

PUMP STATION STREET ADDRESS		PUMP STATION INFORMATION SCHEDULE OF ELEVATIONS																		
TOP ELEV (NOTE 9)	MERCID LEVEL	ALARM ELEVATION	LEFT BLANK	LAG PUMP ON ELEVATION	LEAD PUMP ON ELEVATION	PUMP OFF ELEVATION (NOTE #1)	BOTTOM ELEVATION (NOTE #5)	WET WELL DIA.	DISCHARGE PIPE DIA.	DISCHARGE F.M. DIA.	BASE EXTENDER	BOTTOM SLAB THICKNESS (INCHES)	PER HOLE DIA. (SEE NOTES)	CONTROL ELEVATION	PUMP SUCTION CLEARANCE (INCHES)	SITE FLOOD ELEVATION (DESIGN NOTE 10)	INFLUENT SIZE	HATCH SIZE (SEE TABLE BELOW)		
A	B	C	D	E	F	G	H	I	J	K	L	M	N	P	Q	R	S			
R+1.0	P+0.5'	P-0.5'		P-1.0'	P-1.5'	F-SV	G-3'													

ALL PUMPS									
PUMP MANUFACTURER	FLYGT	HYDROMATIC	KSB	MYERS	SHINMAYWA	WILO/EM			
MODEL									
IMPELLER									
PUMP DISCHARGE									
MOTOR (RPM)									
HORSEPOWER (HP)									
PHASE/VOL/TAMPS (NOTE #3)									
AIC (NOTE #4)									
DESIGN POINT (GPM) @ TDH (FT)									
RUNOUT POINT (GPM) @ TDH (FT)									
EMERGENCY MAIN									
NORMAL SERVICE MAIN									
CB #1 TO PUMP NO. 1									
CB #2 TO PUMP NO. 2									
CONTROL PANEL MCB									
STARTER (SIZE & TYPE)									
ELECTRIC SERVICE (SIZE & TYPE)									

POLYMER CONCRETE FLOATATION COLLARS									
WET WELL I.D.	DEPTH 0-10FT		DEPTH 11-15FT		DEPTH 16-20FT		DEPTH 21-30FT		MIN WEIGHT OF TOTAL STRUCTURE (LBS)
	MIN BASE EXTENDER (IN)	MIN WEIGHT OF TOTAL STRUCTURE (LBS)	MIN BASE EXTENDER (IN)	MIN WEIGHT OF TOTAL STRUCTURE (LBS)	MIN BASE EXTENDER (IN)	MIN WEIGHT OF TOTAL STRUCTURE (LBS)	MIN BASE EXTENDER (IN)	MIN WEIGHT OF TOTAL STRUCTURE (LBS)	
8'-0"	3	35600	3	37600	2	46000		5200	
10'-0"	5	57580	5	75000	5	78700	3	91100	
12'-0"	8	82900	8	113200	8	134500	7	139000	

DISCHARGE PIPE DATA (WITHIN WET WELL)				
PIPE SIZE	PIPE HOLE DIA.	PUMP SEPARATION	MIN PUMP-OUT SIZE	HATCH SIZE (MIN.)
(J)	(N)	(PS)	(PO)	
4"	10"	26"	4"	42"x48"
6"	12"	32"	6"	42"x60"
FREE STANDING PUMP OUT FOR PIPE SIZES GREATER THAN 6"				
8"	15"	36"	8"	
10"	17"	44"	10"	
12"	20"	48"	12"	
14" & LARGER			14" & LARGER	

CONCRETE WET WELL DIMENSIONS		
WET WELL I.D.	WALL THICKNESS (MIN)	TOP SLAB THICKNESS (MIN)
8'-0"	0'-6"	0'-10"
10'-0"	1'-0"	1'-0"
12'-0"	1'-0"	1'-0"

POLYMER WET WELL DIMENSIONS		
WET WELL I.D.	WALL THICKNESS (MIN)	TOP SLAB THICKNESS (MIN)
8'-0"	0'-6"	0'-10"
10'-0"	0'-6 1/2"	0'-10"
12'-0"	0'-7"	1'-0"

MANUAL TRANSFER SWITCH	
	200 AMP
<input type="checkbox"/> JEA APPROVED	
	400 AMP
<input type="checkbox"/> JEA APPROVED	

- GENERAL NOTES:**
- ALL WORK SHALL COMPLY WITH SPECIFICATIONS, SECTION 433, "SUBMERSIBLE SEWAGE PUMPING STATIONS" IN JEA WATER AND SEWER STANDARDS MANUAL.
  - PENETRATION SOIL BORING INFORMATION, TAKEN AT WET WELL LOCATION, SHALL BE SUBMITTED PRIOR TO DESIGN SUBMITTAL. SOIL BORING SHALL BE A MINIMUM OF 15' DEEPER THAN WET WELL BOTTOM OR UNTIL SUITABLE SOIL IS LOCATED UP TO A MAXIMUM OF 25' BELOW WET WELL BOTTOM.
  - ALL PIPING WITHIN AND EXTERNAL OF THE WET WELL SHALL BE FLANGED SCHEDULE 40, 316 STAINLESS STEEL. BUTT WELDING OF ANY PIPING (EXCEPT FOR THE EMERGENCY SUCTION PIPE IN THE WET WELL) IS NOT ALLOWED.
  - ALL DUCTILE IRON FITTINGS (90s, 45s, TEES ETC.) WITHIN AND EXTERNAL OF THE WET WELL SHALL BE DUCTILE IRON AND FLANGED EPOXY LINED.
  - ALL NUTS, BOLTS AND ACCESSORIES WITHIN AND EXTERNAL OF THE WET WELL SHALL BE 316 STAINLESS STEEL AND SHALL BE COATED WITH A "NEVER SEIZE" TYPE COATING.
  - ALL EXTERIOR JOINTS OF PRECAST CONCRETE AND PRECAST POLYMER WET WELLS AND MANHOLES SHALL BE SEALED WITH A 1/8" WIDE RUBBERIZED ASPHALT MEMBRANE TAPE. (SEE JEA SPEC).
  - THE VOID AREAS BETWEEN TOP SLAB AND FORCE MAIN PIPE SHALL BE SEALED W/UCOLASTIC BY EUCLID CITEM CO. OR APPROVED EQUAL SEAL. ALL OTHER OPENINGS IN CONCRETE TOP WITH NON-SHRINK GROUT, EXCEPT AS DESCRIBED IN NOTE #6. PROVIDE INSECT SCREEN SECURED TO TOP.
  - PROVIDE 6" x 6" OPENING THROUGH THE CONCRETE TOP OF THE WET WELL AND INSERT 8" x 8" x 1 1/2" THICK ALUMINUM GRATE VENT CONSTRUCTED OF 1 1/2" WIDE x 3/8" MATERIAL.
  - PROVIDE 2" PIPE (PVC, SCH. 80) THROUGH CONCRETE TOP WITH CAPPED TOP AND OPEN END BOTTOM. SEAL AROUND CONCRETE TOP WITH NON-SHRINK GROUT. IN THE FUTURE, THIS PIPE WILL BE UTILIZED FOR THE CONSTRUCTION OF THE AIR-RELEASE VALVE PIPING. EXTEND 18" ABOVE THE TOP OF WET WELL.
  - SITE GRADE IS 6" (MIN) BELOW TOP ELEVATION OF PUMP STATION SLAB.
  - IN SILTS, CLAY OR HIGHLY ORGANIC SOILS (FINE-GRAINED SOILS INCLUDING SOIL GROUPS ML, CL, OL, MH, CH, OH AND PT) THE SOILS SHALL BE OVER-EXCAVATED AN ADDITIONAL 12" (AT A MIN.) AND BACKFILL WITH GRANULAR BACKFILL (57 STONE).
  - PRECAST CONCRETE WET WELL SHALL MEET A.S.T.M. C-478 STANDARD, ENTIRE INSIDE SURFACE OF WET WELL & TOP SLAB SHALL BE LINED WITH APPROVED LINER. LINER INSTALLER MUST BE CERTIFIED BY LINER MANUFACTURER. SUBMIT CERTIFICATION WITH SHOP DRAWING SUBMITTAL. SEE SPECIFICATIONS. THE EXCAVATED HOLE SHALL BE DRY (DE-WATERED) DURING THE WET WELL INSTALLATION. (SEE WET WELL DIMENSIONS TABLE)
  - PRECAST POLYMER CONCRETE WET WELL SHALL MEET JEA POLYMER PRECAST STANDARD. THE EXCAVATED HOLE SHALL BE DRY (DE-WATERED) DURING THE WET WELL INSTALLATION. (SEE WET WELL DIMENSIONS TABLE)
  - SEE REFERENCE FACILITIES STANDARDS FOR GENERATOR, ATS, BACKFLOW, BOLLARDS AND PAVEMENT SPECIFICATIONS. (HTTPS://WWW.JEA.COM/ENGINEERING\_AND\_CONSTRUCTION/JEA\_FACILITIES\_STANDARDS/)
  - SEE JEA STANDARD SHEETS (AVAILABLE AT JEA.COM) FOR CONSTRUCTION DETAILS OF SPECIFIC COMPONENTS, INCLUDING ELECTRICAL.
  - PUMPS SHALL BE NUMBERED SEQUENTIALLY, LEFT TO RIGHT, WHEN STANDING IN FRONT OF THE WET WELL HATCH, FACING THE DISCHARGE PIPING. THE PUMPS SHALL BE INSTALLED SEQUENTIALLY WITH THE LOWEST SERIAL NUMBER BEING PUMP NUMBER ONE.

- DESIGN NOTES:**
- ENGINEER SHALL USE THIS PLAN AS A BASIS OF DESIGN FOR SITE SPECIFIC PUMP STATION. THESE NOTES TO BE ERASED ON COMPLETED DRAWING.
  - WET WELL SIZE: PUMP STATION 8'-0" I.D. MIN., 27" DEEP MAX.
  - MINIMUM FORCE MAIN FLOW RATE: 4" DIAMETER @ 80 GPM ALL GREATER SIZES SHALL BE DESIGNED FOR FLOW VELOCITY BETWEEN 2FPS AND 5FPS
  - MINIMUM ELECTRIC SERVICE SIZE: 240 VOLT, 200 AMP, 3 PHASE, 4 WIRE
  - MINIMUM CONCRETE PAD SIZE: 45'x45'
  - MINIMUM JUNCTION MANHOLE SIZE: 5'-0" I.D. LOCATE ON SAME SIDE OF DRIVEWAY AS PUMP-OUT CONNECTION.
  - IT IS THE ENGINEER'S RESPONSIBILITY TO DESIGN THE SITE TO MEET FUNCTIONALITY AND SITE SPECIFIC CONDITIONS. HOWEVER, THE ENGINEER SHALL MAKE EVERY EFFORT TO CONFORM TO THE STANDARD DRAWING SHOWN HERE.
  - HOW TO DETERMINE TOWER OR POLE FOR SCADA (SEE ALSO SPEC SECTION 433): TO DETERMINE IF A POLE OR TOWER IS REQUIRED A RADIO PATH STUDY MUST FIRST BE CONDUCTED. THE RADIO PATH STUDY MUST BE DONE USING THE SAME TYPE OF RADIO USED IN THE SCADA PANEL AND MUST BE A MINIMUM OF 4800 RSSI. IF THE HEIGHT OF THE MINIMUM 4800 RSSI LEVEL IS LESS THAN OR EQUAL TO 20 FEET THEN A 20 FOOT POLE CAN BE USED. IF THE HEIGHT REQUIREMENTS ARE OVER 20 FEET THEN A TOWER MUST BE USED.
  - THE PUMP STATION TOP ELEVATION SHALL BE SET AT A MINIMUM OF 1' ABOVE THE "R" ELEVATION. THE "R" ELEVATION SHALL BE EQUAL TO THE DESIGN HIGH WATER LEVEL OR THE 100 YEAR FLOOD ELEVATION, WHICHEVER IS HIGHER.
  - THE TOP ELEVATION OF JUNCTION MAN HOLE SHALL MATCH THE TOP ELEVATION OF NEAREST ADJACENT CONCRETE STRUCTURE (PUMP STATION SLAB, DRIVE WAY OR CURB).
- CONSTRUCTION NOTES:**
- SLOPE SITE CONCRETE 1" PER 8" TO DRAIN TOWARDS STREET OR OTHER ADJACENT CITY OR JEA OWNED DRAINAGE FACILITY. THE DRIVEWAY SLOPE SHALL BE LESS THEN 6% UNLESS SPECIFICALLY APPROVED BY JEA.
  - CONTRACTOR MUST MAINTAIN LANDSCAPING UNTIL FINAL ACCEPTANCE AND SUPPLY ONE (1) YEAR WARRANTY FROM NURSERY SUPPLYING PLANTS FROM DATE OF ACCEPTANCE.
  - DEMARICATION BOX SHALL BE PLACED AS CLOSE AS POSSIBLE TO WET WELL. IT SHALL BE PLACED AT LEAST 3' FROM WET WELL HATCH AND AT LEAST 5' FROM VENTS. IT SHALL BE PLACED SO AS NOT TO INTERFERE WITH ACCESS TO THE WET WELL OR DISCHARGE APPARATUS, AND DOOR SHALL FACE AWAY FROM WET WELL.
  - SEE GROUNDING PLAN FOR ELECTRICAL SERVICE GROUNDING REQUIREMENTS (SEE GROUNDING DETAIL SHEET).
  - CONTRACTOR MUST KEEP COMPANY SIGN AND PHONE NUMBER ON FENCE UNTIL STATION ACCEPTED.
  - TRANSFORMERS SHALL BE LOCATED ON THE SAME SIDE OF PROPERTY AS METER CAN AND ELECTRICAL PANELS.
  - WET WELL LID SHALL UTILIZE STAPLE ASSEMBLY FOR LOCKING THE WET WELL.

**SITE SPECIFIC**

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 DRAWN BY: JEA  
 CHECKED BY: JEA  
 DATE: JEA

NO. SHEETS: 1  
 SHEET NO.: 1  
 DRAWING NO.: 1

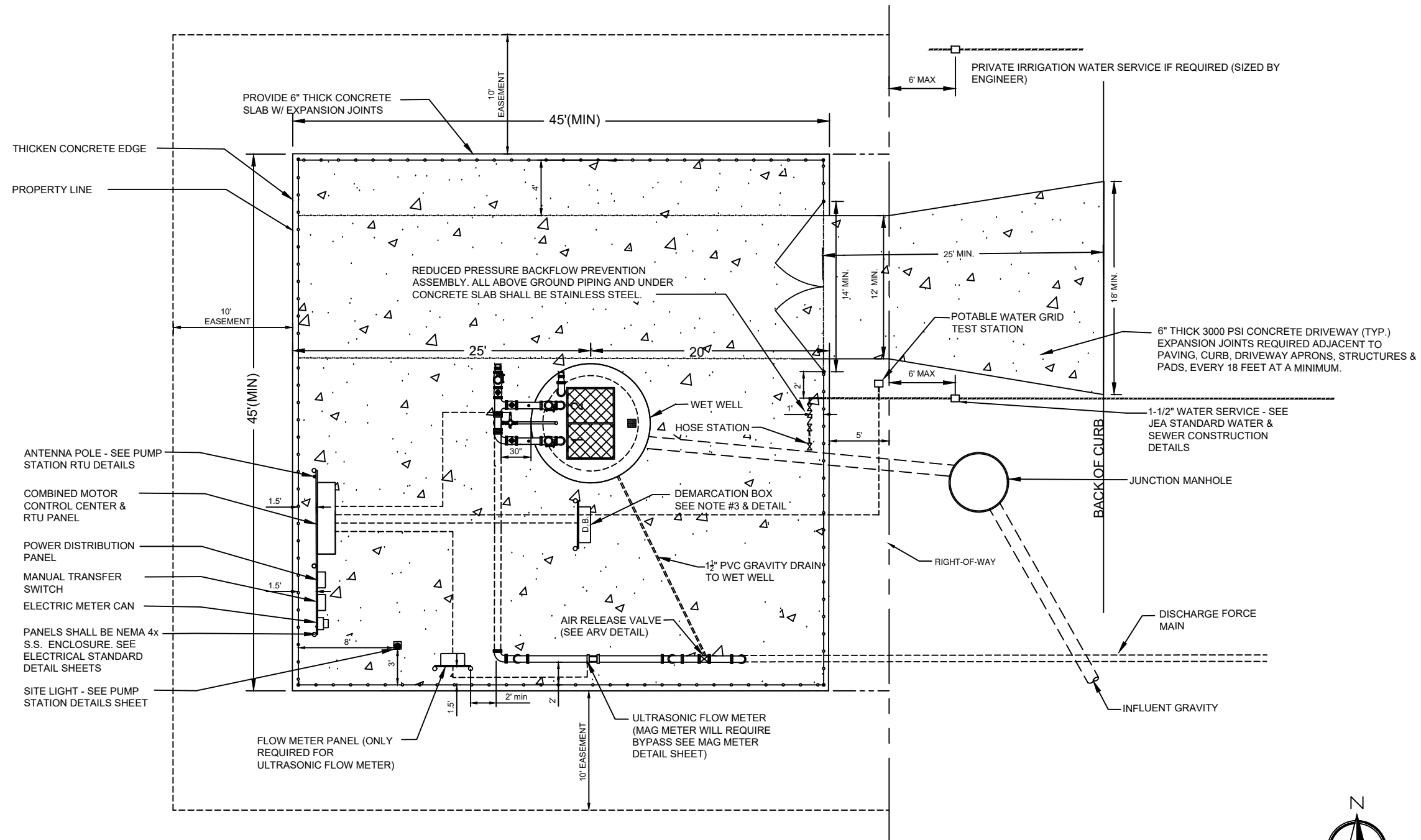
PROJ. NO.:  
 DATE:  
 SCALE:

REVISIONS:

NO. BY DATE

DESIGN ENGINEER: JEA  
 FLORIDA REGISTRATION NO.: JEA

JEA STANDARD CLASS ONE PUMP STATION FOR PEAK FLOWS BETWEEN 0 TO 440 GPM PLAN AND SECTION



THICKEN CONCRETE EDGE  
PROPERTY LINE

ANTENNA POLE - SEE PUMP STATION RTU DETAILS  
COMBINED MOTOR CONTROL CENTER & RTU PANEL  
POWER DISTRIBUTION PANEL  
MANUAL TRANSFER SWITCH  
ELECTRIC METER CAN  
PANELS SHALL BE NEMA 4x S.S. ENCLOSURE. SEE ELECTRICAL STANDARD DETAIL SHEETS  
SITE LIGHT - SEE PUMP STATION DETAILS SHEET

FLOW METER PANEL (ONLY REQUIRED FOR ULTRASONIC FLOW METER)

PROVIDE 6" THICK CONCRETE SLAB W/ EXPANSION JOINTS

REDUCED PRESSURE BACKFLOW PREVENTION ASSEMBLY. ALL ABOVE GROUND PIPING AND UNDER CONCRETE SLAB SHALL BE STAINLESS STEEL.

WET WELL

DEMARICATION BOX SEE NOTE #3 & DETAIL

AIR RELEASE VALVE (SEE ARV DETAIL)

ULTRASONIC FLOW METER (MAG METER WILL REQUIRE BYPASS SEE MAG METER DETAIL SHEET)

PRIVATE IRRIGATION WATER SERVICE IF REQUIRED (SIZED BY ENGINEER)

POTABLE WATER GRID TEST STATION

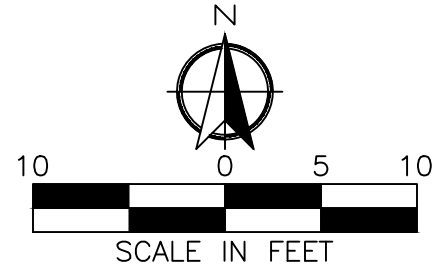
6" THICK 3000 PSI CONCRETE DRIVEWAY (TYP.) EXPANSION JOINTS REQUIRED ADJACENT TO PAVING, CURB, DRIVEWAY APRONS, STRUCTURES & PADS, EVERY 18 FEET AT A MINIMUM.

1-1/2" WATER SERVICE - SEE JEA STANDARD WATER & SEWER CONSTRUCTION DETAILS

JUNCTION MANHOLE

DISCHARGE FORCE MAIN

INFLUENT GRAVITY

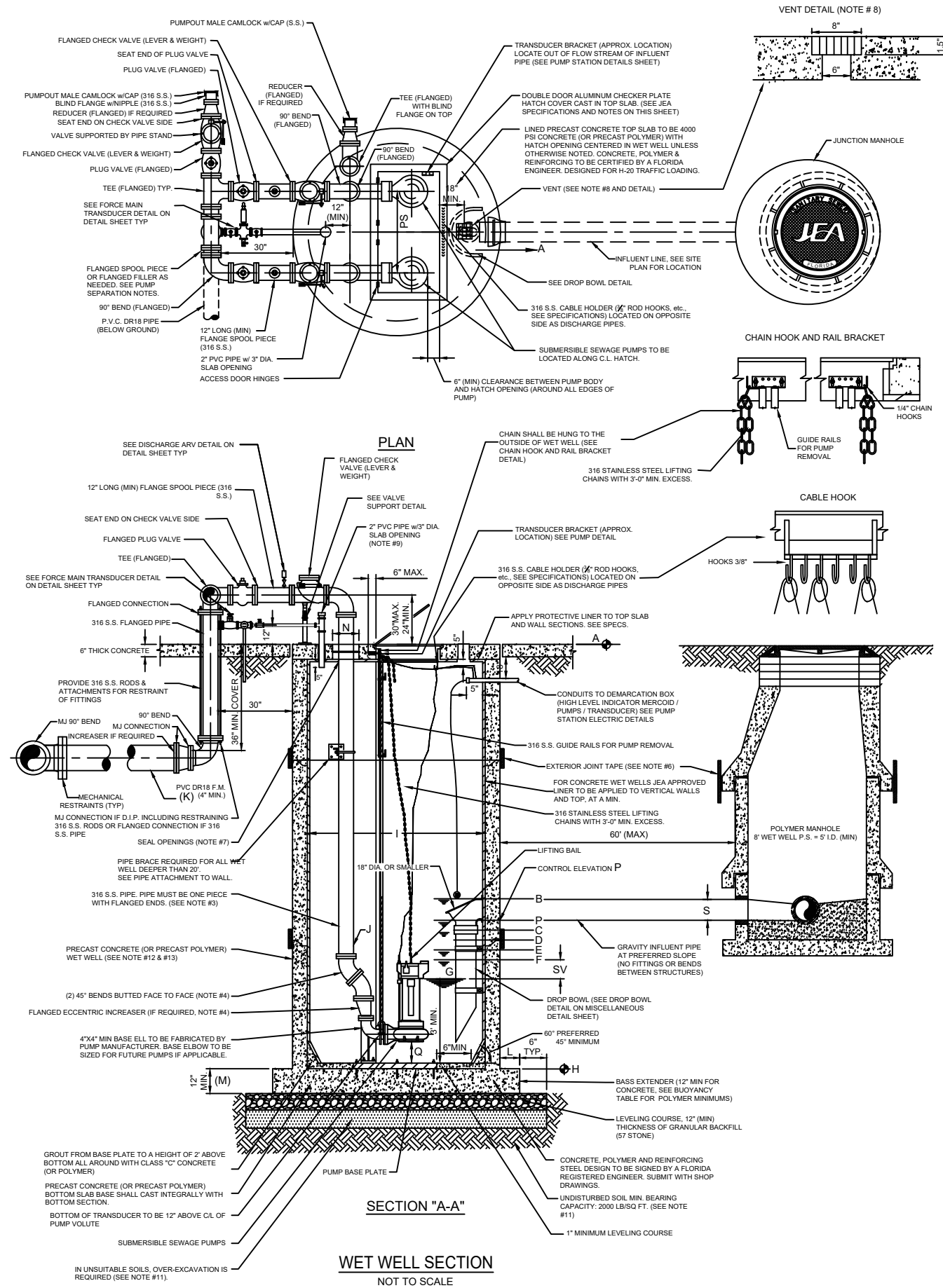


SITE SPECIFIC

NO. SHEETS	PROJ. NO.	DESIGNER	DESIGN ENGINEER	NO.	BY	DATE	REVISIONS
SHEET NO.	DATE:	DRAWN BY:	FLORIDA REGISTRATION NO.	4			
DRAWING NO.	SCALE: 1"=10'	CHECKED BY:		3			
		DATE:		2			
				1			

JEA STANDARD CLASS ONE PUMP STATION FOR PEAK FLOWS BETWEEN 0 TO 440 GPM PLAN AND SECTION





PUMP STATION STREET ADDRESS		PUMP STATION INFORMATION SCHEDULE OF ELEVATIONS																
TOP ELEV (NOTE 9)	MERCID LEVEL	ALARM ELEVATION	LEFT BLANK	LAG PUMP ON ELEVATION	LEAD PUMP ON ELEVATION	PUMP OFF ELEVATION (NOTE #1)	BOTTOM ELEVATION (NOTE #8)	WET WELL DIA.	DISCHARGE PIPE DIA.	DISCHARGE F.M. DIA.	BASE EXTENDER	BOTTOM SLAB THICKNESS (INCHES)	PER HOLE DIA. (SEE NOTES)	CONTROL ELEVATION	PUMP SUCTION CLEARANCE (INCHES)	SITE FLOOD ELEVATION (DESIGN NOTE 10)	INFLUENT SIZE	HATCH SIZE (SEE TABLE BELOW)
A	B	C	D	E	F	G	H	I	J	K	L	M	N	P	Q	R	S	
R+1.0	P+0.5'	P-0.5'		P-1.0'	P-1.5'	F-SV	G-3'											

ALL PUMPS									
PUMP MANUFACTURER	FLYGT	HYDROMATIC	KSB	MYERS	SHINMAYWA	WILO/EM			
MODEL									
IMPELLER									
MOTOR (RPM)									
HORSEPOWER (HP)									
PHASE/VOLT/AMPS (NOTE #3)									
AIC (NOTE #4)									
DESIGN POINT (GPM) @ TDH (FT)									
RUNOUT POINT (GPM) @ TDH (FT)									
EMERGENCY MAIN									
NORMAL SERVICE MAIN									
CB #1 TO PUMP NO. 1									
CB #2 TO PUMP NO. 2									
CONTROL PANEL MCB									
STARTER (SIZE & TYPE)									
ELECTRIC SERVICE (SIZE & TYPE)									

POLYMER CONCRETE FLOATATION COLLARS									
WET WELL I.D.	DEPTH 0-10FT		DEPTH 11-15FT		DEPTH 16-20FT		DEPTH 21-30FT		MIN WEIGHT OF TOTAL STRUCTURE (LBS)
	MIN BASE EXTENDER (IN)	MIN WEIGHT OF TOTAL STRUCTURE (LBS)	MIN BASE EXTENDER (IN)	MIN WEIGHT OF TOTAL STRUCTURE (LBS)	MIN BASE EXTENDER (IN)	MIN WEIGHT OF TOTAL STRUCTURE (LBS)	MIN BASE EXTENDER (IN)	MIN WEIGHT OF TOTAL STRUCTURE (LBS)	
8'-0"	3	35000	3	37000	2	46000		5200	
10'-0"	5	57500	5	75000	5	78700	3	91100	
12'-0"	8	82900	8	134500			7	139000	

DISCHARGE PIPE DATA (WITHIN WET WELL)				
PIPE SIZE	PIPE HOLE DIA.	PUMP SEPARATION (PS)	MIN PUMP OUT SIZE (PO)	HATCH SIZE (MIN.)
(J)	(N)	(PS)	(PO)	
4"	10"	26"	4"	42"x48"
6"	12"	32"	6"	42"x60"
FREE STANDING PUMP OUT FOR PIPE SIZES GREATER THAN 6"				
8"	15"	36"	8"	
10"	17"	44"	10"	
12"	20"	48"	12"	
14" & LARGER - 1" & LARGER				

CONCRETE WET WELL DIMENSIONS		
WET WELL I.D.	WALL THICKNESS (MIN)	TOP SLAB THICKNESS (MIN)
8'-0"	0'-9"	0'-10"
10'-0"	1'-0"	1'-0"
12'-0"	1'-0"	1'-0"

POLYMER WET WELL DIMENSIONS		
WET WELL I.D.	WALL THICKNESS (MIN)	TOP SLAB THICKNESS (MIN)
8'-0"	0'-6"	0'-10"
10'-0"	0'-6 1/2"	0'-10"
12'-0"	0'-7"	1'-0"

MANUAL TRANSFER SWITCH	
<input type="checkbox"/> JEA APPROVED	200 AMP
<input type="checkbox"/> JEA APPROVED	400 AMP

- GENERAL NOTES:**
- ALL WORK SHALL COMPLY WITH SPECIFICATIONS, SECTION 433, "SUBMERSIBLE SEWAGE PUMPING STATIONS" IN JEA WATER AND SEWER STANDARDS MANUAL.
  - PENETRATION SOIL BORING INFORMATION, TAKEN AT WET WELL LOCATION, SHALL BE SUBMITTED PRIOR TO DESIGN SUBMITTAL. SOIL BORING SHALL BE A MINIMUM OF 15' DEEPER THAN WET WELL BOTTOM OR UNTIL SUITABLE SOIL IS LOCATED UP TO A MAXIMUM OF 25' BELOW WET WELL BOTTOM.
  - ALL PIPING WITHIN AND EXTERNAL OF THE WET WELL SHALL BE FLANGED SCHEDULE 40, 316 STAINLESS STEEL. BUTT WELDING OF ANY PIPING (EXCEPT FOR THE EMERGENCY SUCTION PIPE IN THE WET WELL) IS NOT ALLOWED.
  - ALL DUCTILE IRON FITTINGS (90s, 45s, TEES ETC.) WITHIN AND EXTERNAL OF THE WET WELL SHALL BE DUCTILE IRON AND FLANGED EPOXY LINED.
  - ALL NUTS, BOLTS AND ACCESSORIES WITHIN AND EXTERNAL OF THE WET WELL SHALL BE 316 STAINLESS STEEL AND SHALL BE COATED WITH A "NEVER SEIZE" TYPE COATING.
  - ALL EXTERIOR JOINTS OF PRECAST CONCRETE AND PRECAST POLYMER WET WELLS AND MANHOLES SHALL BE SEALED WITH A 18" WIDE RUBBERIZED ASPHALT MEMBRANE TAPE. (SEE JEA SPEC).
  - THE VOID AREAS BETWEEN TOP SLAB AND FORCE MAIN PIPE SHALL BE SEALED W/UCOLASTIC BY EUCLID CITEM CO. OR APPROVED EQUAL SEAL. ALL OTHER OPENINGS IN CONCRETE TOP WITH NON-SHRINK GROUT, EXCEPT AS DESCRIBED IN NOTE #6. PROVIDE INSECT SCREEN SECURED TO TOP.
  - PROVIDE 6" x 6" OPENING THROUGH THE CONCRETE TOP OF THE WET WELL AND INSERT 8" x 8" x 1 1/2" THICK ALUMINUM GRATE VENT CONSTRUCTED OF 1 1/2" WIDE x 1/2" MATERIAL.
  - PROVIDE 2" PIPE (PVC, SCH. 80) THROUGH CONCRETE TOP WITH CAPPED TOP AD OPEN END BOTTOM. SEAL AROUND CONCRETE TOP WITH NON-SHRINK GROUT. IN THE FUTURE, THIS PIPE WILL BE UTILIZED FOR THE CONSTRUCTION OF THE AIR-RELEASE VALVE PIPING. EXTEND 18" ABOVE THE TOP OF WET WELL.
  - SITE GRADE IS 6" (MIN) BELOW TOP ELEVATION OF PUMP STATION SLAB.
  - IN SILTS, CLAY OR HIGHLY ORGANIC SOILS (FINE-GRAINED SOILS INCLUDING SOIL GROUPS ML, CL, OL, MH, CH, OH AND PT) THE SOILS SHALL BE OVER-EXCAVATED AN ADDITIONAL 12" (AT A MIN.) AND BACKFILL WITH GRANULAR BACKFILL (57 STONE).
  - PRECAST CONCRETE WET WELL SHALL MEET A.S.T.M. C-478 STANDARD, ENTIRE INSIDE SURFACE OF WET WELL & TOP SLAB SHALL BE LINED WITH APPROVED LINER. LINER INSTALLER MUST BE CERTIFIED BY LINER MANUFACTURER. SUBMIT CERTIFICATION WITH SHOP DRAWING SUBMITTAL. SEE SPECIFICATIONS. THE EXCAVATED HOLE SHALL BE DRY (DE-WATERED) DURING THE WET WELL INSTALLATION. (SEE WET WELL DIMENSIONS TABLE)
  - PRECAST POLYMER CONCRETE WET WELL SHALL MEET JEA POLYMER PRECAST STANDARD. THE EXCAVATED HOLE SHALL BE DRY (DE-WATERED) DURING THE WET WELL INSTALLATION. (SEE WET WELL DIMENSIONS TABLE)
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  - SEE JEA STANDARD SHEETS (AVAILABLE AT JEA.COM) FOR CONSTRUCTION DETAILS OF SPECIFIC COMPONENTS, INCLUDING ELECTRICAL.
  - PUMPS SHALL BE NUMBERED SEQUENTIALLY, LEFT TO RIGHT, WHEN STANDING IN FRONT OF THE WET WELL HATCH, FACING THE DISCHARGE PIPING. THE PUMPS SHALL BE INSTALLED SEQUENTIALLY WITH THE LOWEST SERIAL NUMBER BEING PUMP NUMBER ONE.

- DESIGN NOTES:**
- ENGINEER SHALL USE THIS PLAN AS A BASIS OF DESIGN FOR SITE SPECIFIC PUMP STATION. THESE NOTES TO BE ERASED ON COMPLETED DRAWING.
  - WET WELL SIZE: PUMP STATION 8'-0" I.D. MIN., 27" DEEP MAX.
  - MINIMUM FORCE MAIN FLOW RATE: 4" DIAMETER @ 80 GPM ALL GREATER SIZES SHALL BE DESIGNED FOR FLOW VELOCITY BETWEEN 2FPS AND 5FPS
  - MINIMUM ELECTRIC SERVICE SIZE: 240 VOLT, 200 AMP, 3 PHASE, 4 WIRE
  - MINIMUM CONCRETE PAD SIZE: 45x45'
  - MINIMUM JUNCTION MANHOLE SIZE: 5'-0" I.D. LOCATE ON SAME SIDE OF DRIVEWAY AS PUMP-OUT CONNECTION.
  - IT IS THE ENGINEER'S RESPONSIBILITY TO DESIGN THE SITE TO MEET FUNCTIONALITY AND SITE SPECIFIC CONDITIONS. HOWEVER, THE ENGINEER SHALL MAKE EVERY EFFORT TO CONFORM TO THE STANDARD DRAWING SHOWN HERE.
  - HOW TO DETERMINE TOWER OR POLE FOR SCADA (SEE ALSO SPEC SECTION 433): TO DETERMINE IF A POLE OR TOWER IS REQUIRED A RADIO PATH STUDY MUST FIRST BE CONDUCTED. THE RADIO PATH STUDY MUST BE DONE USING THE SAME TYPE OF RADIO USED IN THE SCADA PANEL AND MUST BE A MINIMUM OF #608 RSSI. IF THE HEIGHT OF THE MINIMUM #608 RSSI LEVEL IS LESS THAN OR EQUAL TO 20 FEET THEN A 20 FOOT POLE CAN BE USED. IF THE HEIGHT REQUIREMENTS ARE OVER 20 FEET THEN A TOWER MUST BE USED.
  - THE PUMP STATION TOP ELEVATION SHALL BE SET AT A MINIMUM OF 1' ABOVE THE "R" ELEVATION. THE "R" ELEVATION SHALL BE EQUAL TO THE DESIGN HIGH WATER LEVEL OR THE 100 YEAR FLOOD ELEVATION, WHICHEVER IS HIGHER.
  - THE TOP ELEVATION OF JUNCTION MANHOLE SHALL MATCH THE TOP ELEVATION OF NEAREST ADJACENT CONCRETE STRUCTURE (PUMP STATION SLAB, DRIVE WAY OR CURB).

- CONSTRUCTION NOTES:**
- SLOPE SITE CONCRETE 1" PER 8" TO DRAIN TOWARDS STREET OR OTHER ADJACENT CITY OR JEA OWNED DRAINAGE FACILITY. THE DRIVEWAY SLOPE SHALL BE LESS THEN 6% UNLESS SPECIFICALLY APPROVED BY JEA.
  - CONTRACTOR MUST MAINTAIN LANDSCAPING UNTIL FINAL ACCEPTANCE AND SUPPLY ONE (1) YEAR WARRANTY FROM NURSERY SUPPLYING PLANTS FROM DATE OF ACCEPTANCE.
  - DEMARICATION BOX SHALL BE PLACED AS CLOSE AS POSSIBLE TO WET WELL. IT SHALL BE PLACED AT LEAST 3' FROM WET WELL HATCH AND AT LEAST 5' FROM VENTS. IT SHALL BE PLACED SO AS NOT TO INTERFERE WITH ACCESS TO THE WET WELL OR DISCHARGE APPARATUS, AND DOOR SHALL FACE AWAY FROM WET WELL.
  - SEE GROUNDING PLAN FOR ELECTRICAL SERVICE GROUNDING REQUIREMENTS (SEE GROUNDING DETAIL SHEET).
  - CONTRACTOR MUST KEEP COMPANY SIGN AND PHONE NUMBER ON FENCE UNTIL STATION ACCEPTED.
  - TRANSFORMERS SHALL BE LOCATED ON THE SAME SIDE OF PROPERTY AS METER CAN AND ELECTRICAL PANELS.
  - WET WELL LID SHALL UTILIZE STAPLE ASSEMBLY FOR LOCKING THE WET WELL.

**SITE SPECIFIC**

DESIGNER: JEA Building Community<sup>sm</sup>

PROJ. NO.:  
SHEET NO.:  
DRAWING NO.:

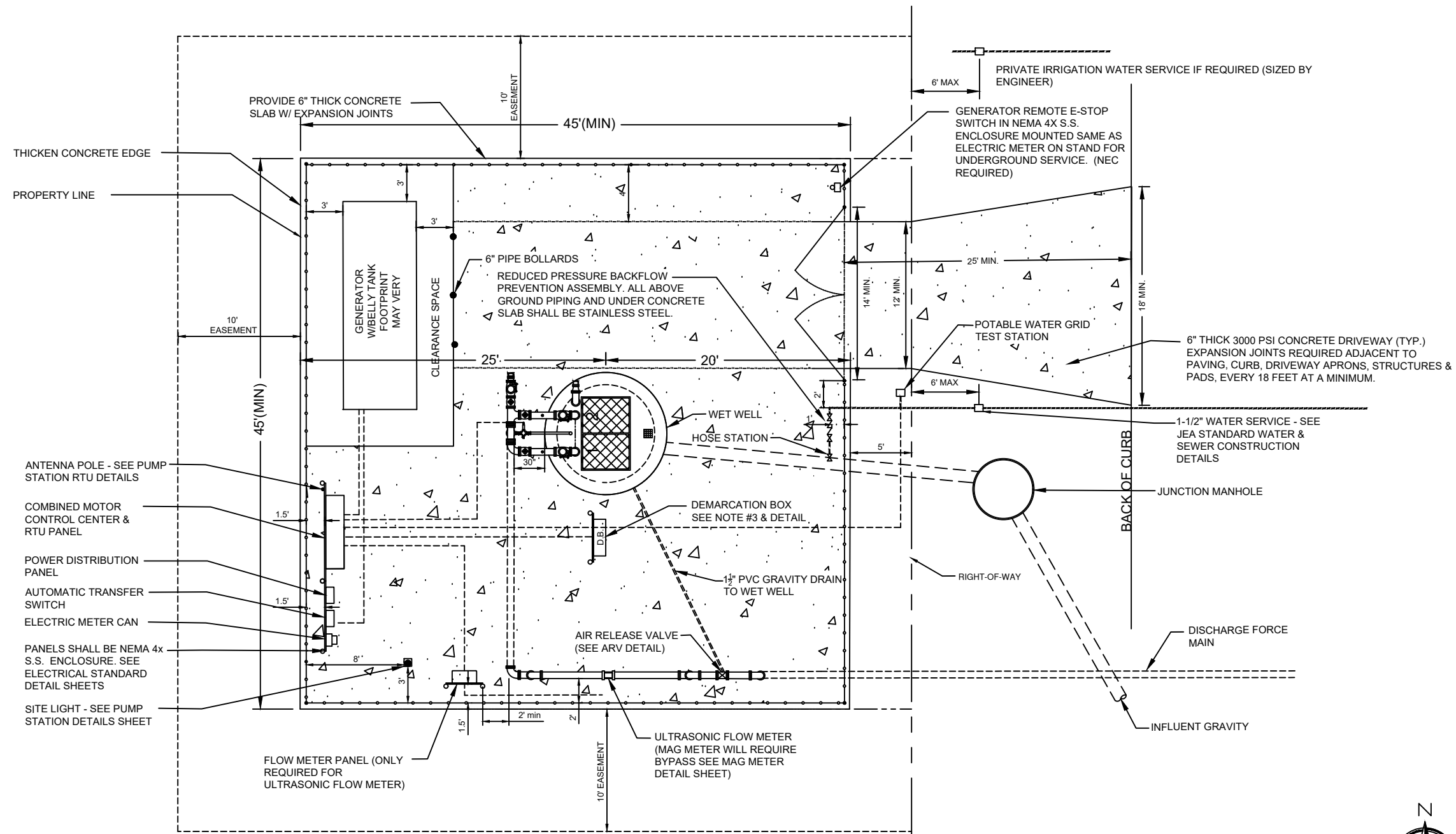
DATE:  
SCALE:

NO. SHEETS:  
SHEET NO.:  
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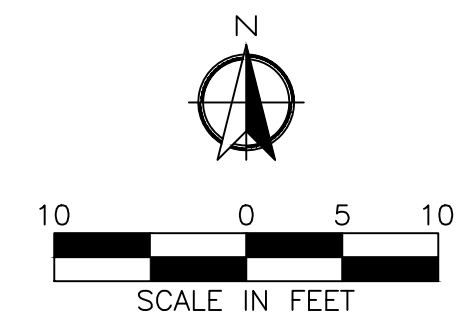
DESIGN ENGINEER:  
DATE:  
DATE:

FLORIDA REGISTRATION NO.:

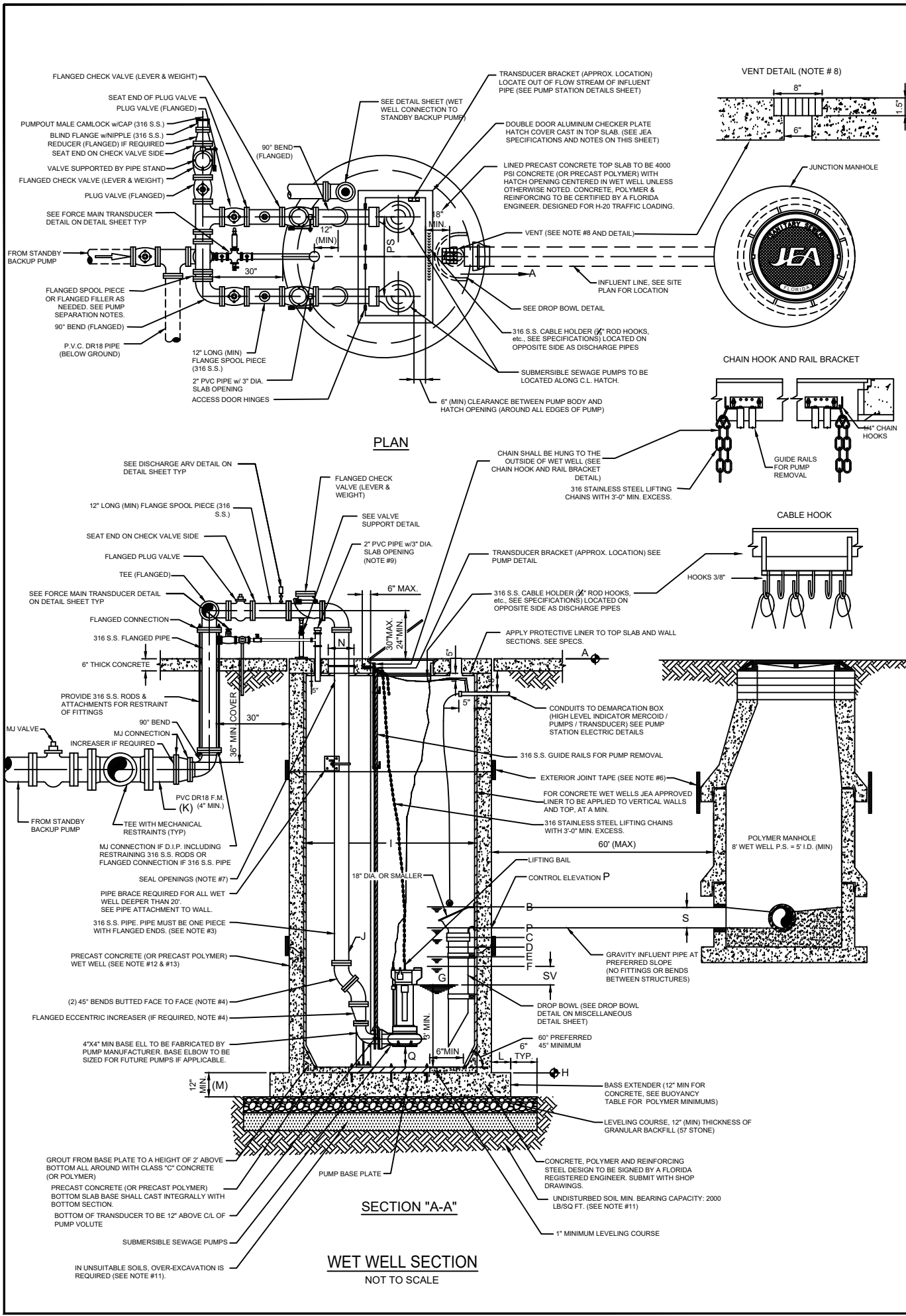
JEA STANDARD CLASS ONE PUMP STATION WITH GENERATOR FOR PEAK FLOWS BETWEEN 0 TO 440 GPM PLAN AND SECTION



- THICKEN CONCRETE EDGE
- PROPERTY LINE
- 10' EASEMENT
- 45'(MIN)
- GENERATOR TANK/WELLY TANK FOOTPRINT MAY VARY
- 6" PIPE BOLLARDS
- CLEARANCE SPACE
- 25'
- 20'
- 14' MIN.
- 12' MIN.
- 25' MIN.
- 18' MIN.
- 6" THICK 3000 PSI CONCRETE DRIVEWAY (TYP.) EXPANSION JOINTS REQUIRED ADJACENT TO PAVING, CURB, DRIVEWAY APRONS, STRUCTURES & PADS, EVERY 18 FEET AT A MINIMUM.
- 1-1/2" WATER SERVICE - SEE JEA STANDARD WATER & SEWER CONSTRUCTION DETAILS
- BACK OF CURB
- JUNCTION MANHOLE
- RIGHT-OF-WAY
- DISCHARGE FORCE MAIN
- INFLUENT GRAVITY
- 10' EASEMENT
- ULTRASONIC FLOW METER (MAG METER WILL REQUIRE BYPASS SEE MAG METER DETAIL SHEET)
- 2' min
- 1.5'
- 8"
- 3'
- 1.5'
- 1.5'
- POWER DISTRIBUTION PANEL
- AUTOMATIC TRANSFER SWITCH
- ELECTRIC METER CAN
- PANELS SHALL BE NEMA 4x S.S. ENCLOSURE. SEE ELECTRICAL STANDARD DETAIL SHEETS
- SITE LIGHT - SEE PUMP STATION DETAILS SHEET
- FLOW METER PANEL (ONLY REQUIRED FOR ULTRASONIC FLOW METER)
- ANTENNA POLE - SEE PUMP STATION RTU DETAILS
- COMBINED MOTOR CONTROL CENTER & RTU PANEL
- 1.5'



<b>SITE SPECIFIC</b>									
<table border="1" style="width: 100%; border-collapse: collapse;"> <tr> <td style="width: 50%;">DESIGNER: DRAWN BY: DATE:</td> <td style="width: 50%;">DESIGN ENGINEER FLORIDA REGISTRATION NO. DATE:</td> </tr> </table>	DESIGNER: DRAWN BY: DATE:	DESIGN ENGINEER FLORIDA REGISTRATION NO. DATE:	<table border="1" style="width: 100%; border-collapse: collapse;"> <tr> <td style="width: 50%;">NO. SHEETS</td> <td style="width: 50%;">REVISIONS</td> </tr> <tr> <td>SHEET NO.</td> <td></td> </tr> <tr> <td>DRAWING NO.</td> <td></td> </tr> </table>	NO. SHEETS	REVISIONS	SHEET NO.		DRAWING NO.	
DESIGNER: DRAWN BY: DATE:	DESIGN ENGINEER FLORIDA REGISTRATION NO. DATE:								
NO. SHEETS	REVISIONS								
SHEET NO.									
DRAWING NO.									
<p>PROJ. NO. _____ DATE: _____ SCALE: 1" = 10'</p>									
<p>JEA STANDARD CLASS ONE PUMP STATION WITH GENERATOR FOR PEAK FLOWS BETWEEN 0 TO 440 GPM PLAN AND SECTION</p>									



PUMP STATION INFORMATION		SCHEDULE OF ELEVATIONS																	
PUMP STATION STREET ADDRESS	TOP ELEV (NOTE 9)	MERCID LEVEL	ALARM ELEVATION	LEFT BLANK	LAG PUMP ON ELEVATION	LEAD PUMP ON ELEVATION	PUMP OFF ELEVATION (NOTE #1)	BOTTOM ELEVATION (NOTE #5)	WET WELL DIA.	DISCHARGE PIPE DIA.	DISCHARGE F.M. DIA.	BASE EXTENDER	BOTTOM SLAB THICKNESS (INCHES)	PER HOLE DIA. (SEE NOTES)	CONTROL ELEVATION	PUMP SUCTION CLEARANCE (INCHES)	SITE FLOOD ELEVATION (DESIGN NOTE 10)	INFLUENT SIZE	HATCH SIZE (SEE TABLE BELOW)
	A	B	C	D	E	F	G	H	I	J	K	L	M	N	P	Q	R	S	
	R + 1.0	P + 0.5'	P - 0.5'		P - 1.0'	P - 1.5'	F - SV	G - 3'											

ALL PUMPS						
PUMP MANUFACTURER	FLYGT	HYDROMATIC	KSB	MYERS	SHINMAYWA	WILCOEM
MODEL						
IMPELLER						
PUMP DISCHARGE						
MOTOR (RPM)						
HORSEPOWER (HP)						
PHASE/VOLT/AMPS (NOTE #3)						
AIC (NOTE #4)						
DESIGN POINT (GPM) @ TDH (FT)						
RUNOUT POINT (GPM) @ TDH (FT)						
EMERGENCY MAIN						
NORMAL SERVICE MAIN						
CB #1 TO PUMP NO. 1						
CB #2 TO PUMP NO. 2						
CONTROL PANEL MCB						
STARTER (SIZE & TYPE)						
ELECTRIC SERVICE (SIZE & TYPE)						

POLYMER CONCRETE FLOATATION COLLARS								
WET WELL I.D.	DEPTH 0-10FT		DEPTH 11-15FT		DEPTH 16-20FT		DEPTH 21-30FT	
	MIN BASE EXTENDER (IN)	MIN WEIGHT OF TOTAL STRUCTURE (LBS)	MIN BASE EXTENDER (IN)	MIN WEIGHT OF TOTAL STRUCTURE (LBS)	MIN BASE EXTENDER (IN)	MIN WEIGHT OF TOTAL STRUCTURE (LBS)	MIN BASE EXTENDER (IN)	MIN WEIGHT OF TOTAL STRUCTURE (LBS)
8'-0"	3	35600	3	37600	2	46000		5200
10'-0"	5	57580	5	75000	5	78700	3	91100
12'-0"	8	82900	8	113200	8	134500	7	139000

DISCHARGE PIPE DATA (WITHIN WET WELL)				
PIPE SIZE	PIPE HOLE DIA.	PUMP SEPARATION	MIN PUMP OUT SIZE	HATCH SIZE (MIN)
(J)	(N)	(PS)	(PO)	
4"	10"	26"	4"	42"x48"
6"	12"	32"	6"	42"x60"
FREE STANDING PUMP OUT FOR PIPE SIZES GREATER THAN 6"				
8"	15"	36"	8"	
10"	17"	44"	10"	
12"	20"	48"	12"	
14" & LARGER			14" & LARGER	

MANUAL TRANSFER SWITCH		
<input type="checkbox"/> JEA APPROVED		200 AMP
<input type="checkbox"/> JEA APPROVED		400 AMP

CONCRETE WET WELL DIMENSIONS		
WET WELL I.D.	WALL THICKNESS (MIN)	TOP SLAB THICKNESS (MIN)
8'-0"	0'-9"	0'-10"
10'-0"	1'-0"	1'-0"
12'-0"	1'-0"	1'-0"

POLYMER WET WELL DIMENSIONS		
WET WELL I.D.	WALL THICKNESS (MIN)	TOP SLAB THICKNESS (MIN)
8'-0"	0'-6"	0'-10"
10'-0"	0'-6 1/2"	0'-10"
12'-0"	0'-7"	1'-0"

STANDBY BACKUP PUMP			
MANUFACTURER	HOLLAND	THOMPSON	XYLEM/GOODWIN
MODEL			
ENGINE H.P.			
NPSHR			
FLOW GPM @TDH			
RPM			
DISCHARGE PIPE SIZE			
SUCTION PIPE SIZE			

- GENERAL NOTES:**
- ALL WORK SHALL COMPLY WITH SPECIFICATIONS, SECTION 433, "SUBMERSIBLE SEWAGE PUMPING STATIONS" IN JEA WATER AND SEWER STANDARDS MANUAL.
  - PENETRATION SOIL BORING INFORMATION, TAKEN AT WET WELL LOCATION, SHALL BE SUBMITTED PRIOR TO DESIGN SUBMITTAL. SOIL BORING SHALL BE A MINIMUM OF 15' DEEPER THAN WET WELL BOTTOM OR UNTIL SUITABLE SOIL IS LOCATED UP TO A MAXIMUM OF 25' BELOW WET WELL BOTTOM.
  - ALL PIPING WITHIN AND EXTERNAL OF THE WET WELL SHALL BE FLANGED SCHEDULE 40, 316 STAINLESS STEEL BUTT WELDING OF ANY PIPING (EXCEPT FOR THE EMERGENCY SUCTION PIPE IN THE WET WELL) IS NOT ALLOWED.
  - ALL DUCTILE IRON FITTINGS (90s, 45s, TEES ETC.) WITHIN AND EXTERNAL OF THE WET WELL SHALL BE DUCTILE IRON AND FLANGED EPOXY LINED.
  - ALL NUTS, BOLTS AND ACCESSORIES WITHIN AND EXTERNAL OF THE WET WELL SHALL BE 316 STAINLESS STEEL AND SHALL BE COATED WITH A 'NEVER SEIZE' TYPE COATING.
  - ALL EXTERIOR JOINTS OF PRECAST CONCRETE AND PRECAST POLYMER WET WELLS AND MANHOLES SHALL BE SEALED WITH A 18" WIDE RUBBERIZED ASPHALT MEMBRANE TAPE. (SEE JEA SPEC).
  - THE VOID AREAS BETWEEN TOP SLAB AND FORCE MAIN PIPE SHALL BE SEALED W/UECOLASTIC BY EUCLID CITEM CO. OR APPROVED EQUAL SEAL. ALL OTHER OPENINGS IN CONCRETE OF THE WET WELL WITH NON-SHRINK GROUT, EXCEPT AS DESCRIBED IN NOTE #6. PROVIDE INSECT SCREEN SECURED TO TOP.
  - PROVIDE 6" x 6" OPENING THROUGH THE CONCRETE TOP OF THE WET WELL AND INSERT 8" x 8" x 1 1/2" THICK ALUMINUM GRATE VENT CONSTRUCTED OF 1 1/2" WIDE x 1/2" MATERIAL.
  - PROVIDE 2" PIPE (PVC, SCH. 80) THROUGH CONCRETE TOP WITH CAPPED TOP AND OPEN END BOTTOM. SEAL AROUND CONCRETE TOP WITH NON-SHRINK GROUT. IN THE FUTURE, THIS PIPE WILL BE UTILIZED FOR THE CONSTRUCTION OF THE AIR-RELEASE VALVE PIPING. EXTEND 18" ABOVE THE TOP OF WET WELL.
  - SITE GRADE IS 6" (MIN) BELOW TOP ELEVATION OF PUMP STATION SLAB.
  - IN SILTS, CLAY OR HIGHLY ORGANIC SOILS (FINE-GRAINED SOILS INCLUDING SOIL GROUPS ML, CL, OL, MH, CH, OH AND PT) THE SOILS SHALL BE OVER-EXCAVATED AN ADDITIONAL 12" (AT A MIN.) AND BACKFILL WITH GRANULAR BACKFILL (57 STONE).
  - PRECAST CONCRETE WET WELL SHALL MEET A.S.T.M. C-478 STANDARD, ENTIRE INSIDE SURFACE OF WET WELL & TOP SLAB SHALL BE LINED WITH APPROVED LINER. LINER INSTALLER MUST BE CERTIFIED BY LINER MANUFACTURER. SUBMIT CERTIFICATION WITH SHOP DRAWING SUBMITTAL. SEE SPECIFICATIONS. THE EXCAVATED HOLE SHALL BE DRY (DE-WATERED) DURING THE WET WELL INSTALLATION. (SEE WET WELL DIMENSIONS TABLE)
  - PRECAST POLYMER CONCRETE WET WELL SHALL MEET JEA POLYMER PRECAST STANDARD. (SEE WET WELL DIMENSIONS TABLE)
  - SEE REFERENCE FACILITIES STANDARDS FOR GENERATOR, ATS, BACKFLOW, BOLLARDS AND PAVEMENT SPECIFICATIONS (HTTPS://WWW.JEA.COM/ENGINEERING\_AND\_CONSTRUCTION/JEA\_FACILITIES\_STANDARDS/)
  - SEE JEA STANDARD SHEETS (AVAILABLE AT JEA.COM) FOR CONSTRUCTION DETAILS OF SPECIFIC COMPONENTS, INCLUDING ELECTRICAL.
  - PUMPS SHALL BE NUMBERED SEQUENTIALLY, LEFT TO RIGHT, WHEN STANDING IN FRONT OF THE WET WELL HATCH, FACING THE DISCHARGE PIPING. THE PUMPS SHALL BE INSTALLED SEQUENTIALLY WITH THE LOWEST SERIAL NUMBER BEING PUMP NUMBER ONE.

- DESIGN NOTES:**
- ENGINEER SHALL USE THIS PLAN AS A BASIS OF DESIGN FOR SITE SPECIFIC PUMP STATION. THESE NOTES TO BE ERASED ON COMPLETED DRAWING.
  - WET WELL STATION: 8'-0" I.D. MIN., 27" DEEP MAX.
  - MINIMUM FORCE MAIN FLOW RATE: 4" DIAMETER @ 80 GPM ALL GREATER SIZES SHALL BE DESIGNED FOR FLOW VELOCITY BETWEEN 2FPS AND 5FPS
  - MINIMUM ELECTRIC SERVICE SIZE: 240 VOLT, 200 AMP, 3 PHASE, 4 WIRE
  - MINIMUM CONCRETE PAD SIZE: 45'x45'
  - MINIMUM JUNCTION MANHOLE SIZE: 5'-0" I.D. LOCATE ON SAME SIDE OF DRIVEWAY AS PUMP-OUT CONNECTION.
  - IT IS THE ENGINEER'S RESPONSIBILITY TO DESIGN THE SITE TO MEET FUNCTIONALITY AND SITE SPECIFIC CONDITIONS. HOWEVER, THE ENGINEER SHALL MAKE EVERY EFFORT TO CONFORM TO THE STANDARD DRAWING SHOWN HERE.
  - HOW TO DETERMINE TOWER OR POLE FOR SCADA (SEE ALSO SPEC SECTION 433): TO DETERMINE IF A TOWER OR POLE IS REQUIRED A RADIO PATH STUDY MUST FIRST BE CONDUCTED. THE RADIO PATH STUDY MUST BE DONE USING THE SAME TYPE OF RADIO USED IN THE SCADA PANEL AND MUST BE A MINIMUM OF -80DB RSSI. IF THE HEIGHT OF THE MINIMUM -80DB RSSI LEVEL IS LESS THAN OR EQUAL TO 20 FEET THEN A 20 FOOT POLE CAN BE USED. IF THE HEIGHT REQUIREMENTS ARE OVER 20 FEET THEN A TOWER MUST BE USED.
  - THE PUMP STATION TOP ELEVATION SHALL BE SET AT A MINIMUM OF 1' ABOVE THE "R" ELEVATION. THE "R" ELEVATION SHALL BE EQUAL TO THE DESIGN HIGH WATER LEVEL OR THE 100 YEAR FLOOD ELEVATION, WHICHEVER IS HIGHER.
  - THE TOP ELEVATION OF JUNCTION MAN HOLE SHALL MATCH THE TOP ELEVATION OF NEAREST ADJACENT CONCRETE STRUCTURE (PUMP STATION SLAB, DRIVE WAY OR CURB).

- CONSTRUCTION NOTES:**
- SLOPE SITE CONCRETE 1" PER 8" TO DRAIN TOWARDS STREET OR OTHER ADJACENT CITY OR JEA OWNED DRAINAGE FACILITY. THE DRIVEWAY SLOPE SHALL BE LESS THEN 6% UNLESS SPECIFICALLY APPROVED BY JEA.
  - CONTRACTOR MUST MAINTAIN LANDSCAPING UNTIL FINAL ACCEPTANCE AND SUPPLY ONE (1) YEAR WARRANTY FROM NURSERY SUPPLYING PLANTS FROM DATE OF ACCEPTANCE.
  - DEMARCATON BOX SHALL BE PLACED AS CLOSE AS POSSIBLE TO WET WELL. IT SHALL BE PLACED AT LEAST 3' FROM WET WELL HATCH AND AT LEAST 5' FROM VENTS. IT SHALL BE PLACED SO AS NOT TO INTERFERE WITH ACCESS TO THE WET WELL OR DISCHARGE APPARATUS, AND DOOR SHALL FACE AWAY FROM WET WELL.
  - SEE GROUNDING PLAN FOR ELECTRICAL SERVICE GROUNDING REQUIREMENTS (SEE GROUNDING DETAIL SHEET).
  - CONTRACTOR MUST KEEP COMPANY SIGN AND PHONE NUMBER ON FENCE UNTIL STATION ACCEPTED.
  - TRANSFORMERS SHALL BE LOCATED ON THE SAME SIDE OF PROPERTY AS METER CAN AND ELECTRICAL PANELS.
  - WET WELL LID SHALL UTILIZE STAPLE ASSEMBLY FOR LOCKING THE WET WELL.

**SITE SPECIFIC**

NO.	BY	DATE	REVISIONS
1.			
2.			
3.			
4.			

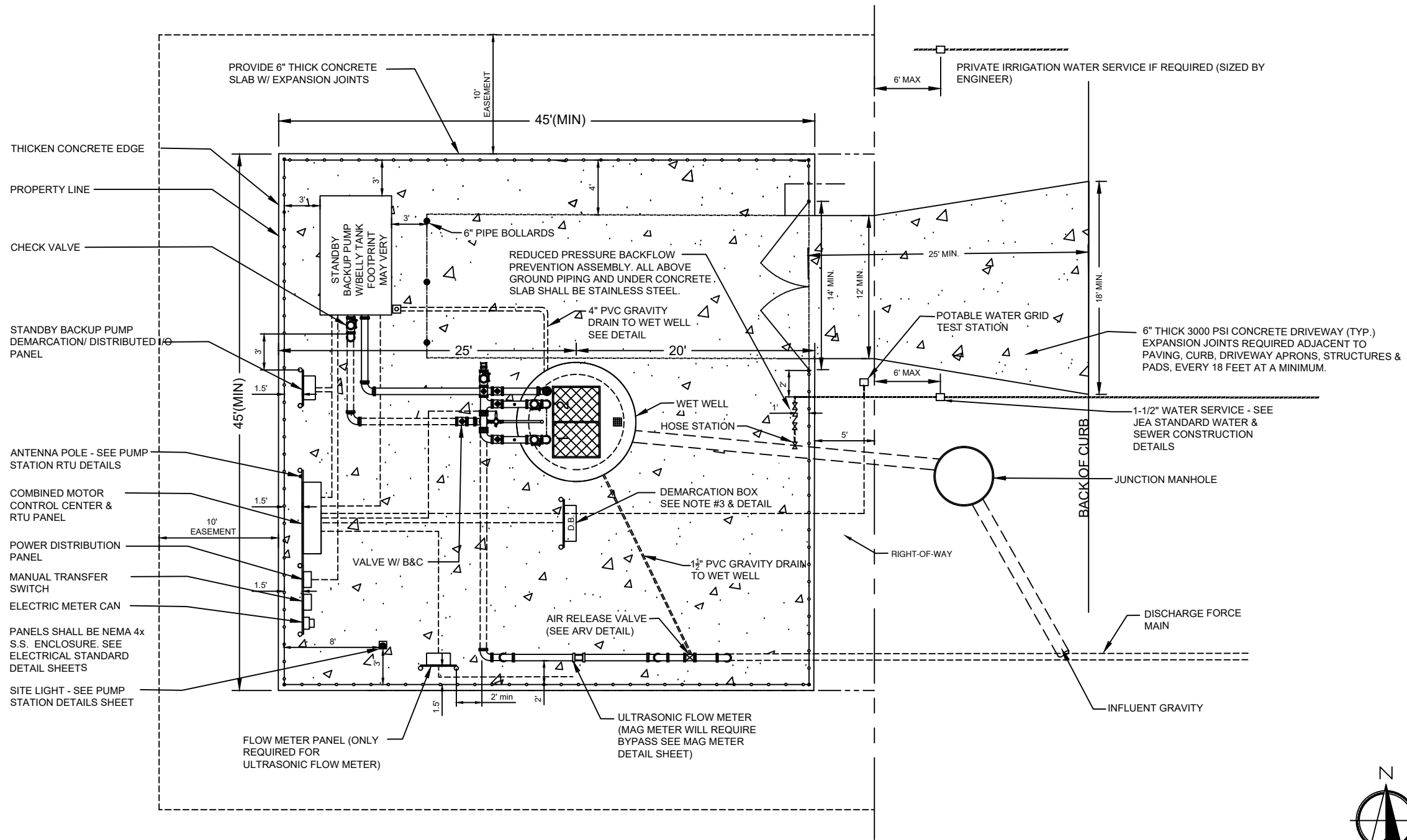
DESIGNER:	RESISTANCE ENGINEER
DATE:	FLORIDA REGISTRATION NO.
CHECKED BY:	
DATE:	

**JEA STANDARD CLASS ONE PUMP STATION WITH STANDBY BACKUP PUMP FOR PEAK FLOWS BETWEEN 0 TO 440 GPM PLAN AND SECTION**

PROJ. NO.	NO. SHEETS
DATE:	SHEET NO.
SCALE:	DRAWING NO.



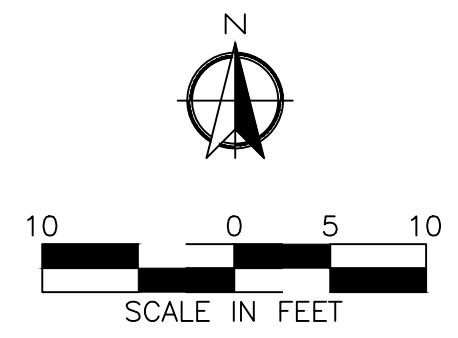


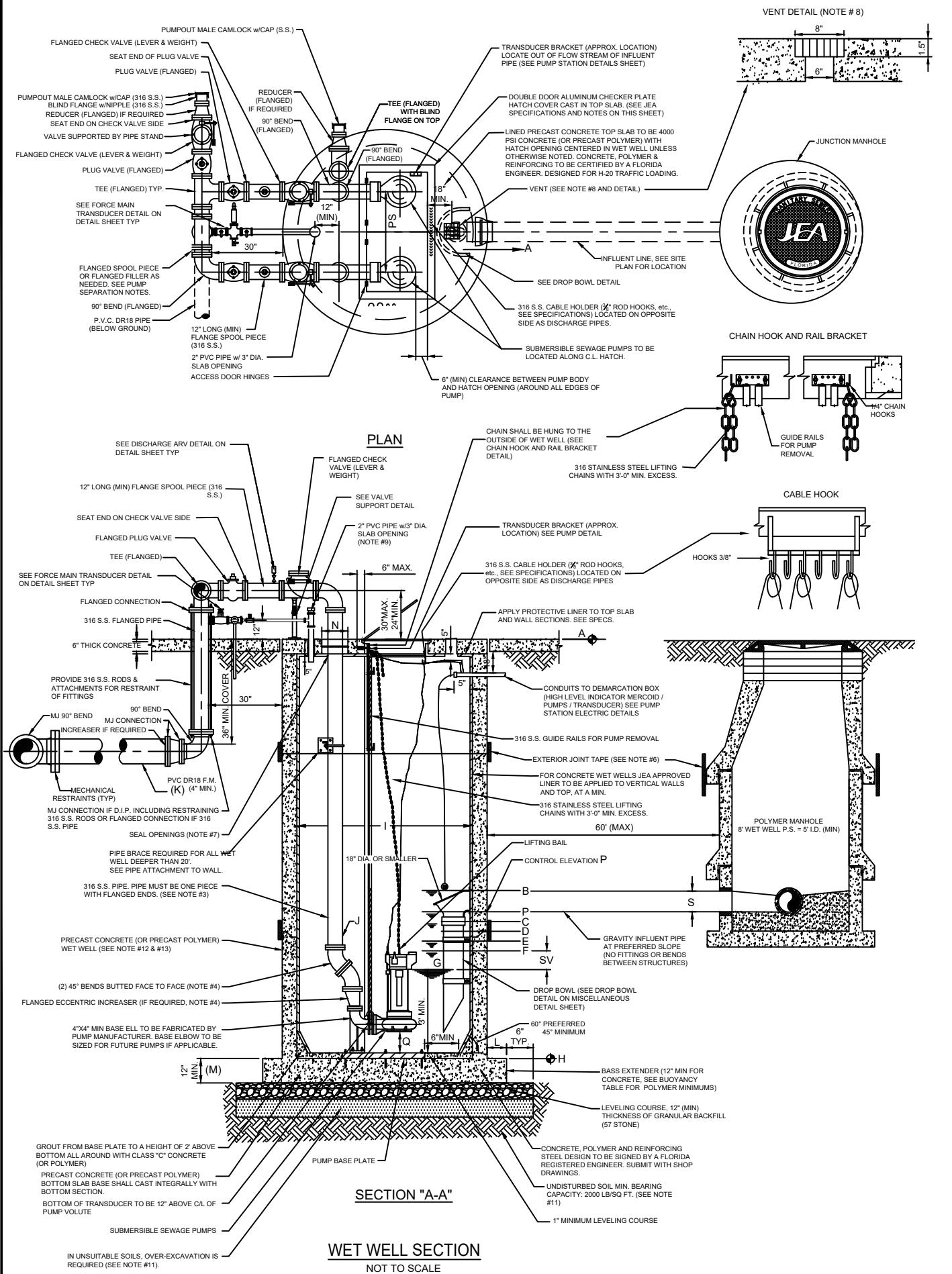
- THICKENED CONCRETE EDGE
- PROPERTY LINE
- CHECK VALVE
- STANDBY BACKUP PUMP DEMARCATION/ DISTRIBUTION PANEL
- ANTENNA POLE - SEE PUMP STATION RTU DETAILS
- COMBINED MOTOR CONTROL CENTER & RTU PANEL
- POWER DISTRIBUTION PANEL
- MANUAL TRANSFER SWITCH
- ELECTRIC METER CAN
- PANELS SHALL BE NEMA 4x S.S. ENCLOSURE. SEE ELECTRICAL STANDARD DETAIL SHEETS
- SITE LIGHT - SEE PUMP STATION DETAILS SHEET

**SITE SPECIFIC**

NO. SHEETS	PROJ. NO.	DESIGNER:	DESIGN ENGINEER	NO.	BY	DATE	REVISIONS
SHEET NO.	DATE:	DATE:	FLORIDA REGISTRATION NO.	4			
DRAWING NO.	SCALE: 1" = 10'	CHECKED BY:		3			
		DATE:		2			
				1	LLOYD HENRY	6/16/2021	UPDATED BACKUP PUMP SUCTION PIPING

JEA STANDARD CLASS ONE PUMP STATION WITH STANDBY BACKUP PUMP FOR PEAK FLOWS BETWEEN 0 TO 440 GPM PLAN AND SECTION





**WET WELL SECTION**  
NOT TO SCALE

PUMP STATION INFORMATION SCHEDULE OF ELEVATIONS																			
PUMP STATION STREET ADDRESS	TOP ELEV (NOTE 9)	MERCID LEVEL	ALARM ELEVATION	LEFT BLANK	LAG PUMP ON ELEVATION	LEAD PUMP ON ELEVATION	PUMP OFF ELEVATION	BOTTOM ELEVATION	WET WELL DIA.	DISCHARGE PIPE DIA.	DISCHARGE F.M. DIA.	BASE EXTENDER	BOTTOM SLAB THICKNESS (INCHES)	PER HOLE DIA. (SEE NOTES)	CONTROL ELEVATION	PUMP SUCTION CLEARANCE (INCHES)	SITE FLOOD ELEVATION (DESIGN NOTE 10)	INFLUENT SIZE	HATCH SIZE (SEE TABLE BELOW)
	A	B	C	D	E	F	G	H	I	J	K	L	M	N	P	Q	R	S	
	R + 1.0	P + 0.5	P - 0.5	---	P - 1.0	P - 1.5	F - SV	G - 3'	---	---	---	---	---	---	---	---	---	---	---

POLYMER CONCRETE FLOATATION COLLARS													
WET WELL ID.	DEPTH 0-10FT			DEPTH 11-15FT			DEPTH 16-20FT			DEPTH 21-30FT			
	MIN BASE EXTENDER (IN)	MIN WEIGHT OF TOTAL STRUCTURE (LBS)	MIN WEIGHT OF TOTAL STRUCTURE (LBS)	MIN BASE EXTENDER (IN)	MIN WEIGHT OF TOTAL STRUCTURE (LBS)	MIN WEIGHT OF TOTAL STRUCTURE (LBS)	MIN BASE EXTENDER (IN)	MIN WEIGHT OF TOTAL STRUCTURE (LBS)	MIN WEIGHT OF TOTAL STRUCTURE (LBS)	MIN BASE EXTENDER (IN)	MIN WEIGHT OF TOTAL STRUCTURE (LBS)	MIN WEIGHT OF TOTAL STRUCTURE (LBS)	
8'-0"	3	35600	3	37600	2	46000	---	---	---	---	---	5200	
10'-0"	5	57500	5	75000	5	78700	3	91100	---	---	---	---	
12'-0"	8	82900	8	113200	8	134500	7	139000	---	---	---	---	

DISCHARGE PIPE DATA (WITHIN WET WELL)				
PIPE SIZE	PIPE HOLE DIA.	PUMP SEPARATION	MIN PUMPOUT SIZE	HATCH SIZE (MIN.)
4"	10"	26"	4"	42"x48"
6"	12"	32"	6"	42"x60"
FREE STANDING PUMPOUT FOR PIPE SIZES GREATER THAN 6"				
8"	15"	36"	8"	---
10"	17"	44"	10"	---
12"	20"	48"	12"	---
14" & LARGER	---	---	14" & LARGER	---

MANUAL TRANSFER SWITCH	
<input type="checkbox"/> JEA APPROVED	200 AMP
<input type="checkbox"/> JEA APPROVED	400 AMP

CONCRETE WET WELL DIMENSIONS			
WET WELL I.D.	WALL THICKNESS (MIN)	TOP SLAB THICKNESS (MIN)	
8'-0"	0'-9"	0'-10"	
10'-0"	1'-0"	1'-0"	
12'-0"	1'-0"	1'-0"	

POLYMER WET WELL DIMENSIONS			
WET WELL I.D.	WALL THICKNESS (MIN)	TOP SLAB THICKNESS (MIN)	
8'-0"	0'-8"	0'-10"	
10'-0"	0'-6 1/2"	0'-10"	
12'-0"	0'-7"	1'-0"	

GENERATOR				
MANUFACTURER	AKSA	CATERPILLAR	CUMMINS	GENERAC
MODEL				
KW				

- GENERAL NOTES:**
- ALL WORK SHALL COMPLY WITH SPECIFICATIONS, SECTION 433, "SUBMERSIBLE SEWAGE PUMPING STATIONS" IN JEA WATER AND SEWER STANDARDS MANUAL.
  - PENETRATION SOIL BORING INFORMATION, TAKEN AT WET WELL LOCATION, SHALL BE SUBMITTED PRIOR TO DESIGN SUBMITTAL. SOIL BORING SHALL BE A MINIMUM OF 15' DEEPER THAN WET WELL BOTTOM OR UNTIL SUITABLE SOIL IS LOCATED UP TO A MAXIMUM OF 25' BELOW WET WELL BOTTOM.
  - ALL PIPING WITHIN AND EXTERNAL OF THE WET WELL SHALL BE FLANGED SCHEDULE 40, 316 STAINLESS STEEL. BUTT WELDING OF ANY PIPING (EXCEPT FOR THE EMERGENCY SUCTION PIPE IN THE WET WELL) IS NOT ALLOWED.
  - DUCTILE IRON ALL FITTINGS (90s, 45s, TEES ETC.) WITHIN AND EXTERNAL OF THE WET WELL SHALL BE DUCTILE IRON AND FLANGED EPOXY LINED.
  - ALL NUTS, BOLTS AND ACCESSORIES WITHIN AND EXTERNAL OF THE WET WELL SHALL BE 316 STAINLESS STEEL AND SHALL BE COATED WITH A "NEVER SEIZE" TYPE COATING.
  - ALL EXTERIOR JOINTS OF PRECAST CONCRETE AND PRECAST POLYMER WET WELLS AND MANHOLES SHALL BE SEALED WITH A 18" WIDE RUBBERIZED ASPHALT MEMBRANE TAPE. (SEE JEA SPEC.)
  - THE VOID AREAS BETWEEN TOP SLAB AND FORCE MAIN PIPE SHALL BE SEALED W/UCOLASTIC BY EUCLID CITEM CO. OR APPROVED EQUAL SEAL. ALL OTHER OPENINGS IN CONCRETE TOP WITH NON-SHRINK GROUT, EXCEPT AS DESCRIBED IN NOTE #6. PROVIDE INSET SCREEN SECURED TO TOP.
  - PROVIDE 6" x 6" OPENING THROUGH THE CONCRETE TOP OF THE WET WELL AND INSERT 8" x 8" x 1 1/2" THICK ALUMINUM GRATE VENT CONSTRUCTED OF 1 1/2" WIDE x 1/2" MATERIAL.
  - PROVIDE 2" PIPE (PVC, SCH. 80) THROUGH CONCRETE TOP WITH CAPPED TOP AND OPEN END BOTTOM). SEAL AROUND CONCRETE TOP WITH NON-SHRINK GROUT. IN THE FUTURE, THIS PIPE WILL BE UTILIZED FOR THE CONSTRUCTION OF THE AIR-RELEASE VALVE PIPING. EXTEND 18" ABOVE TOP OF WET WELL.
  - SITE GRADE IS 6" (MIN) BELOW TOP ELEVATION OF PUMP STATION SLAB.
  - IN SILTS, CLAY OR HIGHLY ORGANIC SOILS (FINE-GRAINED SOILS INCLUDING SOIL GROUPS ML, CL, OL, MH, CH, OH AND PT) THE SOILS SHALL BE OVER-EXCAVATED AN ADDITIONAL 12" (AT A MIN.) AND BACKFILL WITH GRANULAR BACKFILL (57 STONE).
  - PRECAST CONCRETE WET WELL SHALL MEET A.S.T.M. C-478 STANDARD. ENTIRE INSIDE SURFACE OF WET WELL & TOP SLAB SHALL BE LINED WITH APPROVED LINER. LINER INSTALLER MUST BE CERTIFIED BY LINER MANUFACTURER. SUBMIT CERTIFICATION WITH SHOP DRAWING SUBMITTAL. SEE SPECIFICATIONS. THE EXCAVATED HOLE SHALL BE DRY (DE-WATERED) DURING THE WET WELL INSTALLATION. (SEE WET WELL DIMENSIONS TABLE)
  - PRECAST POLYMER CONCRETE WET WELL SHALL MEET JEA POLYMER PRECAST STANDARD. THE EXCAVATED HOLE SHALL BE DRY (DE-WATERED) DURING THE WET WELL INSTALLATION. (SEE WET WELL DIMENSIONS TABLE)
  - IF ODOR CONTROL WILL NOT BE INSTALLED UPON COMPLETION THEN CONDUITS AND PIPING SHALL BE STUBBED OUT FOR EACH. SEE STUB OUT DETAIL SHEET
  - FLOW METER SHALL BE ULTRASONIC OR MAG METER. ULTRASONIC FLOW METER REQUIRES A FLOW METER PANEL. MAG METER REQUIRES BY PASS PIPING. SEE ULTRASONIC/MAG METER DETAIL ON MISCELLANEOUS DETAILS SHEET.
  - SEE REFERENCE FACILITIES STANDARDS FOR GENERATOR, ATS, BACKFLOW, BOLLARDS AND PAVEMENT SPECIFICATIONS. (HTTPS://WWW.JEA.COM/ENGINEERING\_AND\_CONSTRUCTION/JEA\_FACILITIES\_STANDARDS/)
  - SEE JEA STANDARD SHEETS (AVAILABLE AT JEA.COM) FOR CONSTRUCTION DETAILS OF SPECIFIC COMPONENTS, INCLUDING ELECTRICAL.
  - PUMPS SHALL BE NUMBERED SEQUENTIALLY, LEFT TO RIGHT, WHEN STANDING IN FRONT OF THE WET WELL HATCH, FACING THE DISCHARGE PIPING. THE PUMPS SHALL BE INSTALLED SEQUENTIALLY WITH THE LOWEST SERIAL NUMBER BEING PUMP NUMBER ONE.

- DESIGN NOTES:**
- ENGINEER SHALL USE THIS PLAN AS A BASIS OF DESIGN FOR SITE SPECIFIC PUMP STATION. THESE NOTES TO BE ERASED ON COMPLETED DRAWING.
  - WET WELL SIZE: PUMP STATION 8'-0" I.D. MIN., 27" DEEP MAX.
  - MINIMUM FLOW RATE: 500 GPM EACH PUMP
  - MINIMUM ELECTRIC SERVICE SIZE: 240 VOLT, 200 AMP, 3 PHASE, 4 WIRE
  - MINIMUM CONCRETE PAD SIZE: 50'x50'
  - MINIMUM JUNCTION MANHOLE SIZE: 5'-0" I.D. LOCATE ON SAME SIDE OF DRIVEWAY AS PUMPOUT CONNECTION.
  - IT IS THE ENGINEER'S RESPONSIBILITY TO DESIGN THE SITE TO MEET FUNCTIONALITY AND SITE SPECIFIC CONDITIONS. HOWEVER, THE ENGINEER SHALL MAKE EVERY EFFORT TO CONFORM TO THE STANDARD DRAWING SHOWN HERE.
  - HOW TO DETERMINE TOWER OR POLE FOR SCADA (SEE ALSO SPEC SECTION 433): TO DETERMINE IF A POLE OR TOWER IS REQUIRED A RADIO PATH STUDY MUST FIRST BE CONDUCTED. THE RADIO PATH STUDY MUST BE DONE USING THE SAME TYPE OF RADIO USED IN THE SCADA PANEL AND MUST BE A MINIMUM OF 4000 RSSI. IF THE HEIGHT OF THE MINIMUM 4000 RSSI LEVEL IS LESS THAN OR EQUAL TO 20 FEET THEN A 20 FOOT POLE CAN BE USED. IF THE HEIGHT REQUIREMENTS ARE OVER 20 FEET THEN A TOWER MUST BE USED.
  - THE PUMP STATION TOP ELEVATION SHALL BE SET AT A MINIMUM OF 1' ABOVE THE "R" ELEVATION. THE "R" ELEVATION SHALL BE EQUAL TO THE DESIGN HIGH WATER LEVEL OR THE 100 YEAR FLOOD ELEVATION, WHICHEVER IS HIGHER.
  - THE TOP ELEVATION OF JUNCTION MAN HOLE SHALL MATCH THE TOP ELEVATION OF NEAREST ADJACENT CONCRETE STRUCTURE (PUMP STATION SLAB, DRIVE WAY OR CURB).
  - FLOW METER: ULTRASONIC FLOW METER OR MAG METER CONFIGURATION SHALL BE DESIGNED BY ENGINEER.

- CONSTRUCTION NOTES:**
- SLOPE SITE CONCRETE 1" PER 8' TO DRAIN TOWARDS STREET OR OTHER ADJACENT CITY OR JEA OWNED DRAINAGE FACILITY. THE DRIVEWAY SLOPE SHALL BE LESS THEN 6% UNLESS SPECIFICALLY APPROVED BY JEA.
  - CONTRACTOR MUST MAINTAIN LANDSCAPING UNTIL FINAL ACCEPTANCE AND SUPPLY ONE (1) YEAR WARRANTY FROM NURSERY SUPPLYING PLANTS FROM DATE OF ACCEPTANCE.
  - DEMARICATION BOX SHALL BE PLACED AS CLOSE AS POSSIBLE TO WET WELL. IT SHALL BE PLACED AT LEAST 3' FROM WET WELL HATCH AND AT LEAST 5' FROM VENTS. IT SHALL BE PLACED SO AS NOT TO INTERFERE WITH ACCESS TO THE WET WELL OR DISCHARGE APPARATUS, AND DOOR SHALL FACE AWAY FROM WET WELL.
  - SEE GROUNDING PLAN FOR ELECTRICAL SERVICE GROUNDING REQUIREMENTS (SEE GROUNDING DETAIL SHEET).
  - CONTRACTOR MUST KEEP COMPANY SIGN AND PHONE NUMBER ON FENCE UNTIL STATION ACCEPTED.
  - TRANSFORMERS SHALL BE LOCATED ON THE SAME SIDE OF PROPERTY AS METER CAN AND ELECTRICAL PANELS.
  - WET WELL LID SHALL UTILIZE STAPLE ASSEMBLY FOR LOCKING THE WET WELL.

**SITE SPECIFIC**

REVISIONS		DATE	BY	NO.

DESIGNER:	
DRAWN BY:	
DATE:	
CHECKED BY:	
DATE:	

DESIGN ENGINEER:	
FLORIDA REGISTRATION NO.:	

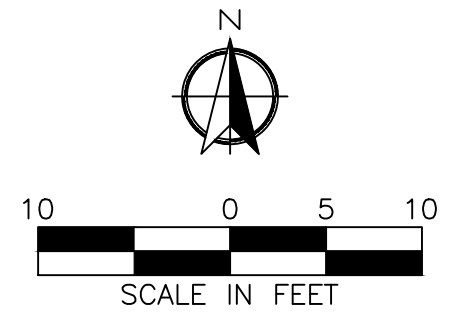
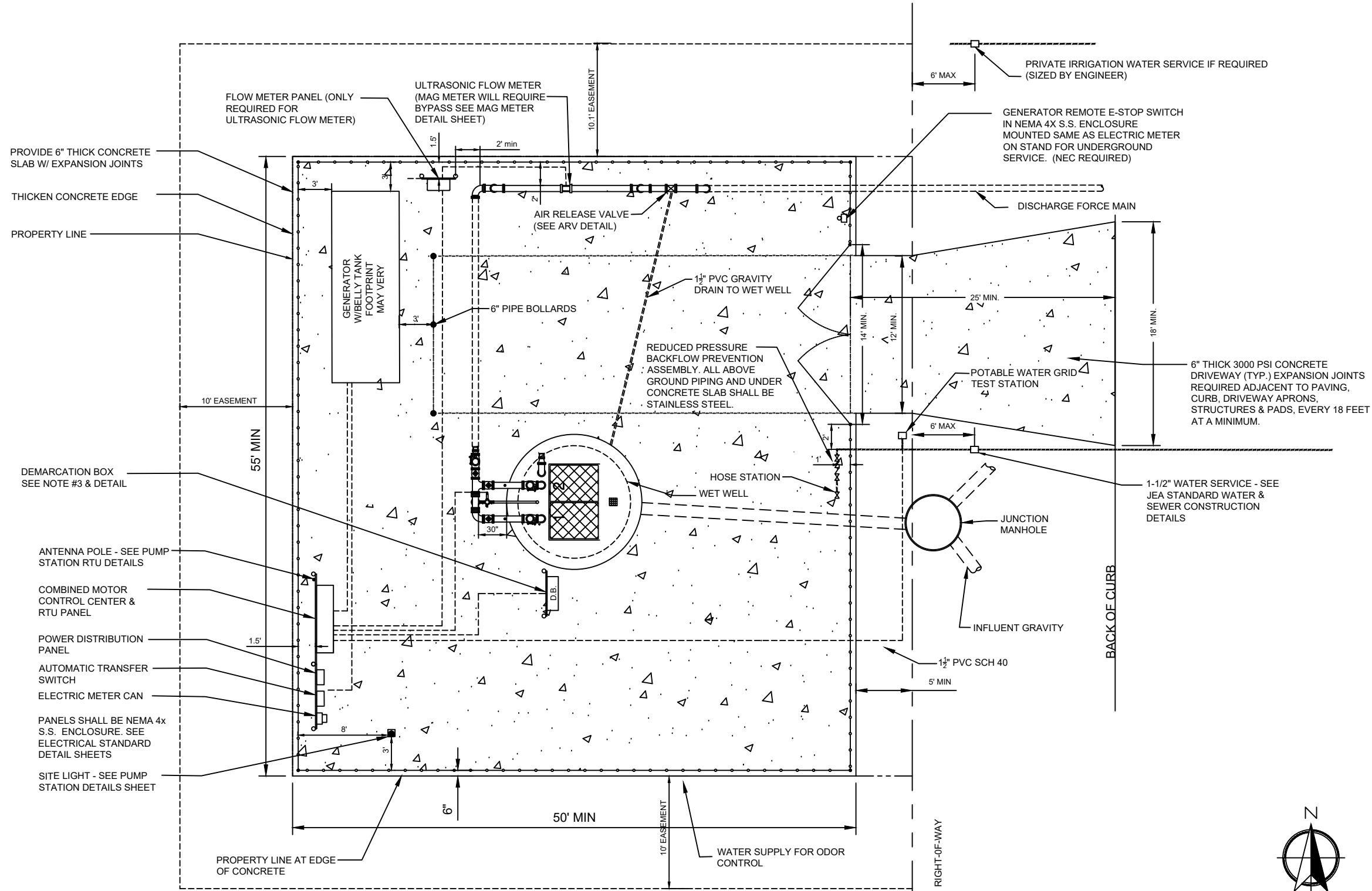
  

NO. SHEETS	
SHEET NO.	
DRAWING NO.	

JEA STANDARD CLASS TWO PUMP STATION WITH GENERATOR FOR PEAK FLOWS BETWEEN 441 AND 1000 GPM PLAN AND SECTION

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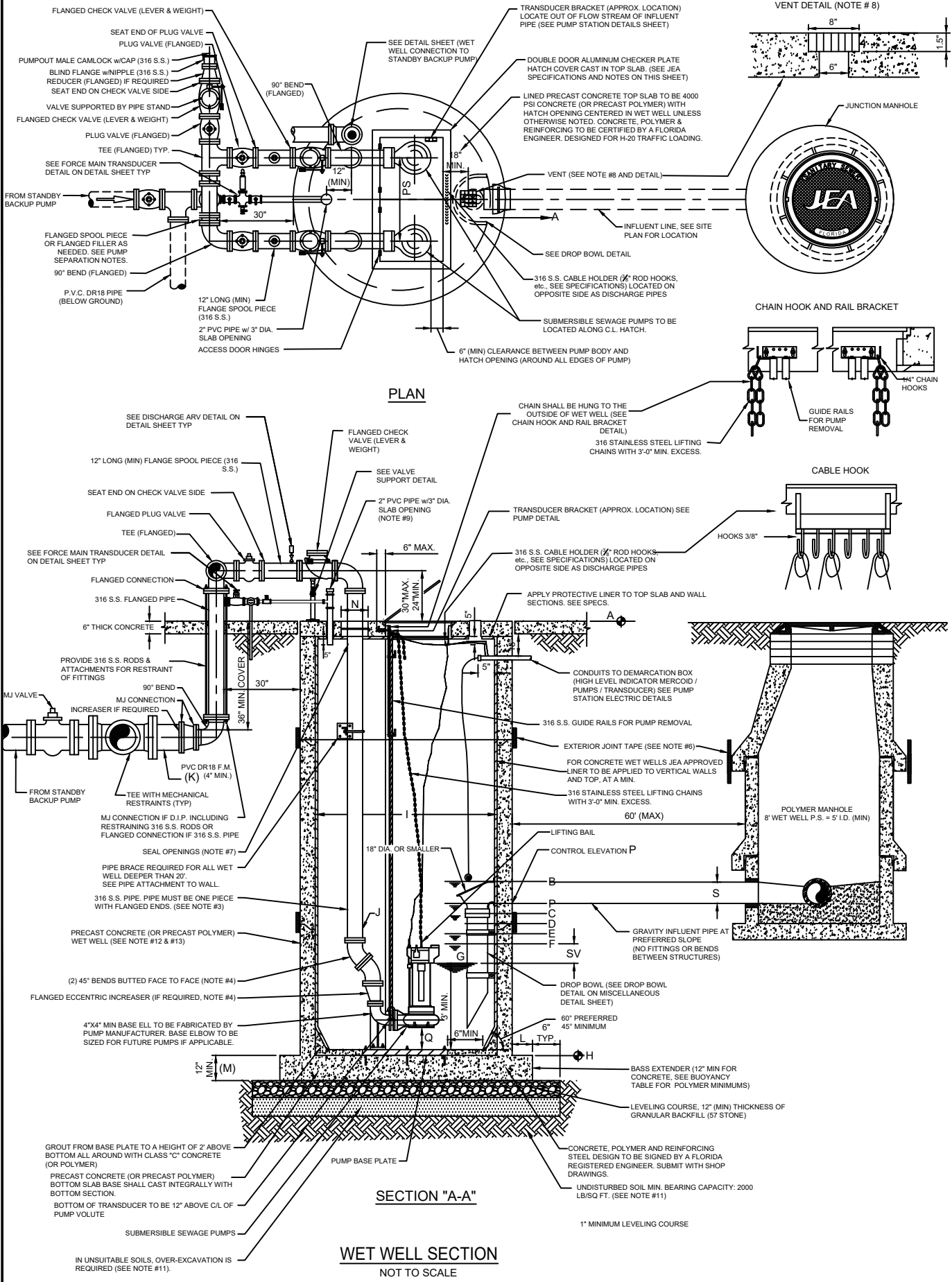
**SITE SPECIFIC**

NO. SHEETS	PROJ. NO.	DESIGNER	DESIGN ENGINEER	NO.	BY	DATE	REVISIONS
SHEET NO.	DATE	DRAWN BY	FLORIDA REGISTRATION NO.	4.			
DRAWING NO.	SCALE: 1" = 10'	CHECKED BY		3.			
		DATE		2.			
				1.			

JEA STANDARD CLASS TWO PUMP STATION WITH GENERATOR FOR PEAK FLOWS BETWEEN 441 AND 1000 GPM PLAN AND SECTION

**JEA**  
Building Community





PUMP STATION INFORMATION																			
SCHEDULE OF ELEVATIONS																			
PUMP STATION STREET ADDRESS	TOP ELEV (NOTE 9)	MERCID LEVEL	ALARM ELEVATION	LEFT BLANK	LAG PUMP ON ELEVATION	LEAD PUMP ON ELEVATION	PUMP OFF ELEVATION	BOTTOM ELEVATION	WET WELL DIA.	DISCHARGE PIPE DIA.	DISCHARGE F.M. DIA.	BASE EXTENDER	BOTTOM SLAB THICKNESS (INCHES)	PER HOLE DIA. (SEE NOTES)	CONTROL ELEVATION	PUMP SUCTION CLEARANCE (INCHES)	SITE FLOOD ELEVATION (DESIGN NOTE 10)	INFLUENT SIZE	HATCH SIZE (SEE TABLE BELOW)
	A	B	C	D	E	F	G	H	I	J	K	L	M	N	P	Q	R	S	
	R+1.0	P+0.5	P-0.5		P-1.0	P-1.5	F-SV	G-3											

ALL PUMPS									
PUMP MANUFACTURER	FLYGT	HYDROMATIC	KSB	MYERS	SHINMAYWA	WILCOEM			
MODEL									
IMPELLER									
PUMP DISCHARGE									
MOTOR (RPM)									
HORSEPOWER (HP)									
PHASE/VOLTS (NOTE #3)									
AIC (NOTE #4)									
DESIGN POINT (GPM) @ TDH (FT)									
RUNOUT POINT (GPM) @ TDH (FT)									
EMERGENCY MAIN									
NORMAL SERVICE MAIN									
CB #1 TO PUMP NO. 1									
CB #2 TO PUMP NO. 2									
CONTROL PANEL MCB									
STARTER (SIZE & TYPE)									
ELECTRIC SERVICE (SIZE & TYPE)									

POLYMER CONCRETE FLOATATION COLLARS									
WET WELL I.D.	DEPTH 0-10FT		DEPTH 11-15FT		DEPTH 16-20FT		DEPTH 21-30FT		
	MIN BASE EXTENDER (IN)	MIN WEIGHT OF TOTAL STRUCTURE (LBS)	MIN BASE EXTENDER (IN)	MIN WEIGHT OF TOTAL STRUCTURE (LBS)	MIN BASE EXTENDER (IN)	MIN WEIGHT OF TOTAL STRUCTURE (LBS)	MIN BASE EXTENDER (IN)	MIN WEIGHT OF TOTAL STRUCTURE (LBS)	
8'-0"	3	35600	3	37600	2	46000		5200	
10'-0"	5	57580	5	75000	5	78700	3	91100	
12'-0"	8	82900	8	113200	8	134500	7	139000	

DISCHARGE PIPE DATA (WITHIN WET WELL)				
PIPE SIZE	PIPE HOLE DIA.	PIPE SEPARATION	MIN PUMPOUT SIZE	HATCH SIZE (MIN.)
(J)	(N)	(PS)	(PO)	
4"	10"	26"	4"	42"x48"
6"	12"	32"	6"	42"x60"
8"	15"	36"	8"	
10"	17"	44"	10"	
12"	20"	48"	12"	
14" & LARGER			14" & LARGER	

MANUAL TRANSFER SWITCH	
<input type="checkbox"/> JEA APPROVED	200 AMP
<input type="checkbox"/> JEA APPROVED	400 AMP

CONCRETE WET WELL DIMENSIONS		
WET WELL I.D.	WALL THICKNESS (MIN)	TOP SLAB THICKNESS (MIN)
8'-0"	0'-6"	0'-10"
10'-0"	1'-0"	1'-0"
12'-0"	1'-0"	1'-0"

POLYMER WET WELL DIMENSIONS		
WET WELL I.D.	WALL THICKNESS (MIN)	TOP SLAB THICKNESS (MIN)
8'-0"	0'-6"	0'-10"
10'-0"	0'-6 1/2"	0'-10"
12'-0"	0'-7"	1'-0"

STANDBY BACKUP PUMP			
MANUFACTURER	HOLLAND	THOMPSON	XYLEM/GODWIN
MODEL			
ENGINE H.P.			
NPSHR			
FLOW GPM @TDH			
RPM			
DISCHARGE PIPE SIZE			
SUCTION PIPE SIZE			

- GENERAL NOTES:**
- ALL WORK SHALL COMPLY WITH SPECIFICATIONS, SECTION 433, "SUBMERSIBLE SEWAGE PUMPING STATIONS" IN JEA WATER AND SEWER STANDARDS MANUAL.
  - PENETRATION SOIL BORING INFORMATION, TAKEN AT WET WELL LOCATION, SHALL BE SUBMITTED PRIOR TO DESIGN SUBMITTAL. SOIL BORING SHALL BE A MINIMUM OF 15' DEEPER THAN WET WELL BOTTOM OR UNTIL SUITABLE SOIL IS LOCATED UP TO A MAXIMUM OF 25' BELOW WET WELL BOTTOM.
  - ALL PIPING WITHIN AND EXTERNAL OF THE WET WELL SHALL BE FLANGED SCHEDULE 40, 316 STAINLESS STEEL BUTT WELDING OF ANY PIPING (EXCEPT FOR THE EMERGENCY SUCTION PIPE IN THE WET WELL) IS NOT ALLOWED.
  - DUCTILE IRON ALL FITTINGS (90s, 45s, TEES ETC.) WITHIN AND EXTERNAL OF THE WET WELL SHALL BE DUCTILE IRON AND FLANGED EPOXY LINED.
  - ALL NUTS, BOLTS AND ACCESSORIES WITHIN AND EXTERNAL OF THE WET WELL SHALL BE 316 STAINLESS STEEL AND SHALL BE COATED WITH A "NEVER SEIZE" TYPE COATING.
  - ALL EXTERIOR JOINTS OF PRECAST CONCRETE AND PRECAST POLYMER WET WELLS AND MANHOLES SHALL BE SEALED WITH A 18" WIDE RUBBERIZED ASPHALT MEMBRANE TAPE. (SEE JEA SPEC).
  - THE VOID AREAS BETWEEN TOP SLAB AND FORCE MAIN PIPE SHALL BE SEALED W/UCOLASTIC BY EUCLID CITEM CO. OR APPROVED EQUAL SEAL. ALL OTHER OPENINGS IN CONCRETE TOP WITH NON-SHRINK GROUT, EXCEPT AS DESCRIBED IN NOTE #6. PROVIDE INSECT SCREEN SECURED TO TOP.
  - PROVIDE 6" x 6" OPENING THROUGH THE CONCRETE TOP OF THE WET WELL AND INSERT 8" x 8" x 1 1/2" THICK ALUMINUM GRATE VENT CONSTRUCTED OF 1 1/2" WIDE x 1/2" MATERIAL.
  - PROVIDE 2" PIPE (PVC, SCH. 80) THROUGH CONCRETE TOP WITH CAPPED TOP AND OPEN END BOTTOM. SEAL AROUND CONCRETE TOP WITH NON-SHRINK GROUT. IN THE FUTURE, THIS PIPE WILL BE UTILIZED FOR THE CONSTRUCTION OF THE AIR-RELEASE VALVE PIPING. EXTEND 18" ABOVE TOP OF WET WELL.
  - SITE GRADE IS 6" (MIN) BELOW TOP ELEVATION OF PUMP STATION SLAB.
  - IN SILTS, CLAY OR HIGHLY ORGANIC SOILS (FINE-GRAINED SOILS INCLUDING SOIL GROUPS ML, CL, OL, MH, CH, OH AND PT) THE SOILS SHALL BE OVER-EXCAVATED AN ADDITIONAL 12" (AT A MIN.) AND BACKFILL WITH GRANULAR BACKFILL (57 STONE).
  - PRECAST CONCRETE WET WELL SHALL MEET A.S.T.M. C-478 STANDARD. ENTIRE INSIDE SURFACE OF WET WELL & TOP SLAB SHALL BE LINED WITH APPROVED LINER. LINER INSTALLER MUST BE CERTIFIED BY LINER MANUFACTURER. SUBMIT CERTIFICATION WITH SHOP DRAWING SUBMITTAL. SEE SPECIFICATIONS. THE EXCAVATED HOLE SHALL BE DRY (DE-WATERED) DURING THE WET WELL INSTALLATION. (SEE WET WELL DIMENSIONS TABLE)
  - PRECAST POLYMER CONCRETE WET WELL SHALL MEET JEA POLYMER PRECAST STANDARD. THE EXCAVATED HOLE SHALL BE DRY (DE-WATERED) DURING THE WET WELL INSTALLATION. (SEE WET WELL DIMENSIONS TABLE)
  - IF ODOR CONTROL WILL NOT BE INSTALLED UPON COMPLETION THEN CONDUITS AND PIPING SHALL BE STUBBED OUT FOR EACH. SEE STUB OUT DETAIL SHEET
  - FLOW METER SHALL BE ULTRASONIC OR MAG METER. ULTRASONIC FLOW METERS REQUIRES A FLOW METER PANEL. MAG METER REQUIRES BY PASS PIPING. SEE ULTRASONIC/MAG METER DETAIL ON MISCELLANEOUS DETAILS SHEET.
  - SEE REFERENCE FACILITIES STANDARDS FOR GENERATOR, ATS, BACKFLOW, BOLLARDS AND PAVEMENT SPECIFICATIONS. (HTTPS://WWW.JEA.COM/ENGINEERING\_AND\_CONSTRUCTION/JEA\_FACILITIES\_STANDARDS/)
  - SEE JEA STANDARD SHEETS (AVAILABLE AT JEA.COM) FOR CONSTRUCTION DETAILS OF SPECIFIC COMPONENTS, INCLUDING ELECTRICAL.
  - PUMPS SHALL BE NUMBERED SEQUENTIALLY, LEFT TO RIGHT, WHEN STANDING IN FRONT OF THE WET WELL HATCH, FACING THE DISCHARGE PIPING. THE PUMPS SHALL BE INSTALLED SEQUENTIALLY WITH THE LOWEST SERIAL NUMBER BEING PUMP NUMBER ONE.

- DESIGN NOTES:**
- ENGINEER SHALL USE THIS PLAN AS A BASIS OF DESIGN FOR SITE SPECIFIC PUMP STATION. THESE NOTES TO BE ERASED ON COMPLETED DRAWING.
  - WET WELL SIZE: PUMP STATION 8'-0" I.D. MIN., 27" DEEP MAX.
  - MINIMUM FLOW RATE: 500 GPM EACH PUMP
  - MINIMUM ELECTRIC SERVICE SIZE: 240 VOLT, 200 AMP, 3 PHASE, 4 WIRE
  - MINIMUM CONCRETE PAD SIZE: 50'x55'
  - MINIMUM JUNCTION MANHOLE SIZE: 5'-0" I.D. LOCATE ON SAME SIDE OF DRIVEWAY AS PUMP-OUT CONNECTION.
  - IT IS THE ENGINEER'S RESPONSIBILITY TO DESIGN THE SITE TO MEET FUNCTIONALITY AND SITE SPECIFIC CONDITIONS. HOWEVER, THE ENGINEER SHALL MAKE EVERY EFFORT TO CONFORM TO THE STANDARD DRAWING SHOWN HERE.
  - HOW TO DETERMINE TOWER OR POLE FOR SCADA (SEE ALSO SPEC SECTION 433) TO DETERMINE IF A TOWER OR POLE IS REQUIRED A RADIO PATH STUDY MUST FIRST BE CONDUCTED. THE RADIO PATH STUDY MUST BE DONE USING THE SAME TYPE OF RADIO USED IN THE SCADA PANEL AND MUST BE A MINIMUM OF 4800 RSSI. IF THE HEIGHT OF THE MINIMUM 4800 RSSI LEVEL IS LESS THAN OR EQUAL TO 20 FEET THEN A 20 FOOT POLE CAN BE USED. IF THE HEIGHT REQUIREMENTS ARE OVER 20 FEET THEN A TOWER MUST BE USED.
  - THE PUMP STATION TOP ELEVATION SHALL BE SET AT A MINIMUM OF 1' ABOVE THE "R" ELEVATION. THE "R" ELEVATION SHALL BE EQUAL TO THE DESIGN HIGH WATER LEVEL OR THE 100 YEAR FLOOD ELEVATION, WHICHEVER IS HIGHER.
  - THE TOP ELEVATION OF JUNCTION MAN HOLE SHALL MATCH THE TOP ELEVATION OF NEAREST ADJACENT CONCRETE STRUCTURE (PUMP STATION SLAB, DRIVE WAY OR CURB).
  - FLOW METER: ULTRASONIC FLOW METER OR MAG METER CONFIGURATION SHALL BE DESIGNED BY ENGINEER.
- CONSTRUCTION NOTES:**
- SLOPE SITE CONCRETE 1" PER 8' TO DRAIN TOWARDS STREET OR OTHER ADJACENT CITY OR JEA OWNED DRAINAGE FACILITY. THE DRIVEWAY SLOPE SHALL BE LESS THEN 6% UNLESS SPECIFICALLY APPROVED BY JEA.
  - CONTRACTOR MUST MAINTAIN LANDSCAPING UNTIL FINAL ACCEPTANCE AND SUPPLY ONE (1) YEAR WARRANTY FROM NURSERY SUPPLYING PLANTS FROM DATE OF ACCEPTANCE.
  - DEMARICATION BOX SHALL BE PLACED AS CLOSE AS POSSIBLE TO WET WELL. IT SHALL BE PLACED AT LEAST 3' FROM WET WELL HATCH AND AT LEAST 5' FROM VENTS. IT SHALL BE PLACED SO AS NOT TO INTERFERE WITH ACCESS TO THE WET WELL OR DISCHARGE APPARATUS, AND DOOR SHALL FACE AWAY FROM WET WELL.
  - SEE GROUNDING PLAN FOR ELECTRICAL SERVICE GROUNDING REQUIREMENTS (SEE GROUNDING DETAIL SHEET).
  - CONTRACTOR MUST KEEP COMPANY SIGN AND PHONE NUMBER ON FENCE UNTIL STATION ACCEPTED.
  - TRANSFORMERS SHALL BE LOCATED ON THE SAME SIDE OF PROPERTY AS METER CAN AND ELECTRICAL PANELS.
  - WET WELL LID SHALL UTILIZE STAPLE ASSEMBLY FOR LOCKING THE WET WELL.

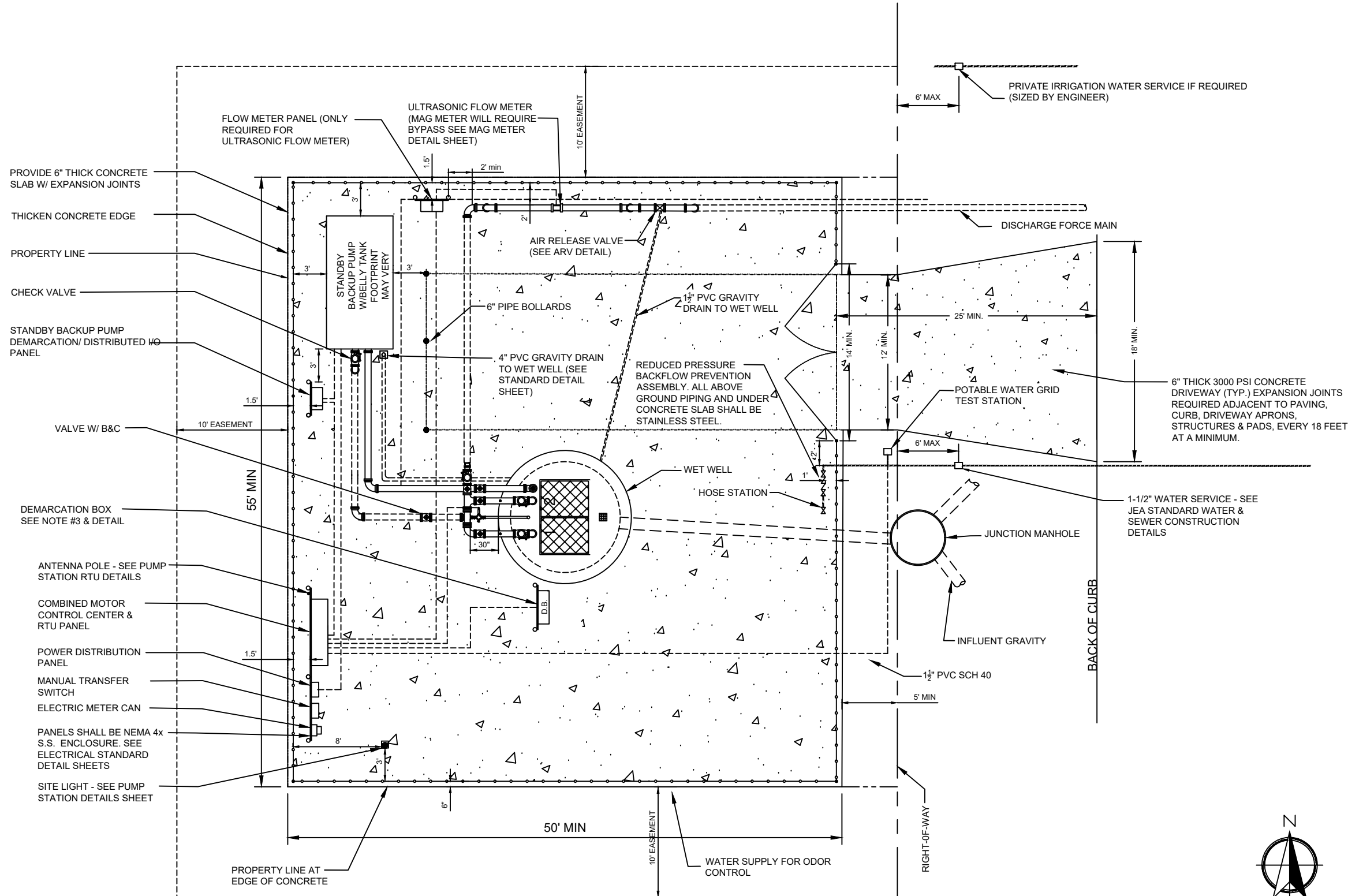
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JEA STANDARD CLASS TWO PUMP STATION WITH STANDBY BACKUP PUMP FOR PEAK FLOWS BETWEEN 441 TO 1000 GPM PLAN AND SECTION BY EXCEPTION ONLY

NO.	BY	DATE	REVISIONS
1.	LLOYD HENRY	6/16/2021	UPDATED BACKUP PUMP SUCTION PIPING
2.			
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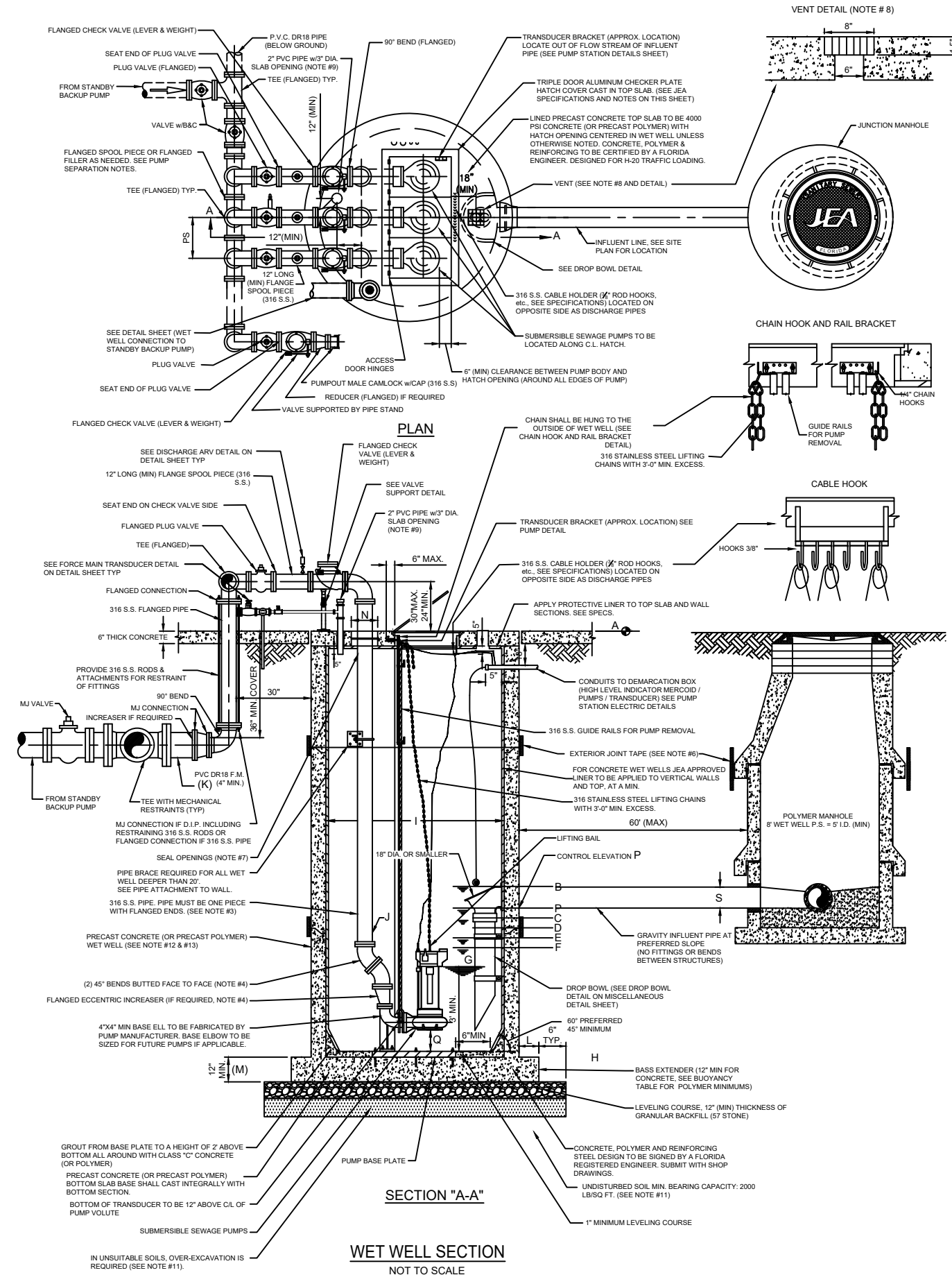
DESIGNER:	DATE:
DRAWN BY:	DATE:
CHECKED BY:	DATE:
FLORIDA REGISTRATION NO.:	

PROJ. NO.:	SCALE: 1" = 10'
SHEET NO.:	
DRAWING NO.:	



- PROVIDE 6" THICK CONCRETE SLAB W/ EXPANSION JOINTS
- THICKEN CONCRETE EDGE
- PROPERTY LINE
- CHECK VALVE
- STANDBY BACKUP PUMP DEMARCATION/ DISTRIBUTED #0 PANEL
- VALVE W/ B&C
- DEMARCATION BOX SEE NOTE #3 & DETAIL
- ANTENNA POLE - SEE PUMP STATION RTU DETAILS
- COMBINED MOTOR CONTROL CENTER & RTU PANEL
- POWER DISTRIBUTION PANEL
- MANUAL TRANSFER SWITCH
- ELECTRIC METER CAN
- PANELS SHALL BE NEMA 4x S.S. ENCLOSURE. SEE ELECTRICAL STANDARD DETAIL SHEETS
- SITE LIGHT - SEE PUMP STATION DETAILS SHEET

<b>SITE SPECIFIC</b>																															
<table border="1" style="width: 100%; border-collapse: collapse;"> <tr> <th>NO.</th> <th>BY</th> <th>DATE</th> <th>REVISIONS</th> </tr> <tr> <td>4.</td> <td></td> <td></td> <td></td> </tr> <tr> <td>3.</td> <td></td> <td></td> <td></td> </tr> <tr> <td>2.</td> <td></td> <td></td> <td></td> </tr> <tr> <td>1.</td> <td>LLOYD HENRY</td> <td>6/16/2021</td> <td>UPDATED BACKUP PUMP SUCTION PIPING</td> </tr> </table>	NO.	BY	DATE	REVISIONS	4.				3.				2.				1.	LLOYD HENRY	6/16/2021	UPDATED BACKUP PUMP SUCTION PIPING	<table border="1" style="width: 100%; border-collapse: collapse;"> <tr> <td>DESIGNER:</td> <td>DESIGN ENGINEER</td> </tr> <tr> <td>DRAWN BY:</td> <td></td> </tr> <tr> <td>DATE:</td> <td></td> </tr> <tr> <td>FLORIDA REGISTRATION NO.:</td> <td></td> </tr> <tr> <td>DATE:</td> <td></td> </tr> </table>	DESIGNER:	DESIGN ENGINEER	DRAWN BY:		DATE:		FLORIDA REGISTRATION NO.:		DATE:	
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<b>JEA STANDARD CLASS TWO PUMP STATION WITH STANDBY BACKUP PUMP FOR PEAK FLOWS BETWEEN 441 TO 1000 GPM PLAN AND SECTION BY EXCEPTION ONLY</b>																															
PROJ. NO. DATE: SCALE: 1" = 10'																															
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DRAWING NO.																															



PUMP STATION STREET ADDRESS	TOP ELEV (NOTE 9)	MERCID LEVEL	ALARM ELEVATION	2ND LAG ON ELEVATION	1st LAG PUMP ON ELEVATION	LIFT PUMP ON ELEVATION	PUMP OFF ELEVATION	BOTTOM ELEVATION (NOTE 1)	WET WELL DIA.	DISCHARGE PIPE DIA.	DISCHARGE F.M. DIA.	BASE EXTENDER	BOTTOM SLAB THICKNESS (INCHES)	PER HOLE DIA. (SEE NOTES)	CONTROL ELEVATION	PUMP SUCTION CLEARANCE (INCHES)	SITE FLOOD ELEVATION (DESIGN NOTE 10)	INFLUENT SIZE	HATCH SIZE (SEE TABLE BELOW)
	A	B	C	D	E	F	G	H	I	J	K	L	M	N	P	Q	R	S	
	R+1.0	P+0.5'	P-0.5'		P-1.5'	P-2.0'	F-SV	G-3'											

PUMP MANUFACTURER	FLYGT	HYDROMATIC	KSB	MYERS	SHINMAYWA	WILQIEM
MODEL						
IMPELLER						
PUMP DISCHARGE						
MOTOR (RPM)						
HORSEPOWER (HP)						
PHASE/VOLT/AMPS (NOTE #3)						
AIC (NOTE #4)						
DESIGN POINT (GPM) @ TDH (FT)						
RUNOUT POINT (GPM) @ TDH (FT)						
EMERGENCY MAIN						
NORMAL SERVICE MAIN						
CB #1 TO PUMP NO. 1						
CB #2 TO PUMP NO. 2						
CONTROL PANEL MCB						
STARTER (SIZE & TYPE)						
ELECTRIC SERVICE (SIZE & TYPE)						

WET WELL I.D.	DEPTH 0-10FT		DEPTH 11-15FT		DEPTH 16-20FT		DEPTH 21-30FT	
	MIN. BASE EXTENDER (IN)	MIN. WEIGHT OF TOTAL STRUCTURE (LBS)	MIN. BASE EXTENDER (IN)	MIN. WEIGHT OF TOTAL STRUCTURE (LBS)	MIN. BASE EXTENDER (IN)	MIN. WEIGHT OF TOTAL STRUCTURE (LBS)	MIN. BASE EXTENDER (IN)	MIN. WEIGHT OF TOTAL STRUCTURE (LBS)
8'-0"	3	35600	3	37600	2	46000		5200
10'-0"	5	57580	5	75000	5	78700	3	91100
12'-0"	8	82900	8	113200	8	134500	7	139000

PIPE SIZE	PIPE HOLE DIA.	PUMP SEPARATION	MIN. PUMP OUT SIZE	HATCH SIZE (MIN.)
(J)	(N)	(PS)	(PO)	
4"	10"	26"	4"	
6"	12"	32"	6"	

WET WELL I.D.	WALL THICKNESS (MIN)	TOP SLAB THICKNESS (MIN)
10'-0"	1'-0"	1'-0"
12'-0"	1'-0"	1'-0"

WET WELL I.D.	WALL THICKNESS (MIN)	TOP SLAB THICKNESS (MIN)
10'-0"	0'-6 1/2"	0'-10"
12'-0"	0'-7 7/8"	1'-0"

<input type="checkbox"/> FIXED SPEED PANEL: 240/277 VOLT, 3 PHASE, OPEN DELTA, FULL VOLTAGE MOTOR STARTING, 15 STARTS PER HOUR
<input type="checkbox"/> FIXED SPEED PANEL: 480 VOLT, 3 PHASE, FULL VOLTAGE MOTOR STARTING, 15 STARTS PER HOUR
<input type="checkbox"/> 1P-3P VFD PANEL: 480/277 VOLT, 3 PHASE, WYE, FULL VOLTAGE MOTOR STARTING, 15 STARTS PER HOUR
<input type="checkbox"/> 3P VFD PANEL: 480/277 VOLT, 3 PHASE, WYE, REDUCED VOLTAGE MOTOR STARTING, 10 STARTS PER HOUR

MANUFACTURER	HOLLAND	THOMPSON	XYLEM/GODWIN
MODEL			
ENGINE H.P.			
NPSHR			
FLOW GPM @ TDH			
RPM			
DISCHARGE PIPE SIZE			
SUCTION PIPE SIZE			

MANUFACTURER	AKSA	CATERPILLAR	CUMMINS	GENERAC
MODEL				
KW				

- PUMP STATION INFORMATION NOTES:**
- "SV" = STORAGE VOLUME PER DESIGN ENGINEER AND SHALL BE DESIGNED FOR 12 MINUTE CYCLE TIME. MINIMUM STORAGE DEPTH SHALL BE 24".
  - IF PUMP MANUFACTURER REQUIRES A GREATER SEPARATION, THAT SEPARATION SHALL BE USED WITH THE ADDITION OF FLANGED FILLERS OR SPOOL PIECES. THE DIFFERENT SEPARATION MUST BE APPROVED BY JEA PRIOR TO CONSTRUCTION AND SHALL BE PROVIDED AT NO ADDITIONAL COST TO JEA.
  - ALL PUMP MOTORS SHALL BE 3 PHASE.
  - AMPERE INTERRUPTING CAPACITY (AIC): CONTACT THE ELECTRICAL UTILITY COMPANY FOR THIS DATA IF AVAILABLE.
  - A MANUAL TRANSFER SWITCH SHALL BE PROVIDED.
  - A PHASE MONITOR SHALL BE INSTALLED ON THE INCOMING POWER SOURCE FOR ALL PUMP STATIONS NOT PROVIDED POWER BY JEA. REFER TO ELECTRIC SINGLE LINE DETAIL DIAGRAM FOR DETAILS.

- GENERAL NOTES:**
- ALL WORK SHALL COMPLY WITH SPECIFICATIONS, SECTION 433, "SUBMERSIBLE SEWAGE PUMPING STATIONS" IN JEA WATER AND SEWER STANDARDS MANUAL.
  - PENETRATION SOIL BORING INFORMATION, TAKEN AT WET WELL LOCATION, SHALL BE SUBMITTED PRIOR TO DESIGN SUBMITTAL. SOIL BORING SHALL BE A MINIMUM OF 15' DEEPER THAN WET WELL BOTTOM OR UNTIL SUITABLE SOIL IS LOCATED UP TO A MAXIMUM OF 25' BELOW WET WELL BOTTOM.
  - ALL PIPING WITHIN AND EXTERNAL OF THE WET WELL SHALL BE FLANGED SCHEDULE 40, 316 STAINLESS STEEL. BUTT WELDING OF ANY PIPING (EXCEPT FOR THE EMERGENCY SUCTION PIPE IN THE WET WELL) IS NOT ALLOWED.
  - DUCTILE IRON FITTINGS (90s, 45s, TEES ETC.) WITHIN AND EXTERNAL OF THE WET WELL SHALL BE DUCTILE IRON AND FLANGED EPOXY LINED.
  - ALL NUTS, BOLTS AND ACCESSORIES WITHIN AND EXTERNAL OF THE WET WELL SHALL BE 316 STAINLESS STEEL AND SHALL BE COATED WITH A "NEVER SEIZE" TYPE COATING.
  - ALL EXTERIOR JOINTS OF PRECAST CONCRETE AND PRECAST POLYMER WET WELLS SHALL AND MANHOLES BE SEALED WITH A 18" WIDE RUBBERIZED ASPHALT MEMBRANE TAPE. (SEE JEA SPEC).
  - THE VOID AREAS BETWEEN TOP SLAB AND FORCE MAIN PIPE SHALL BE SEALED W/UCOLASTIC BY EUCLID CITEM CO. OR APPROVED EQUAL SEAL. ALL OTHER OPENINGS IN CONCRETE TOP WITH NON-SHRINK GROUT, EXCEPT AS DESCRIBED IN NOTE #6. PROVIDE INSECT SCREEN SECURED TO TOP.
  - PROVIDE 6" x 6" OPENING THROUGH THE CONCRETE TOP OF THE WET WELL AND INSERT 8" x 8" x 1 1/2" THICK ALUMINUM GRATE VENT CONSTRUCTED OF 1 1/2" WIDE x 1/2" MATERIAL.
  - PROVIDE 2" PIPE (PVC, SCH. 80) THROUGH CONCRETE TOP WITH CAPPED TOP AND OPEN END BOTTOM. SEAL AROUND CONCRETE TOP WITH NON-SHRINK GROUT. IN THE FUTURE, THIS PIPE WILL BE UTILIZED FOR THE CONSTRUCTION OF THE AIR-RELEASE VALVE PIPING. EXTEND 18" ABOVE TOP OF WET WELL.
  - SITE GRADE IS 6" (MIN) BELOW TOP ELEVATION OF PUMP STATION SLAB.
  - IN SILTS, CLAY OR HIGHLY ORGANIC SOILS (FINE-GRAINED SOILS INCLUDING SOIL GROUPS ML, CL, OL, MH, CH, OH AND PT) THE SOILS SHALL BE OVER-EXCAVATED AN ADDITIONAL 12" (AT A MIN.) AND BACKFILL WITH GRANULAR BACKFILL (57 STONE).
  - PRECAST CONCRETE WET WELL SHALL MEET A.S.T.M. C-478 STANDARD. ENTIRE INSIDE SURFACE OF WET WELL & TOP SLAB SHALL BE LINED WITH APPROVED LINER. LINER INSTALLER MUST BE CERTIFIED BY LINER MANUFACTURER. SUBMIT CERTIFICATION WITH SHOP DRAWING SUBMITTAL. SEE SPECIFICATIONS. THE EXCAVATED HOLE SHALL BE DRY (DE-WATERED) DURING THE WET WELL INSTALLATION. (SEE WET WELL DIMENSIONS TABLE)
  - PRECAST POLYMER CONCRETE WET WELL SHALL MEET JEA POLYMER PRECAST STANDARD. THE EXCAVATED HOLE SHALL BE DRY (DE-WATERED) DURING THE WET WELL INSTALLATION. (SEE WET WELL DIMENSIONS TABLE)
  - IF ODOR CONTROL WILL NOT BE INSTALLED UPON COMPLETION THEN CONDUITS AND PIPING SHALL BE STUBBED OUT FOR EACH. SEE STUB OUT DETAIL SHEET
  - IF SOLID MANAGEMENT SYSTEM WILL NOT BE INSTALLED UPON COMPLETION THEN VACUUM PIPING FROM ODDER CONTROL SHALL BE STUB OUT AND A VACUUM PIPE SHALL BE INSTALLED TO THE WET WELL FROM THE ODDER CONTROL.
  - FLOW METER SHALL BE ULTRASONIC OR MAG METER. ULTRASONIC FLOW METER REQUIRES A FLOW METER PANEL. MAG METER REQUIRES BY PASS PIPING. SEE ULTRASONIC/MAG METER DETAIL ON MISCELLANEOUS DETAILS SHEET.
  - SEE REFERENCE FACILITIES STANDARDS FOR GENERATOR, ATS, BACKFLOW, BOLLARDS AND PAVEMENT SPECIFICATIONS. (HTTPS://WWW.JEA.COM/ENGINEERING\_AND\_CONSTRUCTION/JEA\_FACILITIES\_STANDARDS/)
  - SEE JEA STANDARD SHEETS (AVAILABLE AT JEA.COM) FOR CONSTRUCTION DETAILS OF SPECIFIC COMPONENTS, INCLUDING ELECTRICAL.
  - PUMPS SHALL BE NUMBERED SEQUENTIALLY, LEFT TO RIGHT, WHEN STANDING IN FRONT OF THE WET WELL HATCH, FACING THE DISCHARGE PIPING. THE PUMPS SHALL BE INSTALLED SEQUENTIALLY WITH THE LOWEST SERIAL NUMBER BEING PUMP NUMBER ONE.

- DESIGN NOTES:**
- ENGINEER SHALL USE THIS PLAN AS A BASIS OF DESIGN FOR SITE SPECIFIC PUMP STATION. THESE NOTES TO BE ERASED ON COMPLETED DRAWING.
  - TRIPLEX PUMP STATION SHALL BE USED FOR PUMP FLOW GREATER THAN 1000 G.P.M.
  - BUILDING REQUIRED FOR CLASS 3 IF PUMPS ARE 75-200HP OR FLA > 400 A OR > 3 PUMPS.
  - WET WELL SIZE: 8" AND SMALLER PUMP DISCHARGE 10'-0" I.D. MIN., 27" DEEP MAX. 10" AND LARGER PUMP DISCHARGE 12'-0" I.D. MIN., 27" DEEP MAX.
  - MINIMUM FLOW RATE: 500 GPM EACH PUMP
  - MINIMUM ELECTRIC SERVICE SIZE: 240 VOLT, 200 AMP., 3 PHASE, 4 WIRE
  - MINIMUM CONCRETE PAD SIZE: 95'x90'
  - MINIMUM JUNCTION MANHOLE SIZE: 5'-0" I.D. LOCATE ON SAME SIDE OF DRIVEWAY AS PUMP-OUT CONNECTION.
  - IT IS THE ENGINEER'S RESPONSIBILITY TO DESIGN THE SITE TO MEET FUNCTIONALITY AND SITE SPECIFIC CONDITIONS. HOWEVER, THE ENGINEER SHALL MAKE EVERY EFFORT TO CONFORM TO THE STANDARD DRAWING SHOWN HERE.
  - ENGINEER SHALL DESIGN STANDBY BACKUP PUMP SUCTION PIPING TO MEET STATION PEAK FLOW.
  - HOW TO DETERMINE TOWER OR POLE FOR SCADA (SEE ALSO SPEC SECTION 433): TO DETERMINE IF A POLE OR TOWER IS REQUIRED A RADIO PATH STUDY MUST FIRST BE CONDUCTED. THE RADIO PATH STUDY MUST BE DONE USING THE SAME TYPE OF RADIO USED IN THE SCADA PANEL AND MUST BE A MINIMUM OF -86dB RSSI. IF THE HEIGHT OF THE MINIMUM -86dB RSSI LEVEL IS LESS THAN OR EQUAL TO 20 FEET THEN A 20 FOOT POLE CAN BE USED. IF THE HEIGHT REQUIREMENTS ARE OVER 20 FEET THEN A TOWER MUST BE USED.
  - THE PUMP STATION TOP ELEVATION SHALL BE SET AT A MINIMUM OF 1' ABOVE THE "R" ELEVATION. THE "R" ELEVATION SHALL BE EQUAL TO THE DESIGN HIGH WATER LEVEL OR THE 100 YEAR FLOOD ELEVATION, WHICHEVER IS HIGHER.
  - THE TOP ELEVATION OF JUNCTION MAN HOLE SHALL MATCH THE TOP ELEVATION OF NEAREST ADJACENT CONCRETE STRUCTURE (PUMP STATION SLAB, DRIVE WAY OR CURB).
  - FLOW METER: ULTRASONIC FLOW METER OR MAG METER CONFIGURATION SHALL BE DESIGNED BY ENGINEER.
  - STANDBY BACKUP PUMP SHALL OPERATE IN LEAD LAG CONFIGURATION.
  - SECOND STANDBY BACKUP PUMP IS NOT REQUIRED BUT MAY BE NECESSARY TO ACHIEVE REQUIRED HYDRAULIC CONDITIONS.

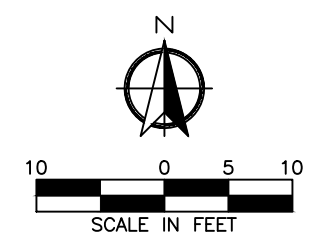
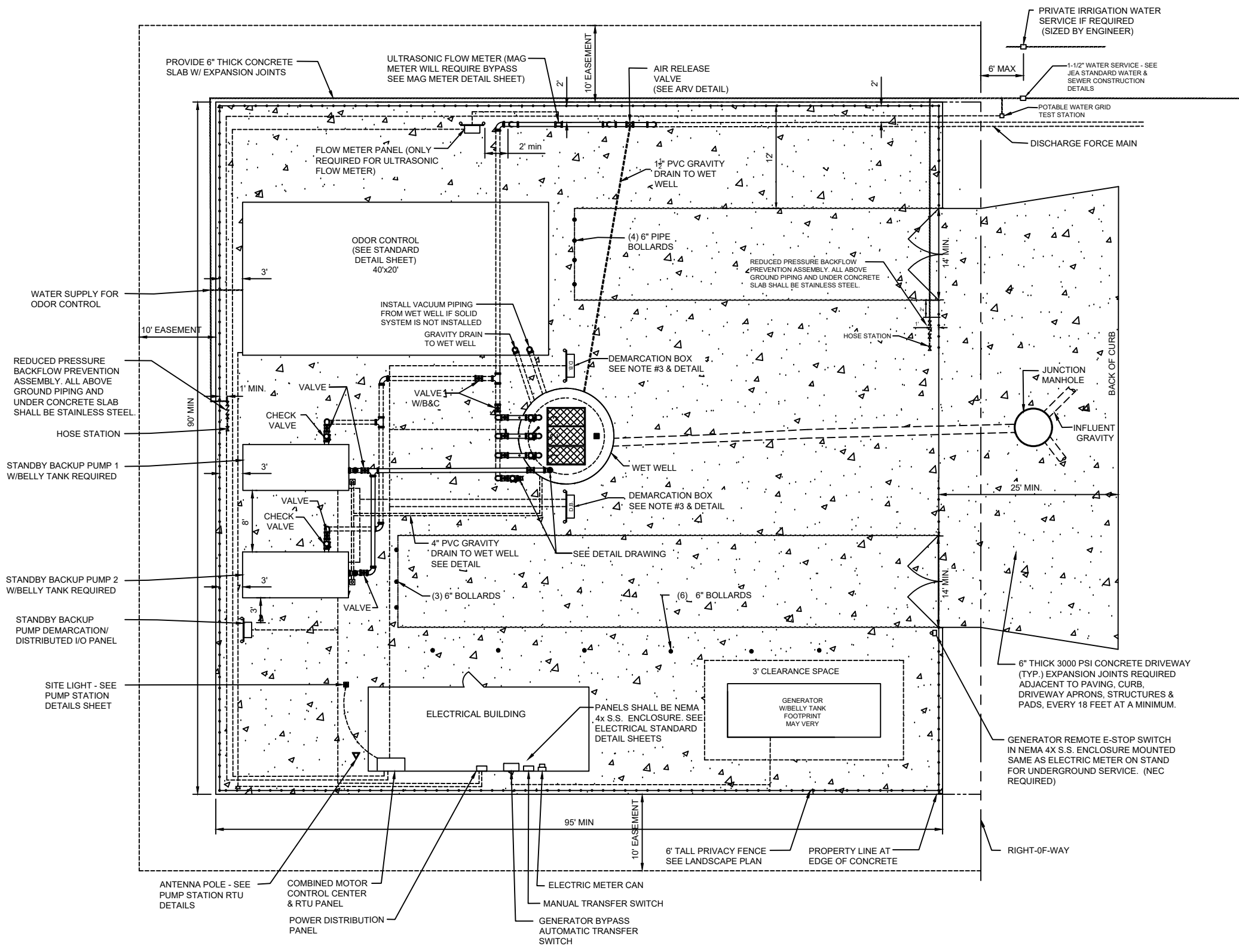
- CONSTRUCTION NOTES:**
- SLOPE SITE CONCRETE 1" PER 8' TO DRAIN TOWARDS STREET OR OTHER ADJACENT CITY OR JEA OWNED DRAINAGE FACILITY. THE DRIVEWAY SLOPE SHALL BE LESS THEN 6% UNLESS SPECIFICALLY APPROVED BY JEA.
  - CONTRACTOR MUST MAINTAIN LANDSCAPING UNTIL FINAL ACCEPTANCE AND SUPPLY ONE (1) YEAR WARRANTY FROM NURSERY SUPPLYING PLANTS FROM DATE OF ACCEPTANCE.
  - DEMARICATION BOX SHALL BE PLACED AS CLOSE AS POSSIBLE TO WET WELL. IT SHALL BE PLACED AT LEAST 3' FROM WET WELL HATCH AND AT LEAST 5' FROM VENTS. IT SHALL BE PLACED SO AS NOT TO INTERFERE WITH ACCESS TO THE WET WELL OR DISCHARGE APPARATUS, AND DOOR SHALL FACE AWAY FROM WET WELL.
  - SEE GROUNDING PLAN FOR ELECTRICAL SERVICE GROUNDING REQUIREMENTS (SEE JEA.COM).
  - CONTRACTOR SHALL KEEP COMPANY SIGN AND PHONE NUMBER ON FENCE UNTIL STATION ACCEPTED.
  - TRANSFORMERS SHALL BE LOCATED ON THE SAME SIDE OF PROPERTY AS METER CAN AND ELECTRICAL PANELS.
  - WET WELL LID SHALL UTILIZE STAPLE ASSEMBLY FOR LOCKING THE WET WELL.

**SITE SPECIFIC**

NO. SHEETS	PROJ. NO.	DATE	SCALE
SHEET NO.	DATE	SCALE	1" = 10'
DRAWING NO.	DESIGNER	DESIGNED BY	DESIGNED BY
	DRAWN BY	CHECKED BY	CHECKED BY
	DATE	DATE	DATE
	FLORIDA REGISTRATION NO.	FLORIDA REGISTRATION NO.	FLORIDA REGISTRATION NO.
	1-LOVJO/2024	1-LOVJO/2024	1-LOVJO/2024
	LOVJO/2024	LOVJO/2024	LOVJO/2024
	LOVJO/2024	LOVJO/2024	LOVJO/2024
	LOVJO/2024	LOVJO/2024	LOVJO/2024

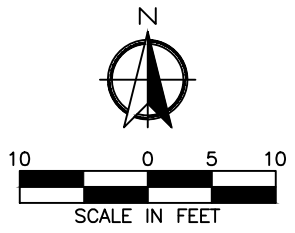
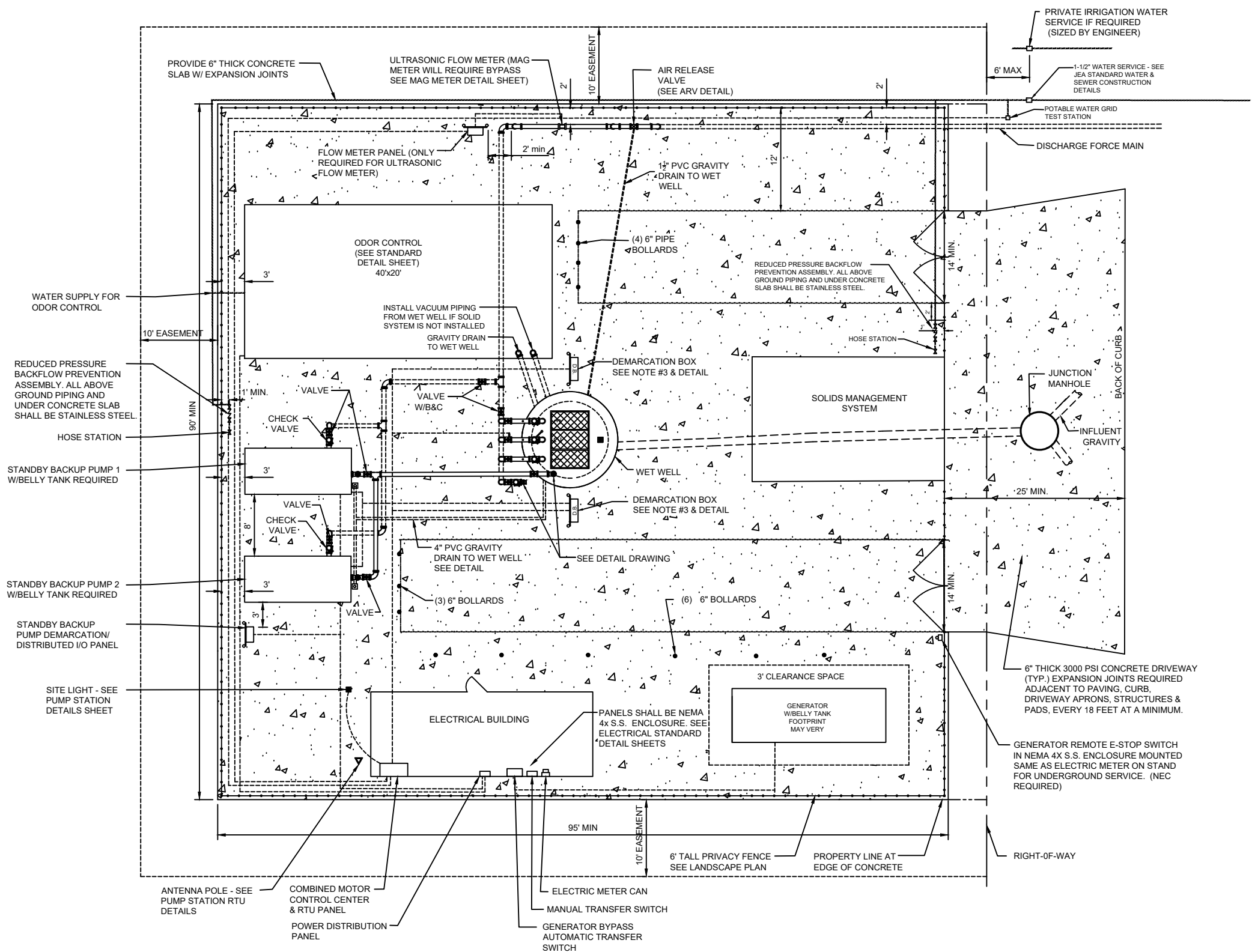


JEA STANDARD CLASS THREE PUMP STATION FOR PEAK FLOWS BETWEEN 1001-2000 GPM PLAN AND SECTION



<b>SITE SPECIFIC</b>		NO.	BY	DATE	REVISIONS
		1.	LLOYD HENRY	10/18/2023	ADDED BACKUP PUMPS & ELECTRICAL BUILDING
DESIGNER:	DESIGN ENGINEER:	FLORIDA REGISTRATION NO.			
DRAWN BY:	CHECKED BY:	DATE:			
<b>JEA</b> Building Community™					
JEA STANDARD CLASS THREE PUMP STATION FOR PEAK FLOWS BETWEEN 1001-2000 GPM PLAN AND SECTION					
PROJ. NO.	DATE:	SCALE:	1" = 10'		
NO. SHEETS	SHEET NO.	DRAWING NO.			





# SITE SPECIFIC

NO. SHEETS	PROJ. NO.	DESIGNER	DESIGN ENGINEER
SHEET NO.	DATE	DRAWN BY	FLORIDA REGISTRATION NO.
DRAWING NO.	SCALE: 1" = 10'	CHECKED BY	
		DATE	
		NO.	REVISIONS
		4	
		3	
		2	
		1	NOTED BACKUP PUMPS & ELECTRICAL BUILDING
		10/18/2021	
		LLOYD HENRY	

JEA STANDARD  
 CLASS FOUR PUMP STATION  
 FOR PEAK FLOWS GREATER THAN 2000 GPM  
 PLAN AND SECTION



**LANDSCAPE NOTES:**

- APPROVED CLUSTER NON-SHADE TREES, (PER CITY OF JACKSONVILLE CODE 656.12.11) TO BE PROVIDED AT JEA PUMPING STATIONS. TREES TO BE PLANTED 12" O.C. MULTI-TRUNK VARIETIES TO BE MIN. 8' HEIGHT AND 3" TRUNK MINIMUM TOTALING 2" CALIPER. SINGLE TRUNK TREES TO BE MIN. 10' HEIGHT AND 2" CALIPER AT TIME OF PLANTING.
 

COMMON NAME	BOTANICAL NAME
YAPOUN HOLLY	<i>Ilex vomitoria</i>
JAPANESE PRIVET	<i>Ligustrum japonicum</i>
DAHOON HOLLY	<i>Ilex cassine</i>
NELLY STEVENS HOLLY	<i>Ilex 'nelliie r. stevens'</i>
CRAPE MYRTLE	<i>Lagerstroemia indica</i>
DOG WOOD	<i>Cornus florida</i>
REDBUD	<i>Cercis canadensis</i>
- ALL SHRUBS SHALL BE EVERGREEN A ROW OF EVERGREEN SHRUBS SHALL BE A MINIMUM 3' TALL AT TIME OF PLANTING, PLANTED AT 3' ON CENTER.
- APPROVED SHRUBS INCLUDE ANY OF THE FOLLOWING:
 

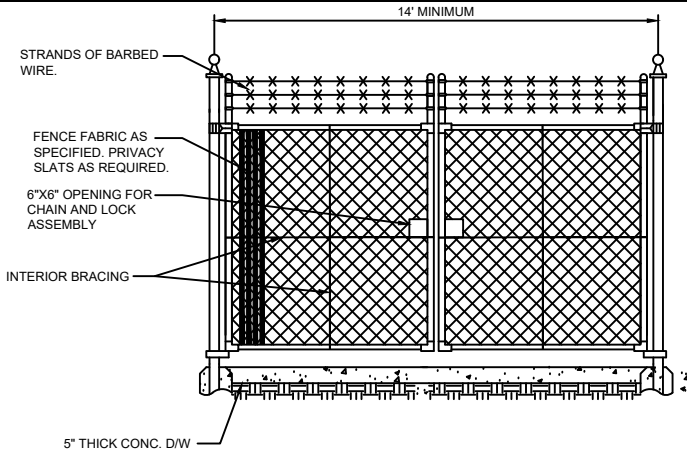
COMMON NAME	BOTANICAL NAME
SWEET VIBURNUM	<i>Viburnum odoratissimum</i>
DWARF WALTERS VIBURNUM	<i>Viburnum obovatum</i>
SAW PALMETTO	<i>Serenoa repens</i>
JAPANESE PRIVETT	<i>Ligustrum japonicum</i>
HETZII OR PHTIZERANA	<i>Juniperus chinensis</i>
DWARF BUFORD HOLLY	<i>Ilex cornuta 'Buford'</i>
STAR ANISE	<i>Illicium spp.</i>
- ALL LANDSCAPING SHALL BE CONSISTENT WITH FLORIDA FRIENDLY LANDSCAPE STANDARDS. TREES AND SHRUBS SHALL BE SELECTED FROM THE FLORIDA WATERWISE PLANT LIST AND BE APPROPRIATE TO THE LOCAL SOIL AND LIGHT CONDITIONS.

**NOTE: JEA NEIGHBORHOOD PUMP STATION WITHIN DUVAL COUNTY**

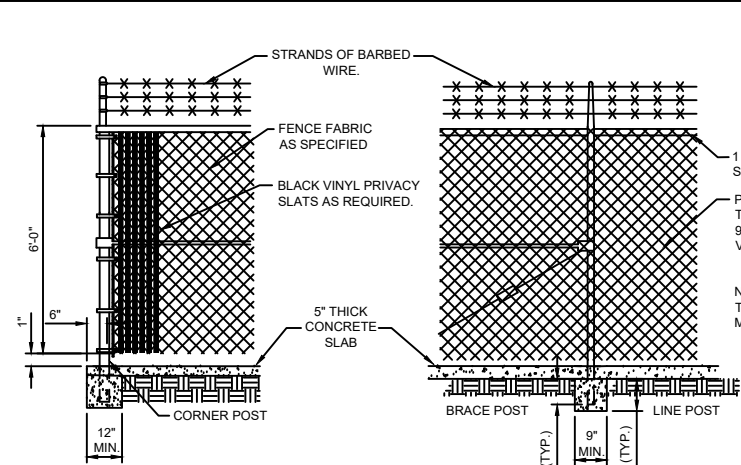
(A) **LANDSCAPE PERFORMANCE STANDARDS (SEC. 656.1223)**  
 THE VISUAL IMPACTS OF THE BELOW GROUND PUMP STATION SITES SHALL BE MITIGATED THROUGH THE USE OF A LANDSCAPING BUFFER OUTSIDE THE SECURITY FENCE. THE BUFFER SHALL BE A MINIMUM OF 5' AT THE STREET FRONTAGE AND A MINIMUM OF 10' ON ALL OTHER SIDES AND SUBJECT TO AND CONSISTING OF THE FOLLOWING:

- A ROW OF SHADE TREES, BEGINNING AT THE HALFWAY POINT ALONG EACH SIDE FENCE AND ACROSS THE BACK, WITH NO TREES ALLOWED IN THE FRONT OF THE PUMP STATION, PLANTED A MINIMUM OF 25' ON CENTER. AT THE TIME OF PLANTING, THE TREES SHALL BE MINIMUM OF 10' TALL WITH A 2" CALIPER, AND
- A ROW OF EVERGREEN SHRUBS SUCH AS VIBURNUM, LIGUSTRUM, HOLLY OR JUNIPER, OR ANY OTHER EVERGREEN SHRUB PERMITTED BY SECTION 656.1223, A MINIMUM OF 3' TALL AT TIME OF PLANTING, PLANTED AT 3' ON CENTER, AND
- A 6' TALL PRIVACY FENCE WITH BLACK VINYL PRIVACY SLATS AND A MINIMUM 14' WIDE PRIVACY GATE.
- THE REQUIRED LANDSCAPING SHALL BE PROPERLY MAINTAINED THROUGH AN IRRIGATION SYSTEM WITH RAIN SENSOR.

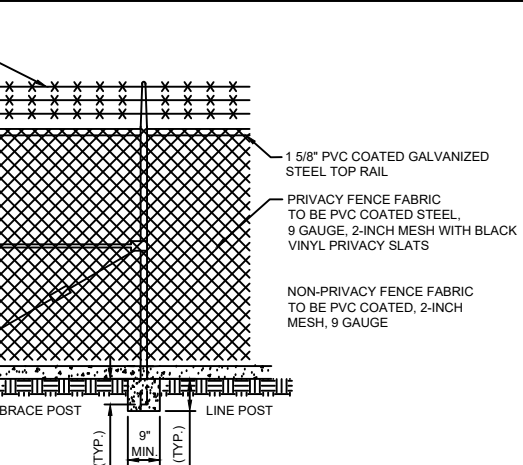
(B) DEVIATIONS FROM THE STANDARDS IN SUBSECTION (A) MUST BE REVIEWED AND APPROVED BY JEA AND BY THE CITY OF JACKSONVILLE LANDSCAPE ARCHITECT.



**DOUBLE GATE DETAIL**



**CORNER POST DETAIL**



**LINE POST DETAIL**

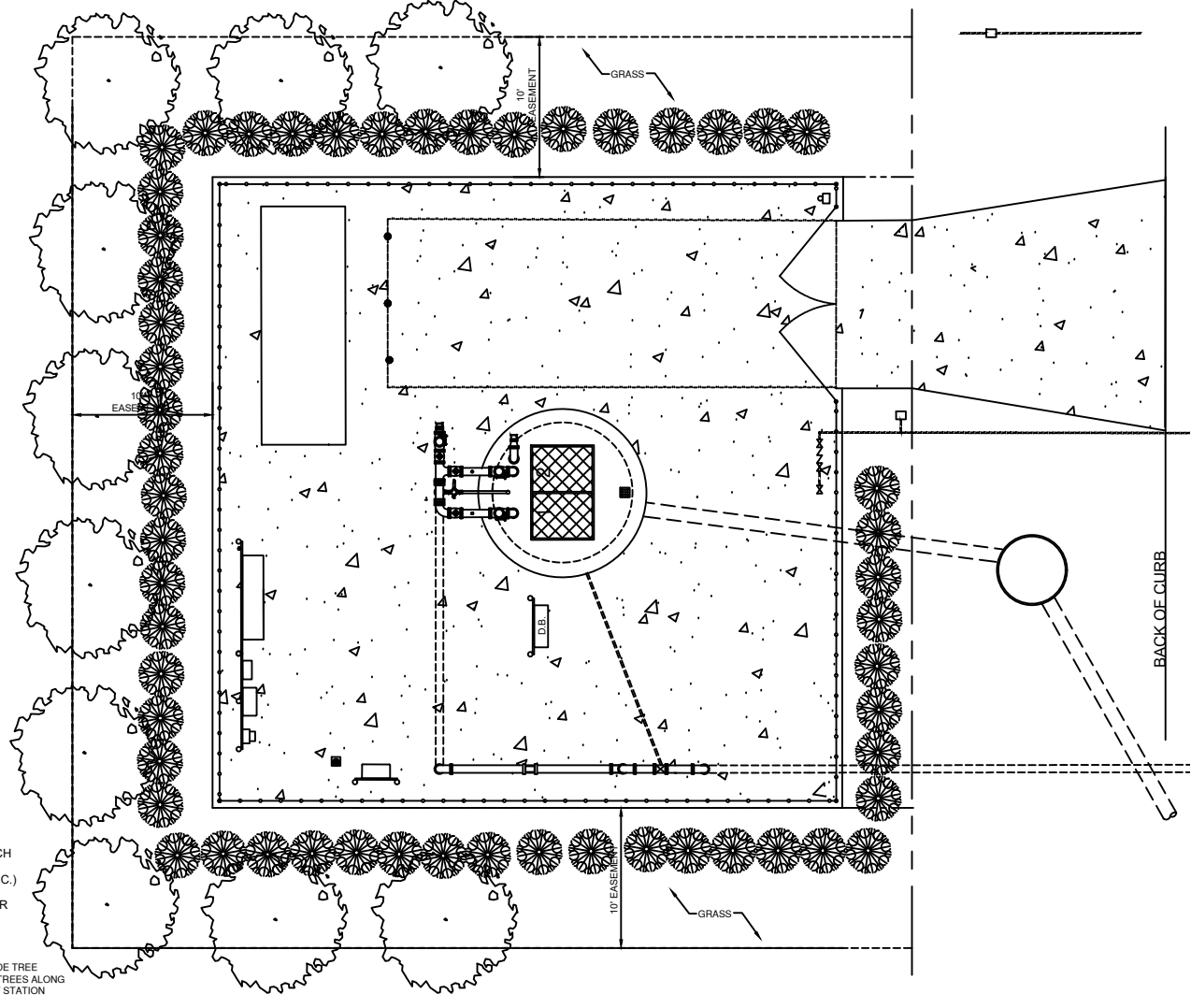
FENCE DETAILS  
NOT TO SCALE

**FENCE NOTES:**

- FENCE TO BE INSTALLED AS INDICATED ON SITE PLAN.
- GATE POST TO BE 4" O.D. PVC COATED GALVANIZED STEEL PIPE. CORNER POST TO BE 3" O.D. PVC COATED GALVANIZED STEEL PIPE. LINE POST TO BE 2 1/2" O.D. PVC COATED GALVANIZED STEEL PIPE.
- ALL FENCE SHALL BE GROUNDED IN ACCORDANCE WITH JEA GROUNDING STANDARDS.
- BONDING WIRE BETWEEN GATE POST IS NOT REQUIRED WHERE EXISTING ROAD PAVING OR RAILROAD TRACKS WOULD MAKE INSTALLATION IMPRACTICAL.
- ALL FENCING SHALL BE IN ACCORDANCE WITH JEA SPECIFICATION NO. 492.
- EMBEDDED CONCRETE PORTION OF FENCE POST SHALL HAVE MASTIC SEAL OR EQUAL COATING TO A MINIMUM OF 6" ABOVE FINISH GRADE.
- AN INTERIOR DOUBLE 14' WIDE SLIDING/ROLLING GATE IS AN ACCEPTABLE OPTION.
- FENCE FABRIC SHALL BE KNUCKLED ON TOP AND TWIST ON BOTTOM.
- ALL FENCING, RAILS, POSTS, BRACKETS, BOLTS ETC. WILL BE PVC COATED.
- CONTACT SECURITYSERVICE@JEA.COM FOR THE LATEST SECURITY FENCE UPDATES.

**PLANTING NOTES:**

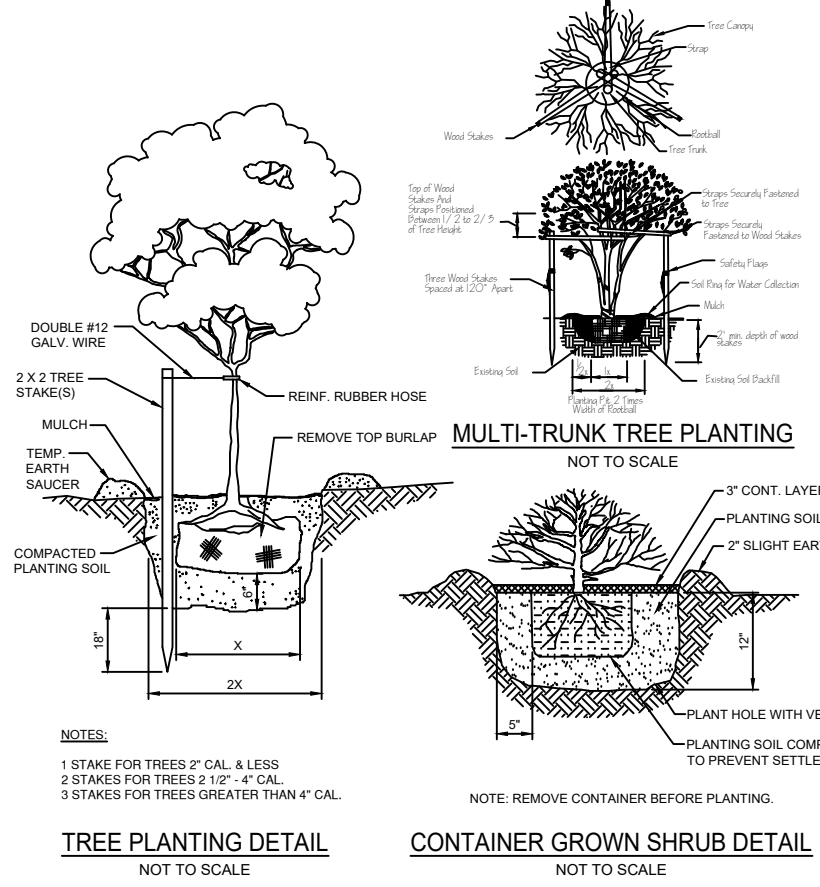
- JEA IS NOT REQUIRED TO PLANT ANY LANDSCAPING OUTSIDE OF THE PROPERTY LINE. THIS DRAWING REPRESENTS THE MINIMUM AMOUNT OF LANDSCAPING REQUIRED IF LANDSCAPING IS PROVIDED WITHIN THE 10' EASEMENT. HOWEVER, ADDITIONAL PLANTINGS WILL BE ALLOWED IN THE 10' EASEMENT WITH APPROVAL FROM JEA, OR JEA'S REPRESENTATIVE.
- JEA IS NOT RESPONSIBLE FOR THE MAINTENANCE OF LANDSCAPE MATERIAL OUTSIDE OF THE PROPERTY LINE. IF LANDSCAPING IS REQUIRED BY OTHER GOVERNMENT AGENCIES, THE REQUIRED LANDSCAPING SHALL BE INSTALLED IN THE 10' EASEMENT BY THE DEVELOPER AND MAINTAINED BY THE UNDERLYING LAND OWNER.
- IT IS NOT THE RESPONSIBILITY OF JEA TO PROVIDE IRRIGATION WITHIN THE 10' EASEMENT. HOWEVER, JEA WILL ALLOW IRRIGATION WITHIN THE EASEMENT WITH THE UNDERSTANDING THAT SUCH IRRIGATION IS MAINTAINED BY THE CONTRACTOR RESPONSIBLE, OR OTHER RESPONSIBLE PARTY, SUCH AS A HOMEOWNERS ASSOCIATION (H.O.A.). IF AN RESPONSIBLE PARTY, OR H.O.A. IS NOT INVOLVED IN THE PUMP STATION SITE, ONLY THEN WILL JEA BE RESPONSIBLE FOR PROVIDING AN IRRIGATION SYSTEM. WHEN IRRIGATION IS REQUIRED BY OTHER GOVERNMENT AGENCIES, THE RESPONSIBLE PARTY WILL PROVIDE AN IRRIGATION SYSTEM WITH A RAIN SENSOR IN ACCORDANCE WITH SPECIFICATIONS SECTION 433. THE TREES SHALL BE IRRIGATED WITH BUBBLERS, THE SHRUBS WITH A MICRO IRRIGATION SYSTEM AND SOD WITH SPRAY HEADS.
- FOR STATION WITHIN DUVAL COUNTY, THE TREES, SHRUBS AND SOD SHALL ALL BE IRRIGATED ON SEPARATED ZONES. SPRAYS, ROTORS OR MICRO IRRIGATION ARE NOT PERMITTED ON SAME ZONE. SEE COJ CODE 656.1212.
- THE LANDSCAPE CONTRACTOR IS RESPONSIBLE FOR VERIFYING PROJECT SITE CONDITIONS AND ALL QUANTITIES INDICATED ON THESE PLANS, BEFORE PRICING WORK.
- ALL PLANT MATERIAL SHALL BE FLORIDA GRADE NO. 1 OR BETTER NURSERY GROWN IN ACCORDANCE TO FLORIDA GRADES AND STANDARDS HANDBOOK.
- PLANTS SHALL BE SOUND, HEALTHY AND VIGOROUS, WELL BRANCHED AND DENSELY FOLIATED WHEN IN LEAF. THEY SHALL BE FREE OF DISEASE, INSECTS, EGGS OR LARVAE AND SHALL HAVE HEALTHY, WELL DEVELOPED ROOT SYSTEMS. THEY SHALL BE FREE FROM PHYSICAL DAMAGE OR ADVERSE CONDITIONS THAT WOULD PREVENT THRIVING GROWTH.
- ALL PLANTS MUST BE CONTAINER GROWN OR AS INDICATED IN THE PLANT LIST.
- ALL PLANTS SHALL CONFORM TO THE VARIETIES INDICATED IN THE PLANT LIST.
- SUBSTITUTION OF PLANT MATERIALS WILL NOT BE PERMITTED UNLESS AUTHORIZED IN WRITING BY JEA, AGENCY LANDSCAPE ARCHITECT OR THE ENGINEER.
- PLANT MATERIAL LOCATIONS AND BED OUTLINES SHALL BE STAKED OR FLAGGED ON SITE BY THE CONTRACTOR AND SHALL BE ADJUSTED IF REQUIRED TO FIT ACTUAL AS-BUILT CONDITIONS ON SITE AND APPROVED BY JEA OR JEA'S REPRESENTATIVE.
- ALL PROPOSED TREE PLANTING LOCATIONS SHALL BE STAKED OR FLAGGED BEFORE INSTALLATION BY THE LANDSCAPE CONTRACTOR AND APPROVED BY JEA OR JEA'S REPRESENTATIVE.
- ALL CONTAINER GROWN ROOTBALLS SHALL BE CAREFULLY SCOURED BEFORE SETTING IN PLANT PITS.
- ALL BACKFILL AROUND PLANT MATERIAL SHALL BE WORKED FIRMLY, TAMPED AND WATERED IN UNDER AND AROUND THE ROOT BALL TO FILL ALL VOIDS.
- LANDSCAPE CONTRACTOR SHALL BEAR FINAL RESPONSIBILITY FOR PROPER SURFACE DRAINAGE OF PLANTED AREAS. ANY DISCREPANCY IN THE DRAWINGS, OBSTRUCTION ON THE SITE, OR PRIOR TO WORK DONE BY ANY OTHER PARTY, WHICH THE CONTRACTOR FEELS PRECLUDES ESTABLISHING PROPER DRAINAGE SHALL BE BROUGHT TO THE ATTENTION OF THE PROJECT ENGINEER FOR CORRECTION OR RELIEF OF SAID RESPONSIBILITY.
- PLANTING BEDS SHALL BE CUT OR EDGED TO FORM A UNIFORM CLEAN LINE BETWEEN BEDS AND LAWN AREAS.
- AFTER ALL PLANT MATERIAL IN A PLANT BED AREA HAS BEEN INSTALLED AND APPROVED, THE AREAS BETWEEN PLANTS SHALL BE RAKED TO AN EVEN GRADE TO CONFORM TO PRE MULCHING FINISH GRADES. ALL PLANTING BEDS AND PLANT SAUCERS SHALL THEN BE UNIFORMLY COVERED WITH A MINIMUM THREE INCH LAYER OF #2 GRADE OR BETTER CYPRESS MULCH, PINE STRAW OR OTHER JEA ACCEPTABLE MATERIAL.
- PLANT MATERIAL BACKFILL MIXTURE SHALL BE THOROUGHLY MIXED IN THE FOLLOWING PREPARATIONS:  
 50% EXISTING CLEAN TOPSOIL 1/3 TOPSOIL  
 50% SOIL MIX 1/3 PEAT  
 1/3 COW MANURE
- THE LANDSCAPE CONTRACTOR IS RESPONSIBLE FOR ALL FINE GRADING PREPARATION FOR PLANTING.
- ROUGH GRADES WILL BE ESTABLISHED BY THE OWNERS GENERAL CONTRACTOR AT APPROXIMATELY 3 INCHES BELOW CURBS, SIDEWALKS, HARDSCAPE AMENITIES, MOWING STRIPS AND ABUTMENTS.
- THE JEA OR JEA'S REPRESENTATIVE SHALL HAVE THE RIGHT TO REJECT ANY AND ALL WORK WHICH IN HIS OPINION DOES NOT MEET WITH THE REQUIREMENTS OF THE SPECIFICATIONS AT ANY STAGE OF THE PROJECT OPERATION.
- IN GENERAL, THE WORK SHALL PROCEED AS RAPIDLY AS THE SITE BECOMES AVAILABLE. KEEP ALL AREAS OF WORK CLEAN, NEAT, AND ORDERLY AT ALL TIMES.
- THERE WILL BE SPECIAL CARE TO ALL EXISTING TREES TO BE RETAINED ON SITE TO AVOID CONSTRUCTION DAMAGE.
- A BACKFLOW PREVENTION SHALL BE INSTALLED AS REQUIRED.
- AFTER THE LANDSCAPE PLAN IS APPROVED BY THE GOVERNMENTAL AGENCY ANY SUBSEQUENT CHANGES MUST BE RESUBMITTED FOR REVIEW AND APPROVAL.



**DESIGN NOTES:**

- LANDSCAPE ARCHITECT SHALL USE THIS PLAN AS A BASIS OF DESIGN FOR SITE SPECIFIC PUMP STATION. THESE NOTES TO BE ERASED ON COMPLETED DRAWING.

**STANDARD PUMP STATION SITE**



**TREE PLANTING DETAIL**  
NOT TO SCALE

**CONTAINER GROWN SHRUB DETAIL**  
NOT TO SCALE

<b>SITE SPECIFIC</b>		NO.	BY	DATE
		1.		
<b>JEA STANDARD PUMP STATION LANDSCAPE PLAN</b>		DESIGNER	DESIGN ENGINEER	
		DRAWN BY		
<b>JEA Building Community™</b>		DATE	FLORIDA REGISTRATION NO.	
		CHECKED BY		
<b>NO. SHEETS</b>		NO.	BY	DATE
		1.		
<b>SHEET NO.</b>		NO.	BY	DATE
		1.		
<b>DRAWING NO.</b>		NO.	BY	DATE
		1.		