



## Information Necessary to Design & Quote ERICO Lightning Protection Systems

Date: \_\_\_\_\_  
 Client: \_\_\_\_\_  
 Project Name: \_\_\_\_\_  
 Location: \_\_\_\_\_  
 Dealer/Distributor: \_\_\_\_\_ Contact Name: \_\_\_\_\_  
 Contact Phone number: \_\_\_\_\_ Fax Number: \_\_\_\_\_  
 Email address: \_\_\_\_\_

*In order to ensure that our lightning protection system design meets your requirements please fill out as completely as possible this design and quote questionnaire. The proposed lightning protection system design will be based on the information presented and best engineering practices. Check boxes where appropriate, or use extra sheets.*

- 1) Elevation drawings (north, south, east and west). Prefer blueprints, drawings, sketches or photos with dimensions. Topographical map would also be of assistance.
- 2) Roof plan blueprints or drawing with dimensions. Include location and height above roof of stairwells, penthouses, mechanical equipment, fans, vent stacks, HVAC, etc. (Note: If drawings are available on CAD, this will speed up our take-off process considerably. Must be supplied in AutoCAD or .DXF format.)
- 3) Altitude of site above sea level, closest City or airport. \_\_\_\_\_
- 4) Number of thunderstorm days per year that is the average for this region. This can be found on an Isoceraunic map. \_\_\_\_\_
- 5) Type of building or other facility:
  - Structural frame building
  - Wall bearing type construction
  - Other building
  - Facility other than building
  - Radio Tower
  - Lighting pole/tower
  - I-Beam superstructure
- 6) Type of side-wall construction:
  - (1) Bonded
  - (2) Screwed
  - (3) Welded
  - Other \_\_\_\_\_
- 7) Type of roof:
 

<input type="checkbox"/> Metal	<input type="checkbox"/> Membrane
<input type="checkbox"/> Built-up	<input type="checkbox"/> Gable
<input type="checkbox"/> Flat	<input type="checkbox"/> Shed
<input type="checkbox"/> Broken gable	<input type="checkbox"/> Mansard
<input type="checkbox"/> Hip	<input type="checkbox"/> Slope – give rise/run
<input type="checkbox"/> Other, _____	
- 8) Describe stage of construction:
  - Completed construction & occupied
  - Completed but unoccupied
  - Initial stages of construction
  - Partially constructed (Explain construction progress – can down conductors still be concealed in air space behind exterior or located in conduits that can still be installed?)
  - Other \_\_\_\_\_
- 9) What is on the roof (location) and height above roof:
  - Antennas
  - Bill Boards
  - Signs



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- Company signs and logos
  - Lights
  - Flag poles
  - Other \_\_\_\_\_
- 10) List any specified metals (requirements) used in lightning protection system components:
- Copper throughout
  - Aluminum for all above grade systems
  - Combination aluminum on roof and copper down-leads and grounds
  - Composite system as recommended by ERICO
  - Other \_\_\_\_\_
- 11) Can we penetrate roof with down conductors or attachments?
- Yes
  - No
- 12) Mount of hardware preference
- Screw
  - Base plate
  - Best location
  - No preference
  - Other \_\_\_\_\_
- 13) Any height restrictions that would apply to components of the lightning protection system. Please state reason, such as FAA requirements (near an airport), line of site requirements etc.
- \_\_\_\_\_
- \_\_\_\_\_
- 14) Lightning Protection level desired by customer (for collection volume design).
- 98%
  - 93%
  - 85%
- 15) Describe the electrical service. Identify and locate the following on a separate sheet.
1. Voltage
  2. Amperage
  3. Configuration of the electrical service e.g. Split phase (3 wire plus ground), Three phase (three or four wire, ground), etc.
  4. Number and location of branch panels, voltage and amperage.
5. Main services disconnect
6. Transformer locations (main, distribution, isolation)
7. UPS system
8. Back up generators
9. Other \_\_\_\_\_
- 16) Where in the building is there sensitive electronic equipment (so that down conductors can be routed away from):
- Provide layout, Drawing
  - What floor
  - Other \_\_\_\_\_
- 17) Has the owner, engineer or architect written any specifications regarding lightning protection? If so, specify. Are there any standards that must be complied with? Please list all. e.g. NFPA 780, UL Master Label, LPI – 175, IEC, etc.
- Yes
  - No
- 18) Describe the nature of nearby topography:
- Urban area with other buildings of similar or greater height
  - Suburban or rural area with no other structures of this height
  - Near a large tower, spire (steeple) or other high structure (describe)
  - Other \_\_\_\_\_
- 19) Describe the soil around the building. List the type of soil:
- Loam
  - Clay
  - Sandy
  - Rocky
  - Other \_\_\_\_\_
- 20) Depth for which it is easy to drive ground rods to (i.e. 5, 10 or 15 feet)
- 5 ft.
  - 10 ft.
  - 15 ft.
  - Other \_\_\_\_\_
- 21) The soil resistivity as (Ohm-meters) measured with a ground resistance test instrument (four-point test). Identify the locations of where the following utilities enter the building or facility:



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- i) Water pipe
  - ii) Electric service
  - iii) Telephone service
  - iv) Gas pipe
  - v) Other communications
  - vi) Antennas
  - vii) Other utilities (please specify)
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- E-mail (sent as .PDF file format, email address required)
- Fax
- Courier (address required)
- UPS (No P.O. Boxes, please)
- Mail (ship to address required)

- 22) Is there an earth (ground) electrode system?
- i) Draw layout
  - ii) Counter poise present, describe parameters (cable size, depth, etc.)
  - iii) Is water pipe copper, metal or plastic? Connected to Earth electrode system?
  - iv) Communication service cables in conduit? Connected to earth electrode system?
  - v) Is there a Telephone ground or ground rod? Connected to earth electrode system?
  - vi) The average number of inches of rainfall that falls annually in that region.

Send Request for Design to:  
ERICO, Inc.  
FEP Application Engineering Group  
34600 Solon Road  
Solon, OH 44139  
(440) 248-0100 phone  
(440) 519-1675 fax

Email address: [application-eng@erico.com](mailto:application-eng@erico.com)

- 23) List any other architectural, construction or installation details that might effect the lightning protection system. e.g.: future antenna on roof, etc. planned additions, advertising signs, helo-pads, windsocks, satellite dishes, lights, overhanging lights, parking lot lights (height) etc.

- 24) Has the owner, engineer or architect written any specifications regarding surge (TVSS) protection? If so, supply. Are there any standards that must be complied with? Please list all. e.g. UL 1449 Ed2
- Yes \_\_\_\_\_
  - No \_\_\_\_\_

- 25) Are there any requirements regarding the qualifications of the installing contractor? e.g.: Number of years of experience, number of projects, etc.
- Yes
  - No

- 26) List best method for returning design information: