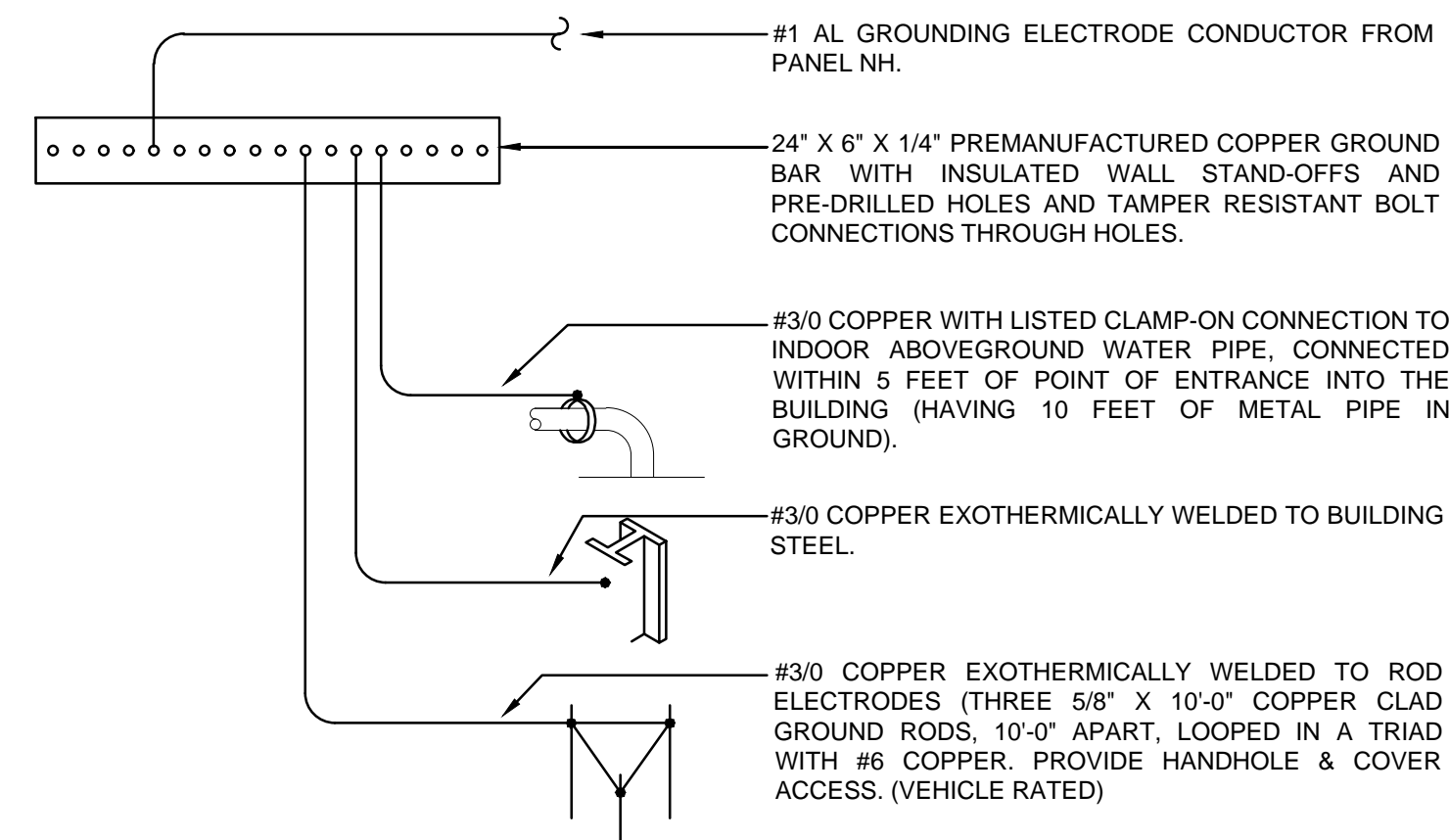


PANEL SCHEDULE																	
PANEL: NH		LOCATION: HANGAR		VOLTS: 208Y/120		PHASE: 3		WIRE: 4		HERTZ: 60							
M.BREAKER: 100		MAIN AIC: 65,000		BR.AIC: 65,000		ENCL: NEMA 1		MTG.: SURFACE									
100 AMP. GROUND BAR, PANEL CARD, LOCKING HINGED COVER, SERVICE ENTRANCE RATED, MAIN BONDING JUMPER.																	
DESCRIP. OF LOAD SERVED	BRANCH		BREAKER		VA/PHASE			CKT NO.	CKT	VA/PHASE			BREAKER	BRANCH		DESCRIP. OF LOAD SERVED	
LTG - EXTERIOR	W	C	A	P	A	B	C	1	2	A	B	C	A	P	W	C	HANGAR DOOR
SPARE	10	*	20	1	240			3	4	3,880			60	3	4	*	---
HUMINGOUS FAN	10	*	20	1				5	6	3,880			---	---	---	---	---
REC - INTERIOR	12	*	20	1	540			7	8				---	---	---	---	SPACE
ACCESS CTRL (L)	12	*	20	1	360			9	10				---	---	---	---	SPACE
LTG - HIGH BAY	10	*	20	1				11	12	1,200			---	---	---	---	SPACE
LTG - HIGH BAY	10	*	20	1	1,200			13	14				---	---	---	---	SPACE
EWH-1 (L)	12	*	20	1	1,500			15	16				---	---	---	---	SPACE
AIR COMP. (L)	12	*	20	1				17	18	1,550			---	---	---	---	SPACE
SPARE			20	1				19	20				30	3	---	---	SPD
SPARE			20	1				21	22				---	---	---	---	---
SPARE			20	1				23	24				---	---	---	---	---
TOTAL VA/PHASE					1,980	1,860	3,980			3,880	3,880	3,880	TOTAL VA/PHASE				

NOTES:

- AIC RATINGS ARE MINIMUM SYMMETRICAL AMOUNTS
- * INDICATES: SIZED TO NEC
- (L) INDICATES: LOCK-ON CLIP.
- CONNECTED KVA = 19.460
- DEMAND KVA = 20.428 (19.46 KVA + (3.87 X 0.25 LIGHTING) = 20.428 KVA)

LIGHTING FIXTURE SCHEDULE								
SYMBOL	LIGHTING SOURCE	FIXTURE			BASIS OF DESIGN		REMARKS	ACCEPTABLE MANUFACTURERS
		MTG	VOLTS	VA	MFG	MODEL		
EXE2	LED	SURFACE	120	6	LITHONIA	LHQM-LED-G-EL	THERMOPLASTIC STENCIL EXIT SIGN, TWO 1.5W LED HEADS, GREEN LETTERS, EMERGENCY BATTERY PACK, DAMP LOCATION LABEL, PROVIDE CIRCUITING AHEAD OF ROOM SWITCHING CONTROL, MOUNT ABOVE DOOR FRAME.	ACUITY LIGHTING COOPER LIGHTING PHILLIPS LIGHTING
OJ	LED	SURFACE	120	120	LITHONIA	F-LUHB-150W-50K-MS	HIGH BAY LED LUMINAIRE, 31,200 LUMENS, 5,000K, 80 CRI, STEEL HOOK MOUNTING WITH 6 FT CORD, DAMP LOCATION, LISTED, MOUNT AT MAXIMUM ELEVATION (ABOVE DOOR OPENING HEIGHT) AND PROVIDE SUPPLEMENTAL 100% GALVANIZED STEEL AND SS HARDWARE ACCESSORIES, AS REQUIRED.	ACUITY LIGHTING COOPER LIGHTING PHILLIPS LIGHTING
OK	LED	SURFACE	120	30	LITHONIA	ZL1D-L48-3000LM-FST-40K-90CRI	4' LONG LED STRIP LIGHT, DAMP LOCATION LISTED, 3,163 LUMEN, 90 CRI, LISTED.	ACUITY LIGHTING COOPER LIGHTING PHILLIPS LIGHTING
OL	LED	SURFACE	120	100	LITHONIA	--	SHIELDED EXTERIOR LED FOR CAR PARKING FLOOD, BARN DOORS FOR CUT-OFF. CONNECT TO TIME CLOCK CONTROL MOUNT AT 10'-0" AFF.	ACUITY LIGHTING COOPER LIGHTING PHILLIPS LIGHTING



BUILDING SINGLE POINT GROUNDING DETAIL
NO SCALE

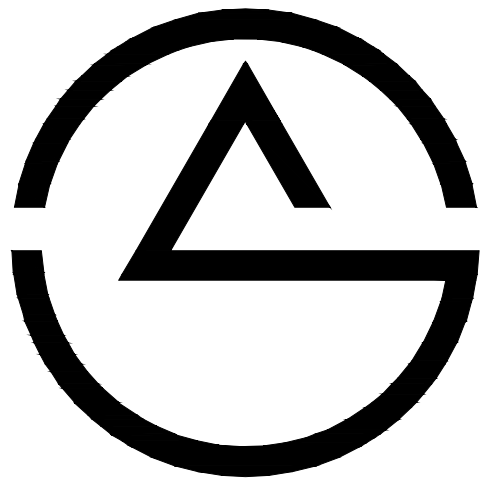
ELECTRICAL SPECIFICATIONS:

- E 1 SCOPE OF WORK:
- PROVIDE NEW ELECTRICAL UNDERGROUND SERVICE ENTRANCE CONDUCTORS, METER, FEEDER, PANEL, CONDUITS, WIRING, LIGHTING DEVICES, AND ALL ACCESSORIES AS INDICATED.
 - PROVIDE NEW TELEPHONE INCOMING SERVICE, CONDUIT, AND CONDUCTORS.
 - TEST ALL NEW ELECTRICAL WORK FOR PROPER OPERATION AND FOR SHORTS.
- E 2 PROVIDE ALL NECESSARY FEES AND PERMITS. PROVIDE TEMPORARY POWER, AS REQUIRED FOR CONSTRUCTION PURPOSES. REVIEW OPERATION OF EACH SYSTEM WITH OWNER'S REPRESENTATIVE. PROVIDE ONE YEAR WARRANTY ON ENTIRE SYSTEM. PROVIDE RECORD DRAWING (CONTRACTOR FURNISHED PRINT). SUBMITTALS: SUBMIT PRODUCT DATA FOR EACH NEW ELECTRICAL DEVICE.
- E 3 WIRING: PROVIDE ONLY DUAL RATED THWN/THHN COPPER CONDUCTORS FOR BRANCH CIRCUITS. ALUMINUM CONDUCTORS MAY BE USED FOR SERVICE ENTRANCE CONDUCTORS AND FEEDERS. MINIMUM SIZE: NUMBER 12. DO NOT INSTALL MORE THAN THREE CONDUCTORS (NOT COUNTING NEUTRAL) IN A RACEWAY THAT REQUIRES NEC 310.15.(B),(2) DERATING.
- E 4 GROUNDING: PROVIDE A SEPARATE INSULATED GROUNDING CONDUCTOR; IN ALL NEW RACEWAYS AND CABLES.
- E 5 CONDUITS AND CABLES: INSTALL ALL WIRING IN CONDUIT (EMT IN ABOVEGROUND INDOOR DRY AREA, PVC CONDUIT IN BURIED LOCATIONS). MC CABLE MAY BE USED IN CONCEALED LOCATIONS ONLY.
- E 6 DEVICES:
- CONVENTIONAL RECEPTACLES _ 20A CONVENTIONAL TYPE, DECORA, TAMPER RESISTANT, WHITE (OR AS APPROVED).
 - SWITCHES _ 20A CONVENTIONAL TYPE, DECORA, WHITE (OR AS APPROVED).
 - PROVIDE BOX AND WHITE COVER PLATES (GANG TYPE, AS REQUIRED).
 - SPD: POWER LOGICS PQC-100 WITH FLUSH MOUNTING KIT.
 - COMMUNICATIONS SERVICE ENTRANCE BOX: UTILITY COMPANY CONDUCTORS IN BUILDING EMPTY CONDUITS TO (TWO 4" C) ON INTERIOR OF BUILDING, INTO BACKBOARD INSIDE BUILDING, PROVIDE WITH MODULAR RJ-45 AND CAT 5E, 24 AWG, 4-PAIR CONDUCTORS.
 - CADET WALL MOUNTED, FAN POWERED, ELECTRIC WALL HEATER (EWH-1) WITH INTEGRAL ADJUSTABLE THERMOSTAT (ADJUSTABLE FAN 40 TO 85 DEGREES), WALL GRILLE, INTEGRAL THERMOSTAT, AND BACK-BOX ASSEMBLY. BASIS OF DESIGN: CADET CSC-151, 1,500W, 120/1/60, 23"W X 4"D X 12"H. MAINTAIN 3 FOOT CLEARANCE FORM WALL FAN / BACK-BOX ASSEMBLY. INSTALL IN ACCORDANCE WITH MANUFACTURERS INSTRUCTIONS, UL LISTED.
- E 7 LIGHTING FIXTURES:
- FURNISH AND INSTALL COMPLETE SYSTEM OF LIGHTING FIXTURES, LAMPS, BALLASTS, ACCESSORIES, AND SUPPORT, AS INDICATED. REFER TO PLANS FOR TYPES.
- E 8 TESTING: TEST ENTIRE ELECTRICAL SYSTEM AFTER COMPLETION AND SUBMIT RESULTS TO ARCHITECT. TEST FOR GROUNDS AND SHORTS. TEST EACH CIRCUIT AND GROUND. ADVISE THE ARCHITECT IF DEFICIENCIES ARE FOUND.
- E 9 IDENTIFICATION: UPDATE PANEL CARDS FOR FIELD MODIFIED CIRCUITS.

ELECTRICAL LEGEND		
SYMBOL	DESCRIPTION	MOUNTING OR AS INDICATED
⊙	CEILING LIGHTING FIXTURE.	N/A
⊗	EXIT LIGHTING FIXTURE.	N/A
→	NEW CONDUIT AND WIRE.	N/A
WP ⊖	RECEPTACLE (WEATHER-PROTECTED INDICATED)	AS NOTED
LC	LIGHTING CONTACTOR	N/A
J	JUNCTION BOX	N/A
■	PANELBOARD	N/A
①	DRAWING NOTE: REFER TO NOTES ON EACH DRAWING	N/A

GENERAL ELECTRICAL NOTES (ALL "E" DRAWINGS)

- E-1 REGULATORY REQUIREMENTS: PROVIDE ALL WORK TO MEET OR EXCEED MINIMUM REGULATORY REQUIREMENTS INCLUDING:
- NORTH CAROLINA STATE BUILDING CODE: 2018
NORTH CAROLINA FIRE PREVENTION CODE: 2018
- ADVISE THE ARCHITECT OF ANY CHANGES IN THE CONTRACT DOCUMENTS THAT MAY BE REQUIRED IN ORDER TO MEET CODE, PRIOR TO WORK (ORDERING, ROUGHING, OR INSTALLATION).
- E-2 COORDINATION: COORDINATE WITH OTHER WORK (INCLUDING FIRE PROTECTION, STRUCTURAL AND ARCHITECTURAL FOR AVAILABLE SPACE, SEQUENCE OF INSTALLATION, AND INSTALLATION REQUIREMENTS, PRIOR TO COMMENCING CONSTRUCTION. ADVISE THE ARCHITECT OF ANY CHANGES IN THE CONTRACT DOCUMENTS THAT MAY BE REQUIRED FOR THE WORK TO BE PERFORMED.
- E-3 DEVICE LOCATIONS: REFER TO ARCHITECTURAL DRAWINGS FOR EXACT LOCATIONS OF LIGHTING FIXTURES, AND OTHER ITEMS. ALSO COORDINATE LOCATIONS OF RECEPTACLES WITH OTHER WORK. LOCATE ALL CONDUITS AND WIRING IN FINISHED ROOMS OR SPACES WITHIN CONCEALED LOCATIONS (FURRED CHASES OR SUSPENDED CEILINGS, AS AVAILABLE), UNLESS SPECIFICALLY NOTED OTHERWISE.
- E-4 SIZES: WHEN A CONDUIT OR CONDUCTOR SIZE IS NOT INDICATED, SIZE THAT CONDUIT OR CONDUCTOR USING THE LARGER ADJACENT UPSTREAM SIZE (IN ACCORDANCE WITH THE NEC), UNLESS A SMALLER SIZE HAS BEEN APPROVED BY THE ARCHITECT. PROVIDE 3/4 INCH MINIMUM CONDUIT SIZE, UNLESS SPECIFICALLY NOTED OTHERWISE. FOR SIZES NOT INDICATED ON PLANS, REFER TO OTHER LOCATIONS IN THE CONTRACT DOCUMENTS (DRAWINGS AND SPECIFICATIONS) FOR INFORMATION.
- E-5 SEALS: REFER TO ARCHITECTURAL DRAWINGS FOR LOCATIONS OF FIRE RATED PARTITIONS. SEAL ALL PENETRATIONS OF RATED PARTITIONS.
- E-6 INSTALL ELECTRICAL WORK IN THE BUILDING PER NEC 513 (AIRCRAFT HANGARS). NOTE THE REQUIREMENTS FOR CLASS 1, DIVISION 2 FOR LOCATIONS FROM THE FLOOR LINE TO 18" AFF AND FOR CLASS 1, DIVISION 2 FOR LOCATIONS WITHIN 5 FT OF THE AIRCRAFT FROM 18" AFF TO 60" AFF. ROUTE ALL INDOOR RACEWAYS ABOVE THE 60" AFF LINE WITHIN THE BUILDING.



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NC PE # 024291

PROJ. #: 20114
DRAWN BY: DWM
REVIEWED BY: WRM

PROJECT INFORMATION

**AERO CENTER
WILMINGTON
AIRCRAFT
STORAGE
HANGAR**

WILMINGTON
INTERNATIONAL AIRPORT
1835 FLIGHTLINE RD
WILMINGTON, NC 28405

COMMISSION 20-02a

DRAWING NAME

**ELECTRICAL
LEGEND, NOTES, AND
SPECIFICATIONS**

ISSUE

**CONSTRUCTION
DOCUMENTS**

ISSUE DATE

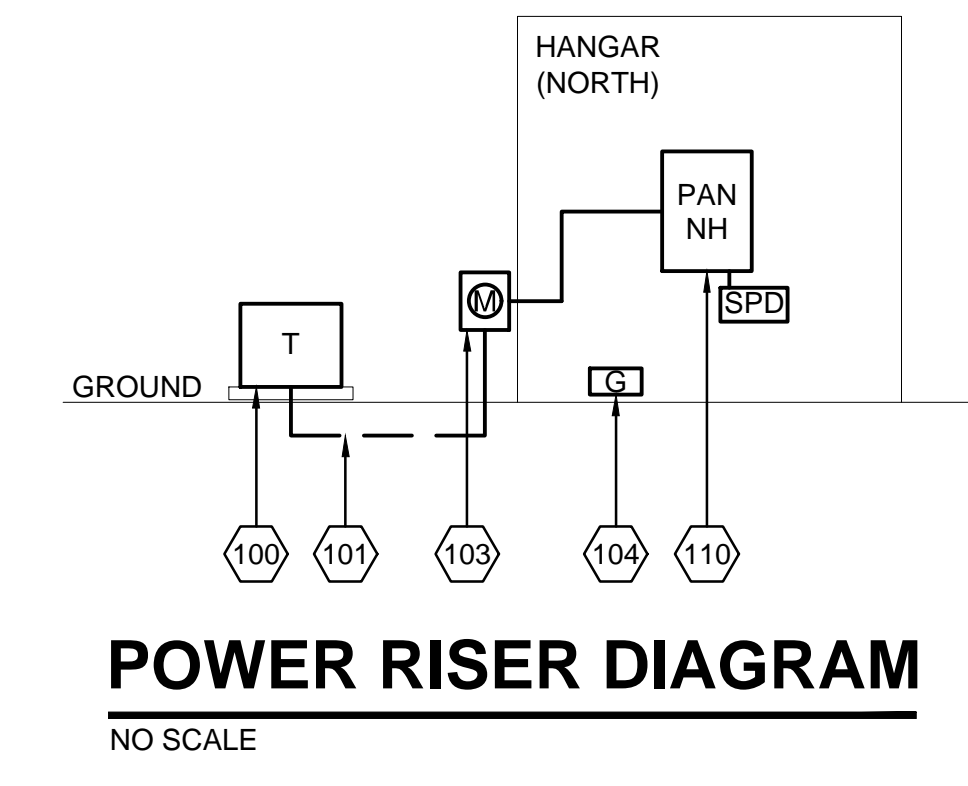
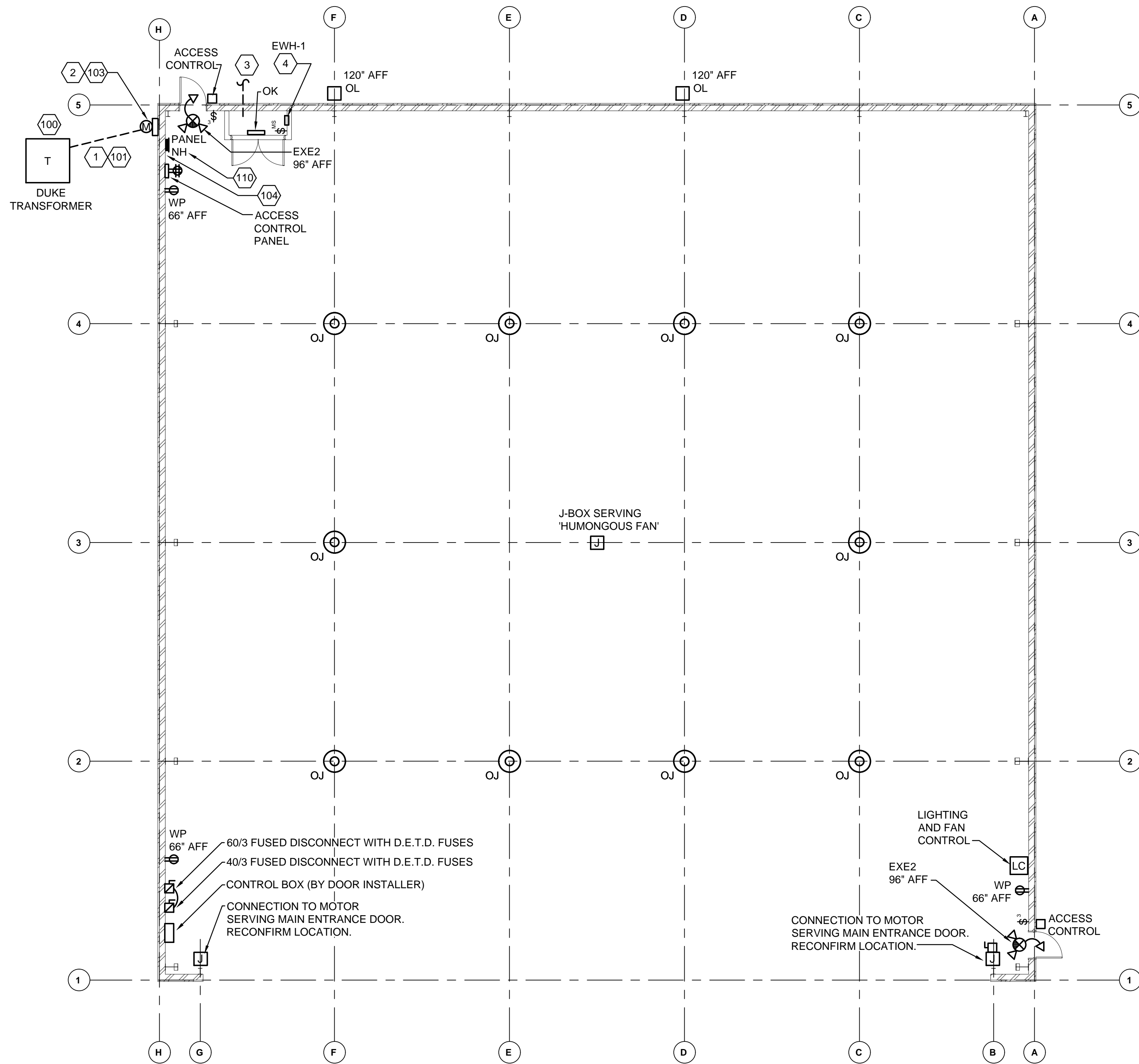
10.16.2020

ISSUE REVISIONS

No.	Date	Description

DRAWING NUMBER

E0.1

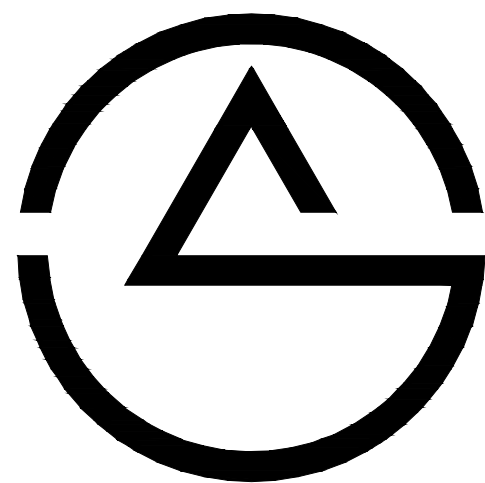


- NOTES (ALL 'E' DRAWINGS):
- 1 UNDERGROUND SERVICE ENTRANCE CONDUCTORS FROM UTILITY COMPANY TRANSFORMER. SEE POWER RISER DIAGRAM ON THIS DRAWING.
 - 2 DUKE POWER METER ASSEMBLY.
 - 3 TELEPHONE COMPANY BURIED COMMUNICATIONS SERVICE 1
 - 4 INSTALL ELECTRIC WALL HEATER (EWH-1) IN STRICT ACCORDANCE WITH MANUFACTURERS INSTRUCTIONS. MOUNT AT 48" AFF.
 - 100 DUKE ENERGY PAD MOUNTED TRANSFORMER (SECONDARY 208Y/120 VOLT, 3 PHASE, 4 WIRE, 60 HERTZ). COORDINATE WITH UTILITY COMPANY AND PAY FOR ALL SERVICE CHARGES AND ACCESSORIES (SUCH AS METER HOUSING, CONDUITS, CONCRETE PAD AND CONNECTION, AS REQUIRED).
- A. SHORT CIRCUIT ANALYSIS:
- 1) AVAILABLE SHORT CIRCUIT CURRENT ON SECONDARY BUSHINGS OF A 250 KVA 208Y / 120 VOLT TRANSFORMER WITH 2.0% Z: 32,000A SYM.
 - 2) RECONFIRM AVAILABLE SHORT CIRCUIT CURRENT FOR ACTUAL TRANSFORMER BEING INSTALLED WITH UTILITY COMPANY PRIOR TO ORDERING EQUIPMENT OR COMMENCING WORK.
 - 3) PROVIDE 65K PANELS.
- B. VOLTAGE DROP: 5% MAXIMUM.
- C. LOAD ANALYSIS (NEC 220 UNDERGROUND SERVICE ENTRANCE CONDUCTOR SIZING): SEE PANEL SCHEDULE.
- 101 100A UNDERGROUND SERVICE ENTRANCE CONDUCTORS: 4#1 AL, 1-1/2" C.
 - 102 NOT USED.
 - 103 DUKE METER WITH GROUND.
 - 104 SINGLE POINT GROUND BAR. SEE DETAIL.
 - 110 SERVICE ENTRANCE PANEL NH. SEE PANEL SCHEDULE. PROVIDE INCOMING 100A SERVICE ENTRANCE CONDUCTORS: 4#1 AL, 1-1/2" C. PROVIDE 1 AL GROUNDING ELECTRODE CONDUCTOR TO BUILDING SINGLE POINT GROUND BAR.

SEE DRAWING E0.1 FOR PANEL AND CIRCUITING

ELECTRICAL - FLOOR PLAN

SCALE: 1/8" = 1'-0"



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FLOOR PLAN**

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