

ORIGINATION FORM
Proposed Revisions to the Specifications

Date: _____ Specification Section: _____

Originator: _____ Articles/Subarticles: _____

Telephone: _____

email: _____

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?

Will these changes result in an increase or decrease in project costs? Yes _____ No _____

If yes, what is the estimated change in costs?

With who have you discussed these changes?

What other offices will be impacted by these changes?

Will this revision necessitate changes to the following: BOE PPM SDG CPAM

Design Standards List Affected Index Nos.

Other manual?

Are all references to external publications current? Yes _____ No _____

If not, what references need to be updated (please include changes in the redline)?

Will this revision necessitate any of the following:

Design Bulletin **Construction Bulletin** **Estimates Bulletin**

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

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Florida Department of Transportation

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JIM BOXOLD
SECRETARY

MEMORANDUM

DATE: January 16, 2015

TO: Specification Review Distribution List

FROM: Daniel Scheer, P.E., State Specifications Engineer

SUBJECT: Proposed Specification: **3470204 Portland Cement Concrete – Class NS.**

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

The changes are proposed by Don Bagwell of the State Materials Office to update and clarify various subsections of the specification in order to provide consistency with the 346 concrete specifications.

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://www2.dot.state.fl.us/SpecificationsEstimates/Development/IndustryReview.aspx>. Comments received after **February 13, 2015**, may not be considered. Your input is encouraged.

DS/ot
Attachment

PORLAND CEMENT CONCRETE – CLASS NS
(REV 1-8-15)

SUBARTICLE 347-2.4.2 is deleted and the following substituted:

347-2.4.2 Aggregate Storage: Provide suitable bins, stockpiles or silos to store and identify aggregates without mixing, segregating or contaminating different grades or types of materials. Identify Department approved pit number and aggregate *type/gradation*. Handle the aggregates in a manner to minimize segregation and meet the specification requirements when recovered from storage. Continuously and uniformly sprinkle coarse aggregate with water, for 24 hours preceding introduction into the concrete mix. Maintain stored aggregates in a well-drained condition to minimize free water content. *Provide access for the Engineer to sample the aggregates from the recovery side of the storage facility.*

SUBARTICLE 347-3.1 is deleted and the following substituted:

347-3.1 Concrete Production Requirements: Deliver concrete from a production facility that is certified by the National Ready-Mixed Concrete Association (NRMCA) or approved by the District Materials Office. The District Materials Office may inspect the concrete production facility's to verify compliance with the Specifications. Produce concrete utilizing equipment that is in good operating condition and operated in a manner to ensure a consistent product. Within two hours prior to each day's batching, ensure that the concrete production facility determines the free moisture for the coarse and fine aggregates. *Determine the free moisture content of aggregates at 4-hour intervals during continuous batching operations; and at any time a change in moisture content becomes apparent. On concrete placements expected to exceed three hours, perform an additional moisture test approximately half way through the batching operations and adjust batch proportions accordingly.*

Ensure that the calibration of the measuring devices of the concrete production facilities meets the requirements of Chapter 531 of the Florida Statutes. At least quarterly, ensure that all scales, meters and other weighing or measuring devices are checked for accuracy by a qualified representative of a scale company registered with the *Bureau of Weights and Measures of the Florida Department of Agriculture Bureau of Weights and Measures, Division of Standards of the Florida Department of Agriculture and Consumer Services*. Have the accuracy of admixture measuring dispensers certified annually by the admixture supplier.

When Volumetric Mixers are used, deliver concrete in accordance with the requirements of Volumetric Mixer Manufacturers Bureau (VMMB) and ensure that the vehicle has a VMMB registered rating plate.

Substitution of structural concrete in lieu of non-structural concrete may be used if approved by the Engineer. If structural concrete is used in lieu of non-structural concrete, obtain the concrete from a production facility meeting the requirements of Section 346. Acceptance is based on the requirements of Section 347.

SUBARTICLE 347-3.3 is deleted and the following substituted:

347-3.3 Delivery: The maximum allowable mixing, ~~and agitation, and placement~~ time of concrete is 120 minutes.

SUBARTICLE 347-4.3 is deleted and the following substituted:

347-4.3 Records: Maintain the following records for review *at the concrete production facility* for at least three years after ~~final acceptance of the project receipt~~:

- ~~1. Approved concrete mix designs.~~
- ~~2. Materials source (delivery tickets, certifications, certified mill test reports).~~
- ~~3. A copy of the scale company or testing agency report showing the observed deviations from quantities checked during calibration of the scales and meters.~~
- ~~4. A copy of the documentation certifying the admixture weighing/measuring devices.~~
- ~~5. Recent NRMCA, VMMB or Department inspection records certifying the plant or truck can produce concrete and documentation showing that action has been taken to correct deficiencies noted during the inspections.~~

SUBARTICLE 347-5.1 is deleted and the following substituted:

347-5.1 General: Furnish a Delivery Ticket with each batch of concrete before ~~unloading discharging concrete~~ at the placement site. The Department will provide an example of the Delivery Ticket Form. The concrete producer may use an alternate form provided that it contains the required information. Record material quantities incorporated into the mix on the Delivery Ticket. Ensure that the Batcher responsible for producing the concrete, certifies that the batch was produced in accordance with ~~Specification the Contract Documents requirements, and signs~~ the Delivery Ticket. Sign the Delivery Ticket certifying that the concrete was ~~batched, delivered and placed in accordance with the Contract Documentss Specifications.~~

Acceptance by the Department will be by Certification on the Delivery Ticket, as described herein, by the Batcher and the Contractor. The Engineer will hold the Contractor responsible for rejecting loads of concrete that do not meet the minimum compressive strength requirements. Delineate and replace, at no cost to the Department, all concrete that does not meet the 28-day compressive strength requirements or has any cracking greater than 1/4 inch in width or 1/4 inch in vertical displacement. Any spalling or flaking off of the surface layer that exposes the rough, pitted aggregate surface in excess of 10 square inches is to be removed and replaced in accordance with 347-5.2. Sidewalk, ditch pavement, slope pavement, Traffic Separator, or curb and gutter having any intersecting cracks visible in the dry concrete (regardless of size) will be removed and replaced in accordance with 347-5.2.

~~At the sole option of the Department, the Engineer may accept concrete at a reduced pay when it is determined that the concrete will serve its intended function.~~

If any uncontrolled cracks appear during the life of the Contract unacceptable to the Engineer, remove and replace the concrete in accordance with 347-5.2 at no expense to the Department.