



## Florida Department of Transportation

RICK SCOTT  
GOVERNOR

605 Suwannee Street  
Tallahassee, FL 32399-0450

JIM BOXOLD  
SECRETARY

### **TRAFFIC ENGINEERING & OPERATIONS BULLETIN 12-15**

### **ROADWAY DESIGN BULLETIN 15-14**

### **DCE MEMORANDUM NO. 24-15**

*(FHWA Approved: 12/17/2015)*

**DATE:** December 17, 2015

**TO:** District Directors of Transportation Operations, District Directors of Transportation Development, District Design Engineers, District Program Management Engineers/Administrators, District Construction Engineers, District Structures Design Engineers, District Maintenance Engineers, District Roadway Design Engineers, District Traffic Operations Engineers

**FROM:** Mark Wilson, Director, Traffic Engineering & Operations Office  
Tim Lattner, Director, Office of Design  
David Sadler, Director, Office of Construction

**COPIES:** Brian Blanchard, Tom Byron, Rudy Powell, Amy Tootle, Bruce Dana, Gregory Schiess, Trey Tillander, Jeffrey Ger (FHWA), Nick Finch (FHWA), Rafiq Darji (FHWA), Bob Burleson (FTBA)

**SUBJECT:** Design Standards Index 17727 - Span Wire Traffic Signal Hangers

### **REQUIREMENTS**

The following [Design Standards Revision \(DSR\)](#) is released:

Revised Index 17727 Sheet 2 of 2, (Signal Cable & Span Wire Installation Details) is released.

### **BACKGROUND**

The Department is changing the statewide standard for span wire traffic signal hangers from the Pivotal Adjustable Hanger Assembly (PAHA) to the Tri-Stud Adjustable Hanger Assembly. *Design Standards*, Index 17727 (Signal Cable & Span Wire Installation Details) has been reissued as a *DSR* requiring a Tri-Stud Adjustable Hanger, Extension Connector, Span Wire Clamp and Messenger Wire Clamp.

Department funded research is currently underway at the Florida International University Wall of Wind facility in Miami to assess the dynamic performance of span wire traffic signal assemblies in hurricane force winds. Observations from recent wind tests of signal assemblies attached to the span wires with PAHAs revealed a significant oscillating behavior at wind speeds well below the design wind speed. In testing, oscillations progressively increased. Signals attached to the span wires with Tri-Stud Adjustable Hangers did not show any significant oscillating behavior in the tests. Given the low wind speed at which signals oscillated when attached to span wires with PAHAs, the Department is issuing this bulletin as a precautionary measure pending completion of the research.

### **IMPLEMENTATION**

The use of the *DSR* for Index 17727 is required for:

- All projects let on or prior to December 31, 2015, including those currently under construction where the Pivotal Adjustable Hanger Assemblies have not yet been installed. This Construction Memo serves as a blanket approval to process a contract supplemental agreement or work order.
- All projects with lettings from January 1, 2016 to June 30, 2016. Include the *DSR* for Index 17727 in the back of the component plan set in accordance with the *Plans Preparation Manual, Volume 2, Chapter 3*. Any projects already accepted by Central Office will need a mandatory revision.

For projects let on or after July 1, 2016, the contents of this *DSR* will be effective in the *FY 2016-17 Design Standards eBook*.

### **CONTACT**

Alan El-Urfali, P.E.  
State Traffic Services Program Engineer  
[alan.el-urfali@dot.state.fl.us](mailto:alan.el-urfali@dot.state.fl.us)  
(850) 410-5416

MW/TL/DS/ase