

PROJECT: 33664.1.1 ID: B-4327 COUNTY: Wilson

DESCRIPTION(1): Bridge No. 52 on SR 1131 (New Sandy Hill Road) over Turkey Creek

INFORMATION ON EXISTING BRIDGE

Information obtained from: field inspection
 microfilm (Reel: ___ Pos: ___)
 other: _____

BR. NO.: 52 BR. LENGTH: 118.4' NO. BENTS: 8 NO. BENTS IN: CHANNEL: 6 FLOODPLAIN: 2

FOUNDATION TYPE: Timber Piles

EVIDENCE OF SCOUR(2):

ABUTMENTS OR END BENT SLOPES: Minor local scour

INTERIOR BENTS: N/A

CHANNEL BED: None

CHANNEL BANKS: None

EXISTING SCOUR PROTECTION:

TYPE(3): Rip rap around end bents

EXTENT(4): Across the end slope and 10 +/- feet outside the edge of the bridge

EFFECTIVENESS(5): Very effective

OBSTRUCTIONS(6) (DAMS, DEBRIS, ETC.): None

DESIGN INFORMATION

CHANNEL BED MATERIAL(7): Channel bed material consists of sandy silt

CHANNEL BANK MATERIAL(8): Channel bank material consists of sandy silt (SS-11, SS-12)

CHANNEL BANK COVER(9): Channel bank cover consists of grass, shrubs and small to large trees

FLOOD PLAIN WIDTH(10): Flood plain width is approximately 400+/- feet.

FLOOD PLAIN COVER(11): Flood plain cover consists of grass and shrubs

DESIGN INFORMATION CONT.

STREAM IS: DEGRADING X AGGRADING (12)

OTHER OBSERVATIONS AND COMMENTS: _____

CHANNEL MIGRATION TENDENCY (13): No tendency for migration

GEOTECHNICALLY ADJUSTED SCOUR ELEVATIONS(14):

Geotechnically adjusted scour elevation agrees with the theoretical elevation shown on the Bridge Survey and Hydraulic Design Report dated 9/30/03.

REPORTED BY: *O. B. Oti* DATE: 9/10/04
 O. B. Oti

INSTRUCTIONS

- (1) GIVE THE DESCRIPTION OF THE SPECIFIC SITE, INCLUDING ROUTE NUMBER AND BODY OF WATER CROSSED.
- (2) NOTE ANY EVIDENCE OF SCOUR AT THE EXISTING END BENTS OR ABUTMENTS (UNDERMINING, SLOUGHING, SCOUR LOCATIONS, DEGRADATIONS, ETC.)
- (3) NOTE ANY EXISTING SCOUR PROTECTION (RIP RAP, ETC.)
- (4) DESCRIBE THE EXTENT OF ANY EXISTING SCOUR PROTECTION.
- (5) DESCRIBE WHETHER OR NOT THE SCOUR PROTECTION APPEARS TO BE WORKING.
- (6) NOTE ANY DAMS, FALLEN TREES, DEBRIS AT BENTS, ETC.
- (7) DESCRIBE THE CHANNEL BED MATERIAL BASED ON OBSERVATION AND/OR SAMPLES.
- (8) DESCRIBE THE CHANNEL BANK MATERIAL BASED ON OBSERVATION AND/OR SAMPLES.
- (9) DESCRIBE THE BANK COVERING (GRASS, TREES, RIP RAP, NONE, ETC.)
- (10) GIVE THE APPROXIMATE FLOOD PLAIN WIDTH (ESTIMATE).
- (11) DESCRIBE THE FLOOD PLAIN COVERING (GRASS, TREES, CROPS, ETC.)
- (12) CHECK THE APPROPRIATE SPACE AS TO WHETHER THE STREAM IS DEGRADING OR AGGRADING.
- (13) DESCRIBE THE POTENTIAL OF THE BODY OF WATER TO MIGRATE Laterally DURING THE LIFE OF THE BRIDGE (APPROXIMATELY 100 YEARS).
- (14) GIVE THE GEOTECHNICALLY ADJUSTED SCOUR ELEVATION EXPECTED OVER THE LIFE OF THE BRIDGE (APPROXIMATELY 100 YEARS). THIS CAN BE GIVEN AS AN ELEVATION RANGE ACROSS THE SITE, OR ON A BENT BY BENT BASIS WHERE VARIATIONS EXIST. DISCUSS THE RELATIONSHIP BETWEEN THE HYDRAULICS THEORETICAL SCOUR AND THE GEOTECHNICALLY ADJUSTED SCOUR ELEVATION. IF THE GEOTECHNICALLY ADJUSTED SCOUR ELEVATION IS DEPENDENT ON SCOUR COUNTER MEASURES, EXPLAIN. (RIPRAP ARMORING ON SLOPES, ETC.) THE GEOTECHNICALLY ADJUSTED SCOUR ELEVATION IS BASED ON THE ERODABILITY OF MATERIALS WITH CONSIDERATION FOR JOINTING, FOLIATION, BEDDING ORIENTATION AND FREQUENCY, CORE RECOVERY PERCENTAGE, PERCENTAGE RQD, DIFFERENTIAL WEATHERING, SHEAR STRENGTH, OBSERVATIONS AT EXISTING STRUCTURES, OTHER TESTS DEEMED APPROPRIATE, AND OVERALL GEOLOGIC CONDITIONS AT THE SITE.