



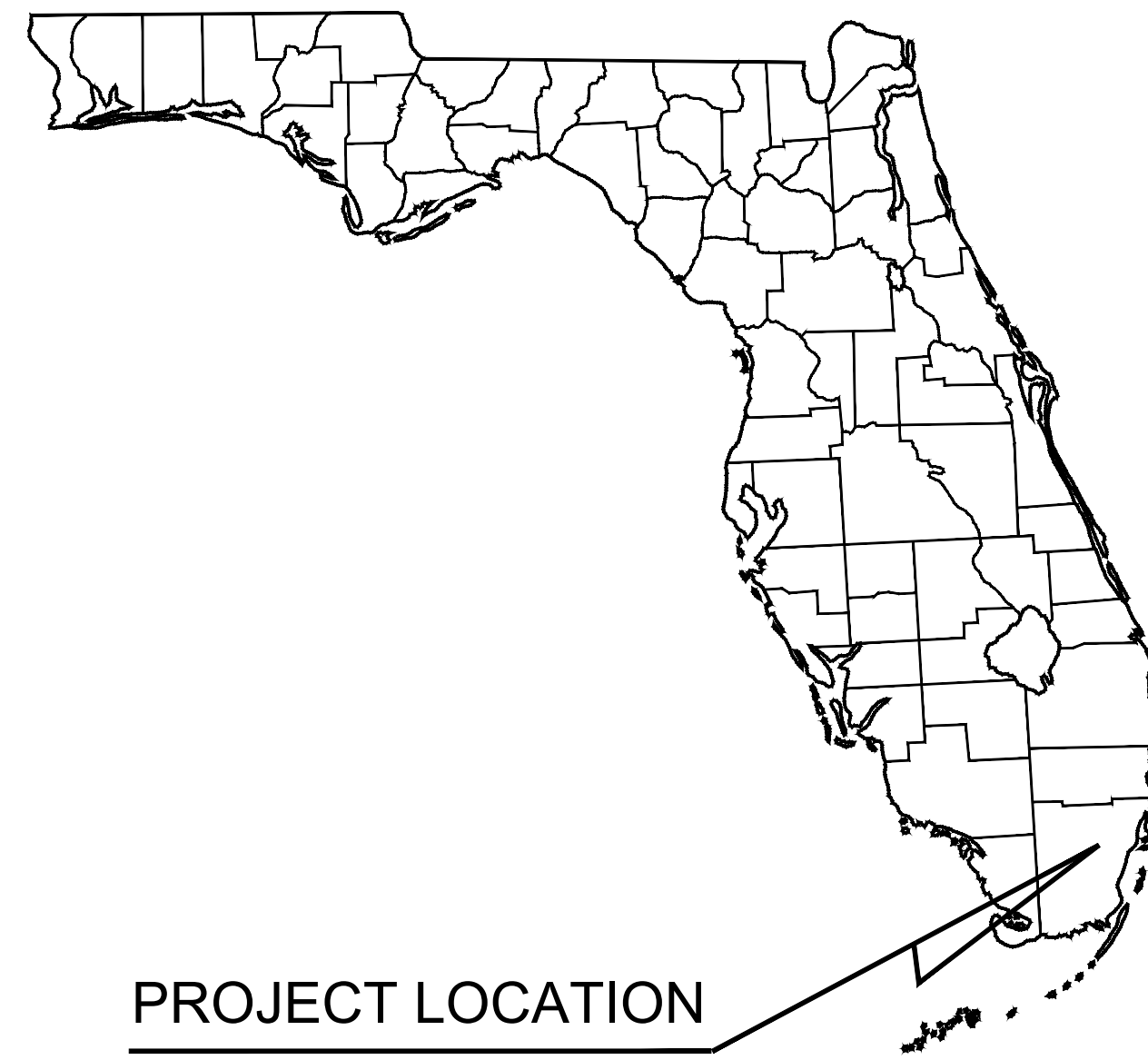
EXHIBIT A
ITB # 2021-011
PROJECT: WASTEWATER PUMP STATION IMPROVEMENTS

NORTH BAY VILLAGE

MIAMI-DADE COUNTY, FLORIDA



HISPANOLA PUMP STATION IMPROVEMENTS



PROJECT LOCATION



PROJECT LOCATION MAP

SCALE: 1" = 100'

PROJECT LOCATION

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PROJECT TEAM:

CIVIL ENGINEER:

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Contact: Gary Ratay, P.E.

CLIENT:

North Bay Village
1666 Kennedy Causeway, 3rd Floor
North Bay Village, FL 33141
Phone: (305) 756-7171
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CITY OFFICIALS:

- BRENT LATHAM - MAYOR
- MARVIN WILMOTH - VICE MAYOR
- JOSE R. ALVAREZ - COMMISSIONER
- ANDREANA JACKSON - COMMISSIONER
- JULIANNA STROUT - COMMISSIONER

FOR BIDDING



Plotted By: Leanne Arabella - Sheet Set: NORTH BAY VILLAGE HISPANOLA LIFT STATION IMPROVEMENTS - LAYOUT: C100.0 COVER SHEET - May 13, 2020 11:29:53am - K:\VTL-Civil\043 jobs\04338041-Wr Auto-1B-03 Ww Station Improv\CAD\PlanSheets\Hispanola Lift Station\C100.0 COVER SHEET.dwg - This document, together with the concepts and designs presented herein, is intended only for the specific purpose and client for which it was prepared. Reuse of and improper reliance on this document without written authorization and adaptation by Kimley-Horn and Associates, Inc. shall be without liability to Kimley-Horn and Associates, Inc.

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KHA PROJECT	043138041
DATE	MAY 2020
SCALE	AS SHOWN
DESIGNED BY	MM
DRAWN BY	MM
CHECKED BY	GR

HISPANOLA WASTEWATER PUMP STATION IMPROVEMENTS

PREPARED FOR
NORTH BAY VILLAGE

NORTH BAY VILLAGE FLORIDA

LICENSED PROFESSIONAL

GARY R. RATAY

FLORIDA LICENSE NUMBER
46682

DATE: 05/13/2020

COVER SHEET

SHEET NUMBER

C100.0

GENERAL NOTES

1. CONTRACTOR TO SUBMIT MAINTENANCE OF TRAFFIC PLAN PER APPLICABLE FDOT STANDARD INDEXES FOR APPROVAL PRIOR TO START OF WORK.
2. CONNECTIONS TO EXISTING UTILITIES SHALL NOT BE MADE UNTIL ALL NECESSARY CERTIFICATIONS AND APPROVALS HAVE BEEN OBTAINED FROM THE APPROPRIATE AGENCIES. EXISTING UTILITIES MUST REMAIN IN SERVICE UNTIL NEW UTILITIES ARE READY FOR CONNECTION.
3. THE CONTRACTOR IS RESPONSIBLE FOR A DEWATERING PLAN AND A PERMIT THAT WILL PROVIDE PRETREATMENT OF EFFLUENT PRIOR TO DISCHARGE INTO THE EXISTING DRAINAGE SYSTEM. COST TO OBTAIN ALL DEWATERING PERMITS AS NEEDED AND IMPLEMENTING THE DEWATERING PLAN IS TO BE INCLUDED IN THE RELATED BID ITEM FOR THE WORK BEING DONE.
4. ALL APPLICABLE PERMITS MUST BE OBTAINED PRIOR TO COMMENCEMENT OF CONSTRUCTION, AND ALL APPLICABLE FEES AND CHARGES MUST BE PAID PRIOR TO COMMENCEMENT OF CONSTRUCTION.
5. THE CONTRACTOR SHALL BE RESPONSIBLE FOR OBTAINING LOCATIONS OF ALL UTILITIES AND NOTIFICATION OF SUNSHINE STATE ONE CALL. COORDINATE DIRECTLY WITH NORTH BAY VILLAGE PUBLIC WORKS FOR NORTH BAY VILLAGE UTILITY LOCATIONS.
6. THE CONTRACTOR SHALL MAINTAIN A CURRENT APPROVED SET OF CONSTRUCTION PLANS ON SITE. THE PLANS ARE TO BE MADE AVAILABLE TO THE ENGINEERING INSPECTOR OR HIS DESIGNEE UPON REQUEST.
7. ALL CONSTRUCTION, INSTALLATION AND TESTING SHALL CONFORM TO THE STANDARDS AND SPECIFICATIONS OF MDWASD, FLORIDA DEPARTMENT OF ENVIRONMENTAL PROTECTION, FDOT AND ALL OTHER LOCAL AND NATIONAL CODES WHERE APPLICABLE.
8. ALL CONSTRUCTION SHALL BE DONE IN A SAFE MANNER SPECIFICALLY, THE RULES AND REGULATIONS OF THE OCCUPATIONAL SAFETY AND HEALTH AND THE MANUAL OF UNIFORM TRAFFIC CONTROL DEVICES SHALL BE STRICTLY OBSERVED.
9. EXISTING UTILITY LOCATIONS SHOWN ON THESE DRAWINGS ARE APPROXIMATE. THE ENGINEER ASSUMES NO RESPONSIBILITY FOR THE ACCURACY OF EXISTING UTILITIES WITHIN THE AREAS OF CONSTRUCTION.
10. PRIOR TO BEGINNING CONSTRUCTION, THE CONTRACTOR SHALL VERIFY THE SIZE, LOCATION AND MATERIAL OF ALL EXISTING UTILITIES WITHIN THE REPLACEMENT LOCATIONS.
11. IF UPON EXCAVATION, AN EXISTING UTILITY IS FOUND TO BE IN CONFLICT WITH THE PROPOSED CONSTRUCTION OR TO BE A SIZE OR MATERIAL DIFFERENT FROM THAT SHOWN ON THE DRAWINGS, THE CONTRACTOR SHALL IMMEDIATELY NOTIFY THE ENGINEER AND OWNER.
12. THE CONTRACTOR SHALL SUPPORT ANY UTILITIES UNCOVERED DURING CONSTRUCTION. CONTRACTOR SHALL REPAIR ANY UTILITY DAMAGED DURING CONSTRUCTION AT NO COST TO THE VILLAGE.
13. CONTRACTOR SHALL MAINTAIN REQUIRED COVER AND UTILITY SEPARATION AS SHOWN AND SPECIFIED FOR ALL UTILITY IMPROVEMENTS.
14. CONTRACTOR SHALL PROVIDE COMPLETE FINAL RECORD DRAWINGS TO THE OWNER AS SPECIFIED. ALL AS-BUILT MEASUREMENTS AND ELEVATIONS TO BE SIGNED AND SEALED BY A REGISTERED LAND SURVEYOR.
15. ALL NEW PIPING COMPONENTS MUST BE RESTRAINED AS SPECIFIED.
16. ALL ROADWAY AND OTHER AREAS OF THE PROJECT SITE IMPACTED BY CONSTRUCTION MUST BE RESTORED TO EQUAL OR BETTER CONDITION AND IN COMPLIANCE WITH THE EXISTING NORTH BAY VILLAGE CONTRACT.
17. THE CONTRACTOR SHALL BE RESPONSIBLE AT ALL TIMES THROUGHOUT THE DURATION OF CONSTRUCTION AND UNTIL ACCEPTANCE OF WORK, FOR THE PROTECTION OF EXISTING AND NEWLY INSTALLED UTILITIES FROM DAMAGE OR DISRUPTION OF SERVICE. THE CONTRACTOR SHALL BE RESPONSIBLE FOR TAKING SUCH MEASURES AS NECESSARY TO PROTECT THE HEALTH, SAFETY AND WELFARE OF THOSE PERSONS HAVING ACCESS TO THE WORK SITE.



RER-DERM WATER-SEWER GENERAL NOTES

1. A horizontal distance of at least 6 feet, and preferably 10 feet (outside to outside), shall be maintained between gravity or pressure sewer pipes and water pipes. The minimum horizontal separation can be reduced to 3 feet for vacuum-type sewers or for gravity sewers where the top of the sewer pipe is at least 6 inches below the bottom of the water pipe. When the above specified horizontal distance criteria cannot be met due to an existing underground facility conflict, smaller separations are allowed if one of the following is met:
 - a) The sewer pipes are designed and constructed equal to the water pipe and pressure tested at 150 psi.
 - b) The sewer is encased in a watertight carrier pipe or concrete.
 - c) The top of the sewer is at least 18 inches below the bottom of the water pipe.
2. A vertical distance of at least 12 inches (outside to outside) shall be maintained between any water and sewer mains with sewer pipes preferably crossing under water mains. The minimum vertical separation can be reduced to 6 inches for vacuum-type sewers or for gravity sewers where the sewer pipe is below the water main. The crossing shall be arranged so that all water-main joints are at least 6 feet from all joints in gravity and pressure sewer pipes. This distance can be reduced to 3 feet for vacuum-type sewers. When the above specified vertical distance criteria cannot be met due to an existing underground facility conflict, smaller separations are allowed if one of the following is met:
 - a) The sewer pipes are designed and constructed equal to the water pipe and pressure tested at 150 psi.
 - b) The sewer is encased in a watertight carrier pipe or concrete.
3. Air release valves shall be provided at high points of new force main sanitary sewers.
4. Gravity sanitary sewers constructed within a public wellfield protection area shall be C-900 PVC or Ductile Iron Pipe. The maximum allowable exfiltration rate of gravity sanitary sewers constructed in a public wellfield protection area shall be:
 - a) Residential Land Uses. Fifty (50) gallons per inch pipe diameter per mile per day, based on a minimum two (2) hour test having a minimum of two (2) feet of positive head above the crown of the pipe.
 - b) Non-Residential Land Uses. Twenty (20) gallons per inch pipe diameter per mile per day, based on a minimum two (2) hour test having a minimum of two (2) feet of positive head above the crown of the pipe.
 - c) Any observed leaks or any obviously defective joints or pipes shall be replaced even when the total leakage is below that allowed.
5. The maximum allowable exfiltration rate of gravity sanitary sewers constructed outside a public wellfield protection area shall be one hundred (100) gallons per inch pipe diameter per mile per day, based on a minimum two (2) hour test having a minimum of two (2) feet of positive head above the crown of the pipe. Any observed leaks or any obviously defective joints or pipes shall be replaced even when the total leakage is below that allowed.
6. Forcemain sanitary sewers constructed within a public wellfield protection area shall be ductile iron, C-900 PVC, HDPE or reinforced concrete pressure sewer pipes.
7. The maximum allowable exfiltration/leakage rate of forcemain sanitary sewers shall be:
 - a) Ductile iron, C-900 PVC, HDPE and PVC Pipe. The allowable leakage rate specified in American Water Works Association Standard (AWWAS) C600-82 at a test pressure of 100 psi for a duration of not less than two (2) hours.
 - b) Reinforced Concrete Pressure Pipe. Half (1/2) the allowable leakage rate specified in AWWA C600-82 at a test pressure of 100 psi for a duration of not less than two (2) hours.
 - c) Any observed leaks or any obviously defective joints or pipes shall be replaced even when the total leakage is below that allowed.
8. The contractor shall verify nature, depth, and character of existing underground utilities prior to start of construction.
9. In no case shall a contractor install utility pipes, conduits, cables, etc. in the same trench above an existing water or sewer pipe except where they cross.
10. If any area of the work site is found to contain buried solid waste and/or ground or ground water contamination, the following shall apply:
 - a) All work in the area shall follow all applicable safety requirements (e.g., OSHA, etc.) and notification must be provided to the appropriate agencies.
 - b) Immediately notify the Environmental Monitoring and Restoration Division (EMRD). The EMRD can be contacted at (305) 372-6700.
 - c) If contaminated soils and/or buried solid waste material is excavated during construction, then they require proper handling and disposal in accordance with the local, state and federal regulations. Be advised that the landfill owner/operator is the final authority on disposal and may have requirements beyond those provided by herein. If disposal within a Miami-Dade County owned landfill (Class I landfill) is appropriate and selected, please contact the Miami-Dade County Department of Solid Waste Management at (305) 594-6666 for information.
 - d) The reuse of contaminated soils that are not returned to the original excavation requires prior approval of a Soil Management Plan from the Environmental Monitoring and Restoration Division. The EMRD can be contacted at (305) 372-6700.
11. Pumps must comply with the National Electrical Code (NEC) requirements for Class I, Group D, Division 1 locations (Explosion Proof).
12. The contractor is advised that a Tree Removal/Relocation Permit may be required prior to the removal and/or relocation of tree resources. Prior to removing or relocating any trees, the Contractor shall notify the Tree and Forest Resources Section of DERM at (305) 372-6574 or via e-mail at trfs@miamidade.gov, or contact the municipality with tree ordinance jurisdiction to obtain any required permits. Those trees not interfering with the construction shall be protected in place in accordance with the provisions of Section 24-49.5 of the Miami-Dade Code.
13. Please note that the demolition, removal, and/or disturbance of existing underground utilities that contain asbestos-cement pipes (ACP) are subject to the provisions of 40 CFR-61 Subpart M. Therefore, pursuant to the provisions of 40 CFR-61-145, a NOTICE OF DEMOLITION OR ASBESTOS RENOVATION form must be filed with the Air Quality Management Division (AQMD) of DERM, at least ten (10) working days prior to starting any work. Note that the backfilling and burial of crushed ACP would cause these locations to be considered active disposal sites and subject to 40 CFR-61.154, and 40 CFR-61.151 a year after project completion. Existing standard operating procedures, as well as applicable federal, state and local regulatory criteria, must be followed and implemented to minimize any potential release of fugitive emissions, especially during project construction activities. The AQMD can be contacted via email at asbestos@miamidade.gov or 305-372-6925.

Rev. 4/30/2018

www.regulations.gov/submitComment

1. ALL MATERIALS AND LABOR UNDER THIS PROJECT SHALL BE IN STRICT ACCORDANCE WITH THE REQUIREMENTS OF THE MIAMI-DADE WATER AND SEWER DEPARTMENT AND SHALL CONFORM TO THE STANDARDS AND SPECIFICATIONS AVAILABLE AND ON FILE WITH THE DEPARTMENT. **SUBMIT SHOP DRAWINGS FOR ALL MATERIALS.**
2. COVER OVER WATER OR SEWER FORCE MAINS SHALL BE 4'-0" MIN.
3. ALL MAIN LINE VALVES SHALL BE INSTALLED COMPLETE WITH 10" RISER PIPES AND NO. 3 OR 53 VALVE BOXES FIRE HYDRANTS AND SERVICE VALVES SHALL BE INSTALLED COMPLETE WITH 6" RISER PIPES AND NO. 2 VALVE BOXES.
4. ALL FORCE MAIN SERVICE CONNECTIONS INTO PRESSURE TRANSMISSION MAINS SHALL HAVE A SHUT OFF VALVE AND CHECK VALVE AT THE POINT OF ENTRY.
5. ALL GRAVITY SYSTEMS SHALL BE CONSTRUCTED IN ACCORDANCE WITH DEPARTMENT STANDARDS.
6. ALL WATER METERS WILL BE INSTALLED BY THE MIAMI-DADE WATER AND SEWER DEPARTMENT, PROVIDING THE APPROPRIATE CHARGES HAVE BEEN PREPAID.
7. FIRE HYDRANT REQUIREMENTS (NUMBER AND LOCATION) SHALL BE AS REQUIRED BY MIAMI-DADE COUNTY FIRE DEPARTMENT OR THE APPROPRIATE FIRE AGENCY WITH INSTALLATION IN ACCORDANCE WITH DEPARTMENT STANDARDS.
8. CONTRACTOR MUST CALL MDWASD INSPECTION DIVISION TO ARRANGE FOR A PRECONSTRUCTION MEETING 2 FULL BUSINESS DAYS PRIOR TO PROPOSED START OF CONSTRUCTION. CONTACT ONE CALL CENTER 48 HRS PRIOR TO EXCAVATION.
9. CONTRACT INSPECTOR WILL INSPECT ANY FACILITIES APPROVED BY THE DEPARTMENT. ALL OTHER REQUIREMENTS OF THE PERMITTING AGENCY SHALL BE IN ACCORDANCE WITH THEIR STANDARDS AND REQUIREMENTS.
10. WORK PERFORMED UNDER THIS PROJECT WILL NOT BE CONSIDERED AS COMPLETE UNTIL FINAL ACCEPTANCE OF THE SYSTEM BY THE DEPARTMENT AND UNTIL THE FOLLOWING DOCUMENTS ARE RECEIVED AND APPROVED BY THE DEPARTMENT:
 - a. EASEMENTS, IF REQUIRED
 - b. CONTRACTOR'S WAIVER AND RELEASE OF LIEN
 - c. ABSOLUTE BILL OF SALE
 - d. CONTRACTOR'S LETTER OF WARRANTY (I.E., LETTER AGREEMENT)
 - e. DEVELOPER'S CONTRACT BOND (I.E., CONTRACT AGREEMENT)
 - f. "RECORD DRAWING" PRINTS (24"x 36") SHOWING SPECIFIC LOCATIONS, DEPTH, ETC. OF ALL WATER AND SEWER FACILITIES AS LOCATED BY A LICENSED SURVEYOR & MAPPER, ALONG WITH PRINTS OF "RECORD DRAWINGS" WHICH HAVE BEEN SIGNED AND SEALED BY A REGISTERED SURVEYOR & MAPPER. (NO. OF PRINTS: 3-FOR WATER, 4-FOR GRAVITY SEWER AND 5-FOR FORCE MAIN OR PUMP STATION PROJECTS). Submit of final CAD files required.
 - g. H.R.S. LETTER OF RELEASE REQUIRED FOR ALL WATER PROJECTS
 - h. BILL OF SALE SKETCH (8 1/2"x 11") FOR WATER AND SEWER, SEPARATELY
11. ALL NEW CONNECTIONS FROM EXISTING DEPARTMENT MAINS TO BE MADE BY DEPARTMENT FORCES ONLY. THE CONTRACTOR TO EXCAVATE AT REQUIRED LOCATIONS, PROVIDE AND INSTALL MATERIAL WITH FITTINGS, PRIOR TO TAP.
12. AN APPROVED PAVING AND DRAINAGE PLAN MUST BE SUBMITTED TO MDWASD FOR ALL NEW SUBDIVISIONS PRIOR TO APPROVAL OF WATER AND SEWER PERMIT PLANS, UPON REQUEST.
13. UNLESS OTHERWISE SPECIFIED, ALL TAPS 20 INCHES AND SMALLER FOR CONNECTIONS TO EXISTING MAINS WILL BE DONE BY DEPARTMENT FORCES. UNDER NO CIRCUMSTANCES WILL THE CONTRACTOR BE PERMITTED TO TAP EXISTING MAINS IN THE SIZE RANGE SPECIFIED ABOVE. THE TAPPING SLEEVE AND TAPPING VALVE ARE FURNISHED AND INSTALLED BY THE CONTRACTOR UNDER THE SUPERVISION OF THE INSPECTOR.

MIAMI-DADE COUNTY	ISSUE DATE	APPROVED BY	STANDARD DETAIL	CROSS REF.	SPEC. REF.
WATER & SEWER DEPARTMENT	03/01/2010	V.F.C.	STANDARD REQUIREMENTS WATER AND SEWER CONSTRUCTION	GS	0.5
	07/20/2016	D.V.			
			SHEET 1 of 2		

1. AT THE COMPLETION OF ANY WATER AND SEWER JOB EITHER DONATION OR CONTRACT, THE CONTRACTOR SHALL SUBMIT:
 - a. RECORD DRAWING PRINTS WHICH HAVE BEEN SIGNED AND SEALED BY A FLORIDA LICENSED PROFESSIONAL SURVEYOR AND MAPPER (QTY. OF PRINTS AS REQUIRED BY THE DEPARTMENT).
2. "RECORD DRAWING" FORMAT:
 - a. 24"x 36" PRINTS
 - b. PDF FILE
 - c. CAD FILE (DWG OR DXF) ROTATED AND TRANSLATED TO STATE PLANE COORDINATES NAD 83 FLORIDA EAST ZONE
 - d. THE WORDS "RECORD DRAWING" IN LARGE LETTERS
 - e. TITLE BLOCK WITH DEPARTMENT DS, DW OR ER NUMBER AND PERTINENT INFORMATION
 - f. PREFERRED SCALE TO BE 1"= 40' HORIZONTALLY AND 1"= 4' VERTICALLY*
 - g. STREET NOMENCLATURE
 - h. SEPARATE RECORD DRAWINGS FOR WATER AND SEWER
 - i. SEPARATE WATER AND SEWER PROFILE
 - j. STATIONING STARTING WITH 0+00 AT PERMANENT REFERENCE POINT (I.E. C, S, ETC.) OR AS SHOWN ON DESIGN PERMIT PLANS, AND TO RUN CONTINUOUSLY TO END OF MAIN
 - k. EASEMENTS, IF ANY, TIED TO PERMANENT REFERENCE POINT
 - l. IDENTIFY ALL CONTROL LINES (I.E. BLDG. LINE, PROPERTY LINE, R/W, ETC.)
 - m. ALL "PROPOSED" INFORMATION TO BE REMOVED FROM PRINTS, LEAVING ONLY RECORD DRAWING INFORMATION REFLECTED IN DRAWINGS
3. WATER "RECORD DRAWINGS" MUST INCLUDE:
 - a. PLANS SHOWING PIPE SIZE, MATERIAL AND OFFSET OF MAIN, DEFLECTIONS (IF ANY), STATION OF SERVICES, HYDRANTS, VALVES, FITTINGS, IF ANY, ALL IN STATE PLANE COORDINATES. UTILITY CROSSINGS SHALL BE CLEARLY IDENTIFIED AND LOCATED.
 - b. PROFILE SHOWING TOP OF GROUND AND TOP OF PIPE ELEVATIONS AT EVERY 100' STATION AND AT ANY CHANGE IN GRADE (WITH CORRESPONDING STATION), PIPE SIZE AND PIPE MATERIALS REFERENCED TO PLAN.
4. SEWER "RECORD DRAWINGS" MUST INCLUDE:
 - a. PLAN SHOWING MANHOLE NUMBER, PIPE SIZE AND PIPE MATERIAL OF PIPE, DEFLECTION, SLOPE OF GRAVITY SEWER, LOCATION OF LATERALS WITH REFERENCE TO MANHOLE AND CLEANOUTS.
 - b. THE NORTHERLY AND EASTERLY COORDINATES ON ALL FIELD OBTAINED MEASUREMENTS AND PROVIDED ON ALL RECORD DRAWING SUBMITTALS
 - c. PROFILE SHOWING MANHOLE NUMBER (AS PER PLAN), RIM AND INVERT ELEVATIONS (IF MORE THAN ONE INVERT, LABEL NORTH, SOUTH, ETC.), AND STATION STARTING AT 0+00 AT DOWNSTREAM MANHOLE.
5. FORCE MAIN "RECORD DRAWING" SAME AS WATER MAIN.
6. EACH RECORD DRAWING SHALL SHOW THE FLORIDA STATE PLANE COORDINATES (CURRENT READJUSTMENT) OF ALL THE MANHOLES AND VALVES AND OF AT LEAST TWO HORIZONTAL CONTROL POINTS PROPERLY IDENTIFIED AND LOCATED WITHIN THE PROJECT.

* OTHER SCALE MAY BE PERMITTED, BUT MUST BE APPROVED BY THE DEPARTMENT PRIOR TO PREPARATION OF DRAWINGS.

MIAMI-DADE COUNTY	ISSUE DATE	APPROVED BY	STANDARD DETAIL	CROSS REF.	SPEC. REF.
WATER & SEWER DEPARTMENT	03/11/2009	V.F.C.	"RECORD DRAWING" REQUIREMENTS	GS	0.5
	07/20/2016	D.V.			
				SHEET 2 of 2	

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HISPANOLA WASTEWATER PUMP STATION IMPROVEMENTS
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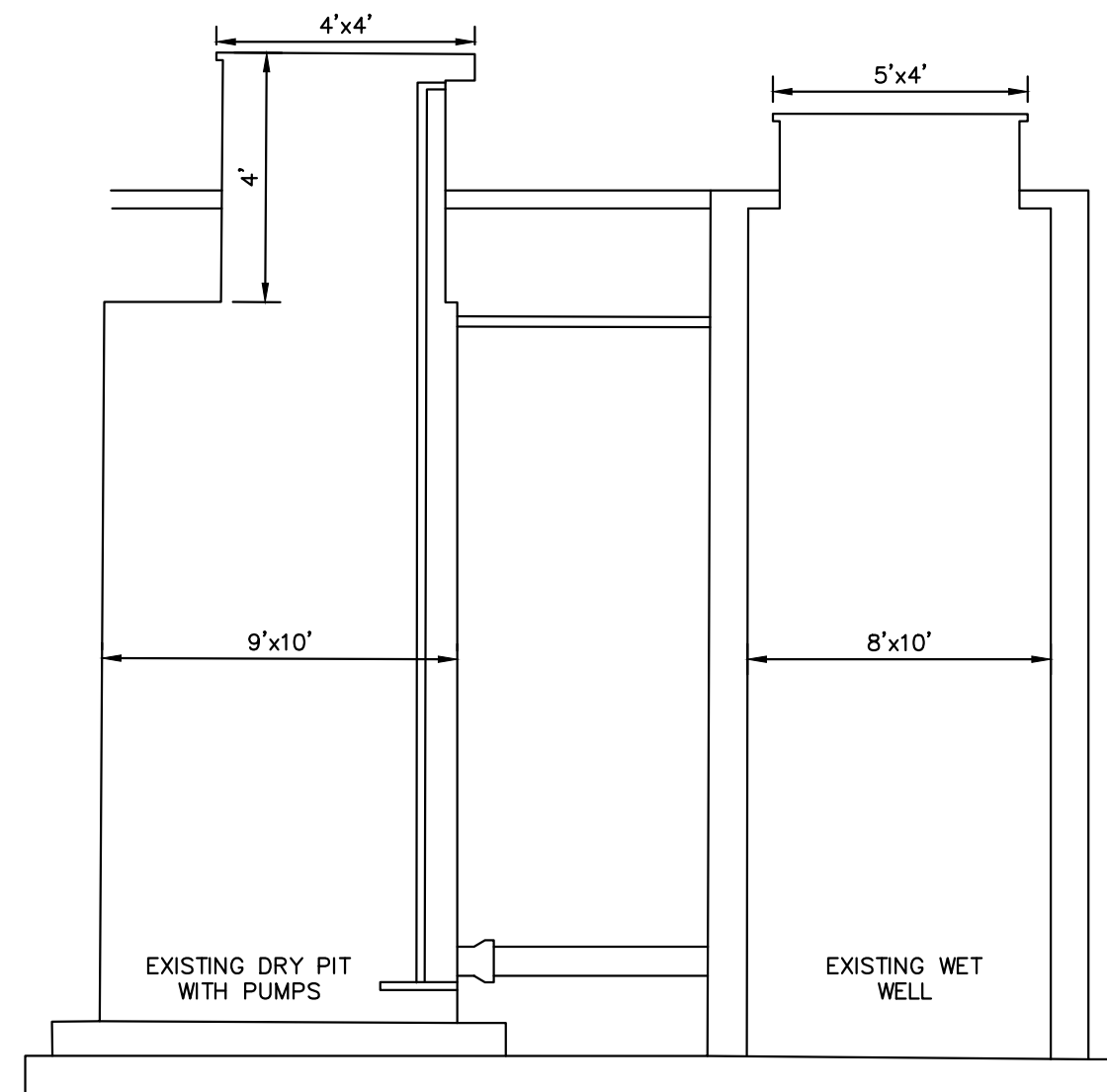
LICENSED PROFESSIONAL
 GARY R. RATAY
 FLORIDA LICENSE NUMBER 46682
 DATE: 05/13/2020

GENERAL NOTES

SHEET NUMBER
C100.1

LIFT STATION DEMOLITION NOTES:

1. THE ITEMS DEPICTED FOR DEMOLITION ARE GENERAL ONLY. ALL ANCILLARY STRUCTURES, PIPING AND OTHER ASSOCIATED EQUIPMENT ARE TO BE INCLUDED IN THE DEMOLITION WORK.
2. AFTER DEMOLITION, ALL DEBRIS IS TO BE REMOVED AND LEGALLY DISPOSED BY THE CONTRACTOR IN ACCORDANCE WITH ALL LOCAL, STATE, AND FEDERAL REGULATIONS.
3. AFTER DISPOSAL OF MATERIAL, THE CONTRACTOR SHALL RE-GRADE THE AREA TO MATCH SURROUNDING GRADE AND DRAINAGE PATTERNS. CONTRACTOR TO OBTAIN REQUIRED FILL NEEDED TO LEVEL AREAS WHERE STRUCTURES PREVIOUSLY EXISTED.
4. CONTRACTOR SHALL BACKFILL, COMPACT AND RESTORE SURFACE CONDITIONS AT ALL AREAS OF PIPE/STRUCTURE DEMOLITION AND REMOVAL. COMPACT TO 98% ASTM D-1557, IN 12" LIFTS.
5. CONTRACTOR SHALL REMOVE ALL PIPING, VALVES, AND APPURTENANCES FROM STRUCTURES TO FIRST BEND BELOW GRADE OR MINIMUM OF 4 FEET BELOW GRADE WITHIN 50 FEET OF THE LOCATION. ALL PIPING TO BE DISPOSED OF IN ACCORDANCE WITH ALL LOCAL, STATE, AND FEDERAL REGULATIONS. CONTRACTOR TO VERIFY WITH VILLAGE THAT ANY SYSTEM TO BE REMOVED IS OUT OF SERVICE BEFORE DEMOLITION.
6. CONTRACTOR SHALL INVESTIGATE, REMOVE, AND PROPERLY DISPOSE OF THE EXISTING GENERATOR SYSTEM, FUEL SYSTEM, AND ALL ELECTRICAL WIRING AND CONTROLS EQUIPMENT FROM AREA OF DEMOLITION BACK TO THE SOURCE.
7. CONTRACTOR SHALL REMOVE CONDUITS TO FIRST BEND BELOW GRADE OR MINIMUM OF 4 FEET BELOW GRADE WITHIN 50 FEET OF THE LOCATION AND INSTALL CAP. ALL CABLE AND WIRING ARE TO BE REMOVED BACK TO SOURCE.
8. ALL ELECTRICAL, PIPING OR STRUCTURES LEFT IN GROUND WILL BE MARKED ON PLANS AND SHALL HAVE PICTURES DOCUMENTING THESE ITEMS PRIOR TO AND AFTER FILLING. ALL STRUCTURES LEFT IN GROUND WILL HAVE A HOLE PUNCTURED IN THE BOTTOM AT THE LOWEST POINT. THE HOLE IS TO BE 8 INCH MINIMUM DIAMETER OR EQUIVALENT.
9. ITEMS LISTED "TO REMAIN" SHALL BE FULLY PROTECTED. CONTRACTOR IS RESPONSIBLE FOR ANY DAMAGE TO THESE ITEMS.
10. CONTRACTOR TO VERIFY LOCATION OF ALL EXISTING UTILITIES PRIOR TO BEGINNING CONSTRUCTION, CONTRACTOR TO NOTIFY ENGINEER OF ANY CONFLICTS.
11. IT SHALL BE THE CONTRACTOR'S SOLE RESPONSIBILITY TO TAKE THE NECESSARY PRECAUTIONS TO ENSURE PROPER SAFETY AND WORKMANSHIP WHEN WORKING IN THE VICINITY OF EXISTING UTILITY LINES.
12. ALL EXISTING UTILITIES, INCLUDING BUT NOT LIMITED TO DRAINAGE, CLEANOUTS, WATER METERS, ELECTRICAL METERS AND IRRIGATION MAINS, IMPACTED BY CONSTRUCTION SHALL BE MODIFIED/RELOCATED AS NECESSARY.
13. CONTRACTOR SHALL BE RESPONSIBLE TO COORDINATE WITH FPL ON ANY WORK IN THE VICINITY OF OVERHEAD OR UNDERGROUND POWER LINES.
14. THE PRESENCE OF GROUNDWATER SHOULD BE ANTICIPATED. CONTRACTOR'S BID SHALL INCLUDE CONSIDERATION FOR ADDRESSING THIS ISSUE AND OBTAINING ALL NECESSARY PERMITS.



NOTE: PLANS NOT TO SCALE. INFORMATIONAL PURPOSES ONLY



PHOTO 3: DEMOLISH EXISTING DRY WELL AND SUCTION/DISCHARGE PIPING.



PHOTO 4: DEMOLISH EXISTING DRY WELL AND ELECTRICAL COMPONENTS.



PHOTO 1: DEMOLISH EXISTING DRY WELL AND ELECTRICAL COMPONENTS.



PHOTO 5: DEMOLISH EXISTING DRY WELL AND METAL COMPONENTS.



PHOTO 6: DEMOLISH PUMPS AND ELECTRICAL COMPONENTS.

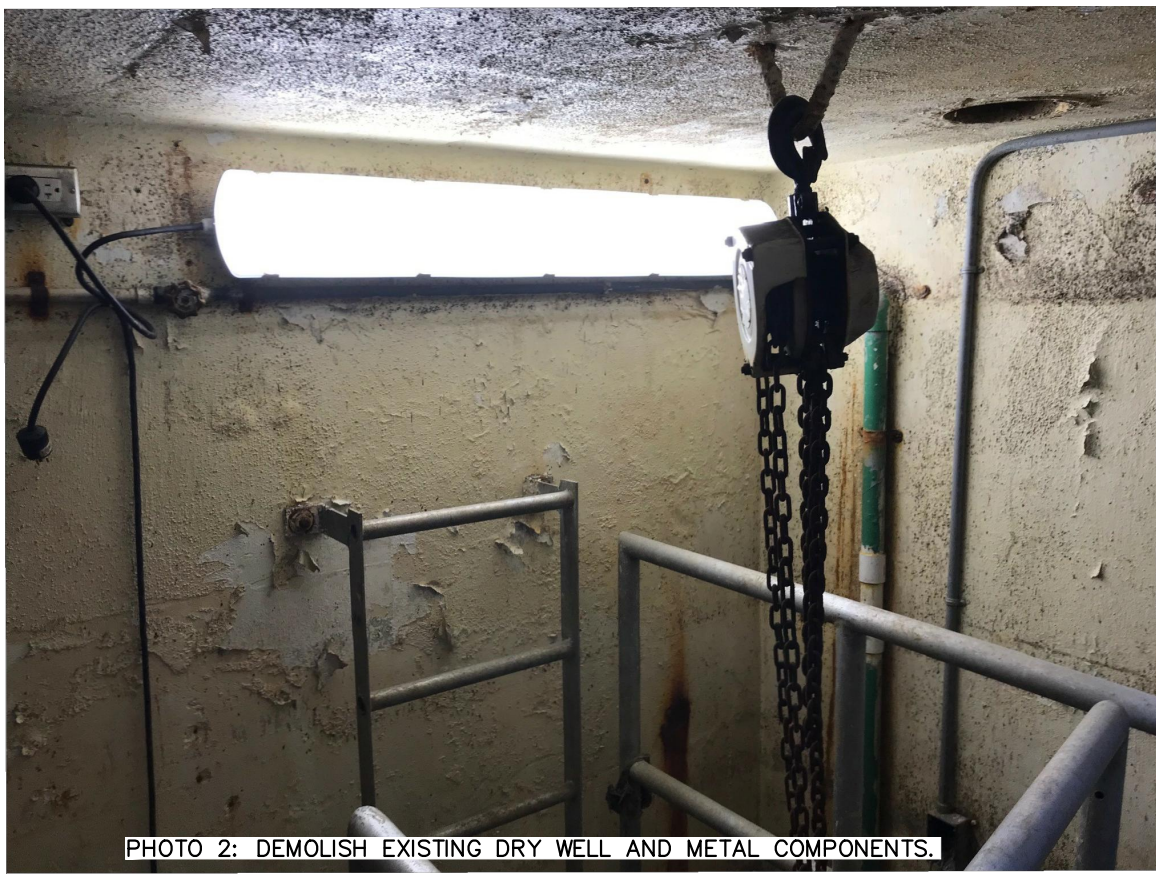


PHOTO 2: DEMOLISH EXISTING DRY WELL AND METAL COMPONENTS.

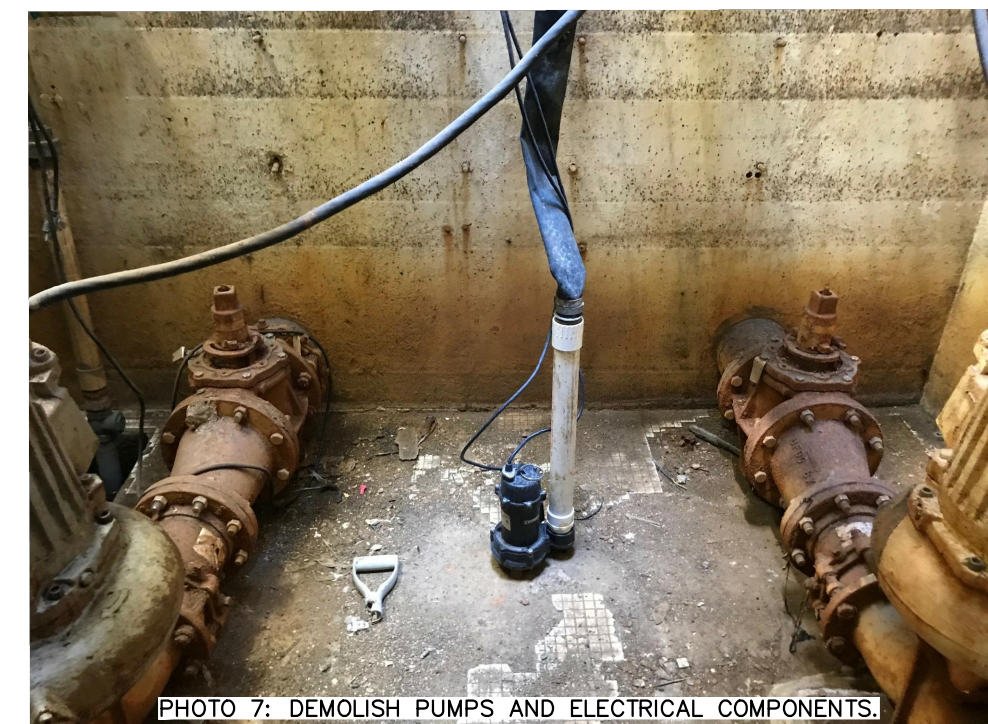
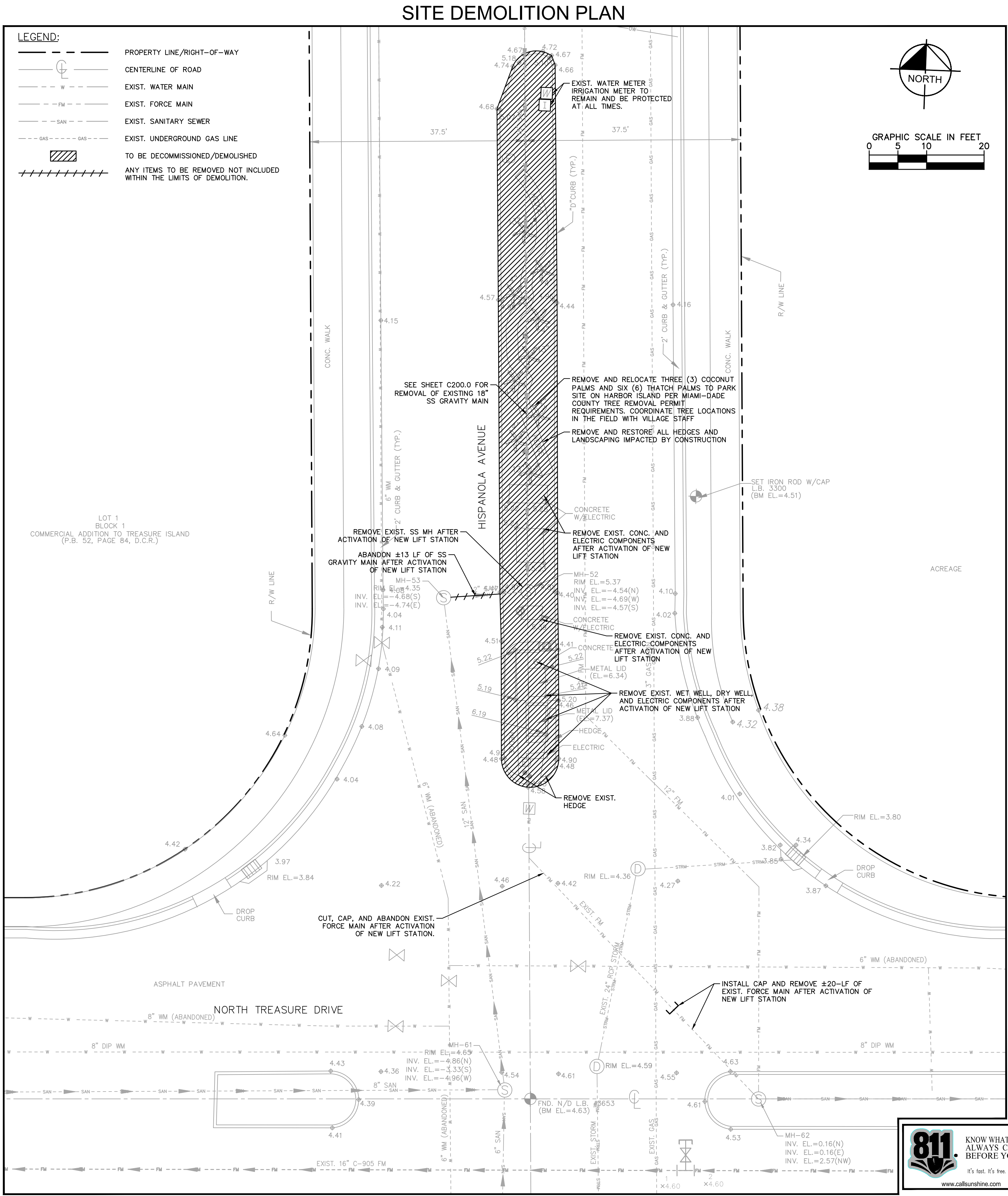


PHOTO 7: DEMOLISH PUMPS AND ELECTRICAL COMPONENTS.



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HISPANOLA WASTEWATER PUMP STATION IMPROVEMENTS

PREPARED FOR
NORTH BAY VILLAGE

NORTH BAY VILLAGE FLORIDA

LICENSED PROFESSIONAL
GARY R. RATAY
FLORIDA LICENSE NUMBER 46682
DATE: 05/13/2020

DEMOLITION PLAN

SHEET NUMBER
C100.2

FOR BIDDING



Plotted By: Leanne Arabelle Sheet: Set-NORTH BAY VILLAGE HISPANOLA LIFT STATION IMPROVEMENTS L:\04\1002\DEMOLITION PLAN - May 13, 2020 11:30:08am K:\VTL\Civil\043 Jobs\043138041-WK_Auto_18-D3_WW Station Improv\CAD\Plansheets\Hispanola Lift Station\C100.2 DEMOLITION PLAN.dwg This document, together with the concepts and design presented herein, is an instrument of service, as an instrument of service, is intended only for the specific purpose and client for which it was prepared. Reuse of and improper reliance on this document without written authorization and adaptation by Kimley-Horn and Associates, Inc. shall be without liability to Kimley-Horn and Associates, Inc.

Plotted By: Arabelle, Arabella
 Sheet: S&N-NORTH BAY VILLAGE HISPANOLA LIFT STATION IMPROVEMENTS - LAYOUT C100.3 - DEMOLITION PLAN - May 13, 2020 11:30:10am
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PHOTO 1: DEMOLISH EXISTING CONCRETE AND ELECTRICAL COMPONENTS AFTER ACTIVATION OF NEW LIFT STATION.



PHOTO 2: DEMOLISH EXISTING CONCRETE AND ELECTRICAL COMPONENTS AFTER ACTIVATION OF NEW LIFT STATION.



PHOTO 3: DEMOLISH EXISTING CONCRETE AND ELECTRICAL COMPONENTS AFTER ACTIVATION OF NEW LIFT STATION.



PHOTO 4: DEMOLISH EXISTING WET WELL AND DRY WELL AFTER ACTIVATION OF NEW LIFT STATION.



PHOTO 5: DEMOLISH EXISTING DRY WELL AFTER ACTIVATION OF NEW LIFT STATION.



PHOTO 6: DEMOLISH EXISTING CONCRETE AND ELECTRICAL COMPONENTS AFTER ACTIVATION OF NEW LIFT STATION.



PHOTO 9: DEMOLISH EXISTING CONCRETE AND ELECTRICAL COMPONENTS AFTER ACTIVATION OF NEW LIFT STATION.



PHOTO 10: DEMOLISH EXISTING CONCRETE AND ELECTRICAL COMPONENTS AFTER ACTIVATION OF NEW LIFT STATION.



PHOTO 7: DEMOLISH EXISTING CONCRETE AND ELECTRICAL COMPONENTS AFTER ACTIVATION OF NEW LIFT STATION.



PHOTO 8: DEMOLISH EXISTING CONCRETE AND ELECTRICAL COMPONENTS AFTER ACTIVATION OF NEW LIFT STATION.

FOR BIDDING



No.	REVISIONS	DATE	BY

Kimley»Horn

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KHA PROJECT	043138041
DATE	MAY 2020
SCALE	AS SHOWN
DESIGNED BY	MM
DRAWN BY	MM
CHECKED BY	GR

HISPANOLA WASTEWATER PUMP STATION IMPROVEMENTS

PREPARED FOR
NORTH BAY VILLAGE

NORTH BAY VILLAGE FLORIDA

LICENSED PROFESSIONAL

GARY R. RATAY

FLORIDA LICENSE NUMBER
46682

DATE: 05/13/2020

DEMOLITION PLAN

SHEET NUMBER

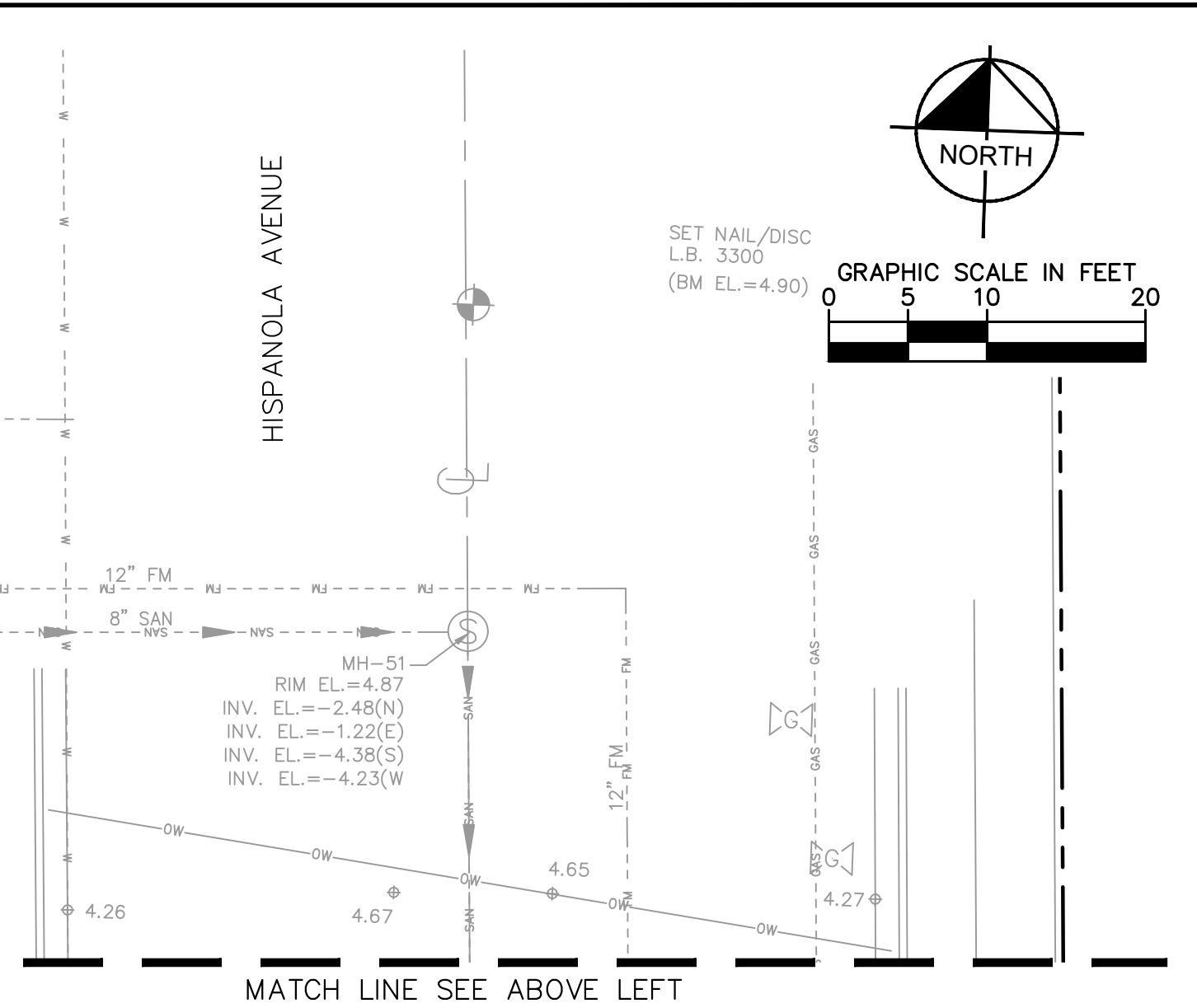
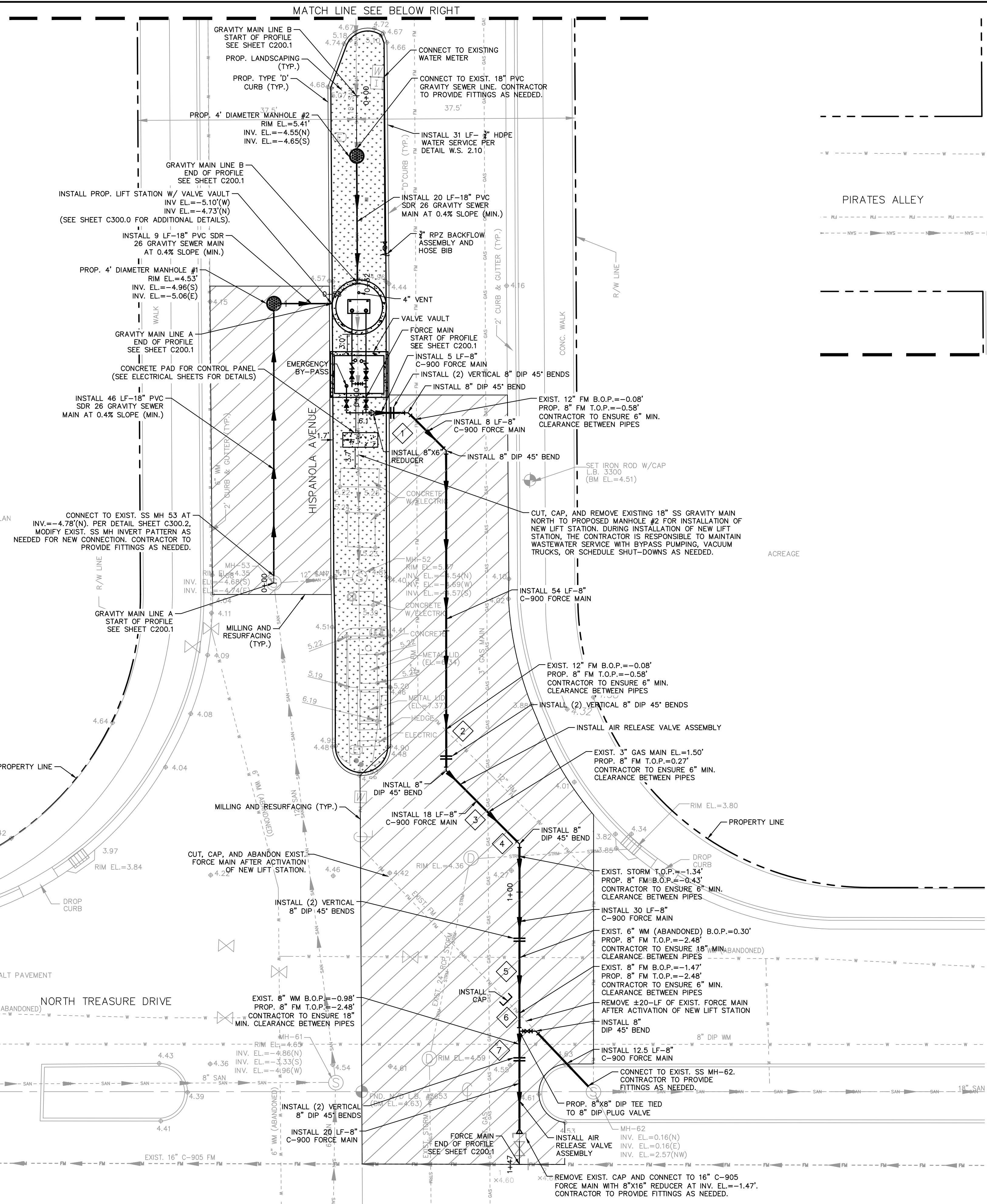
C100.3

GENERAL NOTES:

- CONTRACTOR SHALL MAINTAIN FUNCTION OF SEWAGE PUMPING DURING CONSTRUCTION BY UTILIZING BY-PASS PUMPING SYSTEM, FITTINGS AND VALVES AS REQUIRED. CONTRACTOR SHALL SUBMIT A PLAN OUTLINING SEWAGE "BY PASS" PROCEDURE TO THE ENGINEER FOR APPROVAL PRIOR TO COMMENCING WORK.
- CONTRACTOR SHALL PERFORM ALL WORK WITHIN LEGAL PROPERTY AND EASEMENT, AND SHALL NOT DISTURB ADJACENT PROPERTY.
- CONTRACTOR SHALL INCLUDE NECESSARY CUTTING, PATCHING AND RESTORATION OF ALL EXISTING SURFACES TO MATCH SURROUNDING AREAS.
- FIELD VERIFY ALL ELEVATIONS PRIOR TO COMMENCING THE WORK.
- PROVIDE DIELECTRIC FITTINGS BETWEEN TWO DIFFERENT MATERIALS AS REQUIRED.
- CONTRACTOR SHALL VERIFY EXISTING PIPING TO REMAIN BEFORE ORDERING PROPOSED PIPING/FITTINGS CONNECTING TO IT.
- CARE SHOULD BE TAKEN TO AVOID DISTURBING EXISTING ELECTRICAL SERVICE IN THE AREA UNDER CONSTRUCTION.
- MECHANICAL CONTRACTOR SHALL CHECK AND VERIFY ALL DIMENSIONS AND CONDITIONS AT JOB SITE AND COORDINATE NEW WORK TO BE DONE WITH THEIR TRADES PRIOR TO COMMENCING IT. THE MECHANICAL WORK SHALL BE SCHEDULED SO THAT IT WILL OCCUR IN THE PROPER SEQUENCE AND WITHOUT DELAYING THE COMPLETION OF THE WORK.
- CONTRACTOR TO COAT ALL UNDERGROUND FITTINGS IN DIRECT CONTACT W/SOIL WITH TWO COATS OF BITUMASTIC OR APPROVAL EQUAL.
- SHEET PILING MAY BE REQUIRED FOR EXCAVATION. IF SO CONTRACTOR SHALL SUBMIT SHOP DRAWINGS AND CALCULATIONS SIGNED AND SEALED BY A STATE OF FLORIDA LICENSED PROFESSIONAL ENGINEER.
- ELEVATIONS INDICATED HEREON ARE IN FEET AND DECIMALS REFERENCED TO THE NATIONAL GEODETIC VERTICAL DATUM OF 1929 (NGVD 1929).
- BASE FLOOD ELEVATION (BFE): 8.0' NGVD 1929, ZONE AE (BASED ON FEMA FIRM MAP).
- MINIMUM FLOOD CRITERIA ELEVATION: 11.83'

LIFT STATION GENERAL NOTES:

- INSTALLATION OF NEW LIFT STATION, VALVE VAULT, CONTROL PANEL, SANITARY SEWER, AND 8" C-900 FORCE MAIN CONNECTION MUST BE COMPLETE, OPERATIONAL, AND ACCEPTED PRIOR TO REMOVAL OF EXISTING LIFT STATION EQUIPMENT.
- DURING INSTALLATION OF NEW LIFT STATION, THE CONTRACTOR IS RESPONSIBLE TO MAINTAIN WASTEWATER SERVICE WITH BYPASS PUMPING, VACUUM TRUCKS, OR SCHEDULED SHUT DOWNS AS NEEDED.
- FILL/GRADE FROM WETWELL RIM ELEVATION AND VALVE VAULT ELEVATION BACK TO EXISTING ELEVATIONS AT MAXIMUM 6:1 SLOPE.
- SEE SHEET C300.0 FOR ADDITIONAL DETAILS.



LEGEND:

	PROPERTY LINE/RIGHT-OF-WAY
	CENTERLINE OF ROAD
	EXIST. WATER MAIN
	EXIST. FORCE MAIN
	EXIST. SANITARY SEWER
	EXIST. OVERHEAD WIRE
	EXIST. UNDERGROUND GAS LINE
	EXIST. GRADE
	EXIST. WATER VALVE
	EXISTING MANHOLE
	PROP. VALVE
	PROP. REDUCED PRESSURE ZONE BACKFLOW PREVENTER
	PROP. FORCEMAIN BEND
	PROP. FORCEMAIN TEE
	PROP. SANITARY SEWER MANHOLE
	PROP. SANITARY SEWER FORCE MAIN
	PROP. SANITARY SEWER GRAVITY MAIN
	PROP. WATER SERVICE
	PROP. LANDSCAPE AREA
	PROP. MILLING AND RESURFACING

CONFLICT TABLE

UTILITY	ELEVATIONS	CLEARANCE
1 EXIST. 12" FORCE MAIN	EXIST. 12" FM B.O.P. EL.=-0.08' PROP. 8" FM T.O.P. EL.=-0.58'	0.50'
2 EXIST. 12" FORCE MAIN	EXIST. 12" FM B.O.P. EL.=-0.08' PROP. 8" FM T.O.P. EL.=-0.58'	0.50'
3 EXIST. 3" GAS MAIN	EXIST. 3" GAS MAIN EL.=1.50' PROP. 8" FM T.O.P. EL.=0.27'	1.23'
4 EXIST. 24" STORM PIPE	PROP. 8" FM B.O.P. EL.=-0.43' EXIST. 24" STORM PIPE T.O.P. EL.=-1.43'	1.00'
5 EXIST. 6" WATER MAIN (ABANDONED)	EXIST. 6" WM B.O.P. EL.=0.30' PROP. 8" FM T.O.P. EL.=-2.48'	2.73'
6 EXIST. 8" FORCE MAIN	EXIST. 8" FM B.O.P. EL.=-1.47' PROP. 8" FM T.O.P. EL.=-2.48'	1.01'
7 EXIST. 8" WATER MAIN	EXIST. 8" WM B.O.P. EL.=-0.98' PROP. 8" FM T.O.P. EL.=-2.48'	1.50'

Plotted By: Leanne Arabella Sheet Set: NORTH BAY VILLAGE HISPANOLA LIFT STATION IMPROVEMENTS LAYOUT C200.0 SITE PLAN May 13, 2020 11:30:24am K:\ITL\Civil\043 jobs\043138041-WA-Auto-1B-03-WW Station Improv\CAD\PlanSheets\Hispanola Lift Station C200.0 SITE PLAN.dwg
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PREPARED FOR
NORTH BAY VILLAGE

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LICENSED PROFESSIONAL

GARY R. RATAY

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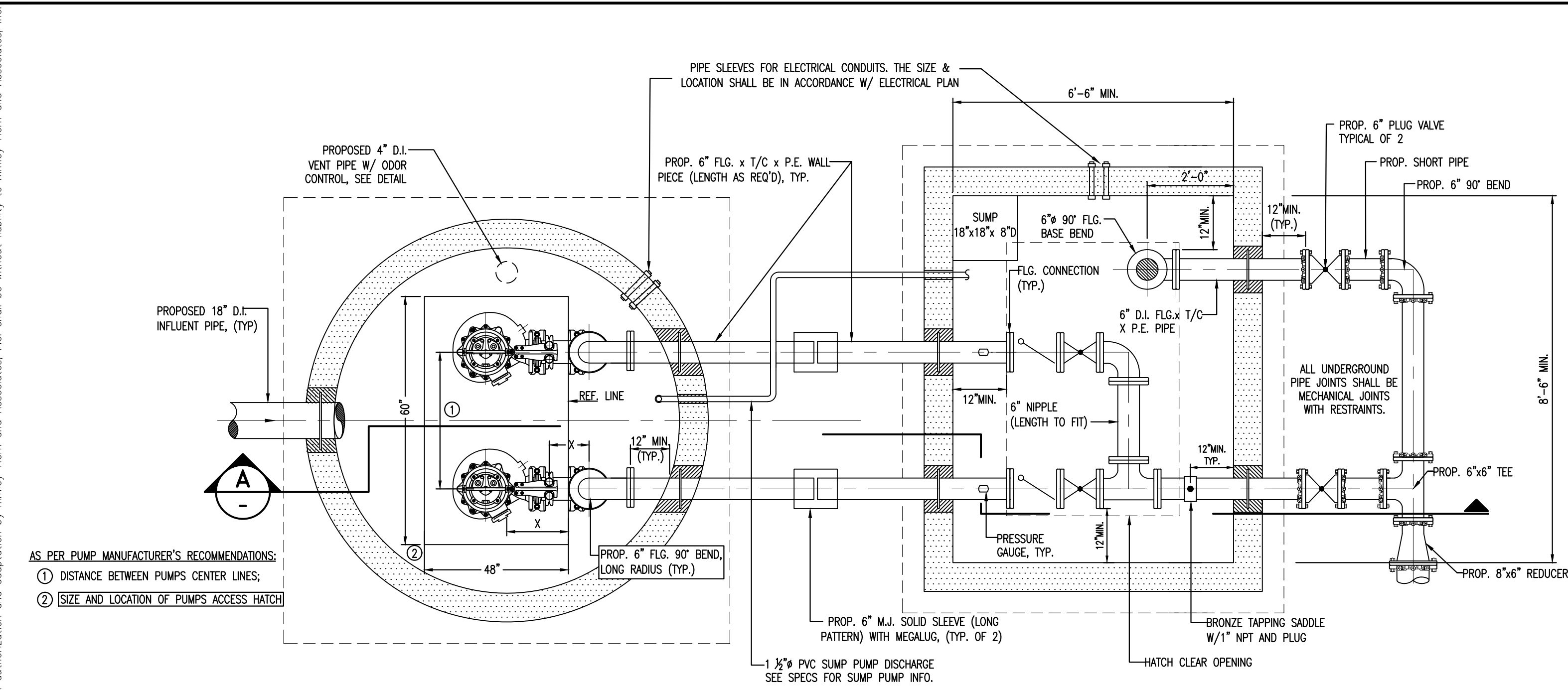
SITE PLAN

SHEET NUMBER
C200.0

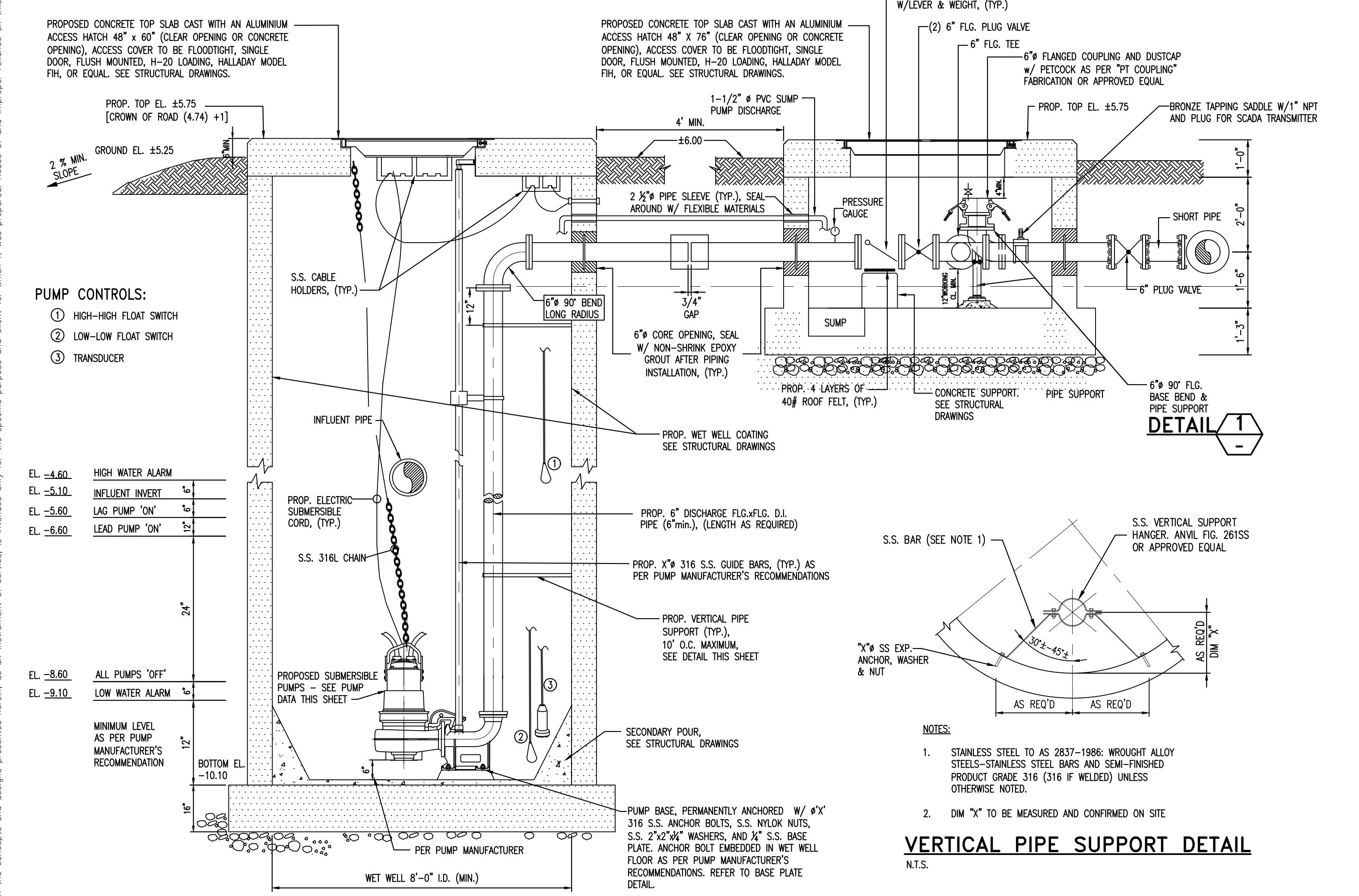
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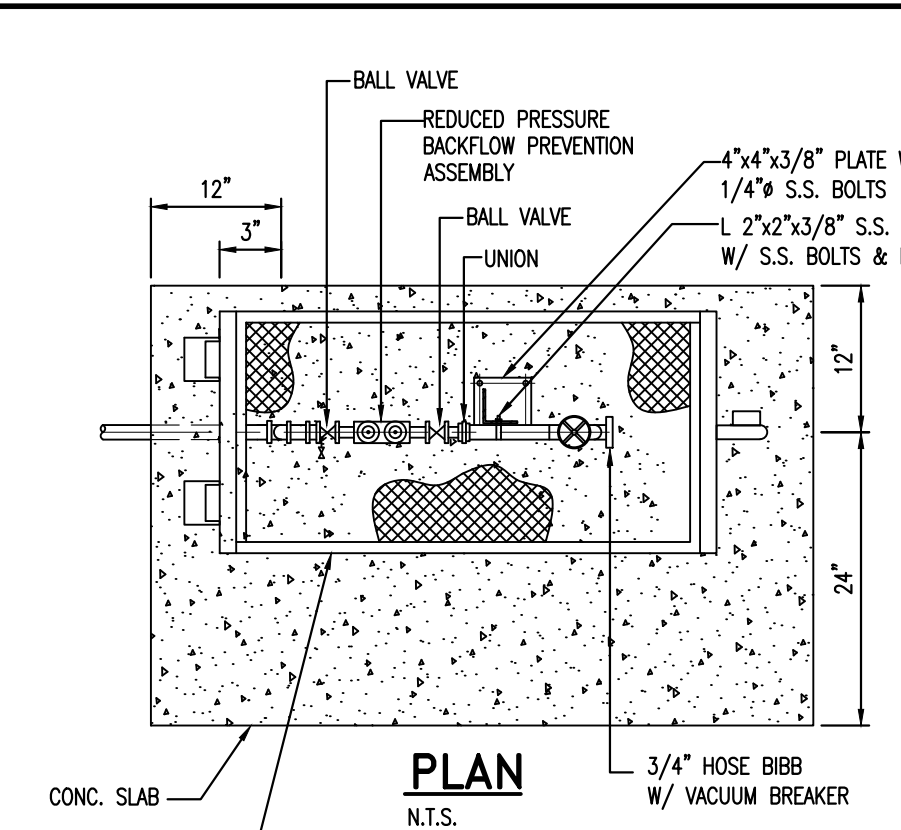
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 Date: 05/13/2020 11:30:44am
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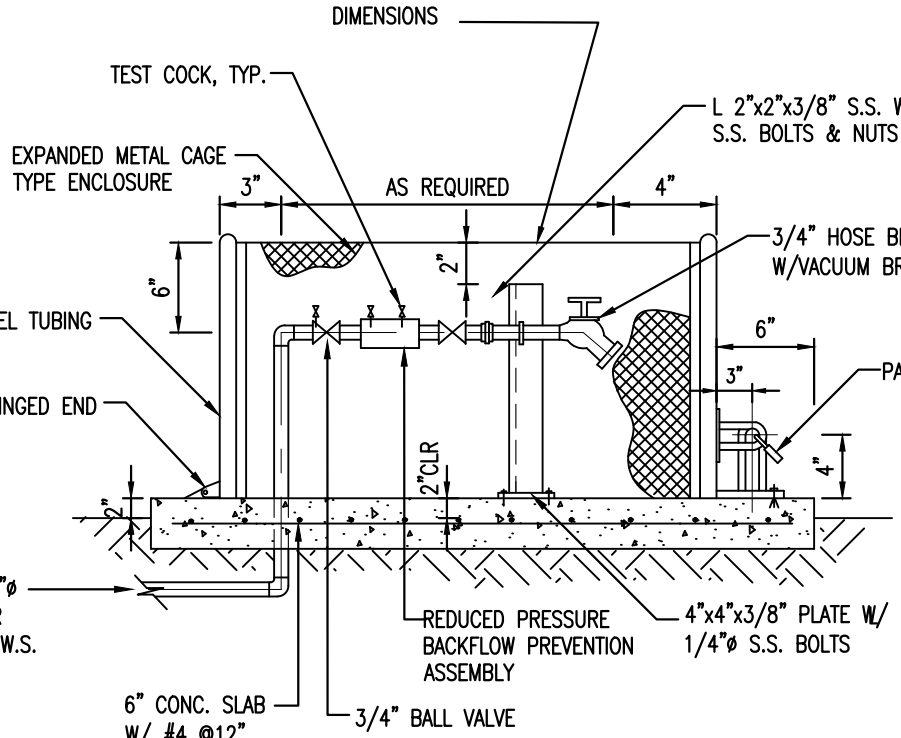
WET WELL AND VALVE VAULT PLAN
N.T.S.



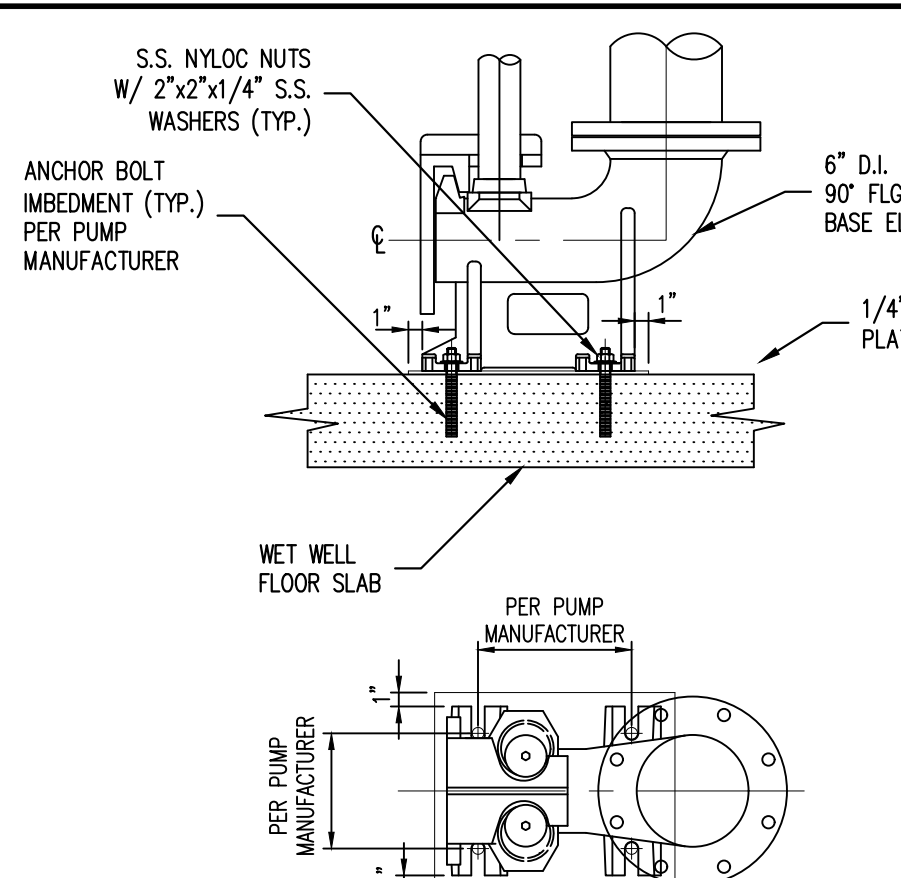
SECTION A
N.T.S.



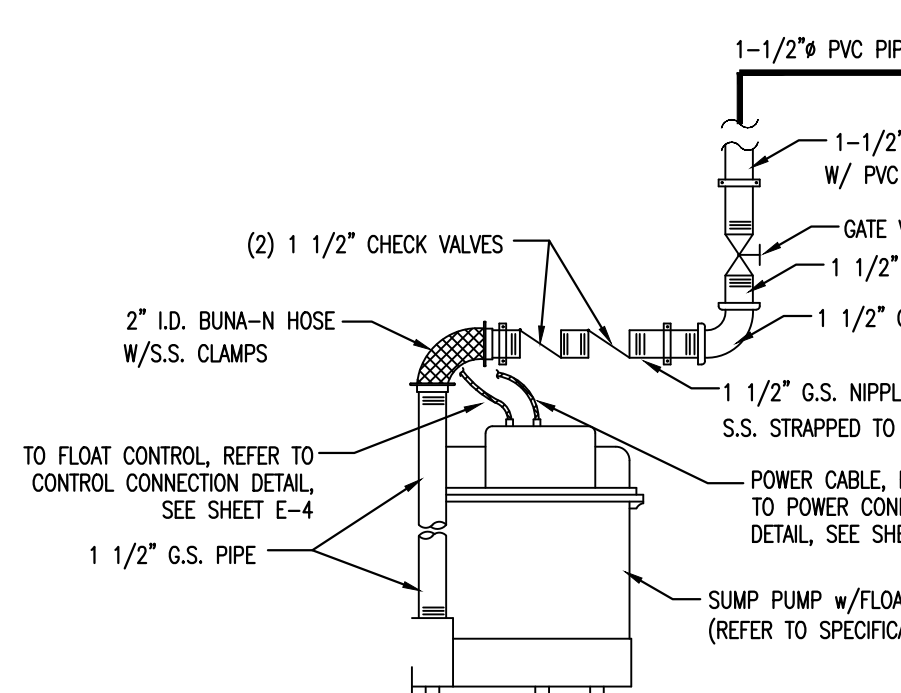
PLAN
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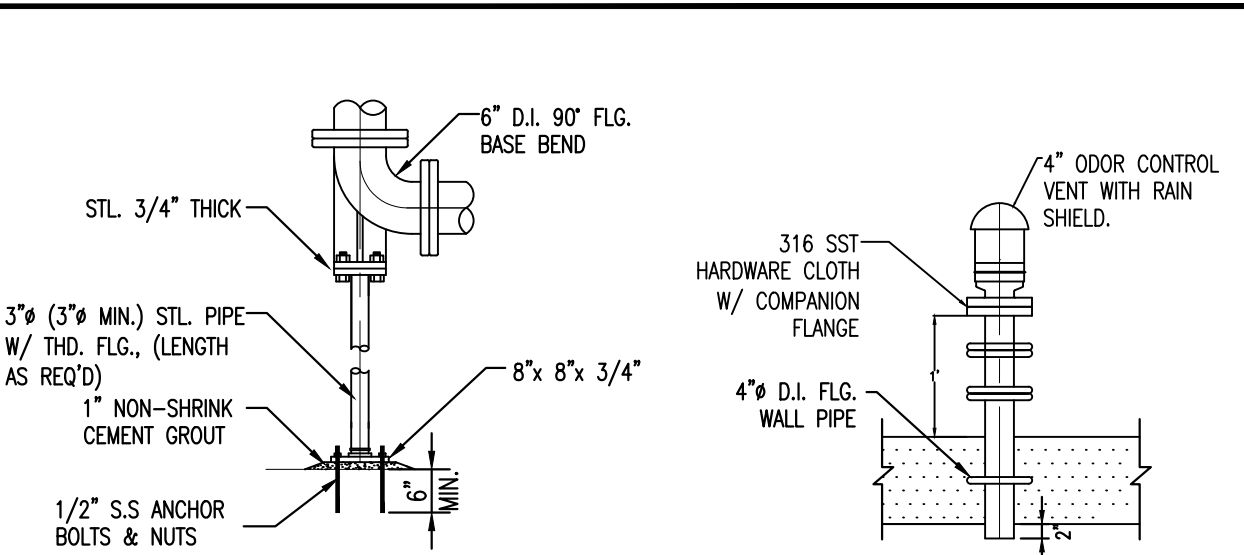
BACKFLOW PREVENTER WITH HOSE BIB
N.T.S.



BASE PLATE DETAIL
N.T.S.



SUMP PUMP AND PIPING DETAIL
N.T.S.

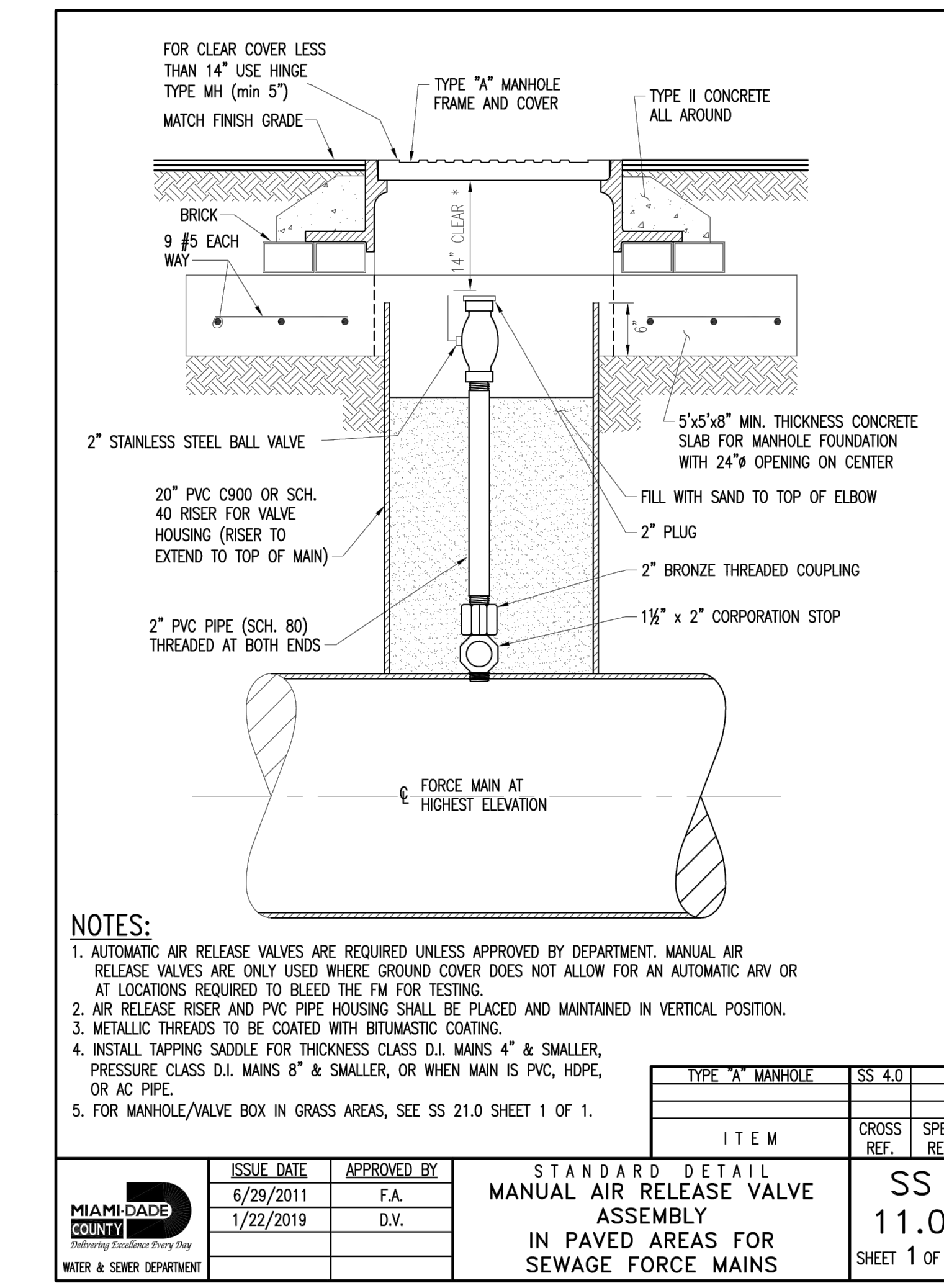


GALVANIZED PIPE SUPPORT
DETAIL 1
N.T.S.

VENT PIPE DETAIL
N.T.S.

PUMP DATA:	
FLUID	RAW SEWAGE
INSTALLATION LOCATION	HISPANOLA AVENUE AND NORTH TREASURE DRIVE
PUMP TYPE	SUBMERSIBLE PUMP
RATED POINT	CAPACITY, GPM: 983 TDH, FEET: 147
SHUT OFF HEAD, FT	210
CONTINUOUS OPERATING RANGE	MAXIMUM TDH, FT: 121
	CAPACITY, GPM: 1,350
	MINIMUM TDH, FT: 171
	CAPACITY, GPM: 627
	NPSHR, FT: 13.1
PUMP EFFICIENCY	AT B.E.P., %: 67
	MIN. @ RUNOUT, %: 60
PUMP CONSTRUCTION	CASING: CAST IRON CLASS 35B
	IMPELLER: CAST IRON CLASS 35B
	SHAFT: AISI 420 S.S.
	BEARINGS L-10 LIFE, HRS.: AS SPECIFIED
	MAX. SHAFT DEFLECTION IN OPERATING RANGE, MILS: 2
	MAX. VEL. OF VIBRATIONS IN OP. RANGE, INCH/SEC: 0.15
ELECTRIC MOTOR	SUCTION, INCHES: -
	DISCHARGE, INCHES: 4
	RATED HP: 70
	RPM: 1,750
	VOLTS/PHASE/Hz/S.F.: 460/3/60/1.15
	AMBIENT TEMP. FOR MOTOR RATING, °C: 40
	MAXIMUM TEMP. RISE, °C: 40
	BEARINGS L-10 LIFE, HRS.: AS SPECIFIED
	MAX. VIBRATION AMP., MILS: 0.1
	EXPLOSION PROOF: CLASS 1, DIV 1, GRP D
NEMA DESIGN CODE LETTER: B	
START. CURR. LETTER CODE: G	
INSULATION CLASS: H	
MOTOR RATED HP NOT OVERLOADED AT ANY POINT IN THE PUMPS PERFORMANCE CURVE	
MANUFACTURERS & MODELS	PUMP: AS SPECIFIED
	MOTOR: AS SPECIFIED

- MECHANICAL NOTES:**
- THE STANDARD DRAWINGS PRESENTED ARE BASED ON MINIMUM OF 6" DISCHARGE FORCE MAIN.
 - CONTRACTOR SHALL VERIFY EXISTING UNDERGROUND UTILITIES IN APPLICATIONS, ELEVATIONS, AND QUALITIES PRIOR TO CONSTRUCTION. THE CONTRACTOR SHALL VERIFY EXISTING PIPING TO REMAIN BEFORE ORDERING NEW PIPE AND FITTINGS FOR CONNECTIONS. THE CONTRACTOR SHALL INSPECT AND VERIFY ALL SITE CONDITIONS, DIMENSIONS, ELEVATIONS ETC. AND COORDINATE WITH OTHER TRADES PRIOR TO CONSTRUCTION. WORK SHALL BE SCHEDULED ACCORDING TO SPECIFIED CONSTRUCTION SEQUENCE.
 - PAY ATTENTION TO AVOID DISTURBING EXISTING ELECTRICAL SERVICE IN THE AREA UNDER CONSTRUCTION (FOR EXISTING FACILITIES ONLY).
 - ALL ELEVATIONS FOR UNDERGROUND UTILITIES SHOWN ARE T.O.P. ELEVATIONS UNLESS OTHERWISE SPECIFIED.
 - ALL PIPING, UNLESS SPECIFIED, TO USE DUCTILE IRON WITH LINING OF SEWER APPLICATION. FITTINGS AND CONNECTIONS UNDERGROUND TO USE MECHANICAL JOINT WITH RESTRAINTS; FITTINGS ABOVE GROUND OR IN VAULT TO USE FLANGE JOINT.
 - PROTECT ALL UNDERGROUND FITTING WITH BOLT CONNECTIONS IN DIRECT CONTACT WITH SOIL WITH TWO COATS OF BITUMASTIC MATERIAL OR APPROVED EQUAL. PROVIDE DIELECTRIC FITTINGS BETWEEN TWO DIFFERENT PIPING MATERIALS.
 - PIPE SUPPORTS SHALL BE HOT-DIP GALVANIZED AFTER FABRICATION.
 - PROPOSED WET WELL SHALL BE CYLINDRICAL TYPE MADE OF REINFORCED CONCRETE WITH DEPTH NO GREATER THAN 24 FEET.
 - PROVIDE SPARK-PROOF CONTACT BETWEEN PUMPS AND GUIDE RAIL SYSTEM.
 - ALL PUMP CONTROLS SHALL BE SET AS PER DESIGN REQUIREMENTS.



ISSUE DATE	APPROVED BY	TYPE "A" MANHOLE	SS 4.0
6/29/2011	F.A.		
1/22/2019	D.V.		

STANDARD DETAIL
MANUAL AIR RELEASE VALVE ASSEMBLY
IN PAVED AREAS FOR SEWAGE FORCE MAINS

MIAMI-DADE COUNTY
WATER & SEWER DEPARTMENT

SS 11.0
SHEET 1 OF 2

No.	REVISIONS	DATE	BY

Kimley-Horn

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KHA PROJECT 043138041
DATE MAY 2020
SCALE AS SHOWN
DESIGNED BY MM
DRAWN BY MM
CHECKED BY GR

HISPANOLA WASTEWATER PUMP STATION IMPROVEMENTS

PREPARED FOR
NORTH BAY VILLAGE

FLORIDA DATE: 05/13/2020

LICENSED PROFESSIONAL

GARY R. RATAY

FLORIDA LICENSE NUMBER 46682

PUMP STATION DETAILS

SHEET NUMBER
C300.0

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Plotted By: Leanne_Arabellio - Sheet Set: NORTH BAY VILLAGE - HISPANOLA LIFT STATION IMPROVEMENTS - L0404-C300.1 - STANDARD DETAILS - May 13, 2020 - 11:31:04am - K:\VTL\Civil\043 - Iba\043138041 - W - Auto - 18 - 03 - W - Station Improvements\Hispnola Lift Station\0404-C300.1 - STANDARD DETAILS.dwg
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LOCATION OF PUBLIC WATER SYSTEM MAINS ACCORDANCE WITH F.A.C. RULE 62-555.314

OTHER PIPE	HORIZONTAL SEPARATION	CROSSINGS (1)	JOINT SPACING & CROSSINGS (FULL LENGTH OF PIPE CENTERED)
Storm Sewer; Stormwater Force Main; Reclaimed Water (2)	Water Main 3 ft. minimum	Water Main 12 inches is the minimum.	Alternate: 3 ft. minimum Water Main
Vacuum Sanitary Sewer	Water Main 10 ft. preferred 3 ft. minimum	Water Main 12 inches preferred 6 inches minimum	Alternate: 3 ft. minimum Water Main
Gravity or Pressure; Sanitary Sewer Force Main; Reclaimed Water (4)	Water Main 10 ft. preferred 6 ft. minimum (3)	Water Main 12 inches is the minimum.	Alternate: 6 ft. minimum Water Main
On-site Septage Treatment & Disposal System	10 ft. minimum		

NOTES:
 1. WATER MAIN SHOULD BE ABOVE OTHER PIPE WHEN WATER MAIN MUST BE BELOW OTHER PIPE, THE MINIMUM SEPARATION IS 12 INCHES.
 2. RECLAIMED WATER REGULATED UNDER PART III OF CHAPTER 62-410, F.A.C.
 3. 3 FT. GRAVITY SANITARY SEWER WHERE THE BOTTOM OF THE WATER MAIN IS LAID AT LEAST 6 INCHES ABOVE THE TOP OF THE GRAVITY SANITARY SEWER.
 4. RECLAIMED WATER NOT REGULATED UNDER PART III OF CHAPTER 62-410, F.A.C.

ITEM	CROSS REF.	SPEC. REF.
GS 1.5		

STANDARD DETAIL
POTABLE WATER MAIN,
WASTEWATER & STORM SEWER CONFLICT
SHEET 1 OF 2

NOTES:
 1. STORM SEWER, GRAVITY WASTEWATER AND RECLAIMED WATER MAIN CROSSING UNDER POTABLE WATER MAINS SHALL BE LAID TO PROVIDE A MINIMUM VERTICAL DISTANCE OF TWELVE (12) INCHES BETWEEN THE INVERT OF THE UPPER PIPE AND THE CROWN OF THE LOWER PIPE. WHERE THIS MINIMUM SEPARATION CANNOT BE MAINTAINED, THE CROSSING SHALL BE ARRANGED SO THAT THE STORM/WASTEWATER/RECLAIMED WATER PIPE JOINTS AND POTABLE WATER MAIN JOINTS ARE EQUIDISTANT FROM THE POINT OF CROSSING WITH NO LESS THAN TEN (10) FEET BETWEEN ANY TWO JOINTS. BOTH PIPES SHALL BE D.I.P. AND THE MINIMUM VERTICAL SEPARATION SHALL BE 6 INCHES. WHERE THERE IS NO ALTERNATIVE TO STORM/WASTEWATER/RECLAIMED WATER PIPES CROSSING OVER A POTABLE WATER MAIN, THE CRITERIA FOR MINIMUM 12" VERTICAL SEPARATION BETWEEN LINES AND JOINT ARRANGEMENT, AS STATED ABOVE, SHALL BE REQUIRED, AND BOTH PIPES SHALL BE D.I.P. D.I.P. IS NOT REQUIRED FOR STORM SEWERS.
 2. WHENEVER POSSIBLE MAINTAIN MIN. TEN (10) FEET HORIZONTAL DISTANCE (WALL TO WALL) BETWEEN POTABLE WATER MAIN AND STORM SEWER, WASTEWATER MAIN, OR FORCE MAIN (A MIN. 6" SEPARATION MAY BE APPROVED ON A CASE BY CASE BASIS). MAINTAIN MIN. THREE (3) FEET HORIZONTAL DISTANCE (WALL TO WALL) BETWEEN RECLAIMED WATER MAIN AND POTABLE WATER MAIN, STORM SEWER, WASTEWATER GRAVITY MAIN OR FORCE MAIN.
 3. FORCE MAIN CROSSING POTABLE WATER MAIN OR RECLAIMED WATER MAIN SHALL BE LAID TO PROVIDE A MINIMUM VERTICAL DISTANCE OF TWELVE (12) INCHES BETWEEN THE OUTSIDE OF THE FORCE MAIN AND OUTSIDE OF THE POTABLE WATER MAIN OR RECLAIMED WATER MAIN WITH THE POTABLE WATER MAIN OR RECLAIMED WATER MAIN CROSSING OVER THE FORCE MAIN.
 4. WASTEWATER LATERALS SHALL CROSS UNDER POTABLE WATER MAINS WITH A MIN. 12" VERTICAL SEPARATION. WHENEVER POSSIBLE, WHERE THIS MINIMUM SEPARATION CANNOT BE MAINTAINED, A 20" SECTION OF DUCTILE IRON PIPE POTABLE WATER MAIN CENTERED ON THE CROSSING IS REQUIRED AND THE MINIMUM VERTICAL SEPARATION SHALL BE 6". WHERE THERE IS NO ALTERNATIVE TO A WASTEWATER LATERAL PIPE CROSSING OVER A POTABLE WATER MAIN, A MINIMUM 12" VERTICAL SEPARATION IS REQUIRED. THE LATERAL SHALL BE P.V.C. C-900 SDR18 OR BETTER. THE POTABLE WATER MAIN SHALL BE D.I.P. AND THE PIPE JOINTS SHALL BE EQUIDISTANT FROM THE POINT OF CROSSING.
 5. POTABLE WATER SERVICE LINES SHALL CROSS OVER WASTEWATER MAINS WITH A MIN. 12" VERTICAL SEPARATION. WHERE THIS MIN. SEPARATION CANNOT BE MAINTAINED, THE WATER SERVICE SHALL BE ENCASED IN A MIN. 10" LONG PVC CASING CENTERED OVER THE CROSSING WITH MIN. 4" VERTICAL SEPARATION.
 6. WASTEWATER MAINS, WATER MAINS, STORM PIPES AND OTHER UTILITY PIPES SHALL CROSS PERPENDICULAR WHENEVER POSSIBLE.

ITEM	CROSS REF.	SPEC. REF.
GS 1.5		

STANDARD DETAIL
WATER AND SEWER
MAINS CROSSING
SHEET 2 OF 2

NOTES:
 1. FOR EXCAVATION AND BACKFILL AROUND MANHOLES, APPURTENANCES, OR IN WATER, REFER TO PROVISIONS WITHIN THE SPECIFICATIONS.
 2. UNLESS OTHERWISE SPECIFIED, BEDDING MATERIAL SHALL CONSIST OF SELECT BACKFILL MATERIAL 2" MAX. SIZE, OR WASHED AND GRADED LIMEROCK (3/8"-7/8"), COMPACTED TO AT LEAST 90% OF MAX. DENSITY, 6" LIFTS, PER AASHTO SPEC. NO. T-180.
 3. WHERE REQUIRED, SHEETING AND SHORING SHALL BE IN ACCORDANCE WITH SPECIFICATIONS.
 4. WHERE UNSTABLE SOILS ARE ENCOUNTERED, INCLUDING PEAT, MUCK OR OTHER ORGANIC SOILS, ELASTIC SILT AND CLAYS BELOW THE WATER TABLE, A FOUNDATION IS REQUIRED, COMPACTED TO AT LEAST 90% OF MAX. DENSITY, 6" LIFTS, PER AASHTO SPEC. NO. T-180. FOUNDATION MATERIAL SHALL BE SELECT BACKFILL MATERIAL, 2" MAXIMUM SIZE 6" LIFTS EXTEND EXCAVATION AT LEAST 2 DEEPER FOR FOUNDATION UNLESS SUITABLE MATERIAL IS FOUND AT A LESSER DEPTH. GREATER DEPTHS MAY BE REQUIRED FOR EXTREMELY POOR CONDITIONS.
 5. POLYETHYLENE ENCASEMENT OF CAST IRON VALVES, PIPE AND FITTINGS, IF REQUIRED BY THE DEPARTMENT, SHALL BE PER ANSII/AWWA C105/A21.5, METHOD A, B OR C FOR TYPE I CLASS C TUBE, MIN. 8 MILS

ITEM	CROSS REF.	SPEC. REF.
GS 1.9		

STANDARD DETAIL
TYPICAL TRENCH BACKFILL
FOR D.I. WATER AND FORCE
MAINS
SHEET 1 OF 1

NOTES:
 1. LETTERS ON COVER TO BE ARRANGED WITH A RADIUS OF 6X" TO CENTER OF LETTERS.
 2. EACH LETTER TO BE 2" LONG, 3/8" DEEP, 1/4" TO 3/8" THICK, AND FLUSH WITH TOP OF BEADS.
 3. BEADS TO BE 3/8" HIGH WITH A RADIUS OF 1/4" AT BOTTOM AND 3/8" AT TOP.
 4. ALL BEARING SURFACES TO BE MACHINED (IRON TO IRON).
 5. MIN. WEIGHTS
 COVER: 107 LBS
 FRAME: 259 LBS.

ITEM	CROSS REF.	SPEC. REF.
SS 4.0		

STANDARD DETAIL
TYPE "A" MANHOLE
COVER & FRAME
SHEET 1 OF 2

COVER SECTION
FRAME SECTION

ITEM	CROSS REF.	SPEC. REF.
SS 4.0		

STANDARD DETAIL
TYPE "A" MANHOLE
COVER & FRAME
SHEET 2 OF 2

KEYWAY JOINT:
 SEE DETAIL 1
 ON SS 6.0
 SHEET 3 OF 3

NOTES:
 1. BRICK MASONRY CONSTRUCTION TO BE STUCCOED WITH 3/8" MORTAR INSIDE AND OUTSIDE.
 2. SEE DETAIL SS 7.0 FOR INFLUENT/EFFLUENT ARRANGEMENT.
 3. CONCRETE INSIDE TO BE SEAL COATED WITH 16 MIL THICKNESS APPROVED COATING/LINER.
 4. LEFT HOLES THROUGH PRECAST STRUCTURE ARE NOT PERMITTED.
 5. SEE TECHNICAL SPECIFICATIONS FOR PLACEMENT OF CONSTRUCTION JOINTS & REQUIRED ACCESSORIES.
 6. ECCENTRIC CORBELS FOR MANHOLES 8 FEET AND DEEPER (OPTIONAL).
 7. A FLOW CHANNEL SHALL BE CONSTRUCTED INSIDE MANHOLE TO DIRECT INFLUENT INTO FLOW STREAM. ALL OPENINGS SHALL BE SEALED WITH NON-SHRINK GROUT.
 8. NO CONSTRUCTION JOINTS TO BE ALLOWED BELOW AN ELEVATION OF FOUR FEET (4.0) ABOVE MEAN SEA LEVEL.
 9. CONSTRUCTION JOINTS WILL BE ALLOWED ABOVE ELEVATION +4.0 IF ADEQUATE KEY-WAYS AND WATER STOP APPROVED BY THE ENGINEER, ARE PROVIDED. SUBMIT SHOP DRAWINGS WITH COMPLETE DETAILS FOR APPROVAL.
 10. IF CONSHIELD ANTI-MICROBIAL AGENT IS USED IN THE CONCRETE MIXTURE, INTERIOR COATINGS AND LINERS CAN BE ELIMINATED.
 11. FOR BASE SLAB DETAIL, SCHEDULE AND ADDITIONAL NOTES SEE SS 6.0
 12. FOR ANY DEVIATION FROM MONOLITHIC WALL MAX. HEIGHT AND THE USE OF WATER-STOP, SUBMIT PRECAST MANUF. SHOP DRAWINGS FOR APPROVAL.

ITEM	CROSS REF.	SPEC. REF.
SS 6.0		

STANDARD DETAIL
SHALLOW MANHOLE
MANHOLE COVER
SHEET 1 OF 3

BASE SLAB DETAIL
 (PVC WATERSTOP NOT SHOWN FOR 12" THICK BASE SLAB; SEE DETAIL 2 ON SS 6.0 SHEET 3 OF 3)
 #4 CIRCULAR PERIMETER EDGE REBAR (FOR TOP AND BOT. MAT REBAR) (SEE BASE SLAB SCHEDULE)

SQUARE BASE SLAB
 (OPTIONAL)
 (SAME AS CIRCULAR DIAMETER)

NOTES:
 1. OVERALL DEPTH IS MEASURED FROM FINISH GRADE (FG.) TO TOP OF BASE SLAB (TOB).
 2. WATER TABLE ELEVATION ASSUMED AT MINIMUM 1'-0" BELOW THE BOTTOM OF CONCRETE CONE/CORBEL.
 3. 3'-0" HEIGHT MAXIMUM
 4. MANHOLE WITH METAL COVER DESIGNED FOR A TRUCK WHEEL LOAD OF 16000 LBS.
 5. CONTRACTOR SHALL SUBMIT SIGNED AND SEALED CALCULATIONS AND DETAILS FOR ANY MANHOLE SIZE/DEPTH THAT DOES NOT CONFORM TO ABOVE DESIGN CRITERIA AND CONDITIONS
 6. ALLOWABLE SOIL BEARING CAPACITY ASSUMED AT 2000 PSF MINIMUM. IF SOIL FOUNDATION APPEARS TO CONTAIN ORGANIC OR SILTY MATERIALS, CONTRACTOR SHALL SUBMIT SIGNED AND SEALED GEOTECHNICAL REPORT WITH SOIL BORINGS, INCLUDING RECOMMENDATION FOR SAFE SOIL BEARING CAPACITY TO VERIFY ADEQUACY OF BASE SLAB SIZE/DIAMETER AND/OR REINFORCING

BASE SLAB DIA. THICKNESS	OVERALL DEPTH	STEEL REINFORCEMENT	SHALLOW MANHOLE FLOW PATTERNS MANHOLE COVER	ITEM	CROSS REF.	SPEC. REF.
6'-4" 8" MIN. 1/2" MAX.	4'-0" MIN. 14'-6" MAX.	#4 @ 12" OC. TOP E.W.	SS 7.0			
7'-4" 12"	14'-6" TO 17'-0" MAX.	#4 @ 12" OC. T. & B. E.W.	SS 6.1			
8'-4" 12"	17'-0" TO 18'-0" MAX.	#4 @ 12" OC. T. & B. E.W.	SS 4.0			

ITEM	CROSS REF.	SPEC. REF.
SS 6.0		

STANDARD DETAIL
STANDARD MANHOLE
SHEET 2 OF 3

DETAIL 1
 (KEYWAY JOINT DETAIL)
 NOTE: NOT REQUIRED FOR MONOLITHIC POUR OF LOWER WALL WITH CONE/CORBEL

DETAIL 3
 (TYPICAL ADDITIONAL REINFORCING AROUND HOLE OPENINGS) (ROUND OR SQUARE)
 (*) ANY VERT. OR HOR. BAR AT MORE THAN 3" AWAY FROM EDGE OF OPENING SHALL HAVE ADD'L 1 #4 BAR WITH LENGTH = (D+36") PLACED AT 2" CL. FROM OPENING

ITEM	CROSS REF.	SPEC. REF.
SS 6.0		

KEYWAY JOINT DETAIL
STANDARD MANHOLE
SHEET 3 OF 3

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 WWW.KIMLEY-HORN.COM CA 0000696

KHA PROJECT
043138041
DATE
MAY 2020
SCALE AS SHOWN
DESIGNED BY MM
DRAWN BY MM
CHECKED BY GR

**HISPANOLA WASTEWATER PUMP
STATION IMPROVEMENTS**
 PREPARED FOR
NORTH BAY VILLAGE
 FLORIDA DATE: 05/13/2020

LICENSED PROFESSIONAL
 GARY R. RATAY
 FLORIDA LICENSE NUMBER
 46682

STANDARD DETAILS



SHEET NUMBER
C300.1

No.	REVISIONS	DATE	BY

Plotted By: Leanne, Arabella
 Sheet Set: NORTH BAY VILLAGE HISPANOLA LIET STATION IMPROVEMENTS - LID/LIET STATION IMPROVEMENTS - LID/LIET STATION IMPROVEMENTS - LID/LIET STATION IMPROVEMENTS
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NOTES:

- FOR NUMBER REFERENCES SEE SS 7.0.
- CONSTRUCT FLOW CHANNELS AS PER SS 10.0
- OPENING SIZE TO BE OF THE PIPE $00 + 4"$
- D.I. PIPE CAN NOT EXTEND MORE THAN A MAX. OF $3'$ BEYOND INSIDE WALL AND MUST BE FEATHERED TO THE WALL WITH CEMENT. P.V.C. PIPE SHALL BE FLUSH WITH INSIDE WALL OF MANHOLE.
- APPROVED GASKET.
- FOR REINFORCING STEEL SEE SS 6.0
- CONCRETE TO BE SEAL COATED INSIDE WITH 16 MIL THICKNESS APPROVED COATING/LINER.
- LIFT HOLES THROUGH PRECAST STRUCTURE ARE NOT PERMITTED.
- SEE TECHNICAL SPECIFICATIONS FOR PLACEMENT OF CONSTRUCTION JOINTS & REQUIRED ACCESSORIES.
- ALL OPENINGS SHALL BE SEALED WITH NON-SHRINK GROUT.
- A FLOW CHANNEL SHALL BE CONSTRUCTED INSIDE MANHOLE TO DIRECT INFLUENT INTO FLOW STREAM.
- FOR INFLUENT/EFFLUENT PIPING ARRANGEMENT SEE SS 7.0
- IF CONSHIELD ANTI-MICROBIAL AGENT IS USED IN THE CONCRETE MIXTURE, COATINGS AND LINERS CAN BE ELIMINATED.

ITEM	CROSS REF.	SPEC. REF.
PIPING	SS 7.0	
PIPE CONN.	SS 6.0	
FLOW PATTERNS	SS 10.0	
MANHOLE COVER	SS 4.0	

MIAMI-DADE COUNTY	ISSUE DATE: 04/13/2009	APPROVED BY: V.F.C.	STANDARD DETAIL	SS 6.1
WATER & SEWER DEPARTMENT	STANDARD MANHOLE FLOW CHANNELS			SHEET 1 of 1

NOTES:

- INVERT CHANNELS TO BE CONSTRUCTED FOR SMOOTH FLOW WITH NO OBSTRUCTIONS.
- SPILLWAYS SHALL BE CONSTRUCTED BETWEEN PIPES WITH DIFFERENT INVERT ELEVATIONS PROVIDING FOR SMOOTH FLOWS.
- CHANNELS FOR FUTURE CONNECTIONS (STUBS) SHALL BE CONSTRUCTED, FILLED WITH SAND & COVERED WITH $1"$ OF MORTAR.

ITEM	CROSS REF.	SPEC. REF.

MIAMI-DADE COUNTY	ISSUE DATE: 11/01/2006	APPROVED BY: V. E. F.	STANDARD DETAIL	SS 10.0
WATER & SEWER DEPARTMENT	FLOW PATTERNS FOR INVERT CHANNELS			SHEET 1 of 1

NOTES:

- METER LAYING LENGTH AS SHOWN: $10\frac{1}{2}"$ (OUTLET TO OUTLET) FOR $\frac{3}{4}"$ OR $1"$ METER ($11"$ WITH GASKETS).
- USE SINGLE METER BOX.
- CONCRETE SLAB REINFORCEMENT SHALL HAVE $1-3$ #3 BAR ALL AROUND.
- USE $1"$ BLUE COLOR HDPE OR $1"$ COPPER TUBING FOR POTABLE WATER SERVICE. USE ONLY $1"$ PURPLE COLOR HDPE (NO COPPER ALLOWED) FOR RECLAIMED WATER SERVICE.
- METERS WILL NOT BE INSTALLED IF THE METER BOX IS IN A DRIVING SURFACE.
- WHEN USING $1"$ HDPE SERVICE A TEN GAUGE BLUE (PURPLE FOR RECLAIMED WATER) DIRECT BURY STANDARD COPPER TRACER WIRE IS TO BE TAPED CONTINUOUSLY WITH POLY OR DUCT TAPE TO THE SERVICE FOR LOCATION PURPOSES. WIRE SHALL BE ATTACHED TO WATER MAIN. WIRE MUST EXTEND INTO METER BOX.
- IF USED FOR RECLAIMED WATER, THE COVER SHALL BE PERMANENTLY EMBOSSED WITH THE WORDING: "RECLAIMED WATER-DO NOT DRINK-NO BEER-PA BOU".
- ALL SPACER TUBES AND TAILPIECES SHALL BE FURNISHED AND INSTALLED BY CONTRACTOR.
- REPAIRS TO SLAB AND METER ARE PROHIBITED.

ITEM	CROSS REF.	SPEC. REF.

MIAMI-DADE COUNTY	ISSUE DATE: 06/01/2008	APPROVED BY: V.F.C.	STANDARD DETAIL	WS 2.10
WATER & SEWER DEPARTMENT	SINGLE METER BOX INSTALLATION			SHEET 1 of 3

NOTES:

- CONTRACTOR HAS THE OPTION OF TAPPING AT 45° .
- METERS WILL NOT BE INSTALLED IF THE METER BOX IS LOCATED ON A DRIVING SURFACE.
- PROVIDE $36"$ MIN. COVER FOR SERVICES INSTALLED WITHIN ARTERIAL ROADS (INCLUDING ALL SECTION LINE AND HALF-SECTION LINE ROADS).
- INSTALL TAPPING SADDLE FOR THICKNESS CLASS D.I. MAINS $4"$ & SMALLER. PRESSURE CLASS D.I. WATER MAINS $6"$ & SMALLER, OR WHEN MAIN IS PVC, HDPE OR 40 PIPE.
- WHEN MAIN IS SHALLOWER THAN $48"$, A $\frac{1}{2}"$ OR $\frac{3}{4}"$ BEND MUST BE USED.
- WHEN USING HDPE SERVICE PIPE, A TEN GAUGE BLUE TRACER WIRE TO BE TAPED TO THE PIPE EVERY 2 FT. WITH POLY OR DUCT TAPE. TRACER WIRE TO BE MECHANICALLY FASTENED TO THE MAIN WHEN A METAL WATER MAIN IS USED.
- USE SERVICE SADDLE AND TAPPING SLEEVE FOR PVC RECLAIMED WATER MAIN.

ITEM	CROSS REF.	SPEC. REF.

MIAMI-DADE COUNTY	ISSUE DATE: 1/3/2011	APPROVED BY: V.F.C.	STANDARD DETAIL	WS 2.16
WATER & SEWER DEPARTMENT	TYPICAL 1" SERVICE CONNECTION (COPPER OR HDPE)			SHEET 3 of 4

NOTES:

- FOUNDRY AND LOCATION SHALL BE CAST ON BOTTOM OF LID. (SEE WS 2.05)
- MACHINE FINISH BOTTOM OF COVER AND SEAT OF FRAME.
- ALL DIMENSIONS ARE NET CASTING, NOT PATTERN.
- IF USED FOR RECLAIMED WATER, THE CAST IRON LID AND BOX ARE TO BE COLORED PURPLE PANTONE 522C, AND THE LETTER "W" REPLACED WITH "R".

ITEM	CROSS REF.	SPEC. REF.

MIAMI-DADE COUNTY	ISSUE DATE: 06/01/2008	APPROVED BY: V.F.C.	STANDARD DETAIL	WS 3.10
WATER & SEWER DEPARTMENT	No. 2 C.I. VALVE BOX AND LID			SHEET 1 of 1

NOTES:

- THE ASSEMBLY SHALL BE INSTALLED WITH MINIMUM HORIZONTAL CLEARANCES OF 30 INCHES FREE FROM OBSTRUCTIONS IN ALL DIRECTIONS.
- GUARD POSTS SHALL BE INSTALLED IF THE ASSEMBLY IS EXPOSED TO POSSIBLE DAMAGE FROM VEHICULAR TRAFFIC, AS DETERMINED BY THE DEPARTMENT.
- THE ASSEMBLY SHALL BE INSTALLED IN AN ACCESSIBLE LOCATION, APPROVED BY THE DEPARTMENT.
- ADJUSTABLE PIPE SADDLE SUPPORT (GRINNELL FIG. 264 OR EQUAL) SIZED TO FIT CURVATURE OF DOUBLE DETECTOR CHECK VALVE ASSEMBLY, WITH GALVANIZED STEEL PIPE AND FLOOR FLANGE. ATTACH FLOOR FLANGE TO CONCRETE SLAB WITH GALVANIZED EXPANSION BOLTS.
- THE DEPARTMENT SHALL HAVE UNRESTRICTED AND CONTINUOUS ACCESS TO THE BACKFLOW PREVENTION ASSEMBLY.
- PIPING $2"$ AND SMALLER SHALL BE SCHEDULE 40 BRASS OR TYPE K COPPER PIPE WITH FITTINGS. PIPING $2\frac{1}{2}"$ AND LARGER SHALL BE DUCTILE IRON PIPE WITH FLANGED FITTINGS. ALL PIPING SHALL BE IN ACCORDANCE WITH WASD CONSTRUCTION SPECIFICATIONS FOR DONATION WATER MAINS, PVC PIPING IS NOT ACCEPTED BY WASD.
- ALL OUTLETS SHALL BE PLUGGED WITH BRASS PLUGS.
- ALL ABOVE GROUND PIPING AND EQUIPMENT, EXCEPT FOR BRASS AND STAINLESS STEEL PORTIONS, SHALL BE FINISHED WITH BLUE ENAMEL PAINT (KOP-COAT 0508 LEAD-FREE) IN ACCORDANCE WITH DEPARTMENT STANDARDS.
- REFER TO ATTACHED LIST (WS 4.18, SHEETS 4 AND 5 OF 5) OF APPROVED BACKFLOW PREVENTION ASSEMBLIES.
- COPPER ALLOY MATERIALS SHALL BE "LEAD FREE" AND IN FULL COMPLIANCE WITH THE FEDERAL "REDUCTION OF LEAD IN DRINKING WATER ACT".

ITEM	CROSS REF.	SPEC. REF.

MIAMI-DADE COUNTY	ISSUE DATE: 6/26/2012	APPROVED BY: F.A.	STANDARD DETAIL	WS 4.18
WATER & SEWER DEPARTMENT	REDUCED PRESSURE ZONE BACKFLOW PREVENTER FOR WATER SERVICE 3/4" THRU 2"			SHEET 1 of 5

NOTES:

- THE ASSEMBLY SHALL BE INSTALLED WITH MINIMUM HORIZONTAL CLEARANCES OF 30 INCHES FREE FROM OBSTRUCTIONS IN ALL DIRECTIONS.
- GUARD POSTS SHALL BE INSTALLED IF THE ASSEMBLY IS EXPOSED TO POSSIBLE DAMAGE FROM VEHICULAR TRAFFIC, AS DETERMINED BY THE DEPARTMENT.
- THE ASSEMBLY SHALL BE INSTALLED IN AN ACCESSIBLE LOCATION, APPROVED BY THE DEPARTMENT.
- ADJUSTABLE PIPE SADDLE SUPPORT (GRINNELL FIG. 264 OR EQUAL) SIZED TO FIT CURVATURE OF DOUBLE DETECTOR CHECK VALVE ASSEMBLY, WITH GALVANIZED STEEL PIPE AND FLOOR FLANGE. ATTACH FLOOR FLANGE TO CONCRETE SLAB WITH GALVANIZED EXPANSION BOLTS.
- THE DEPARTMENT SHALL HAVE UNRESTRICTED AND CONTINUOUS ACCESS TO THE BACKFLOW PREVENTION ASSEMBLY.
- PIPING $2"$ AND SMALLER SHALL BE SCHEDULE 40 BRASS OR TYPE K COPPER PIPE WITH FITTINGS. PIPING $2\frac{1}{2}"$ AND LARGER SHALL BE DUCTILE IRON PIPE WITH FLANGED FITTINGS. ALL PIPING SHALL BE IN ACCORDANCE WITH WASD CONSTRUCTION SPECIFICATIONS FOR DONATION WATER MAINS, PVC PIPING IS NOT ACCEPTED BY WASD.
- ALL OUTLETS SHALL BE PLUGGED WITH BRASS PLUGS.
- ALL ABOVE GROUND PIPING AND EQUIPMENT, EXCEPT FOR BRASS AND STAINLESS STEEL PORTIONS, SHALL BE FINISHED WITH BLUE ENAMEL PAINT (KOP-COAT 0508 LEAD-FREE) IN ACCORDANCE WITH DEPARTMENT STANDARDS.
- REFER TO ATTACHED LIST (WS 4.18, SHEETS 4 AND 5 OF 5) OF APPROVED BACKFLOW PREVENTION ASSEMBLIES.
- COPPER ALLOY MATERIALS SHALL BE "LEAD FREE" AND IN FULL COMPLIANCE WITH THE FEDERAL "REDUCTION OF LEAD IN DRINKING WATER ACT".

ITEM	CROSS REF.	SPEC. REF.

MIAMI-DADE COUNTY	ISSUE DATE: 8/29/2012	APPROVED BY: F.A.	STANDARD DETAIL	WS 4.18
WATER & SEWER DEPARTMENT	REDUCED PRESSURE ZONE BACKFLOW PREVENTER FOR WATER SERVICE - NOTES -			SHEET 3 of 5

MANUFACTURER	MODEL	ASSEMBLY (RPPA)	ASSEMBLY (RPPA)	ASSEMBLY (RPPA)	ASSEMBLY (RPPA)	ASSEMBLY (RPPA)	ASSEMBLY (RPPA)	ASSEMBLY (RPPA)	ASSEMBLY (RPPA)	ASSEMBLY (RPPA)	ASSEMBLY (RPPA)	ASSEMBLY (RPPA)	ASSEMBLY (RPPA)	ASSEMBLY (RPPA)	ASSEMBLY (RPPA)	ASSEMBLY (RPPA)	ASSEMBLY (RPPA)	ASSEMBLY (RPPA)	ASSEMBLY (RPPA)
AMES	875 NATIONAL DR. STE. #107	4000B	4000B	4000B	4000B	4000B	4000B	4000B	4000B	4000B	4000B	4000B	4000B	4000B	4000B	4000B	4000B	4000B	4000B
AMES	875 NATIONAL DR. STE. #107	4000B	4000B	4000B	4000B	4000B	4000B	4000B	4000B	4000B	4000B	4000B	4000B	4000B	4000B	4000B	4000B	4000B	4000B
AMES	875 NATIONAL DR. STE. #107	4000B	4000B	4000B	4000B	4000B	4000B	4000B	4000B	4000B	4000B	4000B	4000B	4000B	4000B	4000B	4000B	4000B	4000B

ITEM	CROSS REF.	SPEC. REF.

MIAMI-DADE COUNTY	ISSUE DATE: 6/26/2012	APPROVED BY: F.A.	STANDARD DETAIL	WS 4.18
WATER & SEWER DEPARTMENT	APPROVED BACKFLOW PREVENTION ASSEMBLIES - NOTES -			SHEET 4 of 5



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KHA PROJECT	043138041
DATE	MAY 2020
SCALE	AS SHOWN
DESIGNED BY	MM
DRAWN BY	MM
CHECKED BY	GR

HISPANOLA WASTEWATER PUMP STATION IMPROVEMENTS

PREPARED FOR
 NORTH BAY VILLAGE

FLORIDA DATE: 05/13/2020

LICENSED PROFESSIONAL
 GARY R. RATAY
 FLORIDA LICENSE NUMBER
 46682

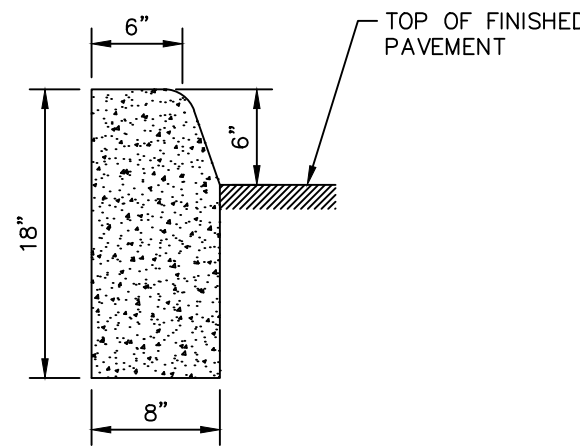
STANDARD DETAILS

C300.2

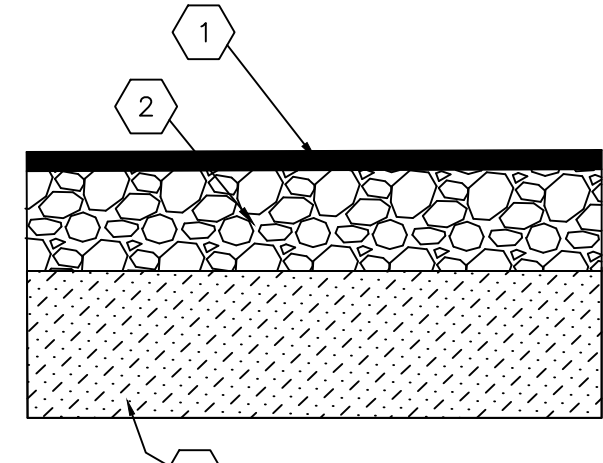
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FOR BIDDING

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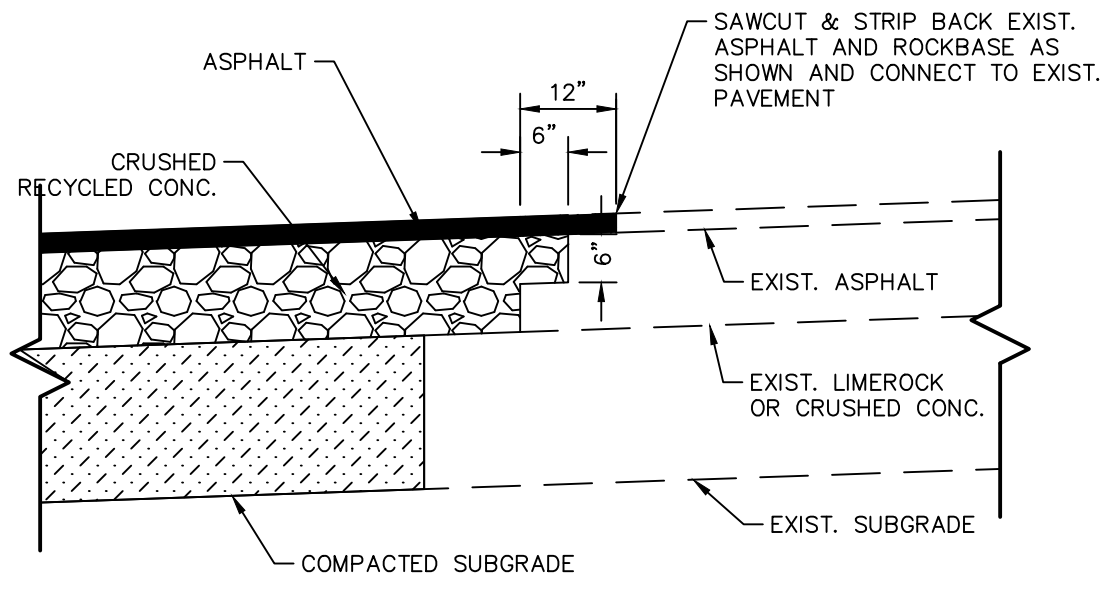
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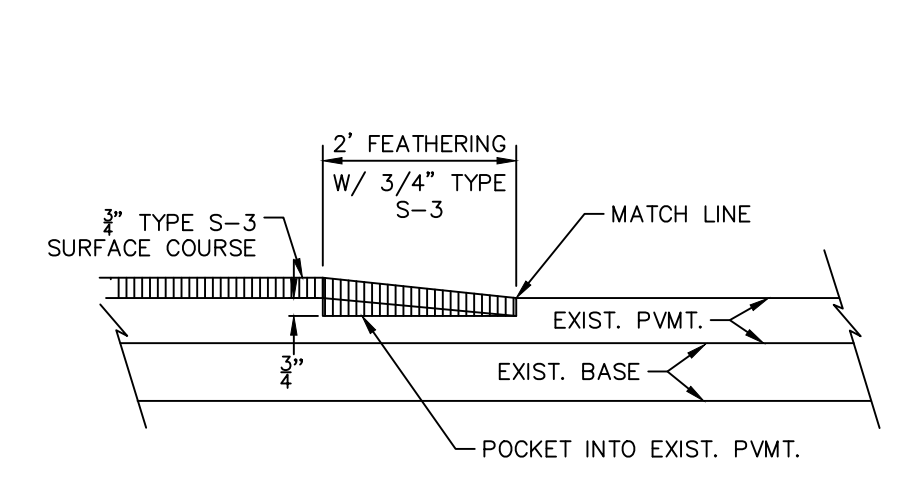
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PAVING LEGEND

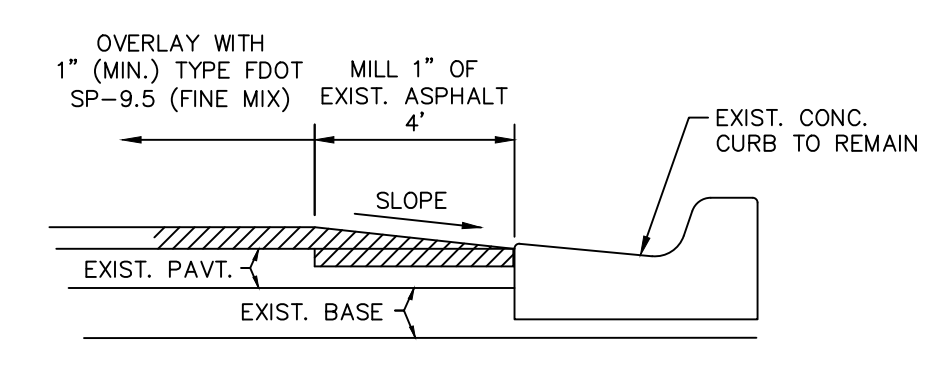
- 1 1 1/2" ASPHALT SURFACE TYPE SP-9.5 OR APPROVED EQUAL
- 2 8" LIMEROCK BASE COMPACTED IN 1 LIFT WITH MINIMUM LBR OF 100
- 3 12" THICK SUBGRADE COMPACTED AND STABILIZED WITH MINIMUM DESIGN LBR OF 40 COMPACTED TO AT LEAST 98% OF MAXIMUM DRY DENSITY (AASHTO T-100)



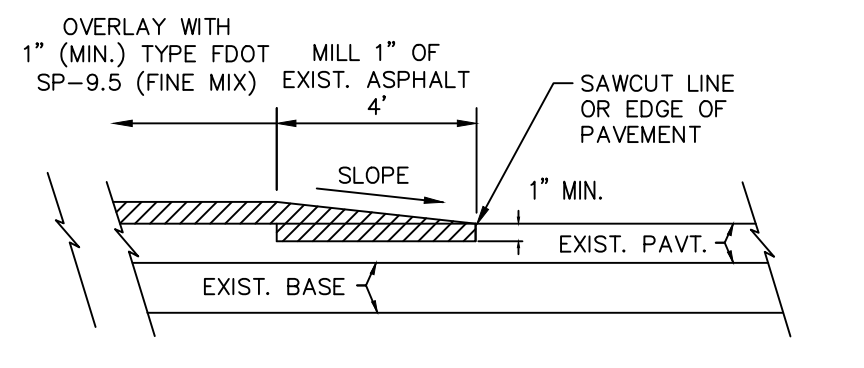
CONNECTION TO EXISTING PAVEMENT DETAIL
NOT TO SCALE



ASPHALT TRANSITION DETAIL AT BEGINNING OR ENDING OF ASPHALT LIFT OR NEW CONSTRUCTION
NOT TO SCALE

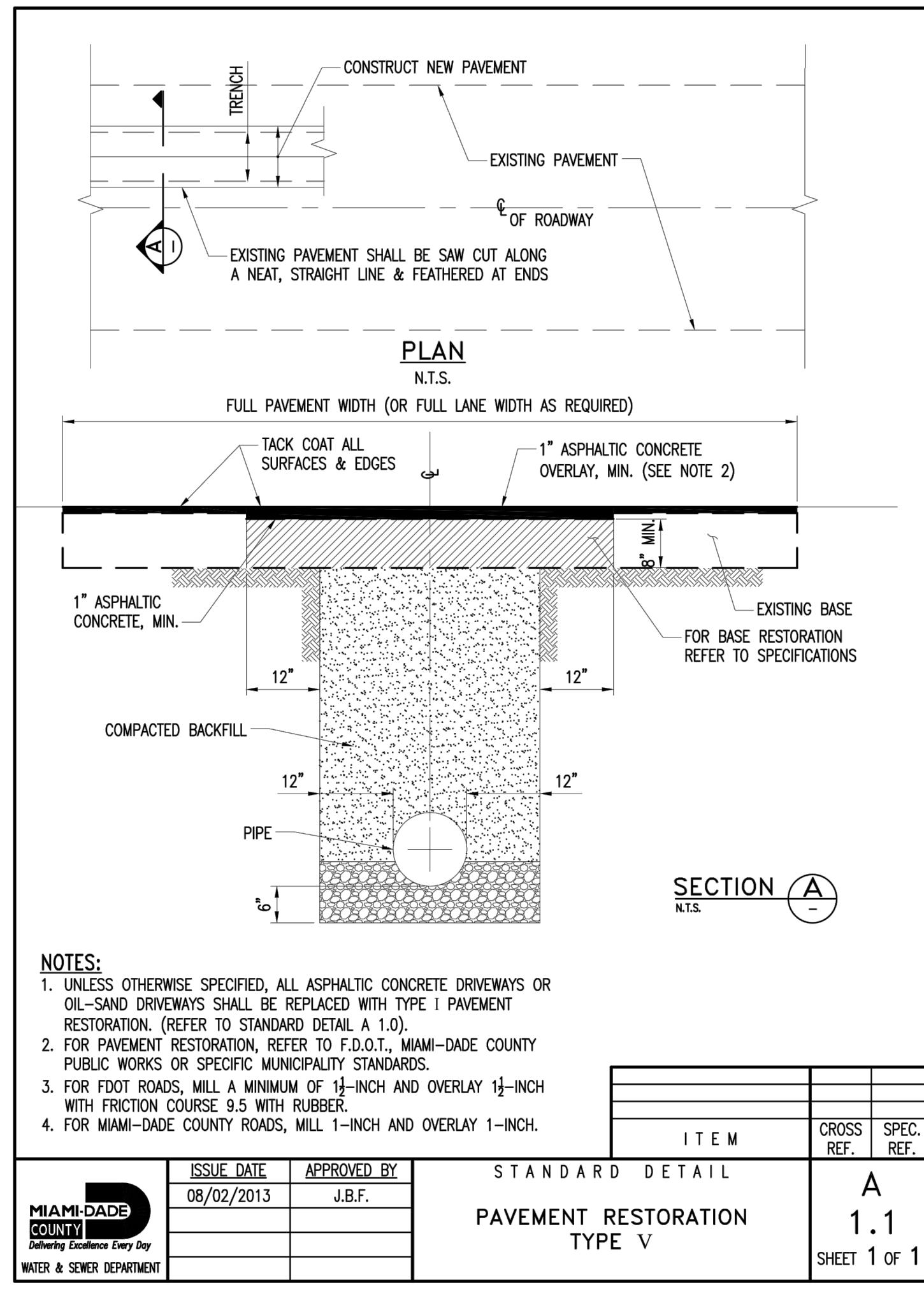
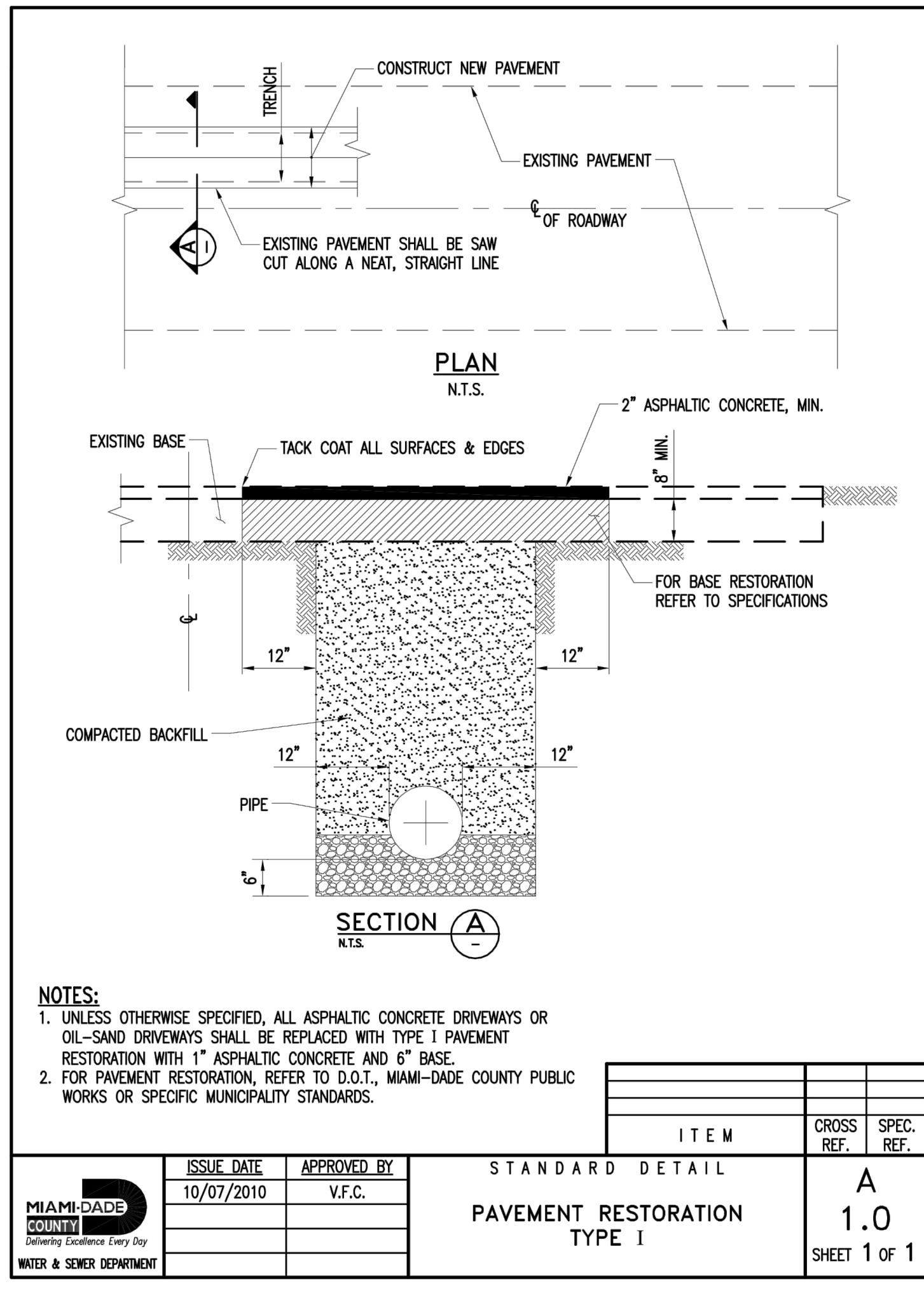
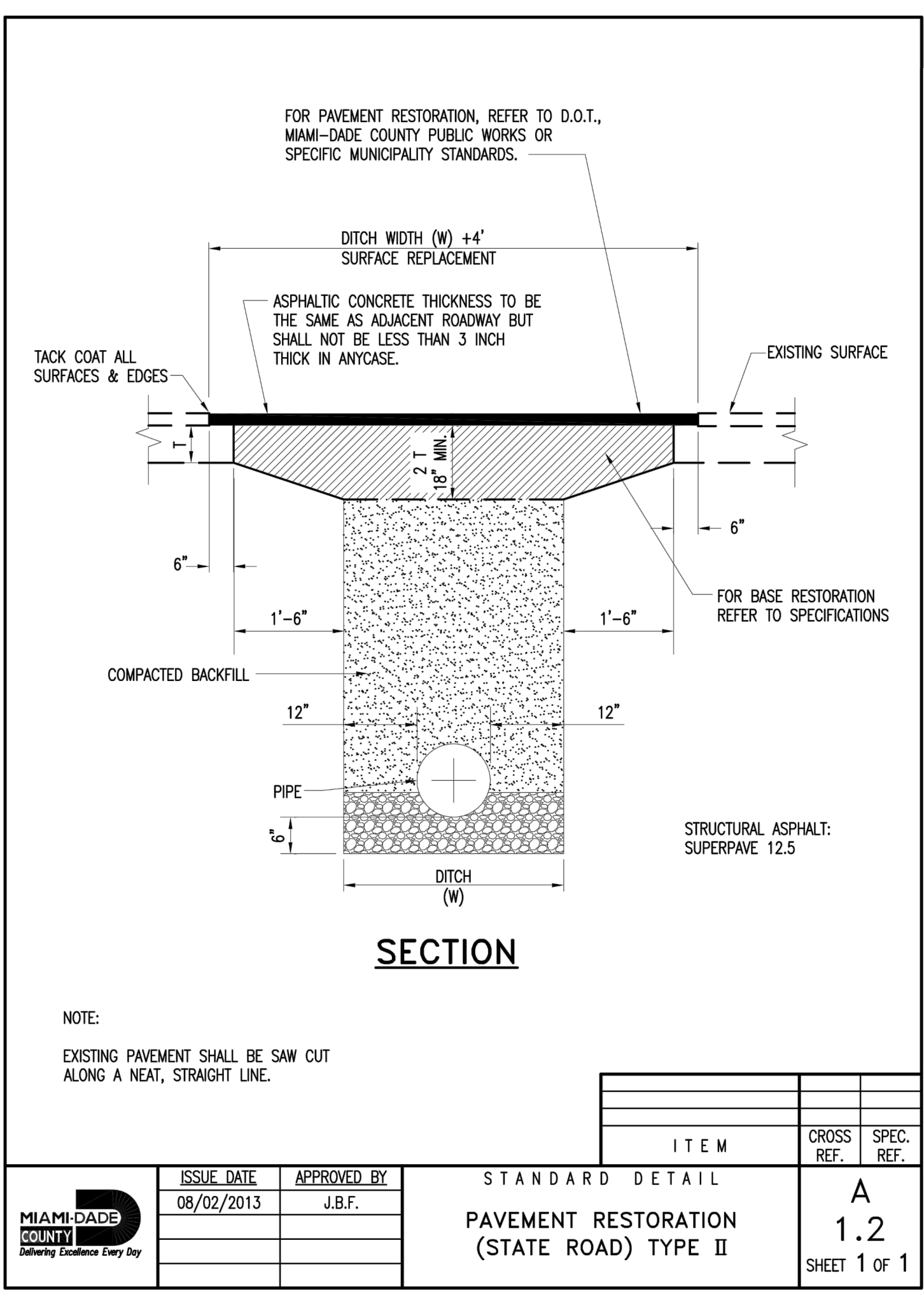


ASPHALT TRANSITION DETAIL ADJACENT TO CURB



ASPHALT OVERLAY DETAILS
NOT TO SCALE

- NOTES:**
- OVERLAY WITH FDOT TYPE SP-9.5 (FINE MIX) ASPHALTIC CONCRETE SURFACE COURSE (1" MIN. THICKNESS) AS SHOWN.
 - AT THE BEGINNING & END OF ASPHALT OVERLAY AND AT EDGE OF PAVEMENT ADJACENT TO CURBS, THE EXIST. PAVEMENT SHALL BE SAWCUT TO AN APPROXIMATE DEPTH OF 1" TO MAKE A CLEAN BUTT JOINT, & ENOUGH MATERIAL REMOVED FOR A SMOOTH TIE-IN AS SHOWN IN THE DETAIL.
 - CONTRACTOR TO PROVIDE SMOOTH AND CONTINUOUS GRADING DURING ASPHALT OVERLAY PROCESS TO AVOID AREAS OF STANDING WATER. THE COST SHALL BE INCLUDED IN THE ASPHALTIC CONCRETE SURFACE COURSE OVERLAY PAY ITEM.



FOR BIDDING



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HISPANOLA WASTEWATER PUMP STATION IMPROVEMENTS

PREPARED FOR
NORTH BAY VILLAGE

NORTH BAY VILLAGE FLORIDA

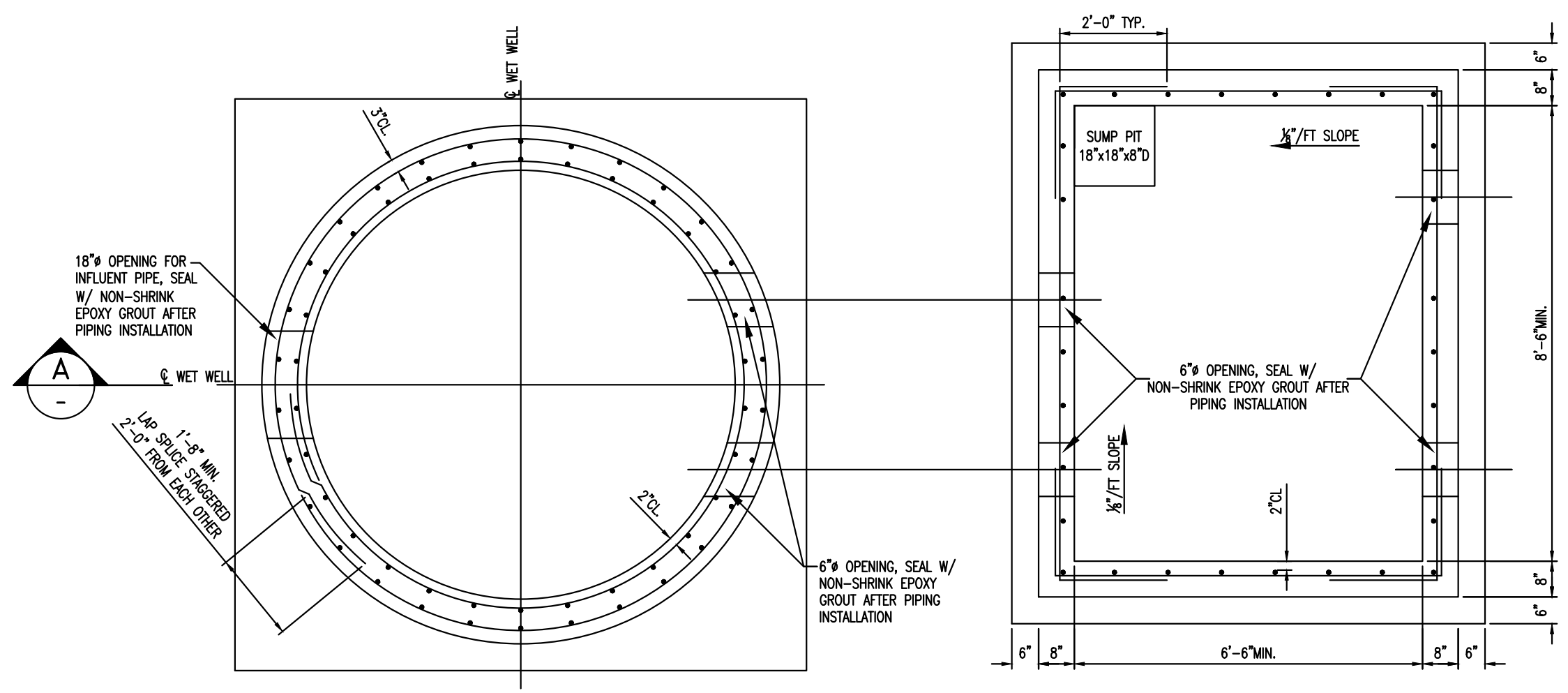
LICENSED PROFESSIONAL	GARY R. RATAY
FLORIDA LICENSE NUMBER	46682
DATE:	05/13/2020

SITE PLAN DETAILS

SHEET NUMBER	C300.3
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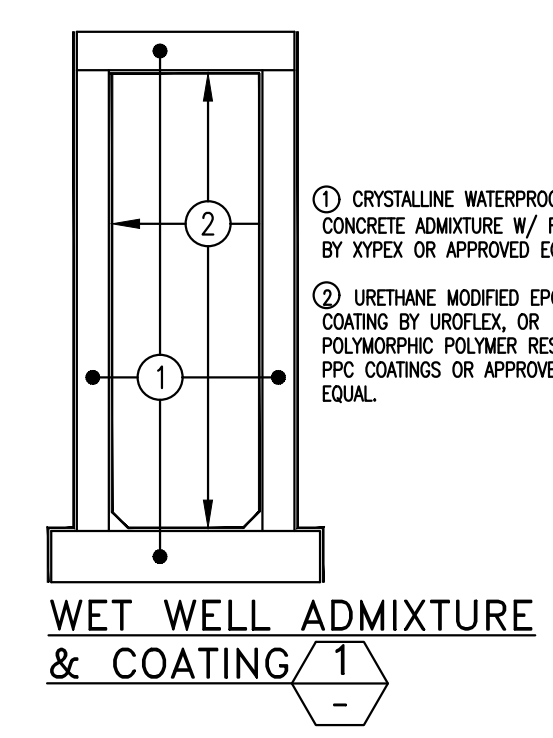
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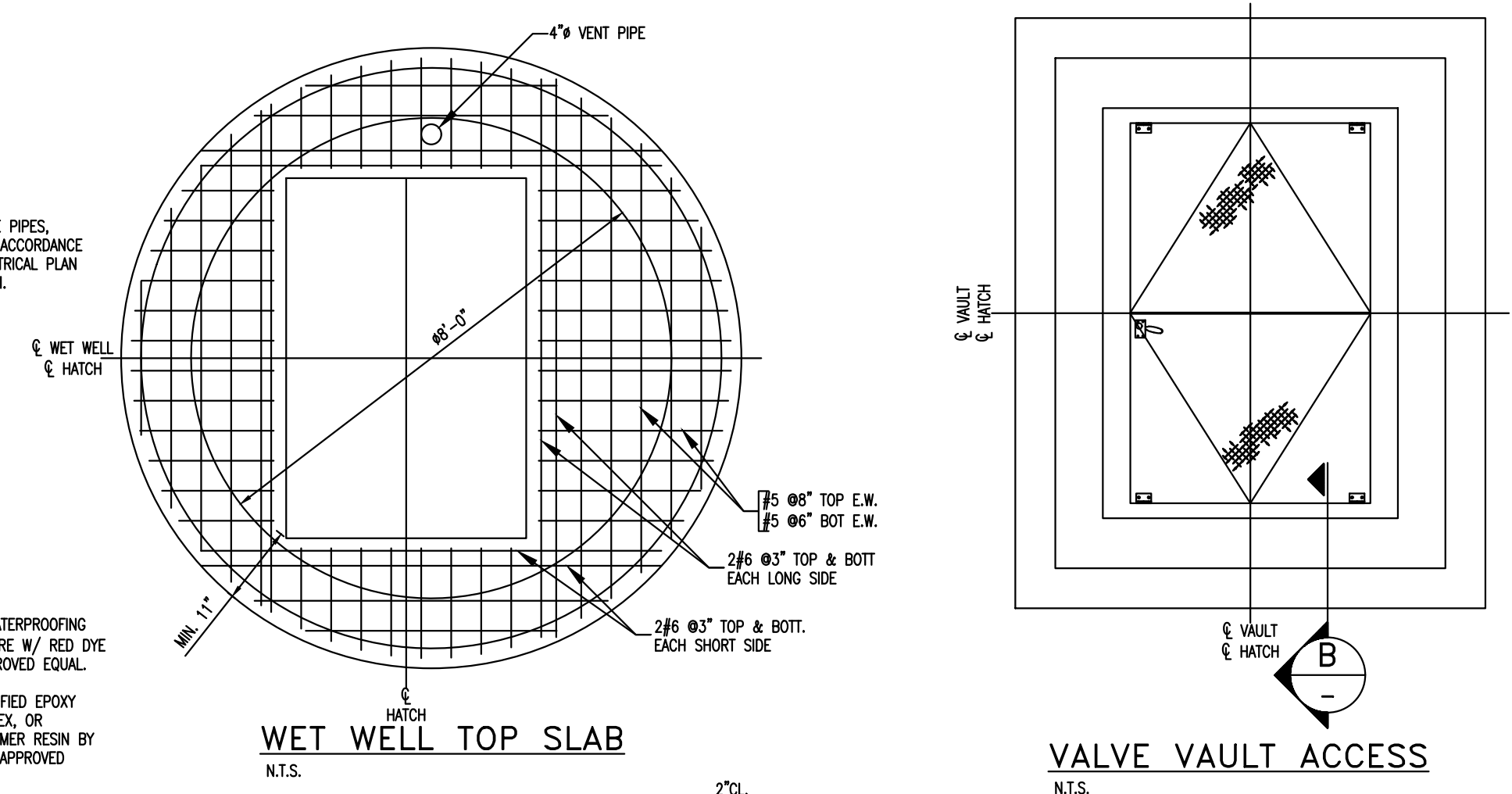


WET WELL AND VALVE VAULT SECTION PLAN
N.T.S.

NOTE:
THE SIZE AND LOCATION OF THE OPENINGS FOR THE PIPES, CONDUITS AND FLOOR ACCESS DOORS SHALL BE IN ACCORDANCE WITH THE DESIGN OF THE PIPING LAYOUT, THE ELECTRICAL PLAN AND AS PER PUMP MANUFACTURERS RECOMMENDATION.

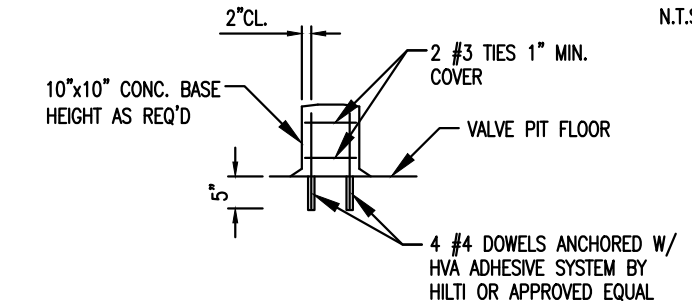


WET WELL ADMIXTURE & COATING
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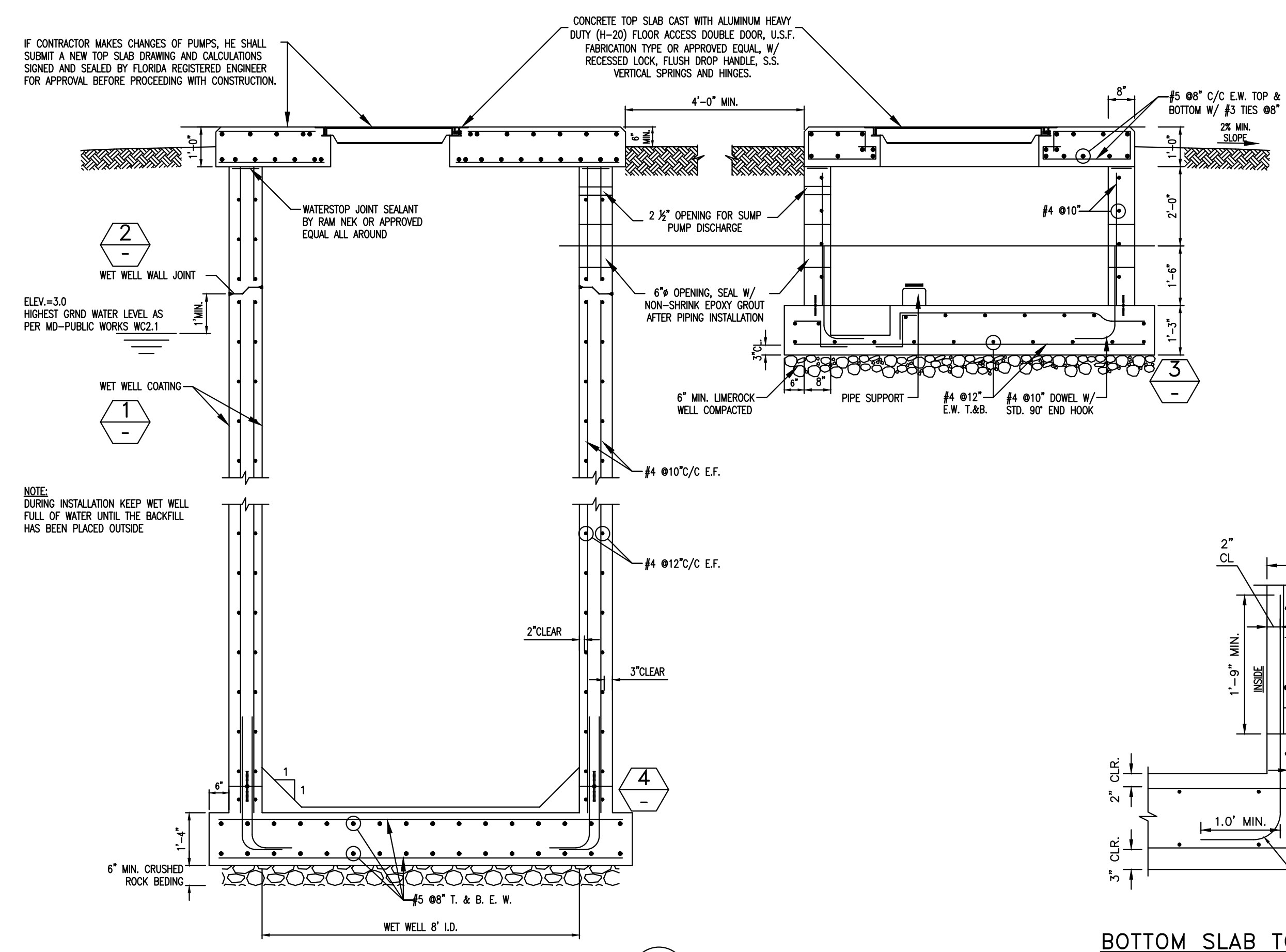


WET WELL TOP SLAB
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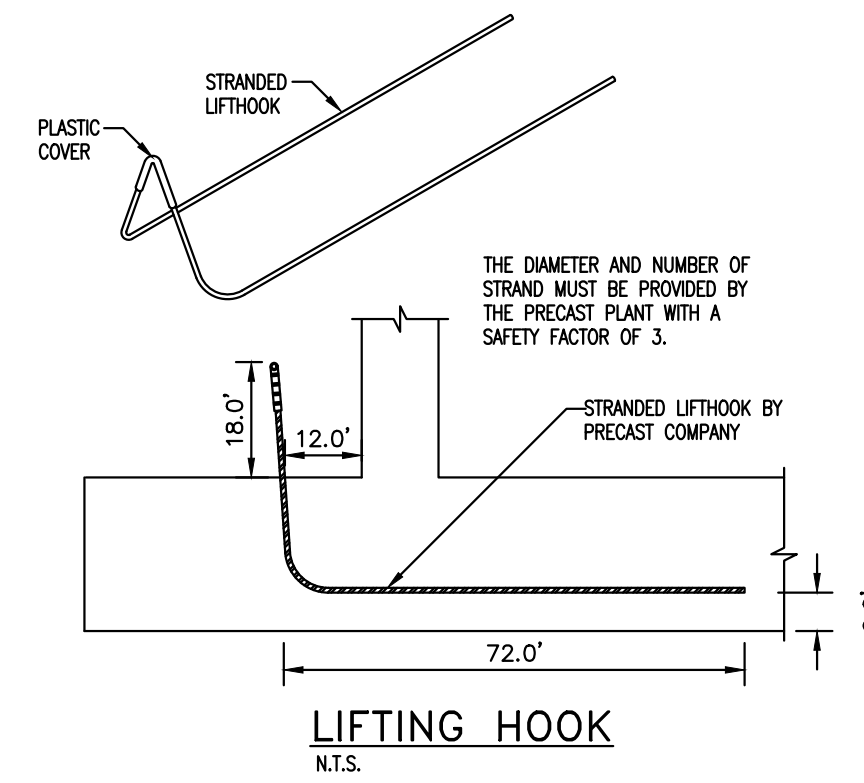
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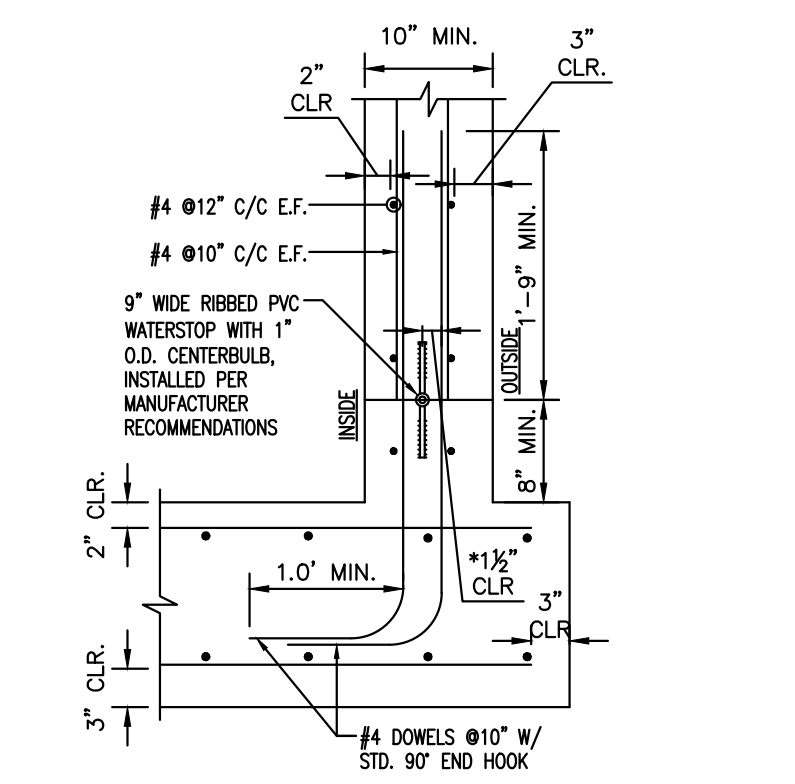
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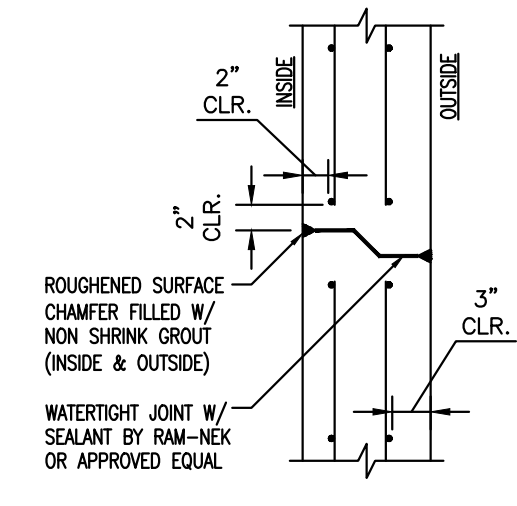
SECTION A
N.T.S.



LIFTING HOOK
N.T.S.

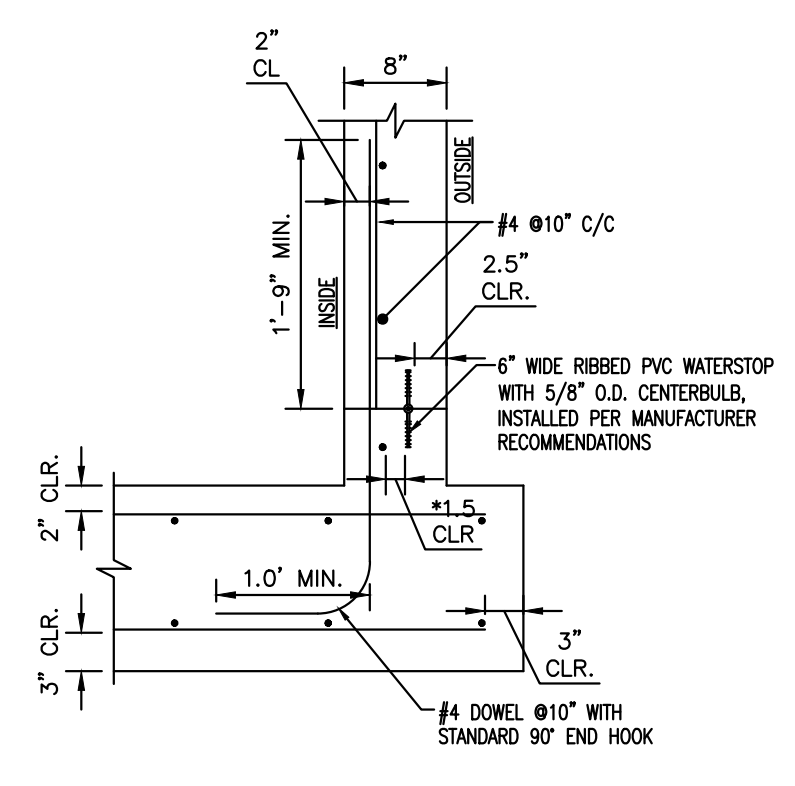


BOTTOM SLAB TO WALL JOINT
N.T.S.

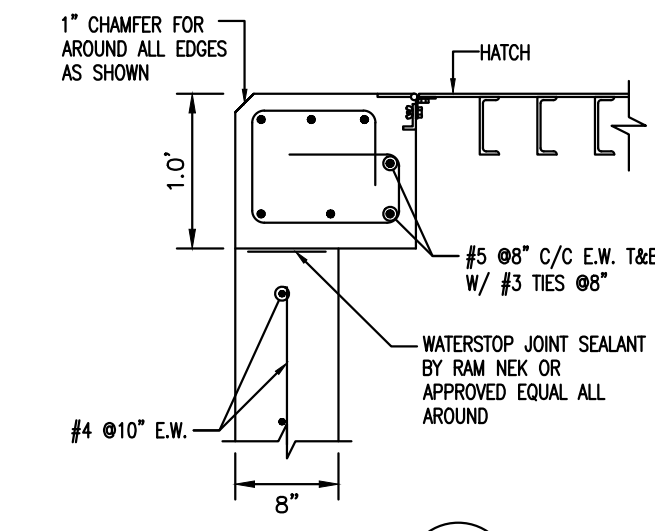


WALL JOINT
N.T.S.

WET WELL CONSTRUCTION JOINTS
NOTE: THE ENTIRE REINFORCED CONCRETE STRUCTURE FOR THE WET WELL SHALL BE WATER TIGHT, PREFERABLY NO CONSTRUCTION JOINTS UNDER GROUND WATER LEVEL. MINIMUM DISTANCE BETWEEN WALL JOINTS WITH PVC WATER STOP SHALL BE 8 FT.

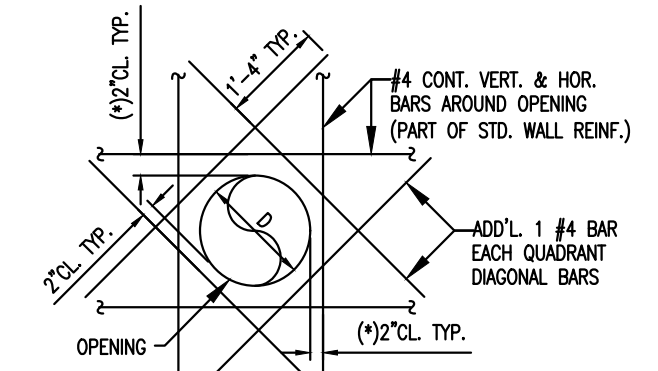


BOTTOM SLAB TO WALL JOINT
N.T.S.



SECTION B
N.T.S.

VALVE VAULT CONSTRUCTION JOINTS



WALL OPENING
TYPICAL ADDITIONAL WALL REINFORCING AROUND HOLE OPENINGS (ROUND OR SQUARE).
(*) ANY VERTICAL OR HORIZONTAL BAR AT MORE THAN 3" AWAY FROM EDGE OF OPENING SHALL HAVE ADDITIONAL 1 #4 BAR WITH LENGTH=(D+36"), PLACED AT 2" CLEAR FROM OPENING.

FOR BIDDING



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KHA PROJECT
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DATE
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SCALE AS SHOWN
DESIGNED BY MM
DRAWN BY MM
CHECKED BY GR

HISPANOLA WASTEWATER PUMP STATION IMPROVEMENTS
PREPARED FOR
NORTH BAY VILLAGE
NORTH BAY VILLAGE
FLORIDA

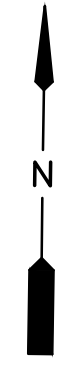
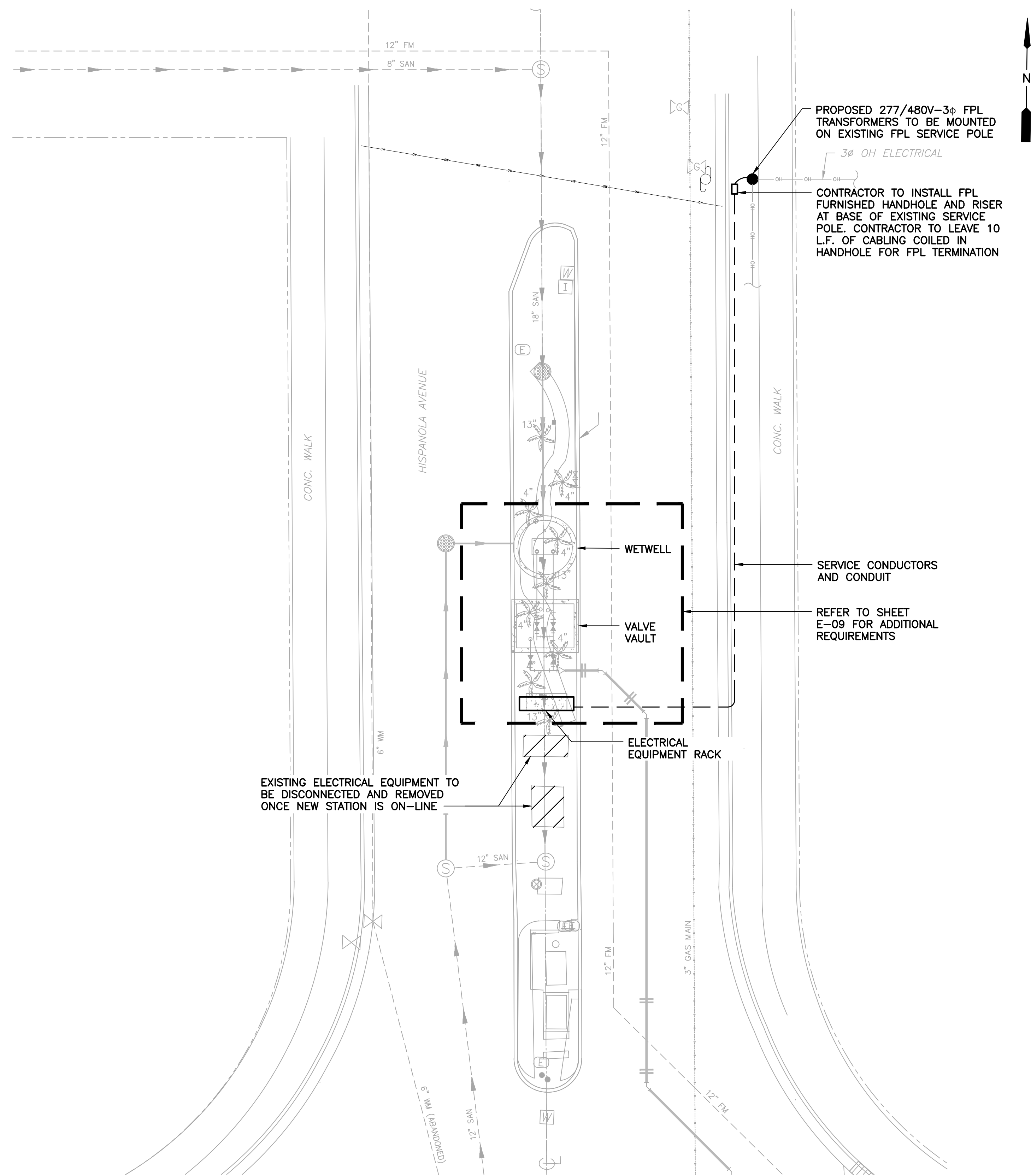
LICENSED PROFESSIONAL
GARY R. RATAY
FLORIDA LICENSE NUMBER
46682
DATE: 05/13/2020

WET WELL AND VALVE VAULT STRUCTURAL PLAN, SECTIONS, AND DETAILS

SHEET NUMBER
C400.1

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LEGEND:

PLAN SYMBOLS

- (15) ELECTRIC A.C. MOTOR, NO. INDICATES HORSEPOWER.
- CONDUIT RUN EXPOSED. RUN PARALLEL OR PERPENDICULAR TO STRUCTURE OR WALL.
- - - CONDUIT CONCEALED IN OR BELOW FLOOR OR UNDERGROUND.
- HOME RUN TO PANELBOARD. NUMBER OF ARROWS INDICATE NUMBER OF CIRCUITS. HASH MARKS INDICATE NUMBER OF #12 AWG. CONDUCTORS. NO HASH MARKS INDICATE 2 #12 CONDUCTORS.
- (LE) LEVEL TRANSDUCER
- (LLS) LIQUID LEVEL SWITCH
- (TS) TEMPERATURE SWITCH
- (SF) SEAL FAIL
- ⊗ GROUND ROD
- TW ⊗ GROUND TEST WELL

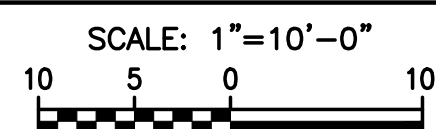
ABBREVIATIONS

- A AMPERES
- AFG ABOVE FINISHED GRADE
- CP CONTROL PANEL
- CPT CONTROL POWER TRANSFORMER
- FPL FLORIDA POWER & LIGHT
- FVNR FULL VOLTAGE NON-REVERSING
- GND GROUND
- HP HORSEPOWER
- LIT LEVEL INDICATING TRANSMITTER
- MIN MINIMUM
- MSC MANUFACTURER SUPPLIED CABLE
- MTD MOUNTED
- N NEUTRAL
- NEC NATIONAL ELECTRICAL CODE
- NO NUMBER
- NTS NOT TO SCALE
- OH OVERHEAD
- P POLE
- PSCP PUMP STATION CONTROL PANEL
- SPD SURGE PROTECTION DEVICE
- SS STAINLESS STEEL
- SSS SOLID STATE STARTER
- TYP TYPICAL
- V VOLTS
- VA VOLT AMPERES
- VFD VARIABLE FREQUENCY DRIVE
- W WIRE
- WP WEATHERPROOF
- w/ WITH
- ∅ PHASE

NOTES

1. ELECTRICAL CONTRACTOR SHALL SUPPLY AND INSTALL ALL NEW ELECTRICAL WORK INDICATED.
2. ELECTRICAL CONTRACTOR SHALL VISIT JOB SITE AND FAMILIARIZE HIMSELF WITH ALL CONDITIONS AFFECTING ELECTRICAL INSTALLATION AND MAKE PROVISIONS AS TO THE COST THEREOF. EXISTING CONDITIONS OF ELECTRICAL EQUIPMENT, LIGHT FIXTURES, ETC... THAT ARE PART OF THE FINAL SYSTEM SHALL BE VERIFIED BY THE CONTRACTOR PRIOR TO SUBMITTING HIS BID.
3. ALL WORK SHALL BE DONE IN ACCORDANCE WITH THE 2014 NATIONAL ELECTRICAL CODE, 2017 FLORIDA BUILDING, 2014 NATIONAL FIRE PROTECTION ASSOCIATION, AND SHALL COMPLY WITH ALL LOCAL RULES AND ORDINANCES.
4. MINIMUM WIRE SIZE SHALL BE #12 A.W.G. FOR POWER CIRCUITS.
5. IT IS NOT THE INTENT OF THESE PLANS TO SHOW EVERY MINOR DETAIL OF CONSTRUCTION. THE CONTRACTOR IS EXPECTED TO FURNISH AND INSTALL ALL ITEMS FOR A COMPLETE ELECTRICAL SYSTEM AND PROVIDE ALL REQUIREMENTS NECESSARY FOR THE EQUIPMENT TO BE PLACED IN PROPER WORKING ORDER.
6. ELECTRICAL SYSTEM SHALL BE COMPLETE AND EFFECTIVELY GROUNDING AS REQUIRED BY THE LATEST EDITION OF THE N.E.C. OR LOCAL CODES. ALL CONDUITS SHALL HAVE A BOND WIRE SIZED PER TABLE 250-122 OF THE NATIONAL ELECTRICAL CODE.
7. ALL MATERIALS SHALL BE NEW AND BEAR UNDERWRITERS' LABELS WHERE APPLICABLE.
8. ALL WORK SHALL BE PERFORMED BY A LICENSED ELECTRICAL CONTRACTOR IN A FIRST CLASS WORKMANLIKE MANNER. THE COMPLETED SYSTEM SHALL BE FULLY OPERATIVE AND ACCEPTED BY ENGINEER/OWNER.
9. CONTRACTOR SHALL GUARANTEE ALL MATERIALS AND WORKMANSHIP FREE FROM DEFECTS FOR A PERIOD OF NOT LESS THAN ONE YEAR FROM DATE OF ACCEPTANCE.
10. CORRECTION OF ANY DEFECTS SHALL BE COMPLETED WITHOUT ADDITIONAL CHARGE AND SHALL INCLUDE REPLACEMENT OR REPAIR OF ANY OTHER PHASE OF THE INSTALLATION WHICH MAY HAVE BEEN DAMAGED.
11. THE ELECTRICAL INSTALLATION SHALL MEET ALL STANDARD REQUIREMENTS OF FPL.
12. CONTRACTOR SHALL BE RESPONSIBLE FOR ALL CUTTING AND PATCHING REQUIRED OF HIS WORK.
13. ELECTRICAL CONTRACTOR SHALL LABEL ALL PANELS W/ TYPE WRITTEN DIRECTORIES.
14. ALL ELECTRICAL WIRING SHALL BE THE RESPONSIBILITY OF THE ELECTRICAL CONTRACTOR.
15. DO NOT SCALE THE ELECTRICAL DRAWINGS. REFER TO THE MECHANICAL DRAWINGS & THE APPROVED MANUFACTURER'S SHOP DRAWINGS FOR THE EXACT LOCATION OF ALL EQUIPMENT.
16. *SLANTED AND SHADED TEXT* DENOTES EXISTING EQUIPMENT OR STRUCTURES. *NON-SLANTED TEXT* DENOTES NEW EQUIPMENT, STRUCTURES & WORK.
17. ALL CONTROL PANELS SHALL BE UL LISTED AND MEET THE REQUIREMENTS OF ARTICLE 409 OF THE NATIONAL ELECTRICAL CODE.

ELECTRICAL SITE PLAN



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DATE	MAY 2020
SCALE	AS SHOWN
DESIGNED BY	SEB
DRAWN BY	SJL
CHECKED BY	SEB

HISPANOLA WASTEWATER PUMP STATION IMPROVEMENTS

PREPARED FOR
NORTH BAY VILLAGE

NORTH BAY VILLAGE

LICENSED PROFESSIONAL

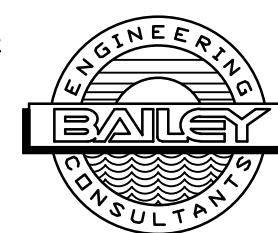
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FLORIDA LICENSE NUMBER
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FLORIDA DATE: 5/14/2020

ELECTRICAL SITE PLAN, NOTES, SYMBOLS AND ABBREVIATIONS

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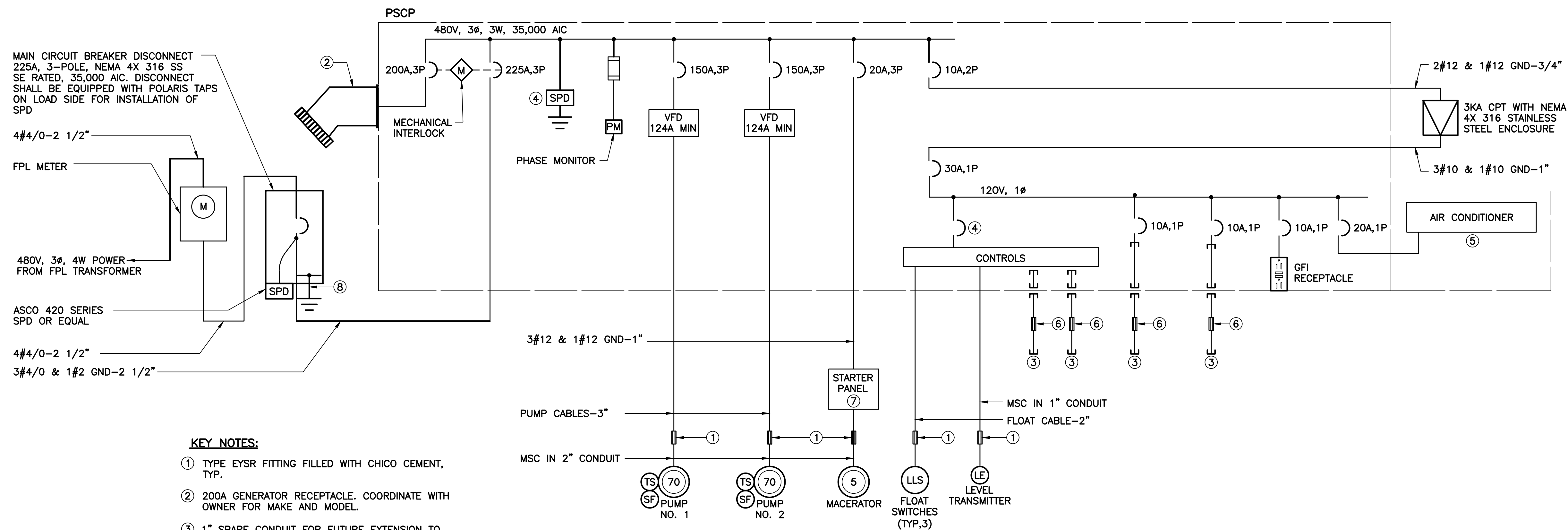
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KEY NOTES:

- ① TYPE EYSR FITTING FILLED WITH CHICO CEMENT, TYP.
- ② 200A GENERATOR RECEPTACLE. COORDINATE WITH OWNER FOR MAKE AND MODEL.
- ③ 1" SPARE CONDUIT FOR FUTURE EXTENSION TO VALVE BOX AND WETWELL.
- ④ ASCO 430 SERIES.
- ⑤ CONTROL PANEL CABINET SHALL BE AIR CONDITIONED. AIR CONDITIONER SHALL BE SIZED TO MAINTAIN PANEL TEMPERATURE AT 78°F WITH 1 PUMP OPERATING AT & 95°F AMBIENT. MINIMUM SIZE SHALL BE 12000 BTU.
- ⑥ EMPTY EYSR FITTING.
- ⑦ MACERATOR STARTER PANEL FURNISHED UNDER DIVISION 11.
- ⑧ #2 BARE COPPER TO GROUND GRID

LOAD TABULATION
SERVICE VOLTAGE: 480V, 3Φ

DESCRIPTION	LOAD	AMPACITY
① SUBMERSIBLE PUMPS	2 @ 70 HP EACH	= 162.00 AMPS
MACERATOR	1 @ 5 HP	= 7.60 AMPS
MISCELLANEOUS	3 KVA	= 3.60 AMPS
CONNECTED LOAD		= 173.20 AMPS

② MINIMUM SERVICE ENTRANCE = 173.20 AMPS + (0.25)(81.00) = **193.45 AMPS**

NOTES:

- ① AMPACITIES PER PUMP MFR. DATASHEETS.
- ② SERVICE ENTRANCE MINIMUM SIZE AS PER ARTICLE 230 OF THE NATIONAL ELECTRICAL CODE

SINGLE LINE DIAGRAM



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DATE
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DRAWN BY SJL
CHECKED BY SEB

**HISPANOLA WASTEWATER PUMP
STATION IMPROVEMENTS**
PREPARED FOR
NORTH BAY VILLAGE

NORTH BAY VILLAGE

LICENSED PROFESSIONAL

STEPHEN E. BAILEY

FLORIDA LICENSE NUMBER
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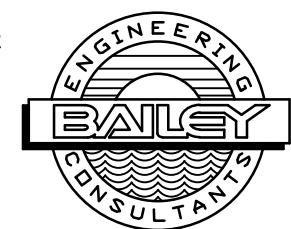
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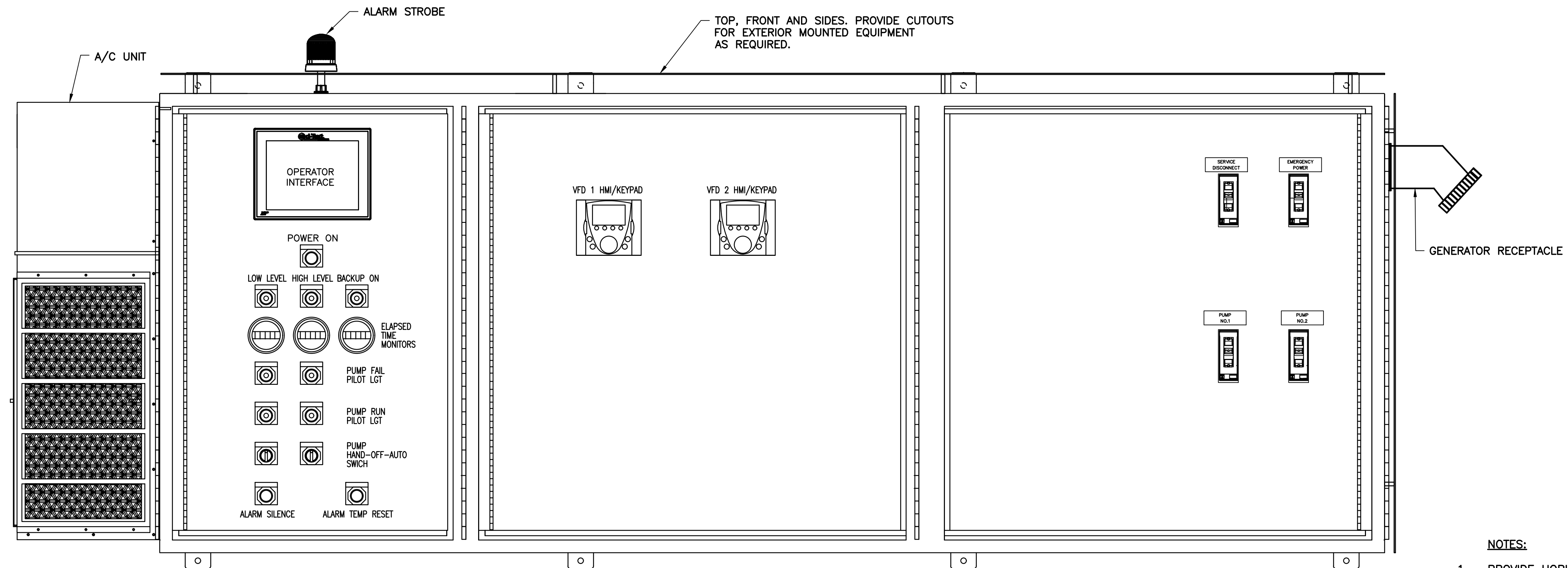
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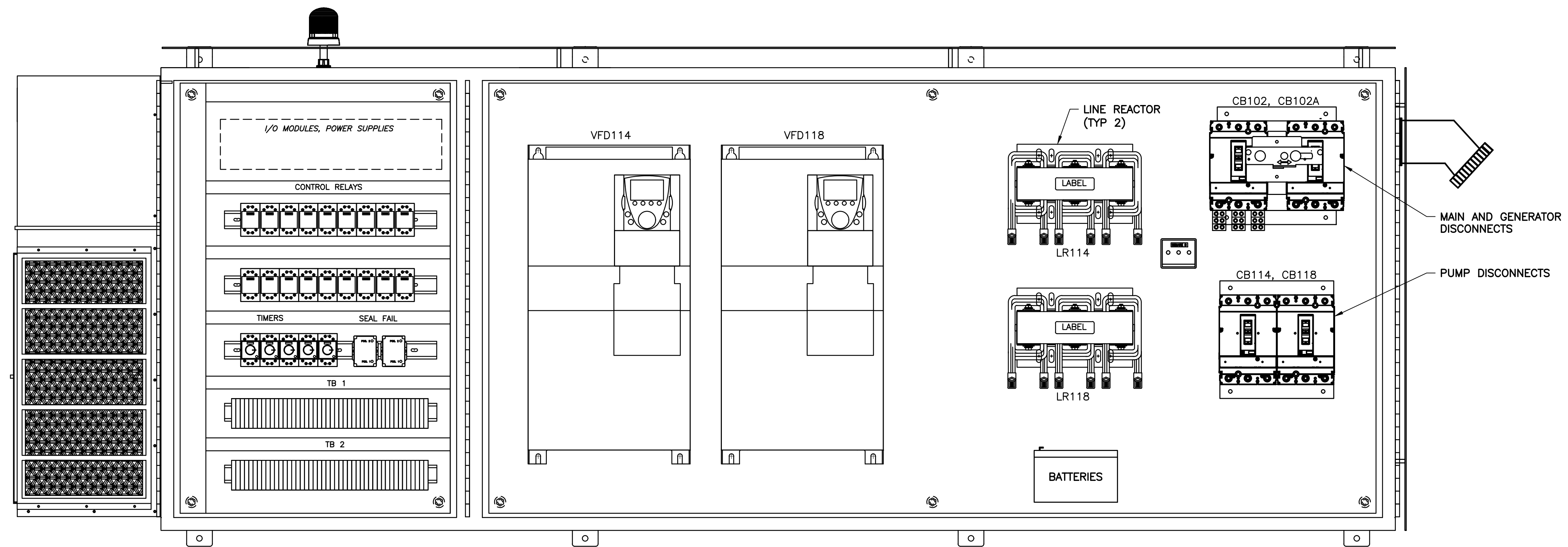
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INNER DOOR LAYOUT WITH OUTER DOORS REMOVED
N.T.S.

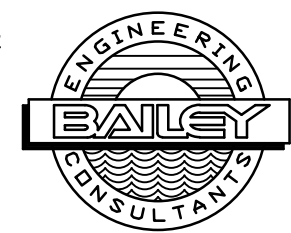
NOTES:

1. PROVIDE HORIZONTAL CABINET ARRANGEMENT AS SHOWN. CABINET DIMENSIONS SHALL NOT EXCEED 36"H X 96"W X 24"D.
2. RELOCATE A/C UNIT AS DICTATED BY SITE AND INSTALLATION REQUIREMENTS.



BACK PANEL WITH DOORS REMOVED
VFD CABINET
N.T.S.

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**HISPANOLA WASTEWATER PUMP
STATION IMPROVEMENTS**
PREPARED FOR
NORTH BAY VILLAGE
NORTH BAY VILLAGE FLORIDA

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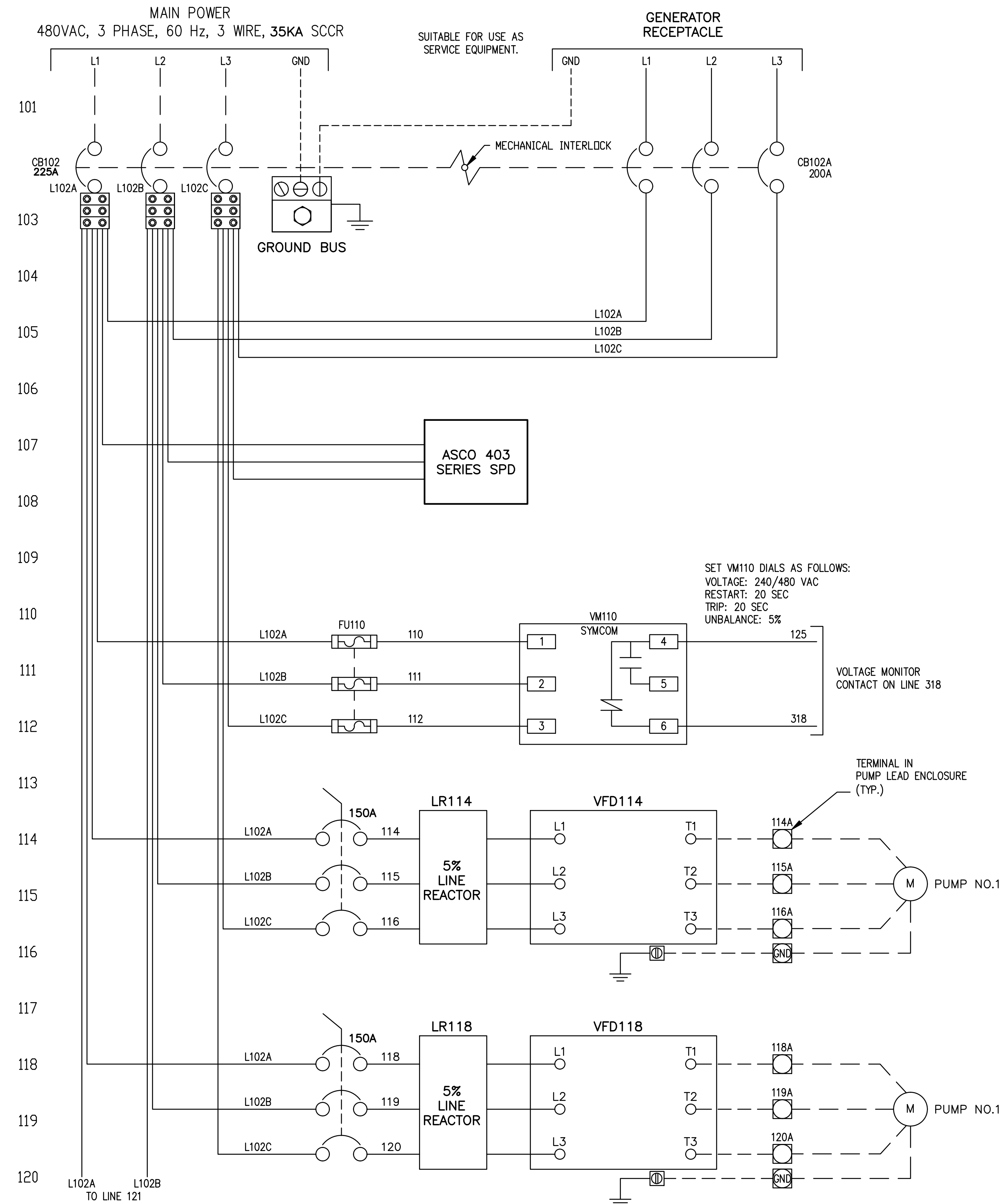
**CONTROL PANEL ENCLOSURE
DETAIL**

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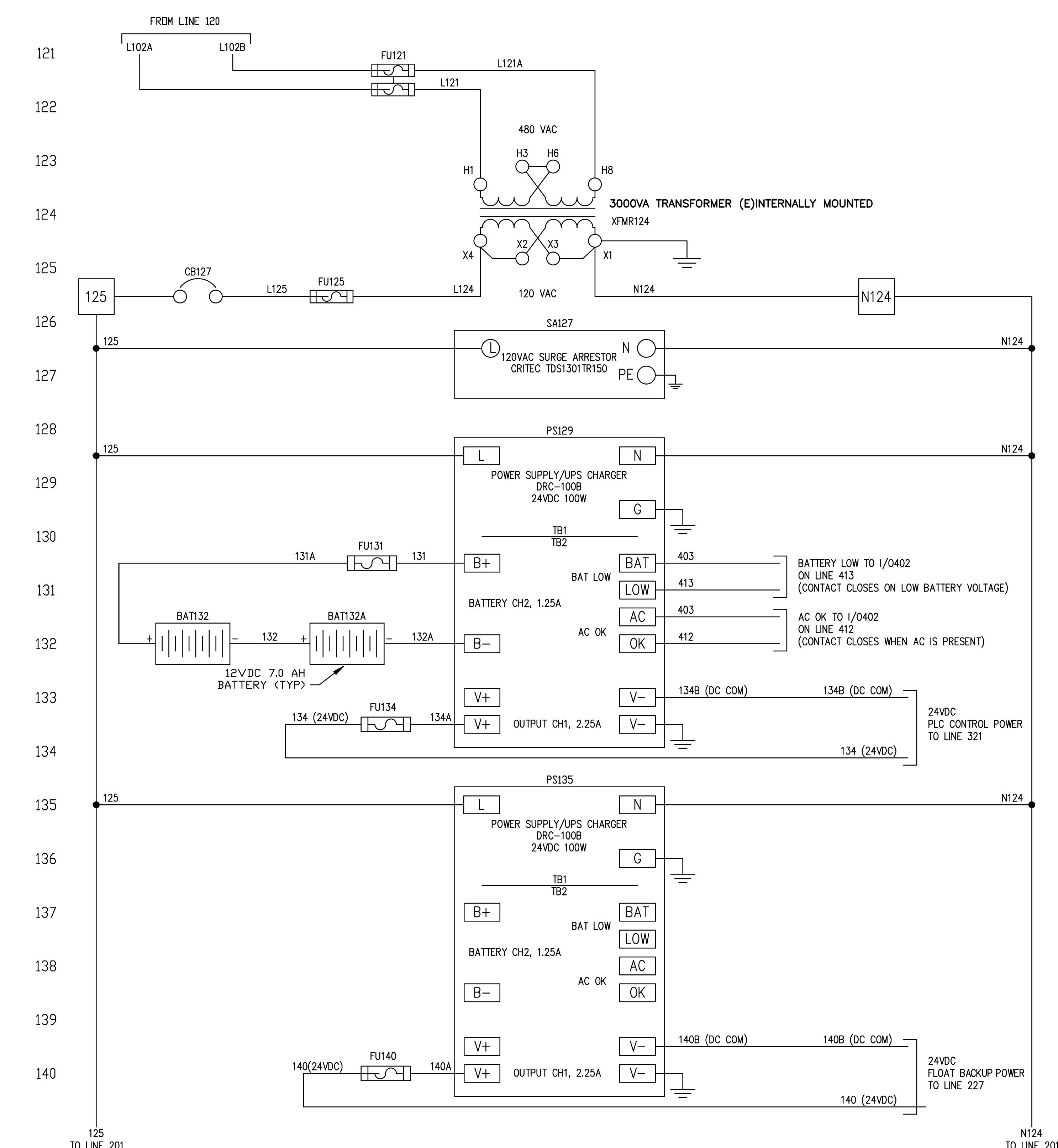


EXHIBIT A
ITB # 2021-011
PROJECT: WASTEWATER PUMP STATION IMPROVEMENTS

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SET VM110 DIALS AS FOLLOWS:
 VOLTAGE: 240/480 VAC
 RESTART: 20 SEC
 TRIP: 20 SEC
 UNBALANCE: 5%



SEE E-05 FOR CONTINUATION

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PREPARED FOR
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CONTROL PANEL ELEMENTARY DIAGRAM - SHEET 1

SHEET NUMBER

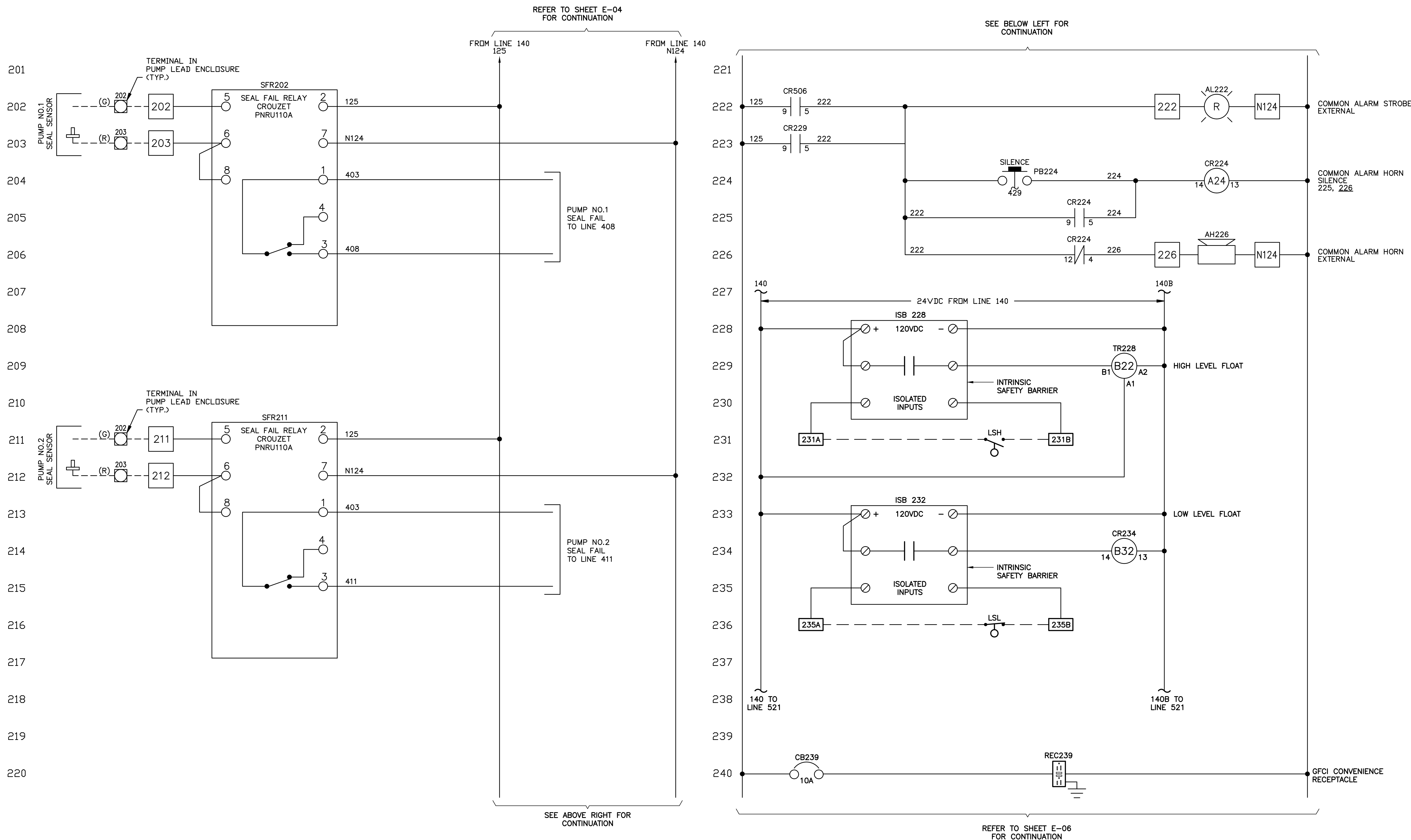
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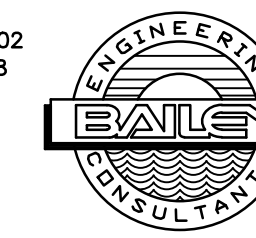
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CONTROL PANEL ELEMENTARY DIAGRAM - SHEET 2

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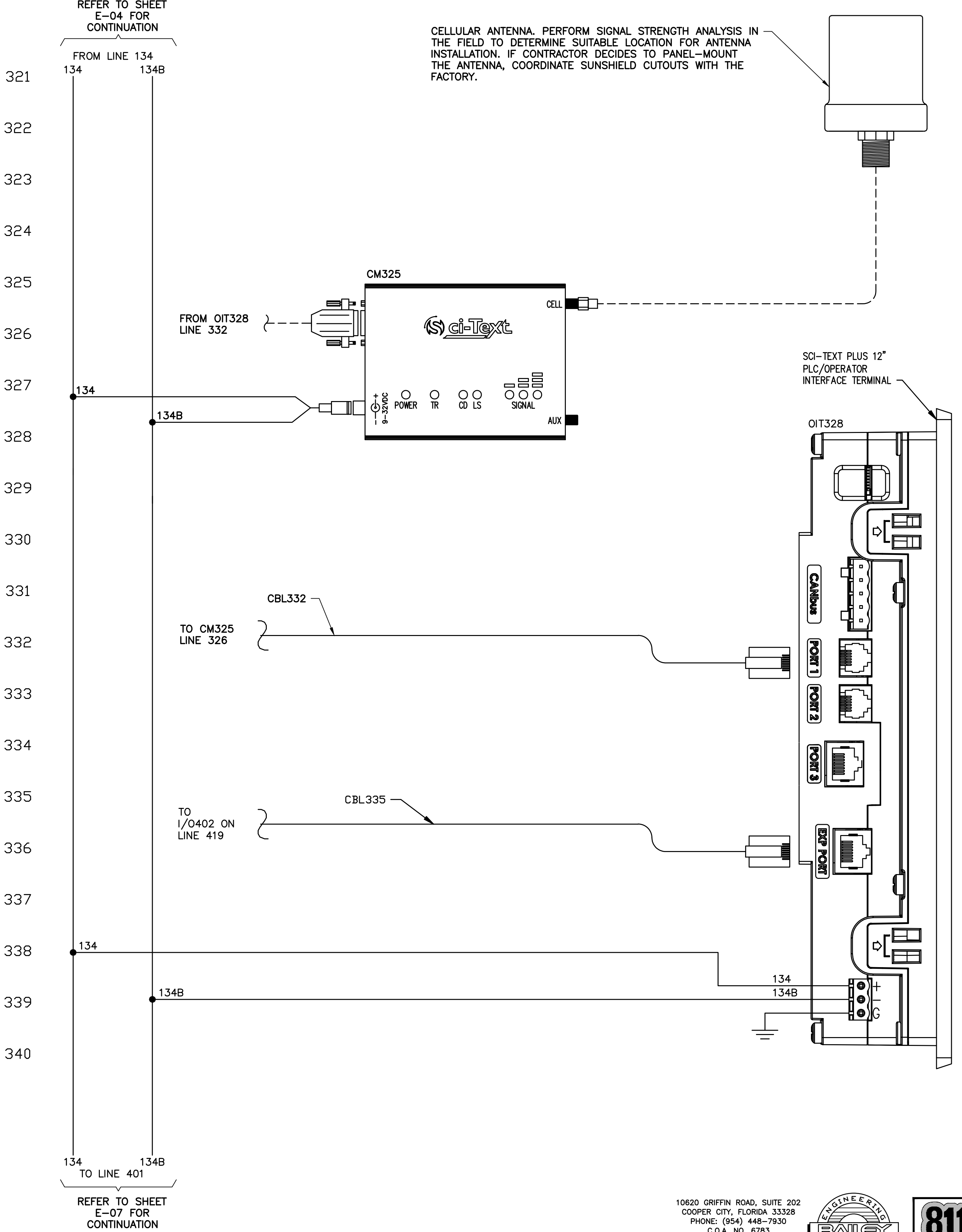
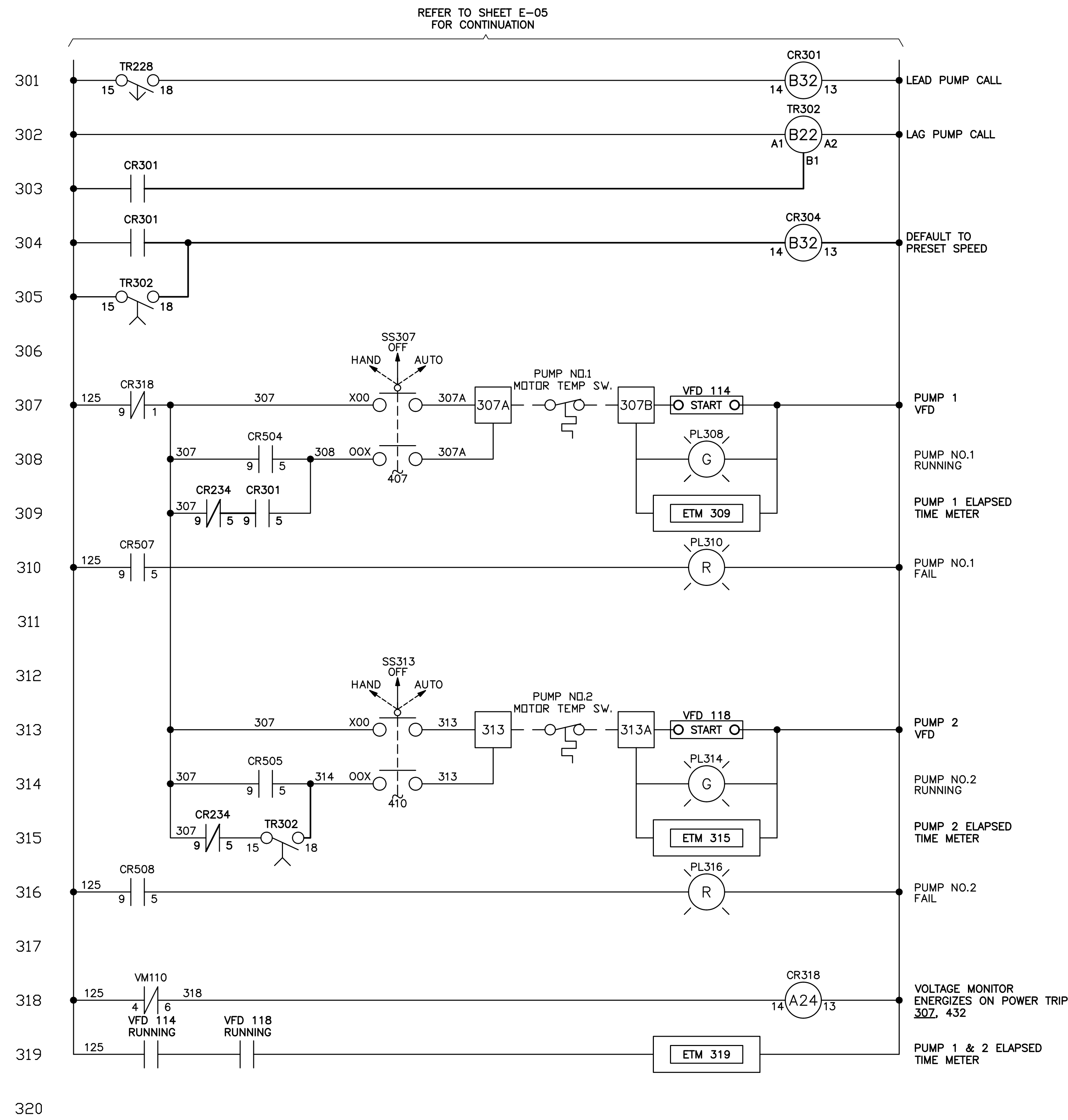


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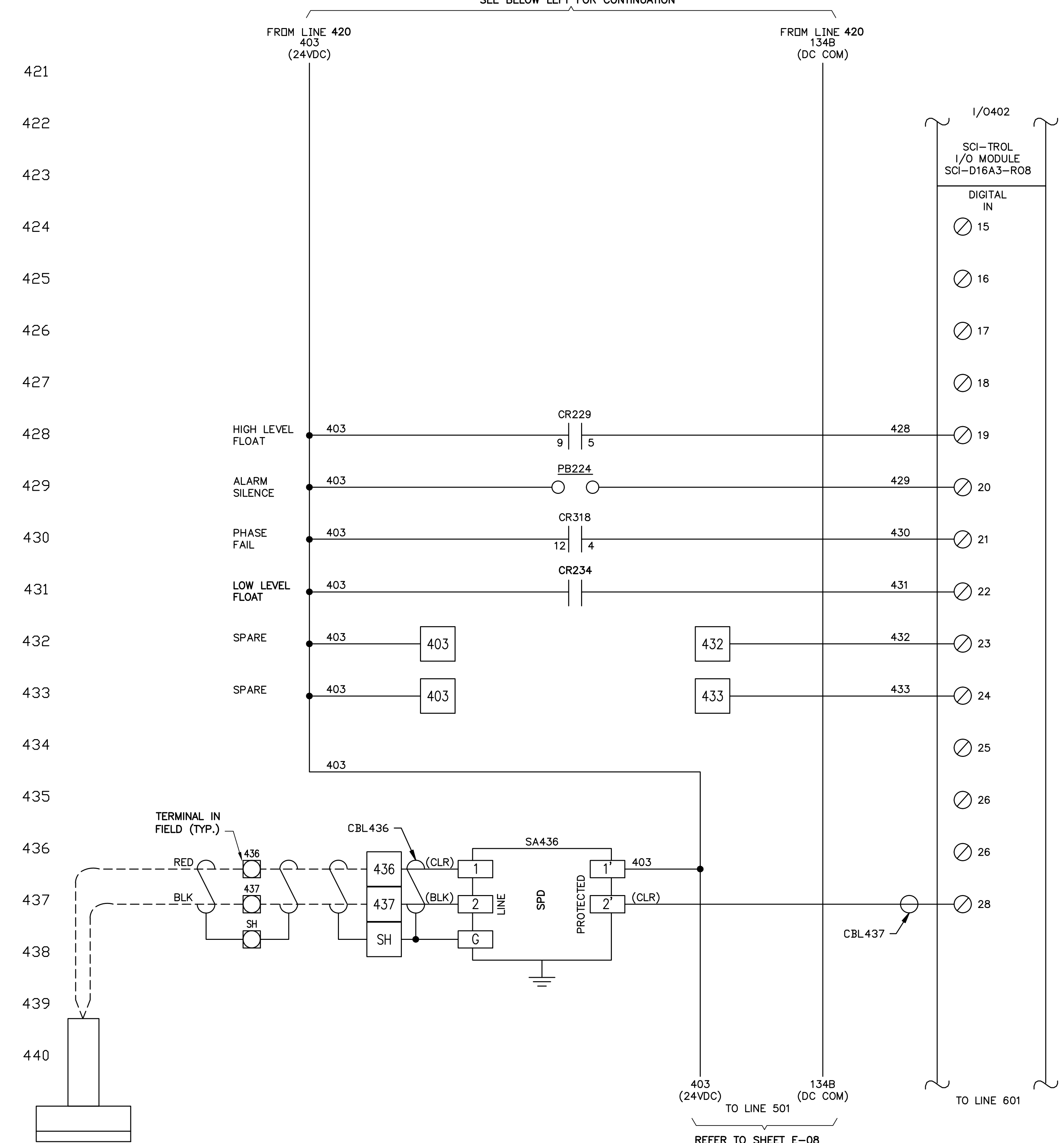
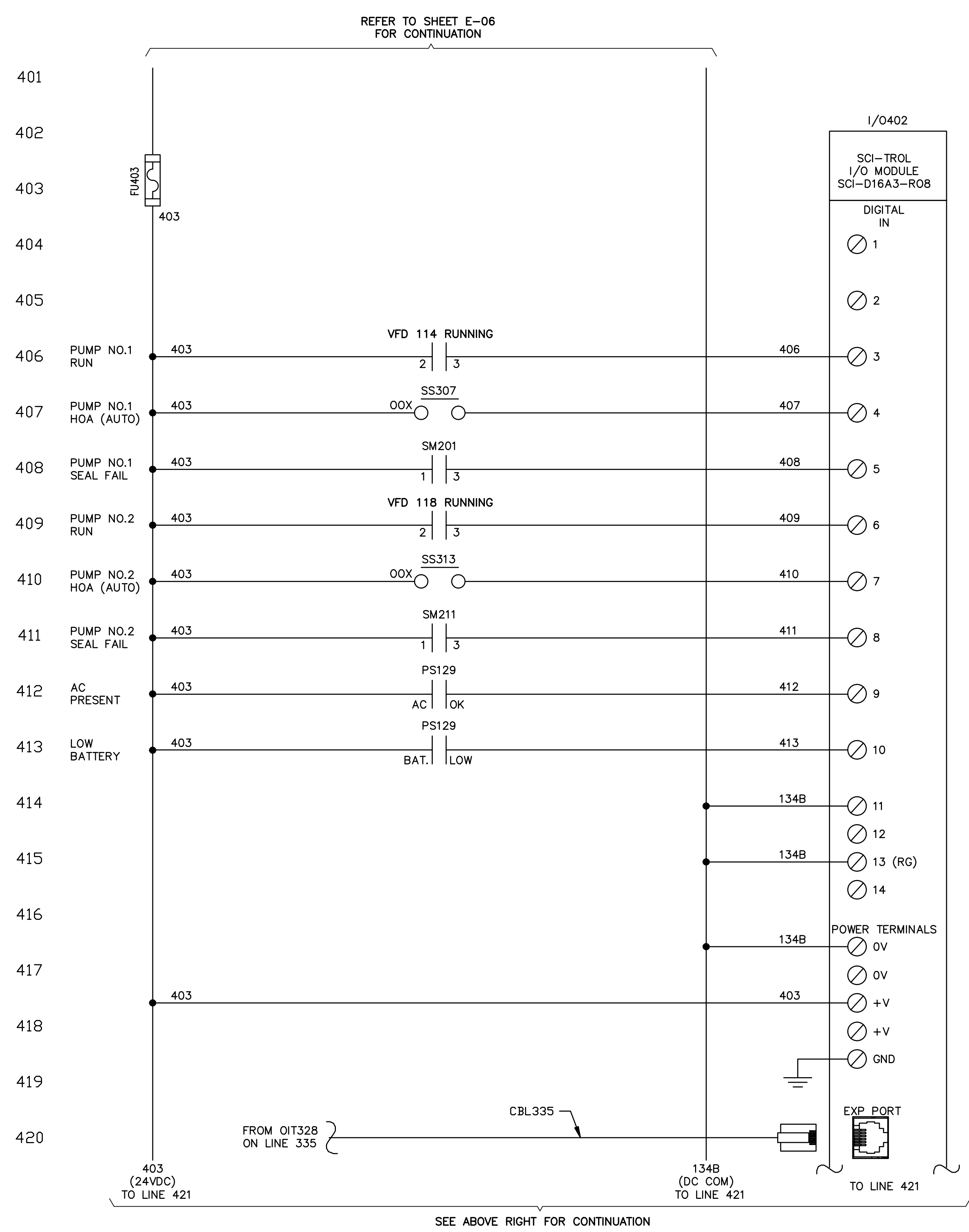
CONTROL PANEL ELEMENTARY DIAGRAM - SHEET 3

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E-06

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**HISPANOLA WASTEWATER PUMP
STATION IMPROVEMENTS**

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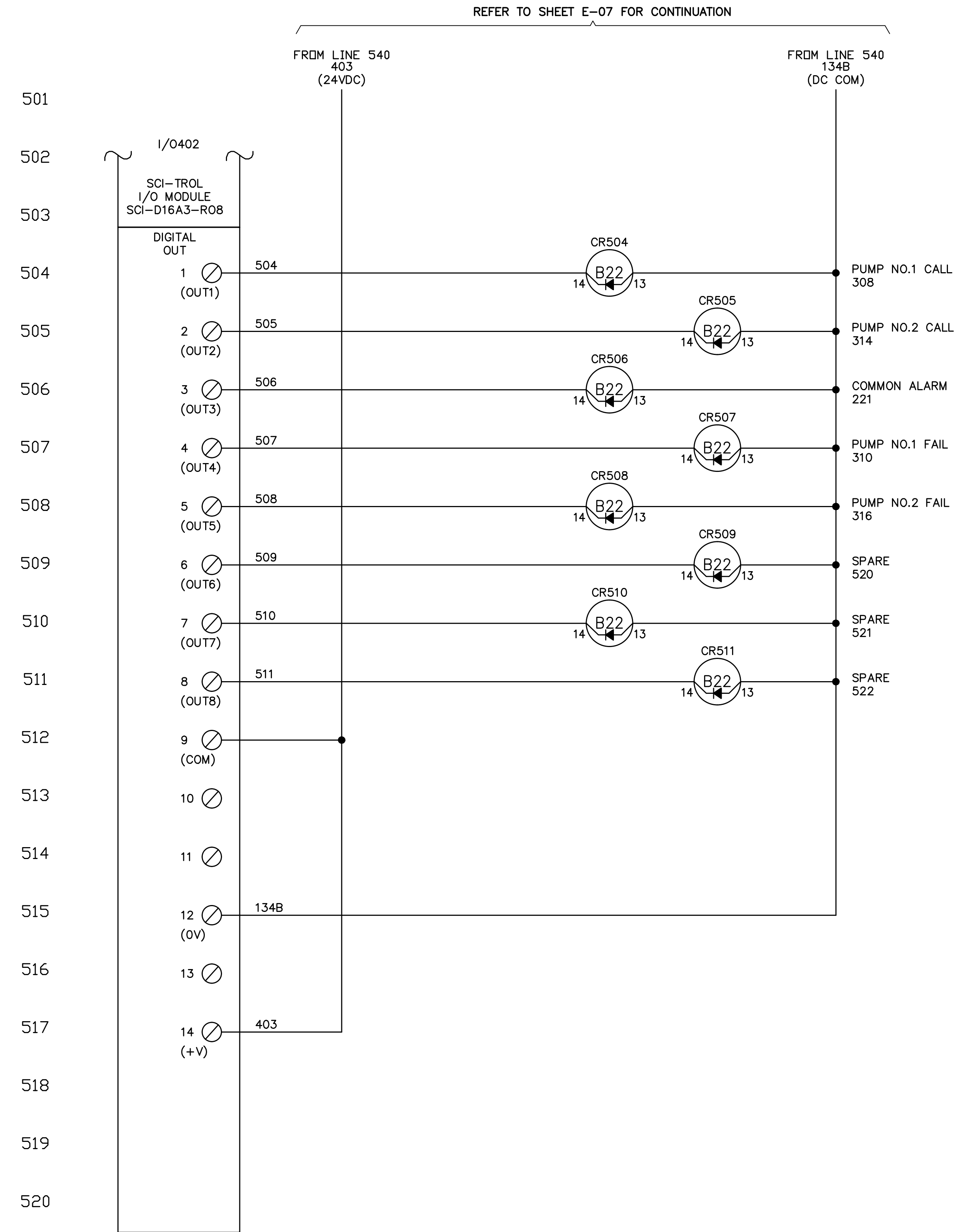
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**CONTROL PANEL ELEMENTARY
DIAGRAM - SHEET 4**

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E-07

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HISPANOLA WASTEWATER PUMP STATION IMPROVEMENTS

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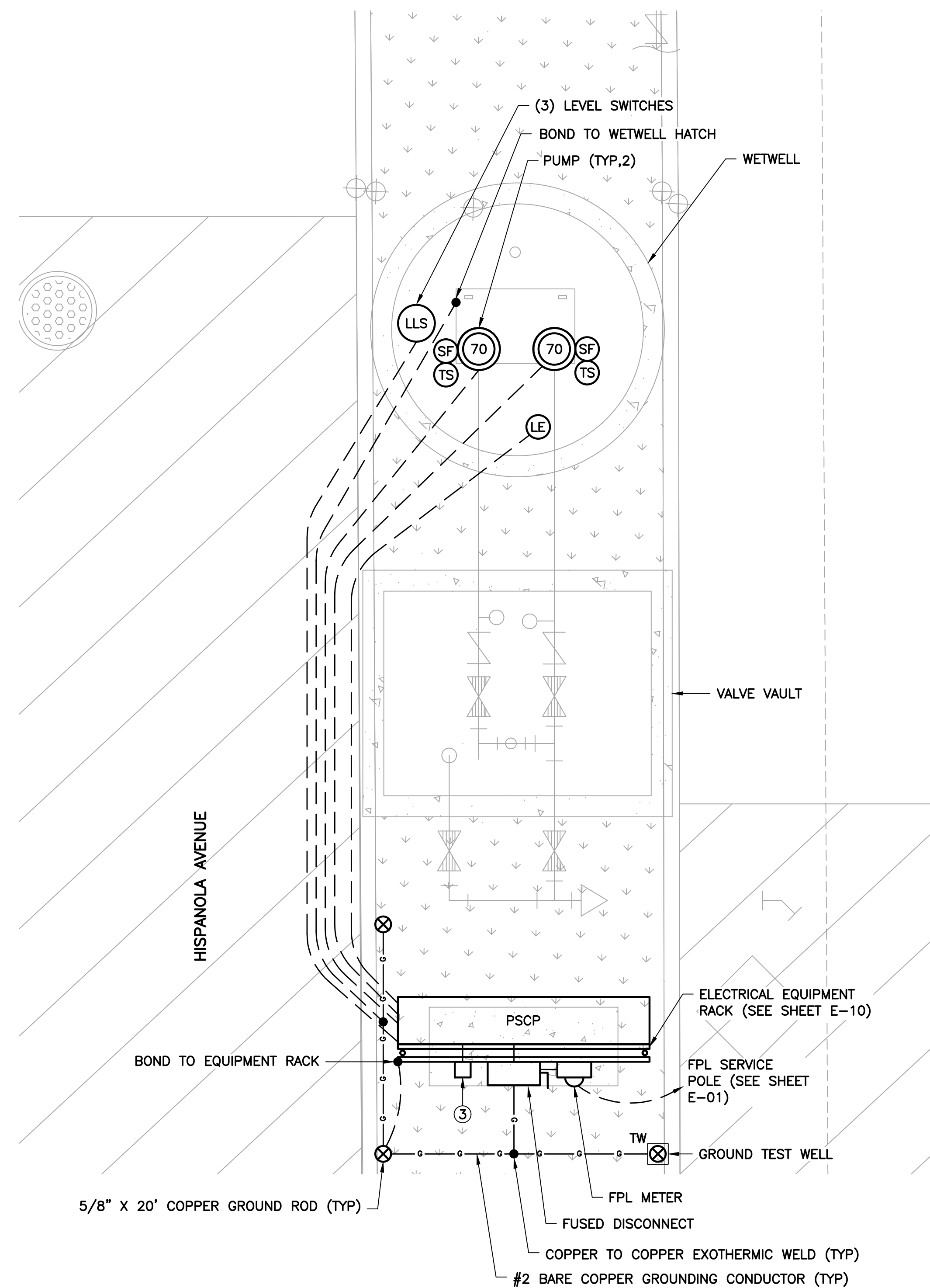
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CONTROL PANEL ELEMENTARY DIAGRAM - SHEET 5

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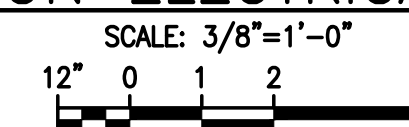
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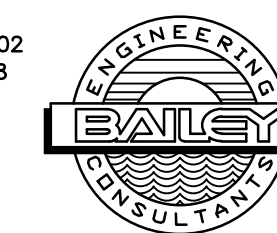


- NOTES:**
- ① REFER TO DETAILS FOR HAZARDOUS AREA CLASSIFICATIONS. USE APPROPRIATE MATERIALS AND WIRING METHODS.
 - ② BONDING CONNECTIONS BETWEEN ELECTRODE, REBAR AND PIPING SHALL BE EXOTHERMIC.
 - ③ CPT

PUMP STATION ELECTRICAL PLAN VIEW



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Kimley»Horn

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PHONE: 954-535-5100 FAX: 954-739-2247
WWW.KIMLEY-HORN.COM CA 0000696

KHA PROJECT	043138041
DATE	MAY 2020
SCALE	AS SHOWN
DESIGNED BY	SEB
DRAWN BY	SJL
CHECKED BY	SEB

HISPANOLA WASTEWATER PUMP STATION IMPROVEMENTS

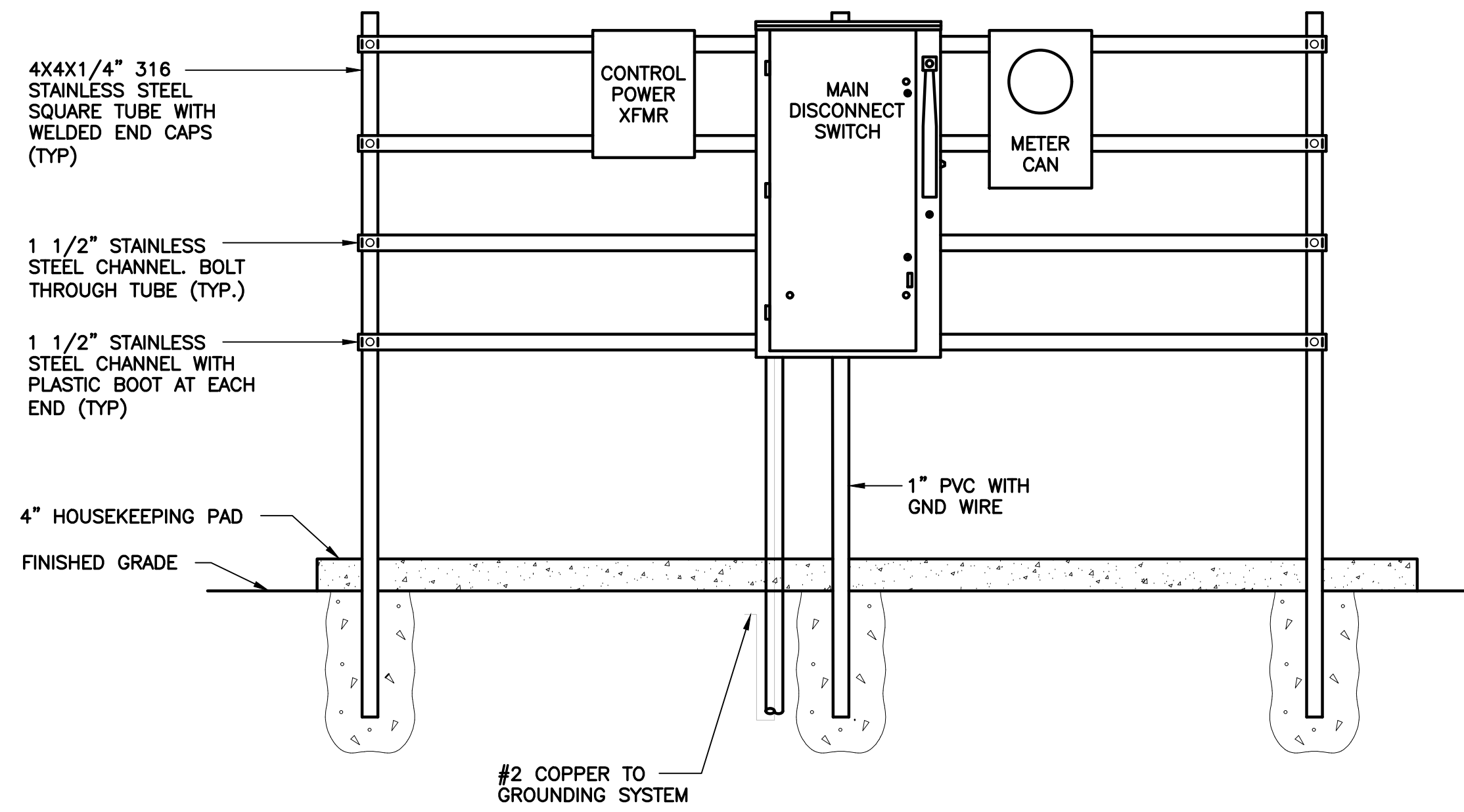
PREPARED FOR
NORTH BAY VILLAGE

NORTH BAY VILLAGE FLORIDA

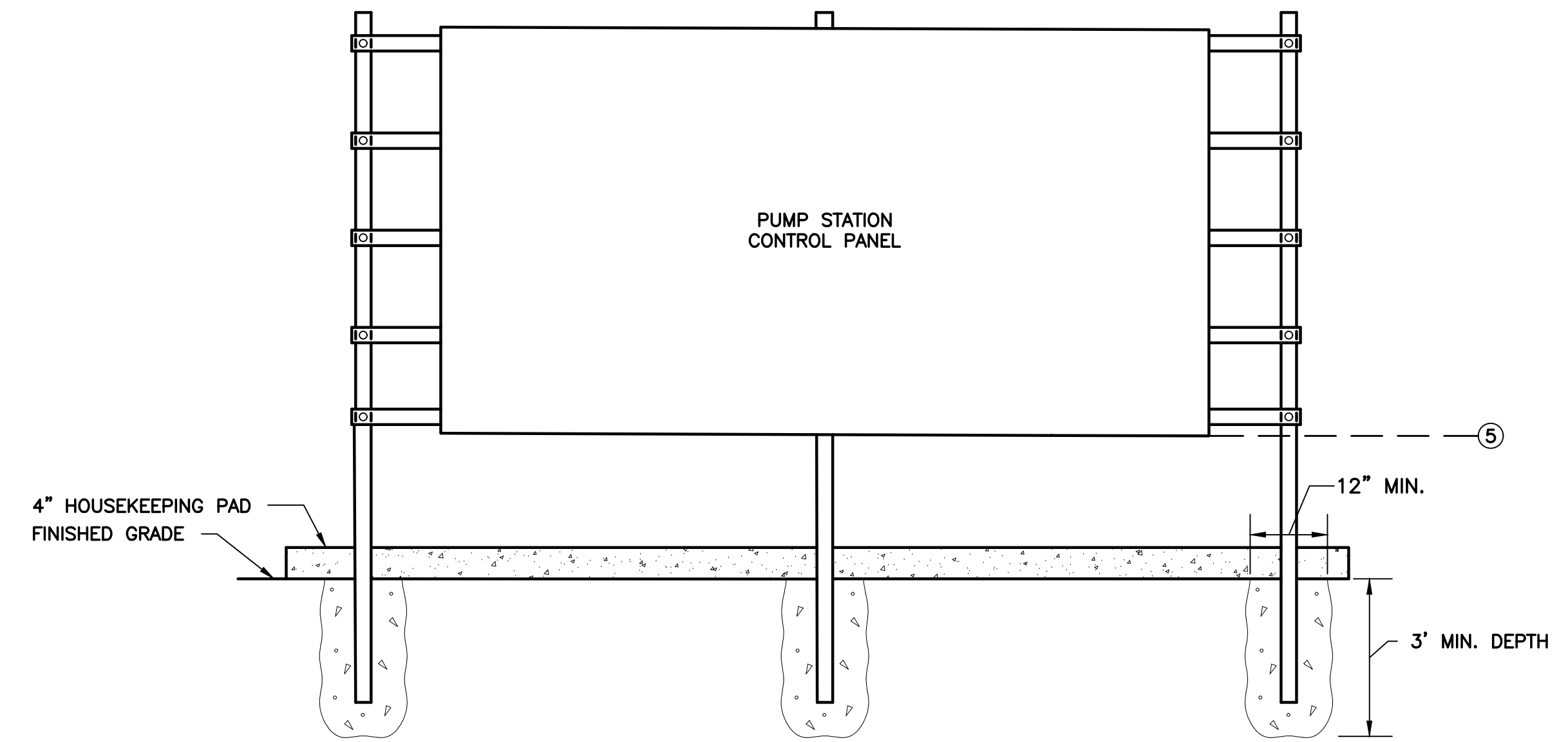
LICENSED PROFESSIONAL	STEPHEN E. BAILEY
FLORIDA LICENSE NUMBER	42461
DATE:	5/14/2020

PUMP STATION ELECTRICAL PLAN VIEW

SHEET NUMBER	E-09
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REAR VIEW



FRONT VIEW

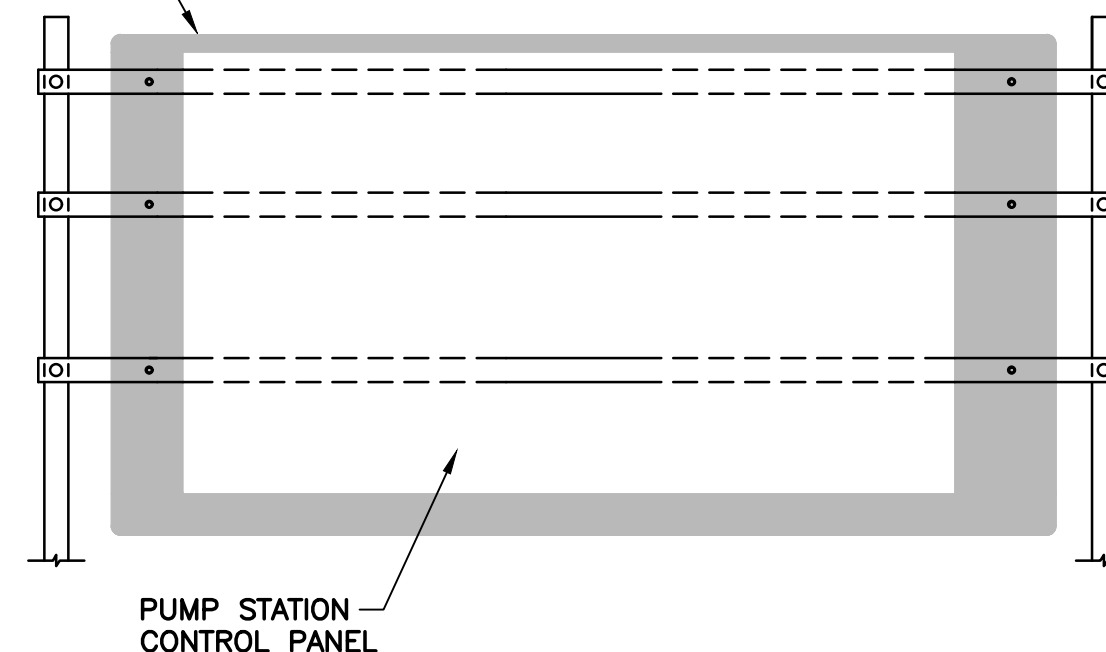
NOTES:

- ① DEPTH AS REQUIRED TO MEET FLORIDA BUILDING CODE WIND LOAD REQUIREMENTS. CONTRACTOR SHALL SUBMIT SIGNED AND SEALED WIND LOAD CALCULATIONS FROM A STRUCTURAL ENGINEER LICENSED IN THE STATE OF FLORIDA.
- ② ALL HARDWARE SHALL BE 316 STAINLESS STEEL UNLESS OTHERWISE NOTED.
- ③ REAR SUNSHIELDS ARE REQUIRED FOR ALL ELECTRICAL EQUIPMENT RACKS. SEE TYPICAL EQUIPMENT RACK REAR SUNSHIELD DETAIL BELOW.
- ④ REFER TO SINGLE LINE DIAGRAM FOR WIRING AND RACEWAY REQUIREMENTS.
- ⑤ BASE FLOOD ELEVATION IS 8'-0" NGVD 29, FLOOD ZONE AE. INSTALL ALL EQUIPMENT 12" MINIMUM CLEAR OF BASE FLOOD ELEVATION.

ELECTRICAL EQUIPMENT RACK FRONT/REAR VIEW ELEVATION

N.T.S.

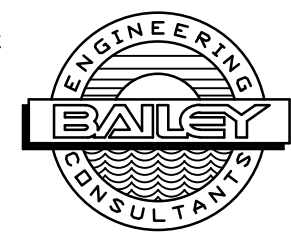
CUSTOM FABRICATED ALUMINUM SUNSHIELD WITH BURR FREE EDGES. MOUNT SUNSHIELD TO UNI-STRUT WITH SS BOLTS, SCREWS AND WASHERS



TYPICAL EQUIPMENT RACK REAR SUNSHIELD

SCALE: N.T.S.

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**HISPANOLA WASTEWATER PUMP
 STATION IMPROVEMENTS**

PREPARED FOR
NORTH BAY VILLAGE

NORTH BAY VILLAGE

LICENSED PROFESSIONAL

STEPHEN E. BAILEY

FLORIDA LICENSE NUMBER
 42461

DATE: 5/14/2020

ELECTRICAL DETAILS - 1

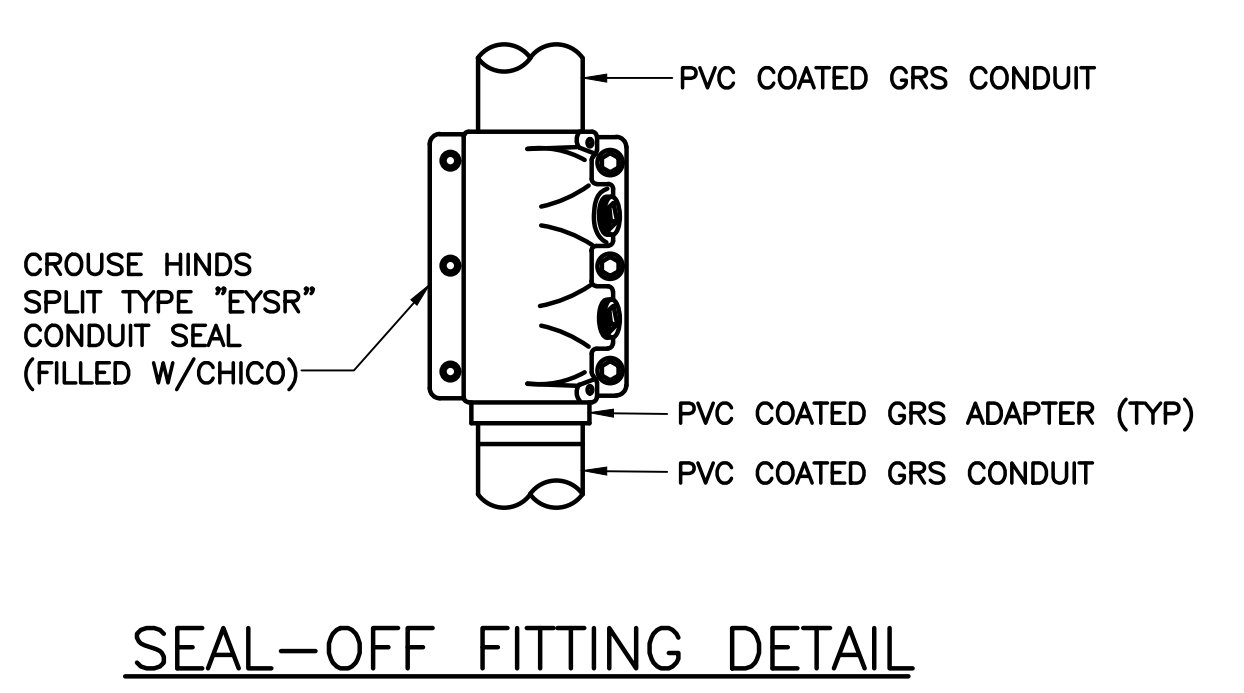
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E-10

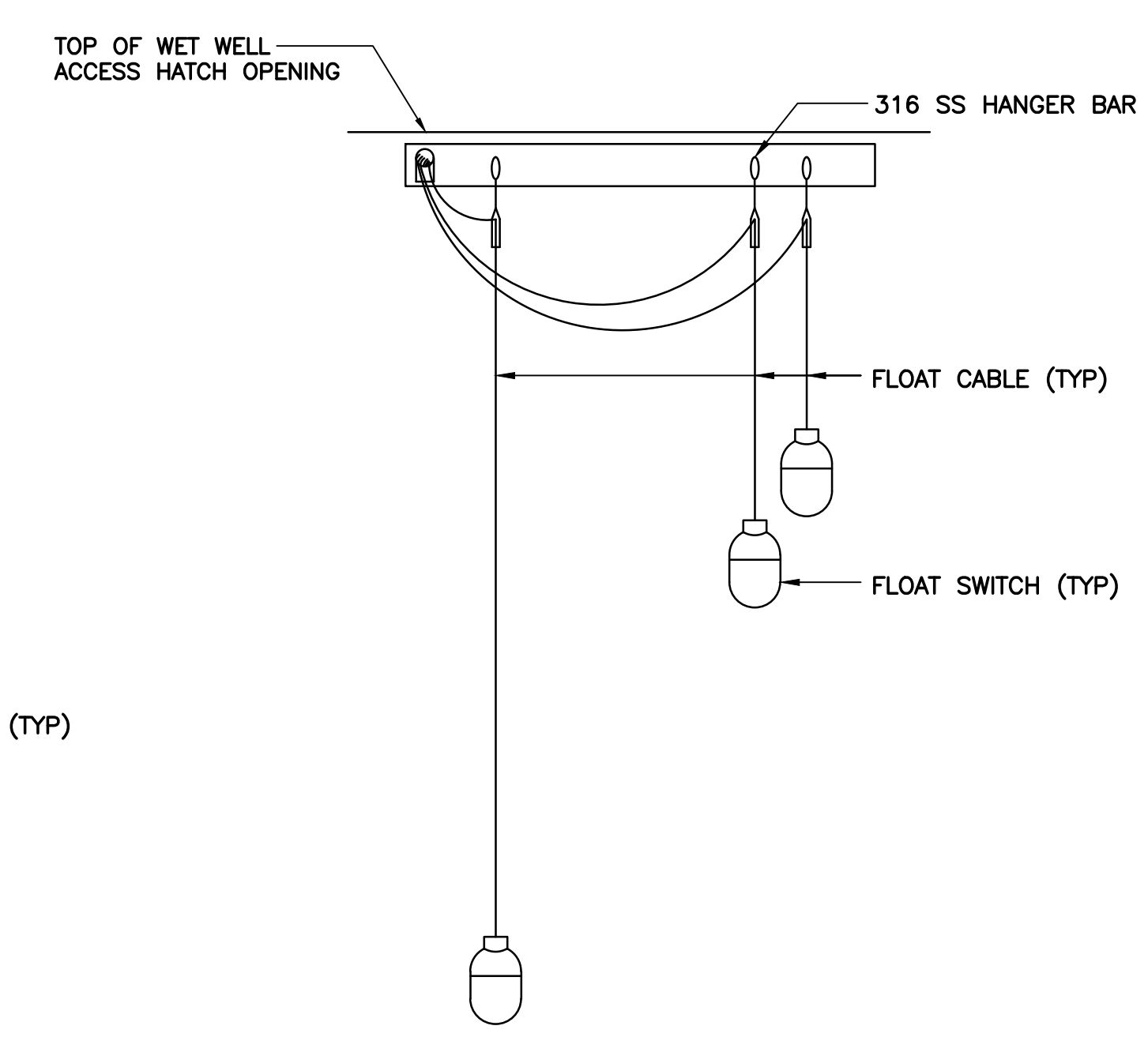
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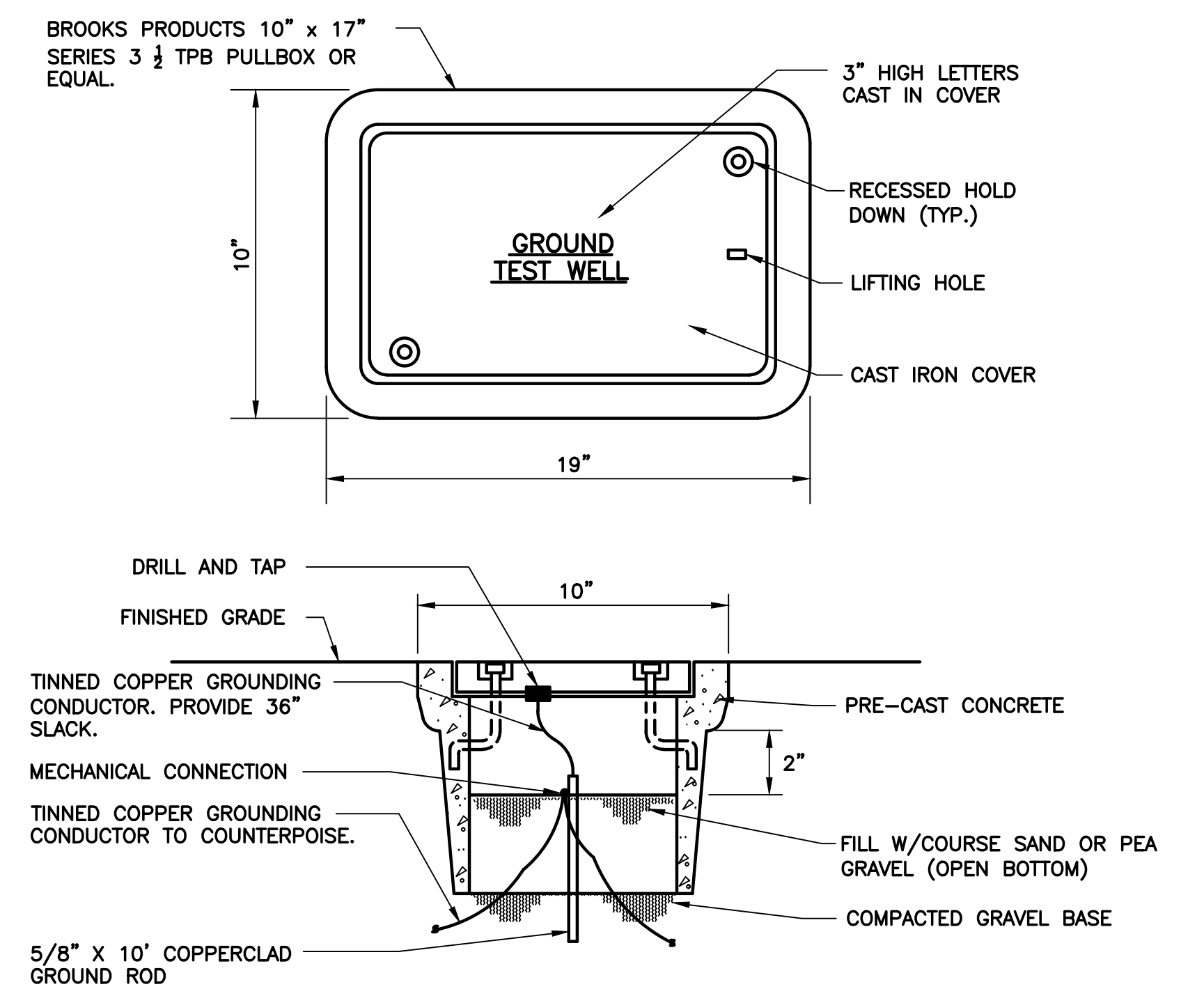
X:\Active Projects\Kimley-Horn\North Bay Village Pump Station Improvements\10 ELECTRICAL DETAILS.dwg, 5/14/2020 3:15:53 PM, jlogsdon



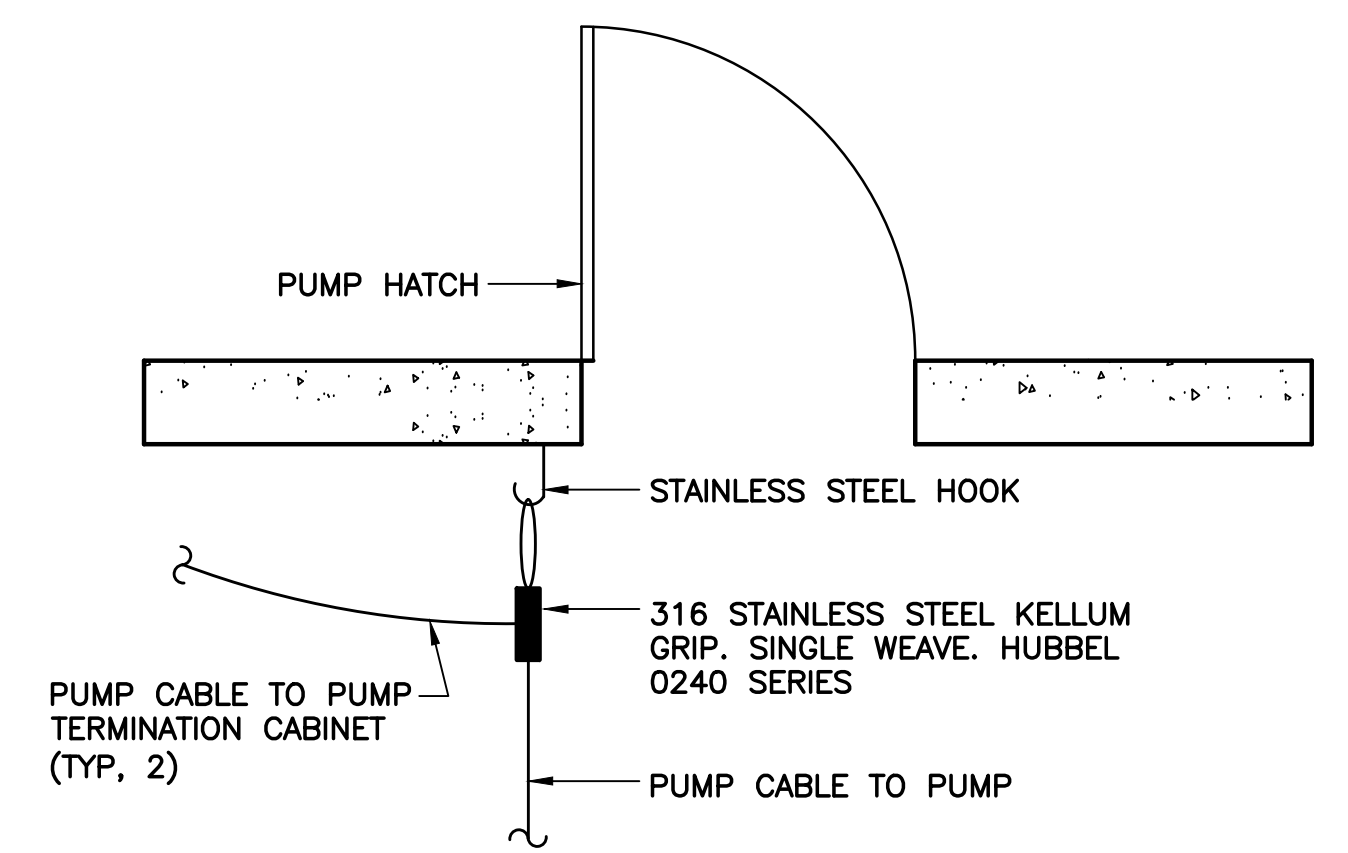
SEAL-OFF FITTING DETAIL



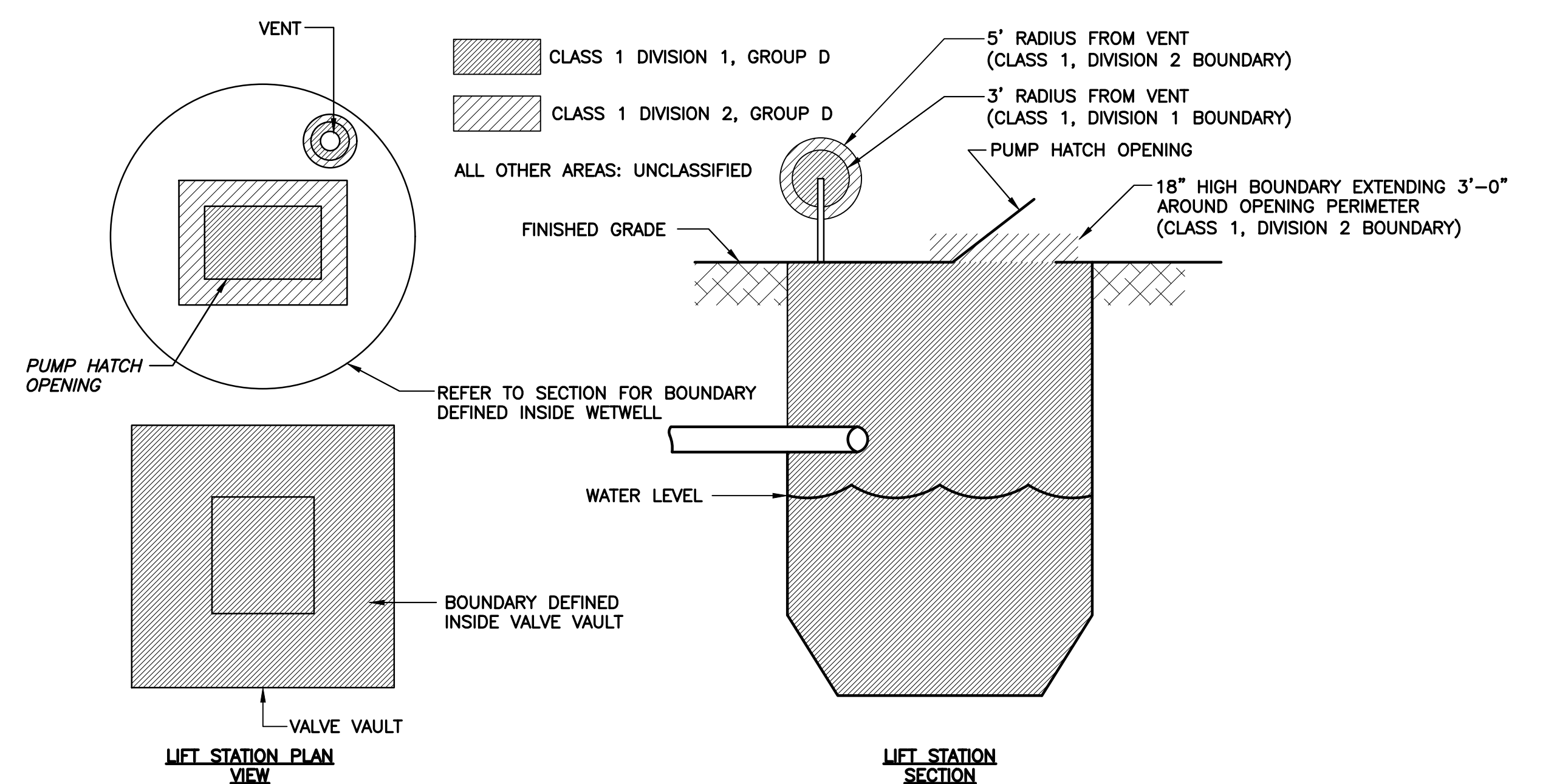
TYPICAL LEVEL SWITCH MOUNTING DETAIL
SCALE: N.T.S.



TYPICAL GROUND TEST WELL
SCALE: N.T.S.



TYPICAL PUMP CABLE MOUNTING DETAIL
SCALE: N.T.S.



HAZARDOUS AREA CLASSIFICATION
SCALE: N.T.S.

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ELECTRICAL DETAILS - 2

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