

# 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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**SECRETARY**

## **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: **5230100 PATTERNED PAVEMENT.**

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

The changes are proposed by Sarah Smith to move all material requirements and APL to Division III. \*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://fdotewp1.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

**PATTERNED PAVEMENT.**  
**(REV 6-8-21)**

ARTICLE 523-1 is deleted and the following substituted:

**523-1 Description.**

~~Install patterned pavement on asphalt or concrete pavement areas at locations and with the color and pattern as specified in the Plans. Use products listed on the Approved Product List (APL), as approved for use in areas subject to vehicular traffic or non-vehicular traffic, respectively, as specified herein. Install products in accordance with manufacturer's recommendations.~~

~~For the purpose of this Specification, Patterned pavements are is defined as a post applied surface marking overlay to either the pavement surface or to an imprinted pavement surface. Vehicular traffic areas are defined as those areas subject to vehicles within the traveled way, shoulders and bicycle lanes. Non-vehicular travel traffic areas include medians, islands, curb extensions, sidewalks, borders, plazas and other areas typically subject to foot traffic only.~~

~~Install overlay products in areas subject to vehicular traffic to a thickness not exceeding 180 mils. Do not use products requiring removal of pavement or requiring blockouts or trenches below the top of pavement.~~

~~Variations within a pattern shall comply with ADA requirements.~~

ARTICLE 523-2 is deleted and the following substituted:

**523-2 Materials.**

~~**523-2.1 General:** Use only patterned pavement products approved for use in vehicular and non-vehicular areas, as appropriate, and listed on the APL. Meet manufacturer's specifications for all patterns, textures, templates, sealers, coatings and coloring materials.~~

~~Use patterned pavement products listed on the Department's Approved Product List (APL) in accordance with meeting the requirements of Section 974. Material coatings used to achieve the pattern and color shall produce an adherent, weather resistant, skid resistant, wear resistant surface under service conditions. Color shall be integral and consistent throughout the installation. The composition of materials is intended to be left to the discretion of the manufacturer.~~

~~Prior to installation, submit pattern and color samples to the Engineer for confirmation that the product meets the pattern and color specified in the Plans. Do not begin installation until acceptance by the Engineer. Materials shall be characterized as non-hazardous as defined by Resource Conservation and Recovery Act (RCRA), Subpart C, Table 1 of 40 CFR 261.24 "Toxicity Characteristic". Materials shall not exude fumes which are hazardous, toxic or detrimental to persons or property.~~

~~**523-2.2 Approved Product List (APL):** Manufacturers seeking evaluation of their product shall submit an application in accordance with Section 6 along with the following documentation:~~

~~1. Manufacturer's recommendations for applicability of use on concrete or asphalt surfaces.~~

~~2. Manufacturer's recommendation for applicability of use in vehicular or non-vehicular travel areas.~~

~~3. Manufacturer's specifications and procedures for materials and installation for each use above.~~

~~4. For products proposed for use in vehicular traffic areas, independent test data verifying the material meets the requirements of this Section including verification that the product, installed in accordance with the manufacturer's specifications and procedures, has been tested in accordance with either:~~

~~a. ASTM E-274, Skid Resistance of Paved Surfaces using a standard ribbed full scale tire at a speed of 40 mph (FN40R), and has a minimum FN40R value of 35, or~~

~~b. ASTM E-1911, Measuring Paved Surface Frictional Properties Using the Dynamic Friction Tester (DFT), at a speed of 40 mph (DFT40), and has a minimum DFT40 value of 40.~~

~~5. For products proposed for use in non-vehicular traffic areas, independent test data verifying the material meets the requirements of this Section including verification that the product, installed in accordance with the manufacturer's specifications and procedures, has been tested in accordance with ASTM E-303 using the British Pendulum Tester and has a British Pendulum Number (BPN) of at least 40.~~

~~**523-2.3 Performance Requirements for Products in Vehicular Travel Areas:** In addition to the submittal requirements of 523-2.2, APL approval will be contingent on a field service test demonstrating that the patterned pavement product meets the following performance measures at the end of three years from opening to traffic:~~

~~1. The average thickness shall be a minimum of 50% of the original thickness.~~

~~2. Wearing of the material coating shall not expose more than 15% of the underlying surface area as measured within the traveled way.~~

~~3. Friction performance of patterned/textured pavement materials shall meet or exceed one of the following test method values:~~

~~a. FN40R value of 35 in accordance with ASTM E-274; or,~~

~~b. DFT40 value of 40 in accordance with ASTM E-1911~~

~~Manufacturers shall provide a field service test installation of each product within a marked crosswalk on a roadway with an ADT of 6,000 to 12,000 vehicles per day per lane, on a site approved by the Department. The test installation shall be a minimum six feet wide and extend from pavement edge to pavement edge across all traffic lanes and shoulder pavement at the crosswalk location. The test installation shall be tested by the manufacturer in accordance with FM 5-592.~~

ARTICLE 523-3 is deleted and the following substituted:

### **523-3 Construction Requirements.**

Install patterned pavement on asphalt or concrete pavement areas at locations and with the color and pattern as specified in the Plans. Prepare the surface and in accordance with the manufacturer's recommendations. Install patterned pavement in accordance with the manufacturer's installation instructions, using materials and equipment recommended and approved by the manufacturer. Color shall be integral and consistent throughout the installation.

Install overlay products in areas subject to vehicular traffic to a thickness not exceeding 180 mils.

Variations within the installation shall comply with ADA requirements.

~~523-3.1 Product Submittals: Prior to installation, submit pattern and color samples to the Engineer for confirmation that the product meets the pattern and color specified in the Plans. Do not begin installation until acceptance by the Engineer.~~

~~523-3.2 Pavement Cuts: Complete all utility, traffic loop detector, and other items requiring a cut and installation under the finished surface, prior to product installation.~~

~~523-3.3 Surface Protection: Protect treated surfaces from traffic and environmental effects until the product is completely installed, including drying and curing according to the manufacturer's instructions.~~

~~523-3.4 Installation Acceptance: For installation on new asphalt roadways, apply patterned pavement a minimum of 14 days after placement of the adjacent pavement.~~

~~Upon completion of the installation, the Engineer will check the area at random locations for geometric accuracy. If any of the chosen areas are found to be deficient, correct the entire patterned area at no additional cost to the Department.~~

~~Submit certification to the engineer, with including the APL number and that the patterned pavement was installed in accordance with the manufacturer's installations requirements instructions and this Ssection. 523-3.1 Product Submittals: Prior to installation, submit pattern and color samples to the Engineer for confirmation that the product meets the pattern and color specified in the Plans. Do not begin installation until acceptance by the Engineer.~~

~~523-3.2 Pavement Cuts: Complete all utility, traffic loop detector, and other items requiring a cut and installation under the finished surface, prior to product installation.~~

~~523-3.3 Surface Protection: Protect treated surfaces from traffic and environmental effects until the product is completely installed, including drying and curing according to the manufacturer's instructions.~~

~~523-3.4 Installation Acceptance: For installation on new asphalt roadways, apply patterned pavement a minimum of 14 days after placement of the adjacent pavement.~~

~~Upon completion of the installation, the Engineer will check the area at random locations for geometric accuracy. If any of the chosen areas are found to be deficient, correct the entire patterned area at no additional cost to the Department.~~

~~Submit certification that the patterned pavement was installed in accordance with the manufacturer's requirements.~~