ELECTRICAL SYMBOLS AND ABBREVIATIONS

NOTES: ALL DIMENSIONS ARE CENTERLINE MEASURED FROM FINISHED FLOOR UNLESS OTHERWISE NOTED.

THIS LINE SHOWN ABOVE IS EXACTLY ONE INCH LONG AT TIA/EIA STANDARD PAPER SIZE

SHEET SYMBOLS

- EQ # — SCHEDULED EQUIPMENT DESIGNATION. -TOP INDICATES EQUIPMENT ABBREVIATION -BOTTOM INDICATES EQUIPMENT NUMBER. REFER TO EQUIPMENT SCHEDULES
- 2 — SPECIALTY ITEMS. (I.E. GAUGE FILTER, ETC.) REFER TO EQUIPMENT LIST
- REFER M-1 — PLAN CONTINUATION REFERENCE. -BOTTOM INDICATES ON WHICH SHEET CONTINUATION APPEARS
- 1 / M-1 — SECTION DESIGNATION. -TOP INDICATES SECTION NUMBER, -BOTTOM INDICATES ON WHICH SHEET SECTION APPEARS
- 2 / M-1 — DETAIL REFERENCE. -TOP INDICATES SECTION NUMBER, -BOTTOM INDICATES ON WHICH SHEET SECTION APPEARS
- A/15B-6 — DETAIL REFERENCE. -TOP INDICATES SECTION NUMBER, -BOTTOM INDICATES ON WHICH SHEET SECTION APPEARS
- MATCHLINE DESIGNATION
- ELEVATION DESIGNATION. REFERENCE OFFICIAL PROJECT DATUM
- 1 — REVISION REFERENCE. REFER TO SHEET REVISION BLOCK
- 1 — SHEET KEYNOTE REFERENCE
- ROOM NAME / 101 — ROOM NAME & NUMBER DESIGNATION
- 100 — CONSTRUCTION BULLETIN REVISION NUMBER
- POINT OF NEW CONNECTION TO EXISTING
- HALFTONE LIGHT LINE INDICATES EXISTING WORK
- HEAVY DASHED LINE WITH HATCH INDICATES EXISTING WORK TO BE DEMOLISHED
- HEAVY LINE INDICATES NEW WORK

BRANCH CIRCUIT SCHEDULE

BRANCH CIRCUIT	BREAKER SIZE	WIRE	CONDUIT
SINGLE POLE - SINGLE PHASE	20A-1P	2#12+1#12G	3/4"C
	30A-1P	2#10+1#10G	3/4"C
	40A-1P	2#8+1#10G	3/4"C
	50A-1P	2#6+1#10G	3/4"C
	60A-1P	2#4+1#10G	1 1/4"C
TWO POLE - SINGLE PHASE	20A-2P	2#12+1#12G	3/4"C
	30A-2P	2#10+1#10G	3/4"C
	40A-2P	2#8+1#10G	3/4"C
	50A-2P	2#6+1#10G	3/4"C
	60A-2P	2#4+1#10G	1 1/4"C
TWO POLE - SINGLE PHASE WITH NEUTRAL	20A-2P	3#12+1#12G	3/4"C
	30A-2P	3#10+1#10G	3/4"C
	40A-2P	3#8+1#10G	3/4"C
	50A-2P	3#6+1#10G	3/4"C
	60A-2P	3#4+1#10G	1 1/4"C
THREE POLE - THREE PHASE	20A-3P	3#12+1#12G	3/4"C
	30A-3P	3#10+1#10G	3/4"C
	40A-3P	3#8+1#10G	3/4"C
	50A-3P	3#6+1#10G	1"C
	60A-3P	3#4+1#10G	1 1/4"C
THREE POLE - THREE PHASE 4-WIRE WITH NEUTRAL	20A-3P	4#12+1#12G	3/4"C
	30A-3P	4#10+1#10G	3/4"C
	40A-3P	4#8+1#10G	3/4"C
	50A-3P	4#6+1#10G	1"C
	60A-3P	4#4+1#10G	1 1/4"C

ONE LINE DIAGRAM

- TRANSFORMER
- ELECTROSTATIC SHIELDED ISOLATION TRANSFORMER
- M — METER WITH CURRENT TRANSFORMER
- CURRENT TRANSFORMER
- POTENTIAL TRANSFORMER
- MOLDED CASE CIRCUIT BREAKER
- LOW VOLTAGE DRAW-OUT AIR CIRCUIT BREAKER
- MEDIUM-VOLTAGE DRAW-OUT VACUUM CIRCUIT BREAKER
- SWITCH
- GROUNDED "Y" SYSTEM
- DELTA SYSTEM
- AUTOMATIC TRANSFER SWITCH
- P# --- — PANELBOARD
- EGS — ENGINE GENERATOR SET
- # — FEEDER TAG
- FUSE
- DRAW-OUT FUSE
- SWITCHGEAR, SWITCHBOARD, DISTRIBUTION BOARD ENCLOSURE
- BATTERY

LIGHTING

- UNSHADED REGION DESIGNATES LUMINAIRE FOR NORMAL OPERATION
- SHADED REGION DESIGNATES LUMINAIRE FOR LIFE SAFETY OPERATION
- SHADED REGION DESIGNATES LUMINAIRE FOR CRITICAL OPERATION

LUMINAIRE ID - SEE LUMINAIRE SCHEDULE — SUFFIX — DESCRIPTION

X# — A-##/xx — PANEL-CIRCUIT/switch

E — BATTERY PACK/INVERTER

ARROW ADDED TO LUMINAIRE SYMBOL TO INDICATE DIRECTION TOWARDS WHICH THE LUMINAIRE IS TO POINT.

LUMINAIRE SYMBOLS - REFER TO LUMINAIRE SCHEDULE FOR MORE INFORMATION

SMALL PROFILE LUMINAIRE

LIGHTING TRACK

- TRACK HEAD

CEILING MOUNTED LUMINAIRES

RECESSED

SURFACE MOUNTED

PENDANT/SUSPENDED

WALL MOUNTED LUMINAIRES

RECESSED

SURFACE MOUNTED

FLOOR OR GRADE MOUNTED LIGHTS

- SINGLE HEAD POLE LIGHT
- DOUBLE HEAD POLE LIGHT
- QUAD HEAD POLE LIGHT
- PEDESTRIAN POLES/POST TOPS
- BOLLARD OR GROUND MOUNTED LUMINAIRE
- INGRADE/IN-SLAB LUMINAIRE

EXIT SIGNS (TYPE X1 UNO) - CEILING MOUNTED

SINGLE FACE — DOUBLE FACE — DIRECTIONAL ARROW

EXIT SIGNS (TYPE X1 UNO) - WALL MOUNTED

SINGLE FACE — DOUBLE FACE — DIRECTIONAL ARROW

EMERGENCY FIXTURE WITH BATTERY PACK (TYPE X2 UNO)

SINGLE HEAD — DOUBLE HEAD

LIGHTING CONTROL

y / XX — Q — DIGITAL CONTROL DEVICE OR EQUIPMENT
MOUNTING LOCATION: WALL MOUNTING HEIGHT: 3'-6"
XX = DEVICE/EQUIPMENT TYPE
D = DIGITAL KEYPAD
TSS= TOUCH SCREEN SCHEDULER
SC = SHADE/SCREEN CONTROL (KEYPAD AND INTERFACE)
RC = ROOM CONTROLLER
LRP= LIGHTING RELAY PANEL
Q = BUTTON QUANTITY (KEYPADS) OR DEVICE ID AS APPLICABLE
y = ZONE DESIGNATION (lower case with PREFIX PER CONTROLLER)

y / $ / X — CONVENTIONAL SWITCH
MOUNTING LOCATION: WALL MOUNTING HEIGHT: 3'-6"
y = ZONE DESIGNATION (lower case)
X = TYPE DEFINITION (SEE BELOW)

TYPE DEFINITION (X):

[BLANK] = LINE-VOLTAGE TOGGLE
3 = 3-WAY LINE-VOLTAGE SWITCH
4 = 4-WAY LINE-VOLTAGE SWITCH
2P = 2-POLE SWITCH
I = INDICATOR LED LIGHT
D = LINE-VOLTAGE DIMMER
P = PILOT LED LIGHT
TS = TIMER SWITCH
LV = LOW-VOLTAGE, SINGLE-ZONE MOMENTARY CONTACT
LVD = LV MOMENTARY CONTACT SWITCH W/ 0-10V DIMMING
LV# = LV , MULTI-ZONE SWITCH W/ QUANITY (#) LATCHING CONTACTS/BUTTONS

C — LIGHTING CONTACTOR
MOUNTING LOCATION: WALL
MOUNTING HEIGHT: AS NOTED

y / $ / Z — CONVENTIONAL IN-WALL SENSOR SWITCH
MOUNTING LOCATION: WALL
MOUNTING HEIGHT: 3'-6"
y = ZONE DESIGNATION (lower case)
Z = SENSOR TYPE DESIGNATION (SEE BELOW)

y / S / Z — *LOW-VOLTAGE CEILING SENSOR
y = ZONE DESIGNATION (lower case)
Z = SENSOR TYPE DESIGNATION (SEE BELOW)

y / S / Z — *LOW-VOLTAGE WALL SENSOR
MOUNTING HEIGHT: 8'-0"
y = ZONE DESIGNATION (lower case)
Z = SENSOR TYPE DESIGNATION (SEE BELOW)

SENSOR TYPE DEFINITION (Z):

SUBSCRIPTS MAY BE USED IN COMBINATION

PIR = PASSIVE INFRARED
2 = 2 POLE, DUAL RELAY
U = ULTRASONIC
MT = MULTI-TECHNOLOGY
D = MANUAL DIMMING
A,AL = OPEN LOOP AMBIENT LIGHT PHOTO SENSOR
PC = CLOSED LOOP PHOTOCELL FOR DAYLIGHT HARVESTING

*LOW-VOLTAGE SENSORS:
1. REFER TO SPECIFICATION 260923 FOR CONVENTIONAL USE WITH POWER PACKS AND 260936 FOR USE WITH DIGITAL CONTROL SYSTEMS
2. SWITCH DESIGNATION (y) MAY BE BLANK EXCEPT AS USED FOR CLARIFICATION. ALL NORMAL POWER ZONES WITHIN A ROOM ARE TO BE CONTROLLED UNO.
3. ZONE DESIGNATIONS BEGINNING WITH "z" REFER TO LRP ZONES.

DAYLIGHT ZONES

- PRIMARY ZONE
- SECONDARY ZONE

RECEPTACLES

X = RECEPTACLE TYPE, REFER TO CHART BELOW
Y = NEMA CONFIGURATION, REFER TO CHART BELOW

MOUNTING LOCATION: WALL
MOUNTING HEIGHT: 1'-6"

- X — DUPLEX RECEPTACLE
- X — DUPLEX RECEPTACLE, EMERGENCY CIRCUIT
- Xa — DUPLEX RECEPTACLE, UPPER HALF SWITCHED, LOWER HALF HOT
- X — SINGLE RECEPTACLE
- X — DOUBLE DUPLEX RECEPTACLE
- X — DOUBLE DUPLEX RECEPTACLE, EMERGENCY CIRCUIT
- LOCKING RECEPTACLE

ABOVE CASEWORK OR 2" ABOVE COUNTERTOP BACKSPLASH
MOUNTING LOCATION: WALL
MOUNTING HEIGHT: FIELD VERIFY

- X — DUPLEX RECEPTACLE
- X — DUPLEX RECEPTACLE, EMERGENCY CIRCUIT
- X — DOUBLE DUPLEX RECEPTACLE
- X — DOUBLE DUPLEX RECEPTACLE, EMERGENCY CIRCUIT

MOUNTING LOCATION: CEILING

- X — DUPLEX RECEPTACLE
- X — DUPLEX RECEPTACLE, EMERGENCY CIRCUIT
- X — DOUBLE DUPLEX RECEPTACLE
- X — DOUBLE DUPLEX RECEPTACLE, EMERGENCY CIRCUIT

FLOOR BOX
MOUNTING LOCATION: FLOOR

- X — DUPLEX RECEPTACLE
- X — DOUBLE DUPLEX RECEPTACLE
- AV — MULTI-TRADE FLOOR BOX AV, POWER & DATA

RECEPTACLE TYPE DESIGNATION CHART

X = TYPE
AF = AFCI RECEPTACLE
CR = CONTROLLED RECEPTACLE
DR = DEDICATED RECEPTACLE
IG = ISOLATED GROUND RECEPTACLE
GF = GFCI RECEPTACLE
SP = SURGE PROTECTION RECEPTACLE
SR = SPECIAL PURPOSE RECEPTACLE
TR = TAMPER RESISTANT RECEPTACLE
US = USB RECEPTACLE
WP = WEATHERPROOF, GFCI RECEPTACLE

POKE THRU
MOUNTING LOCATION: FLOOR

- DUPLEX RECEPTACLE
- DOUBLE DUPLEX RECEPTACLE
- AV — MULTI-TRADE AV, POWER & DATA

FIXED EQUIPMENT CONNECTION
MOUNTING HEIGHT/LOCATION: COORDINATE W/ EQUIPMENT

- FIXED EQUIPMENT CONNECTION
- FIXED EQUIPMENT CONNECTION, EMERGENCY CIRCUIT
- FIXED EQUIPMENT CONNECTION, WALL MOUNT
- FIXED EQUIPMENT CONNECTION, WALL MOUNT, EMERGENCY CIRCUIT

MOUNTING LOCATION: SURFACE MOUNTED RACEWAY

- X — DUPLEX RECEPTACLE
- X — DUPLEX RECPTACLE, EMERGENCY CIRCUIT
- Y — POWER OUTLET
- Y — POWER OUTLET, EMERGENCY CIRCUIT
- J — OUTLETS INSTALLED IN SURFACE MOUNTED RACEWAY

POWER OUTLET

- Y — WALL MOUNT, MOUNTING HEIGHT: 1'-6"
- Y — EMERGENCY CIRCUIT, WALL MOUNT MOUNTING HEIGHT: 1'-6"
- Y — CEILING MOUNT
- Y — EMERGENCY CIRCUIT, CEILING MOUNT

NEMA CONFIGURATION CHART

Y = NEMA CONFIGURATION
A = 20A, 125V, NEMA 5-20R
B = 20A, 125V, NEMA L5-20R
C = 30A, 125V, NEMA L5-30R
D = 30A, 125V, NEMA L5-30R
E = 50A, 125V, NEMA 5-50R
F = 50A, 125V, NEMA L5-50R
G = 20A, 250V, NEMA 6-20R
H = 20A, 250V, NEMA L6-20R
J = 30A, 250V, NEMA 6-30R
K = 30A, 250V, NEMA L6-30R
L = 50A, 250V, NEMA 6-50R
M= 50A, 250V, NEMA L6-50R
N = 20A, 250V, NEMA 15-20R
P = 20A, 250V, NEMA L15-20R
Q = 30A, 277V, NEMA 7-30R
R = 30A, 277V, NEMA L7-30R
S = 20A, 125/250V, NEMA 14-20R
T = 20A, 125/250V, NEMA L14-20R
U = 30A, 125/250V, NEMA 14-30R
V = 30A, 125/250V, NEMA L14-30R
W= 50A, 125/208V, NEMA 18-50R
Y = 30A, 125/250V, NEMA 15-30R

EQUIPMENT AND WIRING

- MOTOR
- T — TRANSFORMER
- PANELBOARD SURFACE MOUNTED
- PANELBOARD FLUSH MOUNTED
- DISTRIBUTION PANELBOARD (NOT TO SCALE)
- MCC — MOTOR CONTROL CENTER
- VFD — VARIABLE FREQUENCY DRIVE
- ATS — AUTOMATIC TRANSFER SWITCH
- XX-XX — PANEL DIVISION ARROW
- PANEL DIVISION LINE
- CABLE TAP BOX
- BUSWAY PLUG-IN UNIT
- GEN — REMOTE GENERATOR ANNUNCIATOR
- HOMERUN A-1,3,5 — INDICATES NUMBER OF CONDUCTORS; INDICATES NEUTRAL CONDUCTOR; INDICATES GROUND CONDUCTOR

A-1,3,5 = PANEL AND CIRCUITS: PANEL A, CIRCUITS 1,3,5

- J — SURFACE JUNCTION BOX
- J — SURFACE JUNCTION BOX - WALL
- J — FLUSH JUNCTION BOX - CEILING
- J — FLUSH JUNCTION BOX - WALL
- J — FLUSH JUNCTION BOX - FLOOR
- R — RELAY - TYPE AS NOTED
- K — KIRK KEY INTERLOCK
- NON-FUSED DISCONNECT SWITCH
- F — FUSED DISCONNECT SWITCH
- B — ENCLOSED CIRCUIT BREAKER
- MAGNETIC MOTOR STARTER
- COMBINATION MOTOR STARTER
- PUSH BUTTON
- PUSH BUTTON - DOUBLE
- GROUND CONNECTION
- GROUND FAULT INDICATOR
- GP — ROOM REFERENCE GROUND POINT
- AIR TERMINAL
- GROUND ROD
- GROUND ROD WITH TEST WELL

FIRE ALARM

NOTES:
1. WALL MOUNTED NOTIFICATION DEVICES MOUNTING HEIGHT: 80" AFF TO BOTTOM OF FACEPLATE OR 6" FROM TOP OF FACEPLATE TO CEILING, WHICH EVER IS LOWER.
2. ALL CEILING MOUNTED DEVICES MOUNTED ON ACOUSTICAL CEILING TILE TO BE CENTERED ON TILE, UNO.
3. ALL CEILING MOUNTED DEVICES MOUNTED IN HARD LID CEILING TO BE CENTER ALIGNED WITH OTHER NEARBY CEILING EQUIPMENT, UNO.
4. PULL STATIONS TO BE MOUNTED 4'-0" AFF, UNO.

XX — MANUAL FIRE ALARM BOX TYPES
XX=TYPE
CO2 = CARBON DIOXIDE
DC = DRY CHEMICAL
DH = DOOR HOLDER
HL = HALON
F = PULL STATION/FIRE ALARM BOX
FO = FOAM
WC = WET CHEMICAL
CA = CLEAN AGENT
WM = WATER MIST
DL = DELUGE FIRE SPRINKLER
PRE = PREACTION
MB = FIRE ALARM MASTER BOX
DK = DRILL KEY
DS = DOOR HOLDER W/ SMOKE DETECTOR

XX — SWITCH
XX=TYPE
M = MANUAL RELEASING SWITCH
TS = TAMPER SWITCH
WF = FLOW DETECTOR/SWITCH
PS = PRESSURE DETECTOR/SWITCH
LS = LEVEL DETECTOR/SWITCH
TSS = TEMPERATURE SUPERVISORY SWITCH
HT = HIGH TEMPERATURE SWITCH
LT = LOW TEMPERATURE SWITCH
VS = VALVE SUPERVISORY SWITCH

VS — VALVE WITH SUPERVISORY SWITCH

XX — ABORT SWITCH
XX=TYPE
A = ABORT SWITCH
CO2 = CARBON DIOXIDE
DC = DRY CHEMICAL
HL = HALON
FO = FOAM
WC = WET CHEMICAL
CA = CLEAN AGENT
WM = WATER MIST
DL = DELUGE FIRE SPRINKLER
PRE = PREACTION

XX — HEAT DETECTOR/SENSOR
XX=TYPE
R/F = COMBINATION RATE OF RISE / FIXED TEMPERATURE
R/C = RATE COMPENSATION
F = FIXED TEMPERATURE
R = RATE OF RISE ONLY

S / XX — SMOKE DETECTOR/SENSOR
XX=TYPE
AS = AIR SAMPLING
P = PHOTOELECTRIC
I = IONIZATION
R = RELAY BASE
SS = SINGLE STATION
SB = SOUNDER BASE
ID = IN DUCT
BT = BEAM TRANSMITTER
BR = BEAM RECEIVER

S — SMOKE DETECTOR/SENSOR FOR DUCT

XX — GAS DETECTOR/SENSOR
XX=TYPE
CO2 = CARBON DIOXIDE
CO = CARBON MONOXIDE
HCL = HYDROGEN CHLORIDE
CH4 = METHANE

XX — FLAME DETECTOR/SENSOR
XX= TYPE
UV = ULTRAVIOLET
IR = INFRARED
UV/IR = COMBINATION UV / INFRARED
VR = VISIBLE RADIATION

W / XX — WATER DETECTOR

XXX / # — MODULES
XXX = TYPE
AIM = ADDRESSABLE INPUT MONITOR MODULE
AOM = ADDRESSABLE OUTPUT CONTROL MODULE
IO = ISOLATION MODULE
AIO = ADDRESSABLE INPUT/ OUTPUT MONITOR MOUDLE

# DENOTES NUMBER OF INPUTS/OUTPUTS

- F / H — HORN ONLY
- F / M — MINI-HORN
- F / CH — CHIME - ELECTRONIC
- S — SPEAKER ONLY
- COMBINATION HORN/STROBE
- cd — COMBINATION SPEAKER/VISIBLE cd = CANDELA RATING/SETTING
- M / cd — EMERGENCY SPEAKER/VISIBLE cd = CANDELA RATING/SETTING
- F / V — BELL - VIBRATING
- F / SS — BELL - SINGLE STROKE
- F / T — BELL - TROUBLE
- F / G — BELL - GONG
- F / CH — BELL - CHIME

FOR THE ABOVE SYMBOLS:
C=CEILING MOUNTED
W=WALL MOUNTED

- cd — VISIBLE ONLY (STROBE) WALL MOUNT cd = CANDELA RATING/SETTING
- cd — VISIBLE ONLY (STROBE) CEILING MOUNT cd = CANDELA RATING/SETTING
- cd — EMERGENCY VISIBLE ONLY (STROBE) WALL MOUNT cd = CANDELA RATING/SETTING
- cd — EMERGENCY VISIBLE ONLY (STROBE) CEILING MOUNT cd = CANDELA RATING/SETTING
- RI — REMOTE INDICATOR
- RI — CEILING MOUNT INDICATOR
- ROTATING BEACON
- RTS — REMOTE ALARM INDICATING AND TEST SWITCH
- A — FIRE SERVICE OR EMERGENCY PHONE STATION - ACCESSIBLE
- FIRE SERVICE OR EMERGENCY PHONE STATION - BASIC SHAPE
- H — FIRE SERVICE OR EMERGENCY PHONE STATION - HANDSET
- J — FIRE SERVICE OR EMERGENCY PHONE STATION - JACK
- FWS — FLOOR WARDEN STATION

XXXX — CONTROL PANELS/UNITS
XXXX=TYPE
FACP = FIRE ALARM CONTROL PANEL
FAA = FIRE ALARM ANNUNCIATOR
FACU = FIRE ALARM CONTROL UNIT
FATC = FIRE ALARM TERMINAL CABINET
ECCU = EMERGENCY COMMUNICATIONS CONTROL UNIT
FSCP = FIRE SUPPRESSION CONTROL PANEL
FSCU = FIRE SUPPRESSION CONTROL UNIT
FAC = FIRE ALARM COMMUNICATOR
SAP = SPRINKLER ALARM PANEL
WCU = WIRELESS CONTROL UNIT
MFACU = MASTER FIRE ALARM CONTROL UNIT
BATT = BATTERY CABINET
EVAC = VOICE EVACUATION CONTROL UNIT
NPS = NOTIFICATION POWER SUPPLY
GAP = GRAPHIC ANNUNCIATOR PANEL
BDCU = BEAM DETECTOR CONTROL UNIT

ELECTRICAL EQUIPMENT DESIGNATION CODE

01NPLA2

LEVEL:
0G - GROUND
01 - LEVEL 1
02 - LEVEL 2
03 - LEVEL 3
04 - LEVEL 4
05 - LEVEL 5
0R - ROOF

APPLICATION:
N - NORMAL BRANCH
Z - EQUIPMENT BRANCH - PRIORITY "0"
C - CRITICAL BRANCH - PRIORITY "1"
S - LIFE SAFETY BRANCH - PRIORITY "1"
E - EQUIPMENT BRANCH - PRIORITY "2"
O - OPTIONAL EQUIPMENT BRANCH - PRIORITY "3"
U - UNINTERUPTABLE POWER SUPPLY (UPS)
G - GENERATOR (NON-TRANSFER SWITCH)

PANEL:
1
2
3
4
...ETC

AREA:
A - ELECTRICAL ROOM
B - ELECTRICAL ROOM
...ETC

VOLTAGE:
V - 15KV (UTILITY)
H - 480V, 480Y/277V
L - 240V, 208Y/120V

EQUIPMENT:
M - MEDIUM VOLTAGE GEAR
G - SWITCHGEAR
S - SWITCHBOARD
D - DISTRIBUTION PANEL
P - BRANCH CIRCUIT PANELBOARD
A - AUTOMATIC TRANSFER SWITCH
T - TRANSFORMER
B - BUSWAY
LCP - LIGHTING CONTROL PANEL
U - UNINTERRUPTIBLE POWER SUPPLY
I - ISOLATION POWER PANEL

ELECTRICAL ABBREVIATIONS

A	- AMPERES	LAN	- LOCAL AREA NETWORK
AC	- ABOVE CEILING / ALTERNATING CURRENT	LED	- LIGHT EMITTING DIODE
		LI	- LONG-TIME/INSTANTANEOUS
ADO	- AUTOMATIC DOOR OPENER	LSI	- LONG-TIME/SHORT-TIME/ INSTANTANEOUS
AF	- AMPERE FRAME		
AFCI	- ARC FAULT CIRCUIT INTERRUPTER	LSIA	- LONG-TIME/SHORT-TIME/ INSTANTANEOUS/GROUND
AFF	- ABOVE FINISHED FLOOR	ALARM	
AIC	- AMP INTERRUPTING CAPACITY	LSIG	- LONG-TIME/SHORT-TIME/ INSTANTANEOUS/GROUND
ALT	- ALTERNATE		
ARCH	- ARCHITECTURAL	LTCP	- LOCAL TEMPERATURE CONTROL PANEL
ASC	- ABOVE SUSPENDED CEILING		
AT	- AMPERE TRIP	LTG	- LIGHTING
ATC	- ASTRONOMIC TIME CLOCK	LTS	- LIGHTS
ATS	- AUTOMATIC TRANSFER SWITCH	LV	- LOW VOLTAGE
AUTO	- AUTOMATIC	MATV	- MASTER ANTENNA TELEVISION
BC	- BARE COPPER	MC	- MECHANICAL CONTRACTOR
BFC	- BELOW FINISH CEILING	MCB	- MAIN CIRCUIT BREAKER
BFL	- BELOW FLOOR LEVEL	MCC	- MOTOR CONTROL CENTER
BLDG	- BUILDING	MCP	- MOTOR CIRCUIT PROTECTOR
BPIP	- BOILER PLANT INSTRUMENTATION PANEL	MER	- MECHANICAL EQUIPMENT ROOM
		MH	- MANHOLE
BRKR	- BREAKER	MLO	- MAIN LUGS ONLY
		MPTB	- MUSIC & PAGE TERMINAL BOX
C	- CONDUIT	MTD	- MOUNTED
CB	- CIRCUIT BREAKER	MTG	- MOUNTING
CCTV	- CLOSED CIRCUIT TELEVISION	MTG HGT	- MOUNTING HEIGHT
CFCI	- CONTRACTOR FURNISHED, CONTRACTOR INSTALLED	MTR	- MOTOR / METER
		MV	- MEDIUM VOLTAGE
CGL	- CEILING		
CKT	- CIRCUIT	NA	- NOT APPLICABLE
CO	- CONDUIT ONLY	NAC	- NOTIFICATION APPLIANCE CIRCUIT
CONTR	- CONTRACTOR		
CORR	- CORRIDOR	NC	- NORMALLY CLOSED
CR	- CONTROL RELAY	NEC	- NATIONAL ELECTRICAL CODE
CT	- CURRENT TRANSFORMER	NIC	- NOT IN CONTRACT
		NO	- NORMALLY OPEN
DB	- DIRECT BURIAL	NTS	- NOT TO SCALE
DC	- DIRECT CURRENT		
DED	- DEDICATED	OC	- ON CENTER
DET	- DETAIL	OFCI	- OWNER FURNISHED, CONTRACTOR INSTALLED
DIA	- DIAMETER		
DISC	- DISCONNECT	OFOI	- OWNER FURNISHED, OWNER INSTALLED
DN	- DOWN		
DP	- DISTRIBUTION PANEL		
DS	- DISCONNECT SWITCH	P	- POLE
		PA	- PUBLIC ADDRESS
EC	- ELECTRICAL CONTRACTOR	PB	- PULL BOX / PUSHBUTTON
EDB	- ELECTRIC DUCT BANK	PC	- PLUMBING CONTRACTOR / PHOTOCELL
EGC	- EQUIPMENT GROUND CONDUCTOR	PDU	- POWER DISTRIBUTION UNIT
EGS	- ENGINE GENERATOR SET	PF	- POWER FACTOR
EJ	- EXPANSION JOINT	PH	- PHASE
ELEC	- ELECTRIC / ELECTRICAL	PLBG	- PLUMBING
ELL	- EMERGENCY LIFE SAFETY LIGHTING	PNL	- PANEL
		POD	- POWER OPERATED DAMPER
ELP	- EMERGENCY LIFE SAFETY POWER	PS	- POWER SUPPLY
		PT	- POTENTIAL TRANSFORMER
EM/EMER	- EMERGENCY	PTRV	- POWER TYPE ROOF VENTILATOR
EMI	- ELECTROMAGNETIC INTERFERENCE	PWR	- POWER
EMT	- ELECTRICAL METALLIC TUBING		
EQUIP	- EQUIPMENT	REC	- RECESSED
ESM	- ELECTRIC STRIP MOLD	RECEP	- RECEPTACLE
ETR	- EXISTING TO REMAIN	REL	- RELOCATE
EWC	- ELECTRIC WATER COOLER	REQD	- REQUIRED
		RMC	- RIGID METAL CONDUIT
FA	- FIRE ALARM	RVAT	- REDUCED VOLTAGE AUTO TRANSFORMER
FACP	- FIRE ALARM CONTROL PANEL		
FCU	- FAN COIL UNIT	SCCR	- SHORT CIRCUIT CURRENT RATING
FDR	- FEEDER		
FDS	- FUSED DISCONNECT SWITCH	SHT	- SHEET
FIXT	- FIXTURE	SIG	- SIGNAL
FLA	- FULL LOAD AMPERES	SIM	- SIMILAR
FLEX	- FLEXIBLE	SPD	- SURGE PROTECTIVE DEVICE
FLR	- FLOOR	SPEC	- SPECIFICATION
FLUOR	- FLUORESCENT	SS	- SAFETY SWITCH
FS	- FLOW SWITCH	SSBJ	- SUPPLY SIDE BONDING JUMPER
FSCP	- FLAME SAFEGUARD CONTROL PANEL	STA	- STATION
		STR	- STARTER
FSD	- FIRE/SMOKE DAMPER	SW	- SWITCH
FVNR	- FULL VOLTAGE NON-REVERSING	SWBD	- SWITCHBOARD
		SWGR	- SWITCHGEAR
GC	- GENERAL CONTRACTOR		
GEN	- GENERATOR	TEL	- TELEPHONE
GFCI	- GROUND FAULT CIRCUIT INTERRUPTER	TFA	- TO FLOOR ABOVE
		TFB	- TO FLOOR BELOW
GFI	- GROUND FAULT INTERRUPTER	TS	- TAMPER SWITCH / TIME SWITCH
GFP	- GROUND FAULT PROTECTION	TV	- TELEVISION
GND	- GROUND	TVTC	- TELEVISION TERMINAL CABINET
GTB	- GROUND TERMINAL BOX	TYP	- TYPICAL
HH	- HANDHOLE	UC	- UNDER COUNTER
HOA	- HAND OFF AUTOMATIC	UG	- UNDERGROUND
HP	- HORSE POWER	UH	- UNIT HEATER
HT	- HEIGHT / HEAT TRACE	UNO	- UNLESS NOTED OTHERWISE
HV	- HIGH VOLTAGE	UPS	- UNINTERRUPTED POWER SUPPLY
IMC	- INTERMEDIATE METAL CONDUIT		
INV	- INVERTER	V	- VOLTAGE
		VFD	- VARIABLE FREQUENCY DRIVE
J or JB	- JUNCTION BOX	VP	- VAPOR PROOF
KV	- KILOVOLT	W	- WIRE
KVA	- KILOVOLT-AMPERES	W/	- WITH
KW	- KILOWATTS	WP	- WEATHERPROOF
KWH	- KILOWATT HOURS	WS	- WALL SURFACE
		WT	- WATER TIGHT
		XFMR	- TRANSFORMER
		XP	- EXPLOSION PROOF

ANSI DEVICE FUNCTION NUMBERS

25	= SYNC CHECK	51N	= NEUTRAL TIME OVERCURRENT
26	= LIQUID THERMAL RELAY	51G	= GROUND TIME OVERCURRENT
27	= UNDERVOLTAGE	52	= CIRCUIT BREAKER
32	= REVERSE POWER	59	= OVERVOLTAGE
47	= PHASE SEQUENCE	63	= SUDDEN PRESSURE RELAY
49	= WINDING THERMAL RELAY	71	= LIQUID LEVEL RELAY
50	= INSTANTANEOUS OVERCURRENT	81U	= UNDER-FREQUENCY
50N	= NEUTRAL INSTANTANEOUS OVERCURRENT	81O	= OVER-FREQUENCY
		83	= CONTROL POWER AUTO-TRANSFER
50G	= GROUND INSTANTANEOUS OVERCURRENT	86	= LOCKOUT RELAY
51	= TIME OVERCURRENT	87	= DIFFERENTIAL

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07/01/22

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SCO ID: 18-19655-02C
LS3P PROJECT: 7202-197980

Δ	DATE	DESCRIPTION
0	2022.07.01	PACKAGE C - BID DOCUMENTS

SHEET NAME:
ELECTRICAL SYMBOLS AND ABBREVIATIONS

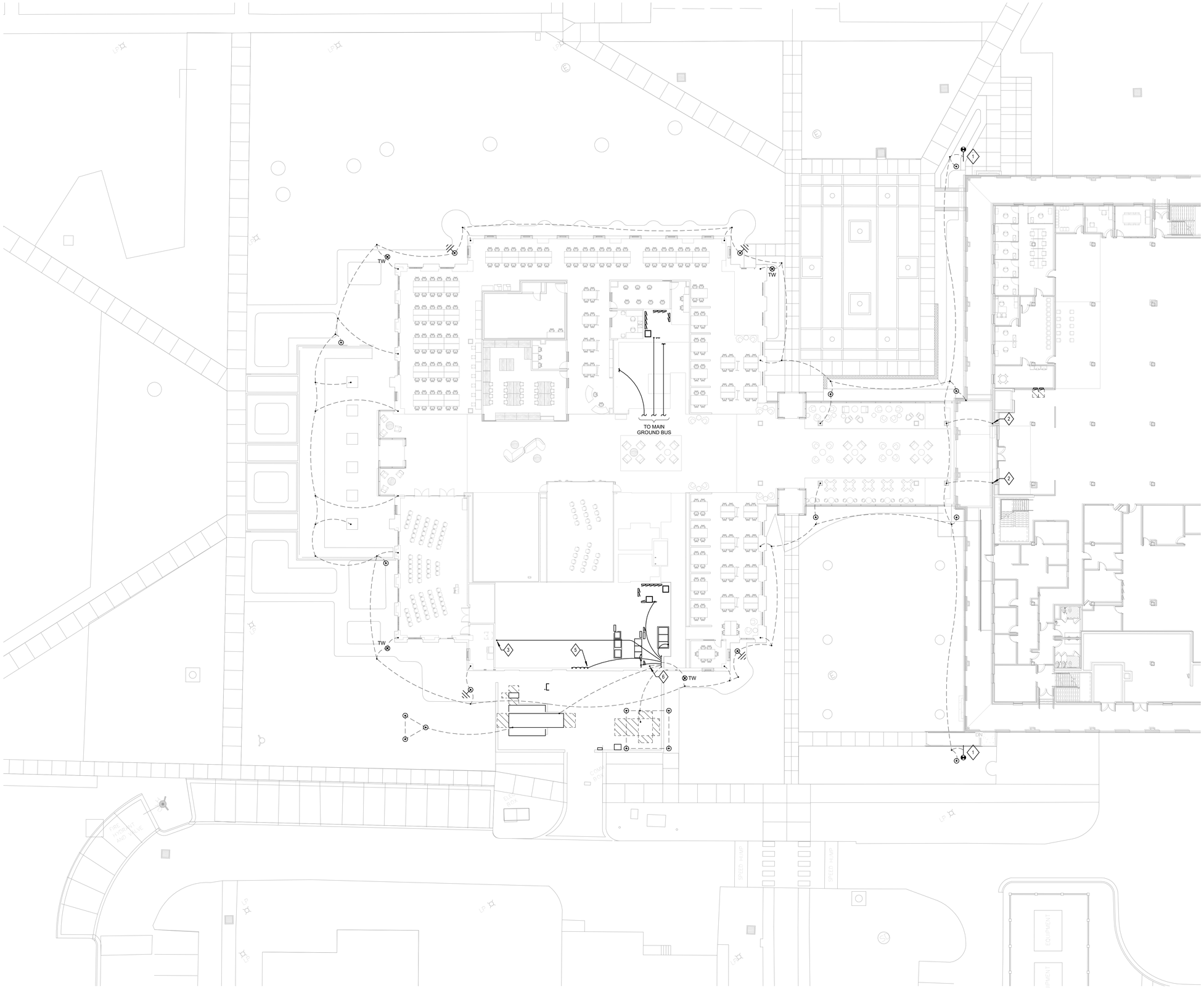
ORIG SUBMISSION: 2022.07.01
CURRENT: 2022.07.01
PACKAGE C - BID DOCUMENTS

SHEET:
E000

PACKAGE C - BID DOCUMENTS

PROVIDED FOR REFERENCE ONLY - SHEET ORIGINALLY SUBMITTED IN PACKAGE A

THIS LINE SHOWN ABOVE IS EXACTLY ONE INCH LONG AT TWENTY SCALE WHEN PLOTTED



GENERAL NOTES:

1. BURIED GROUND LOOP SHALL MAINTAIN A MINIMUM OF 30" DEPTH.

SHEET KEYNOTES

1. CONNECT TO EXISTING GROUND LOOP.
2. TIE NEW GROUNDING SYSTEM INTO EXISTING RANDALL LIBRARY STRUCTURAL STEEL. COORDINATE THIS WORK WITH EXISTING LIBRARY RENOVATION.
3. GROUND CONNECTION FOR FIRE PUMP CONTROLLER.
4. NOT USED.
5. GROUND CONNECTION FOR BUILDING WATER ENTRANCE. ALL METAL PIPES ENTERING THE BUILDING SHALL BE BONDED TOGETHER AND TIED INTO THE GROUNDING SYSTEM.
6. GROUND CONNECTION TO REBAR WITHIN BUILDING FOOTING.

1 ELECTRICAL GROUNDING SITE PLAN

SCALE: 1/16" = 1'-0"

8 0 4 8 16

GRAPHIC SCALE IN FEET

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SCO ID: 18-19655-02A
LS3P PROJECT: 7202-197980

Δ	DATE	DESCRIPTION
0	2022.02.14	BID DOCUMENTS

KEY PLAN:

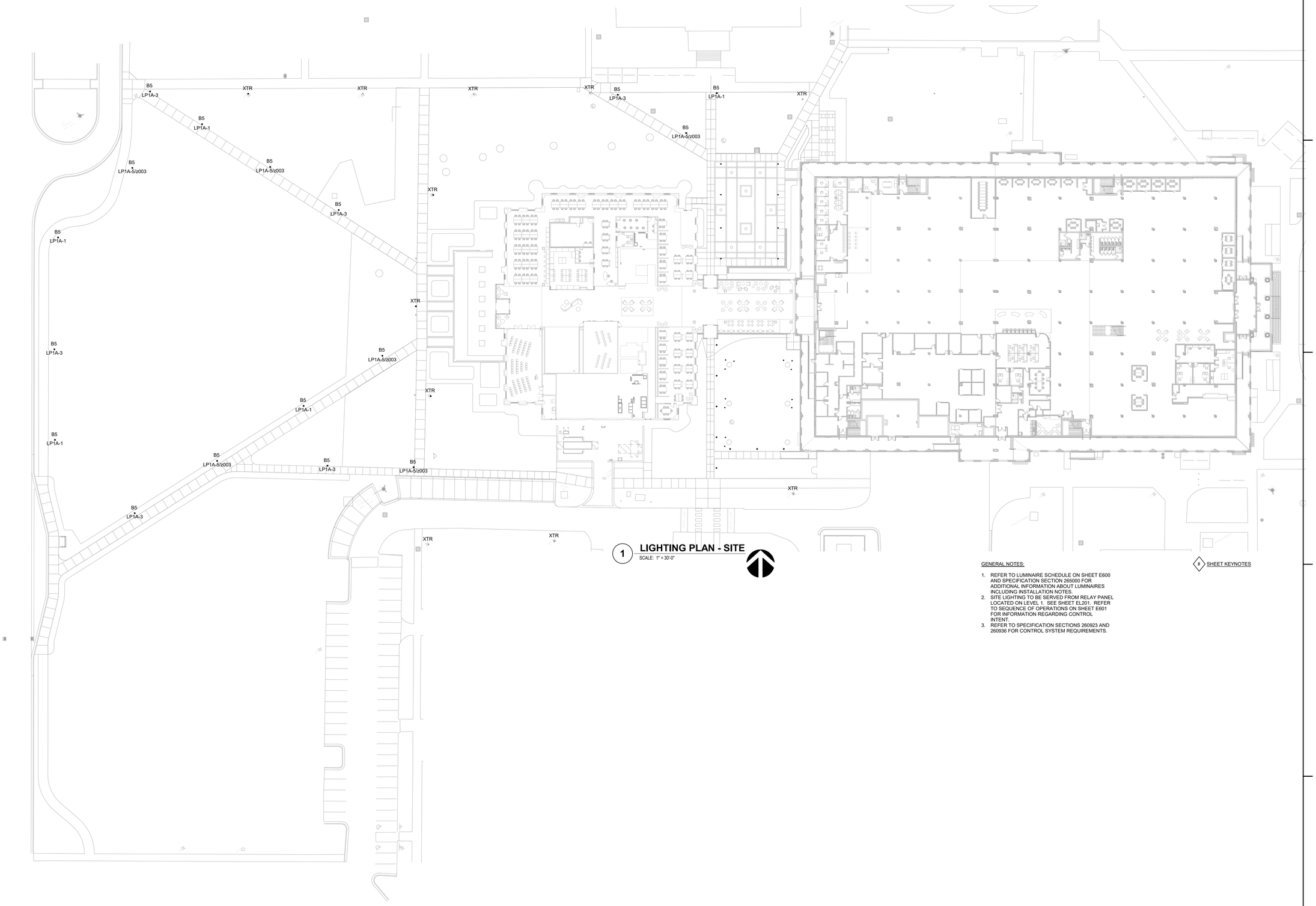
PROJECT NORTH

SHEET NAME:
ELECTRICAL GROUNDING SITE PLAN

ORIG SUBMISSION: 2022.02.14
CURRENT: 2022.02.14
BID DOCUMENTS

SHEET:
E101

PACKAGE A - BID DOCUMENTS



1 LIGHTING PLAN - SITE
SCALE: 1" = 30'-0"

GENERAL NOTES:

1. REFER TO LUMINAIRE SCHEDULE ON SHEET E600 AND SPECIFICATION SECTION 265000 FOR ADDITIONAL INFORMATION ABOUT LUMINAIRES INCLUDING INSTALLATION NOTES.
2. SITE LIGHTING TO BE SERVED FROM RELAY PANEL LOCATED ON LEVEL 1. SEE SHEET EL201. REFER TO SEQUENCE OF OPERATIONS ON SHEET E601 FOR INFORMATION REGARDING CONTROL INTENT.
3. REFER TO SPECIFICATION SECTIONS 260923 AND 260936 FOR CONTROL SYSTEM REQUIREMENTS.

SHEET KEYNOTES

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SCO ID: 18-19656-02C
LS3P PROJECT: 7202-197980

Δ	DATE	DESCRIPTION
0	2022.07.01	PACKAGE C - BID DOCUMENTS

KEY PLAN:



PROJECT NORTH

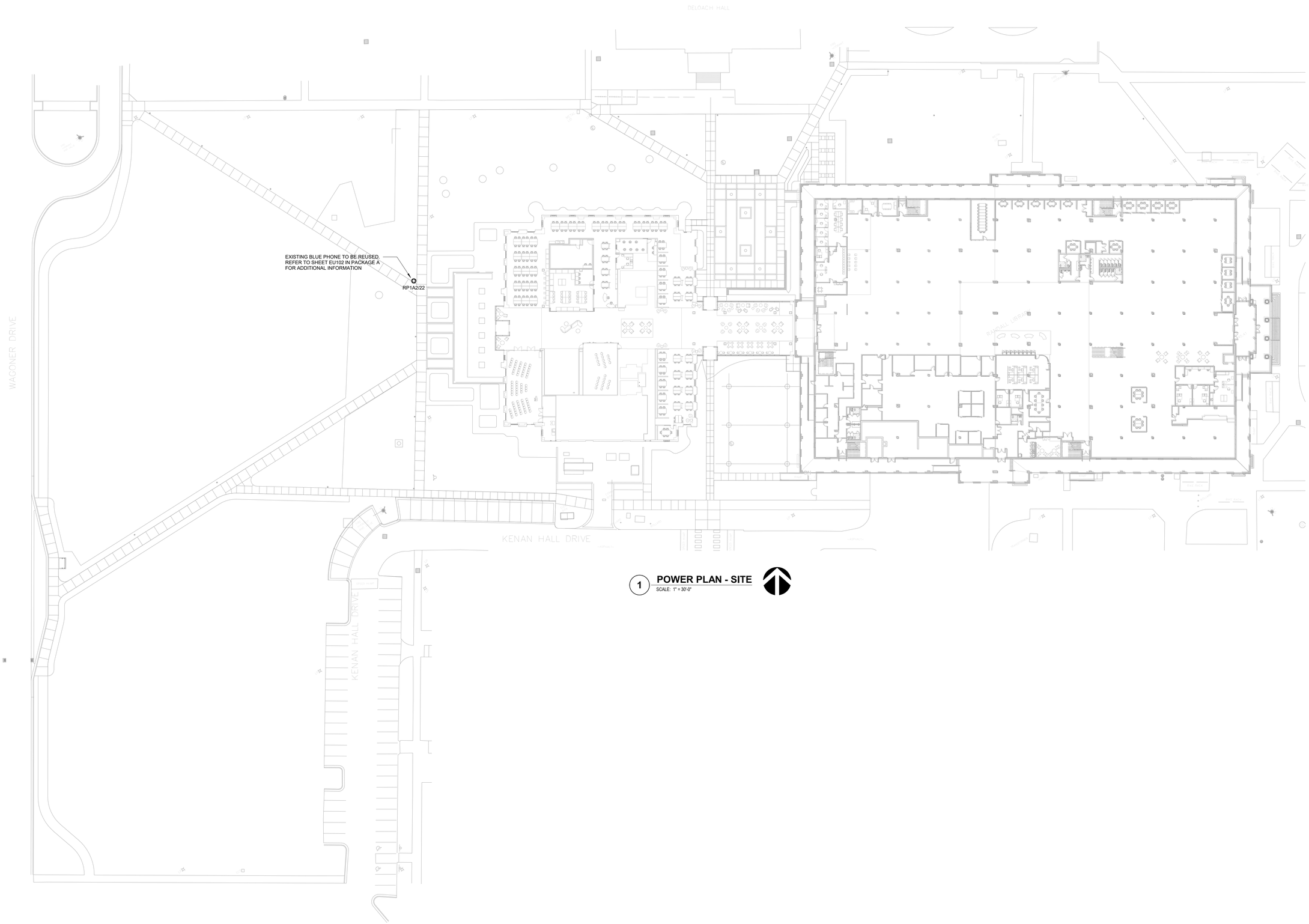
SHEET NAME:
LIGHTING SITE PLAN

ORIG SUBMISSION: 2022.07.01
CURRENT: 2022.07.01
PACKAGE C - BID DOCUMENTS

SHEET:
EL100

PACKAGE C - BID DOCUMENTS

THIS LINE SHOWN ABOVE IS EXACTLY ONE INCH LONG AT THE ORIGINAL DRAWING SIZE



1 **POWER PLAN - SITE**
SCALE: 1" = 30'-0"

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SCO ID: 18-19656-02C
LS3P PROJECT: 7202-197980

Δ	DATE	DESCRIPTION
0	2022.07.01	PACKAGE C - BID DOCUMENTS

SHEET NAME:
ELECTRICAL SITE PLAN

ORIG SUBMISSION: 2022.07.01
CURRENT: 2022.07.01
PACKAGE C - BID DOCUMENTS

SHEET:
EP100
PACKAGE C - BID DOCUMENTS

THIS LINE SHOWN ABOVE IS EXACTLY ONE INCH LONG AT TABLOID (11X17) PRINTING SIZE



1 LIGHTING PLAN - LEVEL 1 - MAIN BUILDING

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

8 0 4 8 16

GRAPHIC SCALE IN FEET

GENERAL NOTES:

1. NORMAL AND EMERGENCY LIGHTING THIS SHEET IS SERVED FROM PANELS LP1A AND ELP1, RESPECTIVELY, UNLESS OTHERWISE NOTED.
2. REFER TO LUMINAIRE SCHEDULE ON SHEET E600 AND SPECIFICATION SECTION 265000 FOR ADDITIONAL INFORMATION ABOUT LUMINAIRES INCLUDING INSTALLATION NOTES.
3. REFER TO SEQUENCE OF OPERATIONS ON SHEET E601 FOR INFORMATION REGARDING CONTROL INTENT.
4. REFER TO SPECIFICATION SECTIONS 260923 AND 260936 FOR CONTROL SYSTEM REQUIREMENTS.
5. LUMINAIRES LOCATED IN 1078, 1079, 1080 UTILITY SPACES HAVE BEEN COORDINATED WITH MODELED SYSTEMS. FIELD-VERIFY AND COORDINATE MOUNTING LOCATIONS TO SUPPORT FROM STRUCTURE IN ALL CASES AND SUSPEND BELOW DUCTWORK AND PIPING TO BE 8FT AFF (CLEAR) AS SCHEDULED.

SHEET KEYNOTES

1 LOCATE CONTROL EQUIPMENT ABOVE CEILING (OR CEILING PLANE AS APPLICABLE) TO BE ACCESSIBLE BY NO LARGER THAN AN 8-FT LADDER. CONTROLLED ZONES BEGIN WITH SAME LETTER PREFIX AS ROOM CONTROLLER ID. PROVIDE CONTROL BUS WIRING IN CONDUIT TO NEAREST LRP PANEL FOR INTERCONNECTION OF CONTROL SEGMENTS.

2 PROVIDE MINIMUM 4-BUTTON PRESET KEYPAD FOR RECALL OF SHOWS AND/OR SCENES TO BE PROGRAMMED BY THE OWNER.

3 ZONES DESIGNATED WITH "z0##" OR "z1##" ARE TO BE SERVED FROM THIS RELAY PANEL.

4 FURNISH SINGLE-BUTTON HOUSEKEEPING MASTER STATION FOR 1-HOUR TIMED OVERRIDE OF ALL ZONES ON THIS FLOOR TO 100% TO FACILITATE CLEANING DURING OFF-HOURS.

5 THIS LUMINAIRE TYPE IS PLUG-IN. REFER TO POWER PLANS FOR RECEPTACLE LOCATIONS AND CIRCUITING.

6 PROVIDE A LOCAL DIMMER SWITCH DOWNSTREAM OF RELAY-SWITCHED ZONE FOR TASK-TUNING AT POINT OF USE. TYPICAL.

7 QUANTITY OF BUTTONS FOR CONTROL OF 3RD PARTY SYSTEM DEVICES TO BE DETERMINED FOLLOWING CONTROLS PRE-CONSTRUCTION MEETING IN SUBMITTAL REVIEW PROCESS.

8 LOCATE CONTROL DEVICE PER ELEVATOR MANUFACTURER'S SHOP DRAWINGS.

LIFE SAFETY LEGEND

- NEW NON-RATED PARTITION
- EXISTING WALL TO REMAIN
- UNRATED SMOKE BARRIER TO DECK
- 1 HR. RATED BARRIER TO DECK
- 2 HR. RATED BARRIER TO DECK
- 3 HR. RATED FIRE WALL TO DECK

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LS3P PROJECT: 7202-197980

Δ	DATE	DESCRIPTION
0	2022.07.01	PACKAGE C - BID DOCUMENTS

KEY PLAN:

PROJECT NORTH

SHEET NAME:
LIGHTING PLAN - LEVEL 1

ORIG SUBMISSION: 2022.07.01
CURRENT: 2022.07.01
PACKAGE C - BID DOCUMENTS

SHEET:
EL201

PACKAGE C - BID DOCUMENTS

THIS LINE SHOWN ABOVE IS EXACTLY ONE INCH LONG AT TIME OF ORIGINAL PLOT

GENERAL NOTES:

1. NORMAL AND EMERGENCY LIGHTING THIS SHEET IS SERVED FROM PANELS LP2A AND ELP2, RESPECTIVELY, UNLESS OTHERWISE NOTED.
2. REFER TO LUMINAIRE SCHEDULE ON SHEET E600 AND SPECIFICATION SECTION 265000 FOR ADDITIONAL INFORMATION ABOUT LUMINAIRES INCLUDING INSTALLATION NOTES.
3. REFER TO SEQUENCE OF OPERATIONS ON SHEET E601 FOR INFORMATION REGARDING CONTROL INTENT.
4. REFER TO SPECIFICATION SECTIONS 260923 AND 260936 FOR CONTROL SYSTEM REQUIREMENTS.

SHEET KEYNOTES

1 LOCATE CONTROL EQUIPMENT ABOVE CEILING (OR CEILING PLANE AS APPLICABLE) TO BE ACCESSIBLE BY NO LARGER THAN AN 8-FT LADDER. CONTROLLED ZONES BEGIN WITH SAME LETTER PREFIX AS ROOM CONTROLLER ID. PROVIDE CONTROL BUS WIRING IN CONDUIT TO NEAREST LRP PANEL FOR INTERCONNECTION OF CONTROL SEGMENTS.

2 QUANTITY OF BUTTONS FOR CONTROL OF 3RD PARTY SYSTEM DEVICES TO BE DETERMINED FOLLOWING CONTROLS PRE-CONSTRUCTION MEETING IN SUBMITTAL REVIEW PROCESS.

3 ZONES DESIGNATED WITH "*Z##*" ARE TO BE SERVED FROM THIS RELAY PANEL.

1 LIGHTING PLAN - LEVEL 2 - MAIN BUILDING
SCALE: 1/8" = 1'-0"
GRAPHIC SCALE IN FEET (8 0 4 8 16)

LIFE SAFETY LEGEND
- NEW NON-RATED PARTITION
- EXISTING WALL TO REMAIN
- UNRATED SMOKE BARRIER TO DECK
- 1 HR. RATED BARRIER TO DECK
- 2 HR. RATED BARRIER TO DECK
- 3 HR. RATED FIRE WALL TO DECK

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SCO ID: 18-19655-02C
LS3P PROJECT: 7202-197980

Δ	DATE	DESCRIPTION
0	2022.07.01	PACKAGE C - BID DOCUMENTS

KEY PLAN:

PROJECT NORTH

SHEET NAME:
LIGHTING PLAN - LEVEL 2

ORIG SUBMISSION: 2022.07.01
CURRENT: 2022.07.01
PACKAGE C - BID DOCUMENTS

SHEET:
EL202

PACKAGE C - BID DOCUMENTS

THIS LINE SHOWN ABOVE IS EXACTLY ONE INCH LONG AT TIMES FULL SCALING PLOTTING

GENERAL NOTES:

1. NORMAL AND EMERGENCY LIGHTING THIS SHEET IS SERVED FROM PANELS LP3A AND ELP3, RESPECTIVELY, UNLESS OTHERWISE NOTED.
2. REFER TO LUMINAIRE SCHEDULE ON SHEET E600 AND SPECIFICATION SECTION 265000 FOR ADDITIONAL INFORMATION ABOUT LUMINAIRES INCLUDING INSTALLATION NOTES.
3. REFER TO SEQUENCE OF OPERATIONS ON SHEET E601 FOR INFORMATION REGARDING CONTROL INTENT.
4. REFER TO SPECIFICATION SECTIONS 260923 AND 260936 FOR CONTROL SYSTEM REQUIREMENTS.

SHEET KEYNOTES

1 LOCATE CONTROL EQUIPMENT ABOVE CEILING (OR CEILING PLANE AS APPLICABLE) TO BE ACCESSIBLE BY NO LARGER THAN AN 8-FT LADDER. CONTROLLED ZONES BEGIN WITH SAME LETTER PREFIX AS ROOM CONTROLLER ID. PROVIDE CONTROL BUS WIRING IN CONDUIT TO NEAREST LRP PANEL FOR INTERCONNECTION OF CONTROL SEGMENTS.

2 QUANTITY OF BUTTONS FOR CONTROL OF 3RD PARTY SYSTEM DEVICES TO BE DETERMINED FOLLOWING CONTROLS PRE-CONSTRUCTION MEETING IN SUBMITTAL REVIEW PROCESS.

3 THIS ZONE TO SWEEP OFF AT SUNRISE. KEYPAD TO BE DISABLED FROM ONE HALF HOUR AFTER SUNRISE TO ONE HALF HOUR BEFORE SUNSET.

4 ZONES DESIGNATED WITH "z3##" ARE TO BE SERVED FROM THIS RELAY PANEL.

5 LOCATE CONTROL DEVICE PER ELEVATOR MANUFACTURER'S SHOP DRAWINGS.

6 FIELD-VERIFY LOCATION FOR L10 REMOTE DRIVERS SERVING FIXTURES OVER 2-STORY SPACE IN ELECTRICAL CLOSET 3008.

1 LIGHTING PLAN - LEVEL 3 - MAIN BUILDING
SCALE: 1/8" = 1'-0"

GRAPHIC SCALE IN FEET (8 0 4 8 16)

LIFE SAFETY LEGEND

- NEW NON-RATED PARTITION
- EXISTING WALL TO REMAIN
- UNRATED SMOKE BARRIER TO DECK
- 1 HR. RATED BARRIER TO DECK
- 2 HR. RATED BARRIER TO DECK
- 3 HR. RATED FIRE WALL TO DECK

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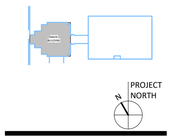
SCO ID: 18-19656-02C
LS3P PROJECT: 7202-197980

Δ	DATE	DESCRIPTION
0	2022.07.01	PACKAGE C - BID DOCUMENTS

KEY PLAN:



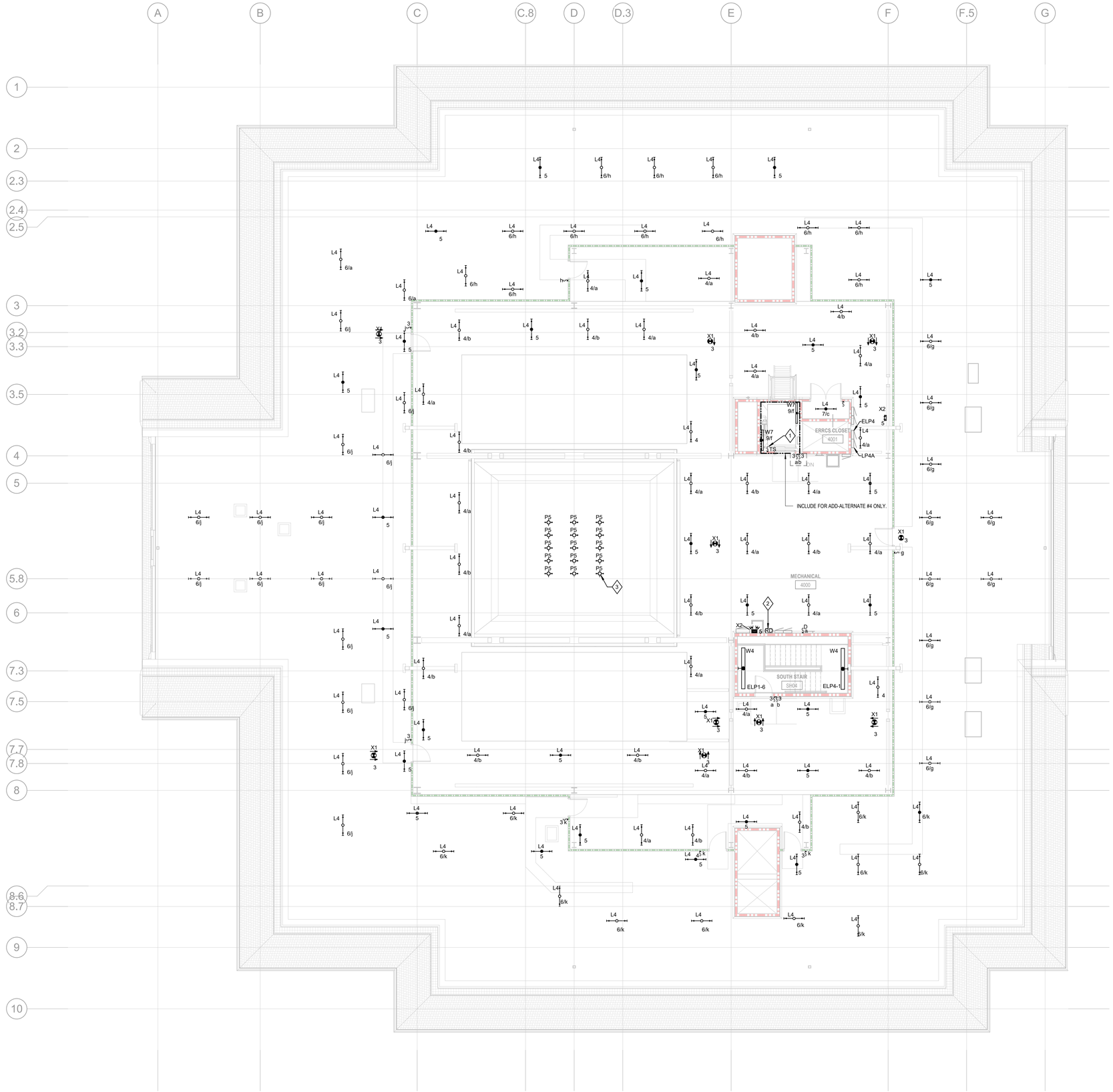
PROJECT NORTH

SHEET NAME:
LIGHTING PLAN - LEVEL 3

ORIG SUBMISSION: 2022.07.01
CURRENT: 2022.07.01
PACKAGE C - BID DOCUMENTS

SHEET:
EL203

PACKAGE C - BID DOCUMENTS



1 LIGHTING PLAN - LEVEL 4 - MAIN BUILDING

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

8 0 4 8 16

GRAPHIC SCALE IN FEET

GENERAL NOTES:

1. NORMAL AND EMERGENCY LIGHTING THIS SHEET IS SERVED FROM PANELS LP4A AND ELP4, RESPECTIVELY, UNLESS OTHERWISE NOTED.
2. REFER TO LUMINAIRE SCHEDULE ON SHEET E600 AND SPECIFICATION SECTION 265000 FOR ADDITIONAL INFORMATION ABOUT LUMINAIRES INCLUDING INSTALLATION NOTES.
3. REFER TO SEQUENCE OF OPERATIONS ON SHEET E601 FOR INFORMATION REGARDING CONTROL INTENT.
4. REFER TO SPECIFICATION SECTIONS 260923 FOR CONTROL DEVICE REQUIREMENTS.
5. ATTIC LUMINAIRE LOCATIONS HAVE BEEN COORDINATED WITH MODELED SYSTEMS. FIELD-VERIFY AND COORDINATE MOUNTING LOCATIONS TO SUPPORT FROM STRUCTURE IN ALL CASES AND SUSPEND BELOW DUCTWORK, PIPING, AND STRUCTURE TO BE 8FT AFF (CLEAR) AS SCHEDULED OR NOT LESS THAN 7FT AFF.

SHEET KEYNOTES

1 LOCATE CONTROL DEVICE PER ELEVATOR MANUFACTURER'S SHOP DRAWINGS.

2 REMOTE DRIVER CABINET. CONFIRM WIRE SIZE AND MAXIMUM DISTANCES TO LOCATE REMOTE DRIVERS FOR TYPE P5 PENDANTS IN A SINGLE CABINET.

3 REFER TO LEVEL BELOW FOR CIRCUITING OF TYPE P5 PENDANTS WHICH SPAN TWO FLOORS.

LIFE SAFETY LEGEND

- NEW NON-RATED PARTITION
- EXISTING WALL TO REMAIN
- UNRATED SMOKE BARRIER TO DECK
- 1 HR. RATED BARRIER TO DECK
- 2 HR. RATED BARRIER TO DECK
- 3 HR. RATED FIRE WALL TO DECK

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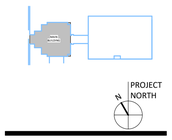
LS3P PROJECT: 7202-197980

Δ	DATE	DESCRIPTION
0	2022.07.01	PACKAGE C - BID DOCUMENTS

KEY PLAN:



SHEET NAME:

LIGHTING PLAN - LEVEL 4

ORIG SUBMISSION: 2022.07.01
CURRENT: 2022.07.01

PACKAGE C - BID DOCUMENTS

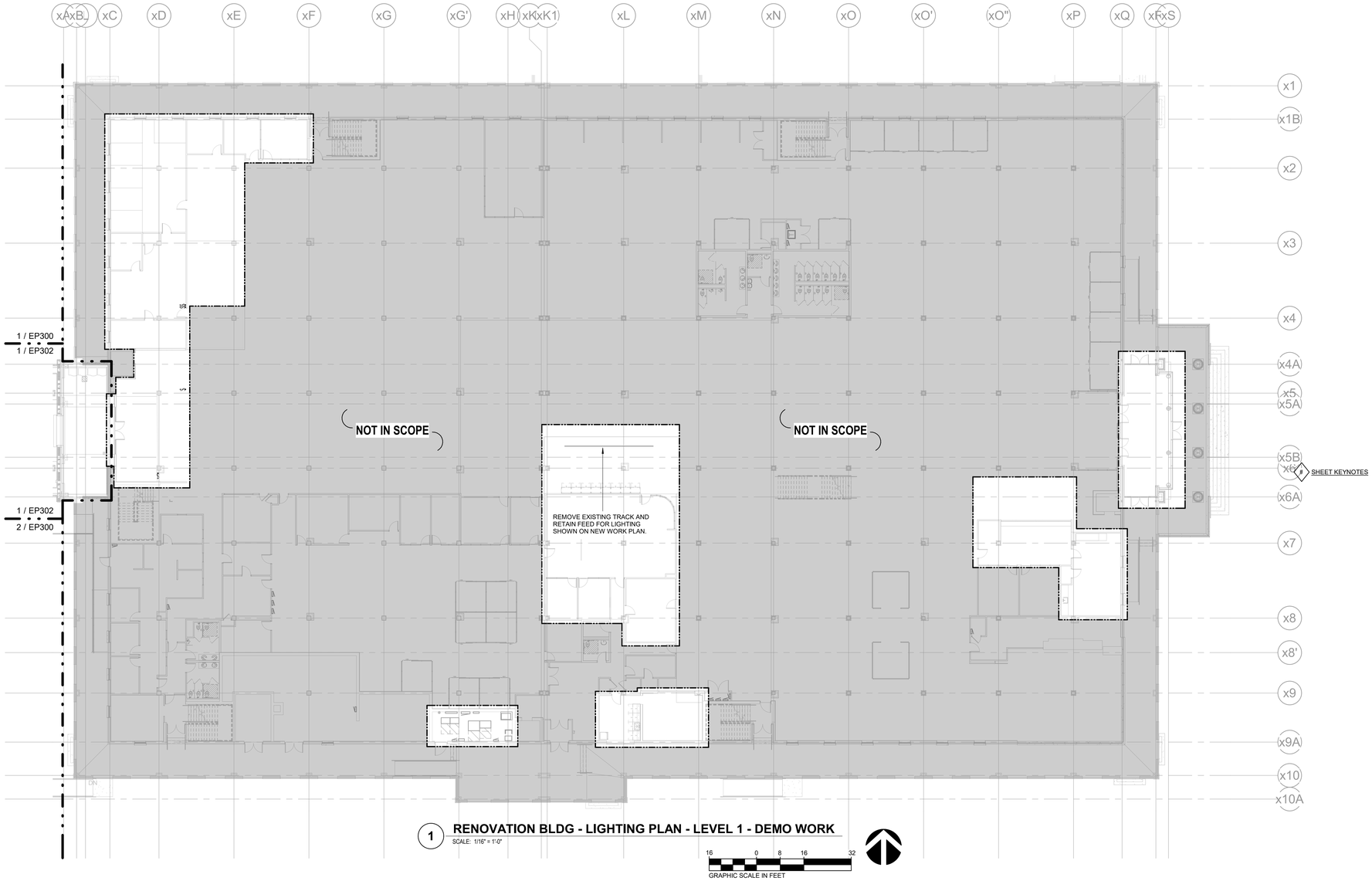
SHEET:

EL204

PACKAGE C - BID DOCUMENTS

THE LINE SHOWN ABOVE IS EXACTLY ONE INCH LONG AT THE ORIGINAL DRAWING SCALE

GENERAL NOTES:



1 RENOVATION BLDG - LIGHTING PLAN - LEVEL 1 - DEMO WORK
SCALE: 1/16" = 1'-0"

16 0 8 16 32
GRAPHIC SCALE IN FEET

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LS3P PROJECT: 7202-197980

Δ	DATE	DESCRIPTION
0	2022.07.01	PACKAGE C - BID DOCUMENTS

KEY PLAN:

PROJECT NORTH

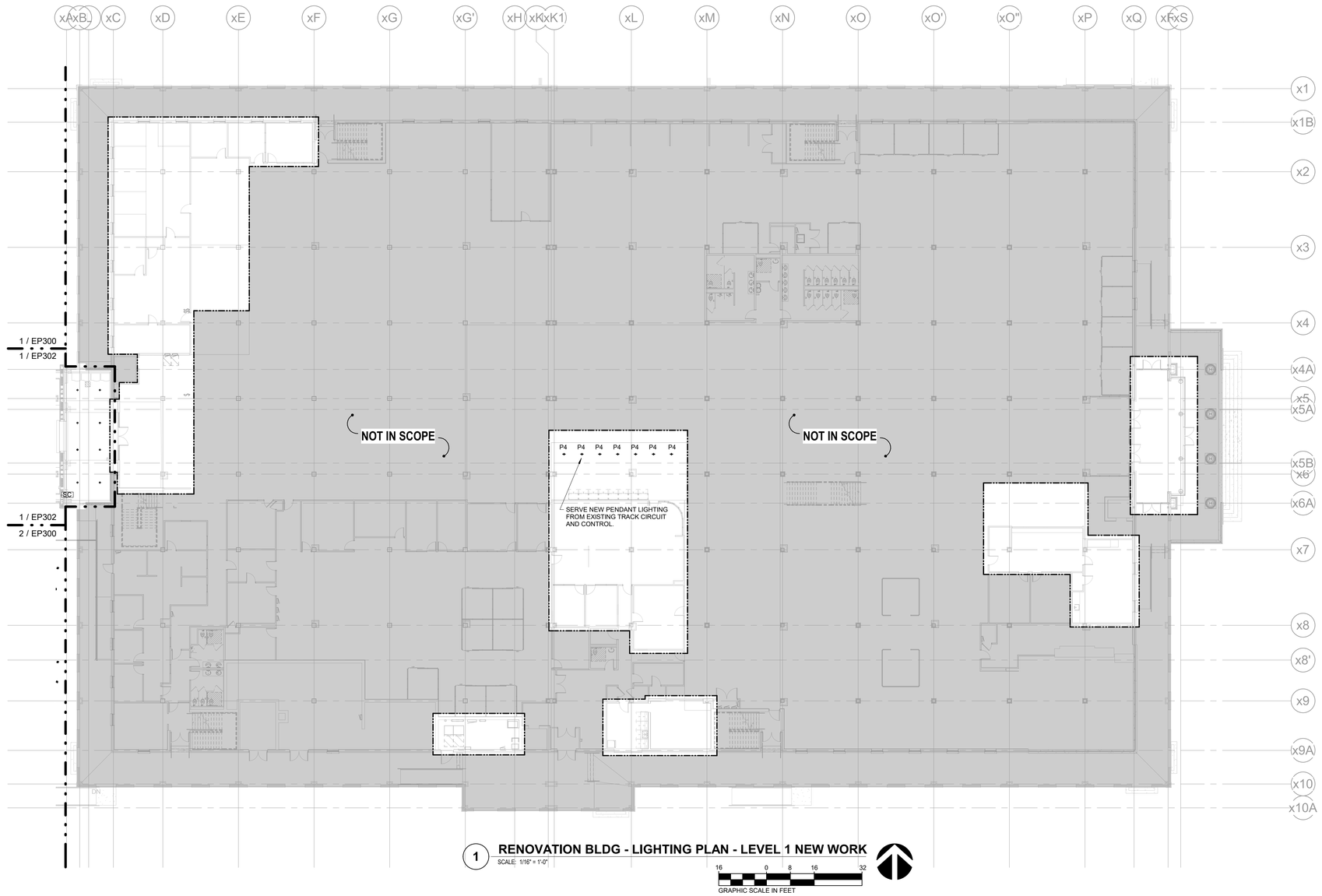
SHEET NAME:
RENO LIGHTING PLAN - LEVEL 1 - OVERALL - DEMO WORK

ORIG SUBMISSION: 2022.07.01
CURRENT: 2022.07.01
PACKAGE C - BID DOCUMENTS

SHEET:
EL210

PACKAGE C - BID DOCUMENTS

GENERAL NOTES:



1 RENOVATION BLDG - LIGHTING PLAN - LEVEL 1 NEW WORK

SCALE: 1/16" = 1'-0"

16 0 8 16 32

GRAPHIC SCALE IN FEET

SHEET KEYNOTES

LIFE SAFETY LEGEND

- NEW NON-RATED PARTITION
- EXISTING WALL TO REMAIN
- UNRATED SMOKE BARRIER TO DECK
- 1 HR. RATED BARRIER TO DECK
- 2 HR. RATED BARRIER TO DECK
- 3 HR. RATED FIRE WALL TO DECK

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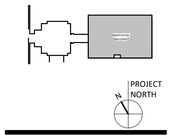
SCO ID: 18-19656-02C
LS3P PROJECT: 7202-197980

Δ	DATE	DESCRIPTION
0	2022.07.01	PACKAGE C - BID DOCUMENTS

KEY PLAN:



SHEET NAME:

RENO LIGHTING PLAN - LEVEL 1 - OVERALL - NEW WORK

ORIG SUBMISSION: 2022.07.01
CURRENT: 2022.07.01

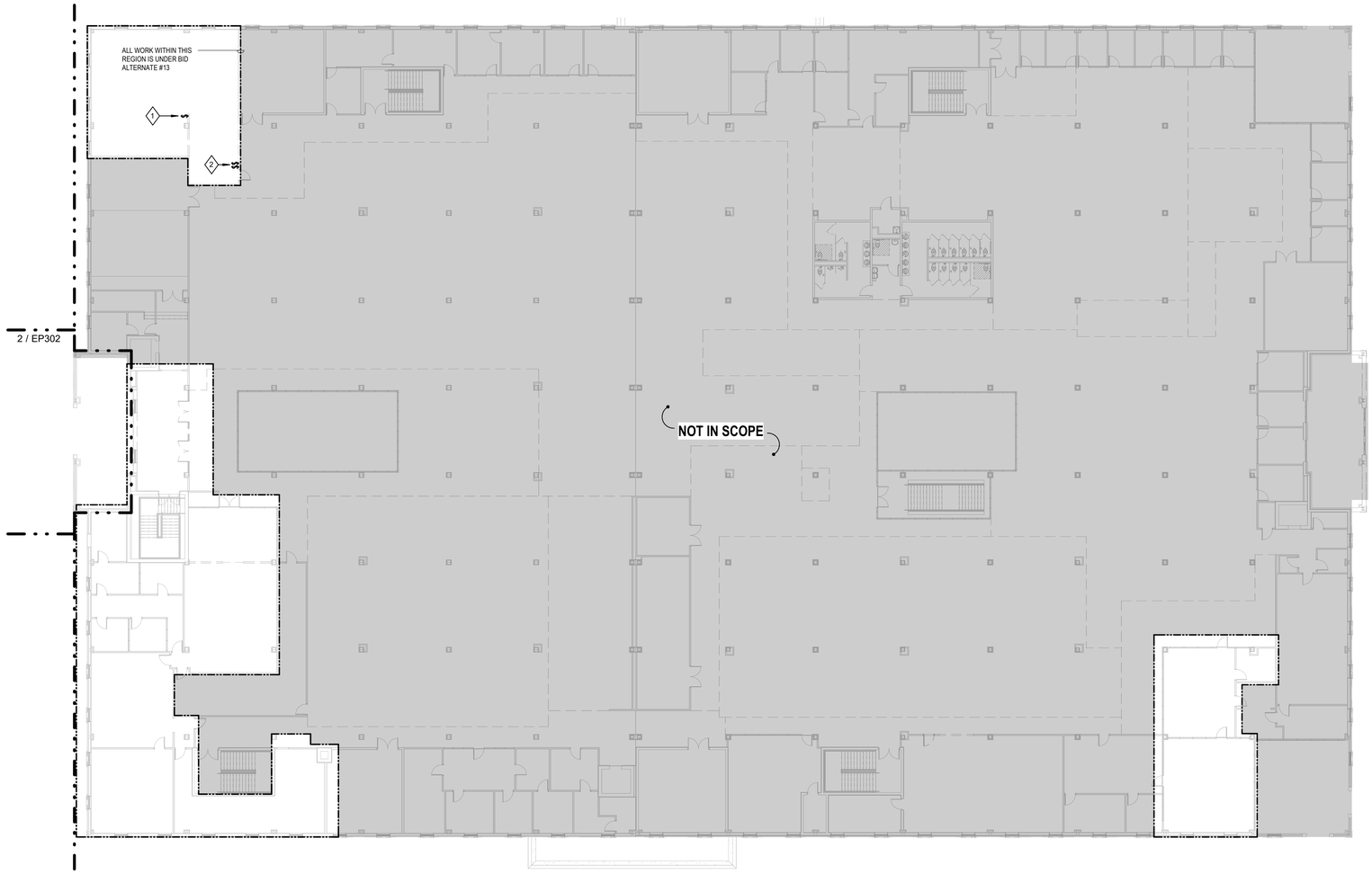
PACKAGE C - BID DOCUMENTS

SHEET:

EL211

PACKAGE C - BID DOCUMENTS

THIS LINE SHOWN ABOVE IS EXACTLY ONE INCH LONG AT THE ORIGINAL DRAWING SIZE



1 **RENOVATION BLDG - LIGHTING PLAN - LEVEL 2 - DEMO WORK**
SCALE: 1/16" = 1'-0"

16 0 8 16 32
GRAPHIC SCALE IN FEET

◇# SHEET KEYNOTES

1 EXISTING LIGHT SWITCH TO BE DEMOLISHED. TIE EXISTING LIGHT FIXTURES PREVIOUSLY CONTROLLED BY THIS SWITCH INTO THE CONTROLS FOR THE REST OF THE ROOM.

2 EXISTING LIGHT SWITCH TO BE RELOCATED. COMBINE SWITCHING ZONES INTO ONE ZONE FOR THE ROOM.

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LS3P PROJECT: 7202-197980

Δ	DATE	DESCRIPTION
0	2022.07.01	PACKAGE C - BID DOCUMENTS

KEY PLAN:

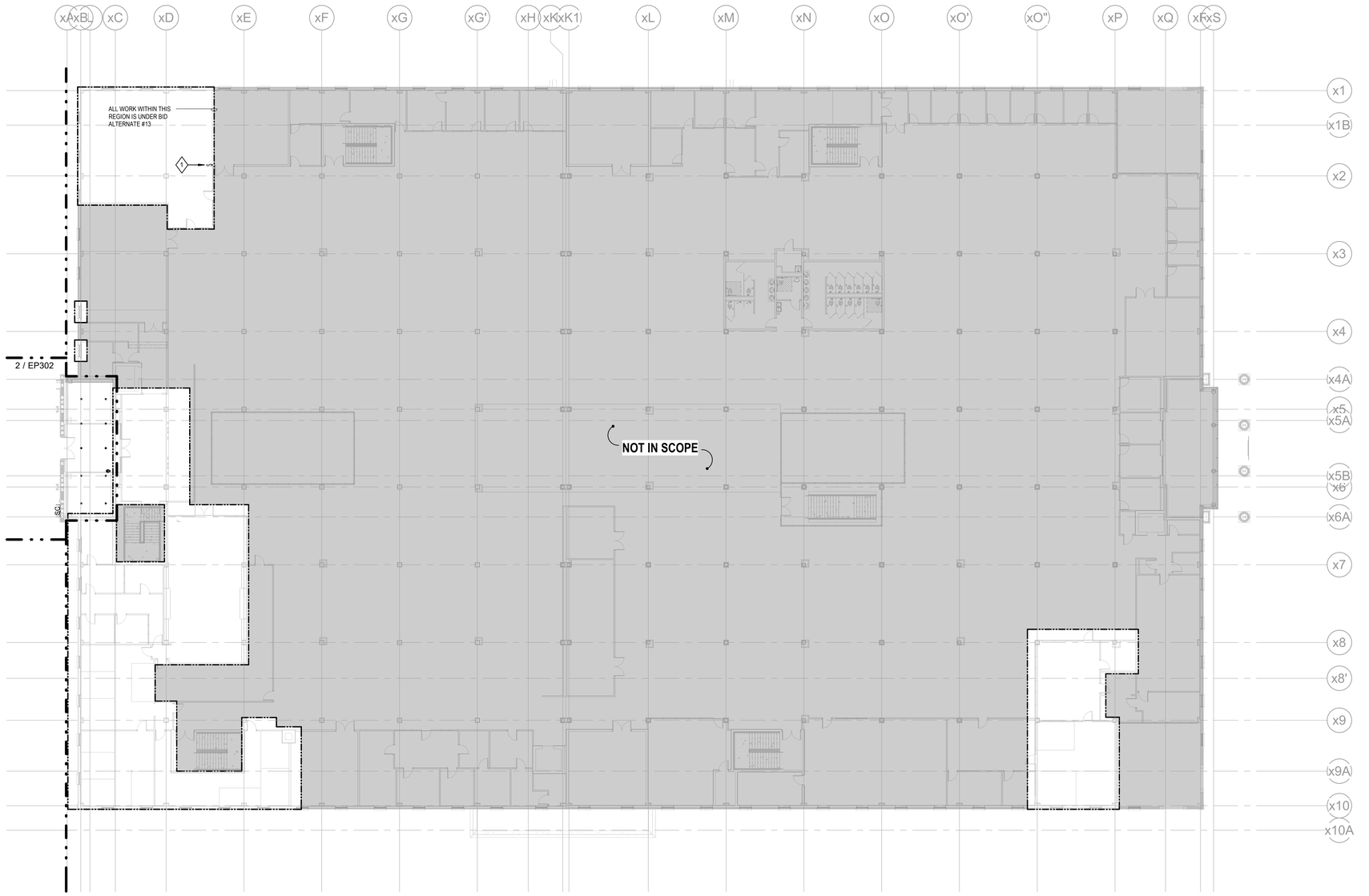
PROJECT NORTH

SHEET NAME:
RENO LIGHTING PLAN - LEVEL 2 - OVERALL - DEMO WORK

ORIG SUBMISSION: 2022.07.01
CURRENT: 2022.07.01
PACKAGE C - BID DOCUMENTS

SHEET:
EL220
PACKAGE C - BID DOCUMENTS

THIS LINE SHOWN ABOVE IS EXACTLY ONE INCH LONG AT TWENTY SCALE WHEN PLOTTED



1 **RENOVATION BLDG - LIGHTING PLAN - LEVEL 2 NEW WORK**
SCALE: 1/16" = 1'-0"

16 0 8 16 32
GRAPHIC SCALE IN FEET

GENERAL NOTES:

1. REFER TO LUMINAIRE SCHEDULE ON SHEET E600 AND SPECIFICATION SECTION 265000 FOR ADDITIONAL INFORMATION ABOUT LUMINAIRES INCLUDING INSTALLATION NOTES.
2. REFER TO SEQUENCE OF OPERATIONS ON SHEET E601 FOR INFORMATION REGARDING CONTROL INTENT.
3. REFER TO SPECIFICATION SECTIONS 260923 AND 260936 FOR CONTROL SYSTEM REQUIREMENTS.

SHEET KEYNOTES

1 EXISTING LIGHT SWITCH TO BE RELOCATED. COMBINE SWITCHING ZONES INTO ONE ZONE FOR THE ROOM.

LIFE SAFETY LEGEND

- NEW NON-RATED PARTITION
- EXISTING WALL TO REMAIN
- UNRATED SMOKE BARRIER TO DECK
- 1 HR. RATED BARRIER TO DECK
- 2 HR. RATED BARRIER TO DECK
- 3 HR. RATED FIRE WALL TO DECK

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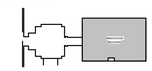
KEY PLAN:

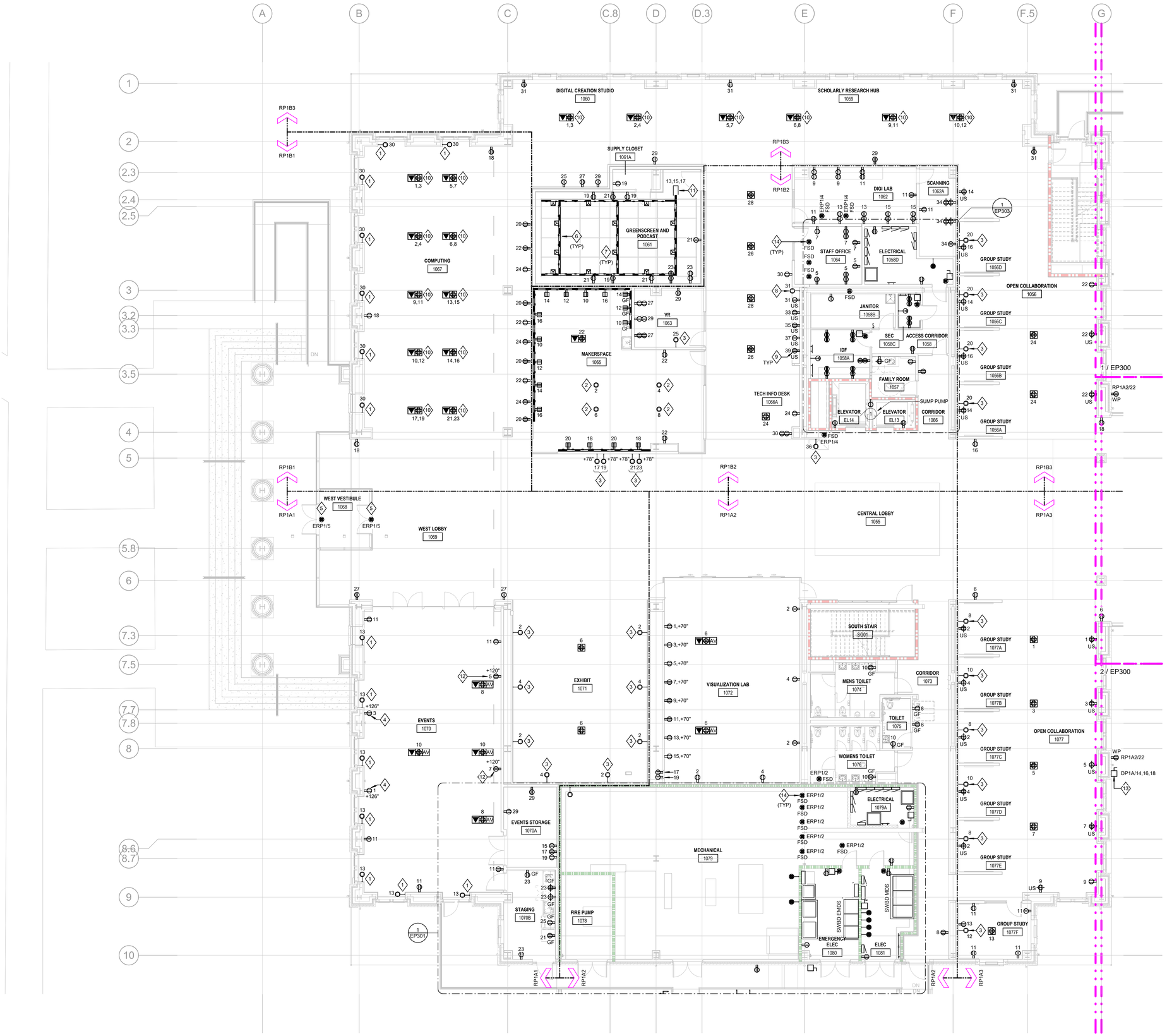


PROJECT NORTH

SHEET NAME:
RENO LIGHTING PLAN - LEVEL 2 - OVERALL - NEW WORK

ORIG SUBMISSION: 2022.07.01
CURRENT: 2022.07.01
PACKAGE C - BID DOCUMENTS

SHEET:
EL221



1 **POWER PLAN - LEVEL 1 - MAIN BUILDING**
SCALE: 1/8" = 1'-0"

GRAPHIC SCALE IN FEET
8 0 4 8 16

GENERAL NOTES:

1. REFER TO BRANCH CIRCUIT SCHEDULE ON SHEET E000 FOR CONDUIT AND WIRE SIZES AND COUNTS, UNLESS NOTED OTHERWISE.
2. COORDINATE JUNCTION BOX LOCATIONS WITH ARCHITECTURAL RCP. LOCATE ALL JUNCTION BOXES OVER ACCESSIBLE CEILING SPACE.
3. PROVIDE A SINGLE PHASE DISCONNECT IN FRONT OF ALL BAS TRANSFORMERS. COORDINATE LOCATIONS WITH CONTROLS CONTRACTOR.

SHEET KEYNOTES

1 PROVIDE 120V CONNECTION FOR MOTORIZED SHADE. CONTROLS FOR MOTORIZED SHADES TO INTERCONNECT WITH LIGHTING CONTROLS. REFER TO LIGHTING SHEETS FOR ADDITIONAL INFORMATION.
2 PROVIDE 120V CONNECTION FOR CEILING MOUNTED RETRACTABLE RECEPTACLE REEL.
3 HARD-WIRED, 120V CONNECTION FOR FLAT PANEL DISPLAY. PROVIDE 2#12, 1#12GND IN 3/4"C. COORDINATE FINAL TERMINATION REQUIREMENTS WITH EQUIPMENT MANUFACTURER'S INSTALLATION INSTRUCTIONS.
4 PROVIDE 120V CONNECTION FOR WALL-MOUNTED PROJECTOR. REFER TO ARCHITECTURAL DRAWINGS FOR EXACT MOUNTING LOCATION AND ELEVATION.
5 PROVIDE 120V CONNECTION FOR DOOR OPERATOR.
6 SUSPENDED MOUNTED 60A, 3P + NEUTRAL + GND TRACK BUSWAY SYSTEM. COORDINATE MOUNTING WITH SUSPENDED PIPE GRID. PROVIDE PLUG-IN RECEPTACLES AS SHOWN.
7 SERVES PLUG-IN LIGHTING. REFER TO EL201.
8 PROVIDE HARD-WIRED, 120V CONNECTION TO ELECTRONIC LOCKERS.
9 PROVIDE A DUPLEX RECEPTACLE MOUNTED INSIDE EACH LOCKER. EACH CIRCUIT SHALL SERVE (5) OUTLETS. REFER TO ARCHITECTURAL DRAWINGS FOR LOCKER CONFIGURATION AND COORDINATE DEVICE MOUNTING WITH THE EQUIPMENT MANUFACTURER.
10 CIRCUITS WITHIN FLOORBOX SERVING FURNITURE SYSTEMS SHALL HAVE A COMMON TRIP HANDLE ON CIRCUIT BREAKERS.
11 TRACK BUSWAY END-FEED UNIT. PROVIDE 4#3, 1#8 GND IN 1-1/4"C BACK TO PANEL AND 60A, 3P CIRCUIT BREAKER.
12 PROJECTOR SCREEN MOTOR.
13 POWER TO AIR CONDITIONING UNIT SUPPLIED BY ASSOCIATED CONDENSING UNIT CU-5. REFER TO MANUFACTURER'S INSTALLATION INSTRUCTIONS.
14 FIRE SMOKE DAMPER. PROVIDE 120V CONNECTION AND A LOCAL DISCONNECT SWITCH.

LIFE SAFETY LEGEND
NEW NON-RATED PARTITION
EXISTING WALL TO REMAIN
UNRATED SMOKE BARRIER TO DECK
1 HR. RATED BARRIER TO DECK
2 HR. RATED BARRIER TO DECK
3 HR. RATED FIRE WALL TO DECK

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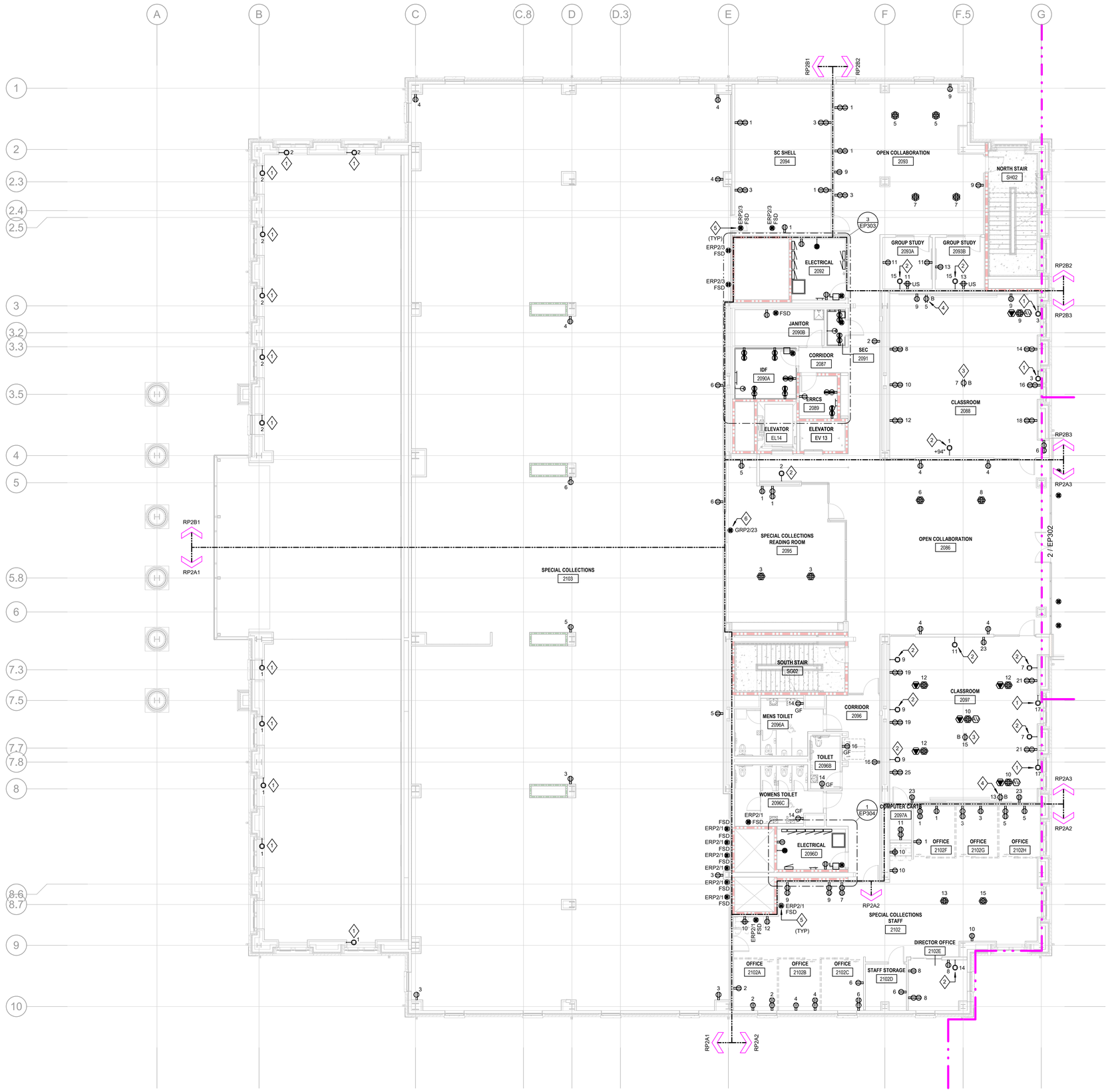
KEY PLAN:

SHEET NAME:
POWER PLAN - LEVEL 1

ORIG SUBMISSION: 2022.07.01
CURRENT: 2022.07.01
PACKAGE C - BID DOCUMENTS

SHEET:
EP201
PACKAGE C - BID DOCUMENTS



1 POWER PLAN - LEVEL 2 - MAIN BUILDING

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

GRAPHIC SCALE IN FEET

GENERAL NOTES:

1. REFER TO BRANCH CIRCUIT SCHEDULE ON SHEET E000 FOR CONDUIT AND WIRE SIZES AND COUNTS, UNLESS NOTED OTHERWISE.
2. COORDINATE JUNCTION BOX LOCATIONS WITH ARCHITECTURAL RCP. LOCATE ALL JUNCTION BOXES OVER ACCESSIBLE CEILING SPACE.
3. PROVIDE A SINGLE PHASE DISCONNECT IN FRONT OF ALL BAS TRANSFORMERS. COORDINATE LOCATIONS WITH CONTROLS CONTRACTOR.

SHEET KEYNOTES

1 PROVIDE 120V CONNECTION FOR MOTORIZED SHADE. CONTROLS FOR MOTORIZED SHADES TO INTERCONNECT WITH LIGHTING CONTROLS. REFER TO LIGHTING SHEETS FOR ADDITIONAL INFORMATION.
2 HARD-WIRED, 120V CONNECTION FOR FLAT PANEL DISPLAY. PROVIDE 2#12, 1#12GND IN 3/4"C. COORDINATE FINAL TERMINATION REQUIREMENTS WITH EQUIPMENT MANUFACTURER'S INSTALLATION INSTRUCTIONS.
3 RECEPTACLE FOR PROJECTOR.
4 PROVIDE 120V CONNECTION FOR PROJECTOR SCREEN MOTOR.
5 FIRE SMOKE DAMPER. PROVIDE 120V CONNECTION AND A LOCAL DISCONNECT SWITCH.
6 PROVIDE 120V CONNECTION TO SLIDING DOOR.

LIFE SAFETY LEGEND

- NEW NON-RATED PARTITION
- EXISTING WALL TO REMAIN
- UNRATED SMOKE BARRIER TO DECK
- 1 HR. RATED BARRIER TO DECK
- 2 HR. RATED BARRIER TO DECK
- 3 HR. RATED FIRE WALL TO DECK

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LS3P PROJECT: 7202-197980

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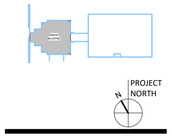
KEY PLAN:



SHEET NAME:

POWER PLAN - LEVEL 2

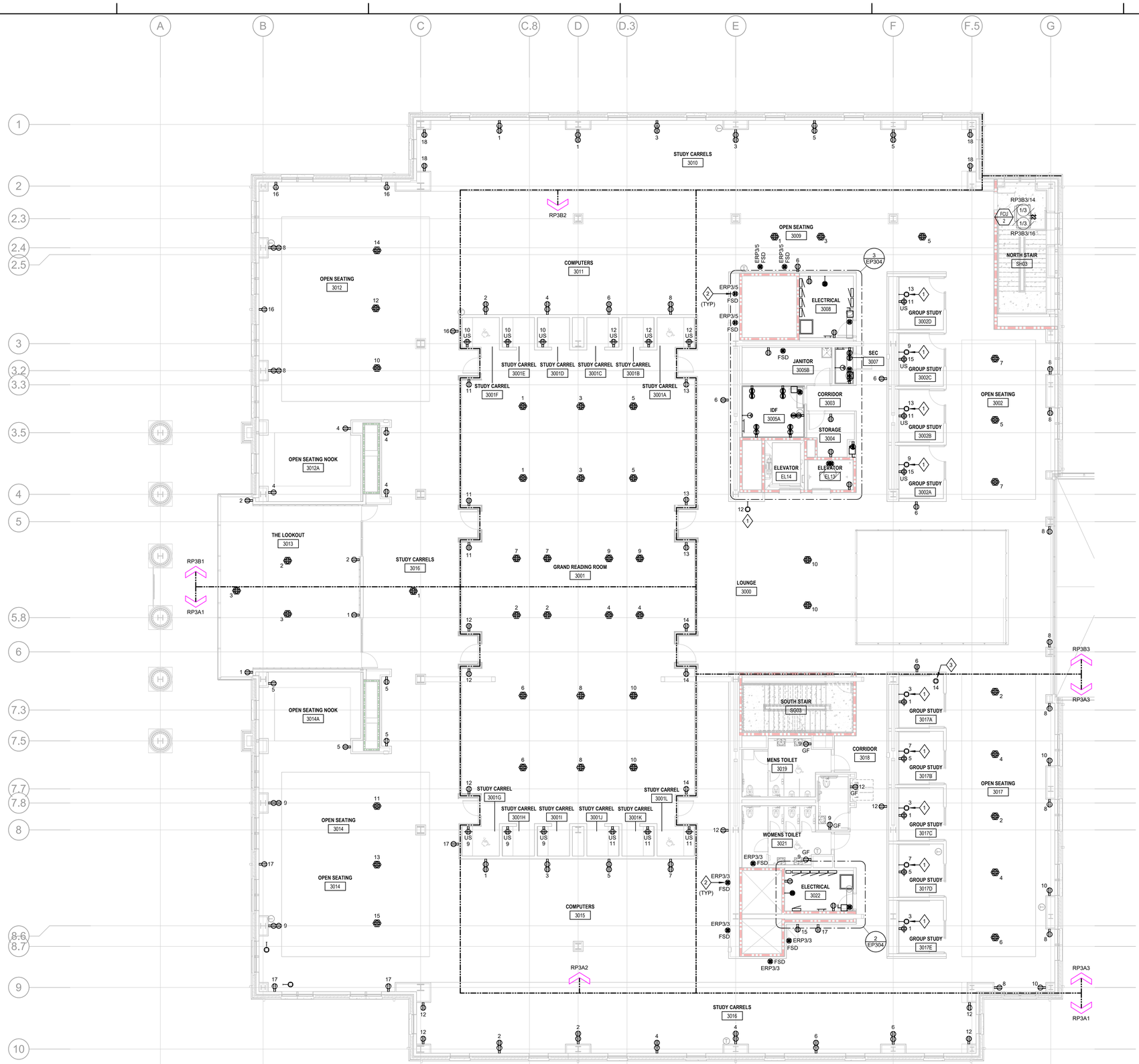
ORIG SUBMISSION: 2022.07.01
CURRENT: 2022.07.01

PACKAGE C - BID DOCUMENTS

SHEET:

EP202

PACKAGE C - BID DOCUMENTS



1 **POWER PLAN - LEVEL 3 - MAIN BUILDING**

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

GRAPHIC SCALE IN FEET

GENERAL NOTES:

1. REFER TO BRANCH CIRCUIT SCHEDULE ON SHEET E000 FOR CONDUIT AND WIRE SIZES AND COUNTS, UNLESS NOTED OTHERWISE.
2. COORDINATE JUNCTION BOX LOCATIONS WITH ARCHITECTURAL RCP. LOCATE ALL JUNCTION BOXES OVER ACCESSIBLE CEILING SPACE.
3. PROVIDE A SINGLE PHASE DISCONNECT IN FRONT OF ALL BAS TRANSFORMERS. COORDINATE LOCATIONS WITH CONTROLS CONTRACTOR.

SHEET KEYNOTES

1 HARD-WIRED, 120V CONNECTION FOR FLAT PANEL DISPLAY. PROVIDE 2#12, 1#12GND IN 3/4"C. COORDINATE FINAL TERMINATION REQUIREMENTS WITH EQUIPMENT MANUFACTURER'S INSTALLATION INSTRUCTIONS.

2 FIRE SMOKE DAMPER. PROVIDE 120V CONNECTION AND A LOCAL DISCONNECT SWITCH.

3 HARD-WIRED, 120V CONNECTION FOR PAGING SPEAKER AMPLIFIER. PROVIDE 2#12, 1#12GND IN 3/4"C. COORDINATE FINAL TERMINATION REQUIREMENTS WITH EQUIPMENT MANUFACTURER'S INSTALLATION INSTRUCTIONS.

LIFE SAFETY LEGEND

- NEW NON-RATED PARTITION
- EXISTING WALL TO REMAIN
- UNRATED SMOKE BARRIER TO DECK
- 1 HR. RATED BARRIER TO DECK
- 2 HR. RATED BARRIER TO DECK
- 3 HR. RATED FIRE WALL TO DECK

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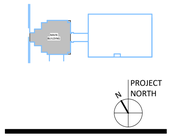
KEY PLAN:



SHEET NAME:

POWER PLAN - LEVEL 3

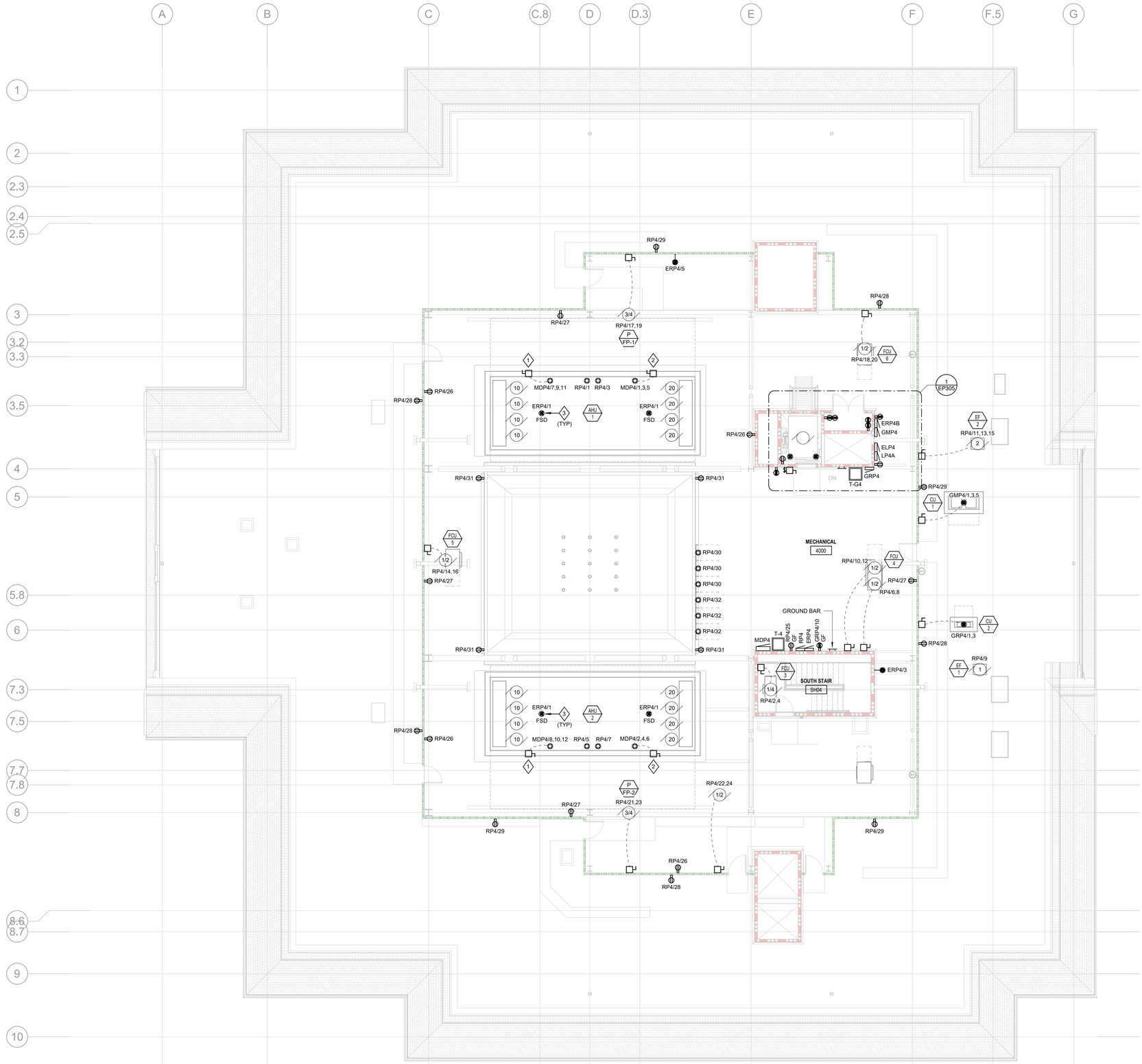
ORIG SUBMISSION: 2022.07.01
CURRENT: 2022.07.01

PACKAGE C - BID DOCUMENTS

SHEET:

EP203

PACKAGE C - BID DOCUMENTS



1 POWER PLAN - LEVEL 4 - MAIN BUILDING

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

8 0 4 8 16

GRAPHIC SCALE IN FEET

GENERAL NOTES:

1. REFER TO BRANCH CIRCUIT SCHEDULE ON SHEET E000 FOR CONDUIT AND WIRE SIZES AND COUNTS, UNLESS NOTED OTHERWISE.
2. COORDINATE JUNCTION BOX LOCATIONS WITH ARCHITECTURAL RCP. LOCATE ALL JUNCTION BOXES OVER ACCESSIBLE CEILING SPACE.

SHEET KEYNOTES

1 PROVIDE 480V, 4P DISCONNECT SWITCH WITH LOCK-OUT/TAG-OUT CAPABILITY FOR VFD TO AHU RETURN AIR FAN ARRAY. PROVIDE 4#4, 1#8GND IN 1-1/4"C. COORDINATE EXACT MOUNTING LOCATION AND CONNECTION REQUIREMENTS WITH EQUIPMENT MANUFACTURER.

2 PROVIDE 480V, 4P DISCONNECT SWITCH WITH LOCK-OUT/TAG-OUT CAPABILITY FOR VFD TO AHU SUPPLY AIR FAN ARRAY. PROVIDE 4#1/0, 1#6GND IN 2"C. COORDINATE EXACT MOUNTING LOCATION AND CONNECTION REQUIREMENTS WITH EQUIPMENT MANUFACTURER.

3 FIRE SMOKE DAMPER. PROVIDE 120V CONNECTION AND A LOCAL DISCONNECT SWITCH.

LIFE SAFETY LEGEND

- NEW NON-RATED PARTITION
- EXISTING WALL TO REMAIN
- UNRATED SMOKE BARRIER TO DECK
- 1 HR. RATED BARRIER TO DECK
- 2 HR. RATED BARRIER TO DECK
- 3 HR. RATED FIRE WALL TO DECK

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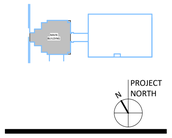
KEY PLAN:



SHEET NAME:

POWER PLAN - LEVEL 4

ORIG SUBMISSION: 2022.07.01
CURRENT: 2022.07.01

PACKAGE C - BID DOCUMENTS

SHEET:

EP204

PACKAGE C - BID DOCUMENTS

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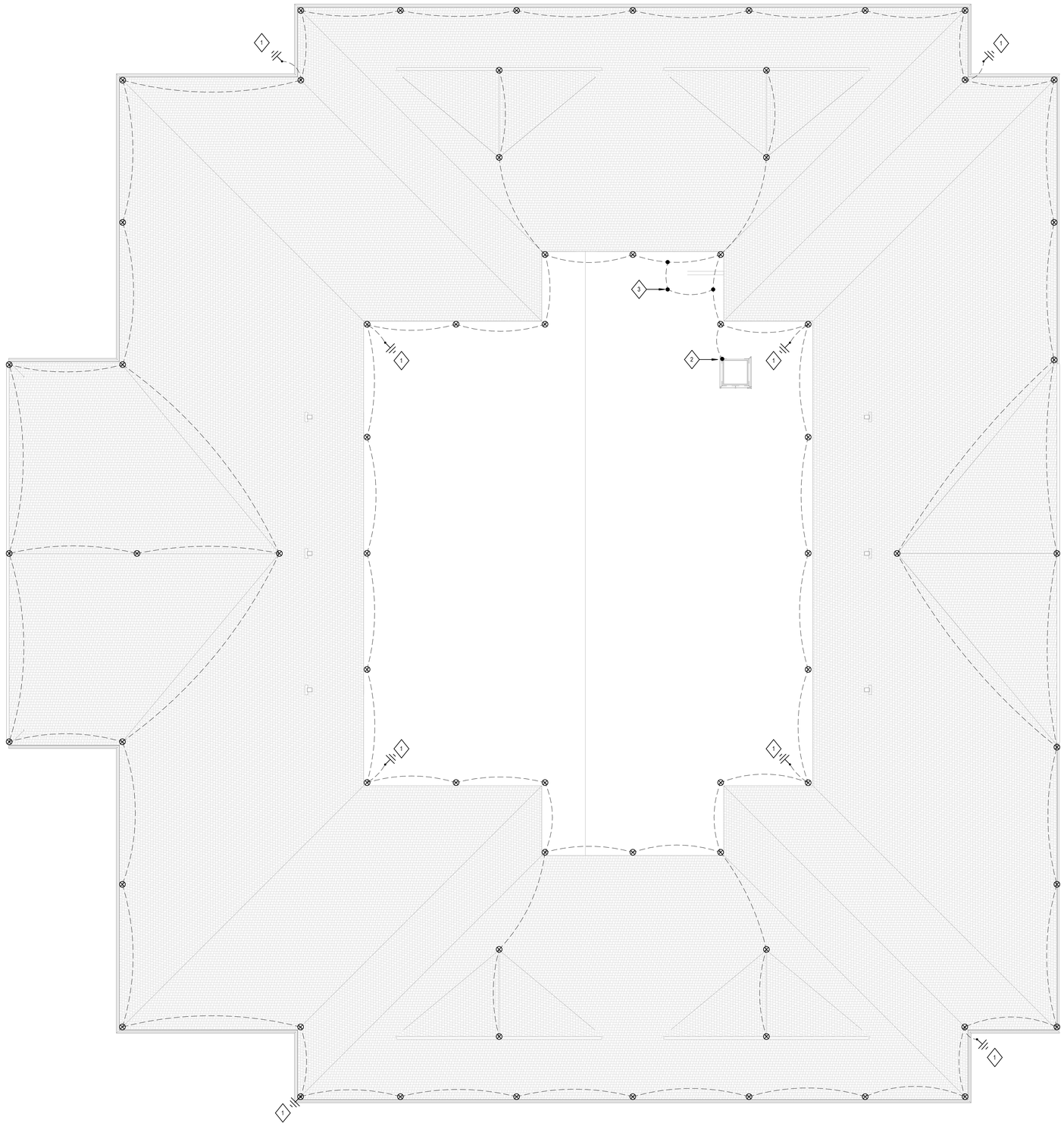

1 **POWER PLAN - ROOF - MAIN BUILDING**
SCALE: 1/8" = 1'-0"

8 0 4 8 16
GRAPHIC SCALE IN FEET

SHEET KEYNOTES

1. LIGHTNING PROTECTION SYSTEM DOWN GROUND CONDUCTOR. BOND TO BUILDING STEEL AND DRIVEN GROUND ROD/BURIED GROUND LOOP BELOW.
2. BOND LIGHTNING PROTECTION SYSTEM TO METAL SHIP'S LADDER / ROOF HATCH.
3. BOND EMERGENCY RESPONDER RADIO COMMUNICATIONS SYSTEM ANTENNAS TO THE ROOFTOP LIGHTNING PROTECTION SYSTEM. SECURE CABLES TIGHT TO STRUCTURE.

LIFE SAFETY LEGEND

- NEW NON-RATED PARTITION
- EXISTING WALL TO REMAIN
- UNRATED SMOKE BARRIER TO DECK
- 1 HR. RATED BARRIER TO DECK
- 2 HR. RATED BARRIER TO DECK
- 3 HR. RATED FIRE WALL TO DECK

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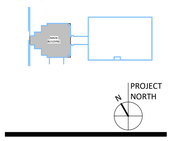
KEY PLAN:



SHEET NAME:
POWER PLAN - ROOF

ORIG SUBMISSION: 2022.07.01
CURRENT: 2022.07.01
PACKAGE C - BID DOCUMENTS

SHEET:
EP205
PACKAGE C - BID DOCUMENTS



1 RENOVATION BLDG - POWER PLAN - LEVEL 1 - DEMO WORK

SCALE: 1/16" = 1'-0"

16 0 8 16 32

GRAPHIC SCALE IN FEET

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SCO ID: 18-19656-02C
LS3P PROJECT: 7202-197980

Δ	DATE	DESCRIPTION
0	2022.07.01	PACKAGE C - BID DOCUMENTS

KEY PLAN:

PROJECT NORTH

SHEET NAME:

RENO POWER PLAN - LEVEL 1 - OVERALL - DEMO WORK

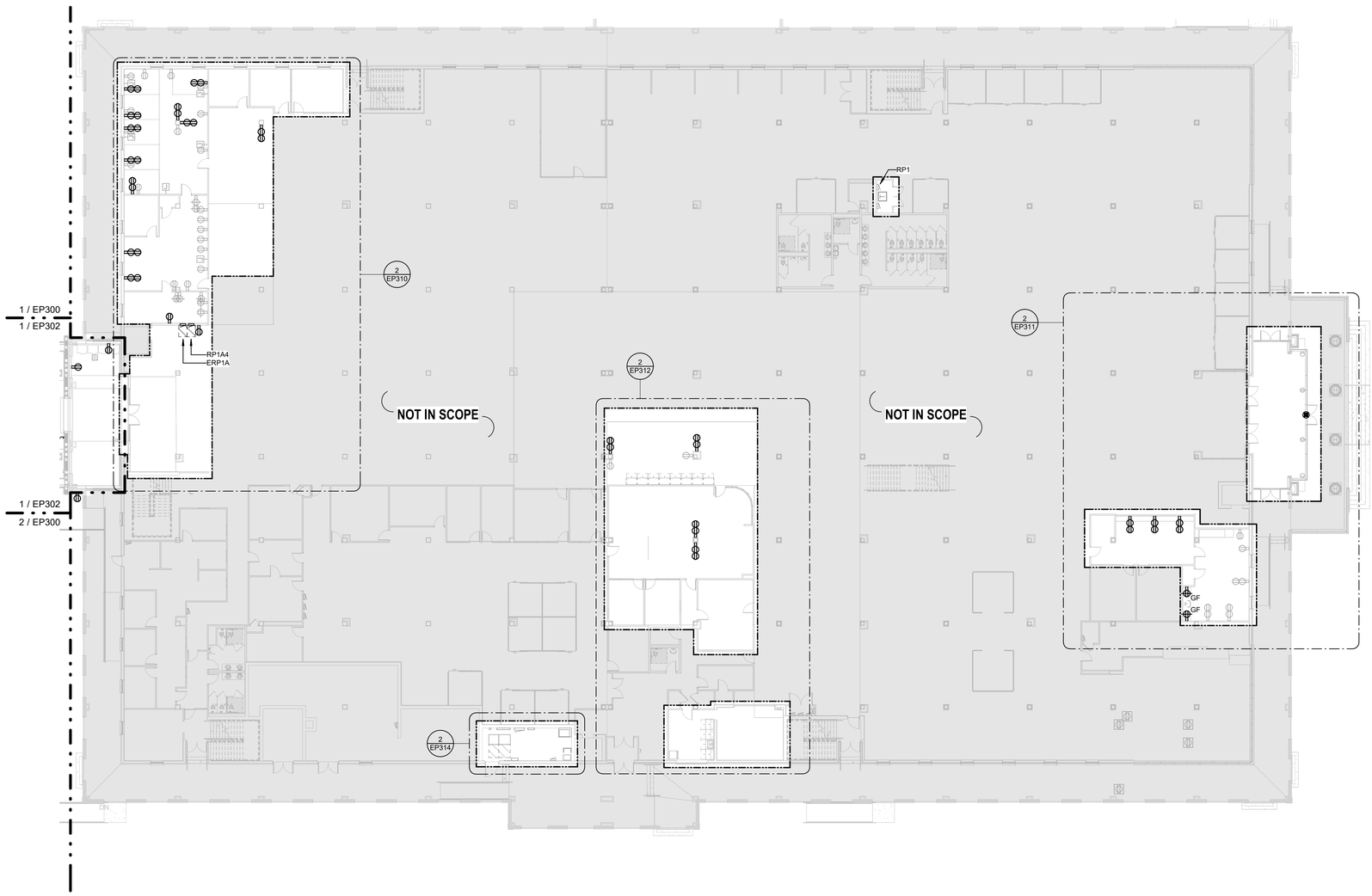
ORIG SUBMISSION: 2022.07.01
CURRENT: 2022.07.01

PACKAGE C - BID DOCUMENTS

SHEET:

EP210

PACKAGE C - BID DOCUMENTS



1 **RENOVATION BLDG - POWER PLAN - LEVEL 1 - NEW WORK**
SCALE: 1/16" = 1'-0"

16 0 8 16 32
GRAPHIC SCALE IN FEET

THIS LINE SHOWN ABOVE IS EXACTLY ONE INCH LONG AT FULL SIZED DRAWINGS PLACE

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SCO ID: 18-19656-02C
LS3P PROJECT: 7202-197980

Δ	DATE	DESCRIPTION
0	2022.07.01	PACKAGE C - BID DOCUMENTS

KEY PLAN:

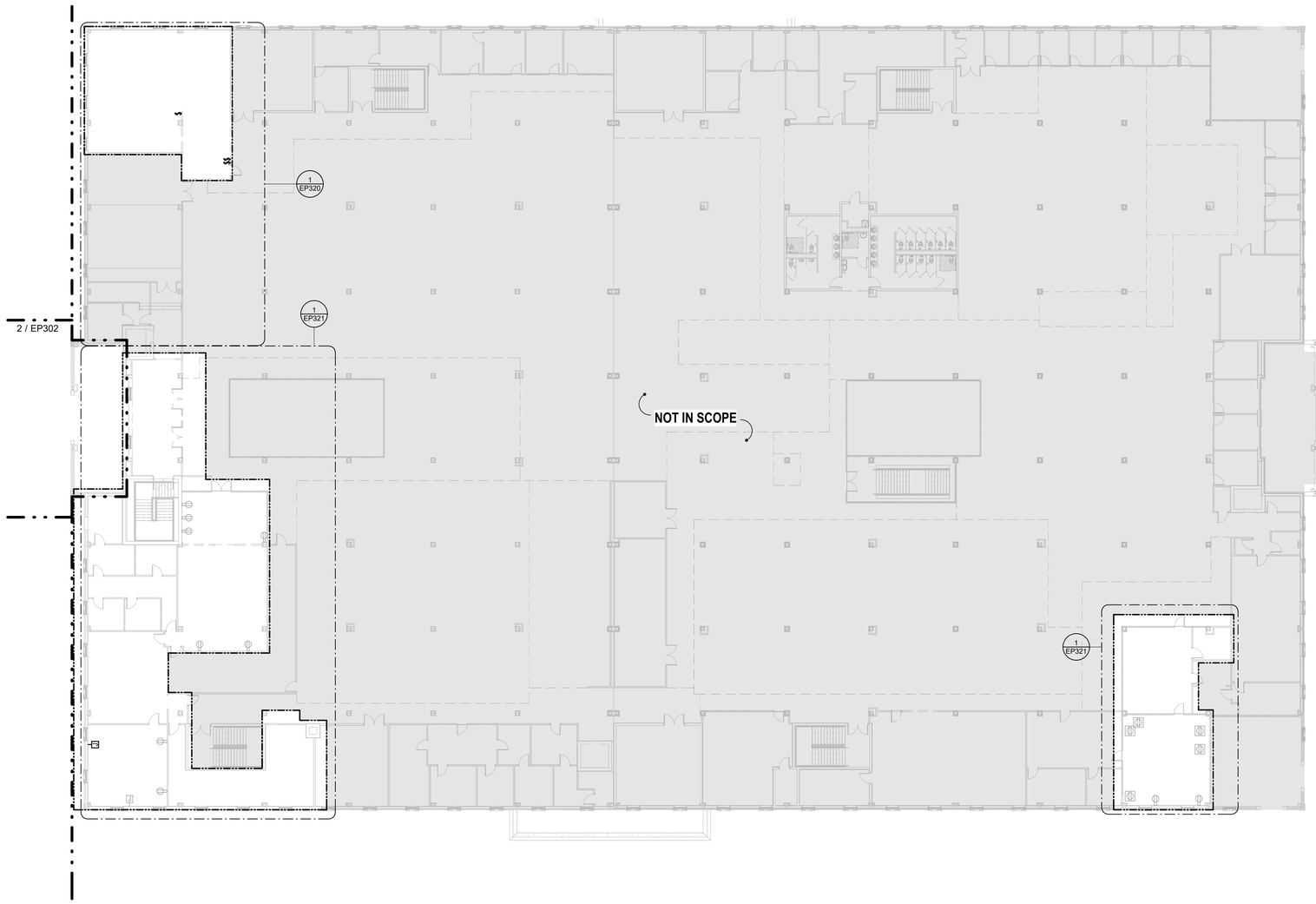
PROJECT NORTH

SHEET NAME:
RENO POWER PLAN - LEVEL 1 - OVERALL - NEW WORK

ORIG SUBMISSION: 2022.07.01
CURRENT: 2022.07.01
PACKAGE C - BID DOCUMENTS

SHEET:
EP211

PACKAGE C - BID DOCUMENTS



1 RENOVATION BLDG - POWER PLAN - LEVEL 2 - DEMO WORK
SCALE: 1/16" = 1'-0"

16 0 8 16 32
GRAPHIC SCALE IN FEET

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Δ	DATE	DESCRIPTION
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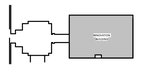
KEY PLAN:



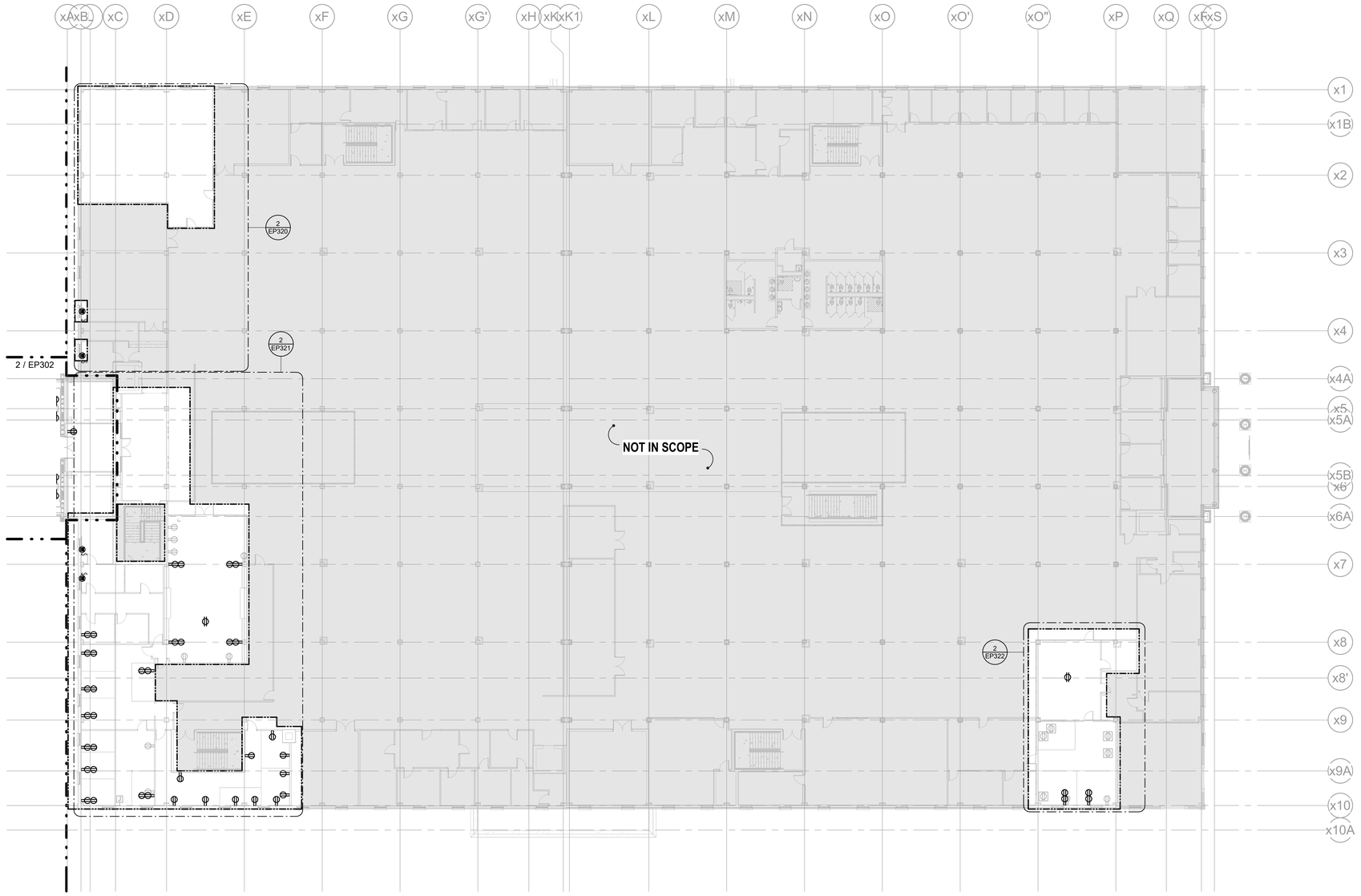
PROJECT NORTH

SHEET NAME:
RENO POWER PLAN - LEVEL 2 - OVERALL - DEMO WORK

ORIG SUBMISSION: 2022.07.01
CURRENT: 2022.07.01
PACKAGE C - BID DOCUMENTS

SHEET:
EP220

PACKAGE C - BID DOCUMENTS



1 RENOVATION BLDG - POWER PLAN - LEVEL 2

SCALE: 1/16" = 1'-0"

16 0 8 16 32

GRAPHIC SCALE IN FEET

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Δ	DATE	DESCRIPTION
0	2022.07.01	PACKAGE C - BID DOCUMENTS

KEY PLAN:

PROJECT NORTH

SHEET NAME:

RENO POWER PLAN - LEVEL 2 - OVERALL - NEW WORK

ORIG SUBMISSION: 2022.07.01
CURRENT: 2022.07.01

PACKAGE C - BID DOCUMENTS

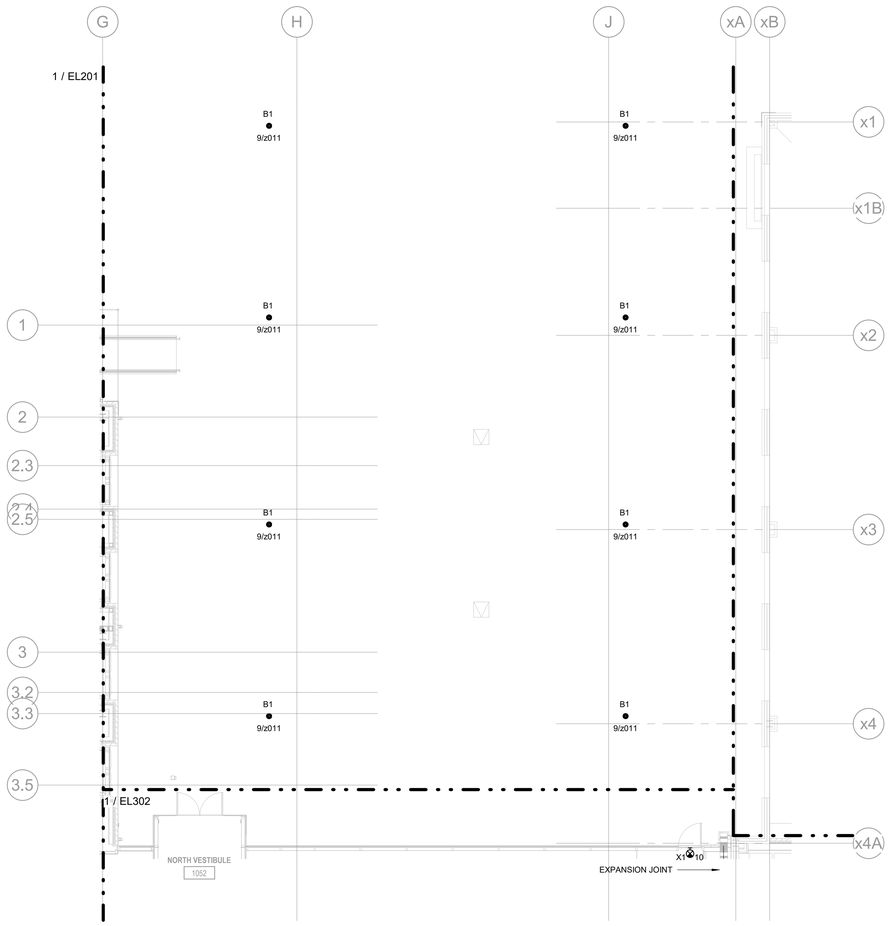
SHEET:

EP221

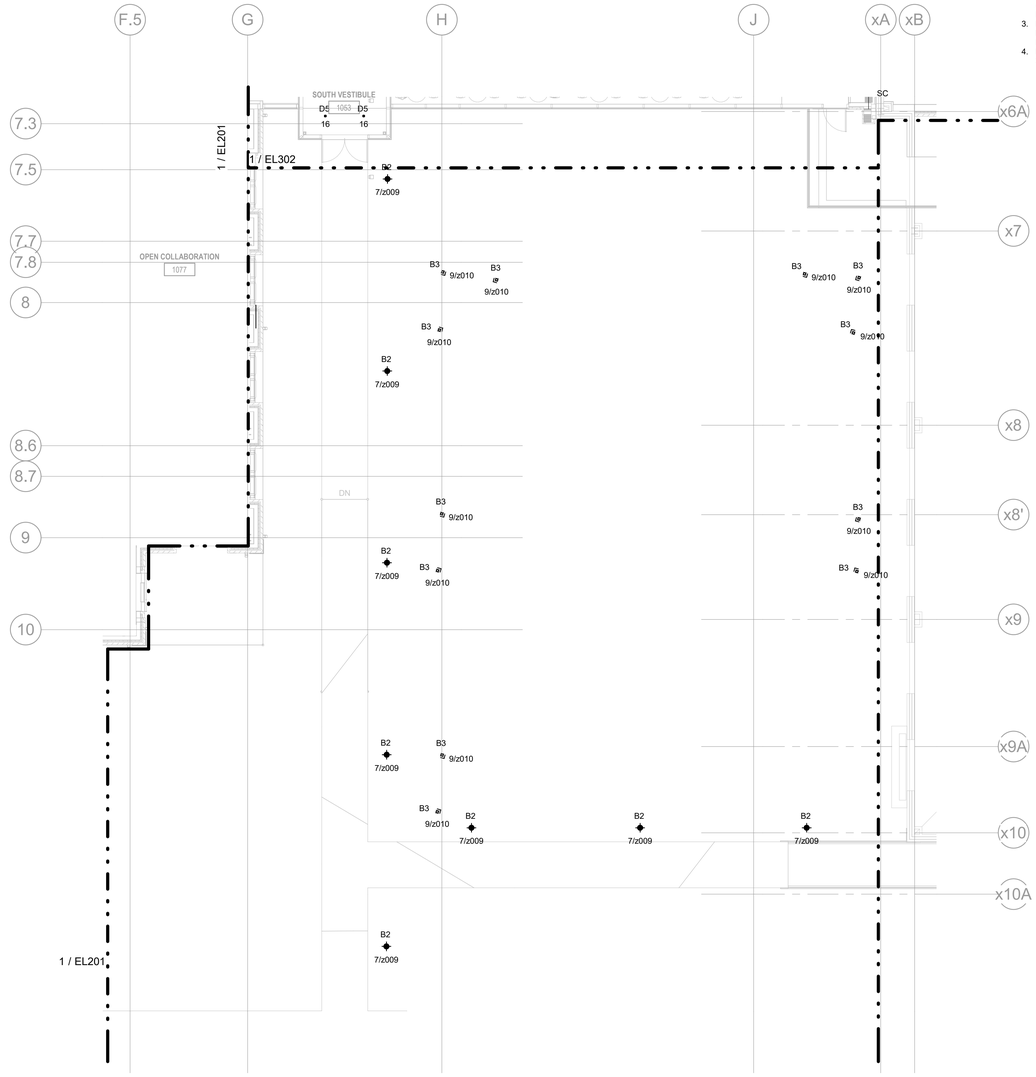
PACKAGE C - BID DOCUMENTS

GENERAL NOTES:

1. NORMAL AND EMERGENCY LIGHTING THIS SHEET IS SERVED FROM PANELS LP1A AND ELP1, RESPECTIVELY, UNLESS OTHERWISE NOTED.
2. REFER TO LUMINAIRE SCHEDULE ON SHEET E600 AND SPECIFICATION SECTION 265000 FOR ADDITIONAL INFORMATION ABOUT LUMINAIRES INCLUDING INSTALLATION NOTES.
3. REFER TO SEQUENCE OF OPERATIONS ON SHEET E601 FOR INFORMATION REGARDING CONTROL INTENT.
4. REFER TO SPECIFICATION SECTIONS 260923 AND 260936 FOR CONTROL SYSTEM REQUIREMENTS.



1 LIGHTING PLAN - NORTH COURTYARD
SCALE: 1/8" = 1'-0"
GRAPHIC SCALE IN FEET



2 LIGHTING PLAN - SOUTH COURTYARD
SCALE: 1/8" = 1'-0"
GRAPHIC SCALE IN FEET

SHEET KEYNOTES

LIFE SAFETY LEGEND

- NEW NON-RATED PARTITION
- EXISTING WALL TO REMAIN
- UNRATED SMOKE BARRIER TO DECK
- 1 HR. RATED BARRIER TO DECK
- 2 HR. RATED BARRIER TO DECK
- 3 HR. RATED FIRE WALL TO DECK

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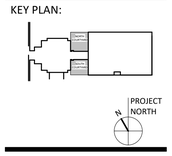
KEY PLAN:



SHEET NAME:
LIGHTING PLAN - COURTYARD

ORIG SUBMISSION: 2022.07.01
CURRENT: 2022.07.01
PACKAGE C - BID DOCUMENTS

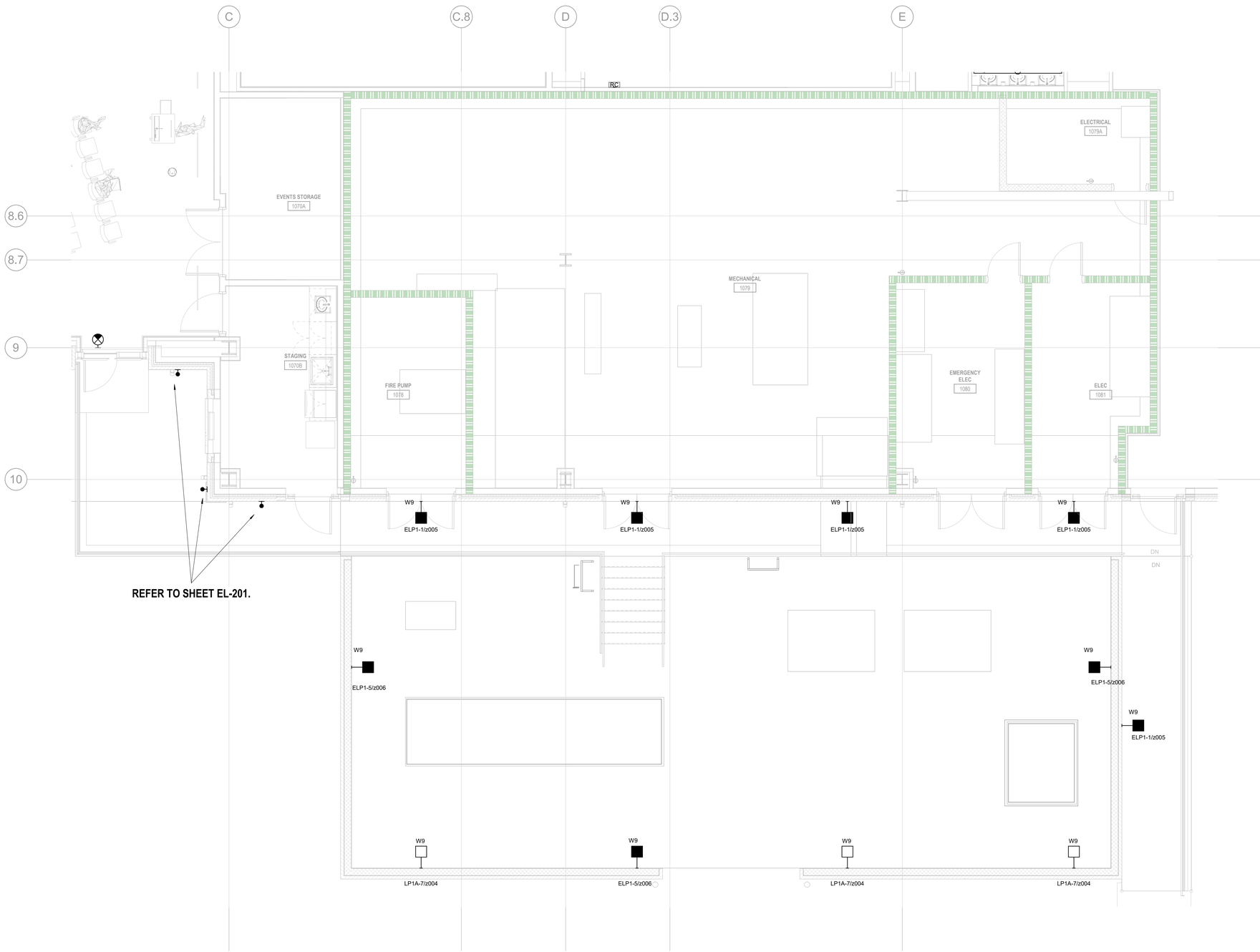
SHEET:
EL300

PACKAGE C - BID DOCUMENTS

THIS LINE SHOWN ABOVE IS EXACTLY ONE INCH LONG AT TWENTY SCALE WHEN PLOTTED

GENERAL NOTES:

1. NORMAL AND EMERGENCY LIGHTING THIS SHEET IS SERVED FROM PANELS LP1A AND ELP1, RESPECTIVELY, UNLESS OTHERWISE NOTED.



1 LIGHTING PLAN - LEVEL 1 - ENLARGED ELECTRICAL ROOM & YARD

SCALE: 1/4" = 1'-0"

4 0 2 4 8

GRAPHIC SCALE IN FEET

SHEET KEYNOTES

LIFE SAFETY LEGEND

- NEW NON-RATED PARTITION
- EXISTING WALL TO REMAIN
- UNRATED SMOKE BARRIER TO DECK
- 1 HR. RATED BARRIER TO DECK
- 2 HR. RATED BARRIER TO DECK
- 3 HR. RATED FIRE WALL TO DECK

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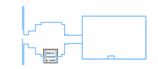
SCO ID: 18-19656-02C
LS3P PROJECT: 7202-197980

Δ	DATE	DESCRIPTION
0	2022.07.01	PACKAGE C - BID DOCUMENTS

KEY PLAN:



PROJECT NORTH

SHEET NAME:

LEVEL 1 ENLARGED ELECTRICAL ROOM & YARD PLAN

ORIG SUBMISSION: 2022.07.01
CURRENT: 2022.07.01

PACKAGE C - BID DOCUMENTS

SHEET:

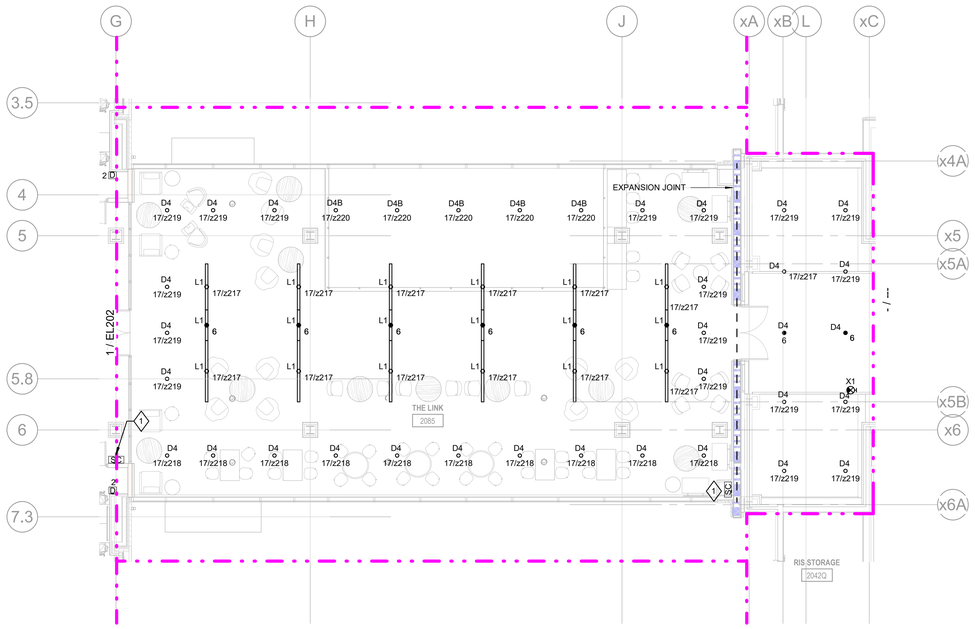
EL301

PACKAGE C - BID DOCUMENTS

THIS LINE SHOWN ABOVE IS EXACTLY ONE INCH LONG AT TWENTY SCALE WHEN PLOTTED

GENERAL NOTES:

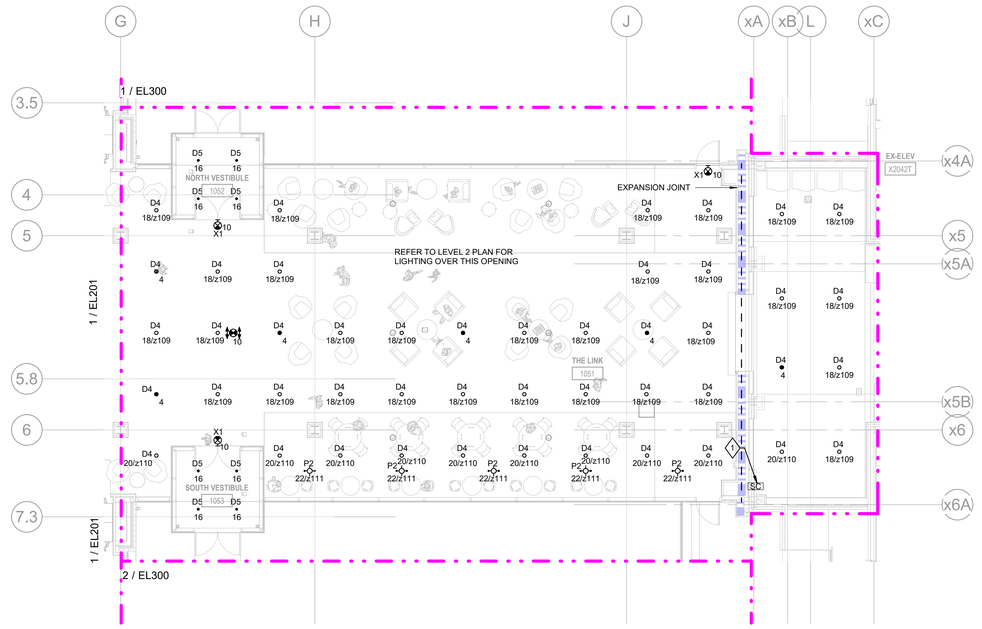
1. NORMAL AND EMERGENCY LIGHTING IN DETAIL #1 IS SERVED FROM PANELS LP1A AND ELP1, RESPECTIVELY, UNLESS OTHERWISE NOTED.
2. NORMAL AND EMERGENCY LIGHTING IN DETAIL #2 IS SERVED FROM PANELS LP2A AND ELP2, RESPECTIVELY, UNLESS OTHERWISE NOTED.
3. REFER TO LUMINAIRE SCHEDULE ON SHEET E600 AND SPECIFICATION SECTION 265000 FOR ADDITIONAL INFORMATION ABOUT LUMINAIRES INCLUDING INSTALLATION NOTES.
4. REFER TO SEQUENCE OF OPERATIONS ON SHEET E601 FOR INFORMATION REGARDING CONTROL INTENT.
5. REFER TO SPECIFICATION SECTIONS 260923 AND 260936 FOR CONTROL SYSTEM REQUIREMENTS.



2 LIGHTING PLAN - LEVEL 2 - BUILDING LINK

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

GRAPHIC SCALE IN FEET



1 LIGHTING PLAN - LEVEL 1 - BUILDING LINK

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

GRAPHIC SCALE IN FEET

SHEET KEYNOTES

1 QUANTITY OF BUTTONS FOR CONTROL OF 3RD PARTY SYSTEM DEVICES TO BE DETERMINED FOLLOWING CONTROLS PRE-CONSTRUCTION MEETING IN SUBMITTAL REVIEW PROCESS.

LIFE SAFETY LEGEND

- NEW NON-RATED PARTITION
- EXISTING WALL TO REMAIN
- UNRATED SMOKE BARRIER TO DECK
- 1 HR. RATED BARRIER TO DECK
- 2 HR. RATED BARRIER TO DECK
- 3 HR. RATED FIRE WALL TO DECK

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LS3P PROJECT: 7202.197980

Δ	DATE	DESCRIPTION
0	2022.07.01	PACKAGE C - BID DOCUMENTS

KEY PLAN:

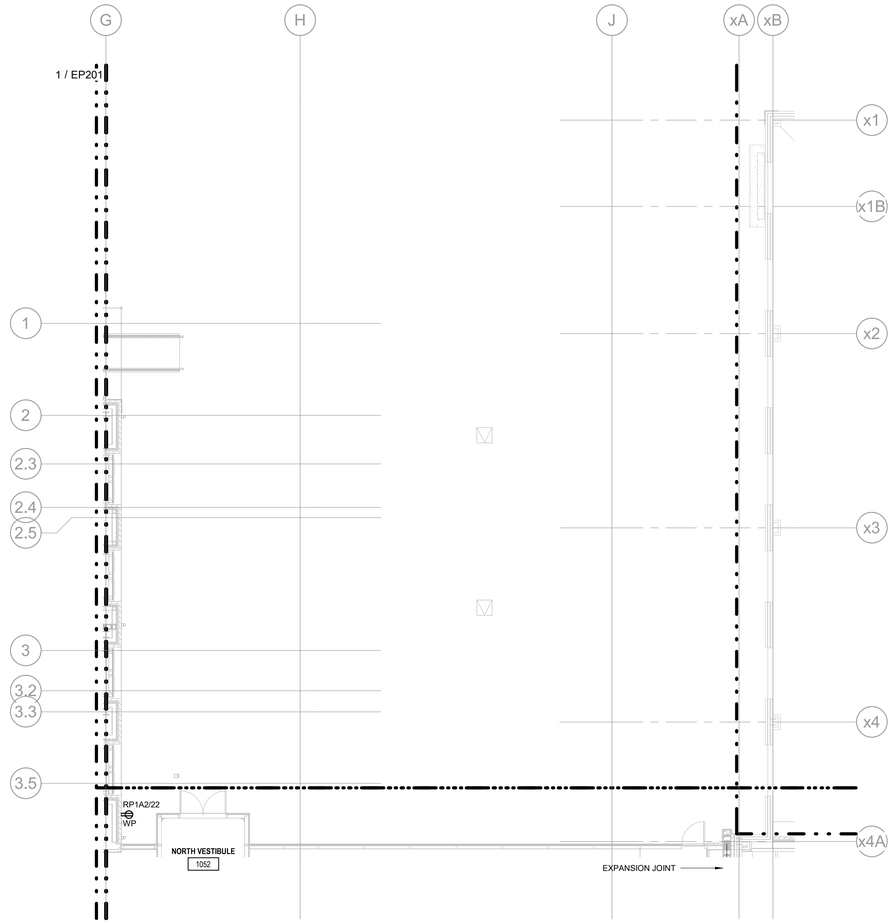


PROJECT NORTH

SHEET NAME:
LEVEL 1 & 2 BUILDING LINK

ORIG SUBMISSION: 2022.07.01
CURRENT: 2022.07.01
PACKAGE C - BID DOCUMENTS

SHEET:
EL302
PACKAGE C - BID DOCUMENTS

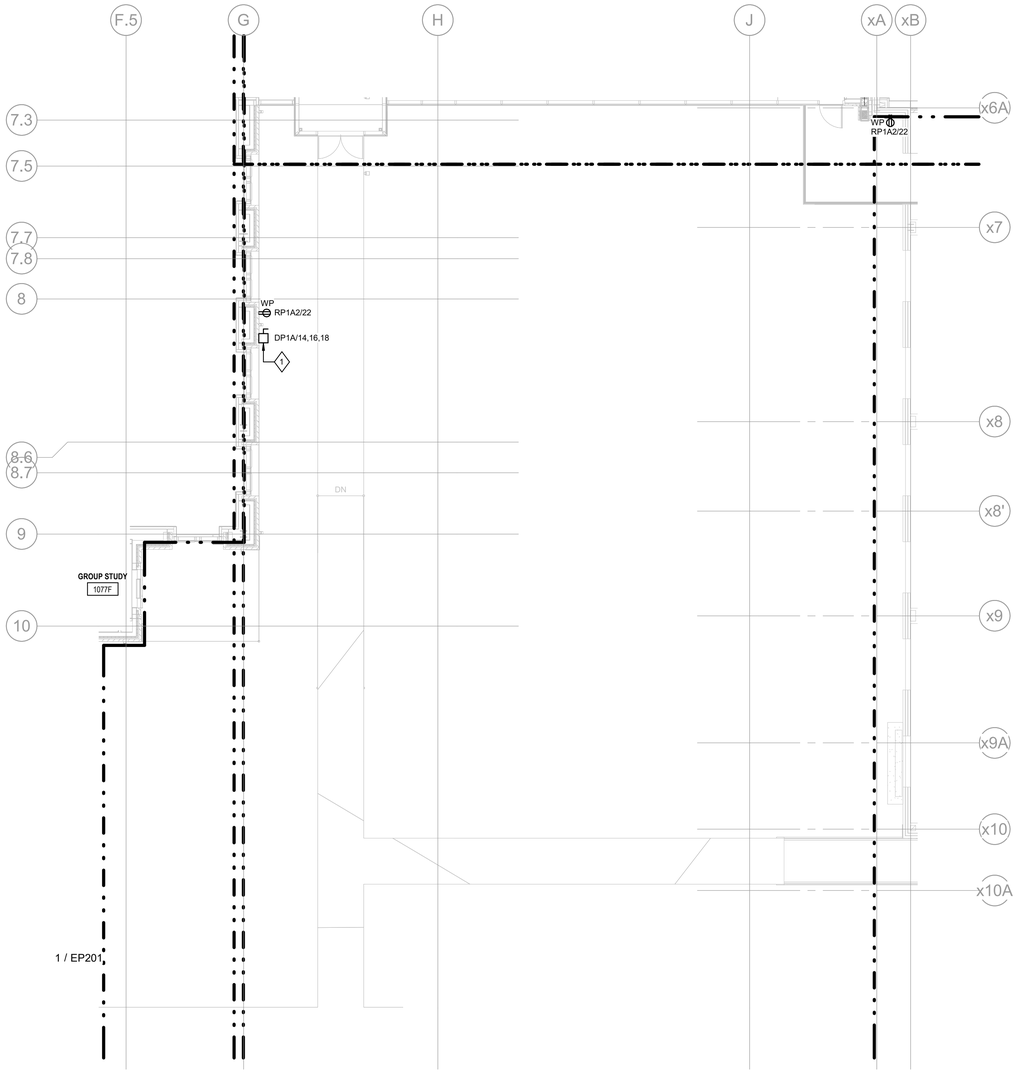


1 POWER PLAN - NORTH COURTYARD

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

8 0 4 8 16

GRAPHIC SCALE IN FEET



2 POWER PLAN - SOUTH COURTYARD

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

8 0 4 8 16

GRAPHIC SCALE IN FEET

GENERAL NOTES:

SHEET KEYNOTES

1 POWER TO AIR CONDITIONING UNIT SUPPLIED BY ASSOCIATED CONDENSING UNIT CU-5. REFER TO MANUFACTURER'S INSTALLATION INSTRUCTIONS.

LIFE SAFETY LEGEND

- NEW NON-RATED PARTITION
- EXISTING WALL TO REMAIN
- UNRATED SMOKE BARRIER TO DECK
- 1 HR. RATED BARRIER TO DECK
- 2 HR. RATED BARRIER TO DECK
- 3 HR. RATED FIRE WALL TO DECK

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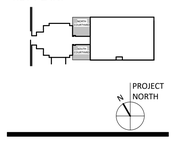
KEY PLAN:



SHEET NAME:

POWER PLAN - COURTYARD

ORIG SUBMISSION: 2022.07.01
CURRENT: 2022.07.01

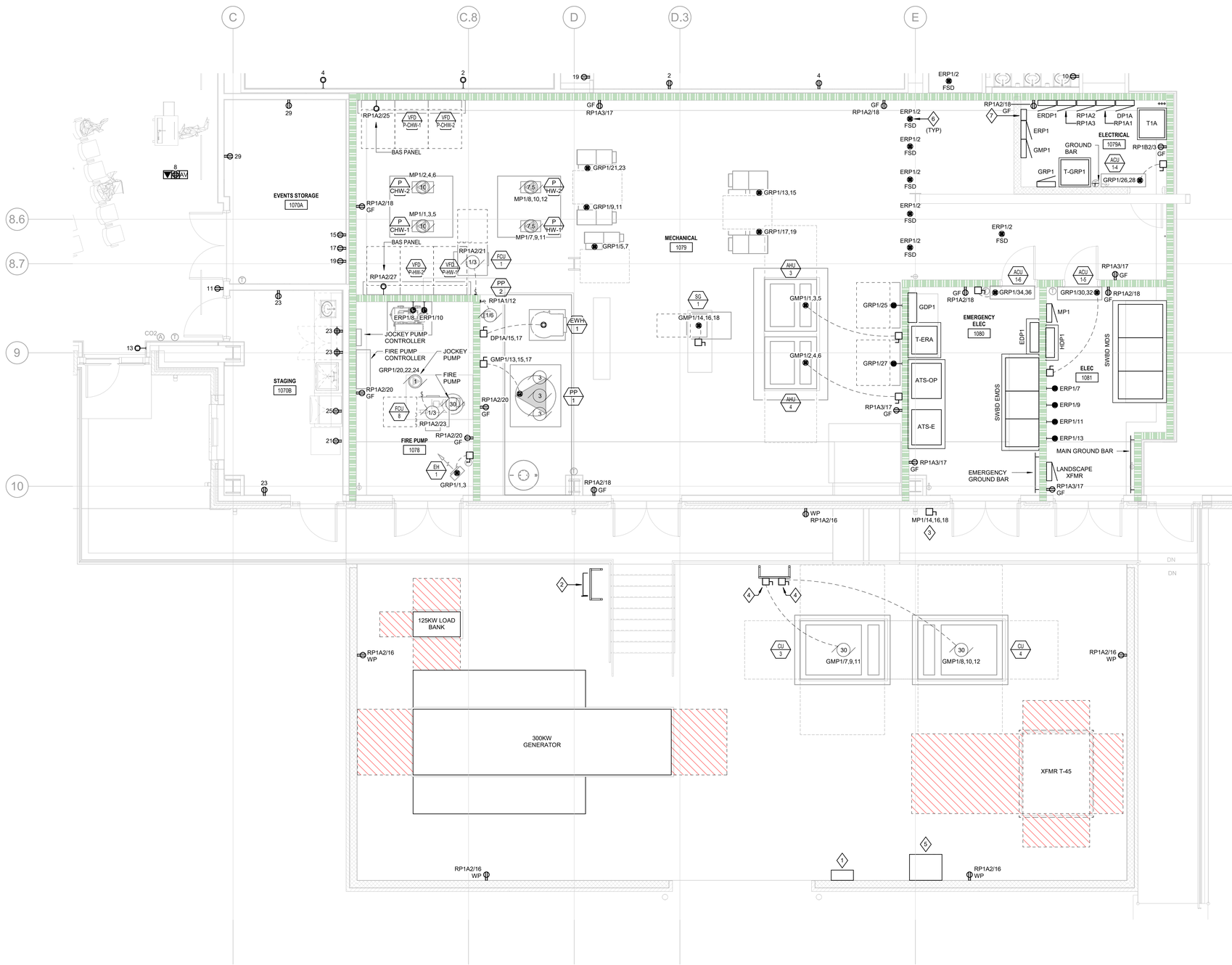
PACKAGE C - BID DOCUMENTS

SHEET:

EP300

PACKAGE C - BID DOCUMENTS

THE LINE SHOWN ABOVE IS EXACTLY ONE INCH LONG AT THE ORIGINAL DRAWING SIZE



1 **POWER PLAN - LEVEL 1 - ENLARGED ELECTRICAL ROOM & YARD**
SCALE: 1/4" = 1'-0"

GRAPHIC SCALE IN FEET (4 0 2 4 8)

GENERAL NOTES:

1. REFER TO BRANCH CIRCUIT SCHEDULE ON SHEET E000 FOR CONDUIT AND WIRE SIZES AND COUNTS, UNLESS NOTED OTHERWISE.

SHEET KEYNOTES

1 600A TEMPORARY GENERATOR DOCKING STATION WITH CAMLOCK-STYLE QUICK CONNECT TERMINATIONS AND A NEMA-3R ENCLOSUR. EREFER TO SHEET E400 FOR ADDITIONAL INFORMATION.

2 SERVICE ENTRANCE RATED DISCONNECT FOR INCOMING NORMAL POWER FEED TO FIRE PUMP CIRCUIT BREAKER SHALL PROVIDE GROUND FAULT PROTECTION ONLY. PROVIDE 4-FT CLEARANCE IN FRONT OF SWITCH. REFER TO SHEET E400 FOR ADDITIONAL INFORMATION.

3 PROVIDE 480V, 50A, 4P DISCONNECT SWITCH WITH A NEMA-3R ENCLOSURE AND 4#6, 1#10GND IN 1"C BACK TO PANEL FOR TEMPORARY BOILER CONNECTION.

4 PROVIDE DISCONNECT SWITCH WITH A NEMA-3R ENCLOSURE.

5 1000A TEMPORARY CHILLER DOCKING STATION WITH CAMLOCK-STYLE QUICK CONNECT TERMINATIONS AND A NEMA-3R ENCLOSURE. REFER TO SHEET E400 FOR ADDITIONAL INFORMATION.

6 FIRE SMOKE DAMPER. PROVIDE 120V CONNECTION AND A LOCAL DISCONNECT SWITCH.

7 PROVIDE JUNCTION BOX WITH MINIMUM DIMENSIONS 24"L X 24"W X 6"H ABOVE CEILING FOR FUTURE CAFE. RUN (8) 3/4" CONDUIT WITH PULL-STRINGS BACK TO ELECTRICAL ROOM #1079A AND PLUG OPEN ENDS.

LIFE SAFETY LEGEND

- NEW NON-RATED PARTITION
- EXISTING WALL TO REMAIN
- UNRATED SMOKE BARRIER TO DECK
- 1 HR. RATED BARRIER TO DECK
- 2 HR. RATED BARRIER TO DECK
- 3 HR. RATED FIRE WALL TO DECK

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SCO ID: 18-19656-02C
LS3P PROJECT: 7202.197980

Δ	DATE	DESCRIPTION
0	2022.07.01	PACKAGE C - BID DOCUMENTS

KEY PLAN:

PROJECT NORTH

SHEET NAME:
LEVEL 1 ENLARGED ELECTRICAL ROOM & YARD PLAN

ORIG SUBMISSION: 2022.07.01
CURRENT: 2022.07.01
PACKAGE C - BID DOCUMENTS

SHEET:
EP301

PACKAGE C - BID DOCUMENTS

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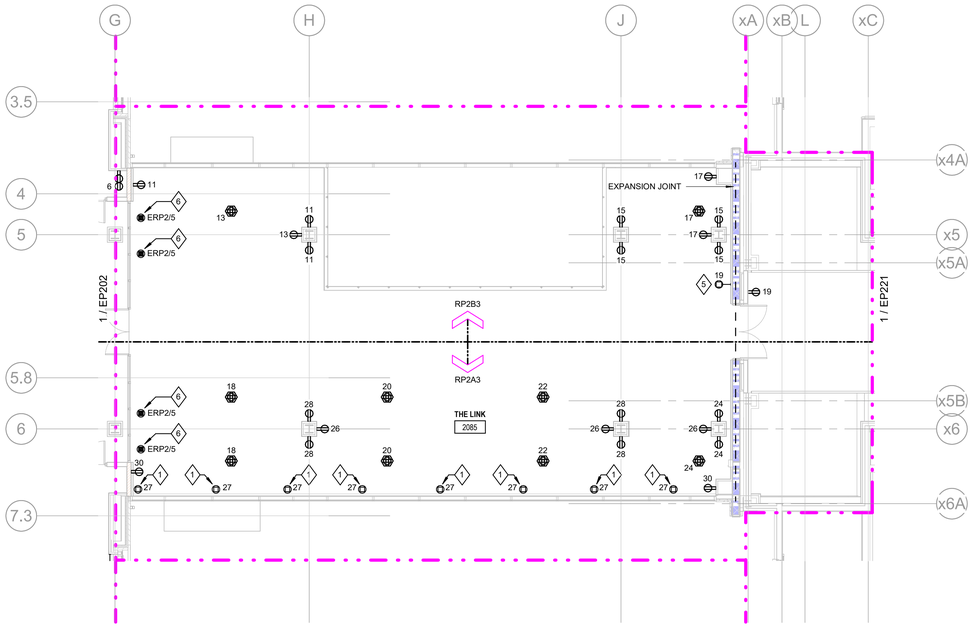
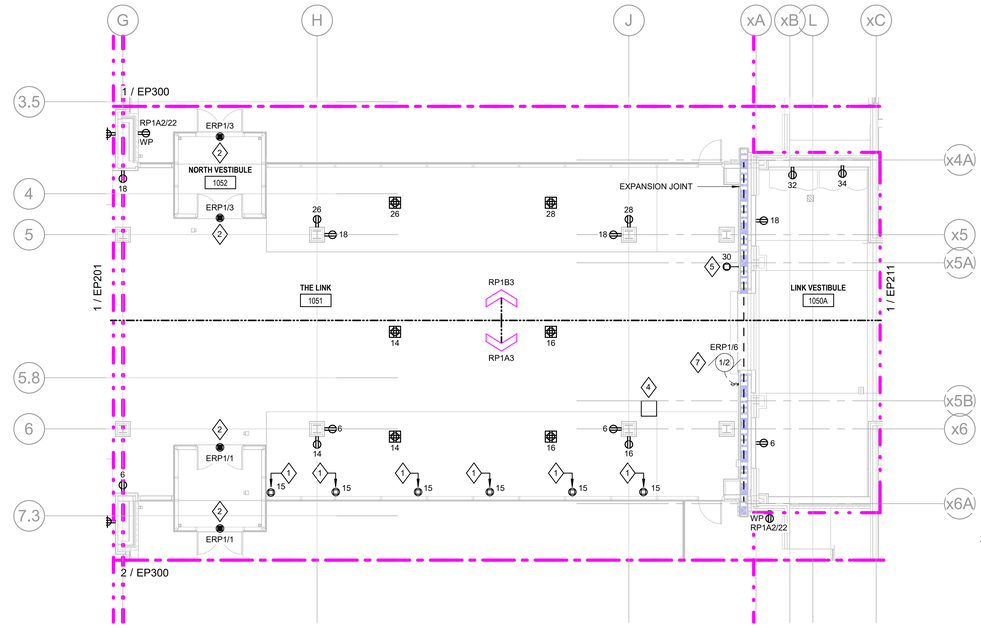


2 POWER PLAN - LEVEL 2 - BUILDING LINK

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

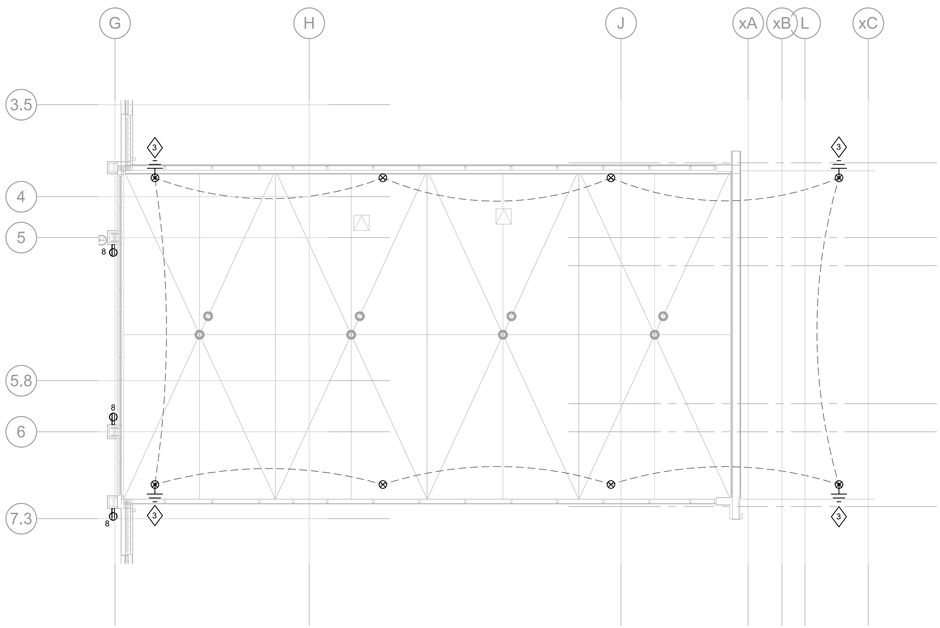
GRAPHIC SCALE IN FEET (8 0 4 8 16)



1 POWER PLAN - LEVEL 1 - BUILDING LINK

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

GRAPHIC SCALE IN FEET (8 0 4 8 16)



3 POWER PLAN - ROOF - BUILDING LINK

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

GRAPHIC SCALE IN FEET (8 0 4 8 16)

GENERAL NOTES:

SHEET KEYNOTES

1. PROVIDE 120V CONNECTION FOR MOTORIZED SHADE. CONTROLS FOR MOTORIZED SHADES TO INTERCONNECT WITH LIGHTING CONTROLS. REFER TO LIGHTING SHEETS FOR ADDITIONAL INFORMATION.
2. PROVIDE 120V CONNECTION FOR DOOR OPERATOR.
3. LIGHTNING PROTECTION SYSTEM DOWN GROUND CONDUCTOR. BOND TO DRIVEN GROUND ROD AND BURIED GROUND LOOP.
4. PROVIDE JUNCTION BOX WITH MINIMUM DIMENSIONS 24"L X 24"W X 6"H ABOVE CEILING FOR FUTURE CAFE. RUN (8) 3/4" CONDUIT WITH PULL-STRINGS BACK TO ELECTRICAL ROOM #1079A AND PLUG OPEN ENDS.
5. HARD-WIRED, 120V CONNECTION FOR FLAT PANEL DISPLAY. PROVIDE 2#12, 1#12GND IN 3/4"C. COORDINATE FINAL TERMINATION REQUIREMENTS WITH EQUIPMENT MANUFACTURER'S INSTALLATION INSTRUCTIONS.
6. SMOKE DAMPER. PROVIDE 120V CONNECTION AND A LOCAL DISCONNECT SWITCH.
7. FIRE DOOR MOTOR.

LIFE SAFETY LEGEND

- NEW NON-RATED PARTITION
- EXISTING WALL TO REMAIN
- UNRATED SMOKE BARRIER TO DECK
- 1 HR. RATED BARRIER TO DECK
- 2 HR. RATED BARRIER TO DECK
- 3 HR. RATED FIRE WALL TO DECK

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SCO ID: 18-19666-02C
LS3P PROJECT: 7202-197980

Δ	DATE	DESCRIPTION
0	2022.07.01	PACKAGE C - BID DOCUMENTS

KEY PLAN:



PROJECT NORTH

SHEET NAME:
LEVEL 1, 2, & 3 BUILDING LINK

ORIG SUBMISSION: 2022.07.01
CURRENT: 2022.07.01
PACKAGE C - BID DOCUMENTS

SHEET:
EP302

PACKAGE C - BID DOCUMENTS

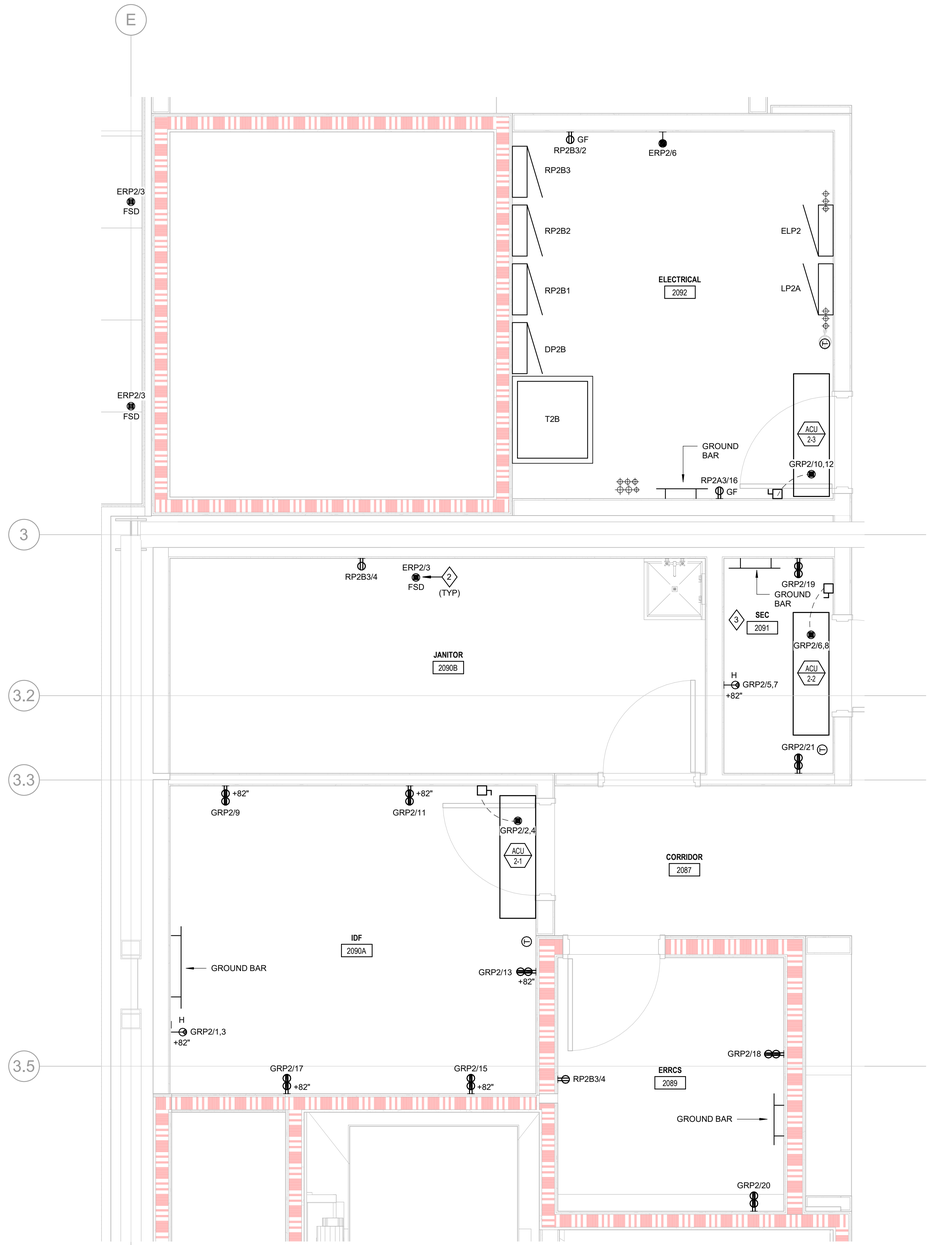
THIS LINE SHOWN ABOVE IS EXACTLY ONE INCH LONG AT THE ORIGINAL DRAWING SIZE

SHEET KEYNOTES

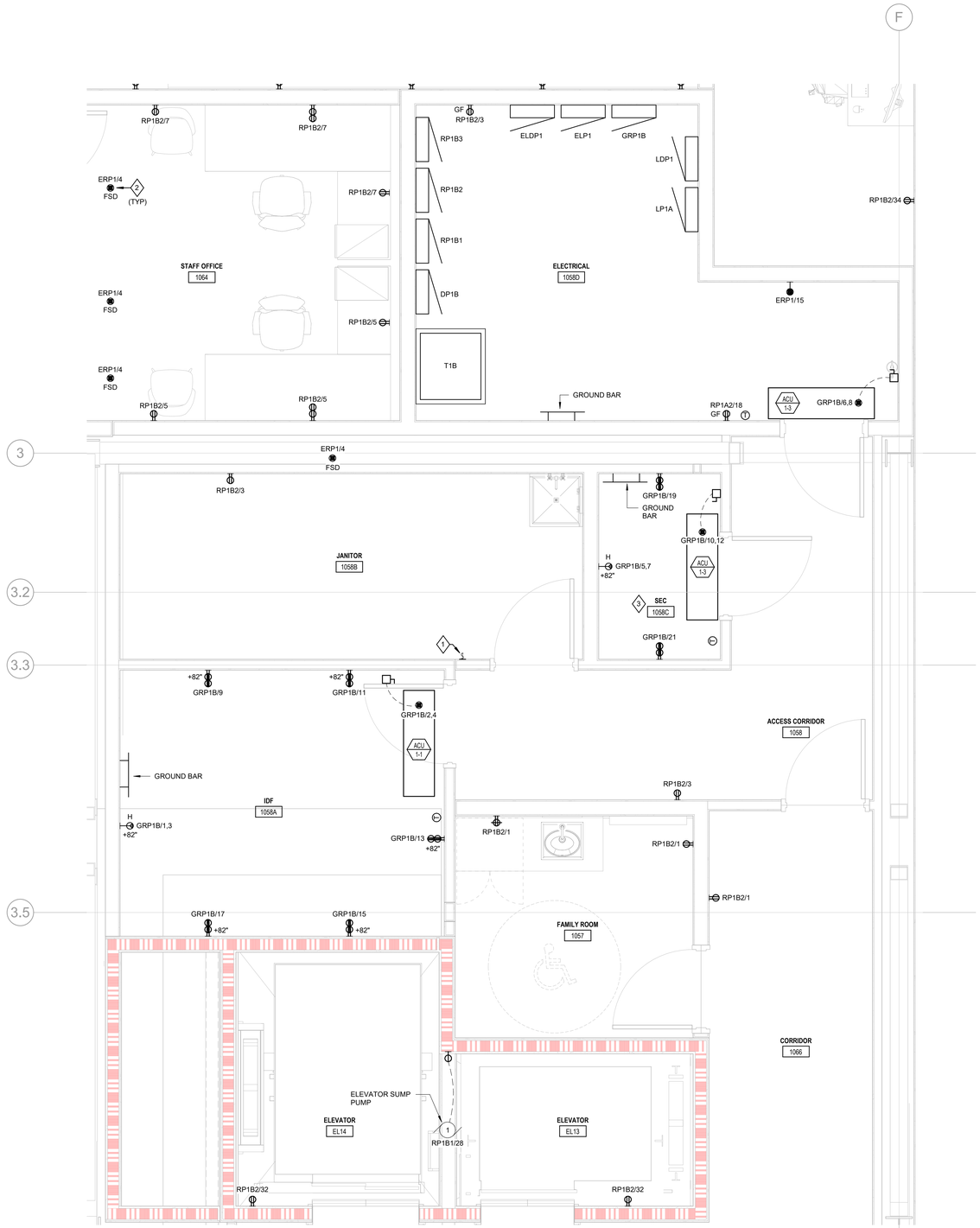
1 PROVIDE 120V, 1P DISCONNECT SWITCH FOR ELEVATOR SUMP PUMP CONTROL PANEL.
2 FIRE SMOKE DAMPER. PROVIDE 120V CONNECTION AND A LOCAL DISCONNECT SWITCH.
3 RECEPTACLES IN THIS ROOM SHALL BE MOUNTED WITH THE TOP OF THE RECEPTACLE AT +15" ABOVE FINISHED FLOOR.

GENERAL NOTES:

1. REFER TO BRANCH CIRCUIT SCHEDULE ON SHEET E000 FOR CONDUIT AND WIRE SIZES AND COUNTS, UNLESS NOTED OTHERWISE.



3 ENLARGED ELECTRICAL ROOM - LEVEL 2 - NORTH
SCALE: 1/2" = 1'-0"



1 ENLARGED ELECTRICAL ROOM - LEVEL 1 - NORTH
SCALE: 1/2" = 1'-0"

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07/01/22

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SCO ID: 18-19656-02C
LS3P PROJECT: 7202-197980

Δ	DATE	DESCRIPTION
0	2022.07.01	PACKAGE C - BID DOCUMENTS

SHEET NAME:
ENLARGED ELECTRICAL ROOMS

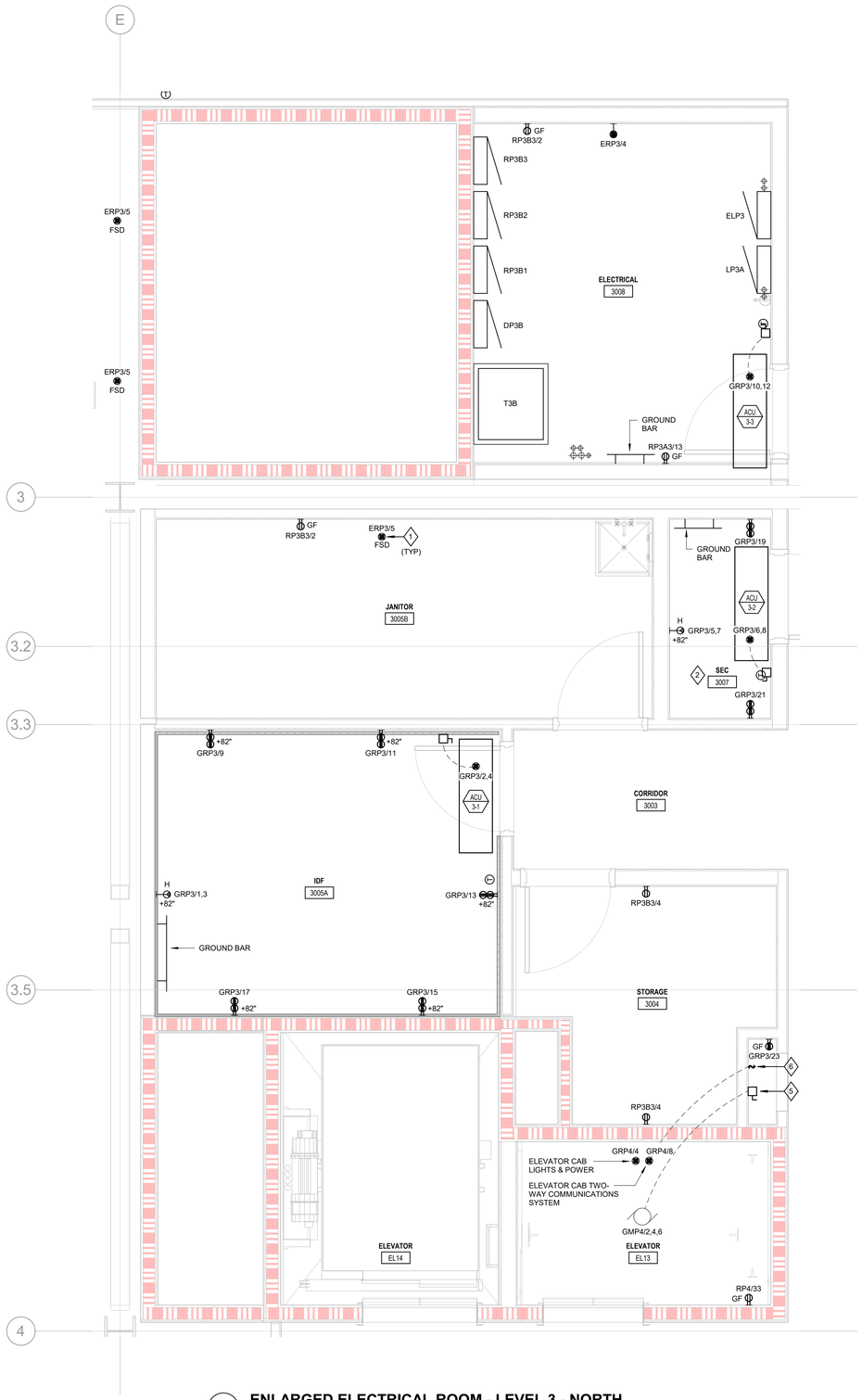
ORIG SUBMISSION: 2022.07.01
CURRENT: 2022.07.01
PACKAGE C - BID DOCUMENTS

SHEET:
EP303

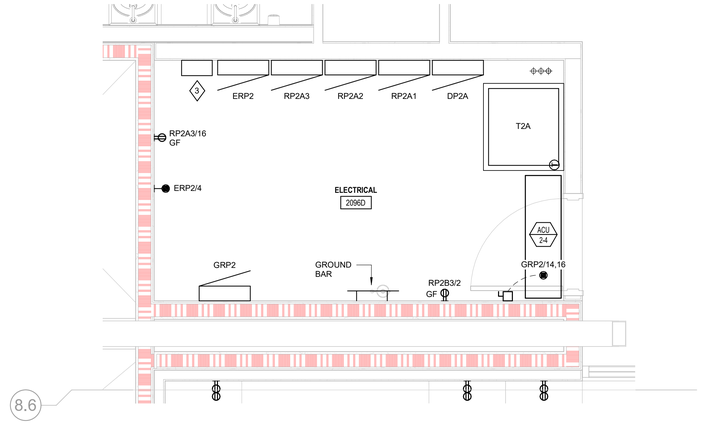
PACKAGE C - BID DOCUMENTS

GENERAL NOTES:

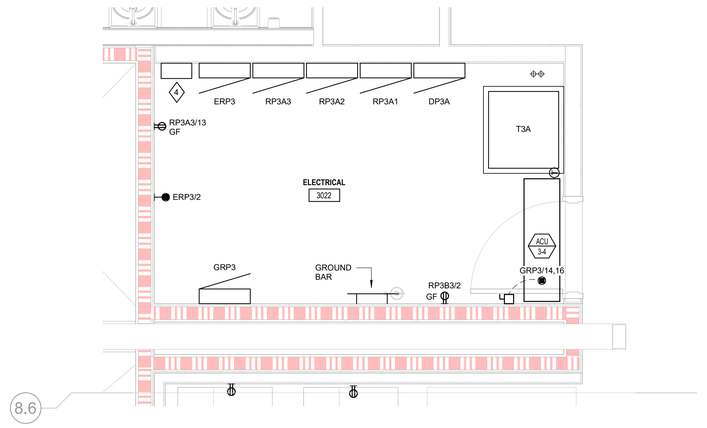
1. REFER TO BRANCH CIRCUIT SCHEDULE ON SHEET E000 FOR CONDUIT AND WIRE SIZES AND COUNTS, UNLESS NOTED OTHERWISE.



3 ENLARGED ELECTRICAL ROOM - LEVEL 3 - NORTH
SCALE: 1/2" = 1'-0"



1 ENLARGED ELECTRICAL ROOM - LEVEL 2 - SOUTH
SCALE: 1/2" = 1'-0"



2 ENLARGED ELECTRICAL ROOM - LEVEL 3 - SOUTH
SCALE: 1/2" = 1'-0"

SHEET KEYNOTES

1. FIRE SMOKE DAMPER. PROVIDE 120V CONNECTION AND A LOCAL DISCONNECT SWITCH.
2. RECEPTACLES IN THIS ROOM SHALL BE MOUNTED WITH THE TOP OF THE RECEPTACLE AT +15" ABOVE FINISHED FLOOR.
3. PROVIDE NEMA 1 ENCLOSURE FOR SURGE PROTECTION DEVICES SERVING FIRE ALARM CIRCUITS.
4. PROVIDE REMOTE SMOKE DETECTOR AS REQUIRED FOR MAINTENANCE ACCESS FOR DUCT DETECTORS. COORDINATE EXACT LOCATION WITH OTHER TRADES IN THE FIELD.
5. PROVIDE 480V, 3P DISCONNECT SWTICH WITH LOCK-OUT/TAG-OUT CAPABILITY FOR ELEVATOR CONTROLLER. PROVIDE 3#10, 1#10GND IN 1"C.
6. PROVIDE FUSED SPST DISCONNECT SWITCH CAPABLE OF BEING LOCKED IN THE OPEN POSITION FOR POWER TO ELEVATOR CAB TWO-WAY COMMUNICATIONS SYSTEM. COORDINATE EXACT LOCATION WITH THE MANUFACTURER.

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SCO ID: 18-19656-02C
LS3P PROJECT: 7202-197980

Δ	DATE	DESCRIPTION
0	2022.07.01	PACKAGE C - BID DOCUMENTS

SHEET NAME:
ENLARGED ELECTRICAL ROOMS

ORIG SUBMISSION: 2022.07.01
CURRENT: 2022.07.01
PACKAGE C - BID DOCUMENTS

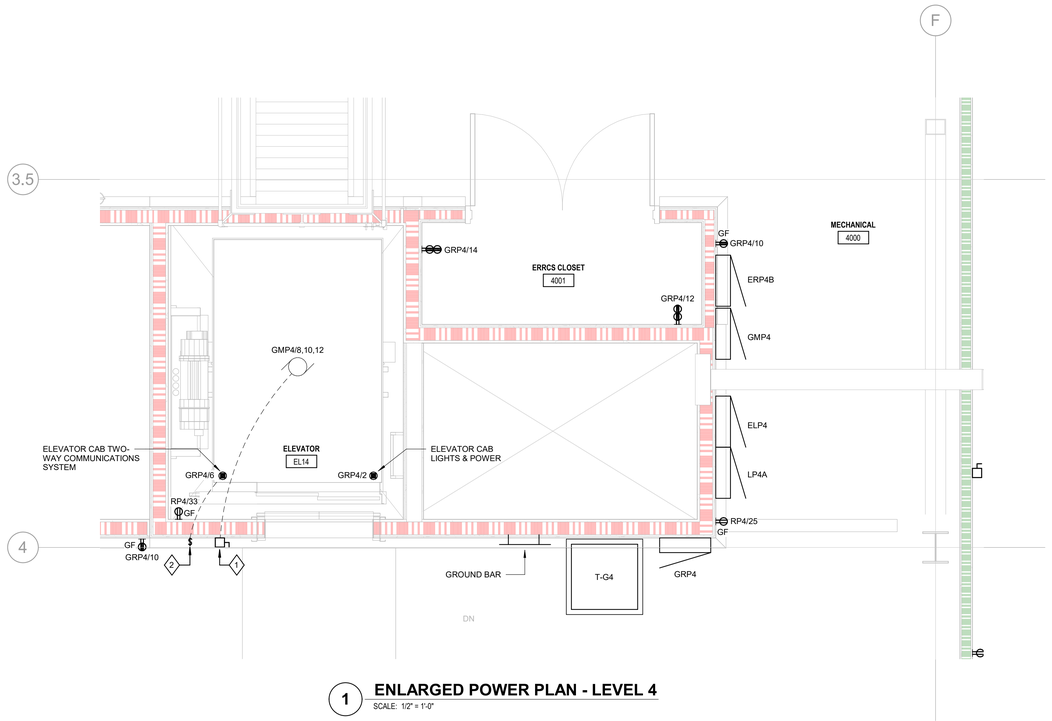
SHEET:
EP304

PACKAGE C - BID DOCUMENTS

THIS LINE SHOWN ABOVE IS EXACTLY ONE INCH LONG AT THE ORIGINAL DRAWING SIZE

GENERAL NOTES:

1. REFER TO BRANCH CIRCUIT SCHEDULE ON SHEET E000 FOR CONDUIT AND WIRE SIZES AND COUNTS, UNLESS NOTED OTHERWISE.



1 **ENLARGED POWER PLAN - LEVEL 4**
SCALE: 1/2" = 1'-0"

SHEET KEYNOTES

1 PROVIDE 480V, 3P DISCONNECT SWTICH WITH LOCK-OUT/TAG-OUT CAPABILITY FOR ELEVATOR CONTROLLER. PROVIDE 3#8, 1#10GND IN 1"C.

2 PROVIDE FUSED SPST DISCONNECT SWITCH CAPABLE OF BEING LOCKED IN THE OPEN POSITION FOR POWER TO ELEVATOR CAB TWO-WAY COMMUNICATIONS SYSTEM. COORDINATE EXACT LOCATION WITH THE MANUFACTURER.

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SCO ID: 18-19656-02C
LS3P PROJECT: 7202.197980

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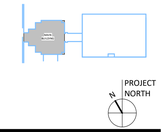
0	2022.07.01	PACKAGE C - BID DOCUMENTS

KEY PLAN:

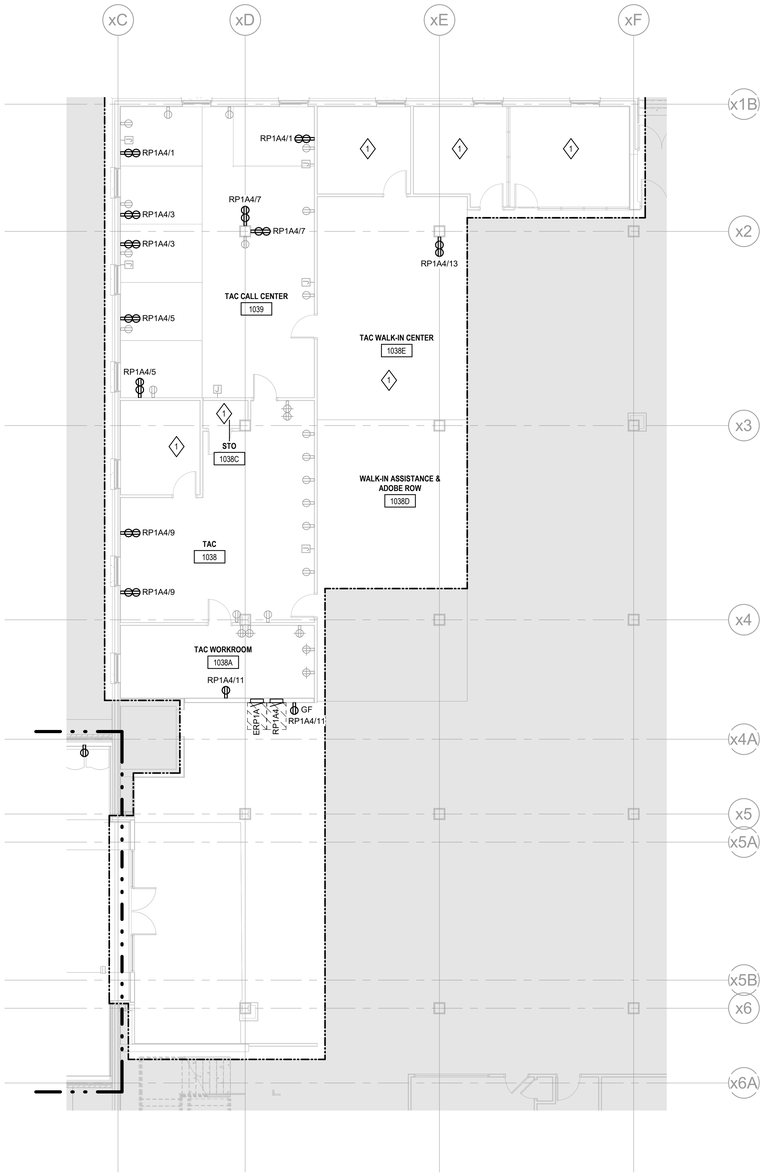


SHEET NAME:
ENLARGED POWER PLAN - LEVEL 4

ORIG SUBMISSION: 2022.07.01
CURRENT: 2022.07.01
PACKAGE C - BID DOCUMENTS

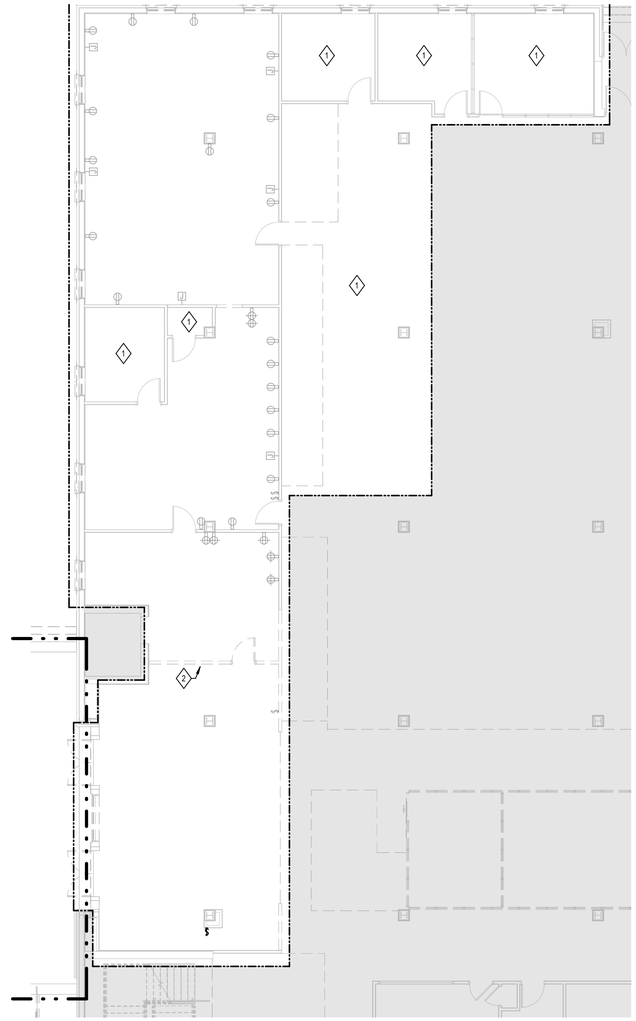
SHEET:
EP305
PACKAGE C - BID DOCUMENTS

THIS LINE SHOWN ABOVE IS EXACTLY ONE INCH LONG AT THE ORIGINAL DRAWING SIZE



2 RENOVATION BLDG - POWER PLAN - LEVEL 1 - NEW WORK - NORTHWEST

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



1 RENOVATION BLDG - POWER PLAN - LEVEL 1 - DEMO WORK - NORTHWEST

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

GENERAL NOTES:

1. ALL ELECTRICAL, LIGHTING, DATA, AND FIRE ALARM DEVICES ARE EXISTING TO REMAIN UNLESS NOTED OTHERWISE.
2. NOT ALL EXISTING DEVICES ARE BEING SHOWN, ONLY THOSE RELEVANT TO THE RENOVATED SCOPE. ALL DEVICES NOT SHOWN ARE EXISTING TO REMAIN.
3. ANY CIRCUIT BREAKERS MADE OBSOLETE BY THIS WORK SHALL BE LABELED AS SPARE AND LEFT IN THE OFF POSITION.
4. EXISTING WORK IS SHOWN IN GRAY.
5. DEMO WORK IS SHOWN IN BOLD, DASHED LINEWORK.
6. NEW WORK IS SHOWN IN BOLD, SOLID LINEWORK.
7. VERIFY FIRE RATING OF ALL EXISTING WALLS ALONG THE PROPOSED PATH OF ALL NEW CONDUIT RUNS. AVOID PENETRATING RATED WALLS IF POSSIBLE AND PROVIDE APPLICABLE FIRE STOPPING SEALS FOR LOCATIONS WHERE PENETRATIONS THROUGH RATED WALLS ARE REQUIRED.

SHEET KEYNOTES

1. EXISTING RECEPTACLES IN THIS ROOM SHALL REMAIN.
2. DEMOLISH RECEPTACLES IN PORTIONS OF EXISTING WALL BEING DEMOLISHED. REMOVE ALL ASSOCIATED CONDUIT, BACKBOXES, AND WIRES BACK TO SOURCE.

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SCO ID: 18-19656-02C
LS3P PROJECT: 7202-197980

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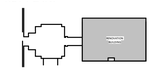
0	2022.07.01	PACKAGE C - BID DOCUMENTS

KEY PLAN:



PROJECT NORTH

SHEET NAME:
ENLARGED RENO POWER PLAN - LEVEL 1 - WEST

ORIG SUBMISSION: 2022.07.01
CURRENT: 2022.07.01
PACKAGE C - BID DOCUMENTS

SHEET:
EP310

PACKAGE C - BID DOCUMENTS

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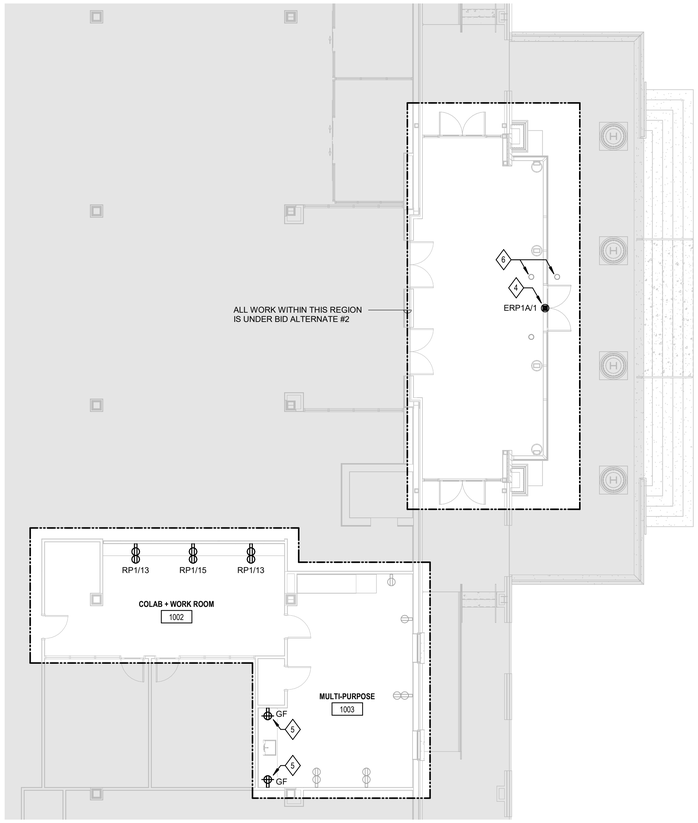
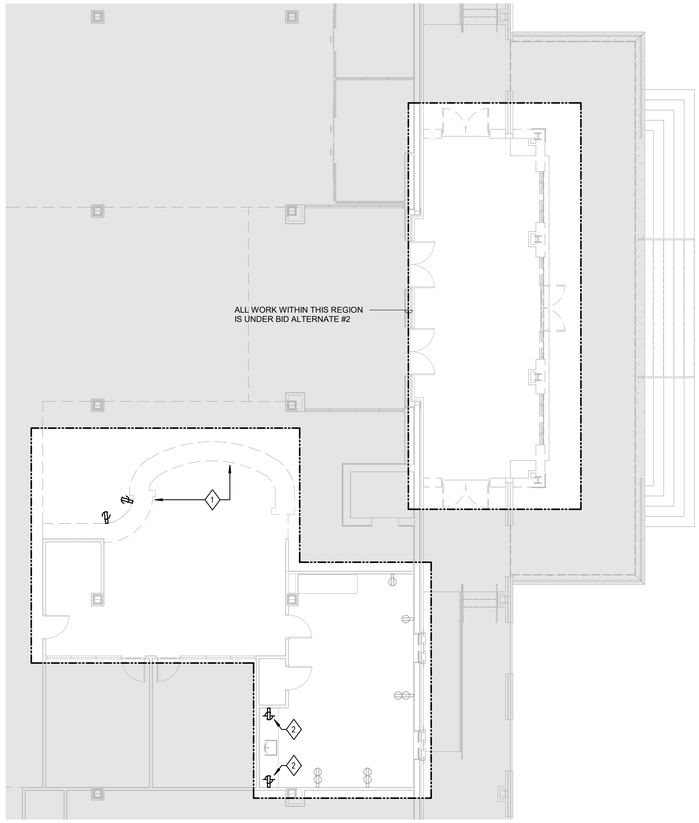


2 **RENOVATION BLDG - POWER PLAN - LEVEL 1 - NEW WORK - EAST**
SCALE: 1/8" = 1'-0"



1 **RENOVATION BLDG - POWER PLAN - LEVEL 1 - DEMO WORK - EAST**
SCALE: 1/8" = 1'-0"

GENERAL NOTES:

1. ALL ELECTRICAL, LIGHTING, DATA, AND FIRE ALARM DEVICES ARE EXISTING TO REMAIN UNLESS NOTED OTHERWISE.
2. NOT ALL EXISTING DEVICES ARE BEING SHOWN, ONLY THOSE RELEVANT TO THE RENOVATED SCOPE. ALL DEVICES NOT SHOWN ARE EXISTING TO REMAIN.
3. ANY CIRCUIT BREAKERS MADE OBSOLETE BY THIS WORK SHALL BE LABELED AS SPARE AND LEFT IN THE OFF POSITION.
4. EXISTING WORK IS SHOWN IN GRAY.
5. DEMO WORK IS SHOWN IN BOLD, DASHED LINEWORK.
6. NEW WORK IS SHOWN IN BOLD, SOLID LINEWORK.
7. VERIFY FIRE RATING OF ALL EXISTING WALLS ALONG THE PROPOSED PATH OF ALL NEW CONDUIT RUNS. AVOID PENETRATING RATED WALLS IF POSSIBLE AND PROVIDE APPLICABLE FIRE STOPPING SEALS FOR LOCATIONS WHERE PENETRATIONS THROUGH RATED WALLS ARE REQUIRED.

SHEET KEYNOTES

1. DEMOLISH EXISTING RECEPTACLES LOCATED IN EXISTING MILLWORK. REMOVE ALL ASSOCIATED WIRING AND CONDUIT BACK TO SOURCE.
2. DEMOLISH EXISTING RECEPTACLES. PRESERVE WIRING AND BACKBOXES IN PLACE FOR REUSE.
3. NOT USED
4. PROVIDE 120V CONNECTION FOR NEW DOOR OPERATOR. PROVIDE 2#4, 1#12GND IN 3/4"C.
5. INSTALL NEW GFCI RECEPTACLE IN EXISTING BACKBOX AND RECONNECT EXISTING CIRCUIT.
6. DOOR OPERATOR PUSH BUTTON LOCATED ON PEDESTAL. COORDINATE POWER REQUIREMENTS WITH MANUFACTURER.

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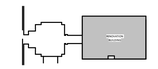
SCO ID: 18-19666-02C
LS3P PROJECT: 7202-197980

Δ	DATE	DESCRIPTION
0	2022.07.01	PACKAGE C - BID DOCUMENTS

KEY PLAN:



PROJECT NORTH

SHEET NAME:
ENLARGED RENO POWER PLAN - LEVEL 1 - EAST

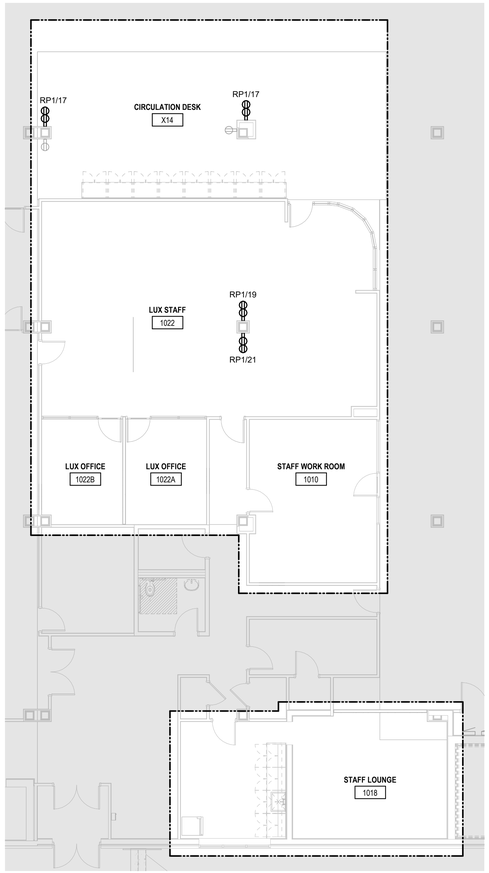
ORIG SUBMISSION: 2022.07.01
CURRENT: 2022.07.01
PACKAGE C - BID DOCUMENTS

SHEET:
EP311

THIS LINE SHOWN ABOVE IS EXACTLY ONE INCH LONG AT THE ORIGINAL DRAWING SIZE

GENERAL NOTES:

1. ALL ELECTRICAL, LIGHTING, DATA, AND FIRE ALARM DEVICES ARE EXISTING TO REMAIN UNLESS NOTED OTHERWISE.
2. NOT ALL EXISTING DEVICES ARE BEING SHOWN, ONLY THOSE RELEVANT TO THE RENOVATED SCOPE. ALL DEVICES NOT SHOWN ARE EXISTING TO REMAIN.
3. ANY CIRCUIT BREAKERS MADE OBSOLETE BY THIS WORK SHALL BE LABELED AS SPARE AND LEFT IN THE OFF POSITION.
4. EXISTING WORK IS SHOWN IN GRAY.
5. DEMO WORK IS SHOWN IN BOLD, DASHED LINEWORK.
6. NEW WORK IS SHOWN IN BOLD, SOLID LINEWORK.
7. VERIFY FIRE RATING OF ALL EXISTING WALLS ALONG THE PROPOSED PATH OF ALL NEW CONDUIT RUNS. AVOID PENETRATING RATED WALLS IF POSSIBLE AND PROVIDE APPLICABLE FIRE STOPPING SEALS FOR LOCATIONS WHERE PENETRATIONS THROUGH RATED WALLS ARE REQUIRED.



2 RENOVATION BLDG - POWER PLAN - LEVEL 1 - NEW WORK - SOUTH
SCALE: 1/8" = 1'-0"



1 RENOVATION BLDG - POWER PLAN - LEVEL 1 - DEMO WORK - SOUTH
SCALE: 1/8" = 1'-0"

SHEET KEYNOTES

1. EXISTING RECEPTACLES IN THIS ROOM SHALL REMAIN, UNLESS NOTED OTHERWISE.
2. DEMOLISH RECEPTACLES IN PORTIONS OF EXISTING WALL BEING DEMOLISHED. REMOVE ALL ASSOCIATED CONDUIT, BACKBOXES, AND WIRES BACK TO SOURCE.
3. RELOCATE OUTLETS IMPACTED BY WALL DEMOLITION TO ADJACENT WALL WITHIN ROOM AS REQUIRED.

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SCO ID: 18-19656-02C
LS3P PROJECT: 7202-197980

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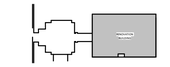
KEY PLAN:



PROJECT NORTH

SHEET NAME:
ENLARGED RENO POWER PLAN - LEVEL 1 - SOUTH

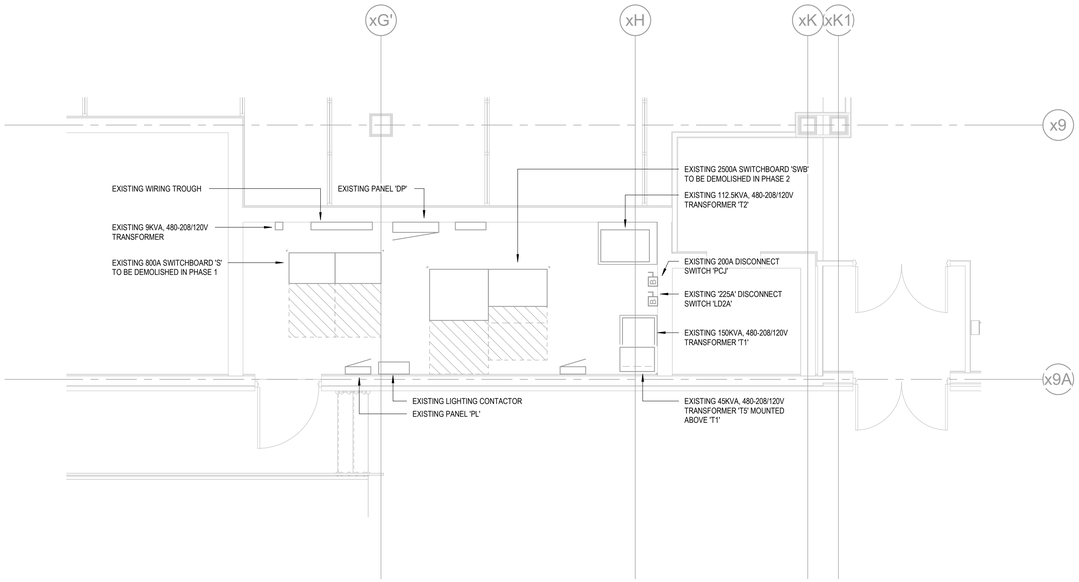
ORIG SUBMISSION: 2022.07.01
CURRENT: 2022.07.01
PACKAGE C - BID DOCUMENTS

SHEET:
EP312
PACKAGE C - BID DOCUMENTS

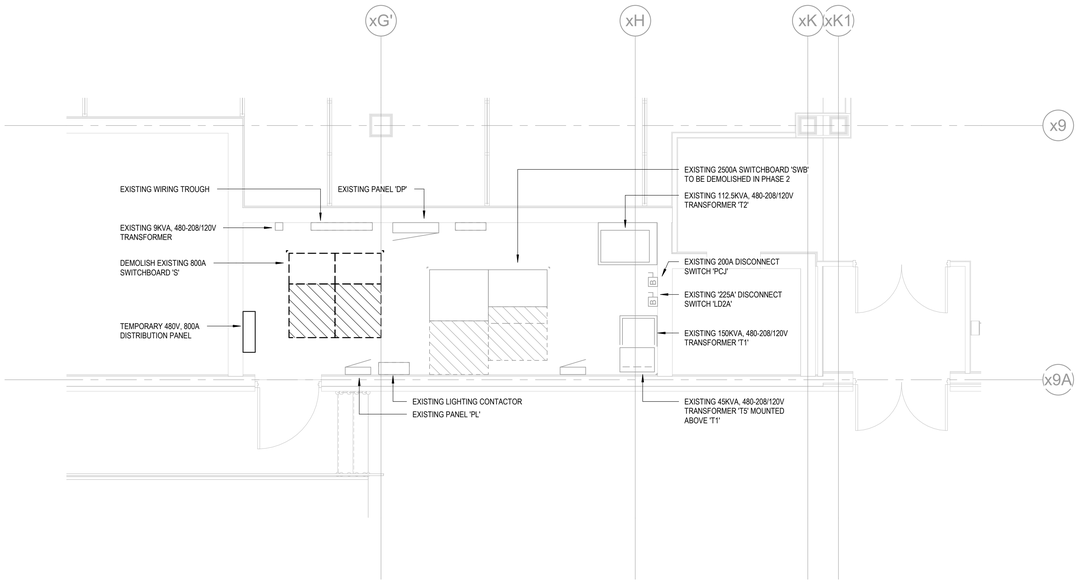
THIS LINE SHOWN ABOVE IS EXACTLY ONE INCH LONG AT THE ORIGINAL DRAWING SIZE

GENERAL NOTES:

1. ALL ELECTRICAL, LIGHTING, DATA, AND FIRE ALARM DEVICES ARE EXISTING TO REMAIN UNLESS NOTED OTHERWISE.
2. NOT ALL EXISTING DEVICES ARE BEING SHOWN, ONLY THOSE RELEVANT TO THE RENOVATED SCOPE. ALL DEVICES NOT SHOWN ARE EXISTING TO REMAIN.
3. ANY CIRCUIT BREAKERS MADE OBSOLETE BY THIS WORK SHALL BE LABELED AS SPARE AND LEFT IN THE OFF POSITION.
4. EXISTING WORK IS SHOWN IN GRAY.
5. DEMO WORK IS SHOWN IN BOLD, DASHED LINEWORK.
6. NEW WORK IS SHOWN IN BOLD, SOLID LINEWORK.
7. VERIFY FIRE RATING OF ALL EXISTING WALLS ALONG THE PROPOSED PATH OF ALL NEW CONDUIT RUNS. AVOID PENETRATING RATED WALLS IF POSSIBLE AND PROVIDE APPLICABLE FIRE STOPPING SEALS FOR LOCATIONS WHERE PENETRATIONS THROUGH RATED WALLS ARE REQUIRED.



1 **RANDALL LIBRARY ELECTRICAL ROOM - EXISTING**
SCALE: 1/4" = 1'-0"



2 **RANDALL LIBRARY ELECTRICAL ROOM - PHASE 1**
SCALE: 1/4" = 1'-0"

ALL WORK ON THIS SHEET IS PART OF BID ALTERNATE #3

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SCO ID: 18-19656-02C
LS3P PROJECT: 7202-197980

Δ	DATE	DESCRIPTION
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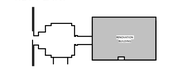
KEY PLAN:



PROJECT NORTH

SHEET NAME:
ENLARGED RENO POWER PLAN - MAIN ELECTRICAL ROOM

ORIG SUBMISSION: 2022.07.01
CURRENT: 2022.07.01
PACKAGE C - BID DOCUMENTS

SHEET:
EP313

PACKAGE C - BID DOCUMENTS

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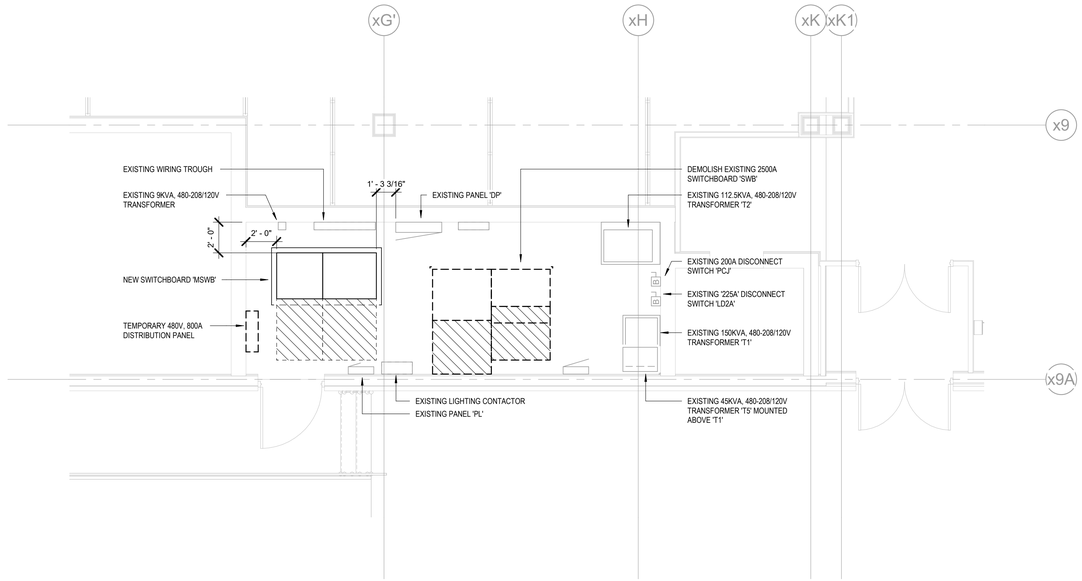
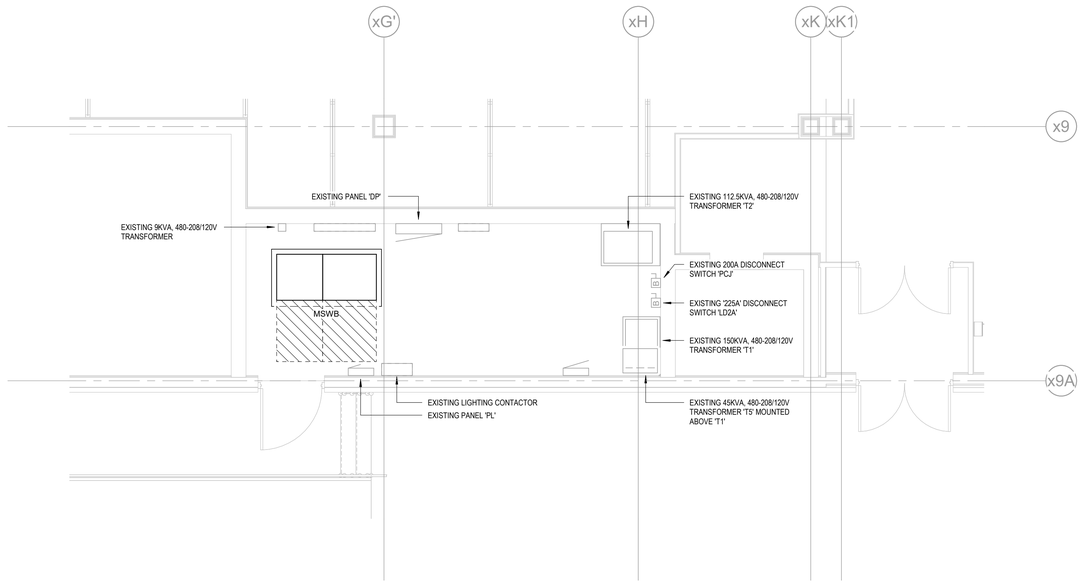
GENERAL NOTES:

1. ALL ELECTRICAL, LIGHTING, DATA, AND FIRE ALARM DEVICES ARE EXISTING TO REMAIN UNLESS NOTED OTHERWISE.
2. NOT ALL EXISTING DEVICES ARE BEING SHOWN, ONLY THOSE RELEVANT TO THE RENOVATED SCOPE. ALL DEVICES NOT SHOWN ARE EXISTING TO REMAIN.
3. ANY CIRCUIT BREAKERS MADE OBSOLETE BY THIS WORK SHALL BE LABELED AS SPARE AND LEFT IN THE OFF POSITION.
4. EXISTING WORK IS SHOWN IN GRAY.
5. DEMO WORK IS SHOWN IN BOLD, DASHED LINEWORK.
6. NEW WORK IS SHOWN IN BOLD, SOLID LINEWORK.
7. VERIFY FIRE RATING OF ALL EXISTING WALLS ALONG THE PROPOSED PATH OF ALL NEW CONDUIT RUNS. AVOID PENETRATING RATED WALLS IF POSSIBLE AND PROVIDE APPLICABLE FIRE STOPPING SEALS FOR LOCATIONS WHERE PENETRATIONS THROUGH RATED WALLS ARE REQUIRED.



1 **RANDALL LIBRARY ELECTRICAL ROOM - PHASE 2**
SCALE: 1/4" = 1'-0"



2 **RANDALL LIBRARY ELECTRICAL ROOM - FINAL CONFIGURATION**
SCALE: 1/4" = 1'-0"

ALL WORK ON THIS SHEET IS PART OF BID ALTERNATE #3

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NORTH CAROLINA PROFESSIONAL SEAL 023265 ENGINEER WILLIAM D. HENNEN
07/01/22

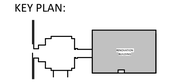
RANDALL LIBRARY RENOVATION & EXPANSION

UNCW
5162 RANDALL DRIVE
WILMINGTON, NC

SCO ID: 18-19656-02C
LS3P PROJECT: 7202-197980

Δ	DATE	DESCRIPTION
0	2022.07.01	PACKAGE C - BID DOCUMENTS

KEY PLAN:



PROJECT NORTH

SHEET NAME:
ENLARGED RENO POWER PLAN - MAIN ELECTRICAL ROOM

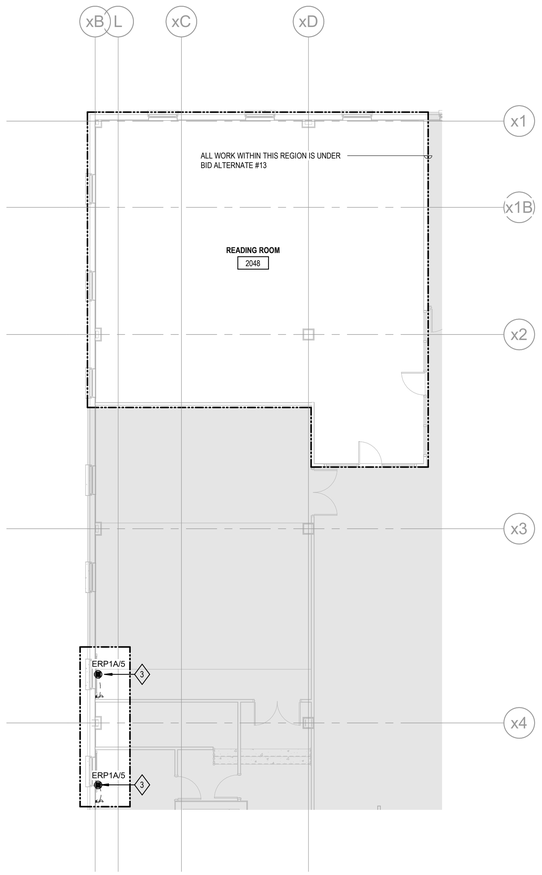
ORIG SUBMISSION: 2022.07.01
CURRENT: 2022.07.01
PACKAGE C - BID DOCUMENTS

SHEET:
EP314
PACKAGE C - BID DOCUMENTS

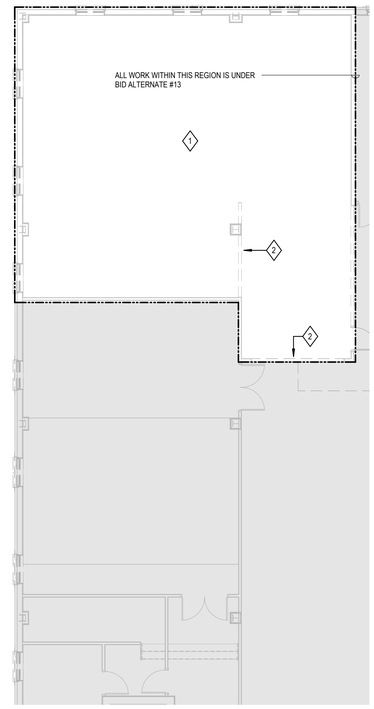
E D C B A

1 2 3 4 5 6

THIS LINE SHOWN ABOVE IS EXACTLY ONE INCH LONG AT THE ORIGINAL DRAWING SIZE



2 **RENOVATION BLDG - POWER PLAN - LEVEL 2 - NEW WORK - NORTHWEST**
SCALE: 1/8" = 1'-0"



1 **RENOVATION BLDG - POWER PLAN - LEVEL 2 - DEMO WORK - NORTHWEST**
SCALE: 1/8" = 1'-0"

GENERAL NOTES:

1. ALL ELECTRICAL, LIGHTING, DATA, AND FIRE ALARM DEVICES ARE EXISTING TO REMAIN UNLESS NOTED OTHERWISE.
2. NOT ALL EXISTING DEVICES ARE BEING SHOWN, ONLY THOSE RELEVANT TO THE RENOVATED SCOPE. ALL DEVICES NOT SHOWN ARE EXISTING TO REMAIN.
3. ANY CIRCUIT BREAKERS MADE OBSOLETE BY THIS WORK SHALL BE LABELED AS SPARE AND LEFT IN THE OFF POSITION.
4. EXISTING WORK IS SHOWN IN GRAY.
5. DEMO WORK IS SHOWN IN BOLD, DASHED LINEWORK.
6. NEW WORK IS SHOWN IN BOLD, SOLID LINEWORK.
7. VERIFY FIRE RATING OF ALL EXISTING WALLS ALONG THE PROPOSED PATH OF ALL NEW CONDUIT RUNS. AVOID PENETRATING RATED WALLS IF POSSIBLE AND PROVIDE APPLICABLE FIRE STOPPING SEALS FOR LOCATIONS WHERE PENETRATIONS THROUGH RATED WALLS ARE REQUIRED.

SHEET KEYNOTES

1. EXISTING RECEPTACLES IN THIS ROOM SHALL REMAIN, UNLESS NOTED OTHERWISE.
2. DEMOLISH RECEPTACLES IN PORTIONS OF EXISTING WALL BEING DEMOLISHED. REMOVE ALL ASSOCIATED CONDUIT, BACKBOXES, AND WIRES BACK TO SOURCE.
3. PROVIDE 120V POWER CONNECTION AND DISCONNECT SWITCH FOR FIRE SHUTTER. PROVIDE 2#12, 1#12GND IN 3/4"C.

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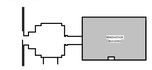
SCO ID: 18-19656-02C
LS3P PROJECT: 7202-197980

Δ	DATE	DESCRIPTION
0	2022.07.01	PACKAGE C - BID DOCUMENTS

KEY PLAN:



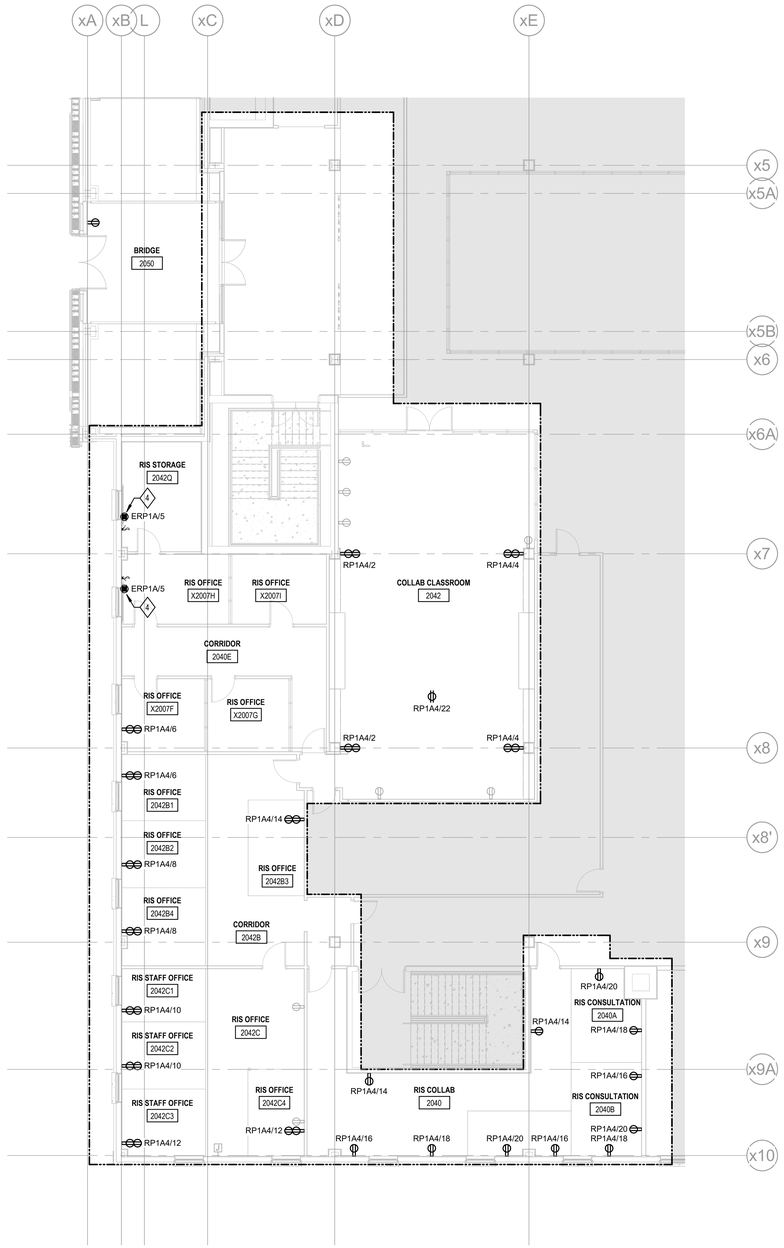
PROJECT NORTH

SHEET NAME:
ENLARGED RENO POWER PLAN - LEVEL 2 - NORTHWEST

ORIG SUBMISSION: 2022.07.01
CURRENT: 2022.07.01
PACKAGE C - BID DOCUMENTS

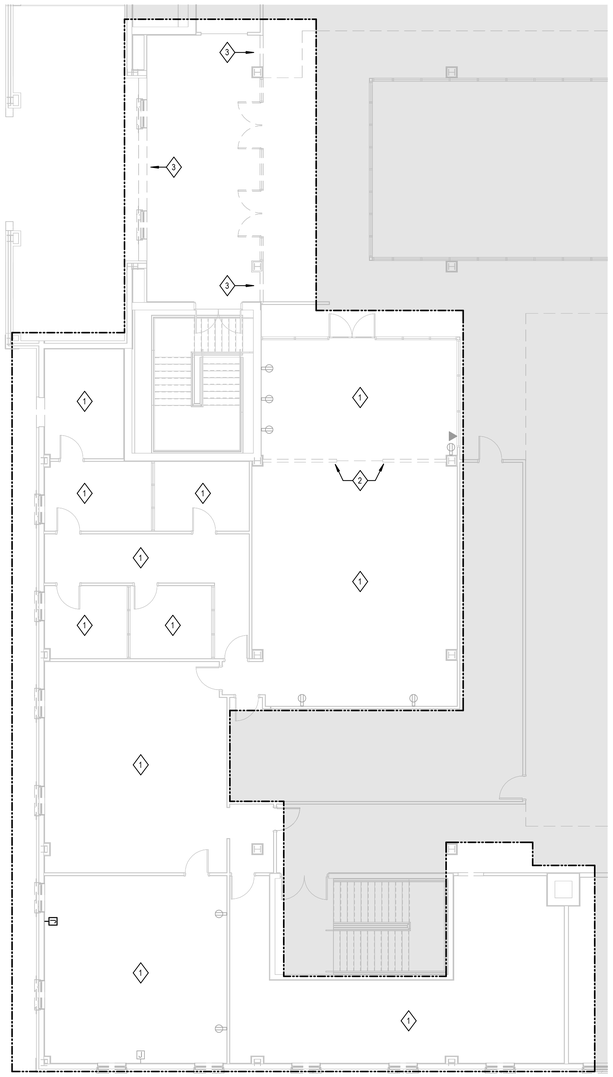
SHEET:
EP320
PACKAGE C - BID DOCUMENTS

THIS LINE SHOWN ABOVE IS EXACTLY ONE INCH LONG AT THE ORIGINAL DRAWING SIZE



2 RENOVATION BLDG - POWER PLAN - LEVEL 2 - NEW WORK - SOUTHWEST

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



1 RENOVATION BLDG - POWER PLAN - LEVEL 2 - DEMO WORK - SOUTHWEST

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

GENERAL NOTES:

1. ALL ELECTRICAL, LIGHTING, DATA, AND FIRE ALARM DEVICES ARE EXISTING TO REMAIN UNLESS NOTED OTHERWISE.
2. NOT ALL EXISTING DEVICES ARE BEING SHOWN, ONLY THOSE RELEVANT TO THE RENOVATED SCOPE. ALL DEVICES NOT SHOWN ARE EXISTING TO REMAIN.
3. ANY CIRCUIT BREAKERS MADE OBSOLETE BY THIS WORK SHALL BE LABELED AS SPARE AND LEFT IN THE OFF POSITION.
4. EXISTING WORK IS SHOWN IN GRAY.
5. DEMO WORK IS SHOWN IN BOLD, DASHED LINEWORK.
6. NEW WORK IS SHOWN IN BOLD, SOLID LINEWORK.
7. VERIFY FIRE RATING OF ALL EXISTING WALLS ALONG THE PROPOSED PATH OF ALL NEW CONDUIT RUNS. AVOID PENETRATING RATED WALLS IF POSSIBLE AND PROVIDE APPLICABLE FIRE STOPPING SEALS FOR LOCATIONS WHERE PENETRATIONS THROUGH RATED WALLS ARE REQUIRED.

SHEET KEYNOTES

1. EXISTING RECEPTACLES IN THIS ROOM SHALL REMAIN, UNLESS NOTED OTHERWISE.
2. DEMOLISH RECEPTACLES IN PORTIONS OF EXISTING WALL BEING DEMOLISHED. REMOVE ALL ASSOCIATED CONDUIT, BACKBOXES, AND WIRES BACK TO SOURCE.
3. RELOCATE OUTLETS IMPACTED BY WALL DEMOLITION TO ADJACENT WALL WITHIN ROOM AS REQUIRED.
4. PROVIDE 120V POWER CONNECTION AND DISCONNECT SWITCH FOR FIRE SHUTTER. PROVIDE 2#12, 1#12GND IN 3/4"C.

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07/01/22

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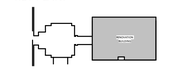
WILMINGTON, NC

SCO ID: 18-19656-02C
LS3P PROJECT: 7202-197980

Δ	DATE	DESCRIPTION
0	2022.07.01	PACKAGE C - BID DOCUMENTS

KEY PLAN:



PROJECT NORTH

SHEET NAME:

ENLARGED RENO POWER PLAN - LEVEL 2 - SOUTHWEST

ORIG SUBMISSION: 2022.07.01
CURRENT: 2022.07.01

PACKAGE C - BID DOCUMENTS

SHEET:

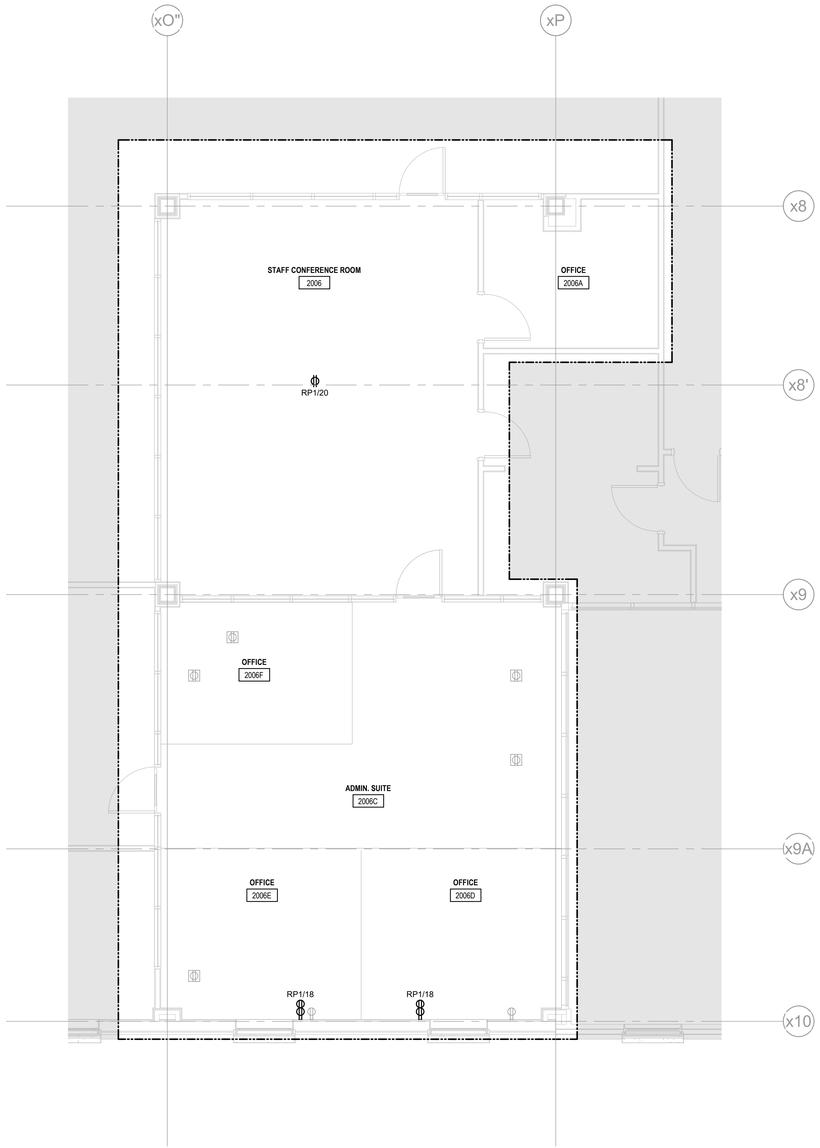
EP321

PACKAGE C - BID DOCUMENTS

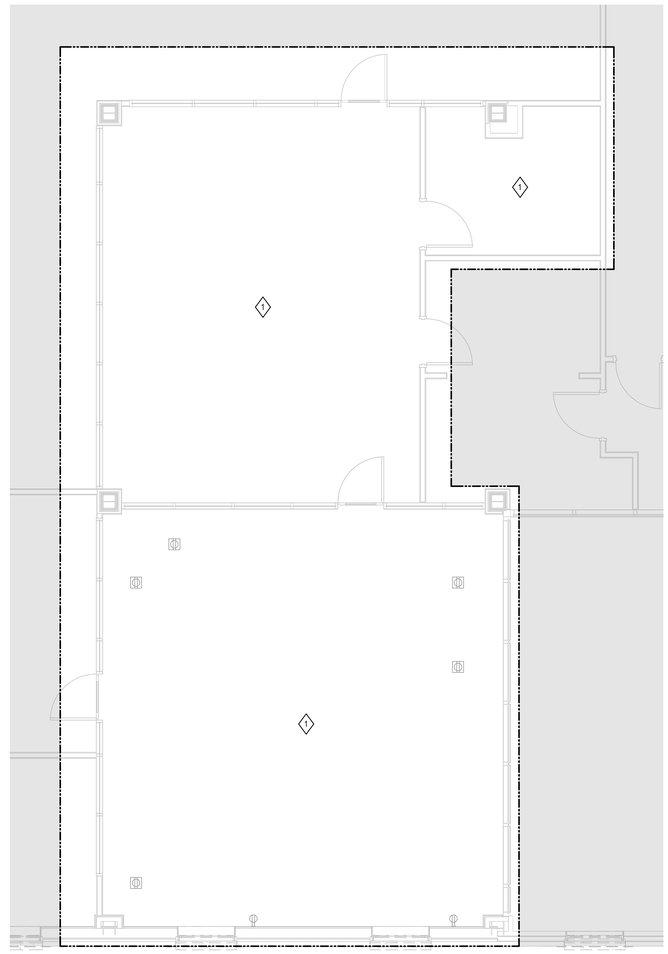
E D C B A

1 2 3 4 5 6

THIS LINE SHOWN ABOVE IS EXACTLY ONE INCH LONG AT THE ORIGINAL DRAWING SIZE



2 **RENOVATION BLDG - POWER PLAN - LEVEL 2 - NEW WORK - SOUTHEAST**
SCALE: 1/4" = 1'-0"



1 **RENOVATION BLDG - POWER PLAN - LEVEL 2 - DEMO WORK - SOUTHEAST**
SCALE: 1/4" = 1'-0"

GENERAL NOTES:

1. ALL ELECTRICAL, LIGHTING, DATA, AND FIRE ALARM DEVICES ARE EXISTING TO REMAIN UNLESS NOTED OTHERWISE.
2. NOT ALL EXISTING DEVICES ARE BEING SHOWN, ONLY THOSE RELEVANT TO THE RENOVATED SCOPE. ALL DEVICES NOT SHOWN ARE EXISTING TO REMAIN.
3. ANY CIRCUIT BREAKERS MADE OBSOLETE BY THIS WORK SHALL BE LABELED AS SPARE AND LEFT IN THE OFF POSITION.
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◇# SHEET KEYNOTES

1. EXISTING RECEPTACLES IN THIS ROOM SHALL REMAIN, UNLESS NOTED OTHERWISE.

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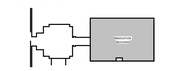
SCO ID: 18-19656-02C
LS3P PROJECT: 7202.197980

Δ	DATE	DESCRIPTION
0	2022.07.01	PACKAGE C - BID DOCUMENTS

KEY PLAN:



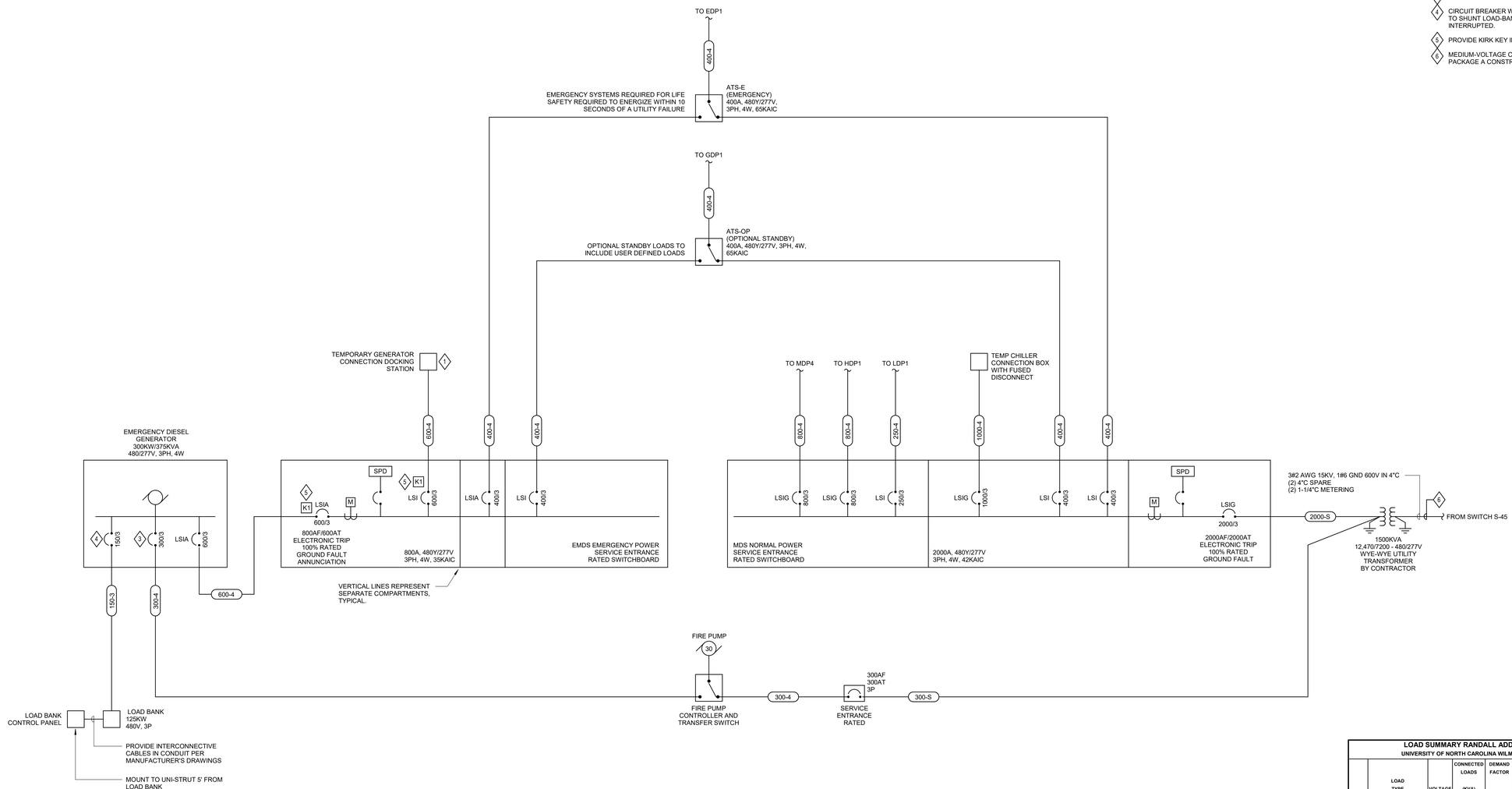
PROJECT NORTH

SHEET NAME:
ENLARGED RENO POWER PLAN - LEVEL 2 - SOUTHEAST

ORIG SUBMISSION: 2022.07.01
CURRENT: 2022.07.01
PACKAGE C - BID DOCUMENTS

SHEET:
EP322
PACKAGE C - BID DOCUMENTS

THIS LINE SHOWN ABOVE IS EXACTLY ONE INCH LONG AT TWENTY SCALE WHEN PLOTTED



GENERAL NOTES:

1. TRANSFORMERS SHALL BE GROUNDED PER NEC AND SPECIFICATIONS.
2. GENERATOR IS REQUIRED TO START AND ENERGIZE TRANSFER SWITCH 'E' WITHIN 10 SECONDS OF A UTILITY POWER FAILURE AND SWITCH 'OP' WITHIN 60 SECONDS.

SHEET KEYNOTES:

1. PROVIDE CAM-STYLE CONNECTORS AND A HINGED BOTTOM COVER FOR TEMPORARY GENERATOR CONNECTION.
2. NOT USED.
3. CIRCUIT BREAKER SHALL BE INSTANTANEOUS-ONLY.
4. CIRCUIT BREAKER WITH SHUNT-TRIP FUNCTIONALITY TO SHUNT LOAD-BANK WHEN UTILITY POWER IS INTERRUPTED.
5. PROVIDE KIRK KEY INTERLOCK.
6. MEDIUM-VOLTAGE CABLE INSTALLED DURING PACKAGE A CONSTRUCTION.

Cu FEEDER SCHEDULE - SEPARATELY DERIVED SYSTEMS

FEEDER TAG	# OF SETS	CURRENT CARRYING CONDUCTORS	GROUND CONDUCTOR	CONDUIT SIZE	FEEDER AMPACITY	GEC	COMMENTS
50-T	1	4 # 6	1 # 8	1"	55	1 # 8	
100-T	1	4 # 1	1 # 6	1-1/2"	130	1 # 6	
150-T	1	4 # 1/0	1 # 4	2"	175	1 # 4	
225-T	1	4 # 4/0	1 # 2	2-1/2"	230	1 # 2	

Cu FEEDER SCHEDULE - 3 WIRE AND GROUND

FEEDER TAG	# OF SETS	CURRENT CARRYING CONDUCTORS	GROUND CONDUCTOR	CONDUIT SIZE	FEEDER AMPACITY	COMMENTS
30 - 3	1	3 # 10	1 # 10	3/4"	30	
80 - 3	1	3 # 3	1 # 8	1-1/4"	85	
90 - 3	1	3 # 2	1 # 8	1-1/4"	95	
150 - 3	1	3 # 1/0	1 # 6	1-1/2"	150	

Cu FEEDER SCHEDULE - SERVICES

FEEDER TAG	# OF SETS	CURRENT CARRYING CONDUCTORS	GROUND CONDUCTOR	CONDUIT SIZE	FEEDER AMPACITY	COMMENTS
300 - S	1	4 # 350 KCMIL	-	3-1/2"	380	
2000 - S	6	4 # 400 KCMIL	-	3"	2010	PROVIDE (2) 4"C & (3) 1-1/4"C SPARES

Cu FEEDER SCHEDULE - 4 WIRE AND GROUND

FEEDER TAG	# OF SETS	CURRENT CARRYING CONDUCTORS	GROUND CONDUCTOR	CONDUIT SIZE	FEEDER AMPACITY	COMMENTS
50 - 4	1	4 # 6	1 # 10	1"	55	
60 - 4	1	4 # 4	1 # 8	1-1/4"	70	
100 - 4	1	4 # 2	1 # 8	1-1/2"	115	
225 - 4	1	4 # 4/0	1 # 4	2-1/2"	230	
250 - 4	1	4 # 250 KCMIL	1 # 4	3"	255	
375 - 4	1	4 # 500 KCMIL	1 # 3	3-1/2"	380	
400 - 4	2	4 # 3/0	1 # 3	2-1/2"	400	
600 - 4	2	4 # 350 KCMIL	1 # 1	3-1/2"	620	
800 - 4	3	4 # 300 KCMIL	1 # 1/0	3"	855	
1000 - 4	3	4 # 400 KCMIL	1 # 2/0	3"	1005	

LOAD SUMMARY RANDALL ADDITION
UNIVERSITY OF NORTH CAROLINA WILMINGTON

LOAD TYPE	VOLTAGE	CONNECTED LOADS (KVA)	DEMAND FACTOR	DEMAND LOADS (KVA)	
LIGHTING	480	62	1.25	77	
MOTORS	480	533	1.25	534	See note 1
HEATING	480	28	1.25	35	
RECEPTACLES	120	239	10+0.5	125	See note 2
MISCELLANEOUS	120	35	1.00	35	
TEMPORARY CHILLER	480	625	1.25	781	
TOTAL		1,521		1,586	
TRANSFORMER		1,500		1,500	
LOADING PERCENTAGE		101%		106%	

Notes:
1. 125% for the largest motors, 100% for all others
2. First 10 KVA at 100% and remaining load at 50%.

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5162 RANDALL DRIVE
WILMINGTON, NC

SCO ID: 18-19656-02C
LS3P PROJECT: 7202.197980

Δ	DATE	DESCRIPTION
0	2022.07.01	PACKAGE C - BID DOCUMENTS

SHEET NAME:
ELECTRICAL ONE-LINE DIAGRAM - EXPANSION - MAIN EQUIPMENT

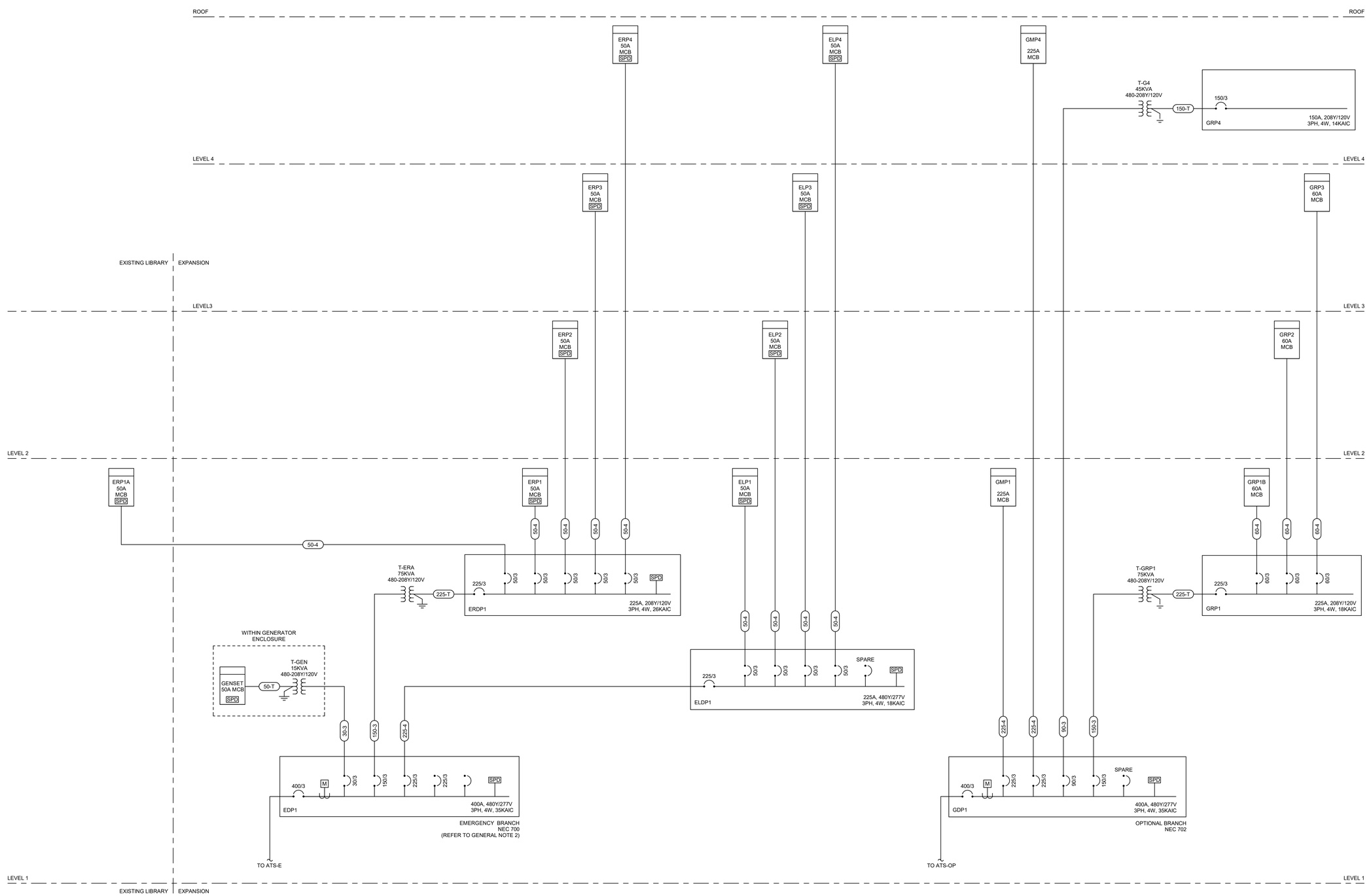
ORIG SUBMISSION: 2022.07.01
CURRENT: 2022.07.01
PACKAGE C - BID DOCUMENTS

SHEET:
E400

PACKAGE C - BID DOCUMENTS

GENERAL NOTES:

1. PROVIDE SURGE PROTECTION DEVICES IN ALL EMERGENCY BRANCH PANELS.
2. PANEL MANUFACTURER TO PROVIDE CIRCUIT BREAKERS THAT SELECTIVELY COORDINATE TO 0.01S FOR THE EMERGENCY BRANCH.



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SCO ID: 18-19656-02C
LS3P PROJECT: 7202-197980

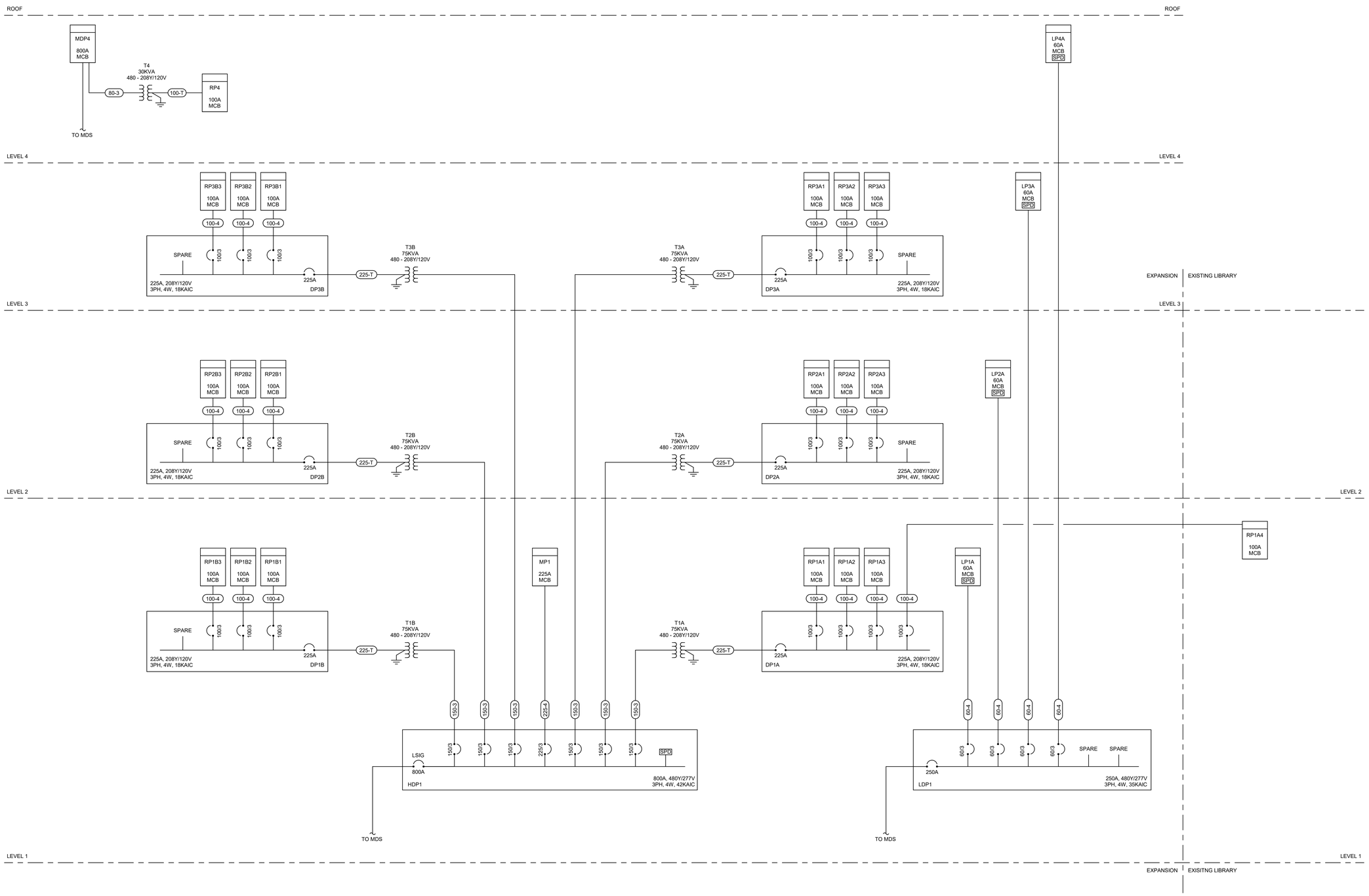
Δ	DATE	DESCRIPTION
0	2022.07.01	PACKAGE C - BID DOCUMENTS

SHEET NAME:
ELECTRICAL ONE-LINE DIAGRAM - EMERGENCY POWER

ORIG SUBMISSION: 2022.07.01
CURRENT: 2022.07.01
PACKAGE C - BID DOCUMENTS

SHEET:
E401

PACKAGE C - BID DOCUMENTS



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SCO ID: 18-19656-02C
LS3P PROJECT: 7202-197980

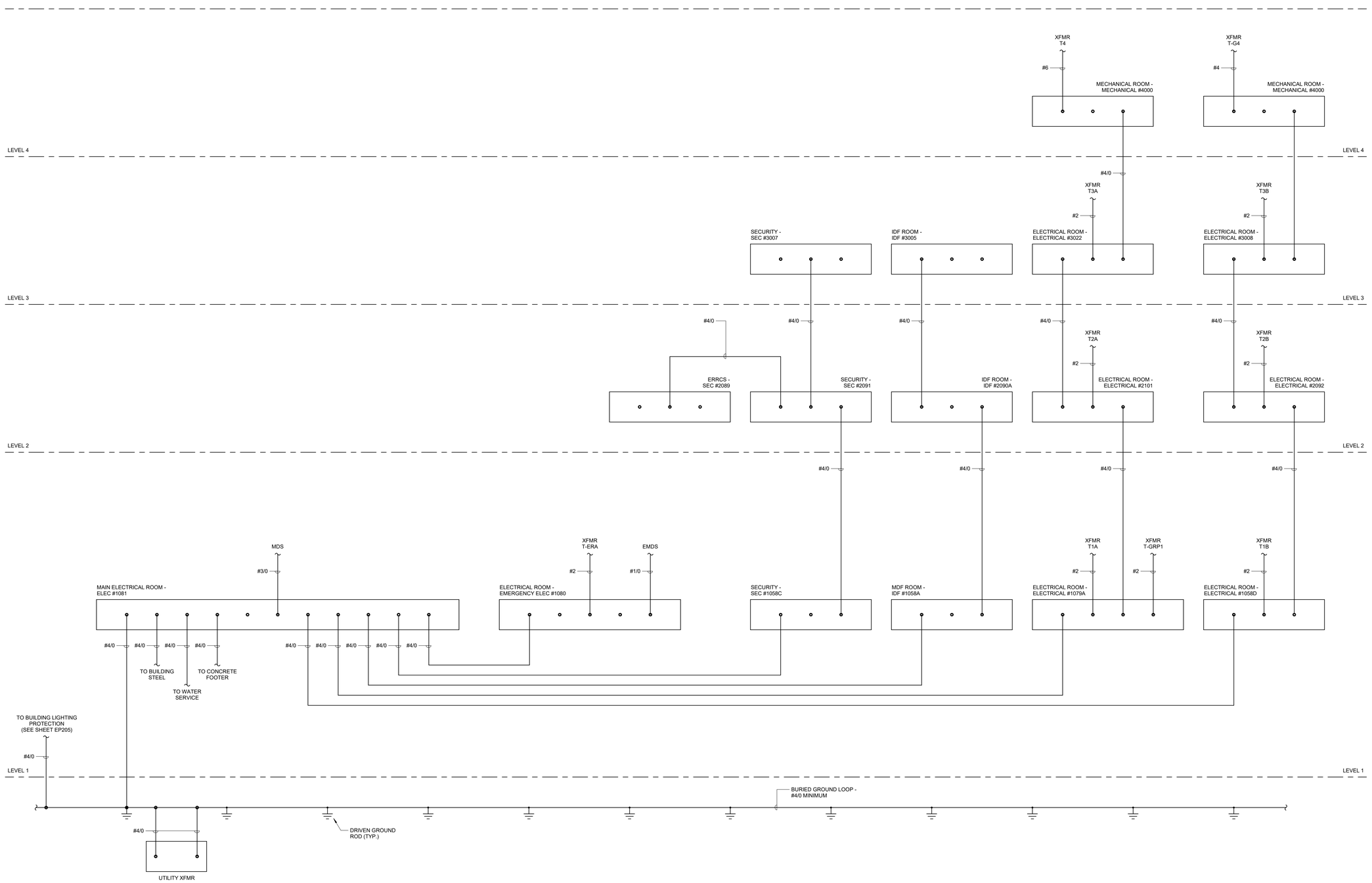
Δ	DATE	DESCRIPTION
0	2022.07.01	PACKAGE C - BID DOCUMENTS

SHEET NAME:
ELECTRICAL ONE-LINE DIAGRAM - NORMAL POWER

ORIG SUBMISSION: 2022.07.01
CURRENT: 2022.07.01
PACKAGE C - BID DOCUMENTS

SHEET:
E402

PACKAGE C - BID DOCUMENTS



THIS LINE SHOWN ABOVE IS EXACTLY ONE INCH LONG AT THE ORIGINAL DRAWING SIZE

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SCO ID: 18-19656-02C
LS3P PROJECT: 7202-197980

Δ	DATE	DESCRIPTION
0	2022.07.01	PACKAGE C - BID DOCUMENTS

SHEET NAME:
GROUNDING RISER DIAGRAM

ORIG SUBMISSION: 2022.07.01
CURRENT: 2022.07.01
PACKAGE C - BID DOCUMENTS

SHEET:
E405

PACKAGE C - BID DOCUMENTS

THIS LINE SHOWN ABOVE IS EXACTLY ONE INCH LONG AT TIME OF ORIGINAL PLOT

SEQUENCING NOTES:

PREPARATION WORK

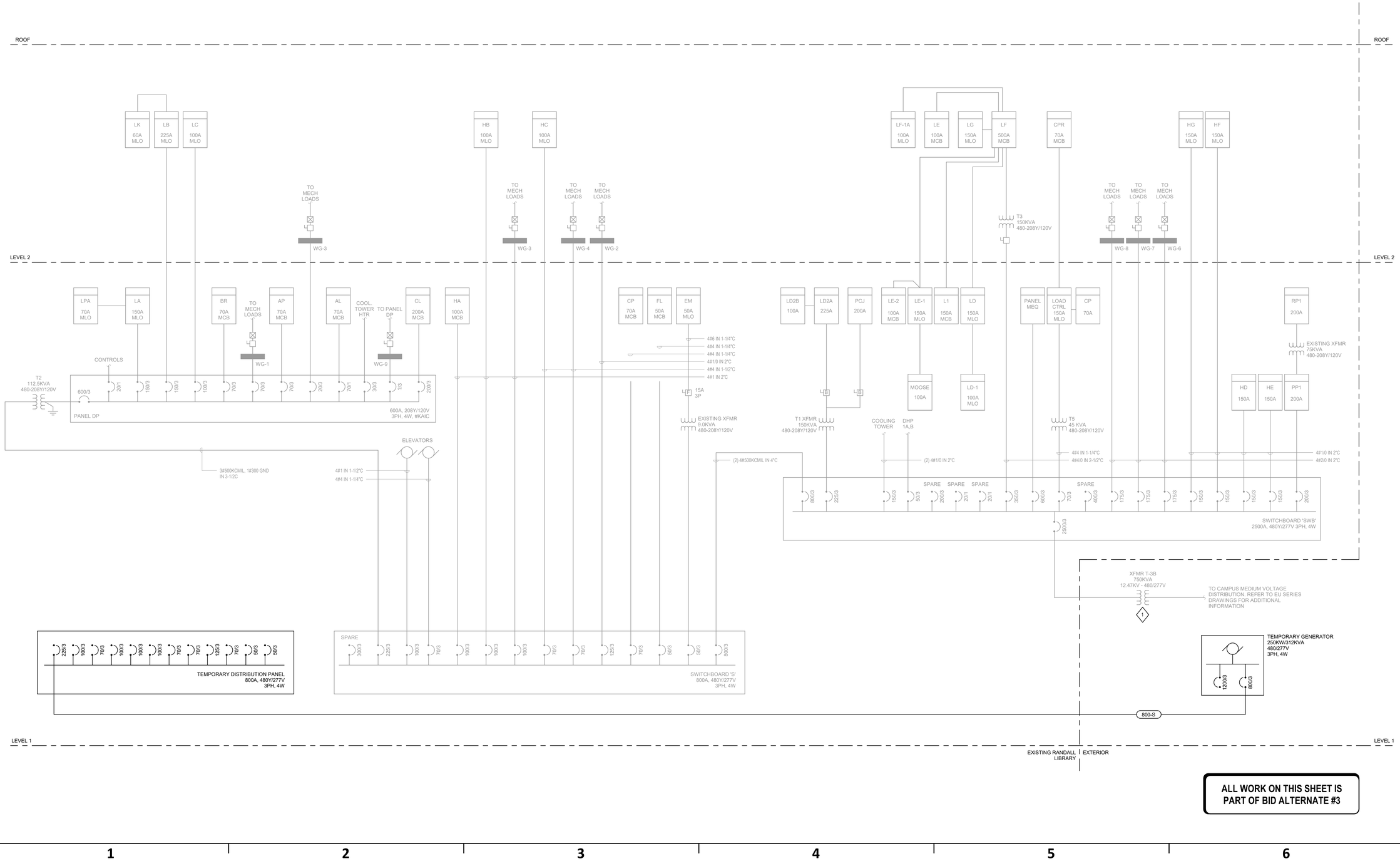
1. PERFORM 30-DAY METER READING FOR PEAK-LOAD ON EXISTING SWITCHBOARD 'SWB'.
2. VERIFY EXISTING CONDUCTOR AND CIRCUIT BREAKER SIZES.
3. INSTALL TEMPORARY DISTRIBUTION PANEL IN THE EXISTING ELECTRICAL ROOM.
4. INSTALL THE TEMPORARY GENERATOR AND RUN TEMPORARY CABLES TO THE TEMPORARY DISTRIBUTION PANEL.

SHEET KEYNOTES

1. EXISTING 1500KVA TRANSFORMER TO BE REPLACED WITH 750KVA PRIOR TO SERVICE ENTRANCE EQUIPMENT UPGRADE. REFER TO PACKAGE A, EU SERIES DRAWINGS FOR ADDITIONAL INFORMATION.

GENERAL NOTES:

1. ALL EQUIPMENT IS EXISTING TO REMAIN UNLESS NOTED OTHERWISE.
2. EXISTING WORK IS SHOWN IN GRAY.
3. DEMO WORK IS SHOWN IN BOLD, DASHED LINEWORK.
4. NEW WORK IS SHOWN IN BOLD, SOLID LINEWORK



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07/01/22

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WILMINGTON, NC

SCO ID: 18-19656-02C
LS3P PROJECT: 7202-197980

Δ	DATE	DESCRIPTION
0	2022.07.01	PACKAGE C - BID DOCUMENTS

SHEET NAME:

ELECTRICAL ONE-LINE DIAGRAM - EXISTING LIBRARY - EXISTING

ORIG SUBMISSION: 2022.07.01
CURRENT: 2022.07.01
PACKAGE C - BID DOCUMENTS

SHEET:

E410

PACKAGE C - BID DOCUMENTS

THIS LINE SHOWN ABOVE IS EXACTLY ONE INCH LONG AT TIME OF ORIGINAL PLOT

SEQUENCING NOTES:

PHASE 1:

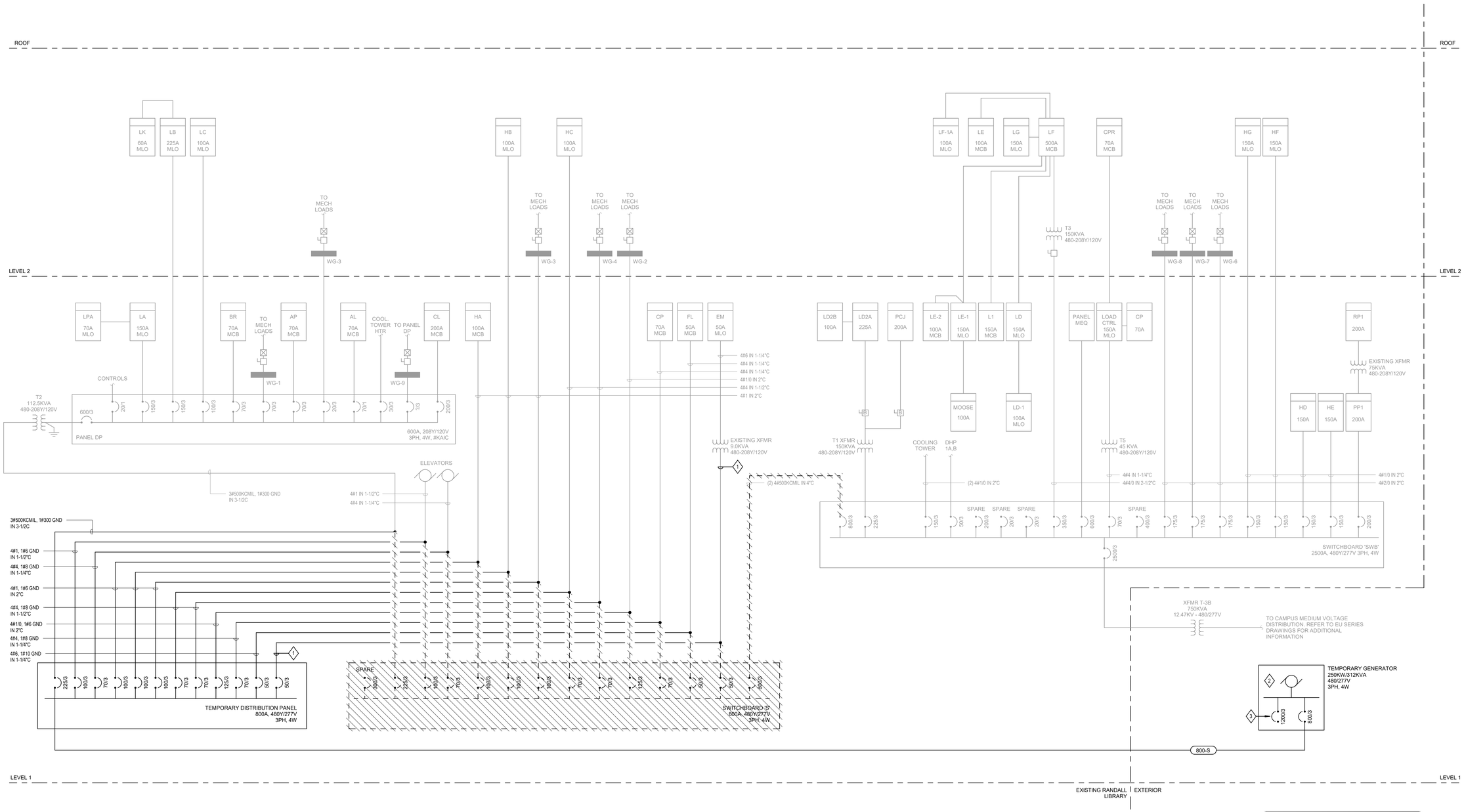
1. SCHEDULE OUTAGE FOR LOADS SERVED BY EXISTING SWITCHBOARD 'S'. COORDINATE WITH THE UNIVERSITY FOR A WEEKEND OR TIME WHEN CLASSES ARE NOT IN SESSION.
2. INSTALL ALL CIRCUIT BREAKERS AND FEEDERS OUT OF THE TEMPORARY DISTRIBUTION PANEL PRIOR TO ENERGIZING.
3. DEENERGIZE EXISTING SWITCHBOARD 'S'.
4. CUT OVER EXISTING CIRCUITS FROM EXISTING SWITCHBOARD 'S' TO THE TEMPORARY DISTRIBUTION PANEL.
5. ENERGIZE THE TEMPORARY DISTRIBUTION PANEL.
6. CONFIRM POWER HAS BEEN RESTORED TO THE LOADS IMPACTED BY THE OUTAGE.

 # SHEET KEYNOTES

1. EXISTING WIRE SIZE NOT KNOWN. VERIFY EXISTING SIZE IN FIELD AND PROVIDE NEW CONDUCTORS TO MATCH.
2. PROVIDE GENERATOR FOR TEMPORARY POWER TO EXISTING BUILDING LOADS DURING CONSTRUCTION. METER EXISTING SWITCHBOARD 'SWB' FOR 30 DAYS TO CONFIRM PEAK LOAD IS LESS THAN GENERATOR CAPACITY.
3. CIRCUIT BREAKER SHALL BE FULLY-RATED.

GENERAL NOTES:

1. ALL EQUIPMENT IS EXISTING TO REMAIN UNLESS NOTED OTHERWISE.
2. EXISTING WORK IS SHOWN IN GRAY.
3. DEMO WORK IS SHOWN IN BOLD, DASHED LINEWORK.
4. NEW WORK IS SHOWN IN BOLD, SOLID LINEWORK.
5. CONTRACT DOCUMENTS ARE ARE BASED ON AS-BUILT DRAWINGS AND FIELD SURVEYS. VERIFY ALL EXISTING CONDITIONS AND NOTIFY DESIGNER OF ANY DISCREPANCIES PRIOR TO COMMENCING WORK.



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SCO ID: 18-19656-02C
LS3P PROJECT: 7202.197980

Δ	DATE	DESCRIPTION
0	2022.07.01	PACKAGE C - BID DOCUMENTS

SHEET NAME:

ELECTRICAL ONE-LINE DIAGRAM - EXISTING BUILDING - PHASE 1

ORIG SUBMISSION: 2022.07.01
CURRENT: 2022.07.01

PACKAGE C - BID DOCUMENTS

SHEET:

E411

PACKAGE C - BID DOCUMENTS

THIS LINE SHOWN ABOVE IS EXACTLY ONE INCH LONG AT TWENTY SCALE WHEN PLOTTED

PHASE 2 (CONT'D.)

8. INSTALL ALL CIRCUIT BREAKERS AND FEEDERS OUT OF NEW SWITCHBOARD 'MSWB' PRIOR TO ENERGIZING.
9. ENERGIZE NEW SWITCHBOARD 'MSWB'.
   A. CLOSE WAY #4 OF OF MEDIUM-VOLTAGE SWITCH S-3N TO DEENERGIZE T-3B AND 'MSWB'
10. CUT OVER CIRCUITS FROM EXISTING SWITCHBOARD 'SWB' TO NEW SWITCHBOARD 'MSWB'.
    A. CLOSE CORRESPONDING CIRCUIT BREAKER ON 'MSWB' ONCE THE LOAD HAS BEEN CONNECTED AND CONFIRM POWER HAS BEEN RESTORED TO THAT LOAD.
11. CUT OVER CIRCUITS FROM THE TEMPORARY DISTRIBUTION PANEL TO NEW SWITCHBOARD 'MSWB'.
    A. CLOSE CORRESPONDING CIRCUIT BREAKER ON 'MSWB' ONCE THE LOAD HAS BEEN CONNECTED AND CONFIRM POWER HAS BEEN RESTORED TO THAT LOAD.
12. ONCE ALL LOADS HAVE BEEN TRANSFERED TO NEW SWITCHBOARD 'MSWB', DEMOLISH EXISTING SWITCHBOARD 'SWB', THE TEMPORARY DISTRIBUTION PANEL, THE TEMPORARY GENERATOR, AND THE TEMPORARY CONDUCTORS.

SEQUENCING NOTES:

PHASE 2:

1. INSTALL NEW SWITCHBOARD 'MSWB'.
2. SCHEDULE OUTAGE FOR LOADS SERVED BY EXISTING SWITCHBOARD 'SWB'. COORDINATE WITH THE UNIVERSITY FOR A WEEKEND OR TIME WHEN CLASSES ARE NOT IN SESSION.
3. DEENERGIZE EXISTING SWITCHBOARD 'SWB'. AND DEMOLISH SERVICE CONDUCTORS FROM TRANSFORMER 'T-3B'.
   A. OPEN WAY #4 OF MEDIUM-VOLTAGE SWITCH S-3N TO DEENERGIZE T-3B. REFER TO SHEET #EU402 IN PACKAGE A FOR ADDITIONAL INFORMATION.
4. CONNECT TEMPORARY CABLES FROM TEMPORARY GENERATOR TO EXISTING SWITCHBOARD 'SWB' MAIN BUS.
5. REENERGIZE EXISTING SWITCHBOARD 'SWB'.
6. REWORK EXISTING INCOMING SERVICE CONDUITS AS REQUIRED TO ENTER INTO THE TOP OF NEW SWITCHBOARD 'MSWB'.
7. PULL NEW SERVICE ENTRANCE CONDUCTORS INTO NEW SWITCHBOARD 'MSWB' FROM TRANSFORMER T-3B.

SHEET KEYNOTES

1. EXISTING WIRE SIZE NOT KNOWN. VERIFY EXISTING SIZE IN FIELD AND PROVIDE NEW CONDUCTORS TO MATCH.
2. PROVIDE GENERATOR FOR TEMPORARY POWER TO EXISTING BUILDING LOADS DURING CONSTRUCTION. METER EXISTING SWITCHBOARD 'SWB' FOR 30 DAYS TO CONFIRM PEAK LOAD IS LESS THAN GENERATOR CAPACITY.
3. CIRCUIT BREAKER SHALL BE FULLY-RATED.

GENERAL NOTES:

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2. EXISTING WORK IS SHOWN IN GRAY.
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4. NEW WORK IS SHOWN IN BOLD, SOLID LINEWORK.
5. CONTRACT DOCUMENTS ARE ARE BASED ON AS-BUILT DRAWINGS AND FIELD SURVEYS. VERIFY ALL EXISTING CONDITIONS AND NOTIFY DESIGNER OF ANY DISCREPANCIES PRIOR TO COMMENCING WORK.

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SCO ID: 18-19656-02C
LS3P PROJECT: 7202.197980

Δ	DATE	DESCRIPTION
0	2022.07.01	PACKAGE C - BID DOCUMENTS

SHEET NAME:

ELECTRICAL ONE-LINE DIAGRAM - EXISTING BUILDING - PHASE 2

ORIG SUBMISSION: 2022.07.01
CURRENT: 2022.07.01

PACKAGE C - BID DOCUMENTS

SHEET:

E412

PACKAGE C - BID DOCUMENTS

THIS LINE SHOWN ABOVE IS EXACTLY ONE INCH LONG AT TIME OF ORIGINAL PLOT

LOAD SUMMARY EXISTING RANDALL
UNIVERSITY OF NORTH CAROLINA WILMINGTON

	BRANCH	LOCATION	VOLTAGE	PEAK METERED LOADS (KVA)	DEMAND FACTOR	DEMAND LOADS (KVA)	ADDITIONAL CAPACITY 20%
	SWITCHBOARD SWB	MAIN ELECTRICAL	480	375	1.25	469	563
TOTAL				375		469	563
SIZE OF NEW TRANSFORMER				750		750	750
LOADING PERCENTAGE				50%		63%	75%

NOTES:
1. DATA FROM FLUKE POWER LOG 430 UNLESS OTHERWISE NOTED FOR BB. MAXIMUM AVERAGE APPARENT POWER READING.

SHEET KEYNOTES

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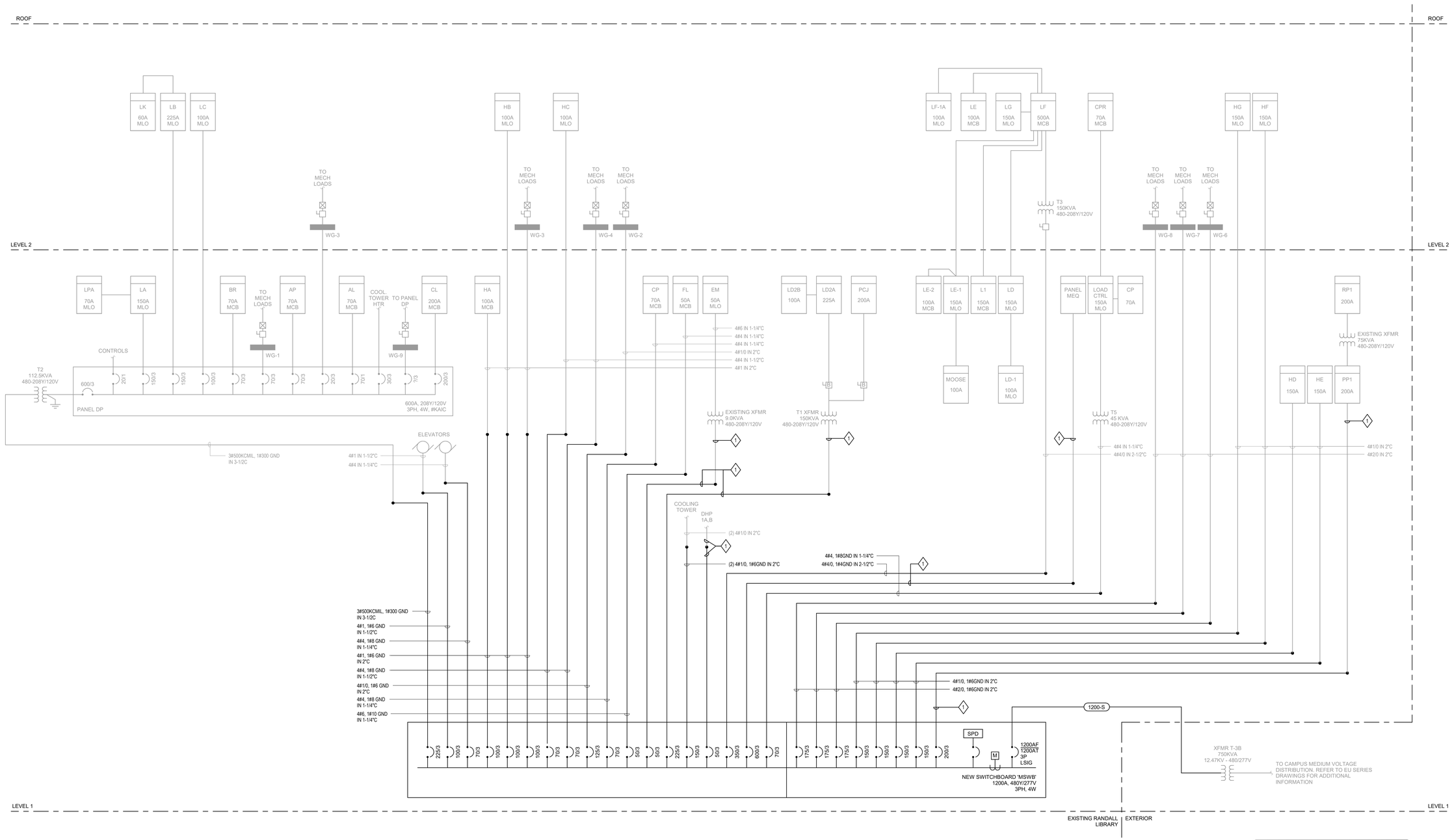

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SCO ID: 18-19656-02C
LS3P PROJECT: 7202-197980

Δ	DATE	DESCRIPTION
0	2022.07.01	PACKAGE C - BID DOCUMENTS

SHEET NAME:
ELECTRICAL ONE-LINE DIAGRAM - EXISTING BUILDING - FINAL

ORIG SUBMISSION: 2022.07.01
CURRENT: 2022.07.01
PACKAGE C - BID DOCUMENTS

SHEET:
E413

PACKAGE C - BID DOCUMENTS

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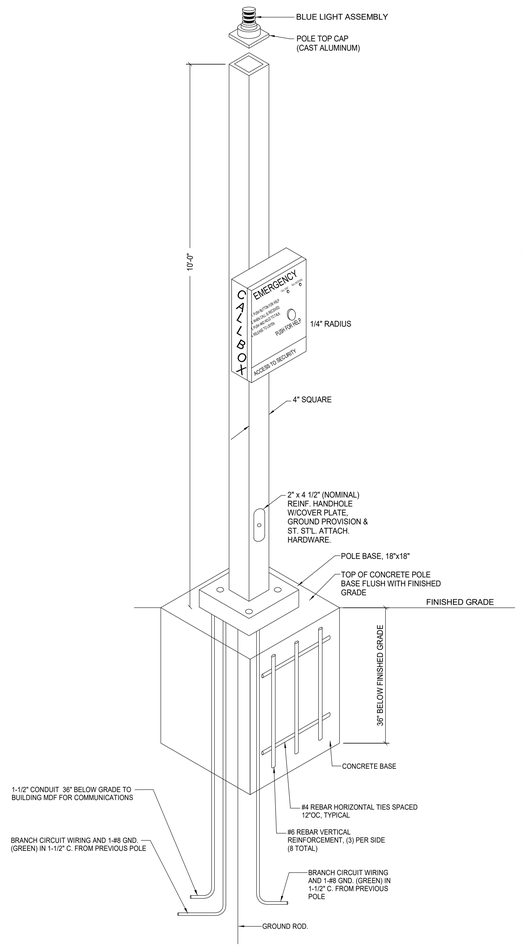
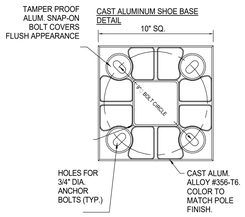


6 EMERGENCY CALL BOX

SCALE: 12" = 1'-0"



NOTE:
ALL HARDWARE - 18-8 STAINLESS STEEL

ANCHORAGE: 3#4" DIA. X 18" LONG ANCHOR BOLTS WITH 3" HOOK AND 3" THREAD. MATERIAL PER ASTM F1554GR55/A576, TOP 8" THREADED PORTION GALVANIZED PER ASTM A-153, WITH LWS, FWS AND NUTS ALL GALV.

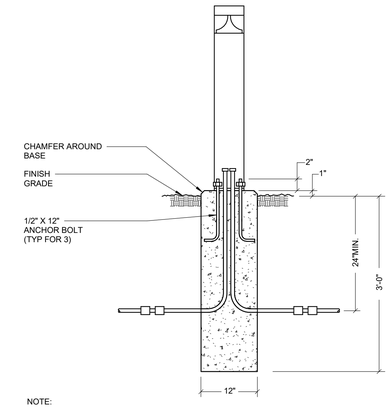
SQUARE ALUMINUM NON-TAPERED POLE
CATALOG #C24-14A-S410-SSU-TS

SHAFT: SHALL BE MANUFACTURED FROM ALUMINUM ALLOY 6063-T6 WITH AN OVERALL HEIGHT OF 10'-0", A WALL THICKNESS OF 0.125", AND IT SHALL BE 4" SQUARE.

BASE: MANUFACTURED FROM 356-T6 ALUMINUM ALLOY. IT SHALL BE 10" SQUARE AND HAVE A 9"□ BOLT CIRCLE DIAMETER WITH TAMPER PROOF BOLT COVERS.

FINISH: POLE ASSEMBLY AND ALL CORRESPONDING ACCESORIES TO RECIEVE A POWDER COAT FINISH. S.W. UHS8-9023 "SMOOTH OYSTER" 80% GLOSS.

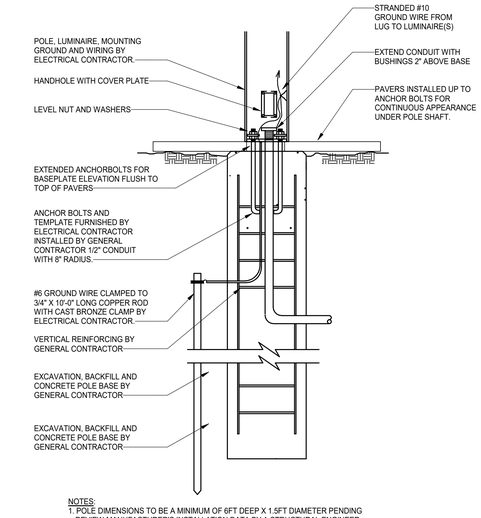
BASIS OF DESIGN: CALL24 Wireless Callbox System, Winston Salem, NC 27107 800-441-9191 fax 336-650-1124
CALL24 Wireless Callbox System, Winston Salem, NC 27107 800-441-9191 fax 336-650-1124



NOTE:
(1) TO BE REVIEWED BY THE STRUCTURAL AND CIVIL ENGINEER

4 BOLLARD BASE DETAIL - TYPE B2

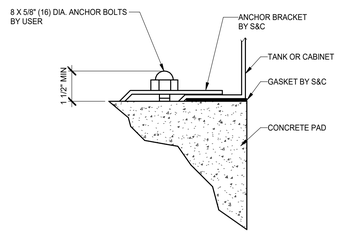
SCALE: 1/2" = 1'-0"



NOTES:
1. POLE DIMENSIONS TO BE A MINIMUM OF 6FT DEEP X 1.5FT DIAMETER PENDING REVIEW MANUFACTURER'S INSTALLATION DATA BY A STRUCTURAL ENGINEER REGISTERED IN THE STATE OF NORTH CAROLINA.
2. EXTEND CONTROL WIRE FROM LIGHT HEAD TO HANDHOLE FOR DIMMING CONTROL CONNECTIONS.

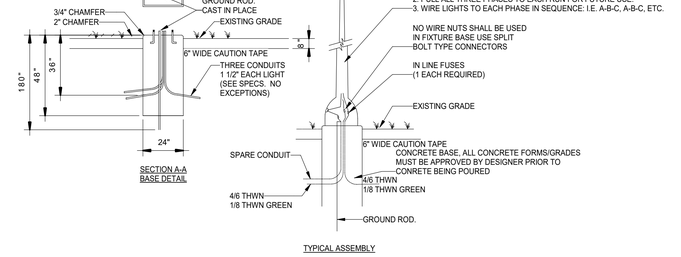
1 LIGHT COLUMN POLE BASE DETAIL - TYPE B1

SCALE: 12" = 1'-0"



5 ANCHOR BOLT DETAIL

SCALE: 12" = 1'-0"

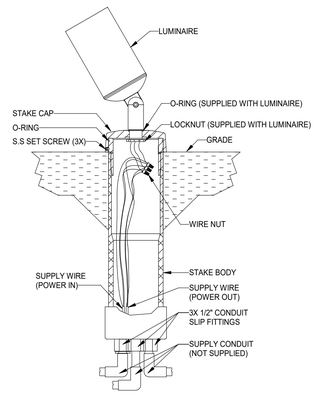


LUMINARIES:
1. LUMINARIES SHALL CONFORM TO EXISTING FIXTURES LED LANTERN STYLE POST TOP FIXTURE, U.L. LISTED 60W, 6000 LUMEN, FROSTED GLASS, 120-277V, COLOR: BLACK COLOR TEMP:5000K, LIGHT DISTRIBUTION: TYPE V
MANUFACTURER: YAORONG
MODEL: YR-TP300-W060
CURRENT VENDOR: GREENLIGHTS, CARY N.C., TEL:919-766-8900

STANDARD POLE:
1. STANDARDS SHALL BE 14 FEET IN LENGTH U.L. LISTED, COMBINATION TRANSFORMER BASE & TAPERED ALUMINUM POLE, COLOR BLACK
2. PULL ALL THREE PHASES TO EACH RUN FOR FUTURE USE.
3. WIRE LIGHTS TO EACH PHASE IN SEQUENCE: I.E. A-B-C, A-B-C, ETC.

2 UNCW STD LIGHT POLE INSTALLATION DETAIL - TYPE B5

SCALE: 12" = 1'-0"



3 LANDSCAPE LUMINAIRE INSTALLATION DETAIL - TYPE B3

SCALE: 12" = 1'-0"

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SCO ID: 18-19656-02C
LS3P PROJECT: 7202-197980

Δ	DATE	DESCRIPTION
0	2022.07.01	PACKAGE C - BID DOCUMENTS

SHEET NAME:
ELECTRICAL DETAILS

ORIG SUBMISSION: 2022.07.01
CURRENT: 2022.07.01
PACKAGE C - BID DOCUMENTS

SHEET:
E500
PACKAGE C - BID DOCUMENTS

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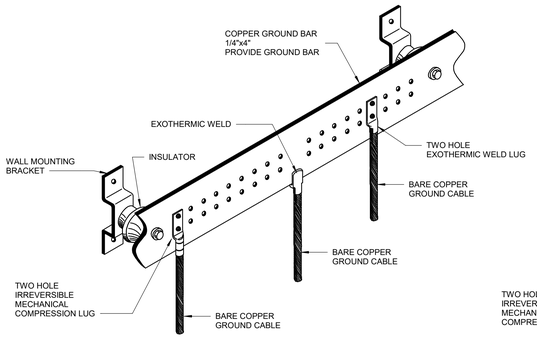
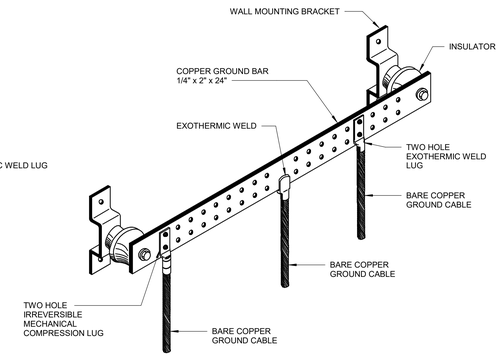


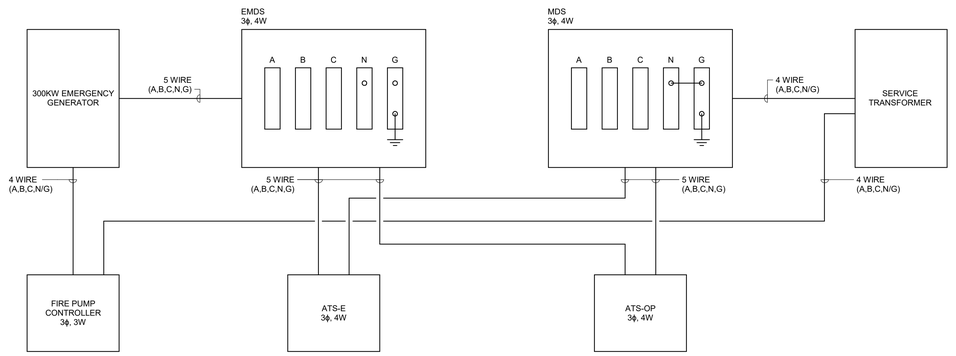
MAIN ELECTRICAL ROOM



ELECTRICAL ROOM

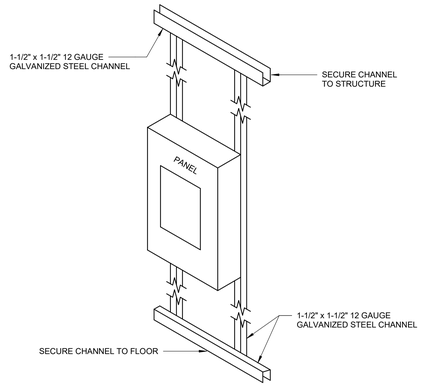
6 GROUNDING BAR-CABLE

SCALE: 1/2" = 1'-0"



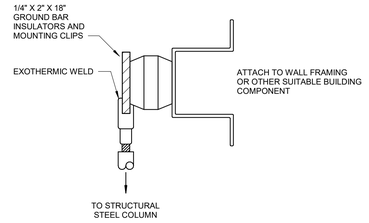
1 GENERATOR ATS WIRING DETAIL

SCALE: NOT TO SCALE



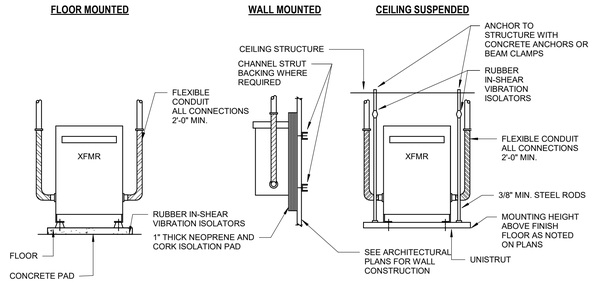
8 PANELBOARD MOUNTING DETAIL

SCALE: 1/2" = 1'-0"



4 SINGLE POINT GROUND BAR MOUNTING

SCALE: 1/2" = 1'-0"



NOTES:

(1) TRANSFORMERS UP TO AND INCLUDING 15 kVA SHALL BE WALL MOUNTED. TRANSFORMERS ABOVE 15 kVA SHALL BE FLOOR MOUNTED OR SUSPENDED FROM CEILING STRUCTURE. TRANSFORMERS ABOVE 75 kVA SHALL BE FLOOR MOUNTED.

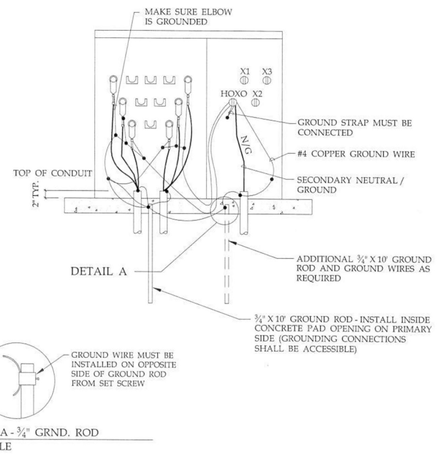
(2) PROVIDE 36" CLEARANCE IN FRONT OF TRANSFORMER.

2 DRY TYPE TRANSFORMER MOUNTING AND CONNECTION DETAIL

SCALE: 1/2" = 1'-0"

NOTES:

1. THE PRIMARY NEUTRAL CONDUCTOR MUST BE BONDED CONTINUOUSLY TO THE PRIMARY CONDUIT (IF METALLIC), THE GROUND ROD, THE TRANSFORMER TANK GROUND PAD IN THE PRIMARY COMPARTMENT, AND THE HO/XO NEUTRAL BUSHING. THIS STEP SHALL BE REPEATED IF LOOP FEED TRANSFORMER.
2. THE STRESS CONES AND THE PRIMARY CABLE SHIELD MUST BE GROUNDED TO THE NEUTRAL CONDUCTOR. THIS STEP SHALL BE REPEATED IF LOOP FEED TRANSFORMER.
3. A #4 COPPER GROUND WIRE IS TO BE BONDED TO THE HO/XO BUSHING, TO THE GROUND PAD IN THE SECONDARY COMPARTMENT, TO THE SECONDARY CONDUIT (IF METALLIC), AND TO THE GROUND ROD.
4. GROUND STRAP MUST CONNECT THE HO/XO BUSHING TO THE TRANSFORMER TANK.
5. A SUITABLE FLEXIBLE #6 COPPER ARRESTER LEAD SHALL BE INSTALLED FROM EACH ARRESTER DIRECTLY TO THE GROUND ROD (NOT SHOWN).
6. THE PRIMARY & SECONDARY CONDUITS SHALL EXTEND TWO INCHES ABOVE THE CONCRETE PAD.
7. IF THE RESISTANCE OF THE GROUND ROD EXCEEDS 25 OHMS, INSTALL AN ADDITIONAL GROUND ROD AT LEAST 10' AWAY. INTER-CONNECT THE TWO USING #4 COPPER GROUND WIRE.
8. COMPLETE INSTALLATION MUST BE IN COMPLIANCE WITH THE NATIONAL ELECTRICAL SAFETY CODE, ANSI C2.



DETAIL A - ¾" GRND. ROD CLAMP
NO SCALE

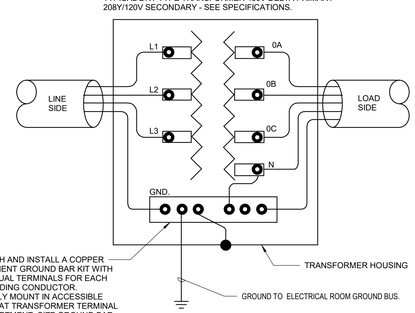
TYPICAL GROUNDING DETAILS FOR THREE PHASE TRANSFORMERS

REVISIONS:	DRAWN BY: / CHKD:	DATE:	NORTH CAROLINA DEPARTMENT OF ADMINISTRATION STATE CONSTRUCTION OFFICE 301 N. WILMINGTON STREET, SUITE 450 RALEIGH, N.C. 27601-2827	PROJECT NO.:	SHEET NO.: E-7

5 SCO DETAIL E7

SCALE: NOT TO SCALE

TYPICAL DRY TYPE TRANSFORMER 480V DELTA PRIMARY
208Y/120V SECONDARY - SEE SPECIFICATIONS.



3 TYPICAL DRY TYPE TRANSFORMER GROUNDING

SCALE: 1/2" = 1'-0"

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NC LIC. NO. C-2982

NORTH CAROLINA PROFESSIONAL SEAL 023265 ENGINEER WILLIAM D. HENNEN
07/01/22

RANDALL LIBRARY RENOVATION & EXPANSION

UNCW
5162 RANDALL DRIVE
WILMINGTON, NC

SCO ID: 18-19656-02C
LS3P PROJECT: 7202-197980

Δ	DATE	DESCRIPTION
0	2022.07.01	PACKAGE C - BID DOCUMENTS

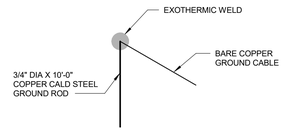
SHEET NAME:
ELECTRICAL DETAILS

ORIG SUBMISSION: 2022.07.01
CURRENT: 2022.07.01
PACKAGE C - BID DOCUMENTS

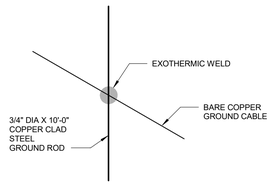
SHEET:
E501

PACKAGE C - BID DOCUMENTS

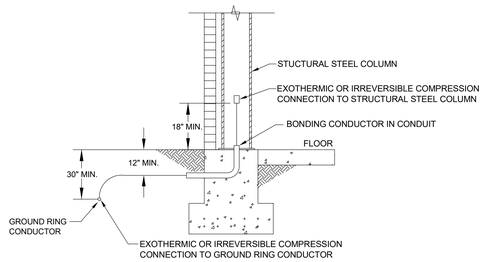
THIS LINE SHOWN ABOVE IS EXACTLY ONE INCH LONG AT TIMES NEW ROMAN FONT SIZE



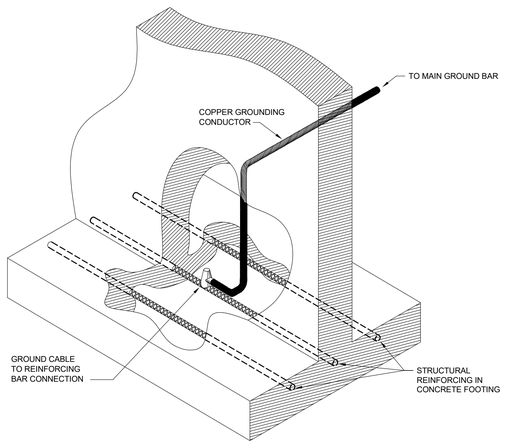
11 GROUND CABLE TO GROUND ROD CONNECTION
SCALE: NOT TO SCALE



12 GROUND ROD TEE CONNECTION
SCALE: NOT TO SCALE

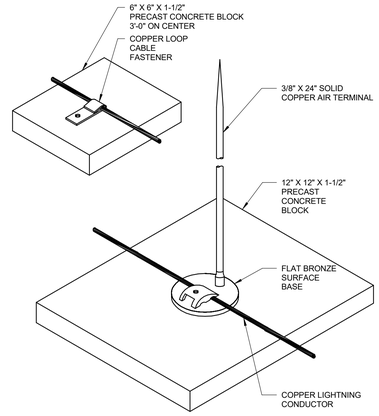


13 BUILDING STEEL TO EXTERIOR GROUND LOOP CONNECTION
SCALE: NOT TO SCALE



NOTE: REFER TO STRUCTURAL DRAWINGS FOR DESIGNED PROJECT CONDITIONS.

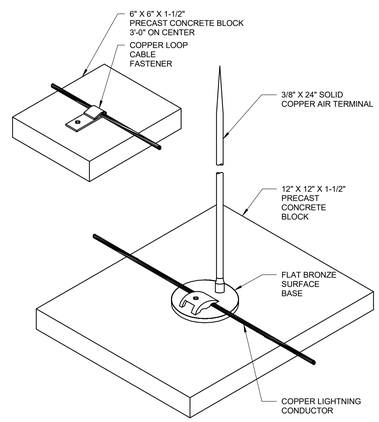
14 CONCRETE ENCASED GROUNDING ELECTRODE DETAIL
SCALE: NOT TO SCALE



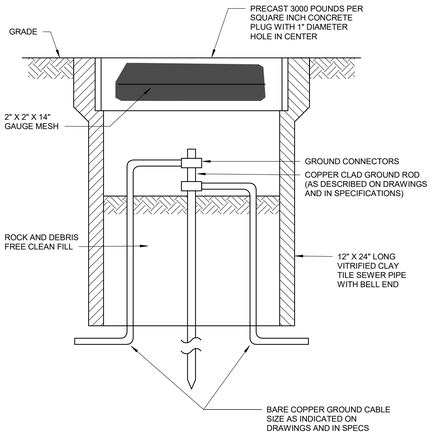
8 LIGHTNING PROTECTION CENTER ROOF AIR TERMINAL
SCALE: NOT TO SCALE

LIGHTNING PROTECTION

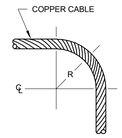
9 LIGHTNING PROTECTION ROOF EXHAUST MTD AIR TERMINAL
SCALE: NOT TO SCALE



10 LIGHTNING PROTECTION CENTER ROOF AIR TERMINAL
SCALE: NOT TO SCALE

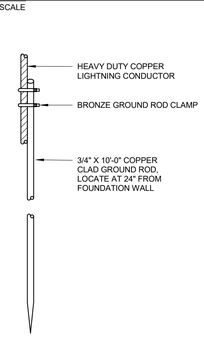


4 TEST GROUND WELL DETAIL
SCALE: NOT TO SCALE

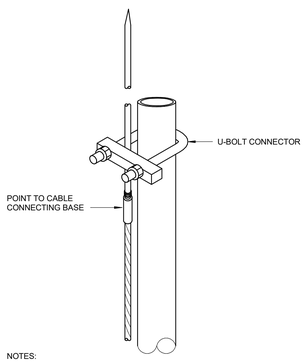


NOTES:
(1) THE RADIUS OF BEND SHALL NOT BE LESS THAN 8 INCHES.
(2) THE ANGLE OF ANY BEND SHALL NOT BE LESS THAN 90°.

5 LIGHTNING PROTECTION CONDUCTOR BENDS
SCALE: NOT TO SCALE



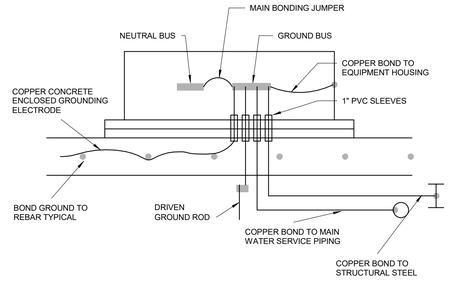
6 LIGHTNING PROTECTION GROUND ROD
SCALE: NOT TO SCALE



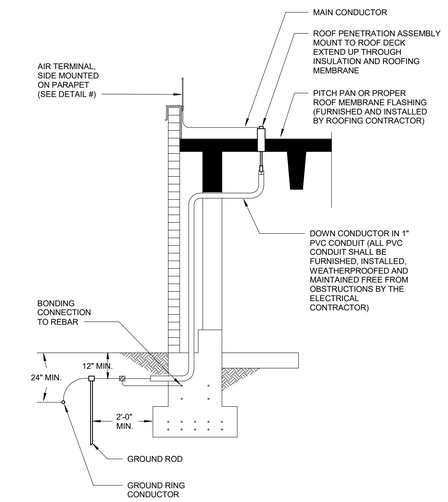
NOTES:
(1) OAIR TERMINALS REQUIRED FOR CHIMNEYS AND VENTS WITH METAL THICKNESS LESS THAN 3/16 INCH.
(2) BONDING IS REQUIRED REGARDLESS.

LIGHTNING PROTECTION

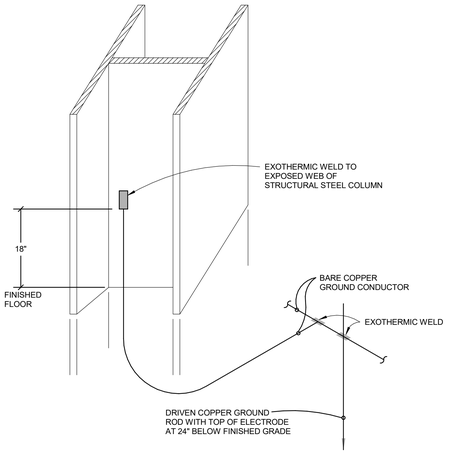
7 LIGHTNING PROTECTION AIR TERMINAL FOR PLUMBING VENT
SCALE: NOT TO SCALE



1 TYPICAL GROUND DETAIL
SCALE: NOT TO SCALE



2 LIGHTNING PROTECTION DOWNLEAD DETAIL
SCALE: NOT TO SCALE



3 BUILDING STEEL TO EXTERIOR GROUND LOOP CONNECTION
SCALE: NOT TO SCALE

UNCW
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www.aeieng.com
NC LIC. NO. C-2982

NORTH CAROLINA PROFESSIONAL SEAL 023265 ENGINEER WILLIAM D. HENNEN
07/01/22

RANDALL LIBRARY RENOVATION & EXPANSION
UNCW
5162 RANDALL DRIVE
WILMINGTON, NC

SCO ID: 18-19656-02C
LS3P PROJECT: 7202-197980

Δ	DATE	DESCRIPTION
0	2022.07.01	PACKAGE C - BID DOCUMENTS

SHEET NAME:
ELECTRICAL DETAILS

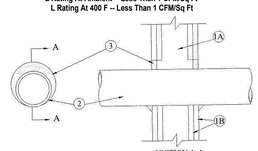
ORIG SUBMISSION: 2022.07.01
CURRENT: 2022.07.01
PACKAGE C - BID DOCUMENTS

SHEET:
E502
PACKAGE C - BID DOCUMENTS

THIS LINE SHOWN ABOVE IS EXACTLY ONE INCH LONG AT THE ORIGINAL DRAWING SIZE

System No. W-L-1054

October 14, 2015
F Ratings – 1 and 2 Hr (See Items 1 and 3)
T Rating – 0 Hr
L Rating At Ambient – Less Than 1 CFM/Sq Ft
L Rating At 400 F – Less Than 1 CFM/Sq Ft



SECTION A-A

1. **Wall Assembly —** The 1 or 2 hr fire-rated gypsum wallboard/stud wall assembly shall be constructed of the materials and in the manner specified in the individual U300 or U400 Series Wall and Partition Designs in the UL Fire Resistance Directory and shall include the following construction features:

A. **Studs —** Wall framing may consist of either wood studs or steel channel studs. Wood studs to consist of nom 2 by 4 in. (51 by 102 mm) lumber spaced 16 in. (406 mm) OC. Steel studs to be min 2-1/2 in. (64 mm) wide and spaced max 24 in. (610 mm) OC. When steel studs are used and the diam of opening exceeds the width of stud cavity, the opening shall be framed on all sides using lengths of steel stud installed between the vertical studs and screw-attached to the steel studs at each end. The framed opening in the wall shall be 4 to 6 in. (102 to 152 mm) wider and 4 to 6 in. (102 to 152 mm) higher than the diam of the penetrating item such that, when the penetrating item is installed in the opening, a 2 to 3 in. (51 to 76 mm) clearance is present between the penetrating item and the framing on all four sides.

B. **Gypsum Board* —** 5/8 in. (16 mm) thick, 4 ft (122 cm) wide with square or tapered edges. The gypsum board type, thickness, number of layers, fastener type and sheet orientation shall be as specified in the individual U300 or U400 Series Design in the UL Fire Resistance Directory. Max diam of opening is 32-1/4 in. (819 mm) for steel stud walls. Max diam of opening is 14-1/2 in. (368 mm) for wood stud walls.

The F and FH Ratings of the firestop system are equal to the fire rating of the wall assembly.

2. **Through-Penetrants —** One metallic pipe, conduit or tubing to be installed either concentrically or eccentrically within the firestop system. The annular space shall be min 0 in. to max 2-1/4 in. (57 mm). Pipe may be installed with continuous point contact. Pipe, conduit or tubing to be rigidly supported on both sides of wall assembly. The following types and sizes of metallic pipes, conduits or tubing may be used:

A. **Steel Pipe —** Nom 30 in. (762 mm) diam (or smaller) Schedule 10 (or heavier) steel pipe.

B. **Iron Pipe —** Nom 30 in. (762 mm) diam (or smaller) cast or ductile iron pipe.

C. **Conduit —** Nom 4 in. (102 mm) diam (or smaller) steel electrical metallic tubing or 6 in. (152 mm) . diam steel conduit.

D. **Copper Tubing —** Nom 6 in. (152 mm) diam (or smaller) Type L (or heavier) copper tubing.

E. **Copper Pipe —** Nom 6 in. (152 mm) diam (or smaller) regular (or heavier) copper pipe.

3. **Fill, Void or Cavity Material* — Sealant —** Min 5/8 in. (16 mm) thickness of fill material applied within the annulus, flush with both surfaces of wall. At the point or continuous contact locations between pipe and wall, a min 1/2 in. (13 mm) diam bead of fill material shall be applied at the pipe wall interface on both surfaces of wall.

HILTI CONSTRUCTION CHEMICALS, DIV OF HILTI INC — FS-One Sealant or FS-ONE MAX Intumescent Sealant

*** Indicates such products shall bear the UL or cUL Certification Mark for jurisdictions employing the UL or cUL Certification (such as Canada), respectively.**

File Name=XHEZ.W-L-1054
Through-penetration Firestop Systems
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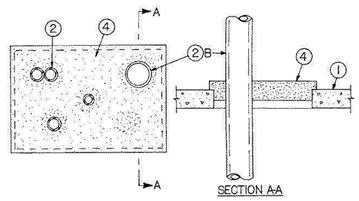
6 METAL PIPE THROUGH CONCRETE GYPSUM WALL ASSEMBLY
SCALE: NOT TO SCALE

System No. C-AJ-8005

January 06, 2006
F Rating – 3 Hr
T Rating – 0 and 1/2 Hr (See Item 4)



SECTION A-A

1. **Floor or Wall Assembly** — Min 4-1/2 in. thick reinforced lightweight or normal weight (100-150 pcf) concrete. Wall may also be constructed of any UL Classified Concrete Blocks*. Max area of opening 864 sq in. with max dimension of 36 in.

See **Concrete Blocks** (CAZT) category in the Fire Resistance Directory for names of manufacturers.

2. **Through Penetrants** — The space between pipes, conduits or tubing shall be min 1 in. The space between pipes, conduits or tubing and periphery of opening shall be min 1/4 in. Pipe, conduit or tubing to be rigidly supported on both sides of floor or wall assembly. The following types and sizes of pipes, conduits or tubing may be used:

A. **Steel Pipe** — Nom 4 in. diam (or smaller) Schedule 10 (or heavier) steel pipe.

B. **Glass Pipe*** — Nom 6 in. diam (or smaller) glass pipe. Pipe couplings to be located min 12 in. from floor or wall surfaces.

SCHOTT NORTH AMERICA INC

C. **Conduit** — Nom 4 in. diam (or smaller) electrical metallic tubing or steel conduit.

D. **Copper Tubing** — Nom 3 in. diam (or smaller) Type L (or heavier) copper tubing.

3. **Forms** — (Not Shown) — Forms to be a rigid sheet material, cut to fit the contour of the penetrating item and fastened to the underside of the floor or both sides of wall. Forms to be removed after fill material has cured. As an option in floor assemblies, the forming material may be installed within the through opening such that its top surface is recessed a min of 2 in. from the top surface of the floor. When the top surface of the forming material is less than 4 in. from the top surface of the floor, a square or rectangular "curb" of mortar fill material shall be cast on the top surface of the floor to attain the required overall mortar fill material thickness. The "curb" shall lap a min of 1 in. on the concrete floor on all sides of the through opening. Forming material to be removed after fill material has cured.

4. **Fill, Void or Cavity Materials — Mortar** — Min 4 in. thickness of fill material applied within annulus. Material to be mixed with water in accordance with the mixing instructions on the bag and pumped or troweled into the through opening. The hourly T Rating of the firestop system is dependent upon the type and size of the through-penetrating item, as shown in the following table:

RECTORSEAL — Bio K10+ Mortar

*Bearing the UL Classification Mark

Pipe Type	Max Pipe Diam In.	T Rating Hr
Steel Pipe or Conduit	2	1/2
Steel Pipe, Conduit or EMT	4	0
Copper Tubing	3	0

File Name=XHEZ.C-AJ-8005
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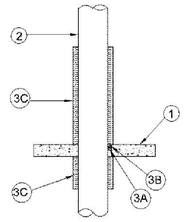
5 MULTIPLE PIPES THROUGH CONCRETE
SCALE: NOT TO SCALE

System No. C-AJ-1473

July 09, 2018

F Rating — 2 Hr
T Rating — 2 Hr
L Rating at Ambient — 2 CFM/sq ft
L Rating at 400°F — Less than 1 CFM/sq ft
W Rating — Class 1 (See Item 3B)



Section A-A

1. Floor or Wall Assembly — Min 4-1/2 in. (114 mm) thick reinforced lightweight or normal weight (100-150 pcf or 1600-2400 kg/m3) concrete. Wall may also be constructed of any UL Classified Concrete Blocks*. Max diam of opening 12-3/4 in. (324 mm).

See Concrete Blocks (CAZT) category in Fire Resistance Directory for names of manufacturers.

1A. Steel Sleeve — (Optional, Not Shown) - Nom 12 in. (305 mm) diam (or smaller) sleeve fabricated from nom 0.019 in. (0.48 mm) thick galv steel cast or grouted into floor or wall assembly flush with floor or wall surfaces.

2. Through-Penetrant — Through-Penetrant-One metallic pipe or tubing installed concentrically or eccentrically within opening. Annular space between penetrant and periphery of opening shall be min of 0 in. (0 mm) (point contact) to max 2 in. (51 mm). Penetrant to be rigidly supported on both sides of floor or wall assembly. The following types and sizes of penetrants may be used:

A. Steel Pipe — Nom 10 in. (254 mm) diam (or smaller) Schedule 10 (or heavier) steel pipe.

B. Iron Pipe — Nom 10 in. (254 mm) diam (or smaller) cast or ductile iron pipe.

C. Copper Tubing — Nom 4 in. (102 mm) diam (or smaller) Type L (or heavier) copper tubing.

D. Copper Pipe — Nom 4 in. (102 mm) diam (or smaller) Regular (or heavier) copper pipe.

E. Conduit — Nom 6 in. (152 mm) diam (or smaller) steel conduit or nom 4 in. (102 mm) diam (or smaller) steel electrical metallic tubing.

3. Firestop System — The details of the firestop system shall be as follows:

A. Packing Material — Min 1 in. (25 mm) thickness of min 4 pcf (64 kg/m3) mineral wool batt insulation firmly packed into opening as a permanent form. Packing material to be recessed from top surface of floor or from both surfaces of wall to accommodate the required thickness of fill material. When optional steel sleeve is used, packing material to extend through floor or wall thickness except for recesses needed to accommodate fill material (Item 3B).

B. Fill, Void or Cavity Materials* - Caulk, Sealant or Putty — Min 1 in. (25 mm) thickness of caulk or putty applied within the annulus, flush with top surface of floor or with both surfaces of wall.

3M COMPANY — CP 25WB+ caulk, FB-3000 WT sealant or MP+ putty

The W Rating applies only when FB-3000 WT sealant is used.

C. Duct Wrap Material* — Nom 2 in. (51 mm) thick duct wrap tightly wrapped around penetrant to extend 12 in. (305 mm) below floor and 36 in. (914 mm) above floor or 36 in. (914 mm) beyond both surfaces of wall. Longitudinal seams sealed with foil tape.

3M COMPANY — FireBarrier Duct Wrap 20A, 3M FireBarrier Duct Wrap 615, 3M FireBarrier Duct Wrap 615+

* Indicates such products shall bear the UL or cUL Certification Mark for jurisdictions employing the UL or cUL Certification (such as Canada), respectively.

Last Updated on 2018-07-09

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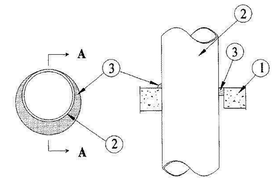
3 METAL PIPE THROUGH CONCRETE FLOOR/WALL OR BLOCK WALL
SCALE: NOT TO SCALE

System No. C-AJ-1291

January 07, 2015
F Rating – 2 Hr



SECTION A-A

1. **Floor or Wall Assembly** — Min 2-1/2 in. (64 mm) thick reinforced lightweight or normal weight (100-150 pcf or 1600-2400 kg/m3) concrete. Wall may also be constructed of any UL Classified Concrete Blocks*. Max diam of opening is 30-7/8 in. (784 mm).

See **Concrete Blocks** (CAZT) category in the Fire Resistance Directory for names of manufacturers.

2. **Through-Penetrant —** One metallic pipe or conduit to be installed either concentrically or eccentrically within the firestop system. The annular space between pipe or conduit and periphery of opening shall be min 0 in. to max 7/8 in. (22 mm). Pipe or conduit to be rigidly supported on both sides of floor or wall assembly. The following types and sizes of metallic pipes or conduits may be used:

A. **Steel Pipe —** Nom 30 in. (762 mm) diam (or smaller) Schedule 10 (or heavier) steel pipe.

B. **Iron Pipe —** Nom 30 in. (762 mm) diam (or smaller) cast or ductile iron pipe.

C. **Copper Pipe —** Nom 6 in. (152 mm) diam (or smaller) Regular (or heavier) copper pipe.

D. **Copper Tubing —** Nom 6 in. (152 mm) diam (or smaller) Type L (or heavier) copper tubing.

E. **Conduit —** Nom 6 in. (152 mm) diam (or smaller) steel conduit.

F. **Conduit —** Nom 4 in. (102 mm) diam (or smaller) steel electrical metallic tubing (EMT).

3. **Fill, Void or Cavity Material* — Sealant —** Min 1/2 in. (13 mm) thickness of fill material applied within the annulus, flush with top surface of floor or with both surfaces of wall. At the point contact location between pipe and concrete, a min 1/4 in. (6 mm) diam bead of fill material shall be applied at the concrete/pipe interface on the top surface of floor and on both surfaces of wall.

HILTI CONSTRUCTION CHEMICALS, DIV OF HILTI INC — FS-ONE Sealant or FS-ONE MAX Intumescent Sealant

* Indicates such products shall bear the UL or cUL Certification Mark for jurisdictions employing the UL or cUL Certification (such as Canada), respectively.

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Through-penetration Firestop Systems
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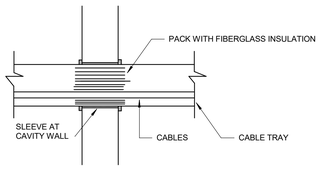
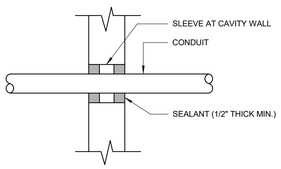
1 METAL PIPE THROUGH CONCRETE FLOOR/WALL OR BLOCK WALL
SCALE: NOT TO SCALE



CABLE TRAY



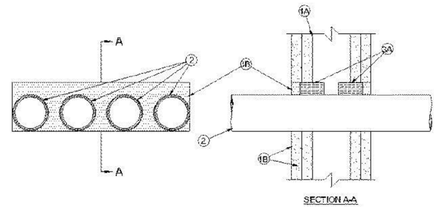
CONDUIT

4 PENETRATION THROUGH NON-RATED INTERIOR WALL
SCALE: NOT TO SCALE

System No. W-L-1302

March 22, 2017

F Rating — 1 & 2 Hr (See Item 1)
T Rating — 1/2 Hr



SECTION A-A

1. Wall Assembly — The 1 or 2 hr fire-rated gypsum wallboard/stud wall assembly shall be constructed of the materials and in the manner described in the individual U300 or U400 Series Wall or Partition Design in the UL Fire Resistance Directory and shall include the following construction features:

A. Studs — Wall framing may consist of either wood studs or steel channel studs. Wood studs to consist of nom 2 by 4 in. (51 by 102 mm) lumber spaced 16 in. (406 mm) OC. Steel studs to be min 2-1/2 in. (64 mm) wide and spaced max 24 in. (610 mm) OC.

B. Gypsum Board* — One or two layers of nom 5/8 in. (16 mm) thick gypsum board, as specified in the individual Wall and Partition Design. Max area of opening is 33 sq in. (213 sq cm) with max dimensions of 11 in. (279 mm).

2. Through Penetrants — One or more pipes, conduits or tubing to be installed within the opening. The space between pipes, conduits or tubing shall be a nom 1/2 in. (13 mm). The space between pipes, conduits or tubing and periphery of opening shall be min 0 in. (point contact) to max 3/4 in. (19 mm). Pipe, conduit or tubing to be rigidly supported on both sides of wall assembly. The following types and sizes of pipes, conduits or tubing may be used:

A. Steel Pipe — Nom 2 in. (51 mm) diam (or smaller) Schedule 10 (or heavier) steel pipe.

B. Iron Pipe — Nom 2 in. (51 mm) diam (or smaller) cast or ductile iron pipe.

C. Conduit — Nom 2 in. (51 mm) diam (or smaller) steel electrical metallic tubing or rigid steel conduit.

3. Firestop System — The firestop system shall consist of the following:

A. Packing Material — Min 2-1/2 in. (64 mm) thickness of min 4 pcf (64 kg/cu meter) mineral wool batt insulation compressed and firmly packed into opening as a permanent form. Packing material recessed from both surfaces of wall as required to accommodate the required thickness of fill material.

B. Fill Void or Cavity Materials* — Sealant — Min 1/2 in. (13 mm) thickness of fill material applied within annulus, flush with both surfaces of wall.

TREMCO INC — TREMstop Acrylic, TREMstop Intumescent Acrylic, TREMstop IA+, Fyre-Sil or Fyre-Caulk

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Last Updated on 2017-03-22

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2 INSULATED METAL PIPE THROUGH CONCRETE FLOOR/WALL OR BLOCK WALL
SCALE: NOT TO SCALE

UNCW

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WILMINGTON, NORTH CAROLINA 28401
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07/01/22

RANDALL LIBRARY RENOVATION & EXPANSION
UNCW
5162 RANDALL DRIVE
WILMINGTON, NC
SCO ID: 18-19656-02C
LS3P PROJECT: 7202-197980

Δ	DATE	DESCRIPTION
0	2022.07.01	PACKAGE C - BID DOCUMENTS

SHEET NAME:
UL DETAILS

ORIG SUBMISSION: 2022.07.01
CURRENT: 2022.07.01
PACKAGE C - BID DOCUMENTS

SHEET:
E503
PACKAGE C - BID DOCUMENTS

E
D
C
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A
1 2 3 4 5 6

THIS LINE SHOWN ABOVE IS EXACTLY ONE INCH LONG AT FULL SIZE PLOTTING ON 24X36 SHEET

LUMINAIRE SCHEDULE (CONTINUED)

TYPE Application	LUMINAIRE DESCRIPTION	BASIS OF DESIGN	ACCEPTABLE ALTERNATES Make / Model / Partial Cat. No	LIGHT ENGINE NOM. LUMENS	DRIVER/ POWER SUPPLY	ENERGY	MOUNTING STYLE, INSTALLATION REMARKS
P - PENDANT MOUNTED LUMINAIRES							
P1 not used	Decorative drum pendant characterized by concentric circular appearance with 3-part optical diffuser system for uplight, diffused direct light, and a circumference glow; 58-in diameter, 10-in height; flush ceiling canopy and 3-aircraft cable suspension; champagne housing finish	LOUIS POULSEN LP GRAND, LARGE 5741918508	OR APPROVED EQUAL IN ACCORDANCE WITH GS 133-3 $85,000 CONTRACTOR-NET ALLOWANCE FOR QUANTITY OF 12	3500K LED	ON-BOARD; 1% DIMMING; 277V	200 WATTS	ACOUSTIC GWB SUSPENSION refer to reflected ceiling plan for ceiling system, arch. elevations for overall drop
P2 Link Connector	Luminous sphere pendant, 8-in diameter; AL canopy over recessed jbox; frosted acrylic globe shade; single adjustable aircraft cable, min 5-ft length, and black power cord; white hardware finish	SISTEMALUX BOLLA MINI 1930-835-UNV-01-D10	Bock / Pallone / A30112315154-LVGV1-1250-30K-80CRC1A-Lumos / SPH-S-560LM-3500K-WHT	3500K LED 560 LM DELIVERED	ON-BOARD; 0-10V DIMMING; 277V	8 WATTS	GWB SUSPENDED refer to arch. elevations for overall drop
P3 Lookout	Decorative drum pendant with satin acrlic top and bottom diffusers and translucent natural cherry wood veneer shade; nickel power canopy with vertical air craft cables; ~4-ft diameter, ~10-in height; Shade finish to be confirmed by Architect from sample submission	BARBICAN DRUM 16-104-48D-8H-PW-CHERRY-NATURAL-HTO-ACM-WPC-ACF-7600LM-UNV-90CRI-SCDL-S010V01	LZF / Gea SG E26 UL + lamps + step down transformer + phase adapter for control or approved equal	3500K LED 6300 LM DELIVERED	ON-BOARD; 0-10V DIMMING; 277V	85 WATTS	GWB SUSPENDED refer to arch. elevations for overall drop
P4 Existing Circulation Desk	Small scale, frosted crystal cylinder; monopoint suspension canopy; field verify existing circuitry prior to release	STONE LIGHTING ELISE CRYSTAL PD065-FR-SN-L2-M	Eureka / Tumbler / 4009-LED-35-120V-DP-S10**-ANTE-CFR-3983 or approved equal	3500K LED	ELV DIMMING	4 WATTS	CEILING SURFACE SUSPENDED Install on fire-rated ceiling
P5 Lobby, Grand Reading Room	8-in diameter acrylic cylinder, 8-ft length; fully illuminated with no visible housing; flush, flat canopy in finish to be determined by Architect from all standard colors	VISA SEQUENCE CP2046-L35K-MVOLT-tbd-120-REMOTE	Lumos / LC8-96-HO-RMT Barbican / HPC / 01-15-8D-ACW-WHT-96H-2400LM/LF-277V-3500K-90CRI-DB(0-10V)	3500K LED 20,000 LM DELIVERED	REMOTE; 0-10V DIMMING; 277V	233 WATTS	ACT CEILING SUSPENDED Structural blocking or hanger bars as required by manufacturer
R - RECESSED LUMINAIRES - NOT USED							
R1				3500K LED			
S - SYSTEM LUMINAIRES							
S1 not used	Recessed magnetic track system with multiple control circuits powered by remote power supplies in 8ft or per plans; flush, lensed linear sections, blanks, and 27-deg (1700 cbcp) flood sections with hex louver, all-white finish 8ft: (3) 2ft linear + (3) 1ft blank + (2) floods; Note spare inserts included, furnish spare drivers per 260000	CORONET MAGNETO RECESSED MAGR-TRK-8-DR60-DR30-UNV-T*-CC(white) INSERTS: MAG-LIN-2-35-LTG1-W-SD MAG-BLANK-1'-0"-W MAG-SPT-SM-35-LTG1-UNV-W-FL-HEX	Amerlux / Slots & Dots ModuLED / Stealth	3500K LED, 90 CRI OUTPUT VARIES, REFER TO BASIS OF DESIGN PRODUCT DATA	REMOTE POWER SUPPLIES; 1% DIMMING; 277V INPUT	90 WATTS	ACT RECESSED
S1A Exhibits	Recessed magnetic track system with multiple control circuits powered by remote power supplies in 8ft lengths; all-white finish; for each include the following elements: (2) 2-ft linear with microbaffle, (2) 1ft blank, and (2) spots, (2) narrow-spots, (1) flood, (1) wide flood 15-deg (3200 cbcp) narrow spot, 36-deg (900 cbcp) flood, 24-deg (1600 cbcp) spot, 60-deg (900 cbcp) wide flood; include hex louver accessory for each spot or flood element; Note alternate configuration of S1 by same manufacturer; spare inserts included, furnish spare drivers per 260000	CORONET MAGNETO RECESSED MAGR-TRK-8-DR60-DR60-UNV-T*-CC(white) INSERTS: MAG-BAF-2-35-LTG1-W-BLK-WFL MAG-BLANK-1'-0"-W MAG-SPT-MED-35-LTG1-UNV-W-SP-HEX MAG-SPT-MED-35-LTG1-UNV-W-FL-HEX MAG-SPT-LRG-35-LTG1-UNV-W-FL-HEX MAG-SPT-LRG-35-LTG1-UNV-W-WFL-HEX	Amerlux / Slots & Dots / track, transformers, blanks, and inserts most closely matching basis of design with DALI drivers and Bluetooth wall switch ModuLED / Stealth / track, transformers, blanks, and inserts most closely matching basis of design with DALI drivers and Bluetooth wall switch	3500K LED, 90 CRI OUTPUT VARIES, REFER TO BASIS OF DESIGN PRODUCT DATA	REMOTE POWER SUPPLIES; 1% LOG DIMMING; 277V INPUT	120 WATTS	ACT RECESSED Upon energization of lighting circuits on level 1, contractor is to install lighted modules in each track. Refer to specifications for aim-and-focus procedures. Secure all spare components in original packaging subject to inspection by design team.
S2 not used							
S3 Greenscreen/ Podcast (studio)	full color spectrum, 6-channel (RGBWLC) tunable soft light; 95 CRI; barn doors, diffuser, and junior pin included; locking IP65 power connector OWNER-FURNISHED/OWNER-INSTALLED	ELATION KL PANEL KL PANEL: KLP001 ACCESSORIES: KLP613, KLP625	n/a	3500K LED, 95 CRI 24,000 LM	INTEGRAL; DMX; 120V PLUG-IN	295 WATTS	EXPOSED CEILING SUSPENDED
S4 not used	Table-integrated linear, slim profile reading light; 2-in arm anchor configuration with dual-rail for double-sided seating; 3-ft rail segments in 6 and 9-ft runs per plans; diffuse reflector and clear lens; integral occupancy sensor and 1:1 drivers; clear anodized finish	VODE WING RAIL 107-WG-06-*-36-TA-18-2T25-AE-2-0-Z-LO-359-C1-ZZ-AL-9	Extant / Huntington 1 / HTG-1W-TM (TABLE MOUNT)-RD--MEOGC-935--WR-SOC-L3-2R ConTech / TLPVM field-built system	3500K LED, 90 CRI 700 LM/FT DELIVERED (BOTH RAILS)	REMOTE; 120V PLUG-IN POWER SUPPLY	7 WATTS PER FOOT (BOTH RAILS)	FURNITURE MOUNTED mount driver to underside of table, plug into floorbox and secure excess cable along table structure
T - TROFFER HOUSING LUMINAIRES							
T1 storage	2x4, low-profile, center-basket troffer	COLUMBIA LCAT LCAT24-35LWG-EDU	Elite / 24-OVHP-LED-4000 Paco / PRTXL-24-35-LED-XX-MV-DM10	3500K LED 4300 LM DELIVERED	ON-BOARD; 0-10V DIMMING; 277V	36 WATTS	ACT RECESSED
W - WALL-MOUNTED LUMINAIRES							
W1 EXTERIOR: façade, exits	4-in decorative cylinder wall sconce with luminous upper optic and medium beam (65-deg) downward distribution; max 15-in height; powder coated paint TBD by architect	VISA SCOPE OW2304-L40K-MVOLT-MED-tbd	TMS Lighting / CUS39018-W1 Eureka / Silena Out Double / 3455-KDH(MOD KDB down, RAL)	4000K LED 500 LM UP/450 LM DN DELIVERED	ON-BOARD; 0-10V DIMMING; 277V	15 WATTS	EXTERIOR WALL SURFACE Mount at 8-ft above finished grade
W2 not used							
W3 not used							
W4 stairwells	Luminous linear wall bracket; steel housing, frosted acrylic wrap lens; integral occupancy sensor for high/low operation; 8ft lengths specified, also 4ft as indicated on plans	PRUDENTIAL WALL14 WAL14-LED35-HO-F-WFA-YGW-SC-UNV-WM-DM01-505-STEP	Viscor / LBL-VL / 835K052L-V68 Paco / Wraparound / PUCS-R-90-35-MV-120-CLE4	3500K LED MIN. 9600 LM DELIVERED	ON-BOARD; STEP-DIM 50%; 277V	96 WATTS	WALL SURFACE, HORIZONTAL Mount at 7-ft above each stair landing to bottom of lens
W5 Grand Reading Room	Minimalist decorative walls sconce consisting of a nominal 20-in solid bar backlighting the wall with a single return to a square wallplate; high color-rendering; ADA-compliant depth; black finish	TECH KLEE 700WSKLE-20-B-LED930-277	Brownlee / Reverse-S / 1120-BL-H08-30K-90K Oxygen / Mirage / 3-516-(black paint)	3000K LED, 90 CRI 900 LM DELIVERED	ON-BOARD; 0-10V DIMMING; 277V	12 WATTS	WALL SURFACE Mount per architectural detail #2/A-713
W6 Special Collections Reading Room	Wall-mount wall wash; 18" arms with cable tie-backs; softening white baffle; clear anodized finish; driver box mounting rail; high color-rendering; 18-ft run consisting of equal 72-in segments	VODE WING RAIL 107-WG-01-18'-72-WA-18-IP-AE0-2-0-Z-SO-359-WB-0-AL-0	Extant / Huntington 1 / HTG-1W-RD--SLO-MEOWW-935--WR-L18-2R ConTech / TLPWB field-built system	3500K LED, 90 CRI 500 LM/FT DELIVERED	REMOTE; 1% LOG DIMMING; 277V	63 WATTS PER FOOT	MILLWORK WALL SURFACE remote driver above accessible ceiling in adjacent room
W7 elevator shafts	4-ft long, industrial vaportite striplight with fiberglass housing gasketted to frosted, acrylic lens; narrow width, max 4-in height (projection); tool-less latch closure	HUBBELL LXEN LXEN4-35LW-RFA-EU	Oracle / Vapor Tight / 4-OWVS1-LED Sylvania / Vaportite / VAPOR1B-040UNVD840-48-EC-GR	3500-4000K LED MIN 3800 LM DELIVERED	ON-BOARD; NON-DIMMING; 277V INPUT	37 WATTS	WALL SURFACE mount horizontally at 18-in above pit floor; 3-ft above service level
W8 Events	Flat, solid panel wall sconce, 4-ft tall; mounted vertically; fully indirect distribution; extruded aluminum face with satin anodized finish TBC by architect	EUREKA DUSK 3132-48-LED-35-277V-DV-SAA-CHR-3980	Beta-Calco / Midi Arc V / ABD4-L30-J358-CQ1-D1-Fox-ED Lumos / WM-LED-8191-A	3500K LED 3300 LM DELIVERED	ON-BOARD; 1% LOG DIMMING; 277V	33 WATTS	WALL SURFACE, SEE #B1/A-701 mount vertically and centered between window mullions at ~96-in AFF to center
W9 EXTERIOR: equipment yard	Die-cast AL, full-cutoff, forward throw, utilitarian wallpack with silicone door gasket; inset/regressed lens; dark bronze finish TBC by architect	LITHONIA ARC2 LED ARC2 LED-P3-40K-MVOLT-FAO-DBXD	NLS / HERMOSA / HRM-1-T4-16L-7- Mobern / Chicago / CHI15QF1Xxx/U4KPZSP	4000K LED 3000 LM DELIVERED	ON-BOARD; NON-DIM; 277V	24 WATTS	EXTERIOR WALL SURFACE mount at 8ft AFF; refer to architectural elevations to locate jb per door header
W10 Events	Low-profile linear with direct, asymmetric distribution for markerboard; Nominal 2-in x 3-in profile, max 3-in projection; high color-rendering 6ft nominal length or per plans; finish TBD by architect	SELUX M36 WALL MOUNT L36-1C25-935-A5-W-06-SP-U-D*	Coronet / LS1-6-35-MED--CC-WM-ASYM Extant / Huntington 1 / HTG-1W-TD-DT-6-SLO-18-MEOWW-935--CC--SW	3500K, 90 CRI 3500 LM DELIVERED	ON-BOARD; 1% DIMMING TBD; 277V	42 WATTS	WALL SURFACE Mount per architectural elevation #B4/A-702
W11 Lookout	Modern-styled picture light with 3-in x 5-in horizontal backplate, 1-ft nominal width, <10-in projection; angular lamphead; high color-rendering; black finish TBC by architect.	TECH DESSAU 12 PICTURE LIGHT 700DES-12-B-LED930-277	WAC Lighting / Reed / PL-11017-BN Revelite / AL / AL2--BL-L-C-H	3000K, 90 CRI 400 LM DELIVERED	ON-BOARD; 0-10V DIMMING; 277V	13 WATTS	WALL SURFACE, SEE SHEET A-710 Mount per architectural elevations
W12 Reading Carrel	Modern-styled picture light with 3-in x 5-in horizontal backplate, 1-ft nominal width, <10-in projection; angular lamphead; high color-rendering; black finish TBC by architect. Note: Same as type W11 with alternate mounting height.	TECH DESSAU 12 PICTURE LIGHT 700DES-12-B-LED930-278	WAC Lighting / Reed / PL-11017-BN Revelite / AL / AL2--BL-L-C-H	3500K, 90 CRI 400 LM DELIVERED	ON-BOARD; 0-10V DIMMING; 277V	13 WATTS	WALL SURFACE Mount per architectural detail #B5/A-730 at approximately 7-ft AFF
X - EXIT, EMERGENCY EGRESS LUMINAIRES							
X1 general purpose	Ultra-slim (<1-in) die-cast aluminum exit sign with low-profile (<3.4-in) ceiling/wall mounting canopy; available pendant stem; field changeable face kit and chevrons; UL924 listed; white finish	EVENLITE RAZOR RZR3-AC-R-U-WH-CN	Isolite / Thinline / TL2-AC-R-U-WH-MTEB Mule / Arris / ARS-A-1,2OR0WW	RED LED	INTEGRAL; 277V INPUT	2 WATTS	CEILING OR WALL PER PLANS Stem-mount in exposed ceiling locations for suspension at 9ft AFF
X2 electrical equipment rooms	Independently adjustable, dual-head thermoplastic UL924-listed emergency lighting unit (i.e. "bug-eye") with self-diagnostics; white finish	LITHONIA EU2C EU2C-SD	Mule / SQ-80-LED / W-SD Lumax / LTEL-W-SD	COOL WHITE LED	INTEGRAL; 277V INPUT	1 WATTS	WALL SURFACE coordinate with equipment and conduit to mount at 8ft AFF

Notes:
1. Refer to specification section 26 50 00 for general requirements and provisions for non-listed manufacturers.
2. Verify all luminaire mounting locations with architectural reflected ceiling plans, elevations, details, etc. prior to rough-in.
3. Voltage indicates intended supply voltage. Provide universal (120/277V) input where available and step-down transformation as required to accept 277V.
4. All luminaires are to be supplied with smooth dimming drivers even where dimming is not required per plans unless noted otherwise. Dimming protocol to be as noted or as coordinated with lighting controls vendor.
5. Dimming range shall be 100%-10% or lower range as specified with linear curve (or logarithmic where noted as "LOG"). Where custom output drivers are used, minimum range must be based on output specified.
6. All finishes to be confirmed in submittal process. Where finish is indicated as "tbd", submit samples of all first tier options for selection by the Architect. Where a premium finish is indicated include all finish samples.
7. Ceiling trims, run lengths, or any accessory nomenclature entered with * are to be verified and coordinated by the contractor. Control protocol requirements are to be verified at Pre-Construction meeting.
8. In the event of a discrepancy, written requirements shall supercede catalog nomenclature.
9. For listed alternates partial part numbers are given indicating most relevant options to aid the bid. It is the responsibility of the bidder to identify full part numbers including accessories to meet design intent.
10. Acceptable lumen outputs are within 50 lumens for specified values < 1000 LM, 100 lumens for specified values from 1000-4000 LM, 5% for specified values > 4000 LM. Actual system wattages will vary.
11. All luminaires noted for use on exterior are to be wet location listed to UL standards unless otherwise noted.
12. All dimensions and are rounded values unless otherwise noted as a minimum or maximum.

UNCW Randall Library Expansion
LUMINAIRE SCHEDULE

TYPE Application	LUMINAIRE DESCRIPTION	BASIS OF DESIGN	ACCEPTABLE ALTERNATES Make / Model / Partial Cat. No	LIGHT ENGINE NOM. LUMENS	DRIVER/ POWER SUPPLY	ENERGY	MOUNTING STYLE, INSTALLATION REMARKS
B - BASE-MOUNTED LUMINAIRES							
B1 EXTERIOR; north courtyard	10-ft light column consisting of 8-in extruded aluminum shaft and 8-in evenly luminous light head with general-diffuse distribution and zero LED pixelation or image; minimum 6ft shaft height; 7-pin NEMA control receptacle for future use; dark gray finish to be confirmed in submittals	STERNBERG RIALTA PT10-RW404-56L40TS-MDL05-R7-UGMT	NLS / Lira Light Column / LIR-8--66 (6000LM)--10--GPH Selux / MTR Column LED / MTRCL-10-3-4B30-40-SP-UNV-DM	4000K LED 6000 LM DELIVERED	ON-BOARD; 0-10V DIMMING; 277V	99 WATTS	CONCRETE BASE; DETAIL #1/E-500 Baseplate internal to shaft without need of cover plate for seemless transition from shaft to paver
B2 EXTERIOR: south courtyard	42-in companion bollard to match B1 by same manufacturer. 8-in extruded Al shaft and 1ft evenly illuminated cylindrical light thead with general-diffuse distribution and zero LED pixelation or image; dark gray finish to be confirmed in submittals	STERNBERG RIALTA RW442-28L40TS-MDL03-UGMT	NLS / Lira Light Column / LIR-8--22--2.5--7--GPH Selux /BTR Bollard / BRMFL-3.5-4B30-40-SP-UNV-DM	4000K LED 3000 LM DELIVERED	ON-BOARD; 0-10V DIMMING; 277V	50 WATTS	CONCRETE BASE, DETAIL #4/E-500 Baseplate internal to shaft. Where mounted in pavers, refer to detail #1/E-500
B3 EXTERIOR: south courtyard	Machined Al landscape spot; bronze finish; lockable 90-d tilt, 360-d rotation; wet location listed; softening lens; field-changeable 10-deg beam with spare 20- and 40-degree optics for attic stock to change beam spread as plantings mature; PVC mounting body, matching Al stem and cap; 300W remote transformer in NEMA 3R rated enclosure	VISION 3 LIGHTING FL11 FL11A-BNT-C1-K2-141-L3-TBD-D (TLM-R16D A-50-40-12-6) TLMA-102000019 ; TLMA-102000018: XFMR: VC100042-02; MOUNT: M02A-BNT-S4-12-0-3	BK Lighting / Nite Star II / NSII-LED-e66-NSP-A7-BZP-12	360SL | TR300 | power pipe Targetti / Bulletto / BLT-RP-xx-L2-SP/FL/WF-40-DMLE288224UD	4000K LED, 80 CRI 700 LM MODULE	REMOTE, PHASE DIMMING; 277V INPUT	10 WATTS	STAKE MOUNTING, DETAIL #3/E-500 locate a minimum of 5ft setback from tree; final aiming per aim & focus walk through with Lighting Designer
B4 not used							
B5 EXTERIOR: pathways	Campus standard decorative postlop; 4-sided lantern with frosted glass panes, type V light distribution; 14ft round, tapered, aluminum pole in black finish	YAORONG YR-TP300-W060 QUOTED BY GREENLIGHTS OF CARY, NC (919-766-8900)	OR APPROVED EQUAL IN ACCORDANCE WITH GS133-3 WITH WRITTEN OWNER APPROVAL. REFER TO ALTERNATES SPECIFICATION	5000K LED 6000 LM DELIVERED	ON-BOARD; NON-DIM; 277V	60 WATTS	CONCRETE BASE, DETAIL #2/E-500
C - CONTINUOUS COVE, NICHE, PERIMETER LUMINAIRES							
C1 Lookout, Grand Reading Room	Asymmetric lay-in cove light in run lengths to fit architectural cove; peak candela at 15-deg above horizontal; incrementally adjustable from zero to at least 30-deg for consistent aiming in vaulted cove	PRUDENTIAL MICROCOVE MIC-LED35-HO-R*-SC-UNV-DM01	i2 Systems / Compose / C10W-35K-AJ1 Elliptipar / S315-RooM-S-00-M-0K-0-835-ZX	3500K LED 1100 LM/FT DELIVERED	ON-BOARD; 0-10V 1% LOG DIMMING; 277V	12 WATTS PER FOOT	SURFACE, DETAIL #2/A-724, D5/A-751 provide blocking as required to raise luminaire even with cove lip; adjust consistently for even appearance
C2 Level 3 banquette seating	Nominal 2.5-in aperture perimeter slot system with deep regress for floating ceiling appearance lighting wood walls; high color-rendering: custom lengths; lambertian distribution	CORONET PG2 PG2 LED-xx*-35-LTG2-UNV-DB-W-NT-4*	Prudential / BionicPro2-PER-REG3-LED35-90-xx-xxW-SAL-WTW-SC-UNV-X3-DM01 Starfire / Versalux / VRP2-L9035HS3-xxx-R-F2-W	3500K LED, 90 CRI 450 LM/FT DELIVERED	ON-BOARD; 0-10V 1% DIMMING; 277V	5 WATTS PER FOOT	WALL BRACKET/ CEILING RECESSED wall bracket above GWB ceiling plane with spackle flange interface
C3 2-story lobby, computing, events	Low-profile linear with direct, narrow distribution for wall panel graze; Maximum 2.2-in x 4.5-in profile, 3-in projection; continuous row mounting per plans; custom paint finish to be selected by architect Refer to specification 265000-1.8 for mock-up requirement.	SELUX M36 WALL MOUNT L36-1C25-935-A5-W-xx-SP-U-D*	Specialty Lighting Industries / InRelief / IR2L-WM-FL--SNL11--P/RAL Prudential / BionicPro2 / BPRO2-LIN-FLSH-LED35-90-SO-Rxx-CC-MGZ--WS	3500K, 90 CRI 600 LM/FT DELIVERED	ON-BOARD; 1% DIMMING TBD; 277V	7 WATTS PER FOOT	WALL SURFACE, DETAIL #A4/A-711 Confirm mounting height of 23'-1/2" to center prior to rough-in
D - DOWNLIGHT LUMINAIRES							
D1 EXTERIOR; 3-story entrance	6-in aperture, wet listed adjustable downlight, narrow (~35-deg) distribution; softening and optical lenses; white bevel trim; furnish hanger bars; Note: 20-deg spot optic with spread lens for resulting narrow beam	USAI BEVELED 5.0 HOUSING: LRTA6-8440-C2-40KS-20-NC1-277-DIMLI6E-CB*-AL30J TRIM: 6231-W-B1-S-10	ConTech / R6ANC-540K-S-C6302-WHT-WPF-LF20-73 Rayon / Prime 6 / RPA6-31L-40-UNV-18-F-RFA-C-6RFO-W-W-WL	4000K LED 3100 LM DELIVERED	ON-BOARD; 0-10V 1% DIMMING; 277V	40 WATTS	RECESSED, EXTERIOR
D1A Lookout	6-in aperture, downlight; medium (~50-deg) distribution; softening lens; metallic bevel trim with white painted flange; furnish hanger bars Note: fixed downlight, lower output version of D1 by same manufacturer	USAI BEVELED REFIT HOUSING: LRTD76-9016-C3-35K5-50-10-277V-DMLZ-RF-GEN TRIM: RF76021-B1-S-10	ConTech / R6NC / 235K-C6322M-WPF-C Rayon / Prime 6 / RPA6-13L-35-UNV-50-S-RFD-C-6RFO-H-W	3500K LED 1300 LM DELIVERED	ON-BOARD; 1% DIMMING; 277V	16 WATTS	GWB RECESSED
D2 not used	Nom. 8-in diam. tall cylinder downlight with narrow (~40-deg) spread; facetted, clear AL reflector; black housing, black bezel/flange, black mounting hardware finish; softening lens	LUMENPULSE CYLINDER LARGE LACYL-A-PSF-MBK-M1-D-277-23-dL40-35K-CR80-MFR-PDA2-SL-MBK-bMBK	Vantage / 8" Decoline iVDL8149PMU-MD-SGC Indy / LC8P-50LM-35K-MVOLT-B-G4-80CRI-dim-NPR-CSS-PSTEM-18IN-BLPEN	3500K LED 3900 LM DELIVERED	ON-BOARD 0.1% LOG DIMMING; 277V	41 WATTS	ACT SURFACE/STEM SUSPENSION 24-in overall drop to be confirmed with architectural elevations
D3 not used							
D4 circulation	4-in, medium-wide (~65-deg) beam downlight with clear, diffuse reflector and self-finished flange; 2-step binning; max 50-deg source cutoff; install-from-below housing listed for thru-wiring; furnish hanger bars for new construction; wiring accessible from below for visual inspection	INDY LRM4 L4RM-23LM-35K-MVOLT-G4-90CRI-GZ1-HW-CD-HB*	Maxilume / HHR4-LED / 2000L-WD | HH4-4501-SHZ Alphabet / EcoNU / NU4-RDOT-SW-30LM-35K-90-D60-UNV-10V-NC-MC	3500K LED, 90 CRI 1900 LM DELIVERED	ON-BOARD; 0-10V, 1% DIMMING; 277V	24 WATTS	ACOUSTIC GWB RECESSED Not IC-rated, maintain 3" separation from insulation
D4A circulation accent walls	4-in wallwasher with diffuse reflector and self-finished flange; 2-step binning; install-from-below housing listed for thru-wiring; furnish hanger bars for new construction; wiring accessible from below for visual inspection Note: wall wash version of D4 by same manufacturer	INDY LRM4 L4WM-23LM-35K-MVOLT-G4-90CRI-GZ1-HWS-CD-HB*	Maxilume / HHR4-LED / 2000L-WD | HH4-4507-SHZ Alphabet / EcoNU / NU4-RW-SW-25LM-35K-90-WW-UNV-10V-NC-MC-MC	3500K LED, 90 CRI 1500 LM DELIVERED	ON-BOARD; 0-10V, 1% DIMMING; 277V	24 WATTS	ACOUSTIC GWB RECESSED orient kicker opposite the wall to kick light back toward the wall; Not IC-rated, maintain 3" separation from insulation
D4B Link Level 2	4-in, narrow (~30-deg) beam downlight with clear, diffuse reflector and self-finished flange; 2-step binning; max 50-deg source cutoff; install-from-below housing listed for thru-wiring; wiring accessible from below for visual inspection Note: higher output, narrow beam version of D4 by same manufacturer	INDY LRM4 L4RM-40LM-35K-MVOLT-G4-90CRI-GZ1-HN-CD-HB*	Maxilume / HHR4-LED / 3000L-ND | HH4-4501-SHZ Alphabet / EcoNU / NU4-RDOT-SW-40LM-35K-80-SS30-UNV-10V-NC-MC	3500K LED, 90 CRI 3150 LM DELIVERED	ON-BOARD; 0-10V 1% DIMMING; 277V	42 WATTS	ACOUSTIC GWB RECESSED Not IC-rated, maintain 3" separation from insulation
D5 vestibules, niches, and general use	2-in downlight with field-changeable 15-deg optic; diffuse reflector, self-finished flange; install-from-below construction with IC-rated housing; wiring accessible from below for visual inspection; spare 50-deg optic	GOTHAM INCITO 2-IN ICO-35/07-AR-LD-15D-MVOLT-UGZ-90CRI-ICAT-ICO2OPTC 50D	Elite / AZ-LED-R-750L-DIM10-VND+WD-35-90 | AZR-F-1202-SN-SN | AZ-LED-FR-BP30 Sonneman / Intervals / 2SRN2-RICC-STAN-FSL10V1-2SFN2RBVSTSA3SNS+FLCFSWV1	3500K LED, 90 CRI 700 LM DELIVERED	ON-BOARD; 0-10V, 1% DIMMING; 277V	8.7 WATTS	ACOUSTIC GWB RECESSED Reserve 50-deg optic for aim-and-focus site visit
D6 Greenscreen/ Podcast (studio)	6-in diam. x 13-in tall cylinder downlight with medium (~60deg) beam spread, softening lens, and hex cell louver, black housing, bezel/flange, and mounting hardware	LUMENPULSE CYLINDER MEDIUM LACYM-A-PSD-MKB-M3-D-277-13-dL30-35K-CR95-WFR-DMX/RDM-HL-SL-MBK-bMBK	Rayon / Prime / RPA6-31L-35-UNV-EDIO-30-S-NC-RFA-C-6RFO-W-W ConTech / R6NC635K27D-C6302N-WHT-HB-30	3500K LED, 90 CRI 2600 LM DELIVERED	ON-BOARD;0.1% DMX DIMMING; 277V	41 WATTS	EXPOSED CEILING SUSPENDED mount at 10-ft AFF to bezel, even with pipe grid per sheet A-703
D7 Lobby, Events, Open Computing	6-in aperture round downlight; narrow distribution of ~30-deg; beam softening lens; metallic bevel trim with white painted flange	USAI BEVELED 5.0 TRIM: 6231-B1-S-10 HOUSING: LRTA6-8440-C2-35KS-20-NC1-277V-DIML6A-CB27-AL20J	Rayon / Prime / RPA6-31L-35-UNV-EDIO-30-S-NC-RFA-C-6RFO-W-W ConTech / R6ANC539K27DS-C6304-WHT-HB-30	3500K LED 3300 LM DELIVERED	ON-BOARD; 0-10V, 0.1% LOG DIMMING; 277V	40 WATTS MAX	ACT CEILING RECESSED
D7A Events	6-in aperture round, adjustable accent downlight; spot distribution (Max 20-deg); minimum 35-deg tilt; beam softening lens; metallic bevel trim with white painted flange Note: same manufacturer as type D7 for matched ceiling appearance.	USAI BEVELED 5.0 TRIM: 6231-B1-S-10 HOUSING: LRTA6-8440-C2-35KS-10-NC1-277V-DIML6A-CB27-AL10J	Rayon / Prime / RPA6-41L-35-UNV-EDIO-18-S-NC-RFA-C-6RFA-W-W ConTech / R6ANC539K27DS-C6304-WHT-HB-30	3500K LED, 90 CRI 10,000 CBCP	ON-BOARD; 0-10V, 0.1% LOG DIMMING; 277V	40 WATTS	ACT CEILING RECESSED
D8 Information Desk, elevator lobby	4-in downlight with decorative frosted glass cylinder trim; IC-rated housing (or insulation clearance) of 6-in max; 1.125-in ceiling thickness; wiring accessible from below ceiling for visible inspection; funish bar hangers as applicable for new construction	USAI BEVELED GLOW B4RDF-16C3-35KS-M-G1-WH-WH-FTC-UNV-D*-CB*	Sonneman / Intervals / 2SRN3-ICCP-SL | 25FN3-DC | 2SZ-ECY03 Amerlux / Hornet HP / HDL-HP-R-REM-A17-T-18-SONA-MW (non-IC)	3500K LED 725 LM DELIVERED	ON-BOARD; 0-10V 1% DIMMING; 277V	16 WATTS	ACOUSTIC GWB RECESSED
F - FLOOD OR SPOT LUMINAIRES - NOT USED							
F1 not used	Monopoint wallwash track head with single COB LED array for smooth, wide flood beam; monopoint canopy; min 90-deg vertical rotation; modified for remote driver; white finish	CONTECH STEALTH LED WALL LIGHTER CTL182C35MVD-P	Solais / Lucie / LCM-2-NFL-std-35-2300-PW-CM-LS Amerlux / Murro / 31W - WT-WW-35	3500K LED MINIMUM 2300 LM DELIVERED	INTEGRAL; PHASE DIMMING; 277V-120V XFMR	20 WATTS	SURFACE KNUCKLE, DETAIL #5/A-724 energize and aim prior to removal of scaffolding
F2 not used							
F3 not used	Cylinder spot with swivel yoke for 360-deg rotation and 90-deg tilt; AL housing; 2-step binning; narrow spot (~10-deg) beam; black finish and cord	V2 LIGHTING CORE 400 C4LY-DZD-30983511-SBSS*BK	Beta-Calco / Matrex / MTRF1P01-LMA0500-CR90-CTA35-BA15--NT3 Times Square / Gramercy	3500K LED, 90 CRI 29,000 CBCP DELIVERED	CANOPY; 0.1% LOG DIMMING; 277V	34 WATTS	ACT CEILING SURFACE 24-in overall drop
F3A not used	Cylinder flood with swivel yoke for 360-deg rotation and 90-deg tilt; machined AL housing; 2-step binning; flood beam (~30-deg); matte black finish and cord	V2 LIGHTING CORE 400 C4LY-DVD-30983525-SBSS*BK	Beta-Calco / Matrex / MTRF1P01-LMA0500-CR90-CTA35-BA30--NT3 Times Square / Gramercy	3500K LED, 90 CRI 7000 CBCP DELIVERED	CANOPY; 1% DIMMING; 277V	34 WATTS	ACT CEILING SURFACE 24-in overall drop
L - LINEAR MODULE LUMINAIRES							
L1 General Use Throughout	4-in lensed slot light in 4-ft, 6-ft, and 8-ft lengths connected in continuous rows per plans; max 3-step binning; max 5-in recessed, IC-rated housing	PRUDENTIAL BIONIC PRO BPRO4-REC-FLSH-LED35-MO-R*-TMW-SAL-SC-UNV-XT*-DM01	Lux Illuminaire / EOS4.0-R-xx-LAM-750-xx-35K-8-UNV-S1-W Mercury / Lightstreams 4 / MLS4-G9-xx-CL675-35K-ASO-1%-U	3500K LED MIN 675 LM/FT DELIVERED	ON-BOARD; 0-10V, 1% DIMMING; 277V	7 WATTS PER FOOT	ACT OR GWB RECESSED
L2 special collections	4-ft x10-in code-gage strip light with prismatic, acrylic bottom lens and ribbed acrylic sides; hinge-able from either side; diffusing

THIS LINE SHOWN ABOVE IS EXACTLY ONE INCH LONG AT THE FULL SIZED DRAWING SHEET

UNC-Wilmington Randall Library Expansion
Lighting Controls Sequence of Operation

SEQUENCE DESIGNATION	SPACE TYPES	SPECIFICATION, DETAIL REFERENCE	TIMECLOCK SCHEDULING	MANUAL CONTROL	OCCUPANCY-BASED CONTROL	TASK TUNING	DAYLIGHT RESPONSE	EMERGENCY ZONES	REMARKS
A1	SITE LIGHTING (TYPE BS)	260936	ON AT DUSK; OFF AT DAWN	NONE	NONE	NO DIMMING	OVERRIDE-ON AT PHOTOCELL THRESHOLD	CONTROLLED, UL924 BYPASS REQUIRED	
A2	COURTYARD GENERAL LIGHTING (TYPES B1, B2)	260936	ON AT DUSK; OFF AT DAWN	NONE	NONE	80% OUTPUT	OVERRIDE-ON AT PHOTOCELL THRESHOLD	CONTROLLED, UL924 BYPASS REQUIRED	
B1	LANDSCAPE LIGHTING (TYPE B3)	260936	ON AT DUSK; OFF AT 11PM	NONE	NONE	60% OUTPUT	NONE	N/A	
B2	BUILDING-MOUNTED (TYPES D1, W1, W9)	260936	ON AT DUSK; OFF AT DAWN	NONE	NONE	80% OUTPUT	OVERRIDE-ON AT PHOTOCELL THRESHOLD (VARIES, TBD ON-SITE)	CONTROLLED, UL924 BYPASS REQUIRED	
B3	SERVICE YARD (TYPE W9)	260936	SWEEP OFF AT 12AM, DAWN	ON/OFF	NONE	80% OUTPUT	NONE	CONTROLLED, UL924 BYPASS REQUIRED	
C1	CUPOLA (TYPE F1)	260936	ON AT DUSK; OFF AT 11PM ON AT 5AM; OFF AT DAWN	PHASE-DIMMER FOR TASK TUNING ONLY	NONE	50% HIGH END TRIM	OVERRIDE-ON AT PHOTOCELL THRESHOLD TBD	N/A	
C2	VESTIBULES (TYPE D5)	260936	NONE	N/A	N/A	80% OUTPUT	NONE	CONTROLLED, UL924 BYPASS REQUIRED	
D	2-STORY OPEN COMPUTING (TYPES D7, L1)	260936	ON TO 50% AT OPENING; SWEEP TO LATENT SCENE AT CLOSING	DIM HIGH TO LOW (NOT OFF)	N/A	80% HIGH END TRIM; 10% LOW END TRIM	N/A	CONTROLLED, UL924 BYPASS REQUIRED	
E	EGRESS STAIRS (TYPE W4)	SEE LUMINAIRE SCHEDULE	NONE	NONE	100% OCCUCPIED, 50% UNOCCUPIED	NONE	NONE	CONTROLLED	CONTROLS INTEGRAL TO LUMINAIRE, WILL NOT GO OFF
F1	WEST LOBBY, CENTRAL LOBBY (TYPES C3, D4, D7, L10, P5)	260936	SCENE 1 DURING REGULAR BUILDING HOURS, SCENE 3 DURING EXTENDED HOURS; SCENE 2 FOR CLOSED	NONE	NONE	PER SCENES 1-3, SEE NOTE 6	NONE	24/7 NIGHT LIGHT	
F2	2-STORY LINK (TYPES D4, L1, P2)	260936	SCENE 1 DURING REGULAR BUILDING HOURS, SCENE 3 DURING EXTENDED HOURS; SCENE 2 FOR CLOSED	NONE	NONE	PER SCENES 1-3, SEE NOTE 6	NONE	24/7 NIGHT LIGHT	INTEGRATED SHADE CONTROL
F3	LEVEL 2/3 2-STORY LOUNGE (TYPES D4, L10)	260936	SCENE 1 DURING REGULAR BUILDING HOURS, SCENE 3 DURING EXTENDED HOURS; SCENE 2 FOR CLOSED	NONE	NONE	PER SCENES 1-3, SEE NOTE 6	N/A	24/7 NIGHT LIGHT	INTEGRATED SHADE CONTROL
G1	TECH INFO DESK (TYPE D8)	260936	ON TO 40% FOR BUILDING HOURS; SWEEP OFF AT CLOSING	DIM HIGH TO LOW (NOT OFF)	N/A	80% HIGH END TRIM	N/A	24/7 NIGHT LIGHT	
G2	TECH HUB, LEVEL 1 OPEN COLLABORATION (TYPES D4, D4A, L8, L9)	260936	ON TO 50% DURING REGULAR BUILDING HOURS, ON TO 80% DURING EXTENDED HOURS; SWEEP OFF AT CLOSING	DIM HIGH TO LOW (NOT OFF)	N/A	80% HIGH END TRIM	NONE	24/7 NIGHT LIGHT	
H	1056, 1077 (OPEN) GROUP STUDY (TYPE L1)	260936, 260923	ON/OFF PER BUILDING HOURS	DIM HIGH TO LOW (NOT OFF)	N/A	NONE	N/A	N/A	LOCAL DIMMER FOR DIMMING ONLY, ON/OFF BY RELAY PANEL
J1	EVENTS (TYPES D7, D7A, C3, L1, W8, W10)	260936	SWEEP TO LATENT SCENE AT CLOSING	SELECTION OF SCENES 1-6, SPOT TOGGLE	N/A	PER SCENES, TBD	NONE	CONTROLLED, UL924 BYPASS REQUIRED	AV INTEGRATION REQUIRED; INTEGRATED SHADE CONTROL; SCHEDULER FOR EVENT-BASED PROGRAMMING
J2	EXHIBIT (TYPE S1A)	260936	SCENE 1 DURING REGULAR BUILDING HOURS, SCENE 3 DURING EXTENDED HOURS; OFF AT CLOSING	SELECTION OF SCENES 1-3	N/A	PER SCENES, TBD	N/A	N/A	AV INTEGRATION REQUIRED
K1	VISUALIZATION LAB (TYPE L3B)	260936	NONE	ON/OFF/DIM, SELECTION OF SCENES 1-4	AUTO-ON SCENE 2; AUTO-OFF, 30 MIN	PER SCENES, TBD	N/A	N/A	AV INTEGRATION REQUIRED
K2	GREENSCREEN AND PODCAST (TYPE D6)	260936	NONE	ON/OFF/ DIM/ SELECTION OF SCENES 1-3	MANUAL-ON; AUTO-OFF, 30 MIN	PER SCENES, TBD	N/A	N/A	CONTROL OF TYPE S3 BY OWNER
L1	MAKER SPACE (TYPE L1)	260923	NONE	ON/OFF/DIM	MANUAL-ON; AUTO-OFF, 30 MIN	NONE	N/A	N/A	
L2	VR (TYPE L1)	260923	NONE	ON/OFF/DIM	MANUAL-ON; AUTO-OFF, 15 MIN	NONE	N/A	N/A	
L3	DIGI LAB, SCANNING, STAFF OFFICE, GROUP STUDY, AND OTHER ENCLOSED SHARED WORK SPACES (TYPE L1)	260923	NONE	ON/OFF/DIM	AUTO-OFF, 15 MIN	NONE	N/A	N/A	
M	(ENCLOSED) GROUP STUDY, PRIVATE OFFICES (TYPE L1)	260923	NONE	MANUAL-ON/OFF/DIM	AUTO-ON UPLIGHT ONLY; AUTO-OFF, 15 MIN	NONE	N/A	N/A	
N	SPECIAL COLLECTIONS (TYPES L1, L2, L3A)	260936	NONE	MANUAL HIGH/LOW SELECTION	AUTO-ON TO LOW; AUTO-OFF, 30 MIN	HIGH (80%)/LOW (40%)	N/A	24/7 NIGHT LIGHT	
P1	SPECIAL COLLECTIONS READING ROOM (TYPES D5, L6, W6)	260936	NONE	ON/OFF/DIM OF INDIVIDUAL ZONES	AUTO-ON UPLIGHT ONLY, AUTO-OFF, 30 MIN	NONE	N/A	N/A	
P2	CLASSROOMS (TYPE L1)	260936	NONE	ON/OFF/DIM SELECTION OF SCENES 1-4	MANUAL-ON, AUTO-OFF, 30 MIN	PER SCENES, TBD	N/A	N/A	AV INTEGRATION REQUIRED; INTEGRATE SHADE CONTROL
P3	LEVEL 2 OPEN COLLABORATION, SPECIAL COLLECTIONS STAFF (TYPE L3)	260936	NONE	DUAL-ZONE ON/OFF/DIM	AUTO-ON UPLIGHT; AUTO-OFF, 30 MIN	NONE	N/A	24/7 NIGHT LIGHT	
Q1	GRAND READING ROOM (TYPES C1, D5, L5, L9, P5, W5)	260936	SCHEDULE SCENES PER ASTRONOMIC SCHEDULE OF HIGH/LOW SUN, DUSK/DAWN; LATENT SCENE AT CLOSING	ON/OFF/DIM OF CURRENT SCENE	NONE	PER SCENES, TBD	NONE	CONTROLLED, UL924 BYPASS REQUIRED	TABLE-INTEGRATED LIGHTS NOT CONTROLLED
Q2	LOOKOUT (TYPES D1A, D4, D4A, C1, P3)	260936	NONE	ON/OFF/DIM/ SELECTION OF SCENES 1-4	MANUAL-ON; AUTO-OFF, 20 MIN	PER SCENES	NONE	24/7 NIGHT LIGHT	
R	GRAND READING ROOM STUDY CARRELS (TYPE W12)	260923	NONE	ON/OFF/DIM	MANUAL-ON; AUTO-OFF, 10 MIN	NONE	NONE	24/7 NIGHT LIGHT	EMERGENCY LIGHTS SERVE BASE ILLUMINATION WITHIN CARRELS AND AS ACCENT & EGRESS PATH LIGHTING FOR GRAND READING ROOM
S	LEVEL 3 CIRCULATION (TYPES D4, L5A)	260936	ON TO 80% AT BUILDING OPENING; SWEEP OFF AT BUILDING CLOSE	NONE	NONE	NONE	NONE	24/7 NIGHT LIGHT	LOCAL DIMMER FOR TYPE L5A, ON/OFF ONLY BY RELAY PANEL
T1	LEVEL 3 OPEN SEATING, STUDY CARRELS (TYPE L3)	260936	ON TO 10% AT BUILDING OPENING; SWEEP OFF AT BUILDING CLOSE	DUAL-ZONE DIMMING OVERRIDE (DISABLES PHOTOCELL)	OCCUPIED: ENABLE PHOTOCELLS; VACANCY (30 MIN): 10%	80% HIGH END TRIM	HARVEST DAYLIGHT TO 40FC AVE AT TASK PLANE	24/7 NIGHT LIGHT	MAINTAIN MANUAL OVERRIDE UNTIL VACANCY STATE. CHANGE OF STATE BACK TO OCCUPIED TO RE-ENABLE PHOTOCELL.
T2	COMPUTERS (TYPES L3, L9)	260936	ON TO 20% AT BUILDING OPENING; SWEEP OFF AT BUILDING CLOSE	DUAL-ZONE MANUAL DIMMING	AUTO-MED/LOW (30 MIN)	80% HIGH END TRIM; MED (50%)/LOW (20%)	NONE	N/A	MANUAL OVERRIDE TO BE MAINTAINED UNTIL CHANGE OF STATE TO VACANCY.
U	OPEN SEATING NOOKS (TYPES D5, W5)	260936	NONE	DUAL-ZONE MANUAL DIMMING OVERRIDE	AUTO-ON 50%; AUTO-OFF (20 MIN)	NONE	NONE	N/A	

NOTES:
1. "AV INTEGRATION" = PROVIDE CONTACT CLOSURE AND RS232 INTERFACE FOR RECEIVING AV SYSTEM COMMANDS
2. TASK TUNING = SETTING HIGH END OUTPUT LEVEL MAINTAINING ABILITY TO FURTHER REDUCE BY MANUAL OR AUTOMATIC MEANS; ALL TASK TUNING SETTINGS GIVEN ARE INTIAL TO BE CONFIRMED BY SCENE AND LEVEL TUNING PROCESS.
3. SCHEDULED SCENE CHANGES SHALL OCCUR OVER A 2-MINUTE FADE PERIOD.
4. HIGH/LOW AUTOMATIC OCCUPANCY CONTROL IS TO MAINTAIN LOW SETPOINT UPON VACANCY WITH HIGH SETPOINT UPON OCCUPANCY. THIS IS SPECIFIC TO STAIRWELLS.
5. THIS BUILDING IS A 24-HOUR FACILITY FOR PORTIONS OF THE YEAR. HOLIDAY CLOSURES MAY BE 1 DAY OR MULTIPLE WEEKS. VERIFY ACADEMIC TERMS AND SCHEDULING WITH OWNER PRIOR TO PROGRAMMING.
6. FOR INTERIOR SPACES WITH CONTROLLED EMERGENCY LIGHTING, A "LATENT" SCENE IS DEFINED WITH ALL NORMAL ZONES ARE OFF AND EMERGENCY ZONES ARE ENERGIZED TO 50% OR AS REQUIRED TO PROVIDE EGRESS AND SECURITY LIGHTING.
7. ALL SPACES NOT IDENTIFIED ABOVE ARE TO BE CONTROLLED WITH CONVENTIONAL DEVICES AS DESCRIBED IN SPECIFICATION 260923.
8. SCENES REFERENCED FOR PUBLIC AREAS INCLUDE AT MINIMUM SCENE 1 (HIGH) WITH ALL ZONES AT 80%; SCENE 2 (LOW) WITH GENERAL LIGHTING ZONES AT 20% AND ACCENT ZONES OFF; SCENE 3 (MED) WITH GENERAL ZONES AT 60% AND ACCENT ZONES AT 80% TO BE REFINED IN SCENE AND LEVEL TUNING PROCESS.
9. REFER TO SPECIFICATION 260936 FOR SYSTEM SPECIFICATION AS WELL AS DETAILED SUBMITTAL REQUIREMENTS.

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07/01/22

RANDALL LIBRARY RENOVATION & EXPANSION
UNCW
5162 RANDALL DRIVE
WILMINGTON, NC
SCO ID: 18-19656-02C
LS3P PROJECT: 7202-197980

Δ	DATE	DESCRIPTION
0	2022.07.01	PACKAGE C - BID DOCUMENTS

SHEET NAME:
LIGHTING SCHEDULES

ORIG SUBMISSION: 2022.07.01
CURRENT: 2022.07.01
PACKAGE C - BID DOCUMENTS

SHEET:
E601
PACKAGE C - BID DOCUMENTS

E D C B A
1 2 3 4 5 6

THIS LINE SHOWN ABOVE IS EXACTLY ONE INCH LONG AT THE ORIGINAL DRAWING SIZE

SHEET KEYNOTES

1 DEDICATED SECTION FOR EMERGENCY ATS

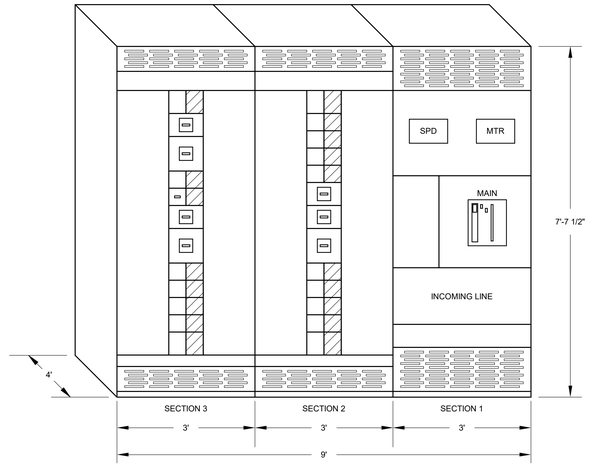
SWITCHBOARD MDS

MAIN TYPE MCB
MAIN RATING 2000 A
BUS RATING 2000 A
VOLTAGE 480/277 Wye
3 PHASE **4 WIRE**
MOUNTING FLOOR
ENCLOSURE NEMA 1
LOCATION LEVEL 1,ELEC 1081
FED FROM UTILITY XFMR
SCCR 42 kA
CALCULATED AVAILABLE FAULT... 30.3 kA

REMARKS:

SPACE	DESCRIPTION	CONNECTED LOAD (kVA)	FRAME	TRIP	POLES	BRKR NOTES	NOTES
1	ATS-E	26.637 kVA	400 A	400 A	3		
2	ATS-OP	281.915 kVA	400 A	400 A	3		
3	TEMP CHILLER CONNECTION	625.000 kVA	1000 A	1000 A	3		
4	LDP1	56.365 kVA	250 A	250 A	3		
5	MDP4	236.728 kVA	800 A	800 A	3		
6	HDP1	295.992 kVA	800 A	800 A	3		
7	SPARE	0.000 kVA	--	800 A	3		
8	SPARE	0.000 kVA	--	400 A	3		
9	SPACE	0.000 kVA	--	--	--	--	
10	SPACE	0.000 kVA	--	--	--	--	
11	SPACE	0.000 kVA	--	--	--	--	
12	SPACE	0.000 kVA	--	--	--	--	
13	SPACE	0.000 kVA	--	--	--	--	
14	SPACE	0.000 kVA	--	--	--	--	
15	SPACE	0.000 kVA	--	--	--	--	
16	SPACE	0.000 kVA	--	--	--	--	
17	SPACE	0.000 kVA	--	--	--	--	
18	SPACE	0.000 kVA	--	--	--	--	
19	SPACE	0.000 kVA	--	--	--	--	
20	SPD	0.000 kVA	--	100 A	3		

LOAD CLASSIFICATION	CONNECTED (KVA)	DEMAND FACTOR	DEMAND (KVA)
POWER	32.830 kVA	100%	32.830 kVA
LIGHTING	66.442 kVA	125%	83.052 kVA
MOTOR	1115.781 kVA	125% LARGEST, 100% OTHER	1272.031 kVA
RECEPTACLES	259.084 kVA	100% FIRST 10KVA, 50% OTHER	134.542 kVA
HEATING	41.500 kVA	125%	51.875 kVA
TOTAL LOAD	1522.837 kVA		1581.330 kVA
TOTAL AMPS	1831 A		1902 A



1 **SWITCHBOARD MDS ELEVATION**
SCALE: NOT TO SCALE

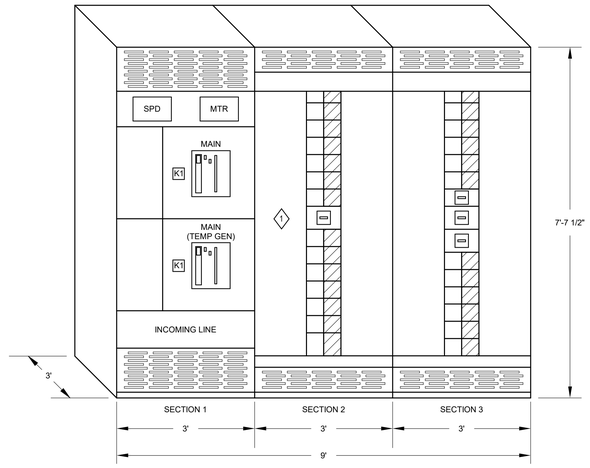
SWITCHBOARD EMDS

MAIN TYPE MCB
MAIN RATING 600 A
BUS RATING 800 A
VOLTAGE 480/277 Wye
3 PHASE **4 WIRE**
MOUNTING FLOOR
ENCLOSURE NEMA 1
LOCATION LEVEL 1,EMERGENCY...
FED FROM GENERATOR
SCCR 35 kA
CALCULATED AVAILABLE FAULT... 2.4 kA

REMARKS:

SPACE	DESCRIPTION	CONNECTED LOAD (kVA)	FRAME	TRIP	POLES	BRKR NOTES	NOTES
1	TEMP GENERATOR CONNECTION	0.000 kVA	--	600 A	3		
2	ATS-E	26.637 kVA	400 A	400 A	3		
3	ATS-OP	281.915 kVA	400 A	400 A	3		
4	SPARE	0.000 kVA	--	400 A	3		
5	SPARE	0.000 kVA	--	250 A	3		
6	SPACE	0.000 kVA	--	--	--	--	
7	SPACE	0.000 kVA	--	--	--	--	
8	SPACE	0.000 kVA	--	--	--	--	
9	SPACE	0.000 kVA	--	--	--	--	
10	SPACE	0.000 kVA	--	--	--	--	
11	SPACE	0.000 kVA	--	--	--	--	
12	SPACE	0.000 kVA	--	--	--	--	
13	SPACE	0.000 kVA	--	--	--	--	
14	SPACE	0.000 kVA	--	--	--	--	
15	SPACE	0.000 kVA	--	--	--	--	
16	SPACE	0.000 kVA	--	--	--	--	
17	SPACE	0.000 kVA	--	--	--	--	
18	SPACE	0.000 kVA	--	--	--	--	
19	SPACE	0.000 kVA	--	--	--	--	
20	SPD	0.000 kVA	--	100 A	3		

LOAD CLASSIFICATION	CONNECTED (KVA)	DEMAND FACTOR	DEMAND (KVA)
POWER	25.330 kVA	100%	25.330 kVA
LIGHTING	10.077 kVA	125%	12.597 kVA
MOTOR	216.025 kVA	125% LARGEST, 100% OTHER	226.480 kVA
RECEPTACLES	22.520 kVA	100% FIRST 10KVA, 50% OTHER	16.260 kVA
HEATING	27.600 kVA	125%	34.500 kVA
TOTAL LOAD	308.552 kVA		322.167 kVA
TOTAL AMPS	371 A		388 A



2 **SWITCHBOARD EMDS ELEVATION**
SCALE: NOT TO SCALE

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0	2022.07.01	PACKAGE C - BID DOCUMENTS

SHEET NAME:
ELECTRICAL SCHEDULES & ELEVATIONS

ORIG SUBMISSION: 2022.07.01
CURRENT: 2022.07.01
PACKAGE C - BID DOCUMENTS

SHEET:
E602
PACKAGE C - BID DOCUMENTS

GRP4

MAIN TYPE	MCB	VOLTAGE	120/208 Wye
MAIN RATING	150 A	PHASE / WIRE	3 PHASE 4 WIRE
BUS RATING	150 A	MOUNTING	Surface
LOCATION	ROOF BRNG,MECHANICAL 4000	ENCLOSURE	Type 1
FED FROM	T-G4	SCCR	14 kA
CALCULATED AVAILABLE FAULT...	2.6 kA		

REMARKS: "LOTO" IN BREAKER NOTES COLUMN DENOTES CIRCUIT BREAKER SHALL BE PROVIDED WITH LOCK-OUT / TAG-OUT CAPABILITIES

DESCRIPTION	BRKR NOTES	BRKR AMP	POLES	CKT NO	LEFT A	LEFT B	LEFT C	RIGHT A	RIGHT B	RIGHT C	CKT NO	POLES	BRKR AMP	BRKR NOTES	DESCRIPTION
CU-2		30 A	2	1	2.19			0.50			2	1	15 A	LOTO	ELEVATOR 14 CAB PWR & LIGHTS
--	--	--	--	3		2.19			0.05		4	1	15 A	LOTO	ELEVATOR 13 CAB PWR & LIGHTS
BAS CONTROLS		20 A	1	5			0.50			0.50	6	1	15 A		ELEVATOR 14 CAB TWCS
BAS CONTROLS		20 A	1	7	0.50			0.05			8	1	15 A		ELEVATOR 13 CAB TWCS
BAS CONTROLS		20 A	1	9		0.50			0.54		10	1	20 A		RECEPTACLES - LEVEL 4
BAS CONTROLS		20 A	1	11			0.50			0.36	12	1	20 A		RECEPTACLE - RM#4001
BAS CONTROLS		20 A	1	13	0.50			0.36			14	1	20 A		RECEPTACLE - RM#4001
Spare		20 A	1	15		0.00			0.00		16	1	20 A		Spare
Spare		20 A	1	17			0.00			0.00	18	1	20 A		Spare
Space	--	--	--	19	0.00			0.00			20	--	--	--	Space
Space	--	--	--	21		0.00			0.00		22	--	--	--	Space
Space	--	--	--	23			0.00			0.00	24	--	--	--	Space
Space	--	--	--	25	0.00			0.00			26	--	--	--	Space
Space	--	--	--	27		0.00			0.00		28	--	--	--	Space
Space	--	--	--	29			0.00			0.00	30	--	--	--	Space

TOTAL PHASE SUMMARY	A	B	C
PHASE SUBTOTAL (kVA):	4.09...	3.27...	1.8...
PHASE SUBTOTAL (AMPS):	36 A	29 A	16 A

LOAD CLASSIFICATION	CONNECTED (KVA)	DEMAND FACTOR	DEMAND (KVA)
POWER	5.370 kVA	100%	5.370 kVA
LIGHTING	0.000 kVA	125%	0.000 kVA
MOTOR	0.100 kVA	125% LARGEST, 100% OTHER	0.113 kVA
RECEPTACLE	1.260 kVA	100% FIRST 10KVA, 50% OTHER	1.260 kVA
HEATING	0.000 kVA	125%	0.000 kVA
TOTAL LOAD	9.230 kVA		9.243 kVA
TOTAL AMPS	26 A		26 A

GRP1

MAIN TYPE	MCB	VOLTAGE	120/208 Wye
MAIN RATING	225 A	PHASE / WIRE	3 PHASE 4 WIRE
BUS RATING	225 A	MOUNTING	Surface
LOCATION	LEVEL 1,ELECTRICAL 1079A	ENCLOSURE	Type 1
FED FROM	T-GRP1	SCCR	18 kA
CALCULATED AVAILABLE FAULT...	5.3 kA		

REMARKS: "LOTO" IN BREAKER NOTES COLUMN DENOTES CIRCUIT BREAKER SHALL BE PROVIDED WITH LOCK-OUT / TAG-OUT CAPABILITIES

DESCRIPTION	BRKR NOTES	BRKR AMP	POLES	CKT NO	LEFT A	LEFT B	LEFT C	RIGHT A	RIGHT B	RIGHT C	CKT NO	POLES	BRKR AMP	BRKR NOTES	DESCRIPTION
EH-1		20 A	2	1	1.00			2.54			2	3	60 A		GRP1B
--	--	--	--	3		1.00			2.40		4	--	--	--	--
ELECTRIC HEAT - AT 2094	LOTO	20 A	2	5			1.20			2.22	6	--	--	--	--
--	--	--	--	7	1.20			2.83			8	3	60 A		GRP2
ELECTRIC HEAT - AT 2103-1	LOTO	35 A	2	9		2.55			2.83		10	--	--	--	--
--	--	--	--	11			2.55			3.08	12	--	--	--	--
ELECTRIC HEAT - AT 2103-2	LOTO	50 A	2	13	3.75			2.38			14	3	60 A		GRP3
--	--	--	--	15		3.75			2.24		16	--	--	--	--
ELECTRIC HEAT - AT 2103-3	LOTO	50 A	2	17			3.75			2.50	18	--	--	--	--
--	--	--	--	19	3.75			0.58			20	3	20 A	LOTO	JOCKEY PUMP
ELECTRIC HEAT - AT 2103-4	LOTO	35 A	2	21		2.55			0.58		22	--	--	--	--
--	--	--	--	23			2.55			0.58	24	--	--	--	--
BAS CONTROLS AHU-3		20 A	1	25	0.50			0.25			26	2	20 A		ACU 1-3
BAS CONTROLS AHU-4		20 A	1	27		0.50			0.25		28	--	--	--	--
Spare		20 A	1	29			0.00			0.25	30	2	20 A		ACU 1-4
Spare		20 A	1	31	0.00			0.25			32	--	--	--	--
Spare		20 A	1	33		0.00			0.25		34	2	20 A		ACU 1-5
Spare		20 A	1	35			0.00			0.25	36	--	--	--	--
Space	--	--	--	37	0.00			0.00			38	--	--	--	Space
Space	--	--	--	39		0.00			0.00		40	--	--	--	Space
Space	--	--	--	41			0.00			0.00	42	--	--	--	Space

TOTAL PHASE SUMMARY	A	B	C
PHASE SUBTOTAL (kVA):	19.0...	18.8...	18....
PHASE SUBTOTAL (AMPS):	159 A	157 A	158 A

LOAD CLASSIFICATION	CONNECTED (KVA)	DEMAND FACTOR	DEMAND (KVA)
POWER	2.000 kVA	100%	2.000 kVA
LIGHTING	0.000 kVA	125%	0.000 kVA
MOTOR	9.655 kVA	125% LARGEST, 100% OTHER	10.155 kVA
RECEPTACLE	13.100 kVA	100% FIRST 10KVA, 50% OTHER	11.550 kVA
HEATING	27.600 kVA	125%	34.500 kVA
TOTAL LOAD	56.855 kVA		62.705 kVA
TOTAL AMPS	158 A		174 A

EDP1

MAIN TYPE	MCB	VOLTAGE	480/277 Wye
MAIN RATING	400 A	PHASE / WIRE	3 PHASE 4 WIRE
BUS RATING	400 A	MOUNTING	Surface
LOCATION	LEVEL 1,EMERGENCY...	ENCLOSURE	NEMA 1
FED FROM	ATS-E	SCCR	35 kA
CALCULATED AVAILABLE FAULT...	25.4 kA		

REMARKS: ALL CIRCUIT BREAKERS SHALL BE SELECTIVELY COORDINATED. PROVIDE CIRCUIT BREAKERS CAPABLE OF SELECTIVE COORDINATION. INCREASE SCCR AS REQUIRED TO ACHIEVE SELECTIVE COORDINATION WITH UPSTREAM BREAKERS

SPACE	DESCRIPTION	CONNECTED LOAD (kVA)	FRAME	TRIP	POLES	BRKR NOTES	NOTES
1	T-ERA	16.560 kVA	150 A	150 A	3		
2	ELDP1	10.077 kVA	225 A	225 A	3		
3	T-GEN	0.000 kVA	--	30 A	3		
4	Spare	0.000 kVA	--	225 A	3		
5	Spare	0.000 kVA	--	100 A	3		
6	Space	0.000 kVA	--	--	--	--	
7	Space	0.000 kVA	--	--	--	--	
8	Space	0.000 kVA	--	--	--	--	
9	Space	0.000 kVA	--	--	--	--	
10	Space	0.000 kVA	--	--	--	--	
11	Space	0.000 kVA	--	--	--	--	
12	Space	0.000 kVA	--	--	--	--	
13	Space	0.000 kVA	--	--	--	--	
14	Space	0.000 kVA	--	--	--	--	
15	Space	0.000 kVA	--	--	--	--	
16	Space	0.000 kVA	--	--	--	--	
17	Space	0.000 kVA	--	--	--	--	
18	Space	0.000 kVA	--	--	--	--	
19	Space	0.000 kVA	--	--	--	--	
20	SPD	0.000 kVA	--	30 A	3		

LOAD CLASSIFICATION	CONNECTED (KVA)	DEMAND FACTOR	DEMAND (KVA)
POWER	0.000 kVA	100%	0.000 kVA
LIGHTING	10.077 kVA	125%	12.597 kVA
MOTOR	8.400 kVA	125% LARGEST, 100% OTHER	8.700 kVA
RECEPTACLES	8.160 kVA	100% FIRST 10KVA, 50% OTHER	8.160 kVA
HEATING	0.000 kVA	125%	0.000 kVA
TOTAL LOAD	26.637 kVA		29.457 kVA
TOTAL AMPS	32 A		35 A

GMP4

MAIN TYPE	MCB	VOLTAGE	480/277 Wye
MAIN RATING	225 A	PHASE / WIRE	3 PHASE 4 WIRE
BUS RATING	225 A	MOUNTING	Surface
LOCATION	ROOF BRNG,MECHANICAL 4000	ENCLOSURE	Type 1
FED FROM	GDP1	SCCR	25 kA
CALCULATED AVAILABLE FAULT...	20.9 kA		

REMARKS:

DESCRIPTION	BRKR NOTES	BRKR AMP	POLES	CKT NO	LEFT A	LEFT B	LEFT C	RIGHT A	RIGHT B	RIGHT C	CKT NO	POLES	BRKR AMP	BRKR NOTES	DESCRIPTION
CU-1		30 A	3	1	5.99			3.88			2	3	30 A		ELEVATOR 13
--	--	--	--	3		5.99			3.88		4	--	--	--	--
--	--	--	--	5			5.99			3.88	6	--	--	--	--
Spare		20 A	1	7	0.00			5.82			8	3	40 A		ELEVATOR 14
Spare		20 A	1	9		0.00			5.82		10	--	--	--	--
Spare		20 A	1	11			0.00			5.82	12	--	--	--	--
Space	--	--	--	13	0.00			0.00			14	--	--	--	Space
Space	--	--	--	15		0.00			0.00		16	--	--	--	Space
Space	--	--	--	17			0.00			0.00	18	--	--	--	Space
Space	--	--	--	19	0.00			0.00			20	--	--	--	Space
Space	--	--	--	21		0.00			0.00		22	--	--	--	Space
Space	--	--	--	23			0.00			0.00	24	--	--	--	Space
Space	--	--	--	25	0.00			0.00			26	--	--	--	Space
Space	--	--	--	27		0.00			0.00		28	--	--	--	Space
Space	--	--	--	29			0.00			0.00	30	--	--	--	Space
Space	--	--	--	31	0.00			0.00			32	--	--	--	Space
Space	--	--	--	33		0.00			0.00		34	--	--	--	Space
Space	--	--	--	35			0.00			0.00	36	--	--	--	Space
Space	--	--	--	37	0.00			0.00			38	--	--	--	Space
Space	--	--	--	39		0.00			0.00		40	--	--	--	Space
Space	--	--	--	41			0.00			0.00	42	--	--	--	Space

TOTAL PHASE SUMMARY	A	B	C
PHASE SUBTOTAL (kVA):	15.6...	15.6...	15....
PHASE SUBTOTAL (AMPS):	57 A	57 A	57 A

LOAD CLASSIFICATION	CONNECTED (KVA)	DEMAND FACTOR	DEMAND (KVA)
POWER	17.960 kVA	100%	17.960 kVA
LIGHTING	0.000 kVA	125%	0.000 kVA
MOTOR	29.100 kVA	125% LARGEST, 100% OTHER	33.465 kVA
RECEPTACLE	0.000 kVA	100% FIRST 10KVA, 50% OTHER	0.000 kVA
HEATING	0.000 kVA	125%	0.000 kVA
TOTAL LOAD	47.060 kVA		51.425 kVA
TOTAL AMPS	57 A		62 A

GRP2

MAIN TYPE	MCB	VOLTAGE	120/208 Wye
MAIN RATING	60 A	PHASE / WIRE	3 PHASE 4 WIRE
BUS RATING	100 A	MOUNTING	Surface
LOCATION	LEVEL 2,ELECTRICAL 2096D	ENCLOSURE	Type 1
FED FROM	GRP1	SCCR	10 kA
CALCULATED AVAILABLE FAULT...	2.3 kA		

REMARKS:

DESCRIPTION	BRKR NOTES	BRKR AMP	POLES	CKT NO	LEFT A	LEFT B	LEFT C	RIGHT A	RIGHT B	RIGHT C	CKT NO	POLES	BRKR AMP	BRKR NOTES	DESCRIPTION
RECEPTACLE - RM#2090A		20 A	2	1	0.50			0.25			2	2	20 A		ACU 2-1
--	--	--	--	3		0.50			0.25		4	--	--	--	--
RECEPTACLE - RM#2091		20 A	2	5			0.50			0.25	6	2	20 A		ACU 2-2
--	--	--	--	7	0.50			0.25			8	--	--	--	--
RECEPTACLE - RM#2090A		20 A	1	9		0.36			0.25		10	2	20 A		ACU 2-3
RECEPTACLE - RM#2090A		20 A	1	11			0.36			0.25	12	--	--	--	--
RECEPTACLE - RM#2090A		20 A	1	13	0.36			0.25			14	2	20 A		ACU 2-4
RECEPTACLE - RM#2090A		20 A	1	15		0.36			0.25		16	--	--	--	--
RECEPTACLE - RM#2090A		20 A	1	17			0.36			0.36	18	1	20 A		RECEPTACLE - RM#2089
RECEPTACLE - RM#2091		20 A	1	19	0.36			0.36			20	1	20 A		RECEPTACLE - RM#2089
RECEPTACLE - RM#2091		20 A	1	21		0.36			0.50		22	1	20 A		BAS CONTROLS
DOOR OPERATOR - SP. COL...		20 A	1	23			0.50			0.50	24	1	20 A		BAS CONTROLS
Space	--	--	--	25	0.00			0.00			26	1	20 A		Spare
Space	--	--	--	27		0.00			0.00		28	1	20 A		Spare
Space	--	--	--	29			0.00			0.00	30	1	20 A		Spare

TOTAL PHASE SUMMARY	A	B	C
PHASE SUBTOTAL (kVA):	2.83...	2.83...	3.0...
PHASE SUBTOTAL (AMPS):	24 A	24 A	26 A

LOAD CLASSIFICATION	CONNECTED (KVA)	DEMAND FACTOR	DEMAND (KVA)
POWER	0.000 kVA	100%	0.000 kVA
LIGHTING	0.000 kVA	125%	0.000 kVA
MOTOR	2.500 kVA	125% LARGEST, 100% OTHER	2.625 kVA
RECEPTACLE	5.240 kVA	100% FIRST 10KVA, 50% OTHER	5.240 kVA
HEATING	0.000 kVA	125%	0.000 kVA
TOTAL LOAD	8.740 kVA		8.865 kVA
TOTAL AMPS	24 A		25 A

GDP1

MAIN TYPE	MCB	VOLTAGE	480/277 Wye
MAIN RATING	400 A	PHASE / WIRE	3 PHASE 4 WIRE
BUS RATING	400 A	MOUNTING	Surface
LOCATION	LEVEL 1,EMERGENCY...	ENCLOSURE	Type 1
FED FROM	ATS-OP	SCCR	35 kA
CALCULATED AVAILABLE FAULT...	25.4 kA		

REMARKS:

SPACE	DESCRIPTION	CONNECTED LOAD (kVA)	FRAME	TRIP	POLES	BRKR NOTES	NOTES
1	GMP1	168.770 kVA	225 A	225 A	3		
2	GMP4	47.060 kVA	225 A	225 A	3		
3	T-GRP1	56.855 kVA	150 A	150 A	3		
4	T-G4	9.230 kVA	90 A	90 A	3		
5	Spare	0.000 kVA	--	225 A	3		
6	Spare	0.000 kVA	--	100 A	3		
7	Space	0.000 kVA	--	--	--	--	
8	Space	0.000 kVA	--	--	--	--	
9	Space	0.000 kVA	--	--	--	--	
10	Space	0.000 kVA	--	--	--	--	
11	Space	0.000 kVA	--	--	--	--	
12	Space	0.000 kVA	--	--	--	--	
13	Space	0.000 kVA	--	--	--	--	
14	Space	0.000 kVA	--	--	--	--	
15	Space	0.000 kVA	--	--	--	--	
16	Space	0.000 kVA	--	--	--	--	
17	Space	0.000 kVA	--	--	--	--	
18	Space	0.000 kVA	--	--	--	--	
19	Space	0.000 kVA	--	--	--	--	
20	SPD	0.000 kVA	--	30 A	3		

LOAD CLASSIFICATION	CONNECTED (KVA)	DEMAND FACTOR	DEMAND (KVA)
POWER	25.330 kVA	100%	25.330 kVA
LIGHTING	0.000 kVA	125%	0.000 kVA
MOTOR	207.625 kVA	125% LARGEST, 100% OTHER	218.080 kVA
RECEPTACLES	14.360 kVA	100% FIRST 10KVA, 50% OTHER	12.180 kVA
HEATING	27.600 kVA	125%	34.500 kVA
TOTAL LOAD	281.915 kVA		297.090 kVA
TOTAL AMPS	339 A		357 A

ELDP1

MAIN TYPE	MCB	VOLTAGE	480/277 Wye
MAIN RATING	225 A	PHASE / WIRE	3 PHASE 4 WIRE
BUS RATING	225 A	MOUNTING	Surface
LOCATION	LEVEL 1,ELECTRICAL 1058D	ENCLOSURE	Type 1
FED FROM	EDP1	SCCR	18 kA
CALCULATED AVAILABLE FAULT...	12.3 kA		

REMARKS: ALL CIRCUIT BREAKERS SHALL BE SELECTIVELY COORDINATED. PROVIDE CIRCUIT BREAKERS CAPABLE OF SELECTIVE COORDINATION. INCREASE SCCR AS REQUIRED TO ACHIEVE SELECTIVE COORDINATION WITH UPSTREAM BREAKERS

DESCRIPTION	BRKR NOTES	BRKR AMP	POLES	CKT NO	LEFT A	LEFT B	LEFT C	RIGHT A	RIGHT B	RIGHT C	CKT NO	POLES	BRKR AMP	BRKR NOTES	DESCRIPTION
ELP1		50 A	3	1	1.45			0.44			2	3	50 A		ELP3
--	--	--	--	3		1.34			0.67		4	--	--	--	--
--	--	--	--	5			1.14			0.82	6	--	--	--	--
ELP2		50 A	3	7	0.57			0.42			8	3	50 A		ELP4
--	--	--	--	9		1.47			0.17		10	--	--	--	--
--	--	--	--	11			0.68			0.93	12	--	--	--	--
Spare		50 A	3	13	0.00			0.00			14	3	50 A		Spare
--	--	--	--	15		0.00			0.00		16	--	--	--	--
--	--	--	--	17			0.00			0.00	18	--	--	--	--
Space	--	--	--	19	0.00			0.00			20	--	--	--	Space
Space	--	--	--	21		0.00			0.00		22	--	--	--	Space
Space	--	--	--	23			0.00			0.00	24	--	--	--	Space
Space	--	--	--	25	0.00			0.00			26	--	--	--	Space
Space	--	--	--	27		0.00			0.00		28	--	--	--	Space
Space	--	--	--	29			0.00			0.00	30	--	--	--	Space
Space	--	--	--	31	0.00			0.00			32	--	--	--	Space
Space	--	--	--	33		0.00			0.00		34	--	--	--	Space
Space	--	--	--	35			0.00			0.00	36	--	--	--	Space
Space	--	--	--	37	0.00			0.00			38	3	30 A		SPD
Space	--	--	--	39		0.00			0.00		40	--	--	--	--
Space	--	--	--	41			0.00			0.00	42	--	--	--	--

TOTAL PHASE SUMMARY	A	B	C
PHASE SUBTOTAL (kVA):	2.87...	3.63...	3.5...
PHASE SUBTOTAL (AMPS):	10 A	14 A	13 A

LOAD CLASSIFICATION	CONNECTED (KVA)	DEMAND FACTOR	DEMAND (KVA)
POWER	0.000 kVA	100%	0.000 kVA
LIGHTING	10.077 kVA	125%	12.597 kVA
MOTOR	0.000 kVA	125% LARGEST, 100% OTHER	0.000 kVA
RECEPTACLE	0.000 kVA	100% FIRST 10KVA, 50% OTHER	0.000 kVA
HEATING	0.000 kVA	125%	0.000 kVA
TOTAL LOAD	10.077 kVA		12.597 kVA
TOTAL AMPS	12 A		15 A

GRP3

MAIN TYPE	MCB	VOLTAGE	120/208 Wye
MAIN RATING	60 A	PHASE / WIRE	3 PHASE 4 WIRE
BUS RATING	100 A	MOUNTING	Surface
LOCATION	LEVEL 3,ELECTRICAL 3022	ENCLOSURE	Type 1
FED FROM	GRP1	SCCR	10 kA
CALCULATED AVAILABLE FAULT...	2.3 kA		

REMARKS:

DESCRIPTION	BRKR NOTES	BRKR AMP	POLES	CKT NO	LEFT A	LEFT B	LEFT C	RIGHT A	RIGHT B	RIGHT C	CKT NO	POLES	BRKR AMP	BRKR NOTES	DESCRIPTION
RECEPTACLE - RM#3005		20 A	2	1	0.50			0.06			2	2	20 A		ACU 3-1
--	--	--	--	3		0.50			0.06		4	--	--	--	--
RECEPTACLE - RM#3007		20 A	2	5			0.50			0.05	6	2	20 A		ACU 3-2
--	--	--	--	7	0.50			0.05			8	--	--	--	--
RECEPTACLE - RM#3005		20 A	1	9		0.36			0.05		10	2	20 A		ACU 3-3
RECEPTACLE - RM#3005		20 A	1	11			0.36			0.05	12	--	--	--	--
RECEPTACLE - RM#3005		20 A	1	13	0.36			0.05			14	2	20 A		ACU 3-4
RECEPTACLE - RM#3005		20 A	1	15		0.36			0.05		16	--	--	--	--
RECEPTACLE - RM#3005		20 A	1	17			0.36			0.50	18	1	20 A		BAS CONTROLS
RECEPTACLE - RM#3007		20 A	1	19	0.36			0.50			20	1	20 A		BAS CONTROLS
RECEPTACLE - RM#3007		20 A	1	21		0.36			0.50		22	1	20 A		BAS CONTROLS
RECEPTACLE - EV13 DS CABINET		20 A	1	23			0.18			0.50	24	1	20 A		BAS CONTROLS
Space	--	--	--	25	0.00			0.00			26	--	--	--	Space
Space	--	--	--	27		0.00			0.00		28	--	--	--	Space
Space	--	--	--	29			0.00			0.00	30	--	--	--	Space

TOTAL PHASE SUMMARY	A	B	C
PHASE SUBTOTAL (kVA):	2.38...	2.24...	2.5...
PHASE SUBTOTAL (AMPS):	20 A	19 A	21 A

LOAD CLASSIFICATION	CONNECTED (KVA)	DEMAND FACTOR	DEMAND (KVA)
POWER	0.000 kVA	100%	0.000 kVA
LIGHTING	0.000 kVA	125%	0.000 kVA
MOTOR	0.425 kVA	125% LARGEST, 100% OTHER	0.456 kVA
RECEPTACLE	4.700 kVA	100% FIRST 10KVA, 50% OTHER	4.700 kVA
HEATING	0.000 kVA	125%	0.000 kVA
TOTAL LOAD	7.125 kVA		7.156 kVA
TOTAL AMPS	20 A		20 A

GMP1

MAIN TYPE	MCB	VOLTAGE	480/277 Wye
MAIN RATING	225 A	PHASE / WIRE	3 PHASE 4 WIRE
BUS RATING	225 A	MOUNTING	Surface
LOCATION	LEVEL 1,ELECTRICAL 1079A	ENCLOSURE	Type 1
FED FROM	GDP1	SCCR	25 kA
CALCULATED AVAILABLE FAULT...	20.9 kA		

REMARKS:

DESCRIPTION	BRKR NOTES	BRKR AMP	POLES	CKT NO	LEFT A	LEFT B	LEFT C	RIGHT A	RIGHT B	RIGHT C	CKT NO	POLES	BRKR AMP	BRKR NOTES	DESCRIPTION
AHU-3		70 A	3	1	13.94			13.94			2	3	70 A		AHU-4
--	--	--	--	3		13.94			13.94		4	--	--	--	--
--	--	--	--	5			13.94			13.94	6	--	--	--	--
CU-3		45 A	3	7	9.15			9.15			8	3	45 A		CU-4
--	--	--	--	9		9.15			9.15		10	--	--	--	--
--	--	--	--	11			9.15			9.15	12	--	--	--	--
PP-1		20 A	3	13	3.43			6.65			14	3	30 A		SG-1
--	--	--	--	15		3.43			6.65		16	--	--	--	--
--	--	--	--	17			3.43			6.65	18	--	--	--	--
Space	--	--	--	19	0.00			0.00			20	--	--	--	Space
Space	--	--	--	21		0.00			0.00		22	--	--	--	Space
Space	--	--	--	23			0.00			0.00	24	--	--	--	Space
Space	--	--	--	25	0.00			0.00			26	--	--	--	Space
Space	--	--	--	27		0.00			0.00		28	--	--	--	Space
Space	--	--	--	29			0.00			0.00	30	--	--	--	Space
Space	--	--	--	31	0.00			0.00			32	--	--	--	Space
Space	--	--	--	33		0.00			0.00		34	--	--	--	Space
Space	--	--	--	35			0.00			0.00	36	--	--	--	Space
Space	--	--	--	37	0.00			0.00			38	--	--	--	Space
Space	--	--	--	39		0.00			0.00		40	--	--	--	Space
Space	--	--	--	41			0.00			0.00	42	--	--	--	Space

TOTAL PHASE SUMMARY	A	B	C
PHASE SUBTOTAL (kVA):	56.2...	56.2...	56....
PHASE SUBTOTAL (AMPS):	203 A	203 A	203 A

LOAD CLASSIFICATION	CONNECTED (KVA)	DEMAND FACTOR	DEMAND (KVA)
POWER	0.000 kVA	100%	0.000 kVA
LIGHTING	0.000 kVA	125%	0.000 kVA
MOTOR	168.770 kVA	125% LARGEST, 100% OTHER	179.225 kVA
RECEPTACLE	0.000 kVA	100% FIRST 10KVA, 50% OTHER	0.000 kVA
HEATING	0.000 kVA	125%	0.000 kVA
TOTAL LOAD	168.770 kVA		179.225 kVA
TOTAL AMPS	203 A		216 A

PANEL SCHEDULE LEGEND

GRP4	GRP1	EDP1
GMP4	GRP2	GDP1
ELDP1	GRP3	GMP1

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Δ	DATE	DESCRIPTION
0	2022.07.01	PACKAGE C - BID DOCUMENTS

SHEET NAME: PANEL SCHEDULES - EMERGENCY POWER

ORIG SUBMISSION: 2022.07.01
CURRENT: 2022.07.01
PACKAGE C - BID DOCUMENTS

SHEET: E603

THE LINE SHOWN ABOVE IS EXACTLY ONE INCH LONG AT THE FULL ENGINEERING SCALE

ERP2

MAIN TYPE MCB | **VOLTAGE** 120/208 Wye | **LOCATION** LEVEL 2,ELECTRICAL 2096D
MAIN RATING 50 A | 3 **PHASE** 4 **WIRE** | **FED FROM** ERDP1
BUS RATING 100 A | **MOUNTING** Surface | **SCCR** 25 kA
ENCLOSURE Type 1 | **CALCULATED AVAILABLE FAULT...** 4.0 kA

REMARKS: ALL CIRCUIT BREAKERS SHALL BE SELECTIVELY COORDINATED. PROVIDE CIRCUIT BREAKERS CAPABLE OF SELECTIVE COORDINATION. INCREASE SCCR AS REQUIRED TO ACHIEVE SELECTIVE COORDINATION WITH UPSTREAM BREAKERS "ON" IN THE BREAKER NOTES COLUMN DENOTES CIRCUIT BREAKER SHALL BE PROVIDED WITH A LOCK-ON DEVICE

LEFT SIDE, kVA						RIGHT SIDE, kVA								
DESCRIPTION	BRKR NOTES	BRKR AMP, POLES	CKT NO	A	B	C	A	B	C	CKT NO	BRKR AMP, POLES	BRKR NOTES	DESCRIPTION
FIRE SMOKE DAMPERS - LEVEL 2 S.		20 A 1	1	0.45			0.00			2	1 20 A		Spare
FIRE SMOKE DAMPERS - LEVEL 2 N.		20 A 1	3		0.25			0.50		4	1 20 A	ON	FIRE ALARM POWER SUPPLY
SMOKE DAMPERS - LEVEL 2 LINK		20 A 1	5			0.40			0.50	6	1 20 A	ON	FIRE ALARM POWER SUPPLY
Space	--	-- --	7	0.00			0.00			8	-- --	--	Space
Space	--	-- --	9		0.00			0.00		10	-- --	--	Space
Space	--	-- --	11			0.00			0.00	12	-- --	--	Space
Space	--	-- --	13	0.00			0.00			14	-- --	--	Space
Space	--	-- --	15		0.00			0.00		16	-- --	--	Space
Space	--	-- --	17			0.00			0.00	18	-- --	--	Space
Space	--	-- --	19	0.00			0.00			20	-- --	--	Space
Space	--	-- --	21		0.00			0.00		22	-- --	--	Space
Space	--	-- --	23			0.00			0.00	24	-- --	--	Space
Space	--	-- --	25	0.00			0.00			26	3 30 A		SPD
Space	--	-- --	27		0.00			0.00		28	-- --	--	--
Space	--	-- --	29			0.00			0.00	30	-- --	--	--

TOTAL PHASE SUMMARY

	A	B	C
PHASE SUBTOTAL (kVA):	0.45...	0.75...	0.9...
PHASE SUBTOTAL (AMPS):	4 A	7 A	8 A

LOAD CLASSIFICATION	CONNECTED (KVA)	DEMAND FACTOR	DEMAND (KVA)
POWER	0.000 kVA	100%	0.000 kVA
LIGHTING	0.000 kVA	125%	0.000 kVA
MOTOR	1.100 kVA	125% LARGEST, 100% OTHER	1.125 kVA
RECEPTACLE	1.000 kVA	100% FIRST 10KVA, 50% OTHER	1.000 kVA
HEATING	0.000 kVA	125%	0.000 kVA
TOTAL LOAD	2.100 kVA		2.125 kVA
TOTAL AMPS	6 A		6 A

ELP4

MAIN TYPE MCB | **VOLTAGE** 480/277 Wye | **LOCATION** ROOF BRNG,MECHANICAL 4000
MAIN RATING 50 A | 3 **PHASE** 4 **WIRE** | **FED FROM** ELDP1
BUS RATING 100 A | **MOUNTING** Surface | **SCCR** 18 kA
ENCLOSURE Type 1 | **CALCULATED AVAILABLE FAULT...** 9.9 kA

REMARKS: ALL CIRCUIT BREAKERS SHALL BE SELECTIVELY COORDINATED. PROVIDE CIRCUIT BREAKERS CAPABLE OF SELECTIVE COORDINATION. INCREASE SCCR AS REQUIRED TO ACHIEVE SELECTIVE COORDINATION WITH UPSTREAM BREAKERS

LEFT SIDE, kVA						RIGHT SIDE, kVA								
DESCRIPTION	BRKR NOTES	BRKR AMP, POLES	CKT NO	A	B	C	A	B	C	CKT NO	BRKR AMP, POLES	BRKR NOTES	DESCRIPTION
SOUTH STAIR		20 A 1	1	0.39			0.00			2	1 20 A		SPARE
ATTIC LEVEL EXIT SIGNS		20 A 1	3		0.02			0.00		4	1 20 A		SPARE
ATTIC LEVEL EMNIGHT LIGHTS		20 A 1	5			0.93			0.00	6	1 20 A		SPARE
ELEVATOR CONTROL ROOM		20 A 1	7	0.03			0.00			8	1 20 A		SPARE
ELEVATOR SHAFT		20 A 1	9		0.15			0.00		10	1 20 A		SPARE
SPARE		20 A 1	11			0.00			0.00	12	1 20 A		SPARE
SPARE		20 A 1	13	0.00			0.00			14	1 20 A		SPARE
SPARE		20 A 1	15		0.00			0.00		16	1 20 A		SPARE
SPARE		20 A 1	17			0.00			0.00	18	1 20 A		SPARE
SPARE		20 A 1	19	0.00			0.00			20	1 20 A		SPARE
SPARE		20 A 1	21		0.00			0.00		22	1 20 A		SPARE
SPARE		20 A 1	23			0.00			0.00	24	1 20 A		SPARE
SPD		30 A 3	25	0.00			0.00			26	1 20 A		SPARE
--	--	-- --	27		0.00			0.00		28	1 20 A		SPARE
--	--	-- --	29			0.00			0.00	30	1 20 A		SPARE

TOTAL PHASE SUMMARY

	A	B	C
PHASE SUBTOTAL (kVA):	0.41...	0.16...	0.9...
PHASE SUBTOTAL (AMPS):	2 A	1 A	3 A

LOAD CLASSIFICATION	CONNECTED (KVA)	DEMAND FACTOR	DEMAND (KVA)
POWER	0.000 kVA	100%	0.000 kVA
LIGHTING	1.516 kVA	125%	1.895 kVA
MOTOR	0.000 kVA	125% LARGEST, 100% OTHER	0.000 kVA
RECEPTACLE	0.000 kVA	100% FIRST 10KVA, 50% OTHER	0.000 kVA
HEATING	0.000 kVA	125%	0.000 kVA
TOTAL LOAD	1.516 kVA		1.895 kVA
TOTAL AMPS	2 A		2 A

ELP1

MAIN TYPE MCB | **VOLTAGE** 480/277 Wye | **LOCATION** LEVEL 1,ELECTRICAL 1058D
MAIN RATING 50 A | 3 **PHASE** 4 **WIRE** | **FED FROM** ELDP1
BUS RATING 100 A | **MOUNTING** Surface | **SCCR** 18 kA
ENCLOSURE Type 1 | **CALCULATED AVAILABLE FAULT...** 9.9 kA

REMARKS: THIS PANEL SERVES EMERGENCY LIGHTING LOADS ON LEVEL 1 AND EXTERIOR SITE EXCEPT AS OTHERWISE NOTED ALL CIRCUIT BREAKERS SHALL BE SELECTIVELY COORDINATED. PROVIDE CIRCUIT BREAKERS CAPABLE OF SELECTIVE COORDINATION. INCREASE SCCR AS REQUIRED TO ACHIEVE SELECTIVE COORDINATION WITH UPSTREAM BREAKERS

LEFT SIDE, kVA						RIGHT SIDE, kVA								
DESCRIPTION	BRKR NOTES	BRKR AMP, POLES	CKT NO	A	B	C	A	B	C	CKT NO	BRKR AMP, POLES	BRKR NOTES	DESCRIPTION
UTILITY EXIT DISCHARGE		20 A 1	1	0.12			0.03			2	1 20 A		WEST VESTIBULE
BUILDING EXIT DISCHARGE		20 A 1	3		0.12			0.31		4	1 20 A		CONCOURSE, LINK EM
EQ. YARD LIGHTING		20 A 1	5			0.07			0.38	6	1 20 A		SOUTH STAIR
S. COURTYARD LIGHTS		20 A 1	7	0.40			0.29			8	1 20 A		NORTH STAIR
N. COURTYARD LIGHTS		20 A 1	9		0.79			0.05		10	1 20 A		LVL 1 EXIT SIGNS
SPARE		20 A 1	11			0.00			0.68	12	1 20 A		LVL 1 EM NORTH
SPARE		20 A 1	13	0.00			0.60			14	1 20 A		LVL 1 EM SOUTH
SPARE		20 A 1	15		0.00			0.07		16	1 20 A		LINK VESTIBULES
SPARE		20 A 1	17			0.00			0.00	18	1 20 A		SPARE
SPARE		20 A 1	19	0.00			0.00			20	1 20 A		SPARE
SPARE		20 A 1	21		0.00			0.00		22	1 20 A		SPARE
SPARE		20 A 1	23			0.00			0.00	24	1 20 A		SPARE
SPD		30 A 3	25	0.00			0.00			26	1 20 A		SPARE
--	--	-- --	27		0.00			0.00		28	1 20 A		SPARE
--	--	-- --	29			0.00			0.00	30	1 20 A		SPARE

TOTAL PHASE SUMMARY

	A	B	C
PHASE SUBTOTAL (kVA):	1.44...	1.33...	1.1...
PHASE SUBTOTAL (AMPS):	5 A	5 A	4 A

LOAD CLASSIFICATION	CONNECTED (KVA)	DEMAND FACTOR	DEMAND (KVA)
POWER	0.000 kVA	100%	0.000 kVA
LIGHTING	3.921 kVA	125%	4.901 kVA
MOTOR	0.000 kVA	125% LARGEST, 100% OTHER	0.000 kVA
RECEPTACLE	0.000 kVA	100% FIRST 10KVA, 50% OTHER	0.000 kVA
HEATING	0.000 kVA	125%	0.000 kVA
TOTAL LOAD	3.921 kVA		4.901 kVA
TOTAL AMPS	5 A		6 A

ERP3

MAIN TYPE MCB | **VOLTAGE** 120/208 Wye | **LOCATION** LEVEL 3,ELECTRICAL 3022
MAIN RATING 50 A | 3 **PHASE** 4 **WIRE** | **FED FROM** ERDP1
BUS RATING 100 A | **MOUNTING** Surface | **SCCR** 25 kA
ENCLOSURE Type 1 | **CALCULATED AVAILABLE FAULT...** 4.0 kA

REMARKS: ALL CIRCUIT BREAKERS SHALL BE SELECTIVELY COORDINATED. PROVIDE CIRCUIT BREAKERS CAPABLE OF SELECTIVE COORDINATION. INCREASE SCCR AS REQUIRED TO ACHIEVE SELECTIVE COORDINATION WITH UPSTREAM BREAKERS "ON" IN THE BREAKER NOTES COLUMN DENOTES CIRCUIT BREAKER SHALL BE PROVIDED WITH A LOCK-ON DEVICE

LEFT SIDE, kVA						RIGHT SIDE, kVA								
DESCRIPTION	BRKR NOTES	BRKR AMP, POLES	CKT NO	A	B	C	A	B	C	CKT NO	BRKR AMP, POLES	BRKR NOTES	DESCRIPTION
Spare		20 A 1	1	0.00			0.50			2	1 20 A	ON	FIRE ALARM POWER SUPPLY
FIRE/SMOKE DAMPERS - LEVEL 3 S.		20 A 1	3		0.25			0.50		4	1 20 A	ON	FIRE ALARM POWER SUPPLY
FIRE/SMOKE DAMPERS - LEVEL 3 N.		20 A 1	5			0.25			0.00	6	1 20 A		Spare
Space	--	-- --	7	0.00			0.00			8	-- --	--	Space
Space	--	-- --	9		0.00			0.00		10	-- --	--	Space
Space	--	-- --	11			0.00			0.00	12	-- --	--	Space
Space	--	-- --	13	0.00			0.00			14	-- --	--	Space
Space	--	-- --	15		0.00			0.00		16	-- --	--	Space
Space	--	-- --	17			0.00			0.00	18	-- --	--	Space
Space	--	-- --	19	0.00			0.00			20	-- --	--	Space
Space	--	-- --	21		0.00			0.00		22	-- --	--	Space
Space	--	-- --	23			0.00			0.00	24	-- --	--	Space
Space	--	-- --	25	0.00			0.00			26	3 30 A		SPD
Space	--	-- --	27		0.00			0.00		28	-- --	--	--
Space	--	-- --	29			0.00			0.00	30	-- --	--	--

TOTAL PHASE SUMMARY

	B	C
PHASE SUBTOTAL (kVA):	0.50...	0.75...	0.2...
PHASE SUBTOTAL (AMPS):	4 A	7 A	2 A

LOAD CLASSIFICATION	CONNECTED (KVA)	DEMAND FACTOR	DEMAND (KVA)
POWER	0.000 kVA	100%	0.000 kVA
LIGHTING	0.000 kVA	125%	0.000 kVA
MOTOR	0.500 kVA	125% LARGEST, 100% OTHER	0.513 kVA
RECEPTACLE	1.000 kVA	100% FIRST 10KVA, 50% OTHER	1.000 kVA
HEATING	0.000 kVA	125%	0.000 kVA
TOTAL LOAD	1.500 kVA		1.513 kVA
TOTAL AMPS	4 A		4 A

ERDP1

MAIN TYPE MCB | **VOLTAGE** 120/208 Wye | **LOCATION** LEVEL 1,ELECTRICAL 1079A
MAIN RATING 225 A | 3 **PHASE** 4 **WIRE** | **FED FROM** T-ERA
BUS RATING 225 A | **MOUNTING** Surface | **SCCR** 26 kA
ENCLOSURE Type 1 | **CALCULATED AVAILABLE FAULT...** 5.1 kA

REMARKS: ALL CIRCUIT BREAKERS SHALL BE SELECTIVELY COORDINATED. PROVIDE CIRCUIT BREAKERS CAPABLE OF SELECTIVE COORDINATION. INCREASE SCCR AS REQUIRED TO ACHIEVE SELECTIVE COORDINATION WITH UPSTREAM BREAKERS

LEFT SIDE, kVA						RIGHT SIDE, kVA								
DESCRIPTION	BRKR NOTES	BRKR AMP, POLES	CKT NO	A	B	C	A	B	C	CKT NO	BRKR AMP, POLES	BRKR NOTES	DESCRIPTION
ERP1		50 A 3	1	2.85			0.45			2	3 50 A		ERP2
--	--	-- --	3		4.51			0.75		4	-- --	--	--
--	--	-- --	5			2.70			0.90	6	-- --	--	--
ERP3		50 A 3	7	0.50			0.40			8	3 50 A		ERP4
--	--	-- --	9		0.75			0.50		10	-- --	--	--
--	--	-- --	11			0.25			0.50	12	-- --	--	--
ERP1A		50 A 3	13	0.50			0.00			14	1 20 A		Spare
--	--	-- --	15		0.00			0.00		16	1 20 A		Spare
--	--	-- --	17			1.00			0.00	18	1 20 A		Spare
Spare		50 A 3	19	0.00			0.00			20	-- --	--	Space
--	--	-- --	21		0.00			0.00		22	-- --	--	Space
--	--	-- --	23			0.00			0.00	24	-- --	--	Space
Space	--	-- --	25	0.00			0.00			26	-- --	--	Space
Space	--	-- --	27		0.00			0.00		28	-- --	--	Space
Space	--	-- --	29			0.00			0.00	30	-- --	--	Space
Space	--	-- --	31	0.00			0.00			32	-- --	--	Space
Space	--	-- --	33		0.00			0.00		34	-- --	--	Space
Space	--	-- --	35			0.00			0.00	36	-- --	--	Space
Space	--	-- --	37	0.00			0.00			38	3 30 A		SPD
Space	--	-- --	39		0.00			0.00		40	-- --	--	--
Space	--	-- --	41			0.00			0.00	42	-- --	--	--

TOTAL PHASE SUMMARY

	A	B	C
PHASE SUBTOTAL (kVA):	4.70...	6.51...	5.3...
PHASE SUBTOTAL (AMPS):	39 A	55 A	45 A

LOAD CLASSIFICATION	CONNECTED (KVA)	DEMAND FACTOR	DEMAND (KVA)
POWER	0.000 kVA	100%	0.000 kVA
LIGHTING	0.000 kVA	125%	0.000 kVA
MOTOR	8.400 kVA	125% LARGEST, 100% OTHER	8.700 kVA
RECEPTACLE	8.160 kVA	100% FIRST 10KVA, 50% OTHER	8.160 kVA
HEATING	0.000 kVA	125%	0.000 kVA
TOTAL LOAD	16.560 kVA		16.860 kVA
TOTAL AMPS	46 A		47 A

ELP2

MAIN TYPE MCB | **VOLTAGE** 480/277 Wye | **LOCATION** LEVEL 2,ELECTRICAL 2092
MAIN RATING 50 A | 3 **PHASE** 4 **WIRE** | **FED FROM** ELDP1
BUS RATING 100 A | **MOUNTING** Surface | **SCCR** 18 kA
ENCLOSURE Type 1 | **CALCULATED AVAILABLE FAULT...** 9.9 kA

REMARKS: THIS PANEL SERVES EMERGENCY LIGHTING ON LEVEL 2 UNLESS NOTED OTHERWISE ALL CIRCUIT BREAKERS SHALL BE SELECTIVELY COORDINATED. PROVIDE CIRCUIT BREAKERS CAPABLE OF SELECTIVE COORDINATION. INCREASE SCCR AS REQUIRED TO ACHIEVE SELECTIVE COORDINATION WITH UPSTREAM BREAKERS

LEFT SIDE, kVA						RIGHT SIDE, kVA								
DESCRIPTION	BRKR NOTES	BRKR AMP, POLES	CKT NO	A	B	C	A	B	C	CKT NO	BRKR AMP, POLES	BRKR NOTES	DESCRIPTION
LVL 2 EVENTS		20 A 1	1	0.12			0.04			2	1 20 A		LVL 2 EXIT SIGNS
LVL 2 LOBBY/OPEN COMP		20 A 1	3		0.31			1.15		4	1 20 A		SPECIAL COLLECTIONS
SPARE		20 A 1	5			0.00			0.68	6	1 20 A		LVL 2 LINK, LOUNGE, CORR
SPARE		20 A 1	7	0.00			0.41			8	1 20 A		LVL 2 BOH
SPARE		20 A 1	9		0.00			0.00		10	1 20 A		SPARE
SPARE		20 A 1	11			0.00			0.00	12	1 20 A		SPARE
SPARE		20 A 1	13	0.00			0.00			14	1 20 A		SPARE
SPARE		20 A 1	15		0.00			0.00		16	1 20 A		SPARE
SPARE		20 A 1	17			0.00			0.00	18	1 20 A		SPARE
SPARE		20 A 1	19	0.00			0.00			20	1 20 A		SPARE
SPARE		20 A 1	21		0.00			0.00		22	1 20 A		SPARE
SPARE		20 A 1	23			0.00			0.00	24	1 20 A		SPARE
Spare		30 A 3	25	0.00			0.00			26	1 20 A		SPARE
--	--	-- --	27		0.00			0.00		28	1 20 A		SPARE
--	--	-- --	29			0.00			0.00	30	1 20 A		SPARE

TOTAL PHASE SUMMARY

	A	B	C
PHASE SUBTOTAL (kVA):	0.56...	1.46...	0.6...
PHASE SUBTOTAL (AMPS):	2 A	5 A	3 A

LOAD CLASSIFICATION	CONNECTED (KVA)	DEMAND FACTOR	DEMAND (KVA)
POWER	0.000 kVA	100%	0.000 kVA
LIGHTING	2.712 kVA	125%	3.391 kVA
MOTOR	0.000 kVA	125% LARGEST, 100% OTHER	0.000 kVA
RECEPTACLE	0.000 kVA	100% FIRST 10KVA, 50% OTHER	0.000 kVA
HEATING	0.000 kVA	125%	0.000 kVA
TOTAL LOAD	2.712 kVA		3.391 kVA
TOTAL AMPS	3 A		4 A

ERP4

MAIN TYPE MCB | **VOLTAGE** 120/208 Wye | **LOCATION** ROOF BRNG,MECHANICAL 4000
MAIN RATING 50 A | 3 **PHASE** 4 **WIRE** | **FED FROM** ERDP1
BUS RATING 100 A | **MOUNTING** Surface | **SCCR** 25 kA
ENCLOSURE Type 1 | **CALCULATED AVAILABLE FAULT...** 4.0 kA

REMARKS: ALL CIRCUIT BREAKERS SHALL BE SELECTIVELY COORDINATED. PROVIDE CIRCUIT BREAKERS CAPABLE OF SELECTIVE COORDINATION. INCREASE SCCR AS REQUIRED TO ACHIEVE SELECTIVE COORDINATION WITH UPSTREAM BREAKERS "ON" IN THE BREAKER NOTES COLUMN DENOTES CIRCUIT BREAKER SHALL BE PROVIDED WITH A LOCK-ON DEVICE

LEFT SIDE, kVA						RIGHT SIDE, kVA								
DESCRIPTION	BRKR NOTES	BRKR AMP, POLES	CKT NO	A	B	C	A	B	C	CKT NO	BRKR AMP, POLES	BRKR NOTES	DESCRIPTION
FIRE/SMOKE DAMPERS - AHUS 1&2		20 A 1	1	0.40			0.00			2	1 20 A		Spare
FIRE ALARM POWER SUPPLY	ON	20 A 1	3		0.50			0.00		4	1 20 A		Spare
FIRE ALARM POWER SUPPLY	ON	20 A 1	5			0.50			0.00	6	1 20 A		Spare
Space	--	-- --	7	0.00			0.00			8	-- --	--	Space
Space	--	-- --	9		0.00			0.00		10	-- --	--	Space
Space	--	-- --	11			0.00			0.00	12	-- --	--	Space
Space	--	-- --	13	0.00			0.00			14	-- --	--	Space
Space	--	-- --	15		0.00			0.00		16	-- --	--	Space
Space	--	-- --	17			0.00			0.00	18	-- --	--	Space
Space	--	-- --	19	0.00			0.00			20	-- --	--	Space
Space	--	-- --	21		0.00			0.00		22	-- --	--	Space
Space	--	-- --	23			0.00			0.00	24	-- --	--	Space
Space	--	-- --	25	0.00			0.00			26	3 30 A		SPD
Space	--	-- --	27		0.00			0.00		28	-- --	--	--
Space	--	-- --	29			0.00			0.00	30	-- --	--	--

TOTAL PHASE SUMMARY

	A	B	C
PHASE SUBTOTAL (kVA):	0.40...	0.50...	0.5...
PHASE SUBTOTAL (AMPS):	3 A	4 A	4 A

LOAD CLASSIFICATION	CONNECTED (KVA)	DEMAND FACTOR	DEMAND (KVA)
POWER	0.000 kVA	100%	0.000 kVA
LIGHTING	0.000 kVA	125%	0.000 kVA
MOTOR	0.400 kVA	125% LARGEST, 100% OTHER	0.425 kVA
RECEPTACLE	1.000 kVA	100% FIRST 10KVA, 50% OTHER	1.000 kVA
HEATING	0.000 kVA	125%	0.000 kVA
TOTAL LOAD	1.400 kVA		1.425 kVA
TOTAL AMPS	4 A		4 A

ERP1

MAIN TYPE MCB | **VOLTAGE** 120/208 Wye | **LOCATION** LEVEL 1,ELECTRICAL 1079A
MAIN RATING 50 A | 3 **PHASE** 4 **WIRE** | **FED FROM** ERDP1
BUS RATING 100 A | **MOUNTING** Surface | **SCCR** 25 kA
ENCLOSURE Type 1 | **CALCULATED AVAILABLE FAULT...** 4.0 kA

REMARKS: ALL CIRCUIT BREAKERS SHALL BE SELECTIVELY COORDINATED. PROVIDE CIRCUIT BREAKERS CAPABLE OF SELECTIVE COORDINATION. INCREASE SCCR AS REQUIRED TO ACHIEVE SELECTIVE COORDINATION WITH UPSTREAM BREAKERS "LOTO" IN BREAKER NOTES COLUMN DENOTES CIRCUIT BREAKER SHALL BE PROVIDED WITH LOCK-OUT / TAG-OUT CAPABILITIES "ON" IN THE BREAKER NOTES COLUMN DENOTES CIRCUIT BREAKER SHALL BE PROVIDED WITH A LOCK-ON DEVICE

LEFT SIDE, kVA						RIGHT SIDE, kVA								
DESCRIPTION	BRKR NOTES	BRKR AMP, POLES	CKT NO	A	B	C	A	B	C	CKT NO	BRKR AMP, POLES	BRKR NOTES	DESCRIPTION
DOOR OPERATORS - S. VEST #1053		20 A 1	1	1.00			0.35			2	1 20 A		FIRE/SMOKE DAMPERS - LEVEL 1 S.
DOOR OPERATORS - N. VEST #1052		20 A 1	3		1.00			0.35		4	1 20 A		FIRE/SMOKE DAMPERS - LEVEL 1 N.
DOOR OPERATORS - W. VEST #1068		20 A 1	5			1.00			1.20	6	1 20 A		ROLL UP DOOR - LINK
FIRE ALARM POWER SUPPLY	ON	20 A 1	7	0.50			0.50			8	1 20 A	LOTO	PREACTION PANEL CNTRL- RM#1078
FIRE ALARM POWER SUPPLY	ON	20 A 1	9		0.50			2.16		10	1 25 A	LOTO	PREACTION SYS N2 GENERATOR
FIRE ALARM DIGITAL COMMS	ON	20 A 1	11			0.50			0.00	12	1 20 A		Spare
FIRE ALARM PRINTER	ON	20 A 1	13	0.50			0.00			14	1 20 A		Spare
FIRE ALARM POWER SUPPLY	ON	20 A 1	15		0.50			0.00		16	1 20 A		Spare
Spare		20 A 1	17			0.00			0.00	18	1 20 A		Spare
Space	--	-- --	19	0.00			0.00			20	-- --	--	Space
Space	--	-- --	21		0.00			0.00		22	-- --	--	Space
Space	--	-- --	23			0.00			0.00	24	-- --	--	Space
Space	--	-- --	25	0.00			0.00			26	3 30 A		SPD
Space	--	-- --	27		0.00			0.00		28	-- --	--	--
Space	--	-- --	29			0.00			0.00	30	-- --	--	--

TOTAL PHASE SUMMARY

	A	B	C
PHASE SUBTOTAL (kVA):	2.85...	4.51...	2.7...
PHASE SUBTOTAL (AMPS):	24 A	38 A	23 A

LOAD CLASSIFICATION	CONNECTED (KVA)	DEMAND FACTOR	DEMAND (KVA)
POWER	0.000 kVA	100%	0.000 kVA
LIGHTING	0.000 kVA	125%	0.000 kVA
MOTOR	4.900 kVA	125% LARGEST, 100% OTHER	5.200 kVA
RECEPTACLE	5.160 kVA	100% FIRST 10KVA, 50% OTHER	5.160 kVA
HEATING	0.000 kVA	125%	0.000 kVA
TOTAL LOAD	10.060 kVA		10.360 kVA
TOTAL AMPS	28 A		29 A

ELP3

MAIN TYPE MCB | **VOLTAGE** 480/277 Wye | **LOCATION** LEVEL 3,ELECTRICAL 3008
MAIN RATING 50 A | 3 **PHASE** 4 **WIRE** | **FED FROM** ELDP1
BUS RATING 100 A | **MOUNTING** Surface | **SCCR** 18 kA
ENCLOSURE Type 1 | **CALCULATED AVAILABLE FAULT...** 9.9 kA

REMARKS: THIS PANEL SERVES EMERGENCY LIGHTING ON LEVEL 3 UNLESS OTHERWISE NOTED ALL CIRCUIT BREAKERS SHALL BE SELECTIVELY COORDINATED. PROVIDE CIRCUIT BREAKERS CAPABLE OF SELECTIVE COORDINATION. INCREASE SCCR AS REQUIRED TO ACHIEVE SELECTIVE COORDINATION WITH UPSTREAM BREAKERS

LEFT SIDE, kVA						RIGHT SIDE, kVA								
DESCRIPTION	BRKR NOTES	BRKR AMP, POLES	CKT NO	A	B	C	A	B	C	CKT NO	BRKR AMP, POLES	BRKR NOTES	DESCRIPTION
LVL 3 EXIT SIGNAGE		20 A 1	1	0.04			0.34			2	1 20 A		LVL 3 CENTRAL
NORTH STAIR		20 A 1	3		0.19			0.48		4	1 20 A		LVL 3 NORTH
EXT. WEST PORTICO ENTRY		20 A 1	5			0.12			0.70	6	1 20 A		LVL 3 SOUTH
SPARE		20 A 1	7	0.00			0.06			8	1 20 A		LVL 3 ELEV DISC
SPARE		20 A 1	9		0.00			0.00		10	1 20 A		SPARE
SPARE		20 A 1	11			0.00			0.00	12	1 20 A		SPARE
SPARE		20 A 1	13	0.00			0.00			14	1 20 A		SPARE
SPARE		20 A 1	15		0.00			0.00		16	1 20 A		SPARE
SPARE		20 A 1	17			0.00			0.00	18	1 20 A		SPARE
SPARE		20 A 1	19	0.00			0.00			20	1 20 A		SPARE
SPARE		20 A 1	21		0.00			0.00		22	1 20 A		SPARE
SPARE		20 A 1	23			0.00			0.00

THE LINE SHOWN ABOVE IS EXACTLY ONE INCH LONG AT TWO DIFFERENT SCALES ON SHEET

MP1

MAIN TYPE MCB | **MAIN RATING** 225 A | **BUS RATING** 225 A
VOLTAGE 480/277 Wye | 3 **PHASE** 4 **WIRE** | **MOUNTING** Surface | **ENCLOSURE** Type 1
LOCATION LEVEL 1,ELEC 1081 | **FED FROM** HDP1 | **SCCR** 35 kA | **CALCULATED AVAILABLE FAULT...** 25.3 kA

REMARKS:

LEFT SIDE, kVA							RIGHT SIDE, kVA							
DESCRIPTION	BRKR NOTES	BRKR AMP, POLES	CKT NO	A	B	C	A	B	C	CKT NO	BRKR AMP, POLES	BRKR NOTES	DESCRIPTION
P-CHW-1		20 A 3	1	3.88			3.88			2	3 20 A		P-CHW-2
--	--	-- --	3		3.88			3.88		4	-- --	--	--
--	--	-- --	5			3.88			3.88	6	-- --	--	--
P-HW-1		20 A 3	7	3.05			3.05			8	3 20 A		P-HW-2
--	--	-- --	9		3.05			3.05		10	-- --	--	--
--	--	-- --	11			3.05			3.05	12	-- --	--	--
			13				0.00			14	3 50 A		TEMP BOILER CONNECTION
			15					0.00		16	-- --	--	--
			17						0.00	18	-- --	--	--
			19							20			
			21							22			
			23							24			
			25							26			
			27							28			
			29							30			
			31							32			
			33							34			
			35							36			
			37							38			
			39							40			
			41							42			

TOTAL PHASE SUMMARY

	A	B	C
PHASE SUBTOTAL (kVA):	13.8...	13.8...	13....
PHASE SUBTOTAL (AMPS):	50 A	50 A	50 A

LOAD CLASSIFICATION	CONNECTED (KVA)	DEMAND FACTOR	DEMAND (KVA)
POWER	0.000 kVA	100%	0.000 kVA
LIGHTING	0.000 kVA	125%	0.000 kVA
MOTOR	41.580 kVA	125% LARGEST, 100% OTHER	44.490 kVA
RECEPTACLE	0.000 kVA	100% FIRST 10KVA, 50% OTHER	0.000 kVA
HEATING	0.000 kVA	125%	0.000 kVA
TOTAL LOAD	41.580 kVA		44.490 kVA
TOTAL AMPS	50 A		54 A

LP3A

MAIN TYPE MCB | **MAIN RATING** 60 A | **BUS RATING** 100 A
VOLTAGE 480/277 Wye | 3 **PHASE** 4 **WIRE** | **MOUNTING** Surface | **ENCLOSURE** Type 1
LOCATION LEVEL 2,ELECTRICAL 3008 | **FED FROM** LDP1 | **SCCR** 10 kA | **CALCULATED AVAILABLE FAULT...** 5.9 kA

REMARKS: THIS PANEL SERVES LIGHTING ON LEVEL 3 UNLESS NOTED OTHERWISE

LEFT SIDE, kVA							RIGHT SIDE, kVA							
DESCRIPTION	BRKR NOTES	BRKR AMP, POLES	CKT NO	A	B	C	A	B	C	CKT NO	BRKR AMP, POLES	BRKR NOTES	DESCRIPTION
EXTERIOR PORTICO		20 A 1	1	0.16			0.98			2	1 20 A		LVL 3 LOOKOUT
LVL 3 CIRCULATION		20 A 1	3		0.63			1.73		4	1 20 A		GRR COVES, SCONCES
LVL 3 LOUNGE		20 A 1	5			0.60			1.19	6	1 20 A		LVL 3 NORTHWEST DAYLIT
LVL 3 LOUNGE (ADD-ALT #6)		20 A 1	7	0.39			1.03			8	1 20 A		LVL 3 NORTH INTERIOR
LVL 3 NORTH CIRC		20 A 1	9		0.14			1.62		10	1 20 A		LVL 3 NORTH DAYLIT
LVL 3 SOUTH CIRC		20 A 1	11			0.07			1.23	12	1 20 A		GRR LINEAR LIGHTS
Spare		20 A 1	13	0.00			0.75			14	1 20 A		LVL 3 N CORE, CARRELS, STUDY
Spare		20 A 1	15		0.00			1.96		16	1 20 A		LVL 3 SOUTH DAYLIT
Spare		20 A 1	17			0.00			1.19	18	1 20 A		LVL 3 SOUTHWEST DAYLIT
Spare		20 A 1	19	0.00			0.70			20	1 20 A		LVL 3 SOUTH INTERIOR
Spare		20 A 1	21		0.00			0.77		22	1 20 A		LVL 3 S CORE, CARRELS, STUDY
Spare		20 A 1	23			0.00			0.12	24	1 20 A		LVL 3 PERIMETER DOWNLIGHTS
Spare		20 A 1	25	0.00			1.86			26	1 20 A		GRR PENDANTS
Spare		20 A 1	27		0.00			1.63		28	1 20 A		LIGHTING
Spare		20 A 1	29			0.00			0.00	30	1 20 A		Spare
Spare		20 A 1	31	0.00			0.00			32	1 20 A		Spare
Spare		20 A 1	33		0.00			0.00		34	1 20 A		Spare
Spare		20 A 1	35			0.00			0.00	36	1 20 A		Spare
Spare		20 A 1	37	0.00			0.00			38	1 20 A		Spare
Spare		20 A 1	39		0.00			0.00		40	1 20 A		Spare
Spare		20 A 1	41			0.00			0.00	42	1 20 A		Spare

TOTAL PHASE SUMMARY

	A	B	C
PHASE SUBTOTAL (kVA):	5.87...	8.49...	4.3...
PHASE SUBTOTAL (AMPS):	22 A	31 A	16 A

LOAD CLASSIFICATION	CONNECTED (KVA)	DEMAND FACTOR	DEMAND (KVA)
POWER	0.000 kVA	100%	0.000 kVA
LIGHTING	18.760 kVA	125%	23.450 kVA
MOTOR	0.000 kVA	125% LARGEST, 100% OTHER	0.000 kVA
RECEPTACLE	0.000 kVA	100% FIRST 10KVA, 50% OTHER	0.000 kVA
HEATING	0.000 kVA	125%	0.000 kVA
TOTAL LOAD	18.760 kVA		23.450 kVA
TOTAL AMPS	23 A		28 A

LDP1

MAIN TYPE MCB | **MAIN RATING** 250 A | **BUS RATING** 250 A
VOLTAGE 480/277 Wye | 3 **PHASE** 4 **WIRE** | **MOUNTING** Surface | **ENCLOSURE** Type 1
LOCATION LEVEL 1,ELECTRICAL 1058D | **FED FROM** SWITCHBOA... | **SCCR** 18 kA | **CALCULATED AVAILABLE FAULT...** 15.1 kA

REMARKS:

LEFT SIDE, kVA							RIGHT SIDE, kVA							
DESCRIPTION	BRKR NOTES	BRKR AMP, POLES	CKT NO	A	B	C	A	B	C	CKT NO	BRKR AMP, POLES	BRKR NOTES	DESCRIPTION
LP1A		60 A 3	1	3.13				6.51		2	3 60 A		LP2A
--	--	-- --	3		4.11			8.47		4	-- --	--	--
--	--	-- --	5			5.16			7.44	6	-- --	--	--
LP3A		60 A 3	7	5.87			0.00			8	3 60 A		LP4A
--	--	-- --	9		8.49			1.15		10	-- --	--	--
--	--	-- --	11			4.40			1.63	12	-- --	--	--
SPARE		60 A 3	13	0.00			0.00			14	3 60 A		SPARE
--	--	-- --	15		0.00			0.00		16	-- --	--	--
--	--	-- --	17			0.00			0.00	18	-- --	--	--
SPACE	--	-- --	19	0.00			0.00			20	-- --	--	SPACE
SPACE	--	-- --	21		0.00			0.00		22	-- --	--	SPACE
SPACE	--	-- --	23			0.00			0.00	24	-- --	--	SPACE
SPACE	--	-- --	25	0.00			0.00			26	-- --	--	SPACE
SPACE	--	-- --	27		0.00			0.00		28	-- --	--	SPACE
SPACE	--	-- --	29			0.00			0.00	30	-- --	--	SPACE
SPACE	--	-- --	31	0.00			0.00			32	-- --	--	SPACE
SPACE	--	-- --	33		0.00			0.00		34	-- --	--	SPACE
SPACE	--	-- --	35			0.00			0.00	36	-- --	--	SPACE
SPACE	--	-- --	37	0.00			0.00			38	-- --	--	SPACE
SPACE	--	-- --	39		0.00			0.00		40	-- --	--	SPACE
SPACE	--	-- --	41			0.00			0.00	42	-- --	--	SPACE

TOTAL PHASE SUMMARY

	A	B	C
PHASE SUBTOTAL (kVA):	15.5...	22.2...	18....
PHASE SUBTOTAL (AMPS):	56 A	82 A	69 A

LOAD CLASSIFICATION	CONNECTED (KVA)	DEMAND FACTOR	DEMAND (KVA)
POWER	0.000 kVA	100%	0.000 kVA
LIGHTING	56.365 kVA	125%	70.456 kVA
MOTOR	0.000 kVA	125% LARGEST, 100% OTHER	0.000 kVA
RECEPTACLE	0.000 kVA	100% FIRST 10KVA, 50% OTHER	0.000 kVA
HEATING	0.000 kVA	125%	0.000 kVA
TOTAL LOAD	56.365 kVA		70.456 kVA
TOTAL AMPS	68 A		85 A

DP1A

MAIN TYPE MCB | **MAIN RATING** 225 A | **BUS RATING** 225 A
VOLTAGE 120/208 Wye | 3 **PHASE** 4 **WIRE** | **MOUNTING** Surface | **ENCLOSURE** Type 1
LOCATION LEVEL 1,ELECTRICAL 1079A | **FED FROM** T1A | **SCCR** 18 kA | **CALCULATED AVAILABLE FAULT...** 5.1 kA

REMARKS:

LEFT SIDE, kVA							RIGHT SIDE, kVA							
DESCRIPTION	BRKR NOTES	BRKR AMP, POLES	CKT NO	A	B	C	A	B	C	CKT NO	BRKR AMP, POLES	BRKR NOTES	DESCRIPTION
RP1A1		100 A 3	1	3.45			6.24			2	3 100 A		RP1A3
--	--	-- --	3		2.78			4.86		4	-- --	--	--
--	--	-- --	5			3.09			5.22	6	-- --	--	--
RP1A2		100 A 3	7	7.25			4.50			8	3 100 A		RP1A4
--	--	-- --	9		7.55			3.60		10	-- --	--	--
--	--	-- --	11			6.69			3.06	12	-- --	--	--
Spare		20 A 1	13	0.00			0.00			14	3 100 A		DISCONNECT SW S COURTYARD
EWH-1		90 A 2	15		6.95			0.00		16	-- --	--	--
--	--	-- --	17			6.95			0.00	18	-- --	--	--
SPACE	--	-- --	19	0.00			0.00			20	-- --	--	SPACE
SPACE	--	-- --	21		0.00			0.00		22	-- --	--	SPACE
SPACE	--	-- --	23			0.00			0.00	24	-- --	--	SPACE
SPACE	--	-- --	25	0.00			0.00			26	-- --	--	SPACE
SPACE	--	-- --	27		0.00			0.00		28	-- --	--	SPACE
SPACE	--	-- --	29			0.00			0.00	30	-- --	--	SPACE

TOTAL PHASE SUMMARY

	A	B	C
PHASE SUBTOTAL (kVA):	21.4...	25.7...	25....
PHASE SUBTOTAL (AMPS):	179 A	219 A	213 A

LOAD CLASSIFICATION	CONNECTED (KVA)	DEMAND FACTOR	DEMAND (KVA)
POWER	0.000 kVA	100%	0.000 kVA
LIGHTING	0.000 kVA	125%	0.000 kVA
MOTOR	2.380 kVA	125% LARGEST, 100% OTHER	2.595 kVA
RECEPTACLE	55.902 kVA	100% FIRST 10KVA, 50% OTHER	32.951 kVA
HEATING	13.900 kVA	125%	17.375 kVA
TOTAL LOAD	72.182 kVA		52.921 kVA
TOTAL AMPS	200 A		147 A

LP4A

MAIN TYPE MCB | **MAIN RATING** 60 A | **BUS RATING** 100 A
VOLTAGE 480/277 Wye | 3 **PHASE** 4 **WIRE** | **MOUNTING** Surface | **ENCLOSURE** Type 1
LOCATION ROOF BRNG,MECHANICAL 4000 | **FED FROM** LDP1 | **SCCR** 10 kA | **CALCULATED AVAILABLE FAULT...** 5.9 kA

REMARKS:

LEFT SIDE, kVA							RIGHT SIDE, kVA							
DESCRIPTION	BRKR NOTES	BRKR AMP, POLES	CKT NO	A	B	C	A	B	C	CKT NO	BRKR AMP, POLES	BRKR NOTES	DESCRIPTION
SPARE		20 A 1	1	0.00						2			
SPARE		20 A 1	3		0.00			1.15		4	1 20 A		ATTIC LEVEL LIGHTING
SPARE		20 A 1	5			0.00			1.63	6	1 20 A		ATTIC LEVEL LIGHTING
SPARE		20 A 1	7	0.00			0.00			8	1 20 A		SPARE
SPARE		20 A 1	9		0.00			0.00		10	1 20 A		SPARE
SPARE		20 A 1	11			0.00			0.00	12	1 20 A		SPARE
SPARE		20 A 1	13	0.00			0.00			14	1 20 A		SPARE
SPARE		20 A 1	15		0.00			0.00		16	1 20 A		SPARE
SPARE		20 A 1	17			0.00			0.00	18	1 20 A		SPARE
SPARE		20 A 1	19	0.00			0.00			20	1 20 A		SPARE
SPARE		20 A 1	21		0.00			0.00		22	1 20 A		SPARE
SPARE		20 A 1	23			0.00			0.00	24	1 20 A		SPARE
SPARE		20 A 1	25	0.00			0.00			26	1 20 A		SPARE
SPARE		20 A 1	27		0.00			0.00		28	1 20 A		SPARE
SPARE		20 A 1	29			0.00			0.00	30	1 20 A		SPARE
SPARE		20 A 1	31	0.00			0.00			32	1 20 A		SPARE
SPARE		20 A 1	33		0.00			0.00		34	1 20 A		SPARE
SPARE		20 A 1	35			0.00			0.00	36	1 20 A		SPARE
SPARE		20 A 1	37	0.00			0.00			38	1 20 A		SPARE
SPARE		20 A 1	39		0.00			0.00		40	1 20 A		SPARE
SPARE		20 A 1	41			0.00			0.00	42	1 20 A		SPARE

TOTAL PHASE SUMMARY

	A	B	C
PHASE SUBTOTAL (kVA):	0.00...	1.15...	1.6...
PHASE SUBTOTAL (AMPS):	0 A	5 A	7 A

LOAD CLASSIFICATION	CONNECTED (KVA)	DEMAND FACTOR	DEMAND (KVA)
POWER	0.000 kVA	100%	0.000 kVA
LIGHTING	2.784 kVA	125%	3.480 kVA
MOTOR	0.000 kVA	125% LARGEST, 100% OTHER	0.000 kVA
RECEPTACLE	0.000 kVA	100% FIRST 10KVA, 50% OTHER	0.000 kVA
HEATING	0.000 kVA	125%	0.000 kVA
TOTAL LOAD	2.784 kVA		3.480 kVA
TOTAL AMPS	3 A		4 A

LP1A

MAIN TYPE MCB | **MAIN RATING** 60 A | **BUS RATING** 100 A
VOLTAGE 480/277 Wye | 3 **PHASE** 4 **WIRE** | **MOUNTING** Surface | **ENCLOSURE** Type 1
LOCATION LEVEL 1,ELECTRICAL 1058D | **FED FROM** LDP1 | **SCCR** 10 kA | **CALCULATED AVAILABLE FAULT...** 5.9 kA

REMARKS: THIS PANEL SERVES LIGHTING LOADS ON LEVEL 1 AND SITE EXCEPT AS OTHERWISE NOTED

LEFT SIDE, kVA							RIGHT SIDE, kVA							
DESCRIPTION	BRKR NOTES	BRKR AMP, POLES	CKT NO	A	B	C	A	B	C	CKT NO	BRKR AMP, POLES	BRKR NOTES	DESCRIPTION
SITE LIGHTING		20 A 1	1	0.42			0.60			2	1 20 A		MAIN CIRC DOWNLIGHTS
SITE LIGHTING		20 A 1	3		0.48			0.07		4	1 20 A		TECH HUB WW
SITE LIGHTING		20 A 1	5			0.36			0.50	6	1 20 A		TECH HUB COMPUTING
EQ. YARD LIGHTING		20 A 1	7	0.07			0.53			8	1 20 A		MAIN CONCOURSE
S. COURTYARD TREE LIGHTS		20 A 1	9		0.12			0.30		10	1 20 A		INFO DESK, ELEV LOBBY
FACADE LIGHTS		20 A 1	11			0.05			0.48	12	1 20 A		TECH HUB TRACK #1
SPARE		20 A 1	13	0.00			0.00			14	1 20 A		Spare
SPARE		20 A 1	15		0.00			1.10		16	1 20 A		LVL 1 OPEN COLLABORATION
SPARE		20 A 1	17			0.00			0.72	18	1 20 A		LVL 1 LINK GEN. DNLTS
SPARE		20 A 1	19	0.00			0.24			20	1 20 A		LVL 1 LINK SOUTH DNLTS
SPARE		20 A 1	21		0.00			0.04		22	1 20 A		LVL 1 LINK PENDANTS
SPARE		20 A 1	23			0.00			0.70	24	1 20 A		LVL 1 NORTH CORE
SPARE		20 A 1	25	0.00			0.17			26	1 20 A		EVENTS LOWER LEVEL
SPARE		20 A 1	27		0.00			1.44		28	1 20 A		EXHIBIT
SPARE		20 A 1	29			0.00			0.46	30	1 20 A		VISUALIZATION LAB
SPARE		20 A 1	31	0.00			1.10			32	1 20 A		STUDIO, MAKER SPACE, VR
SPARE		20 A 1	33		0.00			0.56		34	1 20 A		LVL 1 GROUP STUDY ALCOVES
SPARE		20 A 1	35			0.00			1.88	36	1 20 A		LVL 1 SOUTH CORE
SPARE		20 A 1	37	0.00			0.00			38	1 20 A		SPARE
SPARE		20 A 1	39		0.00			0.00		40	1 20 A		SPARE
SPARE		20 A 1	41			0.00			0.00	42	1 20 A		SPARE

TOTAL PHASE SUMMARY

	A	B	C
PHASE SUBTOTAL (kVA):	3.12...	4.11...	5.1...
PHASE SUBTOTAL (AMPS):	11 A	15 A	19 A

LOAD CLASSIFICATION	CONNECTED (KVA)	DEMAND FACTOR	DEMAND (KVA)
POWER	0.000 kVA	100%	0.000 kVA
LIGHTING	12.398 kVA	125%	15.495 kVA
MOTOR	0.000 kVA	125% LARGEST, 100% OTHER	0.000 kVA
RECEPTACLE	0.000 kVA	100% FIRST 10KVA, 50% OTHER	0.000 kVA
HEATING	0.000 kVA	125%	0.000 kVA
TOTAL LOAD	12.398 kVA		15.495 kVA
TOTAL AMPS	15 A		19 A

RP1A1

MAIN TYPE MCB | **MAIN RATING** 100 A | **BUS RATING** 100 A
VOLTAGE 120/208 Wye | 3 **PHASE** 4 **WIRE** | **MOUNTING** Surface | **ENCLOSURE** Type 1
LOCATION LEVEL 1,ELECTRICAL 1079A | **FED FROM** DP1A | **SCCR** 10 kA | **CALCULATED AVAILABLE FAULT...** 4.3 kA

REMARKS:

LEFT SIDE, kVA							RIGHT SIDE, kVA							
DESCRIPTION	BRKR NOTES	BRKR AMP, POLES	CKT NO	A	B	C	A	B	C	CKT NO	BRKR AMP, POLES	BRKR NOTES	DESCRIPTION
PROJECTOR - RM#1070		20 A 1	1	0.64			1.07			2	1 20 A		EVENTS DISPLAY - RM#1071
PROJECTOR - RM#1070		20 A 1	3		0.64			0.64		4	1 20 A		EVENTS DISPLAY - RM#1071
PROJECTOR SCREEN - RM#1070		20 A 1	5			0.72			0.72	6	1 20 A		FLOORBOX - RM#1071
PROJECTOR SCREEN - RM#1070		20 A 1	7	0.72			0.72			8	1 20 A		FLOORBOX - RM#1070
Spare		20 A 1	9		0.00			0.57		10	1 20 A		FLOORBOX - RM#1070
RECEPTACLE - RM#1070		20 A 1	11			0.90			0.36	12	1 20 A		PP-2 - RM#1079
MOTERIZED SHADES - RM#1070		20 A 1	13	1.05			0.00			14	1 20 A		Spare
RECEPTACLE - RM#1070A		20 A 1	15		1.44			0.00		16	1 20 A		Spare
RECEPTACLE - RM#1070A		20 A 1	17			1.44			0.00	18	1 20 A		Spare
RECEPTACLE - RM#1070A		20 A 1	19	1.44			0.00			20	1 20 A		Spare
REFRIGERATOR - RM#1070B		20 A 1	21		1.20			0.00		22	1 20 A		Spare
RECEPTACLES - RM#1070B		20 A 1	23			0.72			0.00	24	1 20 A		Spare
ICE MAKER - RM#1070B		20 A 1	25	0.60			0.00			26	-- --	--	Space
RECEPTACLE - RM#1069 & 1070		20 A 1	27		0.36			0.00		28	-- --	--	Space
RECEPTACLE - RM#1070A		20 A 1	29			0.36			0.00	30	-- --	--	Space
Space	--	-- --	31	0.00			0.00			32	-- --	--	Space
Space	--	-- --	33		0.00			0.00		34	-- --	--	Space
Space	--	-- --	35			0.00			0.00	36	-- --	--	Space
Space	--	-- --	37	0.00			0.00			38	-- --	--	Space
Space	--	-- --	39		0.00			0.00		40	-- --	--	Space
Space	--	-- --	41			0.00			0.00	42	-- --	--	Space

TOTAL PHASE SUMMARY

	A	B	C
PHASE SUBTOTAL (kVA):	8.24...	4.85...	5.2...
PHASE SUBTOTAL (AMPS):	52 A	40 A	44 A

LOAD CLASSIFICATION	CONNECTED (KVA)	DEMAND FACTOR	DEMAND (KVA)
POWER	0.000 kVA	100%	0.000 kVA
LIGHTING	0.000 kVA	125%	0.000 kVA
MOTOR	0.360 kVA	125% LARGEST, 100% OTHER	0.450 kVA
RECEPTACLE	15.958 kVA	100% FIRST 10KVA, 50% OTHER	12.979 kVA
HEATING	0.000 kVA	125%	0.000 kVA
TOTAL LOAD	16.318 kVA		13.429 kVA
TOTAL AMPS	45 A		37 A

HDP1

MAIN TYPE MCB | **MAIN RATING** 800 A | **BUS RATING** 800 A
VOLTAGE 480/277 Wye | 3 **PHASE** 4 **WIRE** | **MOUNTING** Surface | **ENCLOSURE** Type 1
LOCATION LEVEL 1,ELEC 1081 | **FED FROM** SWITCHBOAR... | **SCCR** 42 kA | **CALCULATED AVAILABLE FAULT...** 29.0 kA

REMARKS:

SPACE	DESCRIPTION	CONNECTED LOAD (kVA)	FRAME	TRIP	POLES	BRKR NOTES	NOTES
1	T1A	72.182 kVA	150 A	150 A	3		
2	T1B	83.498 kVA	150 A	150 A	3		
3	T2A	28.580 kVA	150 A	150 A	3		
4	T2B	22.648 kVA	150 A	150 A	3		
5	T3A	24.300 kVA	150 A	150 A	3		
6	T3B	23.204 kVA	150 A	150 A	3		
7	MP1	41.580 kVA	225 A	225 A	3		
8	Space	0.000 kVA	--	--	--	--	
9	Space	0.000 kVA	--	--	--	--	
10	Space	0.000 kVA	--	--	--	--	
11	Space	0.000 kVA	--	--	--	--	
12	Space	0.000 kVA	--	--	--	--	
13	Space	0.000 kVA	--	--	--	--	
14	Space	0.000 kVA	--	--	--	--	
15	Space	0.000 kVA	--	--	--	--	
16	Space	0.000 kVA	--	--	--	--	
17	Space	0.000 kVA	--	--	--	--	
18	Space	0.000 kVA	--	--	--	--	
19	Space	0.000 kVA	--	--	--	--	
20	SPD	0.000 kVA	--	30 A	3		

LOAD CLASSIFICATION	CONNECTED (KVA)	DEMAND FACTOR	DEMAND (KVA)
POWER	0.500 kVA	100%	0.500 kVA
LIGHTING	0.000 kVA	125%	0.000 kVA
MOTOR	49.528 kVA	125% LARGEST, 100% OTHER	52.438 kVA
RECEPTACLES	232.084 kVA	100% FIRST 10KVA, 50% OTHER	121.032 kVA
HEATING	13.900 kVA	125%	17.375 kVA
TOTAL LOAD	295.992 kVA		191.345 kVA
TOTAL AMPS	356 A		230 A

LP2A

MAIN TYPE MCB | **MAIN RATING** 60 A | **BUS RATING** 100 A
VOLTAGE 480/277 Wye | 3 **PHASE** 4 **WIRE** | **MOUNTING** Surface | **ENCLOSURE** Type 1
LOCATION LEVEL 2,ELECTRICAL 2092 | **FED FROM** LDP1 | **SCCR** 10 kA | **CALCULATED AVAILABLE FAULT...** 5.9 kA

REMARKS: THIS PANEL SERVES LIGHTING LOADS ON LEVEL 2 UNLESS NOTED OTHERWISE.

LEFT SIDE, kVA							RIGHT SIDE, kVA							
DESCRIPTION	BRKR NOTES	BRKR AMP, POLES	CKT NO	A	B	C	A	B	C	CKT NO	BRKR AMP, POLES	BRKR NOTES	DESCRIPTION
OPEN COMP/LOBBY WALL ACCENT		20 A 1	1	0.66			0.41			2	1 20 A		LVL 2 NORTH CORE
LOBBY		20 A 1	3		1.94			0.37		4	1 20 A		LVL 2 SOUTH CORE
OPEN COMPUTING		20 A 1	5			1.21			1.90	6	1 20 A		EVENTS UPPER LEVEL
SPEC. COLLECTIONS - CENTRAL		20 A 1	7	1.72			1.40			8	1 20 A		LVL 2 NORTH PROGRAM AREAS
SPEC. COLLECTIONS - NORTH 1		20 A 1	9		2.13			1.94		10	1 20 A		LVL 2 SOUTH PROGRAM AREAS
SPEC. COLLECTIONS - NORTH 2		20 A 1	11			2.30			0.55	12	1 20 A		LVL 2 SPEC. COLL. READING RM
SPEC. COLLECTIONS - SOUTH 1		20 A 1	13	2.01			0.00			14	1 20 A		SPARE
SPEC. COLLECTIONS - SOUTH 2		20 A 1	15		2.09			0.00		16	1 20 A		SPARE
LVL 2 LINK		20 A 1	17			1.49			0.00	18	1 20 A		SPARE
LVL 2 LOUNGE		20 A 1	19	0.32			0.00			20	1 20 A		SPARE
SPARE		20 A 1	21		0.00			0.00		22	1 20 A		SPARE
SPARE		20 A 1	23			0.00			0.00	24	1 20 A		SPARE
SPARE		20 A 1	25	0.00			0.00			26	1 20 A		SPARE
SPARE		20 A 1	27		0.00			0.00		28	1 20 A		SPARE
SPARE		20 A 1	29			0.00			0.00	30	1 20 A		SPARE
SPARE		20 A 1	31	0.00			0.00			32	1 20 A		SPARE
SPARE		20 A 1	33		0.00			0.00		34	1 20 A		SPARE
SPARE		20 A 1	35			0.00			0.00	36	1 20 A		SPARE
SPARE		20 A 1	37	0.00			0.00			38

THIS LINE SHOWN ABOVE IS EXACTLY ONE INCH LONG AT TWO DIFFERENT SCALES ON SHEET

DP2A

MAIN TYPE MCB | **VOLTAGE** 120/208 Wye | **LOCATION** LEVEL 2,ELECTRICAL 2096D
MAIN RATING 225 A | 3 **PHASE** 4 **WIRE** | **FED FROM** T2A
BUS RATING 225 A | **MOUNTING** Surface | **SCCR** 18 kA
ENCLOSURE Type 1 | **CALCULATED AVAILABLE FAULT...** 5.1 kA

REMARKS:

LEFT SIDE, kVA						RIGHT SIDE, kVA								
DESCRIPTION	BRKR NOTES	BRKR AMP, POLES	CKT NO	A	B	C	A	B	C	CKT NO	BRKR AMP, POLES	BRKR NOTES	DESCRIPTION
RP2A1		100 A 3	1	1.05			5.18			2	3 100 A		RP2A3
--	--	-- --	3		0.72			6.91		4	-- --	--	--
--	--	-- --	5			0.36			5.53	6	-- --	--	--
RP2A2		100 A 3	7	3.13			0.00			8	3 100 A		SPARE
--	--	-- --	9		2.88			0.00		10	-- --	--	--
--	--	-- --	11			2.82			0.00	12	-- --	--	--
SPACE	--	-- --	13	0.00			0.00			14	-- --	--	SPACE
SPACE	--	-- --	15		0.00			0.00		16	-- --	--	SPACE
SPACE	--	-- --	17			0.00			0.00	18	-- --	--	SPACE
SPACE	--	-- --	19	0.00			0.00			20	-- --	--	SPACE
SPACE	--	-- --	21		0.00			0.00		22	-- --	--	SPACE
SPACE	--	-- --	23			0.00			0.00	24	-- --	--	SPACE
SPACE	--	-- --	25	0.00			0.00			26	-- --	--	SPACE
SPACE	--	-- --	27		0.00			0.00		28	-- --	--	SPACE
SPACE	--	-- --	29			0.00			0.00	30	-- --	--	SPACE

TOTAL PHASE SUMMARY

	A	B	C
PHASE SUBTOTAL (kVA):	9.36...	10.5...	8.7...
PHASE SUBTOTAL (AMPS):	79 A	88 A	73 A

LOAD CLASSIFICATION	CONNECTED (KVA)	DEMAND FACTOR	DEMAND (KVA)
POWER	0.000 kVA	100%	0.000 kVA
LIGHTING	0.000 kVA	125%	0.000 kVA
MOTOR	0.400 kVA	125% LARGEST, 100% OTHER	0.413 kVA
RECEPTACLE	28.180 kVA	100% FIRST 10KVA, 50% OTHER	19.090 kVA
HEATING	0.000 kVA	125%	0.000 kVA
TOTAL LOAD	28.580 kVA		19.503 kVA
TOTAL AMPS	79 A		54 A

RP1B1

MAIN TYPE MCB | **VOLTAGE** 120/208 Wye | **LOCATION** LEVEL 1,ELECTRICAL 1058D
MAIN RATING 100 A | 3 **PHASE** 4 **WIRE** | **FED FROM** DP1B
BUS RATING 100 A | **MOUNTING** Surface | **SCCR** 10 kA
ENCLOSURE Type 1 | **CALCULATED AVAILABLE FAULT...** 4.3 kA

REMARKS:

LEFT SIDE, kVA						RIGHT SIDE, kVA								
DESCRIPTION	BRKR NOTES	BRKR AMP, POLES	CKT NO	A	B	C	A	B	C	CKT NO	BRKR AMP, POLES	BRKR NOTES	DESCRIPTION
FLOORBOX - RM #1067		20 A 1	1	1.13			1.13			2	1 20 A		FLOORBOX - RM #1067
FLOORBOX - RM #1067		20 A 1	3		1.13			1.13		4	1 20 A		FLOORBOX - RM #1067
FLOORBOX - RM #1067		20 A 1	5			1.13			1.13	6	1 20 A		FLOORBOX - RM #1067
FLOORBOX - RM #1067		20 A 1	7	1.13			1.13			8	1 20 A		FLOORBOX - RM #1067
FLOORBOX - RM #1067		20 A 1	9		1.13			1.13		10	1 20 A		FLOORBOX - RM #1067
FLOORBOX - RM #1067		20 A 1	11			1.13			1.13	12	1 20 A		FLOORBOX - RM #1067
FLOORBOX - RM #1067		20 A 1	13	1.13			1.13			14	1 20 A		FLOORBOX - RM #1067
FLOORBOX - RM #1067		20 A 1	15		1.13			1.13		16	1 20 A		FLOORBOX - RM #1067
FLOORBOX - RM #1067		20 A 1	17			1.13			0.54	18	1 20 A		RECEPTACLES - RM #1067
FLOORBOX - RM #1067		20 A 1	19	1.13			0.72			20	1 20 A		RECEPTACLES - RM #1067
FLOORBOX - RM #1067		20 A 1	21		1.13			0.54		22	1 20 A		RECEPTACLES - RM #1067
FLOORBOX - RM #1067		20 A 1	23			1.13			0.54	24	1 20 A		RECEPTACLES - RM #1067
Spare		20 A 1	25	0.00			0.00			26	1 20 A		Spare
Spare		20 A 1	27		0.00			1.44		28	1 20 A		ELEVATOR SUMP PUMP
Spare		20 A 1	29			0.00			1.05	30	1 20 A		POWER SHADES - RM #1067
Space	--	-- --	31	0.00			0.00			32	1 20 A		Spare
Space	--	-- --	33		0.00			0.00		34	1 20 A		Spare
Space	--	-- --	35			0.00			0.00	36	1 20 A		Spare
Space	--	-- --	37	0.00			0.00			38	-- --	--	Space
Space	--	-- --	39		0.00			0.00		40	-- --	--	Space
Space	--	-- --	41			0.00			0.00	42	-- --	--	Space

TOTAL PHASE SUMMARY

	A	B	C
PHASE SUBTOTAL (kVA):	8.59...	9.85...	8.8...
PHASE SUBTOTAL (AMPS):	72 A	82 A	74 A

LOAD CLASSIFICATION	CONNECTED (KVA)	DEMAND FACTOR	DEMAND (KVA)
POWER	0.000 kVA	100%	0.000 kVA
LIGHTING	0.000 kVA	125%	0.000 kVA
MOTOR	1.440 kVA	125% LARGEST, 100% OTHER	1.800 kVA
RECEPTACLE	25.890 kVA	100% FIRST 10KVA, 50% OTHER	17.945 kVA
HEATING	0.000 kVA	125%	0.000 kVA
TOTAL LOAD	27.330 kVA		19.745 kVA
TOTAL AMPS	76 A		55 A

RP1A2

MAIN TYPE MCB | **VOLTAGE** 120/208 Wye | **LOCATION** LEVEL 1,ELECTRICAL 1079A
MAIN RATING 100 A | 3 **PHASE** 4 **WIRE** | **FED FROM** DP1A
BUS RATING 100 A | **MOUNTING** Surface | **SCCR** 10 kA
ENCLOSURE Type 1 | **CALCULATED AVAILABLE FAULT...** 4.3 kA

REMARKS:

LEFT SIDE, kVA						RIGHT SIDE, kVA								
DESCRIPTION	BRKR NOTES	BRKR AMP, POLES	CKT NO	A	B	C	A	B	C	CKT NO	BRKR AMP, POLES	BRKR NOTES	DESCRIPTION
RECEPTACLE - RM#1072		20 A 1	1	1.28			0.54			2	1 20 A		RECEPTACLE - RM#1072
RECEPTACLE - RM#1072		20 A 1	3		1.28			0.36		4	1 20 A		RECEPTACLE - RM#1072
RECEPTACLE - RM#1072		20 A 1	5			1.28			0.72	6	1 20 A		FLOOR RECEPTACLE - RM#1072
RECEPTACLE - RM#1072		20 A 1	7	1.28			0.54			8	1 20 A		RECEPTACLE - RM#1073
RECEPTACLE - RM#1072		20 A 1	9		1.28			0.54		10	1 20 A		RECEPTACLE - LEVEL 1 RESTROOMS
RECEPTACLE - RM#1072		20 A 1	11			1.28			0.00	12	1 20 A		Spare
RECEPTACLE - RM#1072		20 A 1	13	1.28			0.00			14	1 20 A		Spare
RECEPTACLE - RM#1072		20 A 1	15		1.28			0.90		16	1 20 A		RECEPTACLE - EQUIPMENT YARD
RECEPTACLE AV BOX - RM#1072		20 A 1	17			1.28			1.26	18	1 20 A		RECEPTACLE - EQUIPMENT ROOMS
RECEPTACLE AV BOX - RM#1072		20 A 1	19	1.28			0.54			20	1 20 A		RECEPTACLE - EQUIPMENT ROOMS
FCU-1		20 A 1	21		0.86			0.54		22	1 20 A		RECEPTACLES & BLUE PHONE
FCU-8 - RM#1078		20 A 1	23			0.86			0.00	24	1 20 A		Spare
BAS CONTROL PANEL		20 A 1	25	0.50			0.00			26	1 20 A		Spare
BAS CONTROL PANEL		20 A 1	27		0.50			0.00		28	1 20 A		Spare
Spare		20 A 1	29			0.00			0.00	30	1 20 A		Spare
Spare		20 A 1	31	0.00			0.00			32	1 20 A		Spare
Spare		20 A 1	33		0.00			0.00		34	1 20 A		Spare
Spare		20 A 1	35			0.00			0.00	36	1 20 A		Spare
Space	--	-- --	37	0.00			0.00			38	-- --	--	Space
Space	--	-- --	39		0.00			0.00		40	-- --	--	Space
Space	--	-- --	41			0.00			0.00	42	-- --	--	Space

TOTAL PHASE SUMMARY

	A	B	C
PHASE SUBTOTAL (kVA):	7.24...	7.54...	6.6...
PHASE SUBTOTAL (AMPS):	61 A	64 A	56 A

LOAD CLASSIFICATION	CONNECTED (KVA)	DEMAND FACTOR	DEMAND (KVA)
POWER	0.000 kVA	100%	0.000 kVA
LIGHTING	0.000 kVA	125%	0.000 kVA
MOTOR	1.720 kVA	125% LARGEST, 100% OTHER	1.935 kVA
RECEPTACLE	19.760 kVA	100% FIRST 10KVA, 50% OTHER	14.880 kVA
HEATING	0.000 kVA	125%	0.000 kVA
TOTAL LOAD	21.480 kVA		16.815 kVA
TOTAL AMPS	60 A		47 A

RP2A1

MAIN TYPE MCB | **VOLTAGE** 120/208 Wye | **LOCATION** LEVEL 2,ELECTRICAL 2096D
MAIN RATING 100 A | 3 **PHASE** 4 **WIRE** | **FED FROM** DP2A
BUS RATING 100 A | **MOUNTING** Surface | **SCCR** 10 kA
ENCLOSURE Type 1 | **CALCULATED AVAILABLE FAULT...** 4.3 kA

REMARKS:

LEFT SIDE, kVA						RIGHT SIDE, kVA								
DESCRIPTION	BRKR NOTES	BRKR AMP, POLES	CKT NO	A	B	C	A	B	C	CKT NO	BRKR AMP, POLES	BRKR NOTES	DESCRIPTION
POWER SHADES - RM#1067		20 A 1	1	1.05			0.00			2	1 20 A		Spare
2103 RECEPTACLE - RM#2103		20 A 1	3		0.72			0.00		4	1 20 A		Spare
2103 RECEPTACLE - RM#2103		20 A 1	5			0.36			0.00	6	1 20 A		Spare
			7				0.00			8	1 20 A		Spare
Spare		20 A 1	9		0.00			0.00		10	1 20 A		Spare
Spare		20 A 1	11			0.00			0.00	12	1 20 A		Spare
Spare		20 A 1	13	0.00			0.00			14	1 20 A		Spare
Spare		20 A 1	15		0.00			0.00		16	1 20 A		Spare
Spare		20 A 1	17			0.00			0.00	18	1 20 A		Spare
Space	--	-- --	19	0.00			0.00			20	-- --	--	Space
Space	--	-- --	21		0.00			0.00		22	-- --	--	Space
Space	--	-- --	23			0.00			0.00	24	-- --	--	Space
Space	--	-- --	25	0.00			0.00			26	-- --	--	Space
Space	--	-- --	27		0.00			0.00		28	-- --	--	Space
Space	--	-- --	29			0.00			0.00	30	-- --	--	Space
Space	--	-- --	31	0.00			0.00			32	-- --	--	Space
Space	--	-- --	33		0.00			0.00		34	-- --	--	Space
Space	--	-- --	35			0.00			0.00	36	-- --	--	Space
Space	--	-- --	37	0.00			0.00			38	-- --	--	Space
Space	--	-- --	39		0.00			0.00		40	-- --	--	Space
Space	--	-- --	41			0.00			0.00	42	-- --	--	Space

TOTAL PHASE SUMMARY

	A	B	C
PHASE SUBTOTAL (kVA):	3.13...	2.88...	2.8...
PHASE SUBTOTAL (AMPS):	26 A	24 A	24 A

LOAD CLASSIFICATION	CONNECTED (KVA)	DEMAND FACTOR	DEMAND (KVA)
POWER	0.000 kVA	100%	0.000 kVA
LIGHTING	0.000 kVA	125%	0.000 kVA
MOTOR	0.000 kVA	125% LARGEST, 100% OTHER	0.000 kVA
RECEPTACLE	8.830 kVA	100% FIRST 10KVA, 50% OTHER	8.830 kVA
HEATING	0.000 kVA	125%	0.000 kVA
TOTAL LOAD	8.830 kVA		8.830 kVA
TOTAL AMPS	25 A		25 A

RP1B2

MAIN TYPE MCB | **VOLTAGE** 120/208 Wye | **LOCATION** LEVEL 1,ELECTRICAL 1058D
MAIN RATING 100 A | 3 **PHASE** 4 **WIRE** | **FED FROM** DP1B
BUS RATING 100 A | **MOUNTING** Surface | **SCCR** 10 kA
ENCLOSURE Type 1 | **CALCULATED AVAILABLE FAULT...** 4.3 kA

REMARKS:

LEFT SIDE, kVA						RIGHT SIDE, kVA								
DESCRIPTION	BRKR NOTES	BRKR AMP, POLES	CKT NO	A	B	C	A	B	C	CKT NO	BRKR AMP, POLES	BRKR NOTES	DESCRIPTION
RECEPTACLE - RM#1057 & 1066		20 A 1	1	0.54			0.50			2	1 20 A		CHORD REEL REC - RM#1065
RECEPTACLE - RM#1058B&D & 1079A		20 A 1	3		0.72			0.50		4	1 20 A		CHORD REEL REC - RM#1065
RECEPTACLE - RM#1064		20 A 1	5			0.54			0.50	6	1 20 A		CHORD REEL REC - RM#1065
RECEPTACLE - RM#1064		20 A 1	7	0.54			0.50			8	1 20 A		CHORD REEL REC - RM#1065
RECEPTACLE - RM#1062		20 A 1	9		0.72			0.54		10	1 20 A		RACEWAY RECEPT - RM#1065
RECEPTACLE - RM#1062		20 A 1	11			0.90			0.54	12	1 20 A		RACEWAY RECEPT - RM#1065
RECEPTACLE - RM#1062		20 A 1	13	0.72			0.54			14	1 20 A		RACEWAY RECEPT - RM#1065
RECEPTACLE - RM#1062		20 A 1	15		0.72			0.54		16	1 20 A		RACEWAY RECEPT - RM#1065
VIDEO WALL REC - RM#1069		20 A 1	17			1.28			0.36	18	1 20 A		RACEWAY RECEPT - RM#1065
VIDEO WALL REC - RM#1069		20 A 1	19	1.28			0.36			20	1 20 A		RACEWAY RECEPT - RM#1065
VIDEO WALL REC - RM#1069		20 A 1	21		1.28			0.72		22	1 20 A		RECEPTACLES - RM#1065
VIDEO WALL REC - RM#1069		20 A 1	23			1.28			0.54	24	1 20 A		FLOOR RECEPTACLE - RM#1066
VR MONITOR - RM#1063		20 A 1	25	0.24			0.72			26	1 20 A		FLOOR RECEPTACLE - RM#1066
RECEPTACLE - RM#1063		20 A 1	27		0.72			0.72		28	1 20 A		FLOOR RECEPTACLE - RM#1066
RECEPTACLE - RM#1063		20 A 1	29			0.54			0.36	30	1 20 A		RECEPTACLE - RM#1066
LOCKERS REC - RM#1066		20 A 1	31	1.36			0.36			32	1 20 A		RECEPTACLE - ELEV PIT
LOCKERS REC - RM#1066		20 A 1	33		1.00			0.90		34	1 20 A		RECEPTACLE - RM#1062A
LOCKERS REC - RM#1066		20 A 1	35			1.00			0.18	36	1 20 A		SIGNAGE REC - RM#1055
LOCKERS REC - RM#1066		20 A 1	37	1.00			0.00			38	1 20 A		Spare
LOCKERS REC - RM#1066		20 A 1	39		1.00			0.00		40	1 20 A		Spare
Spare		20 A 1	41			0.00			0.00	42	1 20 A		Spare

TOTAL PHASE SUMMARY

	A	B	C
PHASE SUBTOTAL (kVA):	8.66...	10.0...	8.0...
PHASE SUBTOTAL (AMPS):	73 A	85 A	67 A

LOAD CLASSIFICATION	CONNECTED (KVA)	DEMAND FACTOR	DEMAND (KVA)
POWER	0.000 kVA	100%	0.000 kVA
LIGHTING	0.000 kVA	125%	0.000 kVA
MOTOR	2.000 kVA	125% LARGEST, 100% OTHER	2.125 kVA
RECEPTACLE	24.768 kVA	100% FIRST 10KVA, 50% OTHER	17.384 kVA
HEATING	0.000 kVA	125%	0.000 kVA
TOTAL LOAD	26.768 kVA		19.509 kVA
TOTAL AMPS	74 A		54 A

RP1A3

MAIN TYPE MCB | **VOLTAGE** 120/208 Wye | **LOCATION** LEVEL 1,ELECTRICAL 1079A
MAIN RATING 100 A | 3 **PHASE** 4 **WIRE** | **FED FROM** DP1A
BUS RATING 100 A | **MOUNTING** Surface | **SCCR** 10 kA
ENCLOSURE Type 1 | **CALCULATED AVAILABLE FAULT...** 4.3 kA

REMARKS:

LEFT SIDE, kVA						RIGHT SIDE, kVA								
DESCRIPTION	BRKR NOTES	BRKR AMP, POLES	CKT NO	A	B	C	A	B	C	CKT NO	BRKR AMP, POLES	BRKR NOTES	DESCRIPTION
FLOOR BOX REC - RM#1077		20 A 1	1	0.36			0.54			2	1 20 A		RECEPTACLE - RM#1077A,C,&E
FLOOR BOX REC - RM#1077		20 A 1	3		0.36			0.36		4	1 20 A		RECEPTACLE - RM#1077B&D
FLOOR BOX REC - RM#1077		20 A 1	5			0.36			0.90	6	1 20 A		RECEPTACLE - RM#1055
FLOOR BOX REC - RM#1077		20 A 1	7	0.36			0.75			8	1 20 A		MONITOR - RM#1077A,C,&E
RECEPTACLE - RM#1077		20 A 1	9		0.36			0.50		10	1 20 A		MONITOR - RM#1077B&D
RECEPTACLES - RM#1077F		20 A 1	11			0.72			0.21	12	1 20 A		MONITOR - RM#1077F
FLOOR BOX REC - RM#1077F		20 A 1	13	0.54			0.90			14	1 20 A		FLOORBOX - RM#1051
MOTORIZED SHADES - RM#1051		20 A 1	15		0.30			0.90		16	1 20 A		FLOORBOX - RM#1051
RECEPTACLE - EQUIPMENT ROOMS		20 A 1	17			0.90			0.00	18	1 20 A		PROVISION FOR FUTR CAFE
PROVISION FOR FUTR CAFE		20 A 1	19	0.00			0.00			20	1 20 A		PROVISION FOR FUTR CAFE
PROVISION FOR FUTR CAFE		20 A 1	21		0.00			0.00		22	1 20 A		PROVISION FOR FUTR CAFE
PROVISION FOR FUTR CAFE		20 A 1	23			0.00			0.00	24	1 20 A		PROVISION FOR FUTR CAFE
Spare		20 A 1	25	0.00			0.00			26	1 20 A		Spare
Spare		20 A 1	27		0.00			0.00		28	1 20 A		Spare
Spare		20 A 1	29			0.00			0.00	30	1 20 A		Spare
Space	--	-- --	31	0.00			0.00			32	-- --	--	Space
Space	--	-- --	33		0.00			0.00		34	-- --	--	Space
Space	--	-- --	35			0.00			0.00	36	-- --	--	Space
Space	--	-- --	37	0.00			0.00			38	-- --	--	Space
Space	--	-- --	39		0.00			0.00		40	-- --	--	Space
Space	--	-- --	41			0.00			0.00	42	-- --	--	Space

TOTAL PHASE SUMMARY

	A	B	C
PHASE SUBTOTAL (kVA):	3.45...	2.78...	3.0...
PHASE SUBTOTAL (AMPS):	29 A	23 A	26 A

LOAD CLASSIFICATION	CONNECTED (KVA)	DEMAND FACTOR	DEMAND (KVA)
POWER	0.000 kVA	100%	0.000 kVA
LIGHTING	0.000 kVA	125%	0.000 kVA
MOTOR	0.300 kVA	125% LARGEST, 100% OTHER	0.313 kVA
RECEPTACLE	9.024 kVA	100% FIRST 10KVA, 50% OTHER	9.024 kVA
HEATING	0.000 kVA	125%	0.000 kVA
TOTAL LOAD	9.324 kVA		9.337 kVA
TOTAL AMPS	26 A		26 A

RP2A2

MAIN TYPE MCB | **VOLTAGE** 120/208 Wye | **LOCATION** LEVEL 2,ELECTRICAL 2096D
MAIN RATING 100 A | 3 **PHASE** 4 **WIRE** | **FED FROM** DP2A
BUS RATING 100 A | **MOUNTING** Surface | **SCCR** 10 kA
ENCLOSURE Type 1 | **CALCULATED AVAILABLE FAULT...** 4.3 kA

REMARKS:

LEFT SIDE, kVA						RIGHT SIDE, kVA								
DESCRIPTION	BRKR NOTES	BRKR AMP, POLES	CKT NO	A	B	C	A	B	C	CKT NO	BRKR AMP, POLES	BRKR NOTES	DESCRIPTION
RECEPTACLE - RM#1077RR		20 A 1	1	0.72			0.72			2	1 20 A		RECEPTACLE - RM#1077WW
RECEPTACLE - RM#1077SS		20 A 1	3		0.54			0.54		4	1 20 A		RECEPTACLE - RM#1077VV
RECEPTACLE - RM#1077TT		20 A 1	5			0.54			0.72	6	1 20 A		RECEPTACLE - RM#1077UU & 2102A
RECEPTACLE - RM#2102		20 A 1	7	0.36			0.72			8	1 20 A		RECEPTACLE - RM#2102B
RECEPTACLE - RM#2102		20 A 1	9		0.72			0.72		10	1 20 A		RECEPTACLE - RM#2102
RECEPTACLE - RM#2097A		20 A 1	11			0.36			1.20	12	1 20 A		PRINTER REC - RM#2102
FLOOR BOX - RM#2102		20 A 1	13	0.36			0.25			14	1 20 A		DISPLAY - RM#2102B
FLOOR BOX - RM#2102		20 A 1	15		0.36			0.00		16	1 20 A		Spare
Spare		20 A 1	17			0.00			0.00	18	1 20 A		Spare
Space	--	-- --	19	0.00			0.00			20	-- --	--	Space
Space	--	-- --	21		0.00			0.00		22	-- --	--	Space
Space	--	-- --	23			0.00			0.00	24	-- --	--	Space
Space	--	-- --	25	0.00			0.00			26	-- --	--	Space
Space	--	-- --	27		0.00			0.00		28	-- --	--	Space
Space	--	-- --	29			0.00			0.00	30	-- --	--	Space
Space	--	-- --	31	0.00			0.00			32	-- --	--	Space
Space	--	-- --	33		0.00			0.00		34	-- --	--	Space
Space	--	-- --	35			0.00			0.00	36	-- --	--	Space
Space	--	-- --	37	0.00			0.00			38	-- --	--	Space
Space	--	-- --	39		0.00			0.00		40	-- --	--	Space
Space	--	-- --	41			0.00			0.00	42	-- --	--	Space

TOTAL PHASE SUMMARY

	A	B	C
PHASE SUBTOTAL (kVA):	8.8...	8.8...	8.8...
PHASE SUBTOTAL (AMPS):	73 A	73 A	73 A

LOAD CLASSIFICATION	CONNECTED (KVA)	DEMAND FACTOR	DEMAND (KVA)
POWER	0.000 kVA	100%	0.000 kVA
LIGHTING	0.000 kVA	125%	0.000 kVA
MOTOR	0.000 kVA	125% LARGEST, 100% OTHER	0.000 kVA
RECEPTACLE	29.400 kVA	100% FIRST 10KVA, 50% OTHER	19.700 kVA
HEATING	0.000 kVA	125%	0.000 kVA
TOTAL LOAD	29.400 kVA		19.700 kVA
TOTAL AMPS	82 A		55 A

RP1B3

MAIN TYPE MCB | **VOLTAGE** 120/208 Wye | **LOCATION** LEVEL 1,ELECTRICAL 1058D
MAIN RATING 100 A | 3 **PHASE** 4 **WIRE** | **FED FROM** DP1B
BUS RATING 100 A | **MOUNTING** Surface | **SCCR** 10 kA
ENCLOSURE Type 1 | **CALCULATED AVAILABLE FAULT...** 4.3 kA

REMARKS: *"GF" IN BRKR NOTES COLUMN INDICATES CIRUCIT BREAKER WITH INTEGRAL GFCI PROTECTION

LEFT SIDE, kVA						RIGHT SIDE, kVA								
DESCRIPTION	BRKR NOTES	BRKR AMP, POLES	CKT NO	A	B	C	A	B	C	CKT NO	BRKR AMP, POLES	BRKR NOTES	DESCRIPTION
FLOORBOX - RM #1060		20 A 1	1	1.40			1.40			2	1 20 A		FLOORBOX - RM#1060
FLOORBOX - RM #1060		20 A 1	3		1.40			1.40		4	1 20 A		FLOORBOX - RM#1060
FLOORBOX - RM #1059		20 A 1	5			1.40			1.40	6	1 20 A		FLOORBOX - RM #1059
FLOORBOX - RM #1059		20 A 1	7	1.40			1.40			8	1 20 A		FLOORBOX - RM #1059
FLOORBOX - RM #1059		20 A 1	9		1.40			1.40		10	1 20 A		FLOORBOX - RM #1059
FLOORBOX - RM #1059		20 A 1	11			1.40			1.40	12	1 20 A		FLOORBOX - RM #1059
OVERHEAD RACEWAY - RM#1061		60 A 3	13	0.50			0.54			14	1 20 A		RECEPTS - RMS #1056, A&C
--	--	-- --	15		0.50			0.54		16	1 20 A		RECEPTS - RMS #1056, B&D
--	--	-- --	17			0.50			0.72	18	1 20 A		RECEPTACLES - RMS #1050A & 1051
RECEPTACLE - RM#1061		20 A 1	19	0.72			1.00			20	1 20 A		GROUP STUDY DISPLAY - RM#1056
RECEPTACLE - RM#1061		20 A 1	21		0.72			0.54		22	1 20 A		RECEPTACLES - RM#1056
RECEPTACLE - RM#1061		20 A 1	23			0.72			0.72	24	1 20 A		FLOOR BOX REC - RM#1056
PRINT RECEPTACLE - RM#1060		20 A 1	25	1.00			0.54			26	1 20 A		FLOORBOX - RM#1051
PRINT RECEPTACLE - RM#1060		20 A 1	27		1.00			0.54		28	1 20 A		FLOORBOX - RM#1051
RECEPTACLES - RM#1060		20 A 1	29			0.54			0.18	30	1 20 A		RECEPTACLE - RM#1051
RECEPTACLES - RM#1060		20 A 1	31	0.72			0.18			32	1 20 A	GF	VENDING RECEPTACLE - RM#1050A
Spare		20 A 1	33		0.00			0.18		34	1 20 A	GF	VENDING RECEPTACLE - RM#1050A
Spare		20 A 1	35			0.00			0.00	36	1 20 A		Spare
Spare		20 A 1	37	0.00			0.00			38	-- --	--	Space
Spare		20 A 1	39		0.00			0.00

THIS LINE SHOWN ABOVE IS EXACTLY ONE INCH LONG AT TENTATIVE DRAWING PLOT

RP3A1

MAIN TYPE MCB | **MAIN RATING** 100 A | **BUS RATING** 100 A
VOLTAGE 120/208 Wye | 3 **PHASE** 4 **WIRE** | **MOUNTING** Surface | **ENCLOSURE** Type 1
LOCATION ELECTRICAL 3022 | **FED FROM** DP3A | **SCCR** 10 kA | **CALCULATED AVAILABLE FAULT...** 4.3 kA

REMARKS:

LEFT SIDE, kVA							RIGHT SIDE, kVA							
DESCRIPTION	BRKR NOTES	BRKR AMP, POLES	CKT NO	A	B	C	A	B	C	CKT NO	BRKR AMP, POLES	BRKR NOTES	DESCRIPTION
FLOOR BOX & REC - RM#3013 & EV15		20 A 1	1	0.72			0.72			2	1 20 A		RECEPTACLE - RM#3016
FLOOR BOX - RM#3013		20 A 1	3		0.72			0.72		4	1 20 A		RECEPTACLE - RM#3016
RECEPTACLE - RM#3014A		20 A 1	5			0.72			0.72	6	1 20 A		RECEPTACLE - RM#3016
			7					0.00		8	1 20 A		Spare
RECEPTACLE - RM#3014		20 A 1	9		0.72				0.00	10	1 20 A		Spare
RECEPTACLE - RM#3014		20 A 1	11			0.36			0.72	12	1 20 A		RECEPTACLE - RM#3016
RECEPTACLE - RM#3014		20 A 1	13	0.36			0.00			14	1 20 A		Spare
RECEPTACLE - RM#3014		20 A 1	15		0.36			0.00		16	1 20 A		Spare
RECEPTACLE - RM#3014		20 A 1	17			0.72			0.00	18	1 20 A		Spare
Space	--	-- --	19	0.00			0.00			20	-- --	--	Space
Space	--	-- --	21		0.00			0.00		22	-- --	--	Space
Space	--	-- --	23			0.00			0.00	24	-- --	--	Space
Space	--	-- --	25	0.00			0.00			26	-- --	--	Space
Space	--	-- --	27		0.00			0.00		28	-- --	--	Space
Space	--	-- --	29			0.00			0.00	30	-- --	--	Space
Space	--	-- --	31	0.00			0.00			32	-- --	--	Space
Space	--	-- --	33		0.00			0.00		34	-- --	--	Space
Space	--	-- --	35			0.00			0.00	36	-- --	--	Space
Space	--	-- --	37	0.00			0.00			38	-- --	--	Space
Space	--	-- --	39		0.00			0.00		40	-- --	--	Space
Space	--	-- --	41			0.00			0.00	42	-- --	--	Space

TOTAL PHASE SUMMARY

	A	B	C
PHASE SUBTOTAL (kVA):	1.80...	2.52...	3.2...
PHASE SUBTOTAL (AMPS):	15 A	22 A	26 A

LOAD CLASSIFICATION	CONNECTED (KVA)	DEMAND FACTOR	DEMAND (KVA)
POWER	0.000 kVA	100%	0.000 kVA
LIGHTING	0.000 kVA	125%	0.000 kVA
MOTOR	0.000 kVA	125% LARGEST, 100% OTHER	0.000 kVA
RECEPTACLE	7.560 kVA	100% FIRST 10KVA, 50% OTHER	7.560 kVA
HEATING	0.000 kVA	125%	0.000 kVA
TOTAL LOAD	7.560 kVA		7.560 kVA
TOTAL AMPS	21 A		21 A

RP2B2

MAIN TYPE MCB | **MAIN RATING** 100 A | **BUS RATING** 100 A
VOLTAGE 120/208 Wye | 3 **PHASE** 4 **WIRE** | **MOUNTING** Surface | **ENCLOSURE** Type 1
LOCATION LEVEL 2,ELECTRICAL 2092 | **FED FROM** DP2B | **SCCR** 10 kA | **CALCULATED AVAILABLE FAULT...** 4.3 kA

REMARKS:

LEFT SIDE, kVA							RIGHT SIDE, kVA							
DESCRIPTION	BRKR NOTES	BRKR AMP, POLES	CKT NO	A	B	C	A	B	C	CKT NO	BRKR AMP, POLES	BRKR NOTES	DESCRIPTION
RECEPTACLE - RM#2093		20 A 1	1	0.72			0.00			2	1 20 A		Spare
RECEPTACLE - RM#2093		20 A 1	3		0.36			0.00		4	1 20 A		Spare
FLOOR RECEPTACLE - RM#2093		20 A 1	5			0.72			0.00	6	1 20 A		Spare
FLOOR RECEPTACLE - RM#2093		20 A 1	7	0.72			0.00			8	1 20 A		Spare
RECEPTACLE - RM#2093		20 A 1	9		0.54			0.00		10	1 20 A		Spare
RECEPTACLE - RM#2093A		20 A 1	11			0.54			0.00	12	1 20 A		Spare
RECEPTACLE - RM#2093B		20 A 1	13	0.36			0.00			14	1 20 A		Spare
MONITORS - RM#2093A&B		20 A 1	15		0.43			0.00		16	1 20 A		Spare
Spare		20 A 1	17			0.00			0.00	18	1 20 A		Spare
Space	--	-- --	19	0.00			0.00			20	-- --	--	Space
Space	--	-- --	21		0.00			0.00		22	-- --	--	Space
Space	--	-- --	23			0.00			0.00	24	-- --	--	Space
Space	--	-- --	25	0.00			0.00			26	-- --	--	Space
Space	--	-- --	27		0.00			0.00		28	-- --	--	Space
Space	--	-- --	29			0.00			0.00	30	-- --	--	Space
Space	--	-- --	31	0.00			0.00			32	-- --	--	Space
Space	--	-- --	33		0.00			0.00		34	-- --	--	Space
Space	--	-- --	35			0.00			0.00	36	-- --	--	Space
Space	--	-- --	37	0.00			0.00			38	-- --	--	Space
Space	--	-- --	39		0.00			0.00		40	-- --	--	Space
Space	--	-- --	41			0.00			0.00	42	-- --	--	Space

TOTAL PHASE SUMMARY

	A	B	C
PHASE SUBTOTAL (kVA):	1.80...	1.32...	1.2...
PHASE SUBTOTAL (AMPS):	15 A	11 A	11 A

LOAD CLASSIFICATION	CONNECTED (KVA)	DEMAND FACTOR	DEMAND (KVA)
POWER	0.000 kVA	100%	0.000 kVA
LIGHTING	0.000 kVA	125%	0.000 kVA
MOTOR	0.000 kVA	125% LARGEST, 100% OTHER	0.000 kVA
RECEPTACLE	4.388 kVA	100% FIRST 10KVA, 50% OTHER	4.388 kVA
HEATING	0.000 kVA	125%	0.000 kVA
TOTAL LOAD	4.388 kVA		4.388 kVA
TOTAL AMPS	12 A		12 A

RP2A3

MAIN TYPE MCB | **MAIN RATING** 100 A | **BUS RATING** 100 A
VOLTAGE 120/208 Wye | 3 **PHASE** 4 **WIRE** | **MOUNTING** Surface | **ENCLOSURE** Type 1
LOCATION LEVEL 2,ELECTRICAL 2096D | **FED FROM** DP2A | **SCCR** 10 kA | **CALCULATED AVAILABLE FAULT...** 4.3 kA

REMARKS:

LEFT SIDE, kVA							RIGHT SIDE, kVA							
DESCRIPTION	BRKR NOTES	BRKR AMP, POLES	CKT NO	A	B	C	A	B	C	CKT NO	BRKR AMP, POLES	BRKR NOTES	DESCRIPTION
RECEPTACLE - RM#2095		20 A 1	1	0.54			0.18			2	1 20 A		RECEPTACLE- RM#2086
RECEPTACLE - RM#2095		20 A 1	3		0.72			0.72		4	1 20 A		RECEPTACLE RM#2086
RECEPTACLE - RM#2095		20 A 1	5			1.20			0.36	6	1 20 A		FLOOR BOX - RM#2086
DISPLAY - RM#2097		20 A 1	7	0.50			0.36			8	1 20 A		FLOOR BOX - RM#2086
DISPLAY - RM#2097		20 A 1	9		0.75			0.72		10	1 20 A		FLOOR BOX - RM#2097
CONFIDENCE MONITOR - RM#2097		20 A 1	11			0.25			1.08	12	1 20 A		FLOOR BOX - RM#2097
SCREEN MOTOR - RM#2097		20 A 1	13	0.72			0.54			14	1 20 A		RECEPTACLES - LEVEL 2...
PROJECTOR - RM#2097		20 A 1	15		0.72			0.72		16	1 20 A		RECEPTACLE - RM#2096,2101&2092
MOTORIZED SHADES - RM#2097		20 A 1	17			0.30			0.72	18	1 20 A		FLOOR RECEPTACLE - RM#2085
RECEPTACLE - RM#2097		20 A 1	19	0.72			0.72			20	1 20 A		FLOOR RECEPTACLE - RM#2085
RECEPTACLE - RM#2097		20 A 1	21		0.72			0.72		22	1 20 A		FLOOR RECEPTACLE - RM#2085
RECEPTACLE - RM#2097		20 A 1	23			0.54			0.72	24	1 20 A		FLOOR RECEPTACLE - RM#2085
RECEPTACLE - RM#2097		20 A 1	25	0.36			0.54			26	1 20 A		RECEPTACLE - RM#2085
MOTORIZED SHADES - RM#2085		20 A 1	27		0.40			0.72		28	1 20 A		RECEPTACLE - RM#2085
Spare		20 A 1	29			0.00			0.36	30	1 20 A		RECEPTACLE - RM#2085
Spare		20 A 1	31	0.00			0.00			32	1 20 A		Spare
Spare		20 A 1	33		0.00			0.00		34	1 20 A		Spare
Spare		20 A 1	35			0.00			0.00	36	1 20 A		Spare
Space	--	-- --	37	0.00			0.00			38	-- --	--	Space
Space	--	-- --	39		0.00			0.00		40	-- --	--	Space
Space	--	-- --	41			0.00			0.00	42	-- --	--	Space

TOTAL PHASE SUMMARY

	A	B	C
PHASE SUBTOTAL (kVA):	5.18...	6.91...	5.5...
PHASE SUBTOTAL (AMPS):	43 A	58 A	47 A

LOAD CLASSIFICATION	CONNECTED (KVA)	DEMAND FACTOR	DEMAND (KVA)
POWER	0.000 kVA	100%	0.000 kVA
LIGHTING	0.000 kVA	125%	0.000 kVA
MOTOR	0.400 kVA	125% LARGEST, 100% OTHER	0.413 kVA
RECEPTACLE	17.220 kVA	100% FIRST 10KVA, 50% OTHER	13.610 kVA
HEATING	0.000 kVA	125%	0.000 kVA
TOTAL LOAD	17.620 kVA		14.023 kVA
TOTAL AMPS	49 A		39 A

RP3A2

MAIN TYPE MCB | **MAIN RATING** 100 A | **BUS RATING** 100 A
VOLTAGE 120/208 Wye | 3 **PHASE** 4 **WIRE** | **MOUNTING** Surface | **ENCLOSURE** Type 1
LOCATION ELECTRICAL 3022 | **FED FROM** DP3A | **SCCR** 10 kA | **CALCULATED AVAILABLE FAULT...** 4.3 kA

REMARKS:

LEFT SIDE, kVA							RIGHT SIDE, kVA							
DESCRIPTION	BRKR NOTES	BRKR AMP, POLES	CKT NO	A	B	C	A	B	C	CKT NO	BRKR AMP, POLES	BRKR NOTES	DESCRIPTION
RECEPTACLE - RM#3015		20 A 1	1	0.36			0.72			2	1 20 A		RECEPTACLE - RM#3001
RECEPTACLE - RM#3015		20 A 1	3		0.36			0.72		4	1 20 A		RECEPTACLE - RM#3001
RECEPTACLE - RM#3015		20 A 1	5			0.36			0.72	6	1 20 A		RECEPTACLE - RM#3001
RECEPTACLE - RM#3015		20 A 1	7	0.36			0.72			8	1 20 A		RECEPTACLE - RM#3001
RECEPTACLE - RM#3001G,H,&I		20 A 1	9		0.54			0.72		10	1 20 A		RECEPTACLE - RM#3001
RECEPTACLE - RM#3001J,K,&L		20 A 1	11			0.54			0.54	12	1 20 A		RECEPTACLE - RM#3001
Spare		20 A 1	13	0.00			0.54			14	1 20 A		RECEPTACLE - RM#3001
Spare		20 A 1	15		0.00			0.00		16	1 20 A		Spare
Spare		20 A 1	17			0.00			0.00	18	1 20 A		Spare
Spare		20 A 1	19	0.00			0.00			20	1 20 A		Spare
Spare		20 A 1	21		0.00			0.00		22	1 20 A		Spare
Spare		20 A 1	23			0.00			0.00	24	1 20 A		Spare
Space	--	-- --	25	0.00			0.00			26	-- --	--	Space
Space	--	-- --	27		0.00			0.00		28	-- --	--	Space
Space	--	-- --	29			0.00			0.00	30	-- --	--	Space
Space	--	-- --	31	0.00			0.00			32	-- --	--	Space
Space	--	-- --	33		0.00			0.00		34	-- --	--	Space
Space	--	-- --	35			0.00			0.00	36	-- --	--	Space
Space	--	-- --	37	0.00			0.00			38	-- --	--	Space
Space	--	-- --	39		0.00			0.00		40	-- --	--	Space
			41			0.00			0.00	42	-- --	--	Space

TOTAL PHASE SUMMARY

	A	B	C
PHASE SUBTOTAL (kVA):	2.70...	2.34...	2.1...
PHASE SUBTOTAL (AMPS):	23 A	20 A	18 A

LOAD CLASSIFICATION	CONNECTED (KVA)	DEMAND FACTOR	DEMAND (KVA)
POWER	0.000 kVA	100%	0.000 kVA
LIGHTING	0.000 kVA	125%	0.000 kVA
MOTOR	0.000 kVA	125% LARGEST, 100% OTHER	0.000 kVA
RECEPTACLE	7.200 kVA	100% FIRST 10KVA, 50% OTHER	7.200 kVA
HEATING	0.000 kVA	125%	0.000 kVA
TOTAL LOAD	7.200 kVA		7.200 kVA
TOTAL AMPS	20 A		20 A

RP2B3

MAIN TYPE MCB | **MAIN RATING** 100 A | **BUS RATING** 100 A
VOLTAGE 120/208 Wye | 3 **PHASE** 4 **WIRE** | **MOUNTING** Surface | **ENCLOSURE** Type 1
LOCATION LEVEL 2,ELECTRICAL 2092 | **FED FROM** DP2B | **SCCR** 10 kA | **CALCULATED AVAILABLE FAULT...** 4.3 kA

REMARKS:

LEFT SIDE, kVA							RIGHT SIDE, kVA							
DESCRIPTION	BRKR NOTES	BRKR AMP, POLES	CKT NO	A	B	C	A	B	C	CKT NO	BRKR AMP, POLES	BRKR NOTES	DESCRIPTION
CONFIDENCE MONITOR - RM#2088		20 A 1	1	0.25			0.54			2	1 20 A		RECEPTACLE -..
MOTORIZED SHADES - RM#2088		20 A 1	3		0.10			0.54		4	1 20 A		RECEPTACLE - RM#2089 & 2090B
SCREEN MOTOR - RM#2088		20 A 1	5			0.72			0.36	6	1 20 A		RECEPTACLE - RM#2088
PROJECTOR - RM#2088		20 A 1	7	0.72			1.50			8	1 20 A		RECEPTACLE - RM#2088
FLOOR RECEPTACLE - RM#2088		20 A 1	9		0.72			1.50		10	1 20 A		RECEPTACLE - RM#2088
RECEPTACLE - RM#2085		20 A 1	11			0.54			1.50	12	1 20 A		RECEPTACLE - RM#2088
RECEPTACLE - RM#2085		20 A 1	13	0.54			1.00			14	1 20 A		RECEPTACLE - RM#2088
RECEPTACLE - RM#2085		20 A 1	15		0.72			1.00		16	1 20 A		RECEPTACLE - RM#2088
RECEPTACLE - RM#2085		20 A 1	17			0.72			1.00	18	1 20 A		RECEPTACLE - RM#2088
DISPLAY - RM#2085		20 A 1	19	0.36			0.00			20	1 20 A		Spare
Spare		20 A 1	21		0.00			0.00		22	1 20 A		Spare
Spare		20 A 1	23			0.00			0.00	24	1 20 A		Spare
Spare		20 A 1	25	0.00			0.00			26	1 20 A		Spare
Spare		20 A 1	27		0.00			0.00		28	1 20 A		Spare
Spare		20 A 1	29			0.00			0.00	30	1 20 A		Spare
Space	--	-- --	31	0.00			0.00			32	-- --	--	Space
Space	--	-- --	33		0.00			0.00		34	-- --	--	Space
Space	--	-- --	35			0.00			0.00	36	-- --	--	Space
Space	--	-- --	37	0.00			0.00			38	-- --	--	Space
Space	--	-- --	39		0.00			0.00		40	-- --	--	Space
Space	--	-- --	41			0.00			0.00	42	-- --	--	Space

TOTAL PHASE SUMMARY

	A	B	C
PHASE SUBTOTAL (kVA):	4.91...	4.58...	4.8...
PHASE SUBTOTAL (AMPS):	41 A	38 A	41 A

LOAD CLASSIFICATION	CONNECTED (KVA)	DEMAND FACTOR	DEMAND (KVA)
POWER	0.000 kVA	100%	0.000 kVA
LIGHTING	0.000 kVA	125%	0.000 kVA
MOTOR	0.000 kVA	125% LARGEST, 100% OTHER	0.000 kVA
RECEPTACLE	14.330 kVA	100% FIRST 10KVA, 50% OTHER	12.165 kVA
HEATING	0.000 kVA	125%	0.000 kVA
TOTAL LOAD	14.330 kVA		12.165 kVA
TOTAL AMPS	40 A		34 A

DP2B

MAIN TYPE MCB | **MAIN RATING** 225 A | **BUS RATING** 225 A
VOLTAGE 120/208 Wye | 3 **PHASE** 4 **WIRE** | **MOUNTING** Surface | **ENCLOSURE** Type 1
LOCATION LEVEL 2,ELECTRICAL 2092 | **FED FROM** T2B | **SCCR** 18 kA | **CALCULATED AVAILABLE FAULT...** 5.1 kA

REMARKS:

LEFT SIDE, kVA							RIGHT SIDE, kVA							
DESCRIPTION	BRKR NOTES	BRKR AMP, POLES	CKT NO	A	B	C	A	B	C	CKT NO	BRKR AMP, POLES	BRKR NOTES	DESCRIPTION
RP2B1		100 A 3	1	1.95			4.91			2	3 100 A		RP2B3
--	--	-- --	3		1.44			4.58		4	-- --	--	--
--	--	-- --	5			0.54			4.84	6	-- --	--	--
RP2B2		100 A 3	7	1.80			0.00			8	3 100 A		SPARE
--	--	-- --	9		1.33			0.00		10	-- --	--	--
--	--	-- --	11			1.26			0.00	12	-- --	--	--
SPACE	--	-- --	13	0.00			0.00			14	-- --	--	SPACE
SPACE	--	-- --	15		0.00			0.00		16	-- --	--	SPACE
SPACE	--	-- --	17			0.00			0.00	18	-- --	--	SPACE
SPACE	--	-- --	19	0.00			0.00			20	-- --	--	SPACE
SPACE	--	-- --	21		0.00			0.00		22	-- --	--	SPACE
SPACE	--	-- --	23			0.00			0.00	24	-- --	--	SPACE
SPACE	--	-- --	25	0.00			0.00			26	-- --	--	SPACE
SPACE	--	-- --	27		0.00			0.00		28	-- --	--	SPACE
SPACE	--	-- --	29			0.00			0.00	30	-- --	--	SPACE

TOTAL PHASE SUMMARY

	A	B	C
PHASE SUBTOTAL (kVA):	8.66...	7.34...	6.6...
PHASE SUBTOTAL (AMPS):	73 A	62 A	55 A

LOAD CLASSIFICATION	CONNECTED (KVA)	DEMAND FACTOR	DEMAND (KVA)
POWER	0.000 kVA	100%	0.000 kVA
LIGHTING	0.000 kVA	125%	0.000 kVA
MOTOR	0.000 kVA	125% LARGEST, 100% OTHER	0.000 kVA
RECEPTACLE	22.648 kVA	100% FIRST 10KVA, 50% OTHER	16.324 kVA
HEATING	0.000 kVA	125%	0.000 kVA
TOTAL LOAD	22.648 kVA		16.324 kVA
TOTAL AMPS	63 A		45 A

RP3A3

MAIN TYPE MCB | **MAIN RATING** 100 A | **BUS RATING** 100 A
VOLTAGE 120/208 Wye | 3 **PHASE** 4 **WIRE** | **MOUNTING** Surface | **ENCLOSURE** Type 1
LOCATION ELECTRICAL 3022 | **FED FROM** DP3A | **SCCR** 10 kA | **CALCULATED AVAILABLE FAULT...** 4.3 kA

REMARKS:

LEFT SIDE, kVA							RIGHT SIDE, kVA							
DESCRIPTION	BRKR NOTES	BRKR AMP, POLES	CKT NO	A	B	C	A	B	C	CKT NO	BRKR AMP, POLES	BRKR NOTES	DESCRIPTION
RECEPTACLE - RM#3017A,C,&E		20 A 1	1	0.64			0.72			2	1 20 A		RECEPTACLE - RM#3017
DISPLAY - RM#3017A,C,&E		20 A 1	3		0.64			0.72		4	1 20 A		RECEPTACLE - RM#3017
RECEPTACLE - RM#3017B&D		20 A 1	5			0.43			0.36	6	1 20 A		RECEPTACLE - RM#3017
DISPLAY - RM#3017B&D		20 A 1	7	0.43			0.72			8	1 20 A		RECEPTACLE - RM#3017
RECEPTACLES - LEVEL 3...		20 A 1	9		0.54			0.54		10	1 20 A		RECEPTACLE - RM#3017
Spare		20 A 1	11			0.00			0.54	12	1 20 A		RECEPTACLE - RM#3016 & 3018
RECEPTACLE - RM#3006&3008		20 A 1	13	0.36			0.50			14	1 20 A		PAGING AMPLIFIER - RM#3017A
PRINTER REC - RM#3016A		20 A 1	15		1.20			0.00		16	1 20 A		Spare
PRINTER REC - RM#3016A		20 A 1	17			1.20			0.00	18	1 20 A		Spare
Spare		20 A 1	19	0.00			0.00			20	1 20 A		Spare
Spare		20 A 1	21		0.00			0.00		22	1 20 A		Spare
Spare		20 A 1	23			0.00			0.00	24	1 20 A		Spare
Space	--	-- --	25	0.00			0.00			26	-- --	--	Space
Space	--	-- --	27		0.00			0.00		28	-- --	--	Space
Space	--	-- --	29			0.00			0.00	30	-- --	--	Space
Space	--	-- --	31	0.00			0.00			32	-- --	--	Space
Space	--	-- --	33		0.00			0.00		34	-- --	--	Space
Space	--	-- --	35			0.00			0.00	36	-- --	--	Space
Space	--	-- --	37	0.00			0.00			38	-- --	--	Space
Space	--	-- --	39		0.00			0.00		40	-- --	--	Space
Space	--	-- --	41			0.00			0.00	42	-- --	--	Space

TOTAL PHASE SUMMARY

	A	B	C
PHASE SUBTOTAL (kVA):	3.37...	3.64...	2.5...
PHASE SUBTOTAL (AMPS):	29 A	31 A	21 A

LOAD CLASSIFICATION	CONNECTED (KVA)	DEMAND FACTOR	DEMAND (KVA)
POWER	0.500 kVA	100%	0.500 kVA
LIGHTING	0.000 kVA	125%	0.000 kVA
MOTOR	0.000 kVA	125% LARGEST, 100% OTHER	0.000 kVA
RECEPTACLE	9.040 kVA	100% FIRST 10KVA, 50% OTHER	9.040 kVA
HEATING	0.000 kVA	125%	0.000 kVA
TOTAL LOAD	9.540 kVA		9.540 kVA
TOTAL AMPS	26 A		26 A

DP3A

MAIN TYPE MCB | **MAIN RATING** 225 A | **BUS RATING** 225 A
VOLTAGE 120/208 Wye | 3 **PHASE** 4 **WIRE** | **MOUNTING** Surface | **ENCLOSURE** Type 1
LOCATION ELECTRICAL 3022 | **FED FROM** T3A | **SCCR** 18 kA | **CALCULATED AVAILABLE FAULT...** 5.1 kA

REMARKS:

LEFT SIDE, kVA							RIGHT SIDE, kVA							
DESCRIPTION	BRKR NOTES	BRKR AMP, POLES	CKT NO	A	B	C	A	B	C	CKT NO	BRKR AMP, POLES	BRKR NOTES	DESCRIPTION
RP3A1		100 A 3	1	1.80			3.37			2	3 100 A		RP3A3
--	--	-- --	3		2.52			3.64		4	-- --	--	--
--	--	-- --	5			3.24			2.53	6	-- --	--	--
RP3A2		100 A 3	7	2.70			0.00			8	3 100 A		SPARE
--	--	-- --	9		2.34			0.00		10	-- --	--	--
--	--	-- --	11			2.16			0.00	12	-- --	--	--
SPACE	--	-- --	13	0.00			0.00			14	-- --	--	SPACE
SPACE	--	-- --	15		0.00			0.00		16	-- --	--	SPACE
SPACE	--	-- --	17			0.00			0.00	18	-- --	--	SPACE
SPACE	--	-- --	19	0.00			0.00			20	-- --	--	SPACE
SPACE	--	-- --	21		0.00			0.00		22	-- --	--	SPACE
SPACE	--	-- --	23			0.00			0.00	24	-- --	--	SPACE
SPACE	--	-- --	25	0.00			0.00			26	-- --	--	SPACE
SPACE	--	-- --	27		0.00			0.00		28	-- --	--	SPACE
SPACE	--	-- --	29			0.00			0.00	30	-- --	--	SPACE

TOTAL PHASE SUMMARY

	A	B	C
PHASE SUBTOTAL (kVA):	7.87...	8.50...	7.9...
PHASE SUBTOTAL (AMPS):	66 A	71 A	66 A

LOAD CLASSIFICATION	CONNECTED (KVA)	DEMAND FACTOR	DEMAND (KVA)
POWER	0.500 kVA	100%	0.500 kVA
LIGHTING	0.000 kVA	125%	0.000 kVA
MOTOR	0.000 kVA	125% LARGEST, 100% OTHER	0.000 kVA
RECEPTACLE	23.800 kVA	100% FIRST 10KVA, 50% OTHER	16.900 kVA
HEATING	0.000 kVA	125%	0.000 kVA
TOTAL LOAD	24.300 kVA		17.400 kVA
TOTAL AMPS	67 A		48 A

RP2B1

MAIN TYPE MCB | **MAIN RATING** 100 A | **BUS RATING** 100 A
VOLTAGE 120/208 Wye | 3 **PHASE** 4 **WIRE** | **MOUNTING** Surface | **ENCLOSURE** Type 1
LOCATION LEVEL 2,ELECTRICAL 2092 | **FED FROM** DP2B | **SCCR** 10 kA | **CALCULATED AVAILABLE FAULT...** 4.3 kA

REMARKS:

LEFT SIDE, kVA							RIGHT SIDE, kVA							
DESCRIPTION	BRKR NOTES	BRKR AMP, POLES	CKT NO	A	B	C	A	B	C	CKT NO	BRKR AMP, POLES	BRKR NOTES	DESCRIPTION
RECEPTACLE - RM#2094		20 A 1	1	0.90			1.05			2	1 20 A		POWER SHADES - RM#1067
RECEPTACLE - RM#2094		20 A 1	3		0.72			0.72		4	1 20 A		RECEPTACLE - RM#2103
Spare		20 A 1	5			0.00			0.54	6	1 20 A		RECEPTACLE - RM# 2103
Spare		20 A 1	7	0.00			0.00			8	1 20 A		Spare
Spare		20 A 1	9		0.00			0.00		10	1 20 A		Spare
Spare		20 A 1	11			0.00			0.00	12	1 20 A		Spare
Space	--	-- --	13	0.00			0.00			14	-- --	--	Space

THIS LINE SHOWN ABOVE IS EXACTLY ONE INCH LONG AT FULL SIZED DRAWINGS PLACE

RP3B3

MAIN TYPE MCB
MAIN RATING 100 A
BUS RATING 100 A

VOLTAGE 120/208 Wye
3 **PHASE** 4 **WIRE**
MOUNTING Surface
ENCLOSURE Type 1

LOCATION ELECTRICAL 3008
FED FROM DP3B
SCCR 10 kA
CALCULATED AVAILABLE FAULT... 4.3 kA

REMARKS:

LEFT SIDE, kVA						RIGHT SIDE, kVA					
DESCRIPTION	BRKR NOTES	BRKR AMP, POLES	CKT NO	A	B	C	A	B	C	CKT NO	BRKR AMP, POLES	BRKR NOTES	DESCRIPTION
RECEPTACLE - RM#3009		20 A 1	1	0.36			0.54			2	1 20 A		RECEPTACLE - RM#3006&3008
RECEPTACLE - RM#3009		20 A 1	3		0.36			0.36		4	1 20 A		RECEPTACLE - RM#3004
RECEPTACLE - RM#3002		20 A 1	5			0.72			0.90	6	1 20 A		RECEPTACLE - RM#3000
RECEPTACLE - RM#3002		20 A 1	7	0.72			0.72			8	1 20 A		RECEPTACLE - RM#3002
DISPLAY - RM#3002A & C		20 A 1	9		0.50			0.72		10	1 20 A		RECEPTACLE - RM#3000
RECEPTACLE - RM#3002B & D		20 A 1	11			0.43			0.18	12	1 20 A		RECEPTACLE - RM#3000
DISPLAY - RM#3002B & D		20 A 1	13	0.50			0.86			14	1 20 A		FCU-2 - NORTH STAIR
RECEPTACLE - RM#3002A & C		20 A 1	15		0.43			0.86		16	1 20 A		FCU-2 - NORTH STAIR
Spare		20 A 1	17			0.00			0.00	18	1 20 A		Spare
Spare		20 A 1	19	0.00			0.00			20	1 20 A		Spare
Spare		20 A 1	21		0.00			0.00		22	1 20 A		Spare
Spare		20 A 1	23			0.00			0.00	24	1 20 A		Spare
Space	--	-- --	25	0.00			0.00			26	-- --	--	Space
Space	--	-- --	27		0.00			0.00		28	-- --	--	Space
Space	--	-- --	29			0.00			0.00	30	-- --	--	Space
Space	--	-- --	31	0.00			0.00			32	-- --	--	Space
Space	--	-- --	33		0.00			0.00		34	-- --	--	Space
Space	--	-- --	35			0.00			0.00	36	-- --	--	Space
Space	--	-- --	37	0.00			0.00			38	-- --	--	Space
Space	--	-- --	39		0.00			0.00		40	-- --	--	Space
Space	--	-- --	41			0.00			0.00	42	-- --	--	Space

TOTAL PHASE SUMMARY

	A	B	C
PHASE SUBTOTAL (kVA):	3.70...	3.23...	2.2...
PHASE SUBTOTAL (AMPS):	32 A	28 A	19 A

LOAD CLASSIFICATION	CONNECTED (KVA)	DEMAND FACTOR	DEMAND (KVA)
POWER	0.000 kVA	100%	0.000 kVA
LIGHTING	0.000 kVA	125%	0.000 kVA
MOTOR	1.728 kVA	125% LARGEST, 100% OTHER	1.944 kVA
RECEPTACLE	7.436 kVA	100% FIRST 10KVA, 50% OTHER	7.436 kVA
HEATING	0.000 kVA	125%	0.000 kVA
TOTAL LOAD	9.164 kVA		9.380 kVA
TOTAL AMPS	25 A		26 A

DP3B

MAIN TYPE MCB
MAIN RATING 225 A
BUS RATING 225 A

VOLTAGE 120/208 Wye
3 **PHASE** 4 **WIRE**
MOUNTING Surface
ENCLOSURE Type 1

LOCATION ELECTRICAL 3008
FED FROM T3B
SCCR 18 kA
CALCULATED AVAILABLE FAULT... 5.1 kA

REMARKS:

LEFT SIDE, kVA						RIGHT SIDE, kVA					
DESCRIPTION	BRKR NOTES	BRKR AMP, POLES	CKT NO	A	B	C	A	B	C	CKT NO	BRKR AMP, POLES	BRKR NOTES	DESCRIPTION
RP3B1		100 A 3	1	2.52			3.70			2	3 100 A		RP3B3
--	--	-- --	3		2.52			3.23		4	-- --	--	--
--	--	-- --	5			1.80			2.23	6	-- --	--	--
RP3B2		100 A 3	7	2.70			0.00			8	3 100 A		SPARE
--	--	-- --	9		2.34			0.00		10	-- --	--	--
--	--	-- --	11			2.16			0.00	12	-- --	--	--
SPACE	--	-- --	13	0.00			0.00			14	-- --	--	SPACE
SPACE	--	-- --	15		0.00			0.00		16	-- --	--	SPACE
SPACE	--	-- --	17			0.00			0.00	18	-- --	--	SPACE
SPACE	--	-- --	19	0.00			0.00			20	-- --	--	SPACE
SPACE	--	-- --	21		0.00			0.00		22	-- --	--	SPACE
SPACE	--	-- --	23			0.00			0.00	24	-- --	--	SPACE
SPACE	--	-- --	25	0.00			0.00			26	-- --	--	SPACE
SPACE	--	-- --	27		0.00			0.00		28	-- --	--	SPACE
SPACE	--	-- --	29			0.00			0.00	30	-- --	--	SPACE

TOTAL PHASE SUMMARY

	A	B	C
PHASE SUBTOTAL (kVA):	8.92...	8.09...	6.1...
PHASE SUBTOTAL (AMPS):	77 A	70 A	52 A

LOAD CLASSIFICATION	CONNECTED (KVA)	DEMAND FACTOR	DEMAND (KVA)
POWER	0.000 kVA	100%	0.000 kVA
LIGHTING	0.000 kVA	125%	0.000 kVA
MOTOR	1.728 kVA	125% LARGEST, 100% OTHER	1.944 kVA
RECEPTACLE	21.476 kVA	100% FIRST 10KVA, 50% OTHER	15.738 kVA
HEATING	0.000 kVA	125%	0.000 kVA
TOTAL LOAD	23.204 kVA		17.682 kVA
TOTAL AMPS	64 A		49 A

MDP4

MAIN TYPE MCB
MAIN RATING 800 A
BUS RATING 800 A

VOLTAGE 480/277 Wye
3 **PHASE** 4 **WIRE**
MOUNTING Surface
ENCLOSURE Type 1

LOCATION ROOF BRNG,MECHANICAL 4000
FED FROM SWITCHBOA...
SCCR 35 kA
CALCULATED AVAILABLE FAULT... 28.8 kA

REMARKS:

LEFT SIDE, kVA						RIGHT SIDE, kVA					
DESCRIPTION	BRKR NOTES	BRKR AMP, POLES	CKT NO	A	B	C	A	B	C	CKT NO	BRKR AMP, POLES	BRKR NOTES	DESCRIPTION
AHU 1 - SAF		150 A 3	1	23.28			23.28			2	3 150 A		AHU 2 - SAF
--	--	-- --	3		23.28			23.28		4	-- --	--	--
--	--	-- --	5			23.28			23.28	6	-- --	--	--
AHU 1 - RAF		70 A 3	7	12.19			12.19			8	3 70 A		AHU 2 - RAF
--	--	-- --	9		12.19			12.19		10	-- --	--	--
--	--	-- --	11			12.19			12.19	12	-- --	--	--
T-4		80 A 3	13	8.60			0.00			14	1 20 A		Spare
--	--	-- --	15		8.20			0.00		16	1 20 A		Spare
--	--	-- --	17			7.10			0.00	18	1 20 A		Spare
Space	--	-- --	19	0.00			0.00			20	1 20 A		Spare
Space	--	-- --	21		0.00			0.00		22	1 20 A		Spare
Space	--	-- --	23			0.00			0.00	24	1 20 A		Spare
Space	--	-- --	25	0.00			0.00			26	-- --	--	Space
Space	--	-- --	27		0.00			0.00		28	-- --	--	Space
Space	--	-- --	29			0.00			0.00	30	-- --	--	Space
Space	--	-- --	31	0.00			0.00			32	-- --	--	Space
Space	--	-- --	33		0.00			0.00		34	-- --	--	Space
Space	--	-- --	35			0.00			0.00	36	-- --	--	Space
Space	--	-- --	37	0.00			0.00			38	-- --	--	Space
Space	--	-- --	39		0.00			0.00		40	-- --	--	Space
Space	--	-- --	41			0.00			0.00	42	-- --	--	Space

TOTAL PHASE SUMMARY

	A	B	C
PHASE SUBTOTAL (kVA):	79.5...	79.1...	78....
PHASE SUBTOTAL (AMPS):	288 A	286 A	282 A

LOAD CLASSIFICATION	CONNECTED (KVA)	DEMAND FACTOR	DEMAND (KVA)
POWER	7.000 kVA	100%	7.000 kVA
LIGHTING	0.000 kVA	125%	0.000 kVA
MOTOR	225.228 kVA	125% LARGEST, 100% OTHER	242.687 kVA
RECEPTACLE	4.500 kVA	100% FIRST 10KVA, 50% OTHER	4.500 kVA
HEATING	0.000 kVA	125%	0.000 kVA
TOTAL LOAD	236.728 kVA		254.187 kVA
TOTAL AMPS	285 A		306 A

RP3B1

MAIN TYPE MCB
MAIN RATING 100 A
BUS RATING 100 A

VOLTAGE 120/208 Wye
3 **PHASE** 4 **WIRE**
MOUNTING Surface
ENCLOSURE Type 1

LOCATION ELECTRICAL 3008
FED FROM DP3B
SCCR 10 kA
CALCULATED AVAILABLE FAULT... 4.3 kA

REMARKS:

LEFT SIDE, kVA						RIGHT SIDE, kVA					
DESCRIPTION	BRKR NOTES	BRKR AMP, POLES	CKT NO	A	B	C	A	B	C	CKT NO	BRKR AMP, POLES	BRKR NOTES	DESCRIPTION
RECEPTACLE		20 A 1	1	0.72			0.72			2	1 20 A		RECEPTACLE - RM#3013
RECEPTACLE		20 A 1	3		0.72			0.72		4	1 20 A		RECEPTACLE - RM#3012A
RECEPTACLE		20 A 1	5			0.72				6			
Spare		20 A 1	7	0.00			0.72			8	1 20 A		RECEPTACLE - RM#3012
Spare		20 A 1	9		0.00			0.36		10	1 20 A		RECEPTACLE - RM#3012
Spare		20 A 1	11			0.00			0.36	12	1 20 A		RECEPTACLE - RM#3012
Spare		20 A 1	13	0.00			0.36			14	1 20 A		RECEPTACLE - RM#3012
Spare		20 A 1	15		0.00			0.72		16	1 20 A		RECEPTACLE - RM#3012
Spare		20 A 1	17			0.00			0.72	18	1 20 A		RECEPTACLE - RM#3010
Space	--	-- --	19	0.00			0.00			20	-- --	--	Space
Space	--	-- --	21		0.00			0.00		22	-- --	--	Space
Space	--	-- --	23			0.00			0.00	24	-- --	--	Space
Space	--	-- --	25	0.00			0.00			26	-- --	--	Space
Space	--	-- --	27		0.00			0.00		28	-- --	--	Space
Space	--	-- --	29			0.00			0.00	30	-- --	--	Space
Space	--	-- --	31	0.00			0.00			32	-- --	--	Space
Space	--	-- --	33		0.00			0.00		34	-- --	--	Space
Space	--	-- --	35			0.00			0.00	36	-- --	--	Space
Space	--	-- --	37	0.00			0.00			38	-- --	--	Space
Space	--	-- --	39		0.00			0.00		40	-- --	--	Space
Space	--	-- --	41			0.00			0.00	42	-- --	--	Space

TOTAL PHASE SUMMARY

	A	B	C
PHASE SUBTOTAL (kVA):	2.52...	2.52...	1.8...
PHASE SUBTOTAL (AMPS):	22 A	22 A	15 A

LOAD CLASSIFICATION	CONNECTED (KVA)	DEMAND FACTOR	DEMAND (KVA)
POWER	0.000 kVA	100%	0.000 kVA
LIGHTING	0.000 kVA	125%	0.000 kVA
MOTOR	0.000 kVA	125% LARGEST, 100% OTHER	0.000 kVA
RECEPTACLE	6.840 kVA	100% FIRST 10KVA, 50% OTHER	6.840 kVA
HEATING	0.000 kVA	125%	0.000 kVA
TOTAL LOAD	6.840 kVA		6.840 kVA
TOTAL AMPS	19 A		19 A

RP4

MAIN TYPE MCB
MAIN RATING 100 A
BUS RATING 100 A

VOLTAGE 120/208 Wye
3 **PHASE** 4 **WIRE**
MOUNTING Surface
ENCLOSURE Type 1

LOCATION ROOF BRNG,MECHANICAL 4000
FED FROM T-4
SCCR 10 kA
CALCULATED AVAILABLE FAULT... 2.6 kA

REMARKS:

LEFT SIDE, kVA						RIGHT SIDE, kVA					
DESCRIPTION	BRKR NOTES	BRKR AMP, POLES	CKT NO	A	B	C	A	B	C	CKT NO	BRKR AMP, POLES	BRKR NOTES	DESCRIPTION
AHU-1 LIGHTS		20 A 1	1	1.00			0.34			2	2 20 A		FCU-3
AHU-1 UV-LIGHT		20 A 1	3		1.00			0.34		4	-- --	--	--
AHU-2 LIGHTS		20 A 1	5			1.00			0.56	6	2 20 A		FCU-4
AHU-2 UV-LIGHT		20 A 1	7	1.00			0.56			8	-- --	--	--
EF-1		30 A 1	9		1.92			0.56		10	2 20 A		FCU-4
EF-2		20 A 3	11			0.92			0.56	12	-- --	--	--
--	--	-- --	13	0.92			0.56			14	2 20 A		FCU-5
--	--	-- --	15		0.92			0.56		16	-- --	--	--
P-FP-1		25 A 2	17			0.36			0.56	18	2 20 A		FCU-6
--	--	-- --	19	0.36			0.56			20	-- --	--	--
P-FP-2		25 A 2	21		0.36			0.56		22	2 20 A		FCU-7
--	--	-- --	23			0.36			0.56	24	-- --	--	--
RECEPTACLES - RM#4000 ELEC		20 A 1	25	0.36			0.72			26	1 20 A		RECEPTACLES - RM#4000
RECEPTACLES - RM#4000		20 A 1	27		0.72			0.90		28	1 20 A		RECEPTACLES - RM#4000
RECEPTACLES - RM#4000		20 A 1	29			0.72			1.50	30	1 20 A		BAS PANELS
RECEPTACLES - RM#4000		20 A 1	31	0.72			1.50			32	1 20 A		BAS PANELS
RECEPTACLES - ELEV SHAFT		20 A 1	33		0.36			0.00		34	1 20 A		Spare
Spare		20 A 1	35			0.00			0.00	36	1 20 A		Spare
Space	--	-- --	37	0.00			0.00			38	-- --	--	Space
Space	--	-- --	39		0.00			0.00		40	-- --	--	Space
Space	--	-- --	41			0.00			0.00	42	-- --	--	Space

TOTAL PHASE SUMMARY

	A	B	C
PHASE SUBTOTAL (kVA):	8.59...	8.19...	7.1...
PHASE SUBTOTAL (AMPS):	73 A	70 A	59 A

LOAD CLASSIFICATION	CONNECTED (KVA)	DEMAND FACTOR	DEMAND (KVA)
POWER	7.000 kVA	100%	7.000 kVA
LIGHTING	0.000 kVA	125%	0.000 kVA
MOTOR	12.396 kVA	125% LARGEST, 100% OTHER	13.084 kVA
RECEPTACLE	4.500 kVA	100% FIRST 10KVA, 50% OTHER	4.500 kVA
HEATING	0.000 kVA	125%	0.000 kVA
TOTAL LOAD	23.896 kVA		24.584 kVA
TOTAL AMPS	66 A		68 A

RP3B2

MAIN TYPE MCB
MAIN RATING 100 A
BUS RATING 100 A

VOLTAGE 120/208 Wye
3 **PHASE** 4 **WIRE**
MOUNTING Surface
ENCLOSURE Type 1

LOCATION ELECTRICAL 3008
FED FROM DP3B
SCCR 10 kA
CALCULATED AVAILABLE FAULT... 4.3 kA

REMARKS:

LEFT SIDE, kVA						RIGHT SIDE, kVA					
DESCRIPTION	BRKR NOTES	BRKR AMP, POLES	CKT NO	A	B	C	A	B	C	CKT NO	BRKR AMP, POLES	BRKR NOTES	DESCRIPTION
FLOOR RECEPTACLE - RM#3001		20 A 1	1	0.72			0.36			2	1 20 A		RECEPTACLE - RM#3011
FLOOR RECEPTACLE - RM#3001		20 A 1	3		0.72			0.36		4	1 20 A		RECEPTACLE - RM#3011
FLOOR RECEPTACLE - RM#3001		20 A 1	5			0.72			0.36	6	1 20 A		RECEPTACLE - RM#3011
FLOOR RECEPTACLE - RM#3001		20 A 1	7	0.72			0.36			8	1 20 A		RECEPTACLE - RM#3011
FLOOR RECEPTACLE - RM#3001		20 A 1	9		0.72			0.54		10	1 20 A		RECEPTACLES - RM#3001D,E,&F
RECEPTACLE - RM#3001		20 A 1	11			0.54			0.54	12	1 20 A		RECEPTACLES - RM#3001A,B,&,C
RECEPTACLE - RM#3001		20 A 1	13	0.54			0.00			14	1 20 A		Spare
Spare		20 A 1	15		0.00			0.00		16	1 20 A		Spare
Spare		20 A 1	17			0.00			0.00	18	1 20 A		Spare
Spare		20 A 1	19	0.00			0.00			20	1 20 A		Spare
Spare		20 A 1	21		0.00			0.00		22	1 20 A		Spare
Spare		20 A 1	23			0.00			0.00	24	1 20 A		Spare
Space	--	-- --	25	0.00			0.00			26	-- --	--	Space
Space	--	-- --	27		0.00			0.00		28	-- --	--	Space
Space	--	-- --	29			0.00			0.00	30	-- --	--	Space
Space	--	-- --	31	0.00			0.00			32	-- --	--	Space
Space	--	-- --	33		0.00			0.00		34	-- --	--	Space
Space	--	-- --	35			0.00			0.00	36	-- --	--	Space
Space	--	-- --	37	0.00			0.00			38	-- --	--	Space
Space	--	-- --	39		0.00			0.00		40	-- --	--	Space
Space	--	-- --	41			0.00			0.00	42	-- --	--	Space

TOTAL PHASE SUMMARY

	A	B	C
PHASE SUBTOTAL (kVA):	2.70...	2.34...	2.1...
PHASE SUBTOTAL (AMPS):	23 A	20 A	18 A

LOAD CLASSIFICATION	CONNECTED (KVA)	DEMAND FACTOR	DEMAND (KVA)
POWER	0.000 kVA	100%	0.000 kVA
LIGHTING	0.000 kVA	125%	0.000 kVA
MOTOR	0.000 kVA	125% LARGEST, 100% OTHER	0.000 kVA
RECEPTACLE	7.200 kVA	100% FIRST 10KVA, 50% OTHER	7.200 kVA
HEATING	0.000 kVA	125%	0.000 kVA
TOTAL LOAD	7.200 kVA		7.200 kVA
TOTAL AMPS	20 A		20 A

PANEL SCHEDULE LEGEND

	RP3B3	DP3B
	MDP4	RP3B1
	RP4	RP3B2

UNCW

LS3P
101 NORTH THIRD STREET SUITE 500
WILMINGTON, NORTH CAROLINA 28401
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NORTH CAROLINA PROFESSIONAL SEAL 023265 ENGINEER WILLIAM D. HENNEN
07/01/22

RANDALL LIBRARY RENOVATION & EXPANSION

UNCW
5162 RANDALL DRIVE
WILMINGTON, NC

SCO ID: 18-19656-02C
LS3P PROJECT: 7202-197980

Δ	DATE	DESCRIPTION
0	2022.07.01	PACKAGE C - BID DOCUMENTS

SHEET NAME:
PANEL SCHEDULES - NORMAL POWER

ORIG SUBMISSION: 2022.07.01
CURRENT: 2022.07.01
PACKAGE C - BID DOCUMENTS

SHEET:
E608

PACKAGE C - BID DOCUMENTS

THIS LINE SHOWN ABOVE IS EXACTLY ONE INCH LONG AT THE ORIGINAL DRAWING SIZE

ERP1A

MAIN TYPE MCB
MAIN RATING 50 A
BUS RATING 100 A

VOLTAGE 120/208 Wye
PHASE 3 **WIRE** 4
MOUNTING Recessed
ENCLOSURE Type 1

LOCATION GRADE,
FED FROM ERDP1
SCCR 10 kA
CALCULATED AVAILABLE FAULT... 4.0 kA

REMARKS: ALL CIRCUIT BREAKERS SHALL BE SELECTIVELY COORDINATED. PROVIDE CIRCUIT BREAKERS CAPABLE OF SELECTIVE COORDINATION. INCREASE SCCR AS REQUIRED TO ACHIEVE SELECTIVE COORDINATION WITH UPSTREAM BREAKERS

LEFT SIDE, kVA								RIGHT SIDE, kVA							
DESCRIPTION	BRKR NOTES	BRKR AMP, POLES	CKT NO	A	B	C		A	B	C	CKT NO	BRKR AMP, POLES	BRKR NOTES	DESCRIPTION
EAST EXIT DOOR OPERATOR		20 A 1	1	0.50				0.00			2	1 20 A		Spare
Spare		20 A 1	3		0.00				0.00		4	1 20 A		Spare
FIRE SHUTTERS LEVEL 2		20 A 1	5			1.00				0.00	6	1 20 A		Spare
Spare		20 A 1	7	0.00				0.00			8	-- --	--	Space
Spare		20 A 1	9		0.00				0.00		10	-- --	--	Space
Spare		20 A 1	11			0.00				0.00	12	-- --	--	Space
Space	--	-- --	13	0.00				0.00			14	3 30 A		SPD
Space	--	-- --	15		0.00				0.00		16	-- --	--	--
Space	--	-- --	17			0.00				0.00	18	-- --	--	--

TOTAL PHASE SUMMARY

	A	B	C
PHASE SUBTOTAL (kVA):	0.50...	0.00...	1.0...
PHASE SUBTOTAL (AMPS):	5 A	0 A	9 A

LOAD CLASSIFICATION	CONNECTED (KVA)	DEMAND FACTOR	DEMAND (KVA)
POWER	0.000 kVA	100%	0.000 kVA
LIGHTING	0.000 kVA	125%	0.000 kVA
MOTOR	1.500 kVA	125% LARGEST, 100% OTHER	1.625 kVA
RECEPTACLE	0.000 kVA	100% FIRST 10KVA, 50% OTHER	0.000 kVA
HEATING	0.000 kVA	125%	0.000 kVA
TOTAL LOAD	1.500 kVA		1.625 kVA
TOTAL AMPS	4 A		5 A

RP1A4

MAIN TYPE MCB
MAIN RATING 100 A
BUS RATING 100 A

VOLTAGE 120/208 Wye
PHASE 3 **WIRE** 4
MOUNTING Recessed
ENCLOSURE Type 1

LOCATION GRADE,
FED FROM DP1A
SCCR 10 kA
CALCULATED AVAILABLE FAULT... 4.3 kA

REMARKS:

LEFT SIDE, kVA								RIGHT SIDE, kVA							
DESCRIPTION	BRKR NOTES	BRKR AMP, POLES	CKT NO	A	B	C		A	B	C	CKT NO	BRKR AMP, POLES	BRKR NOTES	DESCRIPTION
RECEPTACLE - RM #1039		20 A 1	1	0.72				0.72			2	1 20 A		RECEPTACLE - RM#2042
RECEPTACLE - RM #1039		20 A 1	3		0.72				0.72		4	1 20 A		RECEPTACLE - RM#2042
RECEPTACLE - RM #1039		20 A 1	5			0.72				0.72	6	1 20 A		RECEPTACLE - RM#X2007F & 2042B1
RECEPTACLE - RM #1039		20 A 1	7	0.72				0.72			8	1 20 A		RECEPTACLE - RM#2024B2&B4
RECEPTACLE - RM #1038		20 A 1	9		0.72				0.72		10	1 20 A		RECEPTACLE - RM#2042C1&C2
RECEPTACLE - RM #1038A & CORR.		20 A 1	11			0.36				0.72	12	1 20 A		RECEPTACLE - RM#2042C3&C4
RECEPTACLE - RM #1038E		20 A 1	13	0.36				0.72			14	1 20 A		RECEPTACLE - RM#2040&2042B3
Spare		20 A 1	15		0.00				0.54		16	1 20 A		RECEPTACLE - RM#2040&2040B
Spare		20 A 1	17			0.00				0.54	18	1 20 A		RECEPTACLE - RM#2040&2040B
Spare		20 A 1	19	0.00				0.54			20	1 20 A		RECEPTACLE - RM#2040&2040B
Spare		20 A 1	21		0.00				0.18		22	1 20 A		RCP PROJECTOR - RM#2042
Spare		20 A 1	23			0.00				0.00	24	1 20 A		Spare
Space	--	-- --	25	0.00				0.00			26	-- --	--	Space
Space	--	-- --	27		0.00				0.00		28	-- --	--	Space
Space	--	-- --	29			0.00				0.00	30	-- --	--	Space
Space	--	-- --	31	0.00				0.00			32	-- --	--	Space
Space	--	-- --	33		0.00				0.00		34	-- --	--	Space
Space	--	-- --	35			0.00				0.00	36	-- --	--	Space
Space	--	-- --	37	0.00				0.00			38	-- --	--	Space
Space	--	-- --	39		0.00				0.00		40	-- --	--	Space
Space	--	-- --	41			0.00				0.00	42	-- --	--	Space

TOTAL PHASE SUMMARY

	A	B	C
PHASE SUBTOTAL (kVA):	4.50...	3.60...	3.0...
PHASE SUBTOTAL (AMPS):	38 A	31 A	26 A

LOAD CLASSIFICATION	CONNECTED (KVA)	DEMAND FACTOR	DEMAND (KVA)
POWER	0.000 kVA	100%	0.000 kVA
LIGHTING	0.000 kVA	125%	0.000 kVA
MOTOR	0.000 kVA	125% LARGEST, 100% OTHER	0.000 kVA
RECEPTACLE	11.160 kVA	100% FIRST 10KVA, 50% OTHER	10.580 kVA
HEATING	0.000 kVA	125%	0.000 kVA
TOTAL LOAD	11.160 kVA		10.580 kVA
TOTAL AMPS	31 A		29 A

EXISTING PANEL RP1

MAIN TYPE MCB
MAIN RATING 200 A
BUS RATING 200 A

VOLTAGE 120/208 Wye
PHASE 3 **WIRE** 4
MOUNTING Surface
ENCLOSURE Type 1

LOCATION LEVEL 1,
FED FROM PP1 XFMR
SCCR kA
CALCULATED AVAILABLE FAULT... kA

REMARKS: 'SPARE' IN THE BREAKER NOTES COLUMN INDICATES AN EXISTING SPARE TO BE REUSED TO SERVE NEW LOADS.
BOLD TEXT INDICATES NEW WORK

LEFT SIDE, kVA								RIGHT SIDE, kVA							
DESCRIPTION	BRKR NOTES	BRKR AMP, POLES	CKT NO	A	B	C		A	B	C	CKT NO	BRKR AMP, POLES	BRKR NOTES	DESCRIPTION
RCP. 1ST FLR CENT TLT N WALL M		20 A 1	1	0.54				0.36			2	1 20 A		RCP 2ND FLR CENT TLT N WALL M
RCP. 1ST FLR CENT TLT W WALL M		20 A 1	3		0.54				0.54		4	1 20 A		RCP 2ND FLR CENT TLT W WALL M
RCP. 1ST FLR CENT TLT W WALL M		20 A 1	5			0.54				0.54	6	1 20 A		RCP 2ND FLR CENT TLT W WALL M
RCP. 1ST FLR CENT TLT W&S WALL...		20 A 1	7	0.54				0.54			8	1 20 A		RCP 2ND FLR CENT TLT W&S WALL...
RCP. 1ST FLR CENT TLT S WALL M		20 A 1	9		0.54				0.54		10	1 20 A		RCP 2ND FLR CENT TLT S WALL M
RCP. 1ST FLR CENT TLT N WALL M		20 A 1	11			0.36				0.54	12	1 20 A		RCP 2ND FLR CENT TLT E WALL M
RECEPTACLE - RM#1002	SPARE	20 A 1	13	0.36				0.36			14	1 20 A		RCP 2ND FLR CENT TLT N&E WALL M
RECEPTACLE - RM#1002	SPARE	20 A 1	15		0.18				0.36		16	1 20 A		RCP 2ND FLR CENT TLT N WALL M
RECEPTACLE - RM#X14	SPARE	20 A 1	17			0.72				0.72	18	1 20 A	SPARE	**RECEPTACLE - RMS# 2006D&E**
RECEPTACLE - RM#1022	SPARE	20 A 1	19	0.36				0.18			20	1 20 A	SPARE	**RCP PROJECTOR - RM# 2006**
RECEPTACLE - RM#1022	SPARE	20 A 1	21		0.36				0.00		22	1 20 A		Spare
Spare		20 A 1	23			0.00				0.00	24	1 20 A		Spare
Spare		20 A 1	25	0.00				0.00			26	1 20 A		Spare
Spare		20 A 1	27		0.00				0.00		28	1 20 A		Spare
Spare		20 A 1	29			0.00				0.00	30	1 20 A		Spare
Spare		20 A 1	31	0.00				0.00			32	1 20 A		Spare
Spare		20 A 1	33		0.00				0.00		34	1 20 A		Spare
Spare		20 A 1	35			0.00				0.00	36	1 20 A		Spare
Spare		20 A 1	37	0.00				0.00			38	1 20 A		Spare
Spare		20 A 1	39		0.00				0.00		40	1 20 A		Spare
Spare		20 A 1	41			0.00				0.00	42	1 20 A		Spare

TOTAL PHASE SUMMARY

	A	B	C
PHASE SUBTOTAL (kVA):	3.24...	3.06...	3.4...
PHASE SUBTOTAL (AMPS):	27 A	26 A	29 A

LOAD CLASSIFICATION	CONNECTED (KVA)	DEMAND FACTOR	DEMAND (KVA)
POWER	0.000 kVA	100%	0.000 kVA
LIGHTING	0.000 kVA	125%	0.000 kVA
MOTOR	0.000 kVA	125% LARGEST, 100% OTHER	0.000 kVA
RECEPTACLE	2.880 kVA	100% FIRST 10KVA, 50% OTHER	2.880 kVA
HEATING	0.000 kVA	125%	0.000 kVA
TOTAL LOAD	9.720 kVA		9.720 kVA
TOTAL AMPS	27 A		27 A

PANEL SCHEDULE LEGEND

		ERP1A
		RP1A4
		RP1

UNCW

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NORTH CAROLINA PROFESSIONAL SEAL 023265 ENGINEER WILLIAM D. HENNEN
07/01/22

RANDALL LIBRARY RENOVATION & EXPANSION

UNCW
5162 RANDALL DRIVE
WILMINGTON, NC

SCO ID: 18-19656-02C
LS3P PROJECT: 7202-197980

Δ	DATE	DESCRIPTION
0	2022.07.01	PACKAGE C - BID DOCUMENTS

SHEET NAME:
PANEL SCHEDULES - RENOVATION

ORIG SUBMISSION: 2022.07.01
CURRENT: 2022.07.01
PACKAGE C - BID DOCUMENTS

SHEET:
E609

PACKAGE C - BID DOCUMENTS