WAWA, INC.

TYPICAL FLORIDA PUMP STATION DETAIL (Page 2 of 2)

WAWA PREFERRED PRE-FABRICATED PUMP STATON VENDOR:

RILEY & Company, Inc.
Sanford, FL 32773 (Ph. 407-265-9963)

DUPLEX CONTROL PANEL: (3 YEAR WARRANTY)

To insure complete unit and warranty responsibility the electrical control panel must be manufactured and built by the pump supplier. The pump supplier must be a TUV (UL508A CERTIFIED) manufacturing facility, with a minuimum of 5 years history in the manufacturing of electrical control panels.

The Enclosure shall be NEMA 4X, minimum 30" high x 30" wide x 10" deep fiberglass with 5 point latching system.

The enclosure shall have external mounting feet to allow for wall mounting.

The following components shall be mounted through the enclosure:
1- ea. Red Alarm Beacon (Light) 4" x 4" Minimum Diameter
1- ea. Alarm Horn (minimum 95 DCB)
1- ea. Generator Receptacle w/ weatherproof cover(SCM460 -UL 1686)
1- ea. Alarm Silence Pushbutton

The back panel shall be fabricated from .125, 5052-H32 marine alloy aluminum. All components shall be mounted by machined stainless steel screws.

The following components shall be mounted to back panel:
2- ea. Motor Contactors
1- ea. Phase Monitor (3 Ph) w/2 N/O & 1 N/C Contacts
1- ea. Silence Relay Module
1- ea. Duplex Alternator w/ Pump Selector Switch
1- ea. Model RCBB5AH Battery Back-Up w/ Smart Charger For The High Level Alarm System
20- ea. Terminals For Field Connections
6- ea. Terminals For Motor Connections (Single Phase Only)
7- ea. Grounding Lugs
1- ea. Seal Failure Relay

The inner door shall be fabricated from .080, 5052-H32 marine alloy aluminum. The inner door shall have a continuous aluminum piano hinge.

The following components shall be mounted through the inner door:
1- ea. Main Circuit Breaker
1- ea. Emergency Circuit Breaker
1- ea. Mechanical Interlock For Emergency And Main Breakers (UL Listed)
2- ea. Short Circuit Protectors w/ Auxiliary Contacts
1- ea. Control Circuit Breaker
2- ea. Seal Failure Indicator Lights
1- ea. Hand-Off-Auto Selector Switches
2- ea. Pump Run Pilot Lights
1- ea. Power On Pilot Light
2- ea. Elapse Time Meters (Non-Resetable)
1- ea. GFI Duplex Convenience Outlet

REMOTE ALARM PANEL: (3 YEAR WARRANTY)
Audio And Visual Alarm Panel w/ Alarm Silence Button
FRP Enclosure (6" x 4" x 4" Deep)

* ELECTRICIAN NOTES:

1. DRAWING NOT TO SCALE
* 2. ALL ELECTRICAL WORK SHALL BE IN ACCORDANCE WITH LOCAL CODES
* 3. ELECTRICIAN SHALL SEAL OFF CONDUIT RUNS
* 4. ELECTRICIAN TO MOUNT LIGHTNING ARRESTOR AT SWITCH DISCONNECT
* 5. CONTRACTOR SHALL VERIFY POWER SOURCE PRIOR TO ORDERING EQUIPMENT
* 6. NEUTRAL TO BE SUPPLIED FOR 208V-3 PHASE POWER.
* 7. ELECTRICIAN MUST RUN WIRING AND CONDUIT FROM LIFT STATION CONTROL PANEL TO REMOTE AUDIO & VISUAL ALARM PANEL INSIDE BUILDING.

MISCELLANEOUS: All wiring on the back panel shall be contained within the wiring duct. All wiring between the inner door and the back panel shall be contained with in a plastic spiral wrap.
Each wire shall have a wire number at each end to correspond to the as built drawing for field troubleshooting.
The control panel must be manufactured in-house by lift station supplier and be a TUV (UL508A Certified) facility.

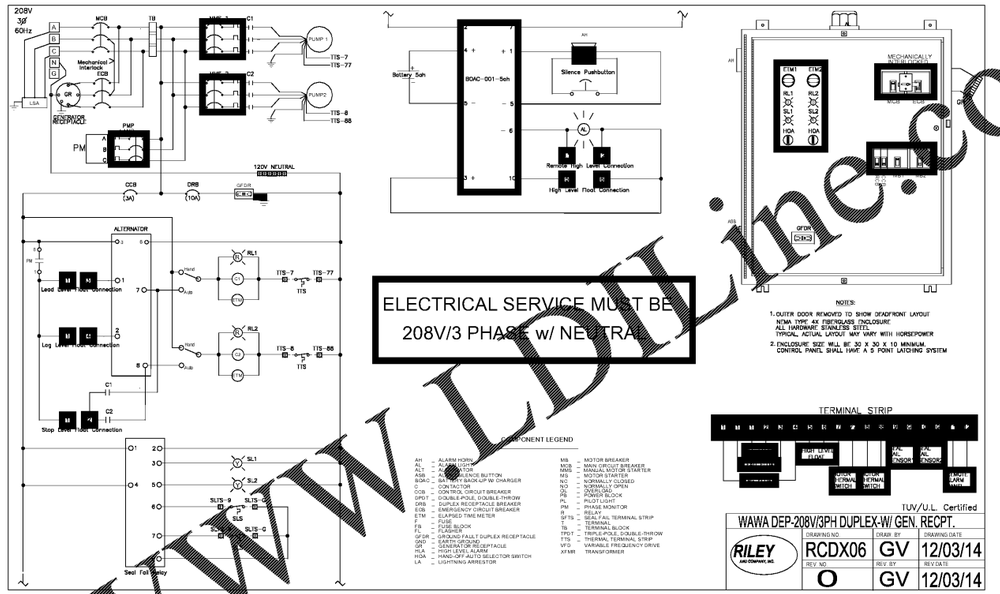
FASTENERS & APPURTANCES: All fasteners, lifting chains, float cable bracket, hinges, and appurtenances shall be made of AISI 316SS.
A 316SS slide/latch assembly shall be provided for holding the doors open on the wetwell and valve box.
Slide rails shall be made of SCH.40 AISI 316SS pipe.
Pump lifting chains shall be made of AISI 316SS.
Pump lifting bales shall be made of AISI 316SS.

COMPONENT SPECIFICATIONS:

All circuit breakers shall be molded thermal magnetic.
The mechanical interlock shall prevent the normal and emergency main breakers being energized at the same time.
An emergency generator receptacle shall be supplied in accordance with DEP standards. The generator receptacle shall be adequately sized to meet the equipment operating conditions and shall meet IEC60309-1 & IEC6039-2 for interchange ability and compatibility.

NEUTRAL TO BE SUPPLIED FOR 208V 3PHASE

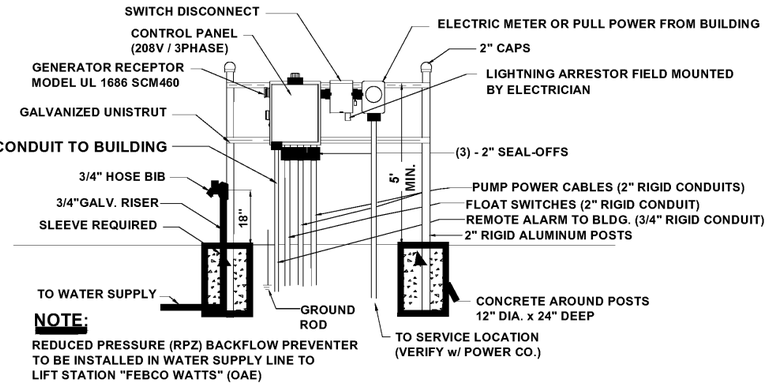
All motor short circuit protection devices must provide for under voltage release and class 10 overload protection and thermal protection on all phases. Visible trip indication, test, and reset capability must be provided without opening inner door.
Open frame, across the line, contactors shall be rated per IEC standards and properly sized per the motor requirements.
Contactors shall provide for safe touch power and control terminals.
Lightning Arrestor shall meet UL1449 3rd Edition or exceed the requirements of ANSI/IEEE Std. C62.21-1984 section 8.6.1. and 8.7.3 shall be supplied by electrician and mounted on the bottom side of the switch disconnect ahead of the pump control panel.
Surge Protection shall be provided within the control panel and will meet the UL1449 3rd Edition Type 4, Type 2 locations and UL60691 for visual fault & indicator , replaceable Modules and remote signalization.
A voltage monitor shall be supplied for single phase service.
A phase monitor shall be supplied for (3) phase service.
A green pilot light shall be supplied for each motor. The pilot light shall illuminate each time the motor is called to run.
Each pump shall have an Elapse Time Meter to record the accumulated run time. The ETM shall be 2" diameter, non-resettable, six digit, totally encapsulated unit.
A Red pilot light shall be supplied for control power. The pilot light shall illuminate when the control power is available inside the control panel.
Relays shall be ice-cube plug in type. Relay contacts shall be rated 10 amp minimum, DPDT.
Twenty (20) terminals shall be supplied for field connections.
The terminals shall be rated 25 amps minimum.
Each motors over-temperature contact shall be connected to the terminal strip and shall open a contact to de-energize the appropriate motor upon a high temperature within the motor.
A 15 Amp GFI duplex receptacle shall be supplied and mounted on the innerdoor.
Ground lugs shall be supplied and appropriately sized for each motor and for service entrance.



ELECTRICAL SERVICE MUST BE 208V/3 PHASE w/ NEUTRAL

COMPONENT LEGEND

AH	ALARM HORN	MB	MOTOR BREAKER
AL	ALARM LIGHT	MCB	MAIN CIRCUIT BREAKER
ASB	ALARM SILENCE BUTTON	MCT	MOTOR CIRCUIT TARTER
BGAC	BATTERY BACK-UP W CHARGER	MS	MOTOR STARTER
C	CONTACTOR	NC	NORMALLY CLOSED
CCB	CONTROL CIRCUIT BREAKER	NO	NORMALLY OPEN
DPST	DOUBLE POLE-DOUBLE-THROW	PB	POWER BLOCK
EMB	EMERGENCY RECEPTACLE BREAKER	PL	PILOT LIGHT
ETM	ELAPSED TIME METER	PM	PHASE MONITOR
F	FUSE	SPDT	SINGLE POLE-DOUBLE-THROW
FB	FUSE BLOCK	SPTS	SEAL FAIL TERMINAL STRIP
FL	FLASHER	T	TERMINAL
GFDR	GROUND FAULT DUPLEX RECEPTACLE	TB	TERMINAL BLOCK
GND	GROUNDING	TPDT	TRIPLE-POLE, DOUBLE-THROW
GFCP	GFI CONVENIENCE RECEPTACLE	TTS	THERMAL TERMINAL STRIP
HLA	HIGH LEVEL ALARM	VFD	VARIABLE FREQUENCY DRIVE
HOA	HAND-OFF-AUTO SELECTOR SWITCH	XFMR	TRANSFORMER
LA	LIGHTNING ARRESTOR		



WAWA LIFT STATION REQUIREMENTS:

1. 2ND REMOTE ALARM TO BE CONNECTED TO MANAGER'S OFFICE . CONTRACTOR SHALL COORDINATE WITH WAWA MAINTENANCE GROUP FOR CONNECTION DETAILS.
2. VFD'S SHALL BE USED TO CONVERT SINGLE PHASE INCOMING POWER TO THREE PHASE TO POWER PUMPS. START/RUN CAPACITORS WILL NOT BE USED TO START PUMPS.
3. FORCE MAIN PIPE SIZE SHALL BE A MINIMUM OF 2-INCH. PIPE MATERIAL SHALL BE AS PER THE LOCAL JURISDICTION.
4. ELECTRICIAN NOTE: 3/4" CONDUIT FROM CONTROL PANEL TO MANAGER'S OFFICE INSIDE BUILDING

CITY OF JACKSONVILLE REQUIREMENTS:

1. ALL PUMP STATIONS AND LIFT STATIONS SHALL BE CONSTRUCTED WITH A MINIMUM OF TWO (2) PUMPS. EACH PUMP SHALL BE A STANDBY FOR THE OTHER AND SHALL BE OF THE SAME CAPACITY AND CAPABLE OF HANDLING FLOWS IN EXCESS OF THE DESIGN PEAK FLOW. THE CONTROL SYSTEM SHALL AUTOMATICALLY ALTERNATE PUMPING STARTS SHOULD THE LEAD PUMP FAIL, THE STATION SHALL ACTIVATE AN ALARM PRIOR TO ALTERNATION AND START OF THE LAG PUMP.

ELECTRICAL RISER FOR ILLUSTRATION PURPOSES ONLY

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REVISIONS	BY

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WAWA - EDGEWOOD & COMMONWEALTH (PG. 2 OF 2)

REVISIONS

REV	DATE	COMMENT	BY
1	01/08/18	PER CITY & JEA COMMENTS	JRT
2	03/06/18	PER CITY & FDOT COMMENTS	JRT
3	04/16/18	PER FDOT COMMENTS	JRT
4	01/28/20	FORCE MAIN & IRRIGATION REVISION	ASZ
5	02/11/20	EQD COMMENTS	ASZ
6	09/25/20	PER WAWA	KM

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CAD I.D.:	ODD

PROJECT:
Wawa
FOR
BRIGHTWORK REAL ESTATE
LOCATION OF SITE
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CITY OF JACKSONVILLE

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SHEET NUMBER:
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