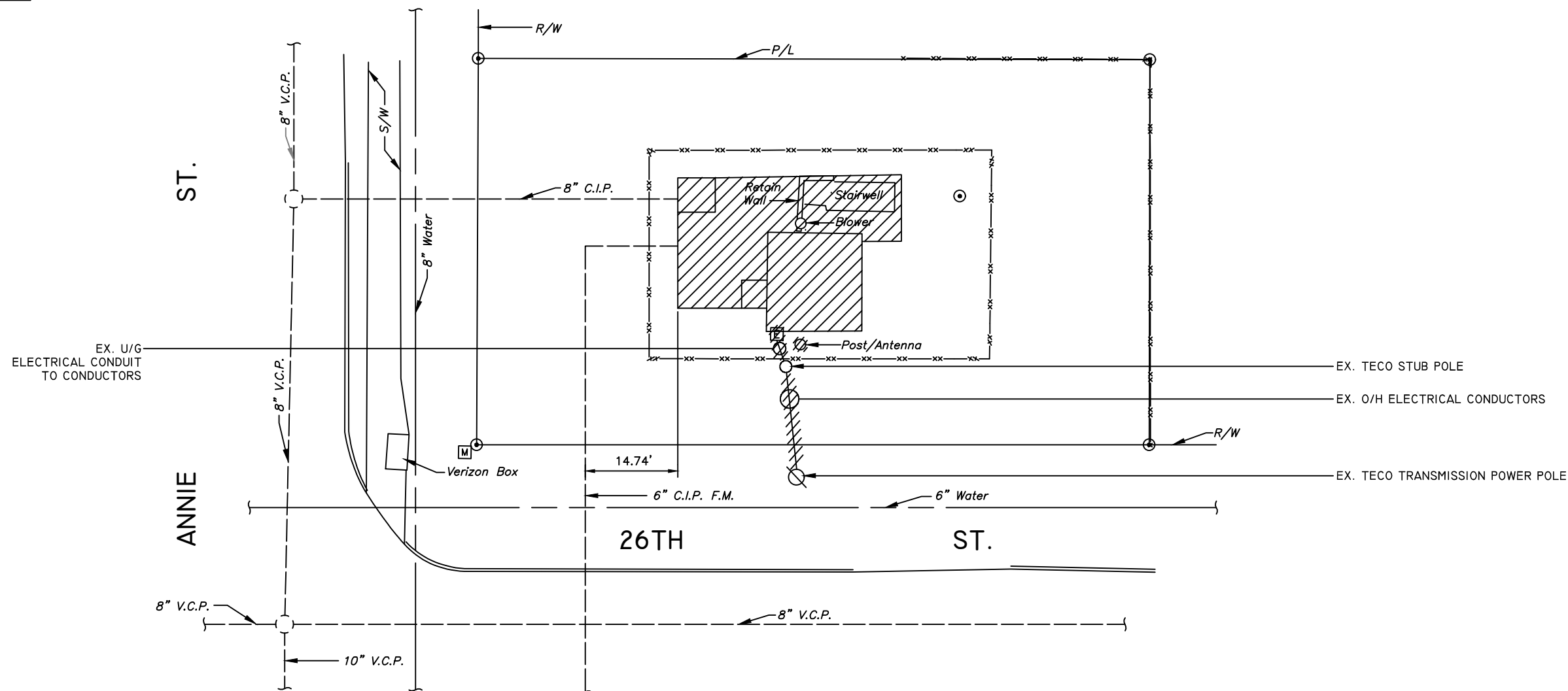
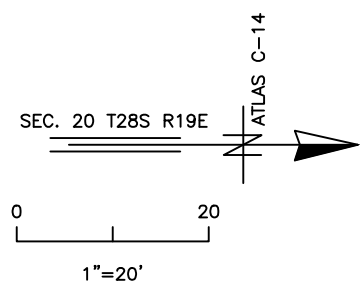
No.	DATE	REVISIONS
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DES: VT
DRN: JHJ
CKD: JF
DATE: 5/30/14

CITY of TAMPA
WASTEWATER DEPARTMENT

26TH ST. PUMPING STATION REHABILITATION
DEMOLITION SECTION VIEWS
A-A, B-B, C-C, F-F

W.O. 5979
SHEET
23



 HATCHED AREAS ON THIS SHEET INDICATE PIPING AND EQUIPMENT TO BE REMOVED

EXISTING ELECTRICAL (DEMOLITION) SITE PLAN

SCALE 1" = 20'

User: sst3 Drawing Name: K:\WW Projects\2014\2014_5979_26th St. PS Rehab\DWG\26TH ST. PS REHAB ELECTRICAL.dwg Layout: B081-112 Last Saved: Jun 09, 2014 - 5:10pm

ROMAN D. KORCHAK, P.E., #42626
ELECTRICAL SECTION HEAD
WASTEWATER DEPARTMENT

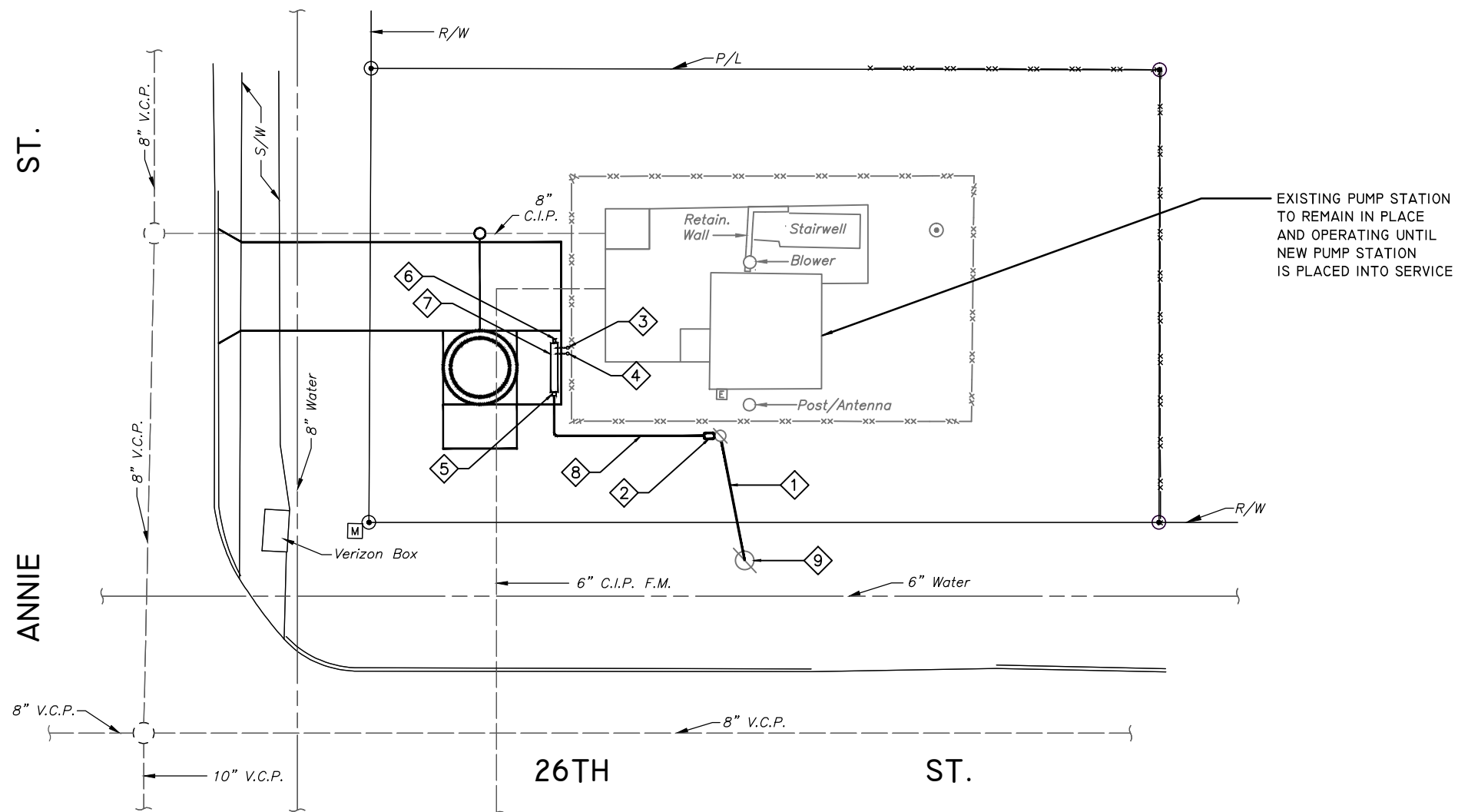
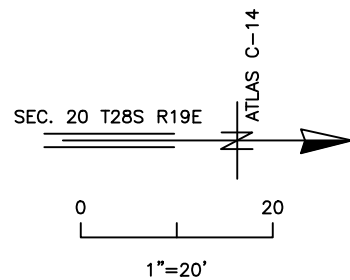
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DES: LRG
DRN: JHJ/WA
CKD: RDK
DATE: 5/30/14

CITY of TAMPA
WASTEWATER DEPARTMENT

26TH ST. PUMPING STATION REHABILITATION
EXISTING ELECTRICAL (DEMOLITION) SITE PLAN

W.O. 5979
SHEET
EDI



KEYED NOTES	
1	O/H ELECTRICAL CONDUCTORS TO EXISTING TECO STUB POLE. (INSTALLED BY TECO).
2	PROPOSED TECO HANDHOLE AT BASE OF TECO STUB POLE.
3	PROP. LED LIGHTING FIXTURE MOUNTED TO CONCRETE POLE, SEE SHEET E13, AREA LIGHT DETAIL.
4	SCADA ANTENNA, SEE SHEET E18.
5	PROPOSED TECO METER
6	PROPOSED EMERGENCY CONNECTOR
7	PROPOSED CONTROL PANEL
8	(3) #3 AWG, (1) #4 AWG NEU. IN 2" C.
9	TECO TO VERIFY THAT THE EXISTING ELECTRICAL SERVICE IS CORRECTLY SIZED FOR THIS APPLICATION.

PROPOSED ELECTRICAL SITE PLAN

SCALE 1" = 20'

User: es13, Drawing Name: K:\WW\Projects\2014\5979_26th St. PS Rehab\DWG\26TH ST. PS REHAB ELECTRICAL.dwg, Layout: B081-113, Last Saved: Jun 09, 2014 - 5:10pm

ROMAN D. KORCHAK, P.E., #42626
ELECTRICAL SECTION HEAD
WASTEWATER DEPARTMENT

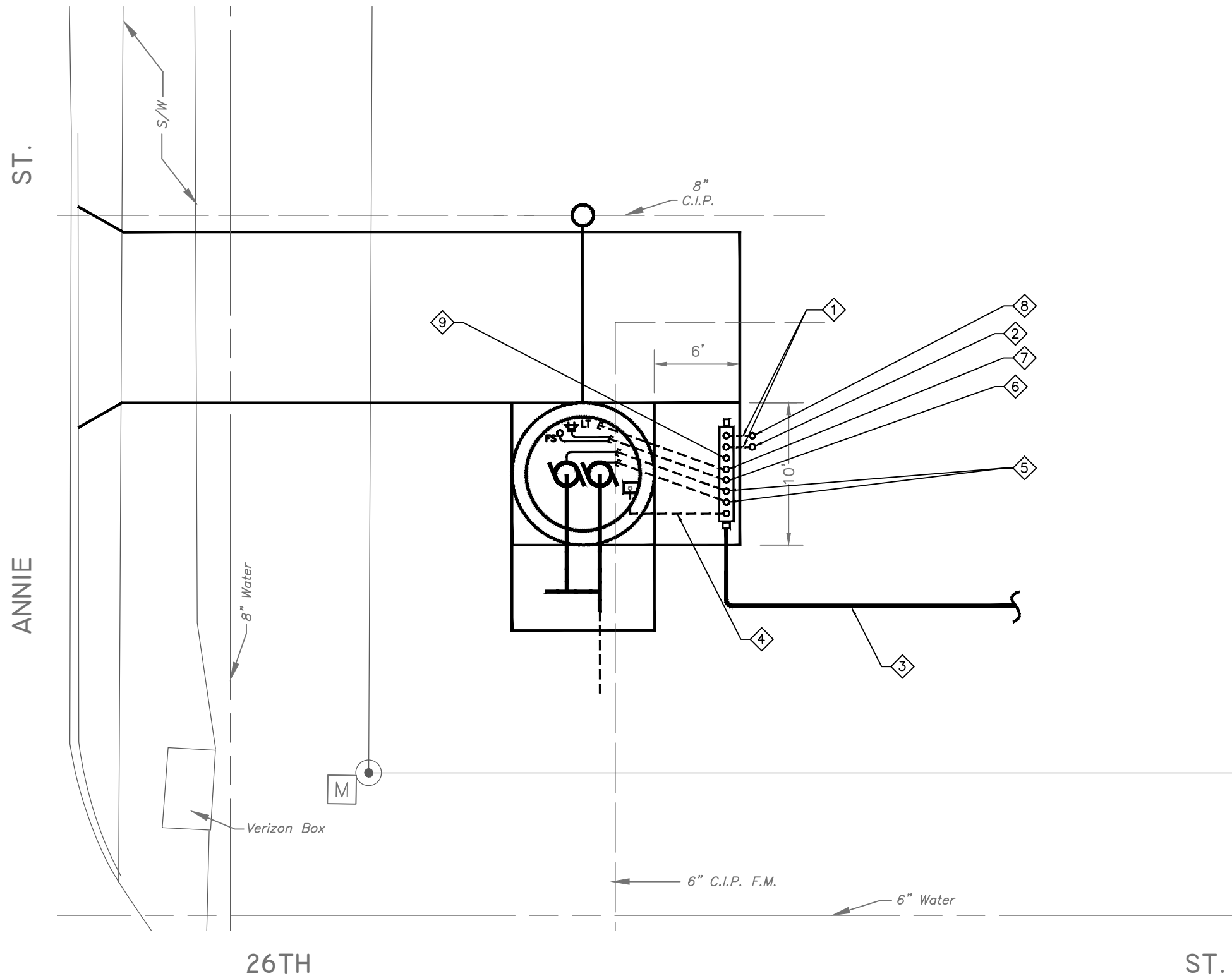
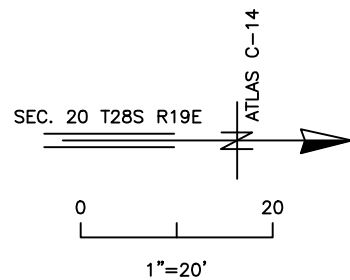
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DES: LRG
DRN: JHJ
CKD: RDK
DATE: 5/30/14

CITY of TAMPA
WASTEWATER DEPARTMENT

26TH ST. PUMPING STATION REHABILITATION
PROPOSED ELECTRICAL SITE PLAN

W.O. 5979
SHEET
ESI



KEYED NOTES	
1	1" CONDUIT
2	SCADA ANTENNA.
3	(3) #3 AWG, (1) #4 AWG NUE. IN 2" C., SEE SHEET ES1 FOR CONTINUATION
4	1" CONDUIT FOR BUBBLER AND CAP.
5	3" CONDUITS FOR PUMP MOTORS.
6	1" CONDUITS FOR FLOAT SWITCH AND LEVEL TRANSDUCER
7	1" SPARE CONDUIT
8	PROPOSED AREA LIGHT
9	1' CONDUIT FOR FUTURE ODOR CONTROL

PROPOSED ELECTRICAL SITE PLAN

N.T.S

User: es13 Drawing Name: K:\WW Projects\2014\2014_5979_26th ST. PS REHAB ELECTRICAL.dwg Layout: B081-114 Last Saved: Jun 09, 2014 - 5:10pm

ROMAN D. KORCHAK, P.E., #42626
ELECTRICAL SECTION HEAD
WASTEWATER DEPARTMENT

No.	DATE	REVISIONS
3		
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DES: LRG
DRN: JHJ
CKD: RDK
DATE: 5/30/14

CITY of TAMPA
WASTEWATER DEPARTMENT

26TH ST. PUMPING STATION REHABILITATION
PROPOSED ELECTRICAL PUMP PAD SITE PLAN

W.O. 5979
SHEET
ES2



EXISTING ELECTRICAL SERVICE
FRONT ELEVATION
SCALE: N.T.S



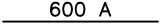
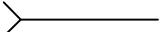
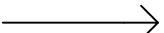
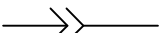

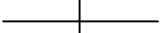
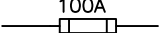
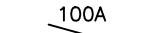
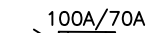
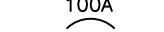


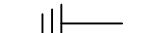

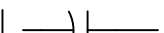



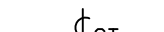
PROPOSED ELECTRICAL SERVICE
FRONT ELEVATION
SCALE: N.T.S





KEYED NOTES:	
1	EXISTING WEATHERHEAD.
2	EXISTING TECO TRANSMISSION POLE, TO REMAIN.
3	EXISTING TECO CONDUCTORS, TO BE REMOVED BY TECO.
4	TECO TO VERIFY THAT THE EXISTING ELECTRICAL SERVICE IS CORRECTLY SIZED FOR THIS APPLICATION.
5	EXISTING TECO STUB POLE 078700, TO REMAIN.
6	EXISTING PUMP STATION, TO BE DEMOLISHED, SEE SHEET ED1 FOR DEMOLITION DETAILS.
7	PROPOSED TECO CONDUIT, TO BE INSTALLED BY TECO.
8	PROPOSED TECO HANDHOLE, TO BE INSTALLED BY TECO.
9	(3) #3 AWG, (1)#4 AWG NEU. IN 2"., TO BE INSTALLED BY CONTRACTOR.
10	PROPOSED CONDUIT EXTENDS TO PROPOSED CONTROL PANEL, SEE SHEET ES1 FOR CONTINUATION.

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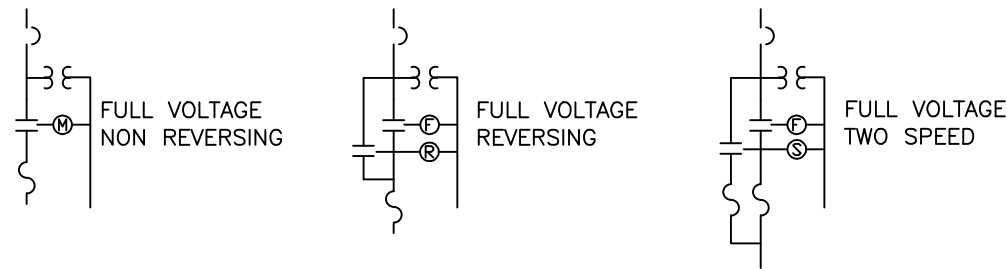
ROMAN D. KORCHAK, P.E. #42626 ELECTRICAL SECTION HEAD WASTEWATER DEPARTMENT	No.	DATE	REVISIONS	DES: LRG DRN: LRG CKD: RDK DATE: 5/30/14	CITY of TAMPA WASTEWATER DEPARTMENT	26TH ST. PUMPING STATION REHABILITATION ELECTRICAL SITE PLAN	W.O. 5979
	3						SHEET
	2						ES3
	1						

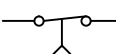
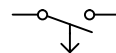
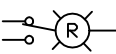
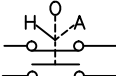
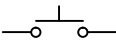
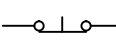
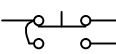
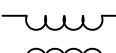
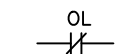
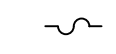
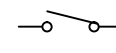


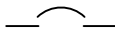
ONE LINE DIAGRAM SYMBOLS

-  600 A BUS-RATING AS SHOWN
-  INCOMING LINE
-  OUTCOMING LINE
-  DISCONNECTING DEVICE
-  CONDUCTORS CONNECTED
-  CONDUCTORS NOT CONNECTED
-  100A FUSE-RATING AS SHOWN
-  100A SINGLE THROW DISCONNECT SWITCH-RATING AS SHOWN
-  100A/70A FUSED DISCONNECT SWITCH-100A SWITCH, 70A FUSE
-  100A LOW VOLTAGE AIR CIRCUIT BREAKER WITHOUT TRIP DEVICE 100A FRAME
-  225A/125A LOW VOLTAGE AIR CIRCUIT BREAKER WITH 225A FRAME AND 125A TRIP
-  MEDIUM VOLTAGE DRAWOUT TYPE AIR CIRCUIT BREAKER
-  GROUND CONNECTION
-  LIGHTNING OR SURGE ARRESTOR
-  SURGE CAPACITOR
-  POWER TRANSFORMER WITH WINDING CONNECTIONS INDICATED
-  CPT CONTROL POWER TRANSFORMER
-  PT POTENTIAL TRANSFORMER
-  CT CURRENT TRANSFORMER

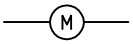
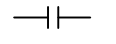
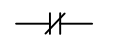
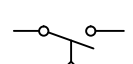
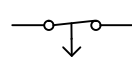
-  THERMAL OVERLOAD ELEMENT (OL)
-  SQUIRREL CAGE MOTOR (INDICATE HORSEPOWER)
-  GENERATOR
-  INDICATING LIGHT (R-RED, G-GREEN, A-AMBER, B-BLUE, W-WHITE)



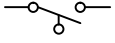
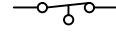

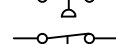

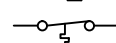
COMBINATION STARTER WITH CONTROL TRANSFORMERS AND OVERLOAD RELAYS AND MOTOR CIRCUIT PROTECTOR



-  NORMALLY CLOSED CONTACT WITH TIME DELAY OPENING (ON-DELAY)
-  INSTANT CLOSE- TIME DELAY OPEN CONTACT (OFF DELAY)
-  INDICATING LIGHT- PUSH TO TEST (R-RED, G-GREEN, A-AMBER, B-BLUE, W-WHITE)
-  3-POSITION SELECTOR SWITCH (SHOWN IN "H" POS.)
-  NORMALLY OPEN PUSHBUTTON-MOMENTARY CONTACT
-  NORMALLY CLOSED PUSHBUTTON-MOMENTARY CONTACT
-  DOUBLE CIRCUIT PUSHBUTTON WITH SPRING RETURN TO NORMAL
-  TRANSFORMER
-  OL OVERLOAD RELAY CONTACT
-  THERMAL OVERLOAD ELEMENT (OL)
-  ON-OFF SWITCH
-  GROUND BUS
-  NEUTRAL BUS (INSULATED)
-  SINGLE-POLE CIRCUIT BREAKER

SCHEMATIC AND WIRING DIAGRAM SYMBOLS

-  OPERATING COIL
-  NORMALLY OPEN CONTACT (N.O.)
-  NORMALLY CLOSED CONTACT (N.C.)
-  NORMALLY OPEN CONTACT WITH TIME DELAY CLOSING (ON-DELAY)
-  INSTANT OPEN- TIME DELAY CLOSED CONTACT (OFF DELAY)
- M-MOTOR STARTER
- C- CONTACTOR
- F- FORWARD
- R- REVERSE
- AR- AUXILIARY RELAY
- CR- CONTROL RELAY
- TR- TIME DELAY RELAY




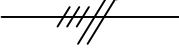
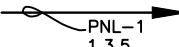












- | | | |
|---|---|-----------------|
| NORMALLY OPEN N.O. | NORMALLY CLOSED N.C. | LIMIT SWITCH |
|  |  | FLOAT SWITCH |
|  |  | PRESSURE SWITCH |
|  |  | FLOW SWITCH |
|  |  | TEMPERATURE |

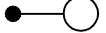

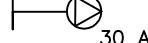

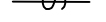
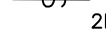
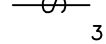




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








THE SYMBOLS SHOWN COMPRISE A GENERAL LEGEND TO FACILITATE THE USE OF PLANS. REFER TO THE PLANS AND SPECIFICATIONS FOR ITEMS REQUIRED.

No.	DATE	REVISIONS
3		
2		
1		


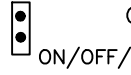




POWER AND LIGHTING SYMBOLS

-  EXPOSED CONDUIT RUN
-  CONDUIT RUN CONCEALED IN FLOOR OR UNDERGROUND
-  CONDUIT RUN CONCEALED IN WALLS, ABOVE SUSPENDED CEILING, OR IN ROOF SLAB
-  CONDUIT WITH HOT, NEUTRAL AND GROUND WIRES (LONG LINE IS NEUTRAL; LONG LINE WITH DOTS DENOTE GROUND)
-  HOMERUN TO LIGHTING PANELBOARD (PNL-1 INDICATES PANELBOARD AND 1, 3, 5 INDICATES 20A-1P CKTS. 1, 3 AND 5)
-  FLEXIBLE LIQUIDTIGHT CONDUIT
-  CONDUIT-UP (OR TOWARDS VIEWER)
-  CONDUIT-DOWN (OR AWAY FROM VIEWER)
-  GROUNDING CONDUCTOR
-  GROUND ROD
-  LIGHTNING ROD
-  CEILING MOUNTED INCANDESCENT OR MERCURY VAPOR FIXTURE. "A" INDICATES FIXTURE TYPE LISTED IN SCHEDULE
-  WALL MOUNTED LIGHTING FIXTURE
-  EXIT SIGN
-  EMERGENCY INCANDESCENT OR MERCURY VAPOR LIGHTING FIXTURE
-  FLUORESCENT FIXTURE
-  EMERGENCY FLUORESCENT FIXTURE

-  POLE MOUNTED LIGHTING FIXTURE
-  DUPLEX RECEPTACLE- 20 A, 120 V, 3 WIRE (TO PNL- CIRCUIT No.4)
-  SINGLE RECEPTACLE - 2 POLE, 3 WIRE, 240V, RATING NOTED
-  3 POLE, 4 WIRE, 240V WELDING OUTLET (60 A)
-  SINGLE POLE SWITCH
-  TWO POLE SWITCH
-  THREE WAY SWITCH
-  OUTLET BOX WITH BLANK COVER
-  JUNCTION BOX
-  PULL BOX
-  TERMINAL BOX

-  FLOW SWITCH
-  LIMIT SWITCH
-  PRESSURE SWITCH
-  SOLENOID OPERATED VALVE
-  TEMPERATURE SWITCH
-  FLOAT SWITCH
-  LEVEL TRANSMITTER (PRESSURE ANALOG TYPE)
-  LEVEL TRANSMITTER (FLOAT TYPE)
-  TEMPERATURE TRANSMITTER
-  FLOW TRANSMITTER

GENERAL SYMBOLS

-  START-STOP PUSHBUTTON
-  ON-OFF MAINTAINED CONTACT PUSHBUTTON WITH LOCK ATTACHMENT
-  INDICATING LIGHT AND START-STOP PUSHBUTTON WITH LOCK ATTACHMENT ON STOP
-  PUSH/PULL BUTTON WITH STOP LOCK. (PULL TO RESUME- PUSH TO STOP)
-  SELECTOR SWITCH ("HOA" INDICATES HAND, OFF, AND AUTO; "MOR" INDICATES MANUAL, OFF, AND REMOTE; ETC)
-  ON-OFF SWITCH WITH LOCK ATTACHMENT ON OFF POSITION

NOTE:
THE SYMBOLS SHOWN COMPRISE A GENERAL LEGEND TO FACILITATE THE USE OF PLANS. REFER TO THE PLANS AND SPECIFICATIONS FOR ITEMS REQUIRED.

GENERAL NOTES

1. CONTRACTOR SHALL SUBMIT SHOP DRAWINGS FOR APPROVAL PRIOR TO PURCHASING EQUIPMENT OR COMMENCING IN CONSTRUCTION.
2. ALL CONDUCTORS SHALL BE STRANDED COPPER, #12 AWG MIN. W/THWN INSULATION, UNLESS OTHERWISE NOTED.
3. ALL WIRING SHALL BE IDENTIFIED W/NUMBERS AT ALL TERMINALS AND ON WIRING DIAGRAMS.
4. VERIFY ALL MECHANICAL EQUIPMENT SIZES AND RATING PRIOR TO CONNECTING.
5. FIELD VERIFY ALL EQUIPMENT LOCATIONS AND CONNECTIONS PRIOR TO COMMENCING CONSTRUCTION.
6. ALL ELECTRICAL WORK SHALL BE PREFORMED IN ACCORDANCE W/ THE LATEST EDITION OF THE NEC AND ALL APPLICABLE LOCAL ORDINANCES.
7. ALL THREADED CONNECTIONS SHALL BE COATED W/ COPPER SHIELD ANTI-SEIZE COMPOUND MANUFACTURED BY THOMAS & BETTS (T & B) OR EQUAL.
8. ALL PANELS, DISCONNECTS, SWITCHES, AND EQUIPMENT COVERPLATES SHALL BE LABELED W/ NAMEPLATES. NAMEPLATES SHALL BE THREE-PLY PHENOLIC BLACK-WHITE-BLACK ENGRAVED THROUGH THE FIRST BLACK LAYER. LETTERING SHALL BE 0.5 CM (3/16") MIN. EDGE OF NAMEPLATE SHALL BE BEVELED 45 DEG.
9. ALL CONDUIT SHALL BE SUPPORTED AT MAXIMUM 5'-0" INTERVALS.
10. ALL CIRCUITS SHALL HAVE A PROPERLY SIZED GROUNDING CONDUCTOR ROUTED INSIDE EACH CONDUIT W/ POWER CONDUCTORS.
11. ALL CONDUCTOR LENGTHS SHALL BE CONTINUOUS, NO SPLICES OR CONDUCTOR TERMINATIONS SHALL BE PERMITTED UNLESS SPECIFICALLY DESIGNATED IN THE DRAWINGS.
12. NEATLY COIL ALL SPARE CONDUCTORS & TAPE W/ VINYL ELECTRICAL TAPE (SCOTCH 33+).
13. PROVIDE A MINIMUM OF 3'-6" CLEARANCE IN FRONT OF ALL ELECTRICAL EQUIPMENT IN ACCORDANCE W/ ARTICLE 110 OF THE NEC.
14. ALL FASTENING HARDWARE (SCREW, BOLTS, NUTS, ETC.) SHALL BE 316-STAINLESS STEEL. FASTENING HARDWARE CONSTRUCTED OF FERROUS MATERIAL ARE NOT ACCEPTABLE.
15. EXPOSED CONDUITS SHALL BE NON-COATED RIGID ALUMINUM CONDUIT, UNLESS OTHERWISE NOTED (UON). INSTALL PVC COATED RIGID ALUMINUM CONDUIT IN THE WET WELL.
16. DIRECT BURIED AND CONCRETE ENCASED CONDUIT SHALL BE SCHEDULE 80 PVC, UNLESS OTHERWISE NOTED, WITH A TRANSITION TO RIGID ALUMINUM IN THE VERTICAL RUN AT LEAST ONE FOOT PRIOR TO EMERGENCE. ALL ALUMINUM SURFACES IN CONTACT WITH SOIL, CONCRETE, AND OTHER INCOMPATIBLE MATERIALS SHALL BE COATED WITH TWO COATS OF BITUMASTIC OR OTHER APPROVED INSULATING MATERIAL.
17. ABOVE GRADE INDOOR, AND NON-WASHDOWN AREAS, RIGID ALUMINUM CONDUIT CONNECTIONS TO CONTROL BOXES, ETC. SHALL BE MADE WITH ALUMINUM DOUBLE LOCKNUTS AND BUSHINGS. TURN DOWN ON THREADS TO SOLIDLY CONNECT RACEWAY TO BOX OR ENCLOSURE.
18. ALUMINUM WATERTIGHT HUBS (MYERS HUBS) SHALL BE USED FOR CONNECTIONS TO CONTROL BOXES, ETC. MOUNTED OUTDOORS, BELOW GRADE, OR IN WASHDOWN AREAS.
19. A 316-STAINLESS STEEL CHANNEL ERECTOR SYSTEM SHALL BE USED TO SUPPORT ALL CONDUITS, BOXES, ETC. USE 316-STAINLESS STEEL MOUNTING HARDWARE.
20. THE CONTRACTOR SHALL FIELD VERIFY EXISTING CONDITIONS AND MAKE ADJUSTMENTS AS NECESSARY TO EXECUTE THE PROPOSED INSTALLATIONS.
21. ALL EXISTING INSTALLATIONS DENOTED ON THE DRAWINGS ARE FOR THE CONTRACTOR'S REFERENCE ONLY. ALL EXISTING INSTALLATIONS SHALL BE FIELD VERIFIED PRIOR TO SUBMITTING A BID AND PRIOR TO COMMENCING CONSTRUCTION.
22. PULL BOXES SHALL BE INSTALLED AS NECESSARY TO FACILITATE WIRE PULLS AND TO AVOID EXCESSIVE PULLING TENSION ON WIRING. IN NO CASE SHALL CONDUIT LENGTHS EXCEED 150' OR THE EQUIVALENT OF FOUR QUARTER BENDS (360 DEGREES TOTAL) WITHOUT A PULL BOX. PULL BOXES SHALL BE SIZED IN ACCORDANCE WITH ARTICLE 314 OF THE NEC.

SCOPE OF WORK

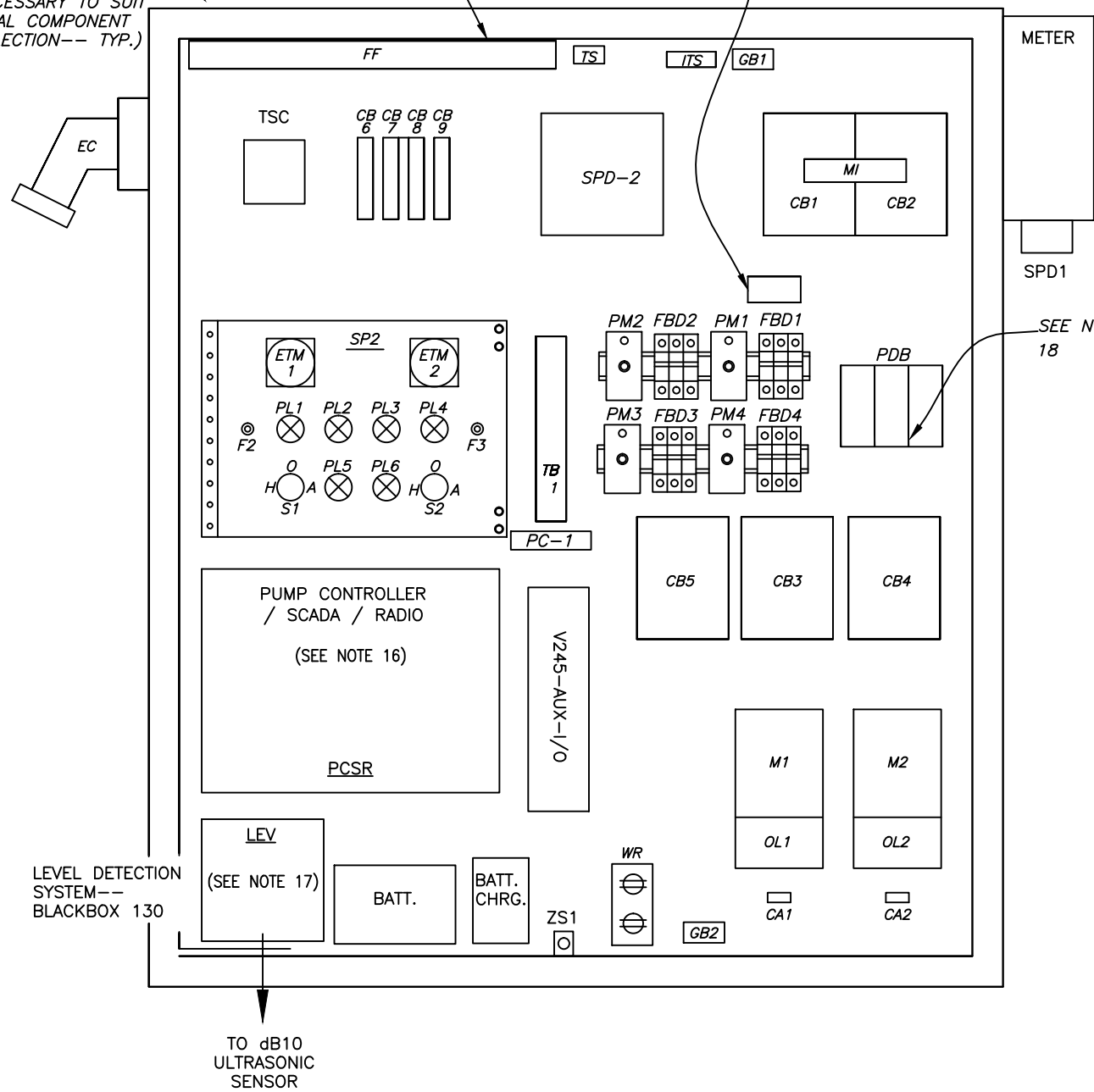
1. THE CONTRACTOR SHALL COORDINATE ELECTRICAL SERVICE REQUIREMENTS WITH TAMPA ELECTRIC COMPANY (TEC). THE CITY WILL MAKE PRELIMINARY ARRANGEMENTS WITH TEC AND COMPENSATE THE UTILITY DIRECTLY FOR ANY CONTRIBUTION IN AID OF CONSTRUCTION (CIAC) REQUIRED FOR TEC TO INSTALL A HAND HOLE AT THE BASE OF THE EXISTING TECO OWNED STUB POLE. THE SERVICE VOLTAGE TO THIS FACILITY SHALL REMAIN, 120/240 VAC, 3-PHASE, 4-WIRE, DELTA. THE FOLLOWING EQUIPMENT SHALL BE PROVIDED AND INSTALLED: ELECTRICAL METER SOCKET, LIGHTNING ARRESTOR, AND GROUNDING AS SHOWN ON PLANS. PROVIDE AND INSTALL UNDERGROUND CONDUIT/CONDUCTORS EXTENDING FROM THE PROPOSED TEC HAND HOLE TO THE PROPOSED METER.
2. PROVIDE AND INSTALL A PRESTRESSED CONCRETE POLE WITH LED OUTDOOR SECURITY FIXTURE AND SWITCH, AS SHOWN ON PLANS.
3. DISCONNECT AND REMOVE THE EXISTING POWER CONTROL CENTER (PCC), MOTORS, LIGHTING AND VENTILATION EQUIPMENT MOUNTED INSIDE THE EXISTING PUMP STATION.
4. CAREFULLY REMOVE THE EXISTING DCR SCADA RTU CABINET MOUNTED INSIDE THE PUMP STATION. DELIVER THIS RTU PACKAGE TO THE CITY FOR MAINTENANCE INVENTORY.
5. ANY SALVAGEABLE MATERIALS, AS DETERMINED BY THE ENGINEER, SHALL BE DELIVERED, BY THE CONTRACTOR, TO THE HOWARD F. CURREN AWT. PLANT. THE CONTRACTOR SHALL PROPERLY DISPOSE OF ALL OTHER REMOVED EQUIPMENT.
6. PREPARE THE SITE FOR THE INSTALLATION OF THE PROPOSED PUMP CONTROLS/ SCADA/RADIO (PCSR) ENCLOSURE.
7. PROVIDE AN INSTALL A NEW DUPLEX PUMP CONTROL PANEL. THE CONTROL PANEL SHALL CONTAIN CONTROL COMPONENTS, INDICATOR LIGHTS, CIRCUIT BREAKERS, AND MOTOR STARTERS AS SHOWN ON THE PLANS AND DETAILED IN THE SPECIFICATIONS.
8. PROVIDE AND INSTALL A NEW GALVANIZED STEEL SCADA ANTENNA/MAST AS SHOWN OR REQUIRED. THE CONTRACTOR SHALL PROVIDE DRAWINGS FOR THE MAST THAT ARE SIGNED AND SEALED BY A STRUCTURAL ENGINEER REGISTERED IN THE STATE OF FLORIDA.
9. CALIBRATE AND ADJUST SETPOINTS AND ALL SENSING DEVICES, ALARM DEVICES, AND TIMERS. CALIBRATIONS AND SETPOINTS SHALL BE PROVIDED IN ACCORDANCE WITH MANUFACTURER'S RECOMMENDATIONS.
10. PROVIDE AND INSTALL ALL NECESSARY CONDUITS AND CONDUCTORS AS SHOWN, SPECIFIED AND REQUIRED.
11. FURNISH AND INSTALL A JUNCTION BOX CONSTRUCTED OF SHEET ALUMINUM WITH LOUVERED OPENINGS ON A CONCRETE PEDESTAL, AS SHOWN ON THE PLANS.
12. PROVIDE FOR PROPER GROUNDING AS SHOWN, SPECIFIED, AND REQUIRED.
13. ALL ELECTRICAL WORK SHALL BE PERFORMED IN ACCORDANCE WITH THE LATEST EDITION OF THE NATIONAL ELECTRIC CODE ADOPTED BY THE STATE OF FLORIDA AND CHAPTER 5 OF THE CITY OF TAMPA CODE.

ROMAN D. KORCHAK, P.E. #42626 ELECTRICAL SECTION HEAD WASTEWATER DEPARTMENT	No.	DATE	REVISIONS	DES: LRG DRN: LRG CKD: RDK DATE: 5/30/14	CITY of TAMPA WASTEWATER DEPARTMENT	26TH ST. PUMPING STATION REHABILITATION GENERAL NOTES AND SCOPE OF ELECTRICAL WORK	W.O. 5979
	3						SHEET
	2						E3
	1						

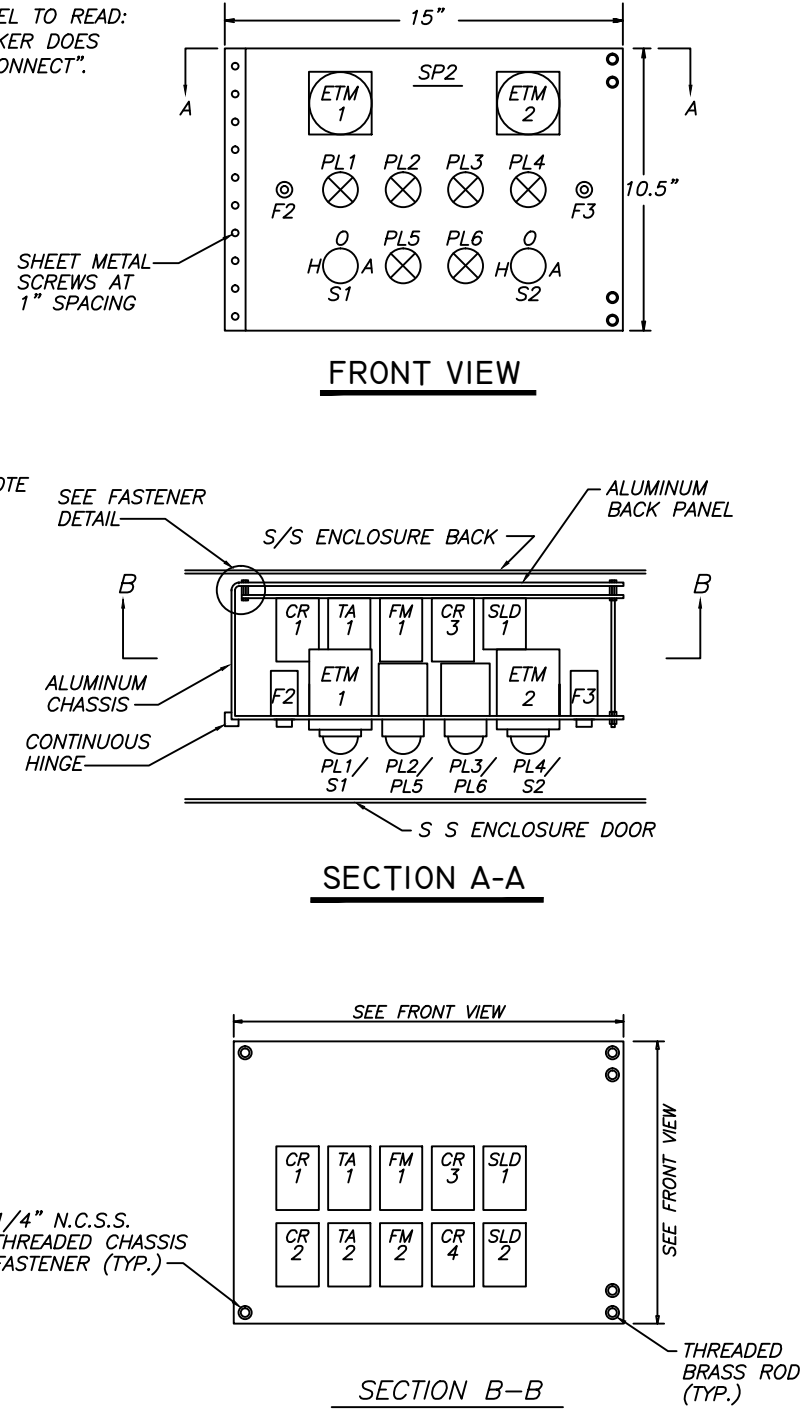
ENCLOSURE SIZE
48" X 42" X 12"
(ADJUST SIZE AS
NECESSARY TO SUIT
FINAL COMPONENT
SELECTION-- TYP.)

PANEL SIZE
45" X 39"

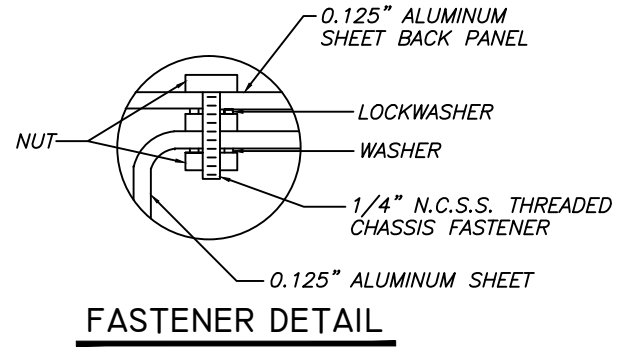
PROVIDE WARNING LABEL ABOVE FBD. LABEL TO READ:
"WARNING - OPENING MAIN CIRCUIT BREAKER DOES
NOT DE-ENERGIZE VOLTAGE TO THIS DISCONNECT".



CONTROL PANEL ENCLOSURE* - FRONT VIEW
SCALE: 1/8"=1"



CONTROL CHASSIS LAYOUT

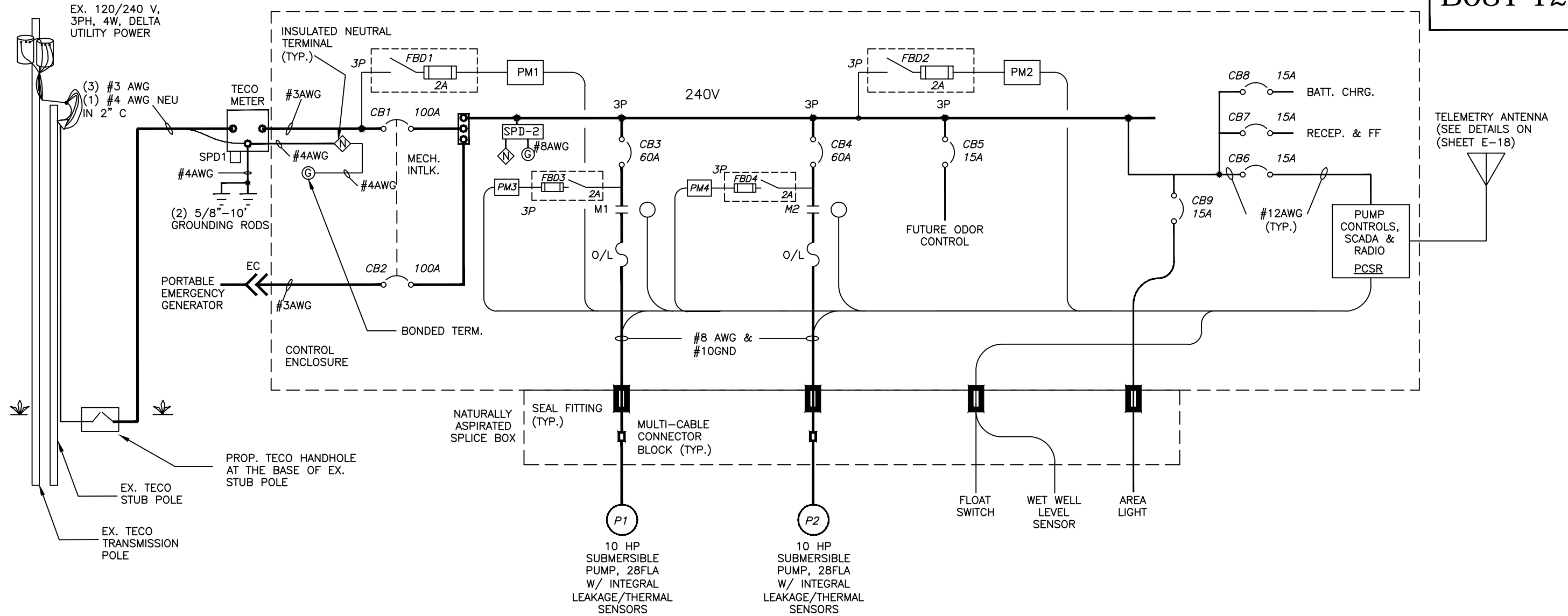


FASTENER DETAIL

SEE NOTES ON SHEET E10

User: ss13, Drawing Name: K:\Electrical Project Documents\26th Street Pump Station W0 5979\Working Drawings\Working Drawings.dwg, Layout: Jun 05, 2014 - 11:28am

ROMAN D. KORCHAK, P.E. #42626 ELECTRICAL SECTION HEAD WASTEWATER DEPARTMENT	No.	DATE	REVISIONS	DES: LRG	CITY of TAMPA WASTEWATER DEPARTMENT	26TH ST. PUMPING STATION REHABILITATION ELECTRICAL CONTROL PANEL LAYOUT	W.O. 5979
	3			DRN: LRG			SHEET
	2			CKD: RDK			E4
	1			DATE: 5/30/14			



ONE LINE DIAGRAM
NOT TO SCALE

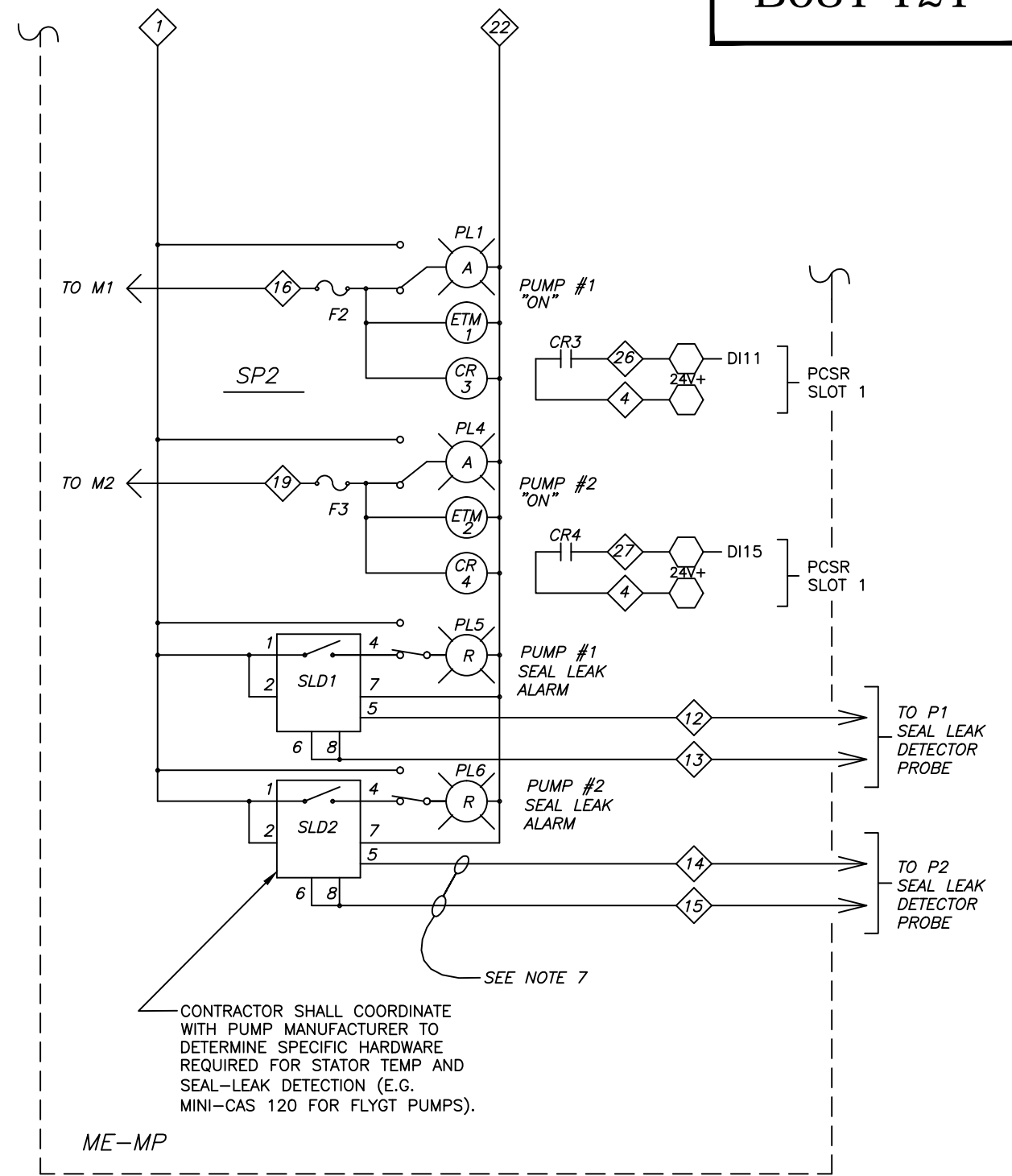
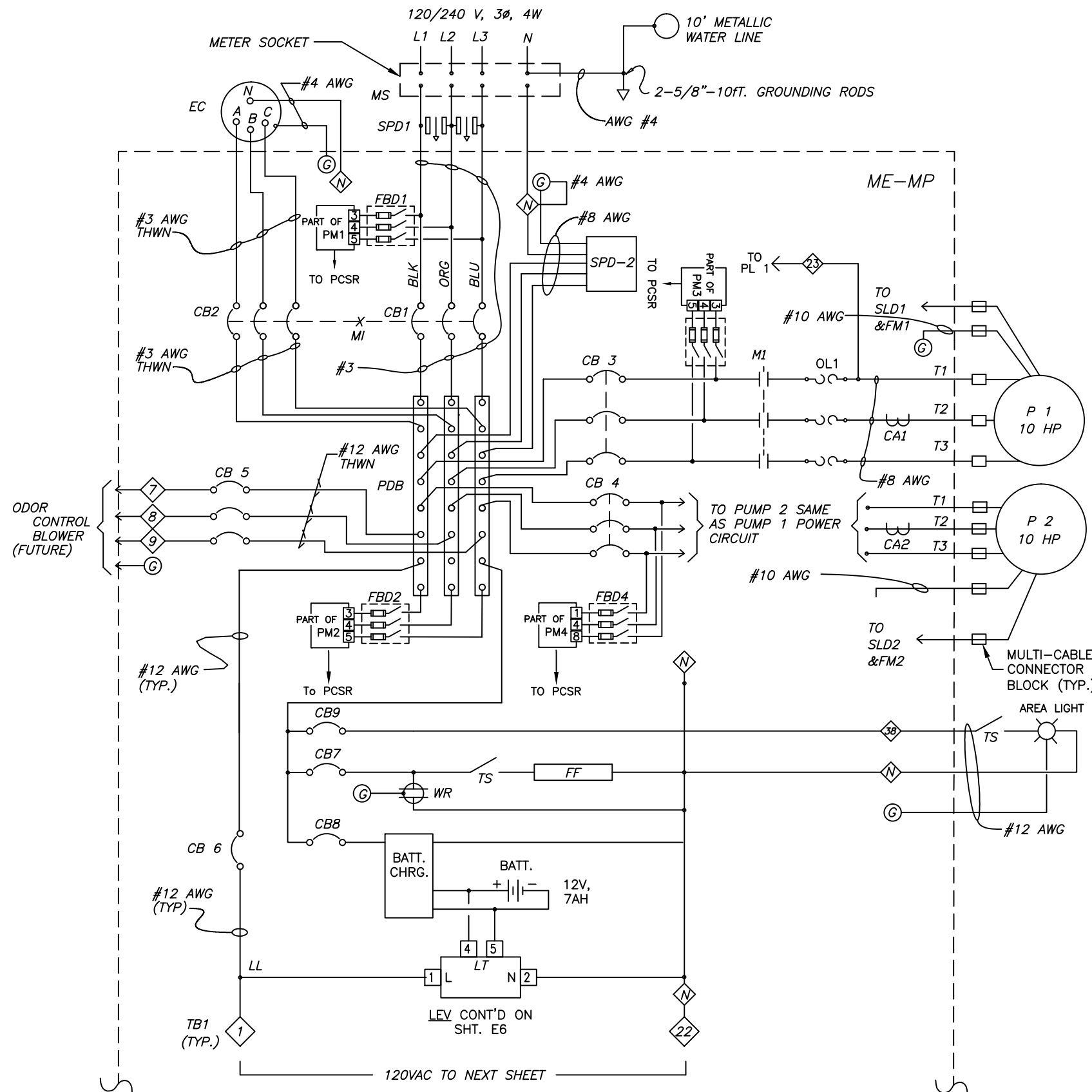
LOAD SUMMARY					
240 VAC, 3φ, 4W					
LOAD	CONNECTED	DEMAND	APPROX. PHASE CURRENTS		
			L1	L2	L3
PUMP #1	11.6 KVA	11.6 KVA	28.0 A	28.0 A	28.0 A
PUMP #2	11.6 KVA	11.6 KVA	28.0 A	28.0 A	28.0 A
CONTROLS	2.0 KVA	2.0 KVA	8.3 A	0 A	8.3 A
ODOR CONTROL (FUT.)	0.7 KVA	0.7 KVA	1.7 A	1.7 A	1.7 A
TOTAL	25.9 KVA	25.9 KVA	66.0 A	57.7 A	66.0 A

AVAILABLE FAULT CURRENT AT TRANSFORMER LUGS FOR ANTICIPATED 45KVA TRANSFORMER BANK (2%Z) IS 5413A; CB1 AIC RATING - 25,000A SYMMETRICAL.

SEE NOTES ON SHEET E10

User: ss13, Drawing Name: K:\Electrical Project Documents\26th Street Pump Station W0 5979\Working Drawings\Drawings.dwg, Layout - Jun 05, 2014 - 11:28am

ROMAN D. KORCHAK, P.E. #42626 ELECTRICAL SECTION HEAD WASTEWATER DEPARTMENT	No.	DATE	REVISIONS	DES: LRG DRN: LRG CKD: RDK DATE: 5/30/14	CITY of TAMPA WASTEWATER DEPARTMENT	26TH ST. PUMPING STATION REHABILITATION ONE LINE DIAGRAM	W.O. 5979 SHEET E5
	3						
	2						
	1						



SEE NOTES ON SHEET E10

User: ss13, Drawing Name: K:\Electrical Project Documents\26th Street Pump Station WD 5979\Working Drawings\Drawings.dwg, Layout: Jun 05, 2014 - 11:28am

ROMAN D. KORCHAK, P.E. #42626
ELECTRICAL SECTION HEAD
WASTEWATER DEPARTMENT

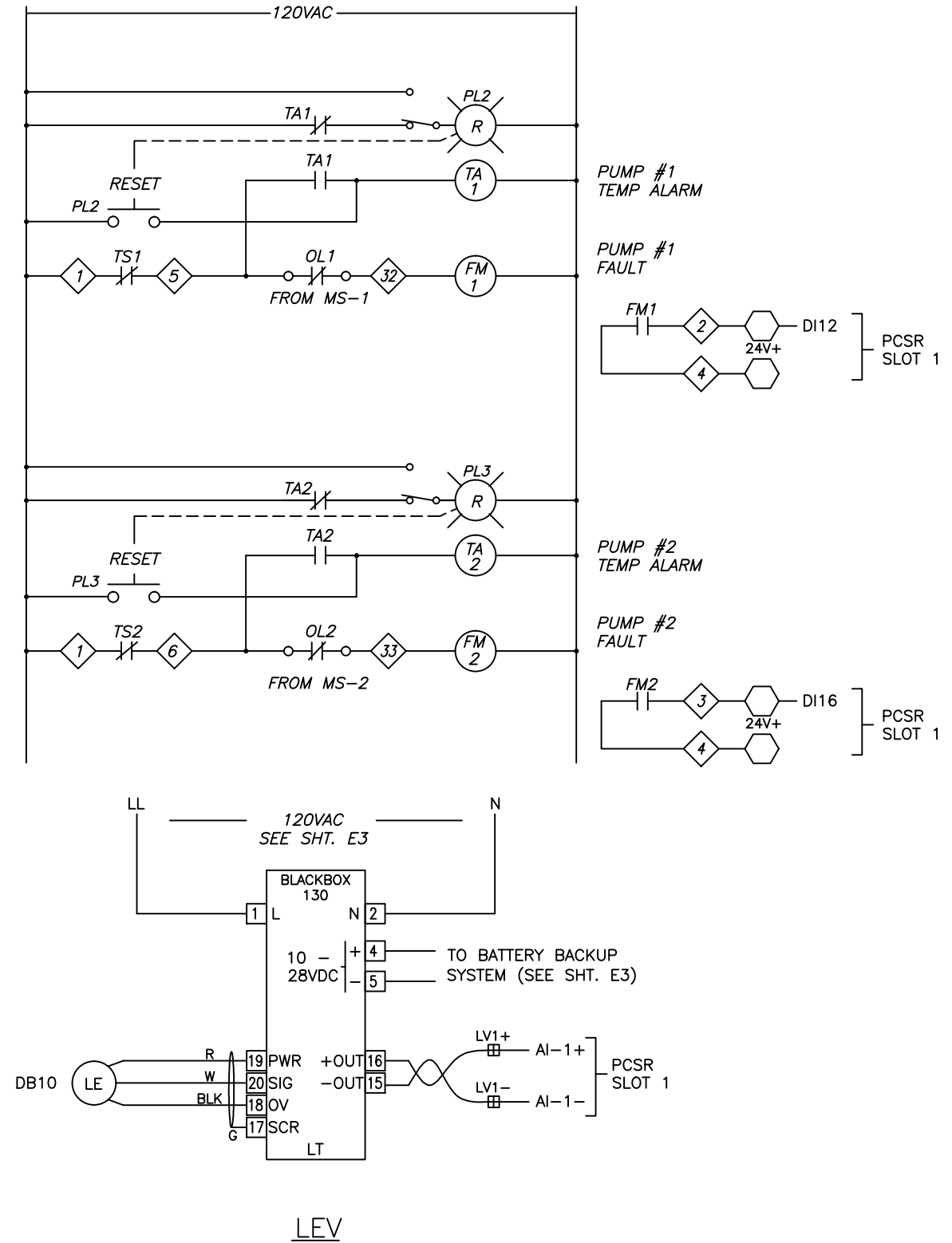
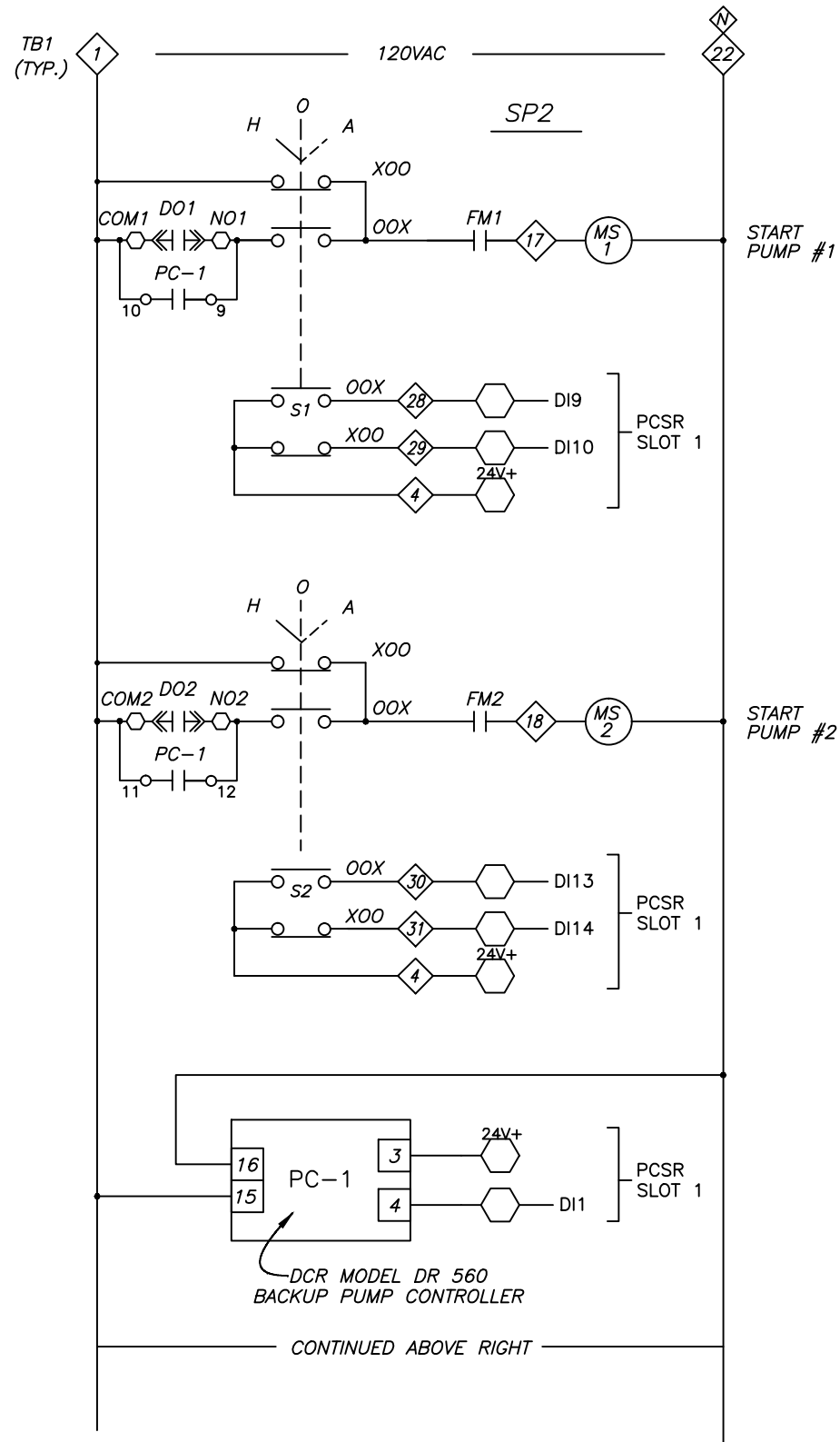
No.	DATE	REVISIONS
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DES: LRG
DRN: LRG
CKD: RDK
DATE: 5/30/14

CITY of TAMPA
WASTEWATER DEPARTMENT

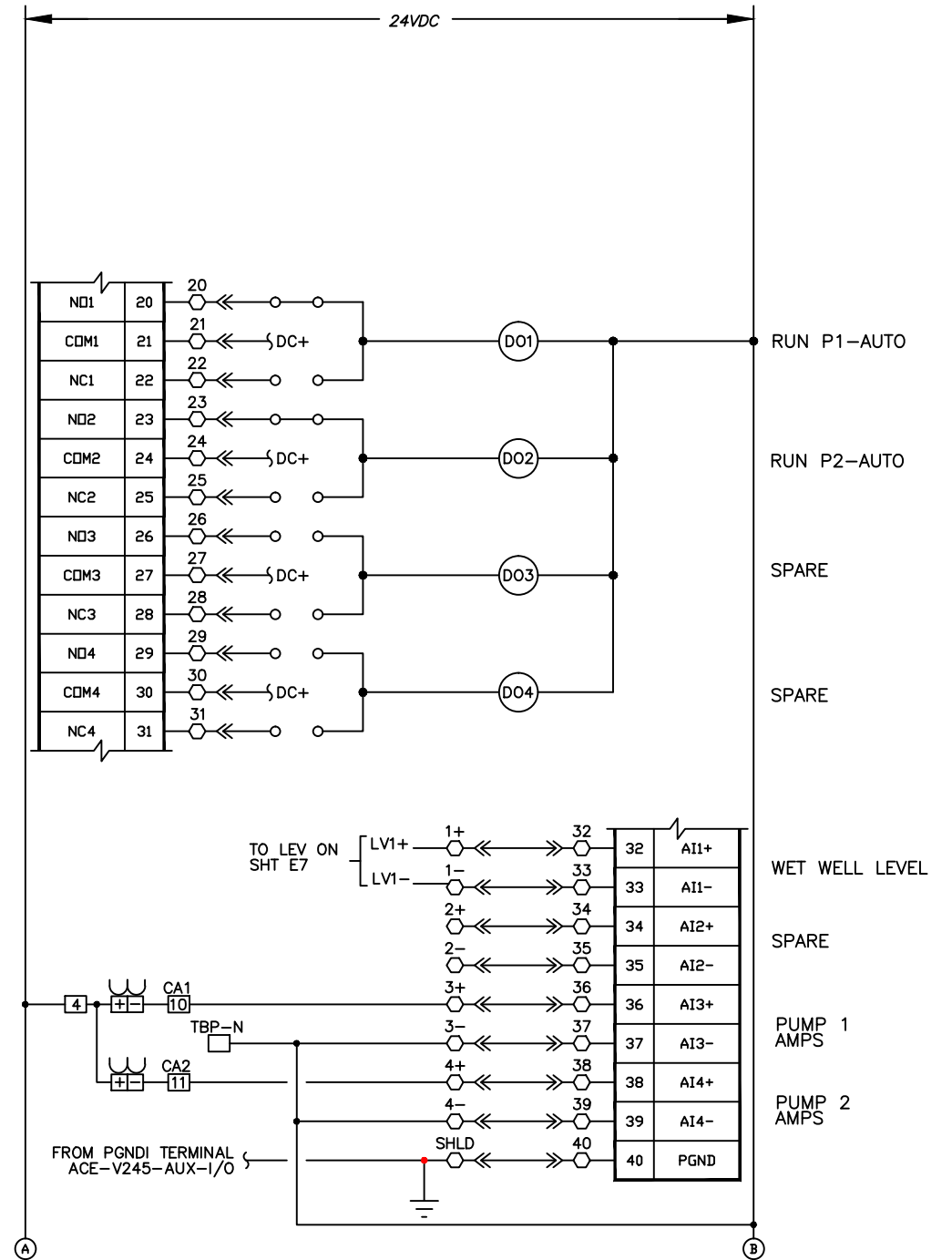
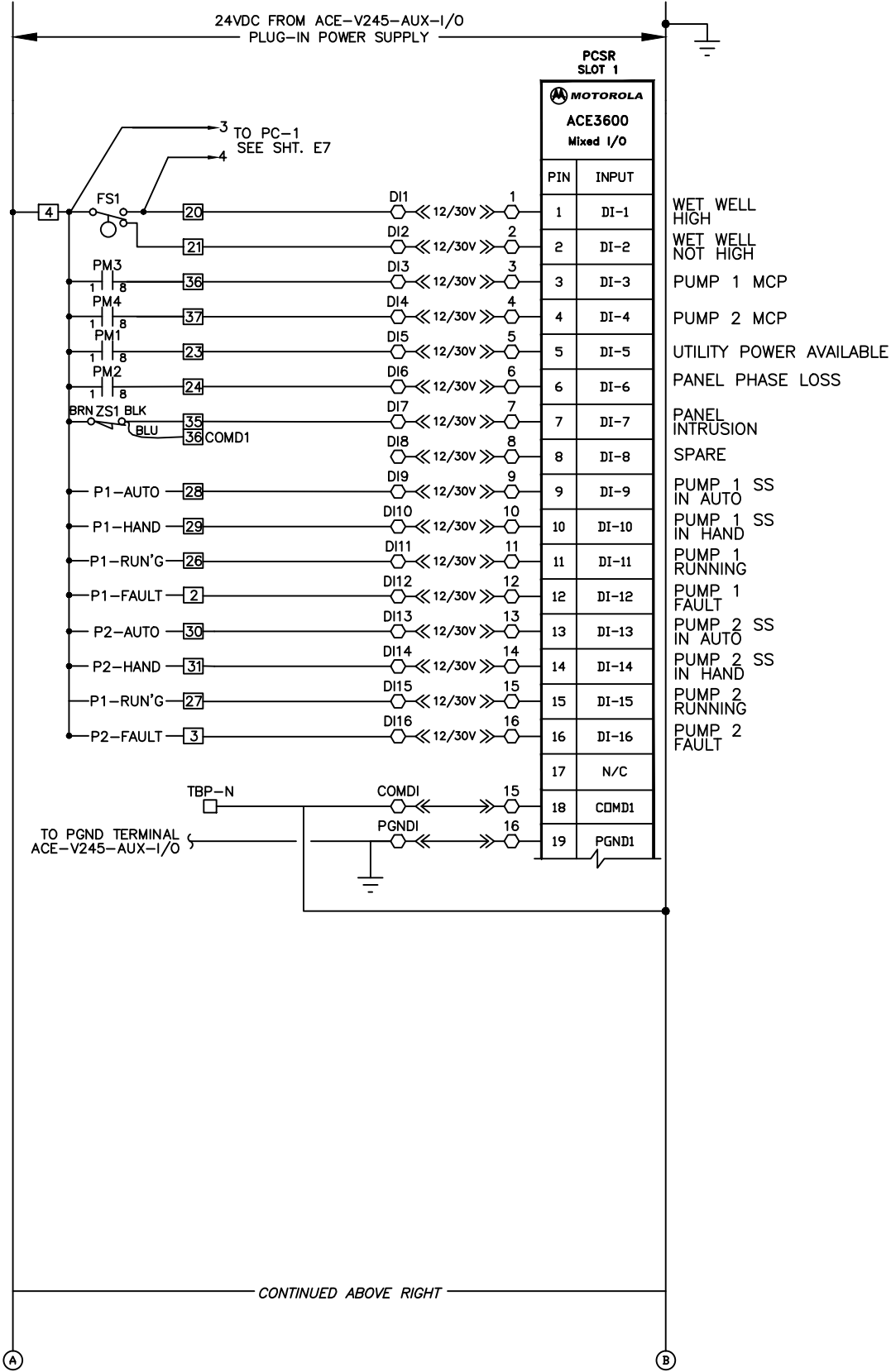
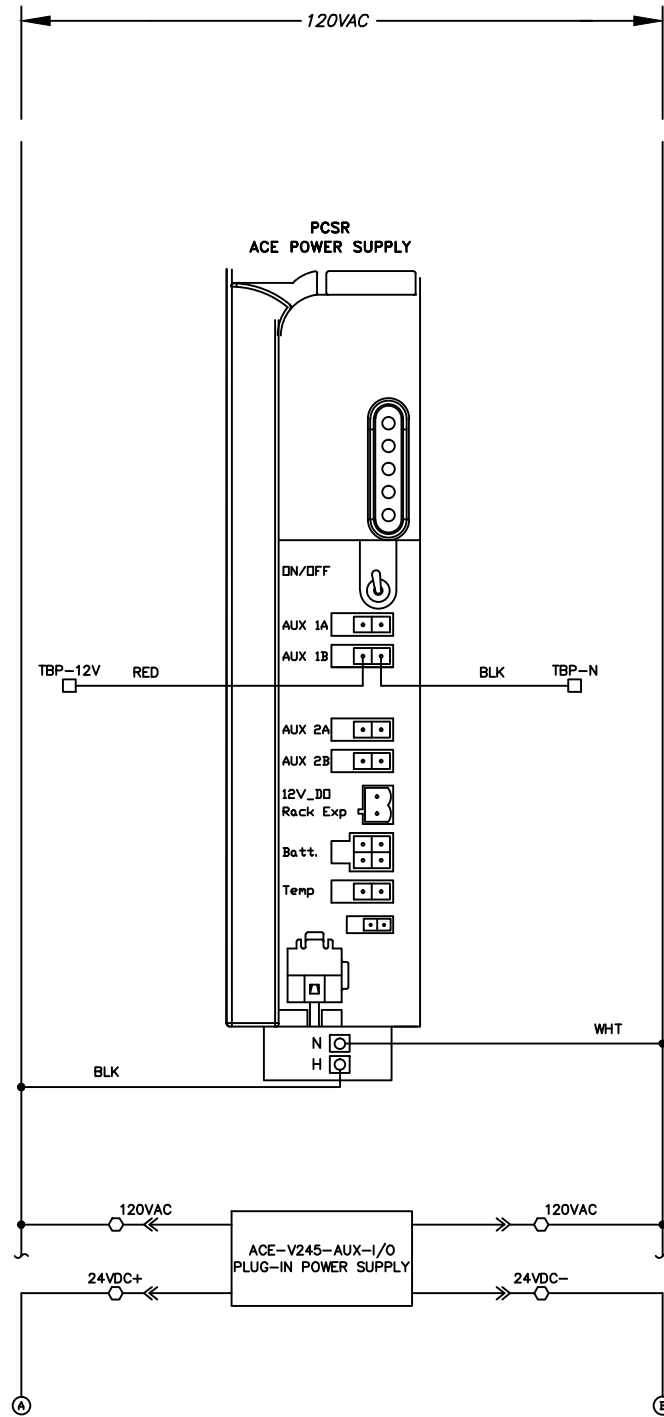
26TH ST. PUMPING STATION REHABILITATION
ELECTRICAL SCHEMATIC DIAGRAM (1 OF 3)

W.O. 5979
SHEET
E6



SEE NOTES ON SHEET E10


No.	DATE	REVISIONS
3		
2		
1		



○ TERMINALS ON ACE I/O MODULE (GENERAL)
 □ TERMINALS IN PUMP CONTROL PANEL


SEE NOTES ON SHEET E10


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TBI-  MOUNTED ON MAIN PANEL (MP)	
TERM.	DESCRIPTION
1	CB 6 OUT PUMPS CONTROL POWER
2	PUMP 1 FAULT CONTROL INTERLOCK
3	PUMP 2 FAULT CONTROL INTERLOCK
4	PCSR 24V+
5	STATOR TEMP SWITCH FROM P1
6	STATOR TEMP SWITCH FROM P2
7	} ODOR CONTROL BLOWER (FUTURE)
8	
9	
10	PUMP 1 AMPS
11	PUMP 2 AMPS
12	} P1 SEAL LEAK PROBE
13	
14	} P2 SEAL LEAK PROBE
15	
16	P1 "ON" DISC.
17	MS-1 "RUN" CMD
18	MS-2 "RUN" CMD
19	P2 "ON" DISC.
20	WET WELL HIGH
21	WET WELL NOT HIGH
22	NEUTRAL




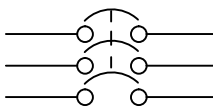

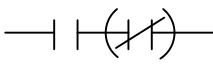

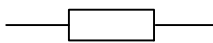

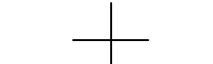
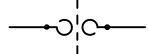

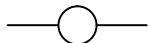


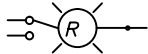
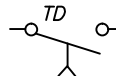
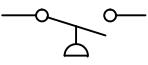
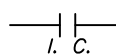

TB1 CONT'D

23	UTIL. POWER AVAILABLE
24	PANEL PHASE LOSS
25	SPARE
26	P1 "ON" TO PCSR
27	P2 "ON" TO PCSR
28	P1 "AUTO" TO PCSR
29	P1 "HAND" TO PCSR
30	P2 "AUTO" TO PCSR
31	P2 "HAND" TO PCSR
32	M1 OVERLOAD
33	M2 OVERLOAD
34	} PANEL INTRUSION
35	
36	PUMP 1 MCP STATUS
37	PUMP 2 MCP STATUS
38	AREA LIGHT

X-Y  TB2 TERM STRIP MTD ON MP-- (PCSR INTERFACE)

 TERMINAL STRIP IN PCSR

CONTROL SCHEMATIC SYMBOLS

	TRANSFORMER		CIRCUIT BREAKER (SINGLE-POLE)
	PUSH BOTTOM		CIRCUIT BREAKER (THREE-POLE)
	115 V, 60 Hz, DUPLEX RECEPTACLE		CONTACT NORMALLY OPEN (CLOSED)
	SWITCH		SPLIT BOLT SPLICE
	CONNECTED		NOT CONNECTED
	OVERLOAD HEATER COIL		GROUND BUS
	COIL		NEUTRAL BUS (INSULATED)
	<ul style="list-style-type: none"> TD - TIME DELAY RELAY CR - CONTROL RELAY ETI - TIMEMETER M - MOTOR STARTER 		FUSE
	PILOT LIGHT - RED (PRESS-TO-TEST)		"ON DELAY" CONTACT
	PRESSURE LEVEL SWITCH CONTACT		INSTANT CLOSE CONTACT
	AIR LINE		

SEE NOTES ON SHEET E10

No.	DATE	REVISIONS
3		
2		
1		

NOTES

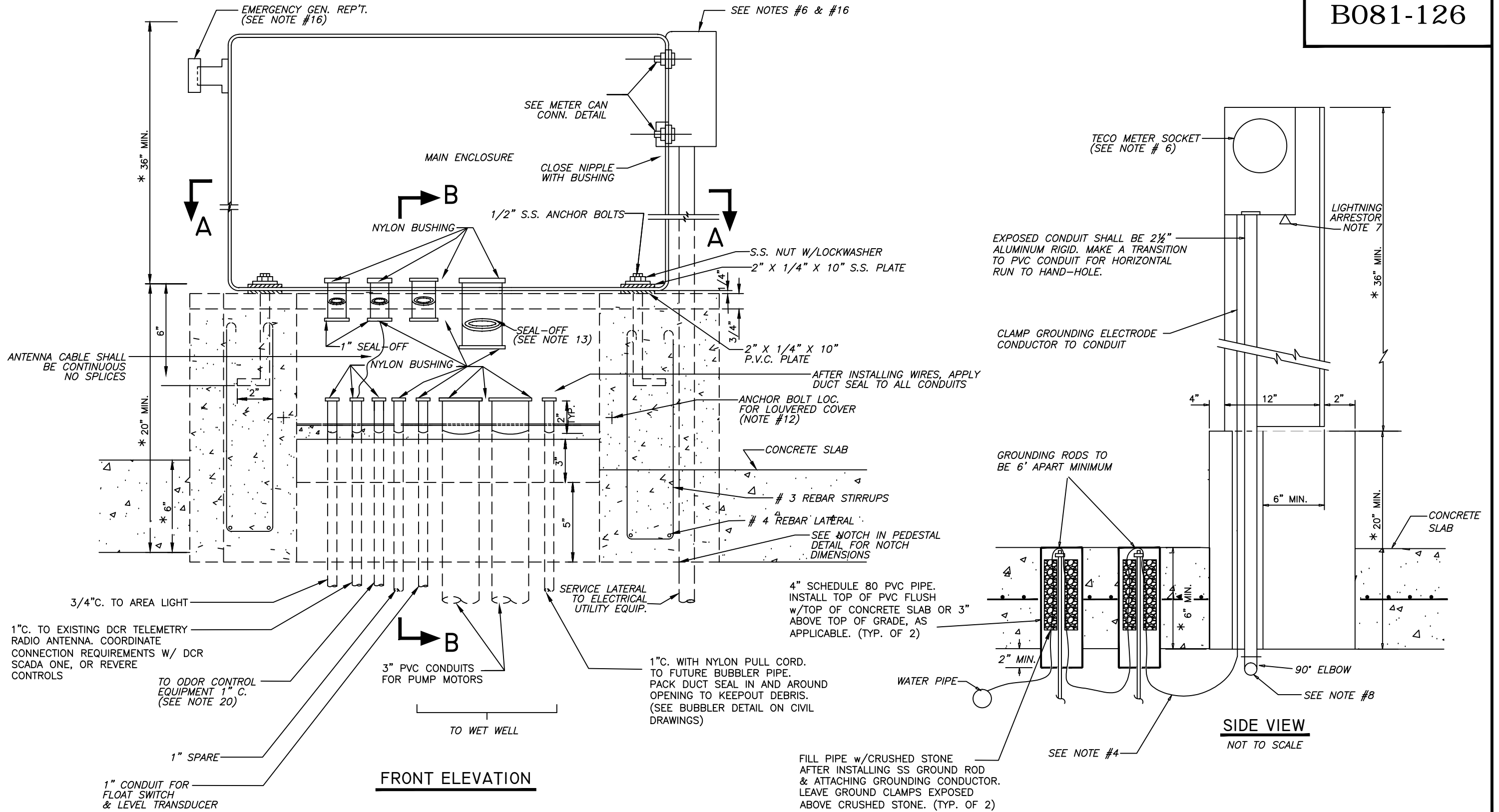
1. TECO SERVICE: 120/240V, 3 ϕ , 4W, DELTA CALCULATED FAULT CURRENT- 5413A, CB1 AIC RATING - 25,000A SYMMETRICAL.
2. THE WET WELL CLASSIFICATION IS CLASS I, DIVISION 2, GROUP D, (HAZARDOUS AREA) NEC, CHAPTER 5 IS APPLICABLE FOR INTERFACING WET WELL AND THE CONTROL ENCLOSURE.
3. ALL ELECTRICAL WORK SHALL BE PERFORMED WITHIN LATEST EDITION OF THE NEC ADOPTED BY THE STATE OF FLORIDA AND CITY OF TAMPA/HILLSBOROUGH COUNTY CODES AND SHALL BE INSPECTED BY CITY OF TAMPA/HILLSBOROUGH COUNTY ELECTRICAL INSPECTORS AS APPLICABLE.
4. ALL ELECTRICAL COMPONENTS SHALL BE UL LISTED AND AS SPECIFIED, OR AS APPROVED BY THE ENGINEER. THE PANEL BUILDER SHALL BE UL-508A CERTIFIED AND A UL LABEL SHALL BE ATTACHED TO THE INSIDE OF THE ENCLOSURE. ALSO, LABEL THE PANEL--"SUITABLE FOR USE AS SERVICE EQUIPMENT".
5. THE ENCLOSURE SHALL BE NEMA 3, SHALL BE CONSTRUCTED OF MINIMUM 14 GAUGE 304 S.S. SHALL HAVE RAL 9003 WHITE POWDER COAT SURFACE, AND THE CLOSING SURFACE SHALL HAVE ROLLED LIPS. PROVIDE HINGED DOOR WITH 3-POINT LATCH AND LOCKABLE HANDLE. REFERENCE PART SCHEDULE.
6. ALL COMPONENTS TO BE MOUNTED ON PANEL USING TAPPED HOLES.
7. ALL WIRING SHALL BE COPPER. ALL CONTROL WIRING SHALL BE STRANDED THWN COPPER, MINIMUM AWG #14, AND SHALL HAVE SPADE LUG TERMINATIONS.
8. ALARM FLOAT SWITCH WILL BE SUPPLIED BY THE CITY BUT INSTALLED BY CONTRACTOR.
9. DIMENSIONS, ITEMS, OR ELEVATIONS MARKER '*' TO BE DETERMINED AFTER EQUIPMENT SELECTION.
10. ALL MECHANICAL CONNECTORS SHALL BE TORQUED PER NEC, UL OR MANUFACTURERS SPECIFICATIONS.
11. INSTALL LAMINATED SCHEMATIC AND LAMINATED DATA SHEET ON BACK FACE OF THE DOOR INSIDE THE ENCLOSURE.
12. ENSURE THAT THE LINE CONNECTIONS TO METER SOCKET PROVIDE CORRECT ROTATION.
13. ROUTE AND SECURE SERVICE ENTRANCE CONDUCTORS SO AS NOT TO INTERFERE WITH OR CONTACT EQUIPMENT AND COMPONENTS IN THE PANEL. ALSO, PROVIDE SPACING BETWEEN THE ENCLOSURE AND ALL CONDUCTORS.
14. CONDUCTORS WITHIN THE ENCLOSURE AND NOT ROUTED IN WIREWAYS, SHALL BE SECURED TO THE BACKPANEL WITH MECHANICAL FASTENERS. FASTENERS SECURED WITH ADHESIVE ARE NOT ACCEPTABLE.
15. ALL HINGED SURFACES SHALL BE GROUNDED WITH A BONDING JUMPER SECURED TO THE ENCLOSURE OR BACKPANEL.
16. THE PCSR SHALL BE A MOTOROLA ACE 3600 PACKAGE AS DISTRIBUTED BY DCR ENGINEERING SERVICES INC., SCADAONE, LLC., OR REVERE CONTROL SYSTEMS. THE PUMPING STATION CONTRACTOR SHALL COORDINATE HIS EFFORTS WITH DCR, SCADAONE, OR REVERE CONTROL SYSTEMS TO ENSURE SYSTEM COMPATIBILITY. THE CONTRACTOR SHALL PROVIDE AND INSTALL A COMPLETE DUPLEX CONTROL SYSTEM/SCADA PACKAGE, AS PROGRAMMED BY DCR, SCADAONE, OR REVERE CONTROLS-- THE EXISTING PUMPING STATION DCR CONTROLS SHALL REVERT TO THE CITY AS A SPARE.
17. A WET WELL LEVEL DETECTION SYSTEM SHALL BE PROVIDED AND INSTALLED BY THE CONTRACTOR. THE OUTPUT SHALL BE A LINEAR 4-20 mA SIGNAL WITH RANGE AND CALIBRATION SUITABLE FOR THIS APPLICATION. THE SYSTEM SHALL BE OF THE ULTRASONIC TYPE-- PULSAR, INC. MODEL dB10 W/BLACKBOX 130 TRANSMITTER. CITY INSTRUMENTATION PERSONNEL WILL ASSIST THE CONTRACTOR WITH SPECIFYING THE TRANSDUCER MOUNTING LOCATION AND CALIBRATION. THE dB10 TRANSDUCER SHALL BE MOUNTED USING A STAINLESS STEEL BRACKET, SEE PULSAR MOUNTING BRACKET DETAIL, SHEET E14. THE EXISTING PUMPING STATION WET WELL LEVEL DETECTION SYSTEM SHALL REVERT TO THE CITY AS A SPARE.
18. PROVIDE 1/4" MINIMUM THICKNESS LEXAN SHIELDS OVER POWER DISTRIBUTION BLOCK AND OTHER EXPOSED CABLE TERMINATIONS.

PUMP MOTOR DATA

MAKE: FLYGT
 MODEL: NP-3127.185 w/215 IMPELLER
 HP : 10
 230 V, 3 PHASE, 25 FLA

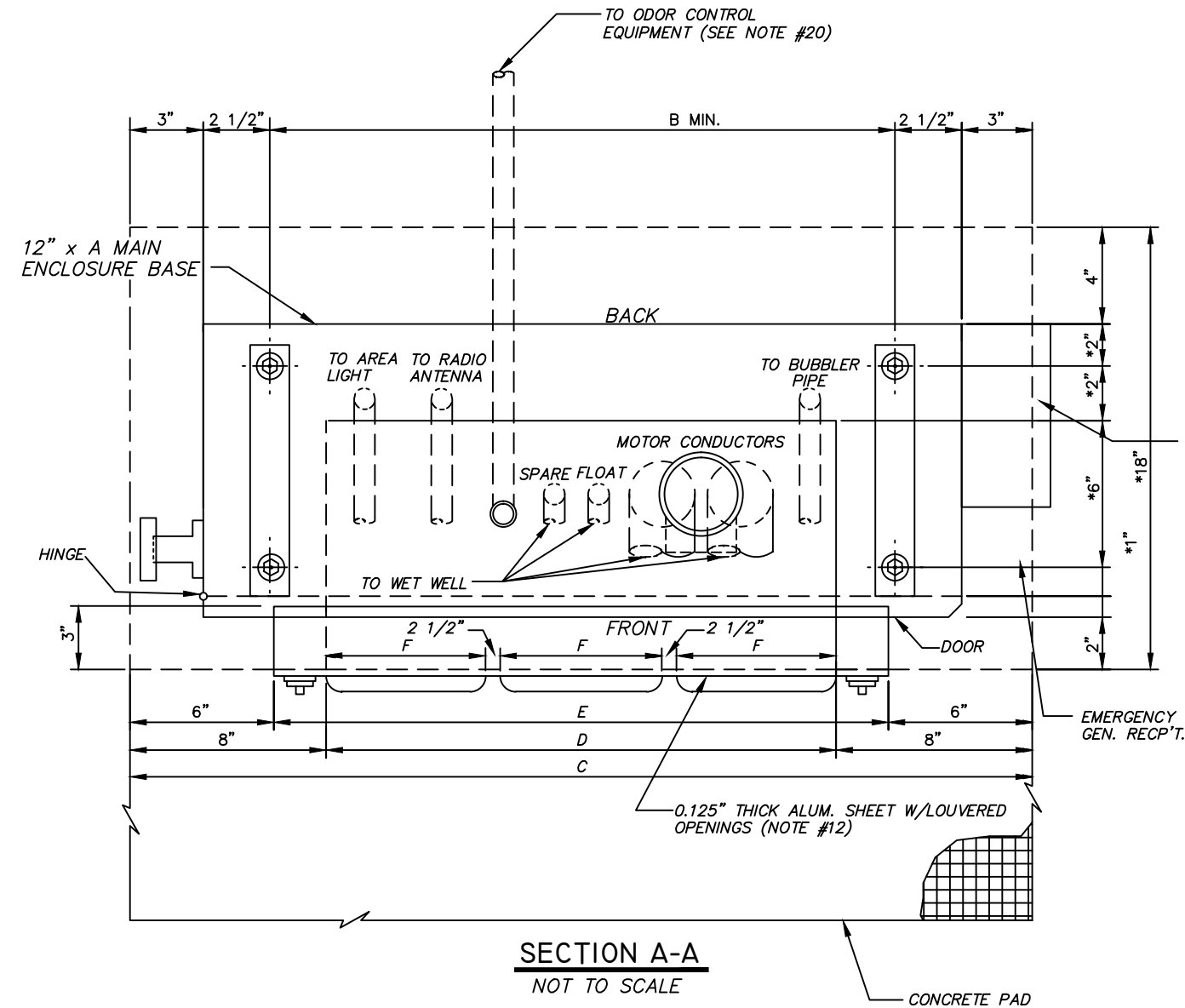
TOTAL PUMP LOAD: 50 AMPS, 20.8 KVA

ROMAN D. KORCHAK, P.E. #42626 ELECTRICAL SECTION HEAD WASTEWATER DEPARTMENT	No.	DATE	REVISIONS	DES: LRG	CITY of TAMPA WASTEWATER DEPARTMENT	26TH ST. PUMPING STATION REHABILITATION ELECTRICAL NOTES FOR SHEETS E4-E9	W.O. 5979
	3			DRN: LRG			SHEET
	2			CKD: RDK			E10
	1			DATE: 5/30/14			

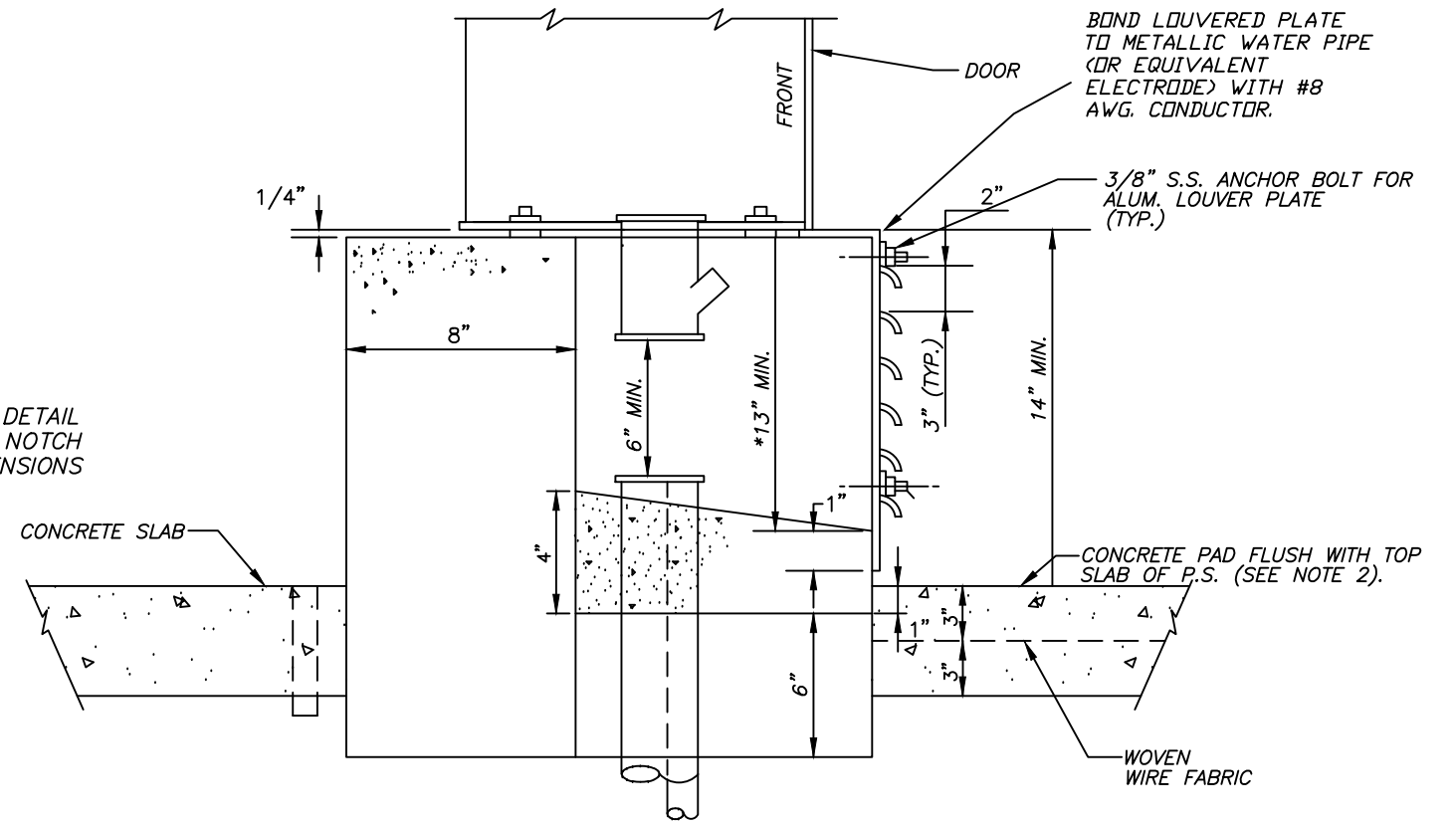


SEE NOTES ON SHEET E14

ROMAN D. KORCHAK, P.E. #42626 ELECTRICAL SECTION HEAD WASTEWATER DEPARTMENT	No.	DATE	REVISIONS	DES: LRG	CITY of TAMPA WASTEWATER DEPARTMENT	26TH ST. PUMPING STATION REHABILITATION ELECTRICAL PEDESTAL DESIGN	W.O. 5979
	3			DRN: LRG			SHEET
	2			CKD: RDK			EII
	1			DATE: 5/30/14			



SECTION A-A
NOT TO SCALE



SECTION B-B
NOT TO SCALE

PUMP SIZE	DIMENSIONS (INCHES)						ENCLOSURE SIZE
	A	B	C	D	E	F	
10.0 HP @ 240V	42	37	48	32	36	9	48"H X 42"W X 12"D

SEE NOTES ON SHEET E14

ROMAN D. KORCHAK, P.E. #42626
ELECTRICAL SECTION HEAD
WASTEWATER DEPARTMENT

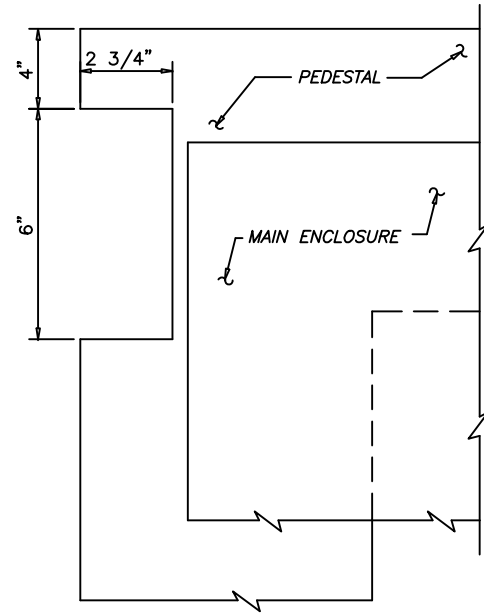
No.	DATE	REVISIONS
3		
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DES: LRG
DRN: LRG
CKD: RDK
DATE: 5/30/14

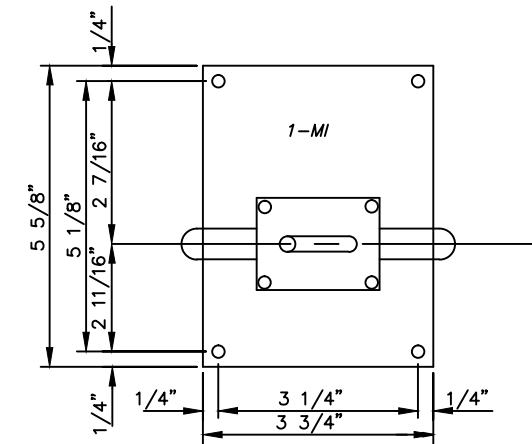
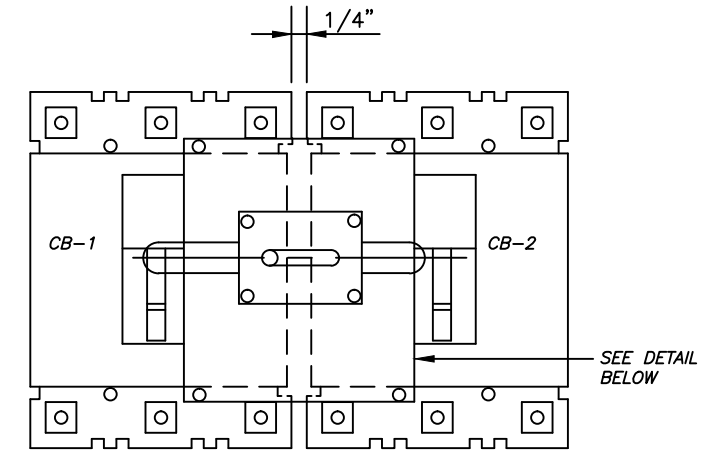
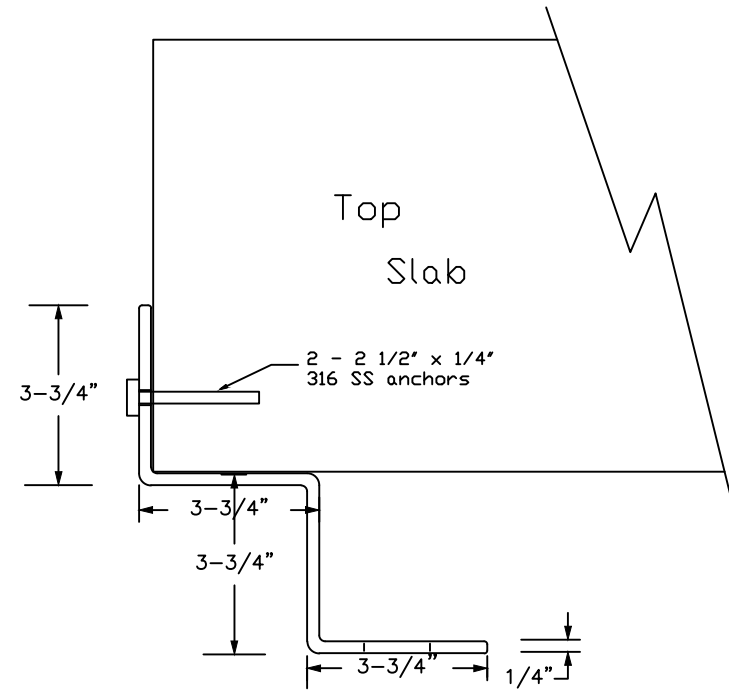
CITY of TAMPA
WASTEWATER DEPARTMENT

26TH ST. PUMPING STATION REHABILITATION
ELECTRICAL PEDESTAL DESIGN

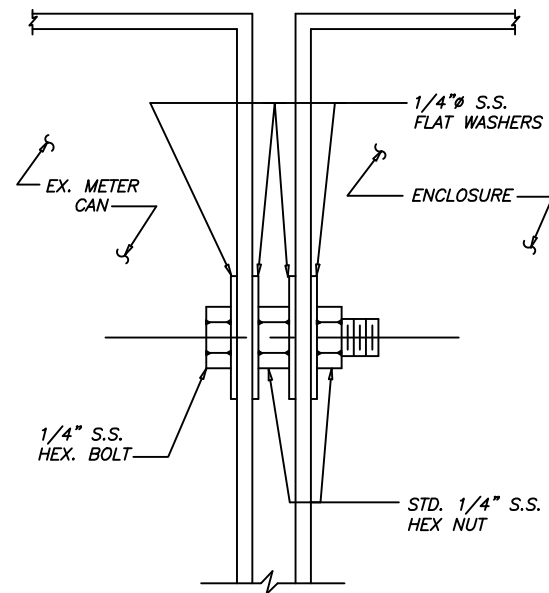
W.O. 5979
SHEET
E12



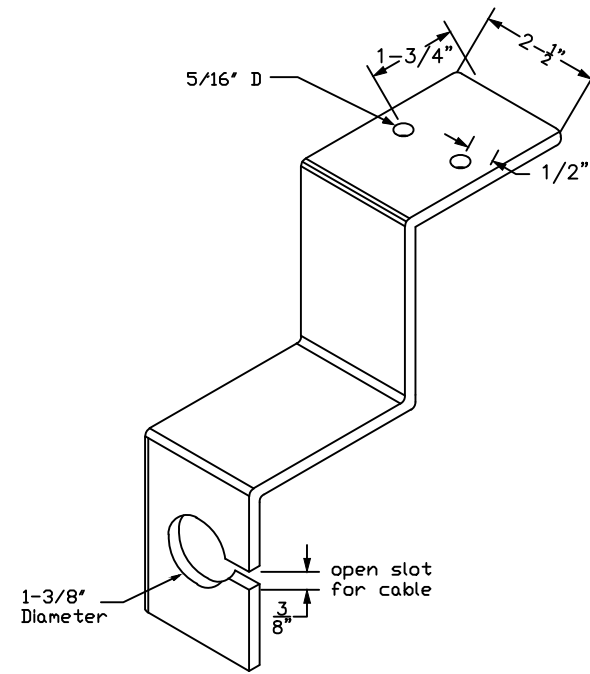
NOTCH IN PEDESTAL DETAIL
NOT TO SCALE



INTERLOCK MOUNTING DETAIL
NOT TO SCALE



METER CAN CONNECTION
NOT TO SCALE



- NOTES:
 1. ROUND OVER ALL EDGES
 2. RADIUS ALL CORNERS
 3. USE 316 STAINLESS STEEL MATERIAL

PULSAR MOUNTING BRACKET DETAIL
NOT TO SCALE

SEE NOTES ON SHEET E14

No.	DATE	REVISIONS
3		
2		
1		

NOTES:

1. THWN CONDUCTORS (3 #8AWG & 1 #10 AWG. GND.) SHALL EXTEND FROM THE CONTROL PANEL BELOW THE SEAL-OFF A MINIMUM OF 18" AND SHALL BE SEALED IN THE SEAL-OFF SHOWN. THE SHOWN SEAL-OFFS SHALL BE ALUMINUM BODY, CROUSE-HINDS, OR EQUIVALENT. WHEN INSTALLING THE PUMPS, THE MOTOR CONDUCTORS SHALL BE SPLICED USING MULTI-CABLE CONNECTOR BLOCKS-- NSI POLARIS, IPL SERIES, OR EQUAL. FOR INSULATION USE MATERIALS THAT ARE RECOMMENDED BY MANUFACTURER TO EQUAL INSULATION ON CONDUCTORS. FOLLOW THE SAME PROCEDURE FOR THE LEAKAGE AND THERMAL SENSOR CONDUCTORS.
2. CONCRETE PAD SHALL BE CONSTRUCTED OF CLASS B CONCRETE REINFORCED WITH 4X4-W6X6 WWF AND SHALL HAVE A MINIMUM THICKNESS OF 6".
3. DIMENSIONS, ITEMS OR ELEVATIONS MARKED "*" TO BE DETERMINED AFTER EQUIPMENT SELECTION.
4. APPROVED GROUND CLAMPS SHALL BE ATTACHED TO TWO APPROVED GROUNDING RODS (MINIMUM SPACING 6'-0") AND THE METALLIC WATER LINE. GROUNDING CONDUCTOR SHALL BE AWG # 4 MIN. BARE STRANDED COPPER.
5. THE CONTRACTOR SHALL PROVIDE AND INSTALL A 316 S.S. MOUNTING BRACKET TO SUPPORT THE DB10 TRANSMITTER. THE BRACKET SHALL BE INSTALLED IN THE WET WELL, CITY INSTRUMENTATION PERSONAL WILL ASSIST THE CONTRACTOR WITH SPECIFYING THE TRANSDUCER MOUNTING LOCATION AND CALIBRATION.
6. METER SOCKET SUPPLIED, AND INSTALLED BY CONTRACTOR, ALSO SEE NOTE #16. THE SOCKET EDGES ARE TO BE ALIGNED WITH THE BACK AND TOP EDGE OF THE MAIN ENCLOSURE.
7. CITY APPROVED TYPE 1 SURGE PROTECTIVE DEVICE(LIGHTNING ARRESTER) TO BE INSTALLED BY CONTRACTOR ON LOAD SIDE OF METER SOCKET.
8. ELBOWS TO BE LONG BUSHED AND THE HORIZONTAL PVC CONDUIT SHALL EXTEND TO A TECO HAND-HOLE AT THE BASE OF THE POWER POLE. PROVIDE 24" MINIMUM COVER. COORDINATE THIS WORK WITH TECO.
9. RESERVED.
10. WATER SERVICE RISER TO BE LOCATED ON THE SIDE OF PANEL OPPOSITE TO THE TECO METER BOX.
11. ALUMINUM CONDUIT SURFACE THAT IS IN CONTACT WITH SOIL OR CONCRETE SHALL BE COATED WITH TWO COATS ASPHALT VARNISH (FED. SPEC. TT-V-51) EXTENDING 4" BEYOND FINAL CONTACT POINT.
12. FRONT OF OPEN SPACE TO BE COVERED BY A LOUVERED ALUM. METAL SHEET (MIN. THICKNESS 0.125) AND FASTENED WITH MIN. OF FOUR 3/8" STAINLESS STEEL BOLTS ANCHORED IN THE CONCRETE. LOUVERED PANEL TO BE REMOVABLE AND ATTACHED TO PULL BOX WITH STAINLESS STEEL BOLTS. PULL BOX WITH STAINLESS STEEL BOLTS. PULL BOX COVER SHALL BE BONDED TO PULL BOX/MAIN ENCLOSURE USING MINIMUM #8 AWG EXTRA FLEXIBLE GROUNDING CONDUCTOR.
13. SEALING FITTING SHALL BE SIZED FOR CONDUCTORS. ENSURE THAT SEALING FITTING CONNECTION TO MAIN ENCLOSURE IS GAS TIGHT. USE HIGH QUALITY SEALING LOCKNUTS OR WATERTIGHT HUBS WITH A SUPPLEMENTAL BARRIER (IF NECESSARY) TO EXCLUDE GASES.
14. RESERVED.
15. REINFORCEMENT SHALL BE AT LEAST 3" FROM EDGE OF PEDESTAL.
16. TECO PREFERS STRAIGHT UNDERGROUND SERVICE CONNECTION TO THE METER BOX. TO AVOID ANY CONFIGURATION CHANGES, THE ENCLOSURE HOLES FOR THE METER BOX AND EMERGENCY CONNECTOR SHALL BE CUT AFTER THE TECO ROUTING IS VERIFIED AT THE TIME OF INSTALLATION. THE LENGTH OF CONDUCTORS FROM TECO AND EMERGENCY SERVICES WILL DEPEND ON THE SELECTED CONFIGURATION.
17. STAINLESS STEEL HANGERS TO SUPPORT THE EXCESS LENGTH OF MOTOR CABLES SHALL BE INSTALLED IN THE WET WELL. THESE HANGERS SHALL BE LOCATED IN A SEPARATE AREA FROM THE HANGERS SUPPORTING THE PUMP CHAINS.
18. TOP OF ENCLOSURE SHALL BE A MAXIMUM OF 66" ABOVE FINAL GRADE.
19. EXTEND CONCRETE PAD SUCH THAT IT IS FLUSH w/ PUMPING STATION TOP SLAB.
20. PROVIDE AND INSTALL 1" PVC CONDUIT FOR FUTURE ODOR CONTROL EQUIPMENT AS SHOWN. EXTEND CONDUIT TO EDGE OF PAVEMENT, TURN UP, AND CAP ABOVE GRADE.
21. PROVIDE AND INSTALL A PRESTRESSED CONCRETE POLE WITH LED OUTDOOR SECURITY FIXTURE AND LIGHT SWITCH.

ROMAN D. KORCHAK, P.E. #42626 ELECTRICAL SECTION HEAD WASTEWATER DEPARTMENT	No.	DATE	REVISIONS	DES: LRG DRN: LRG CKD: RDK DATE: 5/30/14	CITY of TAMPA WASTEWATER DEPARTMENT	26TH ST. PUMPING STATION REHABILITATION ELECTRICAL NOTES FOR SHEETS EII - E13	W.O. 5979
	3						SHEET
	2						E14
	1						

P A R T S S C H E D U L E

SYMBOL	NAME	P A R T				R E M A R K S
		M A K E	T Y P E	M O D E L or CAT. #	R A T I N G	
CB 1	CIRCUIT BREAKER	SQUARE D	THREE POLE	HDL 34100	480 V, 100 A	25 KAIC @ 240 VAC
CB 2	CIRCUIT BREAKER	SQUARE D	THREE POLE	HDL 34100	480 V, 100 A	
CB 3, 4	CIRCUIT BREAKER	SQUARE D	THREE POLE	HDL 32060	240 V, 60A	
CB 5	CIRCUIT BREAKER	SQUARE D	THREE POLE	HDL 32015	240 V, 15A	
CB 6, 7, 8, 9	CIRCUIT BREAKER	SQUARE D	SINGLE POLE	QOU 115	120 V, 15A	
M1, 2	MOTOR STARTER	SQUARE D	NEMA SIZE 2	CLASS 8536 TYPE SC03V02	120 V, (COIL)	15 HP (MAX) 1 N.O.
OL 1, 2	OVERLOAD RELAY	SQUARE D	BIMETALLIC, AMBIENT COMPENSATED	AR40.0 TO AR51.0	25.0 - 26.9 A	
CA1, CA2	CURRENT SENSOR	ENERCORP INSTRUMENTS	4-20 mA OUTPUT	SC200-1	0 - 50A	ADJUSTABLE RANGE
PL1, PL4	INDICATOR LIGHT	SQUARE D	CLASS 9001	SKT - 38LYA9	120 V, LED TYPE	YELLOW LENS & PRESS TEST
PL5, PL6	INDICATOR LIGHT	SQUARE D	CLASS 9001	SKT - 38LRR9	120 V, LED TYPE	RED LENS & PRESS TEST
PL2, PL3	ILLUM. PUSH BUTTON	SQUARE D	CLASS 9001	SK2L38LRRH13	120 V, LED TYPE	RED LENS & INO, INC
S1, S2	HOA SWITCH ASSEMBLY	SQUARE D	OIL-TIGHT CLASS 9001	SKS - 43B H2	10A @ 120V	
ETM1, ETM2	ELAPSE TIME METER	CRAMER	NON-RESET	635E&S	120 V	W.W. GRAINGER CAT.NO. 6X144
ZS1	CONTROL PNL INTRUSION SENSOR	OMRON	CYLINDRICAL, SHORT BARREL	E2f-X5E1 (GRAINGER- 6C826)	10-30VDC, 3-WIRE PNP	W/ SQUARE D MTG. BRACKET (GRAINGER- 5B233)
FF & TS	FLUORESCENT FIXTURE	DAYTON	INDUSTRIAL	2 V 811	120 V 20w	W/TOGGLE SWITCH-TS AND TUBE GUARD
WR	WALL RECEPTACLE	HUBBELL	DUPLEX W/GFI	GF5262	120V AC, 15A GFI	W/UTILITY BOX AND COVER
EC	EMERGENCY CONNECTOR	CROUSE & HINDS	ARKTROL	AR-1041-S22 w/AJA6 ANGLE ADAPTER	600 V, 100 A	MALE
SPD-2	SURGE PROTECTIVE DEVICE TYPE 1	ADVANCED PROTECTION TECHNOLOGIES	MAIN PANEL SPD-2	TE03XDS104X	120/240 V, 3Ø DELTA	
MI	MECHANICAL INTERLOCK	CUTLER-HAMMER	SLIDING BAR TYPE	SBK1		INTERLOCK CB-1 & 2

PARTS SCHEDULE IS CONTINUED ON NEXT SHEET

NOTES:

1. ALARM FLOAT SWITCH WILL BE SUPPLIED BY WWD AND INSTALLED BY CONTRACTOR.
2. DIMENSIONS, ITEMS, OR ELEVATIONS MARKED '*' SHALL BE DETERMINED AFTER EQUIPMENT SELECTION.

ROMAN D. KORCHAK, P.E. #42626 ELECTRICAL SECTION HEAD WASTEWATER DEPARTMENT	No.	DATE	REVISIONS	DES: LRG	CITY of TAMPA WASTEWATER DEPARTMENT	26TH ST. PUMPING STATION REHABILITATION PARTS SCHEDULE (1 OF 2)	W.O. 5979
	3			DRN: LRG			SHEET
	2			CKD: RDK			E15
	1			DATE: 5/30/14			

P A R T S S C H E D U L E (CONT'D)

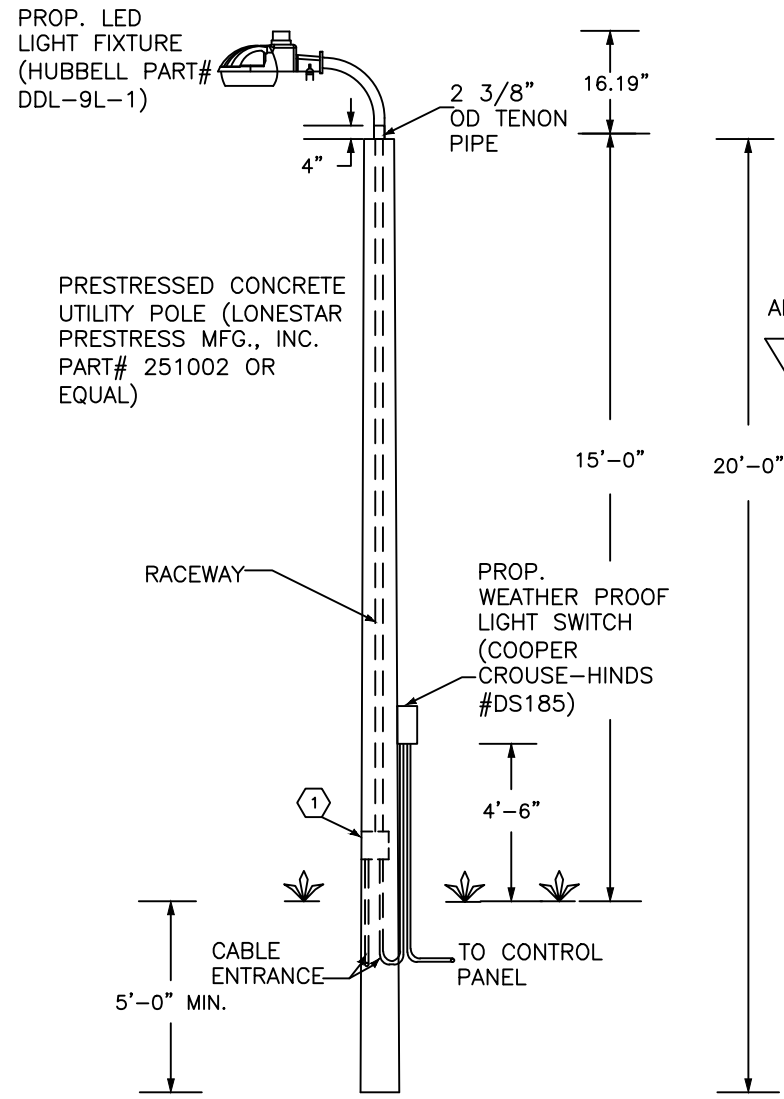
SYMBOL	NAME	P A R T				R E M A R K S
		M A K E	T Y P E	MODEL or CAT. #	R A T I N G	
FL	FLOAT SWITCH	ANCHOR SCIENTIFIC	SPDT	S20N0NC	10 A @ 120 V	
SPD1	LIGHTNING ARRESTOR	GENERAL ELECTRIC	TRANQUEL	9L 15 ECC 001	650 V	
TB 1	TERMINAL BOARD	PHOENIX CONTACT		UK5N TERMINALS	30 A W/ ALUM. DIN RAIL	37 CONTACTS (MIN)
ITS	INSULATED TERMINAL STRIP	ALLEN-BRADLEY	STYLE AA	1492-15-T	600 V AC NEUTRAL BLOCK	4 CONTACTS (MIN) W/SHORTING BARS
ME	CONTROL ENCLOSURE *	QUALITY METALS	NEMA 3 THREE POINT LATCH	48"X42"X12" SS 3	304 SS, 14 GAUGE	W/DOOR STOP KIT #A-DSTOPK. EXTERNAL DURABLE RAL 9003 WHITE POWDER COAT
MP	ENCLOSURE PANEL *	QUALITY METALS	45"X 39", STEEL	S 42 P 36, WHITE	STEEL, 12 GAUGE	
GB 1, 2	GROUNDING BLOCK	ILSCO	AS REQUIRED	AS REQUIRED		
SLD1, SLD2	SEAL LEAK DETECTOR	SYRELEC	8 PIN PLUG-IN	PNRU110	110V INPUT, 10A CONTACT	SPDT W/SOCKET
TA1, TA2, FM1, FM2 CR1, CR2, CR3, CR4	CONTROL RELAY	POTTER & BRUMFIELD	8 PIN PLUG-IN	KRPA-11AG-120	120V COIL, 10A CONTACTS	DPDT W/SOCKET AND HOLD DOWN SPRING
LEV	WET WELL LEVEL SENSOR	PULSAR, INC.	ULTRASONIC	dB10 TRANSDUCER W/ BLACKBOX 130 TRANSMITTER PART #: 130-110-300-00P-KP-TROP	1 TO 32.8 FT RANGE 115VAC/24VDC POWERED W/ 4-20MA AND (2) RELAY OUT W/ KEY PAD, DISPLAY, AND TROPICALIZATION	CITY FORCES WILL PROVIDE ASSISTANCE WITH MOUNTING AND CALIBRATION
PCSR	PLC BASED PUMP CONTROLLER, SCADA, AND RADIO SYSTEM	MOTOROLA CORPORATION	DUPLEX PUMP CONTROLLER BASED ON ACE 3600 PROGRAM CONTROLLER	ACE 3600 W/ UHF RADIO CDM 750, 403-512 MHz PART #: F7564	1-AC POWER SUPPLY 85-264V W/ BAT CHARGER PART #:V261	COORDINATE EFFORT W/ DCR ENG SERVICES
	SLOTS 1 & 2	MOTOROLA CORPORATION	1- MIXED I/O AUXILLARY INTERFACE BOARD PART #: V245-AUX-I/O	1- 40 WIRE CABLE W/TB HOLDER 3M PART #: V358	1- ACE CPU3640 PART #:V446	1- 10.0 Ah BATTERY PART #: V328
	1-3 I/O SLOT FRAME PART #: V103	1-20 PIN TB HOLDER KIT PART #: V158	1- 14x 14 METAL CHASSIS PART #: V214	2- 16DI, 4DO(E), 20mA MODULE PART #: V245	1- 40 PIN TB HOLDER KIT PART #:V153	
PM1, PM2, PM3, PM4	3-PHASE POWER MONITOR	ATC DIVERSIFIED	8 PIN PLUG-IN	SLA-230-ALA	230 VAC	W/OPTIONAL 5-SEC. RELEASE AND DIN RAIL SOCKET
PDB	PWR DIST. BLOCK	ILSCO	THREE POLE	PDB-26-2/0-3	600 V, 350 AMP	W/ LEXAN COVER
MS	METER SOCKET & PAN	MILBANK	7 TERMINAL	UAP9701-X-QG-HSP	600 VAC, 200 A	ALUMINUM CONSTRUCTION
FBD1, FBD2, FBD3, FBD4	FUSE BLOCK / DISCONNECT	ALLEN BRADLEY	THREE PHASE-- HIGH INTER. CAP.	1492-FB3C30-L	600 VAC, 200KAIC	W/BUSSMANN KTK-R-2 FAST ACTING, REJECTION FUSES
BATT.	BATTERY	POWERSONIC	ABSORBENT GLASS MAT (AGM)	PS-1270 F2	12 VOLT, 7.0 AH	W/ 0.25" X 0.032" TABS
BATT. CHR.G.	BATTERY CHARGER	DELTRAN CORP.	BATTERY TENDER	WATERPROOF 800	12 VOLT, 800 mADC	QUALIFICATION, BULK, & FLOAT CHARGING
PC-1	BACKUP PUMP CONTROLLER	DCR ENGG. OR WILKERSON	DUPLEX LIFT STATION	BR560 OR DR1920	10 AMP CONTACTS	DIN RAIL MOUNTING

NOTES:
DIMENSIONS, ITEMS, OR ELEVATIONS MARKED ** SHALL BE DETERMINED AFTER EQUIPMENT SELECTION.

LEGEND PLATE SCHEDULE

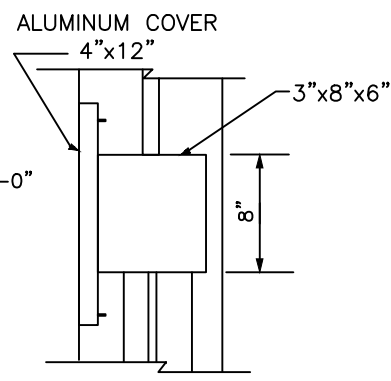
SYMBOL	DEVICE	LEGEND
ETM1	ELAPSED TIME METER	PUMP NO. 1 HOURS
ETM2	ELAPSED TIME METER	PUMP NO. 2 HOURS
PL1	YELLOW PILOT LIGHT	PUMP NO. 1 ON
PL2	RED ILLUMINATED PUSH BUTTON	PUMP NO. 1 HIGH TEMPERATURE AND RESET
PL3	RED ILLUMINATED PUSH BUTTON	PUMP NO. 2 HIGH TEMPERATURE AND RESET
PL4	YELLOW PILOT LIGHT	PUMP NO. 2 ON
S1	3 POSITION SWITCH	PUMP NO. 1 HAND-OFF-AUTO
PL5	RED PILOT LIGHT	PUMP NO. 1 SEAL LEAK
PL6	RED PILOT LIGHT	PUMP NO. 2 SEAL LEAK
S2	3 POSITION SWITCH	PUMP NO. 2 HAND-OFF-AUTO

No.	DATE	REVISIONS
3		
2		
1		



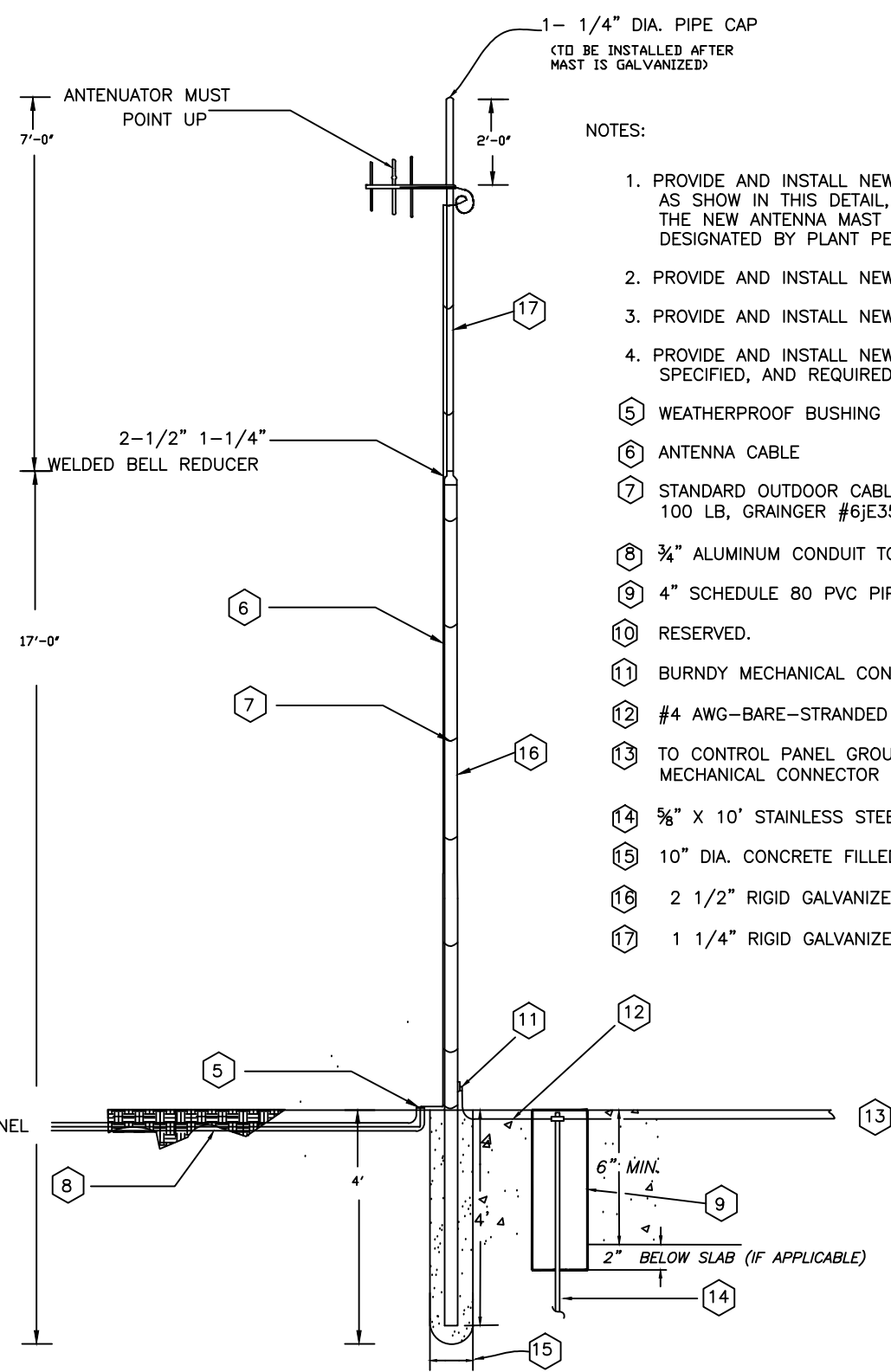
AREA LIGHT DETAIL

NOT TO SCALE



1 HANDHOLE W/ RECESSED COVER DETAIL

- NOTES:
1. OVERALL 20'-0" POLE HEIGHT
 2. MIN. 5'-0" POLE BURIAL
 3. COORDINATE LOCATION OF THE AREA LIGHT WITH PLANT PERSONNEL
 4. USE STAINLESS STEEL PIPE STRAPS SPACED 2'-0" APART TO MOUNT CONDUIT



ANTENNA DETAIL

NOT TO SCALE

NOTES:

1. PROVIDE AND INSTALL NEW GALVANIZED STEEL MAST AND ANTENNA SYSTEM, AS SHOWN IN THIS DETAIL, AND REQUIRED BY THE PROPOSED SCADA RADIO. THE NEW ANTENNA MAST SHALL BE INSTALLED IN THE LOCATION AS DESIGNATED BY PLANT PERSONNEL.
 2. PROVIDE AND INSTALL NEW ANTENNA COAX CABLE, AS REQUIRED.
 3. PROVIDE AND INSTALL NEW UNDERGROUND CONDUIT, AS REQUIRED.
 4. PROVIDE AND INSTALL NEW ANTENNA GROUNDING SYSTEM, AS SHOWN, SPECIFIED, AND REQUIRED.
- 5 WEATHERPROOF BUSHING
- 6 ANTENNA CABLE
- 7 STANDARD OUTDOOR CABLE TIES, 304 STAINLESS STEEL, TENSILE STRENGTH 100 LB, GRAINGER #6JE35
- 8 3/4" ALUMINUM CONDUIT TO CONTROL PANEL
- 9 4" SCHEDULE 80 PVC PIPE
- 10 RESERVED.
- 11 BURNDY MECHANICAL CONNECTOR #KA25-4-1/0
- 12 #4 AWG-BARE-STRANDED
- 13 TO CONTROL PANEL GROUNDING SYSTEM, USE CADWELD OR BURNDY MECHANICAL CONNECTOR #VT2525
- 14 5/8" X 10' STAINLESS STEEL GROUND ROD
- 15 10" DIA. CONCRETE FILLED HOLE
- 16 2 1/2" RIGID GALVANIZED STEEL PIPE
- 17 1 1/4" RIGID GALVANIZED STEEL PIPE

ROMAN D. KORCHAK, P.E. #42626
ELECTRICAL SECTION HEAD
WASTEWATER DEPARTMENT

No.	DATE	REVISIONS
3		
2		
1		

DES: LRG
DRN: LRG
CKD: RDK
DATE: 5/30/14

CITY of TAMPA
WASTEWATER DEPARTMENT

26TH ST. PUMPING STATION REHABILITATION
AREA LIGHT DETAIL AND ANTENNA DETAIL

W.O. 5979

SHEET

E18