

**GENERAL:**

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Lightning protection system will be considered for new and renovated facilities. This includes installation of any equipment added to a roof such as a large roof top unit, cooling tower, or cellular tower.

Consultant will calculate a "Risk Index" per NFPA 780 Standard for the Installation of Lightning Protection Systems, Annex L. If the expected annual threat occurrence exceeds the tolerable lightning frequency to the structure then a lightning protection system is required. (Note: In nearly every instance, lightning protection will be required due to the large frequency of lightning strikes at all of our campuses.)

**DESIGN GUIDELINES:**

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1. All lightning protection system components shall comply with UL 96 and NFPA 780.
2. Install lightning protection components and systems according to UL 96A and NFPA 780. Include a requirement to submit the installer's UL certification. (Installation of a lightning protection system requires special skills; if the system is not installed correctly, it could be counterproductive. Certification for fitness could include review of installation experience and credentials. If there are any concerns, contact the University's AHJ.)
3. Conceal conductors from view of exterior locations at grade to the best extent possible.
4. Include the following general note in the lightning protection drawings: "PVC conduits may be used to conceal conductors, separate conductors from dissimilar metals, etc., in areas where there is no risk of physical damage. In areas where physical damage is probable; rigid metal conduit shall be used. The Contractor shall ensure conduit materials meet above ceiling plenum ratings, where installed in that environment".
5. Ensure the specifications include a submittal requirement for the UL inspector certification, per UL 96A. In accordance with NFPA 780, compliance of the completed installation with the requirements of this standard shall be certified through a physical onsite inspection by a qualified and impartial organization acceptable to the authority having jurisdiction.

**FIELD QUALITY CONTROL:**

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The lightning protection system and components shall be inspected by a UL certified inspection agency. This agency shall forward the inspection results and UL Master Certification; or UL Letter of Findings, as applicable, to the Owner's Representative upon

completion of the inspection. Ensure the specifications include at least 48-hour notification to the Owner's Representative of any inspection performed by the UL inspector.