

# ELECTRICAL SYMBOL LIST

## LIGHTING SYMBOLS

- LIGHT FIXTURE, RECESSED
- LIGHT FIXTURE, RECESSED - EMERGENCY
- LIGHT FIXTURE, SURFACE MOUNT
- LIGHT FIXTURE, SURFACE MOUNT - EMERGENCY
- LIGHT FIXTURE, STRIP
- LIGHT FIXTURE, STRIP - EMERGENCY
- DOWNLIGHT FIXTURE, RECESSED
- DOWNLIGHT FIXTURE, RECESSED, WALLWASH
- DOWNLIGHT FIXTURE, RECESSED - EMERGENCY
- LIGHT FIXTURE, WALL MOUNT
- LIGHT FIXTURE, CEILING MOUNT
- RECESSED LIGHT FIXTURE, WALL MOUNT
- LIGHT FIXTURE, WALL SCONCE
- LIGHT FIXTURE, TRACK W/ HEADS AS SHOWN ON PLAN
- EXIT SIGN, UNIVERSAL MOUNT, W/ DIRECTIONAL ARROW
- EXIT SIGN, WALL MOUNT, +8'-0" A.F.F.
- EMERGENCY LIGHT W/ BATTERY PACK, +8'-0" A.F.F.
- FLOOD LIGHT
- AREA LUMINAIRE
- AREA LUMINAIRE W/STANDBY LAMP
- AREA LUMINAIRE, WALL MOUNT
- AREA LUMINAIRE, POLE MOUNT
- AREA LUMINAIRE, POST TOP

## SWITCH SYMBOLS

- SWITCH, SPST +48" A.F.F.
- SWITCH, DPST +48" A.F.F.
- SWITCH, 3-WAY +48" A.F.F.
- SWITCH, 4-WAY +48" A.F.F.
- SWITCH, DIMMER +48" A.F.F.
- SWITCH, SPST, W/PILOT LIGHT +48" A.F.F.
- SWITCH, KEY-OPERATED +48" A.F.F.
- SWITCH, TIMED +48" A.F.F.
- PHOTOCELL CONTROL
- OCCUPANCY SENSOR CONTROL

## SIGNAL SYMBOLS

- TELEPHONE OUTLET +18" A.F.F.
- DATA OUTLET +18" A.F.F.
- DATA/TELEPHONE OUTLET +18" A.F.F.
- CLOCK
- SIGNAL BELL
- VISUAL ALARM SIGNAL (COLOR AS INDICATED ON PLAN)
- P.A. SPEAKER
- CATV OUTLET (LOCATE AS SHOWN ON PLANS)

## FIRE ALARM SYMBOLS

- FIRE ALARM MANUAL PULL STATION, +48" A.F.F.
- MAGNETIC DOOR HOLDER
- SMOKE DETECTOR, W/AUX. CONTACTS
- SMOKE/FIRE DAMPER
- SMOKE DETECTOR, DUCT, IONIZATION TYPE W/SAMPLING TUBE
- SMOKE DETECTOR, IONIZATION TYPE
- SMOKE DETECTOR, PHOTO TYPE
- HEAT DETECTOR, RATE-OF-RISE OR FIXED TEMP.
- FIRE MAIN FLOW DETECTION SWITCH
- FIRE MAIN TAMPER DETECTION SWITCH
- FIRE ALARM BELL, +80" A.F.F.
- FIRE ALARM HORN, +80" A.F.F.
- FIRE ALARM HORN/STROBE, +80" A.F.F.
- FIRE ALARM STROBE, +80" A.F.F.

## POWER SYMBOLS

- RECEPTACLE, DUPLEX +18" A.F.F.
- RECEPTACLE, QUAD +18" A.F.F.
- RECEPTACLE, DUPLEX +6" ABV COUNTER
- RECEPTACLE, DUPLEX +18" A.F.F. (ONE OUTLET SWITCHED)
- RECEPTACLE, DUPLEX +18" A.F.F. (BOTH OUTLETS SWITCHED)
- RECEPTACLE, DUPLEX, PEDESTAL MOUNT
- RECEPTACLE, DUPLEX, FLUSH FLOOR MOUNT
- RECEPTACLE, SPECIAL (COORDINATE WITH EQUIPMENT SERVED)
- RELAY
- TIME CLOCK CONTROL
- PUSHBUTTON STATION
- JUNCTION BOX
- THERMOSTAT
- TRANSFORMER
- DISCONNECT, NON-FUSED
- DISCONNECT, FUSED
- ELECTRICAL CONNECTION
- ELECTRICAL CONNECTION, SINGLE MOTOR
- ELECTRICAL CONNECTION, MULTI-MOTOR
- ELECTRICAL DISTRIBUTION PANEL, RECESSED
- ELECTRICAL DISTRIBUTION PANEL, SURFACE
- MISCELLANEOUS PANEL, RECESSED
- MISCELLANEOUS PANEL, SURFACE
- FLUSH FLOOR BOX (W/ DEVICES AS SHOWN ON PLAN)

## WIRING SYMBOLS

- PANEL & CIRCUIT NUMBER
- HOMERUN TO PANEL
- CONDUCTOR SIZE (IF OTHER THAN #12)
- PHASE CONDUCTOR
- NEUTRAL CONDUCTOR
- GROUND CONDUCTOR
- CONCEALED CONDUIT
- CONDUIT SIZE
- CONDUIT (UNDER SLAB OR FLOOR)
- FLEXIBLE CONNECTION
- CONDUIT, STUBBED & CAPPED

## NOTATIONS

- DRAWING NOTE
- DETAIL REFERENCE: TOP=DETAIL NO., BOTTOM=SHEET NO.
- MECHANICAL EQUIPMENT MARK NO. (SEE EQUIPMENT SCHEDULE)
- EQUIPMENT NO. (SEE EQUIPMENT SCHEDULE)

## ONE-LINE DIAGRAM SYMBOLS

- ELECTRICAL DISTRIBUTION PANELBOARD (MLO)
- ELECTRICAL DISTRIBUTION PANELBOARD (MCB)
- SUB-FEED CIRCUIT BREAKER
- CIRCUIT BREAKER (TRIP RATING & POLES AS INDICATED ON PLAN)
- MAIN SWITCH (RATING & POLES AS INDICATED ON PLAN)
- FUSE (RATING & CLASS AS INDICATED ON PLAN)
- TRANSFER SWITCH (MANUAL OR AUTOMATIC)
- GENERATOR (RATING AS INDICATED ON PLAN)
- TRANSFORMER (RATING AS INDICATED ON PLAN)
- FUSE (RATING & CLASS AS INDICATED ON PLAN)
- GROUND SYSTEM (SIZE AS INDICATED ON PLAN)
- WATER PIPE GROUND ELECTRODE
- TRANSIENT VOLTAGE SURGE SUPPRESSOR
- UTILITY METER & METER BASE
- UTILITY METER CURRENT TRANSFORMER
- FEEDER NO. (SEE FEEDER SCHEDULE)

## ABBREVIATIONS

- |        |                                       |          |                                    |
|--------|---------------------------------------|----------|------------------------------------|
| 'A'    | LIGHT FIXTURE TYPE (SEE FIXTURE LIST) | I.G.     | ISOLATED GROUND                    |
| A.F.F. | ABOVE FINISHED FLOOR                  | LCP      | LIGHTING CONTROL PANEL             |
| A.F.G. | ABOVE FINAL GRADE                     | MCB      | MAIN CIRCUIT BREAKER               |
| A.F.I. | ARC FAULT INTERRUPTER                 | MLO      | MAIN LUGS ONLY                     |
| A.T.S. | TRANSFER SWITCH, AUTOMATIC            | N.I.C.   | NOT IN CONTRACT                    |
| C      | CONDUIT                               | N.L.     | NIGHT LIGHT                        |
| C.O.   | CONDUIT ONLY                          | P        | POLE                               |
| CATV   | CABLE TELEVISION                      | PC       | PARTIAL CIRCUIT                    |
| CB     | CIRCUIT BREAKER                       | PH       | PHASE                              |
| CCTV   | CLOSED CIRCUIT TELEVISION             | R.T.U.   | REMOTE TELEMETRY UNIT              |
| C.T.   | CURRENT TRANSFORMER                   | T.V.S.S. | TRANSIENT VOLTAGE SURGE SUPPRESSOR |
| (E)    | EXISTING                              | U.G.     | UNDERGROUND                        |
| FACP   | FIRE ALARM CONTROL PANEL              | U.O.N.   | UNLESS OTHERWISE NOTED             |
| G.F.I. | GROUND FAULT INTERRUPTER              | VFD      | VARIABLE FREQUENCY DRIVE           |
| GND    | GROUND                                | W        | WIRE                               |
| HP     | HORSEPOWER                            | W.G.     | WIRE GUARD                         |
|        |                                       | W.P.     | WEATHERPROOF                       |

NOTE: SOME OF THE SYMBOLS AND ABBREVIATIONS ON THIS LIST MAY NOT APPLY TO THIS PROJECT.

## LIGHTING FIXTURE LIST

TYPE	LAMP	MANUFACTURER	CATALOG NUMBER	DESCRIPTION	OPTIONS
A1	LED 3000K 2300LM  20W	NEO RAY LIGHTING (OR APPROVED OTHER)	S1240WC5750 SERIES	TYPE :4FT WALL BRACKET MOUNTING :SURFACE (+7'-0" MIN) HOUSING :STEEL LENS/REFL :ACRYLIC VOLTAGE :120V BALLAST :LED DRIVER	FINISH PER ARCHITECT A1E SHALL HAVE BATTERY BACKUP  EQUIP. & STORAGE ROOMS
A2	LED 3000K 3000LM  31W	LITHONIA LIGHTING (OR APPROVED OTHER)	ZL1N-L46 SERIES	TYPE :4FT GENERAL PURPOSE STRIP MOUNTING :SURFACE HOUSING :STEEL LENS/REFL :ACRYLIC VOLTAGE :120V BALLAST :LED DRIVER	STAIRWELLS
A3	LED 3000K 2850LM  24W	NEO RAY LIGHTING (OR APPROVED OTHER)	S124RD1P SERIES	TYPE :4FT DIRECT/INDIRECT MOUNTING :SUSPENDED HOUSING :STEEL LENS/REFL :ACRYLIC VOLTAGE :120V BALLAST :LED DRIVER	FINISH PER ARCHITECT MOUNTING HEIGHT PER ARCHITECT  AMENITY SPACES
A4	LED 4000K 3000LM  18W	LITHONIA LIGHTING (OR APPROVED OTHER)	FEM48 SERIES	TYPE :4FT ENCLOSED STRIP MOUNTING :SURFACE HOUSING :FIBERGLASS LENS/REFL :ACRYLIC VOLTAGE :120V BALLAST :LED DRIVER	ELEVATOR PIT, TOP OF SHAFT
B1	LED 3000K 1000LM  15W	ALCON LIGHTING (OR APPROVED OTHER)	11235 DIR-15 SERIES	TYPE :5" DIA EXTERIOR CYLINDER MOUNTING :SURFACE HOUSING :ALUMINUM LENS/REFL :CLEAR TEMPERED GLASS VOLTAGE :120V BALLAST :LED DRIVER	FINISH PER ARCHITECT 60 DEGREE WIDE FLOOD  UL LISTED WET LOCATION ENTRY CANOPY
B2	LED 3000K 2130LM  20W	STONCO LIGHTING (OR APPROVED OTHER)	LPW16 SERIES	TYPE :EXTERIOR WALL PACK MOUNTING :SURFACE (ABOVE DOOR) HOUSING :ALUMINUM LENS/REFL :ACRYLIC VOLTAGE :120V BALLAST :LED DRIVER	TYPE III DISTRIBUTION  BUILDING SERVICE ENTRANCE
C1	LED 3000K 1075LM  9W	USA LIGHTING (OR APPROVED OTHER)	P4RDF SERIES	TYPE :4.5" DIA DOWNLIGHT MOUNTING :RECESSED HOUSING :STEEL LENS/REFL :NA VOLTAGE :120V BALLAST :LED DRIVER	FINISH PER ARCHITECT C1E SHALL HAVE BATTERY BACKUP  LOBBY, CORRIDORS
C2 C2E	LED 3000K 1175LM  9W	USA LIGHTING (OR APPROVED OTHER)	P3RD SERIES	TYPE :3" DIA DOWNLIGHT MOUNTING :RECESSED HOUSING :STEEL LENS/REFL :NA VOLTAGE :120V BALLAST :LED DRIVER	FINISH PER ARCHITECT C2E SHALL HAVE BATTERY BACKUP  LOBBIES
U1	LED 2700K 1000LM  15W	DESIGN CLASSICS (OR APPROVED OTHER)	DFR615-H-927-WH	TYPE :6" DIA CEILING LIGHT MOUNTING :SURFACE HOUSING :ALUMINUM LENS/REFL :ACRYLIC VOLTAGE :120V BALLAST :LED DRIVER (0-10 DIMMING)	UL LISTED WET LOCATION UNIT KITCHEN, BATH, HALL
U2	LED 3000K 1600LM  20W	KUZCO LIGHTING (OR APPROVED OTHER)	FM3511 SERIES	TYPE :11" DIA CEILING LIGHT MOUNTING :SURFACE HOUSING :STEEL LENS/REFL :FROSTED GLASS VOLTAGE :120V BALLAST :LED DRIVER (0-10 DIMMING)	FINISH PER ARCHITECT  UNIT BEDROOM
U3	LED 3000K 1600LM  20W	KUZCO LIGHTING (OR APPROVED OTHER)	V62220 SERIES	TYPE :20" VANITY BAR MOUNTING :SURFACE (=6" ABOVE MIRROR) HOUSING :STEEL LENS/REFL :ACRYLIC VOLTAGE :120V BALLAST :LED DRIVER (0-10 DIMMING)	FINISH PER ARCHITECT  UNIT BATHROOM
X1 X2	LED (GREEN LETTERS)  (1.5W)	LITHONIA DMF LIGHTING (OR APPROVED OTHER)	LE EL N SERIES DLED500EM-G	TYPE :EXIT SIGN MOUNTING :UNIVERSAL HOUSING :DIE-CAST ALUMINUM LENS/REFL :SINGLE FACE/DUAL FACE VOLTAGE :120V BALLAST :NICKLE CADMIUM BATTERY	X1= SINGLE SIDE X2= DOUBLE SIDE

## GENERAL LIGHTING NOTES:

- A. WHEREVER POSSIBLE, SELECTED LIGHT FIXTURES SHALL HAVE ENERGY EFFICIENT LAMPS, BALLASTS & DRIVERS AND/OR HAVE ENERGY COMPLIANT RATINGS SUCH AS DLC, ENERGY STAR, ETC.
- B. VERIFY ALL FIXTURE FINISHES WITH ARCHITECT PRIOR TO BID.
- C. VERIFY ALL FIXTURE LOCATIONS AND MOUNTING HEIGHTS WITH ARCHITECT PRIOR TO ROUGH IN.
- D. ALL LIGHTING SHALL BE 3000 KELVIN UNLESS OTHERWISE NOTED.
- E. ALL PRODUCT SUBSTITUTIONS AND VALUE ENGINEERING SHALL BE SUBMITTED DURING BID PHASE, SHALL MEET DESIGN INTENT AND ARE SUBJECT TO OWNER APPROVAL.
- F. EGRESS LIGHTING SHALL BE PROVIDED TO MEET MINIMUM LIGHT LEVELS AS DESCRIBED PER OREGON STRUCTURAL SPECIALTY CODE 1006.3.
- G. BUILDING EXTERIOR & SITE LIGHTING SHALL BE CONTROLLED VIA PHOTOCELL, EITHER INTEGRAL OR REMOTE, OR BY TIME CLOCK FOR DUSK-TILL-DAWN OPERATION.
- H. LIGHTING FIXTURES DESIGNATED AS NIGHT LIGHTS (N.L.) AND STAIRWELL LIGHTS SHALL BE ON 24/7.
- J. STAIRWELL LIGHTS SHALL BE PROVIDED WITH OCCUPANCY SENSOR(S), EITHER INTEGRAL OR REMOTE, TO PROVIDE 50% LIGHT REDUCTION DURING PERIODS OF INACTIVITY. ONCE ACTIVATED, LIGHTS ARE TO REMAIN AT 100% OUTPUT FOR A MINIMUM OF 20 MINUTES.
- I. DESIGN INTENT FOR CORRIDOR LIGHT FIXTURES TO BE CONTROLLED SUCH THAT THE FIXTURES DIM BY 50% DURING PERIODS OF LOW ACTIVITY. UPON LIGHT RETURN TO 100% AND REMAIN AT FULL OUTPUT FOR A MINIMUM OF 30 MINUTES BEFORE RETURNING TO THE DIMMED STATE. FIXTURES ON EMERGENCY POWER CIRCUITS SHALL REMAIN 'ON' 24/7.



Date: 11-06-2020  
 Proj No: 10105  
 Drawn By: DMT  
 Chkd By: RLC  
 DSGN By: DMT  
 Acad File:

**SW PARK APARTMENTS**  
**RYSTADT**  
**2057 SW PARK AVE.**  
 PORTLAND OREGON

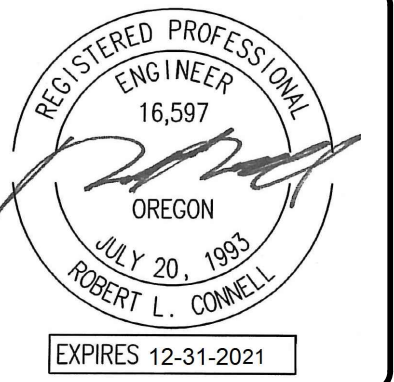


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SHEET

**E1.00**

OF \*\*\*\*



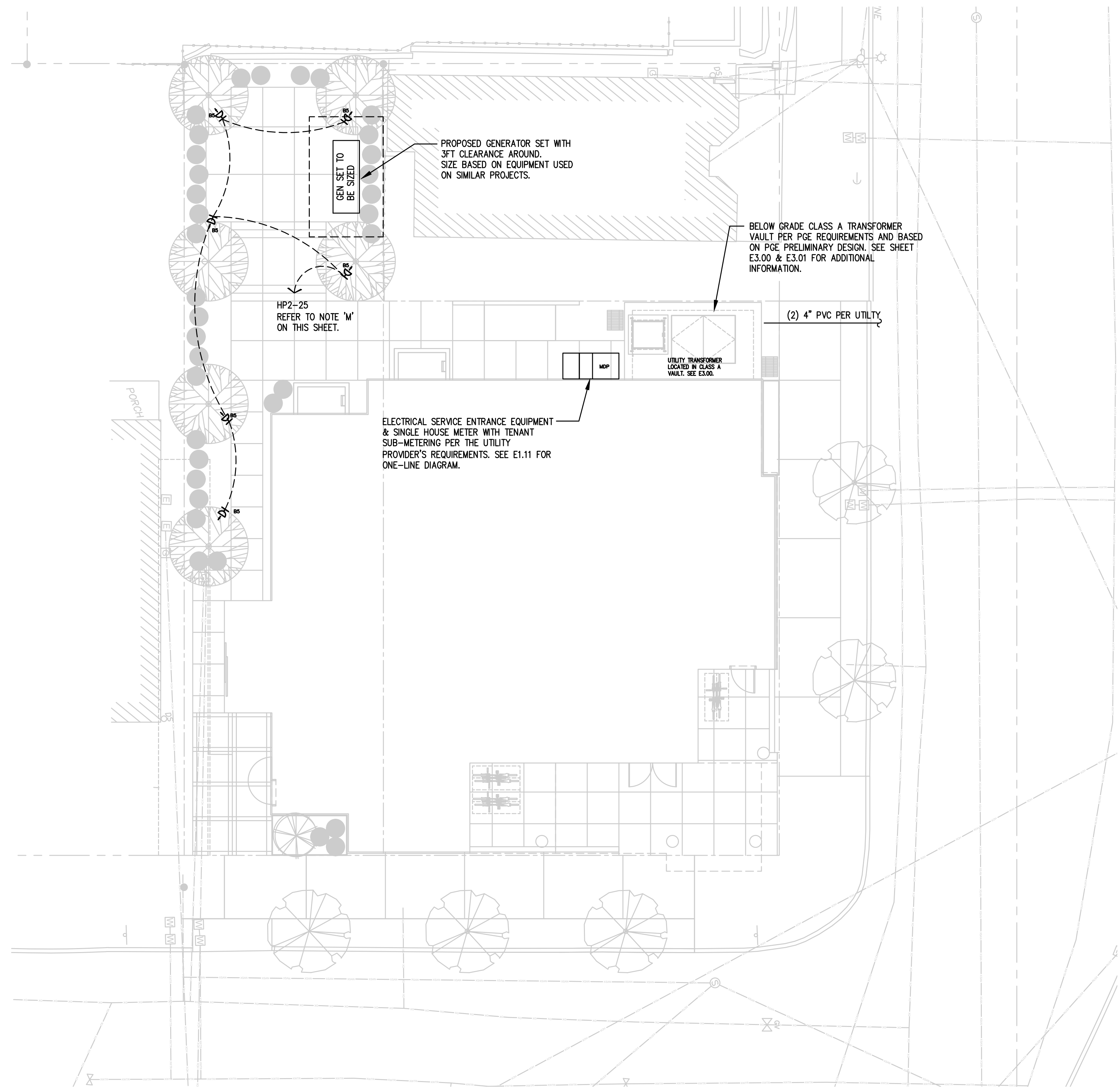
Date:	11-06-2020
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**SW PARK APARTMENTS**  
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 PORTLAND OREGON  
**ELECTRICAL SITE PLAN**



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 OF 4



**GENERAL NOTES:**

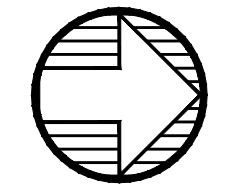
- A. ALL WORK SHALL BE PERFORMED IN ACCORDANCE WITH ALL APPLICABLE LOCAL, STATE AND NATIONAL CODES.
- B. ELECTRICAL PLANS ARE DIAGRAMMATIC AND MAY OR MAY NOT REFLECT ACTUAL FIELD CONDITIONS.
- C. REFER TO LIGHTING PLANS FOR BUILDING MOUNTED LIGHT FIXTURE LOCATIONS.
- D. COORDINATE WITH LOCAL UTILITY PROVIDER FOR EXACT SERVICE CONDUIT AND CONDUCTORS REQUIREMENTS.
- E. ALL UTILITY WORK SHALL BE DONE IN ACCORDANCE WITH CLARK PUBLIC UTILITIES ELECTRICAL SERVICE REQUIREMENTS.
- F. U.G. PRIMARY FEEDER SHALL HAVE A MINIMUM 48 INCH BURY.
- G. U.G. SECONDARY FEEDER SHALL HAVE A MINIMUM 36 INCH BURY.
- H. REFER TO SHEET E1.11 FOR ONE-LINE DIAGRAM, LOAD SUMMARY INFORMATION AND TYPICAL FEEDER SCHEDULE.
- I. SECONDARY CONDUIT SWEEPS SHALL BE MINIMUM 60 INCH RADIUS WITH A MINIMUM OF 7'-0" STRAIGHT CONDUIT RUN BETWEEN SWEEPS.
- J. CONTRACTOR SHALL REVIEW THE UTILITY PROVIDER'S ELECTRICAL SERVICE REQUIREMENTS PRIOR TO THE START OF ANY WORK.
- K. LOCATION AND INSTALLATION OF THE PRIMARY AND SECONDARY CONDUITS, TRANSFORMER, ETC. SHALL BE PROVIDED PER UTILITY PROVIDER'S ELECTRICAL SERVICE REQUIREMENTS.
- L. CONTRACTOR SHALL REVIEW ALL PROJECT DOCUMENTS AND SPECIFICATIONS IN DETAIL AND REFER TO THE DOCUMENTS THROUGHOUT THE CONSTRUCTION.
- M. VERIFY LOW VOLTAGE LANDSCAPE LIGHTING FIXTURES & LOCATIONS AND PROVIDE POWER CONNECTIONS AS REQUIRED PER THE LANDSCAPE PLAN SET.

**UTILITY REQUIREMENTS**

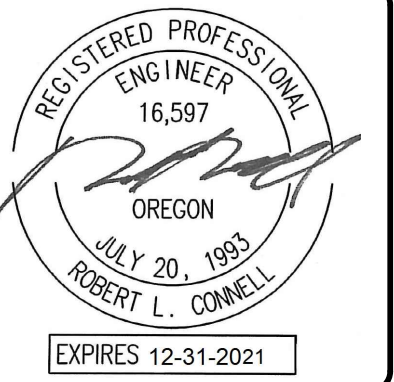
- 1. CUSTOMER TO PROVIDE ALL TRENCHING AND BACKFILLING. TRENCH TO BE 36 INCHES DEEP AND 30 INCHES WIDE, MEASURED FROM FINAL GRADE.
- 2. ALL UTILITY CONDUCTORS TO BE INSTALLED IN GRAY SCHEDULE 40, ELECTRICAL GRADE, PVC CONDUIT WITH NYLON PULL STRINGS (MIN 500 LBS. TEST). CLARK PUBLIC UTILITIES TO DETERMINE THE SIZE AND NUMBER OF CONDUITS REQUIRED. ALL ELBOWS TO BE 36 INCH (MIN) RADIUS. ALL BENDS MAY BE FACTORY MADE. IF MORE THAN 270 DEGREES OF BENDS OR IF RUN IS LONGER THAN 150 FEET, BENDS MUST BE RIGID STEEL.
- 3. CONSULT WITH UTILITY REPRESENTATIVE 2 WEEKS BEFORE STARTING MAIN POWER TRENCHING FOR A PRE-CONSTRUCTION CONFERENCE. INCLUDED IN THIS CONFERENCE WILL BE EXCAVATOR, CPU, TELCO, CATV, AND GAS.
- 4. CONTRACTOR TO LOCATE ALL UNDERGROUND UTILITIES BEFORE TRENCHING.

**CLASS A TRANSFORMER VAULT ROOM GENERAL NOTES:**

- 1. ALL MATERIALS AND PRODUCTS USED WITHIN THE CLASS A VAULT IS SUBJECT TO THE UTILITY PROVIDER'S APPROVAL.
- 2. PRIMARY SERVICE CONDUCTORS FROM THE PROPERTY LINE TO THE VAULT SHALL BE IN SCHEDULE 40 PVC PER THE UTILITY PROVIDER'S DIRECTION. ALL CONDUIT PENETRATIONS MUST BE SEALED WITH A FLEXIBLE NON-SHRINK HYDROPHOBIC GROUT TO PREVENT WATER INTRUSION.
- 3. NON-METALIC SEISMIC-APPROVED CABLE TRAY WITH GALVANIZED HARDWARE SHALL BE INSTALLED IN VAULT ROOMS WITH CEILING GREATER THAN 10 FEET HIGH.
- 4. VAULT ROOM DOORS SHALL BE BLAST-RATED METAL DOORS. DOORS AND VENT SHUTTERS MUST HAVE A THREE HOUR BLAST & FIRE RATING PER NFPA 450.43.
- 5. ALL OPENING, GAPS & CRACKS MUST BE SEALED WITH THREE-HOUR RATED FIRE CAULKING. CONSULT UTILITY PROVIDER FOR APPROVED PRODUCTS.
- 6. PROVIDE TWO "RATE TO RISE" HEAT DETECTORS PER THE UTILITY PROVIDER'S REQUIREMENTS. LOCATE ONE ABOVE THE TRANSFORMER AND ONE OTHER WITHIN THE ROOM.
- 7. VAULT VENTS MUST HAVE SHUTTERS THAT ARE AUTOMATICALLY CLOSED BY THE HEAT DETECTOR IN THE FIRE SUPPRESSION SYSTEM HEAT DETECTORS SHALL MEET NFPA 72 REQUIREMENTS.
- 8. REFER TO SHEETS E3.00 & E3.01 FOR MORE INFORMATION REGARDING THE CLASS 'A' TRANSFORMER VAULT ROOM.



**1** ELECTRICAL SITE PLAN  
 E1.01 SCALE: 1/8" = 1'-0"



Date:	11-06-2020
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**ELECTRICAL ONE-LINE DIAGRAM**

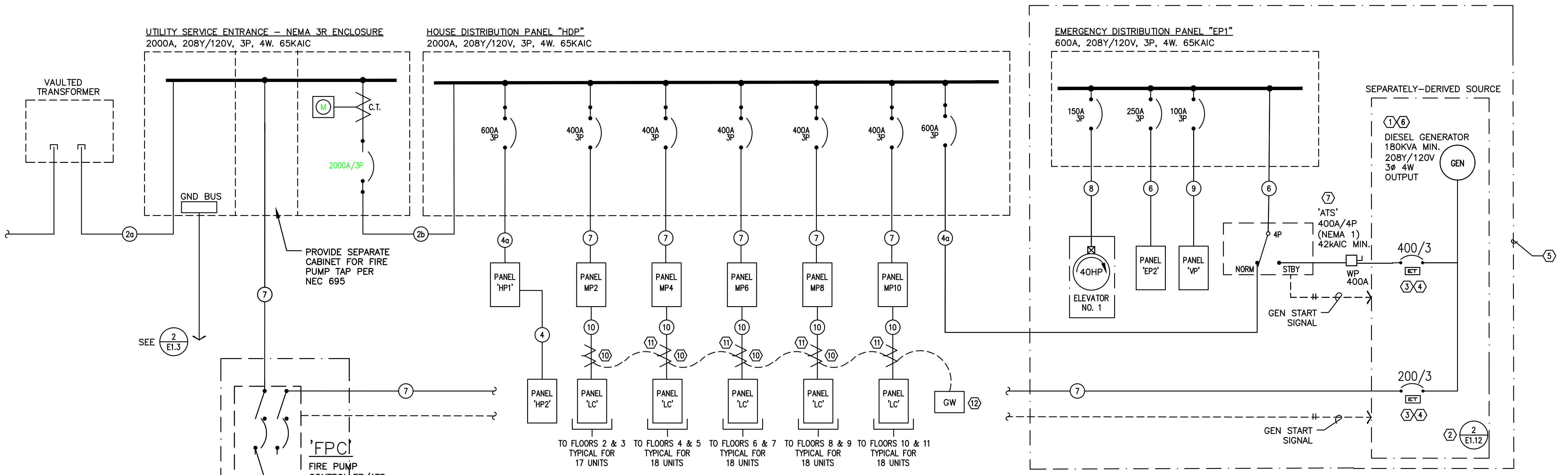


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E1.11

OF 4



**1** ELECTRICAL ONE-LINE DIAGRAM  
 E1.11 208/120v, 3ph, 4w

LOAD:	LIGHTS	RECEPT	HEAT	KITCHEN	EQUIP	MOTORS	MISC	LARGEST MOTOR
House Loads	9,000	22,020	5,500	3,900	5,500	77,884		
Residential Units (91 units)							349,000	
Generator Loads							176,000	
<b>SUBTOTAL</b>	<b>9,000</b>	<b>22,020</b>	<b>5,500</b>	<b>3,900</b>	<b>5,500</b>	<b>77,884</b>	<b>525,000</b>	<b>0</b>
X-FACTOR	1	1+5	1	1	1	1	1	0
<b>CODE LOAD:</b>	<b>11,250</b>	<b>16,010</b>	<b>5,500</b>	<b>2,535</b>	<b>5,500</b>	<b>77,884</b>	<b>525,000</b>	<b>0</b>
<b>CONN LOAD:</b>	<b>649 KVA</b>							
<b>VOLTS:</b>	208 3ph							
<b>TOTAL CALC:</b>	644 KVA							
<b>CALC AMPS:</b>	1,787 AMPS							

LOAD:	LIGHTS	RECEPT	HEAT	KITCHEN	EQUIP	MOTORS	MISC	LARGEST MOTOR
Panels EP1 & EP2	9,400	500			10,900	47,544		
Panel VP	1,875	2,400			1,000	1,920		
Elevator (40hp)							43,200	43,200
Fire Pump (40hp)							43,200	
<b>SUBTOTAL</b>	<b>11,275</b>	<b>2,900</b>	<b>0</b>	<b>0</b>	<b>11,900</b>	<b>49,464</b>	<b>86,400</b>	<b>43,200</b>
X-FACTOR	1	1+5	1	1	1	1	1	0
<b>CODE LOAD:</b>	<b>14,094</b>	<b>2,900</b>	<b>0</b>	<b>0</b>	<b>11,900</b>	<b>49,464</b>	<b>86,400</b>	<b>10,800</b>
<b>CONN LOAD:</b>	<b>162 KVA</b>							
<b>VOLTS:</b>	208 3ph							
<b>TOTAL CALC:</b>	176 KVA							
<b>CALC AMPS:</b>	487 AMPS							

8/17/2021

NO.	AMPS	CONDUIT	CONDUCTOR
1		PRIMARY	BY UTILITY CO. & GND
2a		*(12) 5"	BY UTILITY CO. & GND
2b	2500A	*(6) 4"	ea w/ (4) #600Kcm & (1) #350Kcm GND
3	1200A	*(3) 4"	ea w/ (4) #600Kcm & (1) #3/0 GND
4	800A	*(2) 4"	ea w/ (4) #600Kcm & (1) #1/0 GND
4a	600A	*(2) 3"	ea w/ (4) #350Kcm & (1) #1 GND
5	400A	3 1/2"	(4) #500Kcm & (1) #3 GND
6	250A	2 1/2"	(4) #250Kcm & (1) #4 GND
7	200A	2"	(4) #3/0 & (1) #6 GND
8	150A	2"	(4) #1/0 & (1) #6 GND
9	100A	1 1/2"	(4) #1 & (1) #8 GND
10	100A	1 1/2"	(3) #1 & (1) #8 GND

\* PARALLEL FEEDER

**ONE-LINE GENERAL NOTES:**

- COORDINATE ALL WORK ASSOCIATED WITH ELECTRIC SERVICE WITH LOCAL UTILITY PROVIDER. PROVIDE ALL CONDUIT, GROUNDING, TRANSFORMER VAULT/PAD, ETC., IN ACCORDANCE WITH SERVING UTILITY REQUIREMENTS.
- COORDINATE METERING REQUIREMENTS WITH UTILITY.
- FOR LOAD CENTER FEEDER LENGTHS GREATER THAN 145'-0" FROM METER CENTER, INCREASE WIRE SIZE ONE SIZE UP FOR VOLTAGE DROP.
- PER NEC 240.87, THE ELECTRICAL CONTRACTOR SHALL PROVIDE DOCUMENTATION FOR ARC ENERGY REDUCTION DEVICE(S) FOR CIRCUIT BREAKERS 1200A OR GREATER. CONTRACTOR SHALL PROVIDE AN ENERGY-REDUCING ACTIVE FLASH MITIGATION SYSTEM OR OTHER METHOD APPROVED BY THE NEC.
- USE OF ALUMINUM CONDUCTORS, AS ALLOWED BY CODE, MAY BE SUBSTITUTED FOR COPPER. CONTRACTOR SHALL PROVIDE WRITTEN SUBSTITUTION REQUEST DEMONSTRATING THAT THE PROPOSED PRODUCT IS EQUIVALENT TO COPPER IN ALL ASPECTS.
- ACCEPTABLE POWER MONITORING SYSTEM MANUFACTURERS ARE: SIEMENS SEM3, E-MON D-MON, SQUARE D POWERLOGIC OR AS APPROVED BY SUBMITTAL PROCESS.

**ONE-LINE NOTES:**

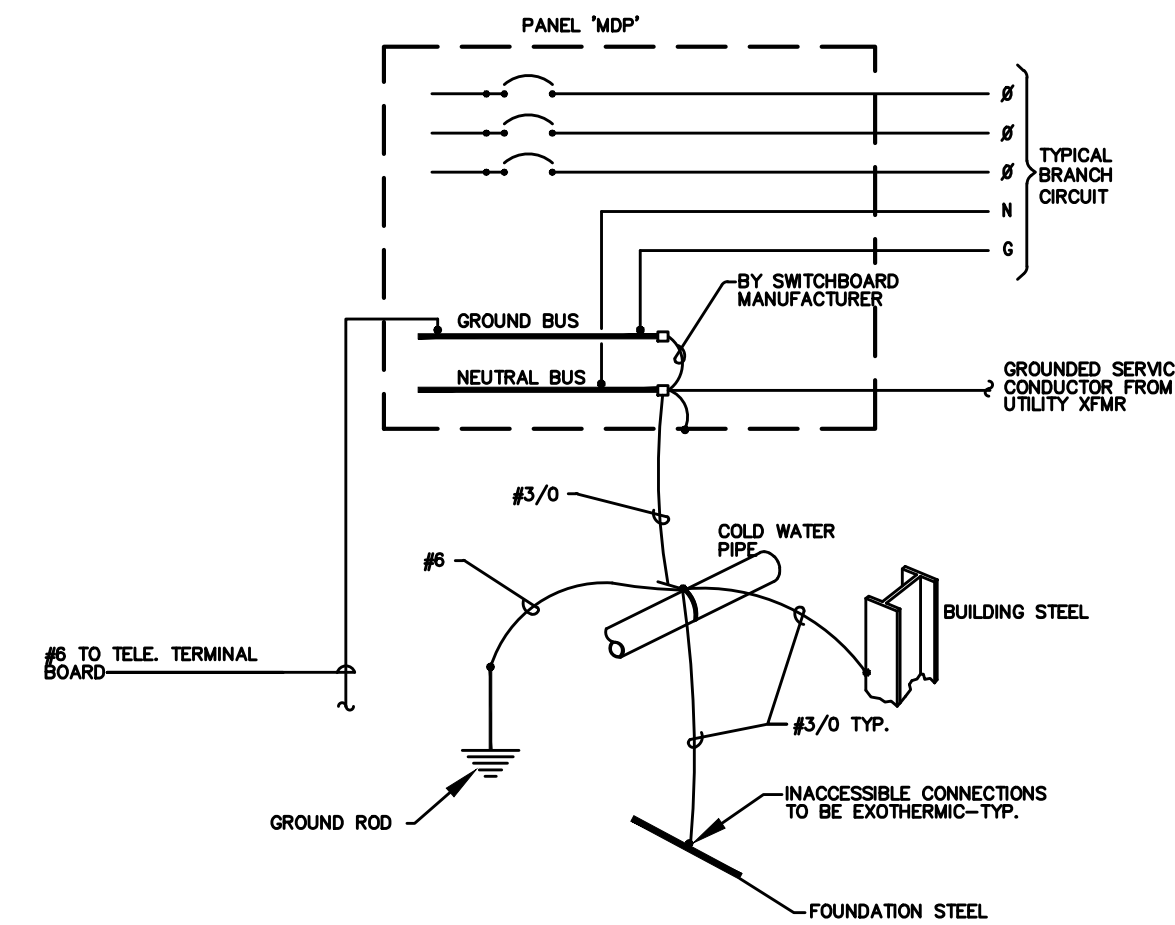
- ESTIMATED GENERATOR STARTING LOAD IS BASED ON THE ELEVATOR & FIRE PUMP MOTORS BEING PROVIDED WITH REDUCED STARTING.
- PROVIDE GROUND FOR SEPARATELY DERIVED SYSTEM PER NEC.
- PROVIDE ELECTRONIC TRIP CIRCUIT BREAKER. EXACT BREAKER TYPE, SETTINGS, ETC. TO BE VERIFIED AND AS DETERMINED BY SELECTIVE COORDINATION STUDY AS PERFORMED BY THE ELECTRICAL DISTRIBUTION EQUIPMENT MANUFACTURER.
- COORDINATE INSTALLATION OF OUTPUT BREAKERS WITH GENERATOR MANUFACTURER TO SELECTIVELY COORDINATE WITH POWER STUDY RECOMMENDATIONS.
- 'LIFE SAFETY' BRANCH TO MEET ALL REQUIREMENTS OF NEC 700. CONTRACTOR SHALL BE AWARE THAT MFA HAS ATTEMPTED TO INDICATE EQUIPMENT AND SIZES THAT WILL SELECTIVELY COORDINATE, BUT WILL NOT BE KNOWN UNTIL ELECTRICAL EQUIPMENT MANUFACTURER PERFORMS THE REQUIRED POWER STUDIES AS SPECIFIED IN 26 05 73. CHANGES MAY BE NECESSARY AFTER THE BID.
- GENERATOR IS SIZED TO OPERATE ONLY ONE ELEVATOR AT A TIME. COORDINATE WITH ELEVATOR & GENERATOR PROVIDERS FOR AUTOMATIC SEQUENTIAL OPERATION AS REQUIRED UNDER ASME A17.1, SECTION 2.27.2.1 THROUGH 2.27.2.5.
- THE AUTOMATIC TRANSFER SWITCH FOR THE EMERGENCY PANEL "EDP" SHALL OPERATE SUCH THAT THE EGRESS LOADS ARE SWITCHED TO GENERATOR POWER WITHIN 10 SECONDS AND THE ELEVATOR(S) SWITCHED WITHIN 60 SECONDS OF A POWER FAILURE.
- CONSULT MECHANICAL, PLUMBING AND/OR FIRE ALARM PLANS AND VERIFY EXACT POWER REQUIREMENTS FOR THE FIRE PUMP.
- CONSULT ELEVATOR PROVIDER FOR INSTALLATION AND POWER REQUIREMENTS PRIOR TO ROUGH IN.
- PROVIDE CIRCUIT BREAKER WITH INTEGRAL LOAD MONITORING MODULE COMPATIBLE WITH POWER MONITORING SYSTEM. SEE MANUFACTURER SPECIFICATIONS FOR WEB BASED POWER MONITORING SYSTEM REQUIREMENTS.
- SERIAL COMMUNICATIONS CABLE, 18 AWG MINIMUM. BELDEN 9463 OR APPROVED.
- PROVIDE LOAD MONITORING NETWORK GATEWAY COMPATIBLE WITH POWER MONITORING SYSTEM.



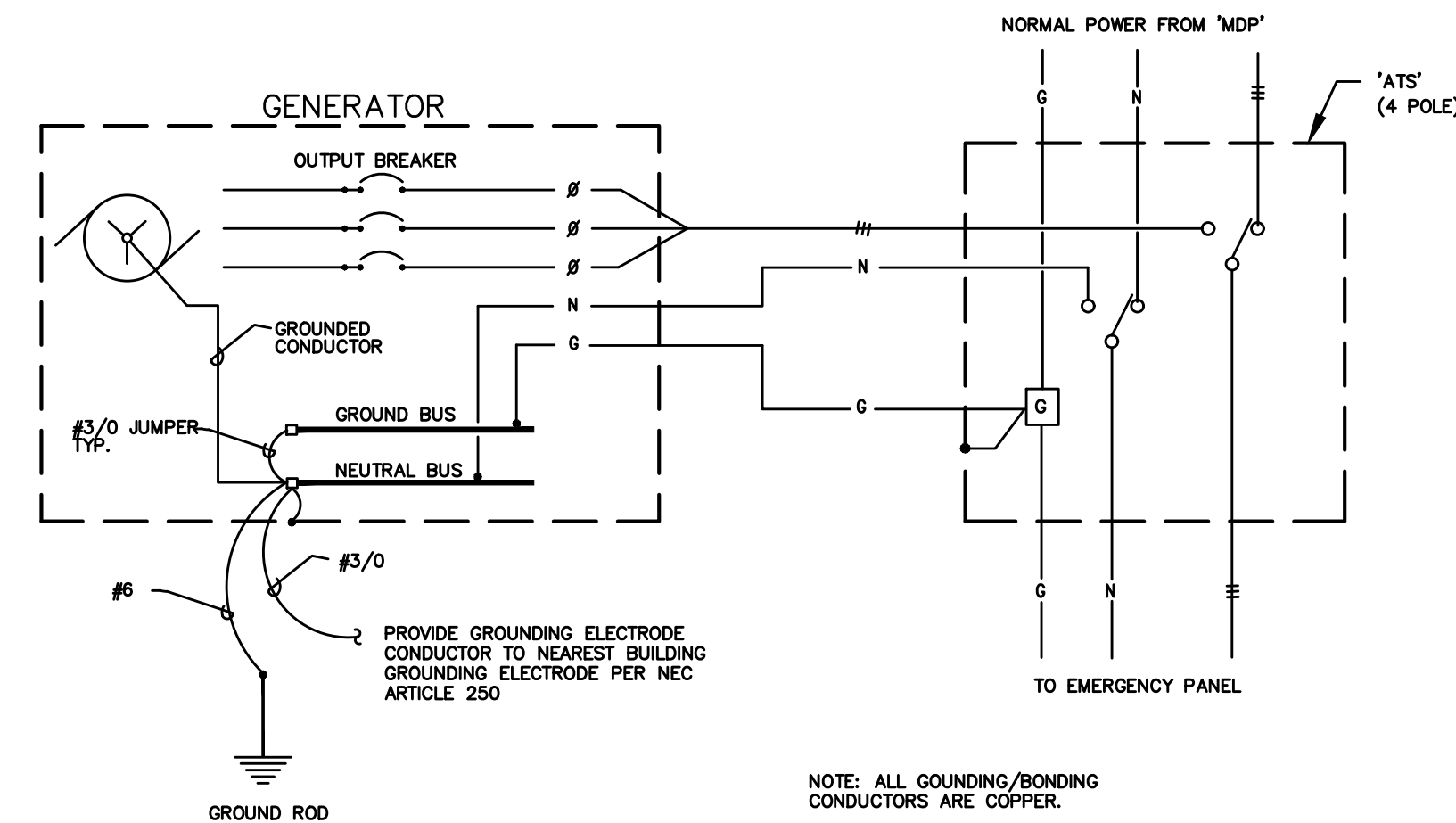
Park Ave. Apartments RESIDENTIAL LOAD SUMMARY												
UNIT TYPE:	QTY PER FLOOR	TOTAL	AREA (SF)	LTG/RECEPT (3VA / SF)	SM APPL (1500VA X 2)	COOK TOP (NO OVEN) (CONNECTED)	MICROHOOD (CONNECTED)	DISHWASHER (CONNECTED)	ELECT DRYER (CONNECTED)	WATER HEATER (CONNECTED)	DISPOSAL (CONNECTED)	LARGEST OF AC/HEATING (CONNECTED)
	Studio											
Level 1	2	2	325	975	3000	8000	1700	0	0	0	0	3000
Level 2	8	8	325	975	3000	8000	1700	0	0	0	0	3000
Level 3	9	9	325	975	3000	8000	1700	0	0	0	0	3000
Level 4	9	9	325	975	3000	8000	1700	0	0	0	0	3000
Level 5	9	9	325	975	3000	8000	1700	0	0	0	0	3000
Level 6	9	9	325	975	3000	8000	1700	0	0	0	0	3000
Level 7	9	9	325	975	3000	8000	1700	0	0	0	0	3000
Level 8	9	9	325	975	3000	8000	1700	0	0	0	0	3000
Level 9	9	9	325	975	3000	8000	1700	0	0	0	0	3000
Level 10	9	9	325	975	3000	8000	1700	0	0	0	0	3000
Level 11	9	9	325	975	3000	8000	1700	0	0	0	0	3000
TOTALS:	91	91	29575	88725	273000	728000	154700	0	0	0	0	273000

VOLTS: 208 3ph  
TOTAL CONNECTED: 1517 KVA  
DEMAND FACTOR: 0.23 Based on Total Number of Residential Units = 63 & Over (See N.E.C. Article: 220.84)  
TOTAL CALCULATED: 349 KVA  
CALCULATED AMPS: 969 AMPS

NOTE: Actual cooktop load is 3000w. Connected amount of 8000w is the minimum connected load per NEC 220.55 for full diversity.



1 GROUNDING/BONDING DIAGRAM  
E1.12 208Y/120V, 3Ø, 4 WIRE

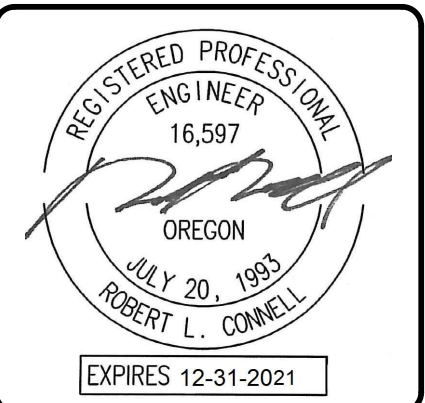


3 GENERATOR - ELECTRICAL GROUNDING/BONDING DETAIL  
E1.13 NO SCALE

MFIA CIRCUIT DIRECTORY									
Loadcenter Name	mounting	location							
LC-STUDIO (TYPICAL)	RECESSED								
voltage	phase	bus & main							
120/208	1	100A MLO (SCCR: 22K)							
service	1	no	LT	L2	no	1p	2	3p	service
LIGHTS-KITCHEN/LIVING	20/1(A)	1	*	2	20/1(A)	APPLIANCE CIRCUIT			
LTS & RECEPT - BATH	20/1	3	*	4	20/1(A)	APPLIANCE CIRCUIT			
LTS & RECEPT - BEDROOM	20/1(A)	5	*	6	20/1	REFRIGERATOR			
RECEPT - LIVING (OPTIONAL)	20/1(A)	7	*	8	20/1	MICROHOOD			
SMART PANEL	20/1	9	*	10	30/2	2-BURNER COOKTOP			
AC PORT (OPTIONAL)	20/1	11	*	12	*	*			
HEAT	20/2	13	*	14	20/1	DISPOSAL (OPTIONAL)			
*	*	15	*	16	20/1	SPARE			
SPARE	20/1	17	*	18	20/1	SPARE			
BLANK	---	19	*	20	---	BLANK			
BLANK	---	21	*	22	---	BLANK			
BLANK	---	23	*	24	---	BLANK			
BLANK	---	25	*	26	---	BLANK			
BLANK	---	27	*	28	---	BLANK			
BLANK	---	29	*	30	---	BLANK			

NOTES:  
1. (A) DENOTES: ARC-FAULT INTERRUPTER CIRCUIT BREAKER. INSTALL PER NEC 210.12  
2. LOADS FOR THIS PANEL ARE INDICATED ON THE "DWELLING UNIT LOAD CALCULATION".  
3. BREAKER & WIRE SHALL BE SIZED FOR EQUIPMENT INSTALLED.  
4. (G) DENOTES GFCI RATED BREAKER.

DWELLING UNIT LOAD CALCULATION	
Project: Park Ave Apartments	
Unit Type: Studio	
Area: 325 square feet (average)	
Minimum Size Feeder (NEC 220.40):	
General lighting load at 3 VA / SF	975 VA
Small Appliance load (2 ckt/s at 1500VA each)	3,000 VA
Laundry Load (1 ckt at 1500VA)	0 VA
Elect Cook Top (No Range)	8,000 VA
Other Cooking Appliance Load (Microwave Oven)	1,700 VA
Dishwasher Load	0 VA
Electric Dryer Load	0 VA
Electric Water Heater Load	0 VA
Disposal load	900 VA
Other motor loads	0 VA
Total "General Loads"	14,575 VA
First 10 kVA of "general loads" at 100%	10,000 VA
Remainder of "general loads" at 40%	1,830 VA
Net "general load"	11,830 VA
Largest of 3,000 VA of electric space heating (less than 4) at 65%	1,950 VA
-or- VA of electric space heating (4 or more) at 40%	0 VA
-or- VA of air conditioning/cooling/heat pumps at 100%	0 VA
TOTAL LOAD	13,780 VA
For 120/208-volt, 3-wire, single-phase service or feeder, 13,780 VA / 208 volts =	57 Amps
Therefore, this dwelling unit shall be permitted to be served by a	100 amp service.



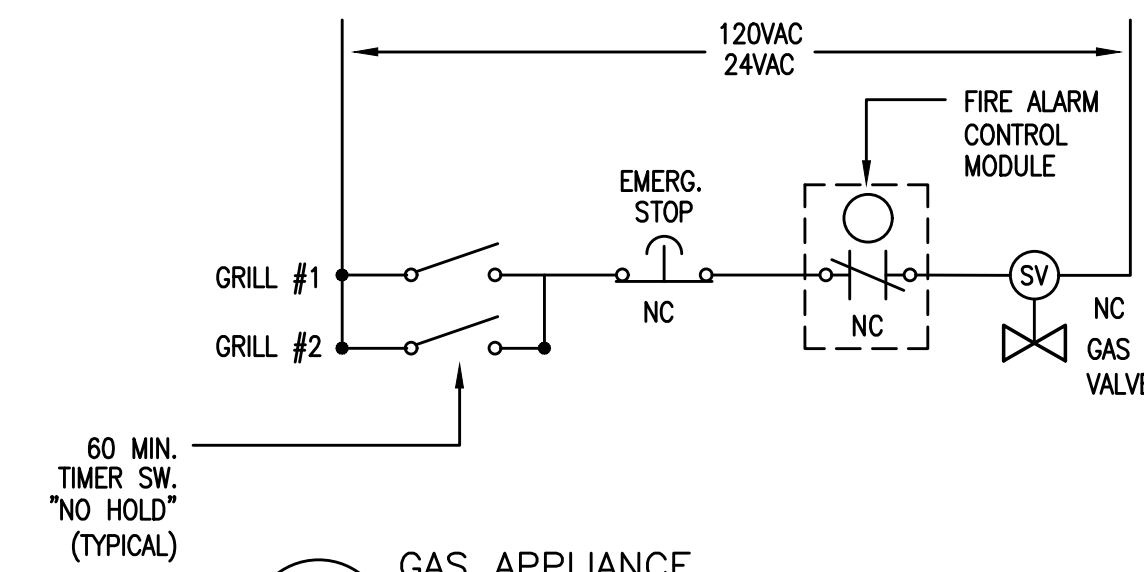
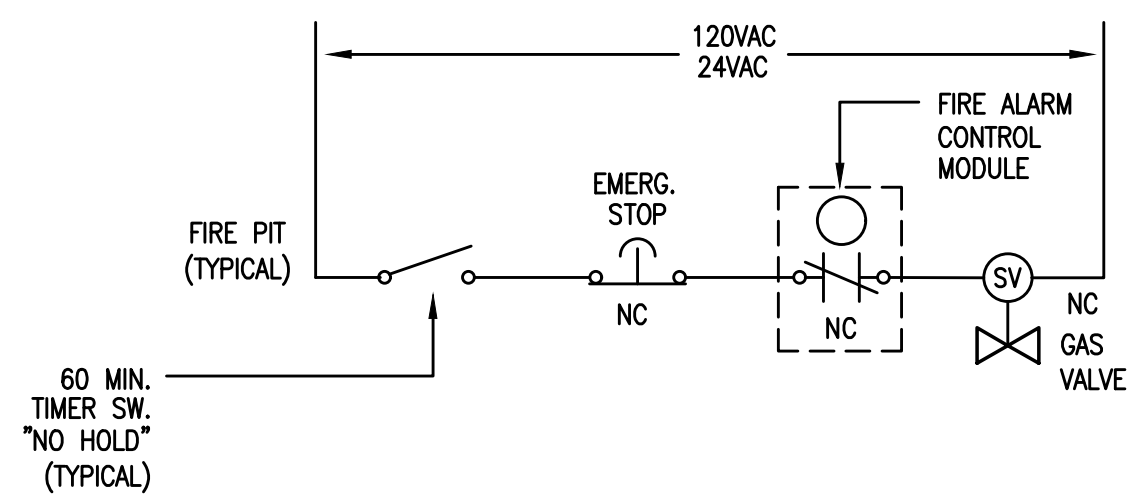
Date:	11-06-2020
Proj No:	10105
Drawn By:	DMT
Chkd By:	RLC
DSGN By:	DMT
Acad File:	

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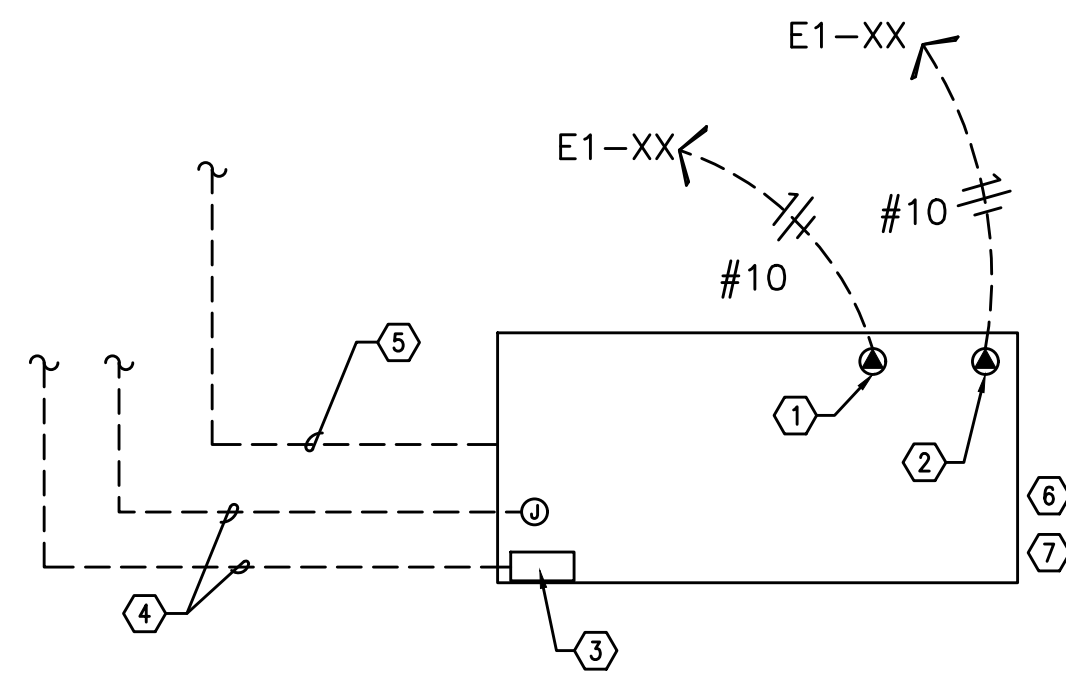
ELECTRICAL DETAILS



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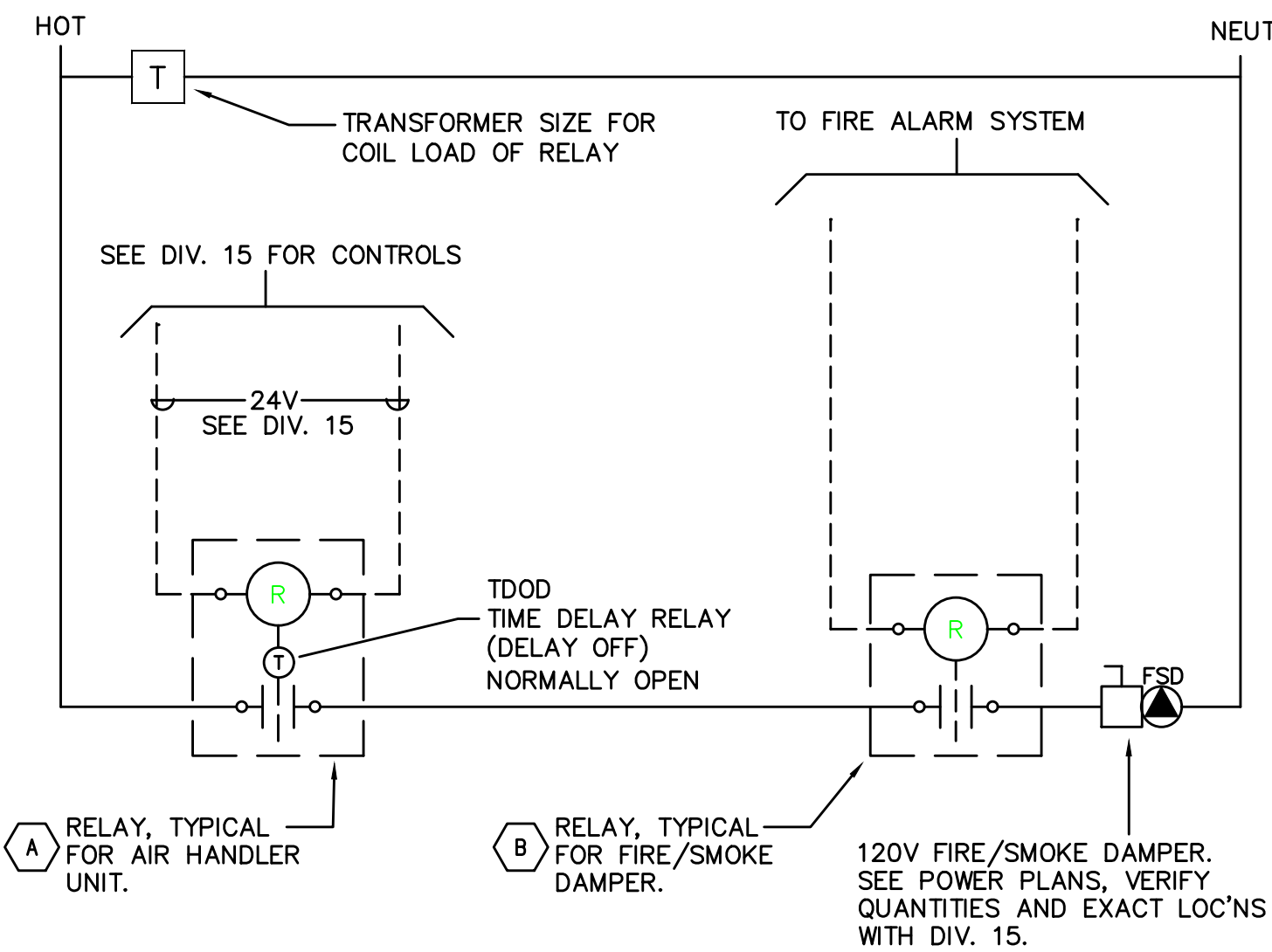
1 GAS APPLIANCE EMERGENCY SHUT-OFF DIAGRAM  
E1.14 SCALE: NONE



2 GENERATOR CIRCUITING DETAIL  
E1.14 NO SCALE

NOTES:

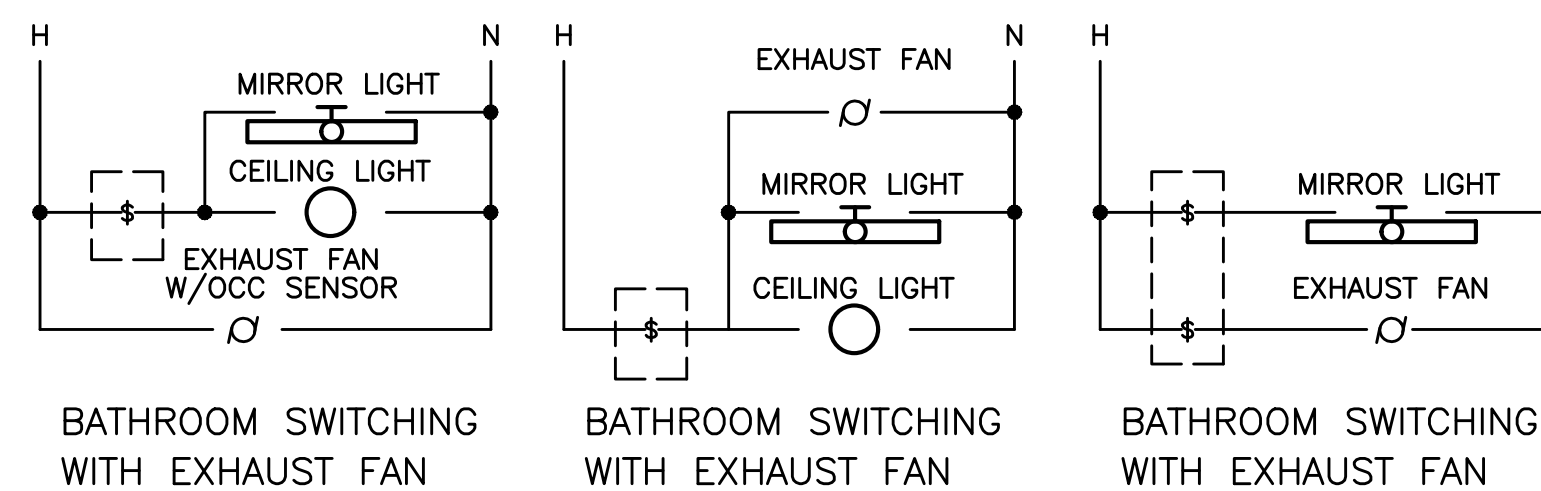
- 120V GENERATOR BLOCK HEATER. SEE PANEL E1.
- 120V GENERATOR BATTERY CHARGER. SEE PANEL E1.
- GENERATOR OUTPUT BREAKER AND CONTROL SECTION. SEE PANEL E1.
- POWER AND CONTROL TO TRANSFER SWITCH AND REMOTE ANNUNCIATOR. SEE ONE-LINE DIAGRAM ON SHEET E1.10.
- TO AUTOMATIC TRANSFER SWITCH. SEE E1.10.
- DIESEL GENERATOR TO BE PROVIDED WITH DOUBLE-WALL FUEL TANK AND SPILL CONTAINMENT PER CITY OF PORTLAND REQUIREMENTS.
- DIESEL GENERATOR TANK SHALL DOUBLE WALLED AND BE EQUIPPED WITH OVERFILL PROTECTION (AUTO SHUTOFF), 5 GALLON INFILL SPILL BUCKET WITH DRAIN BACK, 12FT ABOVE GRADE TANK FUME VENTING AND ONSITE PRESSURE TESTING PER CITY REQUIREMENTS.



3 SMOKE/FIRE DAMPER CONTROL DIAGRAM  
E1.14 NO SCALE

ADDRESSABLE DETECTOR CONTROL

- A RELAY TO BE 'NORMALLY OPEN'. TDOD (TIME DELAY ON DE-ENERGY) SET FOR 15 SECONDS. RELAY TO CLOSE UPON SIGNAL FROM HVAC CONTROL SYSTEM (ALLOWS DAMPER TO OPEN); DAMPERS TO CLOSE ON DE-ENERGIZE AFTER 15 SEC. TIME-OUT. PROVIDE WITH 20A CONTACTS AND COIL VOLTAGE AS REQ'D BY HVAC CONTROL SYSTEM. MOUNT RELAY IN NEMA 1 ENCLOSURE ADJACENT TO HVAC CONTROL PANEL.
- B RELAY TO BE 'NORMALLY ENERGIZED'. RELAY TO BE DE-ENERGIZED UPON SIGNAL FROM FIRE ALARM SYSTEM (ALLOWS DAMPERS TO CLOSE). PROGRAM FIRE ALARM SYSTEM FOR 15 SECOND DELAY BETWEEN SMOKE DETECTOR ACTIVATION AND FIRE/SMOKE DAMPER SHUTDOWN. PROVIDE WITH 20A CONTACTS AND COIL VOLTAGE AS REQ'D BY FIRE ALARM SYSTEM. MOUNT RELAY IN NEMA 1 ENCLOSURE ADJACENT TO FIRE/SMOKE DAMPER.



4 BATHROOM SWITCHING DIAGRAM - TYPICAL  
E1.14 NO SCALE

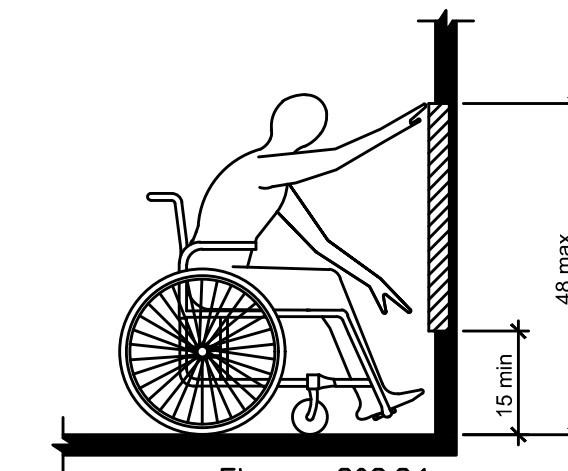


Figure 308.2.1 Unobstructed Forward Reach

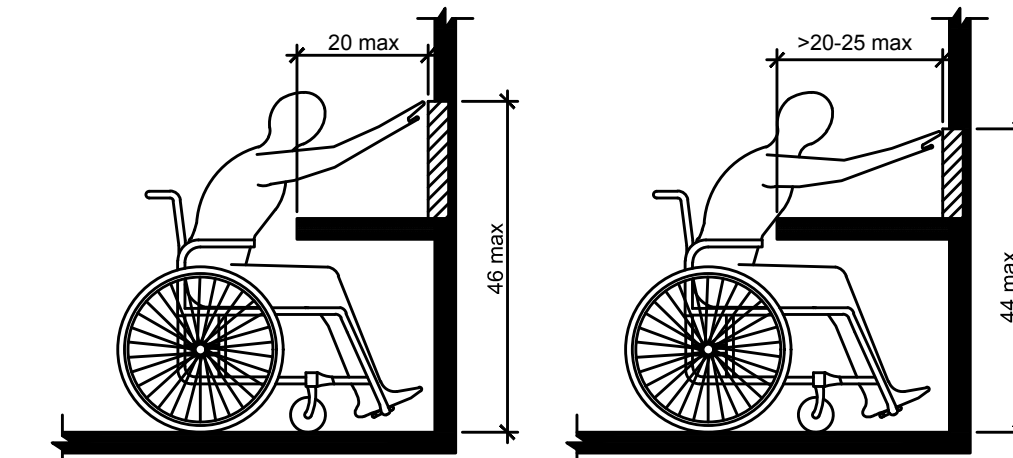


Figure 308.2.2 Obstructed High Forward Reach

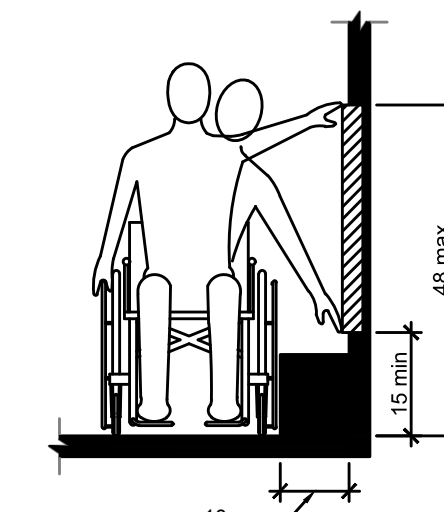


Figure 308.3.1 Unobstructed Side Reach

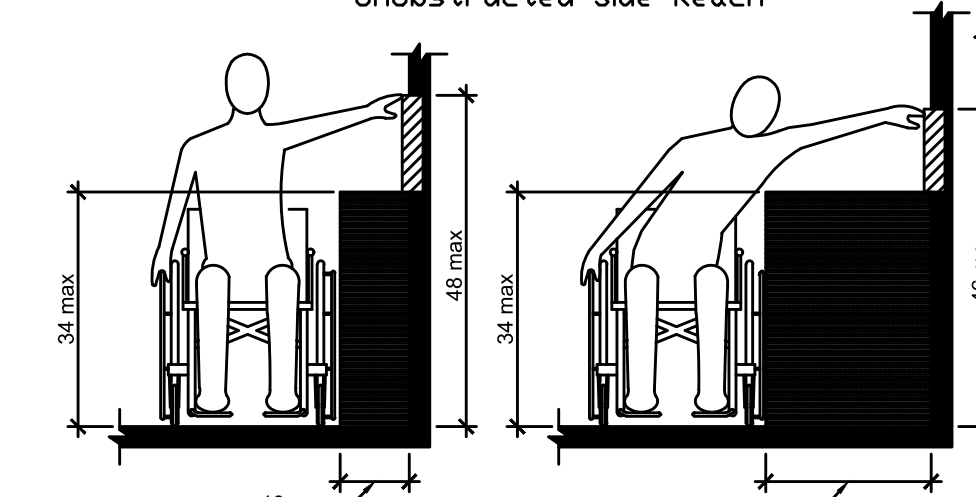


Figure 308.3.2 Obstructed High Side Reach

5 ADA REACH REQUIREMENTS  
E1.14 N.T.S.

308.2 Forward Reach.

308.2.1 Unobstructed. Where a forward reach is unobstructed, the high forward reach shall be 48" maximum and the low forward reach shall be 15" minimum above the floor or ground.

308.2.2 Obstructed High Reach. Where a high forward reach is over an obstruction, the clear floor or ground space shall extend beneath the element for a distance no less than the required reach depth over the obstruction. The high forward reach shall be 48" maximum where the reach depth is 20" maximum. Where the reach depth exceeds 20", the high forward reach shall be 44" maximum and the reach depth shall be 20" maximum.

308.3 Side Reach.

308.3.1 Unobstructed. Where a clear floor or ground space allows a parallel approach to an element and the side reach is unobstructed, the high side reach shall be 48" maximum and the low side reach shall be 15" minimum above the floor or ground. Exception: Existing elements shall be permitted at 54" maximum above the floor or ground.

308.3.2 Obstructed High Reach. Where a clear floor or ground space allows a parallel approach to an object and the high side reach is over an obstruction, the height of the obstruction shall be 34" maximum and the depth of the obstruction shall be 24" maximum. The high side reach shall be 48" maximum for a reach depth of 10" maximum. Where the reach depth exceeds 10", the high side reach shall be 44" maximum for a reach depth of 24" maximum.



Date: 11-06-2020  
Proj No: 10105  
Drawn By: DMF  
Chkd By: RLC  
DSGN By: DMF  
Acad File:

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RYSTADT  
2057 SW PARK AVE.  
PORTLAND OREGON  
FIXTURE SCHEDULE & DETAILS

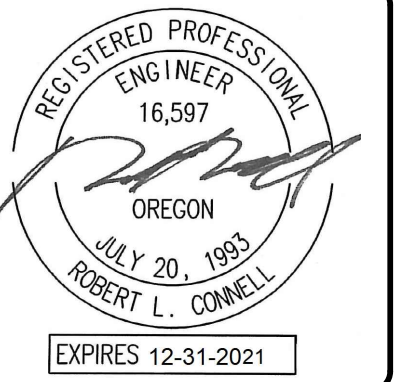


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SHEET

E1.14

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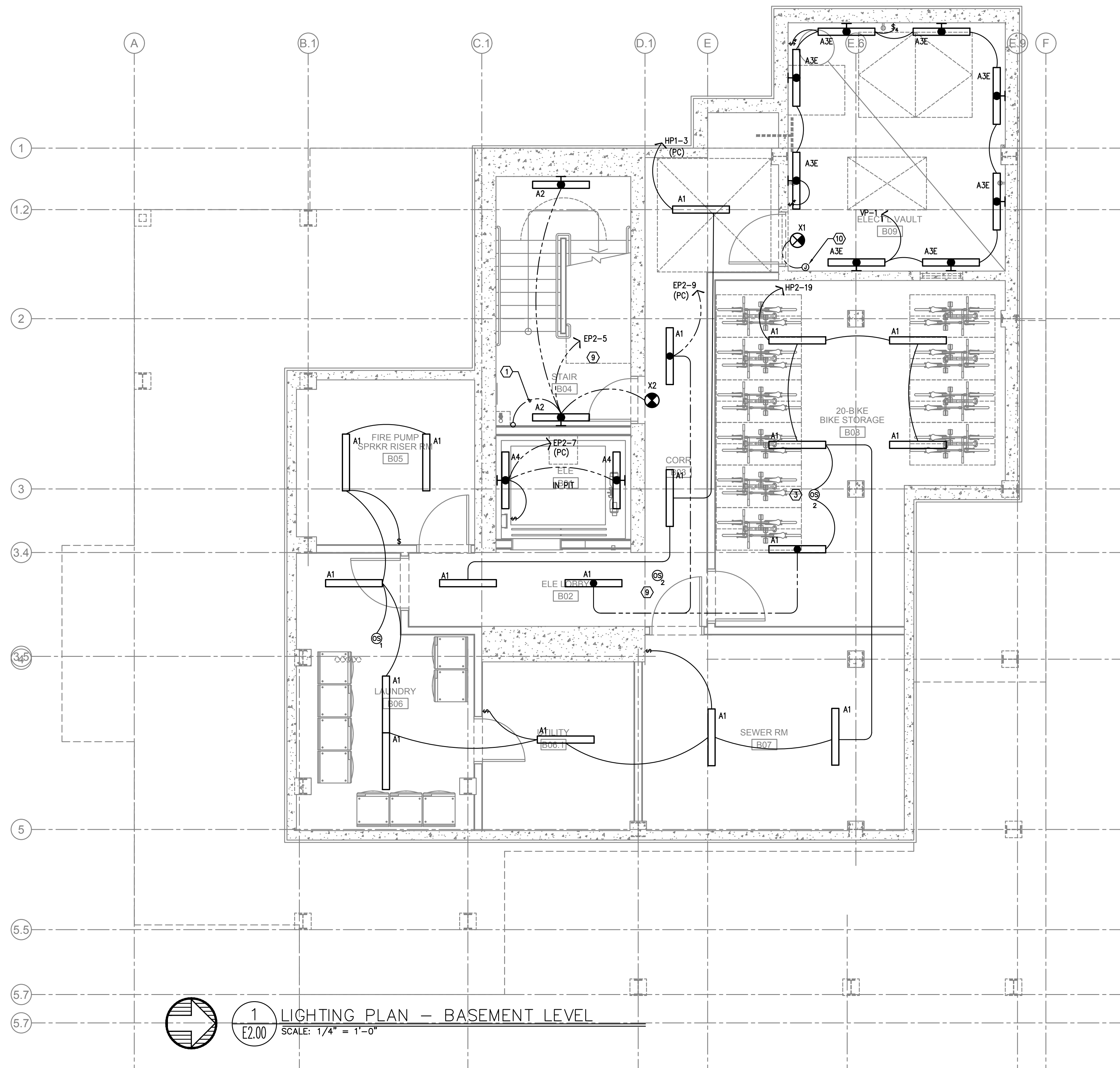
**GENERAL LIGHTING NOTES:**

- A. ELECTRICAL DRAWINGS ARE DIAGRAMMATICAL AND MAY NOT ACCURATELY REFLECT ACTUAL CONSTRUCTION CONDITIONS. THE ELECTRICAL CONTRACTOR SHALL BE RESPONSIBLE FOR COORDINATING THE INSTALLATION OF ALL ELECTRICAL EQUIPMENT, WITH ALL TRADES PRIOR TO AND DURING CONSTRUCTION.
- B. THE ELECTRICAL CONTRACTOR SHALL REFER TO THE ARCHITECTURAL & INTERIOR DESIGN DRAWINGS FOR EXACT LOCATIONS, MOUNTING HEIGHTS AND FINISHES OF DEVICES AND FIXTURES.
- C. REFER TO ARCHITECTURAL INTERIOR ELEVATION PLANS FOR EXACT LOCATIONS OF FIXTURES AND DEVICES.
- D. REFER TO SHEET E1.21 FOR LIGHT FIXTURE SCHEDULE.
- E. REFER TO AVAILABLE ARCHITECTURAL AND/OR INTERIOR DESIGN DOCUMENTS & DRAWINGS FOR ADDITIONAL INFORMATION.
- F. OCCUPANCY SENSORS SHALL BE FIELD ADJUSTED TO ENSURE PROPER COVERAGE AND CONTROL.
- G. PROVIDE DIGITAL LIGHTING CONTROLS FOR EACH ROOM/SPACE, CONSISTING OF MULTI-BUTTON SWITCH(ES), OCC SENSORS, POWER PACKS, DAYLIGHT SENSORS, DIMMERS, INTERCONNECTING WIRING, ETC.
- H. CORRIDOR LIGHTING TO BE CONSTANT "ON" AND PROVIDED WITH LOCAL MANUAL OVERRIDE SWITCHES FOR MAINTENANCE. REFER TO SHEET E1.22 FOR SWITCH WIRING DIAGRAMS.
- I. ALL EGRESS FIXTURES SHALL BE WIRED SUCH THAT IN THE EVENT OF A POWER FAILURE, ALL LIGHTS WILL AUTOMATICALLY RETURN TO FULL POWER. REFER TO SWITCHING DETAILS ON SHEET E1.22.
- J. REFER TO SHEET E1.23 FOR LIGHTING CONTROL DIAGRAMS AND DESIGN INTENT. VERIFY LIGHTING CONTROLLABILITY WITH ARCHITECT AND/OR OWNER'S REPRESENTATIVE TO DETERMINE EXACT NEEDS FOR ALL PUBLIC/Common AREAS SUCH AS LOBBIES, OFFICES, LOUNGE AREAS, ETC., PRIOR TO THE START OF ANY WORK.
- K. THERE SHALL BE NO SURFACE MOUNTED FIXTURES OR PATHWAYS (CONDUIT, ETC.) IN ANY PUBLICLY ACCESSIBLE SPACES, INCLUDING STAIRWELLS AND EXIT PASSAGEWAYS WITHOUT PRIOR APPROVAL BY OWNER AND ARCHITECT. ROUTE ALL PATHWAYS WITHIN STUD CAVITIES OR ABOVE FINISHED CEILINGS.

**KEYED NOTES:**

- 1. CONTINUE CIRCUIT UP THROUGH THE STAIRWELL.
- 2. EXTERIOR BUILDING LIGHTS TO BE CONTROLLED VIA INTEGRAL AND/OR REMOTE PHOTOCELL FOR DUSK-TILL-DAWN OPERATION. REFER TO LIGHT FIXTURE SCHEDULE ON SHEET E1.21 FOR ADDITIONAL INFORMATION.
- 3. LIGHT FIXTURES IN THIS SPACE CONTROLLED BY CEILING MOUNT OCCUPANCY SENSOR.
- 4. PROVIDE PHOTOCELL FOR DAY-LIGHT REDUCTION OF LIGHT LEVELS.
- 5. CONTRACTOR TO COORDINATE WITH LANDSCAPE LIGHTING INSTALLER AND PROVIDE ROUGH-IN AND POWER CONNECTION(S) AS REQUIRED.
- 6. REFER TO SHEET E1.12 FOR TYPICAL DWELLING UNIT LOAD CENTER SCHEDULE FOR CIRCUITING INFORMATION.
- 7. REFER TO THE E3 SERIES SHEETS FOR TYPICAL DWELLING UNIT POWER DEVICE LAYOUT.
- 8. CORRIDOR LIGHTING CIRCUITS FOR THE UPPER FLOORS ARE AS FOLLOWS:  

<b>NORMAL POWER</b>	<b>EGRESS POWER</b>
FLOORS 3, 4, 5 = HP1-7	FLOORS 3, 4, 5 = EP2-11
FLOORS 6, 7, 8 = HP1-9	FLOORS 6, 7, 8 = EP2-13
FLOORS 9, 10, 11 = HP1-11	FLOORS 9, 10, 11 = EP2-15
- 9. CORRIDOR AND STAIRWELL LIGHT FIXTURES TO BE CONTROLLED SUCH THAT THE FIXTURES DIM BY 50% DURING PERIODS OF LOW ACTIVITY. UPON DETECTION, LIGHTS SHALL RETURN TO 100% AND REMAIN AT FULL OUTPUT FOR A MINIMUM OF 30 MINUTES BEFORE RETURNING TO THE DIMMED STATE. FIXTURES ON EMERGENCY POWER CIRCUITS SHALL REMAIN 'ON' 24/7.
- 10. STROBE LIGHTS @ 24" AFF (BELOW SMOKE LING), AROUND PERIMETER FOR EGRESS. REFER TO "T" SERIES SHEETS FOR MORE INFO. CIRCUIT TO PANEL 'VP'. SEE PANEL SCHEDULE ON SHEET E1.12.



**1**  
**E2.00** LIGHTING PLAN - BASEMENT LEVEL  
 SCALE: 1/4" = 1'-0"

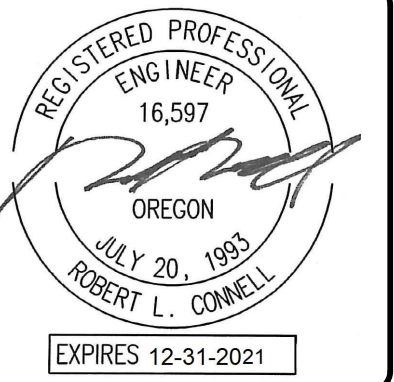
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Proj No:	10105
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Chkd By:	RLC
DSGN By:	DMT
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**RYSTADT**  
**2057 SW PARK AVE.**  
 PORTLAND OREGON  
**LIGHTING PLAN - BASEMENT LEVEL**



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 OF 4



Date: 11-06-2020  
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 Chkd By: RLC  
 DSGN By: DMF  
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**SW PARK APARTMENTS**  
**RYSTADT**  
**2057 SW PARK AVE.**  
 PORTLAND OREGON  
**LIGHTING PLAN - FIRST FLOOR**



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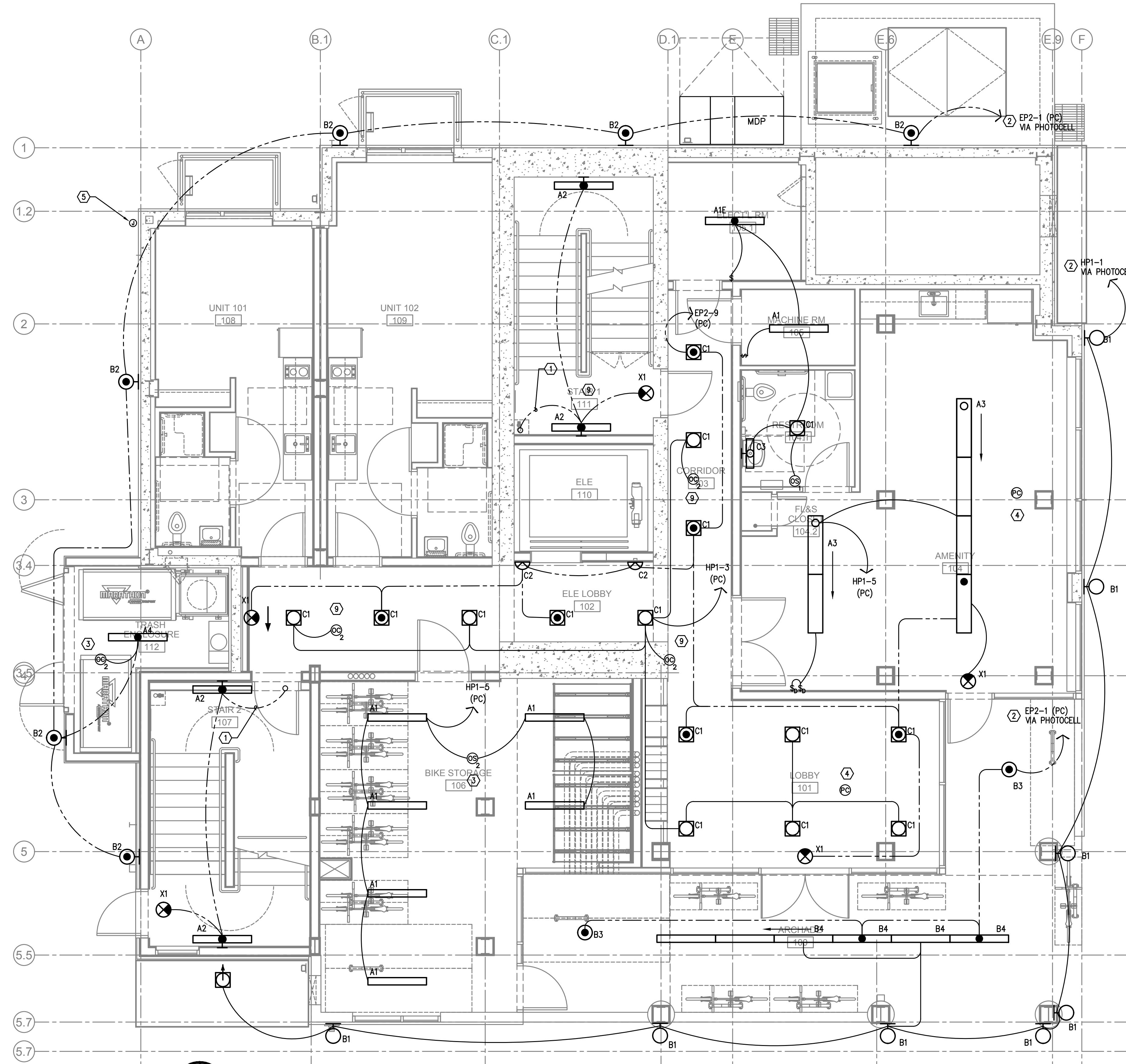
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**KEYED NOTES:**

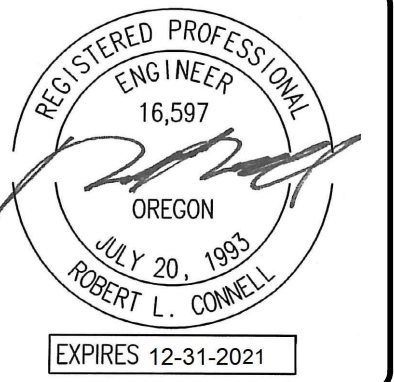
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4. PROVIDE PHOTOCELL FOR DAY-LIGHT REDUCTION OF LIGHT LEVELS.
5. CONTRACTOR TO COORDINATE WITH LANDSCAPE LIGHTING INSTALLER AND PROVIDE ROUGH-IN AND POWER CONNECTION(S) AS REQUIRED.
6. REFER TO SHEET E1.12 FOR TYPICAL DWELLING UNIT LOAD CENTER SCHEDULE FOR CIRCUITING INFORMATION.
7. REFER TO THE E3 SERIES SHEETS FOR TYPICAL DWELLING UNIT POWER DEVICE LAYOUT.
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**1 LIGHTING PLAN - LEVEL 1**  
 E2.01 SCALE: 1/4" = 1'-0"





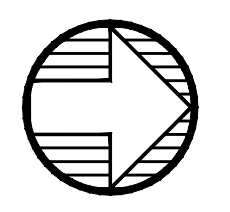
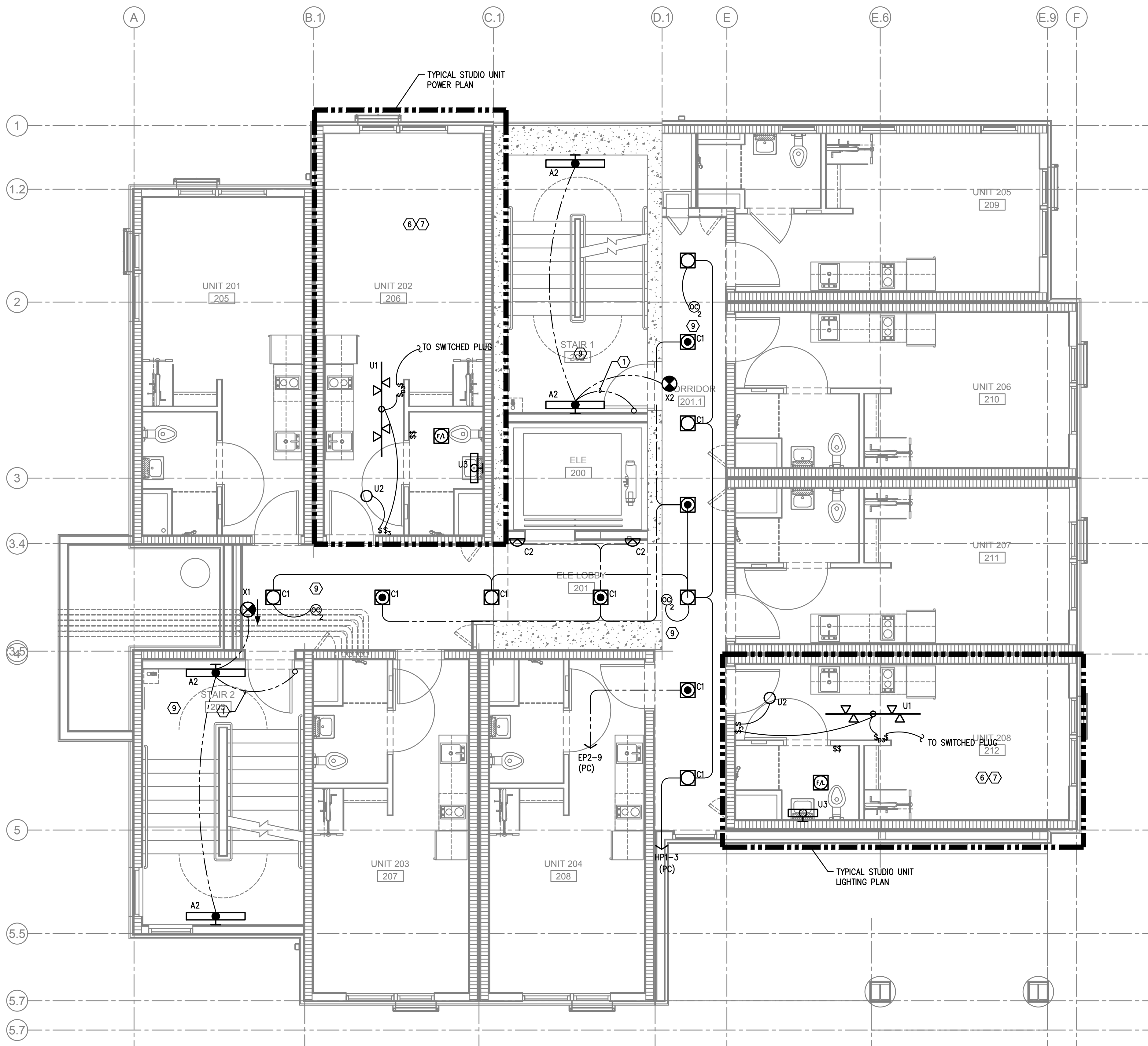
**GENERAL LIGHTING NOTES:**

- A. ELECTRICAL DRAWINGS ARE DIAGRAMMATICAL AND MAY NOT ACCURATELY REFLECT ACTUAL CONSTRUCTION CONDITIONS. THE ELECTRICAL CONTRACTOR SHALL BE RESPONSIBLE FOR COORDINATING THE INSTALLATION OF ALL ELECTRICAL EQUIPMENT, WITH ALL TRADES PRIOR TO AND DURING CONSTRUCTION.
- B. THE ELECTRICAL CONTRACTOR SHALL REFER TO THE ARCHITECTURAL & INTERIOR DESIGN DRAWINGS FOR EXACT LOCATIONS, MOUNTING HEIGHTS AND FINISHES OF DEVICES AND FIXTURES.
- C. REFER TO ARCHITECTURAL INTERIOR ELEVATION PLANS FOR EXACT LOCATIONS OF FIXTURES AND DEVICES.
- D. REFER TO SHEET E1.21 FOR LIGHT FIXTURE SCHEDULE.
- E. REFER TO AVAILABLE ARCHITECTURAL AND/OR INTERIOR DESIGN DOCUMENTS & DRAWINGS FOR ADDITIONAL INFORMATION.
- F. OCCUPANCY SENSORS SHALL BE FIELD ADJUSTED TO ENSURE PROPER COVERAGE AND CONTROL.
- G. PROVIDE DIGITAL LIGHTING CONTROLS FOR EACH ROOM/SPACE, CONSISTING OF MULTI-BUTTON SWITCH(ES), OCC SENSORS, POWER PACKS, DAYLIGHT SENSORS, DIMMERS, INTERCONNECTING WIRING, ETC.
- H. CORRIDOR LIGHTING TO BE CONSTANT "ON" AND PROVIDED WITH LOCAL MANUAL OVERRIDE SWITCHES FOR MAINTENANCE. REFER TO SHEET E1.22 FOR SWITCH WIRING DIAGRAMS.
- I. ALL EGRESS FIXTURES SHALL BE WIRED SUCH THAT IN THE EVENT OF A POWER FAILURE, ALL LIGHTS WILL AUTOMATICALLY RETURN TO FULL POWER. REFER TO SWITCHING DETAILS ON SHEET E1.22.
- J. REFER TO SHEET E1.23 FOR LIGHTING CONTROL DIAGRAMS AND DESIGN INTENT. VERIFY LIGHTING CONTROLLABILITY WITH ARCHITECT AND/OR OWNER'S REPRESENTATIVE TO DETERMINE EXACT NEEDS FOR ALL PUBLIC/Common AREAS SUCH AS LOBBIES, OFFICES, LOUNGE AREAS, ETC., PRIOR TO THE START OF ANY WORK.
- K. THERE SHALL BE NO SURFACE MOUNTED FIXTURES OR PATHWAYS (CONDUIT, ETC.) IN ANY PUBLICLY ACCESSIBLE SPACES, INCLUDING STAIRWELLS AND EXIT PASSAGEWAYS WITHOUT PRIOR APPROVAL BY OWNER AND ARCHITECT. ROUTE ALL PATHWAYS WITHIN STUD CAVITIES OR ABOVE FINISHED CEILINGS.

**KEYED NOTES:**

- 1. CONTINUE CIRCUIT UP THROUGH THE STAIRWELL.
- 2. EXTERIOR BUILDING LIGHTS TO BE CONTROLLED VIA INTEGRAL AND/OR REMOTE PHOTOCELL FOR DUSK-TILL-DAWN OPERATION. REFER TO LIGHT FIXTURE SCHEDULE ON SHEET E1.21 FOR ADDITIONAL INFORMATION.
- 3. LIGHT FIXTURES IN THIS SPACE CONTROLLED BY CEILING MOUNT OCCUPANCY SENSOR.
- 4. PROVIDE PHOTOCELL FOR DAY-LIGHT REDUCTION OF LIGHT LEVELS.
- 5. CONTRACTOR TO COORDINATE WITH LANDSCAPE LIGHTING INSTALLER AND PROVIDE ROUGH-IN AND POWER CONNECTION(S) AS REQUIRED.
- 6. REFER TO SHEET E1.12 FOR TYPICAL DWELLING UNIT LOAD CENTER SCHEDULE FOR CIRCUITING INFORMATION.
- 7. REFER TO THE E3 SERIES SHEETS FOR TYPICAL DWELLING UNIT POWER DEVICE LAYOUT.
- 8. CORRIDOR LIGHTING CIRCUITS FOR THE UPPER FLOORS ARE AS FOLLOWS:  

<b>NORMAL POWER</b>	<b>EGRESS POWER</b>
FLOORS 3, 4, 5 = HP1-7	FLOORS 3, 4, 5 = EP2-11
FLOORS 6, 7, 8 = HP1-9	FLOORS 6, 7, 8 = EP2-13
FLOORS 9, 10, 11 = HP1-11	FLOORS 9, 10, 11 = EP2-15
- 9. CORRIDOR AND STAIRWELL LIGHT FIXTURES TO BE CONTROLLED SUCH THAT THE FIXTURES DIM BY 50% DURING PERIODS OF LOW ACTIVITY. UPON DETECTION, LIGHTS SHALL RETURN TO 100% AND REMAIN AT FULL OUTPUT FOR A MINIMUM OF 30 MINUTES BEFORE RETURNING TO THE DIMMED STATE. FIXTURES ON EMERGENCY POWER CIRCUITS SHALL REMAIN 'ON' 24/7.
- 10. STROBE LIGHTS @ 24" AFF (BELOW SMOKE LING), AROUND PERIMETER FOR EGRESS. REFER TO "T" SERIES SHEETS FOR MORE INFO. CIRCUIT TO PANEL "VP". SEE PANEL SCHEDULE ON SHEET E1.12.



**1 LIGHTING PLAN - LEVEL 2**  
 E2.02 SCALE: 1/4" = 1'-0"

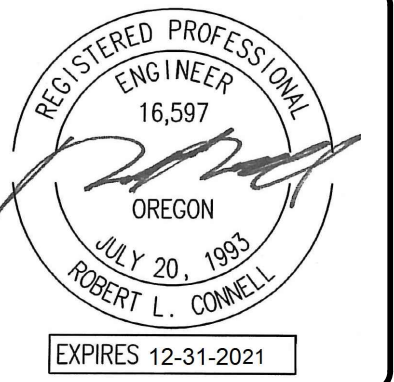
**SW PARK APARTMENTS**  
**RYSTADT**  
**2057 SW PARK AVE.**  
 PORTLAND OREGON  
**LIGHTING PLAN - SECOND FLOOR**



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SHEET  
**E2.02**  
 OF 4

Date: 11-06-2020  
 Proj No: 10105  
 Drawn By: DMT  
 Chkd By: RLC  
 DSGN By: DMT  
 Acad File:



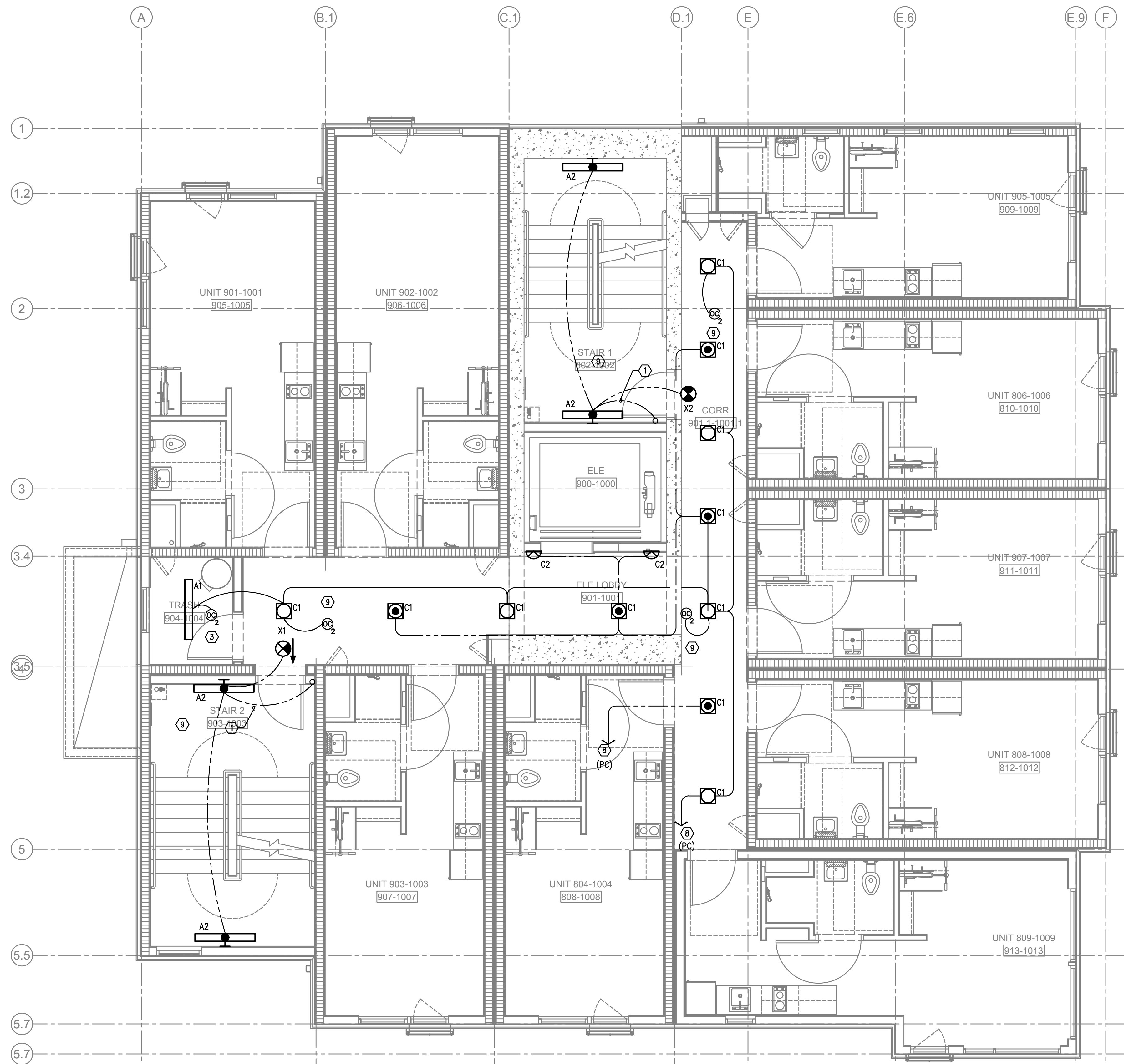
**GENERAL LIGHTING NOTES:**

- A. ELECTRICAL DRAWINGS ARE DIAGRAMMATICAL AND MAY NOT ACCURATELY REFLECT ACTUAL CONSTRUCTION CONDITIONS. THE ELECTRICAL CONTRACTOR SHALL BE RESPONSIBLE FOR COORDINATING THE INSTALLATION OF ALL ELECTRICAL EQUIPMENT, WITH ALL TRADES PRIOR TO AND DURING CONSTRUCTION.
- B. THE ELECTRICAL CONTRACTOR SHALL REFER TO THE ARCHITECTURAL & INTERIOR DESIGN DRAWINGS FOR EXACT LOCATIONS, MOUNTING HEIGHTS AND FINISHES OF DEVICES AND FIXTURES.
- C. REFER TO ARCHITECTURAL INTERIOR ELEVATION PLANS FOR EXACT LOCATIONS OF FIXTURES AND DEVICES.
- D. REFER TO SHEET E1.21 FOR LIGHT FIXTURE SCHEDULE.
- E. REFER TO AVAILABLE ARCHITECTURAL AND/OR INTERIOR DESIGN DOCUMENTS & DRAWINGS FOR ADDITIONAL INFORMATION.
- F. OCCUPANCY SENSORS SHALL BE FIELD ADJUSTED TO ENSURE PROPER COVERAGE AND CONTROL.
- G. PROVIDE DIGITAL LIGHTING CONTROLS FOR EACH ROOM/SPACE, CONSISTING OF MULTI-BUTTON SWITCH(ES), OCC SENSORS, POWER PACKS, DAYLIGHT SENSORS, DIMMERS, INTERCONNECTING WIRING, ETC.
- H. CORRIDOR LIGHTING TO BE CONSTANT "ON" AND PROVIDED WITH LOCAL MANUAL OVERRIDE SWITCHES FOR MAINTENANCE. REFER TO SHEET E1.22 FOR SWITCH WIRING DIAGRAMS.
- I. ALL EGRESS FIXTURES SHALL BE WIRED SUCH THAT IN THE EVENT OF A POWER FAILURE, ALL LIGHTS WILL AUTOMATICALLY RETURN TO FULL POWER. REFER TO SWITCHING DETAILS ON SHEET E1.22.
- J. REFER TO SHEET E1.23 FOR LIGHTING CONTROL DIAGRAMS AND DESIGN INTENT. VERIFY LIGHTING CONTROLLABILITY WITH ARCHITECT AND/OR OWNER'S REPRESENTATIVE TO DETERMINE EXACT NEEDS FOR ALL PUBLIC/Common AREAS SUCH AS LOBBIES, OFFICES, LOUNGE AREAS, ETC., PRIOR TO THE START OF ANY WORK.
- K. THERE SHALL BE NO SURFACE MOUNTED FIXTURES OR PATHWAYS (CONDUIT, ETC.) IN ANY PUBLICLY ACCESSIBLE SPACES, INCLUDING STAIRWELLS AND EXIT PASSAGEWAYS WITHOUT PRIOR APPROVAL BY OWNER AND ARCHITECT. ROUTE ALL PATHWAYS WITHIN STUD CAVITIES OR ABOVE FINISHED CEILINGS.

**KEYED NOTES:**

- 1. CONTINUE CIRCUIT UP THROUGH THE STAIRWELL.
- 2. EXTERIOR BUILDING LIGHTS TO BE CONTROLLED VIA INTEGRAL AND/OR REMOTE PHOTOCELL FOR DUSK-TILL-DAWN OPERATION. REFER TO LIGHT FIXTURE SCHEDULE ON SHEET E1.21 FOR ADDITIONAL INFORMATION.
- 3. LIGHT FIXTURES IN THIS SPACE CONTROLLED BY CEILING MOUNT OCCUPANCY SENSOR.
- 4. PROVIDE PHOTOCELL FOR DAY-LIGHT REDUCTION OF LIGHT LEVELS.
- 5. CONTRACTOR TO COORDINATE WITH LANDSCAPE LIGHTING INSTALLER AND PROVIDE ROUGH-IN AND POWER CONNECTION(S) AS REQUIRED.
- 6. REFER TO SHEET E1.12 FOR TYPICAL DWELLING UNIT LOAD CENTER SCHEDULE FOR CIRCUITING INFORMATION.
- 7. REFER TO THE E3 SERIES SHEETS FOR TYPICAL DWELLING UNIT POWER DEVICE LAYOUT.
- 8. CORRIDOR LIGHTING CIRCUITS FOR THE UPPER FLOORS ARE AS FOLLOWS:  

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- 10. STROBE LIGHTS @ 24" AFF (BELOW SMOKE LING), AROUND PERIMETER FOR EGRESS. REFER TO "T" SERIES SHEETS FOR MORE INFO. CIRCUIT TO PANEL "VP". SEE PANEL SCHEDULE ON SHEET E1.12.



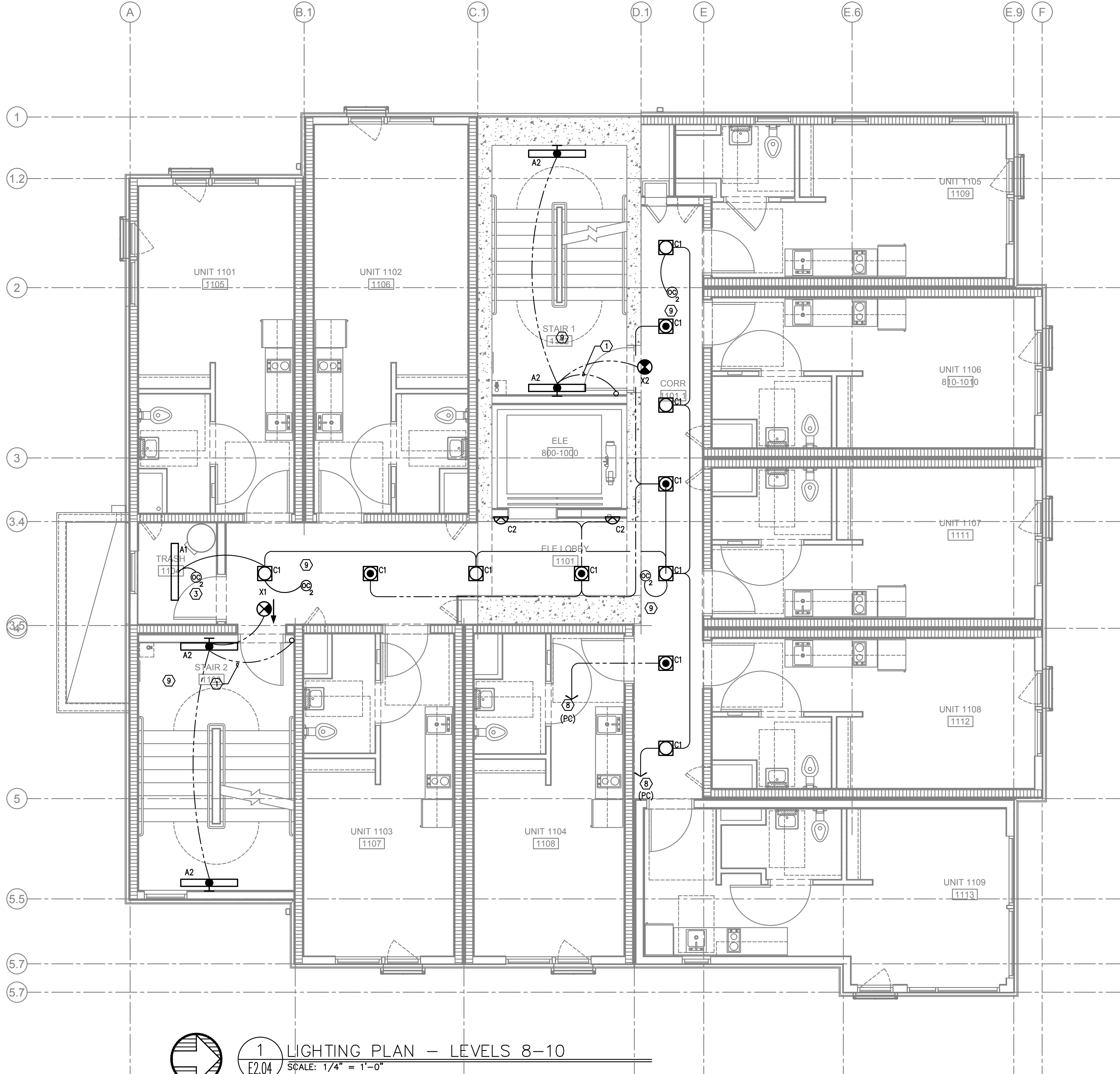
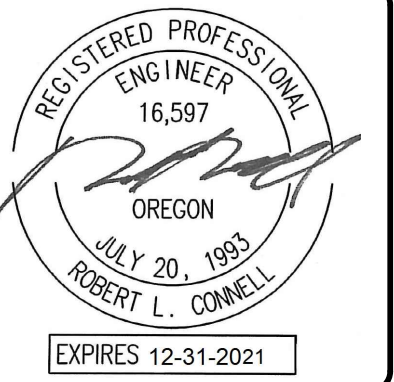
**1 LIGHTING PLAN - LEVELS 3-7**  
 E2.03 SCALE: 1/4" = 1'-0"

Date:	11-06-2020
Proj No:	10105
Drawn By:	DMT
Chkd By:	RLC
DSGN By:	DMT
Acad File:	

**SW PARK APARTMENTS**  
**RYSTADT**  
**2057 SW PARK AVE.**  
 PORTLAND OREGON  
**LIGHTING PLAN - FLOORS 3-7**



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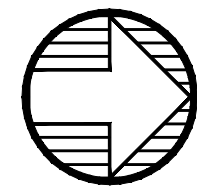
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1 LIGHTING PLAN - LEVELS 8-10  
 SCALE: 1/4" = 1'-0"

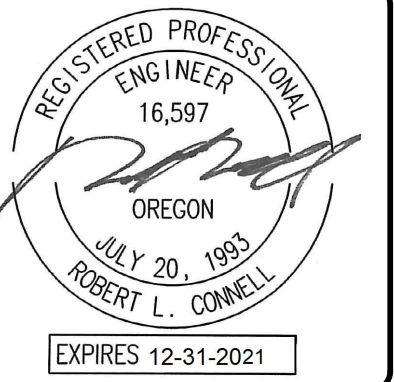
Date:	11-06-2020
Proj No:	10105
Drawn By:	DMT
Chkd By:	RLC
DSGN By:	DMT
Acad File:	

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**RYSTADT**  
**2057 SW PARK AVE.**  
 PORTLAND OREGON  
 LIGHTING PLAN - FLOORS 8-10



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SHEET  
**E2.04**  
 OF 4



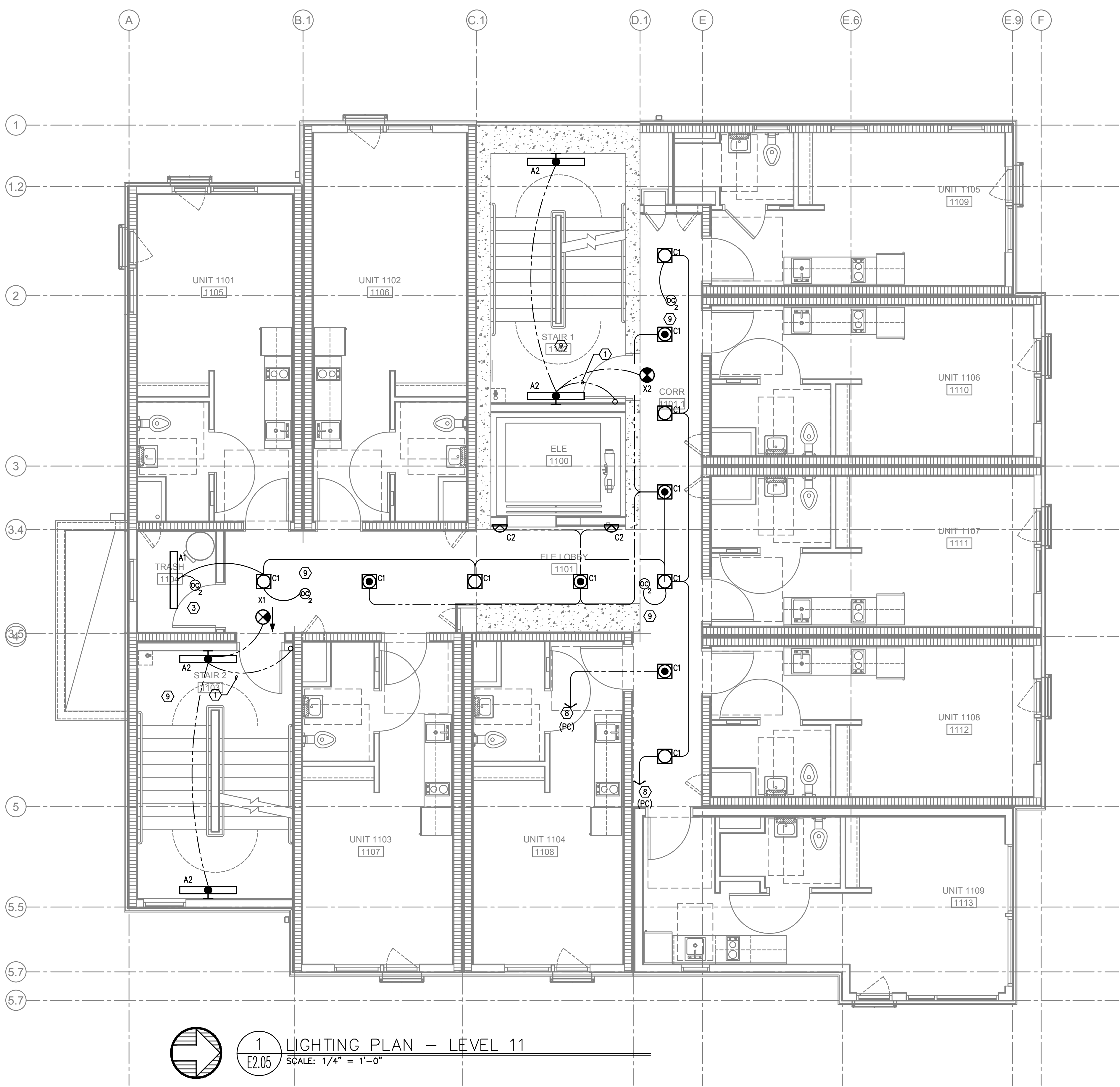
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- J. REFER TO SHEET E1.23 FOR LIGHTING CONTROL DIAGRAMS AND DESIGN INTENT. VERIFY LIGHTING CONTROLLABILITY WITH ARCHITECT AND/OR OWNER'S REPRESENTATIVE TO DETERMINE EXACT NEEDS FOR ALL PUBLIC/Common AREAS SUCH AS LOBBIES, OFFICES, LOUNGE AREAS, ETC., PRIOR TO THE START OF ANY WORK.
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**KEYED NOTES:**

- 1. CONTINUE CIRCUIT UP THROUGH THE STAIRWELL.
- 2. EXTERIOR BUILDING LIGHTS TO BE CONTROLLED VIA INTEGRAL AND/OR REMOTE PHOTOCELL FOR DUSK-TILL-DAWN OPERATION. REFER TO LIGHT FIXTURE SCHEDULE ON SHEET E1.21 FOR ADDITIONAL INFORMATION.
- 3. LIGHT FIXTURES IN THIS SPACE CONTROLLED BY CEILING MOUNT OCCUPANCY SENSOR.
- 4. PROVIDE PHOTOCELL FOR DAY-LIGHT REDUCTION OF LIGHT LEVELS.
- 5. CONTRACTOR TO COORDINATE WITH LANDSCAPE LIGHTING INSTALLER AND PROVIDE ROUGH-IN AND POWER CONNECTION(S) AS REQUIRED.
- 6. REFER TO SHEET E1.12 FOR TYPICAL DWELLING UNIT LOAD CENTER SCHEDULE FOR CIRCUITING INFORMATION.
- 7. REFER TO THE E3 SERIES SHEETS FOR TYPICAL DWELLING UNIT POWER DEVICE LAYOUT.
- 8. CORRIDOR LIGHTING CIRCUITS FOR THE UPPER FLOORS ARE AS FOLLOWS:  

<b>NORMAL POWER</b>	<b>EGRESS POWER</b>
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**1 LIGHTING PLAN - LEVEL 11**  
 SCALE: 1/4" = 1'-0"

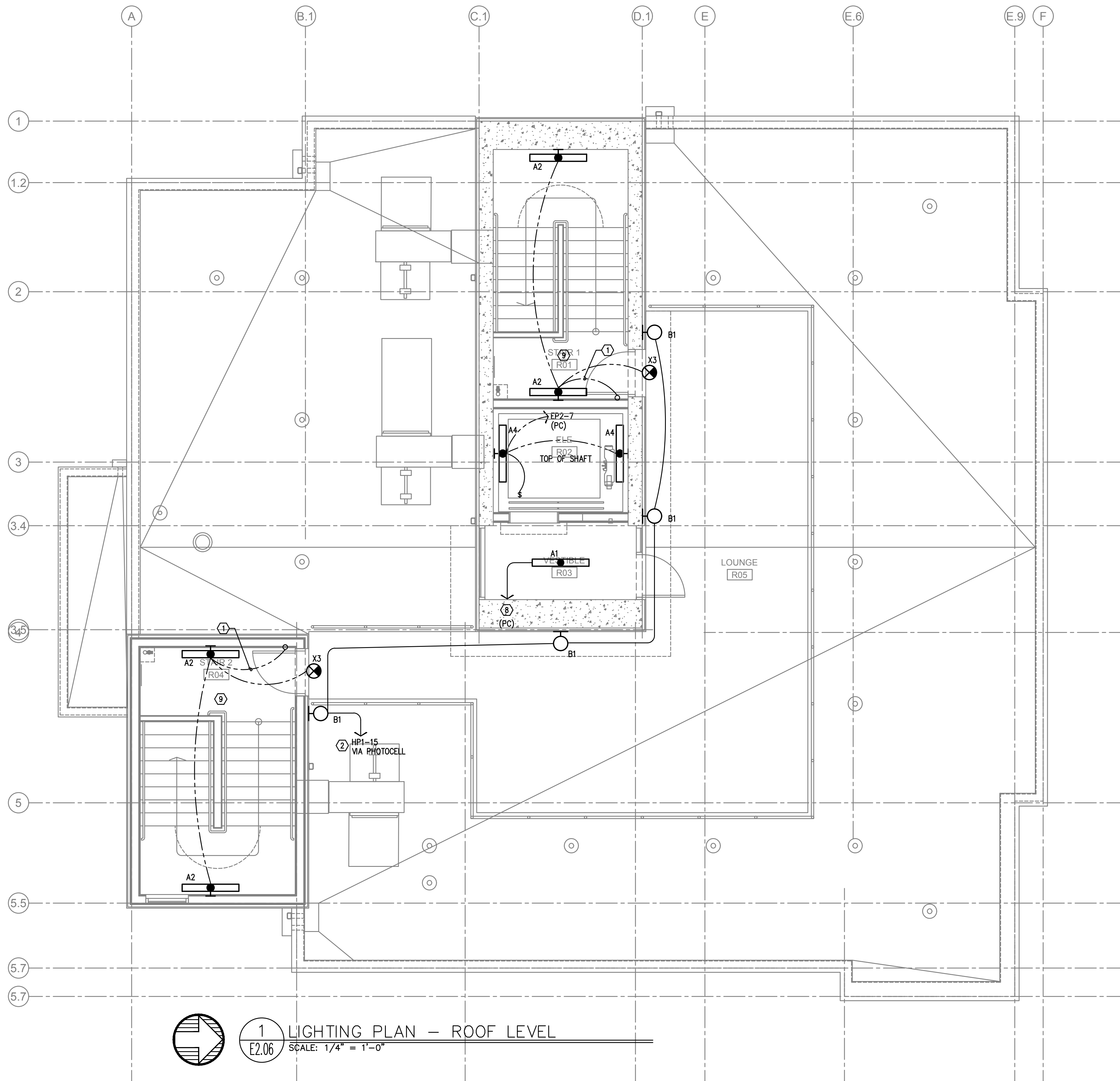
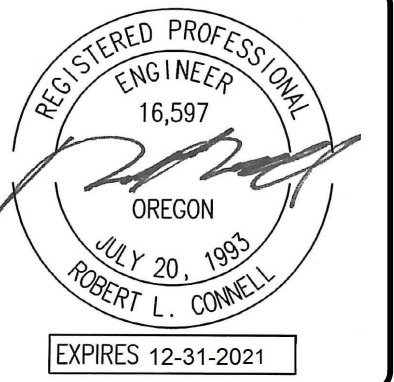
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DSGN By:	DMT
Acad File:	

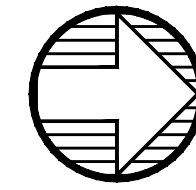
**SW PARK APARTMENTS**  
**RYSTADT**  
**2057 SW PARK AVE.**  
 PORTLAND OREGON  
**LIGHTING PLAN - 11TH FLOOR**



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SHEET  
**E2.05**  
 OF 4




1 LIGHTING PLAN – ROOF LEVEL  
 E2.06 SCALE: 1/4" = 1'-0"

**GENERAL LIGHTING NOTES:**

- A. ELECTRICAL DRAWINGS ARE DIAGRAMMATICAL AND MAY NOT ACCURATELY REFLECT ACTUAL CONSTRUCTION CONDITIONS. THE ELECTRICAL CONTRACTOR SHALL BE RESPONSIBLE FOR COORDINATING THE INSTALLATION OF ALL ELECTRICAL EQUIPMENT, WITH ALL TRADES PRIOR TO AND DURING CONSTRUCTION.
- B. THE ELECTRICAL CONTRACTOR SHALL REFER TO THE ARCHITECTURAL & INTERIOR DESIGN DRAWINGS FOR EXACT LOCATIONS, MOUNTING HEIGHTS AND FINISHES OF DEVICES AND FIXTURES.
- C. REFER TO ARCHITECTURAL INTERIOR ELEVATION PLANS FOR EXACT LOCATIONS OF FIXTURES AND DEVICES.
- D. REFER TO SHEET E1.21 FOR LIGHT FIXTURE SCHEDULE.
- E. REFER TO AVAILABLE ARCHITECTURAL AND/OR INTERIOR DESIGN DOCUMENTS & DRAWINGS FOR ADDITIONAL INFORMATION.
- F. OCCUPANCY SENSORS SHALL BE FIELD ADJUSTED TO ENSURE PROPER COVERAGE AND CONTROL.
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- J. REFER TO SHEET E1.23 FOR LIGHTING CONTROL DIAGRAMS AND DESIGN INTENT. VERIFY LIGHTING CONTROLLABILITY WITH ARCHITECT AND/OR OWNER'S REPRESENTATIVE TO DETERMINE EXACT NEEDS FOR ALL PUBLIC/Common AREAS SUCH AS LOBBIES, OFFICES, LOUNGE AREAS, ETC., PRIOR TO THE START OF ANY WORK.
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 **KEYED NOTES:**

1. CONTINUE CIRCUIT UP THROUGH THE STAIRWELL.
2. EXTERIOR BUILDING LIGHTS TO BE CONTROLLED VIA INTEGRAL AND/OR REMOTE PHOTOCELL FOR DUSK-TILL-DAWN OPERATION. REFER TO LIGHT FIXTURE SCHEDULE ON SHEET E1.21 FOR ADDITIONAL INFORMATION.
3. LIGHT FIXTURES IN THIS SPACE CONTROLLED BY CEILING MOUNT OCCUPANCY SENSOR.
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6. REFER TO SHEET E1.12 FOR TYPICAL DWELLING UNIT LOAD CENTER SCHEDULE FOR CIRCUITING INFORMATION.
7. REFER TO THE E3 SERIES SHEETS FOR TYPICAL DWELLING UNIT POWER DEVICE LAYOUT.
8. CORRIDOR LIGHTING CIRCUITS FOR THE UPPER FLOORS ARE AS FOLLOWS:
 

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FLOORS 6, 7, 8 = HP1-9	FLOORS 6, 7, 8 = EP2-13
FLOORS 9, 10, 11 = HP1-11	FLOORS 9, 10, 11 = EP2-15
9. CORRIDOR AND STAIRWELL LIGHT FIXTURES TO BE CONTROLLED SUCH THAT THE FIXTURES DIM BY 50% DURING PERIODS OF LOW ACTIVITY. UPON DETECTION, LIGHTS SHALL RETURN TO 100% AND REMAIN AT FULL OUTPUT FOR A MINIMUM OF 30 MINUTES BEFORE RETURNING TO THE DIMMED STATE. FIXTURES ON EMERGENCY POWER CIRCUITS SHALL REMAIN 'ON' 24/7.
10. STROBE LIGHTS @ 24" AFF (BELOW SMOKE LING), AROUND PERIMETER FOR EGRESS. REFER TO 'T' SERIES SHEETS FOR MORE INFO. CIRCUIT TO PANEL 'VP'. SEE PANEL SCHEDULE ON SHEET E1.12.

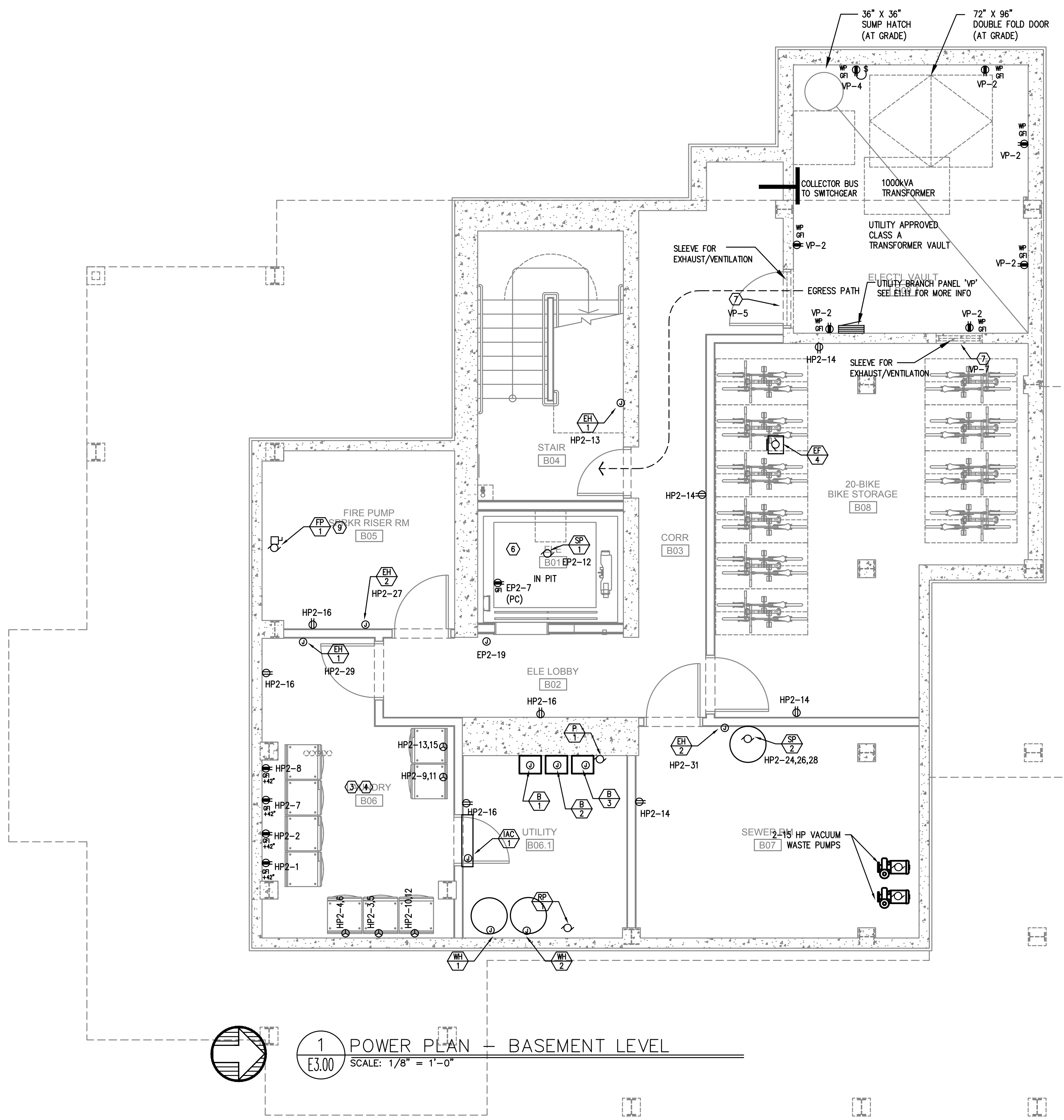
Date:	11-06-2020
Proj No:	10105
Drawn By:	DMT
Chkd By:	RLC
DSGN By:	DMT
Acad File:	

**SW PARK APARTMENTS**  
**RYSTADT**  
**2057 SW PARK AVE.**  
 PORTLAND OREGON  
**LIGHTING PLAN – ROOF LEVEL**



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SHEET  
**E2.06**  
 OF \*\*\*\*



**1 POWER PLAN - BASEMENT LEVEL**  
 E3.00 SCALE: 1/8" = 1'-0"

**GENERAL POWER NOTES:**

- A. ELECTRICAL DRAWINGS ARE DIAGRAMMATICAL AND MAY NOT ACCURATELY REFLECT ACTUAL CONSTRUCTION CONDITIONS. THE ELECTRICAL CONTRACTOR SHALL BE RESPONSIBLE FOR COORDINATING THE INSTALLATION OF ALL ELECTRICAL EQUIPMENT, WITH ALL TRADES PRIOR TO AND DURING CONSTRUCTION.
- B. WORK SHALL BE IN ACCORDANCE WITH ALL APPLICABLE LOCAL, STATE AND NATIONAL CODES.
- C. ELECTRICAL CONTRACTOR TO PROVIDE THERMOSTATS NOT SUPPLIED BY MECHANICAL CONTRACTOR, AS REQUIRED. CONSULT MECHANICAL PLANS FOR ADDITIONAL INFORMATION.
- D. ELECTRICAL CONTRACTOR SHALL PROVIDE INSTALLATION AND FINAL CONNECTION OF THERMOSTATS AS REQUIRED. CONSULT MECHANICAL CONTRACTOR FOR EXACT REQUIREMENTS PRIOR TO ROUGH IN.
- E. COORDINATE WITH DIVISION 23 FOR EXACT LOCATION AND POWER REQUIREMENTS OF ALL MECHANICAL EQUIPMENT PRIOR TO ROUGH IN. REFER TO SHEET E1.13 FOR MECHANICAL EQUIPMENT SCHEDULE.
- F. THE ELECTRICAL CONTRACTOR SHALL REFER TO THE ARCHITECTURAL DRAWINGS FOR ALL MOUNTING HEIGHTS AND FINISHES OF DEVICES AND FIXTURES.
- G. ELECTRICAL CONTRACTOR SHALL REFER TO THE 'T' SERIES SHEETS AND PROVIDE ROUGH IN FOR THE LOW VOLTAGE SYSTEMS/FIRE ALARM INSTALLER.
- H. SERVICE ENTRANCE AND METERING EQUIPMENT SHOWN TO APPROXIMATE SCALE, BASED ON SIEMENS PRODUCTS. CONTRACTOR SHALL BE RESPONSIBLE FOR ENSURING THAT INSTALLED EQUIPMENT FITS THE SPACE PROVIDED AND THAT ALL REQUIRED WORKING CLEARANCES ARE PROVIDED.
- I. THE CLASS 'A' TRANSFORMER VAULT SHALL BE IN ACCORDANCE WITH NEC REQUIREMENTS AS WELL AS THOSE OF THE UTILITY PROVIDER. MAN-DOOR SHALL BE EQUIPPED WITH PANIC HARDWARE AND AN OUTWARD SWING.
- J. PROVIDE A KEY BOX AT THE TRANSFORMER ROOM DOOR PER THE UTILITY PROVIDER'S REQUIREMENTS, FOR 24/7 ACCESS.
- K. TENANT ELECTRICAL METERING SHALL BE SUB-METERED BY THE OWNER PER THE UTILITY PROVIDER'S REQUIREMENTS. SUB-METERING EQUIPMENT IS BASED ON SIEMENS SEM3 PRODUCTS. REFER TO SHEET E1.11 FOR ADDITIONAL INFORMATION.
- L. REFER TO 'E4' SERIES SHEETS FOR TYPICAL DWELLING UNIT POWER PLANS.
- M. PROVIDE ROUGH IN AND WIRING FOR ACCESS CONTROL. REFER TO 'T' SERIES SHEETS FOR ADDITIONAL INFORMATION.
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- O. REFER TO SHEET E1.12 FOR TYPICAL DWELLING UNIT LOAD CENTER SCHEDULE FOR CIRCUITING INFORMATION.
- P. EACH UNIT LOAD CENTER TO BE FED VIA SUB-METERING SYSTEM. REFER TO ONE-LINE DIAGRAM ON SHEET E1.11 FOR CONDUCTOR SIZE AND CABLING.

**KEYED POWER NOTES:**

1. PROVIDE KEY BOX FOR PGE AT METER ROOM FOR 24/7 ACCESS.
2. GENERATOR EMERGENCY DISCONNECT.
3. LAUNDRY ROOM GFCI RECEPTACLES FOR WASHING MACHINES TO BE MOUNTED AT 42" A.F.F., OR UNLESS OTHERWISE DIRECTED BY THE ARCHITECT. LAUNDRY ROOM APPLIANCES CIRCUITED TO PANEL 'HP2'. REFER TO PANEL SCHEDULE ON SHEET E1.12.
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5. EXHAUST FAN IN THIS AREA TO BE TIED INTO THE LIGHTING CIRCUIT.
6. CONSULT ELEVATOR PROVIDER FOR EXACT POWER REQUIREMENTS AND PROVIDE ALL ELECTRICAL WORK AS DIRECTED. VERIFY EXACT LOCATION FOR ELEVATOR EQUIPMENT WITH ARCHITECT AND COORDINATE WITH ELEVATOR INSTALLER.
7. SMOKE DAMPER FOR VENTILATION LOUVER. COORDINATE WITH MECHANICAL EQUIPMENT INSTALLER AND CIRCUIT AS INDICATED
8. PROVIDE POWER CONNECTION FOR IRRIGATION CONTROLS. COORDINATE WITH THE LANDSCAPER FOR EXACT REQUIREMENTS AND LOCATION PRIOR TO ROUGH IN.
9. CONSULT FIRE SPRINKLER SYSTEM PLAN SET AND COORDINATE EXACT LOCATION AND ELECTRICAL REQUIREMENTS FOR THE BUILDING FIRE PUMP.
10. REFER TO THE HOUSE PANEL 'HP1' PANEL SCHEDULE FOR CORRIDOR RECEPTACLE CIRCUITS ON FLOOR 2 THROUGH 11.

**CLASS A TRANSFORMER VAULT GENERAL NOTES**

1. VAULT ROOM DOORS SHALL BE BLAST-RATED METAL DOORS. DOORS AND VENT SHUTTERS MUST HAVE A THREE HOUR BLAST & FIRE RATING PER NFPA 450.43.
2. VAULT VENTS MUST HAVE SHUTTERS THAT ARE AUTOMATICALLY CLOSED BY THE HEAT DETECTOR IN THE FIRE SUPPRESSION SYSTEM HEAT DETECTORS SHALL MEET NFPA 72 REQUIREMENTS.
3. PROVIDE TWO "RATE TO RISE" HEAT DETECTORS PER THE UTILITY PROVIDER'S REQUIREMENTS. LOCATE ONE ABOVE THE TRANSFORMER AND ONE OTHER WITHIN THE ROOM.
4. ALL OPENING, GAPS & CRACKS MUST BE SEALED WITH THREE-HOUR RATED FIRE CAULKING. CONSULT UTILITY PROVIDER FOR APPROVED PRODUCTS.
5. NON-METALIC SEISMIC-APPROVED CABLE TRAY WITH GALVANIZED HARDWARE SHALL BE INSTALLED IN VAULT ROOMS WITH CEILING GREATER THAN 10 FEET HIGH.
6. ALL MATERIALS AND PRODUCTS USED WITHIN THE CLASS A VAULT IS SUBJECT TO THE UTILITY PROVIDER'S APPROVAL.
7. PRIMARY SERVICE CONDUCTORS FROM THE PROPERTY LINE TO THE VAULT SHALL BE IN SCHEDULE 40 PVC PER THE UTILITY PROVIDER'S DIRECTION. ALL CONDUIT PENETRATIONS MUST BE SEALED WITH A FLEXIBLE NON-SHRINK HYDROPHOBIC GROUT TO PREVENT WATER INTRUSION.
8. THE CLASS A VAULT SHALL BE PROVIDED WITH BOTH EQUIPMENT AND UFER GROUNDING PER THE UTILITY PROVIDER'S REQUIREMENTS.
9. PROVIDE TWO DIRECT UFER GROUND CONNECTIONS TO THE BUILDING FOOTER OR SOLDIER PILING. CONNECTIONS TO BE LOCATED AT OPPOSITE CORNERS OF THE VAULT FLOOR IN ACCORDANCE WITH NEC 250.
10. PROVIDE A CONTINUOUS LOOP OF 250MCM BARE COPPER AROUND THE ROOM AT 24 INCHES ABOVE THE FLOOR, WITH HUBS AT 5-FOOT INTERVALS.
11. REFER TO E2 SERIES SHEETS FOR LIGHTING WITHIN THE VAULT ROOM.
12. THE ELECTRICAL CONTRACTOR SHALL CONSULT WITH THE UTILITY PROVIDER AND THE PROVIDER'S REQUIREMENTS FOR CLASS A TRANSFORMER VAULTS PRIOR TO THE START OF ANY WORK. THE UTILITY PROVIDER IS THE AUTHORITY REGARDING ALL ASPECTS OF THE VAULT ROOM



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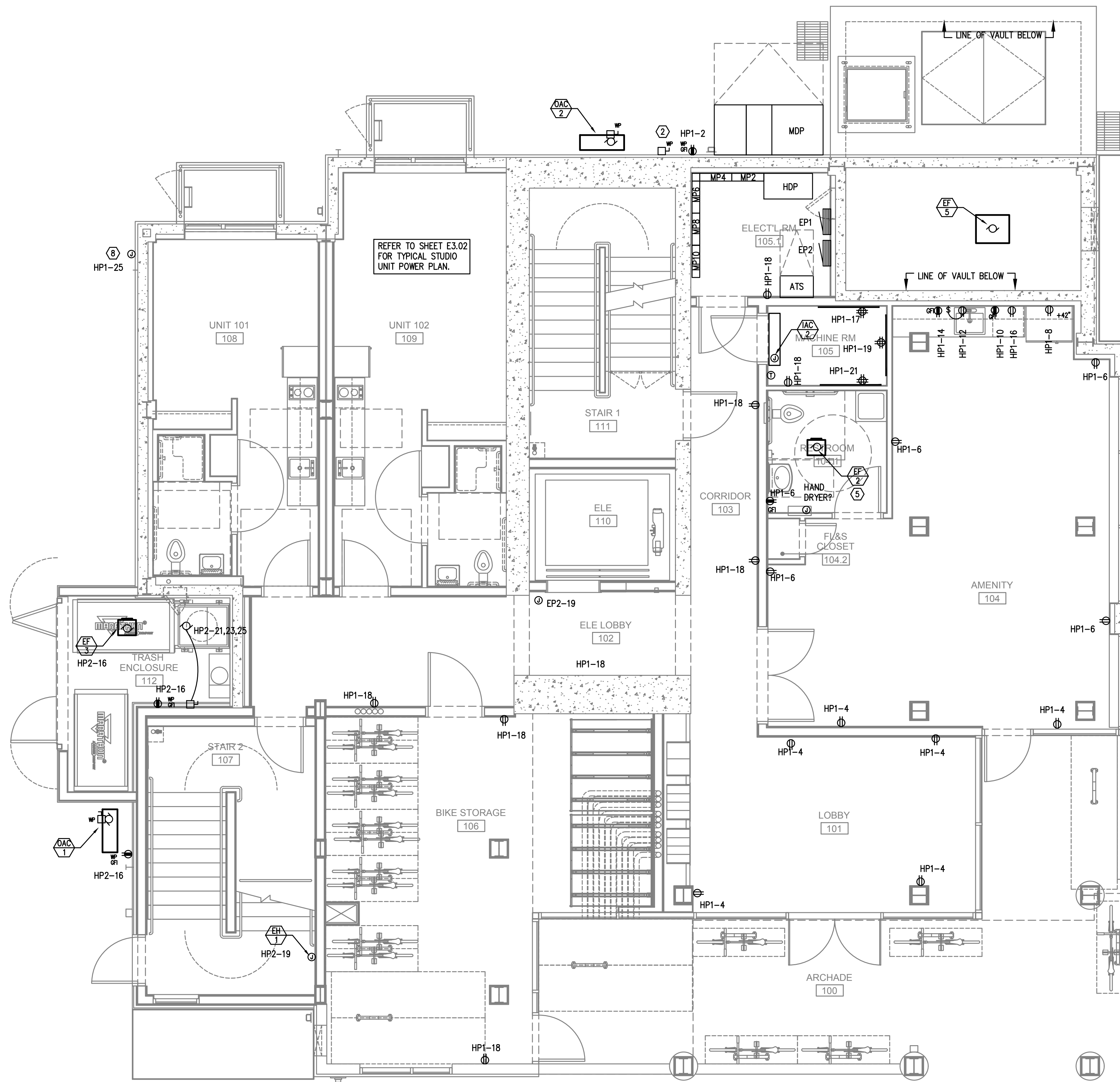
**SW PARK APARTMENTS**  
**RYSTADT**  
**2057 SW PARK AVE.**  
 PORTLAND OREGON

**POWER PLAN - BASEMENT LEVEL**



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**E3.00**  
 OF 4



**GENERAL POWER NOTES:**

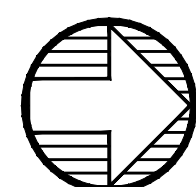
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**KEYED POWER NOTES:**

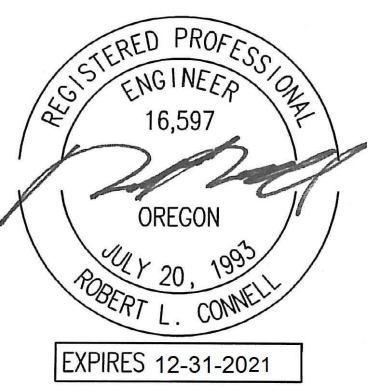
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**1** POWER PLAN — LEVEL 1  
 E3.01 SCALE: 1/8" = 1'-0"



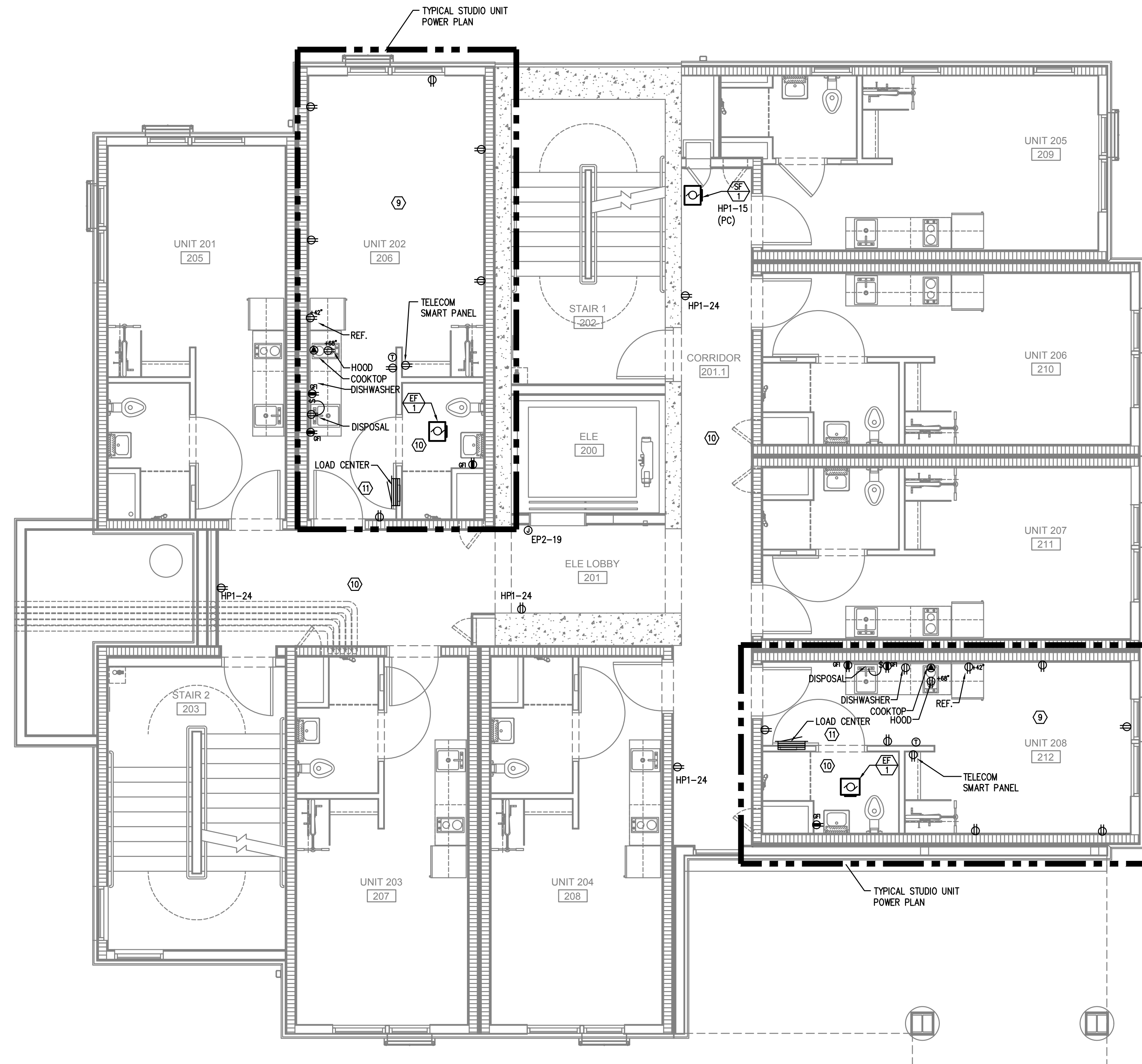
Date: 11-06-2020  
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 Drawn By: DMF  
 Chkd By: RLC  
 DSGN By: DMF  
 Acad File:

**SW PARK APARTMENTS**  
**RYSTADT**  
**2057 SW PARK AVE.**  
 PORTLAND OREGON  
**POWER PLAN — FIRST FLOOR**



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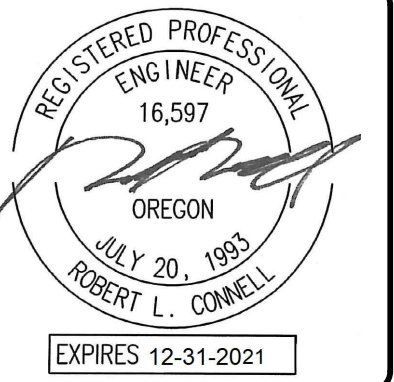


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Acad File:	

**SW PARK APARTMENTS**  
**RYSTADT**  
**2057 SW PARK AVE.**  
 PORTLAND OREGON  
**POWER PLAN - SECOND FLOOR**

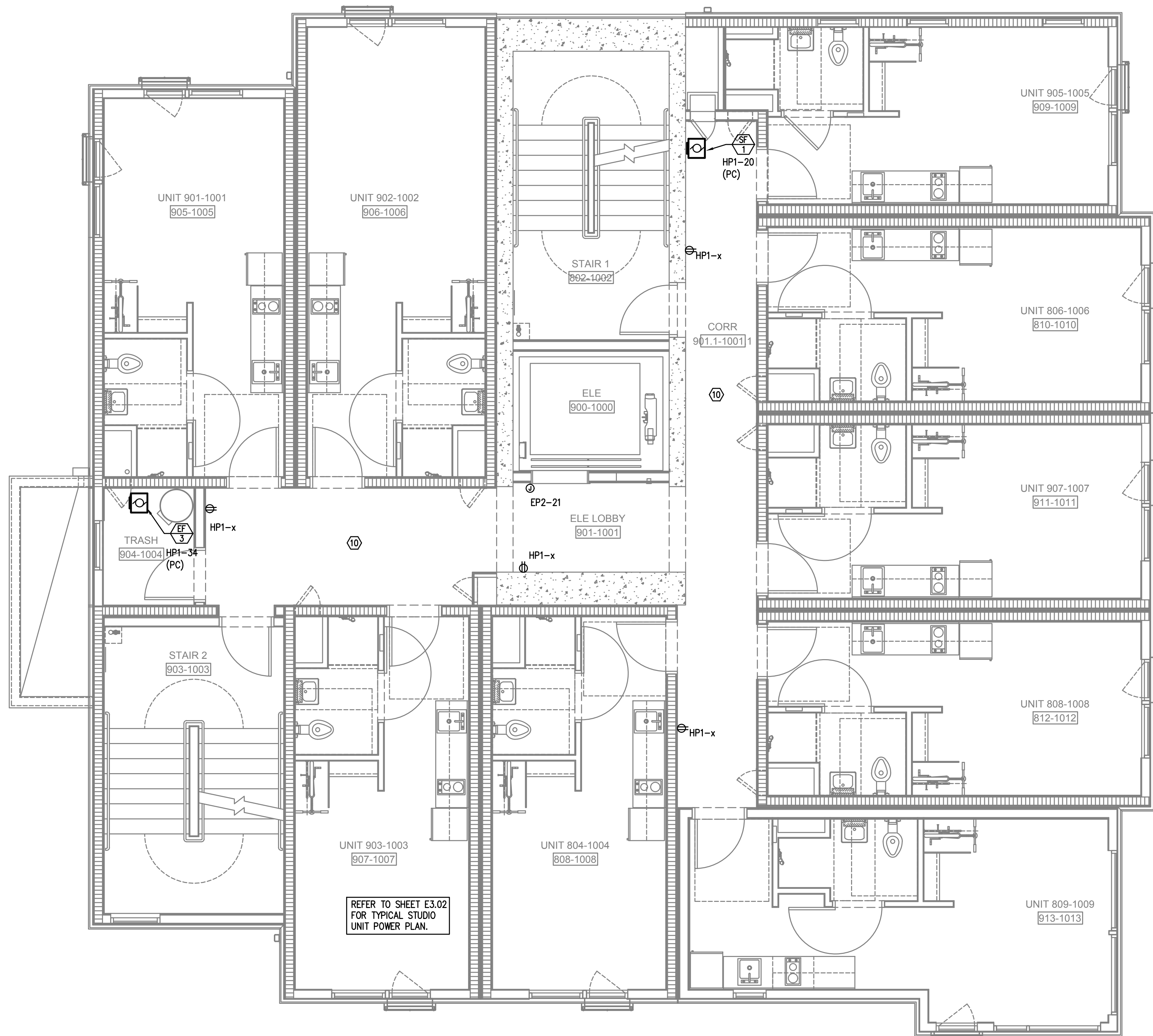


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SHEET  
**E3.02**  
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**1** POWER PLAN - LEVEL 2  
 E3.02 SCALE: 1/8" = 1'-0"





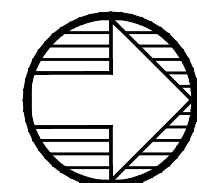
REFER TO SHEET E3.02 FOR TYPICAL STUDIO UNIT POWER PLAN.

**GENERAL POWER NOTES:**

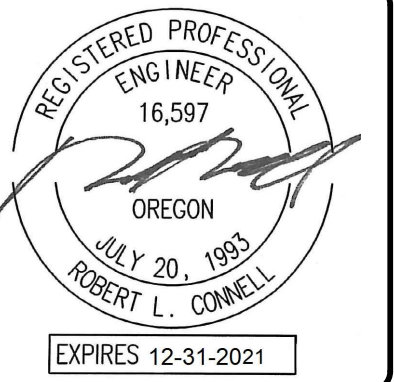
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- L. REFER TO 'E4' SERIES SHEETS FOR TYPICAL DWELLING UNIT POWER PLANS.
- M. PROVIDE ROUGH IN AND WIRING FOR ACCESS CONTROL. REFER TO 'T' SERIES SHEETS FOR ADDITIONAL INFORMATION.
- N. LOW VOLTAGE/COMMUNICATIONS SYSTEM DEMARCATION BOARD(S). COORDINATE LOCATIONS AND ELECTRICAL POWER REQUIREMENTS WITH THE TELECOM PLANS ('T' SERIES SHEETS) AND LOW VOLTAGE SYSTEMS INSTALLERS. PROVIDE ROUGH IN AND/OR FINAL ELECTRICAL POWER CONNECTIONS & DEVICES. REFER PANEL 'HP2' SCHEDULE ON E1.12 FOR CIRCUITS.
- O. REFER TO SHEET E1.12 FOR TYPICAL DWELLING UNIT LOAD CENTER SCHEDULE FOR CIRCUITING INFORMATION.
- P. EACH UNIT LOAD CENTER TO BE FED VIA SUB-METERING SYSTEM. REFER TO ONE-LINE DIAGRAM ON SHEET E1.11 FOR CONDUCTOR SIZE AND CABLING.

**KEYED POWER NOTES:**

- 1. PROVIDE KEY BOX FOR PGE AT METER ROOM FOR 24/7 ACCESS.
- 2. GENERATOR EMERGENCY DISCONNECT.
- 3. LAUNDRY ROOM GFCI RECEPTACLES FOR WASHING MACHINES TO BE MOUNTED AT 42" A.F.F., OR UNLESS OTHERWISE DIRECTED BY THE ARCHITECT. LAUNDRY ROOM APPLIANCES CIRCUITED TO PANEL 'HP2'. REFER TO PANEL SCHEDULE ON SHEET E1.12.
- 4. 40A, DEDICATED 14-40R DRYER RECEPTACLE (TYPICAL). VERIFY EXACT POWER RATING REQUIRED FOR THE COMMERCIAL DRYERS PRIOR TO ORDERING. LAUNDRY ROOM APPLIANCES CIRCUITED TO PANEL 'HP2'. REFER TO PANEL SCHEDULE ON SHEET E1.12.
- 5. EXHAUST FAN IN THIS AREA TO BE TIED INTO THE LIGHTING CIRCUIT.
- 6. CONSULT ELEVATOR PROVIDER FOR EXACT POWER REQUIREMENTS AND PROVIDE ALL ELECTRICAL WORK AS DIRECTED. VERIFY EXACT LOCATION FOR ELEVATOR EQUIPMENT WITH ARCHITECT AND COORDINATE WITH ELEVATOR INSTALLER.
- 7. SMOKE DAMPER FOR VENTILATION LOUVER. COORDINATE WITH MECHANICAL EQUIPMENT INSTALLER AND CIRCUIT AS INDICATED
- 8. PROVIDE POWER CONNECTION FOR IRRIGATION CONTROLS. COORDINATE WITH THE LANDSCAPER FOR EXACT REQUIREMENTS AND LOCATION PRIOR TO ROUGH IN.
- 9. CONSULT FIRE SPRINKLER SYSTEM PLAN SET AND COORDINATE EXACT LOCATION AND ELECTRICAL REQUIREMENTS FOR THE BUILDING FIRE PUMP.
- 10. REFER TO THE HOUSE PANEL 'HP1' PANEL SCHEDULE FOR CORRIDOR RECEPTACLE CIRCUITS ON FLOOR 2 THROUGH 11.



**1** POWER PLAN – LEVELS 3–7  
E3.03 SCALE: 1/8" = 1'-0"



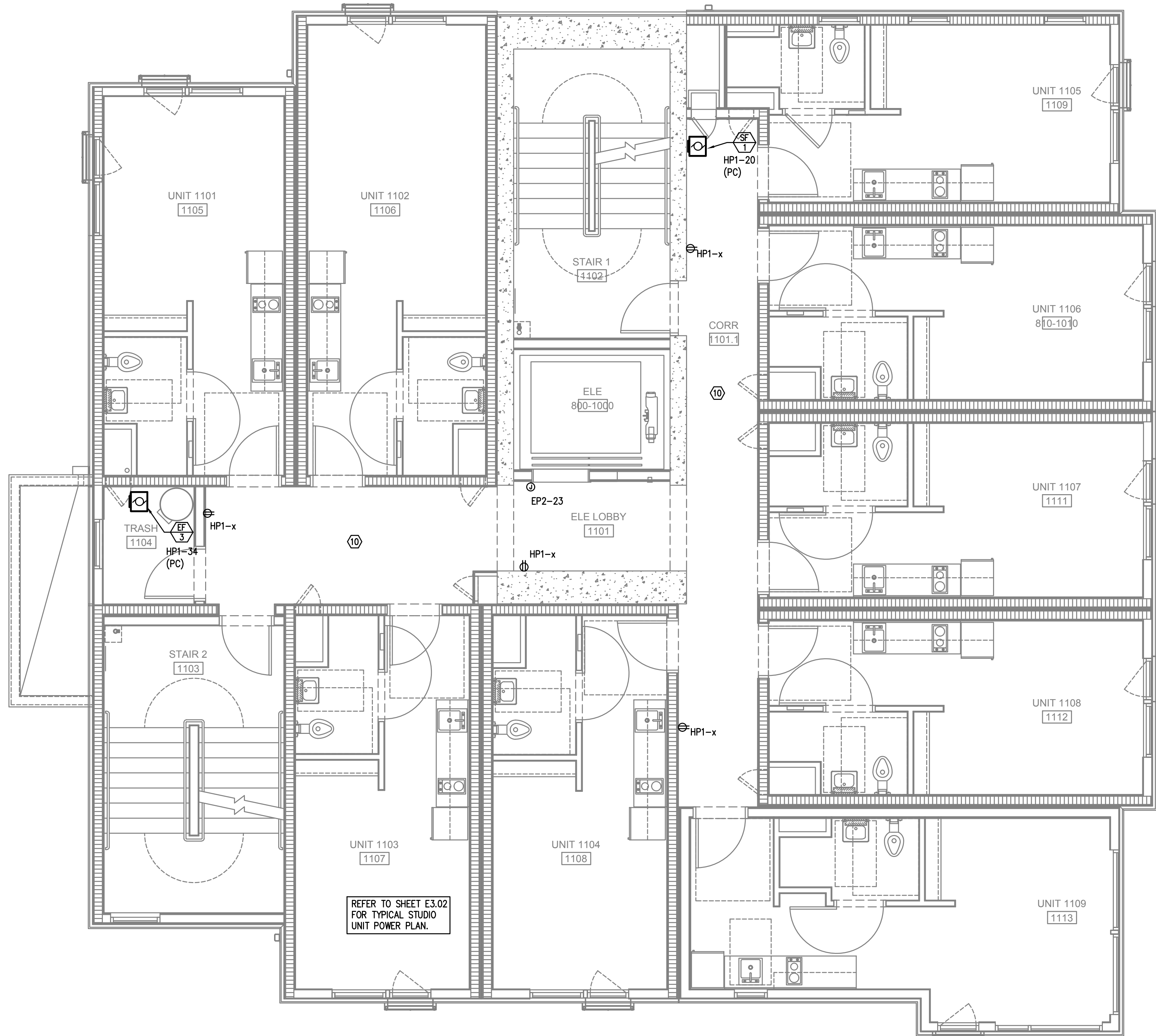
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Chkcd By:	RLC
DSGN By:	DMT
Acad File:	

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POWER PLAN – FLOORS 3–7

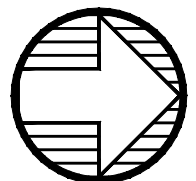


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**E3.03**  
OF 4



REFER TO SHEET E3.02  
FOR TYPICAL STUDIO  
UNIT POWER PLAN.



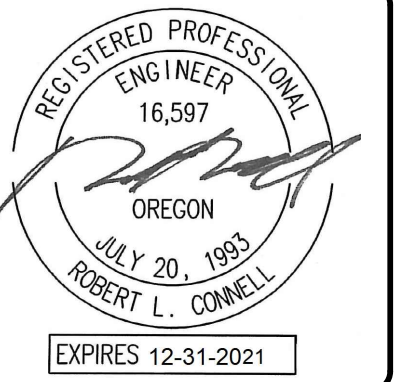
1 POWER PLAN — LEVELS 8-10  
E3.04 SCALE: 1/8" = 1'-0"

GENERAL POWER NOTES:

- A. ELECTRICAL DRAWINGS ARE DIAGRAMMATICAL AND MAY NOT ACCURATELY REFLECT ACTUAL CONSTRUCTION CONDITIONS. THE ELECTRICAL CONTRACTOR SHALL BE RESPONSIBLE FOR COORDINATING THE INSTALLATION OF ALL ELECTRICAL EQUIPMENT, WITH ALL TRADES PRIOR TO AND DURING CONSTRUCTION.
- B. WORK SHALL BE IN ACCORDANCE WITH ALL APPLICABLE LOCAL, STATE AND NATIONAL CODES.
- C. ELECTRICAL CONTRACTOR TO PROVIDE THERMOSTATS NOT SUPPLIED BY MECHANICAL CONTRACTOR, AS REQUIRED. CONSULT MECHANICAL PLANS FOR ADDITIONAL INFORMATION.
- D. ELECTRICAL CONTRACTOR SHALL PROVIDE INSTALLATION AND FINAL CONNECTION OF THERMOSTATS AS REQUIRED. CONSULT MECHANICAL CONTRACTOR FOR EXACT REQUIREMENTS PRIOR TO ROUGH IN.
- E. COORDINATE WITH DIVISION 23 FOR EXACT LOCATION AND POWER REQUIREMENTS OF ALL MECHANICAL EQUIPMENT PRIOR TO ROUGH IN. REFER TO SHEET E1.13 FOR MECHANICAL EQUIPMENT SCHEDULE.
- F. THE ELECTRICAL CONTRACTOR SHALL REFER TO THE ARCHITECTURAL DRAWINGS FOR ALL MOUNTING HEIGHTS AND FINISHES OF DEVICES AND FIXTURES.
- G. ELECTRICAL CONTRACTOR SHALL REFER TO THE 'T' SERIES SHEETS AND PROVIDE ROUGH IN FOR THE LOW VOLTAGE SYSTEMS/FIRE ALARM INSTALLER.
- H. SERVICE ENTRANCE AND METERING EQUIPMENT SHOWN TO APPROXIMATE SCALE, BASED ON SIEMENS PRODUCTS. CONTRACTOR SHALL BE RESPONSIBLE FOR ENSURING THAT INSTALLED EQUIPMENT FITS THE SPACE PROVIDED AND THAT ALL REQUIRED WORKING CLEARANCES ARE PROVIDED.
- I. THE CLASS 'A' TRANSFORMER VAULT SHALL BE IN ACCORDANCE WITH NEC REQUIREMENTS AS WELL AS THOSE OF THE UTILITY PROVIDER. MAN-DOOR SHALL BE EQUIPPED WITH PANIC HARDWARE AND AN OUTWARD SWING.
- J. PROVIDE A KEY BOX AT THE TRANSFORMER ROOM DOOR PER THE UTILITY PROVIDER'S REQUIREMENTS, FOR 24/7 ACCESS.
- K. TENANT ELECTRICAL METERING SHALL BE SUB-METERED BY THE OWNER PER THE UTILITY PROVIDER'S REQUIREMENTS. SUB-METERING EQUIPMENT IS BASED ON SIEMENS SEM3 PRODUCTS. REFER TO SHEET E1.11 FOR ADDITIONAL INFORMATION.
- L. REFER TO 'E4' SERIES SHEETS FOR TYPICAL DWELLING UNIT POWER PLANS.
- M. PROVIDE ROUGH IN AND WIRING FOR ACCESS CONTROL. REFER TO 'T' SERIES SHEETS FOR ADDITIONAL INFORMATION.
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- O. REFER TO SHEET E1.12 FOR TYPICAL DWELLING UNIT LOAD CENTER SCHEDULE FOR CIRCUITING INFORMATION.
- P. EACH UNIT LOAD CENTER TO BE FED VIA SUB-METERING SYSTEM. REFER TO ONE-LINE DIAGRAM ON SHEET E1.11 FOR CONDUCTOR SIZE AND CABLING.

KEYED POWER NOTES:

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- 5. EXHAUST FAN IN THIS AREA TO BE TIED INTO THE LIGHTING CIRCUIT.
- 6. CONSULT ELEVATOR PROVIDER FOR EXACT POWER REQUIREMENTS AND PROVIDE ALL ELECTRICAL WORK AS DIRECTED. VERIFY EXACT LOCATION FOR ELEVATOR EQUIPMENT WITH ARCHITECT AND COORDINATE WITH ELEVATOR INSTALLER.
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**SW PARK APARTMENTS**  
**RYSTADT**  
**2057 SW PARK AVE.**  
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**POWER PLAN — FLOORS 8-10**



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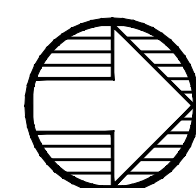
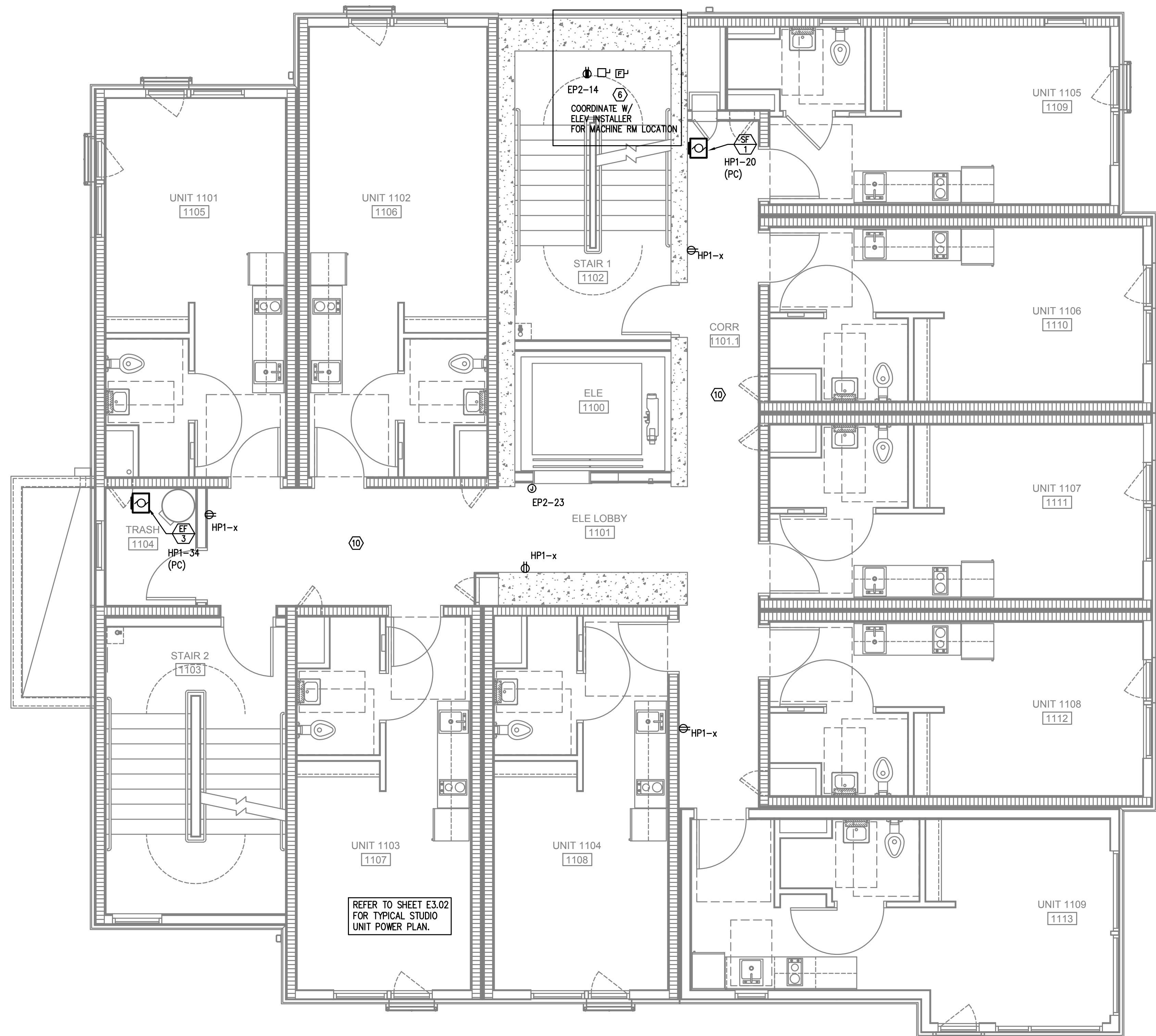
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**E3.04**  
 OF 4

GENERAL POWER NOTES:

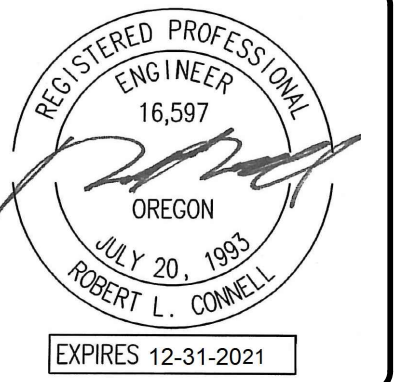
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1 POWER PLAN - LEVEL 11  
E3.05 SCALE: 1/8" = 1'-0"



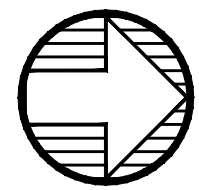
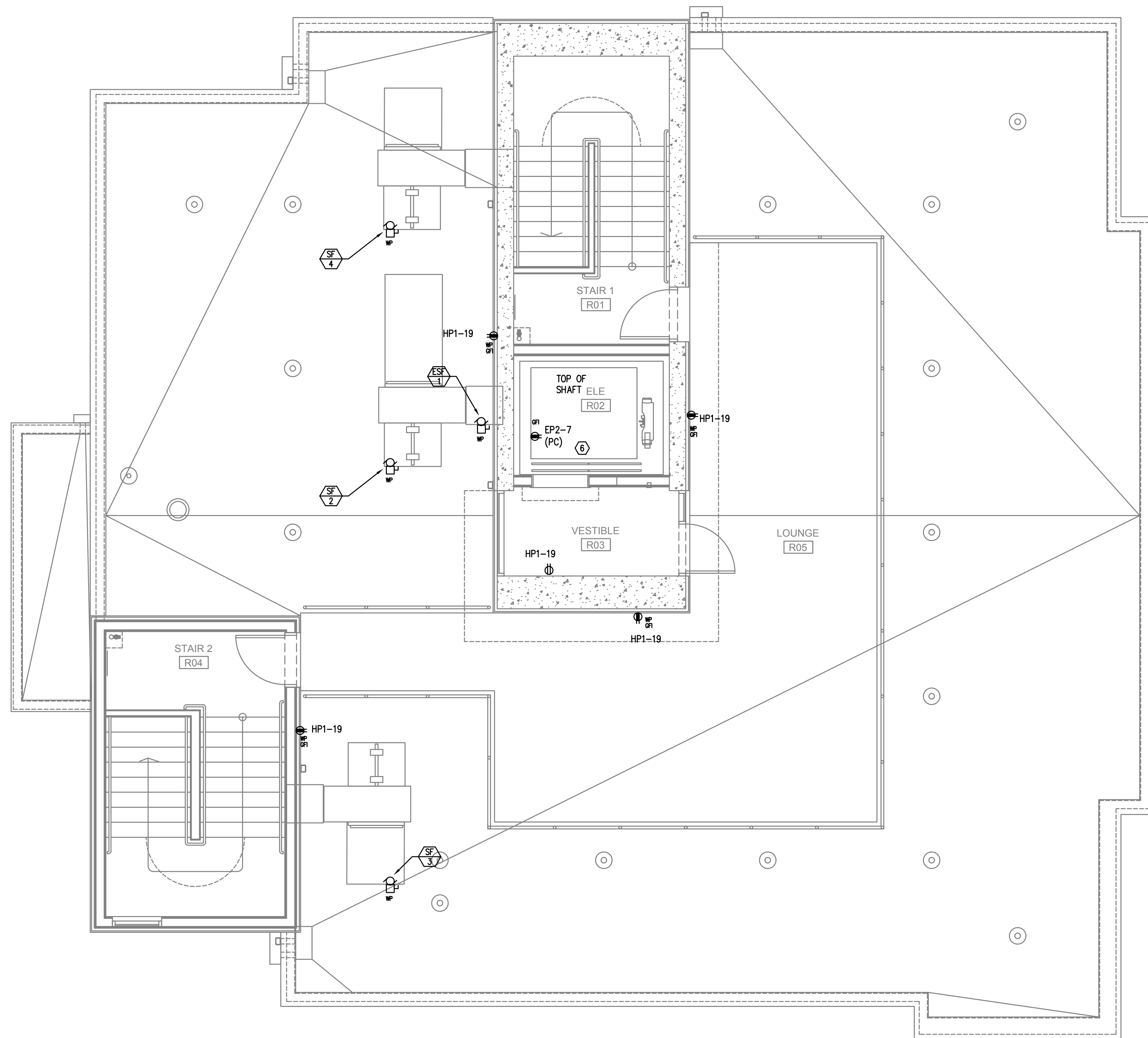
Date: 11-06-2020  
Proj No: 10105  
Drawn By: DMF  
Chk'd By: RLC  
DSGN By: DMF  
Acad File:

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RYSTADT  
2057 SW PARK AVE.  
PORTLAND OREGON  
POWER PLAN - 11TH FLOOR



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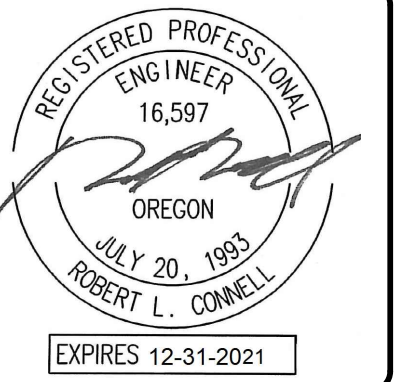
1 POWER PLAN – ROOF LEVEL  
 E3.06 SCALE: 1/8" = 1'-0"

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