

ORIGINATION FORM

THE INFORMATION BELOW IS TO BE PROVIDED BY THE ORIGINATOR

(The person who receives or originates the issue and needs to forward the issue for action.)

Specification: Section 120

Subject: Section 120-6 Borrow Section 120-8.4 Reclaimed Asphalt
Pavement (RAP) Method :

Origination date: April 25, 2010

Originator: Tom O. Malerk

Office/Phone: 352-955-6600

Problem statement: 1. The environmental and geotechnical requirements for Borrow requirements are intertwined.
2. RAP was not specifically restricted from the top 6 inches below subgrade. Research indicates that RAP in this layer of embankment may be susceptible to long term settlement (creep)
3. 120-8.4.3 Alternate Soil and Rap Method appeared to restrict the maximum thickness of fill between layers of RAP to 6 inches.

Proposed solution: Revise the Section 120 as follows:
1. Separate and clarify environmental and Geotechnical requirements
2. Restrict RAP from the top 6 inches of embankment
3. Clarify the thickness requirements for RAP and embankment.

Information source: Contact Sastry Putcha (State Construction Office) 850-414-4148 or Ben Watson (State Materials Office) 352-955-2935 with any questions.

Recommended Usage Note: All Jobs

Estimated fiscal impact, if implemented: none

Implementation of these changes, if and when approved, will begin with the January 2011 letting.



Florida Department of Transportation

CHARLIE CRIST
GOVERNOR

605 Suwannee Street
Tallahassee, FL 32399-0450

STEPHANIE KOPELOUSOS
SECRETARY

MEMORANDUM

DATE: June 3, 2010
TO: Specification Review Distribution List
FROM: Rudy Powell, Jr., P.E., State Specifications Engineer
SUBJECT: Proposed Specification: **1200602 Excavation and Embankment.**

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

This change was proposed by Ben Watson of the State Materials Office to clarify environmental and geotechnical requirements for furnishing borrow areas and to clarify thickness requirements for RAP and soil for alternate soil and RAP layer construction.

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 to my attention via e-mail at ST986RP or rudy.powell@dot.state.fl.us. Comments received after **June 30, 2010**, may not be considered. Your input is encouraged.

RP/dt
Attachment

EXCAVATION AND EMBANKMENT.

(REV ~~65-320-10~~)

SUBARTICLE 120-6.2 (Pages 164 – 165) is deleted and the following substituted:

120-6.2 Furnishing of Borrow Areas:

To obtain the Engineer's approval to use an off-site construction activity area that involves excavation such as a borrow pit or local aggregate pit, request in writing, a Cultural Resources Assessment. Send the request to the Division of Historical Resources (*DHR*), Department of State, State Historic Preservation Officer, Tallahassee, FL. As a minimum, include in the request the Project Identification Number, the County, a description of the property with Township, Range, Section, etc., the dimensions of the area to be affected, and a location map. *Do not start any work at the off-site construction activity area prior to receiving a clearance letter from the DHR.* ~~Do not start any work at the off-site construction activity area prior to receiving a clearance letter from the Division of Archives and written clearance from the Engineer concerning compliance with the Federal Endangered Species Act as specified in 7-1.4.~~

For certain locations, the ~~DHR~~ Division of Archives will require a Cultural Resources Field Survey before approval can be granted. When this is required, secure professional archaeological services to *complete an historical and archaeological survey report.* ~~make the survey and prepare a report.~~ Submit the report to the *DHR* Division of Archives with a copy to the Department. ~~The Engineer will base final approval or rejection of the use of the off-site construction activity area on the report.~~ *The Engineer will determine final approval or rejection of off-site construction activity areas based on input from the DHR.*

Before receiving approval or before use of borrow areas, obtain written clearance from the engineer concerning compliance with the Federal Endangered Species Act *and other Wildlife Regulations* as specified in 7-1.4 and Section 4(f) of the USDOT Act as specified in 7-1.8.

The Department will adjust Contract Time in accordance with 8-7 for any suspension of operations required to comply with this Article. The Department will not accept any monetary claims due to delays or loss of off-site construction activity areas.

Except where the plans specifically call for the use of a particular borrow or dredging area, the Contractor may substitute borrow or dredging areas of his own choosing provided: (1) the Engineer determines the materials from such areas meet the Department's standards and other requirements for stability for use in the particular sections of the work in which it is to be placed, and (2) the Contractor absorbs any increase in hauling or other costs. *Stake the corners of the proposed borrow area and provide the necessary equipment along with an operator in order for the Engineer to investigate the borrow area. The Engineer will determine test locations, collect samples, and perform tests to investigate the proposed borrow area based on soil strata and required soil properties. The Engineer will approve use of materials from the proposed area based on test results and project requirements. Final acceptance of materials will be based on Point of Use Test as described in 6-1.2.4.*

Before using any borrow material from any substitute areas, obtain the Engineer's approval, in writing, for the use of the particular areas, and, where applicable, ensure that the Engineer has cross-sectioned the surface. Upon such written approval by the Engineer, consider the substitute areas as designated borrow areas.

When furnishing the dredging or borrow areas, supply the Department with evidence that the necessary permits, rights, or waivers for the use of such areas have been secured.

Do not excavate any part of a Contractor furnished borrow area which is less than 300 feet from the right-of-way of the project or any State Road until the Engineer has approved a plan for landscaping and restoring the disturbed area. Perform this landscaping and land restoration at no expense to the Department, prior to final acceptance of the project. Do not provide a borrow area closer than 25 feet to the right-of-way of any state road. In Department furnished borrow pits, do not excavate material within 5 feet of adjacent property lines.

Upon completion of excavation, neatly shape, dress, grass, vegetate, landscape, and drain all exposed areas including haul roads, as necessary so as not to present an objectionable appearance.

Meet the requirements of Section 104 when furnishing borrow areas, regardless of location.

SUBARTICLE 120-8.4 (Pages 169 – 170) is deleted and the following substituted:

120-8.4 Reclaimed Asphalt Pavement (RAP) Method:

120-8.4.1 General: Use only RAP material: 1) stored at facilities with an approved Florida Department of Environmental Protection Stormwater permit; or, 2) transferred directly from a milling project to the Department project. Certify the source if RAP material is from an identifiable Department project. Do not use RAP material in the following areas:

1) Construction areas that are below the seasonal high groundwater table elevation; ~~or~~ 2) MSE Wall backfill; *3) underneath MSE Walls or 4) The top 6 inches of embankment.*

Prior to placement, submit documentation to the Engineer for his approval, outlining the proposed location of the RAP material.

120-8.4.2 Soil and RAP Mixture: Place the RAP material at the location and spread uniformly, using approved methods to obtain a maximum layer thickness of 4 inches. Mix this 4 inches maximum layer of RAP with a loose soil layer of 8 to 10 inches thickness. After mixing, meet all Embankment Utilization requirements of Index 505 for the location used. Do not mix RAP in the uppermost 12 inches in order to comply with 120-8.2.1. The total RAP and other embankment material shall not exceed 12 inches per lift after mixing and compaction if the contractor can demonstrate that the density of the mixture can be achieved. Perform mixing using rotary tillers or other equipment meeting the approval of the Engineer. The Engineer will determine the order in which to spread the two materials. Mix both materials to the full depth. Ensure that the finished layer will have the thickness and shape required by the typical section. Demonstrate the feasibility of this construction method by successfully completing a 500-foot-long test section. For embankment construction, meet the requirements of 120-8. For compaction requirements of the soil and RAP mixture, meet the requirements of 120-9.

120-8.4.3 Alternate Soil and RAP Layer Construction: ~~As an alternate to 120-8.4.2, c~~ Construct soil *in minimum 6 to 12 inch compacted lifts* and RAP in alternate layers ~~with the RAP layers with limited to maximum 6 inch maximum compacted lifts~~. Use soil with a minimum LBR value of 40 to prevent failure during compaction of the overlying RAP layer. ~~Alternate compacted lifts of RAP layer and soil layer, each with a six inch maximum thickness. Demonstrate the feasibility of this construction method by successfully completing a 500-foot-~~

1200602

All Jobs

long test section. For compaction requirements of both soil and RAP, meet the requirements of 120-9.