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# APPENDIX D: PUMP STATION CONTROL AND SCADA REQUIREMENTS

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### I PURPOSE

To establish the requirements for the Pumping Station Controls, SCADA requirements, and the associated Control Cabinet.

### II PRE-APPROVED PRODUCTS

#### A. Cabinets, SCADA Control, and Instrumentation

The Hillsborough County Standard Pump Station Electrical and Mechanical drawings found on the Hillsborough County website ([Hillsborough County, FL - Official Website - Standard Pump Station Drawings](#)) shall be used when designing a Hillsborough County Pump Station.

#### B. Control and Instrumentation Appurtenances

For items not listed on the pre-approved products list found in Appendix B or on the Electrical Bill of materials use the following pre-approved products.

1. Level Detection Float Switches (hermetically sealed with extra hard usage flexible cords) L1, L2, L3 and L4 (as specified): Anchor Scientific type S (N.O.)
2. Diaphragm Seals for pressure measuring systems
  - a. Pressure Gauge diaphragm seals: Ashcroft – 50-310SS-02T-XCK (see Appendix B for a listing of pre-approved gauges)
  - b. Pressure transmitter diaphragm seal: Ashcroft series 200
3. Area Light (70W, high pressure sodium): Stonco - #DTDA70
4. Motor Starter – Full Voltage (with Auxiliary contacts): Square D – 8536 (with hand reset overload relays)
5. Overload module (Purchase/coordinate with motor): Square D – Class 9065
6. Variable Frequency Drives (VFD's): Yaskawa
7. Reduced Voltage Soft Starts (RVSS): Magnetek/Solcon RVS-DX series
8. Flow Monitor/meter (as required)
  - a. Sparling Tigermag (for use with VFD's)
  - b. Toshiba (for use with VFD's)
9. Level Control/Measuring (wet well): For sites where cables lengths greater than 60 ft. are required): Endress Hauser: Waterpilot FMX21-FE-2-2-1H-G-K-45(specify cable length)-A-PO-PS; K-parameters: Empty pressure: 0 ft. H<sub>2</sub>O and Empty calibration: 0 ft.; Full pressure: 30 ft. H<sub>2</sub>O; Full calibration: 30 ft.; Damping (s): 2