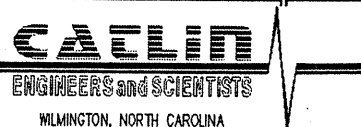
 WILMINGTON, NORTH CAROLINA	GEOTECHNICAL UNIT FIELD SCOUR REPORT	NCDOT INFORMATION PROJECT: 8.1442601 TIP #: U-0620 F.A. #: STP-0622(2) COUNTY: Cumberland
CATLIN PROJECT: NCDOT GEO - BEAVER CREEK CATLIN #: 201-075	SITE DESCRIPTION(1): <p style="text-align: center;">Bridge on Hope Mills Bypass (-L-) over Beaver Creek</p>	
INFORMATION ON EXISTING BRIDGES:		
Information obtained from:		<input checked="" type="checkbox"/> field inspection <input type="checkbox"/> microfilm(Reel: _____ Pos: _____) <input type="checkbox"/> other _____
COUNTY BRIDGE NO. <u>105</u>	BRIDGE LENGTH <u>±105'</u>	
NO. BENTS IN: CHANNEL <u>Bent 1 in channel</u> <u>Bent 2 on edge</u>	FLOOD PLAIN <u>2 end bents</u>	
FOUNDATION TYPE: <u>Steel H-Piles</u>		
EVIDENCE OF SCOUR(2):		
ABUTMENTS OR END BENT SLOPES: <u>End bent 2 = no scour; End Bent 1 = scoured/under cut on down stream side - fabric and rock placed as protection. appears to have stabilized</u>		
INTERIOR BENTS: <u>Minor scour evident on downstream side of Bent 2</u>		
CHANNEL BED: _____		
CHANNEL BANKS: <u>Upstation side = sand & vegetation - minor undercut</u>		
EXISTING SCOUR PROTECTION: <u>SEE SKETCH</u>		
TYPE(3): <u>Fabric w/ Rip Rap @ EB1</u>		
EXTENT(4): <u>± 2/3 of EB1</u>		
EFFECTIVENESS(5): <u>Stable where Rip Rap is - minor erosion where only fabric</u>		
OBSTRUCTIONS(6) (DAMS, DEBRIS, ETC.): <u>None</u>		
DESIGN INFORMATION		
CHANNEL BED MATERIAL(7) (SAMPLE RESULTS ATTACHED): <u>Tan, brown, well sorted, v. fine to fine sand w/ leaves, roots, + stems.</u>		
CHANNEL BANK MATERIAL(8) (SAMPLE RESULTS ATTACHED): <u>Tan, well sorted, fine sand w/ trace well rounded gravel up to 2mm.</u>		
FOUNDATION BEARING MATERIAL(9): _____		
CHANNEL BANK COVER(10): <u>Grass, Rip Rap, Fabric, and none</u>		
FLOOD PLAIN WIDTH(11): <u>± 100'</u>		
FLOOD PLAIN COVER(12): <u>Trees & Grass</u>		

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DESIGN INFORMATION CONT.		
STREAM IS <input checked="" type="checkbox"/> DEGRADING _____ AGGRADING (13)		
OTHER OBSERVATIONS AND COMMENTS: _____		
CHANNEL MIGRATION TENDENCY (14): <u>upstation on right side of EB1</u>		
CRITICAL SCOUR ELEVATION (15): <u>To be completed by NCDOT</u>		
REPORTED BY: <u>Steve Hudson</u> DATE: <u>5-31-01</u>		
INSTRUCTIONS		
(1) GIVE THE DESCRIPTION OF THE SPECIFIC SITE GIVING 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: A SAMPLE SHOULD BE TAKEN FOR GRAIN SIZE DISTRIBUTION, ATTACH LAB RESULTS. (8) DESCRIBE THE CHANNEL BANK MATERIAL: A SAMPLE SHOULD BE TAKEN FOR GRAIN SIZE DISTRIBUTION, ATTACH LAB RESULTS. (9) DESCRIBE THE FOUNDATION BEARING MATERIAL, (10) DESCRIBE THE BANK COVERING (GRASS, TREES, RIP RAP, NONE, ETC.) (11) GIVE THE APPROXIMATE FLOOD PLAIN WIDTH (ESTIMATE). (12) DESCRIBE THE FLOOD PLAIN COVERING (GRASS, TREES, CROPS, ETC.) (13) CHECK THE APPROPRIATE SPACE AS TO WHETHER THE STREAM IS DEGRADING OR AGGRADING (14) DESCRIBE THE POTENTIAL OF THE BODY OF WATER TO MIGRATE Laterally DURING THE LIFE OF THE BRIDGE (APPROXIMATELY 100 YEARS). (15) GIVE THE CRITICAL 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 RELATIONSHIP BETWEEN THE HYDRAULICS THEORETICAL SCOUR AND THE CRITICAL SCOUR ELEVATION. IF THE CRITICAL SCOUR ELEVATIONS DEPENDENT ON SCOUR COUNTER MEASURES, EXPLAIN. (RIP RAP ARMORING ON SLOPES, ETC.) THEORETICAL 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.		