

Intelligent Transportation Systems Construction Engineering and Inspection Training for Dynamic Message Signs: Module 3: Testing and Types of Inspection

MODULE 3

Welcome

Welcome to the Intelligent Transportation Systems Construction Engineering and Inspection Training for Dynamic Message Signs (called “DMS”) training, Module 3: Resources and Documentation. This CBT contains audio, so adjust your speakers accordingly. This CBT contains audio, so please adjust your speakers accordingly. This CBT contains interactive elements. An alternate version is available on the resources page. To begin, select the start button or press Shift + N on your keyboard.

Resources and Documentation

The Intelligent Transportation System’s Facility Management System Dynamic Message Sign Attribute Form is shown in this slide.

FDOT Specifications

Unlike other Intelligent Transportation System devices that can fit in your hands, DMS units can take on much larger dimensions and can weigh over a ton. DMS units need coordination of centralized and local communications and provisioning. The signs are subject to vibrations from wind and traffic.

Many components make up a DMS unit and these should be installed in a manner that ensures safe operation over its expected life, keeping in mind each sign will be continuously exposed to the weather elements.

Many different specifications and requirements should be followed while installing a DMS system. Specifications for several DMS components will be used for their installation. The inspector will need to be familiar with all specifications. Following all specifications, procedures, and guidelines in the installation and inspection of cabinets, communications equipment, and grounding is important to ensure the safe operation over the expected life of each DMS.

A CEI Inspector should have copies of the FDOT Standard Specifications for Road and Bridge Construction for DMS. You can use these documents as an inspection guide.

FDOT Standard Plans

This slide shows additional Design standards. Be sure to check the Standard Plans for updates.

Other Specifications

In addition to the FDOT standards, there are Industry Standards. NFPA is the acronym for the National Fire Protection Association. NFPA-70 stands for the National Electrical Code and NFPA-780 is standard for lightning protection systems. The National Electric and Safety Code is the standard

followed for outdoor power. Dynamic Message Signs are outdoor installations so the NESC applies to DMS.

NTCIP is the National Transportation Communications for Intelligent Transportation System Protocol and is the communications protocol used for DMS signs and other Intelligent Transportation System (ITS) devices. Using NTCIP allows communications between the DMS controllers and the FDOT SunGuide system software. NTCIP also includes other ITS devices and traffic signal equipment.

ITS Acronyms

As you may have noticed, there are lots of acronyms used in Intelligent Transportation Systems. Here is a list of a few acronyms that you will see throughout the DMS training.

Links

Use these hyperlinks to view the guide list, ITS Facility Management, and Approved Products List sites.

This concludes the Intelligent Transportation Systems Construction Engineering and Inspection Training for Dynamic Message Signs (called “DMS”) training. Thank you for your time and attention.