

# 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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## **M E M O R A N D U M**

**DATE:** December 10, 2020  
**TO:** Specification Review Distribution List  
**FROM:** Daniel Strickland, P.E., State Specifications Engineer  
**SUBJECT:** Proposed Specification: **5270000 Detectable Warnings**

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

This change was proposed by Karen Byram from the Program Management Office to include product performance acceptance values. Material language from this Section was moved to Division III Section 976 Surface Treatments. This change also affects Section 523.

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 7, 2021**, may not be considered. Your input is encouraged.

DS/rf

Attachment

**DETECTABLE WARNINGS  
(REV 11-18-20)**

SECTION 527 is deleted and the following substituted:

**527-1 Description.**

Furnish and install detectable warnings on newly constructed and/or existing concrete or asphalt walking surfaces (sidewalk curb ramps, sidewalks, shared use paths, etc.) constructed in accordance with Standard Plans, Index 522-002.

**527-2 Materials.**

**527-2.1 Detectable Warnings:** Provide detectable warnings in accordance with the Americans with Disabilities Act Standards for Transportation Facilities, Section 705. Use detectable warnings consisting of materials intended for exterior use subject to routine pedestrian traffic and occasional vehicular traffic. Use detectable warnings with size and pattern shown in the Plans comprised of truncated domes aligned in parallel rows in accordance with Standard Plans, Index 522-002. Do not use detectable warnings with a diagonal pattern.

For permanent installations, use detectable warnings that are cast in place for newly constructed concrete walking surfaces. For asphalt or existing concrete walking surfaces, surface-applied detectable warnings may be used.

For temporary installations, install detectable warnings as recommended by the manufacturer.

~~527-2.1.1 Preformed Materials: Use detectable warnings consisting of weather resistant tiles or pavers that are cast into concrete, or tiles or mats that are surface-applied to concrete or asphalt surfaces with adhesives and mechanical fasteners or torch-applied preformed thermoplastic.~~

~~527-2.1.2 Field-Formed Materials: Use detectable warnings applied as a secondary application to the substrate.~~

~~527-2.2 Material Properties: Provide detectable warnings that meet the following minimum material property requirements when tested in accordance with the following:~~

PROPERTY	STANDARD	TEST VALUE
Slip Resistance	FM 3-C1028	Dry Coefficient of Friction—0.8 min. Wet Coefficient of Friction—0.65 min. (include recessed areas between truncated domes)
Wear Resistance	FM 5-594	Average Volume Loss: no more than 0.06 cm <sup>3</sup>
Water Absorption*	ASTM D570	Not to exceed 5%.
Adhesion/Bond Strength**	FM 5-589	150 psi min. tensile adhesion strength
Non-Hazardous Classification	Submit Material Safety Data Sheet (SDS)	Non-Hazardous, per RCRA Subtitle C

\* Applies only to plastic materials.

\*\* Applies only to surface applied materials.

**527-2.23 Color/Contrast:** Use safety yellow, brick red or black colored detectable warnings on concrete walking surfaces. Use safety yellow colored detectable warnings on asphalt walking surfaces. ~~Acceptable detectable warnings shall meet the following criteria for a duration of three years.~~

COLOR	LIGHT REFLECTANCE VALUES (LRV) CAP Y*
Safety Yellow	25—45
Brick-Red	5—15
Black	0—5

\*When measured with a spectrophotometer

**527-2.34 Approved Product List:** Methods or products used to form detectable warnings in ~~wet concrete place~~ will not be permitted. Use detectable warnings listed on the Department's Approved Product List (APL). Manufacturers seeking evaluation of products for inclusion on the APL shall submit an application in accordance with Section 6 and 976. ~~include certified test reports from an independent lab showing the product meets the requirements of this Section and the Standard Plans, Index 522-002 Acceptance Criteria and manufacturer's drawings, specifications and procedures for materials and installation, including touch-up and repair.~~

### 527-3 Installation Procedures.

**527-3.1 Surface Preparation and Installation:** Prepare the surface in accordance with the manufacturer's recommendations. Use only products and materials appropriate for the surface on which they will be applied. Install in accordance with the manufacturer's instructions, using materials and equipment recommended and approved by the manufacturer.

Immediately install detectable warnings on newly constructed surfaces and open the surface to pedestrian traffic. ~~For installations on newly placed concrete, install detectable warnings during casting or immediately upon completing the concrete curing period specified in 520-8. Install surface applied tiles or mats using adhesives applied over the entire surface and mechanical fasteners.~~

### 527-4 Project Acceptance Criteria

Surface color and texture shall be complete and uniform. Detectable warning will be securely installed as recommended by manufacturer and defect free from lifting, cracking, missing or partial domes, and with no significant defects. Surfaces shall not deviate more than 0.10" from a true plane.

### 527-54 Method of Measurement.

Detectable warnings will be paid by plan quantity, per square foot, furnished, installed and accepted.

### 527-65 Basis of Payment.

Price and payment will be full compensation for all work specified in this Section, including all labor, surface preparation, materials, and incidentals necessary to complete the work.

Payment will be made under:

Item No. 527- 2- Detectable Warnings - per square foot.