



STATE OF NORTH CAROLINA
DEPARTMENT OF TRANSPORTATION

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GOVERNOR

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SECRETARY

STATE PROJECT: 8.1910203 (R-977A)
COUNTY: Cherokee
DESCRIPTION: Proposed New Bridge on US-64 Over SR-1558 (Bridge ⁴ 3)
SUBJECT: Geotechnical Report - Bridge Foundation Investigation

Site Description

This proposed new bridge is sited where relocated US-64 crosses SR-1558 (Harshaw Rd.) near its intersection with SR-1639, approximately 1.5 miles southeast of the Murphy City Limit. The site lies in an area of low hills south of the Hiwassee River floodplain. SR-1558 occupies the valley of a small stream. The proposed bridge will span the valley at an elevation near the tops of the hills on either side.

Plans call for a bridge approximately 12 meters wide and 120 meters long in 5 spans of about 24 meters each. Its maximum height above ground is to be about 22.5 meters. Bridge bents are all parallel, and have a skew of approximately 56 degrees, which varies slightly due to a slight curve in the bridge.

Future construction plans are for twin bridges at this location to carry east and west-bound traffic, respectively. This bridge, which is on the east-bound side, will serve traffic in both directions until the west-bound bridge is built at a later date.

A 16-inch cast iron water main is located on the east side of SR-1558. An 8-inch PVC sewer line lies on the west side of the road.

Methods

Subsurface investigations were carried out in August, 1997, and in January-February, 1998. Borings were made with a CME-550 drilling machine with autohammer, using an NXWL casing advancer down to hard rock, and NXWL rods with a diamond bit in hard rock. Standard

