

NO.	DATE	DESCRIPTION	REVISIONS



DAPHNE UTILITIES

PROJECT NAME
LIFT STATION PUMP CONTROL PANEL
DETAIL SHEET 1 OF 2

PROJECT NAME
SHEET NAME

VOLKERT

DESIGNED: XXX
CHECKED: XXX

DRAWN: XXX
CHECKED: XXX

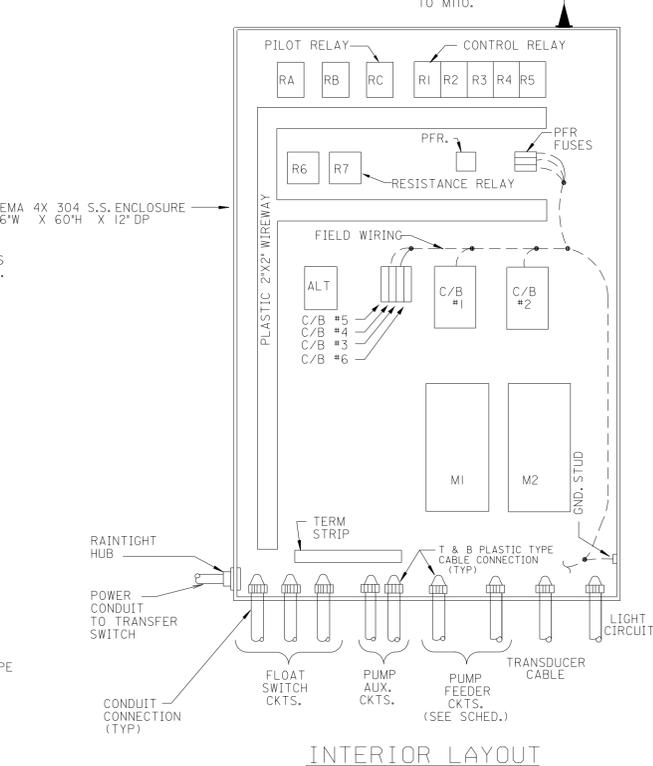
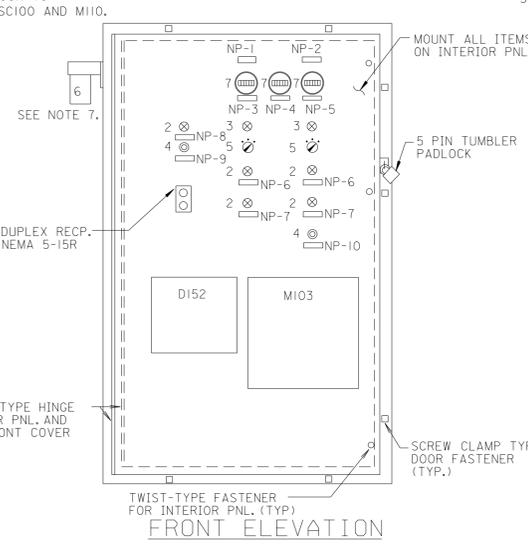
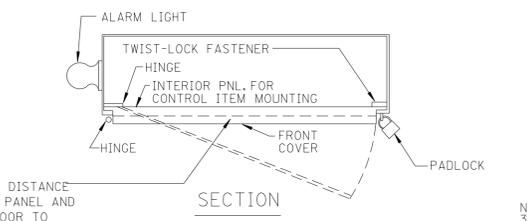
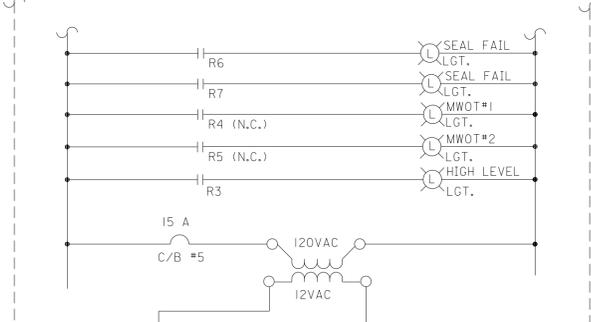
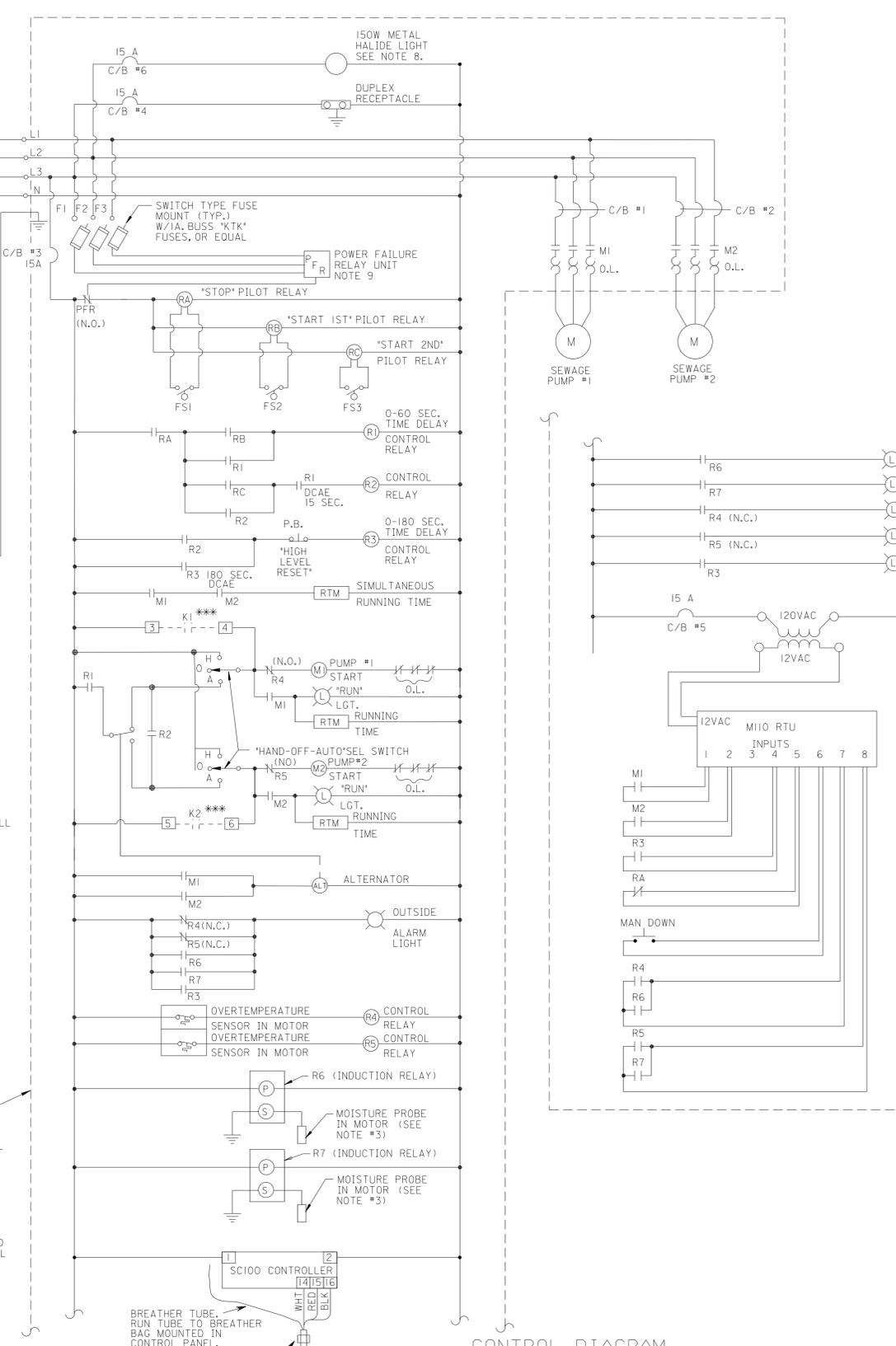
DATE: 02 / 03 / 16

PROJECT NO.: 000000.AU

ELECTRICAL DRAWING NO.:

CONTROL PANEL LEGEND

SYMBOL	DESCRIPTION
1	RUNNING TIME METER-SEMI FLUSH MTD., NON-RESET TYPE, TO INDICATE 99999.9 HOURS.
2	PILOT LIGHT-HEAVY DUTY, OIL TIGHT TYPE, WITH RED GLASS LENS CAP, INCAND. LAMP.
3	PILOT LIGHT-HEAVY DUTY, OIL TIGHT TYPE, WITH GREEN GLASS LENS CAP, INCAND. LAMP AND 'ON' LEGEND PLATE.
4	PUSHBUTTON-HEAVY DUTY, OIL-TIGHT TYPE.
5	SELECTOR SWITCH-HEAVY DUTY, OIL TIGHT TYPE, 3-POSITION, WITH 'HAND-OFF-AUTO' LEGEND PLATE.
6	EXTERIOR ALARM LIGHT-WEATHERPROOF BRACKET TYPE WITH CAST ALUM. HOUSING, NEOPRENE GASKET, RED POLYCARBONATE LENS, AND 1-100W I.F. LAMP.
7	DUPLEX RUN TIME METER
NP-1*	NAMEPLATE 'PUMP #1'
NP-2*	NAMEPLATE 'PUMP #2'
NP-3*	NAMEPLATE 'PUMP #1 HOURS'
NP-4*	NAMEPLATE 'SIMULTANEOUS HOURS'
NP-5*	NAMEPLATE 'PUMP #2 HOURS'
NP-6*	NAMEPLATE 'MOTOR OVERTEMPERATURE'
NP-7*	NAMEPLATE 'SEAL FAILURE'
NP-8*	NAMEPLATE 'HIGH LEVEL'
NP-9*	NAMEPLATE 'HIGH LEVEL RESET'
NP-10*	NAMEPLATE 'MAN DOWN'
RA, RB, RC	PILOT RELAY - 120V INPUT, 8A OUTPUT CONTACTS, INTRINSICALLY SAFE SENSING CIRCUITRY (WARRICK 17A1CO, OR EQUAL).
RI THROUGH R5	CONTROL RELAY-120V, 10 AMPS, WITH CONVERTIBLE TYPE CONTACTS, NUMBER OF POLES, AND TIME DELAY VALUES AS NOTED. (SQUARE D 8501 - X OR EQUAL.)
R6, R7	RESISTANCE RELAY-120V, 16AMP, 10V D.C. SENSING CKT. (WARRICK 2800-1CO OR EQUAL) SEE NOTE #3
ALT	ALTERNATOR-FURNAS 47AB10AF
PFR	POWER FAILURE RELAY UNIT-ENCLOSED TYPE PLUG-IN STYLE WITH SOCKET, 20 PERCENT ADJUSTABLE (TIME MARK MODEL 2589 OR EQUAL.)
FS-1, FS-2, FS-3	FLOAT SWITCH-CONSOLIDATED MODEL 9G OR EQUAL.
F1 THRU F3	CONTROL FUSE-CURRENT LIMITING TYPE, 1A, BUSS 'KTK', OR EQUAL, WITH SWITCH TYPE MOUNT.
C/B #3, C/B #4	CONTROL CIRCUIT BREAKERS, SQUARE D TYPE '00' OR EQUAL.
C/B #5, C/B #6	MOTOR CIRCUIT PROTECTOR, 3 POLE
C/B #1, C/B #2	MOTOR STARTER, MAGNETIC, 3 POLE, FVNR, 600VAC, 120VAC CONTROL, WITH OVERLOAD RELAY, NO ENCLOSURE, SIZE PER NEMA STANDARDS.
MI AND M2	MPE ELECTRONIC SC100 DUPLEX PUMP AND ALARM CONTROLLER-ALTERNATOR
SC100	MISSION COMMUNICATIONS MI10 FLATPAK RTU. ANTENNA FURNISHED WITH MI10, ROUTE ANTENNA CABLE TO MI10.
MI10	



- NOTES:**
- CONTRACTOR SHALL PROVIDE COMPLETE METERING SYSTEM IN ACCORDANCE WITH THE UTILITY COMPANY'S DETAILED REQUIREMENTS.
 - SWITCHES SHALL BE THOROUGHLY CLEAN OF SURFACE FILMS AFTER INSTALLATION AND GIVEN ONE COAT OF INDURALL RAPID DRY EPOXY PRIMER H-1175 AND TWO FINAL COATS OF INDURALL 2-PART EPOXY PAINT 'PERMA-CLEAN', OR APPROVED EQUAL.
 - INDUCTION RELAY SENSITIVITY RESISTORS SHALL BE PROVIDED TO CO-ORDINATE WITH PUMP MANUFACTURER'S DATA.
 - POSITION THE CABLE CONNECTORS AND CONDUIT AT EDGE OF HATCHWAY AND 6" BELOW TOP SLAB TO ALLOW CHANGING CABLES FROM OUTSIDE THE WET WELL.
 - USE 1 K OHM END-OF-LINE RESISTORS AT EACH MONITORED RELAY PER MI03 MANUFACTURER'S INSTRUCTIONS.
 - CONTRACTOR TO VERIFY THAT COMPONENTS WILL FIT INTO ENCLOSURE WHILE MAINTAINING NEC REQUIRED CLEARANCES.
 - LOCATION OF ALARM LIGHT SHALL BE VERIFIED WITH THE OWNER PRIOR TO INSTALLATION. A STANCHION HOLDING THE LIGHT HIGHER THAN THE CABINET MAY BE REQUIRED.
 - MOUNT AREA LIGHT AT TOP OF SERVICE POLE, RUN 3 #12 WIRES IN 3/4" CONDUIT FROM CONTROL PANEL TO LIGHT. LIGHT SHALL BE 150W, 120VAC METAL HALIDE FIXTURE WITH FUSE AND PHOTO CELL.
 - IF 480 VAC SERVICE IS APPROVED, 480/120 VAC CONTROL POWER TRANSFORMER SHALL BE INSTALLED.
 - IF VFD'S ARE USED FOR MOTOR STARTERS, SPEED SIGNAL PROPORTIONAL TO WET WELL LEVEL SHALL BE DEVELOPED BY SC100 AND FED TO VFD'S.



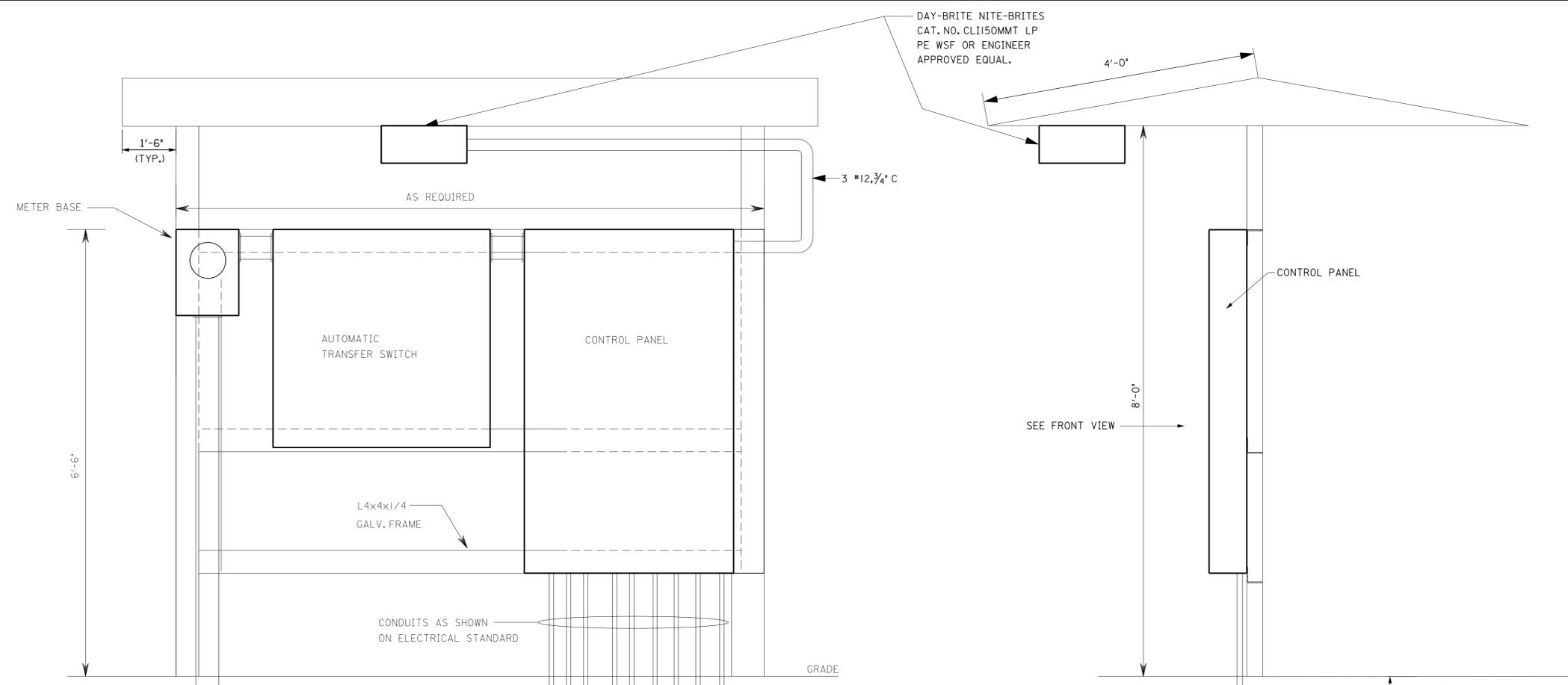
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NO.	DATE	DESCRIPTION	REVISIONS



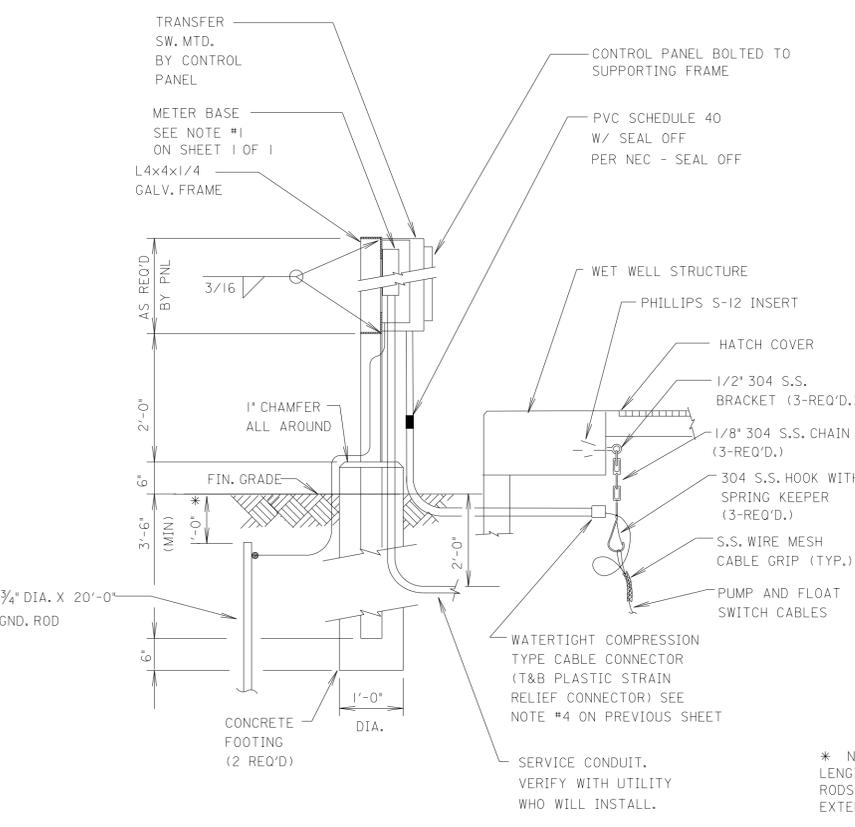
CONSTRUCTION DETAILS
LIFT STATION PUMP CONTROL PANEL
DETAIL SHEET 2 OF 2

DESIGNED:	CHECKED:
DRAWN:	CHECKED:
DATE: 03 / 28 / 17	



DAY-BRITE NITE-BRITES
CAT. NO. CLI150MMT LP
PE. WSF OR ENGINEER
APPROVED EQUAL.

- ROOF NOTES:
1. TRUSSES SHALL BE PRESSURE TREATED TIMBERS MECHANICALLY ATTACHED TO 4"x4"x1/4" GALV. FRAME.
 2. ROOF DECKING SHALL BE 5/8" EXTERIOR PLYWOOD w/ BLACK FELT AND 70" ASPHALT SHINGLES.
 3. ROOFING DECK SHALL BE ATTACHED TO TRUSS w/ GALVANIZED ROOFING NAILS ON 6" CENTERS EACH WAY.



* NOTE: PER SPECIFICATIONS, GROUND RODS SHALL BE A MIN. DEPTH OF 20 FEET. ADDITIONAL LENGTH SHALL BE INSTALLED IF SITE CONDITIONS NECESSITATE ADDITIONAL LENGTH. GROUND RODS NEAR THE STATION AND METER WHICH WILL NOT CAUSE A TRIPPING HAZARD SHALL EXTEND ABOVE THE GROUND.

STA NO.	ELECTRICAL SERVICE	TRANSFER SWITCH **	MAIN SERVICE ENTRANCE	PUMP MOTORS			
				HP	CKT. BKR.	STARTER	FEEDER CIRCUIT

CONTRACTOR TO BE RESPONSIBLE FOR PROPER SIZING OF ELECTRICAL COMPONENTS IN ACCORDANCE WITH NEC AND NEMA STANDARDS. CHANGES IN MOTOR HORSEPOWER AS A RESULT OF 'OR EQUAL' SUBMITTALS SHALL BE ACCOMPANIED BY APPROPRIATE CHANGES IN ELECTRICAL COMPONENTS.

STATION ELECTRICAL DETAILS

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 Us: Projects: 03/08/17
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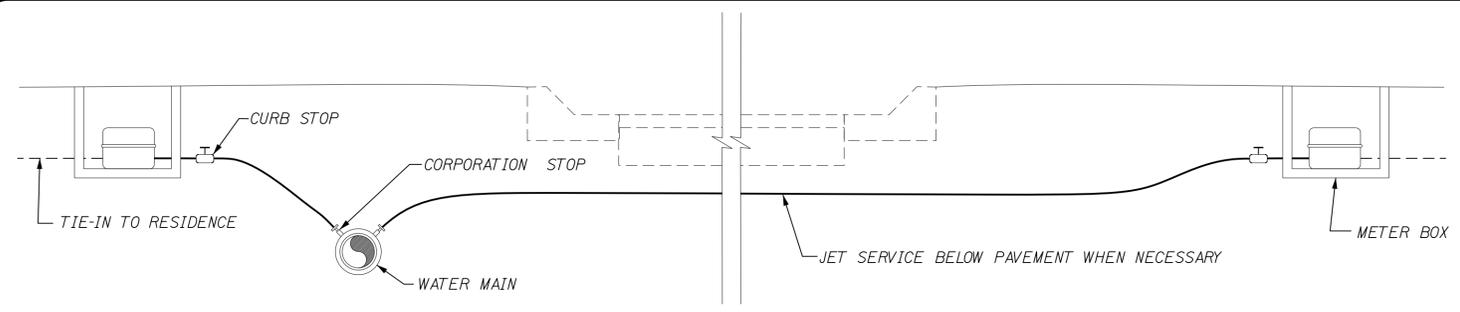
NO.	DATE	DESCRIPTION	REVISIONS



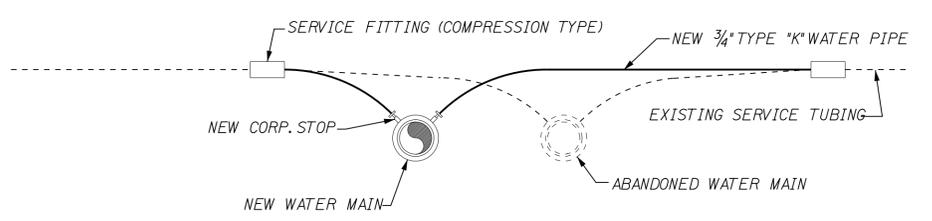
PROJECT NAME	CONSTRUCTION DETAILS
SHEET NAME	

DESIGNED:	CHECKED:
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DATE:	03 / 28 / 17

PROJECT NO.:	CONSTRUCTION DETAILS
DRAWING NO.:	8 OF 12



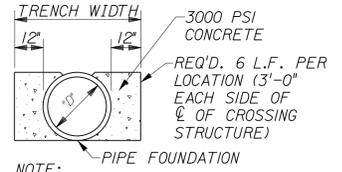
TYPICAL SERVICE CONNECTION
(WATER)



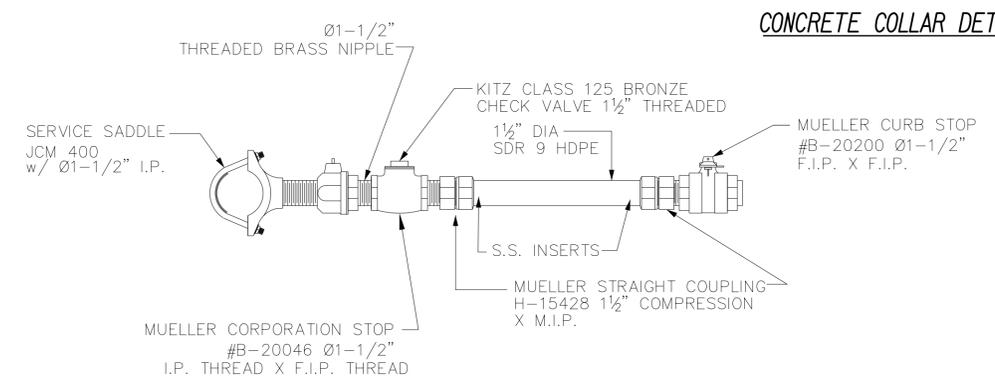
CONNECTING EXISTING SERVICES
(WATER)

- NOTES:
1. ALL CURB STOPS, CORPORATION STOPS, FITTINGS, AND OTHER RELATED ITEMS FOR SERVICE CONNECTIONS SHALL BE IN ACCORDANCE WITH MATERIALS NORMALLY USED BY DAPHNE UTILITIES.
 2. SPECIFIED REBAR IS A MINIMUM REQUIREMENT. PROJECT SPECIFIC CONDITIONS SHALL TAKE PRECEDENCE.

"D" (INCHES)	CU. YDS. OF CONC. PER LOCATION
10 OR LESS	0.60
15	0.84
18	1.02
24	1.44
30	1.80
36	2.02
42	2.06
48	3.60

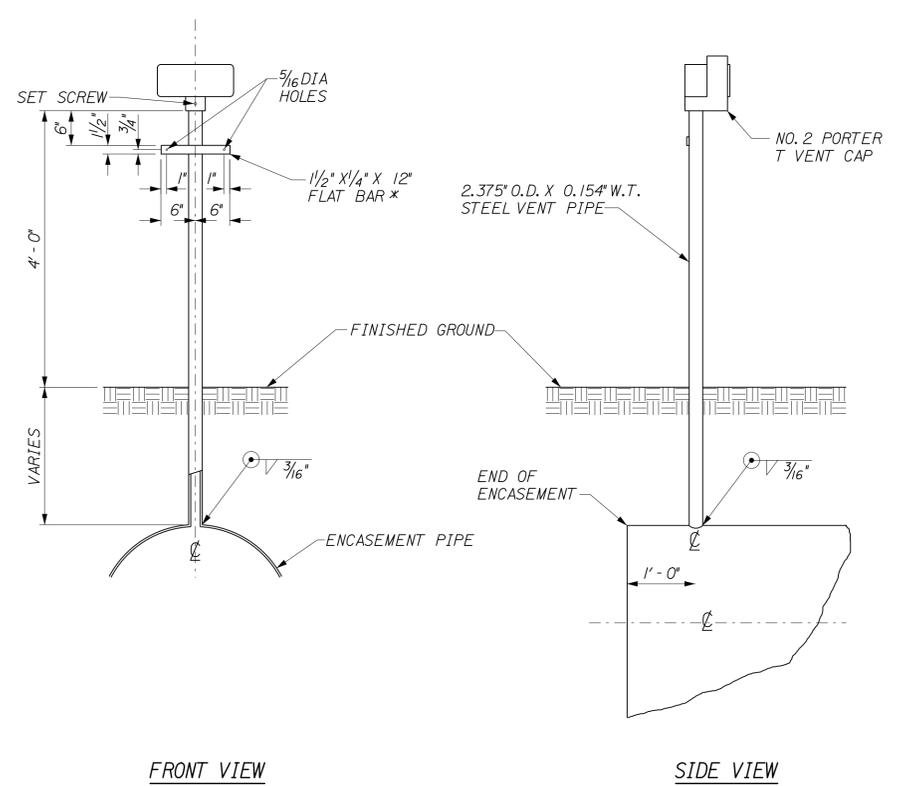


CONCRETE COLLAR DETAIL

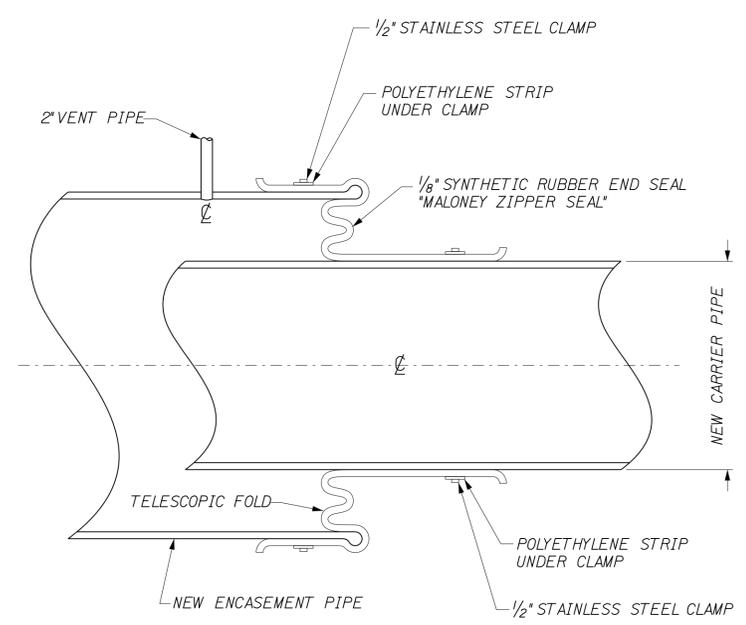


LOW PRESSURE SEWER SERVICE
N.T.S.

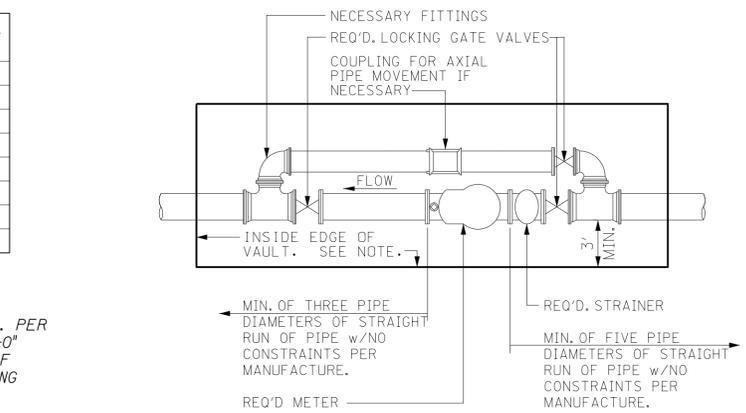
NOTE:
LOW PRESSURE SEWER SERVICE ASSEMBLY SHALL INCLUDE A METER BOX WITH GREEN LID.



TYPICAL VENT PIPE DETAIL
N.T.S.

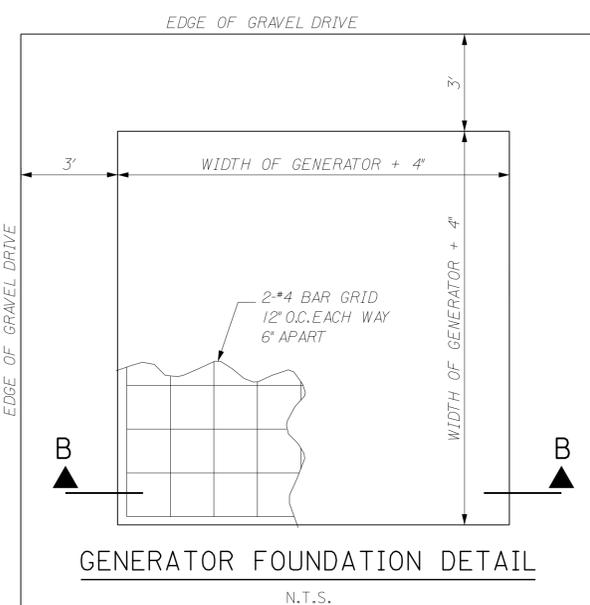


TYPICAL CASING END SEAL
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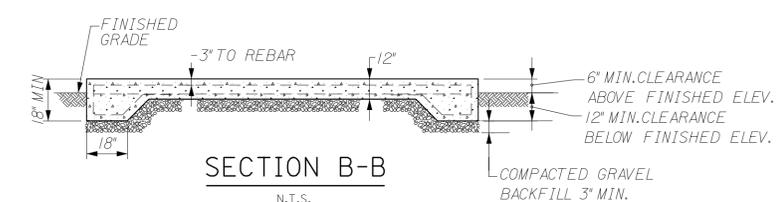


TYPICAL WATER METER ASSEMBLY

- NOTES:
1. CONCRETE OR FIBERGLASS VAULT, RATED FOR HEAVY TRAFFIC, SHALL BE SIZED AS NECESSARY TO MAINTAIN A MINIMUM 3 FT. CLEARANCE AROUND METER ASSEMBLY. VAULT DEPTH SHALL NOT EXCEED 3 FT. & SHALL HAVE A MINIMUM OF 6 INCHES OF GRAVEL IN BOTTOM.
 2. THE VAULT SHALL INCLUDE ALUMINUM, STAINLESS STEEL OR FIBERGLASS LID RATED FOR TRAFFIC w/A CAST IRON READER DOOR.



GENERATOR FOUNDATION DETAIL
N.T.S.



SECTION B-B
N.T.S.

NO.	DATE	DESCRIPTION	REVISIONS



PROJECT NAME
CONSTRUCTION DETAILS

SHEET NAME
SIMPLEX GRINDER
SEWAGE PUMPING STATION

DESIGNED: CHECKED:

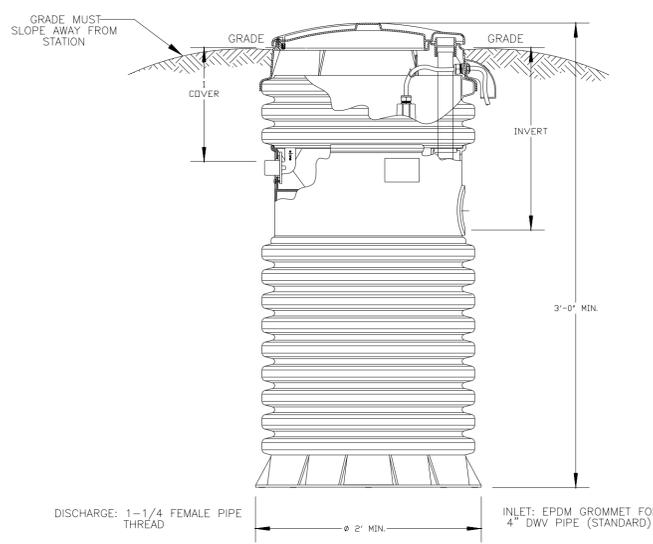
DRAWN: CHECKED:

DATE: 03 / 28 / 17

PROJECT NO.:

CONSTRUCTION DETAILS
DRAWING NO.:

12 OF 12



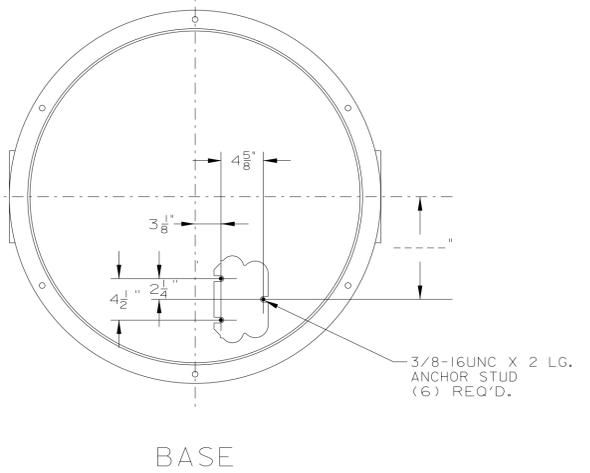
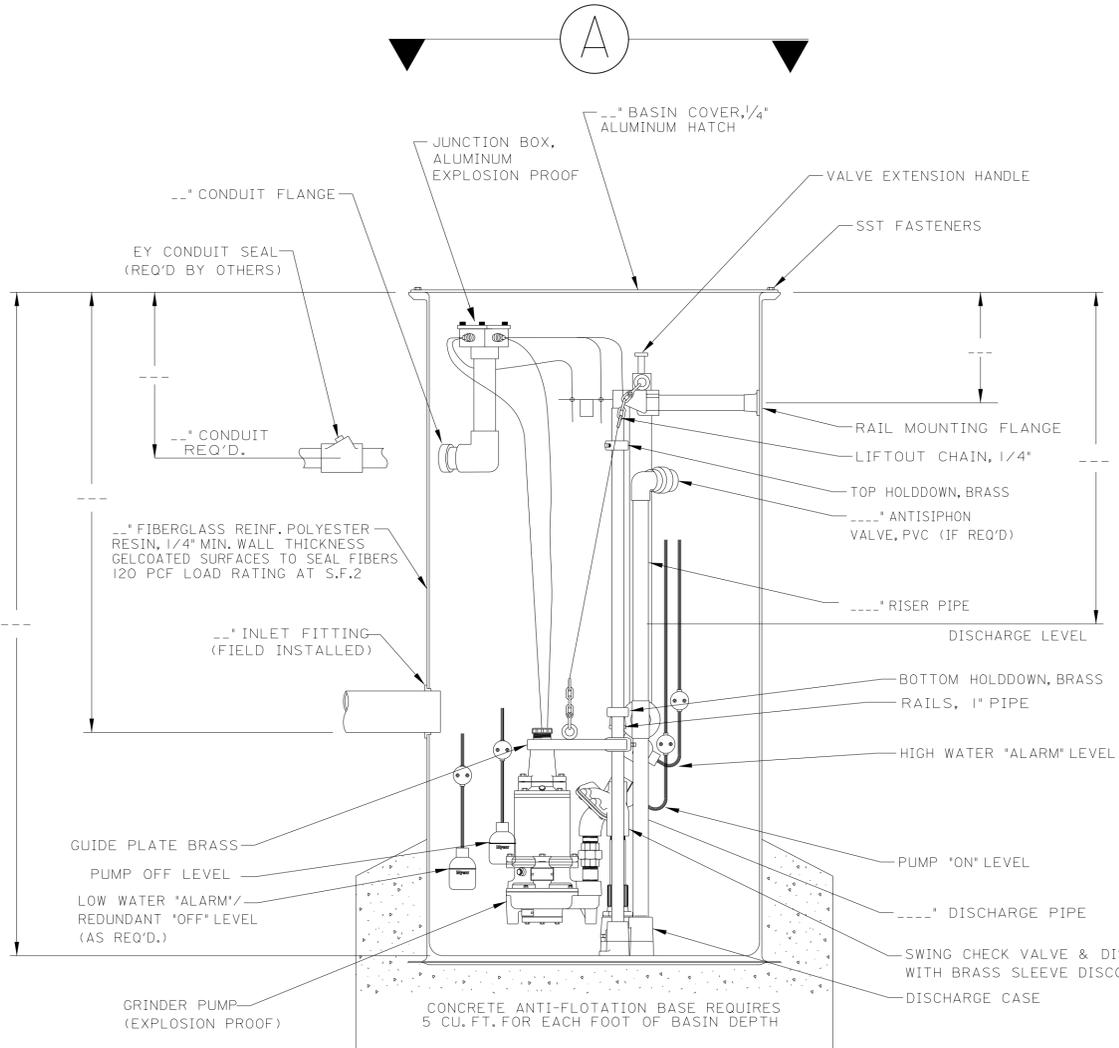
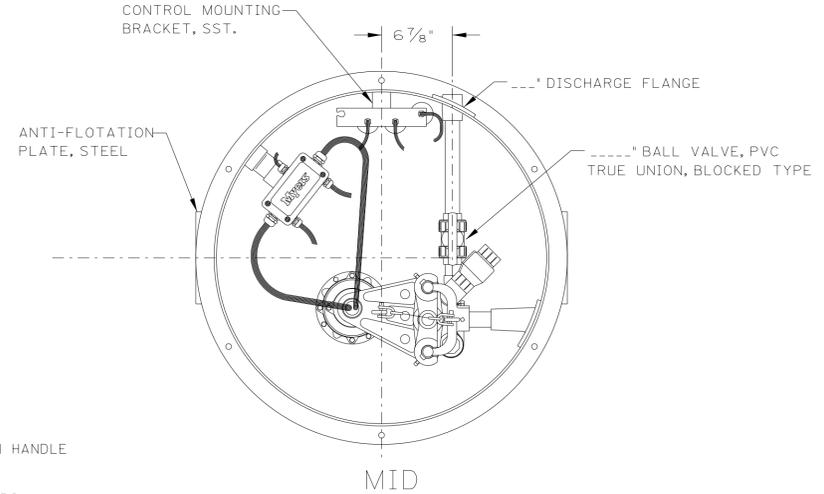
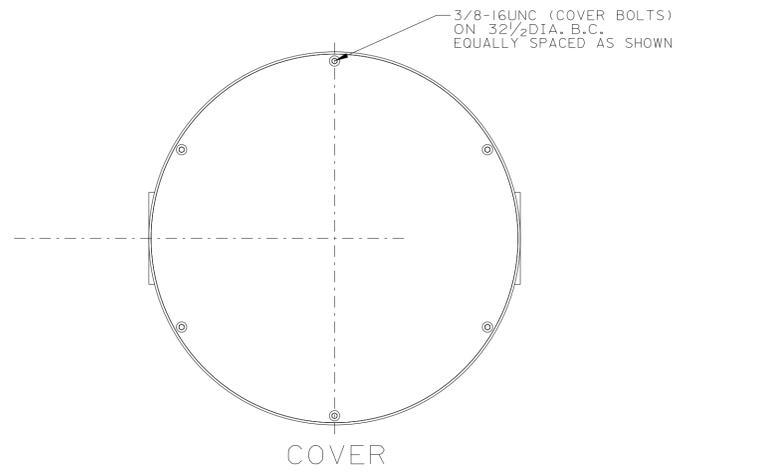
TYPICAL INSTALLATION

--" SIMPLEX GRINDER PUMP PACKAGE WITH REMOTE MOUNTED CONTROL PANEL

PUMP MODEL: -----

DESIGN PARAMETERS:

- NOTES:
- 1) INTERMEDIATE RAIL SUPPORT REQUIRED FOR BASINS OVER 16 FEET.
 - 2) IF USING FIBERGLASS REINFORCED PLASTIC HOLDDOWN ASSEMBLY, ADDITIONAL LOWER HOLDDOWN MUST BE USED FOR BASINS 12 FEET AND OVER.
 - 3) CONTROL PANEL SHALL BE BE A NEMA 4X TYPE CONSTRUCTION.



PLAN VIEWS

RECOMMENDED OPTION FOR GRINDER STATIONS
NOT INSTALLED BY DAPHNE UTILITIES

User: Is: malone
 Us: Pr: olectris: 20170319
 Gen: Eng: 2016-11-21
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 Strnd: Specs: Standard
 Drawings: 2
 Details: Grinders: Simplex.dgn
 Plot: Scale: 1:000000:1:000000
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