

REFERENCE: B-4490

PROJECT: 33727

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

STATE	STATE PROJECT REFERENCE NO.	SHEET NO.	TOTAL SHEETS
N.C.	B-4490	1	4

CONTENTS

<u>SHEET NO.</u>	<u>DESCRIPTION</u>
1	TITLE SHEET
2	LEGEND
3	SITE PLAN & PROFILE
4	SOIL TEST RESULTS

STRUCTURE
SUBSURFACE INVESTIGATION

COUNTY CUMBERLAND
PROJECT DESCRIPTION BR. NO. 116 OVER CSX RR,
NORFOLK SOUTHERN RR & HILLSBORO ST.

SITE DESCRIPTION MSE RETAINING WALL NO. 5

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 1919 TOT-6850. THE SUBSURFACE PLANS AND REPORTS, FIELD BORING LOGS, ROCK CORES AND SOIL TEST DATA ARE NOT 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 THE 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.

- NOTES:
1. THE INFORMATION CONTAINED HEREIN IS NOT IMPLIED OR GUARANTEED BY THE N. C. DEPARTMENT OF TRANSPORTATION AS ACCURATE NOR IS IT CONSIDERED PART OF THE PLANS, SPECIFICATIONS OR CONTRACT FOR THE PROJECT.
 2. 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.

PERSONNEL

S&ME, INC.
J.R. SWARTLEY
O.B. OTI
H.R. CONLEY
J.R. MATULA

INVESTIGATED BY J.R. SWARTLEY
DRAWN BY J.R. SWARTLEY
CHECKED BY N.T. ROBERSON
SUBMITTED BY N.T. ROBERSON
DATE AUGUST 2015

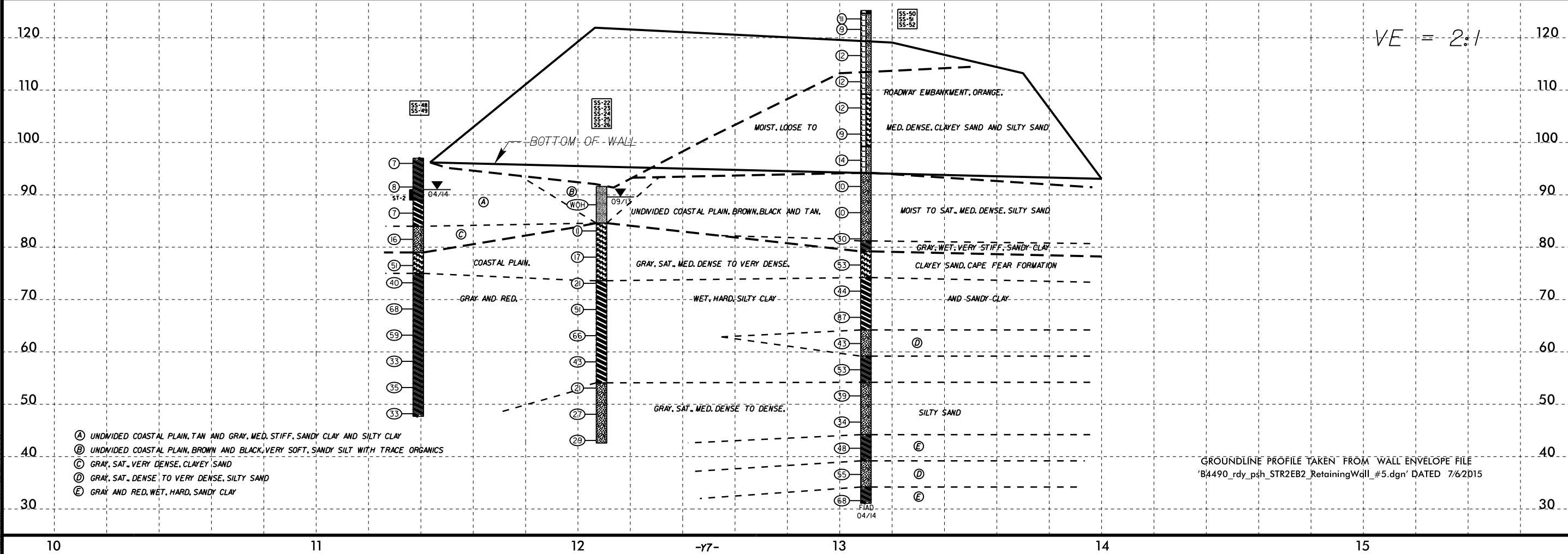
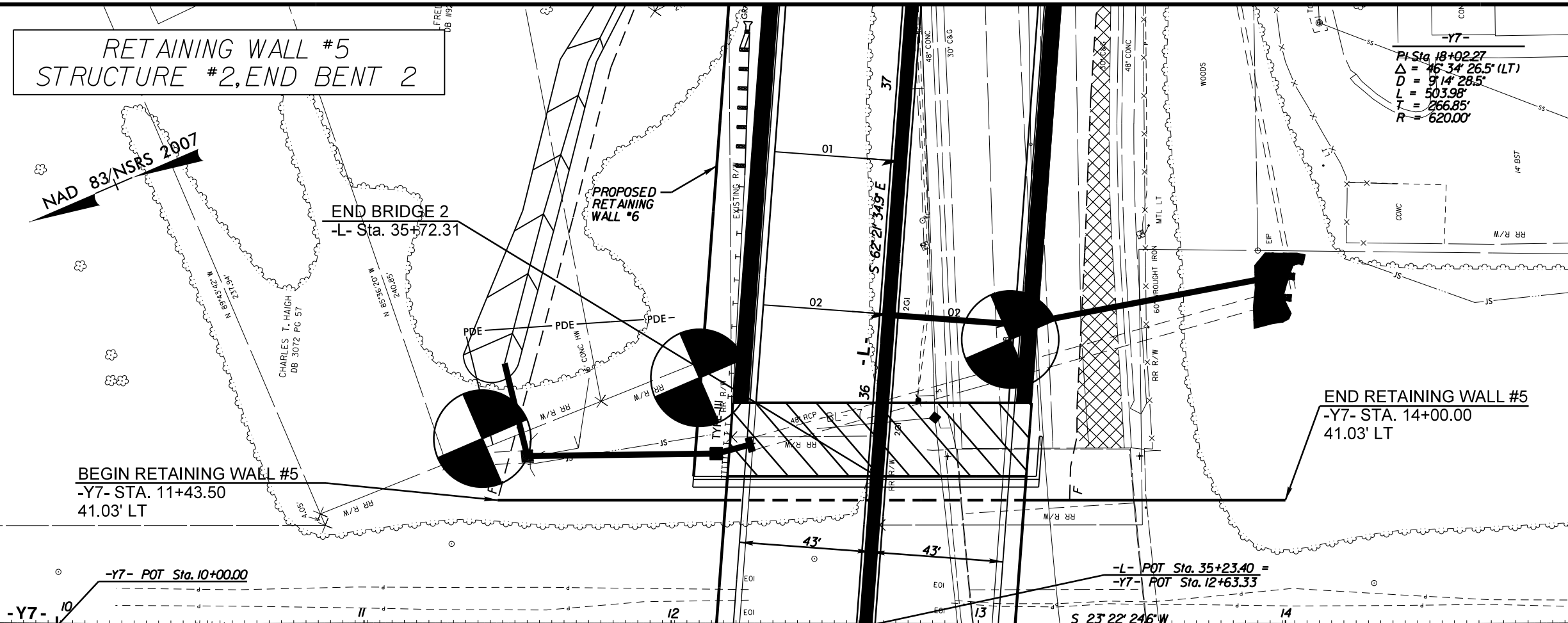


DocuSigned by:
Jarett Swartley 9/25/2015
7F355C29F78A113 SIGNATURE DATE

NORTH CAROLINA DEPARTMENT OF TRANSPORTATION
DIVISION OF HIGHWAYS
GEOTECHNICAL ENGINEERING UNIT
SUBSURFACE INVESTIGATION
SOIL AND ROCK LEGEND, TERMS, SYMBOLS, AND ABBREVIATIONS

Table with 4 main columns: SOIL DESCRIPTION, GRADATION, ROCK DESCRIPTION, and TERMS AND DEFINITIONS. Includes sub-sections like SOIL LEGEND AND AASHTO CLASSIFICATION, CONSISTENCY OR DENSENESS, TEXTURE OR GRAIN SIZE, SOIL MOISTURE - CORRELATION OF TERMS, PLASTICITY, COLOR, MISCELLANEOUS SYMBOLS, RECOMMENDATION SYMBOLS, ABBREVIATIONS, EQUIPMENT USED ON SUBJECT PROJECT, FRACTURE SPACING, BEDDING, INDURATION, and BENCH MARK.

PROJECT REFERENCE NO.	SHEET NO.
B-4490	3
RW SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER
PRELIMINARY PLANS DO NOT USE FOR CONSTRUCTION	
PLANS PREPARED BY: PARSONS BRINCKERHOFF 434 FAYETTEVILLE STREET SUITE 1500 RALEIGH, NC 27601 LICENSE NO. F-4065	



- A UNDIVIDED COASTAL PLAIN, TAN AND GRAY, MED. STIFF, SANDY CLAY AND SILTY CLAY
- B UNDIVIDED COASTAL PLAIN, BROWN AND BLACK, VERY SOFT, SANDY SILT WITH TRACE ORGANICS
- C GRAY, SAT., VERY DENSE, CLAYEY SAND
- D GRAY, SAT., DENSE TO VERY DENSE, SILTY SAND
- E GRAY AND RED, WET, HARD, SANDY CLAY

GROUNDLINE PROFILE TAKEN FROM WALL ENVELOPE FILE
'B4490_rdy_psh_STR2EB2_RetainingWall_#5.dgn' DATED 7/6/2015

09-SEP-2015 08:34 L:\Raleigh\Investigations\TIP\B4490_GEO_WALL5\CADD_GEO\TECH\Site&Sub\B4490_GEO_WALL5_SUB_rdy_psh_STR2EB2_RetainingWall_#5.dgn

SOIL TEST RESULTS

RETAINING WALL #5

SOIL TEST RESULTS															
SAMPLE NO.	OFFSET	STATION	DEPTH INTERVAL	AASHTO CLASS.	L.L.	P.I.	% BY WEIGHT				% PASSING (SIEVES)			% MOISTURE	% ORGANIC
							C.SAND	F.SAND	SILT	CLAY	10	40	200		
SS-48	61 LT	11+39	4.5-6.0	A-6(2)	29	14	34.2	25.2	12.1	28.5	98	78	44	-	3.4
SS-49	61 LT	11+39	9.5-11.0	A-7-6(20)	49	28	15.3	13.8	18.0	52.9	100	92	73	-	-
SS-22	81 LT	12+09	2.5-4.0	A-4(2)	25	9	23.6	29.8	28.3	18.3	100	87	52	-	4.0
SS-23	81 LT	12+09	7.5-9.0	A-2-6(0)	35	13	47.3	28.8	15.7	8.1	85	58	24	-	-
SS-24	81 LT	12+09	17.5-19.0	A-7-5(10)	46	16	7.5	39.4	45.0	8.1	100	97	64	-	-
SS-25	81 LT	12+09	27.5-29.0	A-7-6(4)	46	20	44.8	16.4	25.6	13.2	97	64	40	-	-
SS-26	81 LT	12+09	37.5-39.0	A-2-4(0)	31	9	32.9	41.2	18.8	7.1	100	92	32	-	-
SS-50	93 LT	13+10	17.6-19.1	A-2-7(2)	45	23	34.0	36.0	1.5	28.5	99	79	32	-	-
SS-51	93 LT	13+10	47.6-49.1	A-2-6(1)	37	15	51.0	22.4	16.5	10.2	97	72	29	-	-
SS-52	93 LT	13+10	72.6-74.1	A-2-4(0)	32	8	28.9	48.2	16.8	6.1	100	88	29	-	-