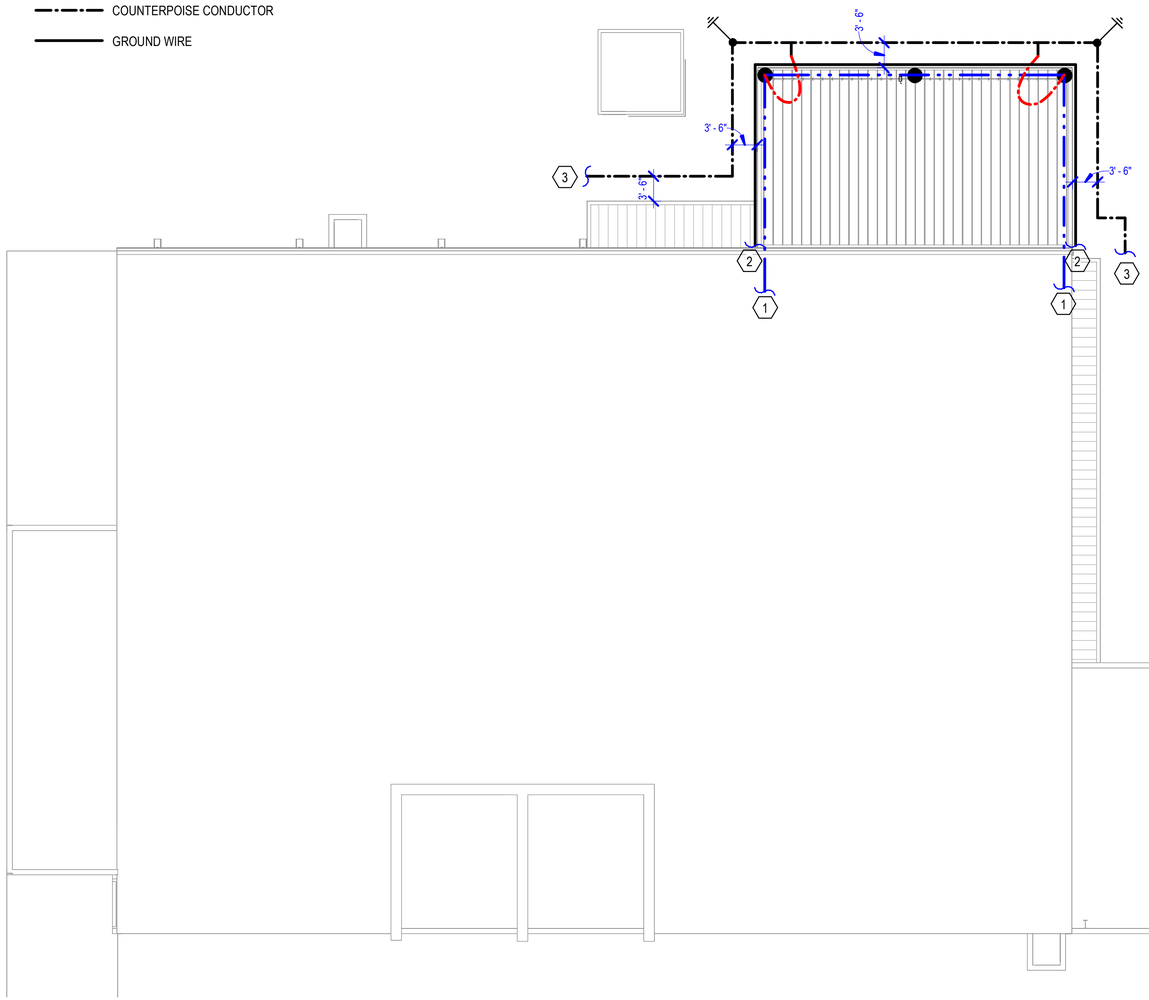
LIGHTNING PROTECTION LEGEND:

- SURFACE MOUNTED LIGHTNING PROTECTION MAIN CONDUCTOR
- AIR TERMINAL
- DOWN CONDUCTOR
- GROUND ROD
- COUNTERPOISE CONDUCTOR
- GROUND WIRE



1 LIGHTNING PROTECTION PLAN
3/32" = 1'-0"

NORTH

0 8 16 32

SCALE : 3/32" = 1'-0"

GENERAL NOTES:

A. LIGHTNING PROTECTION DESIGN IS TO SHOW INTENT ONLY, CONTRACTOR SHALL ENGAGE A THIRD PARTY LIGHTNING PROTECTION DESIGNER / ENGINEER WHOSE SOLE PURPOSE IS DESIGNING AND CERTIFYING LIGHTNING PROTECTION SYSTEMS TO PROVIDE A COMPLETE SYSTEM WITH UL MASTER LABEL. RETEST EXISTING SYSTEM AS REQUIRED TO OBTAIN MASTER LABEL. ADD SERVICE ENTRANCE SURGE SUPPRESSION OR OTHER DEVICES TO EXISTING EQUIPMENT AS REQUIRED TO ACHIEVE MASTER LABEL.

B. ALL MATERIALS SHALL BE CLASS II, UNDERWRITERS LABORATORIES LISTED AND LABELED. LABELS TO BE ON ALL AIR TERMINALS AND AT 10' INTERVALS ON CONDUCTOR CABLE.

C. LOCATE AIR TERMINALS AS SHOWN AND AS REQUIRED BY NFPA 780. ENSURE THAT ALL AIR TERMINALS ARE WITHIN 2'-0" OF OUTSIDE BUILDING EDGE, OUTSIDE CORNER. ENSURE AIR TERMINAL PROJECTS 10" ABOVE OBJECT PROTECTED AND THAT SPACING DOES NOT EXCEED 20'-0". AIR TERMINALS 2'-0" ABOVE OBJECT PROTECTED SHALL NOT EXCEED SPACING OF 25'-0".

D. MAINTAIN DOWNWARD OR HORIZONTAL COURSING OF MAIN CONDUCTOR CABLE AND ENSURE THAT ALL BENDS HAVE AT LEAST AN 8" RADIUS AND DO NOT EXCEED 90 DEGREES.

E. SUPPORT ALL EXPOSED CONDUCTOR CABLE AT 3'-0" ON CENTER MAXIMUM.

F. BOND TO WATER SERVICE AND OTHER PIPING SYSTEMS AS REQUIRED BY CODE(S)/STANDARD(S).

G. INTERCONNECT LIGHTNING PROTECTION GROUND WITH OTHER BUILDING GROUND SYSTEMS AS REQUIRED BY CODE(S)/STANDARD(S).

H. BOND METAL BODIES ON ROOF THAT ARE OUTSIDE THE ZONE OF PROTECTION THAT ARE SUBJECT TO A DIRECT LIGHTNING STRIKE OR WHICH EXCEED THE HEIGHT OF ADJACENT AIR TERMINALS WITH MAIN SIZE CONDUCTOR CABLE. TYPICAL METAL BODIES INCLUDE BUT ARE NOT LIMITED TO: EXHAUST FANS, VENTS, HANDRAILS, AIR HANDLING UNITS, LADDERS, ANTENNAS, COOLING TOWERS, SKYLIGHTS, ETC.

I. ACTUAL JOBSITE CONDITIONS MAY ALTER SOME AIR TERMINAL AND GROUNDING LOCATIONS.

J. INSTALL GROUND ELECTRODES AS SHOWN AND AS REQUIRED BY CODE(S)/STANDARD(S) BUT IN NO INSTANCE SHALL THEY BE LESS THAN 1'-0" BELOW GRADE AND 2'-0" FROM FOUNDATION WALL. ELECTRODES SHALL PENETRATE EARTH AT LEAST 10'-0".

K. STRUCTURAL STEEL MAY BE USED AS A DOWN CONDUCTOR WHERE PERMITTED BY NFPA 780. MAKE ADDITIONAL CONNECTIONS AS REQUIRED BY NFPA 780.

L. ADJUST LOCATIONS IN FIELD AS REQUIRED TO COMPLY WITH NFPA 780 BASED ON ACTUAL CONDITIONS.

M. PROVIDE SURGE PROTECTION DEVICES MEETING THE REQUIREMENTS OF NFPA 780 FOR ALL POWER SERVICE ENTRANCES AND CONDUCTIVE COMMUNICATIONS SYSTEMS, AND ANTENNA SYSTEMS. MAKE ALL CONNECTIONS.

N. PROTECT DOWN CONDUCTORS IN CONDUIT, ENTIRE VERTICAL ROUTING ON EXTERIOR OF BUILDING. PAINT TO MATCH ADJACENT SURFACE.

O. REPAIR AREAS DISTURBED FOR GROUND ROD INSTALLATION TO EXISTING OR BETTER CONDITIONS AND GRADE PRIOR TO INSTALLATION. CUT CONCRETE AT EXISTING JOINTS WHERE APPLICABLE.

P. BOND ALL EXTERIOR DOORS AND ALL EQUIPMENT TO MAIN GROUND BUS BAR. USE 2/0 BARE CU CONDUCTOR.

Q. LIGHTING PROTECTION INSTALLATION SHALL COMPLY IN ALL RESPECTS TO NFPA 780 WITH PARTICULAR ATTENTION TO CHAPTER 8, PERTAINING TO EXPLOSIVE MANUFACTURING AND STORAGE FACILITIES. INSPECTION OF THE CONTRACTOR SHALL PROVIDE MASTER LABER CERTIFICATES STATING COMPLIANCE WITH NFPA 780; CHAPTER 8, AS WELL AS TEST REPORTS SHOWING ALL GROUND TEST DATA.

KEYED NOTES:

1. CONNECT LIGHTNING PROTECTION TO THE EXISTING LIGHTNING PROTECTION SYSTEM, ENSURE THAT CONNECTION COMPLIES WITH ALL APPLICABLE CODES AND THE ENTIRE LIGHTNING PROTECTION SYSTEM HAS UL MASTER LABEL.
2. EXTEND CONTINUOUS PATH FOR GROUND WIRE BY ROUTING ABOVE DOORS.
3. MODIFY EXISTING COUNTERPOISE AND CONNECT NEW COUNTERPOISE CONDUCTOR TO FORM A CONTINUOUS GROUNDING LOOP.

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Project

AEROJET BUILDING E33
OFFICE EXPANSION
EAST CAMDEN,
ARKANSAS

Design Phase

CONSTRUCTION DOCUMENTS

Revisions

No.	Date	Description

Stamp

CERTIFICATE OF AUTHORIZATION
CROMWELL ARCHITECTS/ ENGINEERS #5
ARKANSAS ENGINEER

STATE OF ARKANSAS REGISTERED PROFESSIONAL ENGINEER No. 9401 PAMELA S. MEERATH

12-19-2024

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