

REFERENCE: I-5898

PROJECT: 46860

CROSS SECTIONS

LINE	STATION	SHEETS
-Y-	106+00.00 to 107+50.00	4
-Y-	111+00.00 to 114+00.00	5-6
-Y-	116+50.00 to 118+50.00	6-7
-Y-	123+50.00 to 126+00.00	7-8
-RPA-	10+00.00 to 13+00.00	9-10
-RPC-	10+00.00 to 11+50.00	11
-RPC-	15+00.00 to 17+00.00	12-13
-RPD-	10+00.00 to 12+50.00	14-15

SUMMARY OF LAB TEST RESULTS 16

STATE OF NORTH CAROLINA
DEPARTMENT OF TRANSPORTATION
DIVISION OF HIGHWAYS
GEOTECHNICAL ENGINEERING UNIT
ROADWAY
SUBSURFACE INVESTIGATION

COUNTY ROCKINGHAM
PROJECT DESCRIPTION US 220/US 311 – NC 135
INTERCHANGE UPGRADE

RECOMMENDATIONS

STATE	STATE PROJECT REFERENCE NO.	SHEET NO.	TOTAL SHEETS
N.C.	I-5898	1	16

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) 707-6850. 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:
- 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.
 - 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

M. LEAR

S. HARDEE

J. HOWARD

INVESTIGATED BY WOOD E&S, INC.

DRAWN BY R. RAHIE

CHECKED BY M. LEAR

SUBMITTED BY C.T. TANG

DATE NOVEMBER, 2021

WOOD E&S, INC.
4021 STIRRUP CREEK DRIVE, SUITE 100
DURHAM, NORTH CAROLINA 27703
(919) 381-9900

NC Engineering F-1253 NC Geology C-247



SIGNATURE

DATE

DOCUMENT NOT CONSIDERED FINAL
UNLESS ALL SIGNATURES COMPLETED

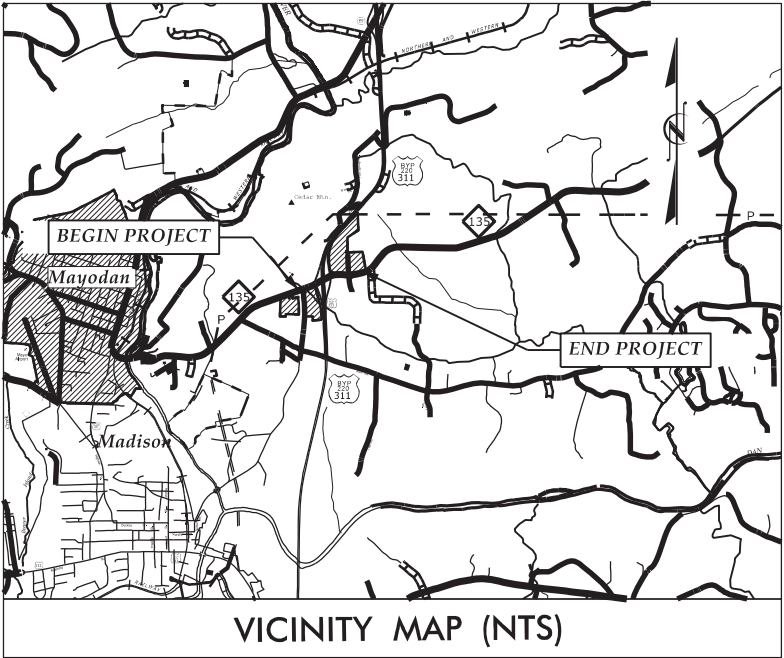
NORTH CAROLINA DEPARTMENT OF TRANSPORTATION
DIVISION OF HIGHWAYS
GEOTECHNICAL ENGINEERING UNIT
SUBSURFACE INVESTIGATION
SOIL AND ROCK LEGEND, TERMS, SYMBOLS, AND ABBREVIATIONS

SOIL DESCRIPTION										GRADATION										ROCK DESCRIPTION										TERMS AND DEFINITIONS									
SOIL IS CONSIDERED UNCONSOLIDATED, SEMI-CONSOLIDATED, OR WEATHERED EARTH MATERIALS THAT CAN BE PENETRATED WITH A CONTINUOUS FLIGHT POWER AUGER AND YIELD LESS THAN 100 BLOWS PER FOOT ACCORDING TO THE STANDARD PENETRATION TEST (AASHTO T 206, ASTM D1586). SOIL CLASSIFICATION IS BASED ON THE AASHTO SYSTEM. BASIC DESCRIPTIONS GENERALLY INCLUDE THE FOLLOWING: CONSISTENCY, COLOR, TEXTURE, MOISTURE, AASHTO CLASSIFICATION, AND OTHER PERTINENT FACTORS SUCH AS MINERALOGICAL COMPOSITION, ANGULARITY, STRUCTURE, PLASTICITY, ETC. FOR EXAMPLE, <i>VERY STIFF, GRAY, SILTY CLAY, MOIST WITH INTERBEDDED FINE SAND LAYERS, HIGHLY PLASTIC, A-7-6</i>										WELL GRADED - INDICATES A GOOD REPRESENTATION OF PARTICLE SIZES FROM FINE TO COARSE. UNIFORMLY GRADED - INDICATES THAT SOIL PARTICLES ARE ALL APPROXIMATELY THE SAME SIZE. GAP-GRADED - INDICATES A MIXTURE OF UNIFORM PARTICLE SIZES OF TWO OR MORE SIZES.										HARD ROCK IS NON-COASTAL PLAIN MATERIAL THAT WOULD YIELD SPT REFUSAL IF TESTED. AN INFERRED ROCK LINE INDICATES THE LEVEL AT WHICH NON-COASTAL PLAIN MATERIAL WOULD YIELD SPT REFUSAL. SPT REFUSAL IS PENETRATION BY A SPLIT SPOON SAMPLER EQUAL TO OR LESS THAN 0.1 FOOT PER 60 BLOWS IN NON-COASTAL PLAIN MATERIAL. THE TRANSITION BETWEEN SOIL AND ROCK IS OFTEN REPRESENTED BY A ZONE OF WEATHERED ROCK. ROCK MATERIALS ARE TYPICALLY DIVIDED AS FOLLOWS:										ALLUVIUM (ALLUV.) - SOILS THAT HAVE BEEN TRANSPORTED BY WATER. AQUIFER - A WATER BEARING FORMATION OR STRATA. ARENACEOUS - APPLIED TO ROCKS THAT HAVE BEEN DERIVED FROM SAND OR THAT CONTAIN SAND. ARGILLACEOUS - APPLIED TO ALL ROCKS OR SUBSTANCES COMPOSED OF CLAY MINERALS, OR HAVING A NOTABLE PROPORTION OF CLAY IN THEIR COMPOSITION, SUCH AS SHALE, SLATE, ETC. ARTESIAN - GROUND WATER THAT IS UNDER SUFFICIENT PRESSURE TO RISE ABOVE THE LEVEL AT WHICH IT IS ENCOUNTERED, BUT WHICH DOES NOT NECESSARILY RISE TO OR ABOVE THE GROUND SURFACE. CALCAREOUS (CALC.) - SOILS THAT CONTAIN APPRECIABLE AMOUNTS OF CALCIUM CARBONATE. COLLUVIUM - ROCK FRAGMENTS MIXED WITH SOIL DEPOSITED BY GRAVITY ON SLOPE OR AT BOTTOM OF SLOPE. CORE RECOVERY (REC.) - TOTAL LENGTH OF ALL MATERIAL RECOVERED IN THE CORE BARREL DIVIDED BY TOTAL LENGTH OF CORE RUN AND EXPRESSED AS A PERCENTAGE. DIKE - A TABULAR BODY OF IGNEOUS ROCK THAT CUTS ACROSS THE STRUCTURE OF ADJACENT ROCKS OR CUTS MASSIVE ROCK. DIP - THE ANGLE AT WHICH A STRATUM OR ANY PLANAR FEATURE IS INCLINED FROM THE HORIZONTAL. DIP DIRECTION (DIP AZIMUTH) - THE DIRECTION OR BEARING OF THE HORIZONTAL TRACE OF THE LINE OF DIP, MEASURED CLOCKWISE FROM NORTH. FAULT - A FRACTURE OR FRACTURE ZONE ALONG WHICH THERE HAS BEEN DISPLACEMENT OF THE SIDES RELATIVE TO ONE ANOTHER PARALLEL TO THE FRACTURE. FISSILE - A PROPERTY OF SPLITTING ALONG CLOSELY SPACED PARALLEL PLANES. FLOAT - ROCK FRAGMENTS ON SURFACE NEAR THEIR ORIGINAL POSITION AND DISLODGED FROM PARENT MATERIAL. FLOOD PLAIN (FP) - LAND BORDERING A STREAM, BUILT OF SEDIMENTS DEPOSITED BY THE STREAM. FORMATION (FM.) - A MAPPABLE GEOLOGIC UNIT THAT CAN BE RECOGNIZED AND TRACED IN THE FIELD. JOINT - FRACTURE IN ROCK ALONG WHICH NO APPRECIABLE MOVEMENT HAS OCCURRED. LEDGE - A SHELF-LIKE RIDGE OR PROJECTION OF ROCK WHOSE THICKNESS IS SMALL COMPARED TO ITS LATERAL EXTENT. LENS - A BODY OF SOIL OR ROCK THAT THINS OUT IN ONE OR MORE DIRECTIONS. MOTTLED (MOT.) - IRREGULARLY MARKED WITH SPOTS OF DIFFERENT COLORS. MOTTLING IN SOILS USUALLY INDICATES POOR AERATION AND LACK OF GOOD DRAINAGE. PERCHED WATER - WATER MAINTAINED ABOVE THE NORMAL GROUND WATER LEVEL BY THE PRESENCE OF AN INTERVENING IMPERVIOUS STRATUM. RESIDUAL (RES.) SOIL - SOIL FORMED IN PLACE BY THE WEATHERING OF ROCK. ROCK QUALITY DESIGNATION (ROQ) - A MEASURE OF ROCK QUALITY DESCRIBED BY TOTAL LENGTH OF ROCK SEGMENTS EQUAL TO OR GREATER THAN 4 INCHES DIVIDED BY THE TOTAL LENGTH OF CORE RUN AND EXPRESSED AS A PERCENTAGE. SAPROLITE (SAP.) - RESIDUAL SOIL THAT RETAINS THE RELIC STRUCTURE OR FABRIC OF THE PARENT ROCK. SILL - AN INTRUSIVE BODY OF IGNEOUS ROCK OF APPROXIMATELY UNIFORM THICKNESS AND RELATIVELY THIN COMPARED WITH ITS LATERAL EXTENT, THAT HAS BEEN EMPLACED PARALLEL TO THE BEDDING OR SCHISTOSITY OF THE INTRUDED ROCKS. SLICKENSIDE - POLISHED AND STRIATED SURFACE THAT RESULTS FROM FRICTION ALONG A FAULT OR SLIP PLANE. STANDARD PENETRATION TEST (PENETRATION RESISTANCE) (SPT) - NUMBER OF BLOWS (N OR BPF) OF A 140 LB. HAMMER FALLING 30 INCHES REQUIRED TO PRODUCE A PENETRATION OF 1 FOOT INTO SOIL WITH A 2 INCH OUTSIDE DIAMETER SPLIT SPOON SAMPLER. SPT REFUSAL IS PENETRATION EQUAL TO OR LESS THAN 0.1 FOOT PER 60 BLOWS. STRATA CORE RECOVERY (SREC.) - TOTAL LENGTH OF STRATA MATERIAL RECOVERED DIVIDED BY TOTAL LENGTH OF STRATUM AND EXPRESSED AS A PERCENTAGE. STRATA ROCK QUALITY DESIGNATION (SROQ) - A MEASURE OF ROCK QUALITY DESCRIBED BY TOTAL LENGTH OF ROCK SEGMENTS WITHIN A STRATUM EQUAL TO OR GREATER THAN 4 INCHES DIVIDED BY THE TOTAL LENGTH OF STRATA AND EXPRESSED AS A PERCENTAGE. TOPSOIL (TS.) - SURFACE SOILS USUALLY CONTAINING ORGANIC MATTER.									
SOIL LEGEND AND AASHTO CLASSIFICATION										MINERALOGICAL COMPOSITION										WEATHERING																			
GENERAL CLASS.										THE ANGULARITY OR ROUNDNESS OF SOIL GRAINS IS DESIGNATED BY THE TERMS: ANGULAR, SUBANGULAR, SUBROUNDED, OR ROUNDED.										CRYSTALLINE ROCK (CR)																			
GROUP CLASS.										MINERAL NAMES SUCH AS QUARTZ, FELDSPAR, MICA, TALC, KAOLIN, ETC. ARE USED IN DESCRIPTIONS WHEN THEY ARE CONSIDERED OF SIGNIFICANCE.										NON-CRYSTALLINE ROCK (NCR)																			
SYMBOL										COMPRESSIBILITY										COASTAL PLAIN SEDIMENTARY ROCK (CP)																			
%										PERCENTAGE OF MATERIAL																													
PASSING #10										ORGANIC MATERIAL																													
*200										TRACE OF ORGANIC MATTER																													
MATERIAL										GRANULAR SOILS																													
PASSING #40										SILT - CLAY SOILS																													
LL										OTHER MATERIAL																													
PI										TRACE																													
GROUP INDEX										SLIGHTLY COMPRESSIBLE																													
USUAL TYPES OF MAJOR MATERIALS										MODERATELY COMPRESSIBLE																													
GEN. RATING AS SUBGRADE										HIGHLY COMPRESSIBLE																													
PI OF A-7-5 SUBGROUP IS ≤ LL - 30 ; PI OF A-7-6 SUBGROUP IS > LL - 30										GROUND WATER																													
CONSISTENCY OR DENSENESS										MISCELLANEOUS SYMBOLS																													
PRIMARY SOIL TYPE										ROADWAY EMBANKMENT (RE) WITH SOIL DESCRIPTION																													
COMPACTNESS OR CONSISTENCY										SOIL SYMBOL																													
RANGE OF STANDARD PENETRATION RESISTANCE (N-VALUE)										ARTIFICIAL FILL (AF) OTHER THAN ROADWAY EMBANKMENT																													
RANGE OF UNCONFINED COMPRESSIVE STRENGTH (TONS/FT ²)										INFERRED SOIL BOUNDARY																													
GENERALY GRANULAR MATERIAL (NON-COHESIVE)										INFERRED ROCK LINE																													
GENERALY SILT-CLAY MATERIAL (COHESIVE)										ALLUVIAL SOIL BOUNDARY																													
TEXTURE OR GRAIN SIZE										RECOMMENDATION SYMBOLS																													
U.S. STD. SIEVE SIZE OPENING (MM)										UNDERCUT																													
BOULDER (BLDR.)										SHALLOW UNDERCUT																													
COBBLE (COB.)										UNCLASSIFIED EXCAVATION - ACCEPTABLE, BUT NOT TO BE USED IN THE TOP 3 FEET OF EMBANKMENT OR BACKFILL																													
GRAVEL (GR.)										UNCLASSIFIED EXCAVATION - ACCEPTABLE DEGRADABLE ROCK																													
COARSE SAND (CSE. SD.)										ABBREVIATIONS																													
FINE SAND (F SD.)										AR - AUGER REFUSAL																													
SILT (SL.)										BT - BORING TERMINATED																													
CLAY (CL.)										CL - CLAY																													
GRAIN SIZE										CPT - CONE PENETRATION TEST																													
305										CSE. - COARSE																													
75										DMT - DILATOMETER TEST																													
2.0										DPT - DYNAMIC PENETRATION TEST																													
0.25										e - VOID RATIO																													
0.05										F - FINE																													
0.005										FOSS. - FOSSILIFEROUS																													
										FRAC. - FRACTURED, FRACTURES																													
										FRAGS. - FRAGMENTS																													
										HI. - HIGHLY																													
SOIL MOISTURE - CORRELATION OF TERMS										EQUIPMENT USED ON SUBJECT PROJECT																													
SOIL MOISTURE SCALE (ATTERBERG LIMITS)										DRILL UNITS:																													
FIELD MOISTURE DESCRIPTION										CME-45C																													
GUIDE FOR FIELD MOISTURE DESCRIPTION										CME-55																													
LL - LIQUID LIMIT										CME-550																													
PL - PLASTIC LIMIT										VANE SHEAR TEST																													
OM - OPTIMUM MOISTURE										PORTABLE HOIST																													
SL - SHRINKAGE LIMIT																																							
PLASTICITY																																							
NON PLASTIC																																							
SLIGHTLY PLASTIC																																							
MODERATELY PLASTIC																																							
HIGHLY PLASTIC																																							
COLOR																																							
DESCRIPTIONS MAY INCLUDE COLOR OR COLOR COMBINATIONS (TAN, RED, YELLOW-BROWN, BLUE-GRAY). MODIFIERS SUCH AS LIGHT, DARK, STREAKED, ETC. ARE USED TO DESCRIBE APPEARANCE.																																							

09/28/19

STATE	STATE PROJECT REFERENCE NO.	SHEET NO.	TOTAL SHEETS
N.C.	I-5898	3	16
STATE PROJ. NO.	P.A. PROJ. NO.	DESCRIPTION	
46860.1.1		PE	

TIP PROJECT: I-5898



25% APPROVED SUBMITTAL

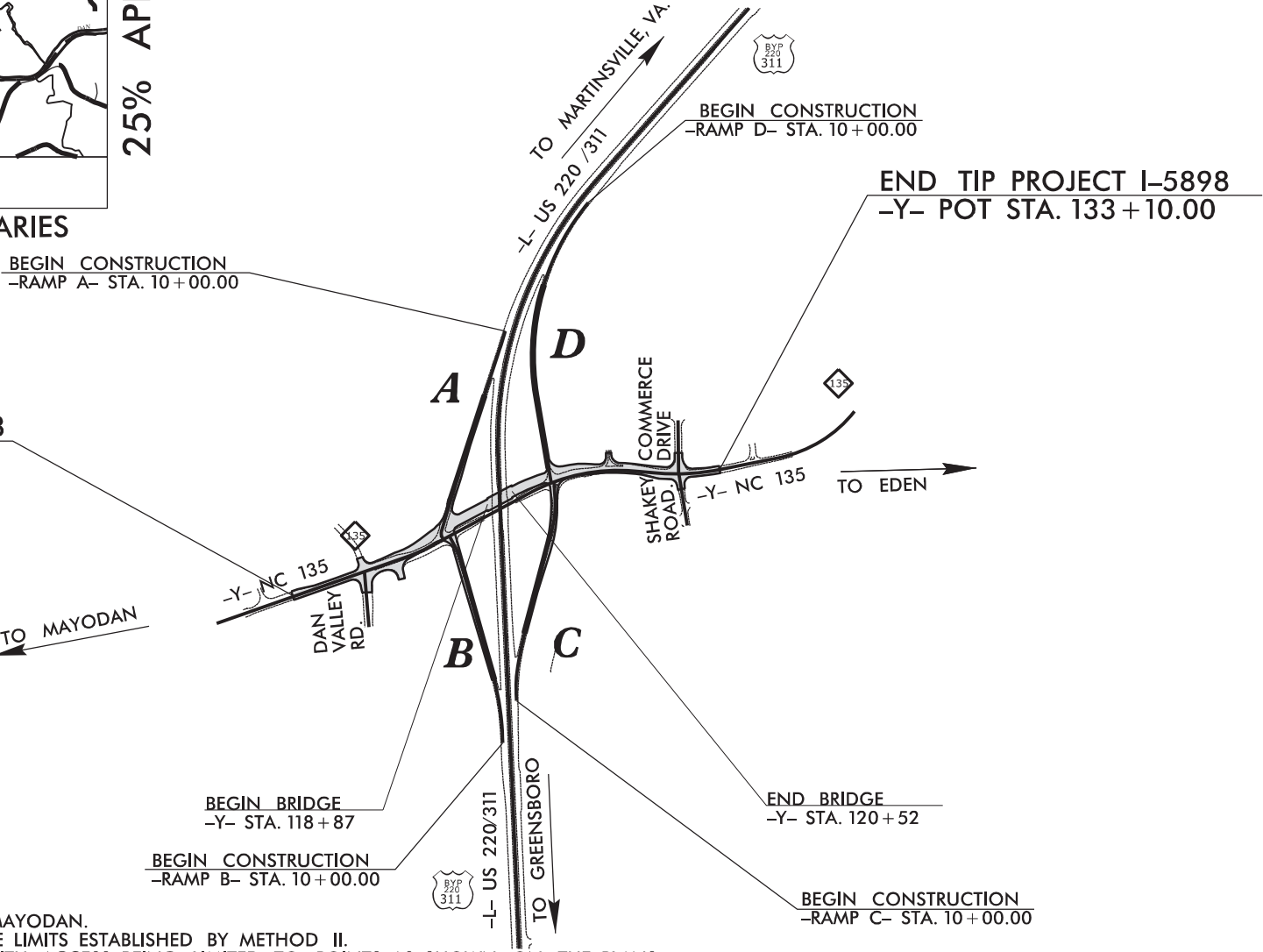
STATE OF NORTH CAROLINA
DIVISION OF HIGHWAYS

ROCKINGHAM COUNTY

LOCATION: US 135 FROM WEST OF SR 2177 (DAN VALLEY RD.) TO
EAST OF SR 2271 (SHAKEY RD.) AND SR 2283 (COMMERCE DR.)

TYPE OF WORK: GRADING, PAVING, DRAINAGE,
STRUCTURE AND CULVERTS

BEGIN TIP PROJECT I-5898
-Y- POT STA. 106 + 00.00



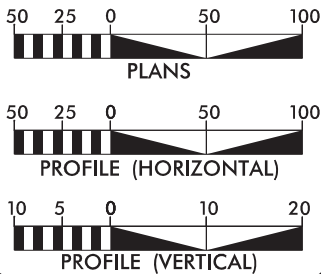
- THIS PROJECT IS WITHIN THE MUNICIPAL BOUNDARIES OF MAYODAN.
- CLEARING ON THIS PROJECT SHALL BE PERFORMED TO THE LIMITS ESTABLISHED BY METHOD II.
- THIS IS A FULL & PARTIAL CONTROLLED ACCESS PROJECT WITH ACCESS BEING LIMITED TO POINTS AS SHOWN ON THE PLANS.

NAD 83
NA 2011

INCOMPLETE PLANS
DO NOT USE FOR R/W ACQUISITION
DOCUMENT NOT CONSIDERED FINAL
UNLESS ALL SIGNATURES COMPLETED

CONTRACT:

GRAPHIC SCALES



DESIGN DATA

ADT 2017 = 16,000
ADT 2045 = 20,600
K = 11 %
D = 55 %
T = 3 % *
V = 40 MPH
* TTST = 1% DUAL 2%
FUNC CLASS =
RURAL MINOR ARTERIAL
STATEWIDE TIER

PROJECT LENGTH

LENGTH ROADWAY TIP PROJECT I-5898 = 0.482 MILES
LENGTH BRIDGE TIP PROJECT I-5898 = 0.031 MILES
TOTAL LENGTH OF TIP PROJECT I-5898 = 0.513 MILES

NCDOT POINT OF CONTACT:

BRIAN KETNER, PE
PROJECT ENGINEER



Prepared In the Office of:
JOHNSON, MIRMIRAN, & THOMPSON, INC.
1130 Situs Court, Suite 200, Raleigh NC, 27606

2018 STANDARD SPECIFICATIONS
PRODUCTION
RIGHT OF WAY DATE:
FEBRUARY 17, 2020
PRODUCTION
LETTING DATE:
SEPTEMBER 15, 2020

ENRICO A. ROQUE, PE
PROJECT ENGINEER

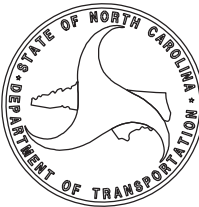
CHARLES R. BARBOUR, PE
PROJECT DESIGN ENGINEER

HYDRAULICS ENGINEER

SIGNATURE: P.E.

ROADWAY DESIGN
ENGINEER

SIGNATURE: P.E.

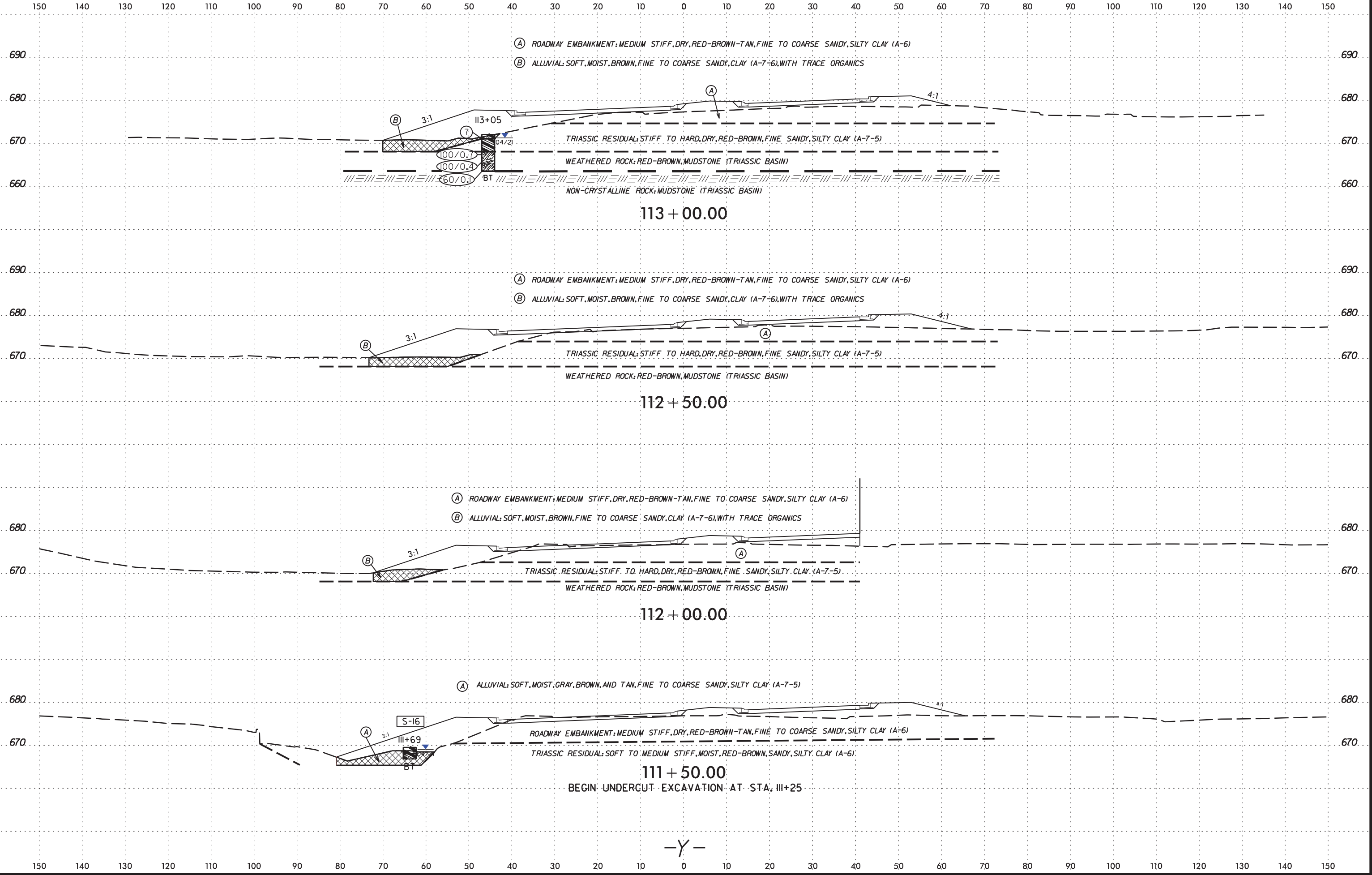




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1-5898	5

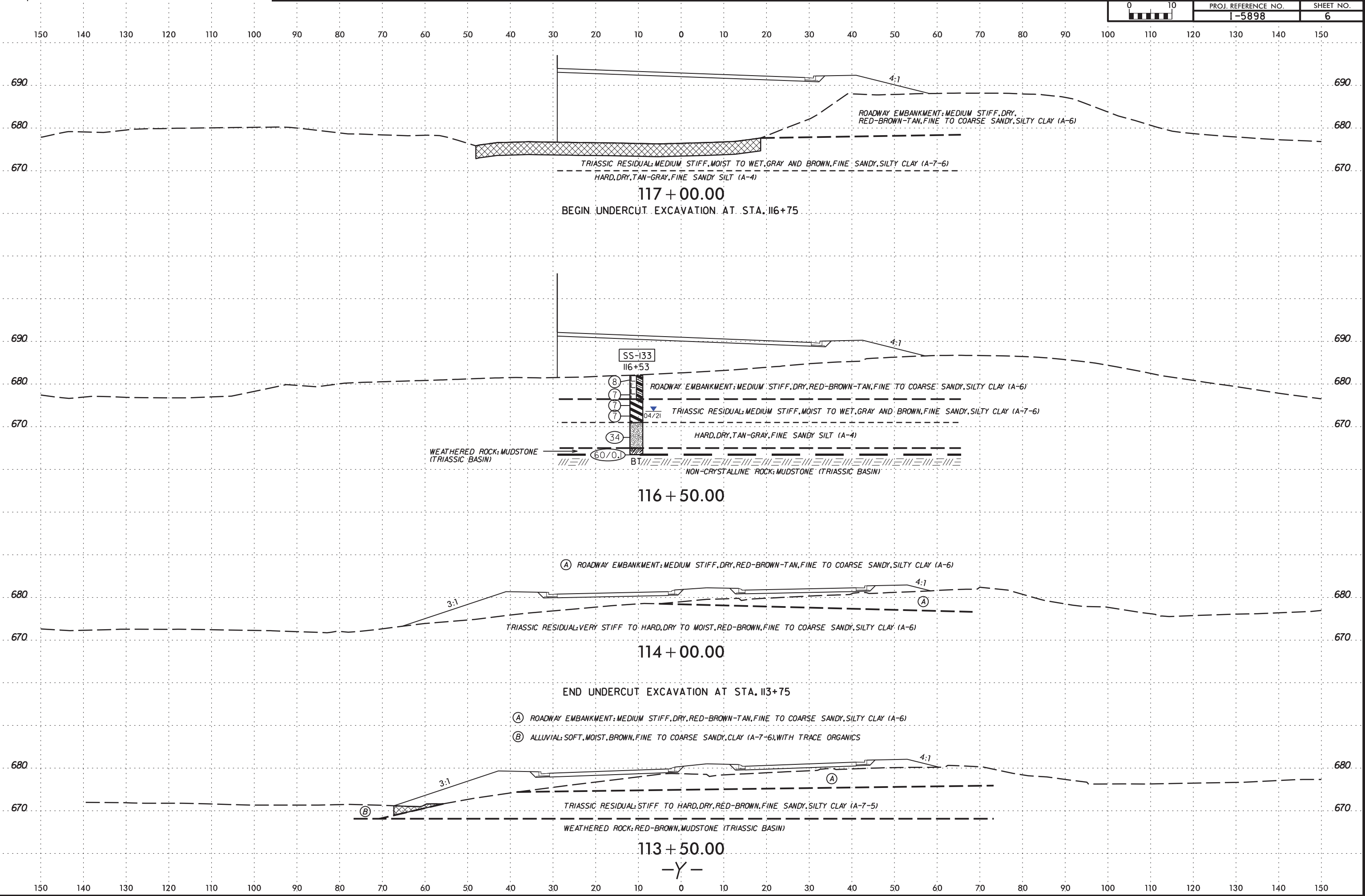


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6/23/16



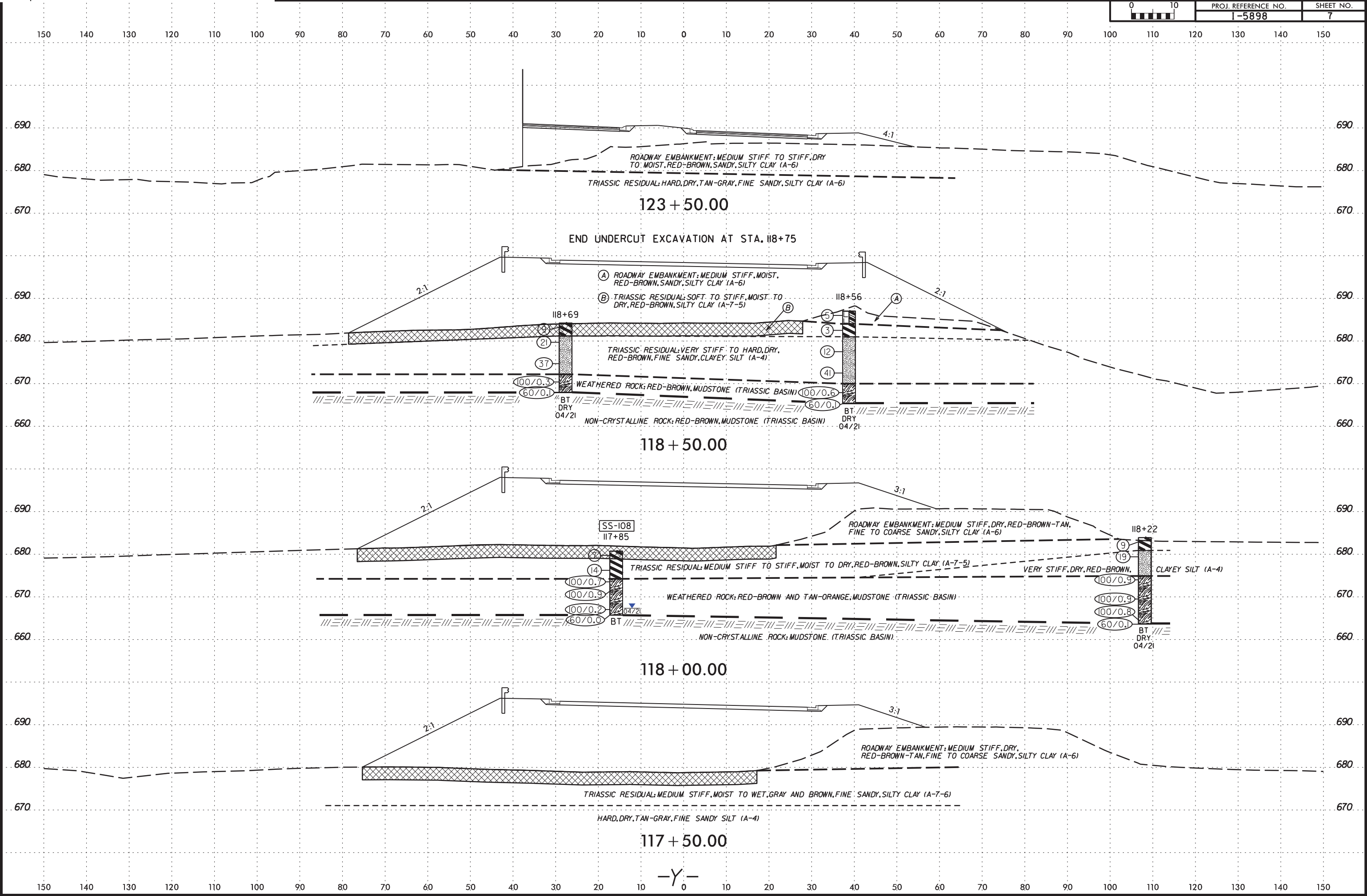
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I-5898	6



6/23/16



PROJ. REFERENCE NO.	SHEET NO.
1-5898	7

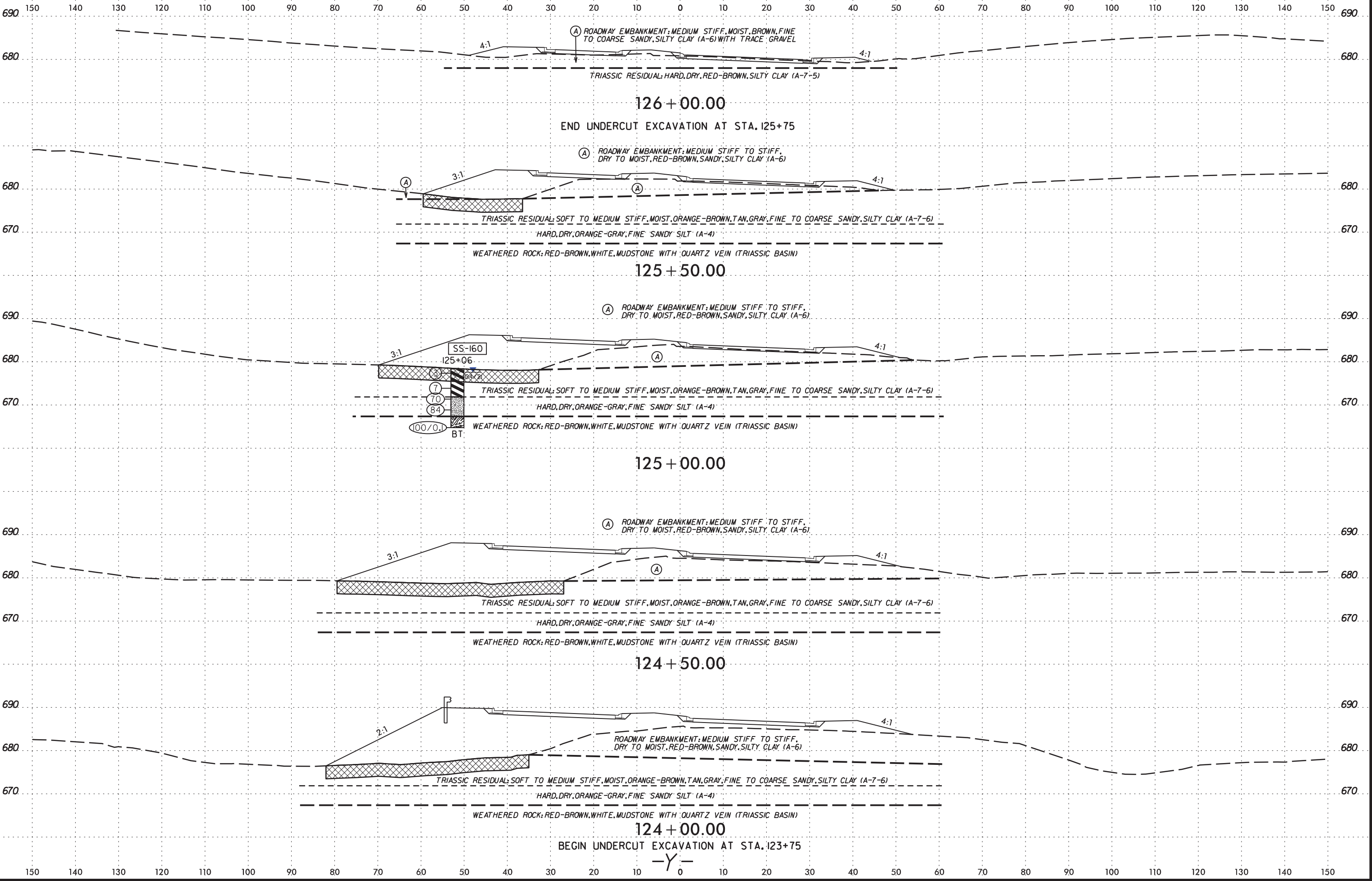


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PROJ. REFERENCE NO.	SHEET NO.
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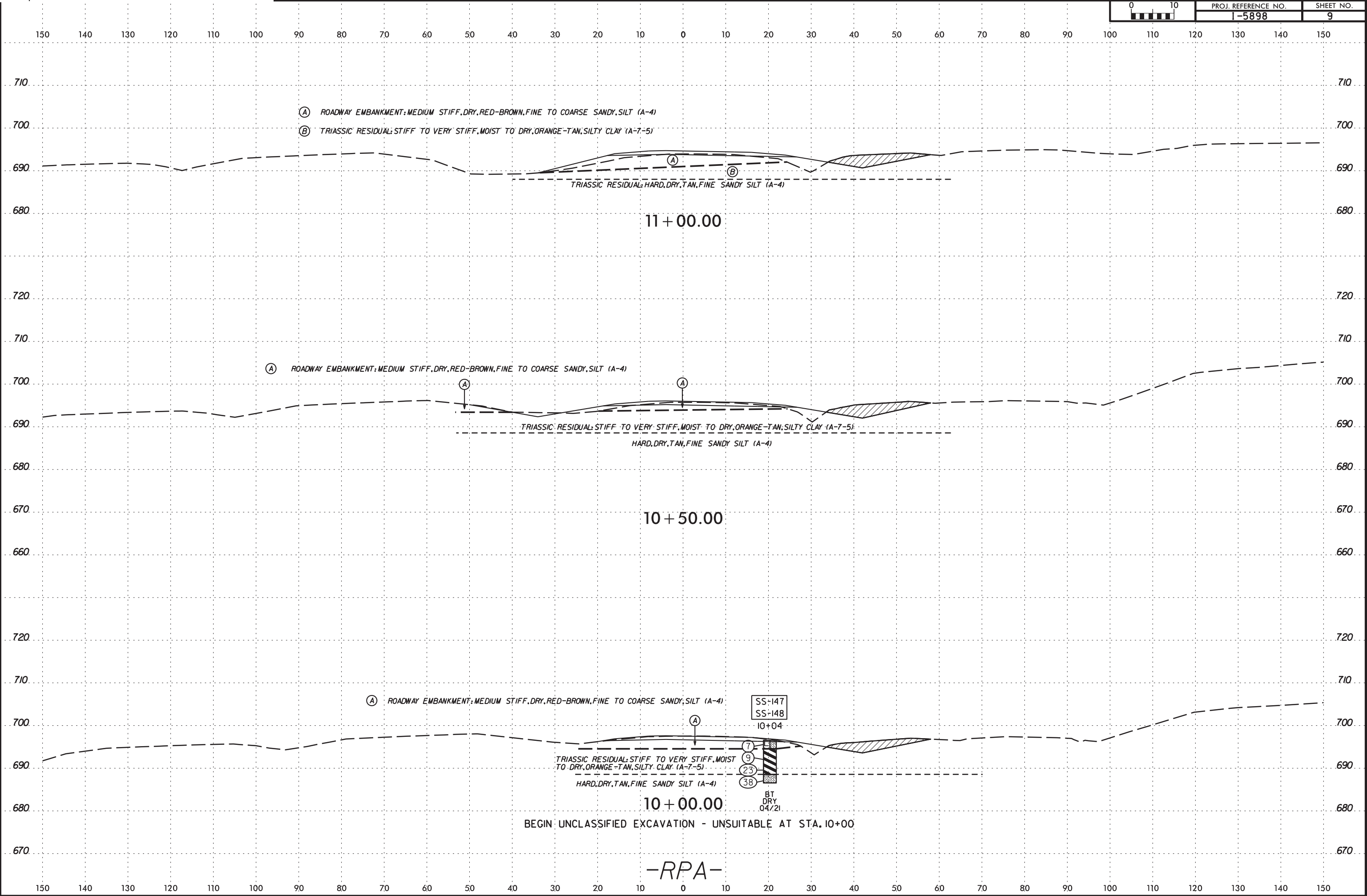
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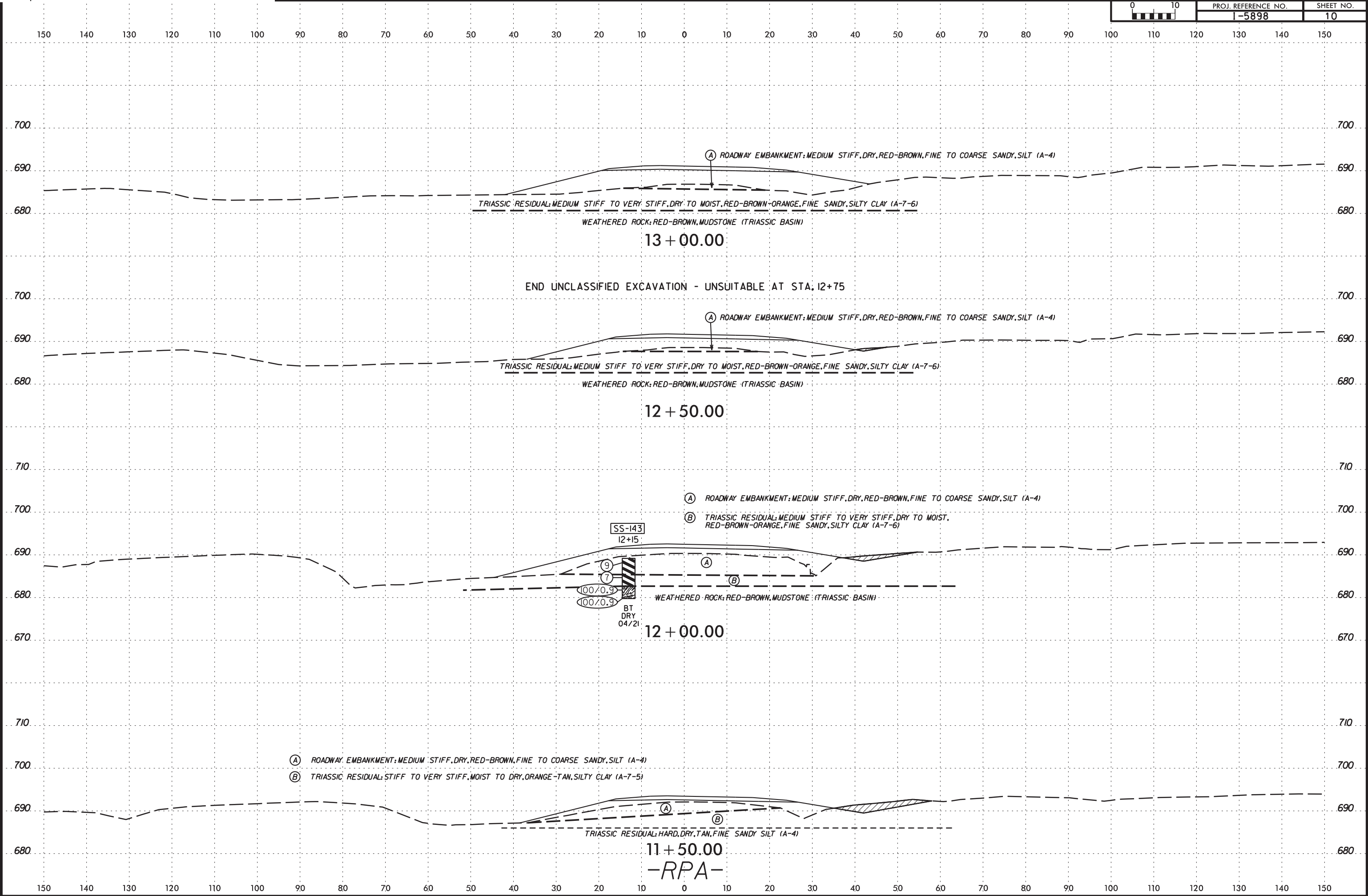
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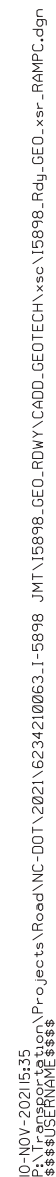


-RPA-

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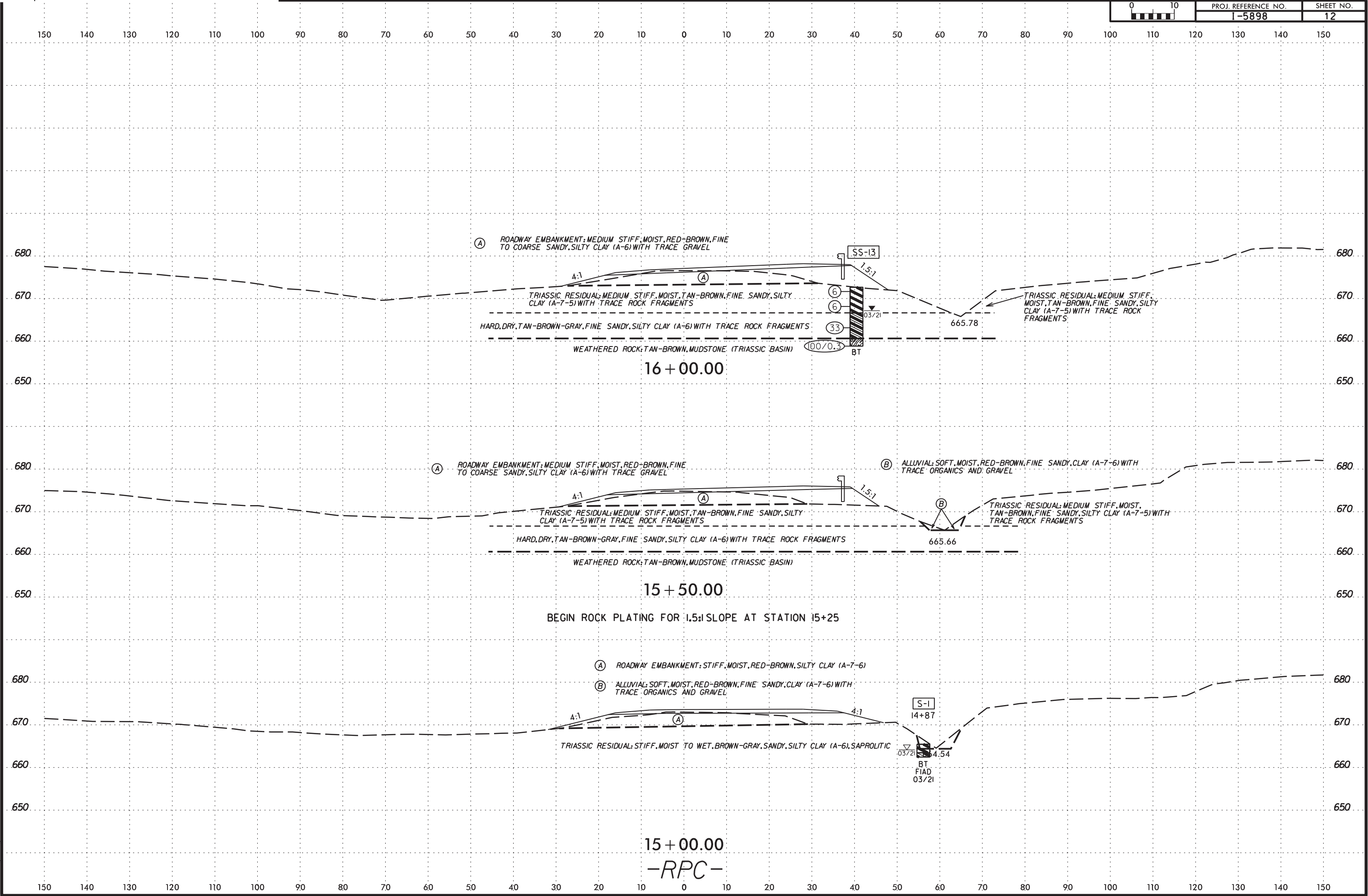




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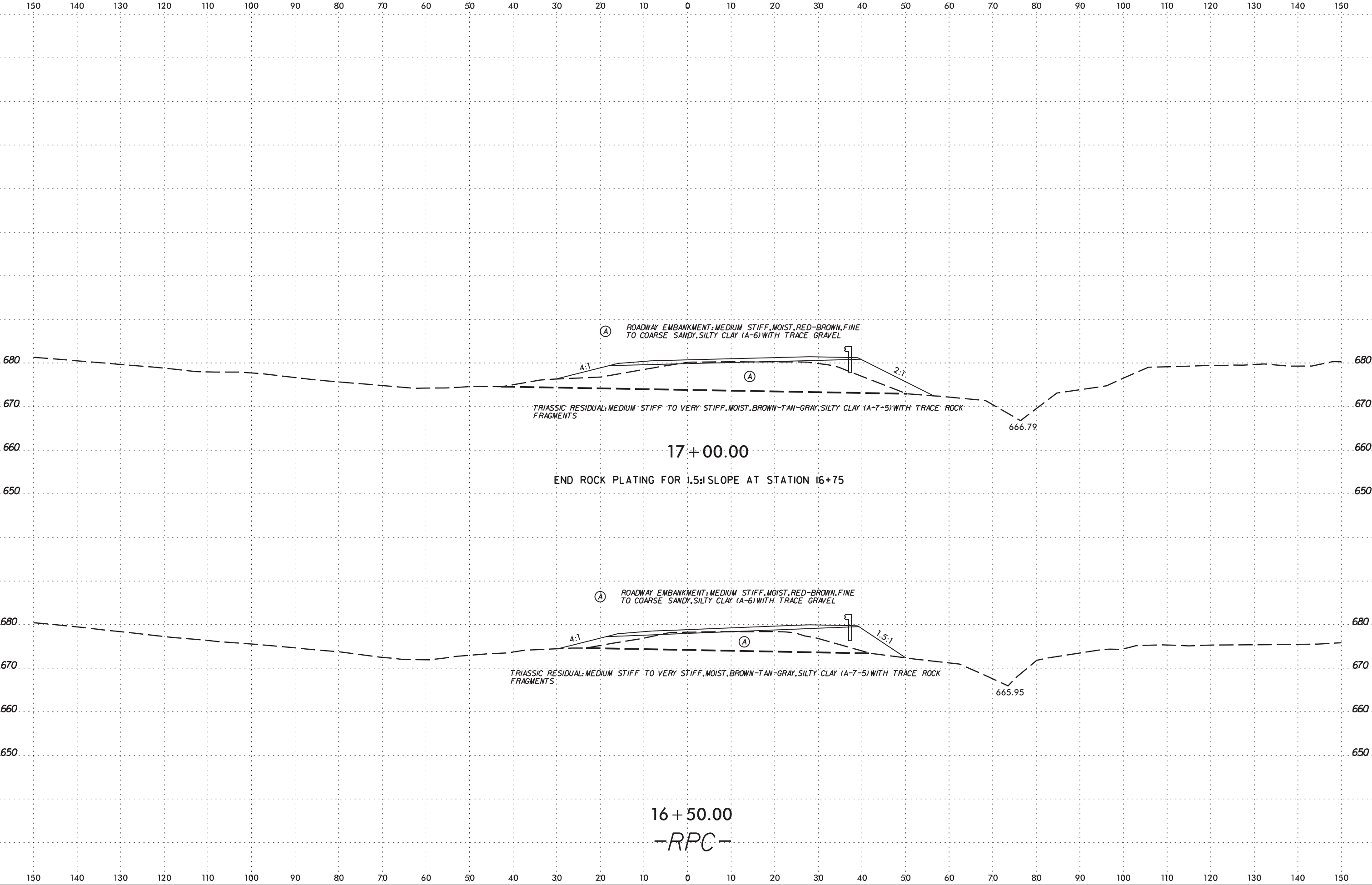
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chen, tang

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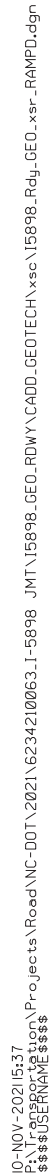


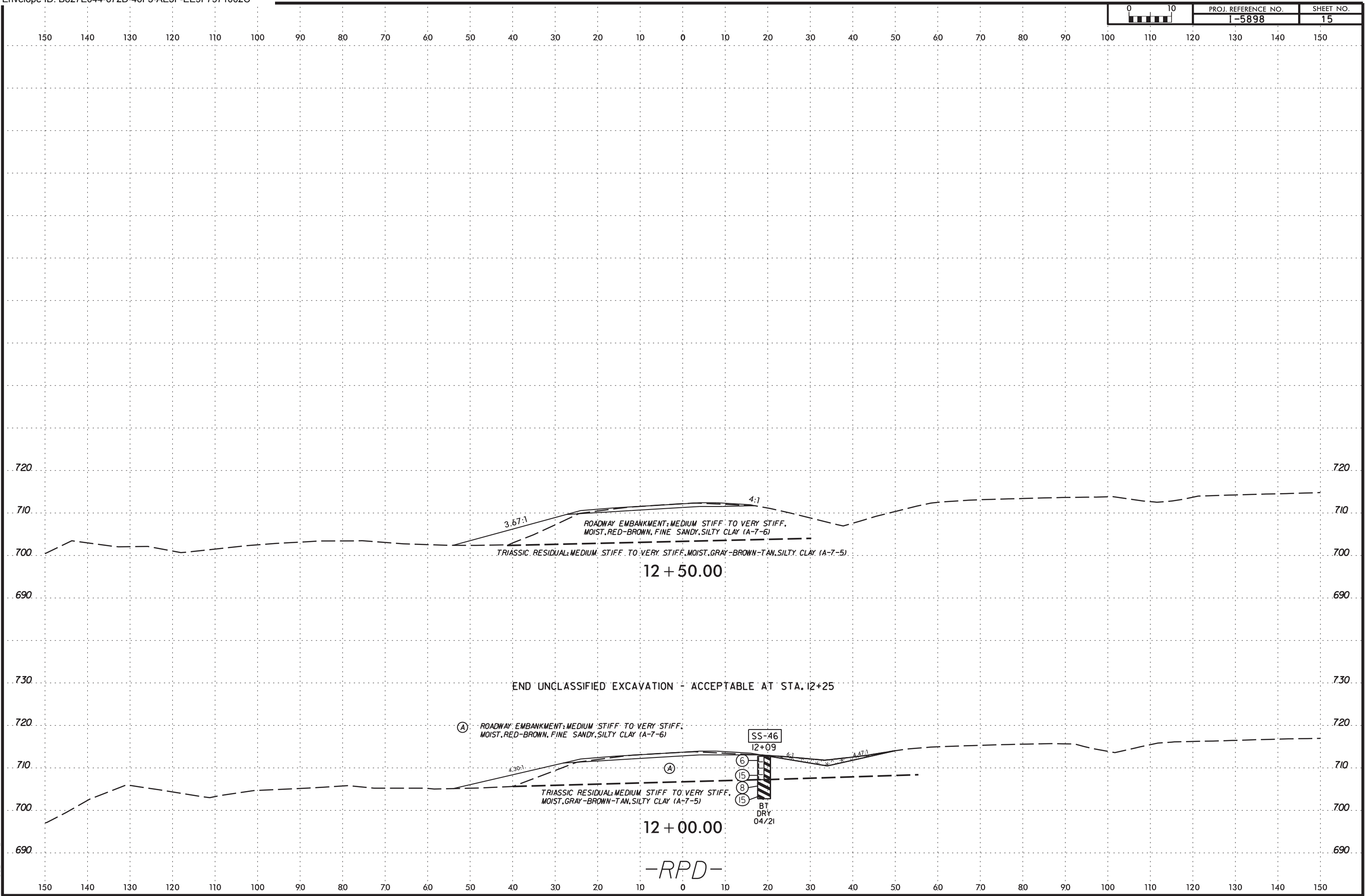
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Wood E&IS Project No.: 6234-21-0063

I-5898 NC 135/US 220 Interchange Roadway

Date Reported: 06/01/2020

NCDOT WBS No.: 46860.1.1

Tip No.: I-5898

County: Rockingham

Date Tested: 5/4/2021, 5/14/2021

SOIL TEST RESULTS																
SAMPLE NO.	STATION	OFFSET	LINE	DEPTH INTERVAL	AASHTO CLASS.	L.L.	P.I.	% BY WEIGHT				% PASSING SIEVES			% MOISTURE	% ORGANIC
								C. SAND	F. SAND	SILT	CLAY	10	40	200		
S-14	106+02	30' RT	-Y-	2.0'-3.0'	A-7-5(30)	55	25	0.2	6.8	42.7	50.3	100.0	99.9	97.9	29.2	-
SS-71	106+08	76' LT	-Y-	0.0'-1.5'	A-6(14)	38	17	10.2	11.9	34.5	43.1	99.7	93.9	82.8	21.4	-
S-16	111+69	64' LT	-Y-	0.0'-1.0'	A-7-5(25)	58	26	8.8	10.6	29.5	50.7	99.6	92.9	83.5	34.4	-
SS-133	116+53	10' LT	-Y-	0.0'-1.5'	A-6(8)	38	12	8.5	9.1	42.4	24.8	84.8	79.2	69.7	22.6	-
SS-108	117+85	16' LT	-Y-	0.0'-1.5'	A-7-5(35)	61	30	0.6	3.5	41.4	54.4	99.9	99.5	97.3	31.2	-
SS-160	125+06	52' LT	-Y-	0.0'-1.5'	A-7-6(14)	41	19	12.3	18.1	23.9	44.9	99.2	90.4	74.7	21.7	-
SS-147	10+04	20' RT	-RAMP A-	0.0'-1.5'	A-4(5)	33	9	9.6	32.2	35.6	22.5	99.9	95.7	66.5	24.3	-
SS-148	10+04	20' RT	-RAMP A-	3.5'-5.0'	A-7-5(42)	77	42	9.9	6.1	28.1	55.4	99.5	92.3	85.2	37.6	-
SS-143	12+15	13' LT	-RAMP A-	0.0'-1.5'	A-7-6(23)	50	25	6.9	13.8	7.7	71.0	99.4	94.5	84.0	24.7	-
SS-10	10+00	28' LT	-RAMP C-	3.5'-5.0'	A-7-6(19)	53	27	4.9	33.5	30.4	31.2	100.0	98.9	70.5	29.5	-
S-1	14+88	56' RT	-RAMP C-	0.0'-1.0'	A-7-6(11)	43	18	11.7	28.0	28.9	31.0	99.6	92.9	67.4	31.3	-
SS-13	16+00	40' RT	-RAMP C-	0.0'-1.5'	A-7-6(16)	47	20	10.5	17.5	37.9	33.1	99.0	92.0	76.3	24.4	-
SS-46	12+09	19' RT	-RAMP D-	3.5'-5.0'	A-7-6(30)	54	31	3.8	10.6	24.0	61.4	99.8	97.5	88.7	33.0	-
SS-40	145+04	105' RT	-L-	0.0'-1.5'	A-7-6(24)	50	27	6.2	12.5	23.3	57.9	99.9	95.7	85.3	25.1	-

ND = NOT DETERMINED
NV = NO VALUE
NP = NON-PLASTIC

	115-01-0504	Albert Romero
Signature	Certification #	Print Name