Florida Department of Transportation

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SECRETARY

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MATERIALS BULLETIN NO. 10-14
DCE MEMORANDUM NO. 17-14
(FHWA Approved: 8/4/2014)

TO: **DISTRICT MATERIALS RESEARCH ENGINEERS**
DISTRICT CONSTRUCTION ENGINEERS

FROM: Timothy J. Ruelke, P.E., Director, Office of Materials
David A. Sadler, P.E., Director, Office of Construction

COPIES: Rudy Powell, Tom Byron, Chad Thompson, Barbara Young, Rafiq Darji, Bob Burleson, Jim Warren, John Shoucair

SUBJECT: **SPECIFICATION CHANGE FOR SECTION 200 ROCK BASE – ADDING PIT PROCTOR**

This memorandum serves as a blanket approval to process a $0.00 specification change to incorporate the attached specifications into Construction projects let prior to January 1, 2015, upon the Contractor's request. A copy of this memorandum and the attached specifications shall be attached to the Work Order or Supplemental Agreement used to document the change to active Construction projects.

If you have any questions, please contact John Shoucair (352) 955-2925 at the State Materials Office.

DAS/cg

Attachment

200 ROCK BASE.

(REV 7-18-14) (FA 7-29-14) (1-15)

SUBARTICLE 200-7.2 is deleted by the following substituted:

200-7.2 Acceptance Criteria:

200-7.2.1 Density: Within the entire limits of the width and depth of the base, obtain a minimum density in any LOT of 98% of modified Proctor maximum density as determined by FM 1-T 180, Method D or the Pit Proctor when using the Pit Proctor option. For shoulder only areas and bike/shared use paths, obtain a minimum density of 95% of the modified Proctor maximum density as determined by FM 1-T 180, Method D or the Pit Proctor when using the Pit Proctor option.

200-7.2.2 Frequency: Conduct QC sampling and testing at a minimum frequency listed in the table below. The Engineer will perform Verification sampling and tests at a minimum frequency listed in the table below.

Mainline Pavement Lanes, Turn Lanes, Ramps, Parking Lots, Concrete Box Culverts and Retaining Wall Systems		
Test Name	Quality Control	Verification
Modified Proctor Maximum Density	One per eight consecutive LOTs	One per 16 consecutive LOTs
Density	One per LOT	One per four LOTs
Roadway Surface	Ten per LOT	Witness
Roadway Thickness	Three per LOT	Witness

Shoulder-Only, Shared Use Path and Sidewalk Construction		
Test Name	Quality Control	Verification
Modified Proctor Maximum Density	One per two LOTs	One per four LOTs
Density	One per LOT	One per two LOTs
Surface	Five per 500 feet	Witness
Thickness	Three per 1000 consecutive feet	Witness

200-7.2.3 Pit Proctor: In lieu of Modified Proctor Maximum Density testing at the roadway, notify the Engineer in writing of a Contractor option to use the Pit Proctor supplied by the Department. The Modified Proctor maximum density frequency requirements of 200-7.2.2 shall not apply. The Department will determine the Pit Proctor from statistical analysis of the base rock Modified Proctor maximum density at Department approved mines. For posting of Mines and Pit Proctors for each calendar quarter refer to the State Materials Office internet website at http://www.dot.state.fl.us/statematerialsoffice/. Use the current posted Pit Proctor value in lieu of the Modified Proctor maximum density required by 200-7.2.1. Use the current posted Pit Proctor value for density acceptance during the quarter corresponding to the posting. Notify the Engineer in writing if returning to the provisions of 200-7.2 and 200-7.2.2 but do not re-elect to use the Pit Proctor until the start of the next calendar quarter.

SUBARTICLE 200-7.4 is deleted and the following substituted:

200-7.4 Verification Comparison Criteria and Resolution Procedures:

200-7.4.1 Modified Proctor Maximum Density: The Engineer will compare the Verification test results of 200-7.3.2.1 to the corresponding Quality Control test results. If the test result is within 4.5 lb/ft^3 of the QC test result, the LOTs will be verified. Otherwise, the Engineer will collect the Resolution split sample corresponding to the Verification sample tested. The State Materials Office or an AASHTO accredited laboratory designated by the State Materials Office will perform Resolution testing. The material will be sampled and tested in accordance with FM 1-T 180, Method D.

The Engineer will compare the Resolution Test results with the Quality Control test results. If the Resolution Test result is within 4.5 lb/ft^3 of the corresponding Quality Control test result, the Engineer will use the Quality Control test results for material acceptance purposes for each corresponding set of LOTs. If the Resolution test result is not within 4.5 lb/ft^3 of the corresponding Quality Control test, the Engineer will collect the remaining Verification split sample for testing. Verification Test results will be used for material acceptance purposes for the LOTs in question.

200-7.4.2 Pit Proctor: When using the Pit Proctor option, the Engineer will, at a minimum frequency of one per 16 LOTS, select a random location to collect an Independent Verification (IV) sample and test material to obtain a Modified Proctor maximum density as determined by FM 1-T 180, Method D. The Engineer will collect enough material to split and hold a sample for Resolution testing. The Engineer will compare the IV results with the Pit Proctor. If the IV result is lower than or equal to the Pit Proctor plus 4.5 pcf, keep the option to use the Pit Proctor. If the IV result is more than 4.5 pcf higher than the Pit Proctor the Engineer will test the Resolution sample and compare the Resolution result with the Pit Proctor. If the Resolution result is higher than but within 4.5 pcf of the Pit Proctor, keep the option to use the Pit Proctor. Otherwise return to the provisions of 200-7.2.2, 200-7.3.1.1, 200-7.3.2.1, and 200-7.4.1.

200-7.4.3 Density: When a Verification or Independent Verification density test does not meet the requirements of 200-7.2.1 (Acceptance Criteria), retest at a site within a 5 feet radius of the Verification test location and observe the following:

1. If the Quality Control retest meets the Acceptance Criteria and compares favorably with the Verification or Independent Verification test, the Engineer will accept the LOTs in question.

2. If the Quality Control retest does not meet the Acceptance Criteria and compares favorably with the Verification or Independent Verification test, rework and retest the material in that LOT. The Engineer will re-verify the LOTs in question.

3. If the Quality Control retest and the Verification or Independent Verification test do not compare favorably, complete a new equipment-comparison analysis as defined in 120-10.1.1. Once acceptable comparison is achieved, retest the LOTs. The Engineer will perform new verification testing. Acceptance testing will not begin on a new LOT until the Contractor has a gauge that meets the comparison requirements.

200-7.4.4 Thickness and Surface Testing Requirements: Resolve deficiencies in accordance with 200-7.3.1.2.