

## ORIGINATION FORM

**Date:** 5/23/13

**Originator:** Steven Plotkin

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**Specification Title:** General Surface Finish

**Specification Section, Article, or Subarticle Number:** 400-15.1

**Why does the existing language need to be changed?** The Department's policy related to concrete surface finishing has changed.

**Summary of the changes:** The Department will be using far less Class 5 finish in the future so instead of being coated, concrete surfaces will be left as natural as possible and in an uncoated state. In order to produce natural looking concrete surfaces, patching mortar must have a texture and color similar to the existing concrete and; therefore, the specification has been modified to provide guidance about what mortars must be used and applied instead of the current non-shrink grout which has a different texture and color than does the existing concrete.

**Are these changes applicable to all Department jobs?** Yes

**Will these changes result in an increase or decrease in project costs? Yes If yes, what is the estimated change in costs?** An order of magnitude for cost savings is \$500,000.00/year

**With who have you discussed these changes?** Mike Bergin, Rudy Powell, Tom Byron and Construction Industry Representatives

**What other offices will be impacted by these changes?** None

**Are changes needed to the PPM, Design Standards, SDG, CPAM or other manual? Yes,** and they have already been implemented.

**Is a Design Bulletin, Construction Memo, or Estimates Bulletin needed? Yes,** and they have already been issued.

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

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## *Florida Department of Transportation*

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ANANTH PRASAD, P.E.  
SECRETARY

### MEMORANDUM

**DATE:** June 10, 2013  
**TO:** Specification Review Distribution List  
**FROM:** Daniel Scheer, P.E., State Specifications Engineer  
**SUBJECT:** Proposed Specification: **4001501 Concrete Structures.**

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

This change was proposed by Steve Plotkin of the State Construction Office to update the language for current Department practice for surface finishing of concrete.

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 ST986DS, or [daniel.scheer@dot.state.fl.us](mailto:daniel.scheer@dot.state.fl.us). Comments received after **July 8, 2013**, may not be considered. Your input is encouraged.

DS/dt  
Attachment

**CONCRETE STRUCTURES.**  
**(REV 5-30-13)**

SUBARTICLE 400-15.1 (Pages 376 – 377) is deleted and the following substituted:

**400-15.1 General Surface Finish (Required for All Surfaces):** After placing and consolidating the concrete, strike-off all exposed surfaces to the lines and grades indicated in the plans in a manner that will leave a surface of uniform texture free of undesirable surface irregularities, cavities, and other defects. Cut back metal ties supporting reinforcement, conduit, and other appurtenances a minimum of 1 inch from finished surface. After removing excess mortar and concrete and while the concrete is still in a workable state, carefully tool all construction and expansion joints. Leave joint filler exposed for its full length with clean edges. Ensure that finished work in addition to that specified above is compatible and complementary to the class of surface finish required.

*Remove all laitance, loose material, form oil and curing compound ~~Remove from exposed surfaces that do not require forming and from exposed surfaces requiring forming, after form removal.~~ Immediately after removing forms from any exposed concrete surface, remove all laitance, loose material, form oil and curing compound, and ~~r~~Remove fins and irregular projections flush with the surface. Clean, saturate with water, and ~~fill~~point all holes, tie cavities, honeycomb, chips and spalls. ~~with~~ Prior to filling, prepare the surface to ensure that patching mortar will bond to the existing concrete. Exercise care during the roughening process to prevent excessive defacement and damage to the surface of the existing concrete. Use patching mortar blended from the mix ingredients of the existing concrete. ~~which must~~ Ensure the patching mortar closely matches the color of the existing concrete ~~once when fully cured.~~ ~~an approved~~ high-strength, non-metallic, non-shrink grout meeting the requirements of Section 934, mixed and applied in accordance with the manufacturer's recommendations. Exercise care during the roughening process to prevent additional defacement and damage to the formed surface. ~~As A~~ ~~an~~ alternative, mortar consisting of the following materials may be used ~~that consists of a blend of the following materials:~~ 4 parts of ordinary gray portland cement, 1/2 part of white portland cement, 1 part of fly ash and 2 to 4 parts of sand. The blended mortar must closely match the color of the filled element once fully cured and the proportion of white portland cement may be adjusted to achieve as close a match as possible. Regardless of the type patching mortar used, provide a mortar surface that has smoothness and texture closely resembling the existing surface.*

*Cure the newly placed mortar using a curing blanket or a Type I clear curing compound in accordance with 400-16.*

In the event unsatisfactory surfaces are obtained, repair these surfaces by methods approved by the Engineer or the affected concrete will be rejected. Repair any surface or remove rejected concrete at no expense to the Department.