

CITY OF ST. AUGUSTINE LIFT STATION DETAILS

TYPICAL ELECTRICAL EQUIPMENT INSTALLATION DETAIL

PUMP STATION CONTROL PANEL WITH NEMA 4X SS ENCLOURSE AND DEAD FRONT INNER DOOR. SUPPORT THE CONTROL PANEL FROM THE SUPPORT PIPES, NOT THE SUPPORT CHANNEL. TELEMETRY SYSTEM RTU

UL SERVICE ENTRANCE DISCONNECT SWITCH, NEMA 4X SS ENCL

ALUMINUM SERVICE METER PER FPL REQUIREMENTS

RTU ANTENNA AND MAST TYPE TO BE SPECIFIED AND FURNISHED BY TELEMETRY SYSTEM SUPPLIER. ALUMINUM MAST HEIGHT TO BE MINIMUM 20'.

ALUM SUPPORT CHANNEL (MIN. 1-5/8" x 1-5/8")

MIN. 10' x 3" DIA. ALUMINUM SUPPORT PIPES WITH PIPE CAPS AT 6" ABOVE TOP OF THE PUMP CONTROL PANEL. PROVIDE MASTIC SEAL COATING ON ALL SURFACES BELOW GRADE OR EMBEDDED IN CONCRETE. SPACING SHALL BE AS REQUIRED TO SUPPORT THE PUMP STATION CONTROL PANEL DIRECTLY FROM THE SUPPORT POSTS.

WARNING LIGHT

PUMP STATION CONTROL PANEL WITH NEMA 4X SS ENCLOURSE AND DEAD FRONT INNER DOOR. SUPPORT THE CONTROL PANEL FROM THE SUPPORT PIPES, NOT THE SUPPORT CHANNEL.

RIGID ALUMINUM CONDUIT SEGMENTS WITH EYSR SEALS

RIGID ALUMINUM CONDUIT

EQUIPMENT CABLE

316 SS SUPPORT BRACKET

RIGID ALUMINUM CONDUIT TO BE PVC COATED (ALL CONDUIT TO BE 2" OR LARGER SIZE PER EQUIPMENTCABLE REQUIREMENTS)

STEEL REINFORCED CONCRETE PAD FLUSH WITH TOP OF THE WET WELL

SCH 80 PVC ELECTRICAL SERVICE CONDUIT TO ELECTRICAL POWER DISTRIBUTION SERVICE CONNECTION

3'6" MIN.

6' MIN.

10" MIN

12" MIN.

THE CONTRACTOR SHALL PROVIDE MIN OF TWO 10' LONG 5/8" DIAMETER COPPER CLAD STEEL GROUND RODS DRIVEN IN OPPOSITE DIRECTIONS AT 45°, WITH MINIMUM #2 COPPER BONDING CONNECTIONS TO THE ANTENNA CABLE AND MAST.

12" MIN.

CONCRETE FOUNDATION

TYPICAL PUMP STATION ELECTRICAL EQUIPMENT INSTALLATION DETAIL
NOT TO SCALE

TELEMETRY SYSTEM NOTES:

1. PROVIDE NEW TELEMETRY SYSTEM REMOTE TERMINAL UNIT (RTU) FOR REMOTE MONITORING AND CONTROL OF ALL PUMPING STATION EQUIPMENT.

A. THE EXISTING CITY OF ST. AUGUSTINE PUMP STATION TELEMETRY SYSTEM SHALL BE EXPANDED BY THE TELEMETRY SYSTEM SUPPLIER WHO SHALL PROVIDE ALL THE EQUIPMENT AND APPURTENANCES AND SHALL BE RESPONSIBLE FOR THE SATISFACTORY OPERATION OF THE ENTIRE SYSTEM.

B. THE ADDITIONS AND MODIFICATIONS TO THE EXISTING TELEMETRY SYSTEM SHALL INCLUDE RADIO COMMUNICATIONS SYSTEM, PLC INTERFACE, AND SOFTWARE CONFIGURATION AS INDICATED OR REQUIRED FOR COMPLETE SYSTEM OPERATION.

C. THE TELEMETRY SYSTEM SUPPLIER SHALL BE: CONTROL SYSTEMS AUTOMATION, ELKTON, FL., ATTN: ROBERT SPITZ, 904-669-7665

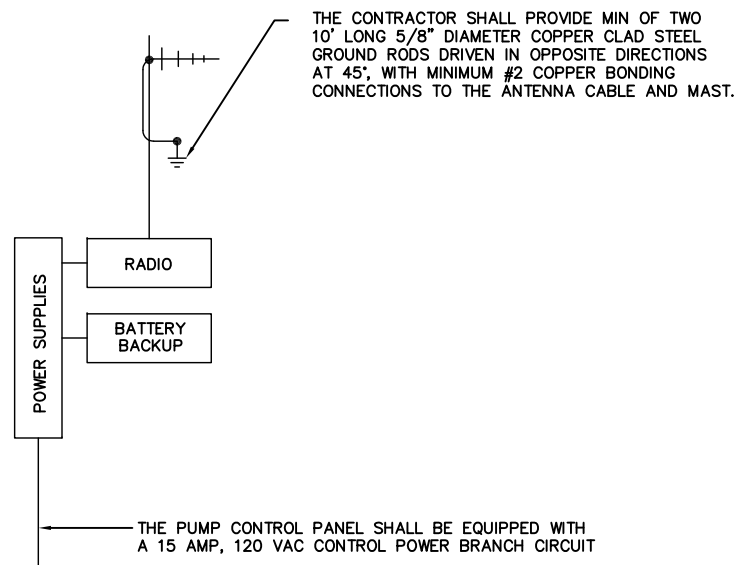
D. TELEMETRY SHALL BE FULLY FUNCTIONAL PRIOR TO CITY ACCEPTANCE.

2. THE PUMP CONTROLLER SHALL BE AN ALLEN-BRADLEY MICROLOGIX 1400 SERIES ANALOG PLC BASED UNIT MOUNTED WITHIN THE PUMP STATION CONTROL PANEL. SEE LIFT STATION CONTROL PANEL DETAIL LS-3.

3. ANTENNA MAST AS INDICATED SHALL BE PROVIDED BY THE TELEMETRY SYSTEM PROVIDER. ANTENNA, ANTENNA CABLE AND SURGE PROTECTION SHALL BE PROVIDED BY THE TELEMETRY SYSTEM SUPPLIER. THE ANTENNA SHALL BE AIMED BY THE TELEMETRY SYSTEM SUPPLIER DURING STARTUP AND TESTING.

4. THE TELEMETRY SYSTEM SUPPLIER SHALL BE RESPONSIBLE FOR OBTAINING FOR THE OWNER ALL REQUIRED FCC LICENSING REVISIONS, ETC. NECESSARY FOR THE OPERATION OF THE RADIO COMMUNICATIONS SYSTEM.

5. A FACTORY-TRAINED QUALIFIED SERVICE REPRESENTATIVE OF THE TELEMETRY SYSTEM SUPPLIER SHALL PROVIDE ALL SYSTEM INTEGRATION, INITIALIZATION, CUSTOMIZATION, STARTUP, AND TRAINING TO PROVIDE A COMPLETE AND OPERATING SYSTEM.



TYPICAL TELEMETRY SYSTEM RTU SCHEMATIC DIAGRAM
SEE PUMP CONTROL PANEL DETAIL LS-3
NOT TO SCALE

ALL FITTINGS AND COMPONENTS TO MEET CURRENT NEC REQUIREMENTS

NOTE:
THE CITY OF ST. AUGUSTINE IS NOT RESPONSIBLE FOR THE ACCURACY AND CONTENTS OF THIS DRAWINGS. IT IS THE RESPONSIBILITY OF THE USER TO USE THE SERVICE OF A PROFESSIONAL ELECTRICAL / I&C ENGINEER TO DESIGN THE ELECTRICAL / I&C SYSTEMS FOR A SPECIFIC PROJECT

