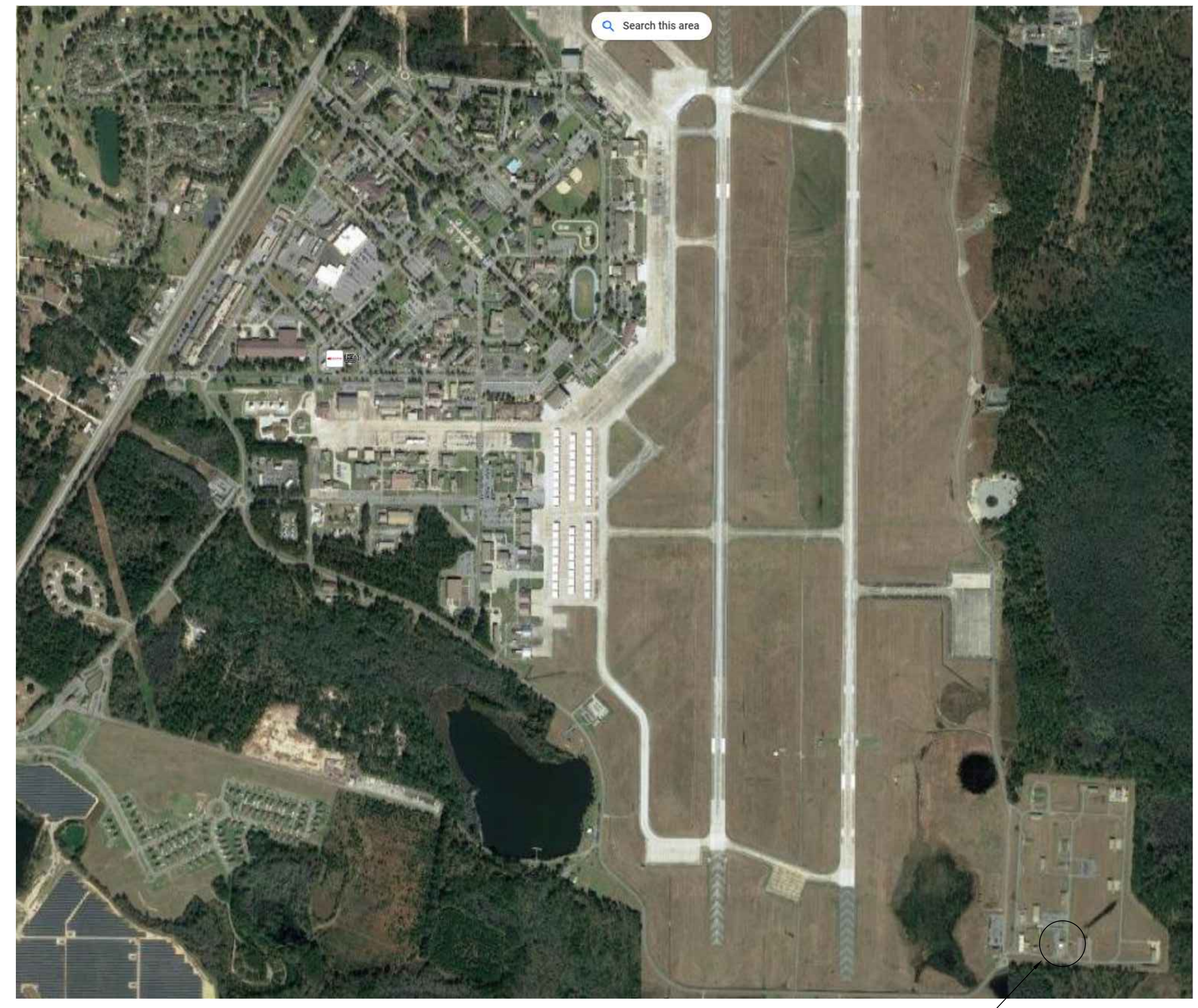
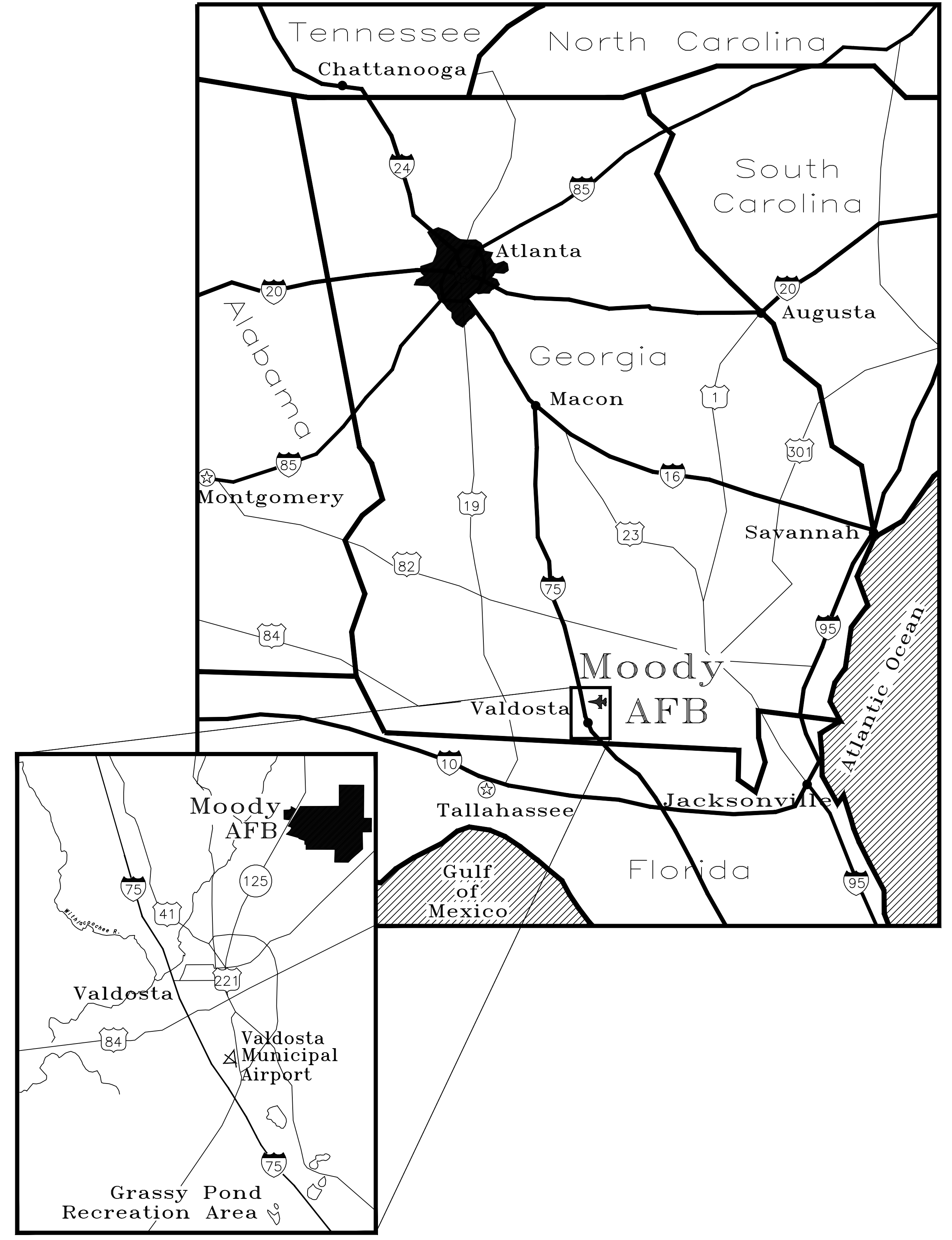


MAFB PROJECT DSN RPR LIGHTNING PROTECTION SYSTEM, MULTI FAC QSEU 23-0118, BLDG 1108



BUILDING 1108

DRAWING INDEX

- C-1 BUILDING 1108 COVER SHEET
- E-1 BUILDING 1108 LPS DEMOLITION DRAWING
- E-2 BUILDING 1108 LPS ABOVE GRADE PLAN
- E-3 BUILDING 1108 LPS BELOW GRADE GROUNDING PLAN
- E-4 BUILDING 1108 DETAILS



Symbol	Description	Date	Approved	Symbol	Date	Approval
	35 % SUBMITTAL	2/09/2024				
	65 % SUBMITTAL	3/29/2024				
	95 % SUBMITTAL	5/02/2024				
	100 % REVISION SUBMITTAL	5/22/2024				
	FINAL SUBMITTAL					
	RECORD DRAWING					

DESIGNED BY: DATE: 3/28/2024 REV:
 DWN BY: CHK BY: DESIGN FILE NO:
 SUBMITTED BY: DRAWING CODE:
 CHIEF ENGINEER: FILE NAME:
 PROJECT:

DEPARTMENT OF THE AIR FORCE
 AIR COMBAT COMMAND
 MOODY AIR FORCE BASE, GEORGIA
 1707 N PATTERSON STREET
 VALDOSTA, GA 31603
 PHONE (229) 248-8833
 FAX (229) 248-8822
 E-MAIL: jay@ahp.com

J. Glenn Gregory
Architects, P.C.
 MEMBER, AMERICAN INSTITUTE OF ARCHITECTS

MAFB PROJECT
 DSN RPR LIGHTNING PROTECTION SYSTEM, MULTI FAC
 QSEU 23-0118, BLDG 1108

BUILDING 1108 COVER SHEET

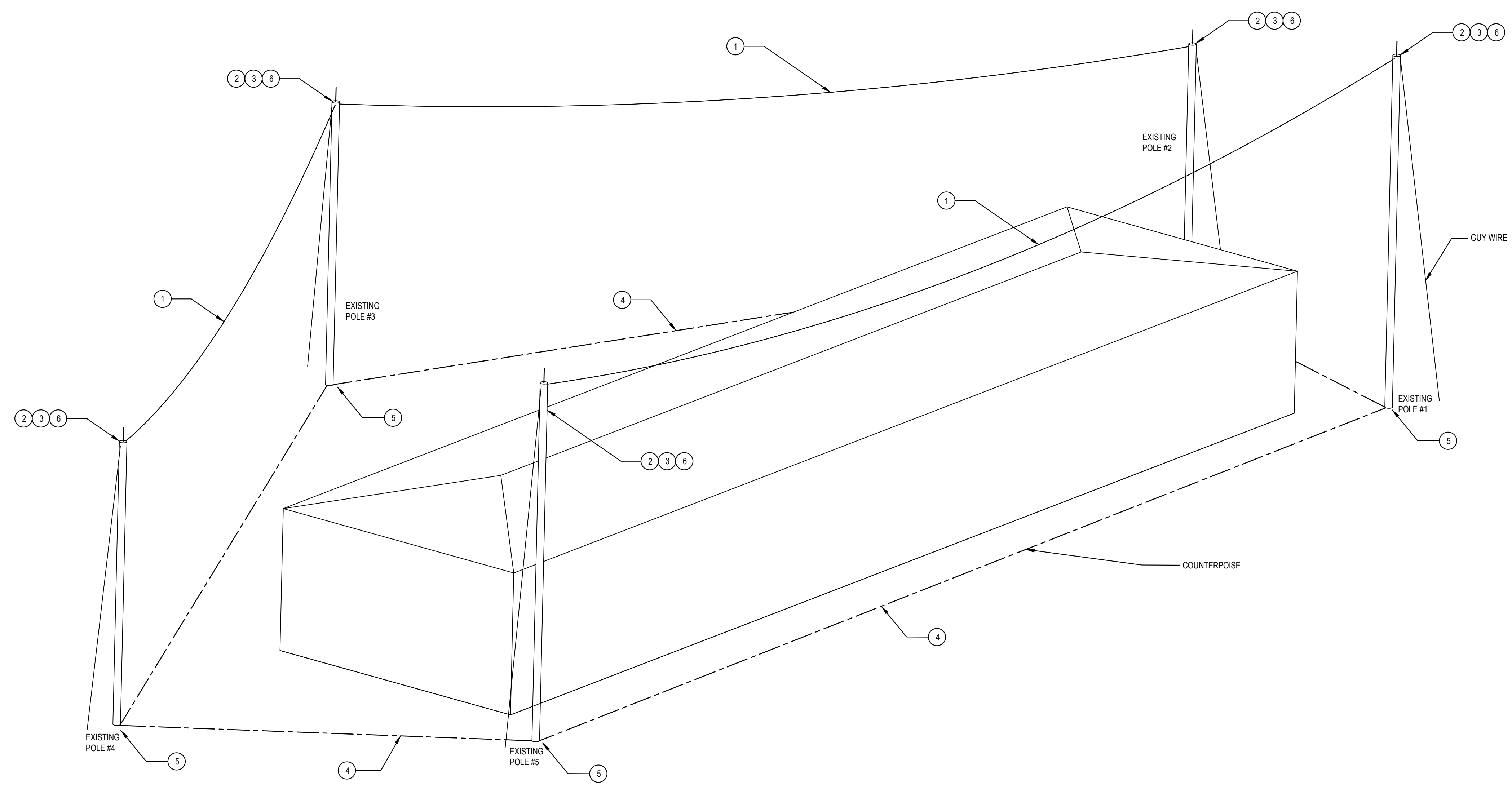


AH&P
 CONSULTING ENGINEERS
 ANDREWS, HAMMOCK & POWELL, INC.
 250 Charter Lane
 Suite 100
 MACON, GEORGIA 31210
 MACON (478) 405-8301
 FAX (478) 405-8210
 WWW.AHPENGR.COM

Sheet reference number:
C-1

A B C D E F G H

7
6
5
4
3
2
1



NOTES: (THIS SHEET ONLY)

- 1 CONTRACTOR SHALL REMOVE ALL EXISTING OVERHEAD GROUND WIRES.
- 2 CONTRACTOR SHALL REMOVE ALL AIR TERMINALS AND AIR TERMINALS BASES.
- 3 CONTRACTOR SHALL DEMO EXISTING DOWN-CONDUCTORS FROM TOP OF EACH POLE DOWN TO COUNTERPOISE CONDUCTOR.
- 4 CONTRACTOR SHALL EXCAVATE, CUT, AND REMOVE THE EXISTING COUNTERPOISE CONDUCTOR.
- 5 CONTRACTOR SHALL DEMO THE EXISTING GROUND RODS AND GROUNDING TEST WELLS.
- 6 CONTRACTOR SHALL LEAVE THE EXISTING POLES AND GUY WIRES IN PLACE.



Symbol	Description	Date	Approved	Symbol	Date	Approved
	35 X SUBMITTAL	2/09/2024				
	65 X SUBMITTAL	3/26/2024				
	95 X SUBMITTAL	3/26/2024				
	100 X REVISION SUBMITTAL	5/02/2024				
	FINAL SUBMITTAL	5/22/2024				
	RECORD DRAWING					

DESIGNED BY:	DATE:	REV.
DH	3/26/2024	
CHK BY: <td>DESIGN FILE NO: <td></td> </td>	DESIGN FILE NO: <td></td>	
	DRAWING CODE: <td></td>	
REVIEWED BY: <td>SUBMITTED BY: <td>FILE NAME: </td></td>	SUBMITTED BY: <td>FILE NAME: </td>	FILE NAME:
	CHIEF ENGINEER	FILE DATE:

DEPARTMENT OF THE AIR FORCE
AIR COMBAT COMMAND
MOODY AIR FORCE BASE, GEORGIA
1707 N PATTERSON STREET
VALDOSTA, GA 31633
PHONE (229) 248-8833
FAX (229) 248-8832
E-MAIL: jay@ahpennr.com

J. Glenn Gregory
Architects, P.C.
MEMBER, AMERICAN INSTITUTE OF ARCHITECTS

BUILDING 1108 LPS DEMOLITION DRAWING
SCALE: NONE

LEGEND	
	GROUND TEST WELL AND GROUNDING ROD
	NEW POLE
	EXISTING POLE
	EXISTING LIGHT POLE
	CATENARY WIRE AERIAL
	GUY WIRE ANCHOR
	UNDERGROUND COUNTERPOISE

MAFB PROJECT
DSN RPR LIGHTNING PROTECTION SYSTEM, MULTI FAC
QSEU 23-0118, BLDG 1108

BUILDING 1108 LPS DEMOLITION DRAWING



AH&P
CONSULTING ENGINEERS
ANDREWS, HAMMOCK & POWELL, INC.
231 Charter Lane
Suite 100
MACON, GEORGIA 31210
PHONE (478) 405-8301
FAX (478) 405-8210
WWW.AHPENGR.COM

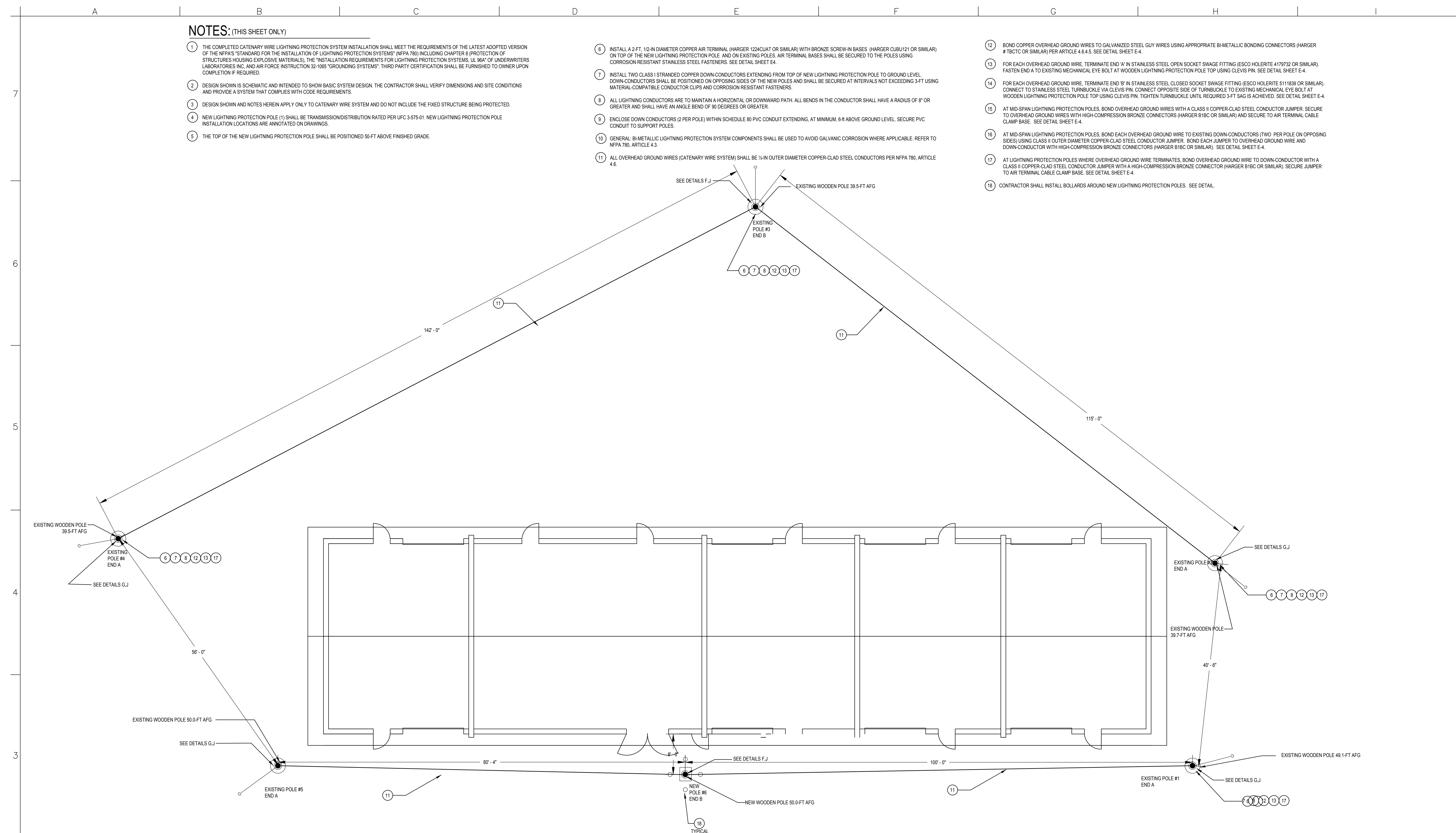
Sheet reference number:
E-1

NOTES: (THIS SHEET ONLY)

- 1 THE COMPLETED CATENARY WIRE LIGHTNING PROTECTION SYSTEM INSTALLATION SHALL MEET THE REQUIREMENTS OF THE LATEST ADOPTED VERSION OF THE NFPA'S "STANDARD FOR THE INSTALLATION OF LIGHTNING PROTECTION SYSTEMS" (NFPA 780) INCLUDING CHAPTER 8 (PROTECTION OF STRUCTURES HOUSING EXPLOSIVE MATERIALS), THE "INSTALLATION REQUIREMENTS FOR LIGHTNING PROTECTION SYSTEMS, UL 98A" OF UNDERWRITERS LABORATORIES INC. AND AIR FORCE INSTRUCTION 32-1069 "GROUNDING SYSTEMS". THIRD PARTY CERTIFICATION SHALL BE FURNISHED TO OWNER UPON COMPLETION IF REQUIRED.
- 2 DESIGN SHOWN IS SCHEMATIC AND INTENDED TO SHOW BASIC SYSTEM DESIGN. THE CONTRACTOR SHALL VERIFY DIMENSIONS AND SITE CONDITIONS AND PROVIDE A SYSTEM THAT COMPLIES WITH CODE REQUIREMENTS.
- 3 DESIGN SHOWN AND NOTES HEREIN APPLY ONLY TO CATENARY WIRE SYSTEM AND DO NOT INCLUDE THE FIXED STRUCTURE BEING PROTECTED.
- 4 NEW LIGHTNING PROTECTION POLE (1) SHALL BE TRANSMISSION DISTRIBUTION RATED PER UFC 3-575-01. NEW LIGHTNING PROTECTION POLE INSTALLATION LOCATIONS ARE ANNOTATED ON DRAWINGS.
- 5 THE TOP OF THE NEW LIGHTNING PROTECTION POLE SHALL BE POSITIONED 50-FT ABOVE FINISHED GRADE.

- 6 INSTALL A 2-FT, 1/2-IN DIAMETER COPPER AIR TERMINAL (HARGER 12242UAT OR SIMILAR) WITH BRONZE SCREW-IN BASES (HARGER CUBR121 OR SIMILAR) ON TOP OF THE NEW LIGHTNING PROTECTION POLE AND ON EXISTING POLES. AIR TERMINAL BASES SHALL BE SECURED TO THE POLES USING CORROSION RESISTANT STAINLESS STEEL FASTENERS. SEE DETAIL SHEET E-4.
- 7 INSTALL TWO CLASS I STRANDED COPPER DOWN-CONDUCTORS EXTENDING FROM TOP OF NEW LIGHTNING PROTECTION POLE TO GROUND LEVEL. DOWN-CONDUCTORS SHALL BE POSITIONED ON OPPOSING SIDES OF THE NEW POLES AND SHALL BE SECURED AT INTERVALS NOT EXCEEDING 3-FT USING MATERIAL-COMPATIBLE CONDUCTOR CLIPS AND CORROSION RESISTANT FASTENERS.
- 8 ALL LIGHTNING CONDUCTORS ARE TO MAINTAIN A HORIZONTAL OR DOWNWARD PATH. ALL BENDS IN THE CONDUCTOR SHALL HAVE A RADIUS OF 8" OR GREATER AND SHALL HAVE AN ANGLE BEND OF 90 DEGREES OR GREATER.
- 9 ENCLOSE DOWN CONDUCTORS (2 PER POLE) WITHIN SCHEDULE 80 PVC CONDUIT EXTENDING, AT MINIMUM, 6-ft ABOVE GROUND LEVEL. SECURE PVC CONDUIT TO SUPPORT POLES.
- 10 GENERAL: BI-METALLIC LIGHTNING PROTECTION SYSTEM COMPONENTS SHALL BE USED TO AVOID GALVANIC CORROSION WHERE APPLICABLE. REFER TO NFPA 780, ARTICLE 4.3.
- 11 ALL OVERHEAD GROUND WIRES (CATENARY WIRE SYSTEM) SHALL BE 3/4-IN OUTER DIAMETER COPPER-CLAD STEEL CONDUCTORS PER NFPA 780, ARTICLE 4.5.

- 12 BOND COPPER OVERHEAD GROUND WIRES TO GALVANIZED STEEL GUY WIRES USING APPROPRIATE BI-METALLIC BONDING CONNECTORS (HARGER # TBCTC OR SIMILAR) PER ARTICLE 4.6.4.5. SEE DETAIL SHEET E-4.
- 13 FOR EACH OVERHEAD GROUND WIRE, TERMINATE END 'A' IN STAINLESS STEEL OPEN SOCKET SWAGE FITTING (ESCO HOLERITE 4178732 OR SIMILAR). FASTEN END A TO EXISTING MECHANICAL EYE BOLT AT WOODEN LIGHTNING PROTECTION POLE TOP USING CLEVIS PIN. SEE DETAIL SHEET E-4.
- 14 FOR EACH OVERHEAD GROUND WIRE, TERMINATE END 'B' IN STAINLESS STEEL CLOSED SOCKET SWAGE FITTING (ESCO HOLERITE 5111830 OR SIMILAR). CONNECT TO STAINLESS STEEL TURNBUCKLE VIA CLEVIS PIN. CONNECT OPPOSITE SIDE OF TURNBUCKLE TO EXISTING MECHANICAL EYE BOLT AT WOODEN LIGHTNING PROTECTION POLE TOP USING CLEVIS PIN. TIGHTEN TURNBUCKLE UNTIL REQUIRED 3-FT SAG IS ACHIEVED. SEE DETAIL SHEET E-4.
- 15 AT MID-SPAN LIGHTNING PROTECTION POLES, BOND OVERHEAD GROUND WIRES WITH A CLASS II COPPER-CLAD STEEL CONDUCTOR JUMPER. SECURE TO OVERHEAD GROUND WIRES WITH HIGH-COMPRESSION BRONZE CONNECTORS (HARGER 818C OR SIMILAR) AND SECURE TO AIR TERMINAL CABLE CLAMP BASE. SEE DETAIL SHEET E-4.
- 16 AT MID-SPAN LIGHTNING PROTECTION POLES, BOND EACH OVERHEAD GROUND WIRE TO EXISTING DOWN-CONDUCTORS (TWO PER POLE ON OPPOSING SIDES) USING CLASS II OUTER DIAMETER COPPER-CLAD STEEL CONDUCTOR JUMPER. BOND EACH JUMPER TO OVERHEAD GROUND WIRE AND DOWN-CONDUCTOR WITH HIGH-COMPRESSION BRONZE CONNECTORS (HARGER 818C OR SIMILAR). SEE DETAIL SHEET E-4.
- 17 AT LIGHTNING PROTECTION POLES WHERE OVERHEAD GROUND WIRE TERMINATES, BOND OVERHEAD GROUND WIRE TO DOWN-CONDUCTOR WITH A CLASS II COPPER-CLAD STEEL CONDUCTOR JUMPER WITH A HIGH-COMPRESSION BRONZE CONNECTOR (HARGER 818C OR SIMILAR). SECURE JUMPER TO AIR TERMINAL CABLE CLAMP BASE. SEE DETAIL SHEET E-4.
- 18 CONTRACTOR SHALL INSTALL BOLLARDS AROUND NEW LIGHTNING PROTECTION POLES. SEE DETAIL.



BUILDING 1108 ABOVE GRADE PLAN
SCALE: 1/8" = 1'-0"

LEGEND	
	GROUND TEST WELL AND GROUNDING ROD
	NEW POLE
	EXISTING POLE
	EXISTING LIGHT POLE
	CATENARY WIRE AERIAL
	GUY WIRE ANCHOR
	UNDERGROUND COUNTERPOISE



Symbol	Description	Date	Approved	Symbol	Description	Date	Approved
	35 % SUBMITTAL	2/09/2024					
	65 % SUBMITTAL	3/26/2024					
	95 % SUBMITTAL	5/02/2024					
	100 % REVISED SUBMITTAL						
	FINAL SUBMITTAL	5/22/2024					
	RECORD DRAWING						

DESIGNED BY: DATE: 3/26/2024
 DSN: 23-0118, BLDG 1108
 CHK BY: DESIGN FILE NO:
 REVISIONS: DRAWING CODE:
 SUBMITTED BY: FILE NAME:
 CHIEF ENGINEER: POLE CODE:

DEPARTMENT OF THE AIR FORCE
 AIR COMBAT COMMAND
 34 MIL AVIATION BASE
 MOODY AIR FORCE BASE, GEORGIA
 1807 N PATTERSON STREET
 VALDOSTA, GA 31603
 PHONE (229) 248-8833
 FAX (229) 248-2626
 E-MAIL: j.gregory@af.mil

J. Glenn Gregory
Architects, P.C.
 MEMBER, AMERICAN INSTITUTE OF ARCHITECTS

MAFB PROJECT
 LIGHTNING PROTECTION SYSTEM, MULTI FAC
 QSEU 23-0118, BLDG 1108

BUILDING 1108 ABOVE GRADE PLAN

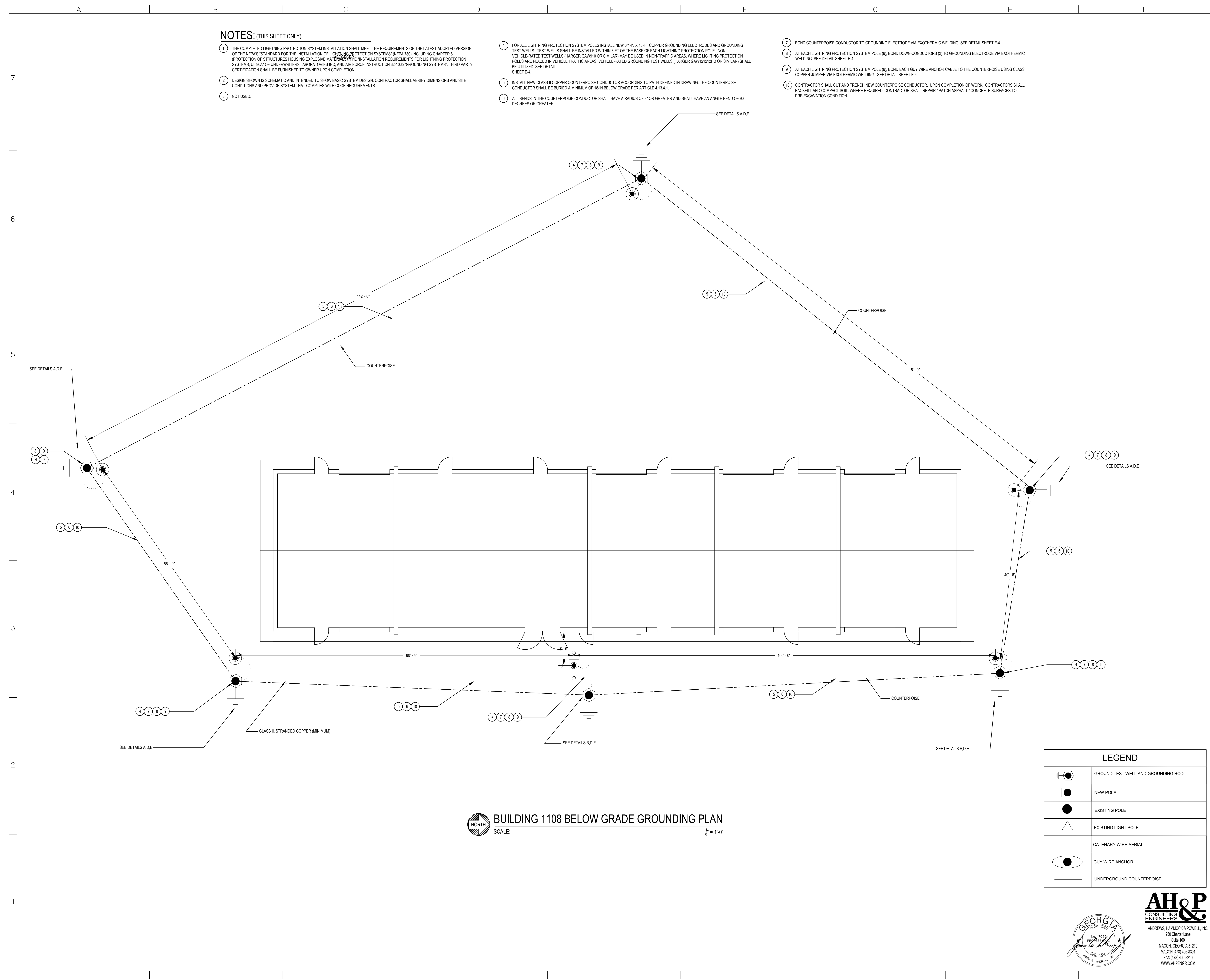


AH&P
 CONSULTING ENGINEERS
 ANDREWS, HAMMOCK & POWELL, INC.
 250 Quaker Lane
 Suite 100
 MACON, GEORGIA 31210
 MACON (478) 405-8301
 FAX (478) 405-8210
 WWW.AHPENR.COM

Sheet reference number:
E-2

NOTES: (THIS SHEET ONLY)

- 1 THE COMPLETED LIGHTNING PROTECTION SYSTEM INSTALLATION SHALL MEET THE REQUIREMENTS OF THE LATEST ADOPTED VERSION OF THE NFPA'S STANDARD FOR THE INSTALLATION OF LIGHTNING PROTECTION SYSTEMS (NFPA 780) INCLUDING CHAPTER 8 (PROTECTION OF STRUCTURES HOUSING EXPLOSIVE MATERIALS) AND THE "INSTALLATION REQUIREMENTS FOR LIGHTNING PROTECTION SYSTEMS, UL 664" OF UNDERWRITERS LABORATORIES INC. AND AIR FORCE INSTRUCTION 32-1065 "GROUNDING SYSTEMS". THIRD PARTY CERTIFICATION SHALL BE FURNISHED TO OWNER UPON COMPLETION.
- 2 DESIGN SHOWN IS SCHEMATIC AND INTENDED TO SHOW BASIC SYSTEM DESIGN. CONTRACTOR SHALL VERIFY DIMENSIONS AND SITE CONDITIONS AND PROVIDE SYSTEM THAT COMPLIES WITH CODE REQUIREMENTS.
- 3 NOT USED.
- 4 FOR ALL LIGHTNING PROTECTION SYSTEM POLES INSTALL NEW 3/4-IN X 10-FT COPPER GROUNDING ELECTRODES AND GROUNDING TEST WELLS. TEST WELLS SHALL BE INSTALLED WITHIN 3-FT OF THE BASE OF EACH LIGHTNING PROTECTION POLE. NON VEHICLE-RATED TEST WELLS (HARGER GAW910 OR SIMILAR) MAY BE USED IN NON-TRAFFIC AREAS. WHERE LIGHTING PROTECTION POLES ARE PLACED IN VEHICLE TRAFFIC AREAS, VEHICLE-RATED GROUNDING TEST WELLS (HARGER GAW1212ND OR SIMILAR) SHALL BE UTILIZED. SEE DETAIL SHEET E-4.
- 5 INSTALL NEW CLASS II COPPER COUNTERPOISE CONDUCTOR ACCORDING TO PATH DEFINED IN DRAWING. THE COUNTERPOISE CONDUCTOR SHALL BE BURIED A MINIMUM OF 18-IN BELOW GRADE PER ARTICLE 4.13.4.1.
- 6 ALL BENDS IN THE COUNTERPOISE CONDUCTOR SHALL HAVE A RADIUS OF 8" OR GREATER AND SHALL HAVE AN ANGLE BEND OF 90 DEGREES OR GREATER.
- 7 BOND COUNTERPOISE CONDUCTOR TO GROUNDING ELECTRODE VIA EXOTHERMIC WELDING. SEE DETAIL SHEET E-4.
- 8 AT EACH LIGHTNING PROTECTION SYSTEM POLE (6), BOND DOWN-CONDUCTORS (2) TO GROUNDING ELECTRODE VIA EXOTHERMIC WELDING. SEE DETAIL SHEET E-4.
- 9 AT EACH LIGHTNING PROTECTION SYSTEM POLE (6), BOND EACH GUY WIRE ANCHOR CABLE TO THE COUNTERPOISE USING CLASS II COPPER JUMPER VIA EXOTHERMIC WELDING. SEE DETAIL SHEET E-4.
- 10 CONTRACTOR SHALL CUT AND TRENCH NEW COUNTERPOISE CONDUCTOR. UPON COMPLETION OF WORK, CONTRACTORS SHALL BACKFILL AND COMPACT SOIL WHERE REQUIRED, CONTRACTOR SHALL REPAIR / PATCH ASPHALT / CONCRETE SURFACES TO PRE-EXCAVATION CONDITION.



BUILDING 1108 BELOW GRADE GROUNDING PLAN
SCALE: 1/8" = 1'-0"

LEGEND	
	GROUND TEST WELL AND GROUNDING ROD
	NEW POLE
	EXISTING POLE
	EXISTING LIGHT POLE
	CATENARY WIRE AERIAL
	GUY WIRE ANCHOR
	UNDERGROUND COUNTERPOISE



Symbol	Description	Date	Approved	Symbol	Description	Date	Approved
	315 X SUBMITTAL	2/09/2024					
	615 X SUBMITTAL	3/28/2024					
	915 X SUBMITTAL	5/02/2024					
	100 X REVISED SUBMITTAL						
	FINAL SUBMITTAL	5/22/2024					
	RECORD DRAWING						

DESIGNED BY: DATE: 3/28/2024
 DSN: 23-0118-1108-0001
 CHK BY: DESIGN FILE NO:
 REVISIONS BY: DRAWING CODE:
 SUBMITTED BY: FILE NAME:
 CHIEF ENGINEER: PROJECT CODE:

DEPARTMENT OF THE AIR FORCE
 AIR COMBAT COMMAND
 34 AIR FORCE BASE, GEORGIA
 MOODY AIR FORCE BASE, GEORGIA

J. Glenn Gregory
Architects, P.C.
 MEMBER, AMERICAN INSTITUTE OF ARCHITECTS

1807 N. PATTERSON STREET
 VALDOSTA, GA 31633
 PHONE (229) 248-8833
 FAX (229) 248-8832
 E-MAIL: jgregory@ahp.com

MAFB PROJECT
 LIGHTNING PROTECTION SYSTEM, MULTI FAC
 QSEU 23-0118, BLDG 1108

BUILDING 1108 BELOW GRADE GROUNDING PLAN

AH&P
 CONSULTING ENGINEERS
 ANDREWS, HAMMOCK & POWELL, INC.
 250 Charter Lane
 Suite 100
 MACON, GEORGIA 31210
 MACON (478) 465-8301
 FAX (478) 465-8910
 WWW.AHPENGR.COM

Sheet reference number:
E-3

