

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	---	---	---	---	---	---	---	---	---	---	---	---

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

DISCHARGE PIPE DATA (WITHIN WET WELL)				
PIPE SIZE	PIPE HOLE DIA.	PUMP SEPARATION (PS)	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	---

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	
JTD364SSMCCOC	200 AMP
JTD365SSMCCOC	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 FLANGED IRON 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 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 6" 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/FACILITIES/)
- SEE JEA STANDARD SHEETS (AVAILABLE AT JEA.COM) FOR CONSTRUCTION DETAILS OF SPECIFIC COMPONENTS, INCLUDING ELECTRICAL.

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: 40'x40'
- 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 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).

CONSTRUCTION NOTES:

- SLOPE SITE CONCRETE 1" PER 8' TO DRAIN TOWARDS STREET OR OTHER ADJACENT CITY OR JEA OWNED DRAINAGE FACILITY.
- 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 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.

FOR PEAK FLOWS BETWEEN 0 TO 440 GPM
STANDARD CLASS ONE PUMP STATION SITE PLAN

SITE SPECIFIC

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

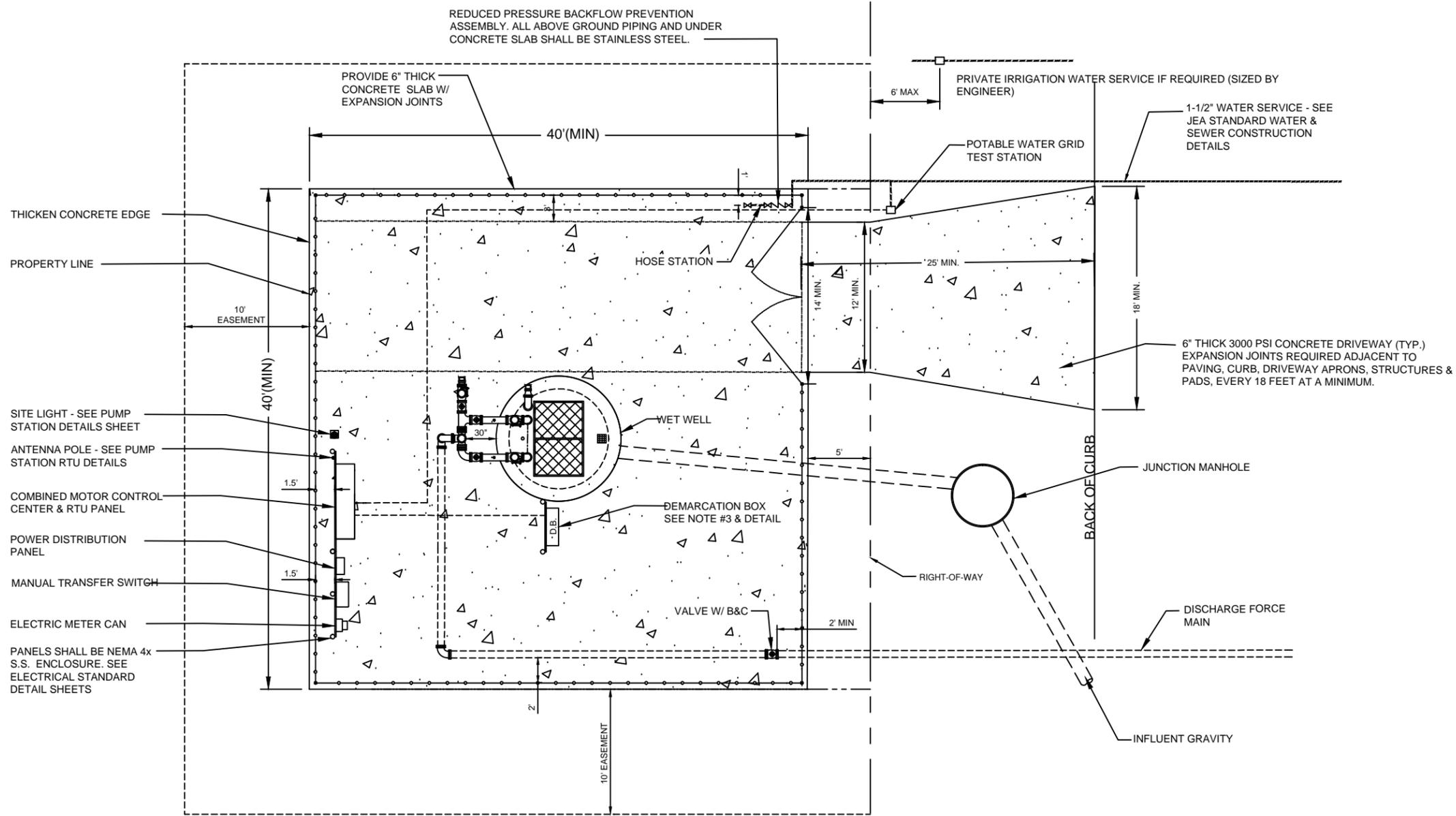
JEA Building Community

NO.	BY	DATE	REVISIONS
4			
3			
2			
1	LLOYD HENRY	9/25/2018	MANUAL TRANSFER SWITCH TABLE

DESIGNER:	FLORIDA REGISTRATION NO.:
DRAWN BY:	
CHECKED BY:	
DATE:	

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

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- THICKEN CONCRETE EDGE
- PROPERTY LINE
- 10' EASEMENT
- 40'(MIN)
- SITE LIGHT - SEE PUMP STATION DETAILS SHEET
- 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

FOR PEAK FLOWS BETWEEN 0 TO 440 GPM
STANDARD CLASS ONE PUMP STATION SITE PLAN

SCALE: 1"=10'



SITE SPECIFIC

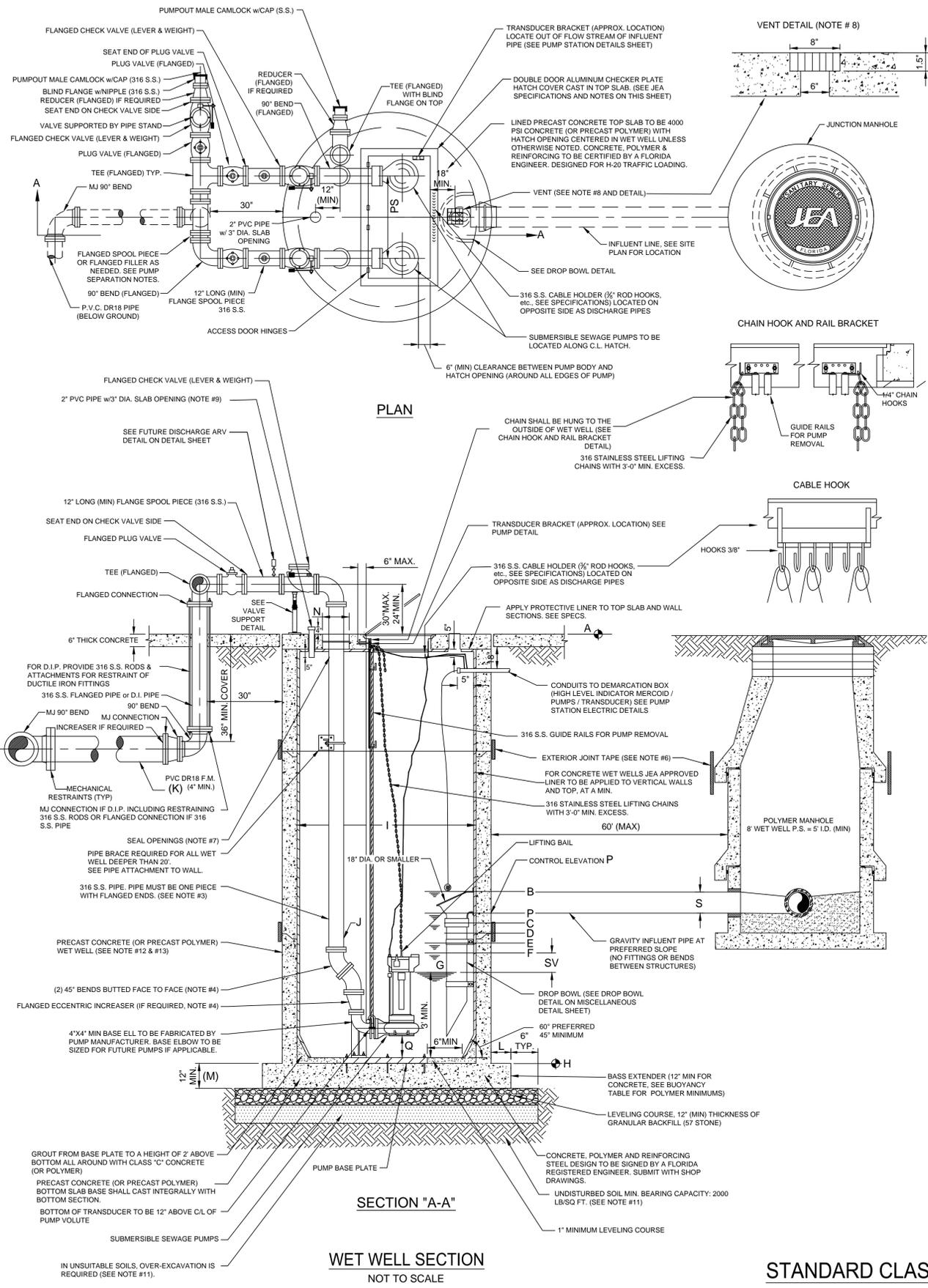
NO.	BY	DATE	REVISIONS
4			
3			
2			
1	LLOYD HENRY	9/25/2018	UPDATED ELECTRICAL PANELS

DESIGN ENGINEER	FLORIDA REGISTRATION NO.
DRAWN BY	CHECKED BY
DATE	DATE



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

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



SECTION "A-A"
WET WELL SECTION
NOT TO SCALE

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'	---	---	---	---	---	---	---	---	---	---	---	---

PUMP MANUFACTURER	ALL PUMPS		
	WILO/EMU	FLYGT	HYDROMATIC
MODEL	---	---	---
IMPELLER	---	---	---
PUMP DISCHARGE	---	---	---
MOTOR (RPM)	---	---	---
HORSEPOWER (HP)	---	---	---
PHASE/VOLT/AMPS (NOTES)	---	---	---
AIC (SEE 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	---	---	---
MANUAL TRANSFER SWITCH	---	---	---
STARTER (SIZE & TYPE)	---	---	---
ELECTRIC SERVICE (TYPE & SIZE)	---	---	---

DEPTH	POLYMER CONCRETE FLOATATION COLLARS			
	DEPTH 0-10FT	DEPTH 11-15FT	DEPTH 16-20FT	DEPTH 21-30FT
WET WELL I.D.	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
10'-0"	5	57580	5	75000
12'-0"	8	82900	8	113200

DISCHARGE PIPE DATA (WITHIN WET WELL)				
PIPE SIZE (J)	PIPE HOLE DIA. (N)	PUMP SEPARATION (PS)	MIN PUMPOUT SIZE (PO)	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 - - -

MCC PANEL	
THE COMBINED MOTOR CONTROL AND RTV PANEL SHALL BE AS NOTED BELOW. CONTRACTOR SHALL SUBMIT APPLICABLE SHOP DRAWING PACKAGE, SEE JEA.COM FOR DETAILS.	
<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

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	
JTD0645SMCOC	200 AMP
JTD0655SMCOC	400 AMP

PONY PUMP	
MANUFACTURER	MPSHR
MODEL	ENGINE H.P.
FLOW GPM @ TDH	SUCTION PIPE SIZE
RPM	DISCHARGE PIPE SIZE

- 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.

- 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. BUT 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 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/EUCOLASTIC 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 6" 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.

- 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: 40'x40'
 - 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 -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).

- CONSTRUCTION NOTES:**
- SLOPE SITE CONCRETE 1" PER 8" TO DRAIN TOWARDS STREET OR OTHER ADJACENT CITY OR JEA OWNED DRAINAGE FACILITY.
 - 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 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 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.

FOR PEAK FLOWS BETWEEN 0 TO 440 GPM
STANDARD CLASS ONE PUMP STATION SITE PLAN W/ PONY PUMP

SITE SPECIFIC

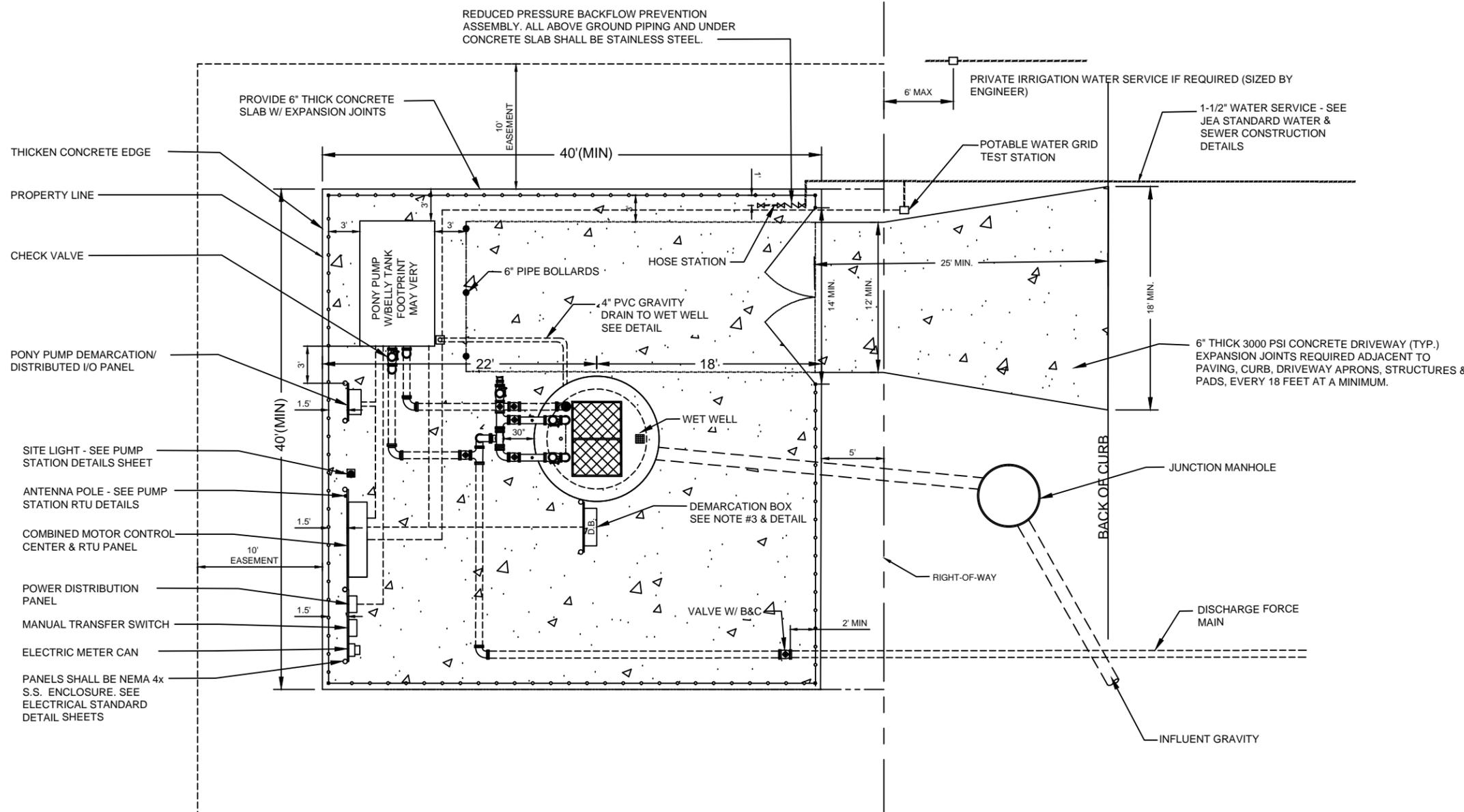
NO. SHEETS	SHEET NO.	DRAWING NO.	PROJ. NO.	REVISIONS		
				NO.	BY	DATE
4	1	1	1			
3	2	2	1			
2	3	3	1			
1	4	4	1			

DESIGNER:	DESIGN ENGINEER
DRAWN BY:	FLORIDA REGISTRATION NO.
CHECKED BY:	DATE:
DATE:	DATE:

MANUAL TRANSFER SWITCH TABLE	9/25/2018
MANUAL TRANSFER SWITCH TABLE	9/25/2018

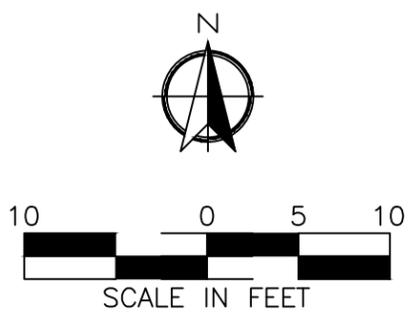


JEA STANDARD
 CLASS ONE PUMP STATION W/PONY PUMP
 FOR PEAK FLOWS BETWEEN 0 TO 440 GPM
 PLAN AND SECTION



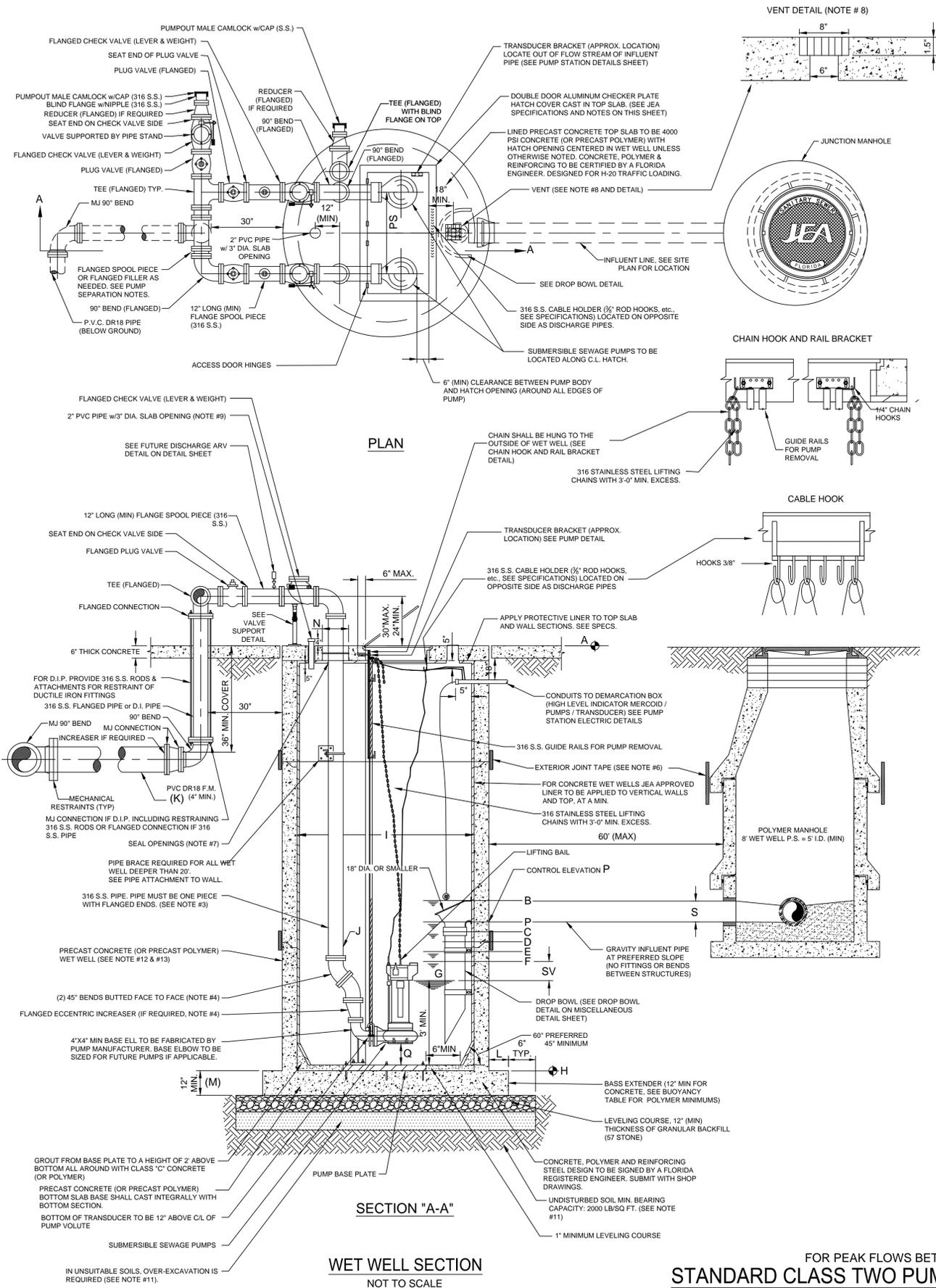
- THICKEN CONCRETE EDGE
- PROPERTY LINE
- CHECK VALVE
- PONY PUMP DEMARCATON/
DISTRIBUTED I/O PANEL
- SITE LIGHT - SEE PUMP
STATION DETAILS SHEET
- ANTENNA POLE - SEE PUMP
STATION RTU DETAILS
- COMBINED MOTOR CONTROL
CENTER & RTU PANEL
- POWER DISTRIBUTION
PANEL
- MANUAL TRANSFER SWITCH
- ELECTRIC METER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

FOR PEAK FLOWS BETWEEN 0 TO 440 GPM
STANDARD CLASS ONE PUMP STATION SITE PLAN W/ PONY PUMP
 SCALE: 1"=10'



SITE SPECIFIC		NO.	BY	DATE	REVISIONS
1.	LLOYD HENRY	05/25/2018	UPDATED ELECTRICAL PANEL		
2.					
3.					
4.					
DESIGNER:		DESIGN ENGINEER			
DRAWN BY:		FLORIDA REGISTRATION NO.			
DATE:		DATE:			
CHECKED BY:		DATE:			
DATE:		DATE:			
JEA STANDARD CLASS ONE PUMP STATION W/PONY PUMP FOR PEAK FLOWS BETWEEN 0 TO 440 GPM PLAN AND SECTION					
NO. SHEETS	PROJ. NO.				
SHEET NO.	DATE:				
DRAWING NO.	SCALE:				





SECTION "A-A"
WET WELL SECTION
NOT TO SCALE

FOR PEAK FLOWS BETWEEN 441 AND 1000 GPM
STANDARD CLASS TWO PUMP STATION SITE PLAN W/GENERATOR

PUMP STATION INFORMATION																			
SCHEDULE OF ELEVATIONS																			
PUMP STATION STREET ADDRESS	TOP ELEV (NOTE 9)	MERCOID 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 SLAB 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	WILO/EMU	FLYGT	HYDRAMATIC	KSB
MODEL				
IMPELLER				
PUMP DISCHARGE				
MOTOR (RPM)				
HORSEPOWER (HP)				
PHASE/VOLTS/AMPS (NOTE #3)				
AIC (SEE 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				
MANUAL TRANSFER SWITCH				
STARTER (SIZE & TYPE)				
ELECTRIC SERVICE (TYPE & SIZE)				

POLYMER CONCRETE FLOATION 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)
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 PUMPOUT 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'-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"

MCC PANEL	
<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

GENERATOR	
MANUFACTURER	
MODEL	
KW	
MANUAL TRANSFER SWITCH	
JTD364SSMCOQ	200 AMP
JTD365SSMCOQ	400 AMP

- 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.

- 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 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/EUCOLASTIC 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 6" 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/FACILITIES)
 - SEE JEA STANDARD SHEETS (AVAILABLE AT JEA.COM) FOR CONSTRUCTION DETAILS OF SPECIFIC COMPONENTS, INCLUDING ELECTRICAL.

- 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 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 -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 MANHOLE 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.

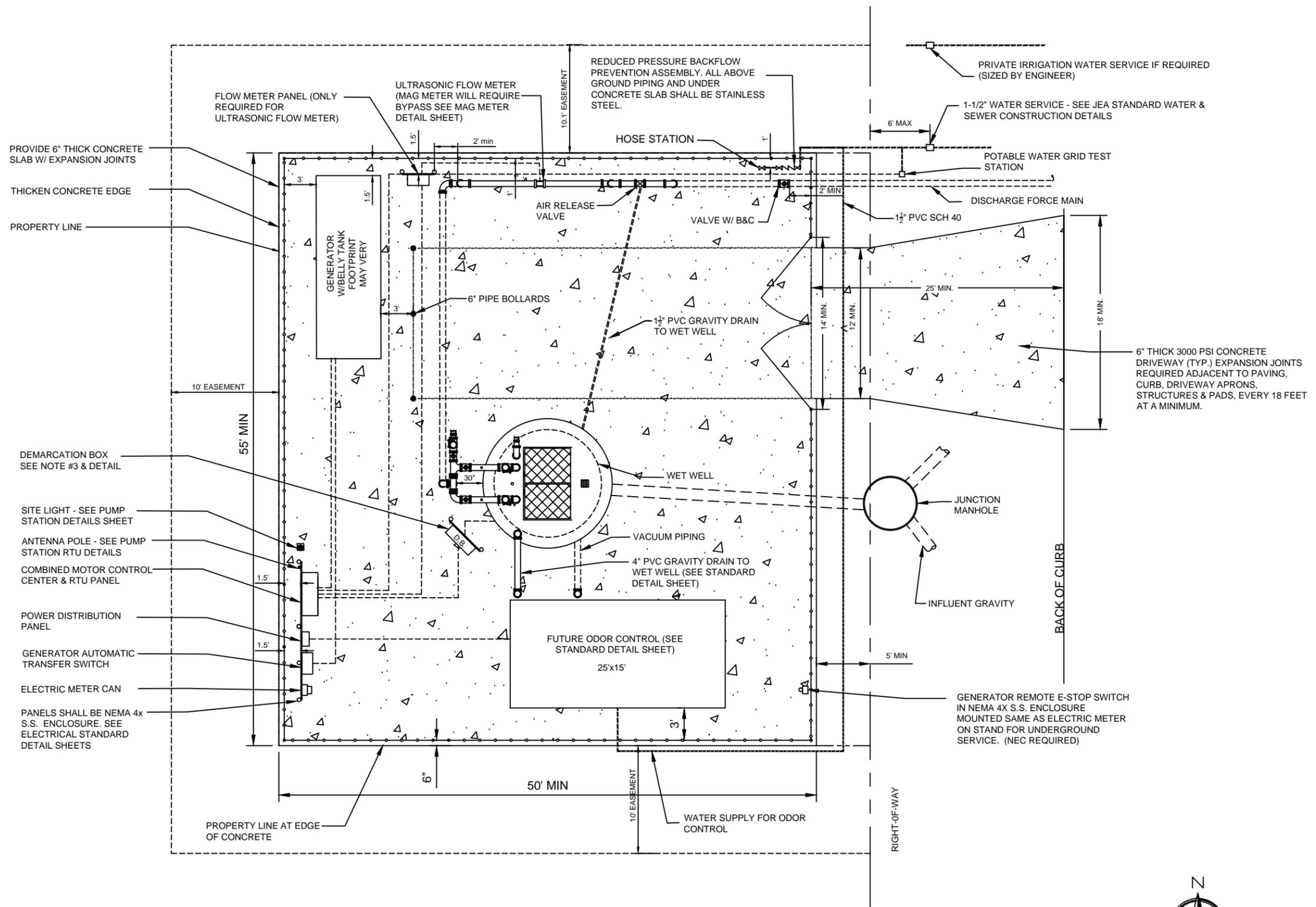
- CONSTRUCTION NOTES:**
- SLOPE SITE CONCRETE 1" PER 8" TO DRAIN TOWARDS STREET OR OTHER ADJACENT CITY OR JEA OWNED DRAINAGE FACILITY.
 - CONTRACTOR MUST MAINTAIN LANDSCAPING UNTIL FINAL ACCEPTANCE AND SUPPLY ONE (1) YEAR WARRANTY FROM NURSERY SUPPLYING PLANTS FROM DATE OF ACCEPTANCE.
 - DEMARICATION BOX SHALL BE PLACED AS CLOSE AS POSSIBLE TO THE WET WELL. 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. SHEETS	PROJ. NO.	DESIGNER	DATE	REVISIONS
SHEET NO.	DATE	DRAWN BY	BY	
DRAWING NO.	SCALE	CHECKED BY	DATE	
		DESIGN ENGINEER	DATE	
		FLORIDA REGISTRATION NO.	DATE	
		MANUAL TRANSFER SWITCH TABLE	DATE	

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

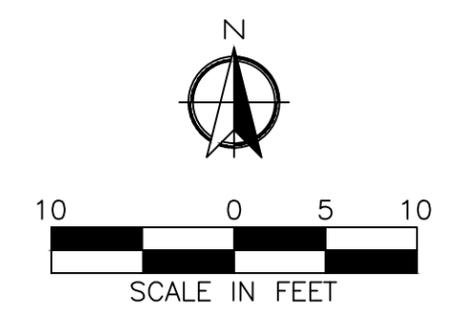
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Building Community



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

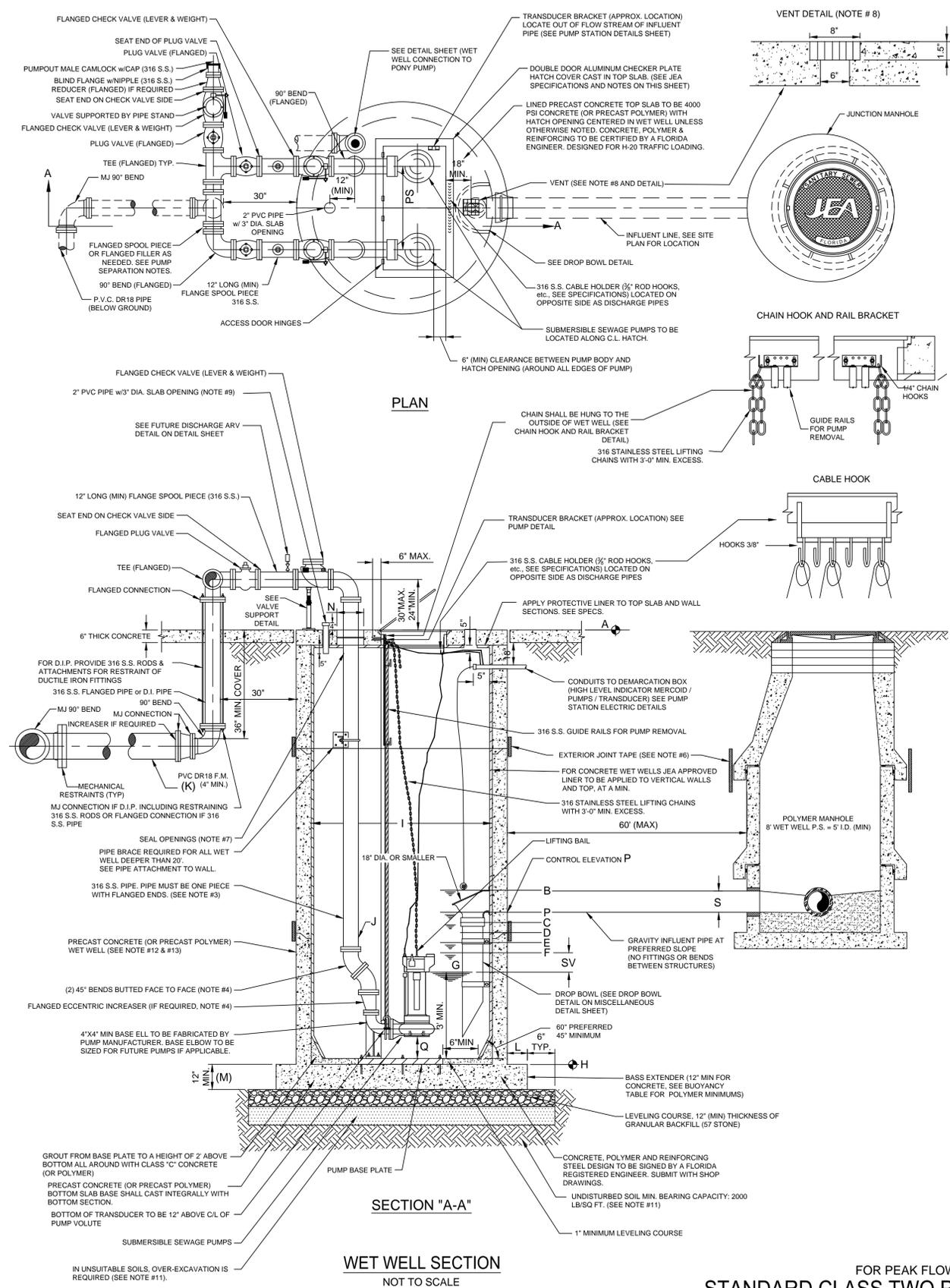
FOR PEAK FLOWS BETWEEN 441 AND 1000 GPM
STANDARD CLASS TWO PUMP STATION SITE PLAN W/GENERATOR

SCALE: 1"=10'



SITE SPECIFIC

NO. SHEETS	PROJ. NO.	DESIGN ENGINEER	DATE	REVISIONS
SHEET NO.	DATE	DESIGNED BY	DATE	NO.
DRAWING NO.	SCALE	CHECKED BY	DATE	BY
		FLORIDA REGISTRATION NO.		DATE
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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	WILO/EMU	FLYGT	HYDROMATIC	KSB
MODEL	---	---	---	---
IMPELLER	---	---	---	---
PUMP DISCHARGE	---	---	---	---
MOTOR (RPM)	---	---	---	---
HORSEPOWER (HP)	---	---	---	---
PHASE/VOLT/AMPS (NOTE #3)	---	---	---	---
AIC (SEE 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	---	---	---	---
MANUAL TRANSFER SWITCH	---	---	---	---
STARTER (SIZE & TYPE)	---	---	---	---
ELECTRIC SERVICE (TYPE & SIZE)	---	---	---	---

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 FILTERS 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.

POLYMER CONCRETE FLOATATION COLLARS

WET WELL I.D.	DEPTH 10-10FT		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	138000

DISCHARGE PIPE DATA (WITHIN WET WELL)

PIPE SIZE	PIPE HOLE DIA.	PUMP SEPARATION	MIN PUMPOUT SIZE	HATCH SIZE (MIN)
(J)	(N)	(PS)	(PO)	
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	---

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"

MCC PANEL

THE COMBINED MOTOR CONTROL AND RTV PANEL SHALL BE AS NOTED BELOW. CONTRACTOR SHALL SUBMIT APPLICABLE SHOP DRAWING PACKAGE. SEE JEA.COM FOR DETAILS.

FIXED SPEED PANEL: 240/120 VOLT, 3 PHASE, OPEN DELTA, FULL VOLTAGE MOTOR STARTING, 15 STARTS PER HOUR

FIXED SPEED PANEL: 480 VOLT, 3 PHASE, FULL VOLTAGE MOTOR STARTING, 15 STARTS PER HOUR

1P-3P VFD PANEL: 480/277 VOLT, 3 PHASE, WYE, FULL VOLTAGE MOTOR STARTING, 15 STARTS PER HOUR

3P VFD PANEL: 480/277 VOLT, 3 PHASE, WYE, REDUCED VOLTAGE MOTOR STARTING, 10 STARTS PER HOUR

MANUAL TRANSFER SWITCH

DESIGNER	DESIGN ENGINEER
JTD985MCCOC	200 AMP
JTD985MCCOC	400 AMP

PONY PUMP

MANUFACTURER	NPSHR
	ENGINE H.P.
	DISCHARGE 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 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 6" 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/FACILITIES)
 - SEE JEA STANDARD SHEETS (AVAILABLE AT JEA.COM) FOR CONSTRUCTION DETAILS OF SPECIFIC COMPONENTS, INCLUDING ELECTRICAL.

- 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 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 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.
 - 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 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.

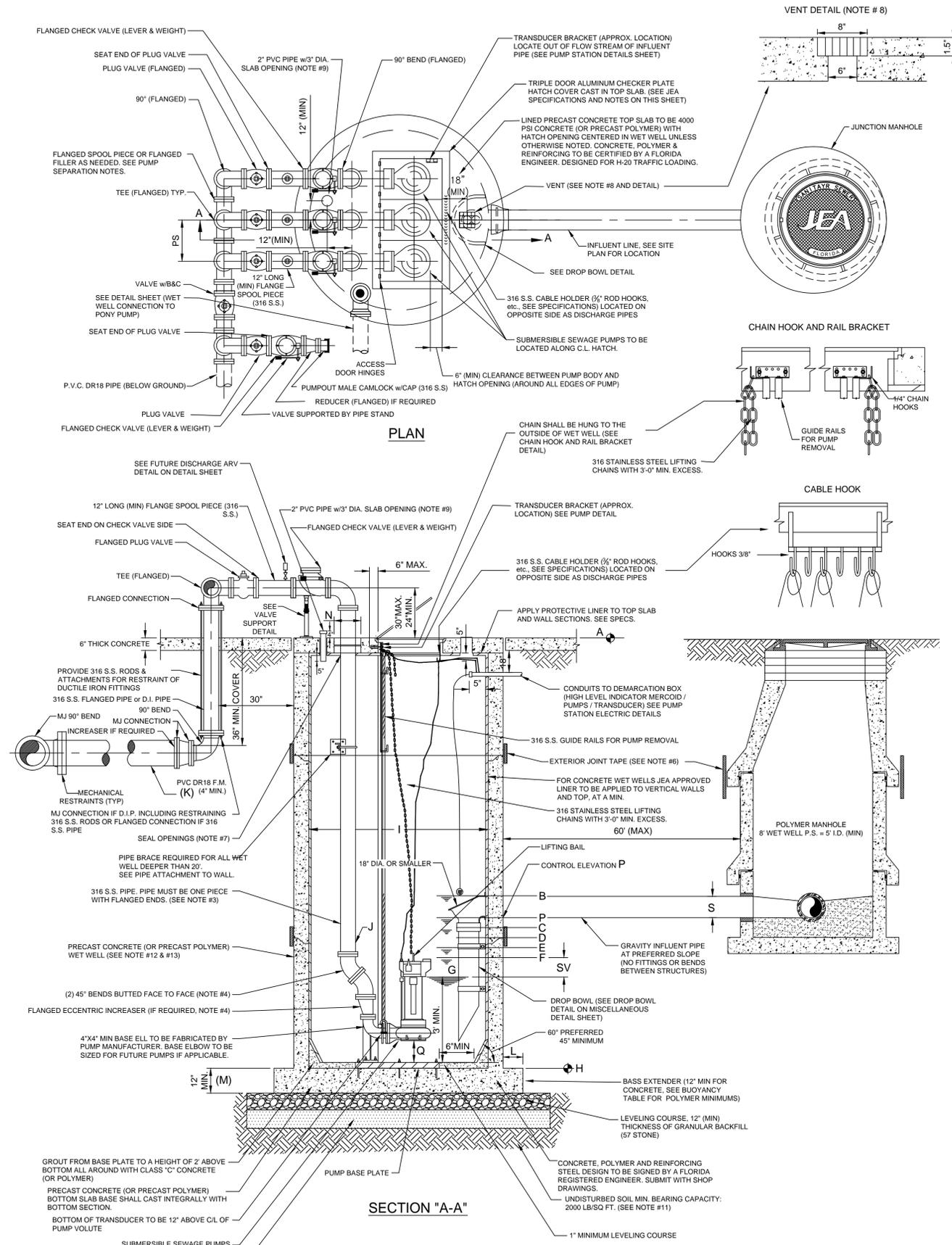
FOR PEAK FLOWS BETWEEN 441 AND 1000 GPM
STANDARD CLASS TWO PUMP STATION SITE PLAN W/PONY PUMP

SITE SPECIFIC

NO. SHEETS	SHEET NO.	DRAWING NO.	PROJ. NO.	DATE:	SCALE:	DESIGNER		DESIGN ENGINEER		FLORIDA REGISTRATION NO.		NO.	BY	DATE	REVISIONS
						DESIGNER	CHECKED BY:	DESIGN ENGINEER	CHECKED BY:	FLORIDA REGISTRATION NO.	FLORIDA REGISTRATION NO.				
1	1											1.	LLOYD HENRY	8/25/2018	MANUAL TRANSFER SWITCH TABLE
												2.			
												3.			
												4.			



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



PUMP STATION STREET ADDRESS	PUMP STATION INFORMATION SCHEDULE OF ELEVATIONS																SITE FLOOD ELEVATION (DESIGN NOTE 10)	INFLUENT SIZE	HATCH SIZE (SEE TABLE BELOW)
	TOP ELEV (NOTE 9)	MERCURIO LEVEL	ALARM ELEVATION	2ND LAG ON ELEVATION	1st LAG PUMP ON ELEVATION	LEAD 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)			
	A	B	C	D	E	F	G	H	I	J	K	L	M	N	P	Q			
R + 1.0	P + 0.5'	P + 0.5'	---	P - 1.5'	P - 2.0'	F - SV	G - 3'	---	---	---	---	---	---	---	---	---	---	---	

PUMP MANUFACTURER	ALL PUMPS			
	WILO/EMU	FLYGT	HYDRAMATIC	KSB
MODEL	---	---	---	---
IMPELLER	---	---	---	---
PUMP DISCHARGE	---	---	---	---
MOTOR (RPM)	---	---	---	---
HORSEPOWER (HP)	---	---	---	---
PHASE/VOLT/AMPS (NOTE #3)	---	---	---	---
AIC (SEE 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	---	---	---	---
MANUAL TRANSFER SWITCH	---	---	---	---
STARTER (SIZE & TYPE)	---	---	---	---
ELECTRIC SERVICE (TYPE & SIZE)	---	---	---	---

WET WELL I.D.	POLYMER CONCRETE FLOATATION COLLARS			
	DEPTH 0-10FT	DEPTH 11-15FT	DEPTH 16-20FT	DEPTH 21-30FT
8'-0"	3	3	2	---
10'-0"	5	5	5	3
12'-0"	8	8	8	7

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

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

MCC PANEL	
THE COMBINED MOTOR CONTROL AND RTV PANEL SHALL BE AS NOTED BELOW. CONTRACTOR SHALL SUBMIT APPLICABLE SHOP DRAWING PACKAGE. SEE JEA.COM FOR DETAILS.	
<input type="checkbox"/>	FIXED SPEED PANEL: 240/120 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
MANUAL TRANSFER SWITCH	
JTD365SMCOC	200 AMP
JTD365SMCOC	400 AMP

PONY PUMP	
MANUFACTURER	NPSHR
MODEL	ENGINE H.P.
FLOW GPM @ TDH	SUCTION PIPE SIZE
RPM	DISCHARGE PIPE SIZE

GENERATOR	
MANUFACTURER	
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.

- 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 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 3/4" 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 6" 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 (S7 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 INSTALL TO THE WET 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/FACILITIES)
 - SEE JEA STANDARD SHEETS (AVAILABLE AT JEA.COM) FOR CONSTRUCTION DETAILS OF SPECIFIC COMPONENTS, INCLUDING ELECTRICAL.

- 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.
 - TRIPLE PUMP STATION SHALL BE USED FOR PUMP FLOW GREATER THAN 1000 G.P.M.
 - BUILDING REQUIRED FOR CLASS 3 IF PUMPS ARE 76-200HP 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 PONY 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 -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).
 - FLOW METER: ULTRASONIC FLOW METER OR MAG METER CONFIGURATION SHALL BE DESIGNED BY ENGINEER.
 - THE ENGINEER SHALL BE RESPONSIBLE FOR THE DESIGN OF THE SOLIDS REMOVAL SYSTEM.
 - PONY PUMP SHALL OPERATE IN LEAD LAG CONFIGURATION.

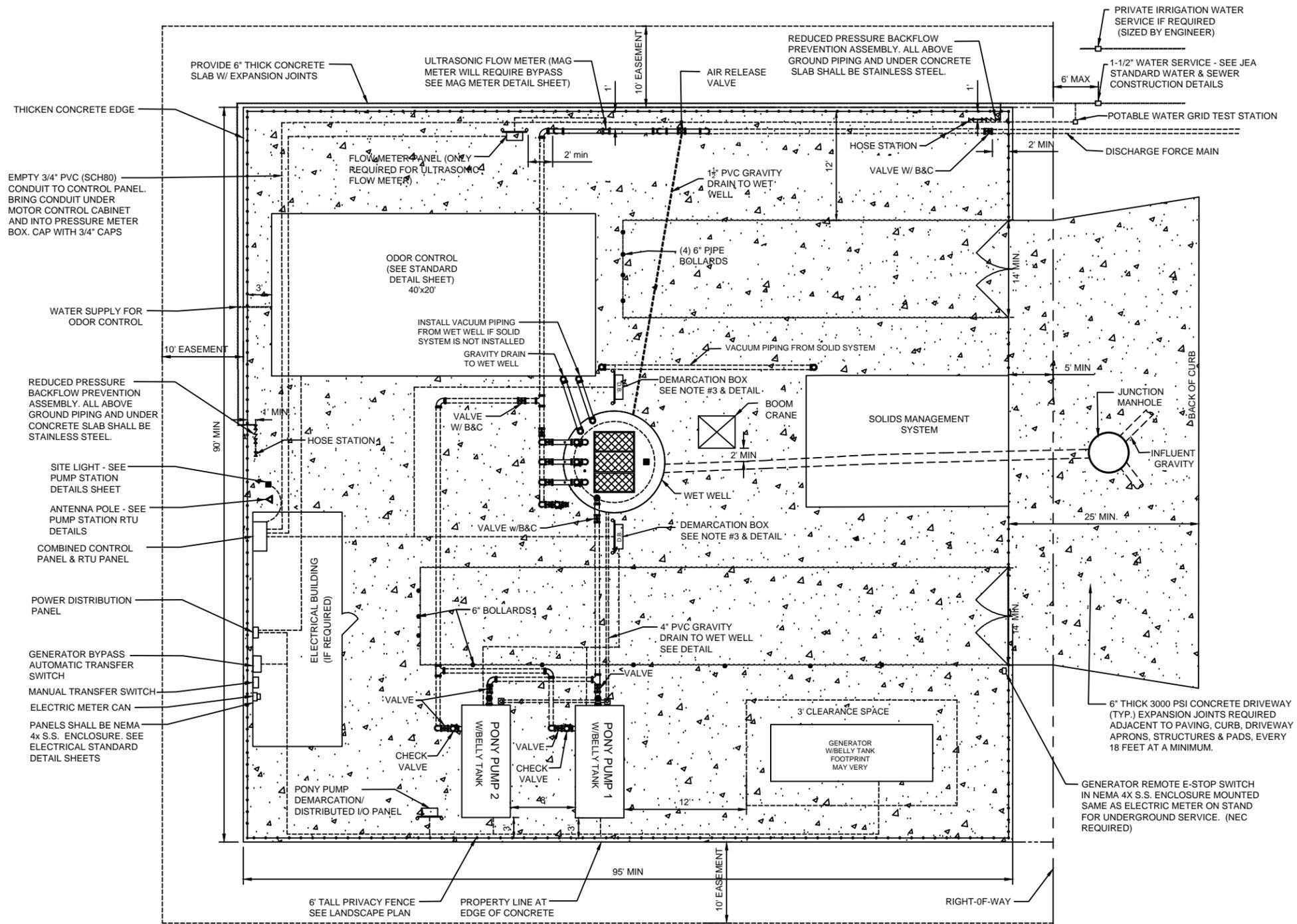
- CONSTRUCTION NOTES:**
- SLOPE SITE CONCRETE 1" PER 8' TO DRAIN TOWARDS STREET OR OTHER ADJACENT CITY OR JEA OWNED DRAINAGE FACILITY.
 - CONTRACTOR MUST MAINTAIN LANDSCAPING UNTIL FINAL ACCEPTANCE AND SUPPLY ONE (1) YEAR WARRANTY FROM NURSERY SUPPLYING PLANTS FROM DATE OF ACCEPTANCE.
 - DEMARICATION BOX SHALL BE PLACED AS CLOSE AS POSSIBLE TO WET WELL. IT SHALL BE PLACED 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.

FOR PEAK FLOWS BETWEEN 1001 AND 2000 GPM
CLASS THREE PUMP STATION W/ SOLIDS REMOVAL SITE PLAN

SITE SPECIFIC

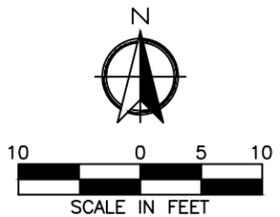
NO. SHEETS	DESIGNER	DESIGN ENGINEER	FLORIDA REGISTRATION NO.	DATE	BY	DATE	REVISIONS	
	SHEET NO.							1
	DRAWING NO.							1
	SCALE:							1" = 1'-0"

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



- THICKEN CONCRETE EDGE
- EMPTY 3/4" PVC (SCH80) CONDUIT TO CONTROL PANEL. BRING CONDUIT UNDER MOTOR CONTROL CABINET AND INTO PRESSURE METER BOX. CAP WITH 3/4" CAPS
- WATER SUPPLY FOR ODOR CONTROL
- REDUCED PRESSURE BACKFLOW PREVENTION ASSEMBLY. ALL ABOVE GROUND PIPING AND UNDER CONCRETE SLAB SHALL BE STAINLESS STEEL.
- SITE LIGHT - SEE PUMP STATION DETAILS SHEET
- ANTENNA POLE - SEE PUMP STATION RTU DETAILS
- COMBINED CONTROL PANEL & RTU PANEL
- POWER DISTRIBUTION PANEL
- GENERATOR BYPASS AUTOMATIC TRANSFER SWITCH
- MANUAL TRANSFER SWITCH
- ELECTRIC METER CAN
- PANELS SHALL BE NEMA 4X S.S. ENCLOSURE. SEE ELECTRICAL STANDARD DETAIL SHEETS
- PONY PUMP DEMARCATION/DISTRIBUTED I/O PANEL

FOR PEAK FLOWS BETWEEN 1001 AND 2000 GPM
CLASS THREE PUMP STATION W/ SOLIDS REMOVAL SITE PLAN
 SCALE: 1"=15'



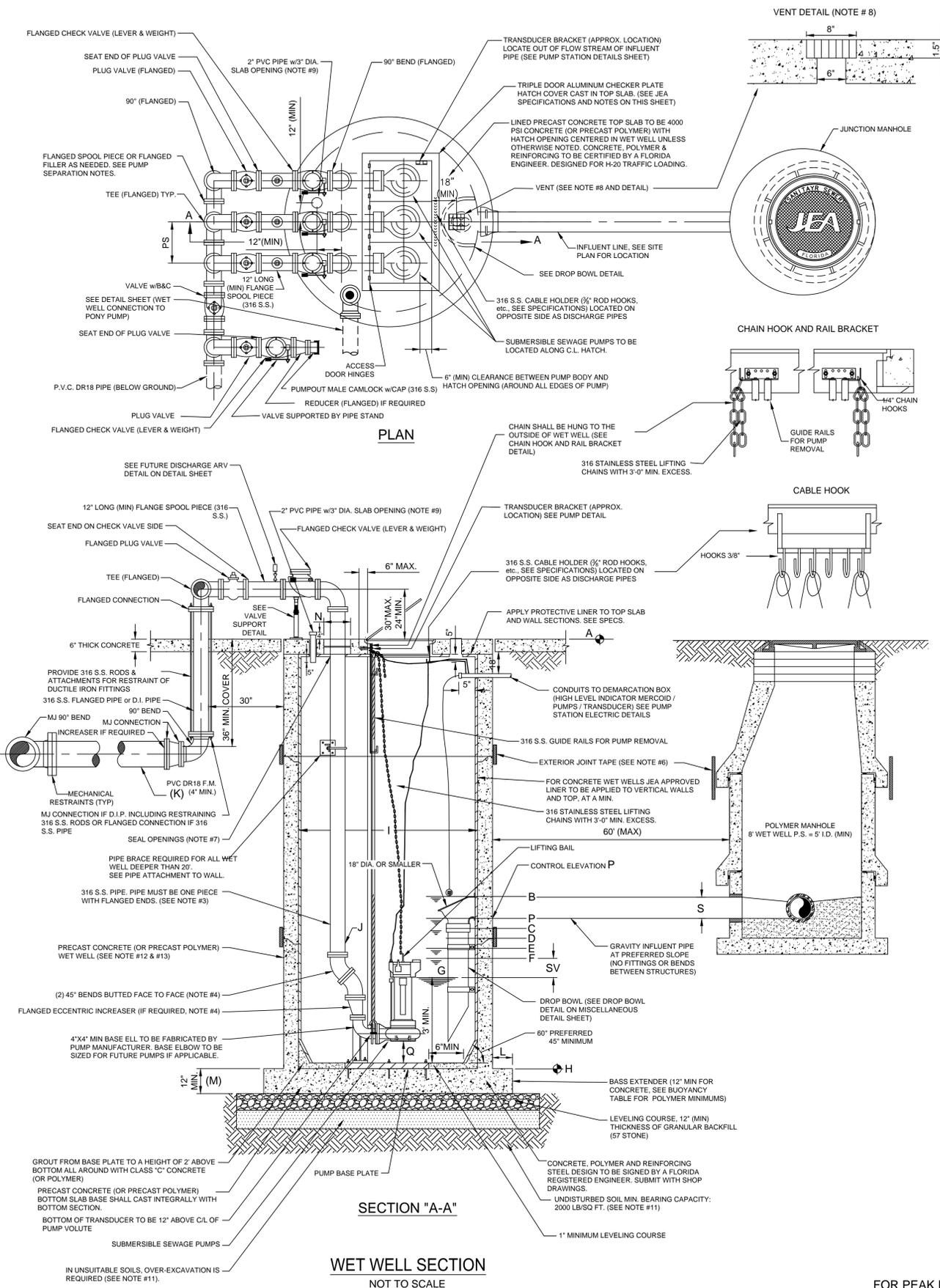
SITE SPECIFIC

NO. SHEETS	PROJ. NO.	DESIGNER	DESIGN ENGINEER
SHEET NO.	DATE	DRAWN BY	FLORIDA REGISTRATION NO.
DRAWING NO.	SCALE	CHECKED BY	DATE
		DATE	DATE
		NO. 1	NO. 1
		NO. 2	NO. 2
		NO. 3	NO. 3
		NO. 4	NO. 4
		NO. 5	NO. 5
		NO. 6	NO. 6
		NO. 7	NO. 7
		NO. 8	NO. 8
		NO. 9	NO. 9
		NO. 10	NO. 10
		NO. 11	NO. 11
		NO. 12	NO. 12
		NO. 13	NO. 13
		NO. 14	NO. 14
		NO. 15	NO. 15
		NO. 16	NO. 16
		NO. 17	NO. 17
		NO. 18	NO. 18
		NO. 19	NO. 19
		NO. 20	NO. 20
		NO. 21	NO. 21
		NO. 22	NO. 22
		NO. 23	NO. 23
		NO. 24	NO. 24
		NO. 25	NO. 25
		NO. 26	NO. 26
		NO. 27	NO. 27
		NO. 28	NO. 28
		NO. 29	NO. 29
		NO. 30	NO. 30
		NO. 31	NO. 31
		NO. 32	NO. 32
		NO. 33	NO. 33
		NO. 34	NO. 34
		NO. 35	NO. 35
		NO. 36	NO. 36
		NO. 37	NO. 37
		NO. 38	NO. 38
		NO. 39	NO. 39
		NO. 40	NO. 40
		NO. 41	NO. 41
		NO. 42	NO. 42
		NO. 43	NO. 43
		NO. 44	NO. 44
		NO. 45	NO. 45
		NO. 46	NO. 46
		NO. 47	NO. 47
		NO. 48	NO. 48
		NO. 49	NO. 49
		NO. 50	NO. 50
		NO. 51	NO. 51
		NO. 52	NO. 52
		NO. 53	NO. 53
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		NO. 55	NO. 55
		NO. 56	NO. 56
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		NO. 58	NO. 58
		NO. 59	NO. 59
		NO. 60	NO. 60
		NO. 61	NO. 61
		NO. 62	NO. 62
		NO. 63	NO. 63
		NO. 64	NO. 64
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		NO. 100	NO. 100

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



NO. 1	DATE	REVISIONS
NO. 2	DATE	REVISIONS
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PUMP STATION STREET ADDRESS	PUMP STATION INFORMATION SCHEDULE OF ELEVATIONS																		
	TOP ELEV (NOTE 9)	MERCID LEVEL	ALARM ELEVATION	2ND LAG ON ELEVATION	1st LAG ON ELEVATION	LEAD 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	ALL PUMPS			
	WILCO/EMU	FLYGT	HYDROMATIC	KSB
MODEL				
IMPELLER				
PUMP DISCHARGE				
MOTOR (RPM)				
HORSEPOWER (HP)				
PHASE/VOLT/AMPS (NOTE #3)				
AIC (SEE 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				
MANUAL TRANSFER SWITCH				
STARTER (SIZE & TYPE)				
ELECTRIC SERVICE (TYPE & SIZE)				

WET WELL I.D.	POLYMER CONCRETE FLOATATION COLLARS			
	DEPTH 0-10FT	DEPTH 11-15FT	DEPTH 16-20FT	DEPTH 21-30FT
8'-0"	3	3	2	—
10'-0"	5	5	5	3
12'-0"	8	8	8	7

DISCHARGE PIPE DATA (WITHIN WET WELL)				
PIPE SIZE (J)	PIPE HOLE DIA. (N)	PUMP SEPARATION (PS)	MIN PUMPOUT SIZE (PO)	HATCH SIZE (MIN.)
4"	10"	26"	4"	—
6"	12"	32"	6"	—
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)
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)
10'-0"	0'-6 1/2"	0'-10"
12'-0"	0'-7"	1'-0"

MCC PANEL	
THE COMBINED MOTOR CONTROL AND RTV PANEL SHALL BE AS NOTED BELOW. CONTRACTOR SHALL SUBMIT APPLICABLE SHOP DRAWING PACKAGE. SEE JEA.COM FOR DETAILS.	
<input type="checkbox"/>	FIXED SPEED PANEL: 240/120 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
MANUAL TRANSFER SWITCH	
JTD3645SMCCOC	200 AMP
JTD3655SMCCOC	400 AMP

PONY PUMP	
MANUFACTURER	NPSHR
MODEL	ENGINE H.P.
FLOW GPM @ TDH	SUCTION PIPE SIZE
RPM	DISCHARGE PIPE SIZE

GENERATOR	
MANUFACTURER	
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.

- 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 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 PAPER. (SEE JEA SPEC.)
 - THE VOID AREAS BETWEEN TOP SLAB AND FORCE MAIN PIPE SHALL BE SEALED W/EUCOLASTIC 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 6" 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/FACILITIES/)
 - SEE JEA STANDARD SHEETS (AVAILABLE AT JEA.COM) FOR CONSTRUCTION DETAILS OF SPECIFIC COMPONENTS, INCLUDING ELECTRICAL.

- 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 76-200HP 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 PONY 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 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 MANHOLE 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.
 - THE ENGINEER SHALL BE RESPONSIBLE FOR THE DESIGN OF THE SOLIDS REMOVAL SYSTEM.

- CONSTRUCTION NOTES:**
- SLOPE SITE CONCRETE 1" PER 8' TO DRAIN TOWARDS STREET OR OTHER ADJACENT CITY OR JEA OWNED DRAINAGE FACILITY.
 - 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 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.

**FOR PEAK FLOWS GREATER THAN 2000 GPM
CLASS FOUR PUMP STATION W/ SOLIDS REMOVAL SITE PLAN**

SITE SPECIFIC

NO.	SHEETS	SHEET NO.	DRAWING NO.	PROJ. NO.	DATE:	SCALE:	DESIGNER		DESIGN ENGINEER		FLORIDA REGISTRATION NO.		MANUAL TRANSFER SWITCH TABLE	
							BY	DATE	NO.	DATE	NO.	DATE	NO.	DATE
1	1	1	1	1	1	1	1	1	1	1	1	1	1	1



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

LANDSCAPE NOTES:

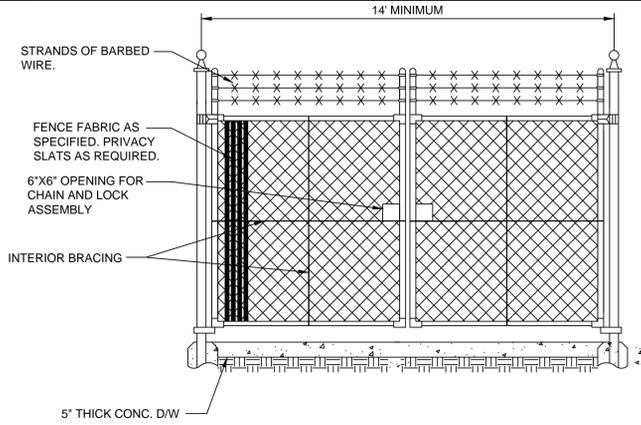
- APPROVED CLUSTER NON-SHADE TREES, (PER CITY OF JACKSONVILLE CODE 656.12.11) TO BE PROVIDED AT JEA PUMPING STATIONS. TREES TO BE PLANTED 12" O.C. MULTI-TRUNK VARIETIES TO BE MIN. 8' HEIGHT AND 3" TRUNK MINIMUM TOTALING 2" CALIPER. SINGLE TRUNK TREES TO BE MIN. 10' HEIGHT AND 2" CALIPER AT TIME OF PLANTING.

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:

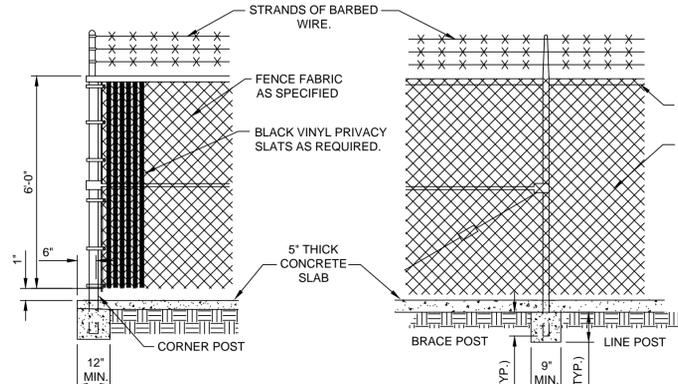
COMMON NAME	BOTANICAL NAME
SWEET VIBURNUM	<i>Viburnum odoratissimum</i>
DWARF WALTERS VUBURNUM	<i>Viburnum obtatum</i>
SAW PALMETTO	<i>Serenoa repens</i>
JAPANESE PRIVETT	<i>Ligustrum japonicum</i>
HETZII OR PHTIZERANA	<i>Juniperus chinensis</i>
DWARF BUFORD HOLLY	<i>Ilex cornuta 'Buford'</i>
STAR ANISE	<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 28" 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.

SITE SPECIFIC

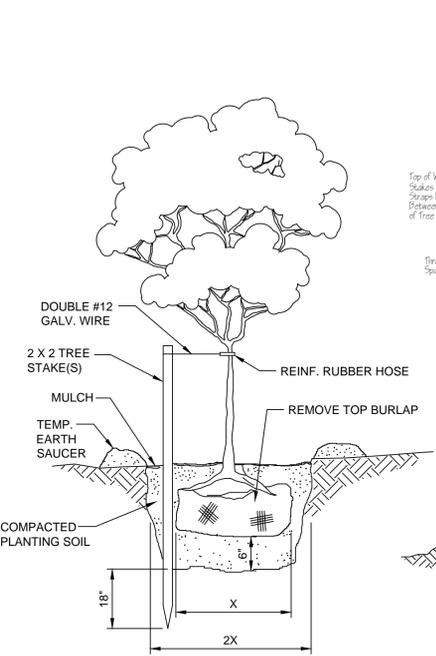
NO.		BY		DATE		REVISIONS	
1.		1.					UPDATED ELECTRICAL PANEL
2.		2.					
3.		3.					
4.		4.					

DESIGNER:	DESIGN ENGINEER
DRAWN BY:	FLORIDA REGISTRATION NO.
CHECKED BY:	
DATE:	

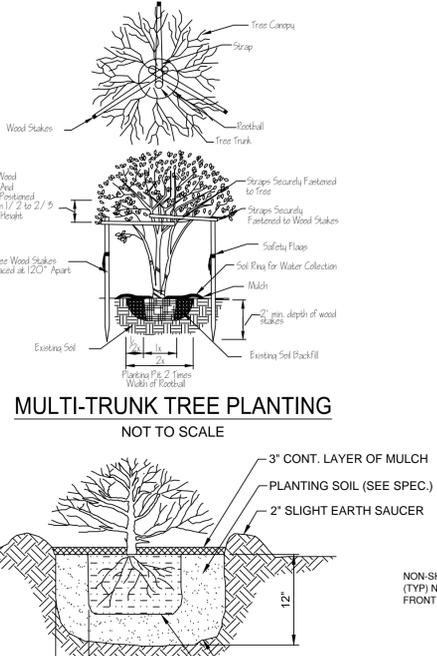
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DATE:	
SHEET NO.	
DRAWING NO.	



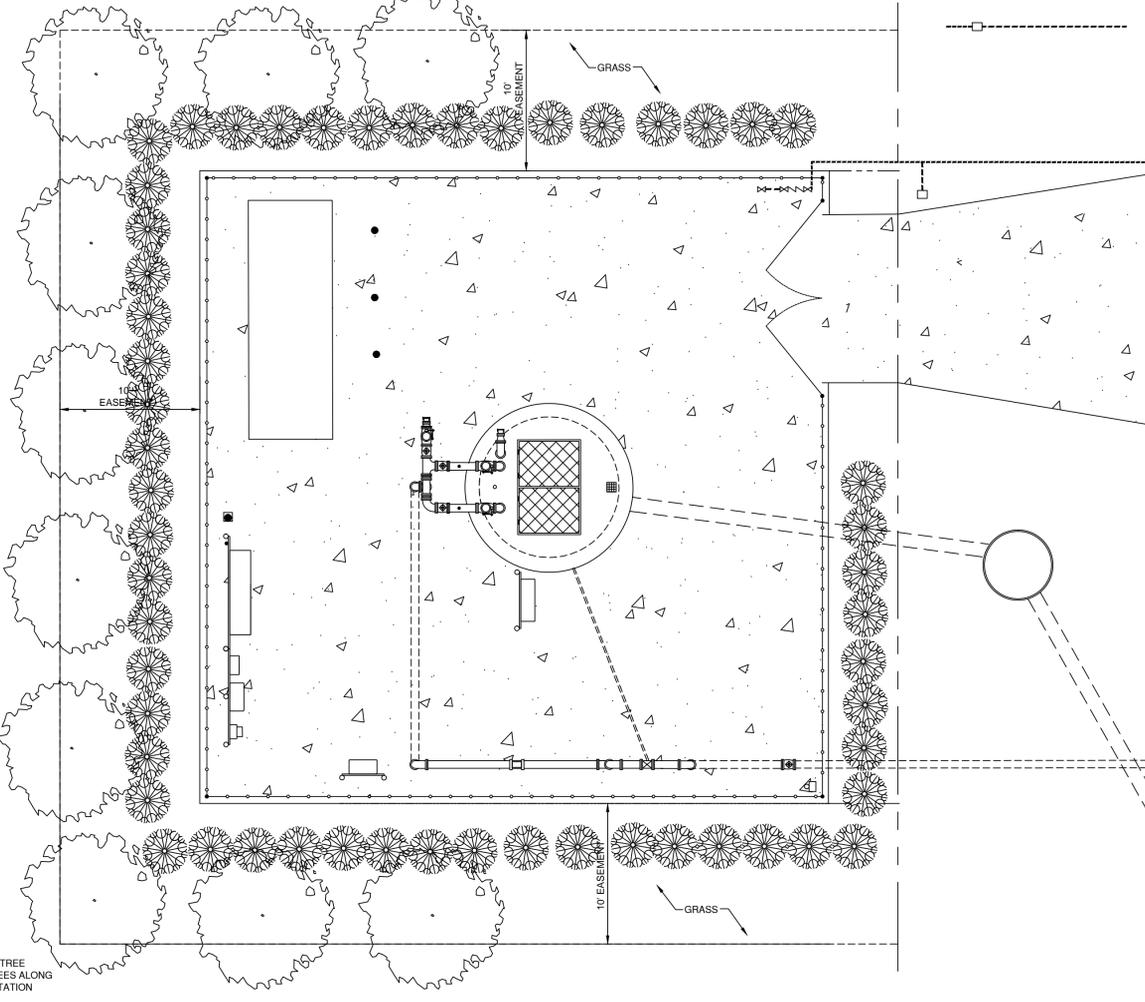
**JEA STANDARD
 PUMP STATION
 LANDSCAPE PLAN**



**TREE PLANTING DETAIL
 NOT TO SCALE**



**CONTAINER GROWN SHRUB DETAIL
 NOT TO SCALE**



- 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

**STANDARD LANDSCAPE PLAN
 SCALE: 1"=5'**

