

# ORINATION FORM

## Proposed Revisions to the Specifications

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

Date: Specification Section:

Originator: Articles/Subarticles:

Telephone:

email:

Will the proposed revision involve Design Standard Index changes? Yes No

Roadway Design staff contacted (name):

Structures Design staff contacted (name):

Will the proposed revision involve PPM changes? Yes No

Roadway Design staff contacted (name):

Will the proposed revision involve CPAM changes? Yes No

Construction staff contacted (name):

Will the proposed revision involve Pay Item changes? Yes No

Estimates staff contacted (name):

Will the proposed revision involve SDG changes? Yes No

Structures staff contacted (name):

Will the proposed revision involve APL changes? Yes No

Product Evaluation staff contacted (name):

Will the proposed revision involve Material Manual changes? Yes No

State Materials Office staff contacted (name):

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.

Daniel Scheer 850-414-4130 [daniel.scheer@dot.state.fl.us](mailto:daniel.scheer@dot.state.fl.us) Debbie Toole 850-414-4114 [deborah.toole@dot.state.fl.us](mailto:deborah.toole@dot.state.fl.us)  
Frances Thomas 850-414-4101 [frances.thomas@dot.state.fl.us](mailto:frances.thomas@dot.state.fl.us) Olivia Townsend 850-414-4303 [olivia.townsend@dot.state.fl.us](mailto:olivia.townsend@dot.state.fl.us)



## *Florida Department of Transportation*

**RICK SCOTT**  
GOVERNOR

605 Suwannee Street  
Tallahassee, FL 32399-0450

**JIM BOXOLD**  
SECRETARY

### **MEMORANDUM**

**DATE:** November 5, 2015

**TO:** Specification Review Distribution List

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

**SUBJECT:** Proposed Specification: **5300102 Revetment Systems.**

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

This change was proposed by Amy Tootle of the State Construction Office to require all construction-related documentation to be submitted by electronic means for consistency with the State Construction Office e-Construction initiative.

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/ProgramManagement/Development/IndustryReview.aspx> . Comments received after **December 3, 2015**, may not be considered. Your input is encouraged.

DS/dt  
Attachment

**REVETMENT SYSTEMS.**  
**(REV 10-14-15)**

SUBARTICLE 530-1.2 is deleted and the following substituted:

**530-1.2 Articulating Concrete Block (ACB) Revetment Systems:** Furnish and install an ACB revetment system in accordance with this Section and in conformance with the lines, grades, design, and dimensions shown in the Plans. Submit vendor drawings for review and approval by the Engineer. ~~Provide~~ **Submit** signed and sealed calculations of the block and cable sizing design for approval. Comply with the National Concrete Masonry Association's Design Manual for Articulating Concrete Block Revetment Systems, Second Edition, or the National Highway Institute, Hydraulic Engineering Circular (HEC) No. 23, Publication No. FHWA NHI 09-110. Use a minimum Factor of Safety of 1.5 and 0.5 inch for the block projection.

Blocks must be open cell and non-tapered unless otherwise stated in the Plans. Revetment cabling must be bi-directional or, for mono-directional cabling, the block installation must include a permanent mechanism within the block matrix to prevent lateral displacement of the installed blocks. Cabling must be polyester and free to move within the block.

Use only ACB revetment systems currently listed on the Department's Approved Product List (APL). Manufacturers seeking evaluation of their product shall submit an application in accordance with Section 6, and include certified test reports from an independent test laboratory certifying the ACB revetment system meets the requirements of this Section.

If the ACB revetment system is intended for use as bridge abutment protection, include the following drawings with the APL submittal:

1. At the corner transition between the front and side slopes.
2. For anchorages, geosynthetic materials, treatment of voids between adjacent blocks, limits on void size between adjacent blocks and other special details required to successfully install the ACB.
3. For areas adjacent to bridge abutments, detail mat placement around curves, connections, protection of mat ends, and splicing of mat.

**530-1.3 Gabions:** Furnish and install gabions, including gabion, gabion basket, or gabion mattress, filled with rock in accordance with this Section and in conformance with the lines, grades, design, and dimensions shown in the Plans.

SUBARTICLE 530-2.2 is deleted and the following substituted:

**530-2.2 Articulating Concrete Block (ACB) Revetment Systems:** Obtain all precast block, cabling, anchors, and necessary incidental materials from the same manufacturer. ACB revetment systems must meet the requirements of ASTM D6684, ASTM D7276 and ASTM D7277. ~~Furnish~~ **Submit to** the Engineer ~~with~~ certification from the manufacturer that the ACB revetment system meets the requirements of this Section.

ACB system components must meet the following requirements:

Concrete .....	Section 347, ASTM D6684
Cables and Fittings.....	ASTM D6684
Type D-2 Geosynthetic Material .....	Section 514
Granular Underlay .....	Section 901

Cables must maintain at least 85% of original tensile strength (ASTM D638) after 1000 hours exposure to a saturated solution of calcium hydroxide (pH greater than or equal to 11) at 73°F, plus or minus three degrees. Cables must not exceed a maximum of 0.5% moisture absorption at seven days, per ASTM D570. Cable crimps must be aluminum or stainless steel Type 304 or 316.

SUBARTICLE 530-4.2 is deleted and the following substituted:

**530-4.2 Rubble and Bedding Stone:** The quantities to be paid for will be the weight, in tons, in surface dry natural state, by railroad scales, truck scales, or barge displacement. The Contractor shall determine the weights as follows:

1. Railroad Weights: The Contractor shall weigh railroad cars on railroad scales, before and after loading or before and after unloading. If weighed by other than the Engineer, a certified statement of weights will be required. Certificates of weight, furnished by the railroad company, will be acceptable without further certification.

2. Truck Weights: The Contractor shall weigh trucks on certified scales, loaded and empty, as prescribed above for railroad weights. The Contractor shall weigh trucks in the presence of the Engineer, or ~~furnish~~ submit certificates of weights.

3. Barge Displacement: The Engineer will measure each barge. The Contractor shall fit each barge with gauges graduated in 0.10 foot increments. The Contractor shall locate a gauge at each corner of the barge near the lower end of the rake. The Contractor shall furnish additional gauges amidships if the Engineer deems necessary. The Engineer will compute all weights.