

LIGHTING FIXTURE SCHEDULE

Table with columns: Type Mark, Manufacturer & Catalog Number, Mounting Type, Descriptions, Lamp. Includes items A through OB with various lighting fixture details.

- GENERAL LIGHTING FIXTURE SCHEDULE NOTES: 1. PROVIDE CORRECT TRIM FOR ALL FIXTURES INSTALLED IN A HARD CEILING OR SPECIALTY CEILING TYPE. 2. PROVIDE ALL APPROPRIATE MOUNTING HARDWARE...

GENERAL NOTES:

- 1. CONTRACTOR SHALL PROVIDE BRANCH CIRCUIT WIRING TO ALL ITEMS WHICH REQUIRE ELECTRICAL CONNECTIONS. 2. CONTRACTOR SHALL USE ONLY THOSE WIRING METHODS ALLOWED IN THE SPECIFICATIONS. 3. A MAXIMUM OF 3 CIRCUITS SHALL BE RUN IN ONE CONDUIT...

CONTROL EQUIPMENT table listing symbols for Manual Motor Starter, Combination Motor Starter, Motor, Disconnected Switch, and Transformer.

STANDARD MOUNTING HEIGHTS table listing mounting heights from 0" to 9" below finished ceiling and 0" to 6" above door, with corresponding symbols and descriptions.

- MOUNTING HEIGHT NOTES: 1. MOUNTING HEIGHTS TO CENTER OF OUTLETS UNLESS OTHERWISE NOTED. 2. THE ABOVE MOUNTING HEIGHTS SHALL BE ADHERED TO UNLESS SPECIFICALLY NOTED OR DETAILED OTHERWISE ON THE DRAWING OR SPECIFICATIONS.

THE ELECTRICAL SYSTEMS PRESENTED ON THE SUBSEQUENT DRAWINGS WERE DESIGNED IN ACCORDANCE WITH THE FOLLOWING APPLICABLE CODES AND STANDARDS:

Table listing symbols for Ceiling/Dome, Wall/Dome, Bullet Camera, Door Contact, Ceiling Mounted Speaker, PA Horn Speaker, and Wireless Clock.

SITE WORK table listing symbols for Utility Pole, Pole Mounted Area Lighting Fixture, Manhole, and Ground Rod.

SIGNAL SYSTEM table listing symbols for Smoke Detector, Carbon Monoxide Detector, Heat Detector, Manual Pull Station, Audio Alarm, and Visual Alarm.

Table listing symbols for Flow Switch, Tamper Switch, Pressure Switch, Time Clock, Keypad, Pushbutton, Floor Box Mounted Data/Telephone Outlet, and Volume Control.

Table listing symbols for Card Reader, Data/Telephone Outlet, Television Outlet, Camera, Door Contact, Ceiling Mounted Speaker, PA Horn Speaker, and Wireless Clock.

ABBREVIATIONS & SYMBOLS table listing abbreviations for AFF, AFG, ATS, CT, DC, DF, EC, EF, ERL, ETD, ETR, GC, GF, HC, HP, HV, KES, MW, PC, TVSS, WM, WP, and drawing note by symbol.

LIGHTING table listing symbols for 2x2, 2x4, 1x8, 2x8, 1x4, 6"x4", 6"x2", Wall Pack, Strip Light, Wall Washer, Round Recessed, Normal Emergency, Emergency Battery, Remote Head, Exit Sign, and Wall Sconce.

WIRING DEVICES table listing symbols for Single Pole Switch, 3-Way Switch, 4-Way Switch, Key Switch, Spring Wound Time Switch, Spring Wound Time Switch, Dimmer Switch, Manual Motor Starter, 3-Way Dimmer, Occupancy Sensor, Pilot Light, Manual Override, Switch with Occupancy Sensor, Dual Technology Occupancy Sensor, Dual Technology Occupancy Sensor, Ceiling Mounted Daylight Sensor, Multiple Button Digital Control Station, Duplex Receptacle, Counter Top Duplex Receptacle, Tamperproof Duplex Receptacle, Duplex Receptacle with USB Port, Single Receptacle, GFI Duplex Receptacle, Duplex Receptacle with Top Switched, Quad Receptacle, Single Phase Special Receptacle, Three Phase Special Receptacle, Floor Box Mounted Duplex Receptacle, Combination Power/Communications Floor Box-Devices, Cord Reel, and Television Cable Outlet.

PANELBOARDS table listing symbols for Surface Mounted Panel, Flush Mounted Panel, Existing Surface Mounted Panel, and Existing Flush Mounted Panel.

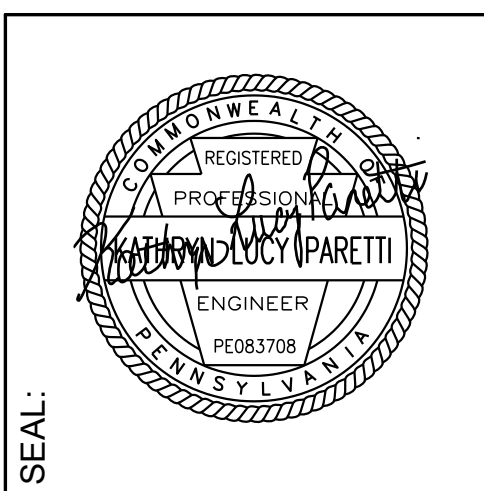
CIRCUITING table listing symbols for Junction Box and Branch Circuit Number for all items in this room.

DEMOLITION DRAWING LINETYPE DESIGNATIONS table listing symbols for Existing to Remain and Existing to Be Removed.

NOTE: NOT ALL ABBREVIATIONS AND SYMBOLS INDICATED MAY APPEAR ON THESE CONTRACT DRAWINGS. THIS IS FOR REFERENCE ONLY.



REVISIONS table with columns: Description, Date, No.



ELECTRICAL INFORMATION SHEET WOODLANDS AT GREYSTONE SCULTHORPE DR. WEST GOSHEN TOWNSHIP CHESTER COUNTY, PA. Includes drawing name, location, and drawing number.

Project information table: Project number: 18-053, date: 2020-09-04, scale: 1/2" = 1'-0", sheet no. Drawn by: KLP, chkd by: SPL, approv. by: KLP.

E0.0

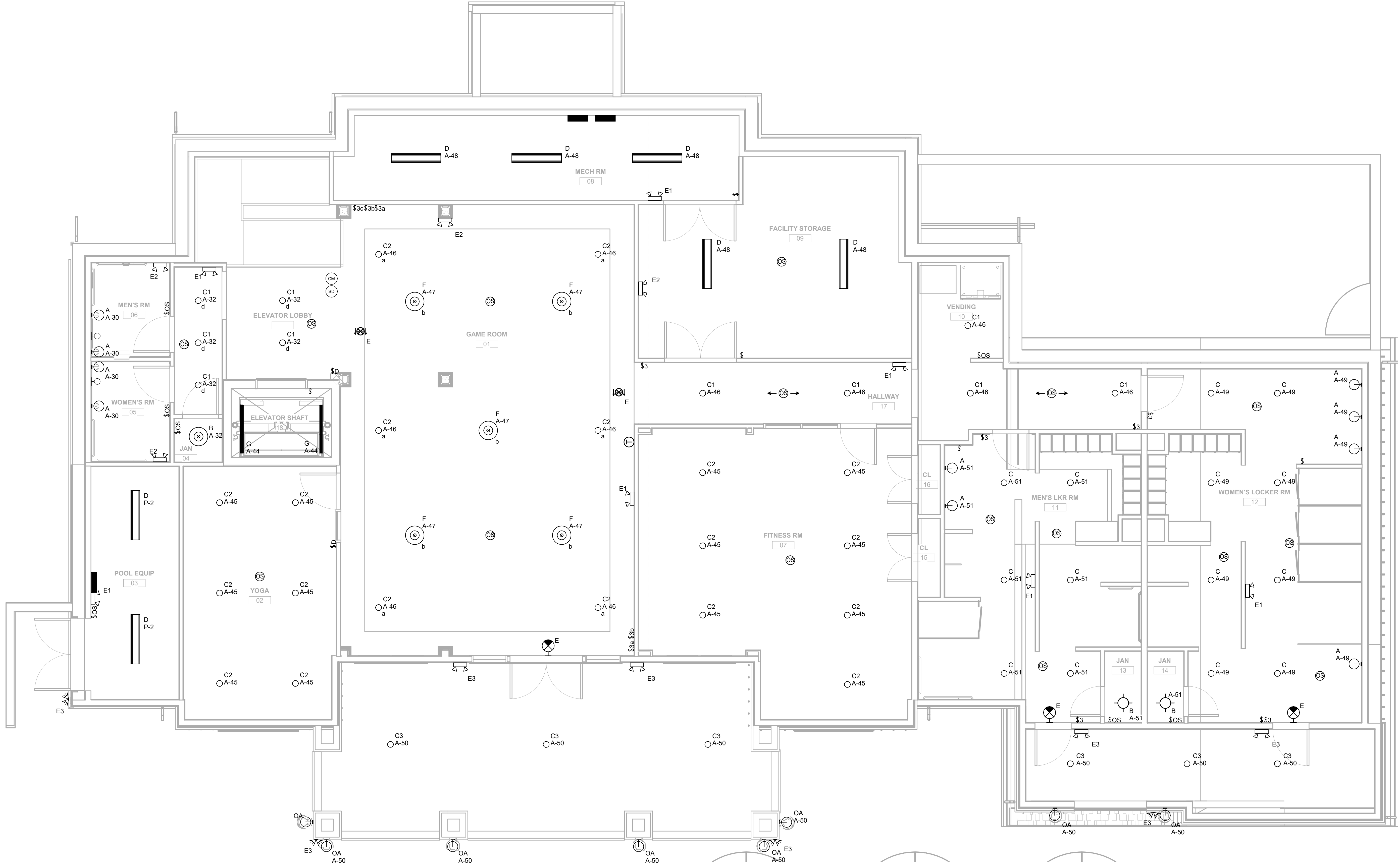
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ELECTRICAL DRAWING LIST table listing drawing numbers and descriptions: E0.0 ELECTRICAL INFORMATION SHEET, E1.0 FIRST FLOOR PLAN - LIGHTING, E1.1 SECOND FLOOR PLAN - LIGHTING, E2.0 FIRST FLOOR PLAN - POWER, E2.1 SECOND FLOOR PLAN - POWER, E3.0 ELECTRICAL DETAILS, E4.0 ELECTRICAL SPECIFICATIONS, E4.1 ELECTRICAL SPECIFICATION AND SCHEDULES.

GENERAL NOTES:

1. CONNECT EXIT SIGNS & EMERGENCY LIGHTING BATTERY UNITS TO UNSWITCHED LEG OF LOCAL LIGHTING CIRCUIT WITH 2#12 & #2 GRD IN 3/4" C.
2. EXTERIOR LIGHTING SHALL BE RUN THROUGH LIGHTING CONTACTOR FOR CONTROL
3. ALL DEVICES WITHIN 4' OF THE BOTTOM OF THE ELEVATOR PIT SHALL BE NEMA 4X RATED.

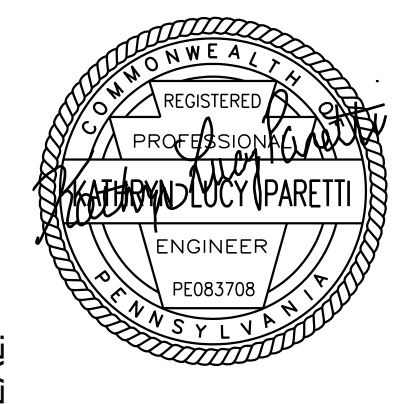


1 FIRST FLOOR PLAN - LIGHTING
 SCALE: 1/4" = 1'-0"

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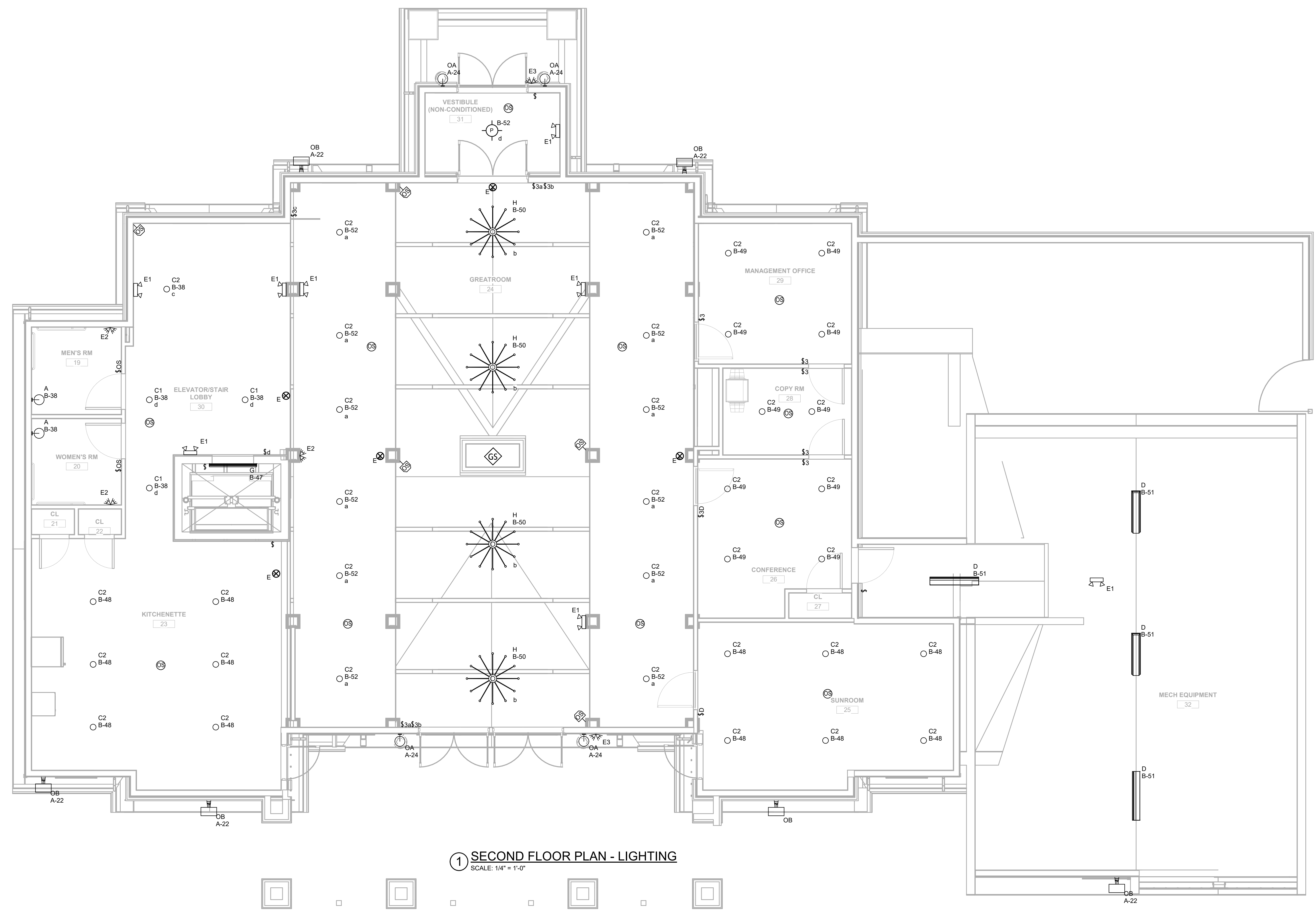


WOODLANDS AT GREYSTONE
 SCULTHORPE DR. WEST GOSHEN TOWNSHIP
 CHESTER COUNTY, PA

DRAWING NAME: FIRST FLOOR PLAN - LIGHTING

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| Project number: | 18-053 | Drawn by: | KLP |
| date: | 2020-09-04 | chk'd by: | SPL |
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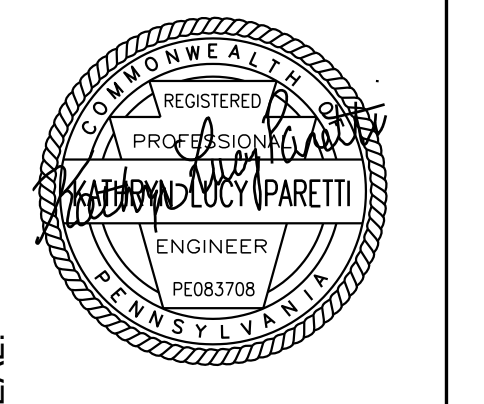
1 SECOND FLOOR PLAN - LIGHTING
 SCALE: 1/4" = 1'-0"

- GENERAL NOTES:**
- CONNECT EXIT SIGNS & EMERGENCY LIGHTING BATTERY UNITS TO UNSWITCHED LEG OF LOCAL LIGHTING CIRCUIT WITH 2#12 & #2 GRD IN 3/4" C.
 - EXTERIOR LIGHTING SHALL BE RUN THROUGH LIGHTING CONTACTOR FOR CONTROL.



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DRAWING NAME: SECOND FLOOR PLAN - LIGHTING

WOODLANDS AT GREYSTONE

SCULTHORPE DR. WEST GOSHEN TOWNSHIP
 CHESTER COUNTY, PA

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| Project number: 18-053 | Drawn by: KLP |
| date: 2020-09-04 | chk'd by: SPL |
| scale: 1/4" = 1'-0" | approv. by: KLP |
| sheet no. | |

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GENERAL NOTES:

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NOTES BY SYMBOL: (1)

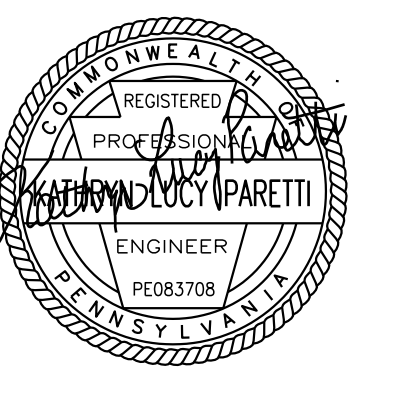
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SEAL:

WOODLANDS AT GREYSTONE
SCULTHORPE DR. WEST GOSHEN TOWNSHIP
CHESTER COUNTY, PA

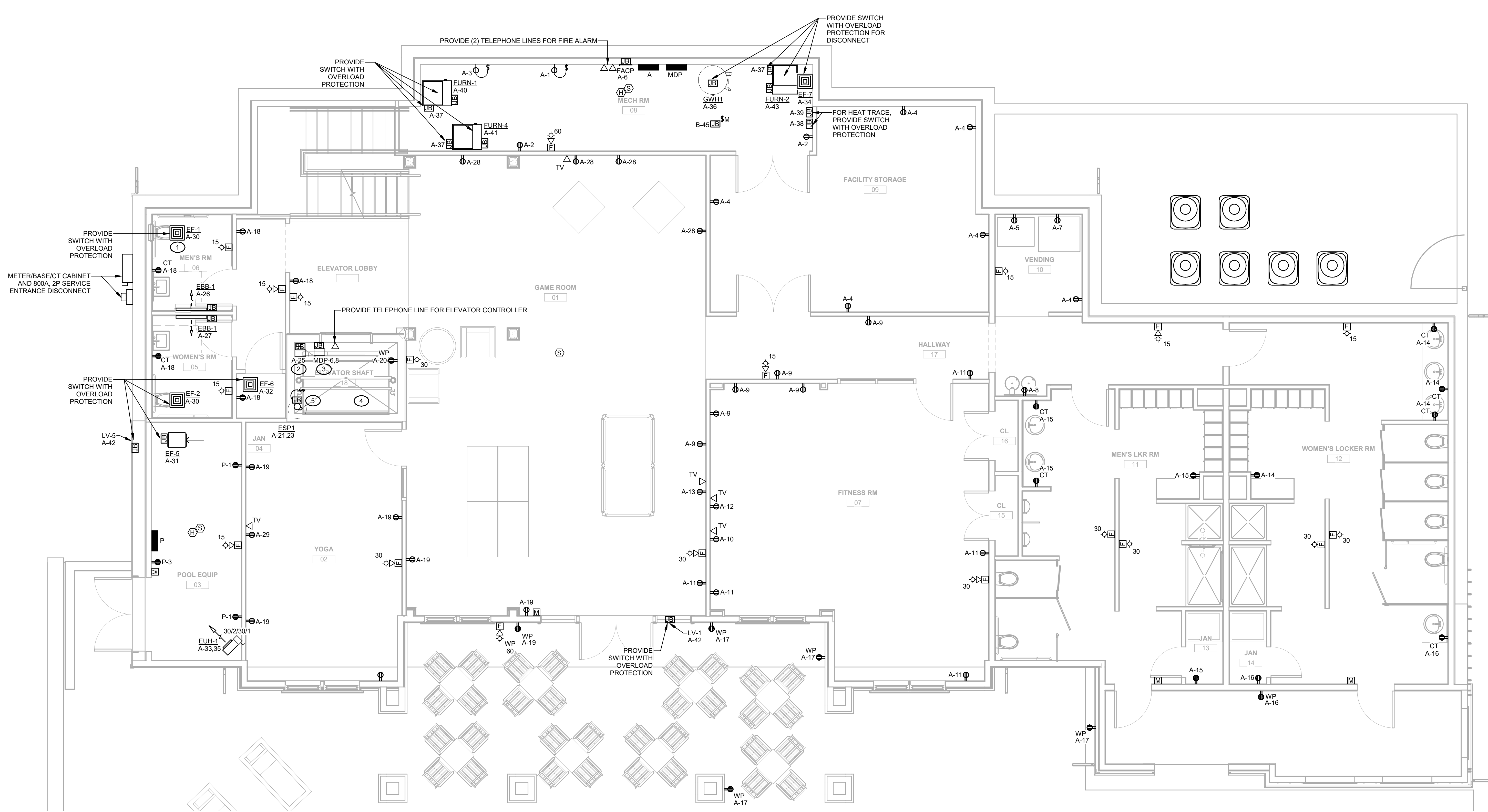
DRAWING NAME: FIRST FLOOR PLAN - POWER

LOCATION:

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| Project number: | 18-053 | Drawn by: | KLP |
| date: | 2020-09-04 | CHK'd by: | SPL |
| scale: | 1/4" = 1'-0" | approv. by: | KLP |
| sheet no.: | | | |

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1 FIRST FLOOR PLAN - POWER
SCALE: 1/4" = 1'-0"

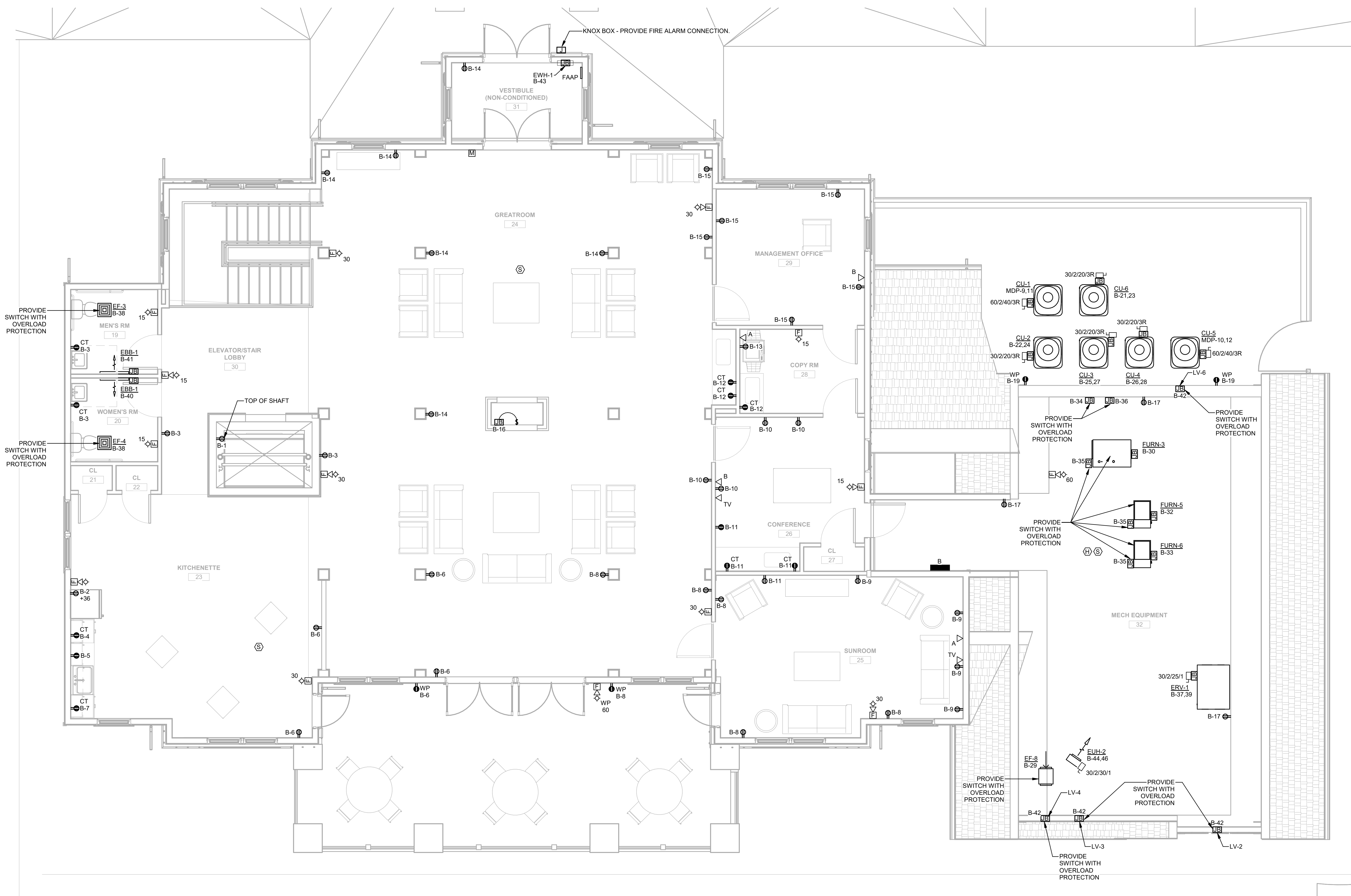
GENERAL NOTES:

1. ...

NOTES BY SYMBOL: ①

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① SECOND FLOOR PLAN - POWER
SCALE: 1/4" = 1'-0"



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| REVISIONS | Description | Date | No. |
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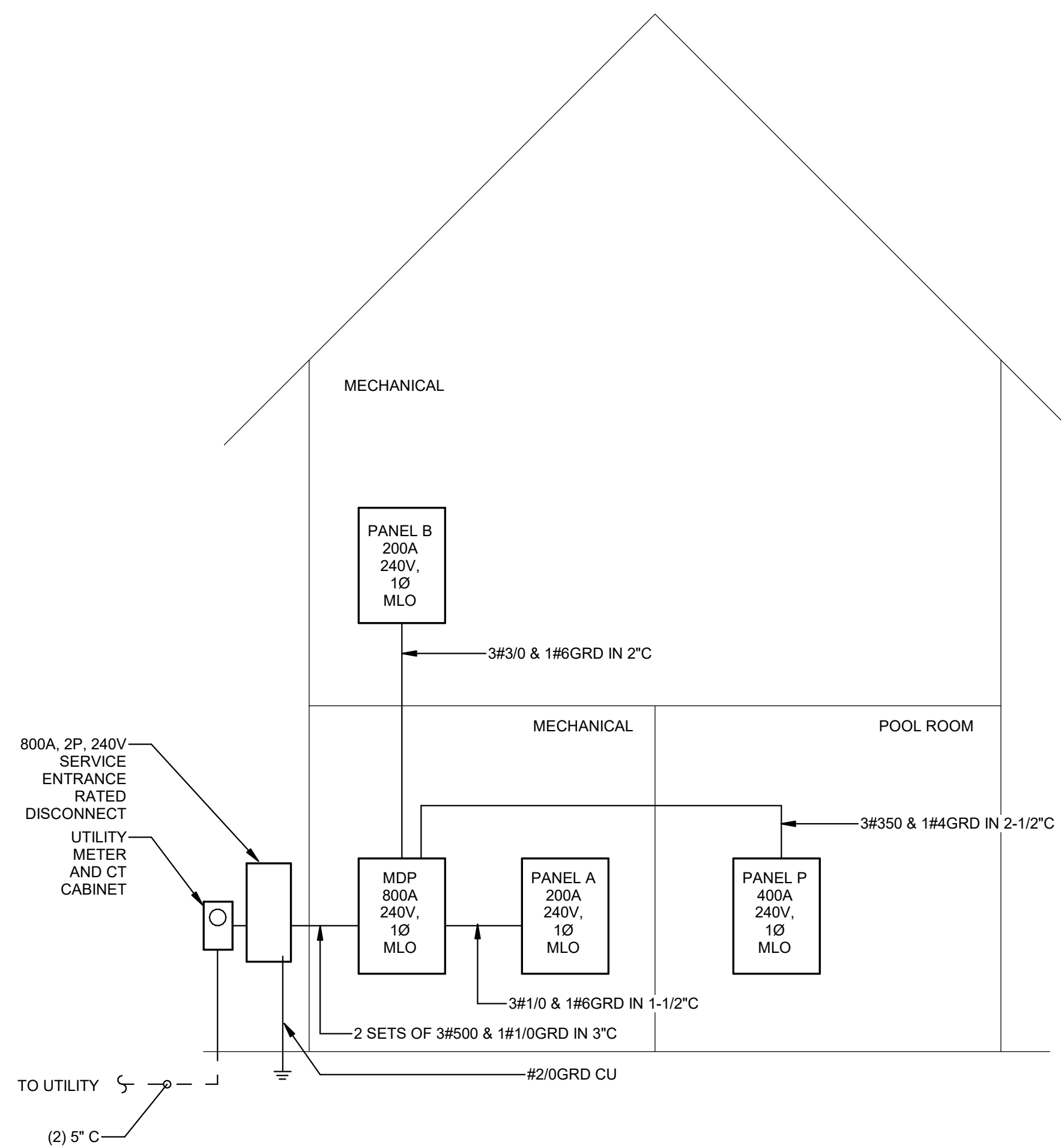


SEAL: **WOODLANDS AT GREYSTONE**
SCULTHORPE DR. WEST GOSHEN TOWNSHIP
CHESTER COUNTY, PA

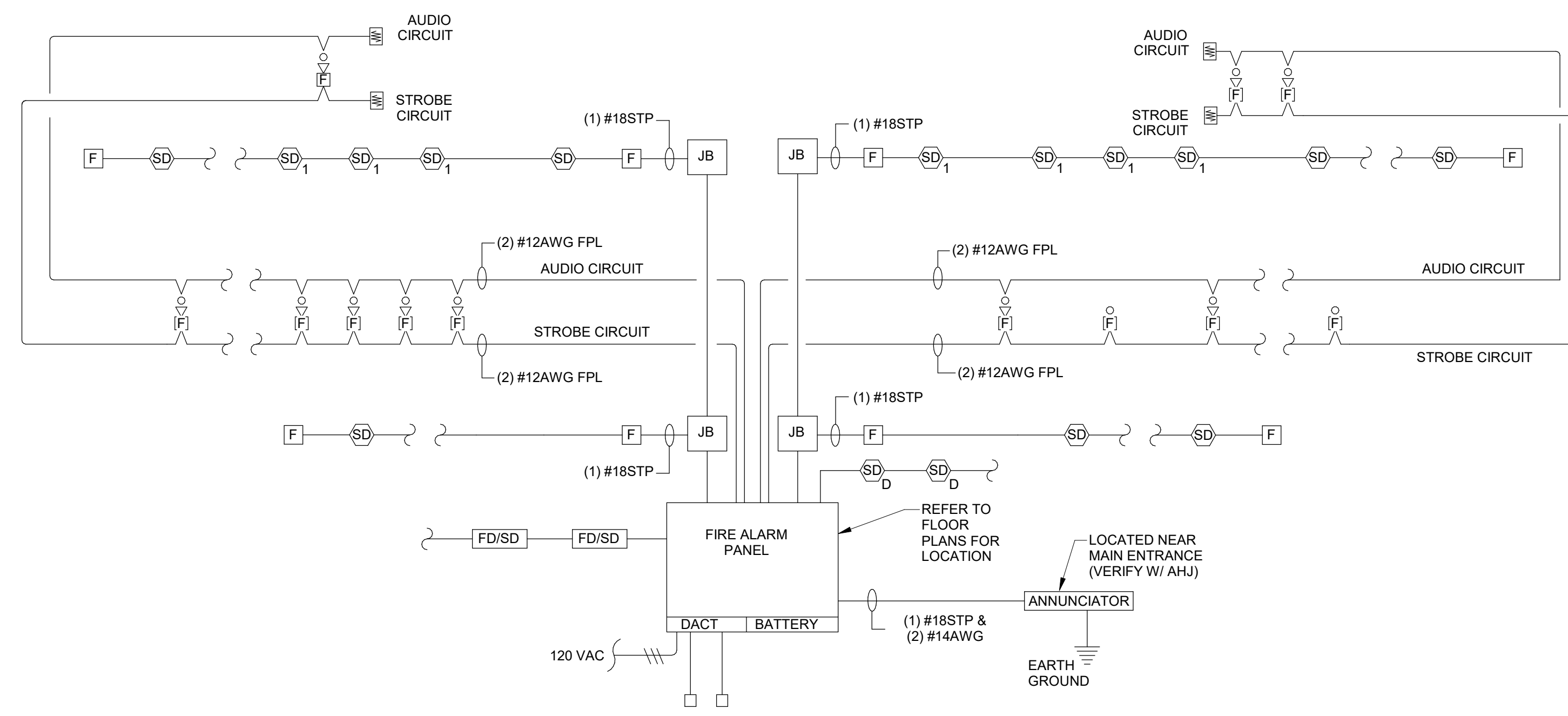
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| Project number: 18-053 | Drawn by: KLP |
| date: 2020-09-04 | chk'd by: SPL |
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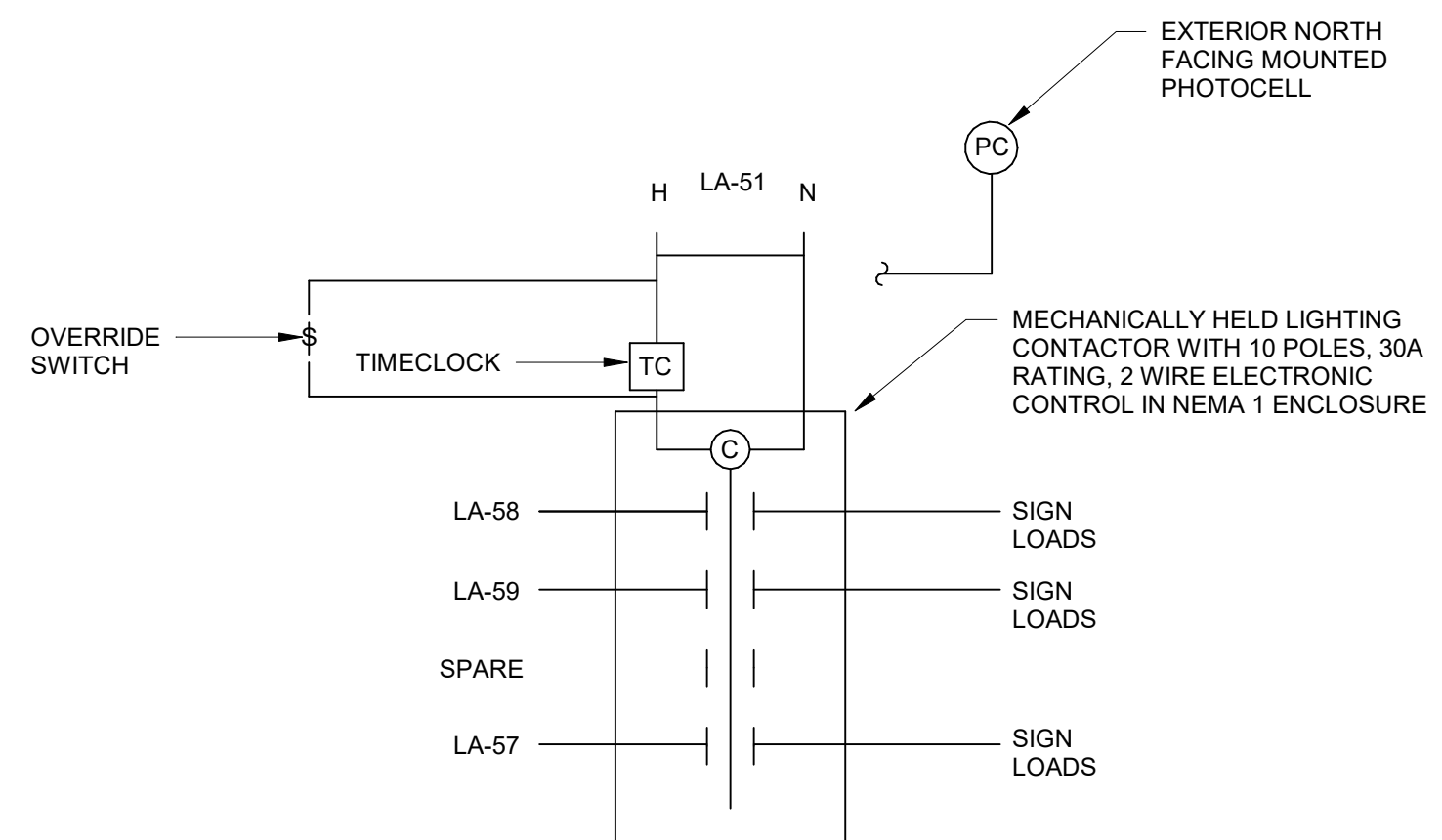


1 RISER DIAGRAM
SCALE: NO SCALE

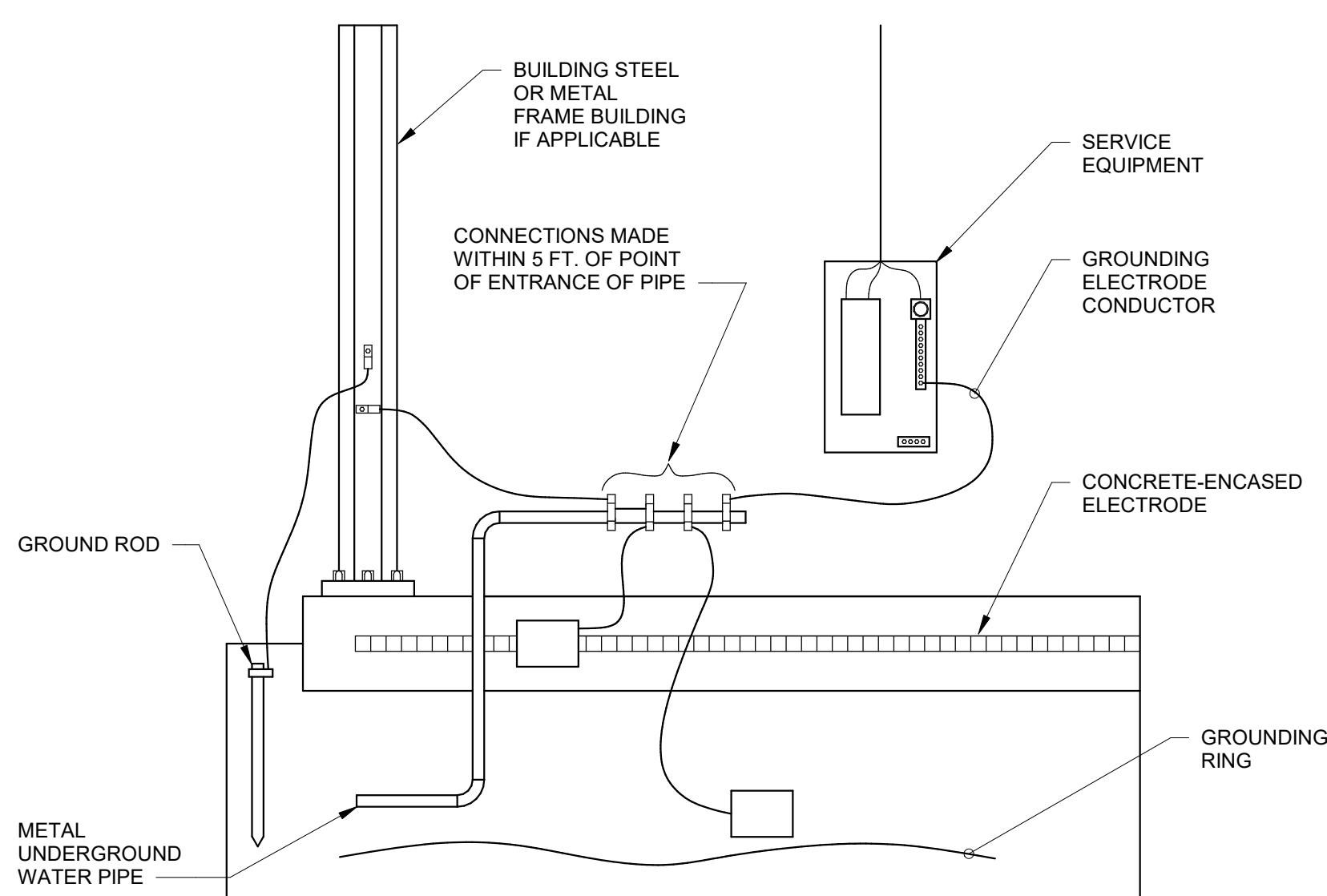


- NOTES:
1. FURNISH ALL DUCT DETECTORS AND ASSOCIATED WIRING. MECHANICAL CONTRACTOR TO INSTALL DETECTORS. CONTRACTOR SHALL REFER TO MECHANICAL PLANS FOR DUCT DETECTOR LOCATIONS AND QUANTITIES.
 2. DIAGRAMMATIC ONLY - NUMBER OF DEVICES DOES NOT MATCH THOSE SHOWN ON THE DRAWING.
 3. PROVIDE CONNECT TO ALL ZONE VALVES, FLOW AND TAMPER SWITCHES. SEE FIRE PROTECTION DRAWINGS FOR QUANTITIES AND LOCATIONS.
 4. PROVIDE CONNECTION TO SMOKE AND FIRE/SMOKE DAMPERS. SEE MECHANICAL PLANS FOR LOCATIONS AND QUANTITIES.
 5. FOR ALL COMPONENTS INCLUDING THE MAIN FIRE ALARM PANEL AND EXTENDER PANELS THAT REQUIRE POWER, PROVIDE 120V, 20A DEDICATED CIRCUIT FROM NEAREST PANEL WITH SPACE. EXTEND 2#12 & 1#12GRD IN 3/4" C FOR POWER.
 6. PROVIDE SMOKE DETECTOR AND HEAT DETECTOR ABOVE MAIN FIRE ALARM PANEL.

2 TYPICAL FIRE PROTECTION SIGNALING SYSTEM RISER DIAGRAM
SCALE: 12" = 1'-0"



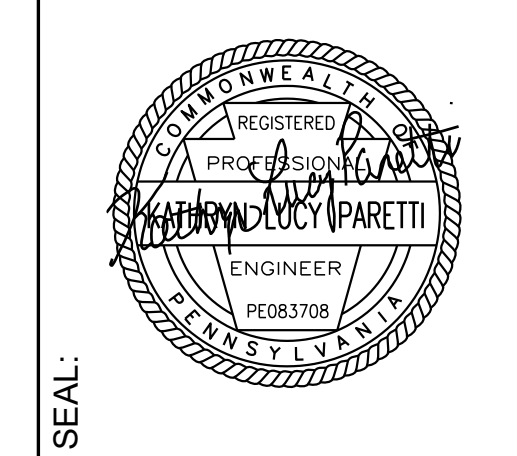
3 EXTERIOR LIGHTING CONTACTOR WIRING DIAGRAM
SCALE: 12" = 1'-0"



4 GROUNDING ELECTRODE DETAIL
SCALE: 12" = 1'-0"

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REGISTERED ELECTRICAL ENGINEERS AND CONSULTANTS
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DRAWING NAME: ELECTRICAL DETAILS
WOODLANDS AT GREYSTONE
 SCULTHORPE DR. WEST GOSHEN TOWNSHIP
 CHESTER COUNTY, PA
 LOCATION:

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|-----------------|-------------|-------------|-----|
| Project number: | 18-053 | Drawn by: | KLP |
| date: | 2020-09-04 | CHK'd by: | SPL |
| scale: | 12" = 1'-0" | approv. by: | KLP |
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PART 3 - EXECUTION

3.1 EXECUTION

- A. MATERIALS AND EQUIPMENT SHALL BE INSTALLED IN ACCORDANCE WITH REQUIREMENTS INDICATED... B. INSTALLATION SHALL CONFORM TO ALL LOCAL CODES AND INDUSTRY STANDARDS... C. CONTRACTOR SHALL DELIVER A COMPLETE AND OPERATIONAL SYSTEM... D. CHANGES TO THE ELECTRICAL INSTALLATION SHALL BE APPROVED BY THE FACILITY ENGINEER... E. CONTRACTOR SHALL DELIVER AN "AS-BUILT" ELECTRICAL DRAWING... F. ALL WIRING FOR THE CONNECTION OF MOTORS AND CONTROL EQUIPMENT... G. CONTRACTOR SHALL COMPLY WITH OSHA 191.150 "LOCKOUT AND TAGOUT PROCEDURE"... H. INSTALLATIONS ARE NOT COMPLETE UNTIL TESTED AND OPERATIONAL... I. FIELD TESTING

Table with columns: PANEL (MDP), BUS AMP (800 A), AMP MAIN BREAKER (800 A), MOUNTING (Surface), PHASE (1), WIRE (3), VOLTAGE (120/240...), AIC (24,000). Rows include circuit descriptions like RECEPTACLE, ESPI, and ELEVATOR CAB with breaker and wire specifications.

Table with columns: PANEL (A), BUS AMP (200 A), AMP MAIN BREAKER (MLO), MOUNTING (Surface), PHASE (1), WIRE (3), VOLTAGE (120/240...), AIC (...). Rows include circuit descriptions like RECEPTACLE, ESPI, ELEVATOR CAB, and various lighting fixtures.

- 2.16 EXTERIOR LUMINAIRES
A. A FIXTURE SHALL BE INSTALLED AT EACH LOCATION INDICATED ON DRAWINGS.
B. NEW LAMPS OF THE PROPER TYPE AND WATTAGE SHALL BE INSTALLED IMMEDIATELY PRIOR TO SUBSTANTIAL COMPLETION OF THE PROJECT...
C. FIXTURE HOUSINGS AND BALLAST ENCLOSURES SHALL BE SUITABLE FOR OUTDOOR USE.
D. BALLASTS SHALL BE CAPABLE OF FUNCTIONING DESPITE ANY LOW OUTDOOR TEMPERATURES.
E. LIGHTS SHALL BE CONTROLLED VIA CONTACTOR CONNECTED TO AN AUTOMATIC TIME CLOCK WITH DAYLIGHT SAVINGS AND PHOTOCCELL.

- 2.14 SYSTEM COMMISSIONING
A. PROVIDE COMMISSIONING IN ACCORDANCE WITH IECC REQUIREMENTS.
B. FUNCTIONAL TESTING SHALL BE COMPLETED FOR THE FOLLOWING:
1. OCCUPANCY SENSORS - CERTIFY LOCATION AND MINING IS AS PER MANUFACTURER'S RECOMMENDATIONS...
2. TIME-SWITCH CONTROLS - ALL AREAS WITH THIS TYPE OF CONTROL SHALL BE TESTED...
3. DAYLIGHT RESPONSIVE CONTROLS - ALL AREAS CONTAINING THIS TYPE OF CONTROL SHALL BE TESTED...
4. DIMMING CONTROLS - CERTIFICATION TO INCLUDE:
a. DEVICES ARE LOCATED AS PER THE CONTRACT DOCUMENTS.
b. DRIVERS AND BALLASTS ARE COMPATIBLE WITH INSTALLED DIMMER/DIMMING SYSTEM.
c. FIXTURES DO NOT FLICKER UPON DIMMING.
d. EACH TYPE OF DIMMER AND DIMMING LOAD/FIXTURE TYPE SHALL BE TESTED WITH AT LEAST 50% OF THE DIMMED SPACES BEING TESTED.
5. DOCUMENTATION SHALL INCLUDE DATE AND TIME OF TESTS, LOCATIONS OF ALL DEVICES TESTED, DESCRIPTION OF EACH TEST AND VERIFICATION AND THEIR OUTCOME, LIST AND LOCATION OF RECOMMENDATIONS FOR REMEDIATION.
6. DOCUMENTS CERTIFYING THE INSTALLED LIGHTING CONTROLS MEET DOCUMENTED PERFORMANCE CRITERIA OR IECC SECTION CHAS ARE TO BE PROVIDED TO THE BUILDING OWNER WITHIN 90 DAYS OF THE DATE OF RECEIPT OF THE CERTIFICATE OF OCCUPANCY AND COPIED TO THE ENGINEER AND AHJ.

- 2.17 FIRE ALARM SYSTEMS
A. FIRE ALARM INSTALLATION SHALL BE IN ACCORDANCE WITH NFPA 72.
B. MANUFACTURER SHALL BE SIMPLEX, EDWARDS SYSTEM TECHNOLOGY (EST) OR APPROVED EQUAL...
C. FIRE ALARM SIGNAL INITIATION SHALL BE BY ONE OR MORE OF THE APPLICABLE FOLLOWING DEVICES...
D. FIRE ALARM SIGNAL SHALL INITIATE THE ALL OF THE APPLICABLE FOLLOWING ACTIONS...
E. SYSTEM TROUBLE SIGNAL INITIATION SHALL BE BY ONE OR MORE OF THE FOLLOWING DEVICES OR ACTIONS...
F. SYSTEM TROUBLE AND SUPERVISORY SIGNAL ACTIONS: RING TROUBLE BELL AND ANNUNCIATE AT THE FACP AND REMOTE ANNUNCIATORS...
G. MANUAL PULL STATIONS SHALL BE ADDRESSABLE, DOUBLE ACTION, SURFACE MOUNTED WITH MANUFACTURER'S STANDARD BACKBOX.
H. HORN/STROBE UNITS SHALL BE WALL MOUNTED WHERE SHOWN AND WHERE REQUIRED IN ACCORDANCE WITH NFPA 72.
I. SMOKE DETECTORS SHALL BE PHOTOELECTRIC TYPE, SOUND BASED, CEILING MOUNT SMOKE DETECTORS WITH ADJUSTABLE SENSITIVITY...
J. ELECTRICAL CONTRACTOR SHALL PROVIDE DUCT TYPE SMOKE DETECTORS...
K. STROBES, HORNS AND HORN/STROBE UNITS SHALL BE PROVIDED AS SHOWN ON DRAWINGS...
L. ADDRESSABLE RELAYS SHALL BE PROVIDED FOR EACH FLOW AND TAMPER SWITCH.
M. HEAT DETECTOR FIXED TEMPERATURE SENSING SHALL BE INDEPENDENT OF RATE-OF-RISE SENSING...
N. THE ELEVATOR SHAFT HEAT DETECTOR SHALL BE PROGRAMMABLE TO OPERATE AT 15 DEGREES FAHRENHEIT LESS THAN THE SPRINKLER HEAD RATINGS.
O. THE KITCHEN HEAT DETECTORS SHALL BE PROGRAMMABLE TO OPERATE AT 200 DEGREES FAHRENHEIT FIXED.
P. ALL WIRING SHALL BE AS RECOMMENDED BY THE FIRE ALARM SYSTEM MANUFACTURER...
Q. CABLING SHALL BE PLENUM RATED FIRE ALARM TYPE "FPLP" IN COMPLIANCE WITH NEC ARTICLE 760...
R. CONTRACTOR SHALL SUBCONTRACT TO SYSTEM MANUFACTURER FOR PROGRAMMING AND FINAL SYSTEM CHECKOUT AND TEST.

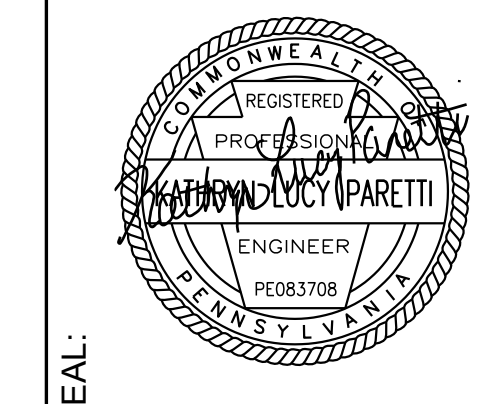
Table with columns: PANEL (B), BUS AMP (200 A), AMP MAIN BREAKER (MLO), MOUNTING (Surface), PHASE (1), WIRE (3), VOLTAGE (120/240...), AIC (10,000). Rows include circuit descriptions like RECEPTACLE, ESPI, ELEVATOR CAB, and various lighting fixtures.

Table with columns: PANEL (P), BUS AMP (400 A), AMP MAIN BREAKER (MLO), MOUNTING (Surface), PHASE (1), WIRE (3), VOLTAGE (120/240...), AIC (10,000). Rows include circuit descriptions like RECEPTACLE, ESPI, ELEVATOR CAB, and various lighting fixtures.



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Table with columns: Date, No., Description, CHK'd by. Includes a section for REVISIONS.



WOODLANDS AT GREYSTONE
SCULTHORPE DR. WEST GOSHEN TOWNSHIP
CHESTER COUNTY, PA
ELECTRICAL SPECIFICATION AND SCHEDULES
Project number: 18-053
date: 2020-09-04
scale: 1/2" = 1'-0"
sheet no.