THIS SHEET IS FULL SIZE AT 34"x22" | 1" ACTUAL

ELECTRICAL SPECIFICATIONS

"X" = PROVIDE SUBMITTAL

26 00 00 - GENERAL REQUIREMENTS: ALL ELECTRICAL WORK SHALL BE INSTALLED IN ACCORDANCE WITH THE REQUIREMENTS OF THE LATEST EDITION OF THE NATIONAL ELECTRIC CODE (NEC), STATE, MUNICIPAL, FEDERAL LAWS, AND AMENDMENTS GOVERNING THE PROJECT. ALL WORK SHALL BE PERFORMED UNDER THE SUPERVISION OF A CERTIFIED ADMINISTRATOR JOURNEYMAN ELECTRICIAN.

ALL ELECTRICAL EQUIPMENT SHALL BE NEW COMMERCIAL GRADE AND INCLUDE THE SEAL OF A NATIONALLY RECOGNIZED TESTING LABORATORY FOR THE PURPOSE IT IS INSTALLED AS A COMPLETE ASSEMBLY. THE CONTRACTOR SHALL SUBMIT A REQUEST FOR ANY SUBSTITUTION OR DEVIATION FROM THE DESIGN IN WRITING TO THE ENGINEER. THE CONTRACTOR SHALL OBTAIN ALL REQUIRED CONSTRUCTION PERMITS, SCHEDULE INSPECTIONS, AND PAY ALL ASSOCIATED FEES UNLESS DIRECTED OTHERWISE.

WORKING CLEARANCES: THE CONTRACTOR IS REQUIRED TO COORDINATE THE MINIMUM WORKING CLEARANCES AND DEDICATED EQUIPMENT REQUIRED BY THE NEC. THE CONTRACTOR IS REQUIRED TO COORDINATE WITH ALL SUBCONTRACTORS SO THAT ENCROACHMENTS INTO THE RESTRICTED SPACE ARE PREVENTED.

PROVIDE ALL CUTTING, CORING, AND PATCHING REQUIRED FOR ELECTRICAL INSTALLATION. REGISTERED STRUCTURAL ENGINEER APPROVAL IS REQUIRED WHEN CORING OR CUTTING OF STRUCTURAL MEMBERS IS REQUIRED.

PLENUM RATING: ALL CABLING, RACEWAYS, CABLE TIES AND COMPONENTS LOCATED IN CEILING SPACES THAT ARE PLENUMS SHALL BE PLENUM RATED.

COORDINATE WITH ARCHITECTURAL PLANS, SHOP DRAWINGS, AND OTHER TRADES PRIOR ROUGH-IN FOR FOR DEVICE AND EQUIPMENT LOCATIONS AND REQUIREMENTS.

BARRIER RATINGS: ALL ELECTRICAL PENETRATIONS THROUGH FIRE RATED BARRIERS SHALL BE SEALED IN ACCORDANCE WITH NEC ARTICLE 300.21. PROVIDE FIRE PUTTY OR SHEET ROCK CONFIGURED FOR UL FIRE RATING WRAPPING ALL BOXES AND PANELS MATCHING WALL AND CEILING FIRE RATING. CONTRACTOR TO PROVIDE SUBMITTAL OF ALL FIRE RATING SYSTEMS TO BE USED. VAPOR BARRIERS: SEAL ALL VAPOR BARRIER PENETRATIONS TO MAINTAIN SYSTEM INTEGRITY. RACEWAYS EXPOSED TO DIFFERENT TEMPERATURES SHALL BE FILLED WITH AN APPROVED MATERIAL IN ACCORDANCE WITH NEC TO STOP AIR FLOW..

ACCESS PANELS: PROVIDE ACCESS PANELS FOR ALL LOCATIONS NECESSARY TO ACCESS ELECTRICAL EQUIPMENT AND JUNCTION BOXES. ACCESS PANELS SHALL BE FIRE RATED EQUAL TO OR EXCEEDING THE ADJACENT WALL OR CEILING CONSTRUCTION AND PAINTED TO MATCH.

REMODEL: TRACE OUT EXISTING CIRCUIT CONFIGURATIONS IMPACTED BY REMODEL REQUIREMENTS. PROVIDE CIRCUIT CONTINUITY FOR ALL CIRCUITS THAT ARE MODIFIED DURING CONSTRUCTION AND PROVIDE TEMPORARY POWER AND LIGHTING FOR ALL AREAS OF THE BUILDING DURING THE RENOVATION WHERE REQUIRED. DEMOLISH ALL ABANDONED CONTROL, SIGNAL AND POWER WIRING BACK TO SOURCE. UPDATE ALL PANEL SCHEDULES TO REFLECT CURRENT CIRCUIT DESCRIPTIONS. REMOVE, RE-INSTALL, CLEAN AND TEST EXISTING EQUIPMENT, DEVICES, FIXTURES ETC WHERE WALLS OR CEILINGS ARE MODIFIED REQUIRING SYSTEM MODIFICATION. EXISTING/REMODEL WIRING THAT CANNOT BE CONCEALED DUE TO EXISTING SOLID CORE OR CONCRETE CONSTRUCTION SHALL BE INSTALLED USING WIREMOLD SURFACE MOUNTED RACEWAY AND BOXES IN FINISHED AREAS AND EXPOSED CONDUIT IN NON-FINISHED AREAS. CIRCUITS POWERING EMERGENCY LIGHTING MUST BE RECONFIGURED TO NOT BE PART OF A MULTI-WIRE (SHARED NEUTRAL) CIRCUIT.

ELECTRICAL DEVICES SHOWN ON THE PLANS AS EXISTING ARE TO BE REPLACED WITH NEW DEVICES AND DEVICE PLATES TO MATCH THE NEW WORK.

26 01 10 - SUBMITTALS: PROVIDE MATERIAL AND EQUIPMENT SUBMITTAL FOR EACH SPECIFICATION SECTION DENOTED AS REQUIRED AT MINIMUM. SUBMITTALS SHALL BE SUBMITTED ELECTRONICALLY IN PDF FORMAT (UNLESS HARD COPY IS REQUIRED BY OTHER CONTRACT APPLYING TO THE ENTIRE PROJECT). SUBMIT ALL REQUIRED SECTIONS IN A SINGLE SUBMITTAL OR BROKEN INTO NO MORE THAN THE FOLLOWING SEPARATE SECTIONS: "LIGHTING", "EQUIPMENT", "WIRING/DEVICES", AND "SPECIAL SYSTEMS". ORGANIZE SUBMITTAL AND/OR EACH SECTION BY SPECIFICATION NUMBER FOLLOWED BY ANY MAJOR EQUIPMENT REFERENCE ON THE DRAWINGS WITH ALL OPTIONS AND SELECTIONS HIGHLIGHTED TO DENOTE THE SPECIFIC EQUIPMENT PROPOSED. SUBMITTAL REVIEW IS FOR GENERAL DESIGN AND CONFIGURATION AND DOES NOT RELIEVE THE CONTRACTOR FROM PROVIDING A COMPLETE OPERATIONAL SYSTEM COMPLIANT WITH THE REQUIREMENTS OF THE CONTRACT DOCUMENTS.

26 01 21 - RECORD DRAWINGS: MARK UP A SET OF DRAWINGS (REDLINES) SHOWING ALL ELECTRICAL WORK. SHOW DIAGRAMMATIC ROUTING MODIFICATIONS, SIZING, AND CIRCUIT REVISIONS TO THE CONTRACT PLANS. RECORD DRAWINGS SHALL BE KEPT ON SITE AVAILABLE FOR REVIEW DURING THE ENTIRE CONSTRUCTION PERIOD. SUBMIT FINAL REDLINE SET FOR APPROVAL PRIOR TO FINAL INSPECTION.

26 01 22 - WARRANTY: THE CONTRACTOR SHALL GUARANTEE ALL WORK EXECUTED UNDER THIS CONTRACT TO BE FREE FROM DEFECTS IN MATERIALS AND WORKMANSHIP FOR A PERIOD OF ONE YEAR FROM SUBSTANTIAL COMPLETION. ANY FAULTY MATERIALS OR WORKMANSHIP SHALL BE REPAIRED DURING THE GUARANTEE PERIOD AT NO ADDITIONAL COST TO THE OWNER.

26 05 15 - POWER AND LIGHTING CONDUCTORS: STRANDED COPPER ROUTED IN CONDUIT UNLESS NOTED OTHERWISE. INSULATION TO BE THHN-2 90 DEGREE C FOR INDOOR APPLICATIONS AND XHHW-2 90 DEGREE C FOR OUTDOOR LOCATIONS, IN UNHEATED SPACES, OR INSTALLED WHILE THE AMBIENT TEMPERATURE IS LESS THAN -7C (20F). ALL CONDUCTORS SHALL BE INSTALLED IN ACCORDANCE WITH NEC REQUIREMENTS FOR AMBIENT TEMPERATURE DERATING, CONDUIT FILL DERATING, AND BOX FILL. PROVIDE UNSHARED DEDICATED NEUTRAL FOR EACH CIRCUIT. BRANCH CIRCUIT WIRING MAY BE INSTALLED IN CABLES WHERE ROUTED CONCEALED AND SUPPORTED BY NEC REQUIREMENTS AND TYPE TYPE W OR EQUAL CORDS WHERE INSTALLED IN ACCORDANCE WITH THE NEC REQUIREMENTS SIZED AS DENOTED IN THE NEC TABLES 400.5(A)(2) AND 400.5(A)(3).

ELECTRICAL SPECIFICATIONS

"X" = PROVIDE SUBMITTAL

480V/277V CONDUCTORS: COLOR CODE CONDUCTORS BROWN, ORANGE, YELLOW, GRAY AND GREEN WITH YELLOW STRIPE. MINIMUM SIZE CONDUCTORS FOR 15 AND 20 AMP BRANCH CIRCUITS MEASURED FROM THE PANELBOARD TO THE FURTHEST DEVICE ON THE CIRCUIT UNLESS OTHERWISE NOTED ON THE DRAWINGS: 12 AWG UP TO 120 FT, 10 AWG 120 FT TO 200 FT, GREATER THAN 200 FT SIZE CONDUCTORS TO LIMIT VOLTAGE DROP TO 5% OR LESS.

208V/120V CONDUCTORS: COLOR CODE CONDUCTORS BLACK, RED, BLUE, WHITE, AND GREEN. MINIMUM SIZE CONDUCTORS FOR 15 AND 20 AMP BRANCH CIRCUITS MEASURED FROM THE PANELBOARD TO THE FURTHEST DEVICE ON THE CIRCUIT UNLESS OTHERWISE NOTED ON THE DRAWINGS: 12 AWG UP TO 75 FT, 10 AWG 75 FT TO 140 FT, GREATER THAN 140 FT SIZE CONDUCTORS TO LIMIT VOLTAGE DROP TO 5% OR LESS.

26 05 19 - MC CABLES: METALCLAD (MC) CABLE WITH STEEL OUTER SHEATH. ALLOWED USES DRY WHERE ROUTED CONCEALED AND PROTECTED.

26 05 29 - HANGARS AND SUPPORTS FOR ELECTRICAL SYSTEMS: SUPPORT ALL ELECTRICAL EQUIPMENT INCLUDING, BUT NOT LIMITED TO, LIGHT FIXTURES, PANELBOARDS, BOXES, CONDUIT, ETC. PER NEC AND IBC SEISMIC REQUIREMENTS. PROVIDE SEISMIC SUPPORT AND DESIGN SEALED BY A LICENSED STRUCTURAL ENGINEER AS A DEFERRED SUBMITTAL TO THE AHJ FOR ALL EQUIPMENT OVER 400 LBS AND, EQUIPMENT OVER 20 LBS MOUNTED GREATER THAN 4FT AFF, CONDUIT 2.5"C OR GREATER AND ALL TRAPEZE OR WALL SUPPORTED RACEWAY 10 LBS/LF OR GREATER. SUPPORT STRUT AND MOUNTING HARDWARE TO BE GALVANIZED

26 05 30 - RACEWAY: ALL POWER, LIGHTING, CLASS 1, CLASS 2/3 CIRCUITS INSTALLED IN CONDUIT SHALL BE CONCEALED RACEWAY EXCEPT WHERE SPECIFICALLY INDICATED ELSEWHERE IN THE SPECIFICATIONS OR SHOWN ON THE DRAWINGS. ELECTRICAL EQUIPMENT AND WIRING CAN BE EXPOSED IN MECHANICAL/ELECTRICAL ROOMS, COOLER/FREEZERS, TELECOMMUNICATION ROOMS, OPEN CEILING SPACES, OR WHERE SPECIFICALLY NOTED. DO NOT ROUTE RACEWAYS ON THE EXTERIOR SURFACE OF THE BUILDING OR THE ROOF UNLESS SPECIFICALLY NOTED OTHERWISE. RACEWAYS CROSSING BUILDING SEISMIC JOINTS OR CONNECTING TO EQUIPMENT WHICH MOVES OR VIBRATES REQUIRE TRANSITION TO FLEXIBLE RACEWAY ACROSS JOINT WITH ENOUGH SLACK TO ALLOW BUILDING MOVEMENT IN ALL DIRECTIONS WITHOUT DAMAGE.

26 05 33 – RIGID METAL CONDUIT (RMC): ANSI C80.1, UL 6. WITH BUSHINGS AT ALL TERMINATIONS. FITTINGS: GALVANIZED MALLEABLE IRON WITH THREADED HUBS FOR ALL CONDUIT ENTRIES AND COUPLINGS. SET SCREW OR RUNNING THREAD FITTINGS ARE NOT PERMITTED. USES: WET OR DRY WHERE INSTALLED BELOW GRADE, IN CONCRETE, STUB UPS, CONCEALED, WHERE EXPOSED TO PHYSICAL DAMAGE, ROUTED ON BUILDING ROOF, SERVICE RISERS, OR WITHIN 10FT OF RACEWAY ROUTED INTO FIXED FOUNDATIONS SUCH AS LIGHT POLE BASE OR STRUCTURE. MUST USE THREADED FITTINGS. MYERS HUBS WITH GROUNDING LOCKNUTS ARE REQUIRED FOR SERVICE RACEWAYS TO CT'S, METERS AND MAIN DISCONNECTS.

26 05 34 - ELECTRICAL METALLIC TUBING (EMT): ANSI C80.3, UL 797; GALVANIZED STEEL TUBING. FITTINGS: NEMA FB 1; GALVANIZED STEEL OR MALLEABLE IRON SET SCREW OR COMPRESSION. DIE CAST OR PRESSURE CAST FITTINGS OR LOCKNUTS ARE NOT PERMITTED. USES: WET OR DRY CONCEALED OR EXPOSED WHERE NOT SUBJECT TO PHYSICAL DAMAGE. WET OR DAMP LOCATIONS REQUIRE RAINTIGHT WET RATED GLAND COMPRESSION COUPLINGS AND CONNECTORS. NOT PERMITTED FOR SERVICE ENTRANCE RACEWAY, IN CONTACT WITH EARTH, OR IN CONTACT WITH CONCRETE.

26 05 35 - FLEXIBLE METAL CONDUIT (FMC): GALVANIZED OR ZINC COATED FLEXIBLE STEEL CONSTRUCTION. FMC FITTINGS: GALVANIZED MALLEABLE IRON OR STEEL WITH INSULATED THROATS. USES: DRY SPACES LENGTHS LESS THAN 6FT FOR CONNECTIONS TO MOTORS, TRANSFORMERS, AND OTHER MOVABLE OR VIBRATING EQUIPMENT.

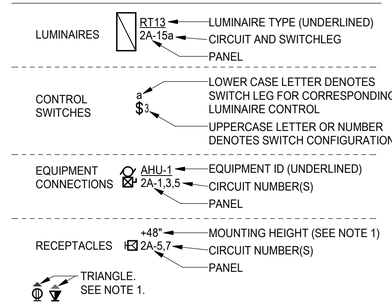
LIQUIDTIGHT FLEXIBLE CONDUIT (LTMC): GALVANIZED OR ZINC COATED FLEXIBLE STEEL CONSTRUCTION WITH PVC OUTER JACKET. USES: DRY, DAMP, OR WET LOCATIONS LENGTHS LESS THAN 6FT FOR CONNECTIONS TO MOTORS, TRANSFORMERS, AND OTHER MOVABLE OR VIBRATING EQUIPMENT.

X 26 30 00 - UPS: DESIGN BASIS: MITSUBISHI 80-KVA 9900 AEGIS UPS. 480V INPUT:208Y/120V 3 PHASE 4 WIRE OUTPUT. UNIT TO INCLUDE 3 BREAKER WRAP AROUND BYPASS SWITCH, STEP DOWN TRANSFORMER, OUTPUT BREAKER DISTRIBUTION, STATIC INTERNAL BY-PASS, REMOTE ANNUNCIATOR, CS141 COMMUNICATION PACKAGE WITH DATA CONNECTION TO BUILDING NETWORK, SEISMIC SUPPORT, AND BATTERY SIZED FOR 120 MINUTE CAPACITY AT 14-KW OF LOAD.

ELECTRICAL LEGEND

- METERING DEVICE
- POWER PANELBOARD
- T — TRANSFORMER: APPROX. PHYSICAL SIZE AS SCALED
- LINETYPE/LINEWEIGHT DENOTING FUTURE WORK
- LINETYPE/LINEWEIGHT DENOTING DEMO WORK
- LINETYPE/LINEWEIGHT DENOTING EXISTING WORK TO REMAIN
- LINETYPE/LINEWEIGHT DENOTING NEW WORK
- LINETYPE/LINEWEIGHT DENOTING NEW ONE-LINE CONNECTIONS
- LINETYPE/LINEWEIGHT DENOTING BELOW GRADE CONDUIT
- LINETYPE/LINEWEIGHT DENOTING CONTROL WIRING

EQUIPMENT TAG LEGEND



NOTE 1: DIMENSIONS (WHEN GIVEN ARE AFF). TRIANGLE DENOTES 46" AFF IN OPEN AREAS OR AT CASEWORK LOCATIONS TO BE 4" ABOVE COUNTERTOP (BACKSPLASH WHEN PRESENT). COORDINATE WITH ARCHITECTURE. THIS APPLIES TO ALL ELECTRICAL DEVICES.

ABBREVIATIONS	
INDUSTRY STANDARD ABBREVIATIONS SHALL ALSO BE APPLICABLE.	
Key Name	**FullWord**
(#)	DENOTES TYPICAL IN LIGHT FIXTURE TYPES
(D)	DEMOLISH
(E)	EXISTING
(R)	RELOCATED
AER	ARC ENERGY REDUCTION
AFCI	ARC FAULT CIRCUIT INTERRUPTER
AFF	ABOVE FINISHED FLOOR
AFG	ABOVE FINISHED GRADE
AL	ALUMINUM
BJ	BONDING JUMPER
CB	CIRCUIT BREAKER
CO, C.O.	CONDUIT ONLY
CT	CURRENT TRANSFORMER
CU	COPPER
EECP	ELEVATOR EMERGENCY COMMUNICATION PANEL
EECS	ELEVATOR EMERGENCY COMMUNICATION STATION
EGC	EQUIPMENT GROUNDING CONDUCTOR
FAA	FIRE ALARM ANNUCIATOR
FACP	FIRE ALARM CONTROL PANEL
FC	FOOTCANDLE ILLUMINATION
FHP	FRACTIONAL HORSEPOWER
FLA	FULL LOAD AMPS
FSD	FIRE SMOKE DAMPER
G, GFCI	GROUND FAULT CIRCUIT INTERRUPTER
GEC	GROUNDING ELECTRODE CONDUCTOR
GES	GROUNDING ELECTRODE SYSTEM
GFPE	GROUND FAULT PROTECTION OF EQUIPMENT
MCA	MINIMUM CIRCUIT AMPACITY
MFS	MAXIMUM FUSE SIZE
NC	NORMALLY CLOSED
NIC	NOT IN CONTRACT (NOT IN SCOPE)
NO	NORMALLY OPEN
P	POLES
PC	PHOTO CELL
PH, Ø	PHASE
PNL	PANEL
RIB	RELAY IN A BOX (MOTOR RATED)
SCA	SHORT CIRCUIT AMPS
SCCR	SHORT CIRCUIT CURRENT RATING
SE	SERVICE ENTRANCE RATED
SPD	SURGE PROTECTION DEVICE
SSBJ	SUPPLY SIDE BONDING JUMPER
SSEBJ	SUPPLY SIDE EQUIPMENT BONDING JUMPER
TGB	TELECOMMUNICATION GROUNDING BUSBAR
TMGB	TELECOMMUNICATION MAIN GROUNDING BUSBAR
TYP	TYPICAL
UON	UNLESS OTHERWISE NOTED
VFD	VARIABLE FREQUENCY DRIVE
W	WATTS OR WIRE
WG	WIRE GUARD
WP	WEATHERPROOF
XFMR	TRANSFORMER

MOUNTING HEIGHT SCHEDULE	
EQUIPMENT (TO CENTER UON)	**HEIGHT (UON)**
CONTACTORS, MOTOR STARTERS, DISCONNECT (TOP)	66"
ELECTRIC RANGE RECEPTACLES (TOP)	7" MAX
INDICATING DEVICES (BOTTOM)	80"
PANELBOARDS - POWER; SPECIAL SYSTEMS (TOP)	72"
POWER METER BASE (CENTER LINE OF SOCKET)	PER UTILITY
PULL STATIONS, PUSH BUTTONS	46"
REC FULL HEIGHT REFRIGERATOR OR REACH-IN UNITS	46"
REC IN FINISHED AREAS	18"
REC IN NON-FINISHED, WAREHOUSE, MECH AND SHOPS	46"
REC LOCATED IN HAZARDOUS OR S-2 OCCUPANCIES	24" MINIMUM
TELECOMMUNICATION OUTLETS	18"
WALL MOUNTED SWITCHES	46"
WASHING MACHINES AND DRYER RECEPTACLE	43"

ELECTRICAL SHEET LIST		
NUM	**REV#**	**SHEET TITLE**
E0.1		LEGEND AND SPECIFICATIONS
E1.1		ONE-LINE DIAGRAMS, DETAILS, AND SCHEDULES
TOTAL SHEETS: 2		

MOA PLAN REVIEW PROJECT SUMMARY

REPLACEMENT OF EXISTING UPS SYSTEM CONNECTING TO EXISTING ELECTRICAL SYSTEM. NO LOAD CHANGE.

STATE OF ALASKA
49TH
ERIC D. COWLING
EE - 9773
6/12/25
REGISTERED PROFESSIONAL ENGINEER

EIC ENGINEERS, INC.
ELECTRICAL ENGINEERS
CORPORATION LICENSE: AECC1105
6927 OLD SEWARD HWY, STE 200
ANCHORAGE, AK 99518
907.349.9712
WWW.EICENG.COM
EIC JOB NO. E25-4776

ALASKA RAILROAD AOC UPS REPLACEMENT
825 E WHITNEY RD
ANCHORAGE, AK 99501

REVISIONS	
NUM	DESCRIPTION

JOB NO.	E25-4776
DATE	06/11/2025
DRAWN	KRR
REVIEWED	EDC

LEGEND AND SPECIFICATIONS

SHEET NO.
E0.1

THIS SHEET IS FULL SIZE AT 34"x22" | 1" ACTUAL

DISTRIBUTION SCCR SCHEDULE
EQUIPMENT SHALL HAVE AN SCCR EXCEEDING THE SHORT CIRCUIT AMPS "SCA" OR MINIMUM SCCR, WHICH EVER IS GREATER. EQUIPMENT SHALL BE FULLY RATED. BRANCH CIRCUIT PANELS RATED 225 AMPS OR LESS MAY USE MANUFACTURER TESTED COMBINATIONS PER NEC 240.86(B) WHERE THE MOTOR LOAD DO NOT EXCEED 1% OF THE LOWEST AIC RATED DEVICE IN THE PANEL PER NEC 240.86(C).
CONTRACTOR TO VERIFY EQUIPMENT TO BE PROVIDED WITH SERVING UTILITY PRIOR TO PROCUREMENT. ANY DECREASE OF TRANSFORMER %Z, CONDUCTOR LENGTHS, OR INCREASE IN TRANSFORMER KVA OR CABLE SIZES TO BE REPORTED TO CONTRACT OFFICER FOR RECALCULATION OF SCA PRIOR TO PROCUREMENT.
THE "MIN FT" COLUMN DENOTES DISTANCE USED FOR 'SCA' CALCULATION. ACTUAL DISTANCE IS EXPECTED TO BE LONGER. IF CONDUCTOR LENGTH IS LESS THAN "MIN FT", CONTRACTOR SHALL SUBMIT A VARIATION REQUEST FOR RECALCULATION. THIS MAY REQUIRE ASSOCIATATED EQUIPMENT MODIFICATIONS.

ASSUMED UTILITY SYSTEM CONFIGURATION (BASIS FOR CALCULATION)

SERVICE TRANSFORMER

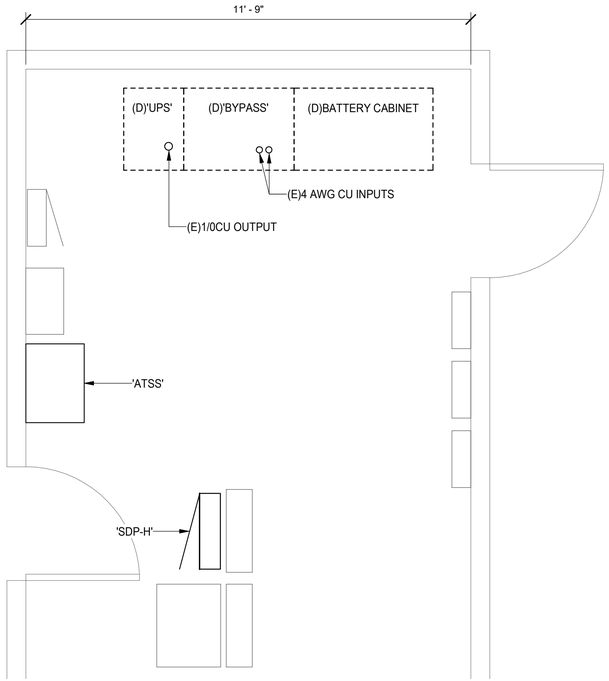
KVA	%Z	SCA SECONDARY LINE-LINE	SCA SECONDARY LINE-NEUTRAL
150	1.20	15,027	15,027

AMPS	- FOR CALCULATION ONLY - SERVICE LATERAL	MIN FT
600	2EA: (4)350 KCMIL	86

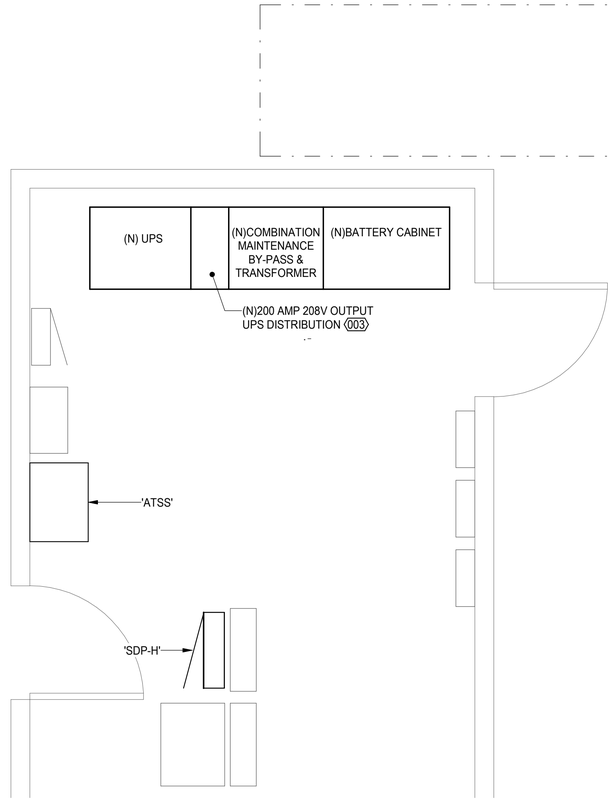
EQUIP ID	OPD	SCA	MIN SCCR	XR	MIN FT
SDP-H	400 A	11,780	14,000	2.07	26
UPA	200 A	3,928	10,000	1.17	96
UPS		10,636		0.00	27

REFERENCED SHEET NOTES

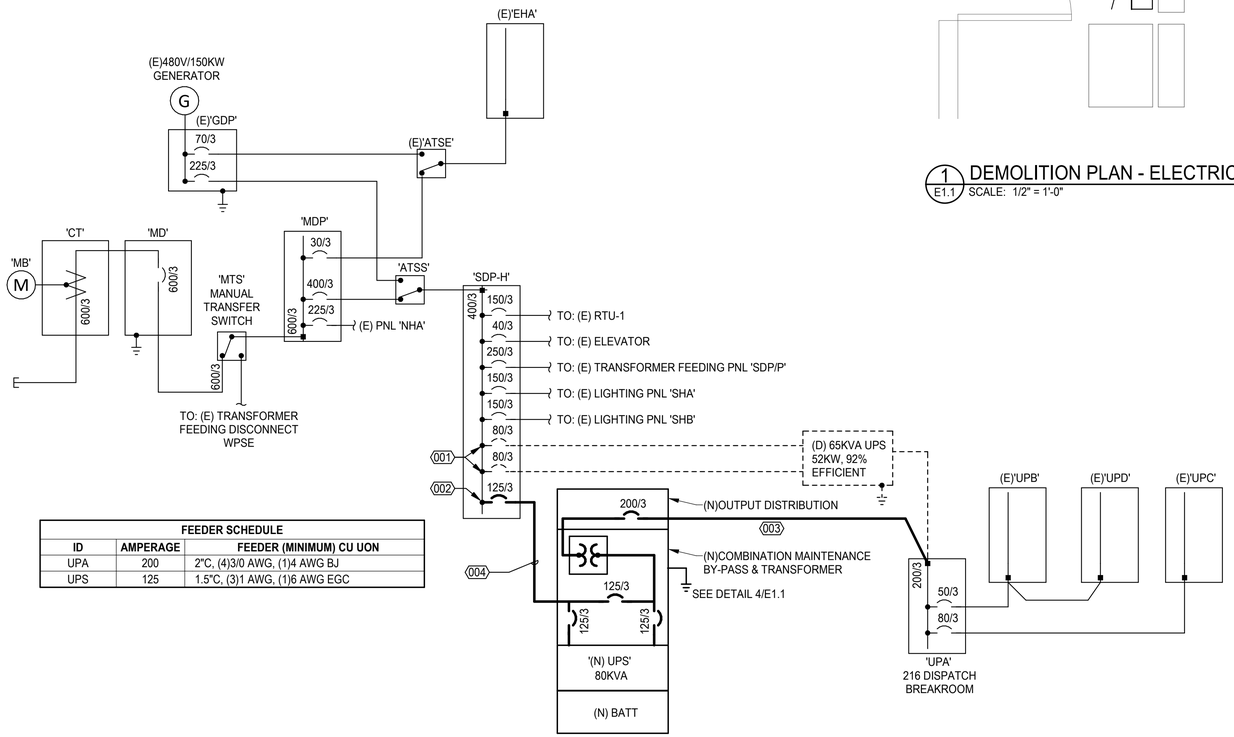
REF	NOTE
001	DEMOLISH THE EXISTING 80 AMP, 3 POLE CIRCUIT BREAKERS TO MAKE ROOM FOR THE NEW BREAKER.
002	PROVIDE NEW 125 AMP, 3 POLE SQUARE D KA36125 CIRCUIT BREAKER.
003	UPGRADE FEEDER TO EXISTING 200 AMP RATED PANEL 'UPA'. CONTRACTOR MAY EXTEND AND REUSE EXISTING 2" RACEWAY FOR NEW CONDUCTORS WHERE FEASIBLE. LENGTH OF THE FEEDER IS APPROXIMATELY 120FT.
004	NEW FEEDER TO BE ROUTED OVERHEAD. EXISTING UPS INPUT FEEDERS TO BE ABANDONED IN PLACE.



1 E1.1 DEMOLITION PLAN - ELECTRICAL ROOM
SCALE: 1/2" = 1'-0"



2 E1.1 NEW WORK - ELECTRICAL ROOM
SCALE: 1/2" = 1'-0"



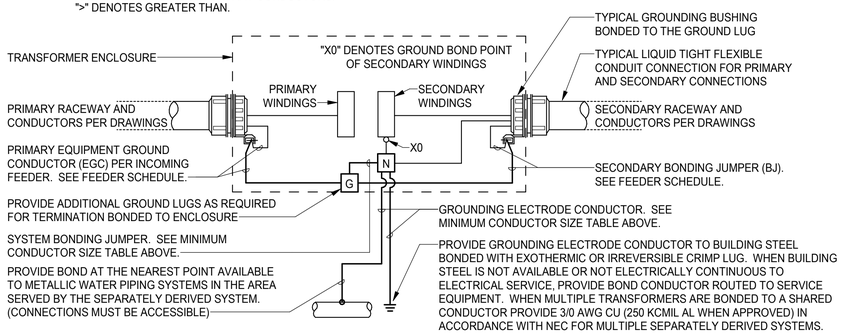
FEEDER SCHEDULE		
ID	AMPERAGE	FEEDER (MINIMUM) CU UON
UPA	200	2"C, (4)3/0 AWG, (1)4 AWG BJ
UPS	125	1.5"C, (3)1 AWG, (1)6 AWG EGC

3 E1.1 REVISED PARTIAL POWER ONE-LINE DIAGRAM
SCALE: NONE

REQUIRED MINIMUM CONDUCTOR SIZE COPPER CONDUCTORS	
XFMR SECONDARY	JUMPER OR ELECTRODE
2 AWG OR SMALLER	8 AWG
1 AWG - 1/0 AWG	6 AWG
2/0 AWG - 3/0 AWG	4 AWG
> 3/0 AWG - 350 KCMIL	2 AWG
> 350 KCMIL - 600 KCMIL	1/0 AWG
> 600 KCMIL - 1100 KCMIL	2/0 AWG
> 1100 KCMIL	12.5% * XFMR SECONDARY

REQUIRED MINIMUM CONDUCTOR SIZE ALUMINUM OR COPPER-CLAD CONDUCTORS	
XFMR SECONDARY	JUMPER OR ELECTRODE
1/0 AWG OR SMALLER	6 AWG
2/0 AWG - 3/0 AWG	4 AWG
> 3/0 AWG - 250 KCMIL	2 AWG
> 250 KCMIL - 500 KCMIL	1/0 AWG
> 500 KCMIL - 900 KCMIL	3/0 AWG
> 900 KCMIL - 1750 KCMIL	4/0 AWG
> 1750 KCMIL	12.5% * XFMR SECONDARY

"XFMR SECONDARY" DENOTES THE AREA OF THE LARGEST UNGROUNDED SECONDARY CONDUCTOR OR EQUIVALENT AREA FOR PARALLEL SECONDARY CONDUCTORS.
">" DENOTES GREATER THAN.



4 E1.1 TYPICAL TRANSFORMER GROUNDING ONE-LINE DIAGRAM
SCALE: NONE

STATE OF ALASKA 49TH
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ALASKA RAILROAD AOC UPS REPLACEMENT

825 E WHITNEY RD
ANCHORAGE, AK 99501

REVISIONS	
NUM	DESCRIPTION

JOB NO.	E25-4776
DATE	06/11/2025
DRAWN	KRR
REVIEWED	EDC

ONE-LINE DIAGRAMS, DETAILS, AND SCHEDULES

SHEET NO.
E1.1

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