

ORIGINATION FORM

Proposed Revisions to the Specifications

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

Date:

Office:

Originator:

Specification Section:

Telephone:

Article/Subarticle:

email:

Associated Section(s) Revisions:

Will the proposed revision require changes to:

Publication	Yes	No	Office Staff 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			

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: June 10, 2021
TO: Specification Review Distribution List
FROM: Daniel Strickland, P.E., State Specifications Engineer
SUBJECT: Proposed Specification: **5270100 DETECTABLE WARNINGS.**

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

The changes are proposed by Karen Byram to move material requirements to Division III. New language is added in acceptance criteria and product selection for newly constructed and existing surfaces. *This proposed revision is associated with the proposed 9740000.

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://fdotwp1.dot.state.fl.us/programmanagement/development/industryreview.aspx> . Comments received after **July 8, 2021**, may not be considered. Your input is encouraged.

DS/dh

Attachment

DETECTABLE WARNINGS.
(REV 6-8-21)

ARTICLE 527-1 is deleted and the following substituted:

527-1 Description.

~~Furnish and install d~~ Detectable warnings are products used for the visually impaired and installed 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.~~

ARTICLE 527-2 is deleted and the following substituted:

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.~~ Use detectable warnings as approved for use on uncured concrete, existing concrete, and asphalt surfaces. Use only products and materials appropriate for the surface on which they will be applied.

~~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 cm³
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.

~~527-2.3 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

~~527-2.4 Approved Product List:~~ Methods or products used to form detectable warnings in wet concrete will not be permitted. Use detectable warnings listed on the Department's Approved Product List (APL) meeting the requirements of Section 974. ~~Manufacturers seeking evaluation of products for inclusion on the APL shall submit an application in accordance with Section 6 and 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.~~ Methods used to form detectable warnings in wet concrete will not be permitted.

ARTICLE 527-3 is deleted and the following substituted:

527-3. ~~Installation Procedures~~ Construction Requirements.

~~527-3.1 Surface Preparation and Installation:~~ Prepare the surface and install detectable warnings in accordance with the manufacturer's ~~recommendations~~ installation instructions, using materials and equipment recommended and approved by the manufacturer. Construct in accordance with Standard Plans, Index 522-002. ~~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.~~

Open the walking surface to pedestrian traffic within 72 hours for uncured concrete surfaces. ~~Immediately install detectable warnings on newly constructed surfaces and open the walking surface to pedestrian traffic for asphalt and existing concrete surfaces. 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.~~

Surface color and texture shall be complete and uniform. Detectable warnings will be securely installed as recommended by the 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.