Florida Department of Transportation

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JARED W. PERDUE, P.E.
SECRETARY

September 12, 2023

Khoa Nguyen
Director, Office of Technical Services
Federal Highway Administration
3500 Financial Plaza, Suite 400
Tallahassee, Florida 32312

Re: State Specifications Office
Section: **620**
Proposed Specification: **6200207 Grounding and Lightning Protection.**

Dear Mr. Nguyen:

We are submitting, for your approval, two copies of the above referenced Supplemental Specification.

The changes are proposed by Derek Vollmer to reduce the required duration of manufacturer's warranty and make minor administrative edits.

Please review and transmit your comments, if any, within two weeks (10 business days). Comments should be sent via email daniel.strickland@dot.state.fl.us.

If you have any questions relating to this specification change, please call me at (850) 414-4130.

Sincerely,

Signature on file

Daniel Strickland, P.E.
State Specifications Engineer

DS/dh
Attachment
cc: Florida Transportation Builders' Assoc.
State Construction Engineer

GROUNDING AND LIGHTNING PROTECTION.
(REV 9-12-23)

SUBARTICLE 620-2.7 is deleted and the following substituted:

620-2.7 Surface Protective Devices (SPDs):

Install SPDs on all power, data, video, and any other conductive circuit. SPD requirements for lighting must meet the minimum requirements of Section 992 and the Standard Plans. Use SPDs that meet the requirements of Section 996 and are listed on the Department's Approved Product List (APL).

Provide primary and secondary surge protection on AC power at traffic control device field sites.

620-2.7.1 SPD for 120 Volt or 120/240 Volt Power: Install a SPD at the utility disconnect to the cabinet.

Ensure an SPD is provided where the supply circuit enters the cabinet. Locate the SPD on the load side of the main disconnect, ~~and~~ ahead of ~~any and all~~ electronic devices, and connected in parallel with the AC supply.

620-2.7.2 SPD at Point of Use: Install an SPD at the point the ITS devices receive 120 volt power and connected in series with the circuits.

620-2.7.3 SPDs for Low-Voltage Power, Control, Data and Signal Systems: Install a specialized SPD on all conductive circuits including, but not limited to, data communication cables, coaxial video cables, and low-voltage power cables.

620-2.7.4 Manufacturer's Warranty: Ensure that the SPD has a manufacturer's warranty covering failures for a minimum of ~~10~~ 2 years from the date of final acceptance~~by the Engineer in accordance with 5-11 and Section 608~~.

The term "failure" for warranty replacement is defined as follows:

Parallel-connected, power-rated SPD units are considered in failure mode when any of the visual indicators shows failure mode when power is applied to the terminals at the unit's rated voltage, or the properly functioning over-current protective device will not reset after tripping.

Series-connected, low-voltage power, data, or signal units are considered in the failure mode when an open circuit condition is created and no data/signal will pass through the SPD device or a signal lead is permanently connected to ground.

~~In the event that~~If the SPD, including any component of the unit, should fail during the warranty period, the entire SPD ~~shall~~ must be replaced by the manufacturer at no cost to the Department or maintaining agency.

GROUNDING AND LIGHTNING PROTECTION.
(REV 9-12-23)

SUBARTICLE 620-2.7 is deleted and the following substituted:

620-2.7 Surge Protective Devices (SPDs): Install SPDs on all power, data, video, and any other conductive circuit. SPD requirements for lighting must meet the minimum requirements of Section 992 and the Standard Plans. Use SPDs that meet the requirements of Section 996 and are listed on the Department's Approved Product List (APL).

Provide primary and secondary surge protection on AC power at traffic control device field sites.

620-2.7.1 SPD for 120 Volt or 120/240 Volt Power: Install a SPD at the utility disconnect to the cabinet.

Ensure an SPD is provided where the supply circuit enters the cabinet. Locate the SPD on the load side of the main disconnect, ahead of electronic devices, and connected in parallel with the AC supply.

620-2.7.2 SPD at Point of Use: Install an SPD at the point the ITS devices receive 120 volt power and connected in series with the circuits.

620-2.7.3 SPDs for Low-Voltage Power, Control, Data and Signal Systems: Install a specialized SPD on all conductive circuits including, but not limited to, data communication cables, coaxial video cables, and low-voltage power cables.

620-2.7.4 Manufacturer's Warranty: Ensure that the SPD has a manufacturer's warranty covering failures for a minimum of 2 years from the date of final acceptance.

The term "failure" for warranty replacement is defined as follows:

Parallel-connected, power-rated SPD units are considered in failure mode when any of the visual indicators shows failure mode when power is applied to the terminals at the unit's rated voltage, or the properly functioning over-current protective device will not reset after tripping.

Series-connected, low-voltage power, data, or signal units are considered in the failure mode when an open circuit condition is created and no data/signal will pass through the SPD device or a signal lead is permanently connected to ground.

If the SPD, including any component of the unit, should fail during the warranty period, the entire SPD must be replaced by the manufacturer at no cost to the Department or maintaining agency.