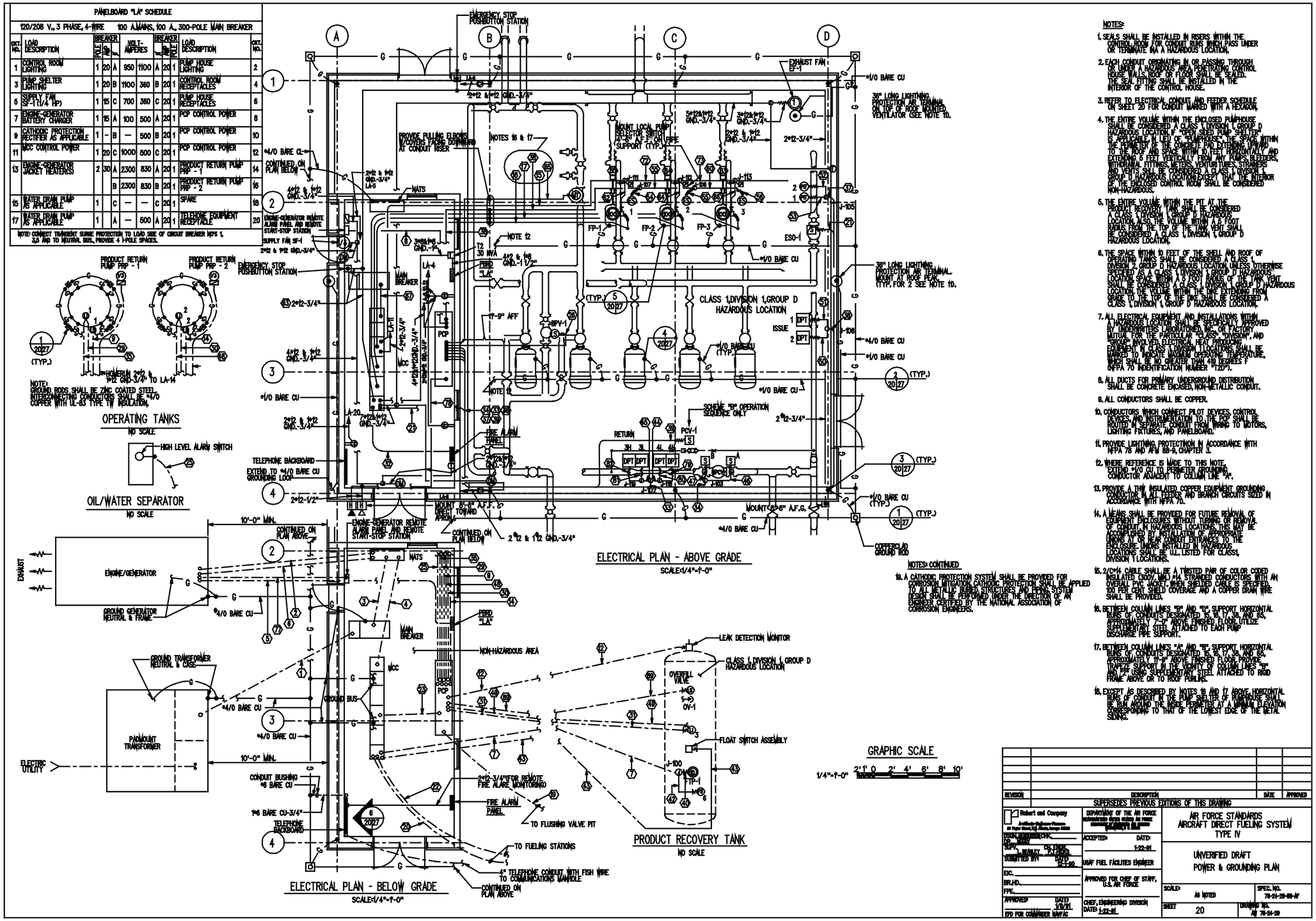
PANELBOARD "LA" SCHEDULE

120/208 V., 3 PHASE, 4-WIRE — 100 A. MAINS, 100 A., 300-POLE MAIN BREAKER

CKT. NO.	LOAD DESCRIPTION	BREAKER POLE	BREAKER AMP	BREAKER TYPE	VOLT-AMPERES		BREAKER TYPE	BREAKER AMP	BREAKER POLE	LOAD DESCRIPTION	CKT. NO.
1	CONTROL ROOM LIGHTING	1	20	A	950	1100	A	20	1	PUMP HOUSE LIGHTING	2
3	PUMP SHELTER LIGHTING	1	20	B	1100	360	B	20	1	CONTROL ROOM RECEPTACLES	4
5	SUPPLY FAN (SF-1 1/4 HP)	1	15	C	700	360	C	20	1	PUMP HOUSE RECEPTACLES	6
7	ENGINE-GENERATOR BATTERY CHARGER	1	15	A	100	500	A	20	1	PCP CONTROL POWER	8
9	CATHODIC PROTECTION RECTIFIER AS APPLICABLE	1	–	B	—	500	B	20	1	PCP CONTROL POWER	10
11	MCC CONTROL POWER	1	20	C	1000	500	C	20	1	PCP CONTROL POWER	12
13	ENGINE-GENERATOR JACKET HEATER(S)	2	30	A	2300	830	A	20	1	PRODUCT RETURN PUMP PRP - 1	14
				B	2300	830	B	20	1	PRODUCT RETURN PUMP PRP - 2	16
15	WATER DRAIN PUMP AS APPLICABLE	1		C	—	—	C	20	1	SPARE	18
17	WATER DRAIN PUMP AS APPLICABLE	1		A	—	500	A	20	1	TELEPHONE EQUIPMENT RECEPTACLE	20

NOTE: CONNECT TRANSIENT SURGE PROTECTION TO LOAD SIDE OF CIRCUIT BREAKER NO'S 1, 2,5 AND TO NEUTRAL BUS, PROVIDE 4 1-POLE SPACES.



NOTES:

1. SEALS SHALL BE INSTALLED IN RISERS WITHIN THE CONTROL ROOM. ROW CONDUIT THAT MERELY PASS UNDER OR TERMINATE IN A HAZARDOUS LOCATION.
2. EACH CONDUIT, ORIGINATING IN OR PASSING THROUGH OR UNDER A HAZARDOUS AREA PENETRATING CONTROL HOUSE WALLS, ROOF OR FLOOR SHALL BE SEALED. THE SEAL FITTING SHALL BE INSTALLED IN THE INTERIOR OF THE CONTROL HOUSE.
3. REFER TO ELECTRICAL CONDUIT AND FEEDER SCHEDULE ON SHEET 20 FOR CONDUIT MARKED WITH A HEXAGON.
4. THE ENTIRE VOLUME WITHIN THE ENCLOSED PUMPHOUSE SHALL BE CONSIDERED A CLASS 1,DIVISION 1,GROUP D HAZARDOUS LOCATION. IF "OPEN SIDED PUMP SHELTER" IS APPLICABLE, A LEVEL OF PUMPHOUSE, THE SPACE WITHIN THE PERIMETER OF THE CONCRETE AND EXTENDING UPWARD TO THE ROOF AND SPACE WITHIN 10 FEET HORIZONTALLY AND EXTENDING 5 FEET VERTICALLY FROM ANY PUMPS, BLEEDERS, WITHDRAWAL FITTINGS, METERS, VENTURI TUBES, STRAINERS AND VENTS SHALL BE CONSIDERED A CLASS 1,DIVISION 1, GROUP D HAZARDOUS LOCATION. PROVIDED THAT THE INTERIOR OF THE ENCLOSED CONTROL ROOM SHALL BE CONSIDERED NON-HAZARDOUS.
5. THE ENTIRE VOLUME WITHIN THE PIT AT THE PRODUCT RECOVERY TANK SHALL BE CONSIDERED A CLASS 1,DIVISION 1,GROUP D HAZARDOUS LOCATION. ALSO, THE VOLUME WITHIN A 15 FOOT RADIUS FROM THE TOP OF THE TANK VENT SHALL BE CONSIDERED A CLASS 1,DIVISION 1,GROUP D HAZARDOUS LOCATION.
6. THE SPACE WITHIN 10 FEET OF THE SHELL AND ROOF OF OPERATING TANKS SHALL BE CONSIDERED A CLASS 1, DIVISION 2, GROUP D HAZARDOUS LOCATION UNLESS OTHERWISE SPECIFIED AS A CLASS 1,DIVISION 1,GROUP D HAZARDOUS LOCATION. SPACE WITHIN A 15 FOOT RADIUS OF THE TANK VENT SHALL BE CONSIDERED A CLASS 1,DIVISION 1,GROUP D HAZARDOUS LOCATION. THE VOLUME WITHIN THE PIPE EXTENDING FROM GRADE TO THE TOP OF THE PIPE SHALL BE CONSIDERED A CLASS 1,DIVISION 1,GROUP D HAZARDOUS LOCATION.
7. ALL ELECTRICAL EQUIPMENT AND INSTALLATIONS WITHIN A HAZARDOUS LOCATION SHALL BE SPECIFICALLY APPROVED BY UNDERWRITERS LABORATORIES, INC. OR FACTORY MUTUAL FOR THE PARTICULAR "CLASS", "DIVISION", AND "GROUP" INVOLVED. ELECTRICAL HEAT PRODUCING EQUIPMENT IN CLASS 1,DIVISION 1 LOCATIONS SHALL BE EMPLOYED TO INDICATE MAXIMUM OPERATING TEMPERATURE, WHICH SHALL BE NO GREATER THAN 419 DEGREES F (NFPA 70 IDENTIFICATION NUMBER "T2D").
8. ALL DUCTS FOR PRIMARY UNDERGROUND DISTRIBUTION SHALL BE CONCRETE ENCASED, NON-METALIC CONDUIT.
9. ALL CONDUCTORS SHALL BE COPPER.
10. CONDUCTORS WHICH CONNECT PILOT DEVICES, CONTROL DEVICES, AND INSTRUMENTATION TO THE PCP SHALL BE ROUTED IN SEPARATE CONDUIT FROM WIRING TO MOTORS, LIGHTING FIXTURES, AND PANELBOARD.
11. PROVIDE LIGHTNING PROTECTION IN ACCORDANCE WITH NFPA 78 AND AFM 88-9, CHAPTER 3.
12. WHERE REFERENCE IS MADE TO THIS NOTE, EXTEND #1/0 CU TO PROTECTIVE GROUNDING CONDUCTOR ADJACENT TO COLUMN LINE "A".
13. PROVIDE A THW INSULATED COPPER EQUIPMENT GROUNDING CONDUCTOR IN ALL FEEDER AND BRANCH CIRCUITS SIZED IN ACCORDANCE WITH NFPA 70.
14. A MEANS SHALL BE PROVIDED FOR FUTURE REMOVAL OF EQUIPMENT ENCLOSURES WITHOUT TURNING OR REMOVAL OF CONDUIT IN HAZARDOUS LOCATIONS. THIS MAY BE ACCOMPLISHED BY INSTALLATION OF APPROPRIATE UNIONS AT OR NEAR CONDUIT ENTRANCES TO THE ENCLOSURE. UNIONS INSTALLED IN HAZARDOUS LOCATIONS SHALL BE U.L. LISTED FOR CLASS1, DIVISION 1 LOCATIONS.
15. 2/C#14 CABLE SHALL BE A TWISTED PAIR OF COLOR CODED INSULATED COPPER, AND #14 STRANDED CONDUCTORS WITH AN OVERALL PVC JACKET. WHEN SHIELDED CABLE IS SPECIFIED, 100 PER CENT SHIELD COVERAGE AND A COPPER DRAIN WIRE SHALL BE PROVIDED.
16. BETWEEN COLUMN LINES "B" AND "D", SUPPORT HORIZONTAL RUNS OF CONDUITS DESIGNATED 15, 16, 17, 38, AND 65, APPROXIMATELY 7'-0" ABOVE FINISHED FLOOR UTILIZE SUPPLEMENTARY STEEL ATTACHED TO EACH PUMP DISCHARGE PIPE SUPPORT.
17. BETWEEN COLUMN LINES "A" AND "B", SUPPORT HORIZONTAL RUNS OF CONDUITS DESIGNATED 15, 16, 17, 38, AND 65, APPROXIMATELY 11'-0" ABOVE FINISHED FLOOR PROVIDE TRAPEZE SUPPORT IN THE VICINITY OF COLUMN LINES "B" AND "F" USING SUPPLEMENTARY STEEL ATTACHED TO RIGID FRAME ABOVE OR TO ROOF PURLINS.
18. EXCEPT AS DESCRIBED BY NOTES 16 AND 17 ABOVE, HORIZONTAL RUNS OF CONDUIT IN THE PUMP SHELTER OF PUMPHOUSE SHALL BE RUN AROUND THE INSIDE PERIMETER AT A MINIMUM ELEVATION CORRESPONDING TO THAT OF THE LOWEST EDGE OF THE METAL SIDING.

NOTES: CONTINUED

19. A CATHODIC PROTECTION SYSTEM SHALL BE PROVIDED FOR CORROSION MITIGATION. CATHODIC PROTECTION SHALL BE APPLIED TO ALL METALLIC BURIED STRUCTURES AND PIPING SYSTEM. DESIGN SHALL BE PERFORMED UNDER THE DIRECTION OF AN ENGINEER CERTIFIED BY THE NATIONAL ASSOCIATION OF CORROSION ENGINEERS.

REVISION	DESCRIPTION	DATE	APPROVED

SUPERSEDES PREVIOUS EDITIONS OF THIS DRAWING

Robert and Company
Architects-Engineers-Planners
Atlanta, Georgia

DEPARTMENT OF THE AIR FORCE
MOBILE AIR FORCE BASE
MOBILE, ALABAMA

DESIGN ENGINEER CHK. DR. WARD
SUPV. L. HENSLEY CK. CHIEF
SUBMITTED BY DATE 12-1-80
EIC.
BRJHD.
FPE.
APPROVED DATE 1/8/81
EFD FOR COMMANDER NAVFAC

ACCEPTED DATE 1-22-81
USAF FUEL FACILITIES ENGINEER
APPROVED FOR CHIEF OF STAFF, U.S. AIR FORCE
CHIEF, ENGINEERING DIVISION DATE 1-22-81

AIR FORCE STANDARDS
AIRCRAFT DIRECT FUELING SYSTEM
TYPE IV

UNVERIFIED DRAFT
POWER & GROUNDING PLAN

SCALE: As NOTED
SPEC. NO. 78-24-28-88-AF
SHEET 20
DRAWING NO. AN 78-24-20