

ORINATION FORM

Proposed Revisions to the Specifications

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

Date:

Office:

Originator:

Specification Section:

Telephone:

Article/Subarticle:

email:

****Will the proposed revision require changes to:**

Publication	Yes	No	Office Staff Contacted and date contacted
Standard Plans Index			
Traffic Engineering Manual			
FDOT Design Manual			
Construction Project Administration Manual			
Basis of Estimate/Pay Items			
Structures Design Guidelines			
Approved Product List			
Materials Manual			

****This section must be completed prior to processing proposed revisions.**

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.

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M E M O R A N D U M

DATE: July 2, 2020
TO: Specification Review Distribution List
FROM: Daniel Strickland, P.E., State Specifications Engineer
SUBJECT: Proposed Specification: **5480805 RETAINING WALL SYSTEMS**

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

The changes are proposed by Juan Castellanos to add clarification to articles (548-8.5 and 548-8.6) and to update the references of Standard Proctor testing from AASHTO T-99 to FM 1-T099 to the Standard Specification.

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://fdotewp1.dot.state.fl.us/programmanagement/development/industryreview.aspx> . Comments received after **July 30, 2020**, may not be considered. Your input is encouraged.

DS/dh

Attachment

RETAINING WALL SYSTEMS
(REV 5-8-20)

SUBARTICLE 548-8.5.1 is deleted and the following substituted:

548-8.5 Backfill Placement:

548-8.5.1 Compacted Select and Coarse Aggregate Backfill: A LOT is defined as a single lift of finished embankment not to exceed 500 feet in length ~~or cumulative length~~ of continuous ~~or~~ interconnected walls. Backfill within ~~3~~ feet from the panels and backfill beyond ~~3~~ feet from the panels are separate LOTs. Overlapping retaining wall volumes may be considered one LOT, excluding the ~~3-foot~~ ~~three feet~~ width behind the panels. Strips up to ~~8~~ feet wide between two retaining wall volumes constructed with the same material in ~~a~~ ~~single~~ operation may be considered as one LOT with the retaining wall volumes. Isolated compaction operations will be considered as separate LOTs. For multiple phase construction, a LOT will not extend beyond the limits of the phase. When bridge abutments on spread footings are shown in the Plans, the material within ~~3~~ feet behind the wall face and within the limits defined in 548-9.4.2 are considered as separate LOTs.

SUBARTICLE 548-8.6 is deleted and the following substituted:

548-8.6 Compressible Free Draining Seal: Seal all joints between panels of reinforced concrete panel MSE walls with compressible free draining material (open cell) to prevent plant growth from seeds or spores that may be in the joints or transported to the joints by wind or rain. Install the seal at least ~~one and one half~~ 1 1/2-inches from both the front and rear faces of the panel. Protect the free draining seal during the application of coatings and sealants. Should the seal become coated or clogged, remove and replace the coated or clogged free draining seal. The installation must be secure and free draining to keep the seal securely in place until uninstalled and to prevent hydrostatic forces from building up behind the panel.

SUBARTICLE 548-9.2 is deleted and the following substituted:

548-9.2 Maximum Density Determination: For select backfill, determine the maximum QC density in accordance with FM 1-T180, Method D. When compacting A-3 or A-2-4 materials to meet the alternate acceptance criteria in 548-9.4.1, determine the maximum density in accordance with ~~FM 1-T099~~ AASHTO T99, Method C.

Perform gradation tests on the sample collected in accordance with AASHTO T27 and FM 1-T011. Classify soils in accordance with AASHTO M145 ~~in order~~ to determine compliance with embankment utilization requirements.

SUBARTICLE 548-9.4.1 is deleted and the following substituted:

548-9.4.1 Optional Acceptance Criteria for A-3 and A-2-4 Materials: Obtain a minimum density of 95% of the maximum dry density as determined by FM 1-

~~T099AASHTO T99~~ within ~~3~~three feet behind the wall face and obtain a minimum density of 100% of the maximum dry density as determined by ~~FM 1-T099AASHTO T99~~ beyond ~~3~~three feet behind the wall face.

The combined width from both MSE wall backfill (excluding the ~~3-~~threefoot zone from the panels) and embankment material may be considered the same LOT if the same material is used; the material in both wall backfill and embankment is compacted with the same procedure, equipment and compacting effort; and the maximum lift thickness after compaction in both wall backfill and embankment is ~~6~~six inches.

SUBARTICLE 548-9.4.2 is deleted and the following substituted:

548-9.4.2 Acceptance Criteria for Wall Backfill Supporting Spread Footings:

When spread footings at bridge abutments are shown in the Plans, obtain a minimum of 95% of the maximum dry density as determined by FM 1-T180 on the material within ~~3~~three feet behind the wall face, and underneath the footing as defined by the following limits:

1. All lifts below the bottom of the footing for a depth equal to at least the footing width
2. A minimum distance of ~~3~~three feet beyond the edges of the footing width

If the optional criteria specified in 548-9.4.1 is used, compact the backfill material within the limits specified above to obtain a minimum density of 100% of the maximum dry density as determined by ~~FM 1-T099AASHTO T99~~. Compact the remainder of the backfill in accordance with 548-9.4 or 548-9.4.1 as applicable. Do not use compaction equipment larger than permitted in 548-8.5 within ~~3~~three feet behind the wall face; decrease the lift thickness if necessary.

SUBARTICLE 548-9.7.1 is deleted and the following substituted:

548-9.7 Verification Comparison Criteria and Resolution Procedures:

548-9.7.1 Maximum Density Determination: The Engineer will collect enough material to split and create two separate samples and retain one for resolution until LOTs represented by the samples are accepted.

The Engineer will meet the requirements of 120-10.4.1 except replace ~~FM 1-T099AASHTO T99, Method C~~ with FM 1-T180, ~~Method D~~. If the Contractor selects the Optional Acceptance Criteria, the Engineer will verify the QC results of ~~FM 1-T099AASHTO T99, Method C~~ in accordance with 120-10.4.1.