

PCTS 00000/CONTRACT X-000 or RPQ/ERX00000
SUBMERSIBLE PUMPING STATION WITH GENERATOR
PUMPING STATION No. 0000 (UPDATE 2015)
 PROJECT OFFICIAL ADDRESS
SITE PLAN, LEGEND AND NOTES

SITE PLAN GENERAL REQUIREMENTS:

- 1). SHOW PROPERTY LINE, LEGAL DESCRIPTION, ADDRESS AND FOLIO NUMBER.
- 2). SHOW EASEMENT LINES.
- 3). SHOW RIGHT OF WAYS, BASELINES, ROADWAY CENTER LINES.
- 4). SHOW ADJACENT PROPERTIES: BLOCK & LOT NUMBER.
- 5). SHOW FENCING AND THE TYPES OF FENCE.
- 6). SHOW GENERATOR BUILDING AND FUEL TANK.
- 7). SHOW WET WELL AND VALVE VAULT LOCATIONS: PROVIDE REFERENCE DISTANCE AND/OR SET BACKS.
- 8). SHOW FP&L SERVICE AND EXISTING UTILITIES, IF ANY.
- 9). SHOW EXISTING AND PROPOSED GRAVITY SEWERS: TERMINAL M.H., INVERTS, PIPE SIZE AND MATERIAL.
- 10). SHOW EXISTING AND PROPOSED FORCED MAIN: ISOLATION VALVE, T.O.P. ELEVATION, SIZE AND MATERIAL.
- 11). SHOW ELECTRICAL PANEL, S.C.A.D.A. ANTENNA AND ELECTRICAL JUNCTION BOX.
- 12). SHOW SERVICE ACCESS (DRIVEWAY).
- 13). SHOW SIDEWALKS, IF ANY.
- 14). SHOW NORTH ARROW.
- 15). SHOW GROUND ELEVATIONS AND DRAINAGE FLOW ARROWS.
- 16). DRAW SITE PLAN TO SCALE, (SUGGESTED SITE PLAN SCALE: 1"= 6')
- 17). SHOW WATER METER, HOSE BIB AND BACKFLOW PREVENTER.
- 18). SHOW CROWN OF THE ROAD ELEVATIONS FRONTING PUMP STATION SITE.
- 19). SHOW BASE FLOOD ELEVATION.
- 20). HORIZONTAL CONTROL SHALL BE BASED ON THE NORTH AMERICAN DATUM 1983 (NAD83), FLORIDA EAST ZONE 901. VERTICAL CONTROL REFER TO NATIONAL GEODETIC VERTICAL DATUM 1929 (NGVD1929).

NOTES:

- 1). PUMP STATION MINIMUM SPACE REQUIREMENT OF 65'x45' IS BASED ON A WET WELL OF 12' MAXIMUM INSIDE DIAMETER AND A VALVE VAULT OF 8'x8' INSIDE DIMENSIONS. SHOULD WET WELL AND VALVE VAULT DIMENSIONS EXCEED THOSE SHOWN ON THIS PLAN, THE ENGINEER SHOULD CALCULATE THE SPACE NEEDED IN KEEPING WITH SET BACKS SHOWN.
- 2). MIRROR IMAGE OF THE SITE PLAN SHOWN IS ACCEPTABLE.

EXISTING SITE PLAN
 SCALE: 1"=6'-0"

NEW DEVELOPMENT: BOUNDARY SURVEY AND EXISTING GRADE
 FACILITY IMPROVEMENT: EXISTING SITE AND DEMOLITION DETAILS

REQUIREMENTS ON WATER AND SEWER INSTALLATIONS

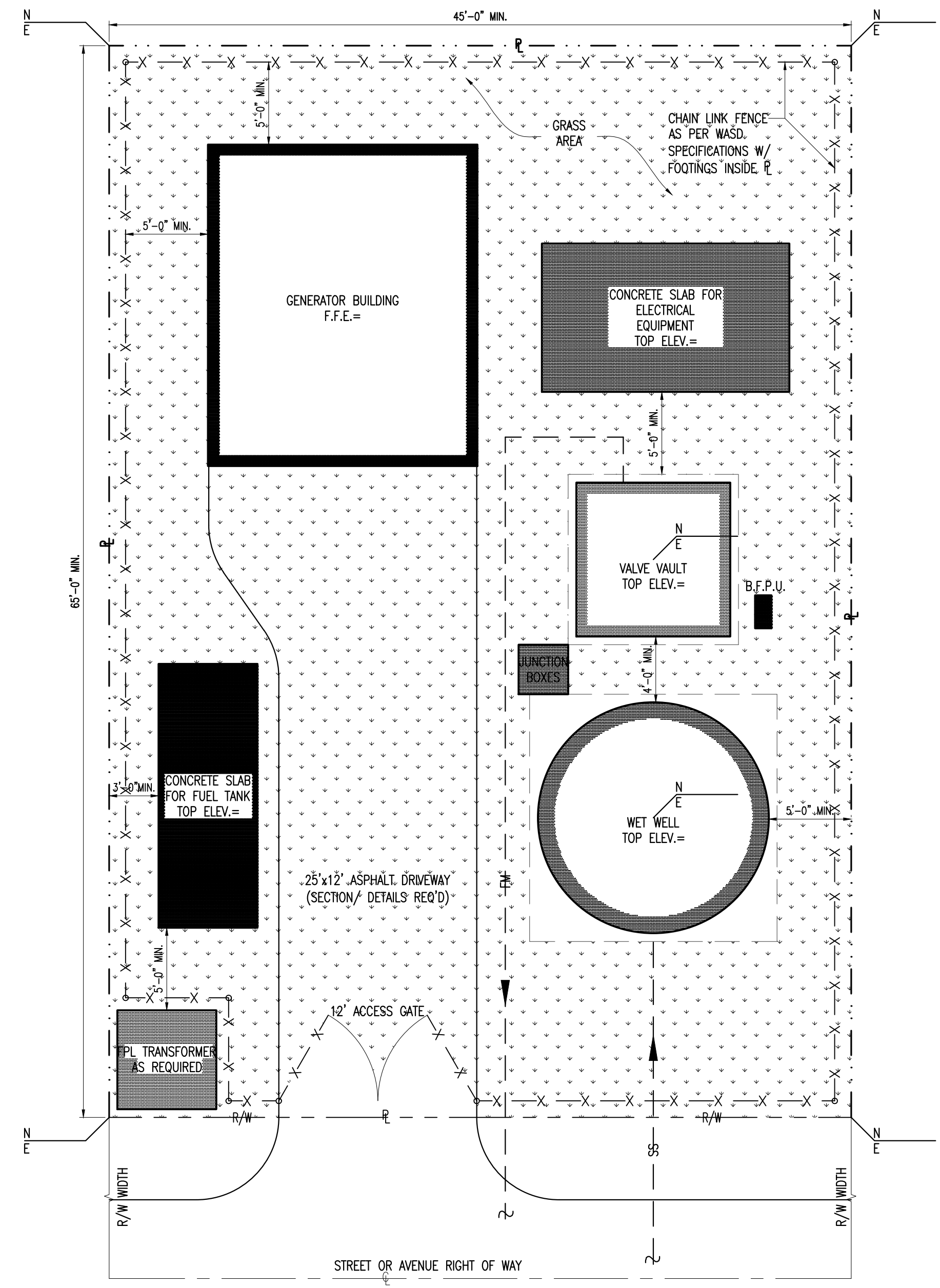
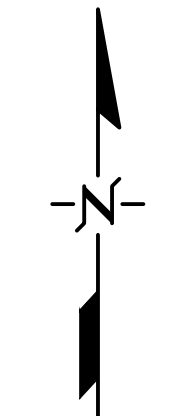
1. A PREFERRED HORIZONTAL DISTANCE (OUTSIDE TO OUTSIDE) OF 10 FEET OR MINIMUM OF 6 FEET SHALL BE MAINTAINED BETWEEN GRAVITY OR PRESSURE SEWER PIPES AND WATER MAINS. THE HORIZONTAL SEPARATION CAN BE REDUCED TO A MINIMUM OF 3 FEET ONLY FOR GRAVITY SEWER PIPES WHERE THE BOTTOM OF THE WATER MAIN IS LAID AT LEAST 6 INCHES ABOVE THE TOP OF THE GRAVITY SANITARY SEWER. WHEN THE ABOVE SPECIFIED HORIZONTAL DISTANCE CRITERIA CANNOT BE MET DUE TO AN EXISTING UNDERGROUND FACILITY CONFLICT, SMALLER SEPARATIONS ARE ALLOWED IF:
 - 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 GRAVITY SEWERS WHERE THE SEWER PIPE IS CROSSING 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. WHEN THE ABOVE SPECIFIED VERTICAL DISTANCE CRITERIA CANNOT BE MET DUE TO AN EXISTING UNDERGROUND FACILITY CONFLICT, SMALLER SEPARATION ARE ALLOWED IF:
 - 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. THE CONTRACTOR SHALL VERIFY NATURE, DEPTH, AND CHARACTER OF EXISTING UNDERGROUND UTILITIES PRIOR TO START OF CONSTRUCTION.
4. ALL OTHER PUBLIC OR PRIVATE UTILITY FACILITIES SHALL BE CONSTRUCTED AT LEAST 5 FEET FROM ANY WATER AND SEWER MAIN AS MEASURED FROM THE OUTSIDE BELL OF THE WATER OF THE UTILITY PIPE.
5. WHEN THE 5 FEET SEPARATION BETWEEN PROPOSED AND EXISTING LINE IS NOT POSSIBLE, THE CONTRACTOR SHALL HAND DIG OR EXPOSE THE WATER AND SEWER PIPES BEFORE PROCEEDING WITH POWER EQUIPMENT EXCAVATION.
6. IN NO CASE SHALL A CONTRACTOR INSTALL UTILITY PIPES, CONDUITS, CABLES, ETC. IN THE SAME TRENCH PARALLEL AND ABOVE AN EXISTING WATER OR SEWER PIPE EXCEPT WHERE THEY CROSS. ANY DEVIATION FROM NOTES 3, 4 AND 5 SHALL BE APPROVED IN WRITING BY THE RESPONSIBLE WATER AND SEWER UTILITY.
7. IN HIGHLY CONGESTED AREAS, WHERE EITHER WATER OR SEWER FACILITIES ARE EXISTING OR THE SEPARATION REQUIREMENTS CANNOT BE MET, SPECIAL CONSIDERATION MAY BE GIVEN SUBJECT TO SUBMITTAL OF DOCUMENTATION SHOWING THAT THE PROPOSED ALTERNATIVE WILL RESULT IN AN EQUIVALENT LEVEL OF RELIABILITY AND PUBLIC HEALTH PROTECTION.
8. GRAVITY SANITARY SEWERS CONSTRUCTED WITHIN A PUBLIC WELLFIELD PROTECTION AREA SHALL BE PVC-800 OR DUCTILE IRON PIPE. THE MAXIMUM ALLOWABLE EXFILTRATION, INFILTRATION, OR LEAKAGE FOR GRAVITY SANITARY SEWERS CONSTRUCTED WITHIN A PUBLIC WELLFIELD PROTECTION AREA SHALL BE FIFTY (50) GALLONS PER INCH PIPE DIAMETER PER MILE PER DAY FOR RESIDENTIAL LAND USE AND TWENTY (20) GALLONS PER INCH PIPE DIAMETER PER MILE PER DAY FOR NON-RESIDENTIAL LAND USE WITH NO ALLOWANCES FOR MANHOLES OR LATERALS. THE MAXIMUM ALLOWABLE EXFILTRATION, INFILTRATION, OR LEAKAGE IN GRAVITY SANITARY SEWERS CONSTRUCTED OUTSIDE A PUBLIC WELLFIELD PROTECTION AREA SHALL BE ONE HUNDRED (100) GALLONS PER INCH PIPE DIAMETER PER MILE PER DAY. THE DURATION OF ALL TESTS SHALL BE A MINIMUM OF TWO (2) HOURS. ANY OBSERVED LEAKS OR ANY OBVIOUSLY DETECTIVE JOINTS OR PIPES SHALL BE REPLACED EVEN WHEN THE TOTAL LEAKAGE IS BELOW THAT ALLOWED.
9. FORCE MAIN SEWERS CONSTRUCTED IN A PUBLIC WELLFIELD PROTECTION AREA SHALL BE EITHER DUCTILE IRON OR REINFORCED CONCRETE PRESSURE SEWER PIPES.
 - A). FOR DUCTILE IRON PIPE EXFILTRATION RATE SHALL NOT BE GREATER THAN THE ALLOWABLE LEAKAGE RATE SPECIFIED IN AMERICAN WATER WORKS ASSOCIATION STANDARD (AWWA) C600-82 AT A TEST PRESSURE OF 100 POUNDS PER SQUARE INCH.
 - B). FOR REINFORCED CONCRETE PRESSURE SANITARY SEWER EXFILTRATION RATE SHALL NOT BE GREATER THAN ONE-HALF (1/2) THE ALLOWABLE LEAKAGE RATE SPECIFIED IN AWWA C600-82 AT A TEST PRESSURE OF 100 POUNDS PER SQUARE INCH.
10. A NON-RESETTABLE ELAPSED TIME METER SHALL BE INSTALLED AT EACH PUMP TO RECORD THE TOTAL NUMBER OF OPERATING HOURS OF THE STATION.

GENERAL NOTES:

1. 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. (THIS NOTE APPLIES TO REFURBISHED PUMP STATIONS ONLY).
2. CONTRACTOR SHALL PERFORM ALL WORK WITHIN LEGAL PROPERTY AND EASEMENT, AND SHALL NOT DISTURB ADJACENT PROPERTY.
3. CONTRACTOR SHALL INCLUDE NECESSARY CUTTING, PATCHING AND RESTORATION OF ALL EXISTING SURFACES TO MATCH SURROUNDING AREAS.
4. FIELD VERIFY ALL ELEVATIONS PRIOR TO COMMENCING THE WORK.
5. PROVIDE DIELECTRIC FITTINGS BETWEEN TWO DIFFERENT MATERIALS AS REQUIRED.
6. ALL ELEVATIONS (UNDERGROUND PIPING) SHOWN ARE T.O.P. (TOP OF PIPE) ELEVATIONS UNLESS OTHERWISE INDICATED.
7. CONTRACTOR SHALL VERIFY EXISTING PIPING TO REMAIN BEFORE ORDERING PROPOSED PIPING/FITTINGS CONNECTING TO IT.
8. CARE SHOULD BE TAKEN TO AVOID DISTURBING EXISTING ELECTRICAL SERVICE IN THE AREA UNDER CONSTRUCTION.
9. 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.
10. CONTRACTOR TO COAT ALL UNDERGROUND FLANGED FITTING IN DIRECT CONTACT W/SOIL WITH TWO COATS OF BITUMASTIC OR APPROVAL EQUAL.
11. 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.

ELEVATION OF STRUCTURES

WET WELL AND VALVE VAULT TOP OF SLAB IS A MINIMUM OF BASE FLOOD ELEVATION (BFE) +2' OR 1' ABOVE HIGHEST CROWN OF ROAD FRONTING SITE, WHICHEVER IS GREATER.
 GENERATOR FINISHED FLOOR ELEVATION IS A MINIMUM OF BASE FLOOD ELEVATION (BFE) +2' OR 1' ABOVE HIGHEST CROWN OF ROAD FRONTING SITE, WHICHEVER IS GREATER.



PROPOSED SITE PLAN
 SCALE: 1"=6'-0"

LEGEND:

- P --- PROPERTY LINE
- R/W --- RIGHT OF WAY
- C --- ROAD CENTER LINE
- EOP --- EDGE OF PAVEMENT
- X---X---X---X---X--- CHAIN LINK FENCE
- FM --- FORCE MAIN
- SS --- SANITARY SEWER
- E --- UNDERGROUND ELECTRICAL LINE
- GUARD POST
- FIRE HYDRANT
- SEWER VALVE
- WATER VALVE
- MANHOLE
- ▭ PROPOSED STRUCTURE
- ▨ GRASS AREA
- ▩ EXISTING STRUCTURES TO BE REMOVED OR ABANDONED

DRAWING HISTORY

RELEASED FOR	DATE	BY
X REVIEW 90%	06/19/15	LMS
REVIEW 00%		
PERMIT		
BID		
AS-BUILT		

REVISIONS

No.	DESCRIPTION	DATE	BY
Δ XXXXXX	XXXXXX	06/19/15	LMS

APPROVALS

PROJECT MGR: X.X.X.	CHECKED: X.X.X.
DESIGNED: X.X.X.	DRAWN: X.X.X.
CHIEF ENGINEER: J.B.F.	
DESIGN MNGR.: R.J.A.	
UNIT HEAD:	
Xxxx Xxxxx, P.E. Xxxxx Engineer State of Florida—License No.00000 Date:	
FILE NAME: 00000002	
DATE: 06/19/2015	SCALE: AS NOTED
SHEET	C-2
DWG. No.	X-00000-D