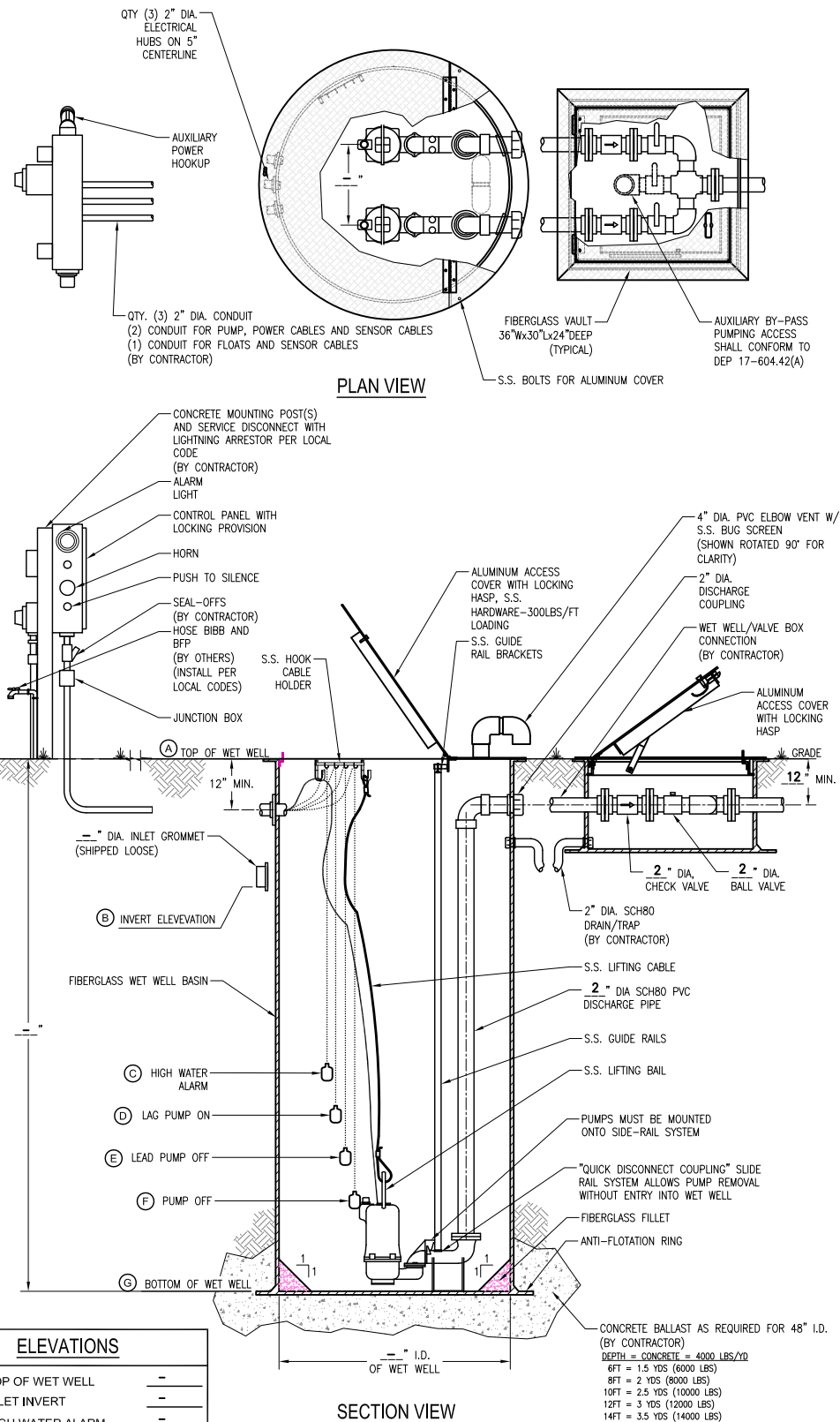


WET WELL/VALVE BOX LAYOUT



ELEVATIONS	
(A)	TOP OF WET WELL
(B)	INLET INVERT
(C)	HIGH WATER ALARM
(D)	LAG PUMP ON
(E)	LEAD PUMP ON
(F)	PUMP OFF
(G)	BOTTOM OF WET WELL

SECTION VIEW

FDEP REQUIREMENTS
 PROVIDE 3/4" WATER LINE WITH A 3/4" RPZ.
 ALL ELECTRICAL PANELS SHALL BE ABOVE THE 100 YEAR FLOOD ELEVATION.

PUMP DATA TABLE	
PUMP MODEL	-
IMPELLER DIAMETER	-
PUMP DESIGN CAPACITY	- GPM
PUMP DESIGN TDH	- FT
SECONDARY CAPACITY	- GPM
SECONDARY TDH	- FT
HORSEPOWER	- HP
VOLTAGE	- V
PHASE	- PH
DISCHARGE SIZE	-"
NOTES:	-

GENERAL NOTES

PUMPS SHALL BE OF THE SUBMERSIBLE TYPE (MANUFACTURED BY HYDOMATIC OR HOMA). EACH PUMP SHALL BE MOUNTED ON A 02" RAIL SYSTEM. THE RAIL SYSTEM SHALL BE SELF ENGAGING RESULTING IN A LEAKPROOF COUPLING. THE RAIL SYSTEM SHALL INCLUDE THE BASE ELBOW, DISCHARGE FLANGE ASSEMBLY, 304SS GUIDE RAILS, 316SS UPPER GUIDE BRACKET, 316SS LIFTING BAIL AND CABLE, AND A SIX-HOOK 316SS CABLE HOLDER. THE RAIL SYSTEM SHALL BE MOUNTED AND PRE-PIPED BY THE PUMP SUPPLIER.

PUMP CONSTRUCTION
 THE PUMP VOLUTE, MOTOR AND SEAL HOUSING SHALL BE CONSTRUCTED OF CAST IRON. ALL EXTERNAL FASTENERS SHALL BE SERIES 300 STAINLESS STEEL. THE PUMP SHAFT SHALL BE CONSTRUCTED OF SERIES 416 STAINLESS STEEL.

IMPELLER
 THE IMPELLER SHALL BE OF MULTI-VANE, SEMI-OPEN CONSTRUCTION. THE IMPELLER SHALL BE STATICALLY AND HYDRAULICALLY BALANCED.

CUTTERS
 A CUTTER ASSEMBLY SHALL BE MOUNTED ON THE SUCTION SIDE OF THE PUMP WITH DIRECT DISCHARGE INTO THE PUMP IMPELLER. THE GRINDER SHALL BE CAPABLE OF GRINDING MATERIALS FOUND IN NORMAL, DOMESTIC SEWAGE. BOTH THE STATIONARY AND ROTATING CUTTERS SHALL BE CONSTRUCTED OF HARDENED STEEL.

MOTOR
 THE MOTOR SHALL BE MOUNTED IN A SEALED, SUBMERSIBLE TYPE HOUSING. THE STATOR SHALL BE SECURELY HELD IN PLACE WITH A REMOVABLE END RING AND THREADED FASTENERS FOR EASE OF REMOVAL WITHOUT THE USE OF HEAT OR A PRESS. THE MOTOR WILL HAVE TWO HEAVY-DUTY BALL BEARINGS; ONE UPPER (RADIAL) AND ONE LOWER (THRUST), TO SUPPORT THE SHAFT. THE MOTOR SHALL BE EQUIPPED WITH A WINDING THERMOSTAT THAT IS WIRED TO SHUT THE MOTOR OFF IN CASE OF MOTOR OVERHEATING.

SEAL CHAMBER
 THE PUMP SHALL HAVE TWO MECHANICAL SEALS, MOUNTED IN TANDEM WITH AN OIL CHAMBER BETWEEN THE SEALS. THE PUMP SHALL BE EQUIPPED WITH A SEAL LEAK DETECTION PROBE AND WARNING SYSTEM BY USING A SEAL FAILURE SENSOR INSTALLED IN THE SEAL CHAMBER.

WET WELL
 THE PUMP SUPPLIER SHALL PROVIDE THE WET WELL. THIS GLASS FIBER-REINFORCED POLYESTER BASIN SHALL BE CONSTRUCTED OF A COMMERCIAL GRADE OF GLASS FIBER AND SHALL BE PROVIDED WITH FILLET AND AN ANTI-FLOTATION RING WITH A MINIMUM DIAMETER OF THREE INCHES LARGER THAN THE BASIN DIAMETER. THE RAIL SYSTEM, INTERNAL PIPING AND DISCHARGE CONNECTIONS SHALL BE PRE-INSTALLED BY THE PUMP SUPPLIER.

HATCH COVER
 THE HATCH COVER SHALL BE 2/3 HINGED TO ALLOW FOR MAXIMUM ACCESS TO THE WET WELL. THE HATCH COVER SHALL BE ALUMINUM WITH STAINLESS STEEL FASTENERS, RATED FOR 300 PSF OR GREATER. THE HATCH COVER SHALL INCLUDE A SINGLE OR DUAL DOOR OF DIMENSIONS SPECIFIED BY THE PUMP MANUFACTURER FOR PROPER PUMP CLEARANCE. THE COVER SHALL BE MANUFACTURED BY US FABRICATION, OR EQUAL.

VALVE BOX
 THE VALVE BOX IS FIBERGLASS WITH ALUMINUM LOCKABLE COVER. STANDARD SIZE VALVE BOX IS 3' X 2 1/2' X 2'.

VALVES
 VALVES SHALL BE SEWAGE SWING CHECK WITH CLEAN-OUT PORTS AND BRASS GATE VALVES.

FLOATS
 FLOATS SHALL BE ANCHOR SCIENTIFIC ROTO-FLOATS OR EQUAL.

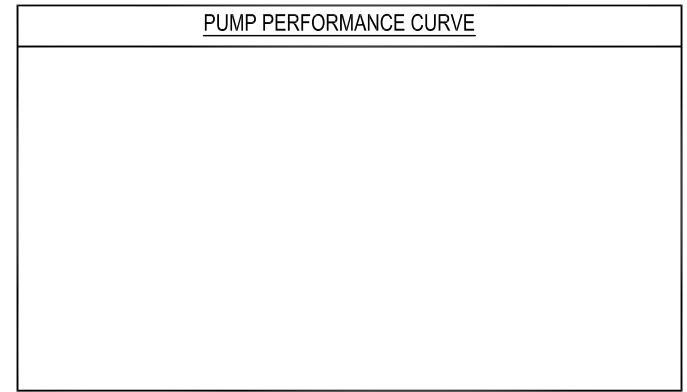
CONTROLS
 THE CONTROL PANEL SHALL BE UL508 LISTED. A NEMA 3R ENCLOSURE SHALL BE PROVIDED IN EITHER FIBERGLASS OR STAINLESS STEEL. THE PANEL SHALL INCLUDE AN ALTERNATING CONTROL SCHEME (DUPLEX AND ABOVE), MAIN CIRCUIT BREAKER, GENERATOR RECEPTACLE, HIGH LEVEL ALARM LIGHT AND HORN, ELAPSED TIME METERS, VOLTAGE OR PHASE MONITOR, SEAL FAILURE AND OVERLOAD SENSORS. THE LIGHTNING ARRESTOR SHALL BE PROVIDED BY CONTRACTOR.

ELECTRICAL
 ALL ELECTRICAL WORK SHALL BE IN ACCORDANCE WITH LOCAL CODES.

SUPPLIER
 PUMP SUPPLIER SHALL PROVIDE SUBMERSIBLE PUMPS, SLIDE RAIL ASSEMBLIES, FIBERGLASS BASIN AND VALVE BOX, CONTROL PANEL, FLOAT SWITCHES, ALUMINUM HATCHES AND ACCESSORIES TO INSURE PROPER OPERATIONS AND WARRANTY. THE COMPLETE PACKAGE PUMPING STATION SHALL HAVE PUMP BASES, RAIL ASSEMBLIES, AND DISCHARGE PIPING ASSEMBLED BY BARNEY'S PUMPS INC. READY FOR FIELD INSTALLATION.

PUMP PACKAGE SHALL BE SUPPLIED BY BARNEY'S PUMPS INC. IN LAKELAND (863-665-8500), CORAL SPRINGS (954-346-0669), OR JACKSONVILLE (904-260-0669), FL.

PUMP PERFORMANCE CURVE

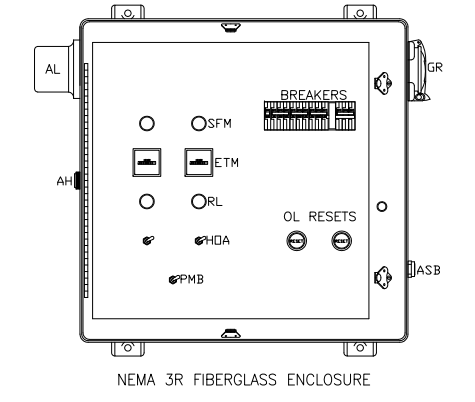


ELECTRICAL DATA

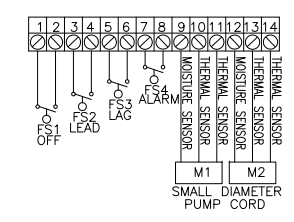
INCOMING POWER: 230V 3Ø
 (CONTRACTOR TO VERIFY)

ENCLOSURE AND DEADFRONT LAYOUT (TYPICAL)

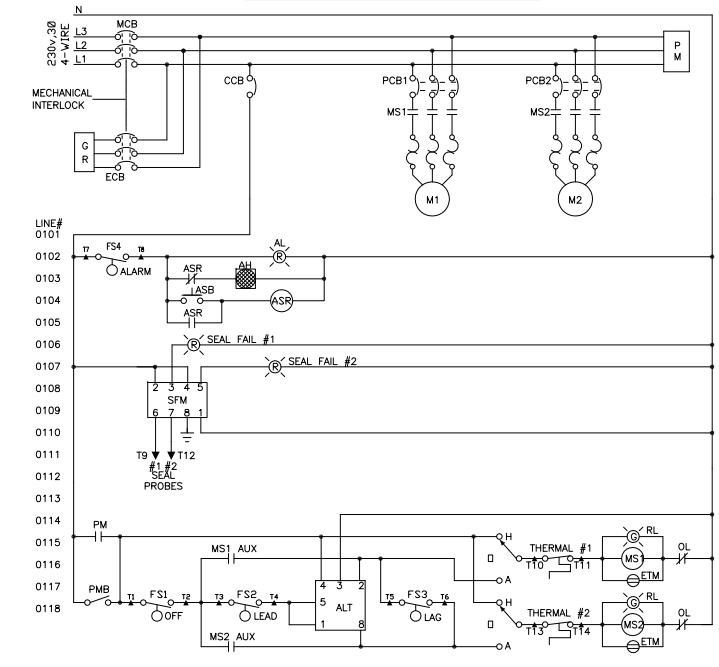
(OUTER DOOR NOT SHOWN FOR CLARITY)



TERMINAL STRIP



THREE PHASE WIRING DIAGRAM



- ALL PANELS SHALL BE UL LISTED AND CONFORM TO FLORIDA DEP 64-604.42A**
- 1) GENERATOR RECEPTACLE WITH INTERLOCK FOR EMERGENCY POWER CONNECTION.
 - 2) SURGE AND LIGHTNING PROTECTION SHALL BE PROVIDED BY CONTRACTOR AND MOUNTED EXTERNAL TO THE CONTROL PANEL.
 - 3) PHASE OR VOLTAGE MONITOR SHALL BE PROVIDED IN CONTROL PANEL.
 - 4) ALL PANELS, WET WELL, VALVE BOX, AND ACCESS DOORS SHALL HAVE LOCKABLE MECHANISMS. CONTRACTOR TO PROVIDE KEYS.
 - 5) POST UNOBSERVED SIGN MADE OF DURABLE WEATHER RESISTANT MATERIAL WITH THE FOLLOWING: PUBLIC NOTICE: IN CASE OF EMERGENCY CONTACT:
6) THE CONTROL PANEL SHALL BE SUITABLY INSTALLED TO PREVENT SETTLING OR TIPPING.
 - 7) FLOAT SWITCHES SHALL BE UL LISTED.
 - 8) SHAFT SEAL FAIL DETECTION

LEGEND

ENC	ENCLOSURE	ASB	ALARM SILENCE BUTTON
MCB	MAIN CIRCUIT BREAKER	HOA	HAND OFF AUTO SWITCH
ECB	EMERGENCY CIRCUIT BREAKER	VMB	VOLT MONITOR BYPASS
PCB1,2	PUMP CIRCUIT BREAKER	RL	RUN LIGHT
CCB	CONTROL CIRCUIT BREAKER	IL	INDICATING LIGHT
MS1,2	MOTOR STARTER	SFM	SEAL FAIL MODULE
OL	OVERLOAD HEATER	ASR	ALARM SILENCE RELAY
GR	GENERATOR RECEPTACLE	RC	RUN CAPACITOR
VM	VOLT MONITOR	SC	START CAPACITOR
ETM	ELAPSED TIME METER	STR	START RELAY
ALT	ALTERNATOR	PM	PHASE MONITOR
AH	ALARM HORN	PMB	PHASE MONITOR BYPASS
AL	ALARM LIGHT		

UL LISTED
 ENCLOSED INDUSTRIAL CONTROL PANEL

PANEL MANUFACTURER SHALL BE UL 508 AND UL 698A LISTED.

BARNEY'S PUMPS, INC.
 PO BOX 3529, LAKELAND, FL 33802
 PHONE: (863) 665-8500 FAX: (863) 666-3858

PROJECT: _____
 CUSTOMER: _____ SALESPERSON: _____

TITLE: GRINDER DUPLEX FIBERGLASS LIFT STATION - THREE PHASE
 DATE: 04/04/2014 DWG. #: WW2GFVM_3PH DRAWN BY: R.R.B. REV. 0