

STATE	STATE PROJECT REFERENCE NO.	SHEET NO.	TOTAL SHEETS
N.C.	33538.1.1 B-4191	1	5

STATE OF NORTH CAROLINA
DEPARTMENT OF TRANSPORTATION
DIVISION OF HIGHWAYS
GEOTECHNICAL ENGINEERING UNIT

STRUCTURE
SUBSURFACE INVESTIGATION

PROJ. REFERENCE NO. 33538.1.1 B-4191 F.A. PROJ. BRSTP-226(10)
COUNTY McDOWELL
PROJECT DESCRIPTION BRIDGE NO. 82 OVER JACKTOWN CREEK
ON NC 226

SITE DESCRIPTION RETAINING WALL ON BRIDGE NO. 82 OVER
JACKTOWN CREEK ON NC 226

CONTENTS

<u>SHEET</u>	<u>DESCRIPTION</u>
1	TITLE SHEET
2	LEGEND
3	SITE PLAN
4	PROFILE
5	BORE LOGS

CAUTION NOTICE

THE SUBSURFACE INFORMATION AND THE SUBSURFACE INVESTIGATION ON WHICH IT IS BASED WERE MADE FOR THE PURPOSE OF STUDY, PLANNING, AND DESIGN, AND NOT FOR CONSTRUCTION OR PAY PURPOSES. THE VARIOUS FIELD BORING LOGS, ROCK CORES, AND SOIL TEST DATA AVAILABLE MAY BE REVIEWED OR INSPECTED IN RALEIGH BY CONTACTING THE N.C. DEPARTMENT OF TRANSPORTATION, GEOTECHNICAL ENGINEERING UNIT AT (919) 250-4088. NEITHER THE SUBSURFACE PLANS AND REPORTS, NOR THE FIELD BORING LOGS, ROCK CORES, OR SOIL TEST DATA ARE PART OF THE CONTRACT.

GENERAL SOIL AND ROCK STRATA DESCRIPTIONS AND INDICATED BOUNDARIES ARE BASED ON A GEOTECHNICAL INTERPRETATION OF ALL AVAILABLE SUBSURFACE DATA AND MAY NOT NECESSARILY REFLECT THE ACTUAL SUBSURFACE CONDITIONS BETWEEN BORINGS OR BETWEEN SAMPLED STRATA WITHIN THE BOREHOLE. THE LABORATORY SAMPLE DATA AND THE IN SITU (IN-PLACE) TEST DATA CAN BE RELIED ON ONLY TO THE DEGREE OF RELIABILITY INHERENT IN THE STANDARD TEST METHOD. THE OBSERVED WATER LEVELS OR SOIL MOISTURE CONDITIONS INDICATED IN THE SUBSURFACE INVESTIGATIONS ARE AS RECORDED AT THE TIME OF THE INVESTIGATION. THESE WATER LEVELS OR SOIL MOISTURE CONDITIONS MAY VARY CONSIDERABLY WITH TIME ACCORDING TO CLIMATIC CONDITIONS INCLUDING TEMPERATURES, PRECIPITATION, AND WIND, AS WELL AS OTHER NON-CLIMATIC FACTORS.

THE BIDDER OR CONTRACTOR IS CAUTIONED THAT DETAILS SHOWN ON THE SUBSURFACE PLANS ARE PRELIMINARY ONLY AND IN MANY CASES THE FINAL DESIGN DETAILS ARE DIFFERENT. FOR BIDDING AND CONSTRUCTION PURPOSES, REFER TO THE CONSTRUCTION PLANS AND DOCUMENTS FOR FINAL DESIGN INFORMATION ON THIS PROJECT. THE DEPARTMENT DOES NOT WARRANT OR GUARANTEE THE SUFFICIENCY OR ACCURACY OF THE INVESTIGATION MADE, NOR THE INTERPRETATIONS MADE, OR OPINION OF THE DEPARTMENT AS TO THE TYPE OF MATERIALS AND CONDITIONS TO BE ENCOUNTERED. THE BIDDER OR CONTRACTOR IS CAUTIONED TO MAKE SUCH INDEPENDENT SUBSURFACE INVESTIGATIONS AS HE DEEMS NECESSARY TO SATISFY HIMSELF AS TO CONDITIONS TO BE ENCOUNTERED ON THIS PROJECT. THE CONTRACTOR SHALL HAVE NO CLAIM FOR ADDITIONAL COMPENSATION OR FOR AN EXTENSION OF TIME FOR ANY REASON RESULTING FROM THE ACTUAL CONDITIONS ENCOUNTERED AT THE SITE DIFFERING FROM THOSE INDICATED IN THE SUBSURFACE INFORMATION.

PROJECT: 33538.1.1
ID: B-4191

PERSONNEL

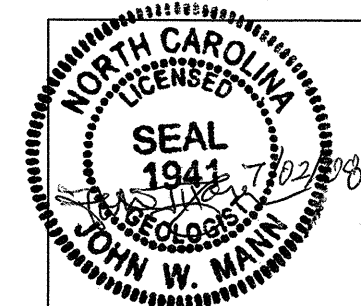
- M.M. HAGER
- D.O. CHEEK
- C.J. COFFEY
- R.D. CHILDERS

INVESTIGATED BY J.W. MANN

CHECKED BY W.D. FRYE

SUBMITTED BY W.D. FRYE

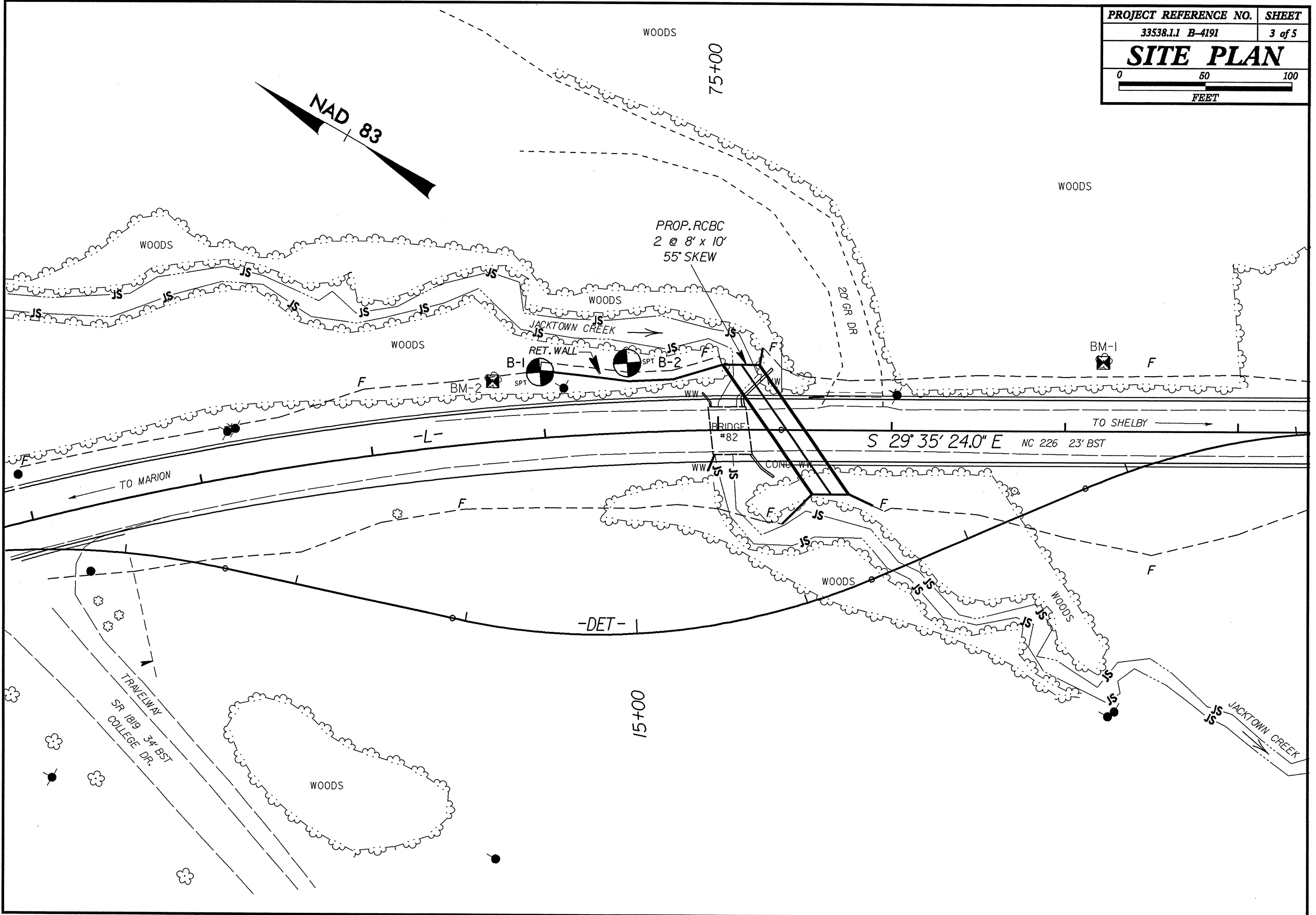
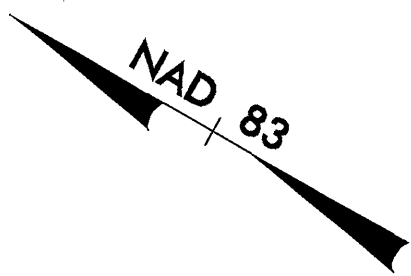
DATE 07/05/08



DRAWN BY: J.W. MANN

NOTE - THE INFORMATION CONTAINED HEREIN IS NOT IMPLIED OR GUARANTEED BY THE N. C. DEPARTMENT OF TRANSPORTATION AS BEING ACCURATE NOR IT IS CONSIDERED TO BE PART OF THE PLANS, SPECIFICATIONS, OR CONTRACT FOR THE PROJECT.

NOTE - BY HAVING REQUESTED THIS INFORMATION THE CONTRACTOR SPECIFICALLY WAIVES ANY CLAIMS FOR INCREASED COMPENSATION OR EXTENSION OF TIME BASED ON DIFFERENCES BETWEEN THE CONDITIONS INDICATED HEREIN AND THE ACTUAL CONDITIONS AT THE PROJECT SITE.



1270

1260

1250

1240

1230

1220

1210

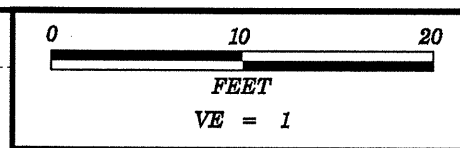
1200

1190

1180

B-1
73+98
38' LT

B-2
74+50
40' LT



PROJECT REFERENCE NO.	SHEET
33538.1.1 B-4191	4 of 5
PROFILE ALONG RETAINING WALL	

1260

1250

1240

1230

1220

1210

1200

1190

1180

EXISTING GROUND

EMBANKMENT: BROWN SILTY SAND WITH TRACE GRAVEL

4
04/08
ALLUVIUM: RED-BROWN FINE-COARSE SAND WITH SILT LENSES

9
SAPROLITE: GRAY-WHITE SILTY SAND & BROWN FINE SANDY SILT WITH TRACE MICA

ALLUVIUM: BROWN SILTY FINE-COARSE SAND

ALLUVIUM: 8
04/08
GRAY SANDY GRAVEL

17
SAPROLITE: BROWN-RED SLIGHTLY SANDY SILT & GRAY-WHITE SILTY SAND WITH TRACE MICA



74+00 74+10 74+20 74+30 74+40 74+50 74+60 74+70 74+80 74+90 75+00



PROJECT NO. 33538.1.1	ID. B-4191	COUNTY McDowell	GEOLOGIST Hager, M. M.
SITE DESCRIPTION Bridge No. 82 over Jacktown Creek on NC 226 (Retaining Wall)			GROUND WTR (ft)
BORING NO. B-1	STATION 73+98	OFFSET 38ft LT	ALIGNMENT -L-
COLLAR ELEV. 1,237.4 ft	TOTAL DEPTH 15.3 ft	NORTHING 706,947	EASTING 1,120,934
DRILL MACHINE CME-45C	DRILL METHOD H.S. Augers	HAMMER TYPE Automatic	
START DATE 04/25/08	COMP. DATE 04/25/08	SURFACE WATER DEPTH N/A	DEPTH TO ROCK N/A

ELEV (ft)	DRIVE ELEV (ft)	DEPTH (ft)	BLOW COUNT			BLOWS PER FOOT					SAMP. NO.	LOG	SOIL AND ROCK DESCRIPTION	DEPTH (ft)		
			0.5ft	0.5ft	0.5ft	0	25	50	75	100						
1240																
														1,237.4	GROUND SURFACE	0.0
1235															ROADWAY EMBANKMENT	
	1,233.6	3.8												1,233.4	Brown silty SAND with trace gravel	4.0
1230			3	2	2										ALLUVIAL	
	1,228.6	8.8												1,228.2	Red-brown fine to coarse SAND with silt lenses	9.2
1225			3	5	4										SAPROLITE	
	1,223.6	13.8												1,222.9	Gray-white silty SAND with trace mica	14.5
1220														1,222.1	Brown fine sandy SILT with trace mica	15.3
															Boring Terminated at Elevation 1,222.1 ft in Saprolite (Silt)	
1215																
1210																
1205																
1200																
1195																
1190																
1185																
1180																
1175																
1170																
1165																
1160																

PROJECT NO. 33538.1.1	ID. B-4191	COUNTY McDowell	GEOLOGIST Hager, M. M.
SITE DESCRIPTION Bridge No. 82 over Jacktown Creek on NC 226 (Retaining Wall)			GROUND WTR (ft)
BORING NO. B-2	STATION 74+50	OFFSET 40ft LT	ALIGNMENT -L-
COLLAR ELEV. 1,234.9 ft	TOTAL DEPTH 20.2 ft	NORTHING 706,906	EASTING 1,120,963
DRILL MACHINE CME-45C	DRILL METHOD H.S. Augers	HAMMER TYPE Automatic	
START DATE 04/25/08	COMP. DATE 04/25/08	SURFACE WATER DEPTH N/A	DEPTH TO ROCK N/A

ELEV (ft)	DRIVE ELEV (ft)	DEPTH (ft)	BLOW COUNT			BLOWS PER FOOT					SAMP. NO.	LOG	SOIL AND ROCK DESCRIPTION	DEPTH (ft)		
			0.5ft	0.5ft	0.5ft	0	25	50	75	100						
1235														1,234.9	GROUND SURFACE	0.0
															ALLUVIAL	
	1,231.2	3.7													Brown silty fine to coarse SAND	
1230			3	4	4									1,230.2	ALLUVIAL	4.7
	1,226.2	8.7												1,227.9	Gray sandy GRAVEL	7.0
1225			4	7	10									1,225.1	SAPROLITE	9.8
	1,221.2	13.7													Brown-red slightly sandy SILT	
1220			5	9	16										SAPROLITE	
	1,216.2	18.7													Gray-white silty SAND with trace mica	
1215			5	10	22											
														1,214.7		20.2
															Boring Terminated at Elevation 1,214.7 ft in Saprolite (Sand)	
1210																
1205																
1200																
1195																
1190																
1185																
1180																
1175																
1170																
1165																
1160																

NCDOT BORE DOUBLE B4191_GEO_BH_RWAL.GPJ NC_DOT_GDT 07/02/08