

## ORIGINATION FORM

Date: **12-10-2013**

Originator: Jeff Morgan

Contact Information: Traffic Engineering and Operations, Traffic Systems Section  
850-410-5600

Specification Title: **PULL, SPLICE, AND JUNCTION BOXES**

Specification Section, Article, or Subarticle Number: 635

Why does the existing language need to be changed? Must clarify that nominal dimensions are “minimum”, update a reference to ANSI standard, and stipulate that supporting beams are not allowed during load tests used for APL approval.

Summary of the changes: Revised to clarify that nominal dimensions are “minimum”, updated ANSI reference, added item in testing requirements prohibiting supporting beams during load tests used for APL approval. Removed separate “furnish”, “install”, and “relocate” operations from method of measurement section for consistency with other sections.

Are these changes applicable to all Department jobs? If not, what are the restrictions? This requirement has typically been applicable to all jobs in the past, specifically those including Pull, Splice, and Junction Boxes.

Will these changes result in an increase or decrease in project costs? If yes, what is the estimated change in costs? No increase or decrease in project costs is expected.

With who have you discussed these changes? Traffic Engineering and Operations (Traffic Engineering Research Lab) staff.

What other offices will be impacted by these changes? Specifications and Estimates, Construction, Maintenance, and Roadway Design.

Are changes needed to the PPM, Design Standards, SDG, CPAM or other manual? No.

Is a Design Bulletin, Construction Memo, or Estimates Bulletin needed? No.

Contact the State Specifications Office for assistance in completing this form.

Daniel Scheer 850-414-4130 [daniel.scheer@dot.state.fl.us](mailto:daniel.scheer@dot.state.fl.us)

Frances Thomas 850-414-4101 [frances.thomas@dot.state.fl.us](mailto:frances.thomas@dot.state.fl.us)

Debbie Toole 850-414-4114 [deborah.toole@dot.state.fl.us](mailto:deborah.toole@dot.state.fl.us)

Andy Harper 850-414-4127 [clifton.harper@dot.state.fl.us](mailto:clifton.harper@dot.state.fl.us)

Ray Haverty 850-414-4129 [ray.haverty@dot.state.fl.us](mailto:ray.haverty@dot.state.fl.us)



*Florida Department of Transportation*

RICK SCOTT  
GOVERNOR

605 Suwannee Street  
Tallahassee, FL 32399-0450

ANANTH PRASAD, P.E.  
SECRETARY

**MEMORANDUM**

**DATE:** September 29, 2014  
**TO:** Specification Review Distribution List  
**FROM:** Daniel Scheer, P.E., State Specifications Engineer  
**SUBJECT:** Proposed Specification: **6350202 Pull, Splice, and Junction Boxes.**

In accordance with Specification Development Procedures, we are sending you a copy of a proposed specification change.

This change was proposed by Alan El-Urfali of the State Traffic Engineering and Operations Office to clarify that nominal dimensions are “minimum”; update ANSI reference; add testing requirements prohibiting supporting beams during load tests used for APL approval; and, for general formatting.

Please share this proposal with others within your responsibility. Review comments are due within four weeks and should be sent to Mail Station 75 or online at <http://www2.dot.state.fl.us/SpecificationsEstimates/Development/IndustryReview.aspx> . Comments received after **October 27, 2014**, may not be considered. Your input is encouraged.

DS/dt  
Attachment

**PULL, SPLICE, AND JUNCTION BOXES.**

(REV 9-1622-14)

SUBARTICLE 635-2.2.3 is deleted and the following substituted:

**635-2.2.3 Dimensions:** Unless otherwise shown in the Plans, provide pull and splice boxes with the following dimensions.

For signalized intersection and lighting applications, provide pull boxes with *minimum* nominal dimensions of 13 inches wide by 24 inches long (cover) and no less than 12 inches deep. Ensure the inside opening area is a minimum of 240 square inches and no inside dimension is less than 12 inches.

For fiber optic cable applications, provide pull boxes with *minimum* nominal dimensions of 24 inches wide by 36 inches long (cover) and no less than 24 inches deep.

Provide rectangular splice boxes with *minimum* nominal dimensions of 30 inches wide by 60 inches long (cover) and no less than 36 inches deep. Provide round splice boxes with a *minimum* nominal diameter of 36 inches (cover) and no less than 36 inches deep.

SUBARTICLE 635-2.2.5 is deleted and the following substituted:

**635-2.2.5 Testing Requirements:** Ensure pull and splice boxes meet the American National Standards Institute/Society of Cable Telecommunications Engineers (ANSI/SCTE) 77 2010<sup>3</sup> Specification for Underground Enclosure Integrity for TIER 15 loading with the following additional clarifications and requirements:

1. Apply all environmental tests to the box and its cover.
2. All flexural testing must be conducted in accordance with an appropriate ASTM standard and clearly stated in the report.
3. Perform repetitions of Cycle 1 in Table X2.1 of ASTM G154 for a minimum duration of 1000 hours for the simulated sunlight exposure test.
4. Use deflection-measuring devices positioned to measure vertical and lateral deflection (wherever maximum deflection occurs) for the vertical sidewall load test.
5. *Conduct the lateral sidewall pressure, vertical sidewall load and cover vertical load tests without any wall to wall supporting beams that would interfere with the interior open design and installation and maintenance serviceability.*

—When testing pull and splice boxes of various sizes (width x length x depth), the cover impact test, internal equipment protection test, coefficient of friction test, and all environmental tests, can be completed using a single representative box/cover (instead of samples from all box/cover sizes) as long as the test report indicates the following:

1. Materials of construction, compositions, and manufacturing processes are identical for all box and cover sizes submitted for listing on the APL.
2. Size (width x length x depth) of the representative box/cover.

ARTICLE 635-2.6 is deleted and the following substituted:

**635-6 Method of Measurement.**

~~635-6.1 General: Measurement for payment will be in accordance with the following work tasks:~~

~~635-6.2 Furnish and Install: The Contract unit price each for pull, splice, and junction box, furnished and installed, will consist of the pull, splice, and junction box including all required hardware for the type of box and location as specified in the Contract Documents, and all labor and materials necessary for a complete and accepted installation.~~

~~635-6.3 Furnish: The Contract unit price each for pull, splice, and junction box, furnished, will include the cost of the pull, splice, and junction box including covers, doors, locks and keys, and any necessary miscellaneous hardware specified in the Contract Documents, plus all shipping and handling costs involved in delivery as specified in the Contract Documents.~~

~~635-6.4 Install: The Contract unit price each for pull, splice, and junction box, installed, will include the cost of all labor, equipment, miscellaneous hardware and materials necessary to make a complete and accepted installation of the type box and at locations as shown in the Plans. The Engineer will supply a complete box as specified in the Contract Documents.~~

~~635-6.5 Relocate: The Contract unit price each for pull, splice, and junction box, relocate, will include the removal of the box and relocation to the location shown in the Plans. This includes the cost of all labor, equipment, miscellaneous hardware and materials necessary for a complete and accepted installation.~~