



STATE OF CALIFORNIA  
INDOOR LIGHTING  
CERTIFICATE OF COMPLIANCE - USER INSTRUCTIONS  
NRCC-LTI-01-E  
Indoor Lighting  
Project Name: Airborne  
Date Prepared: 12/4/2014  
Climate Zone: 7  
Conditioned Floor Area: 23,775  
Unconditioned Floor Area: 0  
General Information  
Building Type: Nonresidential  
Phase of Construction: New Construction  
Method of Compliance: Complete Building  
LIGHTING COMPLIANCE DOCUMENTS (select yes for each document included)  
Summary of Allowed Lighting Power  
Conditioned and Unconditioned space Lighting must not be combined for compliance  
Indoor Lighting Power for Conditioned Spaces  
Indoor Lighting Power for Unconditioned Spaces

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Project Name: Airborne  
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5. Complies ONLY if installed as Allowed  
6. Allowed Lighting Power  
Declaration of Required Installation Certificates  
Declaration of Required Certificates of Acceptance

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INDOOR LIGHTING  
CERTIFICATE OF COMPLIANCE - USER INSTRUCTIONS  
NRCC-LTI-01-E  
Indoor Lighting  
Project Name: Airborne  
Date Prepared: 12/4/2014  
A separate Lighting Schedule Must be Filled Out for Conditioned and Unconditioned Spaces  
A. INDOOR LIGHTING SCHEDULE and FIELD INSPECTION ENERGY CHECKLIST  
B. Installed Portable Luminaires in Offices - Exception to Section 140.6(a)

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C. INDOOR LIGHTING SCHEDULE and FIELD INSPECTION ENERGY CHECKLIST

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Indoor Lighting  
Project Name: Airborne  
Date Prepared: 12/4/2014  
DOCUMENTATION AUTHOR'S DECLARATION STATEMENT  
RESPONSIBLE PERSON'S DECLARATION STATEMENT

STATE OF CALIFORNIA  
INDOOR LIGHTING - LIGHTING CONTROLS  
CERTIFICATE OF COMPLIANCE  
NRCC-LTI-02-E  
Indoor Lighting - Lighting Controls  
Project Name: Airborne  
Date Prepared: 12/4/2014  
The NRCC-LTI-02-E shall be used to document all mandatory and prescriptive lighting controls that are applicable to the project.  
A. Mandatory Lighting Control Declaration Statements

STATE OF CALIFORNIA  
INDOOR LIGHTING - LIGHTING CONTROLS  
CERTIFICATE OF COMPLIANCE  
NRCC-LTI-02-E  
Indoor Lighting - Lighting Controls  
Project Name: Airborne  
Date Prepared: 12/4/2014  
A separate document must be filled out for Conditioned and Unconditioned Spaces  
MANDATORY AND PRESCRIPTIVE INDOOR LIGHTING CONTROL SCHEDULE, PAF CALCULATION, and FIELD INSPECTION CHECKLIST

STATE OF CALIFORNIA  
INDOOR LIGHTING - LIGHTING CONTROLS  
CERTIFICATE OF COMPLIANCE  
NRCC-LTI-02-E  
Indoor Lighting - Lighting Controls  
Project Name: Airborne  
Date Prepared: 12/4/2014  
A separate document must be filled out for Conditioned and Unconditioned Spaces  
MANDATORY AND PRESCRIPTIVE INDOOR LIGHTING CONTROL SCHEDULE, PAF CALCULATION, and FIELD INSPECTION CHECKLIST

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REGISTERED PROFESSIONAL ENGINEER  
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STATE OF CALIFORNIA  
**INDOOR LIGHTING – LIGHTING CONTROLS**  
SECTION 140.6 (b) (3) – Demand Method  
 CERTIFICATE OF COMPLIANCE  
 Indoor Lighting - Lighting Controls (Page 2 of 3)  
 Project Name: Airborne Date Prepared: 12/4/2014

A separate document must be filled out for Conditioned and Unconditioned Spaces. This page is used only for the following:  
 **CONDITIONED SPACES**     UNCONDITIONED SPACES

**MANDATORY AND PRESCRIPTIVE INDOOR LIGHTING CONTROL SCHEDULE, PAF CALCULATION, and FIELD INSPECTION CHECKLIST**

Lighting Control Schedule	Standards Complying With <sup>1</sup>										PAF Credit Calculation <sup>2</sup>		PAF	K	L	M	N	O
	A	B	C	D	E	F	G	H	I	J	PAF	Minus						
Location in Building	Type/Description of Lighting Control (i.e.: occupancy sensor, automatic time switch, dimmer, automatic daylight, etc.)	# of Units	\$130.1(a)	\$130.0(b)	\$140.6(d)	\$140.6(e)	\$130.1(f)	\$130.1(g)	\$130.1(h)	\$130.1(i)	\$130.1(j)	\$130.1(k)	\$130.1(l)					
Building	Dimming w/Occ Sensor													868	0.25	217		

IF MULTIPLE PAGES ARE USED, ENTER SUM TOTAL OF ALL PAGES HERE: **5,871**

1. \$130.1(a) = Manual area controls; \$130.0(b) = Multi Level; \$130.1(c) = Auto Shut-Off; \$130.1(f) = Mandatory Daylight; \$130.1(g) = Demand Responsive; \$140.6(d) = Additional lighting controls installed to earn a PAF; \$140.6(e) = Prescriptive Secondary Side/Daylight Controls.  
 2. Check Table 140.6.4 for correct Factor. PAFs shall not be traded between conditioned and unconditioned spaces. As a condition to earn a PAF, an Installation Certificate is also required to be filled out, signed, and submitted.

Registration Number: CA Building Energy Efficiency Standards - 2013 Nonresidential Compliance    Registration Date/Time: June 2013    HERS Provider:

STATE OF CALIFORNIA  
**INDOOR LIGHTING – LIGHTING CONTROLS**  
SECTION 140.6 (b) (3) – Demand Method  
 CERTIFICATE OF COMPLIANCE  
 Indoor Lighting - Lighting Controls (Page 3 of 3)  
 Project Name: Airborne Date Prepared: 12/4/2014

**DOCUMENTATION AUTHOR'S DECLARATION STATEMENT**  
 1. I certify that this Certificate of Compliance documentation is accurate and complete.  
 Documentation Author Name: DAN MAYORGAS    Documentation Author Signature: [Signature]  
 Company: MPE Consulting    Signature Date: 12/4/2014  
 Address: 17065 CAMINO SAN BERNARDO    CEA/HERS Certification Identification (if applicable):  
 City/State/Zip: SAN DIEGO, CA 92127    Phone:

**RESPONSIBLE PERSON'S DECLARATION STATEMENT**  
 1. I certify the following under penalty of perjury, under the laws of the State of California:  
 2. The information provided on this Certificate of Compliance is true and correct.  
 3. I am eligible under Division 3 of the Business and Professions Code to accept responsibility for the building design or system design identified on this Certificate of Compliance (responsible designer).  
 4. The energy features and performance specifications, materials, components, and manufactured devices for the building design or system design identified on this Certificate of Compliance conform to the requirements of Title 24, Part 1, and Part 6 of the California Code of Regulations.  
 5. I will ensure that a completed signed copy of this Certificate of Compliance shall be made available with the building permit(s) issued for the building, and made available to the enforcement agency for all applicable inspections. I understand that a completed signed copy of this Certificate of Compliance is required to be included with the documentation the builder provides to the building owner at occupancy.

Responsible Designer Name: Dan Mayorgas    Responsible Designer Signature: [Signature]  
 Company: MPE Consulting    Date Signed: 12/4/2014  
 Address: 17065 Camino San Bernardo Ste 100    License: EP09371  
 City/State/Zip: San Diego, CA 92127    Phone: 858-673-4445

Registration Number: CA Building Energy Efficiency Standards - 2013 Nonresidential Compliance    Registration Date/Time: June 2013    HERS Provider:

STATE OF CALIFORNIA  
**INDOOR LIGHTING POWER ALLOWANCE**  
SECTION 140.6 (b) (3) – Demand Method  
 CERTIFICATE OF COMPLIANCE  
 Certificate of Compliance - Indoor Lighting Power Allowance (Page 1 of 4)  
 Project Name: Airborne Date Prepared: 12/4/2014

A separate page must be filled out for Conditioned and Unconditioned Spaces. This page is only for:  **CONDITIONED** spaces     UNCONDITIONED spaces

**ALLOWED LIGHTING POWER (Chose Method)**  
 If using Complete Building Method for compliance, use only the total in column (a) as total allowed building watts.  
 If using Area Category Method, Tailored Method, or a combination of Area Category and Tailored Method for compliance, use only the total in column (b) as the total allowed building watts.

1. Complete Building Method Allowed Watts. Documented in section B of NRCC-LTI-03-E (below on this page)	(a)	(b)
2. Area Category Method Allowed Watts. Documented in section C-1 of NRCC-LTI-03-E (below on this page)	28,530	
3. Tailored Method Allowed Watts. Documented in section A of NRCC-LTI-04-E		
<b>TOTAL ALLOWED BUILDING WATTS. Enter number into correct cell on NRCC-LTI-01, Page 2, Row 1</b>	28,530	

Check here if building contains both conditioned and unconditioned areas.

**B. COMPLETE BUILDING METHOD LIGHTING POWER ALLOWANCE**

A	B	C	D
TYPE OF BUILDING (From §140.6 Table 140.6-B)	WATTS PER (ft <sup>2</sup> )	COMPLETE BLDG. AREA	ALLOWED WATTS
Comp Bldg Restaurant	1.20	23,775	28,530
Total Area:			
Total Watts. Enter Total Watts into section A, row 1 (Above on this page)			28,530

**C-1 AREA CATEGORY METHOD TOTAL LIGHTING POWER ALLOWANCES (C-2 plus C-3)**

Total from section C-2	Watts
Total from section C-3	
Total Watts. Enter Total Watts into section A, row 2 (Above on this page)	

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SECTION 140.6 (b) (3) – Demand Method  
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 Company: MPE Consulting    Signature Date: 12/4/2014  
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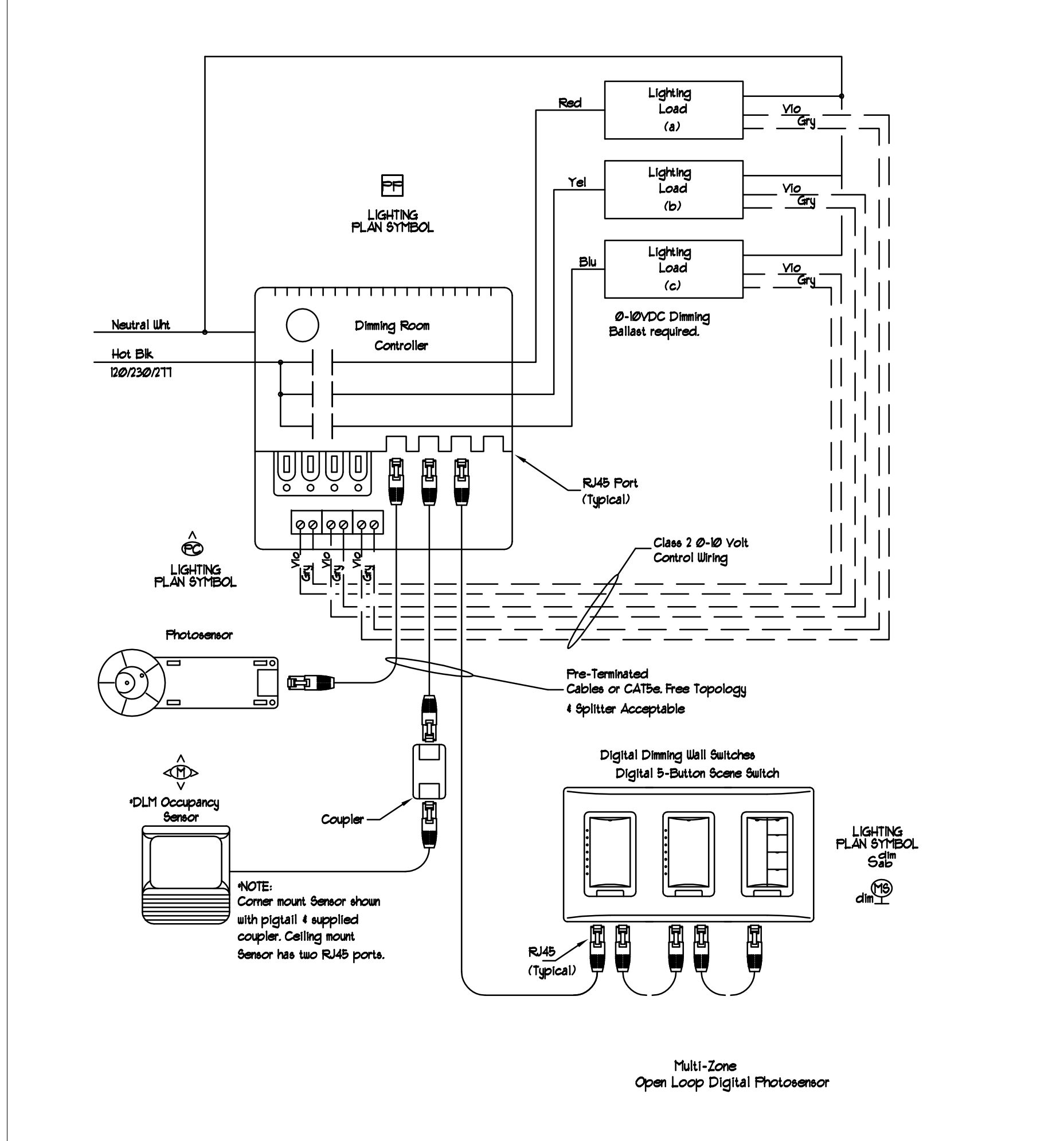
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**REGISTERED PROFESSIONAL ENGINEER**  
 DAN M. MAYORGAS  
 ELEC  
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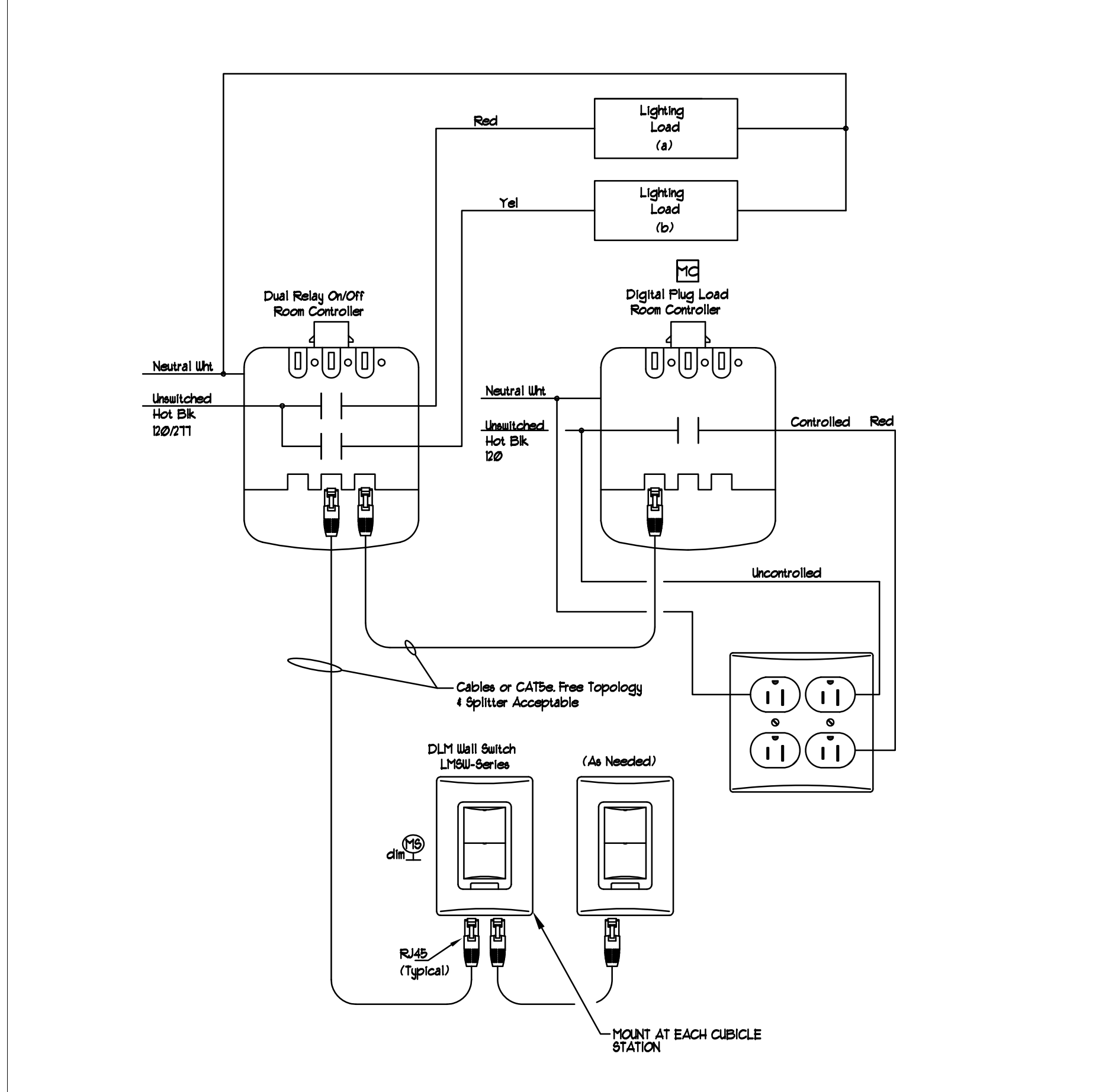
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PHOTOCELL DIAGRAM

6



**CONTROLLED PLUG LOAD EXEMPTION**  
 INSTALLATION TO BE APPROVED BY AHJ PRIOR TO FINAL BID. CONTRACTOR TO PROVIDE (1) CONTROLLED RECEPTACLE WITHIN 6 FT OF EACH UNCONTROLLED RECEPTACLE PER THIS DETAIL SHALL THE AHJ DEEM THIS APPLICABLE TO THIS JOB.

PLUG LOAD CONTROL DIAGRAM

7

**BUILDING LIGHTING SHUT-OFF**  
 THE BUILDING LIGHTING SHUT-OFF SYSTEM CONSISTS OF AN AUTOMATIC TIME SWITCH, WITH A ZONE FOR EACH FLOOR OR

**OVERSIDE FOR BUILDING LIGHTING SHUT-OFF**  
 THE AUTOMATIC BUILDING SHUT-OFF SYSTEM IS PROVIDED WITH A MANUAL ACCESSIBLE OVERRIDE SWITCH IN SIGHT OF THE LIGHTS. THE AREA OF OVERRIDE IS NOT TO EXCEED 5000 SQUARE FEET. LIGHTING OVERRIDE TO BE A MAXIMUM OF 2 HOURS.

**AUTOMATIC CONTROL DEVICES CERTIFIED**  
 ALL AUTOMATIC CONTROL DEVICES SPECIFIED ARE CERTIFIED. ALL ALTERNATE EQUIPMENT SHALL BE CERTIFIED AND INSTALLED AS DIRECTED BY THE MANUFACTURER.

**FLUORESCENT BALLAST AND LUMINAIRE CERTIFIED**  
 ALL FLUORESCENT FIXTURES SUBJECT TO CERTIFICATION AND SPECIFIED FOR THE PROJECTS ARE CERTIFIED.

**INDIVIDUAL ROOM/AREA CONTROLS**  
 EACH ROOM AND AREA IN THIS BUILDING IS EQUIPPED WITH A SEPARATE SWITCH OR OCCUPANCY SENSOR DEVICE FOR EACH AREA WITH FLOOR-TO-CEILING WALLS.

**DAYLIT AREA CONTROL**  
 ALL ROOMS WITH WINDOWS AND SKYLIGHTS THAT ARE GREATER THAN 250 SQUARE FEET, AND THAT ALLOW FOR THE EFFECTIVE USE OF DAYLIGHT IN THE AREA SHALL HAVE 50 PERCENT OF THE LAMPS IN EACH DAYLIT AREA CONTROLLED BY A SEPARATE SWITCH OR

THE EFFECTIVE USE OF DAYLIGHT THROUGHOUT CANNOT BE ACCOMPLISHED BECAUSE THE WINDOWS ARE CONTINUOUSLY SHADED BY A BUILDING ON THE ADJACENT LOT. DIAGRAM OF SHADING DURING DIFFERENT TIMES OF YEAR IS INCLUDED ON PLANS.

**CONTROL OF EXTERIOR LIGHTS**  
 EXTERIOR MOUNTED FIXTURES ARE SERVED FROM THE ELECTRICAL PANEL INSIDE THE BUILDING ARE CONTROLLED WITH A DIRECTIONAL PHOTO CELL CONTROL ON THE ROOF AND A CORRESPONDING RELAY IN THE ELECTRICAL PANEL.

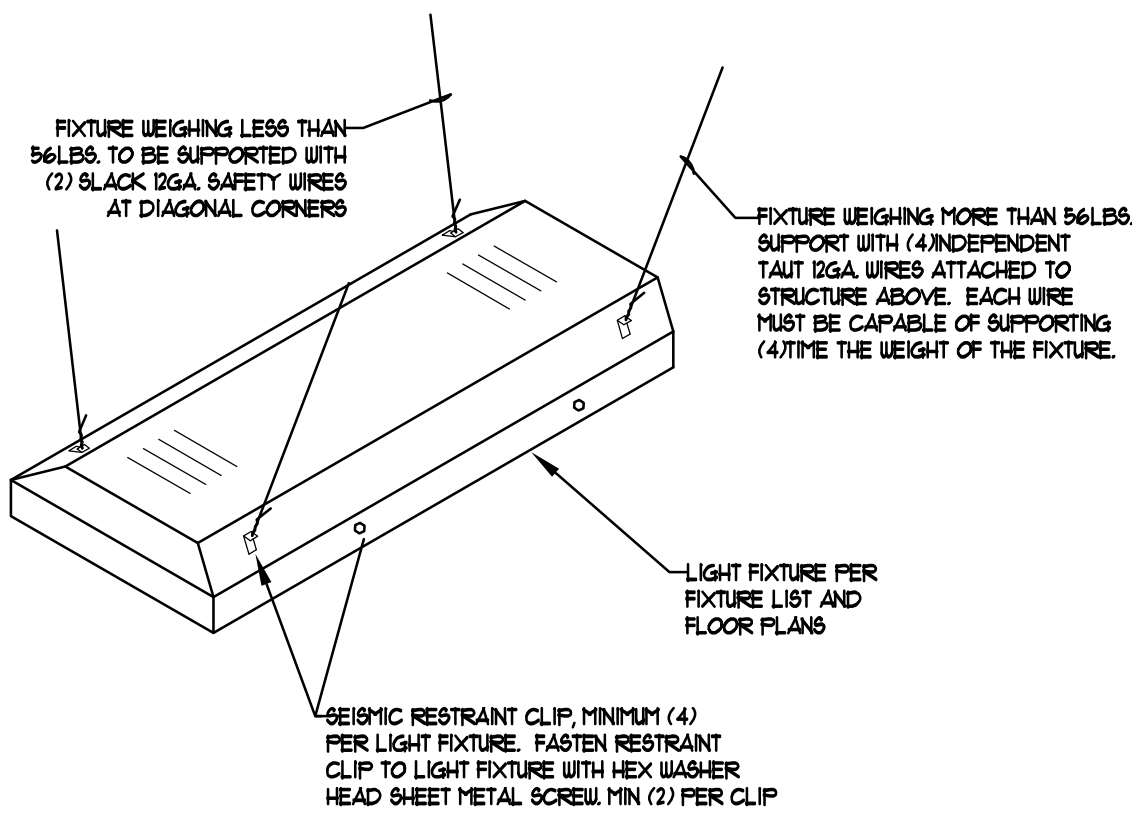
TITLE 24 MANDATORY NOTES

2

- EMERGENCY LIGHT FIXTURES ARE TO BE PROVIDED WITH EMERGENCY BALLASTS AS DETERMINED BY EMERGENCY LIGHT BALLAST TABLE, BELOW.
  - EMERGENCY LIGHT TEST SWITCH TO BE INTEGRAL TO ALL EMERGENCY FIXTURES, OTHER WISE LOCATION OF EMERGENCY LIGHT TEST SWITCH TO BE APPROVED BY ARCHITECT AND ELECTRICAL ENGINEERS 30 DAYS PRIOR TO ROUGH IN.
  - ALL EMERGENCY FIXTURES TO BE NIGHT LIGHTS UNLESS OTHER WISE NOTED.
  - EMERGENCY LINEAR PENDANT FIXTURES TO BE PROVIDED WITH ISOLATED CORD FEED DROP AT PENDANT END.
  - EMERGENCY LINEAR PENDANT FIXTURES TO BE PROVIDED WITH THE CORRECT QUANTITY OF BALLASTS FOR ILLUMINATION OF ALL LAMPS IN FIXTURE EMERGENCY SECTION.
  - (2) LAMP EMERGENCY LINEAR PENDANT FIXTURES CONNECTED TO GENERATOR EMERGENCY POWER TO HAVE (1) LAMP CONNECTED TO GENERATOR CIRCUIT AND (1) LAMP SWITCHED WITH NORMAL POWER AS SWITCHED LAMPS.
- ELECTRICAL CONTRACTOR TO OBTAIN APPROVAL ON ALL LIGHT SWITCH LOCATIONS 30 DAYS PRIOR TO ROUGH IN.
  - ELECTRICAL CONTRACTOR TO REVIEW ARCHITECTS EXITING PLAN AND PROVIDE EXIT SIGNS PER ARCHITECTS PLAN AND ELECTRICAL ENGINEERS LIGHTING PLANS.
  - ELECTRICAL CONTRACTOR TO REVIEW ARCHITECTS REFLECTED CEILING PLAN AND PROVIDE BID PER ARCHITECTS PLAN AND ELECTRICAL ENGINEERS PLAN.
  - ELECTRICAL CONTRACTOR TO NOTIFY ARCHITECT AND ELECTRICAL ENGINEER FOR ANY FIXTURE CONFLICTS THAT PROHIBIT CORRECT INSTALL WITH FRAMING OR CEILING T-BAR OR CEILING SYSTEMS. PROVIDE MINIMUM OF 30 DAYS NOTICE PRIOR TO ROUGH IN.
  - ALL EXTERIOR LIGHTING THAT IS NOT LOW PRESSURE SODIUM MUST BE CONTROLLED TO SHUT OFF BETWEEN 11PM AND 6AM.
  - ALL FLUORESCENT BALLAST ARE TO BE ELECTRONIC TYPE RAPID START.
  - ALL FLUORESCENT FIXTURES TO BE BURNED IN CONTINUOUSLY FOR FIRST 24 HOURS WITHOUT TURNING OFF.
  - ALL FLUORESCENT FIXTURES FOR INTERIOR TYPE OR EXTERIOR TYPE WITH DOUBLE-ENDED LAMPS SHALL BE PROVIDED WITH A FACTORY DISCONNECTING MEANS TO DISCONNECT ALL CONDUCTORS OF THE FIXTURE BALLAST PER NEC 410.13(G).
  - ELECTRICAL CONTRACTOR TO VERIFY LIGHT FIXTURE AND T-GRID COMPATIBILITY PRIOR TO ORDER. PROVIDE MINIMUM OF 30 DAYS NOTICE TO ENGINEER AND ARCHITECT IN THE EVENT OF CONFLICT.

LIGHTING GENERAL NOTES

3

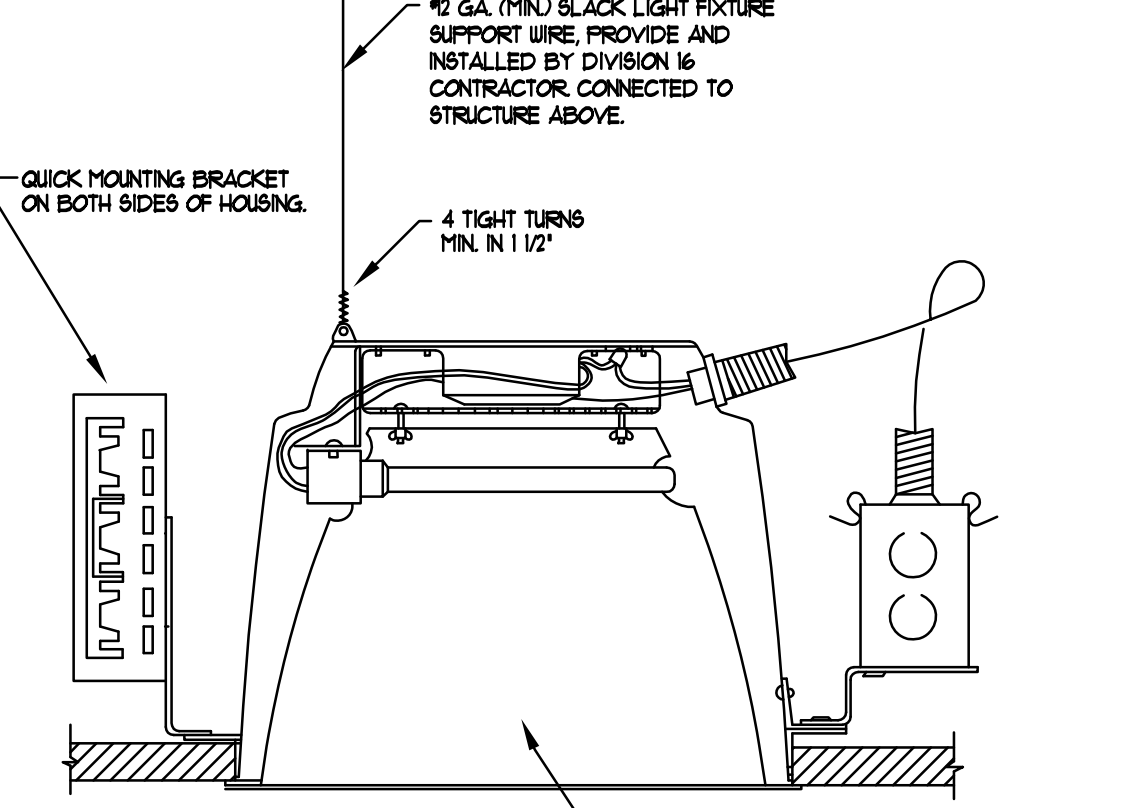


- GENERAL NOTES:**
- LIGHT FIXTURE MUST BE CONNECTED TO (1) VERTICAL DGA WIRE ATTACHED TO OPPOSING CORNERS ALONG THE FIXTURE'S DIAGONAL. WIRES MAY BE SLACK PER CBC STANDARD NO. 250A5.42, 250A5.8
  - LIGHT FIXTURE SAFETY WIRE SHALL CONFORM WITH UBC TABLE 25-A
  - INSTALL (4) METAL SCREWS, (2) ON EACH SIDE THROUGH FIXTURE INTO MAIN "T" BAR RANER

16511-03

FIXTURE SEISMIC SUPPORT DETAIL

4



- GENERAL NOTES:**
- LIGHT FIXTURE MUST BE CONNECTED TO (1) VERTICAL DGA WIRE ATTACHED TO OPPOSING CORNERS ALONG THE FIXTURE'S DIAGONAL. WIRES MAY BE SLACK PER CBC STANDARD NO. 250A5.42, 250A5.8
  - LIGHT FIXTURE SAFETY WIRE SHALL CONFORM WITH UBC TABLE 25-A

16511-03A

RECESSED CAN LIGHT FIXTURE SUPPORT DETAIL

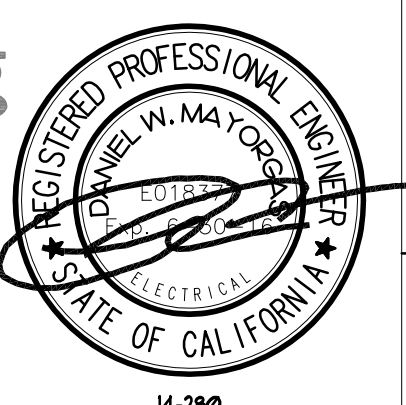
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FIXTURE TYPE	MANUFACTURER INFORMATION	FIXTURE DESCRIPTION	VOLT WATTS	LAMP
A1	EUREKA LIGHTING 4800-54 LED 84.40	54" DIMMABLE PENDANT FIXTURE SUSPEND WITH AIRCRAFT CABLE	277V 64W	64W LED
A2	EUREKA LIGHTING 4800-36 LED 40.40	36" DIMMABLE PENDANT FIXTURE SUSPEND WITH AIRCRAFT CABLE	277V 40W	40W LED
B	L1A84QPN28A40ULAG	4" RECESSED DIMMABLE TECHZONE FIXTURE	277V 38W	38W LED
C	EUREKA LIGHTING TURBO 4266-SCR LED 26.40	DECORATIVE BLACK PENDANT FIXTURE SUSPEND WITH AIRCRAFT CABLE	277V 26W	26W LED
D	EUREKA 4045 LED 11.40.40	DECORATIVE BLACK PENDANT FIXTURE SUSPEND WITH AIRCRAFT CABLE	277V 11W	11W LED
E	EUREKA LIGHTING IRIS 3443 LED 8.40	DECORATIVE BLACK WALL SCENCE	277V 8W	8W LED
F	EUREKA LIGHTING PLATE OUT 3450 2XLED 6.40	DECORATIVE BLACK WALL SCENCE INSTALL (2) AT WALL AT RESTROOM PER ARCH PLANS	277V 12W	12W LED
G	PRESCOLITE L06LED-277-6LCLLED	6" RECESSED LED DOWNLIGHT COLOR TO BE BY ARCHITECT	277V 15W	15W LED
H2	LUMIUM LIGHTING O2CS-D-T5HO-2-RS	2' LINEAR PENDANT FIXTURE PROVIDE WITH DIMMABLE ELECTRONIC BALLAST	277V (1)24W T5HO 24W	T5HO
H4	LUMIUM LIGHTING O2CS-D-T5HO-4-RS	4' LINEAR PENDANT FIXTURE PROVIDE WITH DIMMABLE ELECTRONIC BALLAST	277V (1)54W T5HO 54W	T5HO
H6	LUMIUM LIGHTING O2CS-D-T5HO-6-RS	6' LINEAR PENDANT FIXTURE PROVIDE WITH DIMMABLE ELECTRONIC BALLAST	277V (1)39W T5HO 78W	T5HO
H8	LUMIUM LIGHTING O2CS-D-T5HO-8-RS	8' LINEAR PENDANT FIXTURE PROVIDE WITH DIMMABLE ELECTRONIC BALLAST	277V (1)54W T5HO 108W	T5HO
I	PRESCOLITE	6" LED WALL WASH FIXTURE	277V 15W	15W LED
J	EUREKA LIGHTING STUBBY STACK 2038-BLK-BLK	MONOPOINT TRACK HEAD DIMMABLE LED	277V 4W	4W LED
K	COLUMBIA LIGHTING CH4-232-E-U	4' STRIP FLUORESCENT FIXTURE PROVIDE WITH DIMMABLE ELECTRONIC BALLAST	277V (2)F32T8 4100K 82CRI	4100K
L	CONTECH LIGHTING TLT-12V-3-4K-WHITE	BLUE LED TAP LIGHT	120V 4W/FT	4W LED/FT
M	COLUMBIA LIGHTING BL-4232-U	BI-LEVEL WAL MOUNTED STAIRWELL FIXTURE PROVIDE WITH 90-MINUTE BATTERY BACKUP	277V (2) F32T8 4100K 82CRI	4100K
N	KIM LIGHTING KLV366-39K-BL-PL73	INGRADE UPLIGHT FIXTURE	277V 12W	LED
P	PRESCOLITE D4LED-4-277-DM-409LED 4-39K-8-FL35-MFC	RECESSED LED DOWNLIGHT FIXTURE	277V 15W	LED
R	HUBBELL LIGHTING LMC-30L-U-4K-3-1 BOC-LED	WALL MOUNT LED FIXTURE FOR EB FIXTURE PROVIDE 90 MINUTE BATTERY	277V 71W	LED
S	TBD	WALL MOUNTED UPLIGHT LED FIXTURE	277V 50W	LED

FIXTURE LIST

1

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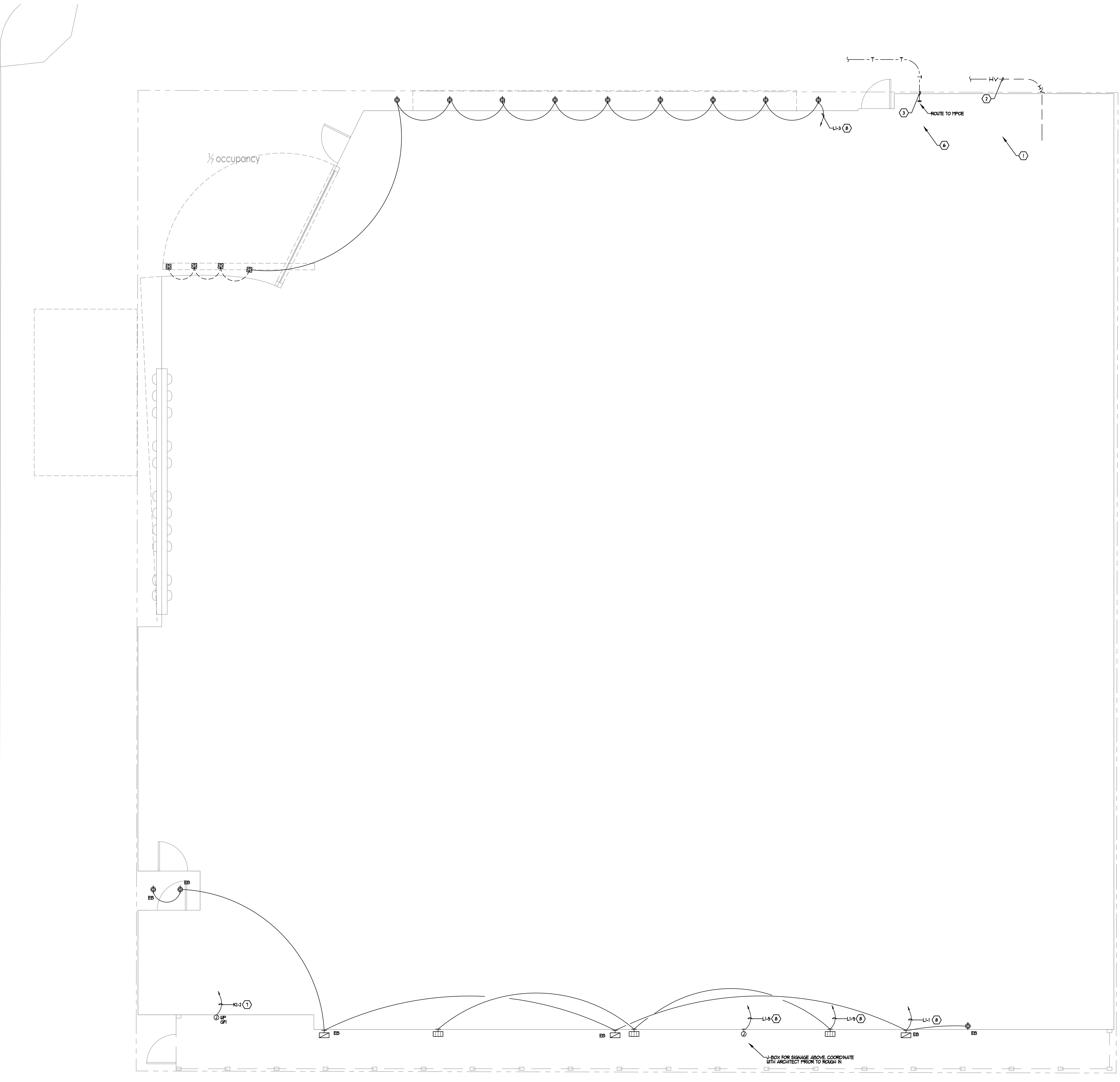
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 TITLE:  
 DRAWING NO:  
 E.13

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14TH STREET



SITE ELECTRICAL PLAN

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

- GENERAL NOTES:**
1. ARCHITECT VERIFICATION CONTRACTOR TO REVIEW ARCHITECTURAL PLANS AND CASWORK ELEVATIONS FOR ALL FINAL DEVICE AND FIXTURE TYPE REQUIREMENTS, FINAL SWITCH LOCATIONS, AND FINAL OUTLET PLACEMENTS. ANY DISCREPANCIES SHOULD BE BROUGHT TO THE ATTENTION OF THE ARCHITECT AND ENGINEER PRIOR TO ROUGH-IN.
  2. ELECTRICAL CONTRACTOR TO OBTAIN APPROVAL ON ALL SWITCH LOCATIONS 30 DAYS PRIOR TO ROUGH IN.
  3. ALL SYSTEMS FURNITURE CIRCUITS AND HOVERING TO BE PROVIDED WITH DEDICATED NEUTRAL CONDUCTORS PER CIRCUIT.
  4. PROVIDE IDBY CONNECTION TO DOOR HARDWARE/CONTROLLER AS REQUIRED. COORDINATE FINAL REQUIREMENTS WITH HARDWARE AND SECURITY VENDORS.
  5. ALL EXPOSED/SURFACE MOUNTED ELECTRICAL JUNCTION BOXES TO BE CAST TYPE.
  6. ALL MULTIPLE BRANCH CIRCUITS SHALL BE INSTALLED WITH DEDICATED NEUTRALS ROUTED IN HOVERING TO THE PANEL FOR EACH CIRCUIT BEING UTILIZED PER NEC 2009 SECTION 210.4.
  7. RELOCATING ANY ELECTRICAL PANELS, INTERCEPT AND EXTEND EXISTING BRANCH CIRCUITS AS NECESSARY.
  8. CONTRACTOR TO PROVIDE GFCI PROTECTION WHERE RECEPTACLES ARE INSTALLED WITHIN 6FT OF THE OUTSIDE EDGE OF ANY 8"X6" PROVIDE A GFCI CIRCUIT BREAKER AT PANEL BOARD FOR ALL CIRCUITS WHERE LAB SINKS ARE LOCATED AT BENCH TOP. IN ACCORDANCE WITH NEC 210.8.

- SHEET NOTES:**
1. LOCATION OF PRIMARY UNDERGROUND PULL SECTION AND BUILDING SERVICE. INSTALL PER SDG&E REQUIREMENTS.
  2. PROVIDE AND INSTALL 12" HIGH VOLTAGE CONDUITS PER SDG&E FOR SERVICE PRIMARY CONDUCTORS.
  3. PROVIDE AND INSTALL 12" O.D. FOR TELEPHONE SERVICE. VERIFY POINT OF CONNECTION AND COMMON TRENCH REQUIREMENTS WITH SDG. PROVIDE ALL REQUIRED HAND HOLES AND PEDESTALS AS INDICATED ON SDG FINAL DESIGN PLANS.
  4. NOT USED
  5. NOT USED
  6. LOCATION OF MAIN TELEPHONE ROOM AND BACKBOARD.
  7. PROVIDE IDBY CONNECTION TO IRRIGATION CONTROLLER.
  8. ROUTE CIRCUIT VIA LCP.

- UTILITY PLAN NOTES**
1. ELECTRICAL CONTRACTOR TO CALL UNDERGROUND ALERT PRIOR TO ANY SITE DIGGING. 1-800-421-4033
  2. ELECTRICAL CONTRACTOR SHALL COORDINATE WITH THE UTILITY COMPANY FOR FINAL AND EXACT SCOPE OF WORK AND MATERIAL TYPE REQUIREMENTS. CONTRACTOR SHALL PROVIDE AND INSTALL ALL CONDUIT, PULLSTRING, CABLES, FILLBOXES, CONCRETE ENCASMENT, TRANSFORMER PADS, TRENCHING AND BACKFILL.
  3. UTILITY POINTS OF CONNECTIONS ARE SUBJECT TO CHANGE TO CONFORM WITH FINAL UTILITY SITE PLANS. CONTRACTOR RESPONSIBLE FOR UTILITY CONNECTION TO FINAL LOCATIONS AS INDICATED BY EACH SERVING UTILITY.
  4. ELECTRICAL CONTRACTOR RESPONSIBLE FOR REVIEWING EXISTING SITE CONDITIONS, SERVICE REQUIREMENTS AND EXACT LOCATIONS OF SERVICE UTILITIES PRIOR TO SUBMITTING BID.
  5. ELECTRICAL CONTRACTOR SHALL ESTABLISH CONTACT WITH EACH UTILITY PLANNER TO REVIEW SCHEDULE, MATERIALS, METER REQUIREMENTS, AND PRE-CONSTRUCTION MEETINGS.

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ELECTRICAL

PROJECT NO: 5432.00  
FILENAME:  
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PLOT DATE: 03-19-15  
TITLE:

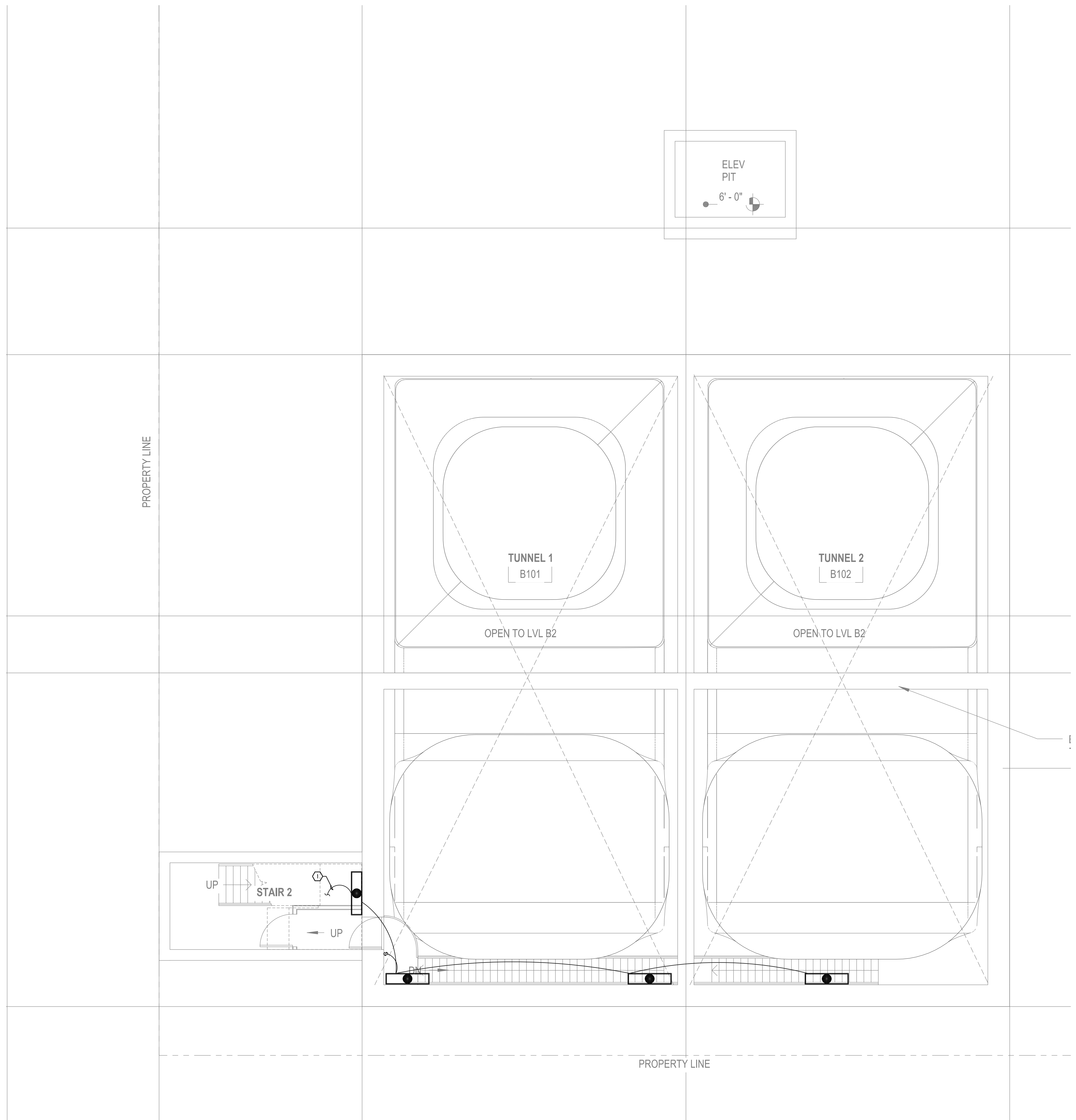
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**GENERAL NOTES:**

1. ARCHITECT VERIFICATION CONTRACTOR TO REVIEW ARCHITECTURAL PLANS AND CASEWORK ELEVATIONS FOR ALL FINAL DEVICE AND FIXTURE TYPE REQUIREMENTS, FINAL SWITCH LOCATIONS, AND FINAL OUTLET PLACEMENTS. ANY DISCREPANCIES SHOULD BE BROUGHT TO THE ATTENTION OF THE ARCHITECT AND ENGINEER PRIOR TO ROUGH-IN.
2. ELECTRICAL CONTRACTOR TO OBTAIN APPROVAL ON ALL SWITCH LOCATIONS 30 DAYS PRIOR TO ROUGH IN.
3. ALL SYSTEMS FURNITURE CIRCUITS AND WIRING TO BE PROVIDED WITH DEDICATED NEUTRAL CONDUCTORS PER CIRCUIT.
4. PROVIDE ISBY CONNECTION TO DOOR HARDWARE/CONTROLLER AS REQUIRED. COORDINATE FINAL REQUIREMENTS WITH HARDWARE AND SECURITY VENDORS.
5. ALL EXPOSED/SURFACE MOUNTED ELECTRICAL JUNCTION BOXES TO BE CAST TYPE.
6. ALL MULTIFURC BRANCH CIRCUITS SHALL BE INSTALLED WITH DEDICATED NEUTRALS ROUTED IN HOUSING TO THE PANEL FOR EACH CIRCUIT BEING UTILIZED PER NEC 2009 SECTION 200.4.
7. IF RELOCATING ANY ELECTRICAL PANELS, INTERCEPT AND EXTEND EXISTING BRANCH CIRCUITS AS NECESSARY.
8. CONTRACTOR TO PROVIDE GFCI PROTECTION WHERE RECEPTACLES ARE INSTALLED WITHIN 6FT OF THE OUTSIDE EDGE OF ANY SINK. PROVIDE A GFCI CIRCUIT BREAKER AT PANEL BOARD FOR ALL CIRCUITS WHERE LAB SINKS ARE LOCATED AT BENCH TOP. IN ACCORDANCE WITH NEC 200.8.

**SHEET NOTES:**

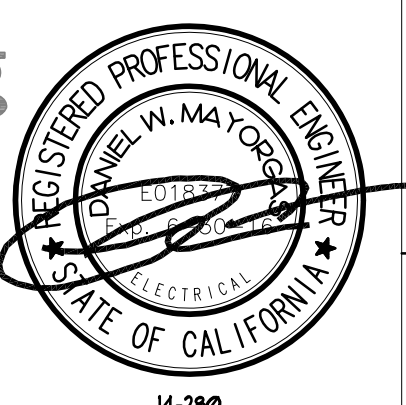
- ① INTERCEPT EXISTING EGRESS LIGHTING CIRCUIT FROM FLOOR ABOVE.

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 11-11-14 CD PROGRESS  
 10-01-14 DESIGN DEVELOPMENT  
 08-20-14 SCHEMATIC DESIGN  
 ISSUES:

PROJECT NO:  
 5439.00  
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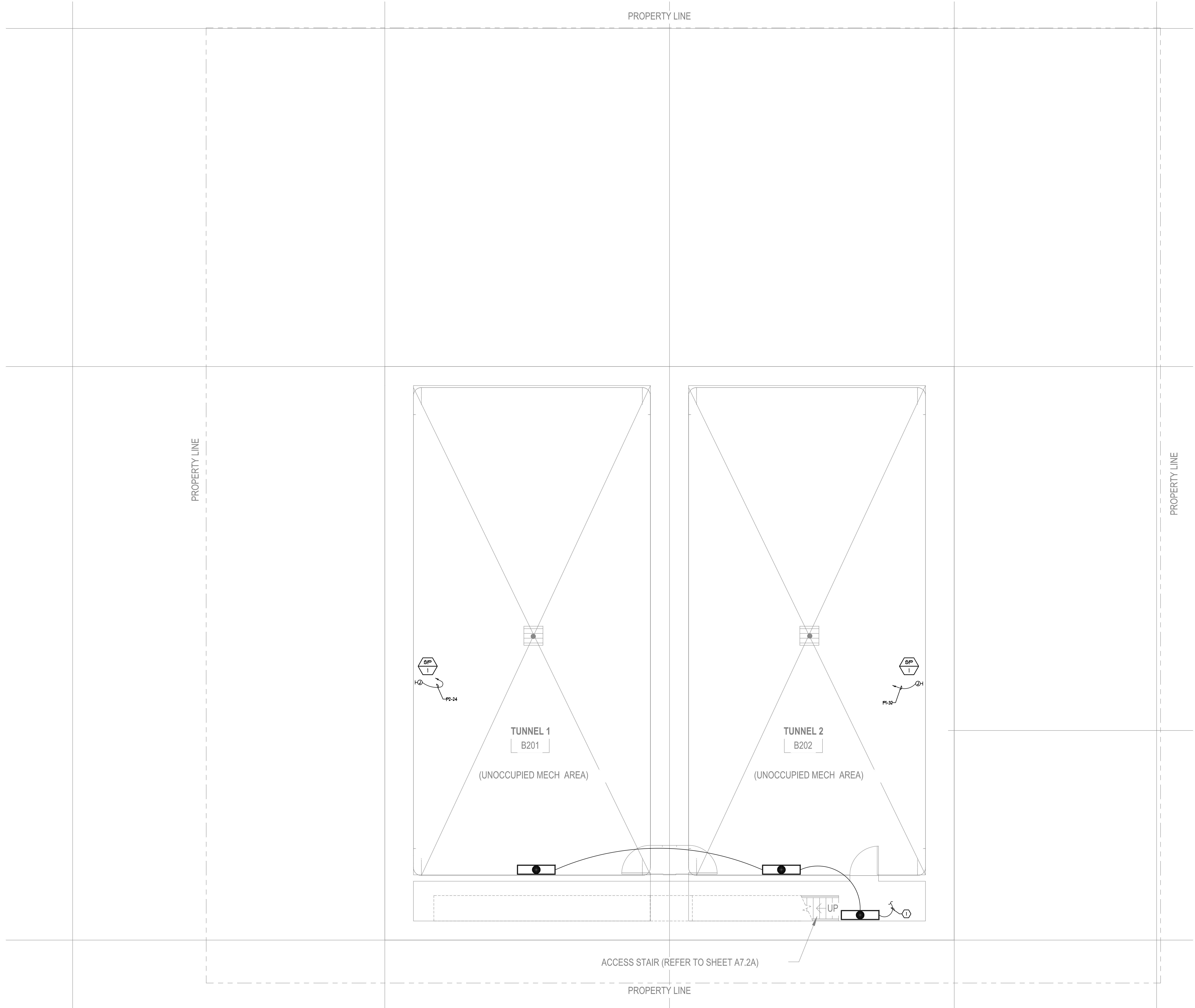
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B1 LEVEL ELECTRICAL PLAN

SCALE: 1/4" = 1'-0" 2

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**GENERAL NOTES:**

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2. ELECTRICAL CONTRACTOR TO OBTAIN APPROVAL ON ALL SWITCH LOCATIONS 30 DAYS PRIOR TO ROUGH IN.
3. ALL SYSTEMS FURNITURE CIRCUITS AND HOVERING TO BE PROVIDED WITH DEDICATED NEUTRAL CONDUCTORS PER CIRCUIT.
4. PROVIDE IDV CONNECTION TO DOOR HARDWARE/CONTROLLER AS REQUIRED. COORDINATE FINAL REQUIREMENTS WITH HARDWARE AND SECURITY VENDORS.
5. ALL EXPOSED/SURFACE MOUNTED ELECTRICAL JUNCTION BOXES TO BE CAST TYPE.
6. ALL MULTIRATE BRANCH CIRCUITS SHALL BE INSTALLED WITH DEDICATED NEUTRALS ROUTED IN ACCORDANCE TO THE PANEL FOR EACH CIRCUIT BEING UTILIZED PER NEC 2009 SECTION 210.4.
7. F RELOCATING ANY ELECTRICAL PANELS, INTERCEPT AND EXTEND EXISTING BRANCH CIRCUITS AS NECESSARY.
8. CONTRACTOR TO PROVIDE GFCI PROTECTION WHERE RECEPTACLES ARE INSTALLED WITHIN 6FT OF THE OUTSIDE EDGE OF ANY 8x6. PROVIDE A GFCI CIRCUIT BREAKER AT PANEL BOARD FOR ALL CIRCUITS WHERE LAB BENCHES ARE LOCATED AT BENCH TOP. IN ACCORDANCE WITH NEC 210.8.

**SHEET NOTES:**

- ① INTERCEPT EXISTING EGRESS LIGHTING CIRCUIT FROM FLOOR ABOVE.

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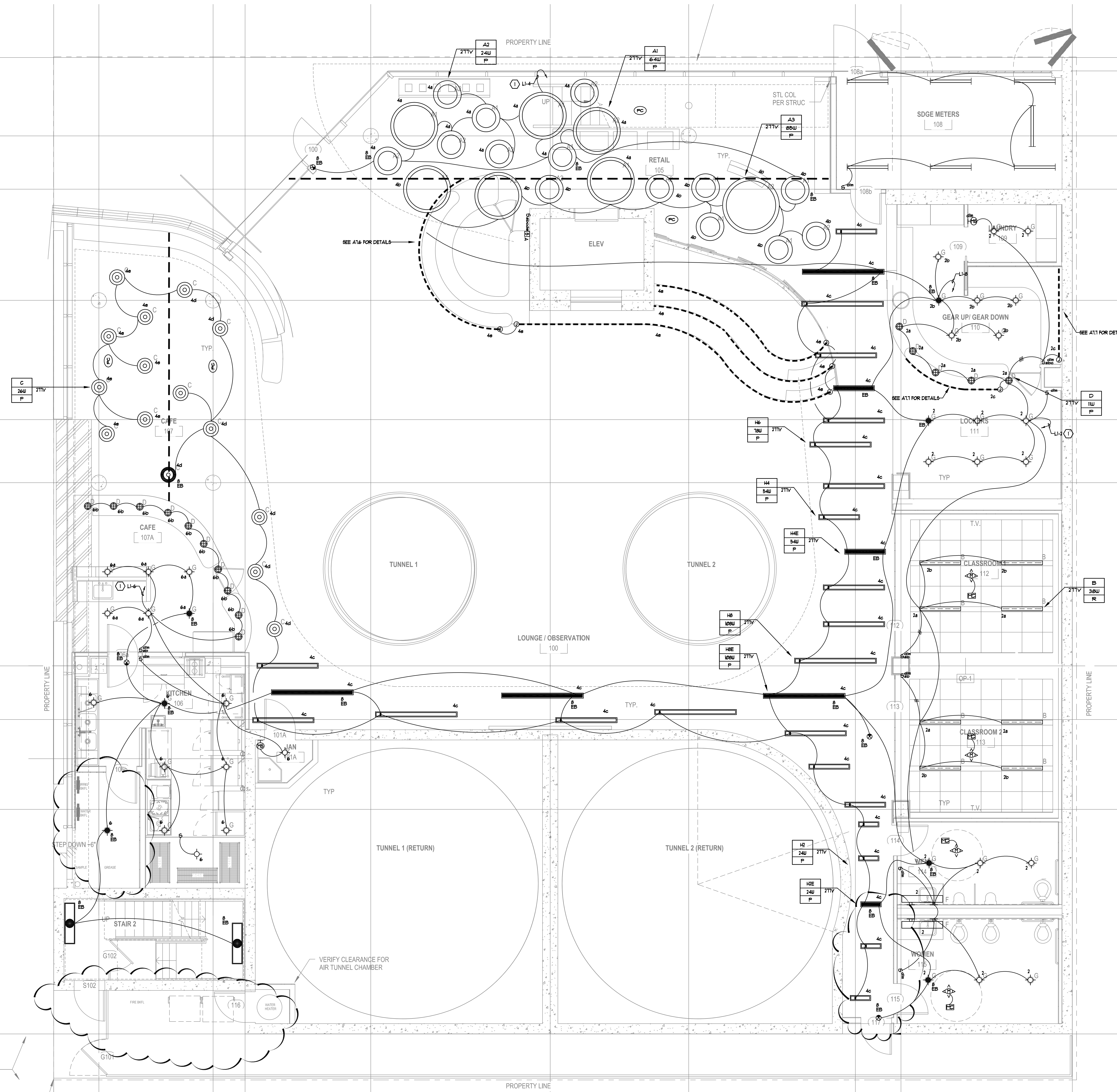
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**B2 LEVEL ELECTRICAL PLAN**

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

DRAWING NO:  
**E.2.2**

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- GENERAL NOTES:**
1. ARCHITECT VERIFICATION CONTRACTOR TO REVIEW ARCHITECTURAL PLANS AND CARRISON ELEVATIONS FOR ALL FINAL DEVICE AND FIXTURE TYPE REQUIREMENTS, FINAL SWITCH LOCATIONS, AND FINAL OUTLET PLACEMENTS. ANY DISCREPANCIES SHOULD BE BROUGHT TO THE ATTENTION OF THE ARCHITECT AND ENGINEER PRIOR TO ROUGH-IN.
  2. GROUP MULTIPLE SWITCHES WITHIN 1' MAX. USE HI-LOW VOLTAGE PARTITIONS AS REQUIRED.
  3. EMERGENCY LIGHT TEST SWITCH TO BE INTEGRAL TO ALL EMERGENCY FIXTURES. OTHER USE LOCATION OF EMERGENCY LIGHT TEST SWITCH TO BE APPROVED BY ARCHITECT AND ELECTRICAL ENGINEER 30 DAYS PRIOR TO ROUGH IN.
  4. ALL EMERGENCY FIXTURES TO BE NIGHT LIGHTS UNLESS OTHERWISE NOTED.
  5. ELECTRICAL CONTRACTOR TO OBTAIN APPROVAL ON ALL LIGHT SWITCH LOCATIONS 30 DAYS PRIOR TO ROUGH IN.
  6. ELECTRICAL CONTRACTOR TO REVIEW ARCHITECT'S EXISTING PLAN AND PROVIDE EXIT SIGNS PER ARCHITECT'S PLAN AND ELECTRICAL ENGINEER'S LIGHTING PLAN. EXIT SIGNS MOUNTED ABOVE DOOR REQUIRE TEAM APPROVAL PRIOR TO ROUGH-IN.
  7. ELECTRICAL CONTRACTOR TO REVIEW ARCHITECT'S REFLECTED CEILING PLAN AND PROVIDE BID PER ARCHITECT'S PLAN AND ELECTRICAL ENGINEER'S PLAN.
  8. ELECTRICAL CONTRACTOR TO NOTIFY ARCHITECT AND ELECTRICAL ENGINEER FOR ANY FIXTURE CONFLICTS THAT PREHIBIT CORRECT INSTALL WITH FRAMING OR CEILING T-BAR OR CEILING SYSTEMS. PROVIDE MINIMUM OF 30 DAYS NOTICE PRIOR TO ROUGH IN.
  9. ALL FLUORESCENT BALLAST ARE TO BE ELECTRONIC TYPE RAPID START.
  10. ALL FLUORESCENT FIXTURES TO BE BURNED IN CONTINUOUSLY FOR FIRST 24 HOURS WITHOUT TURNING OFF.
  11. ALL FLUORESCENT FIXTURES FOR INTERIOR TYPE OR EXTERIOR TYPE WITH DOUBLE ENDED LAMPS SHALL BE PROVIDED WITH A FACTORY DISCONNECTING MEANS TO DISCONNECT ALL CONDUCTORS OF THE FIXTURE BALLAST PER NEC 410.15(G).
  12. ELECTRICAL CONTRACTOR TO VERIFY LIGHT FIXTURE AND T-GRID COMPATIBILITY PRIOR TO ORDER. PROVIDE MINIMUM OF 30 DAYS NOTICE TO ENGINEER AND ARCHITECT IN THE EVENT OF CONFLICT.
  13. FACES AND CHEVRONS ON EMERGENCY EXIT SIGNS TO MATCH ARCHITECTURAL PLANS.
  14. ALL MULTIPLE BRANCH CIRCUITS SHALL BE INSTALLED WITH DEDICATED NEUTRALS ROUTED IN HOHERN TO THE PANEL FOR EACH CIRCUIT BEING UTILIZED PER NEC 210.4(D).

**SHEET NOTES:**

1. ROUTE VIA DEMAND RESPONSE LIGHTING PANEL.

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PLOT DATE: 03-19-15  
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SCALE: 1/4" = 1'-0" 1

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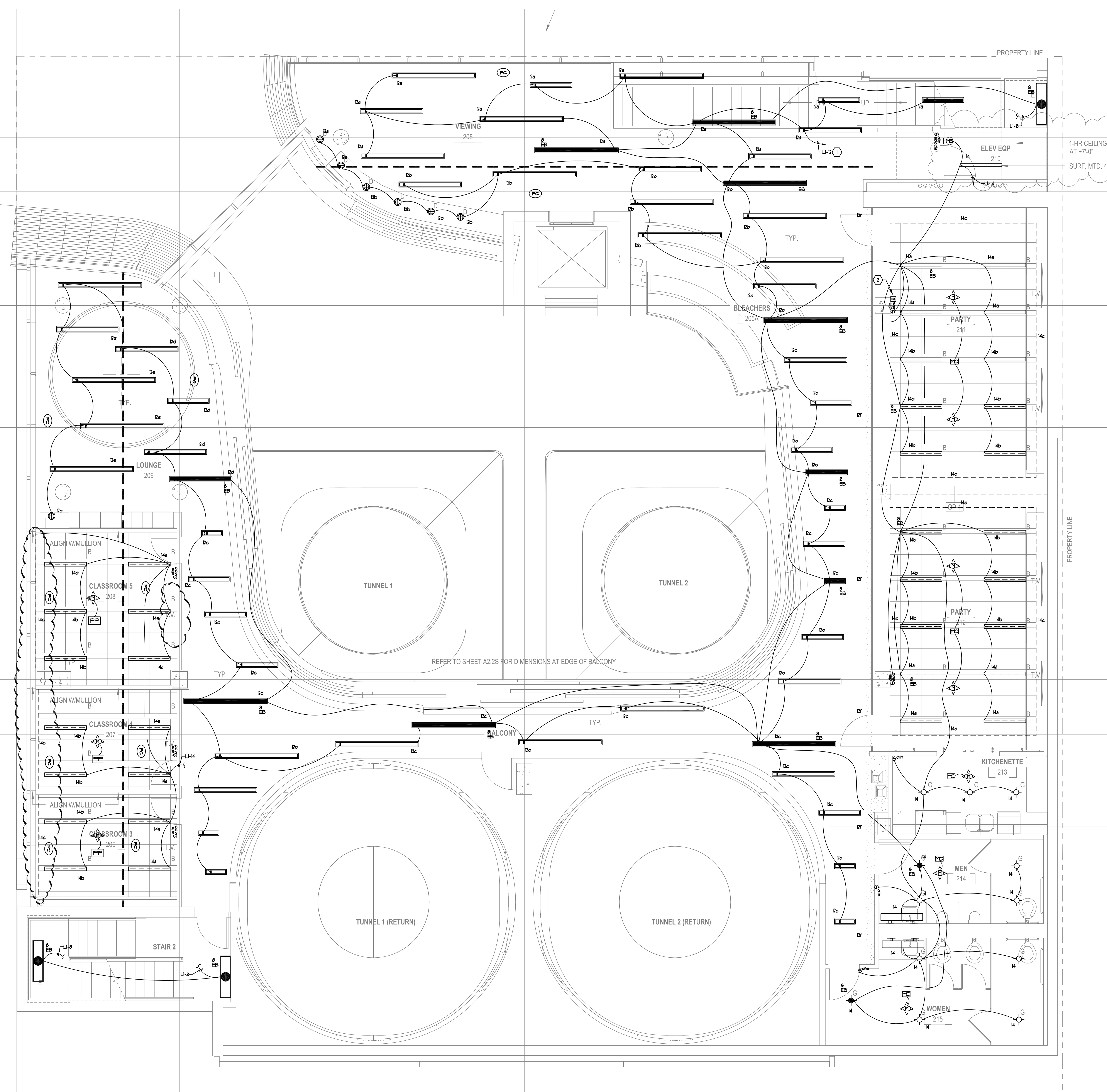
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1ST FLOOR LIGHTING PLAN



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2ND FLOOR LIGHTING PLAN

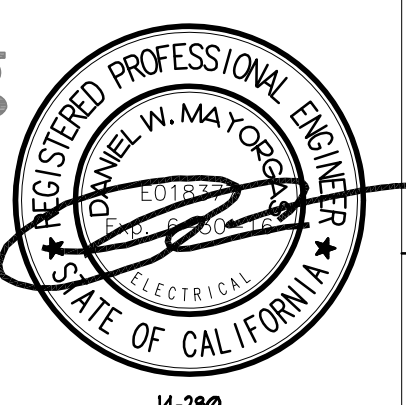
SCALE: 1/4" = 1'-0" 1

- GENERAL NOTES:**
1. ARCHITECT VERIFICATION CONTRACTOR TO REVIEW ARCHITECTURAL PLANS AND CASWORK ELEVATIONS FOR ALL FINAL DEVICE AND FIXTURE TYPE REQUIREMENTS, FINAL SWITCH LOCATIONS, AND FINAL OUTLET PLACEMENTS. ANY DISCREPANCIES SHOULD BE BROUGHT TO THE ATTENTION OF THE ARCHITECT AND ENGINEER PRIOR TO ROUGH-IN.
  2. GROUP MULTIPLE SWITCHES WITHIN 1' MAX. USE HI-LOW VOLTAGE PARTITIONS AS REQUIRED.
  3. EMERGENCY LIGHT TEST SWITCH TO BE INTEGRAL TO ALL EMERGENCY FIXTURES. OTHER USE LOCATION OF EMERGENCY LIGHT TEST SWITCH TO BE APPROVED BY ARCHITECT AND ELECTRICAL ENGINEER 30 DAYS PRIOR TO ROUGH IN.
  4. ALL EMERGENCY FIXTURES TO BE NIGHT LIGHTS UNLESS OTHERWISE NOTED.
  5. ELECTRICAL CONTRACTOR TO OBTAIN APPROVAL ON ALL LIGHT SWITCH LOCATIONS 30 DAYS PRIOR TO ROUGH IN.
  6. ELECTRICAL CONTRACTOR TO REVIEW ARCHITECTS EXTING PLAN AND PROVIDE BID PER ARCHITECTS PLAN AND ELECTRICAL ENGINEERS PLAN.
  7. ELECTRICAL CONTRACTOR TO REVIEW ARCHITECTS REFLECTED CEILING PLAN AND PROVIDE BID PER ARCHITECTS PLAN AND ELECTRICAL ENGINEERS PLAN.
  8. ELECTRICAL CONTRACTOR TO NOTIFY ARCHITECT AND ELECTRICAL ENGINEER FOR ANY FIXTURE CONFLICTS THAT PREHIBIT CORRECT INSTALL WITH FRAMING OR CEILING T-BAR OR CEILING SYSTEMS. PROVIDE MINIMUM OF 30 DAYS NOTICE PRIOR TO ROUGH IN.
  9. ALL FLUORESCENT BALLAST ARE TO BE ELECTRONIC TYPE RAPID START.
  10. ALL FLUORESCENT FIXTURES TO BE BURNED IN CONTINUOUSLY FOR FIRST 24 HOURS WITHOUT TURNING OFF.
  11. ALL FLUORESCENT FIXTURES FOR INTERIOR TYPE OR EXTERIOR TYPE WITH DOUBLE-ENDED LAMPS SHALL BE PROVIDED WITH A FACTORY DISCONNECTING MEANS TO DISCONNECT ALL CONDUCTORS OF THE FIXTURE BALLAST PER NEC 410.15(G).
  12. ELECTRICAL CONTRACTOR TO VERIFY LIGHT FIXTURE AND T-GRID COMPATIBILITY PRIOR TO ORDER. PROVIDE MINIMUM OF 30 DAYS NOTICE TO ENGINEER AND ARCHITECT IN THE EVENT OF CONFLICT.
  13. FACES AND CHEVRONS ON EMERGENCY EXIT SIGNS TO MATCH ARCHITECTURAL PLANS.
  14. ALL MULTIPLE BRANCH CIRCUITS SHALL BE INSTALLED WITH DEDICATED NEUTRALS ROUTED IN HOLES IN THE PANEL FOR EACH CIRCUIT BEING UTILIZED PER NEC 210.4(D).

- SHEET NOTES:**
1. ROUTE VIA DEVIANT RESPONSE LIGHTING PANEL.
  2. PROVIDE PARTITION CONTROL SWITCH.

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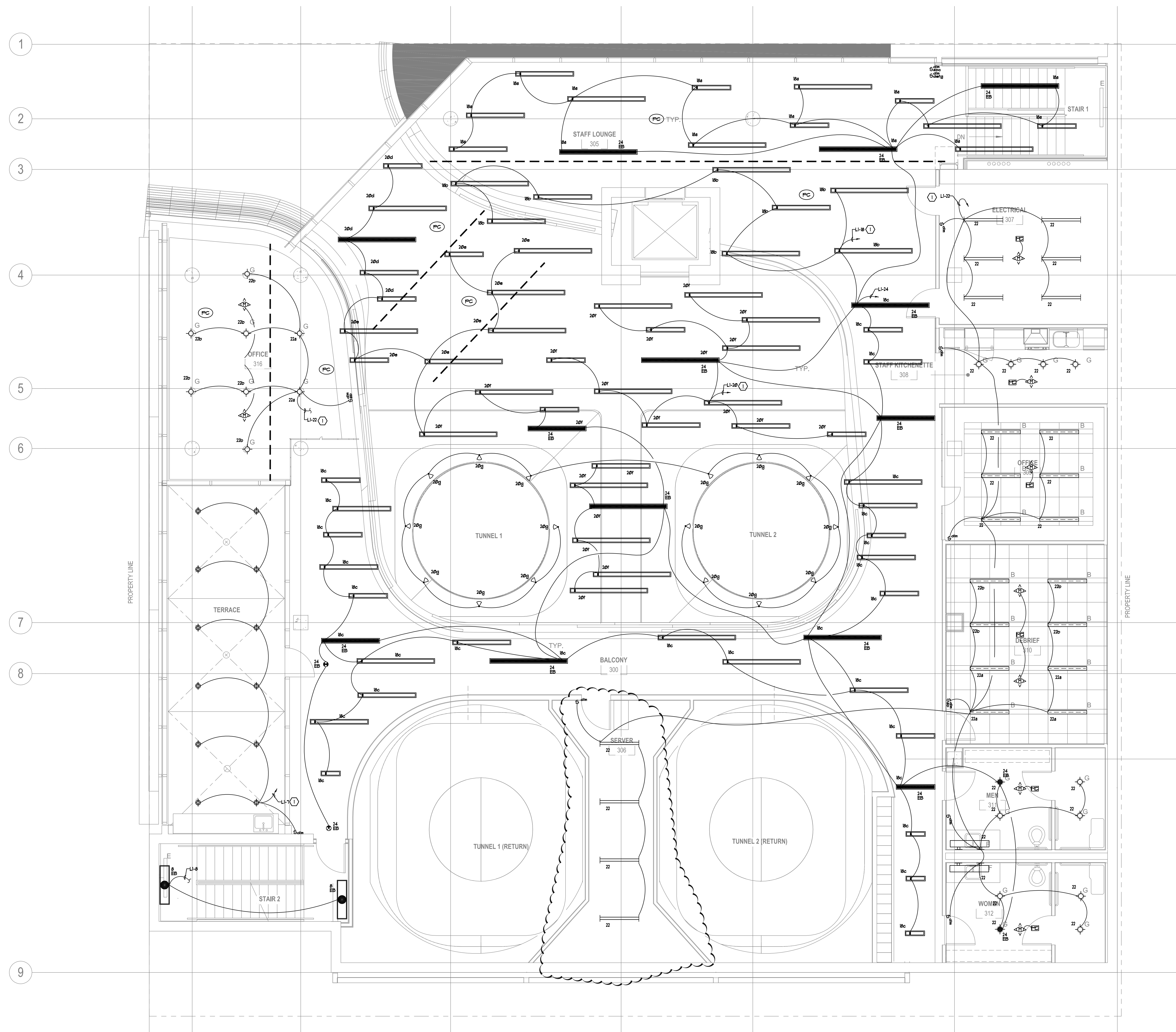
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3RD FLOOR LIGHTING PLAN

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

- GENERAL NOTES:**
1. ARCHITECT VERIFICATION CONTRACTOR TO REVIEW ARCHITECTURAL PLANS AND CASWORK ELEVATIONS FOR ALL FINAL DEVICE AND FIXTURE TYPE REQUIREMENTS, FINAL SWITCH LOCATIONS, AND FINAL OUTLET PLACEMENTS. ANY DISCREPANCIES SHOULD BE BROUGHT TO THE ATTENTION OF THE ARCHITECT AND ENGINEER PRIOR TO ROUGH-IN.
  2. GROUP MULTIPLE SWITCHES WITHIN 1' MAX. USE HI-LOW VOLTAGE PARTITIONS AS REQUIRED.
  3. EMERGENCY LIGHT TEST SWITCH TO BE INTEGRAL TO ALL EMERGENCY FIXTURES. OTHER USE LOCATION OF EMERGENCY LIGHT TEST SWITCH TO BE APPROVED BY ARCHITECT AND ELECTRICAL ENGINEER 30 DAYS PRIOR TO ROUGH IN.
  4. ALL EMERGENCY FIXTURES TO BE NIGHT LIGHTS UNLESS OTHERWISE NOTED.
  5. ELECTRICAL CONTRACTOR TO OBTAIN APPROVAL ON ALL LIGHT SWITCH LOCATIONS 30 DAYS PRIOR TO ROUGH IN.
  6. ELECTRICAL CONTRACTOR TO REVIEW ARCHITECT'S EXISTING PLAN AND PROVIDE EXISTING SIGNS PER ARCHITECT'S PLAN AND ELECTRICAL ENGINEER'S LIGHTING PLAN. EXISTING SIGNS MOUNTED ABOVE 5' AFF REQUIRE TEAM APPROVAL PRIOR TO ROUGH-IN.
  7. ELECTRICAL CONTRACTOR TO REVIEW ARCHITECT'S REFLECTED CEILING PLAN AND PROVIDE BID PER ARCHITECT'S PLAN AND ELECTRICAL ENGINEER'S PLAN.
  8. ELECTRICAL CONTRACTOR TO NOTIFY ARCHITECT AND ELECTRICAL ENGINEER FOR ANY FIXTURE CONFLICTS THAT PROHIBIT CORRECT INSTALL WITH FRAMING OR CEILING T-BAR OR CEILING SYSTEMS. PROVIDE MINIMUM OF 30 DAYS NOTICE PRIOR TO ROUGH IN.
  9. ALL FLUORESCENT BALLAST ARE TO BE ELECTRONIC TYPE RAPID START.
  10. ALL FLUORESCENT FIXTURES TO BE BURNED IN CONTINUOUSLY FOR FIRST 24 HOURS WITHOUT TURNING OFF.
  11. ALL FLUORESCENT FIXTURES FOR INTERIOR TYPE OR EXTERIOR TYPE WITH DOUBLE-ENDED LAMPS SHALL BE PROVIDED WITH A FACTORY DISCONNECTING MEANS TO DISCONNECT ALL CONDUCTORS OF THE FIXTURE BALLAST PER NEC 410.15(G).
  12. ELECTRICAL CONTRACTOR TO VERIFY LIGHT FIXTURE AND T-GRID COMPATIBILITY PRIOR TO ORDER. PROVIDE MINIMUM OF 30 DAYS NOTICE TO ENGINEER AND ARCHITECT IN THE EVENT OF CONFLICT.
  13. FACES AND CHEVRONS ON EMERGENCY EXIT SIGNS TO MATCH ARCHITECTURAL PLANS.
  14. ALL MULTIPLE BRANCH CIRCUITS SHALL BE INSTALLED WITH DEDICATED NEUTRALS ROUTED IN HORIZONTAL TO THE PANEL FOR EACH CIRCUIT BEING UTILIZED PER NEC 210.4(D).

**SHEET NOTES:**

1. ROUTE VIA DEMAND RESPONSE LIGHTING PANEL.

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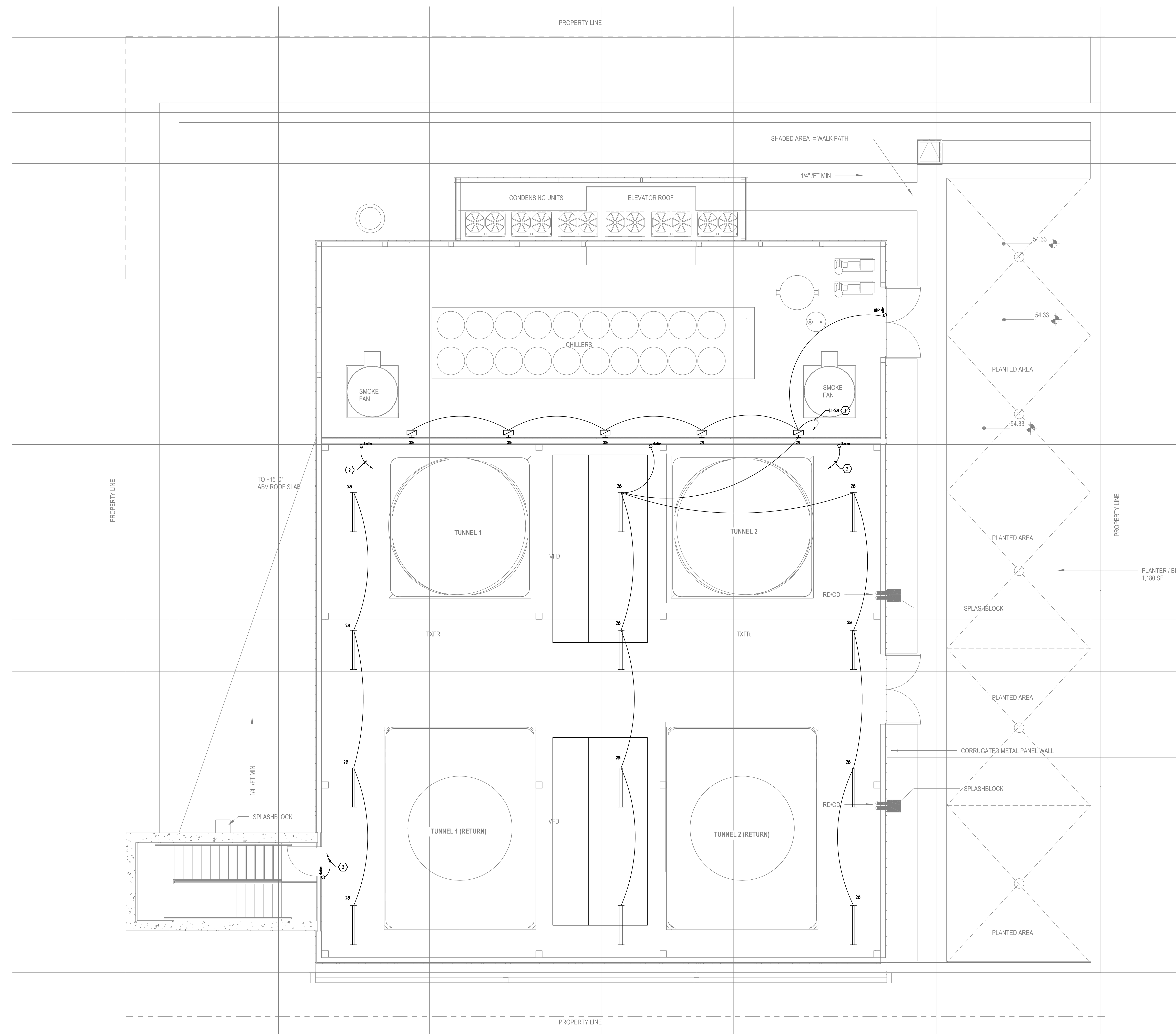
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ISSUES:

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**GENERAL NOTES:**

1. ARCHITECT VERIFICATION CONTRACTOR TO REVIEW ARCHITECTURAL PLANS AND CASWORK ELEVATIONS FOR ALL FINAL DEVICE AND FIXTURE TYPE REQUIREMENTS, FINAL SWITCH LOCATIONS, AND FINAL OUTLET PLACEMENTS. ANY DISCREPANCIES SHOULD BE BROUGHT TO THE ATTENTION OF THE ARCHITECT AND ENGINEER PRIOR TO ROUGH-IN.
2. ELECTRICAL CONTRACTOR TO OBTAIN APPROVAL ON ALL SWITCH LOCATIONS 30 DAYS PRIOR TO ROUGH IN.
3. ALL SYSTEMS FURNITURE CIRCUITS AND HOVERING TO BE PROVIDED WITH DEDICATED NEUTRAL CONDUCTORS PER CIRCUIT.
4. PROVIDE IDV CONNECTION TO DOOR HARDWARE/CONTROLLER AS REQUIRED. COORDINATE FINAL REQUIREMENTS WITH HARDWARE AND SECURITY VENDORS.
5. ALL EXPOSED/SURFACE MOUNTED ELECTRICAL JUNCTION BOXES TO BE CAST TYPE.
6. ALL MULTIPLE BRANCH CIRCUITS SHALL BE INSTALLED WITH DEDICATED NEUTRALS ROUTED IN HOPERS TO THE PANEL FOR EACH CIRCUIT BEING UTILIZED PER NEC 2009 SECTION 210.4.
7. RELOCATING ANY ELECTRICAL PANELS, INTERCEPT AND EXTEND EXISTING BRANCH CIRCUITS AS NECESSARY.
8. CONTRACTOR TO PROVIDE GFCI PROTECTION WHERE RECEPTACLES ARE INSTALLED WITHIN 6FT OF THE OUTSIDE EDGE OF ANY 8x6; PROVIDE A GFCI CIRCUIT BREAKER AT PANEL BOARD FOR ALL CIRCUITS WHERE LAB SINKS ARE LOCATED AT BENCH TOP, IN ACCORDANCE WITH NEC 210.8.

**SHEET NOTES:**

1. ROUTE VIA DEMAND RESPONSE LIGHTING PANEL.
2. ROUTE TO OTHER 4-WAY SWITCH.

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 ISSUES:

PROJECT NO: 5439.0  
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 DRAWN BY: CHECKED BY:  
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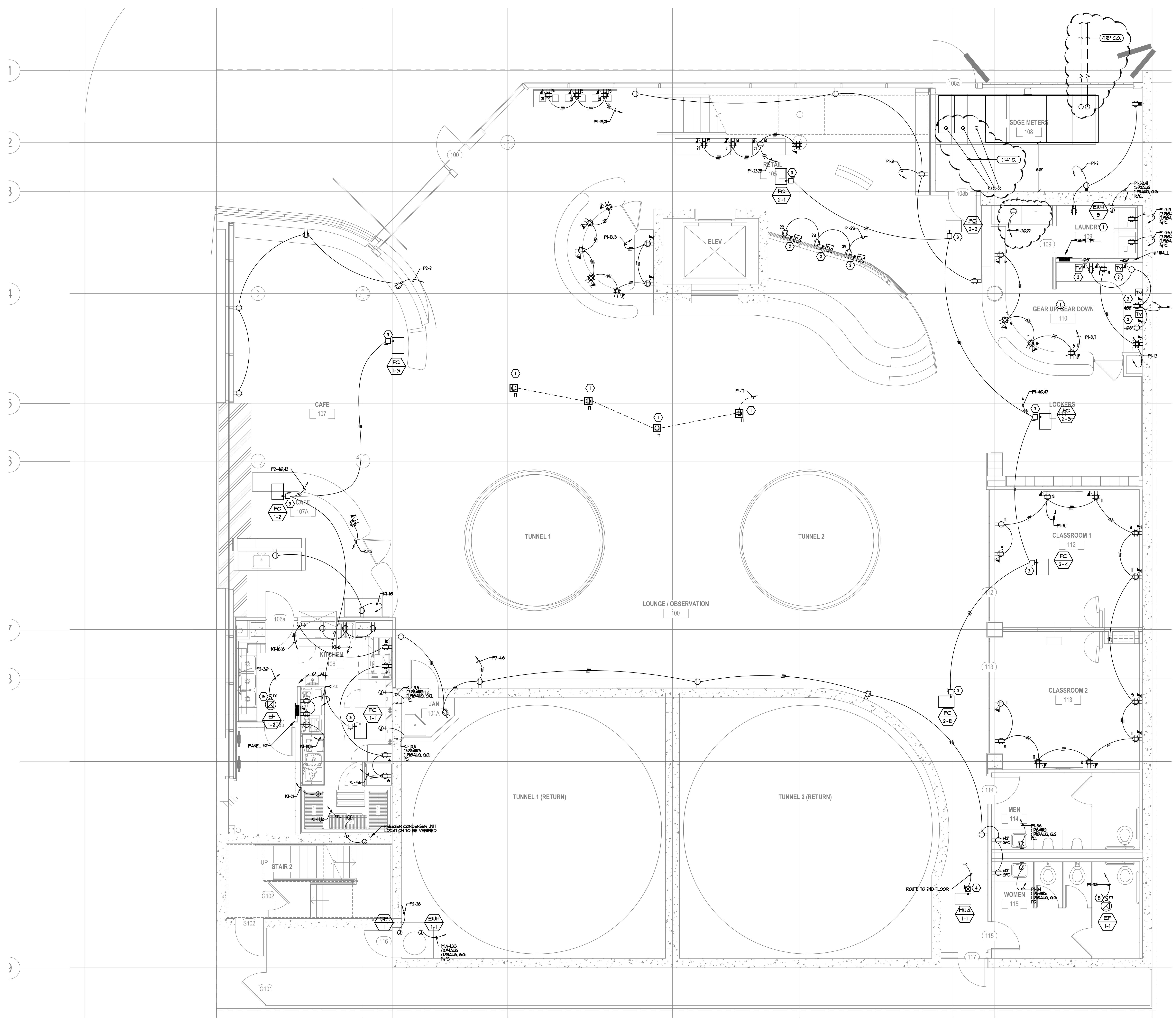


ROOF LEVEL LIGHTING PLAN

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

DRAWING NO: E3.4

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**GENERAL NOTES:**

1. ARCHITECT VERIFICATION CONTRACTOR TO REVIEW ARCHITECTURAL PLANS AND CARRYOVER ELEVATIONS FOR ALL FINAL DEVICE AND FIXTURE TYPE REQUIREMENTS, FINAL SWITCH LOCATIONS, AND FINAL OUTLET PLACEMENTS. ANY DISCREPANCIES SHOULD BE BROUGHT TO THE ATTENTION OF THE ARCHITECT AND ENGINEER PRIOR TO ROUGH-IN.
2. ELECTRICAL CONTRACTOR TO OBTAIN APPROVAL ON ALL SWITCH LOCATIONS 30 DAYS PRIOR TO ROUGH IN.
3. ALL SYSTEMS FURNITURE CIRCUITS AND HOVERING TO BE PROVIDED WITH DEDICATED NEUTRAL CONDUCTORS PER CIRCUIT.
4. PROVIDE IDBY CONNECTION TO DOOR HARDWARE/CONTROLLER AS REQUIRED. COORDINATE FINAL REQUIREMENTS WITH HARDWARE AND SECURITY VENDORS.
5. ALL EXPOSED/SURFACE MOUNTED ELECTRICAL JUNCTION BOXES TO BE CAST TYPE.
6. ALL MULTIPLE BRANCH CIRCUITS SHALL BE INSTALLED WITH DEDICATED NEUTRALS ROUTED IN HOPERS TO THE PANEL FOR EACH CIRCUIT BEING UTILIZED PER NEC 2009 SECTION 210.4.
7. F RELOCATING ANY ELECTRICAL PANELS, INTERCEPT AND EXTEND EXISTING BRANCH CIRCUITS AS NECESSARY.
8. CONTRACTOR TO PROVIDE GFCI PROTECTION WHERE RECEPTACLES ARE INSTALLED WITHIN 6FT OF THE OUTSIDE EDGE OF ANY 8NFC PROVIDE A GFCI CIRCUIT BREAKER AT PANEL BOARD FOR ALL CIRCUITS WHERE LAB SVCS ARE LOCATED AT BENCH TOP. IN ACCORDANCE WITH NEC 210.8.

**SHEET NOTES:**

1. CONFIRM POWER REQUIREMENTS WITH OWNER PRIOR TO ROUGH IN
2. PROVIDE CLOCK TYPE RECEPTACLE
3. NEMA 1 30A 2P RATED DISCONNECT. COORDINATE FINAL RUSE SIZE WITH MECHANICAL. MOTOR RATED SNAP SWITCHES ARE NOT AUTHORIZED.
4. NEMA 1 30A 3P COMBINATION STARTER/FUSIBLE DISCONNECT. COORDINATE FINAL HEATER, STARTER AND RUSE SIZE WITH MECHANICAL.
5. NEMA 1 TOGGLE FRACTIONAL HORSEPOWER RATED MANUAL MOTOR STARTER. PROVIDE WITH THERMAL OVERLOADS.

**FOOD SERVICE NOTES:**

1. ELECTRICAL CONTRACTORS SHALL PROVIDE ALL JUNCTION BOXES, OUTLETS AND RECEPTACLES IN FIXTURES FABRICATOR TO LOCATE ALL RECEPTACLES AND SWITCHES WHEN PART OF FIXTURES INTERNAL WIRING TO BE FURNISHED AND INSTALLED BY ELECTRICAL CONTRACTOR.
2. ELECTRICAL CONTRACTOR TO PROVIDE A FLEX CONDUIT "SNIP" AT ALL DIRECT CONNECT STUB-OUTS, EXTENDED AND CONNECTED TO FIXTURES.
3. ELECTRICAL CONTRACTOR TO WIRE MAGNETIC CONTACTORS FOR POWER SHUTOFF FOR ALL ELECTRIC COOKING EQUIPMENT AND ALL ELECTRICAL OUTLETS UNDER HOOD WHICH ARE PROTECTED BY THE FIRE SUPPRESSION SYSTEM. CONNECT 20 VOLT CONTROL CIRCUIT FROM MICRO SWITCH SYSTEM ON CYLINDER ENCLOSURE TO HOLDING COOL OF CONTRACTOR.
4. ELECTRICAL CONTRACTOR TO PROVIDE AND INSTALL STAINLESS STEEL COVER PLATES FOR ALL RECEPTACLES AND SWITCHES IN ALL FOOD PREPARATION AREAS UNLESS NOTED OTHERWISE. ALL RECEPTACLES TO BE MOUNTED HORIZONTALLY.
5. ALL DEVICES IN KITCHEN AND BAR AREAS TO BE GFI PROTECTED
6. ELECTRICAL CONTRACTOR TO INTERCONNECT EXHAUST HOOD LIGHTS IF MULTIPLE FIXTURES ARE PROVIDED, AND CONNECT TO SWITCH/POWER.
7. ELECTRICIAN TO PROVIDE AND CONNECT WATER-TIGHT FLEX CONDUIT TO WARE WASHING AND GLASS WASHING MACHINES, DISPOSERS, FOOD WASTE COLLECTORS (INCLUDING SOLIDIFY VALVE AND SWITCH, AND ALL OTHER EQUIPMENT IN MOST LOCATIONS.
8. OWNER/OPERATOR TO VERIFY ROUGH-IN HEIGHTS OF ALL RECEPTACLES, SERVING POINT-OF-SALE TERMINALS, PRINTERS, CASH REGISTERS, COMPUTER EQUIPMENT, AND SECURITY DEVICES.
9. ELECTRICAL CONTRACTOR TO CONTACT OWNER FOR ELECTRICAL NOTIFICATION AND FINAL LOCATION OF ALL SOUND SYSTEMS, CASH REGISTERS, TELEPHONE SYSTEMS OR ANY OTHER EQUIPMENT NOT RELATED TO FOOD SERVICE PLANS PRIOR TO ROUGH IN.
10. SEE KITCHEN PLANS FOR FINAL WIRING REQUIREMENTS
11. KITCHEN WIRING CONNECTION TYPES AND LOADS BASED ON FOOD SERVICE PLANS DATED:

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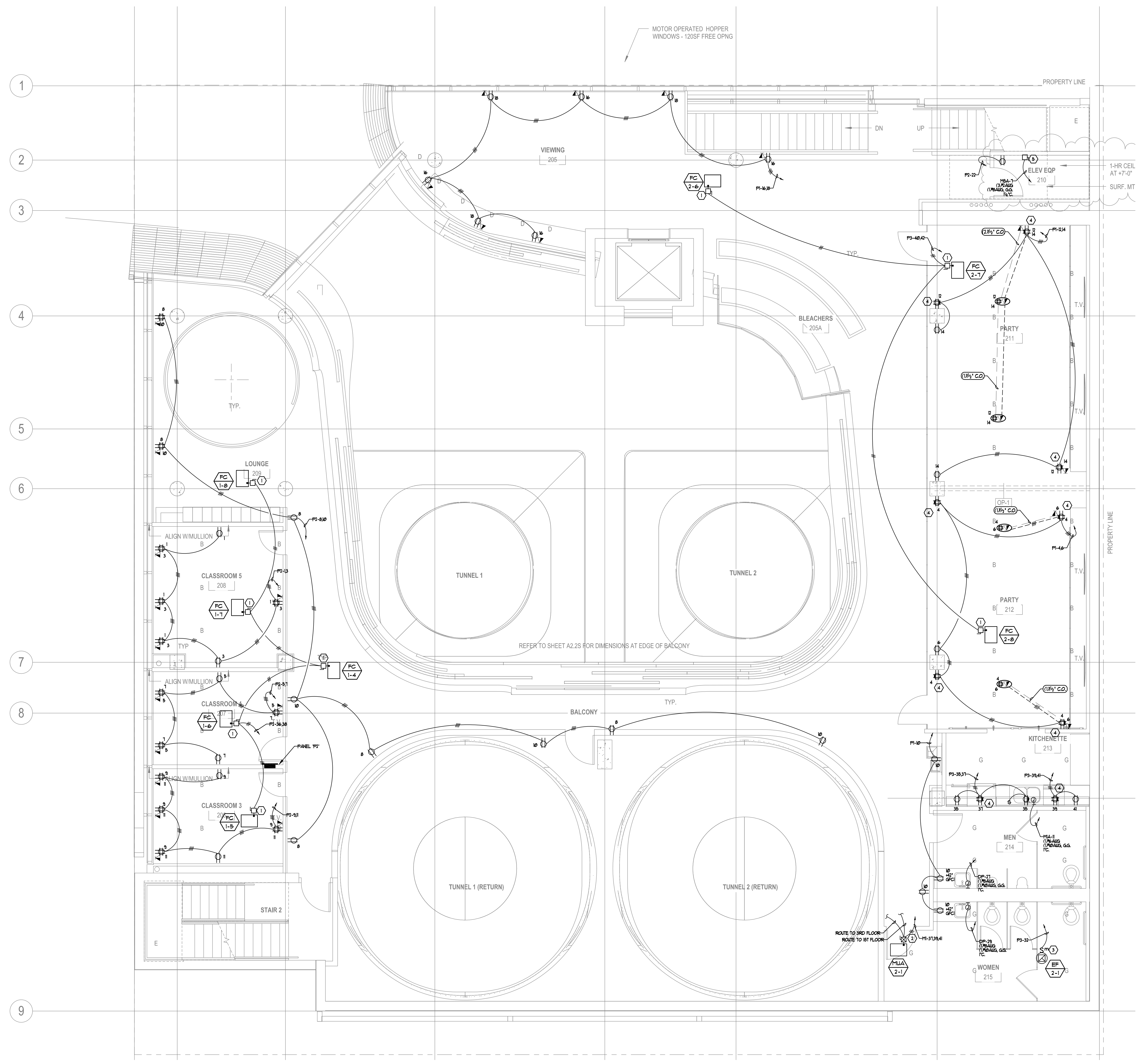
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1ST FLOOR POWER PLAN

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

DRAWING NO: E4.1

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**GENERAL NOTES:**

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4. PROVIDE IDV CONNECTION TO DOOR HARDWARE/CONTROLLER AS REQUIRED. COORDINATE FINAL REQUIREMENTS WITH HARDWARE AND SECURITY VENDORS.
5. ALL EXPOSED/SURFACE MOUNTED ELECTRICAL JUNCTION BOXES TO BE CAST TYPE.
6. ALL MULTIRATE BRANCH CIRCUITS SHALL BE INSTALLED WITH DEDICATED NEUTRALS ROUTED IN HOPPERING TO THE PANEL FOR EACH CIRCUIT BEING UTILIZED PER NEC 2008 SECTION 210.4.
7. RELOCATING ANY ELECTRICAL PANELS, INTERCEPT AND EXTEND EXISTING BRANCH CIRCUITS AS NECESSARY.
8. CONTRACTOR TO PROVIDE GFCI PROTECTION WHERE RECEPTACLES ARE INSTALLED WITHIN 6FT OF THE OUTSIDE EDGE OF ANY 8"X6" PANEL. PROVIDE A GFCI CIRCUIT BREAKER AT PANEL BOARD FOR ALL CIRCUITS WHERE LAB SVCS ARE LOCATED AT BENCH TOP, IN ACCORDANCE WITH NEC 210.8.

**SHEET NOTES:**

1. NEMA 1 30A 2P FUSED DISCONNECT. COORDINATE FINAL FUSE SIZE WITH MECHANICAL. MOTOR RATED SNAP SWITCHES ARE NOT AUTHORIZED.
2. NEMA 1 30A 3P COMBINATION STARTER/FUSIBLE DISCONNECT. COORDINATE FINAL HEATER, STARTER AND FUSE SIZE WITH MECHANICAL.
3. NEMA 1 TOGGLE FRACTIONAL HORSEPOWER RATED MANUAL MOTOR STARTER. PROVIDE WITH THERMAL OVERLOADS.
4. PROVIDE CONTROLLED RECEPTACLE.
5. NEMA 1 100A 3P FUSED DISCONNECT. COORDINATE FINAL FUSE SIZE WITH MECHANICAL. MOTOR RATED SNAP SWITCHES ARE NOT AUTHORIZED.

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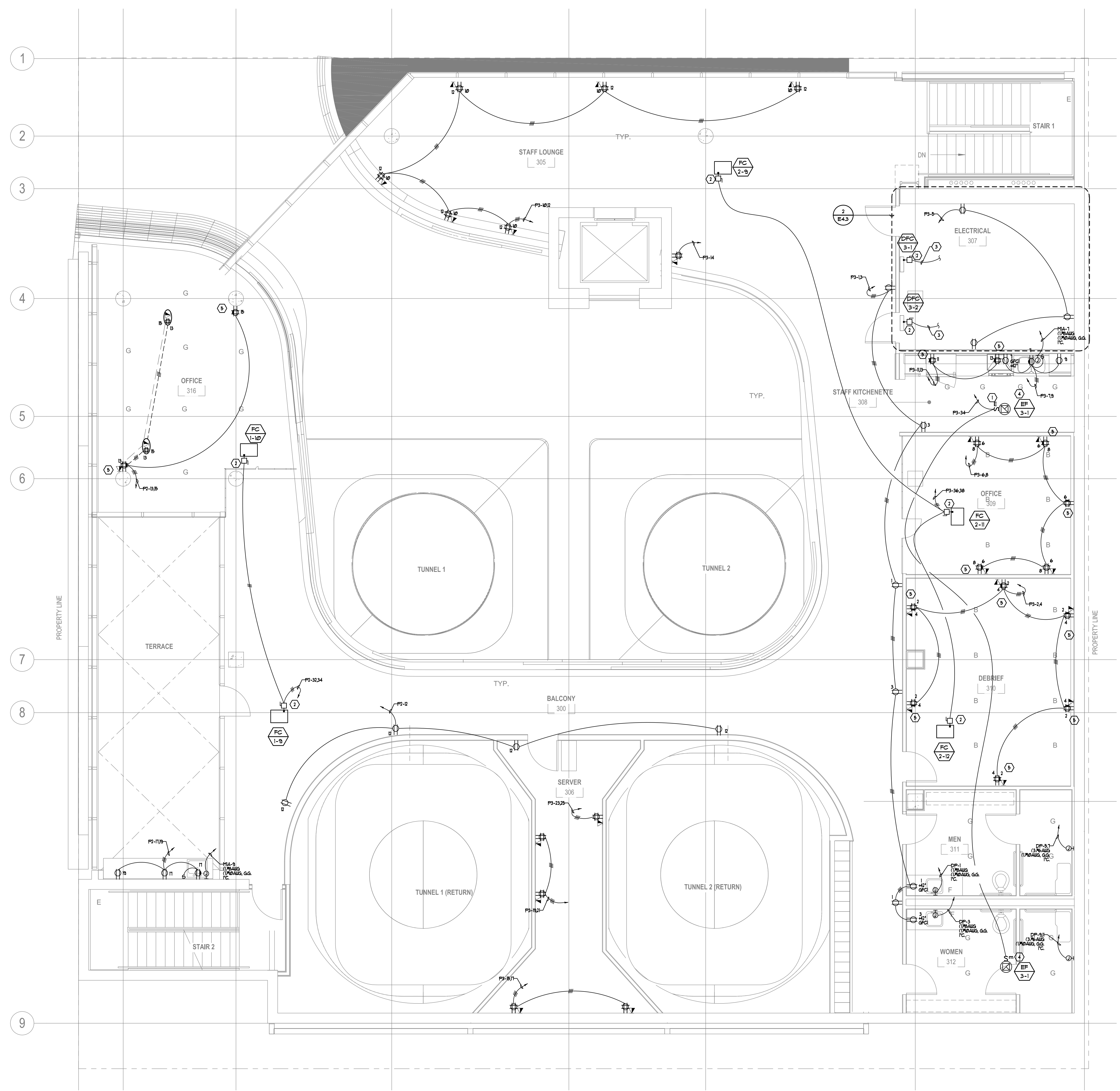
REGISTERED PROFESSIONAL ENGINEER  
 MICHAEL A. MAYS  
 STATE OF CALIFORNIA  
 LICENSE NO. 44212

2ND FLOOR POWER PLAN

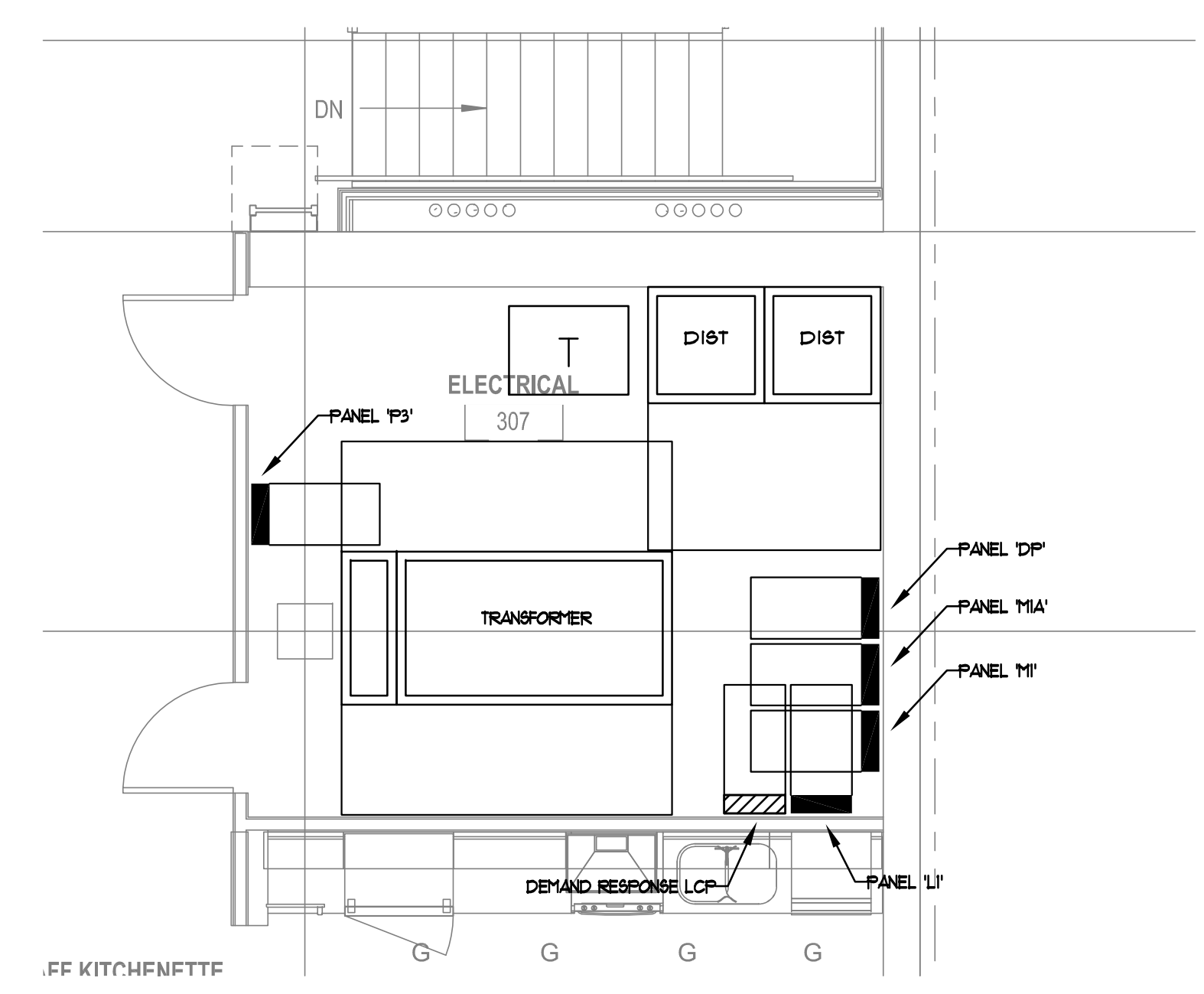
SCALE: 1/4" = 1'-0"

DRAWING NO: E4.2

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3RD FLOOR POWER PLAN



3RD FLOOR ELECTRICAL ROOM DETAIL

SCALE: 1/4" = 1'-0" 2

GENERAL NOTES:

1. ARCHITECT VERIFICATION CONTRACTOR TO REVIEW ARCHITECTURAL PLANS AND CASEWORK ELEVATIONS FOR ALL FINAL DEVICE AND FIXTURE TYPE REQUIREMENTS, FINAL SWITCH LOCATIONS, AND FINAL OUTLET PLACEMENTS. ANY DISCREPANCIES SHOULD BE BROUGHT TO THE ATTENTION OF THE ARCHITECT AND ENGINEER PRIOR TO ROUGH-IN.
2. ELECTRICAL CONTRACTOR TO OBTAIN APPROVAL ON ALL SWITCH LOCATIONS 30 DAYS PRIOR TO ROUGH IN.
3. ALL SYSTEMS FURNITURE CIRCUITS AND HOVERING TO BE PROVIDED WITH DEDICATED NEUTRAL CONDUCTORS PER CIRCUIT.
4. PROVIDE DEVI CONNECTION TO DOOR HARDWARE/CONTROLLER AS REQUIRED. COORDINATE FINAL REQUIREMENTS WITH HARDWARE AND SECURITY VENDORS.
5. ALL EXPOSED/SURFACE MOUNTED ELECTRICAL JUNCTION BOXES TO BE CAST TYPE.
6. ALL MULTIPLE BRANCH CIRCUITS SHALL BE INSTALLED WITH DEDICATED NEUTRALS ROUTED IN HOVERIN TO THE PANEL FOR EACH CIRCUIT BEING UTILIZED PER NEC 2008 SECTION 210.4.
7. F RELOCATING ANY ELECTRICAL PANELS, INTERCEPT AND EXTEND EXISTING BRANCH CIRCUITS AS NECESSARY.
8. CONTRACTOR TO PROVIDE GFCI PROTECTION WHERE RECEPTACLES ARE INSTALLED WITHIN 6FT OF THE OUTSIDE EDGE OF ANY SINK. PROVIDE A GFCI CIRCUIT BREAKER AT PANEL BOARD FOR ALL CIRCUITS WHERE LAB SINKS ARE LOCATED AT BENCH TOP. IN ACCORDANCE WITH NEC 210.8.

SHEET NOTES:

1. CONFIRM POWER LOCATIONS PER OWNER PRIOR TO ROUGH IN
2. NEMA 1 30A 3P FUSED DISCONNECT. COORDINATE FINAL PIRE SIZE WITH MECHANICAL. MOTOR RATED SNAP SWITCHES ARE NOT AUTHORIZED.
3. ROUTE CIRCUIT TO OUTDOOR UNIT
4. NEMA 1 TOGGLE FRACTIONAL HORSEPOWER RATED MANUAL MOTOR STARTER. PROVIDE WITH THERMAL OVERLOADS.
5. PROVIDE CONTROLLED RECEPTACLE.

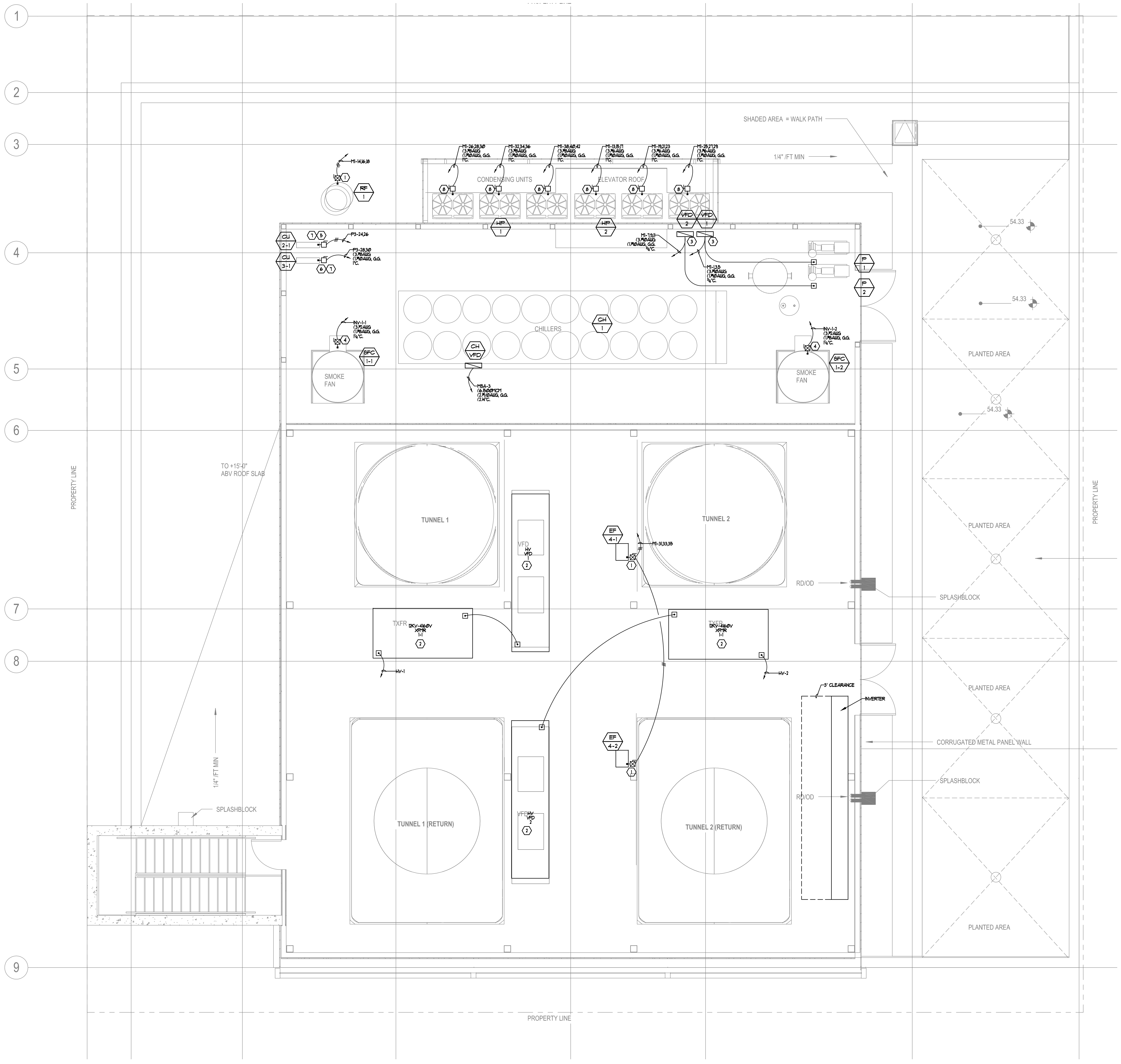


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SCALE: 1/4" = 1'-0" 1

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**GENERAL NOTES:**

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8. CONTRACTOR TO PROVIDE GFCI PROTECTION WHERE RECEPTACLES ARE INSTALLED WITHIN 6FT OF THE OUTSIDE EDGE OF ANY 8x6" SNK. PROVIDE A GFCI CIRCUIT BREAKER AT PANEL BOARD FOR ALL CIRCUITS WHERE LAB SNK'S ARE LOCATED AT BENCH TOP. IN ACCORDANCE WITH NEC 210.8.

**SHEET NOTES:**

1. NEMA 3R 30A 3P COMBINATION STARTER/FUSIBLE DISCONNECT. COORDINATE FINAL HEATER, STARTER AND FUSE SIZE WITH MECHANICAL.
2. EQUIPMENT BY OTHERS
3. PROVIDE UNIT CONNECTION TO VARIABLE FREQUENCY DRIVE UNIT. VFD PROVIDED BY MECHANICAL CONTRACTOR, INSTALLED BY ELECTRICAL CONTRACTOR.
4. NEMA 3R 100A 3P COMBINATION STARTER/FUSIBLE DISCONNECT. COORDINATE FINAL HEATER, STARTER AND FUSE SIZE WITH MECHANICAL.
5. NEMA 3R 30A 2P FUSED DISCONNECT. COORDINATE FINAL FUSE SIZE WITH MECHANICAL. MOTOR RATED SNAP SWITCHES ARE NOT AUTHORIZED.
6. NEMA 3R 60A 2P FUSED DISCONNECT. COORDINATE FINAL FUSE SIZE WITH MECHANICAL. MOTOR RATED SNAP SWITCHES ARE NOT AUTHORIZED.
7. ROUTE TO ASSOCIATED FAN COIL BELOW.
8. NEMA 3R 60A 3P FUSED DISCONNECT. COORDINATE FINAL FUSE SIZE WITH MECHANICAL. MOTOR RATED SNAP SWITCHES ARE NOT AUTHORIZED.

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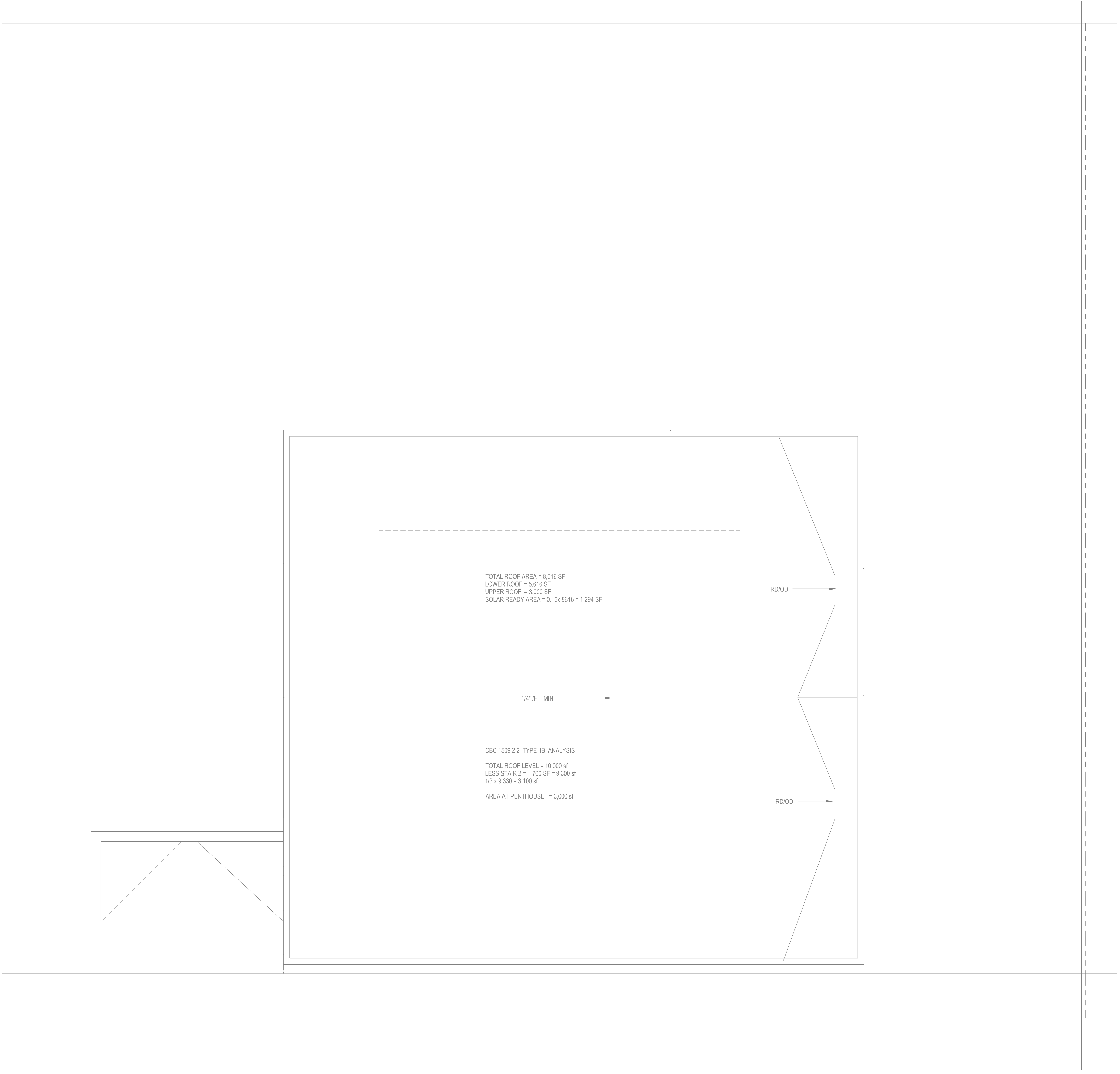
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 STATE OF CALIFORNIA  
 ELEC. 14280

ROOF LEVEL POWER PLAN

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

DRAWING NO: E4.4

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TOTAL ROOF AREA = 8,616 SF  
 LOWER ROOF = 5,616 SF  
 UPPER ROOF = 3,000 SF  
 SOLAR READY AREA = 0.15x 8616 = 1,294 SF

1/4" / FT MIN

CBC 1509.2.2 TYPE IIB ANALYSIS  
 TOTAL ROOF LEVEL = 10,000 sf  
 LESS STAIR 2 = - 700 SF = 9,300 sf  
 1/3 x 9,330 = 3,100 sf  
 AREA AT PENTHOUSE = 3,000 sf

**GENERAL NOTES:**

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**SHEET NOTES:**

① x

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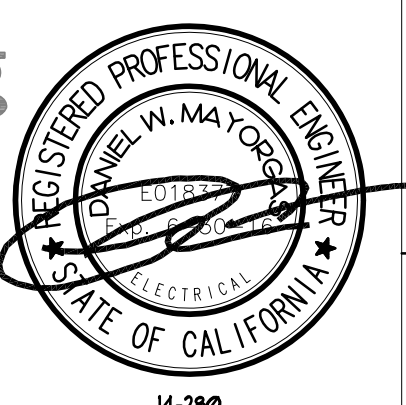
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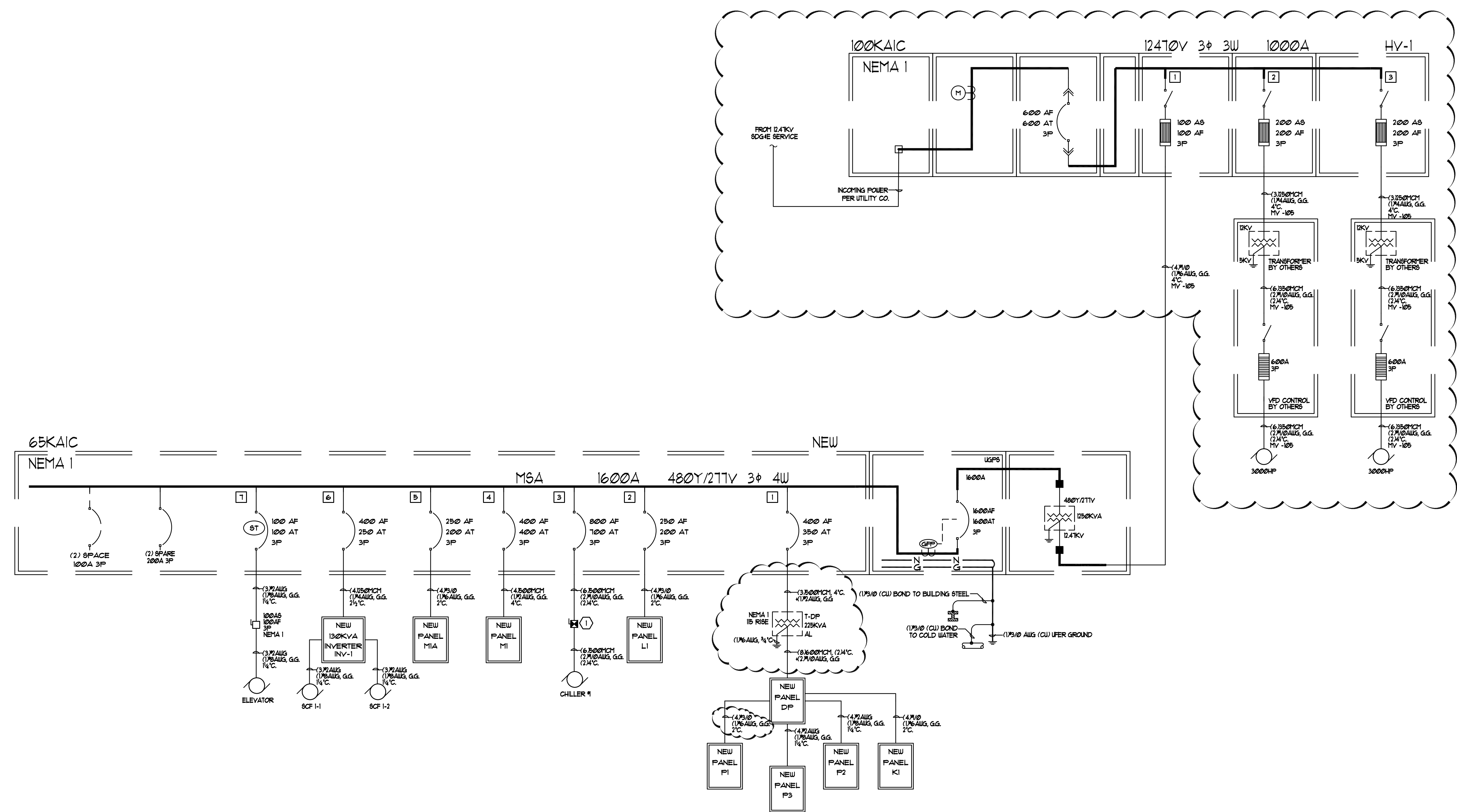
UPPER ROOF ELECTRICAL PLAN

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



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**AIRBORNE SAN DIEGO**  
 1401 IMPERIAL AVENUE  
 SAN DIEGO, CA 92101



LOAD SUMMARY		
MAIN SWITCHBOARD 'MSA'		
	1600A 480Y/277V 3PH 4W	
	VA LOAD	AMP LOAD
CHILLER 1	378006	454.9
PANEL M1	281700	339.0
PANEL L1	20220	24.3
XFMR 'T-DP'	185170	222.8
PANEL M1A	78000	93.9
INVERTER	108030	130.0
ELEVATOR	43212	52.0
<b>TOTAL</b>	<b>1094338</b>	<b>1316.9 AMPS</b>

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 WEST HILLS, CA 91301  
 CELL - 818-321-3169  
 GARY.CLUCK@SIEMENS.COM

**SHEET NOTES**

- ① VFD BY OTHERS. SUPPLY WITH INTEGRAL DISCONNECT
- ② PROVIDE 30KVA INVERTER, TRIENT TRN-480-4-150-460 OR APPROVED EQUAL. PROVIDE 30 MINUTES OF BACKUP.

**SINGLELINE NOTES**

1. VERTICAL BUS MAY BE TAPERED TO NOT LESS THAN 1/3 THE AMPACITY RATING OF THE MAIN HORIZONTAL BUS.
2. HORIZONTAL AND VERTICAL BUS SHALL BE FULL LENGTH, AND BE RATED NO LESS THAN THE NOTED AIC RATED VALUE.
3. CONTRACTOR SHALL SUBMIT SWITCHBOARD SHOP DRAWINGS TO THE SERVING UTILITY FOR APPROVAL PRIOR TO FABRICATION. SWITCHBOARD SHALL COMPLY WITH SOURCE REQUIREMENTS.
4. CONTRACTOR TO SUBMIT 1/4" PLAN TO ENGINEER OF PROPOSED SWITCHGEAR LAYOUT TO CONFORM WITH MANUFACTURER'S SHOP DRAWINGS. SHOP DRAWING TO BE SUBMITTED AND APPROVED PRIOR TO UNDERGROUND ROUGH-IN.
5. ALL RISES SHALL BE CURRENT LIMITING CLASS RK1, TYPE LPS-RK-SP. (FAST ACTION 600V)
6. ALL CONDUCTORS FEEDING PANELBOARDS SHALL BE COPPER TYPE THHN WITH EMT CONDUIT. BRANCH CIRCUIT AND FEEDER CABLES IN ALL RISES SHALL HAVE THE THIN OR THIN INSULATION WITH EMT CONDUIT. AC CABLE IS NOT ALLOWED TO BE INSTALLED. AN EQUIPMENT GROUND CONDUCTOR SHALL BE IN ALL FLEXIBLE CONDUITS. 3/4" MIN TO BE USED AT ALL EXTERIOR LOCATION PANEL FEEDERS.
7. ALL EQUIPMENT SHOWN IS NEW UNLESS NOTED OTHERWISE.
8. ALL TRANSFORMERS TO BE PROVIDED TO MEET CALIFORNIA ENERGY COMMISSION APPLIANCE EFFICIENCY REGULATION REQUIREMENTS FOR DRY TYPE 'EE' TRANSFORMERS, PER TABLE 17 MINIMUM EFFICIENCY RATINGS.
9. EACH TRANSFORMER SHALL USE THE WATER PIPE ELECTRODE WITHIN 3' OF WHERE THE WATER SERVICE ENTERS THE BUILDING (I.E. BUILDING STEEL, COLD WATER PIPE).
10. ALL TRANSFORMER SECONDARY FEEDER TERMINATIONS SHALL BE MADE WITHIN 10 CABLE FEET OF TRANSFORMER.
11. ALL TERMINATION LUGS OF PANELS AND SWITCHBOARDS TO BE RATED TO ACCEPT 75 DEGREE CONDUCTORS.
12. THE CONTRACTOR SHALL PROVIDE A SERIES RATED SYSTEM TO ENSURE THAT ALL ELECTRICAL COMPONENTS OF THIS SYSTEM EXCEED THE HIGHER SHORT CIRCUIT WITHSTAND RATINGS AVAILABLE. PROVIDE ENGRAVED PHENOLIC NAMEPLATES ON ALL SWITCHBOARDS AND PANELBOARDS TO DENOTE THE USE OF SERIES RATED DEVICES.
13. ALL MAIN SERVICE CIRCUIT BREAKERS SHALL BE 100% RATED.
14. SERVICE GROUND FAULT SHALL BE TESTED AS PER SAN DIEGO AREA ELECTRICAL NEWSLETTER Q&A. CONTRACTOR TO PROVIDE TIME AND MANUFACTURER OF ASSOCIATED BREAKERS TO ALLOW ENGINEER TO CALCULATE MAIN BREAKER AND GFI SETTINGS TWO WEEKS PRIOR TO THIRD PARTY TESTING.
15. PROVIDE AND INSTALL BARE COPPER GROUNDING RWB ELECTRODE AS INDICATED WITH A MINIMUM OF 30" LENGTH ENCASED IN BUILDING FOOTING. PROVIDE BONDED CONNECTION TO BUILDING STEEL. REBAR SHALL NOT BE USED AS GROUNDING ELECTRODE.
16. ELECTRIC ROOMS CONTAINING SERVICES OF 1200AMPS OR LARGER SHALL HAVE DOORS THAT OPEN OUTWARD AND BE EQUIPPED WITH PANG BARS, PRESSURE PLATES, OR OTHER DEVICES THAT ARE NORMALLY LATCHED BUT OPEN UNDER SIMPLE PRESSURE.
17. ALL MULTIBRANCH CIRCUITS SHALL BE INSTALLED WITH DEDICATED NEUTRALS ROUTED IN HORIZONTAL TO THE PANEL FOR EACH CIRCUIT BEING UTILIZED PER NEC 2009 SECTION 200.4.

03-06-15 PERMIT SUBMITTAL  
 12-05-14 PLAN CHECK SUBMITTAL  
 11-11-14 CD PROGRESS  
 10-01-14 DESIGN DEVELOPMENT  
 08-20-14 SCHEMATIC DESIGN  
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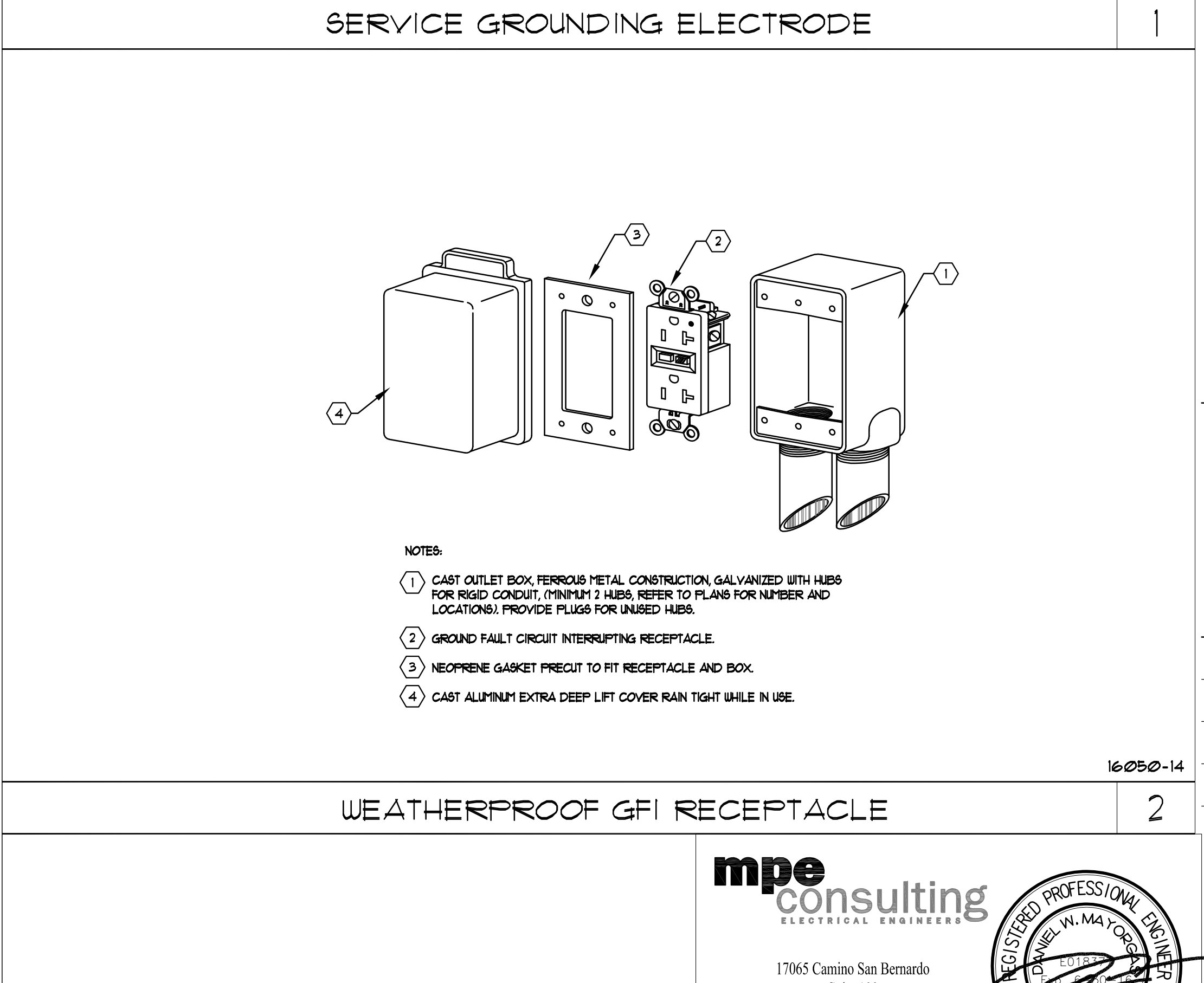
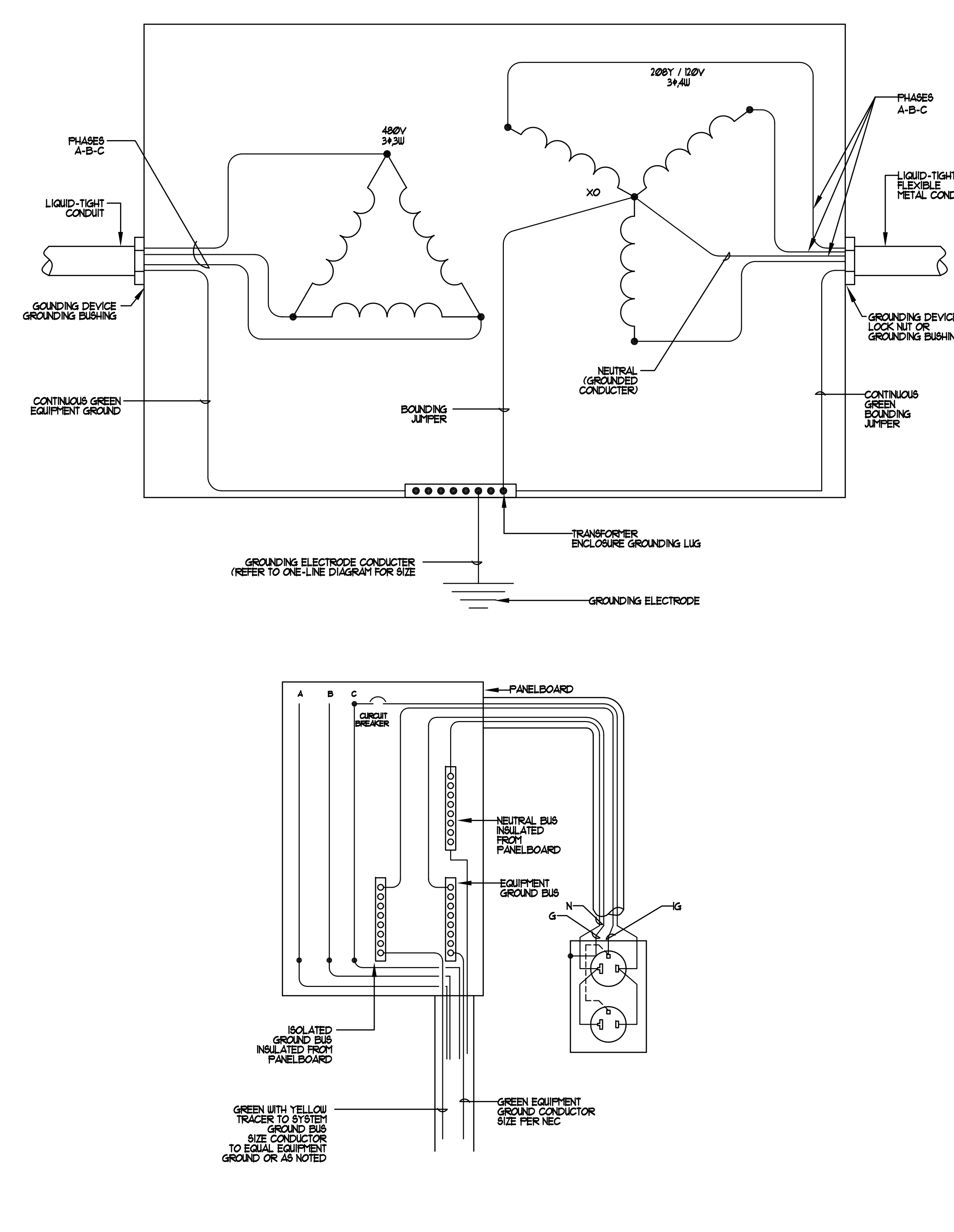
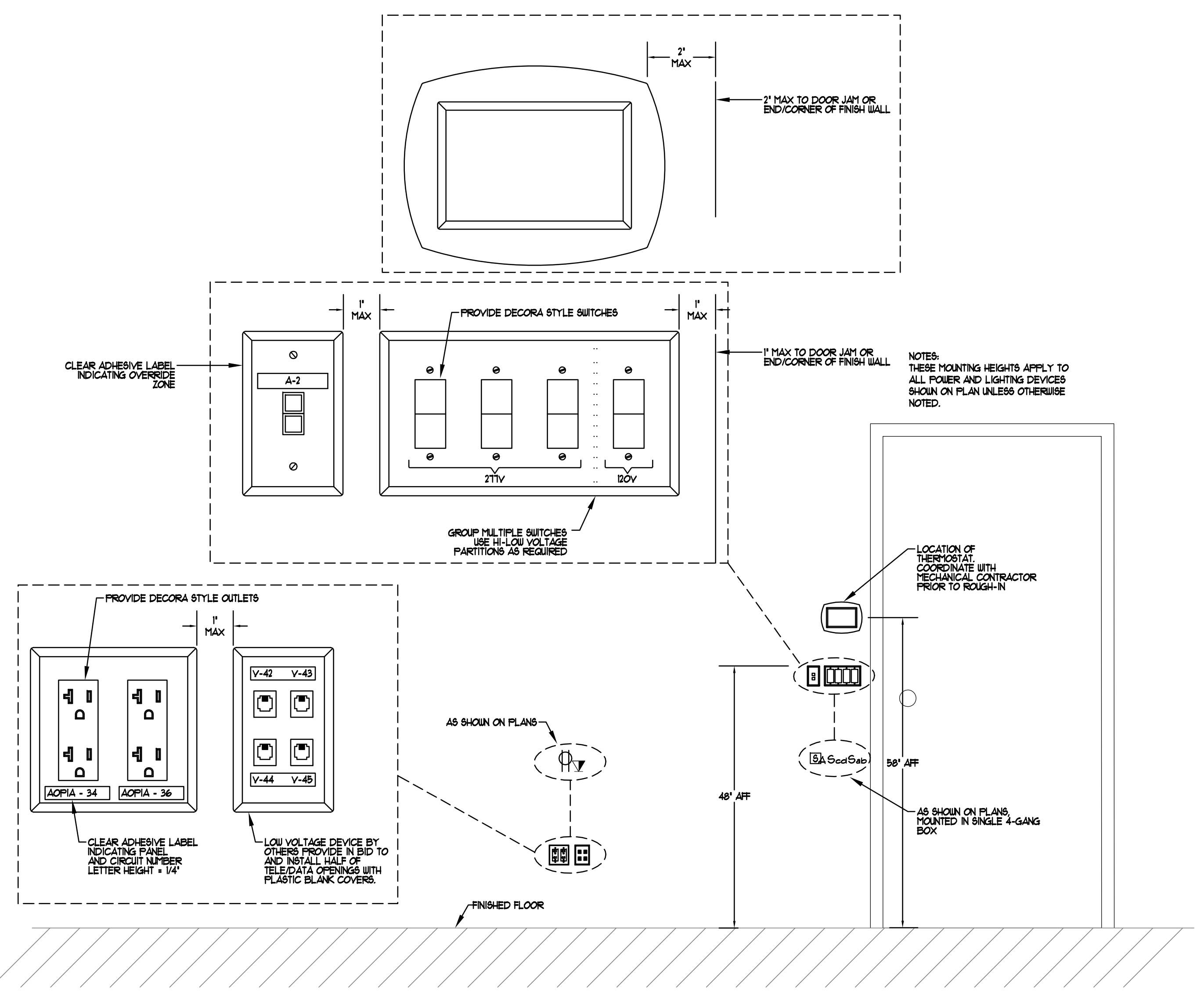
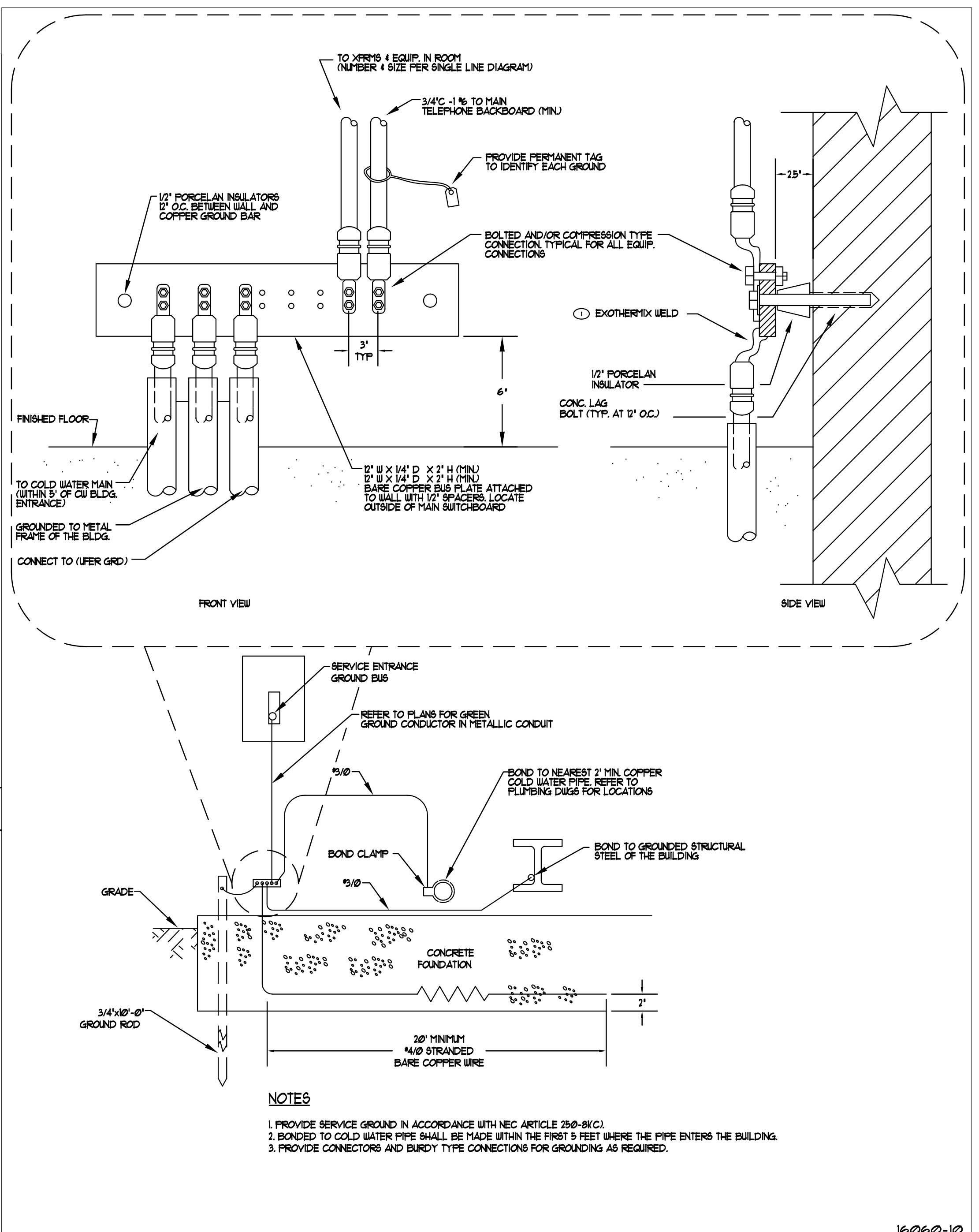
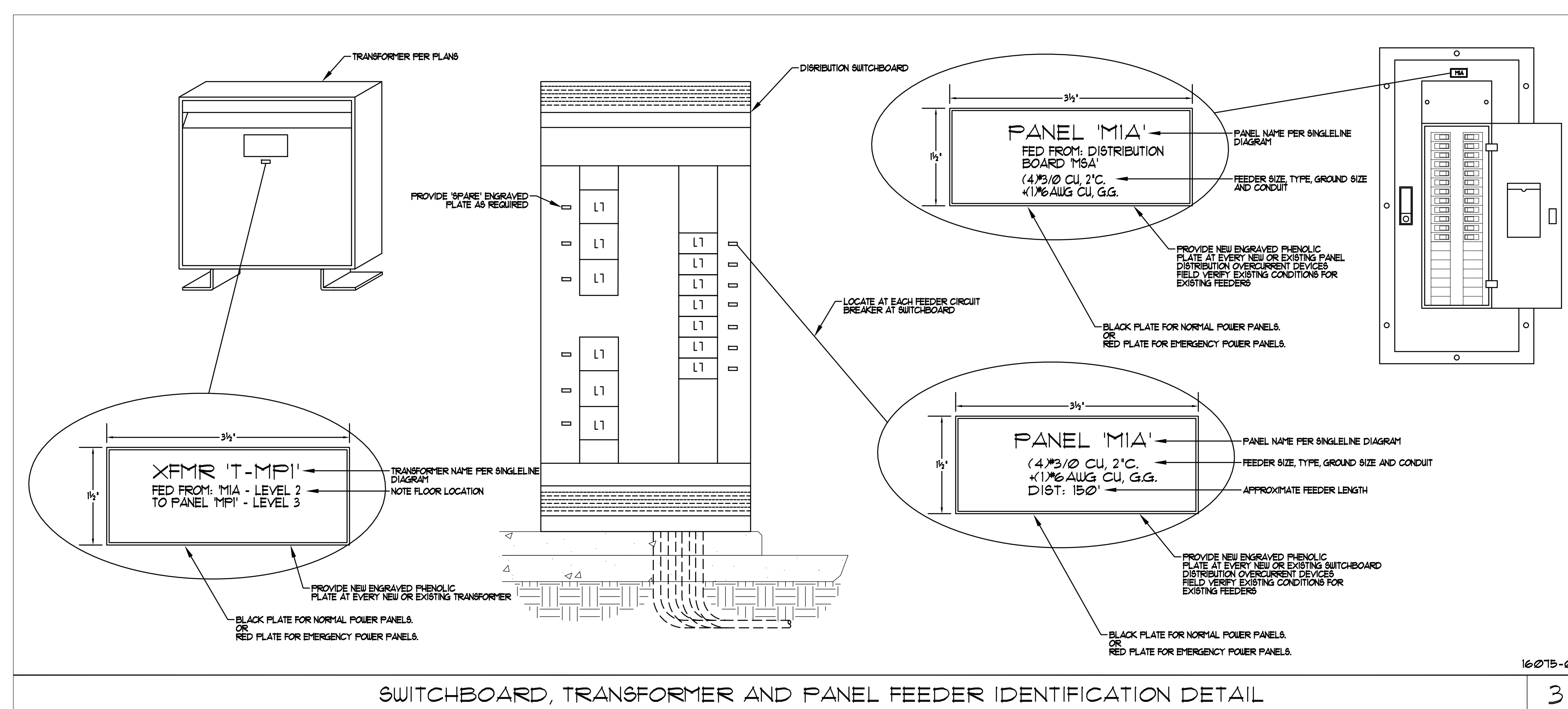
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DRAWING NO:  
**E6.1**

SINGLELINE DIAGRAM



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 11-11-14 CD PROGRESS  
 10-01-14 DESIGN DEVELOPMENT  
 08-20-14 SCHEMATIC DESIGN  
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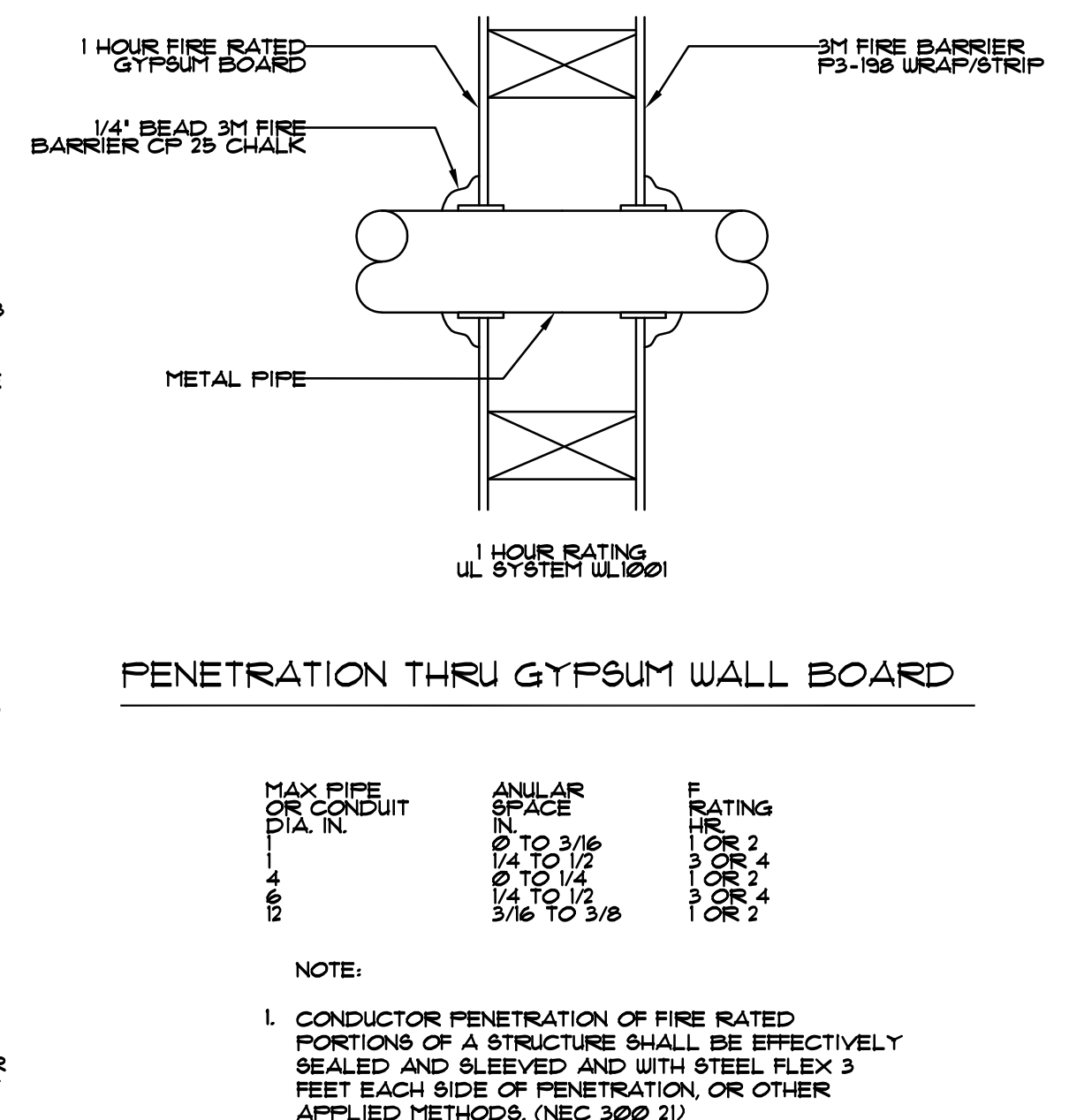
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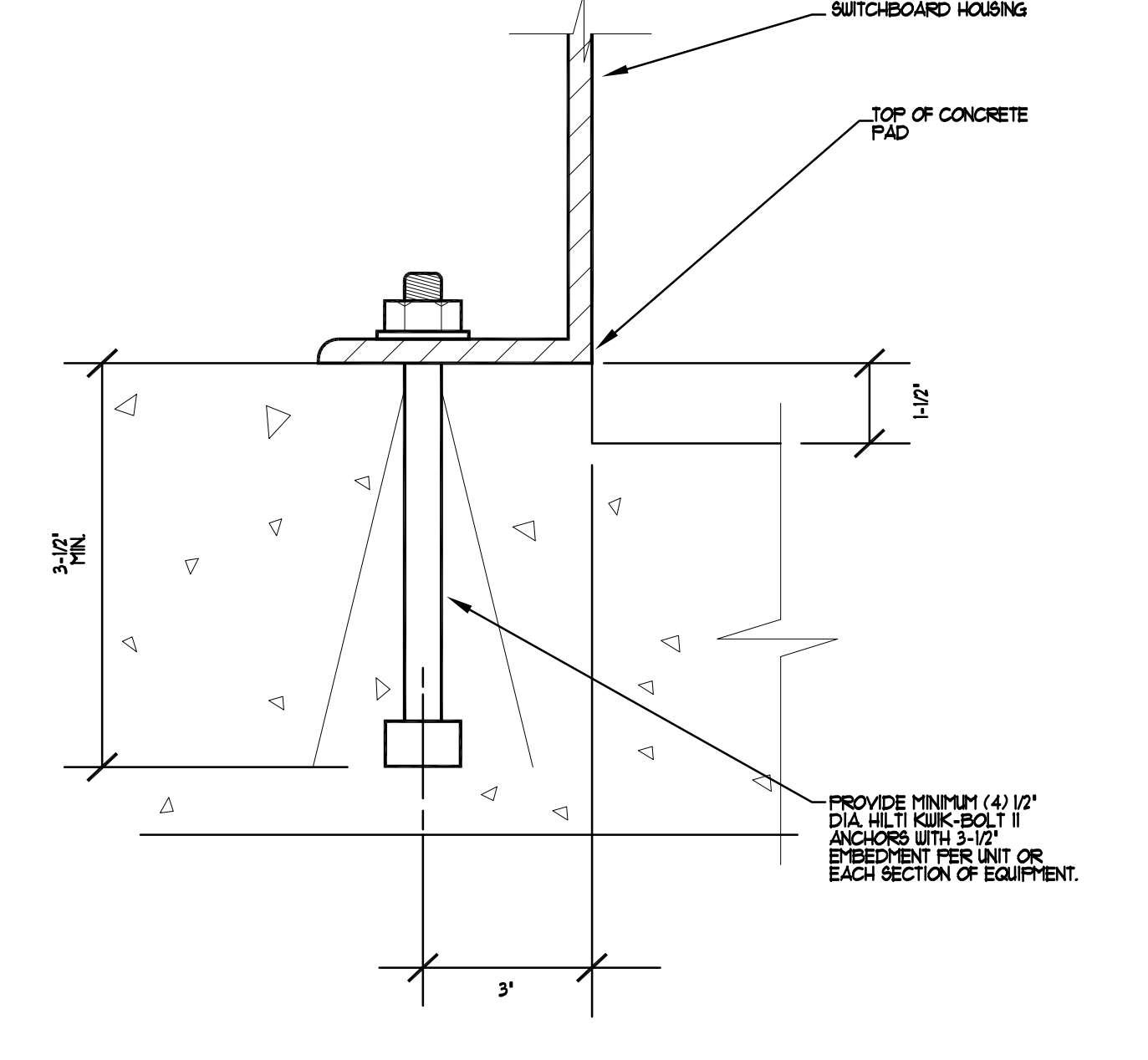
- WALL ASSEMBLY - THE 120 OR 4 HR FIRE RATED GYPSUM WALL BOARD/STUD ASSEMBLY SHALL BE CONSTRUCTED OF MATERIALS AND IN THE MANNER DESCRIBED IN THE INDIVIDUAL U300 OR U400 SERIES WALL OR PARTITION DESIGN IN THE UL FIRE RESISTANCE DIRECTORY AND SHALL INCLUDE THE FOLLOWING CONSTRUCTION FEATURES:
  - A STUDS - WALL FRAMING MAY CONSIST OF EITHER WOOD STUDS (MAX 2 HR FIRE RATED ASSEMBLIES) OR STEEL CHANNEL STUDS. WOOD STUDS TO CONSIST OF NOM 2 BY 4 INCH LUMBER SPACED IN 16" O.C. W/ NOM 2 BY 4 IN LUMBER AND PLATES AND CROSS BRACES. STEEL STUDS TO BE MIN 3 3/8" IN. WIDE BY 1 3/8" IN. DEEP CHANNELS SPACED MAX 24" O.C.
  - B. WALLBOARD GYPSUM - NOM 1/2 OR 3/8 IN. THICK 4 FT. WIDE WITH SQUARE OR TAPERED EDGES. THE GYPSUM WALLBOARD RYPS, THICKNESS NUMBER OF LAYERS, FASTENER TYPE AND SHEET ORIENTATION SHALL BE SPECIFIED IN THE INDIVIDUAL U300 OR U400 SERIES DESIGN IN THE UL FIRE RESISTANCE DIRECTORY. MAX DIA. OF OPENING IS 13-1/2 IN.
- PIPE OR CONDUIT - NOM 1/2 IN. DIA. OR SMALLER SCHEDULE 10 (OR HEAVIER) STEEL PIPE NOM 1/8 IN. DIA. (OR SMALLER) STEEL CONDUIT, NOM 4 IN. DIA. (OR SMALLER) STEEL ELECTRICAL METALLIC TUBING OR TYPE L OR (OR HEAVIER) COPPER TUBING PIPE NOM 1/8 IN. DIA. (OR SMALLER) FLEXIBLE STEEL CONDUIT WHEN COPPER PIPE OR FLEXIBLE STEEL CONDUIT IS MAX F RATINGS OF FIRESTOP SYSTEM (ITEM STRUCTURED USING STEEL CHANNEL STUDS. A MAX OF ONE PIPE OR CONDUIT IS PERMITTED IN THE FIRESTOP SYSTEM. PIPE OR CONDUIT TO BE INSTALLED NEAR CENTER OF STUD CAVITY WIDTH AND TO BE RIGIDLY SUPPORTED ON BOTH SIDES OF WALL ASSEMBLY.
 

MAX PIPE OR CONDUIT DIA. IN.	ANULAR SPACE (A) TO (B)	F. RATING (1) OR (2)
1/8	0" TO 3/16"	1 OR 2
1/4	0" TO 1/2"	1 OR 2
3/8	0" TO 1/2"	1 OR 2
1/2	0" TO 1/2"	1 OR 2
3/4	0" TO 1/2"	1 OR 2
1	0" TO 1/2"	1 OR 2
- FILL, VOID OR CAVITY MATERIAL - CHALK - CHALK FILL MATERIAL INSTALLED TO COMPLETELY FILL ANULAR SPACE BETWEEN PIPE OR CONDUIT AND GYPSUM WALLBOARD AND WITH A MIN. 1/4 IN. DIA. BOARD OF CHALK APPLIED TO PERIMETER OF PIPE OR CONDUIT AT ITS EDGES FROM WALL. CHALK INSTALLED SYMMETRICALLY ON BOTH SIDES OF WALL ASSEMBLY. THE HOURLY F RATINGS OF THE FIRESTOP SYSTEM IS DEPENDENT UPON THE HOURLY FIRE RATING OF THE WALL ASSEMBLY IN WHICH IT IS INSTALLED, AS SHOWN IN THE FOLLOWING TABLE. THE HOURLY F RATINGS OF THE FIRESTOP SYSTEM IS DEPENDENT UPON THE TYPE OR SIZE OF THE PIPE OR CONDUIT AND THE HOURLY FIRE RATING OF THE WALL ASSEMBLY IN WHICH IT IS INSTALLED, AS TABULATED BELOW.



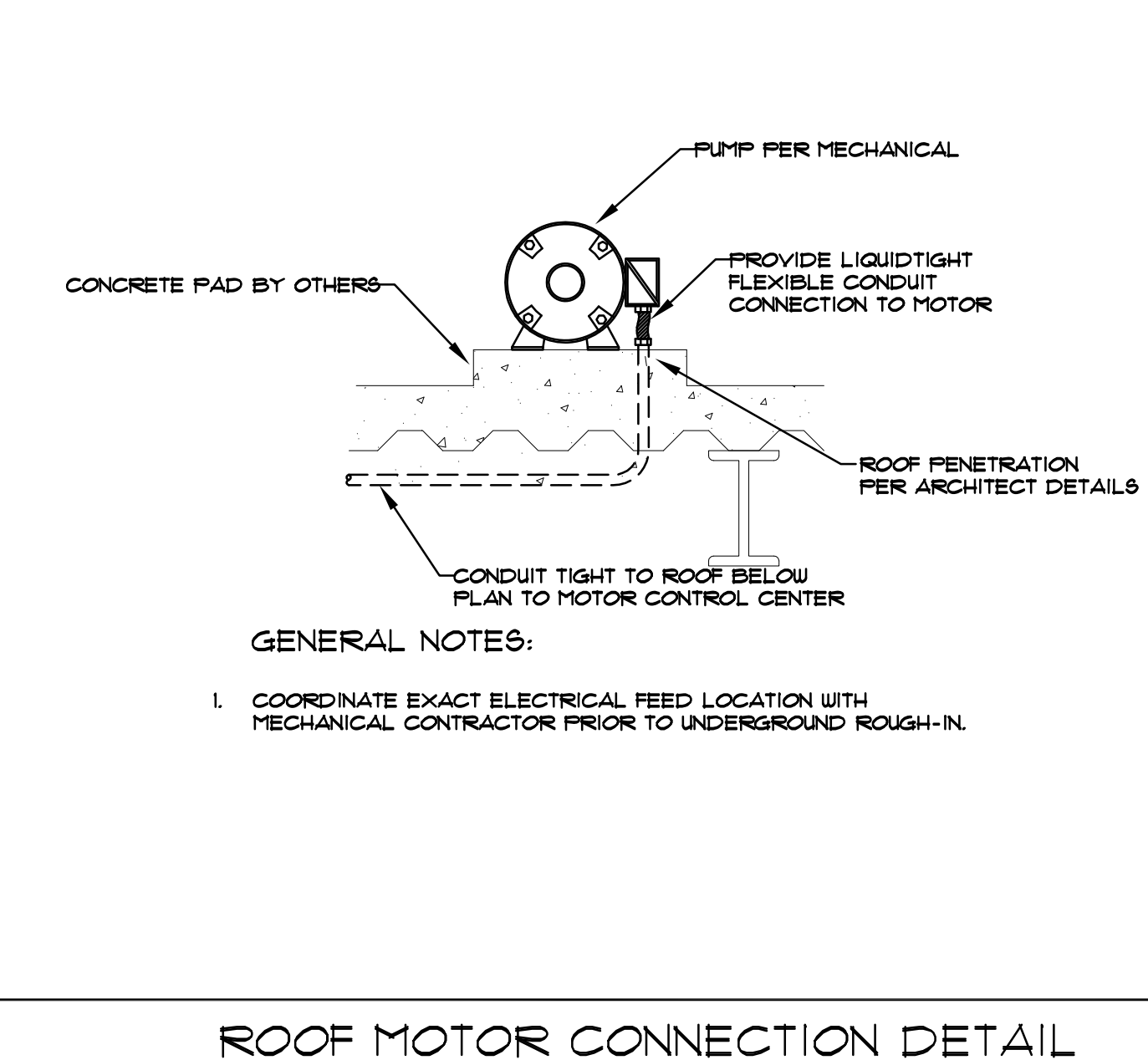
FIREWALL PENETRATION DETAIL

16050-24



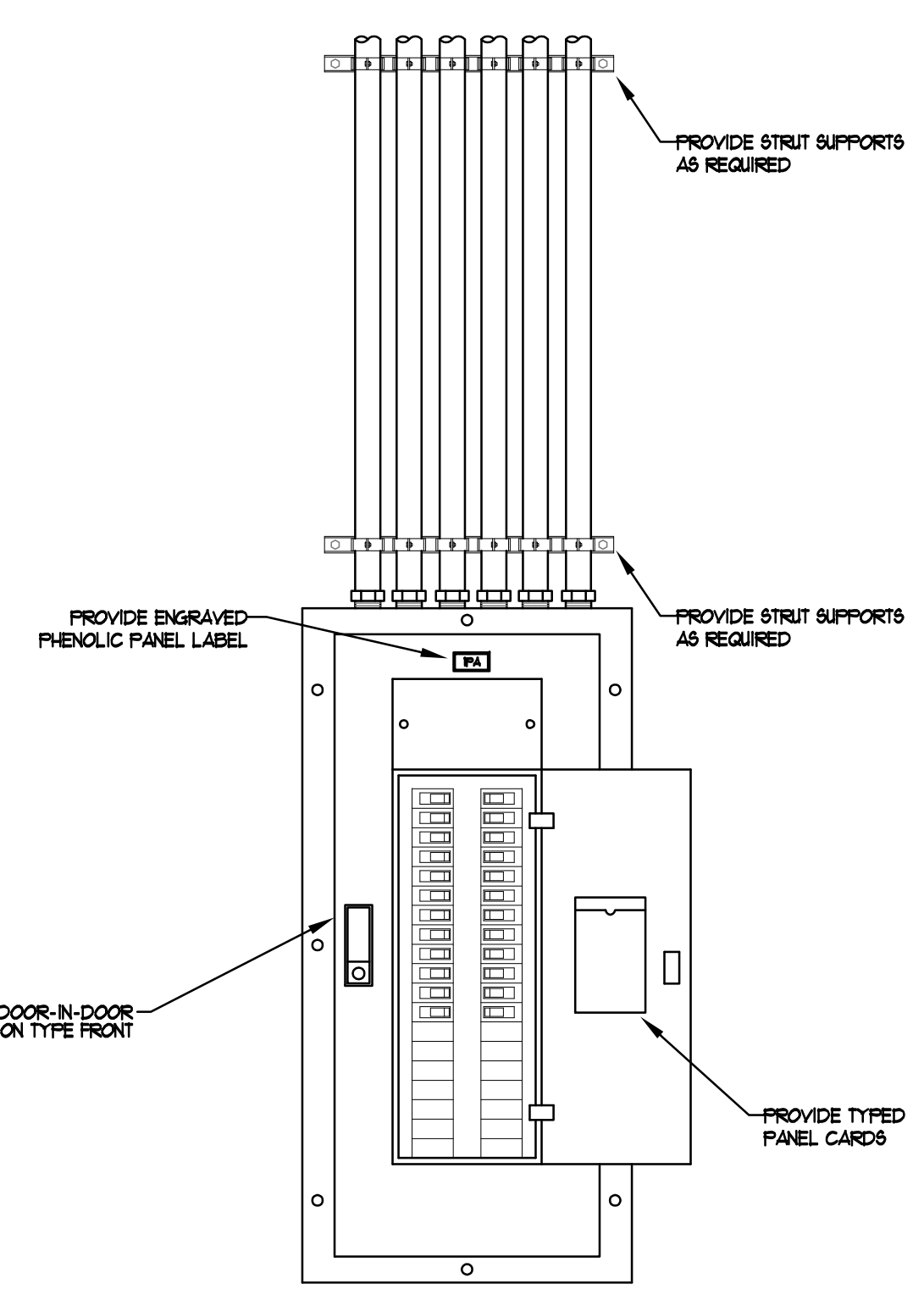
SWITCHBOARD MOUNTING

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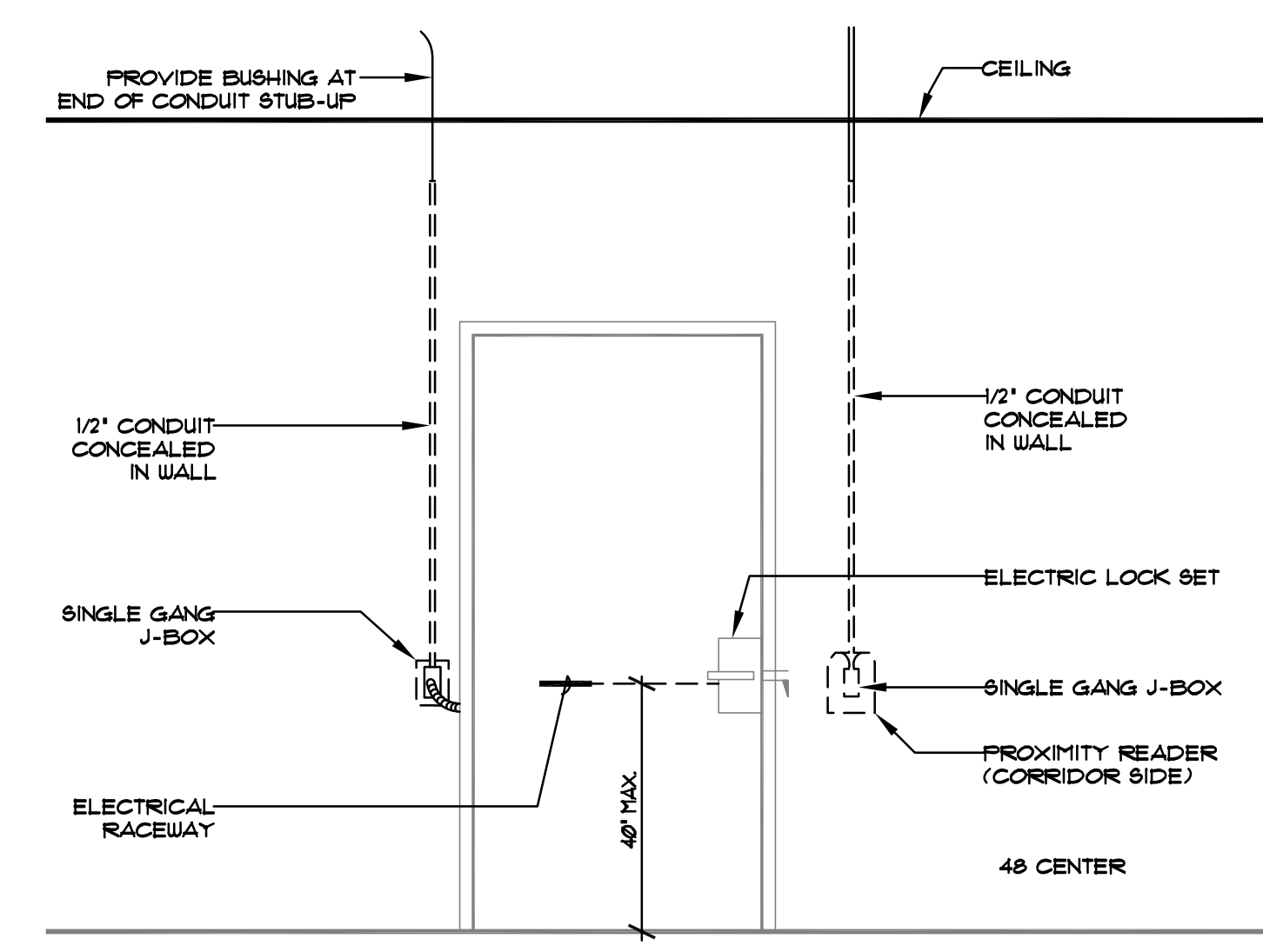
ROOF MOTOR CONNECTION DETAIL

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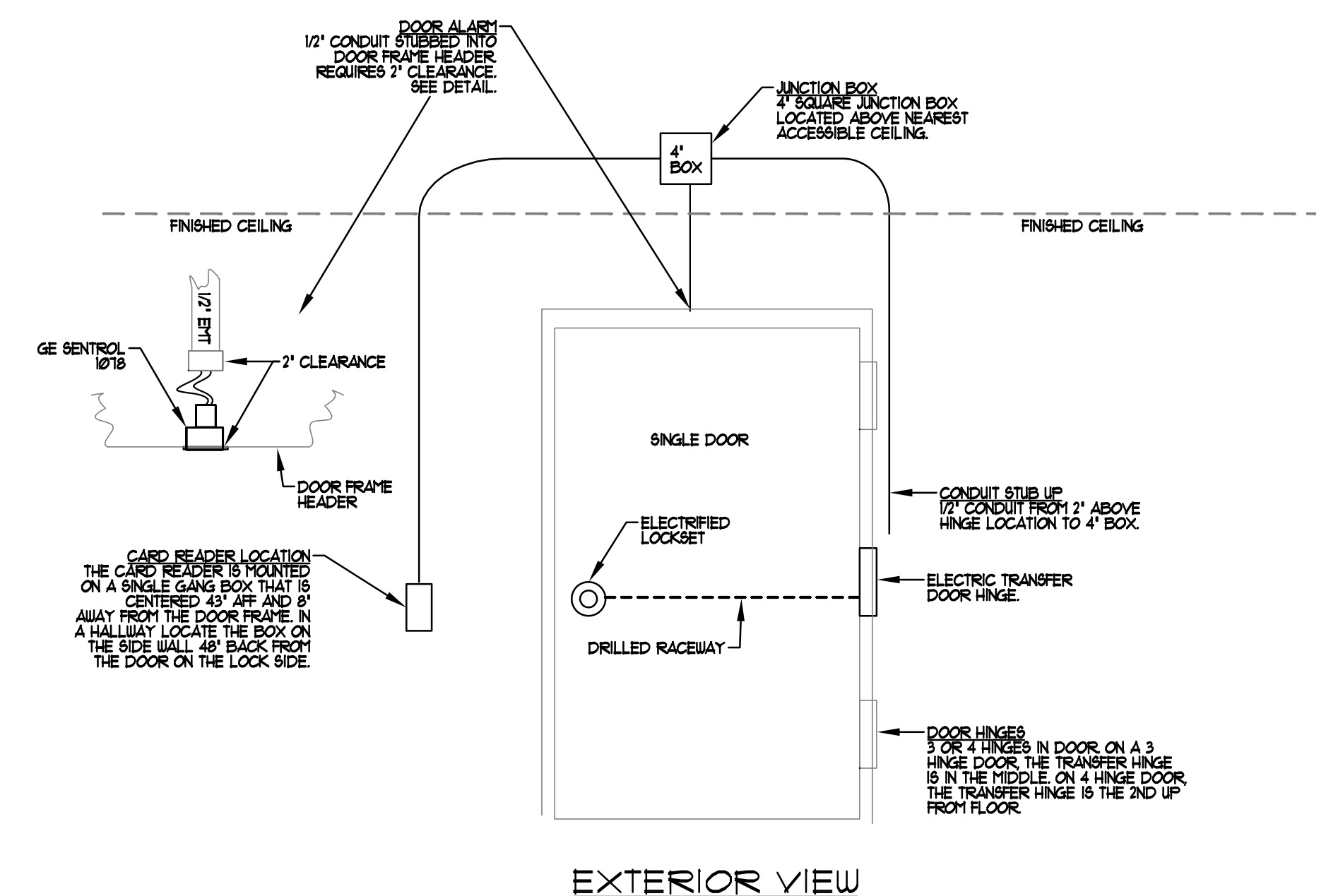
TYPICAL SURFACE MOUNTED PANELBOARD DETAIL

16442-01



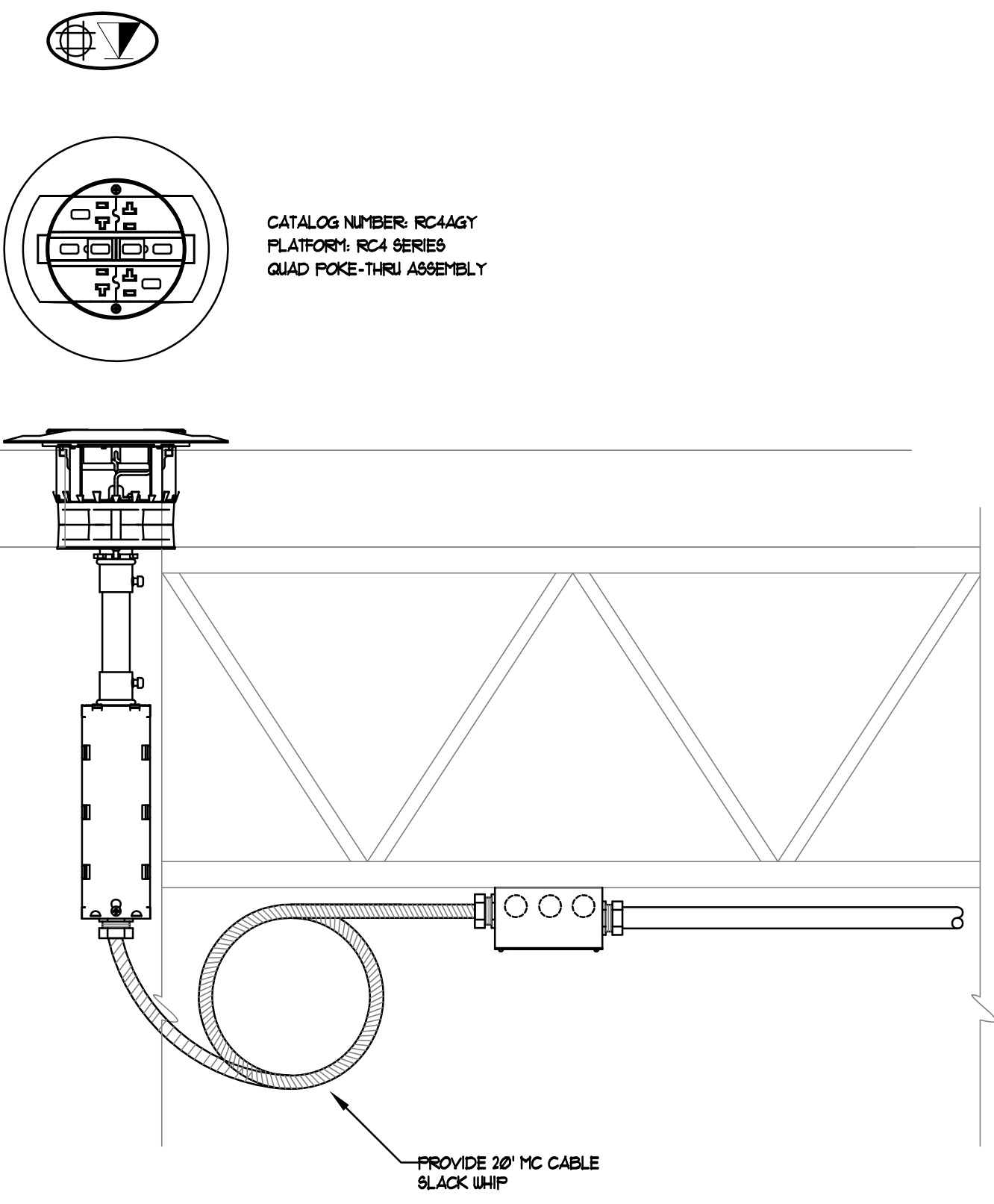
HARDWARE ELEVATION

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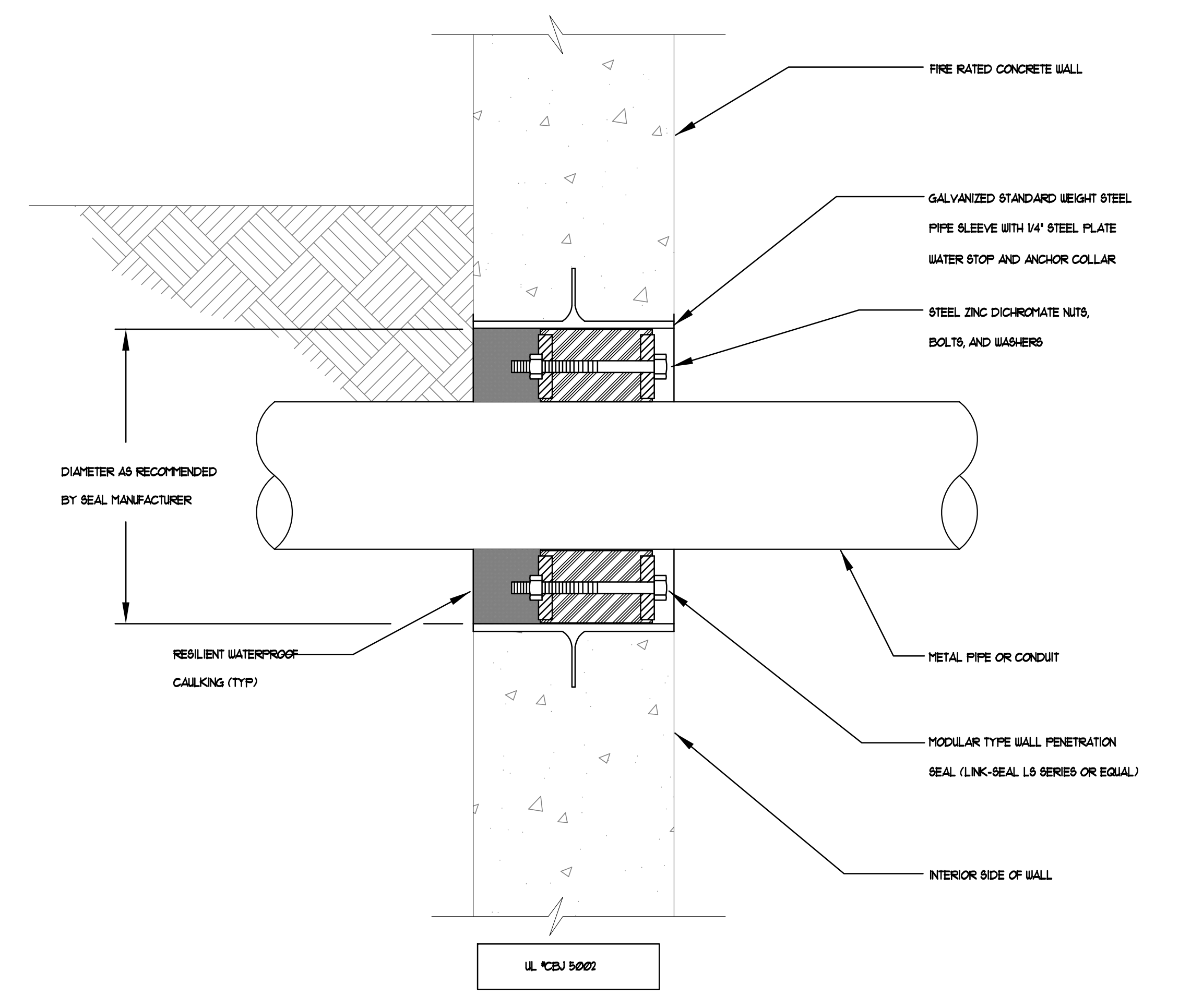
CONDUIT LAYOUT FOR SINGLE DOOR WITH CARD READER AND ELECTRIFIED LOCKSET

16050-52



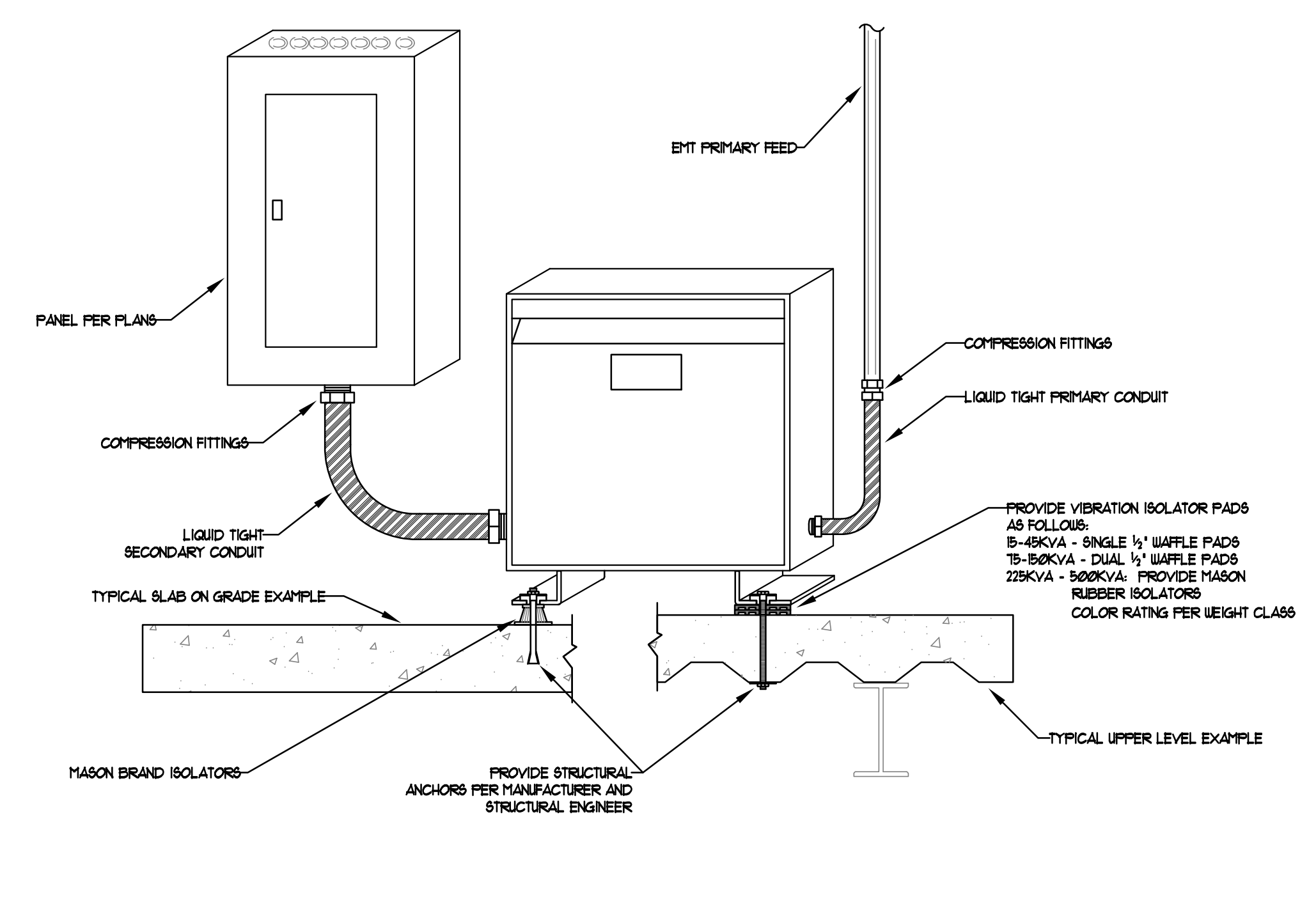
RATED POKE-THROUGH DETAIL

16130-24



CONDUIT PENETRATION THROUGH CONCRETE WALL

16050-59



TYPICAL TRANSFORMER ISOLATION DETAIL

16461-01

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08-20-14 SCHEMATIC DESIGN  
ISSUES:

PROJECT NO: 54309  
FILENAME:  
DRAWN BY: CHECKED BY:  
PLOT DATE: 03-19-15  
TITLE:

DRAWING NO:

E7.2