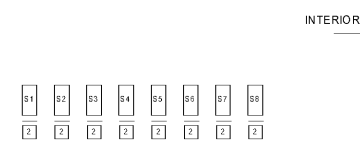
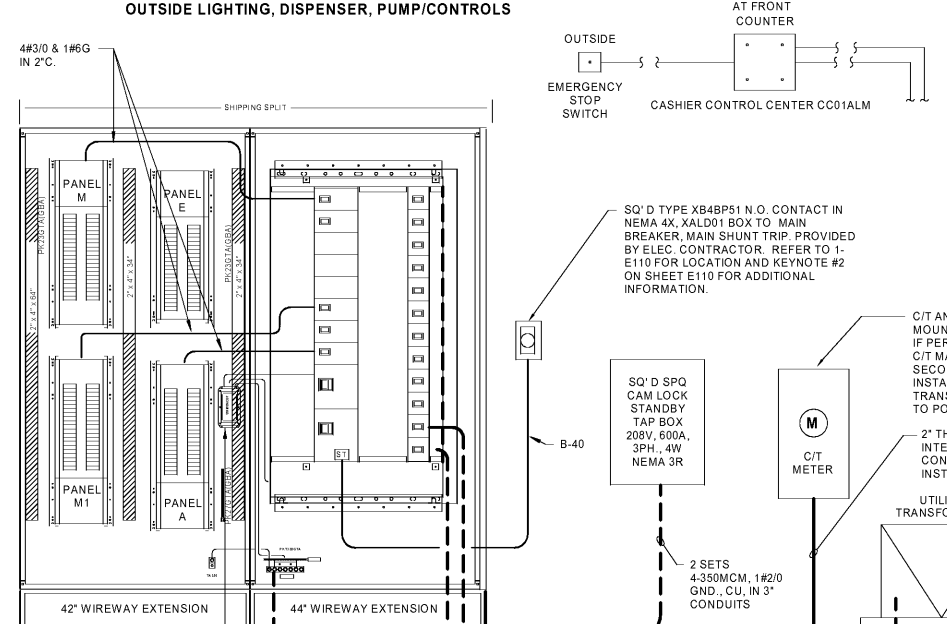


CONTRACTOR MUST INSTALL LIGHT SENSOR ABOVE ROOF AND CONNECT SHIELDED CABLE TO TERMINAL STRIP LOCATED IN SQUARE D IPACS CABINET. 50 FEET OF CABLE PROVIDED WITH SYSTEM (CLEAR COVER SHOULD BE FACING NORTH AFTER INSTALLATION BY E.C.)



CABINET LAYOUT

OUTSIDE LIGHTING, DISPENSER, PUMP/CONTROLS



SO'D TYPE XB4BP51 N.O. CONTACT IN NEMA 4X, XALD01 BOX TO MAIN BREAKER. MAIN SHUNT TRIP PROVIDED BY ELEC. CONTRACTOR. REFER TO 1-E110 FOR LOCATION AND KEYNOTE #2 ON SHEET E110 FOR ADDITIONAL INFORMATION.

SO'D SPO CAM LOCK STANDBY TAP BOX 208V, 600A, 3PH., 4W NEMA 3R

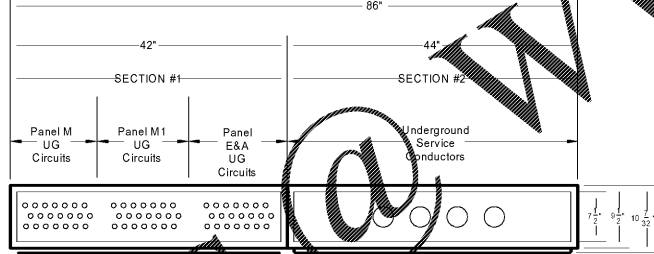
ELECTRICAL SERVICE SCHEMATIC NOTES

(ALL LOADS SHALL BE COORDINATED WITH SQUARE D PRE-FABRICATED ASSEMBLY)

- THIS CONTROL PANEL INCLUDES ALL SQUARE D PANELBOARDS, BREAKERS, LIGHTING CONTROLS, DISPENSER AND SUBMERSIBLE PUMP CONTROLS, PILOT LIGHTS, SWITCHES, TERMINAL STRIPS AND POWER CONDITIONING DEVICES WHICH ARE PREINSTALLED AND INTERNALLY PREWIRED.
- THE ENCLOSURE MATERIAL IS 1/8" ALUMINUM.
- THE ENTIRE BOTTOM OF CABINET IS OPEN EXCEPT FOR A 1" FLANGE ON EACH SECTION. THE ENTIRE TOP OF CABINET IS SOLID. HOLES CAN BE KNOCKED OUT FOR CONDUIT ENTRY EVERYWHERE EXCEPT WHERE CABINETS JOIN TOGETHER.
- THE METER CABINET, AND PULL SECTION EQUIPMENT LOCATED OUTSIDE THE BUILDING IS NOT PART OF THE SQUARE D IPACS SYSTEM IF APPLICABLE.

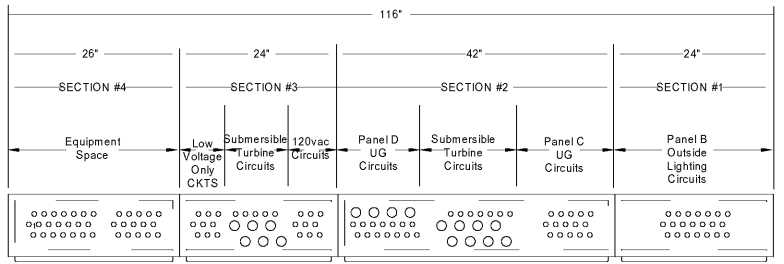
TYPICAL UNDERGROUND CONDUIT ENTRY LOCATIONS

(Conduits shown are typical. Actual requirements may vary)



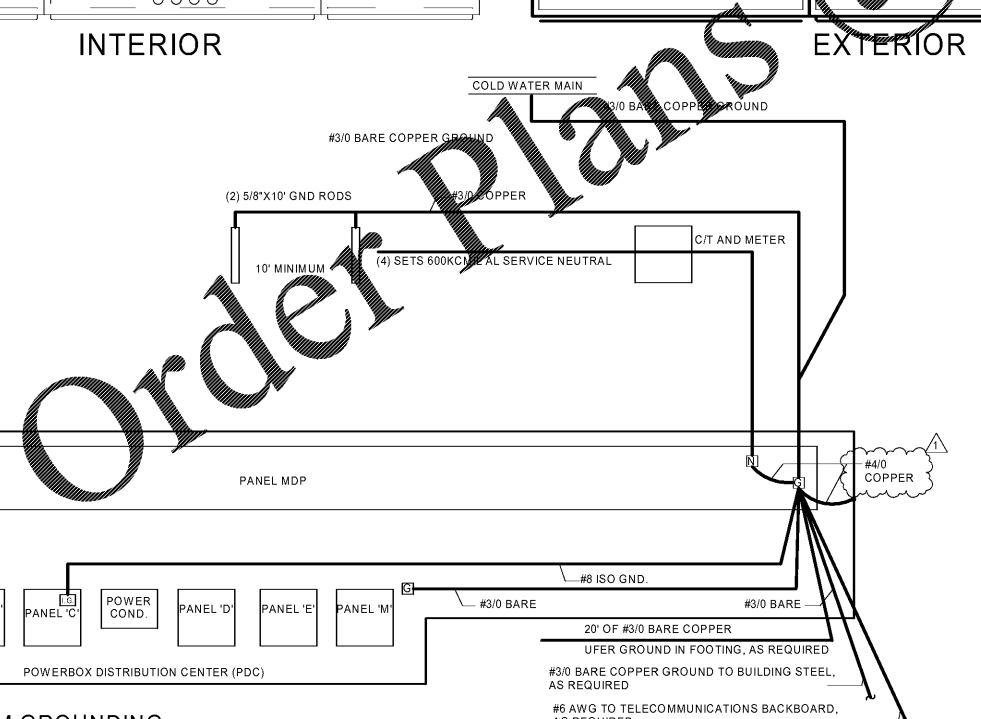
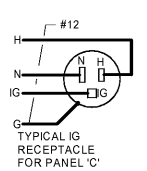
KEYNOTES

- ROUTE LOW VOLTAGE SPEAKER WIRES THROUGH 26" WIREWAY UP TO LOW VOLTAGE DISCONNECT.
- ROUTE 3#10 & 1#10G IN 3/4" C FROM PANEL D UP TO VARIABLE FREQUENCY CONTROLLER (VFC). ROUTE 3#10 & 1#10G IN 3/4" C FROM VFC TO SUBMERSIBLE TURBINE PUMPS.
- CONTACTORS, RELAYS, AND CONTROLS SHALL BE RATED FOR 10KAIC. A MINIMUM OF 5'-0" LENGTH OF WIRES SHALL BE PROVIDED BETWEEN THE PANELS AND THE CONTROLS.



INTERIOR

EXTERIOR



1 SINGLE LINE DIAGRAM GROUNDING

N.T.S.

MAIN DISTRIBUTION PANEL: MDP

Location: DRY GOODS RECEIVING 109
Supply From:
Mounting: PRE-FABRICATED
Enclosure: PRE-FABRICATED

Volts: 120/208 Wye
Phase: 3
Wires: 4

A.I.C. Rating: 65,000 SERIES RATED
Mains Type: MCB 100% RATED
Mains Rating: 1200 A
MCB Rating: 1200 A

Notes	CKT	Circuit Description	Circuit Information	Trip	Poles	A	B	C	
CT 1	RTU-1		3#2 & 1#6GND, IN 1-1/2" CONDUIT	100 A	3	11648 VA	11648 VA	11648 VA	
CT 2	RTU-2		3#1 & 1#6GND, IN 1-1/2" CONDUIT	110 A	3	12129 VA	12129 VA	12129 VA	
CT 3	RTU-3		3#8 & 1#6GND, IN 3/4" CONDUIT	50 A	3	5764 VA	5764 VA	5764 VA	
CT 4	RTU-4		3#8 & 1#6GND, IN 3/4" CONDUIT	50 A	3	564 VA	5164 VA	5164 VA	
CT 5	SPARE			50 A	1	0 VA	0 VA	0 VA	
CT 6	SPARE			50 A	1	0 VA	0 VA	0 VA	
CT 7	SPD		3#10 & 1#10GND, IN 3/4" CONDUIT	30	3	0 VA	0 VA	0 VA	
P 20	PANEL M		4#3/0 & 1#6GND, INTERNALLY PRE-WIRED, INSTALLED	200 A	3	20787 VA	20457 VA	20432 VA	
P 23	PANEL M1		4#3/0 & 1#6GND, INTERNALLY PRE-WIRED, INSTALLED	200 A	3	21286 VA	21108 VA	21440 VA	
P 26	PANEL		4#3/0 & 1#6GND, INTERNALLY PRE-WIRED, INSTALLED	200 A	3	9371 VA	12142 VA	7526 VA	
P 29	PANEL B		4#3/0 & 1#6GND, INTERNALLY PRE-WIRED, INSTALLED	200 A	3	10702 VA	7765 VA	8852 VA	
P 32	PANEL D		4#3/0 & 1#6GND, INTERNALLY PRE-WIRED, INSTALLED	200 A	3	17586 VA	17526 VA	14768 VA	
P 35	PANEL E		4#3/0 & 1#6GND, INTERNALLY PRE-WIRED, INSTALLED	200 A	3	21778 VA	20504 VA	16089 VA	
P 37	GENERATOR CONNECTION BOX		(2) SETS 4#350KCMIL & 1#2/0GND, IN 3" CONDUIT (KIRK KEY INTERLOCK)	600 A	3	0 VA	0 VA	0 VA	
-- 40	SPACE			--	--	0 VA	0 VA	0 VA	
-- 41	SPACE			--	--	0 VA	0 VA	0 VA	
-- 42			REFER TO ELECTRICAL SERVICE SCHEMATIC ELEVATION FOR SERVICE...			0 VA	0 VA	0 VA	
-- 43	MAIN BREAKER			1200 A	3	0 VA	0 VA	0 VA	
-- 44						0 VA	0 VA	0 VA	
-- 45	ERMS SMART CELL					0 VA	0 VA	0 VA	
-- 46	ERMS SMART CELL					0 VA	0 VA	0 VA	
-- 47	ERMS SMART CELL					0 VA	0 VA	0 VA	
-- 48	ERMS SMART CELL					0 VA	0 VA	0 VA	
-- 49	SPACE					0 VA	0 VA	0 VA	
-- 50	SPACE					0 VA	0 VA	0 VA	
-- 51	SPACE					0 VA	0 VA	0 VA	
-- 52	SPACE					0 VA	0 VA	0 VA	
-- 53	SPACE					0 VA	0 VA	0 VA	
-- 54	SPACE					0 VA	0 VA	0 VA	
						Total Load:	136214 VA	134207 VA	123812 VA
						Total Amps:	1148 A	1132 A	1032 A

Load Classification	Connected Load	Demand Factor	Estimated...	Panel Totals
HVAC	116786 VA	100.00%	116786 VA	
Lighting	32362 VA	125.00%	40452 VA	Total Conn. Load: 394232 VA
Other	7827 VA	100.00%	7827 VA	Total Est. Demand: 339703 VA
Power	52431 VA	100.00%	52431 VA	Total Conn. Current: 1094 A
Receptacle	19534 VA	75.60%	14767 VA	Total Est. Demand Current: 943 A
Kitchen Equipment	165292 VA	65.00%	107440 VA	

Notes:

NOTES FOR THIS DRAWING

- THE POWERWALL DISTRIBUTION CENTER (PDC) IS INSTALLED BY THE ELECTRICAL CONTRACTOR AND FURNISHED BY THE OWNER. THIS CONTROL PANEL INCLUDES ALL SQUARE 'D' PANELBOARDS, BREAKERS, LIGHTING CONTRACTORS, CONTROLS, DISPENSER, AND SUBMERSIBLE PUMP CONTROLS. PILOT LIGHTS, SWITCHES, TERMINAL STRIPS, AND PANEL 'C' POWER CONDITIONER ARE PREINSTALLED AND INTERNALLY PREWIRED ALL CIRCUIT BREAKERS, LIGHTING CONTROLS WITH BYPASS SWITCHES, DISPENSER AND SUBMERSIBLE PUMP CONTROLS, AND REMOTE EMERGENCY STOP CONTROLS ARE PREWIRED TO TERMINAL STRIPS AT THE TOP OR BOTTOM OF THE PDC. ALL NEUTRAL BARS AND GROUND BARS ARE FURNISHED WITH THE SYSTEM. A SPECIAL ISOLATED GROUND BAR IS FURNISHED WITH PANEL 'C'. REFER TO PDC SHOP DRAWINGS FOR TERMINATION POINTS.
- CASHIER CONTROL CENTER (CONTAINS EMERGENCY STOPS, RESET SWITCH, ALARMS AND LIGHTING OVERRIDE SWITCH), AUXILIARY EMERGENCY STOPS, AND LIGHT SENSOR ARE FURNISHED WITH PDC, INSTALLED BY THE ELECTRICAL CONTRACTOR.
- ANY DISCREPANCY BETWEEN THESE DOCUMENTS AND THE SHOP DRAWINGS MUST IMMEDIATELY BE BROUGHT TO THE ATTENTION OF THE ENGINEER OF RECORD.
- ELECTRICAL CONTRACTOR SHALL BALANCE THE LOAD ON EACH PHASE LEG USING THE UNUSED 'AREA LIGHTS', 'CANOPY LIGHTS', AND BUILDING SIGNAGE CIRCUITS (STAYING WITHIN SIMILAR BUILDING FUNCTIONS).
- DISCONNECT SWITCHES ARE NOTED AS SIZE/FUSES (EXAMPLE: 60/40 IS 60 AMP FUSED DISCONNECT SWITCH WITH 40 AMP FUSES).
- WIRE SIZE OF BRANCH CIRCUITS SHALL BE MINIMUM #12 AWG, BUT NO LESS THAN PERMITTED BY THE NEC FOR SPECIFIED OVERCURRENT PROTECTION.
- ALL FEEDER CONDUCTORS NOT INTERNAL TO THE INTEGRATED PACKAGE SHOULD BE SHOWN AS DASHED, AND WIRING SHOWN DASHED IS NOT INSTALLED BY POWERWALL AND SIZED PER NEC, BASE ON ORIGINATING BREAKER SEE APPROPRIATE PANELBOARD SCHEDULES.
- THE PDC IS UL LISTED. STANDARD ASSEMBLY IS 65,000 AIC SERIES RATED WITH FEEDER BREAKER. EC SHALL VERIFY AVAILABLE FAULT CURRENT AND SERVICE CHARACTERISTICS WITH LOCAL ELECTRIC UTILITY COMPANY PRIOR TO ORDERING PDC.
- THE PDC WILL BE SHIPPED IN SECTIONS ON A PALLET & BOLTED TOGETHER AT THE JOBSITE. COORDINATE WITH THE GENERAL CONTRACTOR.
- ELECTRICAL CONTRACTOR MUST TERMINATE ALL CONTROLLED BRANCH CIRCUITS FOR LIGHTING AND FUEL CABINET. BRANCH CIRCUITS FOR UNCONTROLLED LOADS CONNECT DIRECTLY TO RESPECTIVE CIRCUIT EQUIPMENT & CONTROL WIRING AT THE TERMINAL STRIPS AT THE TOP OR BOTTOM OF THE POWERWALL BREAKERS IN THE PANELS.
- LOCATE OUTDOOR LIGHT SENSOR ON ROOF FACING NORTH. LIGHT SENSOR CONTROL WIRING IS FURNISHED AS PART OF THE POWERWALL PACKAGE. AIM SENSOR EYE AWAY FROM ARTIFICIAL LIGHT SOURCES. INSTALL IN ACCORDANCE WITH SHOP DRAWINGS.
- SUBMERSIBLE PUMP POWER WIRING MUST BE #10AWG. A SEPARATE #10 AWG GROUNDING CONDUCTOR MUST BE RUN FROM EACH PUMP TO PANEL 'D' GROUND BAR.
- CIRCUIT BREAKERS FOR FLOOR RECEPTACLES SHALL BE GFI.
- ALL BRANCH CIRCUITS FOR PANEL 'C' LOADS SHALL INCLUDE A GROUNDING CONDUCTOR AND AN ISOLATED GROUNDING CONDUCTOR, WHICH SHALL BE CONNECTED TO THE PANEL 'C' ISOLATED GROUND BAR.
- A VARIETY OF MAIN GROUNDING METHODS ARE INDICATED. METHOD(S) SHALL BE IN ACCORDANCE WITH LOCAL REQUIREMENTS. ELECTRICAL CONTRACTOR SHALL PERFORM A FALL OF POTENTIAL TEST, IN ACCORDANCE WITH IEEE STD. 81, TO ENSURE A MAXIMUM EARTH GROUND RESISTANCE OF 25 OHMS AS REQUIRED BY THE NEC.
- PROVIDE 3/4" RIGID CONDUIT FROM PDC TO EACH SUBMERSIBLE TURBINE PUMP. PROVIDE WIRING IN ACCORDANCE WITH MANUFACTURER'S INSTALLATION INSTRUCTIONS.
- PROVIDE ALL WIRING FOR TANK MONITORING SYSTEM. WIRING SHALL BE CONTINUOUS WITH NO SPLICES. DO NOT SHARE CONDUITS WITH OTHER WIRING SYSTEMS.
- (1) 3/4" RIGID CONDUIT TO EACH TANK GAUGE MANHOLE
- (1) 3/4" RIGID CONDUIT TO ALL INTERSTITIAL MONITORS
- (1) 1" RIGID CONDUIT TO EACH STP MANHOLE IN TANK SLAB
- PROVIDE ALL WIRING FOR DISTRIBUTION BOX AND GAS CONSOLE IN ACCORDANCE WITH MANUFACTURER'S INSTALLATION INSTRUCTIONS.
- E.C. SHALL PROVIDE LABELS ON ELECTRICAL EQUIPMENT PER NEC 110.16 AND LOCAL JURISDICTION REQUIREMENTS.
- ELECTRICAL CONTRACTOR SHALL PROVIDE AN OUTDOOR EMERGENCY BUTT ON TO KILL ALL BUILDING POWER. EC SHALL PROVIDE SHUNT TRIP KIT MA1-1021 FOR 1200/3P MAIN BREAKER. PROVIDE WEATHERPROOF EMERGENCY REMOTE CUTOFF SWITCH KNOX #KS-2P SPST KEYPED PER LOCAL FIRE DEPARTMENT REQUIREMENTS. POWER FROM CKT B-40. PROVIDE PERMANENT SIGN 'EMERGENCY POWER DISCONNECT 1 OF 1'. LOCATE ON OUTSIDE OF BUILDING PER AUTHORITIES' DIRECTION.
- PROVIDE KIRK-KEY INTERLOCK BETWEEN MAIN BREAKER AND 600A SPARE (GENERATOR) BREAKER. ONLY ONE BREAKER SHALL BE CAPABLE OF BEING ENERGIZED AT ANY GIVEN TIME.
- WIRING OF HVAC UNITS POWER, SMOKE DETECTION, AND CONTROL WIRING BY ELECTRICAL CONTRACTOR.

RaceTrac.
COPYRIGHT NOTICE
THESE PLANS ARE SUBJECT TO FEDERAL COPYRIGHT LAWS; ANY USE OF SAME WITHOUT THE EXPRESSED WRITTEN PERMISSION OF RACETRAC PETROLEUM, INC. IS PROHIBITED. 2016 RACETRAC PETROLEUM, INC.

DESIGN PROFESSIONALS

GPD GROUP
Professional Corporation
520 S. MAIN STREET, STE 2531
AKRON, OH 44311

ISSUE/REVISION RECORD

DATE	DESCRIPTION
01/25/19	PERMIT SET
03/16/20	REFRESH TO 2020.0113

RaceTrac
RACETRAC PETROLEUM, INC.
200 GALLERIA PARKWAY SOUTHEAST
SUITE 900
ATLANTA, GEORGIA 30339
(770) 431-7600

PROJECT NAME
HWY 316 @ 81

BETHLEHEM
GA 30620
839 LOGANVILLE HWY

RACETRAC STORE NUMBER
#1304

PROTOTYPE SERIES 5.5K 2.0
2018 LH M0 0405

PLAN MODIFICATION NOTICE
SPB NO. 0405 DATE 12/18/18

STANDARD PLAN BULLETINS (SPB) MODIFY THE PROTOTYPE SERIES SET NOTED ABOVE. THE LISTED SPB REPRESENTS THE LATEST MODIFICATION INCORPORATED TO THIS PROTOTYPE SERIES SET AT ORIGINAL RELEASE. THE ISSUE/REVISION RECORD COLUMN ABOVE LISTS ANY REVISIONS OR SPB INCORPORATED TO THIS SET AFTER THE ORIGINAL RELEASE. CONTACT RACETRAC ENGINEERING AND CONSTRUCTION FOR ANY SUBSEQUENT BULLETINS NOT INCORPORATED HEREIN.

PROFESSIONAL SEAL

PROJECT NUMBER
2018157.19

SHEET TITLE
ELECTRICAL RISER DIAGRAM

SHEET NUMBER
E410