



Florida Department of Transportation

CHARLIE CRIST
GOVERNOR

605 Suwannee Street
Tallahassee, FL 32399-0450

STEPHANIE KOPELOUSOS
SECRETARY

January 27, 2009

Monica Gourdine
Program Operations Engineer
Federal Highway Administration
545 John Knox Road, Suite 200
Tallahassee, Florida 32303

Re: Office of Design, Specifications
Section 530
Proposed Specification: 5300223 - Riprap - Physical Requirements of Broken Stone and
Broken Concrete

Dear Ms. Gourdine:

We are submitting, for your approval, two copies of the above referenced Supplemental Specification.

These changes were proposed by John Shoucair of the State Materials Office to delete the USACOE website address and this link no longer takes you directly to the document

Please review and transmit your comments, if any, within four weeks. Comments should be sent via Email to ST986RP or rudy.powell@dot.state.fl.us.

If you have any questions relating to this specification change, please call Rudy Powell, State Specifications Engineer at 414-4110.

Sincerely,

Signature on file

Rudy Powell, Jr., P.E.
State Specifications Engineer

RP/sh
Attachment

cc: Gregory Jones, Chief Civil Litigation
Florida Transportation Builders' Assoc.
State Construction Engineer

RIPRAP - PHYSICAL REQUIREMENTS OF BROKEN STONE AND BROKEN CONCRETE.

(REV 1-27-09)

SUBARTICLE 530-2.2.3 (of the Supplemental Specifications) is deleted and the following substituted:

530-2.2.3 Physical Requirements of Broken Stone and Broken

Concrete: Use broken stone and broken concrete meeting the following physical requirements:

Absorption (FM 1-T85)	Maximum 5%
Los Angeles Abrasion (FM 1-T 096)	Maximum loss 45% *
Soundness (Sodium Sulphate) (AASHTO T 104)	Maximum loss 12% ** (after five cycles)
Flat and elongated pieces	Materials with least dimension less than one third of greatest dimension not exceeding 10% by weight.
Dirt and Fines	Materials less than 1/2 inch in maximum dimension accumulated from interledge layers, blasting or handling operations not exceeding 5% by weight.
Drop Test***(EM 1110-2-2302)	No new cracks developed, or no existing crack widened additional 0.1 inch, or final largest dimension greater than or equal to 90% original largest dimension of dropped piece.
<p>* Ensure that granite does not have a loss greater than 55% and that broken concrete does not have a loss greater than 45%.</p> <p>** The Engineer may accept rubble exceeding the soundness loss limitation if performance history shows that the material will be acceptable for the intended use. The Engineer will waive the soundness specification for rubble riprap (broken stone and broken concrete) when project documents indicate it will be placed in or adjacent to water or soil with a sulfate content less than 150 parts per million and a pH greater than 5.0.</p> <p>*** The Engineer will waive the Drop Test unless required to ensure structural integrity. Provide all equipment, labor and testing at no expense to the Department. EM refers to the US Army Corps of Engineer's Specification Engineering Method which can be found at www.usace.army.mil/inet/usace-docs/eng-manuals/em1110-2-2302/e-6.pdf.</p>	

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