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STATE OF NORTH CAROLINA
DEPARTMENT OF TRANSPORTATION

MICHAEL F. EASLEY
GOVERNOR

LYNDO TIPPETT
SECRETARY

ROADWAY DESIGN UNIT

JUN 2 9 2007

ALLEN, BLEVINS, BREW, C. HOUSER, LOVERING, D. TAYLOR, J. MOORE, C. HAIRE, B. MOORE, MUMFORD, WALLS, THOMPSON

PREPARE REPLY FOR___SIGNATURE
F.Y.I.
REVIEW/DISCUSS WITH_____

June 27, 2007

MEMORANDUM TO: Mr. Victor Barbour, P.E.
State Project Services Engineer

cc:

ATTENTION: Mr. Randy Garris, P.E.
State Contract Officer

FROM: Njoroge Wainaina, P.E.
State Geotechnical Engineer

SUBJECT: Revised Shallow Undercut Special Provision

The Geotechnical Engineering Unit (GEU) has completed revisions to the Shallow Undercut Special Provision. With these revisions, the GEU will no longer modify this provision to specify locations and depths of shallow undercut. Instead, when specific shallow undercut locations and depths are needed, this information will be shown on the plans, cross sections and/or with typical details. When shallow undercut is required, the GEU will recommend the use of the attached standard special provision and it will not be attached to the recommendations. Please replace the current Shallow Undercut Special Provision with the attached provision. An electronic copy will be sent separately to Norma Smith. If there are any questions, please contact Scott Hidden, P.E. or Mohammed Mulla, P.E. at (919) 250-4088.

Attachments: Revised Shallow Undercut Special Provision

cc: K. J. Kim, P.E., Eastern Regional Geotechnical Manager
John Pilipchuk, L.G., P.E., Western Regional Geotechnical Manager
Don Moore, L.G., Contract Administrator
Tom Hearne, P.E., GeoPavement Supervisor
Judith Corley-Lay, Ph.D., P.E., State Pavement Management Engineer
Jay Bennett, P.E., State Roadway Design Engineer
Ron Hancock, P.E., State Roadway Construction Engineer

MAILING ADDRESS:
NC DEPARTMENT OF TRANSPORTATION
GEOTECHNICAL ENGINEERING UNIT
1589 MAIL SERVICE CENTER
RALEIGH NC 27699-1589

TELEPHONE: 919-250-4088
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Website: www.ncdot.org./doh

LOCATION:
CENTURY CENTER COMPLEX
ENTRANCE B-2
1020 BIRCH RIDGE DRIVE
RALEIGH NC 27610

SHALLOW UNDERCUT:
(9-18-07)

SP2R35

Description

Undercut to a depth of 6 to 24 inches and place fabric for soil stabilization and Class IV Subgrade Stabilization at locations shown on the plans or as directed by the Engineer.

Materials

Refer to Division 10 of the *Standard Specifications*:

Item	Section
Select Material, Class IV	1016
Fabric for Soil Stabilization, Type 4	1056

Use Class IV Select Material for Class IV Subgrade Stabilization. If Class IV Subgrade Stabilization does not meet the requirements of Article 1010-2 of the *Standard Specifications*, the Engineer, at his discretion, may consider the material reasonably acceptable in accordance with Article 105-3 of the *Standard Specifications*.

Construction Methods

Perform undercut excavation in accordance with Section 225 of the *Standard Specifications*. Place fabric for soil stabilization in accordance with Article 270-3 of the *Standard Specifications* before backfilling. Backfill with Class IV Subgrade Stabilization by end dumping subgrade stabilization material on the fabric. Do not operate heavy equipment on the fabric until it is covered with Class IV Subgrade Stabilization. Compact subgrade stabilization material to 92% of AASHTO T180 as modified by the Department or to the highest density that can be reasonably obtained.

Maintain Class IV Subgrade Stabilization in an acceptable condition and minimize the use of heavy equipment on subgrade stabilization material in order to avoid damaging the backfill. Provide and maintain drainage ditches and drains as required to prevent entrapment of water in backfill.

Measurement and Payment

Class IV Subgrade Stabilization will be measured and paid for at the contract unit price per ton. The quantity to be paid for will be the actual number of tons of subgrade stabilization material that has been incorporated into the completed and accepted work. The material will be measured by being weighed in trucks on certified platform scales or other certified weighing devices. This work includes but is not limited to furnishing, hauling, handling, placing, compacting and maintaining the subgrade stabilization material.

Undercut Excavation will be measured and paid for in accordance with Section 225 of the *Standard Specifications*.

Fabric for Soil Stabilization will be measured and paid for in accordance with Section 270 of the *Standard Specifications*.

Payment will be made under:

Pay Item	**Pay Unit**
Class IV Subgrade Stabilization	Ton