

ORINATION FORM

Proposed Revisions to the Specifications

(Please provide all information - incomplete forms will be returned)

Date:

Office:

Originator:

Specification Section:

Telephone:

Article/Subarticle:

email:

****Will the proposed revision require changes to:**

Publication	Yes	No	Office Staff Contacted and date contacted
Standard Plans Index			
Traffic Engineering Manual			
FDOT Design Manual			
Construction Project Administration Manual			
Basis of Estimate/Pay Items			
Structures Design Guidelines			
Approved Product List			
Materials Manual			

**This section must be completed prior to processing proposed revisions.

Will this revision necessitate any of the following:

Design Bulletin

Construction Bulletin

Estimates Bulletin

Materials Bulletin

Are all references to external publications current?

Yes

No

If not, what references need to be updated? (Please include changes in the redline document.)

Why does the existing language need to be changed?

Summary of the changes:

Are these changes applicable to all Department jobs?

Yes

No

If not, what are the restrictions?

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

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KEVIN J. THIBAUT, P.E.
SECRETARY

MEMORANDUM

DATE: January 2, 2020

TO: Specification Review Distribution List

FROM: Daniel Strickland, P.E., State Specifications Engineer

SUBJECT: Proposed Specification: **7110402 Thermoplastic Pavement Markings.**

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 from the Traffic Engineering and Operations Office to implement railroad dynamic envelopes on state roads.

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://fdotewp1.dot.state.fl.us/programmanagement/development/industryreview.aspx> .

Comments received after **January 30, 2020**, may not be considered. Your input is encouraged.

DS/rf
Attachment

THERMOPLASTIC PAVEMENT MARKINGS (REV 12-19-19)

SUBARTICLE 711-4.2.1 is deleted and the following substituted:

711-4.2 Thickness:

711-4.2.1 Standard Thermoplastic Markings: Apply or recap standard thermoplastic pavement markings for longitudinal lines to attain a minimum thickness of 0.10 inch or 100 mils and a maximum thickness 0.15 inch or 150 mils when measured above the pavement surface.

All chevrons, diagonal and transverse lines, messages, symbols, railroad dynamic envelopes and arrows, wherever located, will have a thickness of 0.09 inch or 90 mils to 0.12 inch or 120 mils when measured above the pavement surface.

Measure, record and certify on Department approved form and submit to the Engineer, the thickness of white and yellow pavement markings in accordance with FM 5-541.

The Engineer will verify the thickness of the pavement markings in accordance with FM 5-541 within 30 days of receipt of the Contractor's certification.

SUBARTICLE 711-4.2.3 is deleted and the following substituted:

711-4.2.3 Preformed Thermoplastic: Apply 0.125 inch or 125 mils of preformed thermoplastic material. Use preformed thermoplastic for bicycle markings, shared use path markings, 24 inch markings of the special emphasis crosswalks, route shields, ramp exit numbers, roundabout informational markings, white dotted lines (2'-4') with trailing black contrast, and black contrast arrows, messages, and symbols. On concrete surfaces, use preformed thermoplastic for railroad dynamic envelope markings.

Measure, record and certify on Department approved form and submit to the Engineer, the thickness of the pavement markings in accordance with FM 5-541.

SUBARTICLE 711-4.3 is deleted and the following substituted:

711-4.3 Retroreflectivity: Apply white and yellow pavement markings that will attain an initial retroreflectivity of not less than 450 mcd/lx·m² and not less than 350 mcd/lx·m², respectively for all longitudinal lines. All chevrons, diagonal lines, stop lines, messages, symbols, railroad dynamic envelopes on asphalt and arrows will attain an initial retroreflectivity of not less than 300 mcd/lx·m² and 250 mcd/lx·m² for white and yellow respectively. All crosswalks, railroad dynamic envelopes on concrete, and bicycle markings shall attain an initial retroreflectivity of not less than 275 mcd/lx·m². Black pavement markings must have a retroreflectance of less than 5 mcd/lx m².

Measure, record and certify on Department approved form and submit to the Engineer, the retroreflectivity of white and yellow pavement markings in accordance with FM 5-541.

SUBARTICLE 711-4.4.2 is deleted and the following substituted:

711-4.4.2 Chevrons, Diagonal and Transverse Lines, Messages, Symbols, Railroad Dynamic Envelopes, and Arrows: For standard or refurbishment thermoplastic markings, apply a single drop of Type 1 glass spheres. Apply retroreflective glass spheres to all markings at the rates determined by the manufacturer's recommendations.

Apply a mixture consisting of 50% glass spheres and 50% sharp silica sand to all standard thermoplastic crosswalk lines at the rates determined by the manufacturer's recommendations.

ARTICLE 711-10 is deleted and the following substituted:

711-10 Method of Measurement.

The quantities, authorized and acceptably applied, under this Section will be paid as follows:

1. The length, in gross miles, of solid, 10'-30' skip, 3'-9' dotted, 6'-10' dotted, 2'-2' dotted, and 2'-4' dotted lines.

2. The length, in linear feet, of transverse lines, diagonal lines, chevrons, and parking spaces.

3. The number of pavement messages, symbols, and arrows. Each arrow is paid as a complete marking, regardless of the number of "points" or directions.

4. The length in linear feet of railroad dynamic envelope, measured from edge of pavement to edge of pavement along the marking (parallel to the railroad tracks). Each side of the railroad track will be measured separately.

54. The area, in square feet, for removal of existing thermoplastic pavement markings acceptably removed. Payment for removal of thermoplastic pavement markings will only be made for locations where the existing pavement surface is to remain.

The gross mile measurement will be taken as the distance from the beginning of the thermoplastic line to the end of the thermoplastic line and will include the unmarked gaps for skip and dotted lines. The gross mile measurement will not include designated unmarked lengths at intersections, turn lanes, etc. Final measurement will be determined by plan dimensions or stations, subject to 9-1.3.1.

ARTICLE 711-11 is deleted and the following substituted:

711-11 Basis of Payment.

Prices and payments will be full compensation for all work specified in this Section, including, all cleaning and preparing of surfaces, furnishing of all materials, application, curing and protection of all items, protection of traffic, furnishing of all tools, machines and equipment, and all incidentals necessary to complete the work. Final payment will be withheld until all deficiencies are corrected.

Payment will be made under:

Item No. 711	Thermoplastic Pavement Markings
	Solid - per gross mile.
	Solid - per linear foot.

Skip - per gross mile.

Dotted - per gross mile.

Message or Symbol - each.

Arrows - each.

Yield Line - per linear foot.

Railroad Dynamic Envelope - per linear foot.

Remove - per square foot.