PROVIDE A LIGHTNING PROTECTION SYSTEM AND AN EQUI-POTENTIAL GROUND GRID.

THE LIGHTNING PROTECTION SYSTEM SHALL INCLUDE Ø.375" SOLID COPPER POINT AIR TERMINALS, BASE ASSEMBLIES, BONDING PLATES, CLAMPS, CONNECTORS, DOWN CONDUCTORS, WASHERS, SEALANT, THROUGH-ROOF ASSEMBLIES, CLIPS, CONDUCTORS, STRAPS, ETC., AND ALL NECESSARY AND REQUIRED COMPONENTS, ATTACHMENTS, CONNECTIONS, CADWELD JOINTS, ETC.

THE GROUND GRID SHALL INCLUDE COPPER CONDUCTORS UNDERGROUND, A MINIMUM OF 12" HORIZONTAL OUTSIDE OF THE FOUNDATION PERIMETER AND AT LEAST 24" DEEP TO BE PROVIDED AROUND THE ENTIRE PERIMETER OF THE BUILDING.

CONDUCTOR CONFIGURATION TO BE 29 STRANDS OF 17 GAUGE COPPER.

PROVIDE CONNECTIONS USING TYPE TA, VS, GT CADWELD CONNECTORS.

PROVIDE TWO (2) Ø.75" X 10'-0" COPPER GROUND RODS SEPARATED 8'-0" APART AT SERVICE TRANSFORMER AND Ø.75"X 10'-0" COPPER GROUND RODS EQUALLY SPACED AT BUILDING PERIMETER, WITH QUANTITY AS REQUIRED BY CALCULATION. BOND COPPER GROUNDING ROD TO METALLIC UNDERGROUND WATER PIPING SYSTEM, BUILDING FOUNDATION REINFORCING BAR AND FRAMING STEEL USING #6 AMERICAN WIRE GAUGE BARE COPPER CONDUCTOR AND COPPER WATER PIPE STRAPS AND TYPE VS CADWELD CONNECTORS. ENSURE THAT ALL DISCONTINUITIES IN COPPER WATER PIPING ARE PROPERLY BONDED WITH A PROPERLY SIZED COPPER BRAIDED BONDING JUMPER TO FORM A CONTINUOUS GROUND PATH.

COPPER EQUIPMENT SHALL NOT BE USED ON ALUMINUM ROOFS, ALUMINUM SIDINGS, OR OTHER ALUMINUM SURFACES - INCLUDING BARE GALVANIZED STEEL (USE ALUMINUM EQUIPMENT FOR THESE AREAS).

COPPER AND ALUMINUM CONDUCTORS SHALL NOT BE INTERCONNECTED EXCEPT WITH ACCEPTABLE BIMETALLIC CONNECTORS.

ALUMINUM EQUIPMENT SHALL NOT BE USED UNDERGROUND.

ALUMINUM EQUIPMENT SHALL NOT BE USED ON COPPER ROOFING OR OTHER COPPER SURFACES

THE LAYOUT OF THE LIGHTNING PROTECTION SYSTEM AND EQUI-POTENTIAL GROUND GRID SYSTEM IS SCHEMATIC IN FORM, TO BE USED AS A REFERENCE FOR THE SYSTEM DESIGN. CONTRACTOR IS RESPONSIBLE TO SECURE THE SERVICES OF A LICENSED LIGHTNING PROTECTION SYSTEM VENDOR FOR THE CALCULATED DESIGN AND LAYOUT, BASED ON AND IN COMPLIANCE WITH:

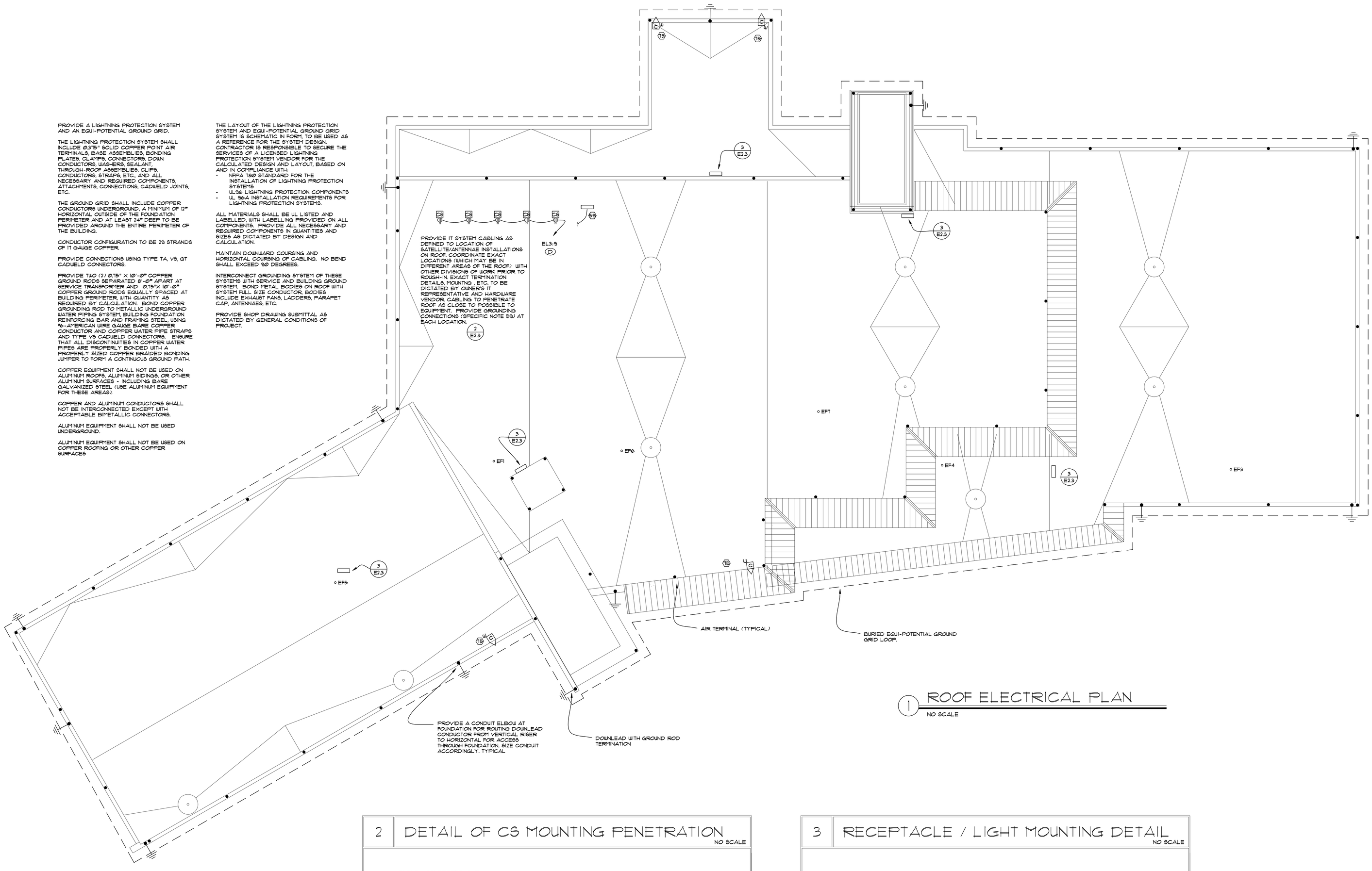
- NFPA 780 STANDARD FOR THE INSTALLATION OF LIGHTNING PROTECTION SYSTEMS
- UL96 LIGHTNING PROTECTION COMPONENTS
- UL 96A INSTALLATION REQUIREMENTS FOR LIGHTNING PROTECTION SYSTEMS.

ALL MATERIALS SHALL BE UL LISTED AND LABELLED, WITH LABELLING PROVIDED ON ALL COMPONENTS. PROVIDE ALL NECESSARY AND REQUIRED COMPONENTS IN QUANTITIES AND SIZES AS DICTATED BY DESIGN AND CALCULATION.

MAINTAIN DOWNWARD COURSING AND HORIZONTAL COURSING OF CABLING. NO BEND SHALL EXCEED 90 DEGREES.

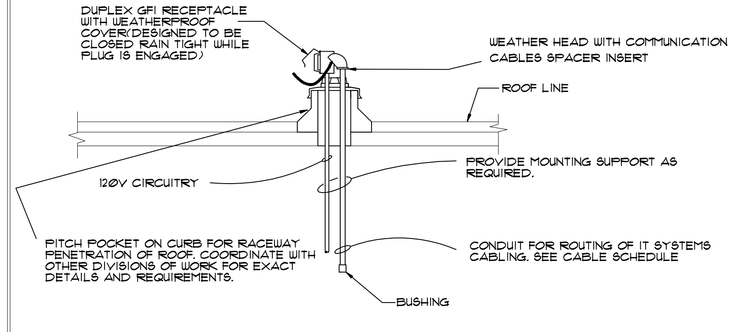
INTERCONNECT GROUNDING SYSTEM OF THESE SYSTEMS WITH SERVICE AND BUILDING GROUND SYSTEM. BOND METAL BODIES ON ROOF WITH SYSTEM FULL SIZE CONDUCTOR. BODIES INCLUDE EXHAUST FANS, LADDERS, PARAPET CAP, ANTENNAES, ETC.

PROVIDE SHOP DRAWING SUBMITTAL AS DICTATED BY GENERAL CONDITIONS OF PROJECT.

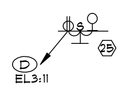


1 ROOF ELECTRICAL PLAN
NO SCALE

2 DETAIL OF CS MOUNTING PENETRATION
NO SCALE



3 RECEPTACLE / LIGHT MOUNTING DETAIL
NO SCALE



COMPONENTS AND INSTALLATION TO BE RATED FOR EXTERIOR LOCATION, WEATHERPROOF

COORDINATE EXACT LOCATIONS WITH DIVISION 15 EQUIPMENT PRIOR TO ROUGH-IN. LOOP ALL LOCATIONS WITH #6 CONDUCTORS TO BE CONNECTED TO EL3:11.

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RCLC
Project Number: 0687

Date Issued: 05/15/07
Drawn By: EDA
Checked By: EDA

Revisions:

ST. TAMMANY PARISH SHERIFF'S OFFICE

BROWNSWITCH ROAD
SLIDELL, LOUISIANA

CONSTRUCTION DOCUMENTS

ROOF ELECTRICAL PLAN

Sheet Number:
E2.3

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