

ORINATION FORM

THE INFORMATION BELOW IS TO BE PROVIDED BY THE ORIGINATOR

(The person who receives or originates the issue and needs to forward the issue for action.)

Modify Specification _____.
Section/File number

New Section _____523_____.
Section number

Subject: Patterned/Textured Pavement

Origination date: May 26, 2005

Originator: Jim Mills
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Problem statement: District Designers have requested a specification to replace the many Tech Specs used for competitive aesthetic treatment products.

Information source: A Central Office Team was organized to review several previously used Tech Specs. The team included Manny Uwaibi, Jim Mills, Cheryl Adams, David Duncan, and Missy Hollis.

Background data: Industry, represented by manufacturers of StreetPrint, Increte, TyreGrip, and Imprint, was helpful throughout the development. District Designers were also contacted, through Jim Mills, for comments.

The Team has requested that this specification initially be available as a developmental specification, so that designers are less likely to modify the content.

Desired implementation date: Beginning with the January 2006 letting.



Florida Department of Transportation

JEB BUSH
GOVERNOR

605 Suwannee Street
Tallahassee, FL 32399-0450

JOSÉ ABREU
SECRETARY

MEMORANDUM

DATE: June 7, 2005
TO: Specification Review Distribution List
FROM: Duane F. Brautigam, P.E., State Specifications Engineer
SUBJECT: **Proposed Specifications Change: 5230000.D04 –
Patterned/Textured Pavement**

In accordance with Specification Development Procedures, we are sending you a copy of a proposed specification developing a new Section 523.

This change was proposed by Jim Mills to add a new Section for Patterned/Textured Pavement.

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 to my attention via e-mail at SP965DB or duane.brautigam@dot.state.fl.us. Comments received after July 5, 2005 may not be considered. Your input is encouraged.

DFB/jf

Attachment

COMMENTS:

Submitted by:

Phone #:

PATTERNED/TEXTURED PAVEMENT.
(REV 6-7-05)

PAGE 593. The following new Section is added after Section 522:

SECTION 523
PATTERNED/TEXTURED PAVEMENT

523-1 Description.

Apply a patterned and/or textured treatment to asphalt or concrete, in accordance with manufacturer's recommendations. Applications include the following:

1. Imprinting patterns into existing or new pavement and covering with a surface coating(s) of paint or thermoplastic.
2. Imprinting patterns into existing or new pavement and inlaying the imprint with preformed thermoplastic material.
3. Colored, preprinted, preformed texturized thermoplastic material that is applied over existing pavement.
4. Colored thermoplastic material that can be imprinted and texturized during or after application to existing pavement.

For applications requiring removal and replacement of existing pavement, meet the requirements of Section 350 for cement concrete pavement; the requirements of Section 334 for Superpave asphalt or Section 337 for FC 9.5 and FC 12.5 asphalt.

For the purpose of this Specification, patterns are defined as visible surface markings; imprinted textures are defined as palpable surface markings.

Use the location, pattern/texture type (brick, stone, etc.), and coating color as specified in the plans. Joint openings shall not exceed 1/2 inch [13 mm] in width.

523-2 Materials.

523-2.1 Qualified Products List: Use only patterned/textured pavement products listed on the Qualified Products List. Meet manufacturer's specifications for all pattern/texture templates, coating and coloring materials. Use only material that is delivered to the job site in sealed containers bearing the manufacturer's original labels.

Material coatings used to achieve the pattern/texture and/or color shall produce an adherent, weather resistant, skid resistant surface capable of resisting deformation to traffic. Paint and thermoplastic materials must meet the requirements of this Specification and Section 971, except that the requirements for Color and Retroreflectivity do not apply.

Manufacturers seeking approval for inclusion on the QPL must submit application and certifications in accordance with Section 6 along with the following documentation:

1. Manufacturer's specifications and procedures for materials and installation.
2. Manufacturer's certification with supporting test data and results that the patterned/textured pavement installed in accordance with the manufacturer's specifications and procedures has been tested in accordance with the 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.

523-2.2 Performance Requirements: QPL approval will be contingent on a field service test demonstrating that the imprinted texture and coating materials meet the following performance measures at the end of three years from opening to traffic:

1. The imprint must maintain a depth of 50% of the original installed depth and width.

2. Friction performance of patterned/textured pavement materials must meet or exceed a British Pendulum Number (BPN) of 40 in accordance with ASTM E-303, measuring surface frictional properties using the British Pendulum Tester, or an FN40R value of 35 in accordance with ASTM E-274 FN40R value of 35.

The field service test installation shall be within a marked crosswalk on a roadway with an ADT of 8,000 to 12,000 vehicles per day per lane, approved by the State Materials Office. 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 will be tested for skid resistance and wear in accordance with the specifications.

523-3 Construction.

523-3.1 Surface Protection: Protect treated surfaces from traffic and environmental effects until the area is completely coated/imprinted, and any coatings have dried or cured according to the manufacturer's instructions.

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 pattern installation.

523-3.3 Installation Acceptance: For asphalt roadways, apply patterned/textured 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, as specified in the plans. If any of the chosen areas have an imprint width and depth that is less than the manufacturer's specifications, correct the entire textured area, at no additional cost to the Department.

Supply the specified pattern and color samples for the Engineer's use to visually determine that the material matches the color specified in the plans. For any continuous or abutting areas, i.e. all treated areas of an intersection, color materials must be from the same lot/batch.

Provide certification that the textured pavement was installed in accordance with the manufacturer's requirements.

523-4 Method of Measurement.

The quantity to be paid will be the area in square yards [square meters] of patterned/textured pavement, measured in place, completed and accepted. No deduction will be made for the area(s) occupied by ornamental trees within the asphalt area, or any other areas occupied by manholes, inlets, drainage structures, or by any public utility appurtenances within the area. Asphalt or concrete materials placed prior to treatment will be paid separately under the appropriate pay items. Milling required for the placement of patterned/textured pavement will be included in the cost of the patterned/textured pavement.

523-5 Basis of Payment.

Price and payment will be full compensation for all work specified in this Section. Surface materials, including colors, sealers, and/or resins, shall be included for payment under this Section.

Payment will be made under:

- 523- 1- Patterned/Textured Pavement-per square yard.
- 2523- 1- Patterned/Textured Pavement-per square meter.