

## PUMP STATION ELECTRICAL NOTES

1. A minimum 3' clear zone is required around the electrical area. The minimum workspace requirements shall adhere to the National Electrical Code (NEC), Section 110.26(A).
2. A 3/4" conduit shall be installed between the control panel and the valve vault for the transducer.
3. Three (3) schedule 80, 2" conduits shall be installed between the control panel and the wet well for No. 1 pump lead, No. 2 pump lead and the float switches.
4. All buried conduit shall be Schedule 80 PVC. All exposed conduit shall be stainless steel (316) or aluminum. Conduit to be sealed.
5. A mastic coating is required where panel post and aluminum or stainless steel (316) conduit is in direct contact with concrete.
6. The control panel door must open toward the wet well.
7. Electric service shall be 3 phase.
8. Alarm horn shall be sealed to prevent leakage.
9. Control panel shall be approved by IRC DUS before installation.
10. Refer to Section 10 for Pumping Station specifications.
11. Bottom of control panel to be 28" to 34" above ground.
12. All hardware and fasteners to be stainless steel (316).
13. Tools and spare parts are required (see Section 10.05).
14. Control panel shall meet the requirements of service entrance by properly bonding or shall be UL service entrance rated.
15. Control panel shall have a data flow, float by-pass switch.
16. The maximum horsepower rating for a 120/240 volt wastewater pumping station panel is 20 HP. Any pump size greater than 20 HP shall have 480 volt service and be designed by an electrical engineer.
17. The control panel shall be 4X NEMA, white powder coated stainless steel.
18. A water service line (1"Ø) with reduced pressure backflow preventer, water meter and hose bibb is required.
19. All penetrations into electric control panel require Meyer hubs. Corrosive materials will not be allowed.
20. Disconnect between meter and panel to be 316 stainless steel, non-fusible. Stations with generators shall be fused.
21. Pump station control panel shall be provided with appropriate lightning arrestor. Verify all driven grounding grids per N.E.C. 250.56 and SCADA (latest standards)

## EMERGENCY GENERATOR NOTES

1. Housing developments of 200 or more units shall provide backup generator sets for emergency use as required. Generator shall be provided with automatic throw over switch that senses power interruption from the main power source, starts the generator and shifts the power supply to the lift station from the generator.
2. If less than 200 homes are constructed initially, but in future phases the build-out is 200 homes or greater, an emergency generator will be required. The pumping station shall be constructed with space available for an emergency generator to be installed when 200 homes are constructed.
3. IRC DUS may connect additional developments into a proposed pumping station and may require an emergency generator.
4. Natural gas to be used for power when available.
5. See Section 17 Engine Driven Generator Sets for specifications.

REFER TO SECTION 10  
SUBMERSIBLE WASTEWATER  
PUMPING STATION

### FLOAT CONTROL SYSTEM

PUMPING STATION DATA TABLE			
LIFT STATION NUMBER			
PRIMARY CONDITION	PUMPING CAPACITY	G.P.M.	00
	TOTAL HEAD (±)	FEET	00
	EFFICIENCY	%	00%
INTER- MEDIATE CONDITION	PUMPING CAPACITY	G.P.M.	--
	TOTAL HEAD	FEET	--
	EFFICIENCY	%	--
SECONDARY CONDITION	PUMPING CAPACITY	G.P.M.	--
	TOTAL HEAD *	FEET	--
	EFFICIENCY	%	--
MIN. SOLIDS PASS. IMPELLER		INCHES	0"
PUMP MODEL NUMBER		NO.	0000-0-0"
PUMP IMPELLER		INCHES	XX-00
PUMP SPEED (DESIGN)		R.P.M.	0000
MOTOR NAMEPLATE H.P.		H.P.	0
MAX. PUMP BRAKE H.P.		H.P.	± 0.0
MAX. NPSHR @ SECONDARY		FEET	--
MAX. MOTOR SPEED		R.P.M.	0000
INITIAL INFLUENT <sup>FLOW</sup> PEAK		G.P.M.	00
MIN. PUMP CYCLE TIME		MINS.	00
ALARM SIGNAL ON ELEV.		ELEV.*A'	0.00
INFLUENT PIPE INV. ELEV.		ELEV.*B'	0.00
LAG PUMP ON ELEV.		ELEV.*C'	0.00
LEAD PUMP ON ELEV. (+)		ELEV.*D'	0.00
PUMPS OFF ELEVATION		ELEV.*E'	0.00
ALARM SIGNAL ON ELEV.		ELEV.*F'	--
BOTTOM OF WET WELL		ELEV.*G'	(<-)0.00
PUMP MANUFACTURER			XX0
* PUMP WILL OPERATE BETWEEN PRIMARY AND SECONDARY POINTS			

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INDIAN RIVER COUNTY  
DEPARTMENT OF  
UTILITY SERVICES



TYPICAL WASTEWATER  
PUMPING STATION  
ELECTRICAL & GENERATOR NOTES

MARCH 2018

DRAWING  
NO.

S-21