



STATE OF NORTH CAROLINA
DEPARTMENT OF TRANSPORTATION

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GOVERNOR

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SECRETARY

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STATE PROJECT: 8.T190301 R-2514A
FEDERAL PROJECT:
COUNTY: Onslow
DESCRIPTION: US 17 North of Jacksonville from SR 1327 to South of Belgrade
SUBJECT: Geotechnical Report - Addendum to Inventory

Culvert Investigation

Foundation Investigations were made at the following sites:

1. Tributary to Northeast Creek at -L- Station 112+07.7

The existing culvert is to be removed and replaced with a single 2.1 m (W) x 2.1 m (H) RCBC. The culvert site is located in a narrow flood plain with natural ground lying at an elevation of 11 to 12± meters. Water typically occurs at or near the natural ground surface.

Based on auger borings and a 12.7 mm diameter rod sounding, soils at the proposed Northbound Lane consists of approximately 1 meter of soft slightly organic silty clay (A-7-5) underlain by medium stiff silty fine sandy clay (A-6). Loose to medium dense fine sand (A-2-4) underlies the cohesive soils at an elevation of 9± meters. Vane Shear Tests taken in the medium stiff clay showed shear strengths of 40 to 59 kPa. An additional auger boring and 12.7 mm diameter rod sounding were made at the northern end of the existing culvert. Soils at this location consist of 1.3 meters of soft clayey sandy silt (A-4) underlain by very loose to loose fine sand (A-3, A-2-4) at an elevation of 9.6 meters. The consistency of the sand grades to medium dense at an elevation of 9± meters.

2. Starky's Creek at -L- Station 161+33.5

The existing culvert is to be removed and replaced with a dual 2.1 m (W) x 1.8 m (H) RCBC. The culvert site is located in a narrow flood plain with natural ground lying at an elevation of 12± meters. Water typically occurs near or at the natural ground surface.

Based on an auger boring and 12.7 mm diameter rod sounding taken at the proposed Northbound Lane and an auger boring taken at the northern end of the existing culvert, soils typically consist of very soft clayey sandy silt (A-4) which generally grades to a medium stiff consistency at a depth of 1.5± meters.

Respectfully submitted,

E. A. Witort, Project Geologist

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