

REFERENCE: I-5986B

PROJECT: 47532

CROSS SECTIONS

LINE	STATION	SHEETS
-L-	1233+00 - 1244+50	4 - 12
-L-	1271+00 - 1275+00	13 - 16
-L-	1280+00 - 1290+00	17 - 24
-L-	1295+00 - 1299+00	25 - 29
-L-	1313+00 - 1317+00	30 - 32
-L-	1319+00 - 1329+00	33 - 40
-L-	1361+00 - 1371+00	41 - 48
-L-	1379+00 - 1382+50	49 - 52
-L-	1390+50 - 1394+50	53 - 57
-L-	1397+00 - 1401+00	58 - 61
-L-	1403+00 - 1406+50	61 - 64
-Y19RPB-	25+56.24 - 30+52.08	65 - 67
-Y28-	15+75 - 18+00	68 - 69
-Y29A-	9+50 - 34+29.08	30 - 36, 70 - 75
-Y33-	31+85 - 38+12	51 - 60, 76 - 81
-SR17-	48+80.99 - 60+28.34	4 - 12, 82 - 87
-SR19-	12+02.79 - 23+48.68	4 - 12, 88 - 95

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

ROADWAY
SUBSURFACE INVESTIGATION

COUNTY CUMBERLAND, HARNETT, AND JOHNSTON
 PROJECT DESCRIPTION I-95 FROM NORTH OF SR 1002
(LONG BRANCH ROAD) (EXIT 71) TO I-40 (EXIT 81)
WIDEN TO 8 LANES
 SITE DESCRIPTION SECTION 4 of 4; I-5986B PORTION,
-L- STATION 1232 + 00 TO 1410 + 00.00

RECOMMENDATIONS

STATE	STATE PROJECT REFERENCE NO.	SHEET NO.	TOTAL SHEETS
N.C.	I-5986B	1	95

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:
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	PERSONNEL
<u>E. BLONSHINE</u>	<u>T. WILLIAMS</u>
<u>G. GOSLIN</u>	<u>A. RODRIGUEZ</u>
<u>M. HARTMAN</u>	<u>T. WHITEHEAD</u>
<u>H. CAMP</u>	<u>J. WHITE</u>
<u>J. PREVATTE</u>	
<u>J. SWARTLEY</u>	
<u>J. WHITE</u>	

INVESTIGATED BY S&ME, INC.
 DRAWN BY C. CHANDLER
 CHECKED BY K. HILL
 SUBMITTED BY S. MITCHELL
 DATE MAY 2020

 9751 SOUTHERN PINE BLVD
 CHARLOTTE, NC 28273
 (704) 523-4726



DocuSigned by:
Stacie Mitchell 5/1/2020
 BBC641B64F19458 SIGNATURE DATE

**DOCUMENT NOT CONSIDERED FINAL
 UNLESS ALL SIGNATURES COMPLETED**

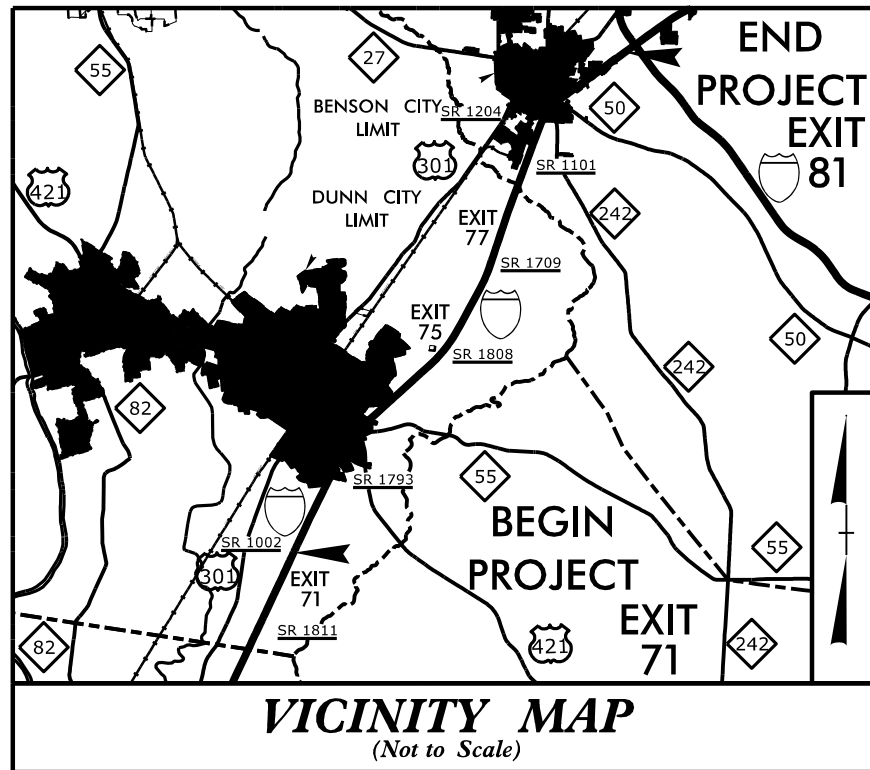
NORTH CAROLINA DEPARTMENT OF TRANSPORTATION
DIVISION OF HIGHWAYS
GEOTECHNICAL ENGINEERING UNIT
SUBSURFACE INVESTIGATION
SOIL AND ROCK LEGEND, TERMS, SYMBOLS, AND ABBREVIATIONS

SOIL DESCRIPTION										GRADATION										ROCK DESCRIPTION										TERMS AND DEFINITIONS																																																												
<p>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, VERY STIFF, GRAY, SILTY CLAY, MOIST WITH INTERBEDDED FINE SAND LAYERS, HIGHLY PLASTIC, A-7-6</p>										<p>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.</p>										<p>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:</p>										<p>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 DISLOADED 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 (ROD) - 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 (IN 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 (SROD) - 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.</p>																																																												
SOIL LEGEND AND AASHTO CLASSIFICATION										ANGULARITY OF GRAINS										WEATHERED ROCK (WR)										CRYSTALLINE ROCK (CR)																																																												
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<p>MINERAL NAMES SUCH AS QUARTZ, FELDSPAR, MICA, TALC, KAOLIN, ETC. ARE USED IN DESCRIPTIONS WHEN THEY ARE CONSIDERED OF SIGNIFICANCE.</p>										<p>SLIGHTLY COMPRESSIBLE LL < 31 MODERATELY COMPRESSIBLE LL = 31 - 50 HIGHLY COMPRESSIBLE LL > 50</p>										<p>FINE TO COARSE GRAIN METAMORPHIC AND NON-COASTAL PLAIN SEDIMENTARY ROCK THAT WOULD YIELD SPT REFUSAL IF TESTED. ROCK TYPE INCLUDES PHYLLITE, SLATE, SANDSTONE, ETC.</p>										<p>COASTAL PLAIN SEDIMENTS CEMENTED INTO ROCK, BUT MAY NOT YIELD SPT REFUSAL. ROCK TYPE INCLUDES LIMESTONE, SANDSTONE, CEMENTED SHELL BEDS, ETC.</p>																																																												
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SOIL MOISTURE - CORRELATION OF TERMS										EQUIPMENT USED ON SUBJECT PROJECT										FRACTURE SPACING										BEDDING																																																												
<table border="1" style="width: 100%; border-collapse: collapse;"> <tr> <th>SOIL MOISTURE SCALE (ATTERBERG LIMITS)</th> <th>FIELD MOISTURE DESCRIPTION</th> <th>GUIDE FOR FIELD MOISTURE DESCRIPTION</th> </tr> <tr> <td>LL - LIQUID LIMIT</td> <td>- SATURATED - (SAT.)</td> <td>USUALLY LIQUID; VERY WET, USUALLY FROM BELOW THE GROUND WATER TABLE</td> </tr> <tr> <td>PLASTIC RANGE (PI)</td> <td>- WET - (W)</td> <td>SEMISOLID; REQUIRES DRYING TO ATTAIN OPTIMUM MOISTURE</td> </tr> <tr> <td>OM - OPTIMUM MOISTURE SHRINKAGE LIMIT</td> <td>- MOIST - (M)</td> <td>SOLID; AT OR NEAR OPTIMUM MOISTURE</td> </tr> <tr> <td>SL - SHRINKAGE LIMIT</td> <td>- DRY - (D)</td> <td>REQUIRES ADDITIONAL WATER TO ATTAIN OPTIMUM MOISTURE</td> </tr> </table>										SOIL MOISTURE SCALE (ATTERBERG LIMITS)	FIELD MOISTURE DESCRIPTION	GUIDE FOR FIELD MOISTURE DESCRIPTION	LL - LIQUID LIMIT	- SATURATED - (SAT.)	USUALLY LIQUID; VERY WET, USUALLY FROM BELOW THE GROUND WATER TABLE	PLASTIC RANGE (PI)	- WET - (W)	SEMISOLID; REQUIRES DRYING TO ATTAIN OPTIMUM MOISTURE	OM - OPTIMUM MOISTURE SHRINKAGE LIMIT	- MOIST - (M)	SOLID; AT OR NEAR OPTIMUM MOISTURE	SL - SHRINKAGE LIMIT	- DRY - (D)	REQUIRES ADDITIONAL WATER TO ATTAIN OPTIMUM MOISTURE	<p>DRILL UNITS: <input type="checkbox"/> CME-45C <input type="checkbox"/> CME-55 <input checked="" type="checkbox"/> CME-550 <input type="checkbox"/> VANE SHEAR TEST <input type="checkbox"/> PORTABLE HOIST <input checked="" type="checkbox"/> DIEDRICH D-50</p>										<p>ADVANCING TOOLS: <input type="checkbox"/> CLAY BITS <input type="checkbox"/> 6" CONTINUOUS FLIGHT AUGER <input checked="" type="checkbox"/> 8" HOLLOW AUGERS <input type="checkbox"/> HARD FACED FINGER BITS <input type="checkbox"/> TUNG-CARBIDE INSERTS <input checked="" type="checkbox"/> CASING <input type="checkbox"/> W/ ADVANCER <input checked="" type="checkbox"/> TRICONE 2 1/16" STEEL TEETH <input type="checkbox"/> TRICONE " TUNG-CARB. <input type="checkbox"/> CORE BIT</p>										<p>TERM SPACING VERY WIDE MORE THAN 10 FEET WIDE 3 TO 10 FEET MODERATELY CLOSE 1 TO 3 FEET CLOSE 0.16 TO 1 FOOT VERY CLOSE LESS THAN 0.16 FEET</p>										<p>TERM THICKNESS VERY THICKLY BEDDED 4 FEET THICKLY BEDDED 1.5 - 4 FEET THINLY BEDDED 0.16 - 1.5 FEET VERY THINLY BEDDED 0.03 - 0.16 FEET THICKLY LAMINATED 0.008 - 0.03 FEET THINLY LAMINATED < 0.008 FEET</p>																																			
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PLASTICITY										INDURATION										BENCH MARK: * SEE NOTE										ELEVATION: FEET																																																												
<table border="1" style="width: 100%; border-collapse: collapse;"> <tr> <th>NON PLASTIC</th> <th colspan="2">PLASTICITY INDEX (PI)</th> <th>DRY STRENGTH</th> </tr> <tr> <td>SLIGHTLY PLASTIC</td> <td>0-5</td> <td></td> <td>VERY LOW</td> </tr> <tr> <td>MODERATELY PLASTIC</td> <td>6-15</td> <td></td> <td>SLIGHT</td> </tr> <tr> <td>HIGHLY PLASTIC</td> <td>16-25</td> <td></td> <td>MEDIUM</td> </tr> <tr> <td></td> <td>26 OR MORE</td> <td></td> <td>HIGH</td> </tr> </table>										NON PLASTIC	PLASTICITY INDEX (PI)		DRY STRENGTH	SLIGHTLY PLASTIC	0-5		VERY LOW	MODERATELY PLASTIC	6-15		SLIGHT	HIGHLY PLASTIC	16-25		MEDIUM		26 OR MORE		HIGH	<p>FOR SEDIMENTARY ROCKS, INDURATION IS THE HARDENING OF MATERIAL BY CEMENTING, HEAT, PRESSURE, ETC. FRIABLE RUBBING WITH FINGER FREES NUMEROUS GRAINS; GENTLE BLOW BY HAMMER DISINTEGRATES SAMPLE. MODERATELY INDURATED GRAINS CAN BE SEPARATED FROM SAMPLE WITH STEEL PROBE; BREAKS EASILY WHEN HIT WITH HAMMER. INDURATED GRAINS ARE DIFFICULT TO SEPARATE WITH STEEL PROBE; DIFFICULT TO BREAK WITH HAMMER. EXTREMELY INDURATED SHARP HAMMER BLOWS REQUIRED TO BREAK SAMPLE; SAMPLE BREAKS ACROSS GRAINS.</p>										<p>NOTES: * Elevations derived from geopak and the .tin file I5896b.2.ls.tin.tin dated 06/18/18</p>										<p>FOR SEDIMENTARY ROCKS, INDURATION IS THE HARDENING OF MATERIAL BY CEMENTING, HEAT, PRESSURE, ETC.</p>																																								
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COLOR										EQUIPMENT USED ON SUBJECT PROJECT										BENCH MARK: * SEE NOTE										ELEVATION: FEET																																																												
<p>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.</p>										<p>DRILL UNITS: <input checked="" type="checkbox"/> CME-45C <input type="checkbox"/> CME-55 <input checked="" type="checkbox"/> CME-550 <input type="checkbox"/> VANE SHEAR TEST <input type="checkbox"/> PORTABLE HOIST <input checked="" type="checkbox"/> DIEDRICH D-50</p>										<p>ADVANCING TOOLS: <input type="checkbox"/> CLAY BITS <input type="checkbox"/> 6" CONTINUOUS FLIGHT AUGER <input checked="" type="checkbox"/> 8" HOLLOW AUGERS <input type="checkbox"/> HARD FACED FINGER BITS <input type="checkbox"/> TUNG-CARBIDE INSERTS <input checked="" type="checkbox"/> CASING <input type="checkbox"/> W/ ADVANCER <input checked="" type="checkbox"/> TRICONE 2 1/16" STEEL TEETH <input type="checkbox"/> TRICONE " TUNG-CARB. <input type="checkbox"/> CORE BIT</p>										<p>HAMMER TYPE: <input checked="" type="checkbox"/> AUTOMATIC <input type="checkbox"/> MANUAL CORE SIZE: <input type="checkbox"/> -B <input type="checkbox"/> -H <input type="checkbox"/> -N HAND TOOLS: <input type="checkbox"/> POST HOLE DIGGER <input type="checkbox"/> HAND AUGER <input type="checkbox"/> SOUNDING ROD <input type="checkbox"/> VANE SHEAR TEST</p>										<p>TERM SPACING VERY WIDE MORE THAN 10 FEET WIDE 3 TO 10 FEET MODERATELY CLOSE 1 TO 3 FEET CLOSE 0.16 TO 1 FOOT VERY CLOSE LESS THAN 0.16 FEET</p>										<p>TERM THICKNESS VERY THICKLY BEDDED 4 FEET THICKLY BEDDED 1.5 - 4 FEET THINLY BEDDED 0.16 - 1.5 FEET VERY THINLY BEDDED 0.03 - 0.16 FEET THICKLY LAMINATED 0.008 - 0.03 FEET THINLY LAMINATED < 0.008 FEET</p>																																								

09/08/19

TIP PROJECT: I-5986B

See Sheet 1A For Index of Sheets
See Sheet 1B For Conventional Symbols



STATE OF NORTH CAROLINA
DIVISION OF HIGHWAYS

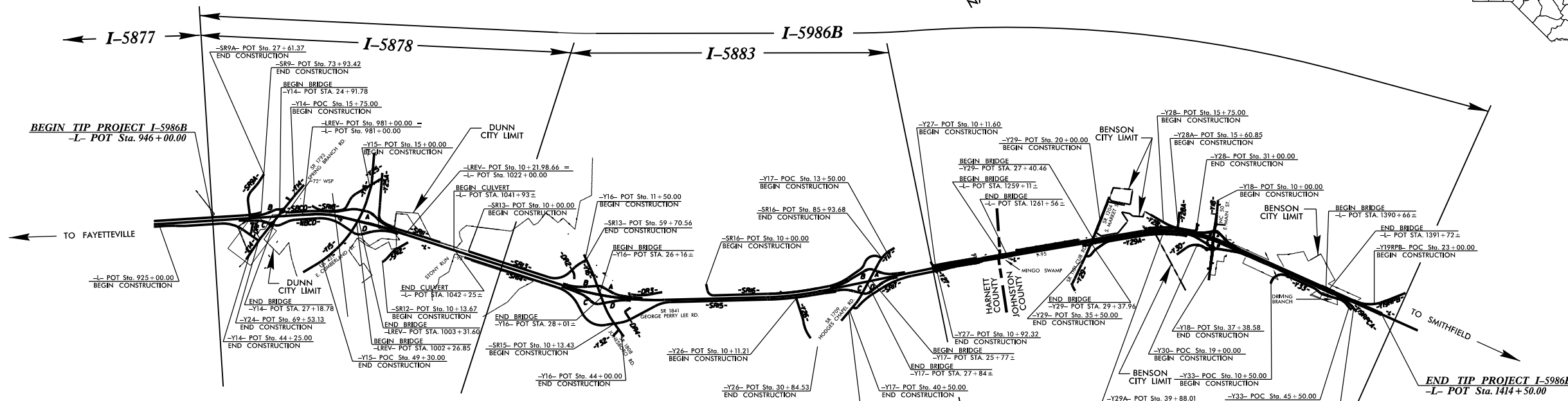
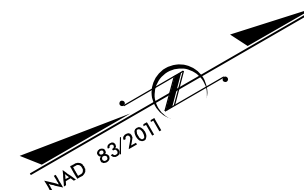
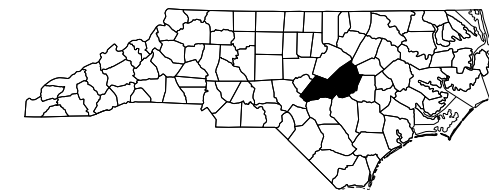
HARNETT AND JOHNSTON COUNTIES

LOCATION: I-95 FROM NORTH OF SR 1002 (LONG BRANCH ROAD)
(EXIT 71) TO I-40 (EXIT 81). WIDEN TO EIGHT LANES.

TYPE OF WORK: GRADING, PAVING, DRAINAGE, SIGNALS, CULVERTS,
AND STRUCTURES

STATE	STATE PROJECT REFERENCE NO.	SHEET NO.	TOTAL SHEETS
N.C.	I-5986B	3	95
PROJ. REFERENCE NO.	STATE PROJ. NO.	F.A. PROJ. NO.	DESCRIPTION
I-5986B	47532.1.3		PE
I-5986B	47532.2.3		R/W
I-5878	53078.1.1	NHPP-0095(007)73	PE
I-5878	53078.1.2		PE
I-5878	53078.2.1		R/W
I-5878	53078.2.2	NHPP-0095(017)73	R/W
I-5883	53083.1.1	NHPP-0095(033)74	PE
I-5883	53083.1.2		PE
I-5883	53083.2.1		R/W
I-5883	53083.2.2	NHPP-0095(033)74	R/W

FDPI PLANS
(Northern Section)



NOTES:

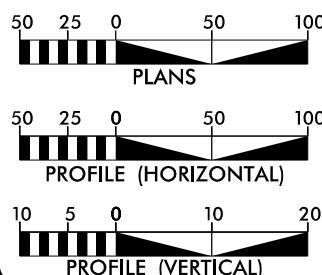
1. THIS IS A CONTROLLED-ACCESS PROJECT WITH ACCESS BEING LIMITED TO INTERCHANGES.
2. CLEARING ON THIS PROJECT SHALL BE PERFORMED TO THE LIMITS ESTABLISHED BY METHOD II & III.
3. A PORTION OF THIS PROJECT IS WITHIN DUNN AND BENSON MUNICIPAL BOUNDARIES.

INCOMPLETE PLANS
DO NOT USE FOR R/W ACQUISITION

DOCUMENT NOT CONSIDERED FINAL
UNLESS ALL SIGNATURES COMPLETED

CONTRACT:

GRAPHIC SCALES



DESIGN DATA

ADT 2020 = 58,900
ADT 2040 = 75,700
K = 7 %
D = 55 %
T = 24 % *
V = 70 MPH
* (17% TTST + 7% DUALS)
FUNC CLASS =
INTERSTATE
STATEWIDE TIER

PROJECT LENGTH

LENGTH ROADWAY TIP PROJECT I 5986B = 8.806 MILES
LENGTH STRUCTURE TIP PROJECT I-5986B = 0.067 MILES
TOTAL LENGTH TIP PROJECT I-5986B = 8.873 MILES

Prepared in the Office of:
Michael Baker
Michael Baker Engineering, Inc.
8000 Regency Parkway, Suite 600
Cary, NC 27518
Professional Corporation License Number:
F-1084

FOR DIVISION OF HIGHWAYS

2018 STANDARD SPECIFICATIONS

RIGHT OF WAY DATE:
AUGUST 16, 2019

LETTING DATE:
JULY 21, 2020

SUSAN C. LANCASTER, P.E.
PROJECT ENGINEER

TERRY A. HARRIS, P.E.
PROJECT DESIGN ENGINEER

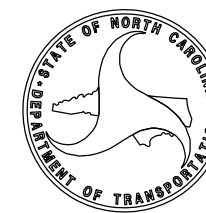
STEVE D. KENDALL, P.E.
NCDOT CONTACT

HYDRAULICS ENGINEER

SIGNATURE: _____ P.E.

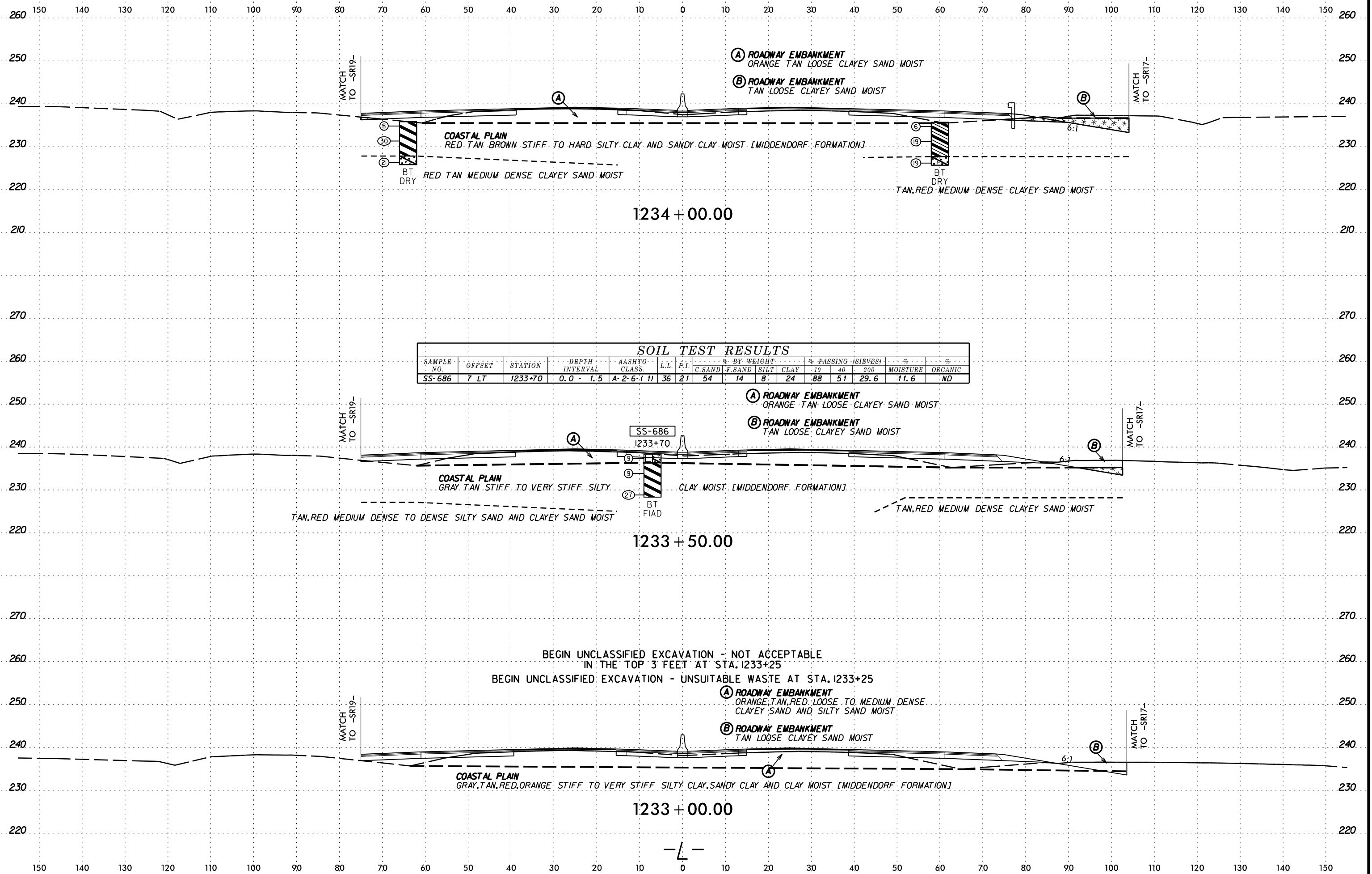
ROADWAY DESIGN
ENGINEER

SIGNATURE: _____ P.E.



\$\$\$\$\$SYTIME\$\$\$\$\$
\$\$\$\$\$DDGN\$\$\$\$\$
\$\$\$\$\$USRNAME\$\$\$\$\$

6/23/16

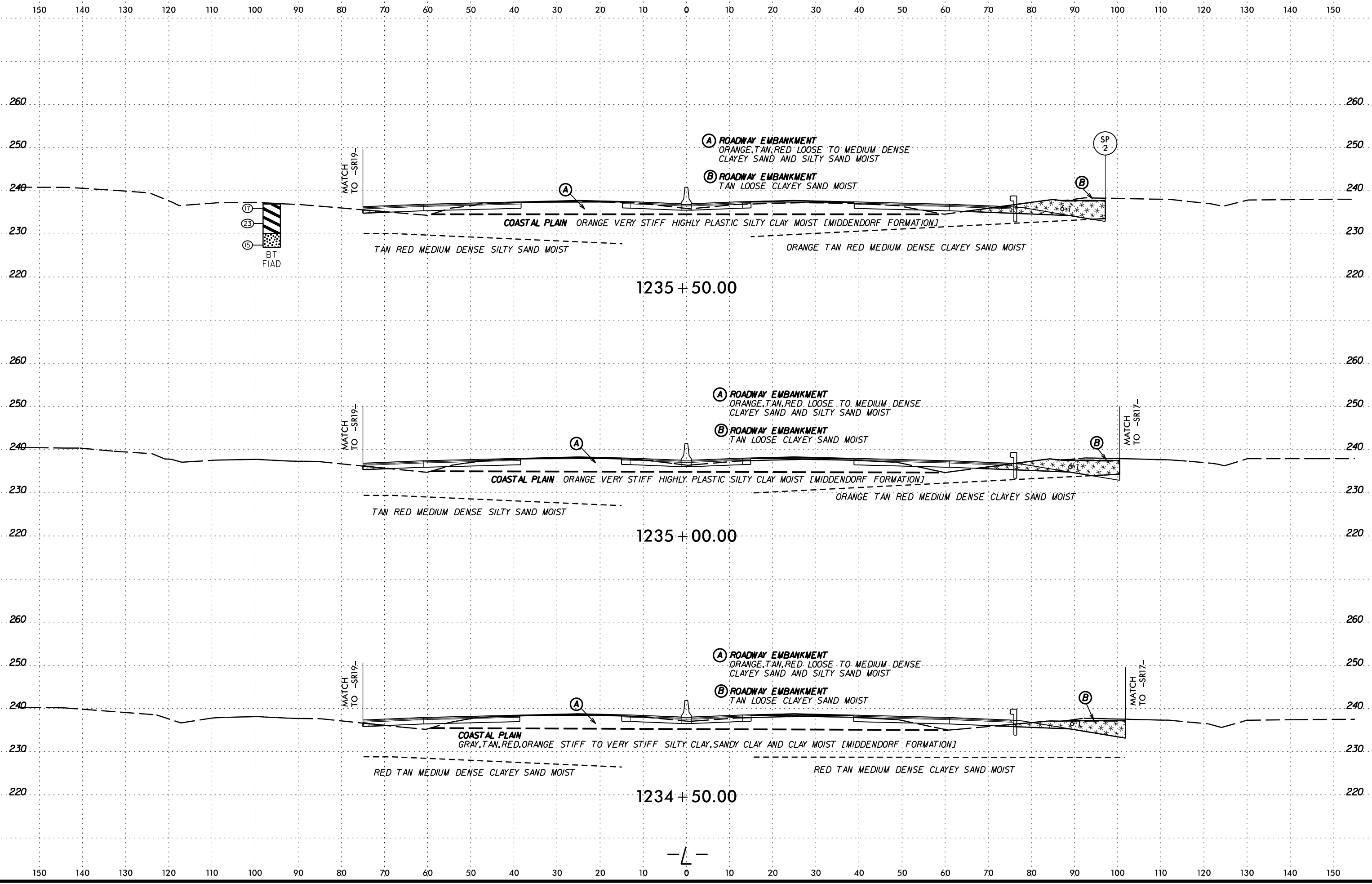


SOIL TEST RESULTS															
SAMPLE NO.	OFFSET	STATION	DEPTH INTERVAL	AASHTO CLASS.	L.L.	P.L.	% BY WEIGHT				% PASSING (SIEVES)			MOISTURE	ORGANIC
							C.SAND	F.SAND	SILT	CLAY	10	40	200		
SS-686	7 LT	1233+70	0.0 - 1.5	A-2-6-(1)	36	21	54	14	8	24	88	51	29.6	11.6	ND

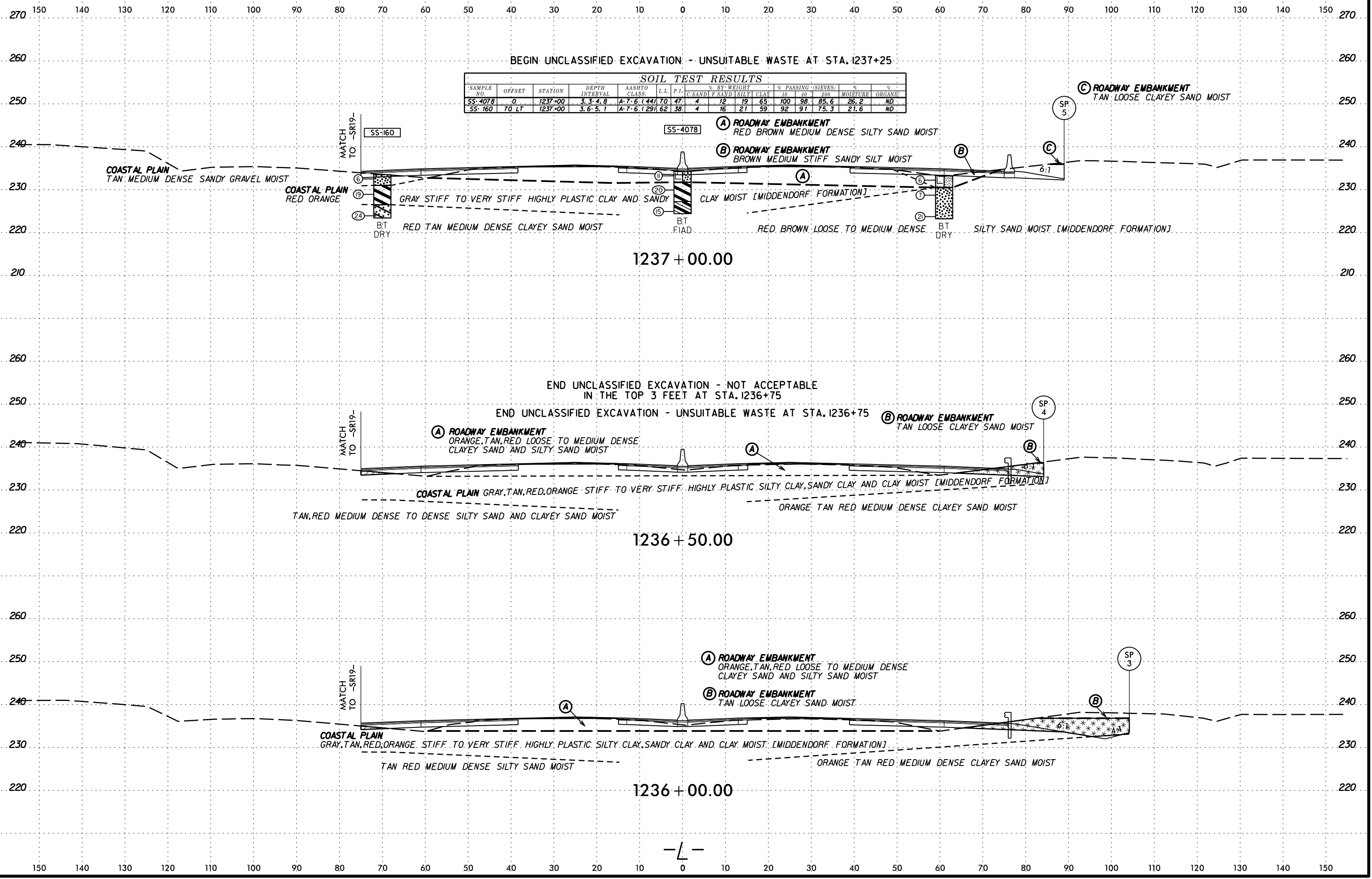
BEGIN UNCLASSIFIED EXCAVATION - NOT ACCEPTABLE
IN THE TOP 3 FEET AT STA. 1233+25

BEGIN UNCLASSIFIED EXCAVATION - UNSUITABLE WASTE AT STA. 1233+25

SYTIME
CON
JULY
1996



SYTIME
CON
ARRANGE



BEGIN UNCLASSIFIED EXCAVATION - UNSUITABLE WASTE AT STA. 1237+25

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			
SS-4078	0	1237+00	3.3-4.8	A-7-6 (44)	70	47	4	12	19	65	100	98	85.6	26.2	ND
SS-160	70 LT	1237+00	3.6-5.1	A-7-6 (29)	62	38	4	16	21	59	92	91	75.3	21.6	ND

C ROADWAY EMBANKMENT TAN LOOSE CLAYEY SAND MOIST

A ROADWAY EMBANKMENT RED BROWN MEDIUM DENSE SILTY SAND MOIST

B ROADWAY EMBANKMENT BROWN MEDIUM STIFF SANDY SILT MOIST

COASTAL PLAIN TAN MEDIUM DENSE SANDY GRAVEL MOIST

COASTAL PLAIN RED ORANGE

GRAY STIFF TO VERY STIFF HIGHLY PLASTIC CLAY AND SANDY

CLAY MOIST [MIDDENDORF FORMATION]

BT DRY RED TAN MEDIUM DENSE CLAYEY SAND MOIST

BT FIAD RED BROWN LOOSE TO MEDIUM DENSE

BT DRY SILTY SAND MOIST [MIDDENDORF FORMATION]

1237 + 00.00

END UNCLASSIFIED EXCAVATION - NOT ACCEPTABLE IN THE TOP 3 FEET AT STA. 1236+75

END UNCLASSIFIED EXCAVATION - UNSUITABLE WASTE AT STA. 1236+75

A ROADWAY EMBANKMENT ORANGE, TAN, RED LOOSE TO MEDIUM DENSE CLAYEY SAND AND SILTY SAND MOIST

B ROADWAY EMBANKMENT TAN LOOSE CLAYEY SAND MOIST

TAN, RED MEDIUM DENSE TO DENSE SILTY SAND AND CLAYEY SAND MOIST

COASTAL PLAIN GRAY, TAN, RED, ORANGE STIFF TO VERY STIFF HIGHLY PLASTIC SILTY CLAY, SANDY CLAY AND CLAY MOIST [MIDDENDORF FORMATION]

ORANGE TAN RED MEDIUM DENSE CLAYEY SAND MOIST

1236 + 50.00

A ROADWAY EMBANKMENT ORANGE, TAN, RED LOOSE TO MEDIUM DENSE CLAYEY SAND AND SILTY SAND MOIST

B ROADWAY EMBANKMENT TAN LOOSE CLAYEY SAND MOIST

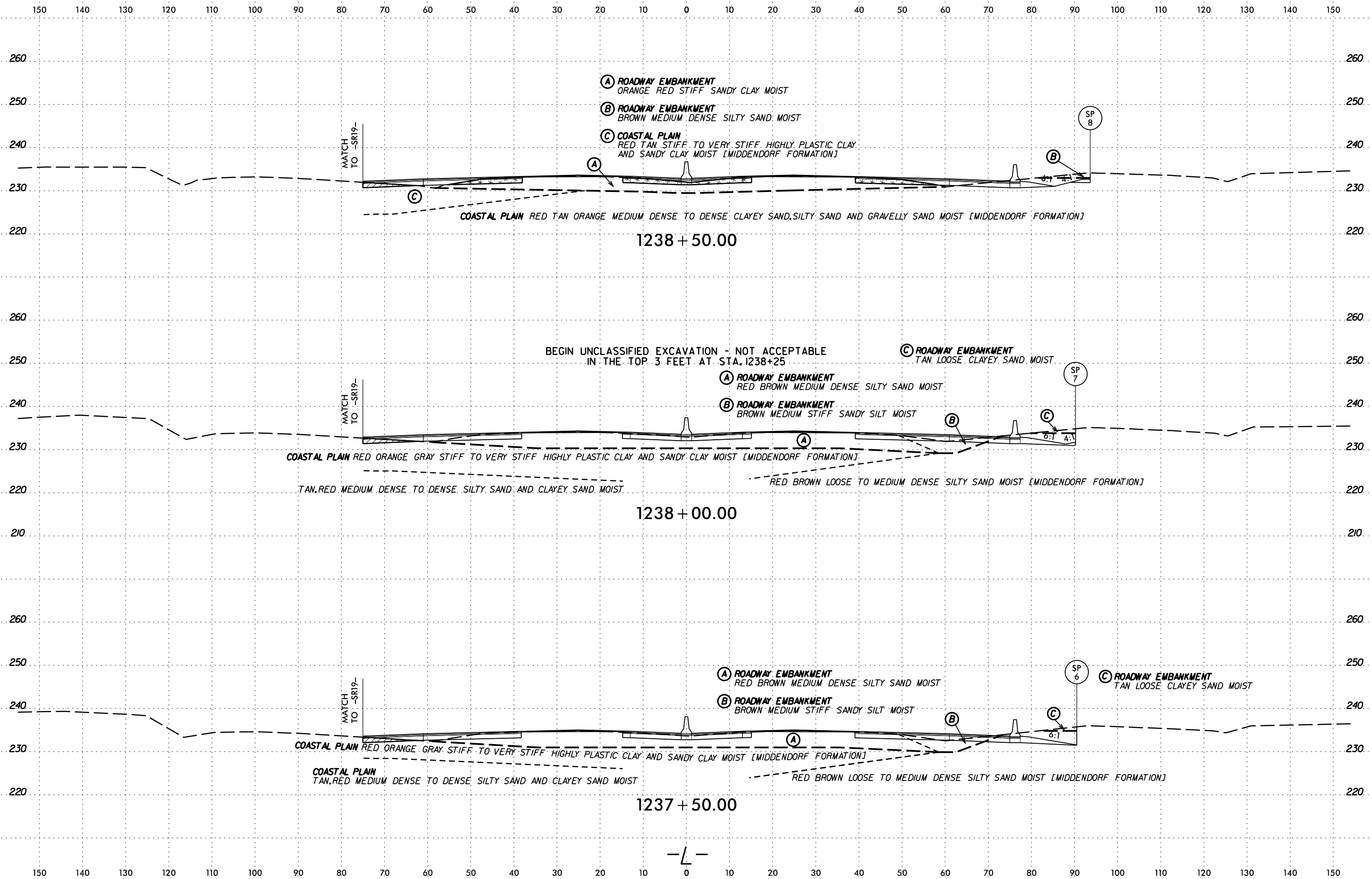
COASTAL PLAIN GRAY, TAN, RED, ORANGE STIFF TO VERY STIFF HIGHLY PLASTIC SILTY CLAY, SANDY CLAY AND CLAY MOIST [MIDDENDORF FORMATION]

TAN RED MEDIUM DENSE SILTY SAND MOIST

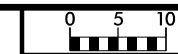
ORANGE TAN RED MEDIUM DENSE CLAYEY SAND MOIST

1236 + 00.00

SCHEMATIC CROSS SECTION OF ROADWAY EMBANKMENT



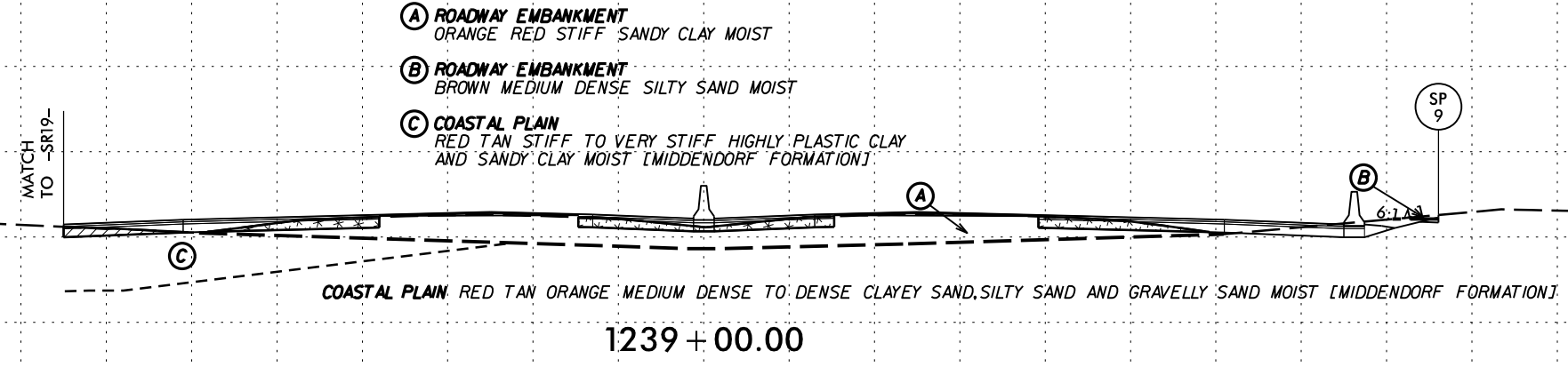
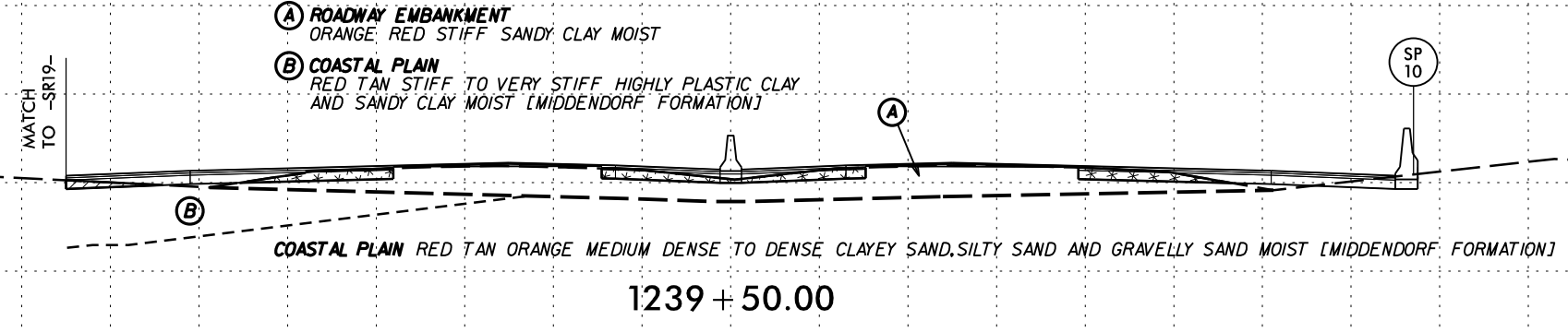
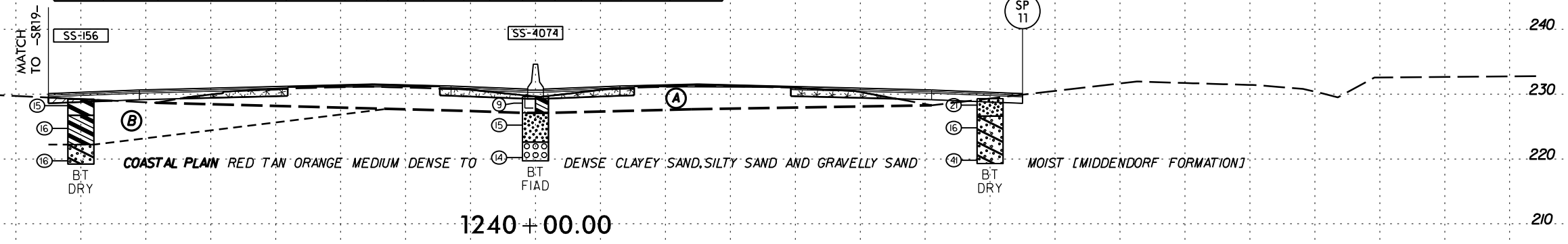
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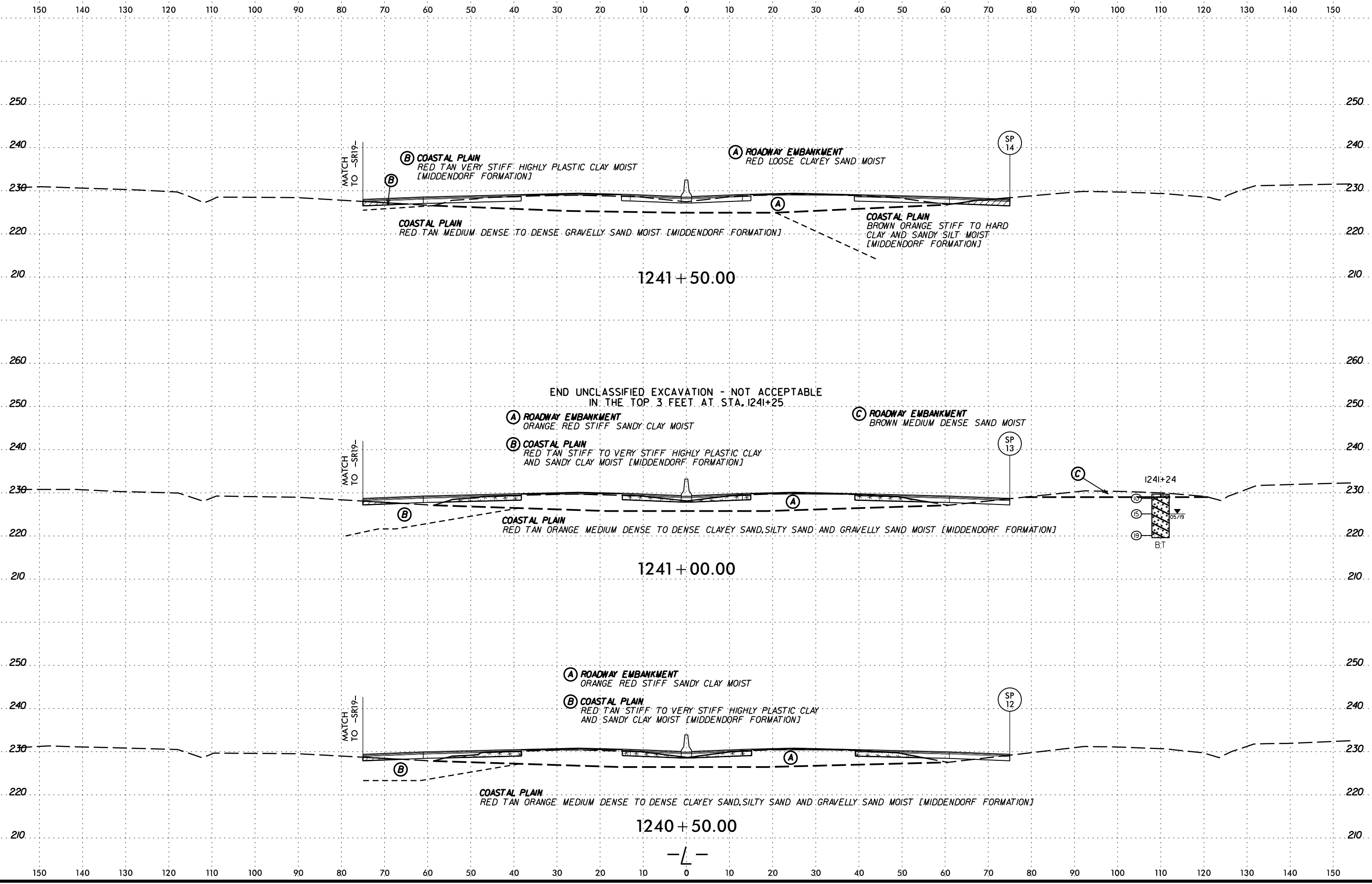
SAMPLE NO.	OFFSET	STATION	DEPTH INTERVAL	AASHTO CLASS	LL	PI	% BY WEIGHT					% PASSING (SIEVES)		% MOISTURE	% ORGANIC	
								% SAND	% FINE SAND	% SILT	% CLAY	#10	#40	#200		
SS-4074	0	1240+00	0'-1.5'	A-6 (3)	37	19	46	17	7	30	100	68	38.5	14	ND	
SS-156	70 LT.	1240+00	0.0'-1.5'	A-7-6 (7)	65	40	56	8	3	33	100	57	36.2	16.4	ND	

(A) ROADWAY EMBANKMENT
ORANGE RED STIFF SANDY CLAY MOIST

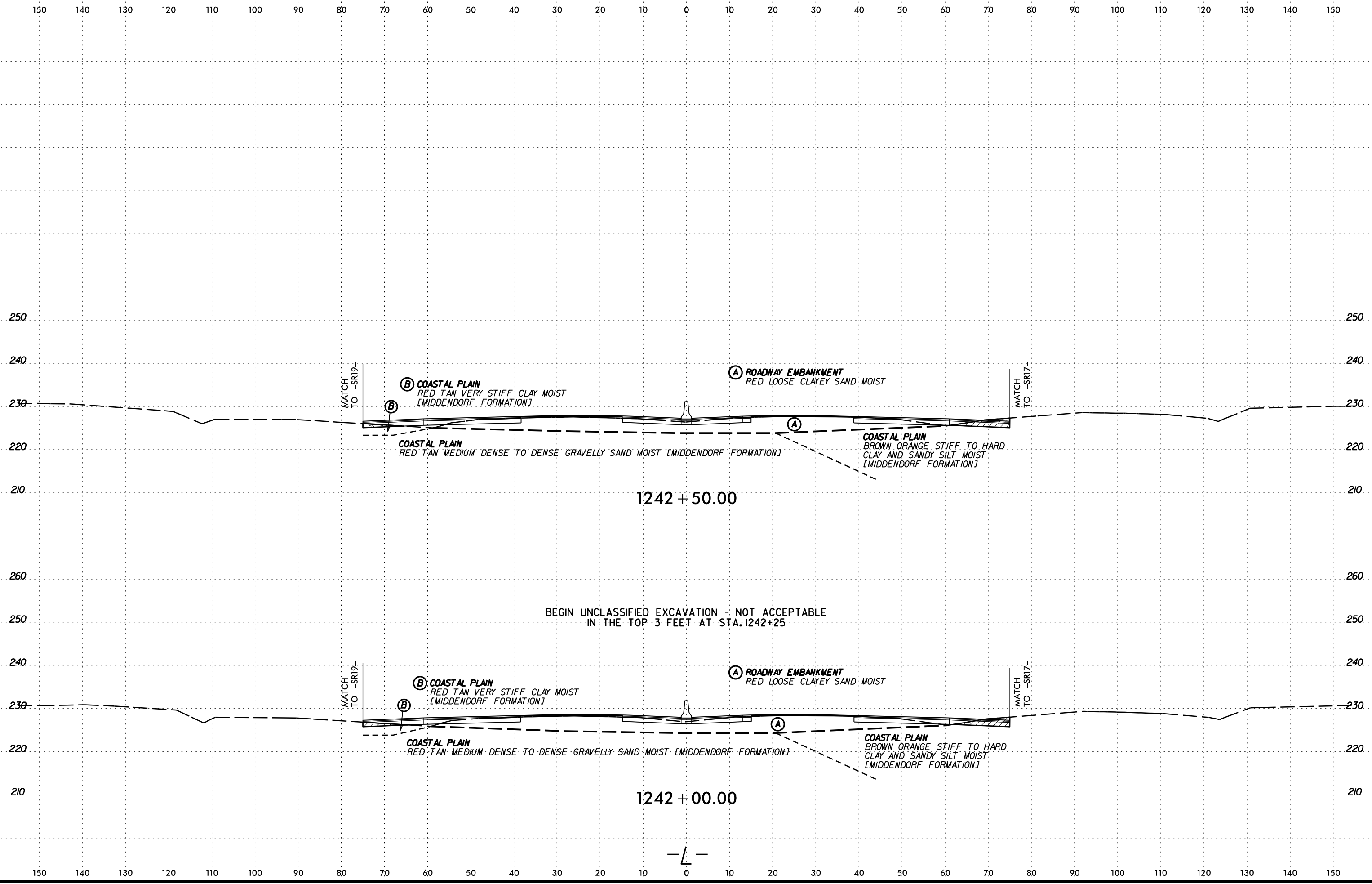
(B) COASTAL PLAIN
RED TAN STIFF TO VERY STIFF HIGHLY PLASTIC CLAY AND SANDY CLAY MOIST [MIDDENDORF FORMATION]



6/23/16
SCHEMATIC SECTION
UNITS: HORIZONTAL FEET, VERTICAL FEET
DATE: 06/23/16

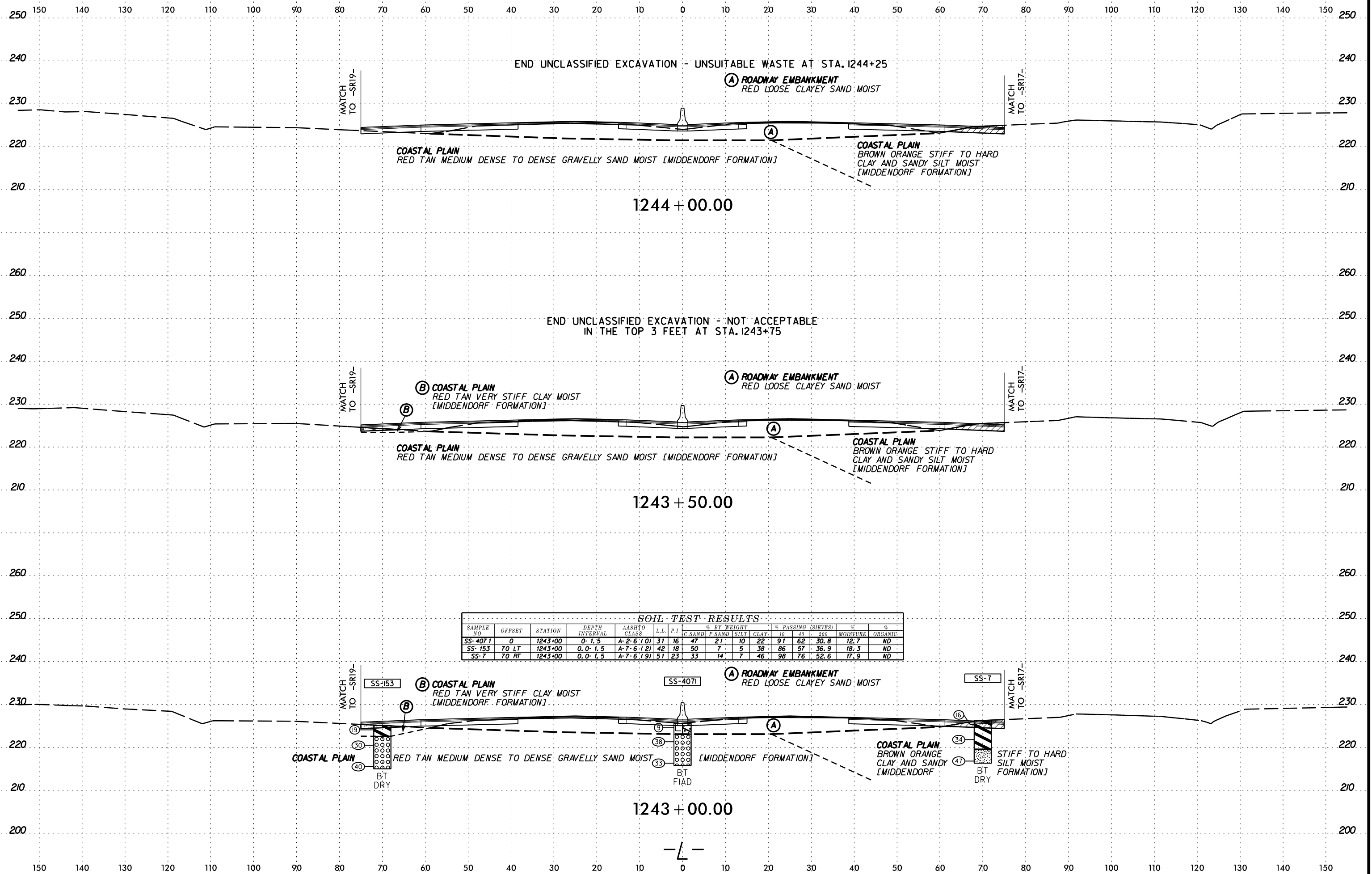


SECTION 1240+50.00 TO 1241+50.00



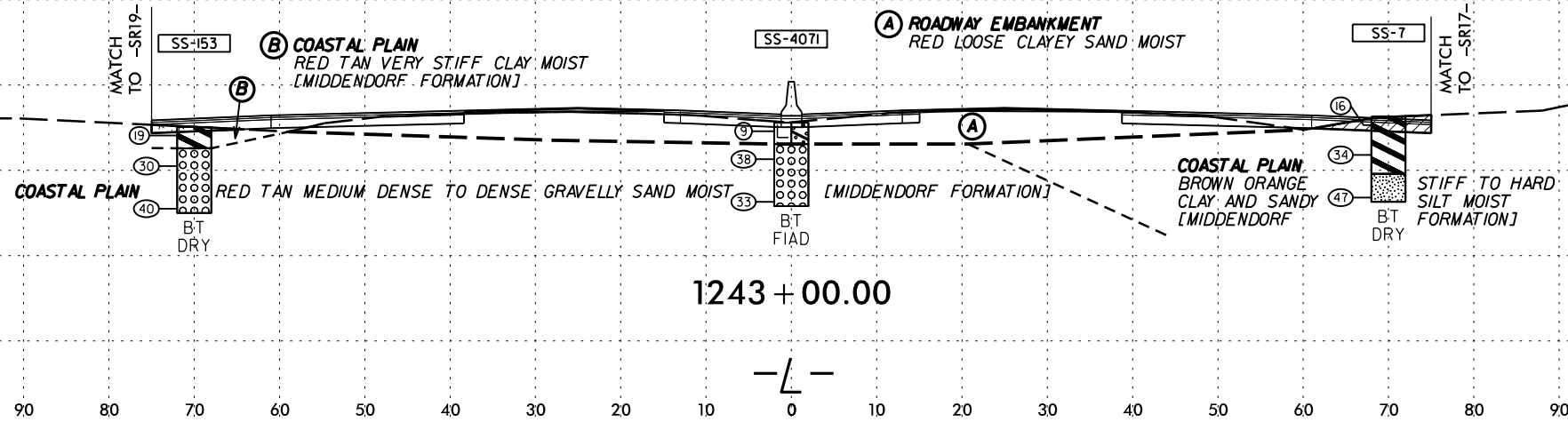
SECTION CUTLINE

6/23/16



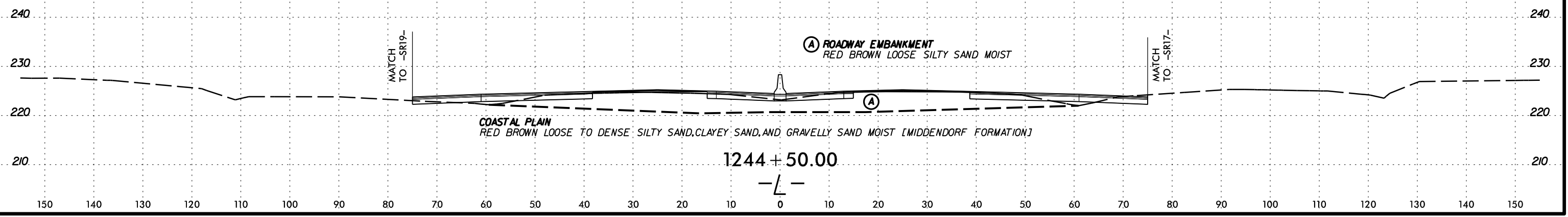
SOIL TEST RESULTS

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-4071	0	1243+00	0'-1.5	A-2-6 (10)	31	16	47	21	10	22	91	62	30.8	12.7	ND
SS-153	70-LT	1243+00	0'-1.5	A-7-6 (12)	42	18	50	7	5	38	86	57	36.9	18.3	ND
SS-7	70-RT	1243+00	0'-1.5	A-7-6 (19)	51	23	33	14	7	46	98	76	52.6	17.9	ND

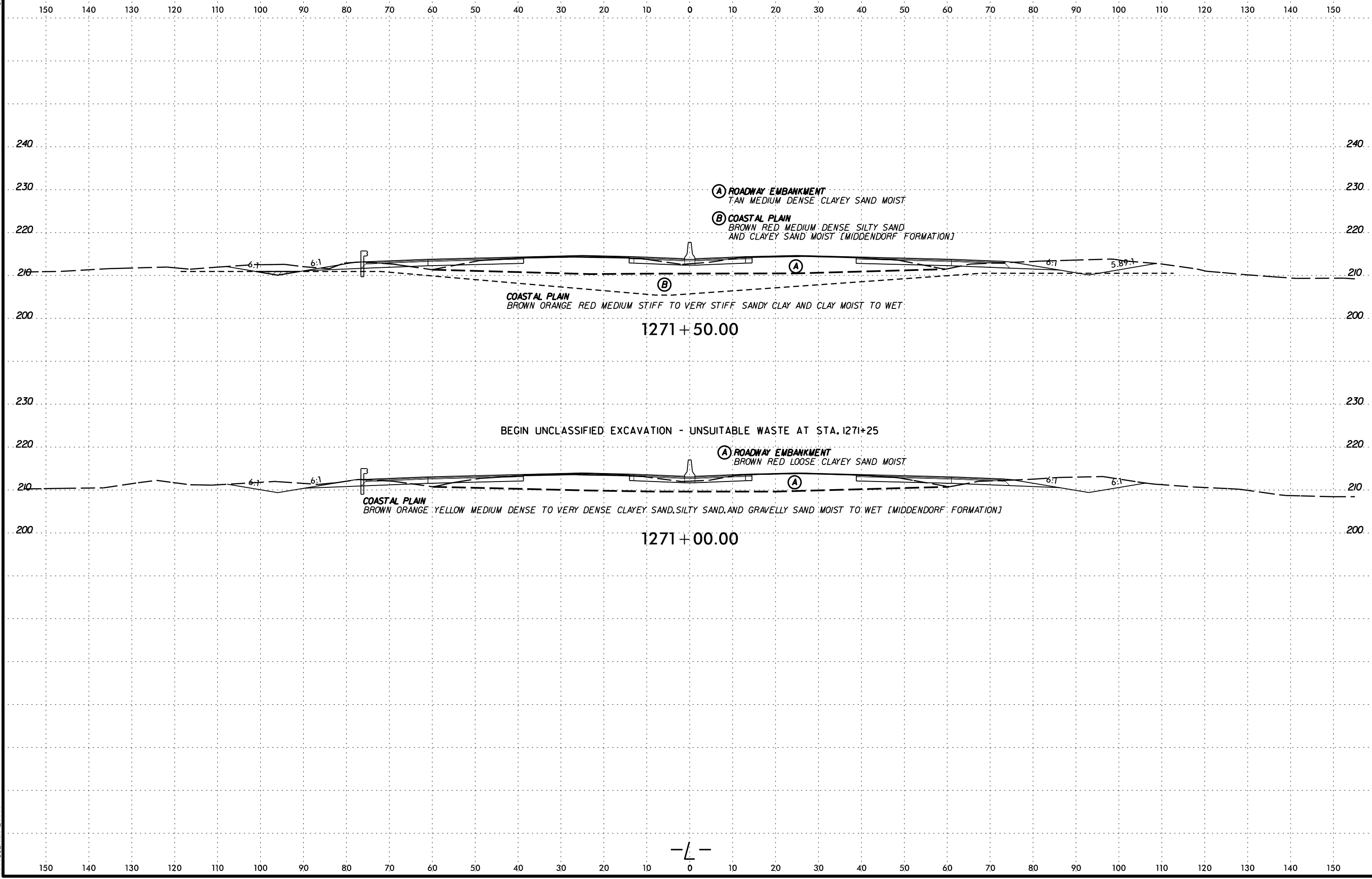


6/23/16

150 140 130 120 110 100 90 80 70 60 50 40 30 20 10 0 10 20 30 40 50 60 70 80 90 100 110 120 130 140 150



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DATE: 6/23/16
DRAWN BY: [illegible]
CHECKED BY: [illegible]
SCALE: AS SHOWN

BEGIN UNCLASSIFIED EXCAVATION - NOT ACCEPTABLE
IN THE TOP 3 FEET AT STA. 1273+25

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	200			
SS-4624	6 LT	1273+00	0-1.5	A-2-6 (0)	33	17	51	17	5	27	87	55	29.8	10.2	ND
SS-115	74 LT	1273+00	3.6-5.1	A-7-6 (7)	52	24	42	10	3	45	95	74	46.4	25.5	ND

SS-115

SS-4624

(A) ROADWAY EMBANKMENT
TAN MEDIUM DENSE CLAYEY SAND MOIST

(B) COASTAL PLAIN
BROWN RED MEDIUM DENSE SILTY SAND
AND CLAYEY SAND MOIST [MIDDENDORF FORMATION]

COASTAL PLAIN
BROWN ORANGE RED MEDIUM STIFF TO

VERY STIFF SANDY CLAY AND CLAY MOIST TO WET

1273 + 00.00

(A) ROADWAY EMBANKMENT
TAN MEDIUM DENSE CLAYEY SAND MOIST

(B) COASTAL PLAIN
BROWN RED MEDIUM DENSE SILTY SAND
AND CLAYEY SAND MOIST [MIDDENDORF FORMATION]

COASTAL PLAIN
BROWN ORANGE RED MEDIUM STIFF TO VERY STIFF SANDY CLAY AND CLAY MOIST TO WET

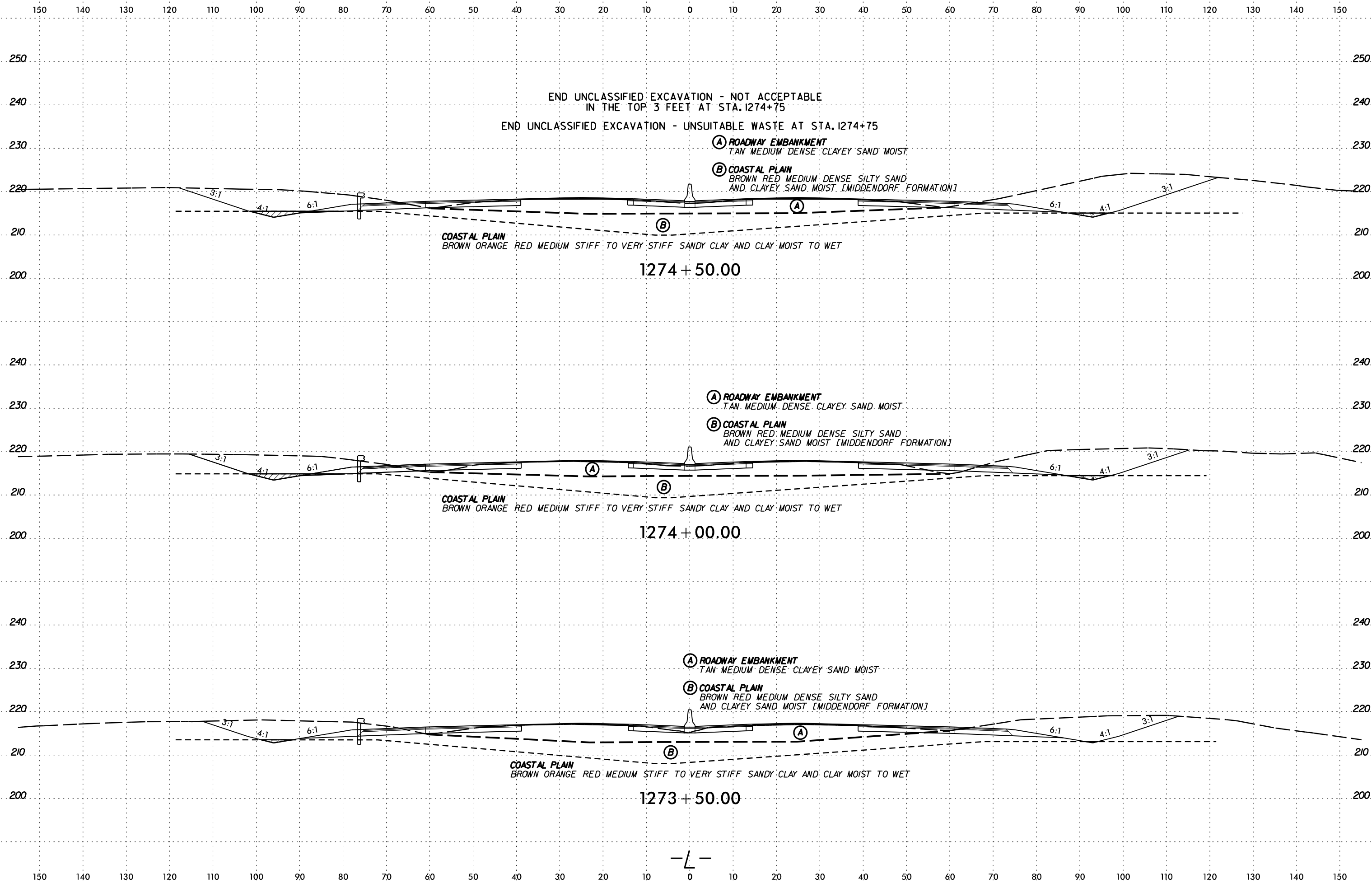
1272 + 50.00

(A) ROADWAY EMBANKMENT
TAN MEDIUM DENSE CLAYEY SAND MOIST

(B) COASTAL PLAIN
BROWN RED MEDIUM DENSE SILTY SAND
AND CLAYEY SAND MOIST [MIDDENDORF FORMATION]

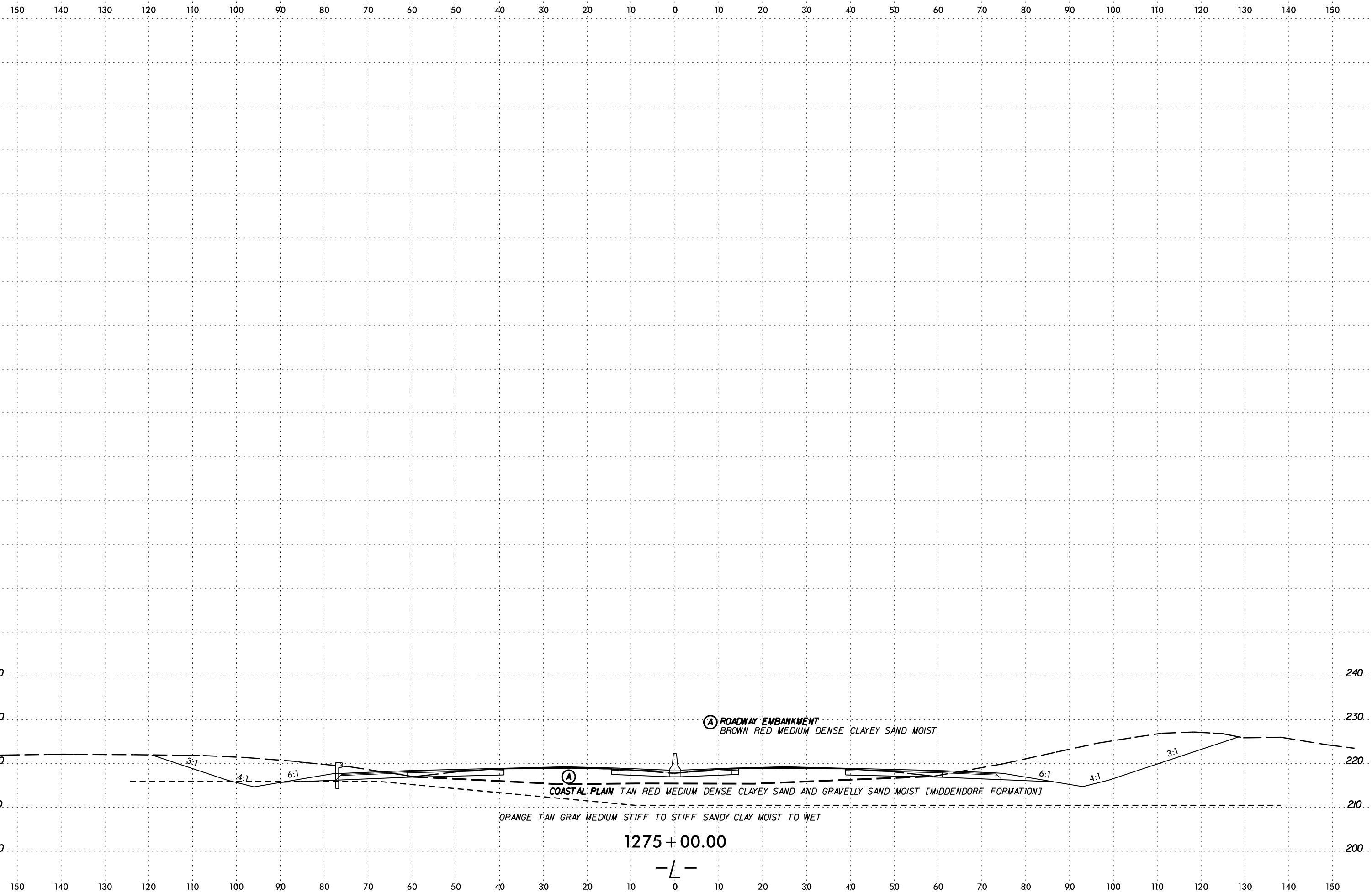
COASTAL PLAIN
BROWN ORANGE RED MEDIUM STIFF TO VERY STIFF SANDY CLAY AND CLAY MOIST TO WET

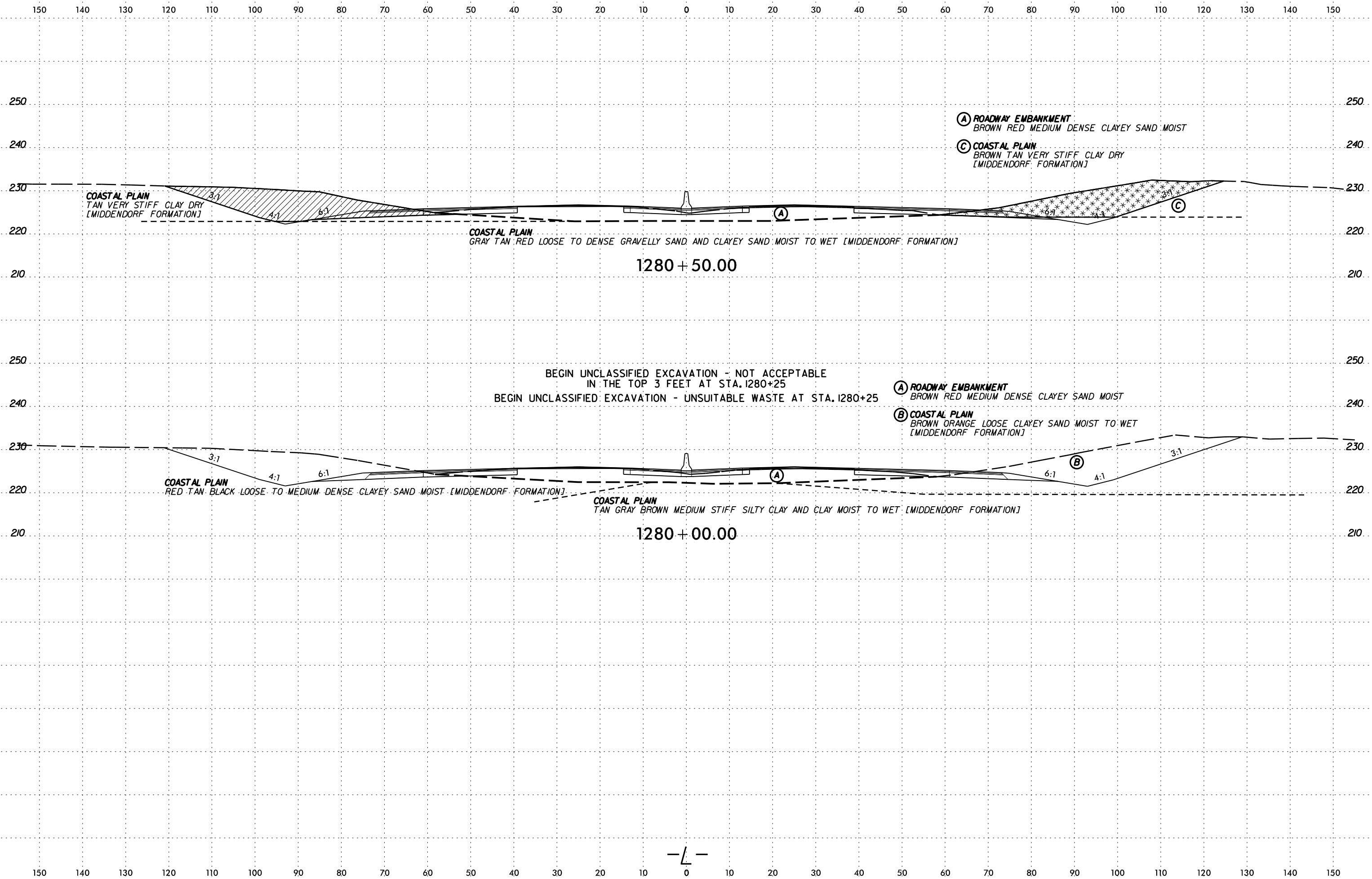
1272 + 00.00



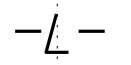
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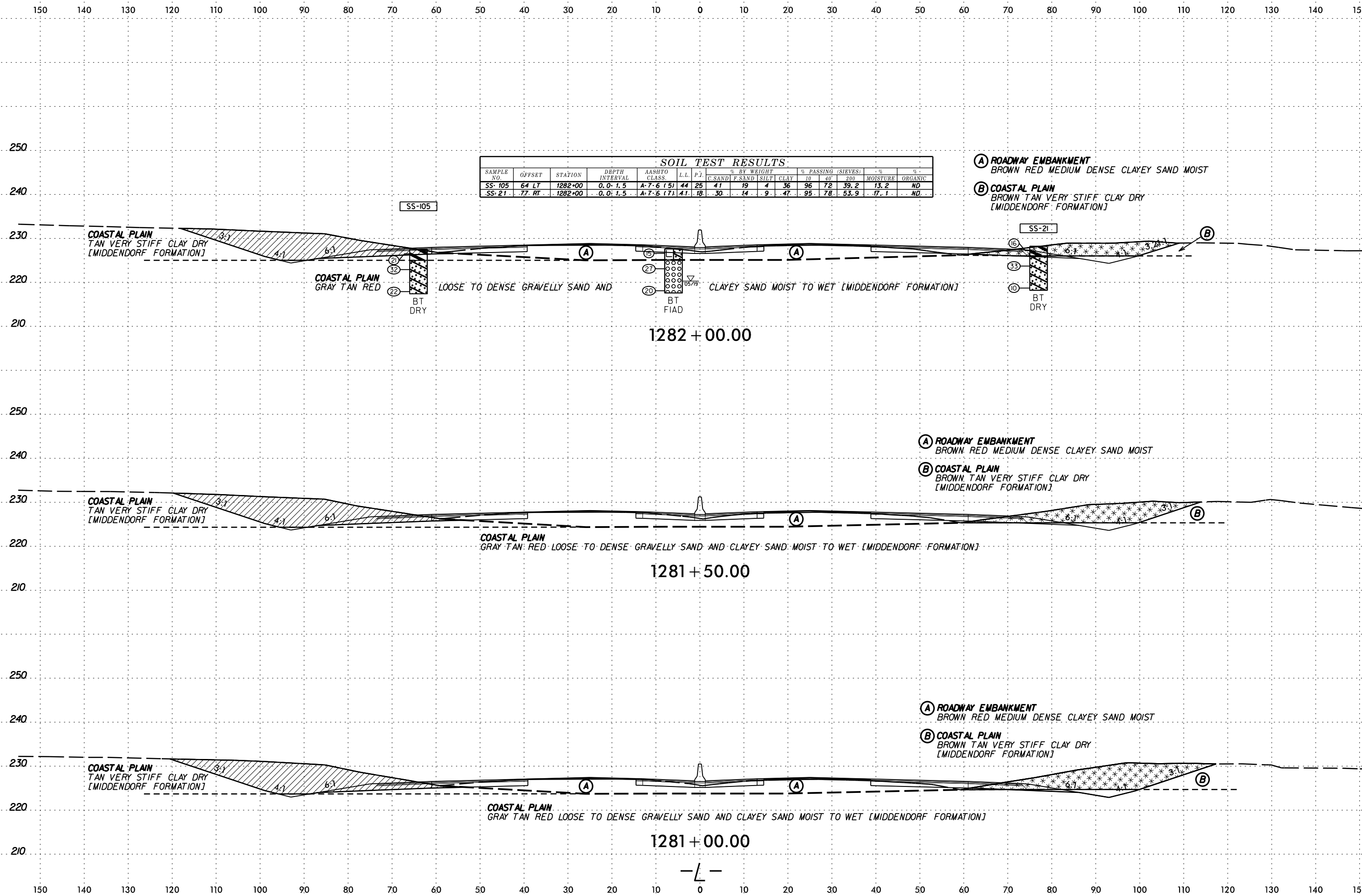
6/23/16
 COUNTY OF LOS ANGELES
 PUBLIC WORKS DEPARTMENT
 TRANSPORTATION DIVISION
 CIVIL ENGINEERING SECTION



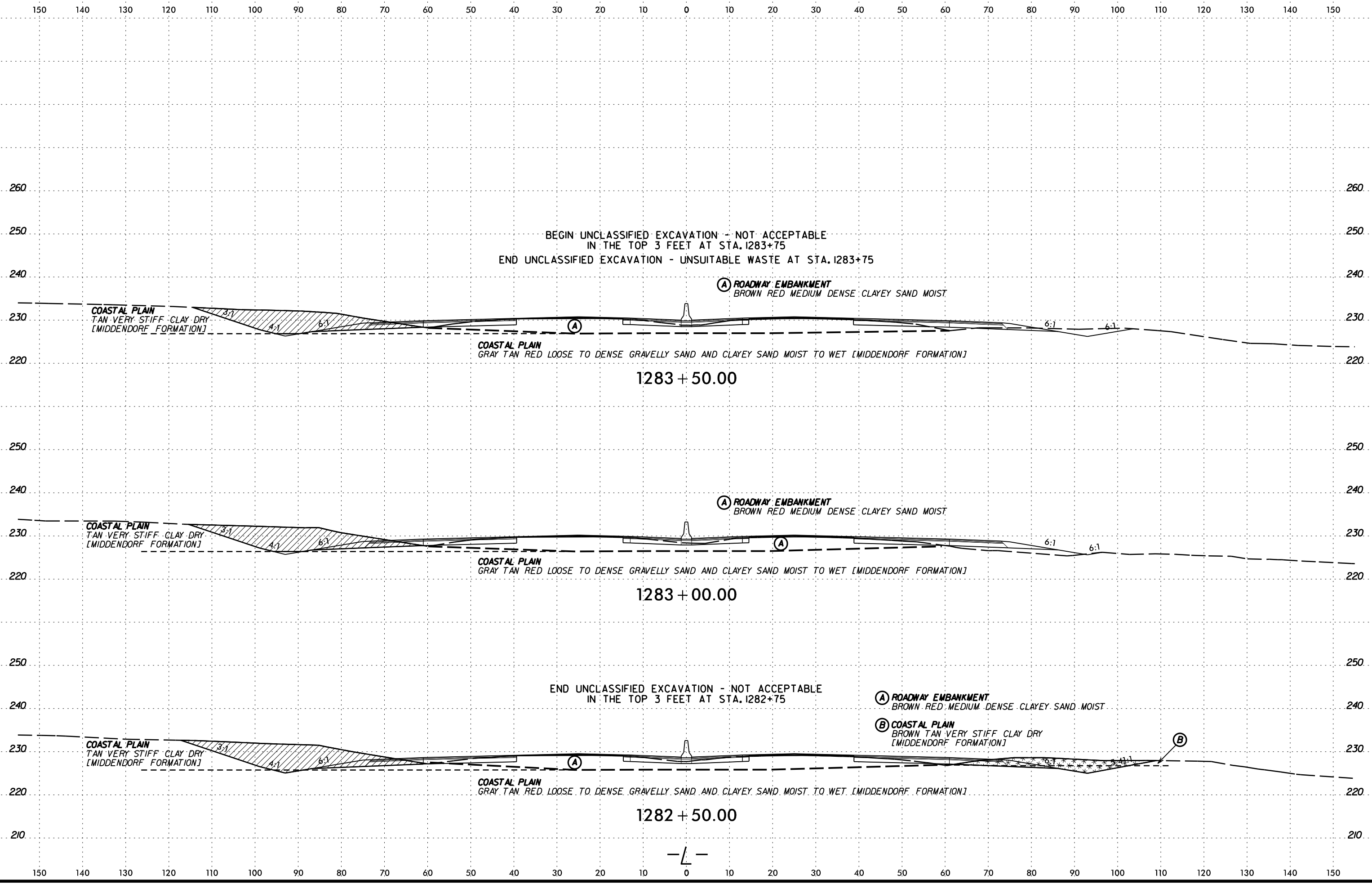


DATE: 6/23/16
DRAWN BY: J. B. BROWN
CHECKED BY: J. B. BROWN
SCALE: AS SHOWN
SHEET NO.: 17



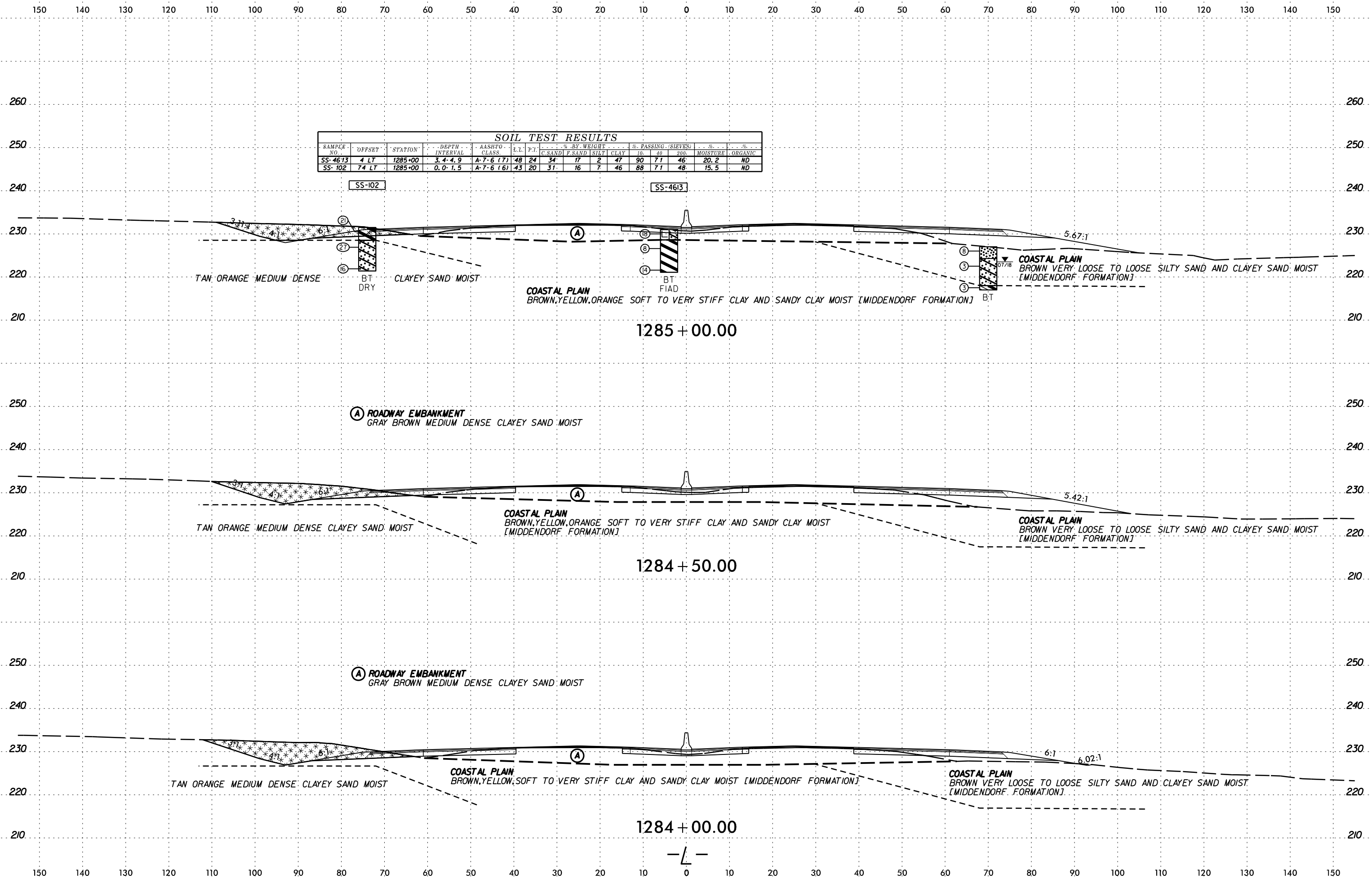


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SOIL TEST RESULTS															
SAMPLE NO.	OFFSET	STATION	DEPTH INTERVAL	AASHTO CLASS.	L.L.	P.I.	% BY WEIGHT				% PASSING (SIEVES)		% MOISTURE	% ORGANIC	
							C SAND	F SAND	SILT	CLAY	10	200			
SS-4613	4 LT	1285+00	3.4-4.9	A-7-6 (7)	48	24	34	17	2	47	90	71	46	20.2	ND
SS-102	74 LT	1285+00	0.0-1.5	A-7-6 (6)	43	20	31	16	7	46	88	71	48	15.5	ND

SS-102

SS-4613

TAN ORANGE MEDIUM DENSE

BT DRY

CLAYEY SAND MOIST

COASTAL PLAIN BROWN, YELLOW, ORANGE SOFT TO VERY STIFF CLAY AND SANDY CLAY MOIST [MIDDENDORF FORMATION]

1285 + 00.00

(A) ROADWAY EMBANKMENT GRAY BROWN MEDIUM DENSE CLAYEY SAND MOIST

TAN ORANGE MEDIUM DENSE CLAYEY SAND MOIST

COASTAL PLAIN BROWN, YELLOW, ORANGE SOFT TO VERY STIFF CLAY AND SANDY CLAY MOIST [MIDDENDORF FORMATION]

COASTAL PLAIN BROWN VERY LOOSE TO LOOSE SILTY SAND AND CLAYEY SAND MOIST [MIDDENDORF FORMATION]

1284 + 50.00

(A) ROADWAY EMBANKMENT GRAY BROWN MEDIUM DENSE CLAYEY SAND MOIST

TAN ORANGE MEDIUM DENSE CLAYEY SAND MOIST

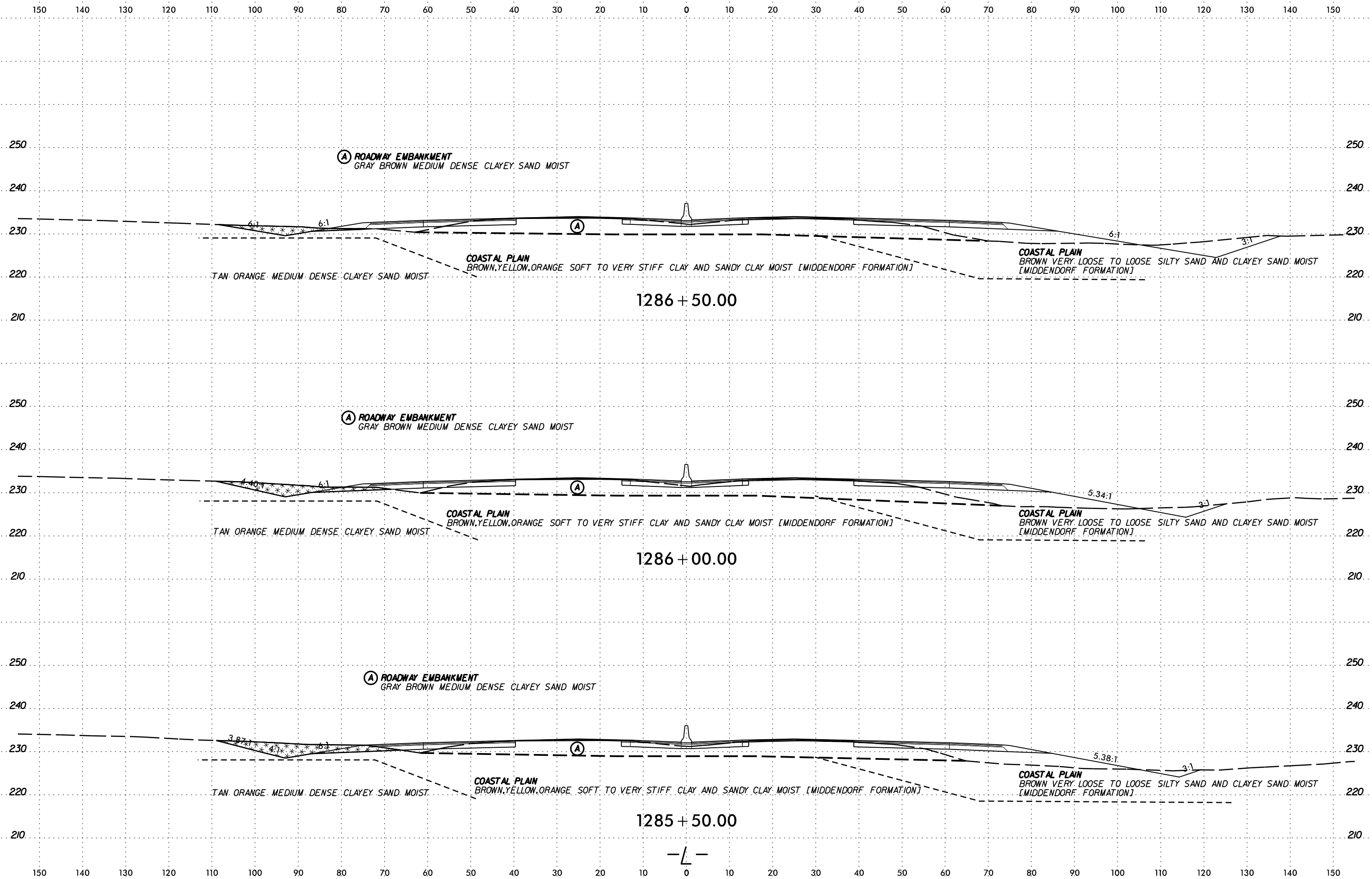
COASTAL PLAIN BROWN, YELLOW, SOFT TO VERY STIFF CLAY AND SANDY CLAY MOIST [MIDDENDORF FORMATION]

COASTAL PLAIN BROWN VERY LOOSE TO LOOSE SILTY SAND AND CLAYEY SAND MOIST [MIDDENDORF FORMATION]

1284 + 00.00

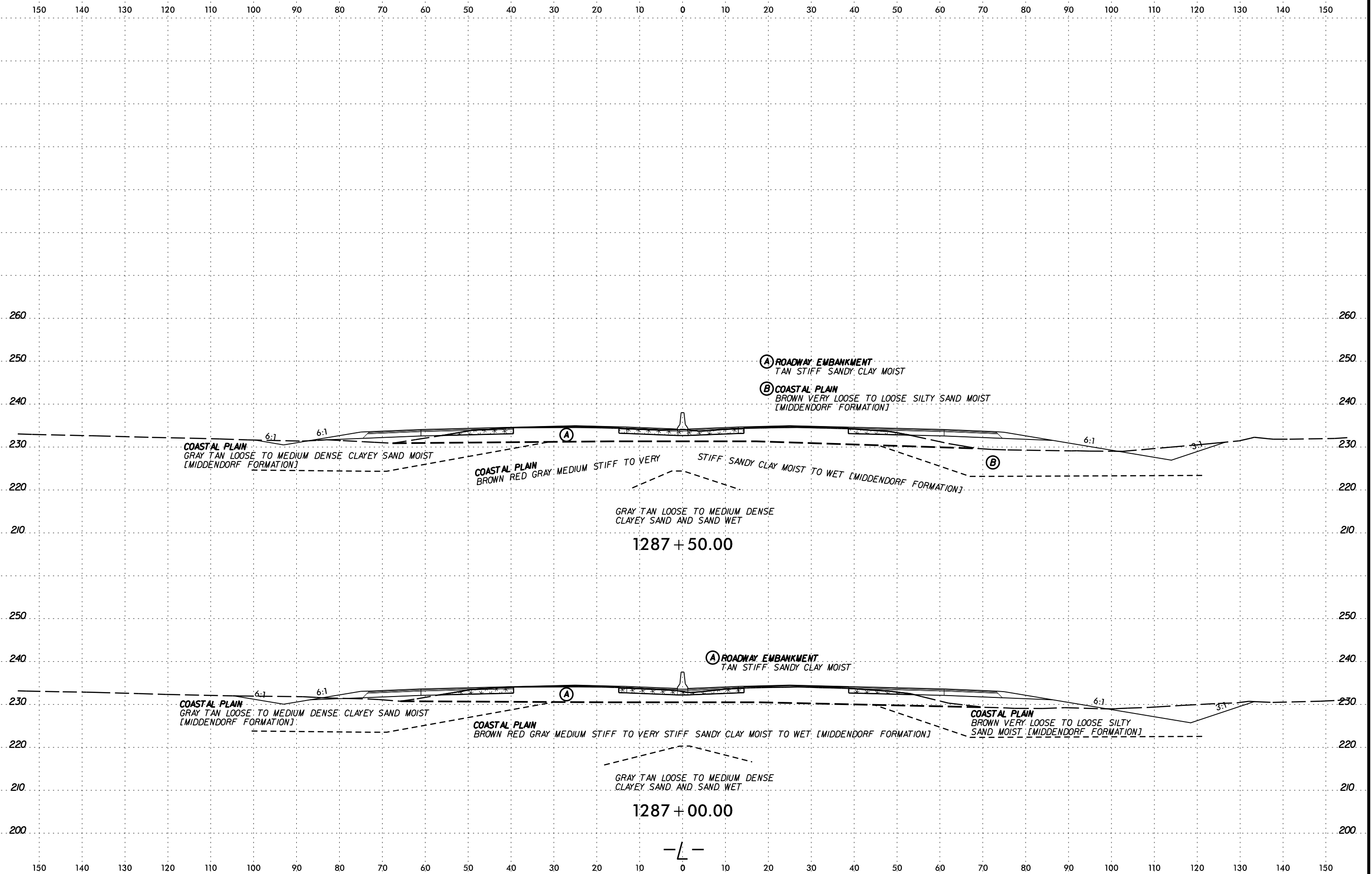
-L-

SYTIME CONSTRUCTION SERVICES

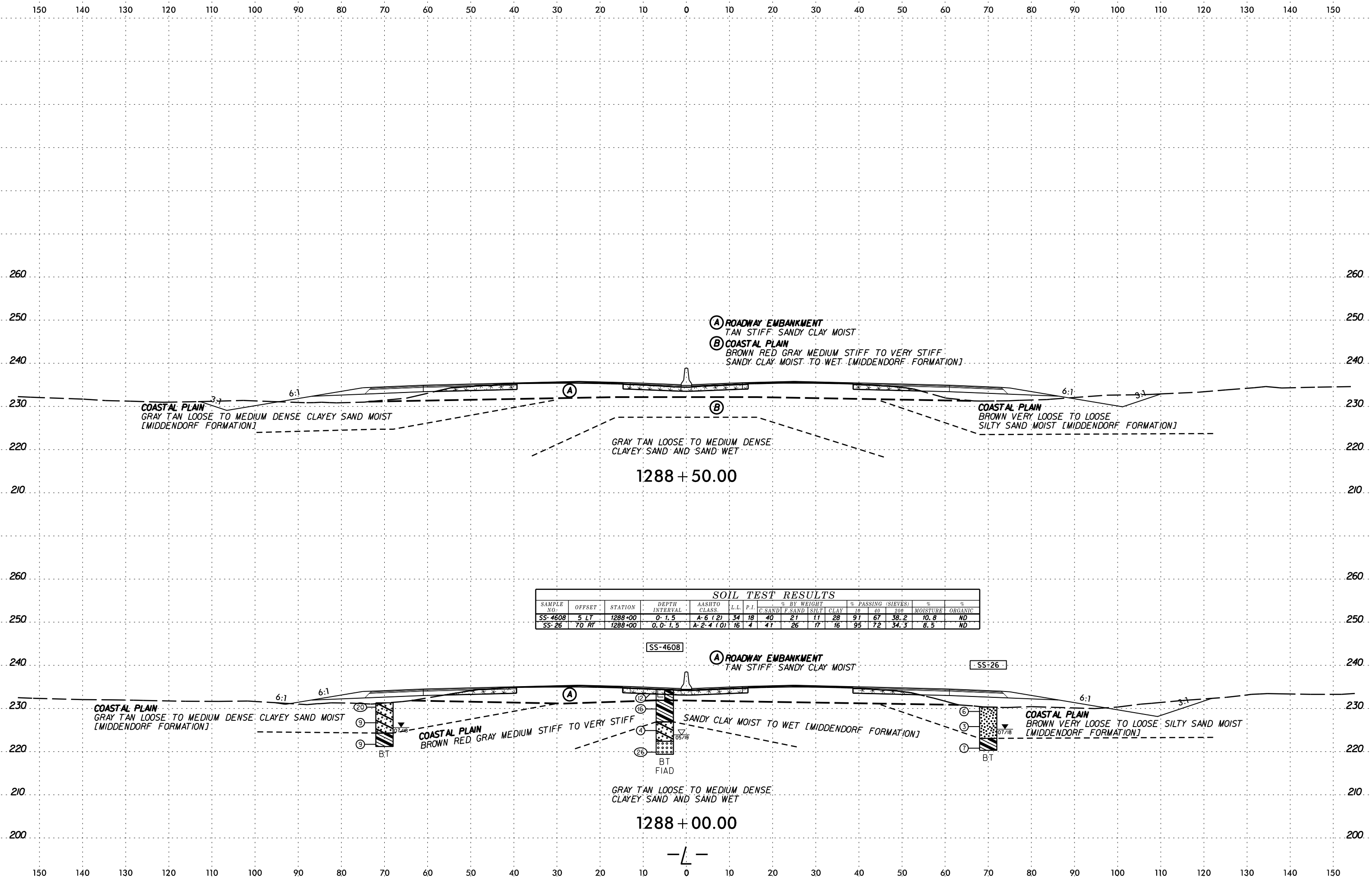


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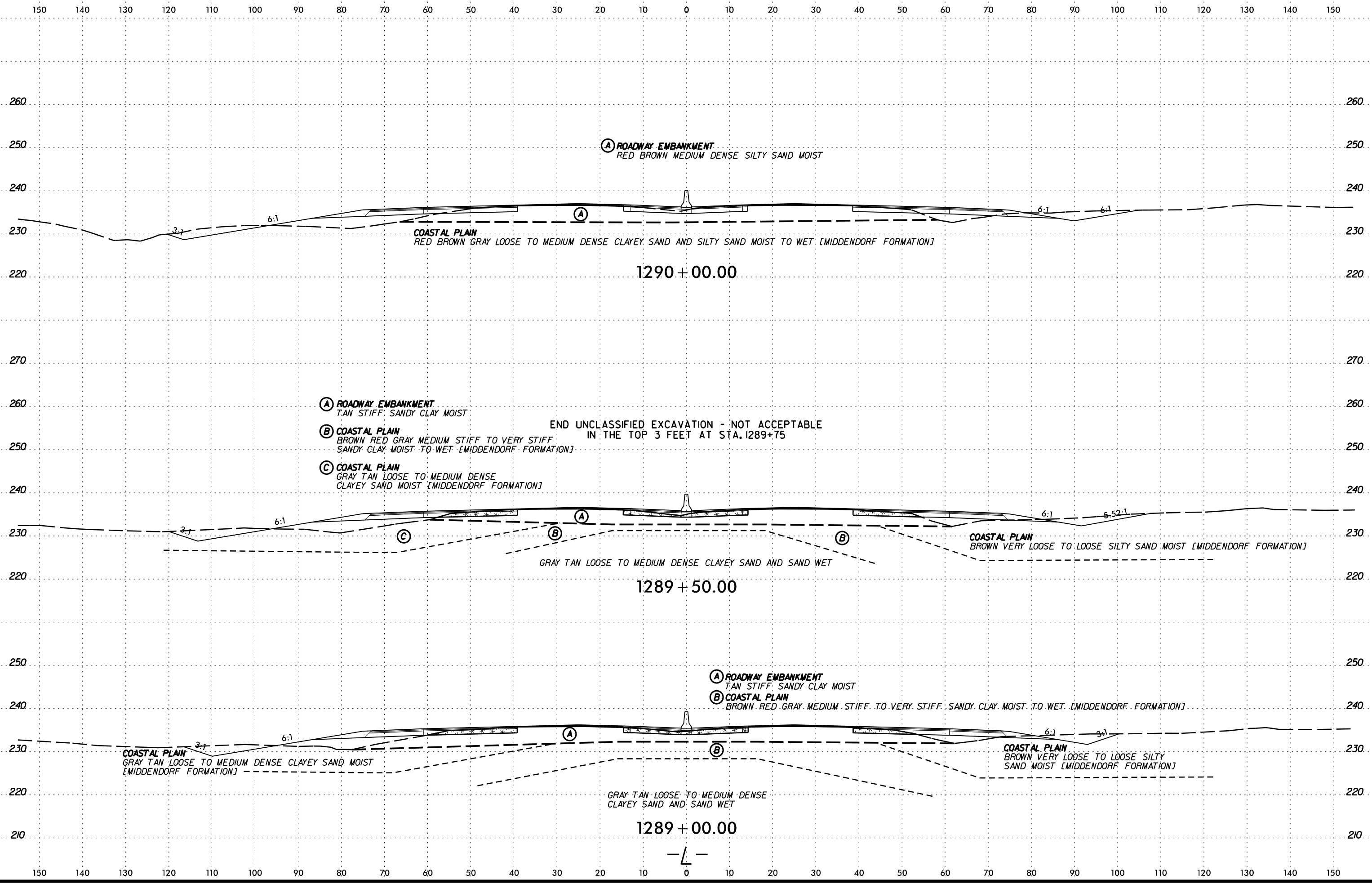
SYTIME CONSTRUCTION SERVICES



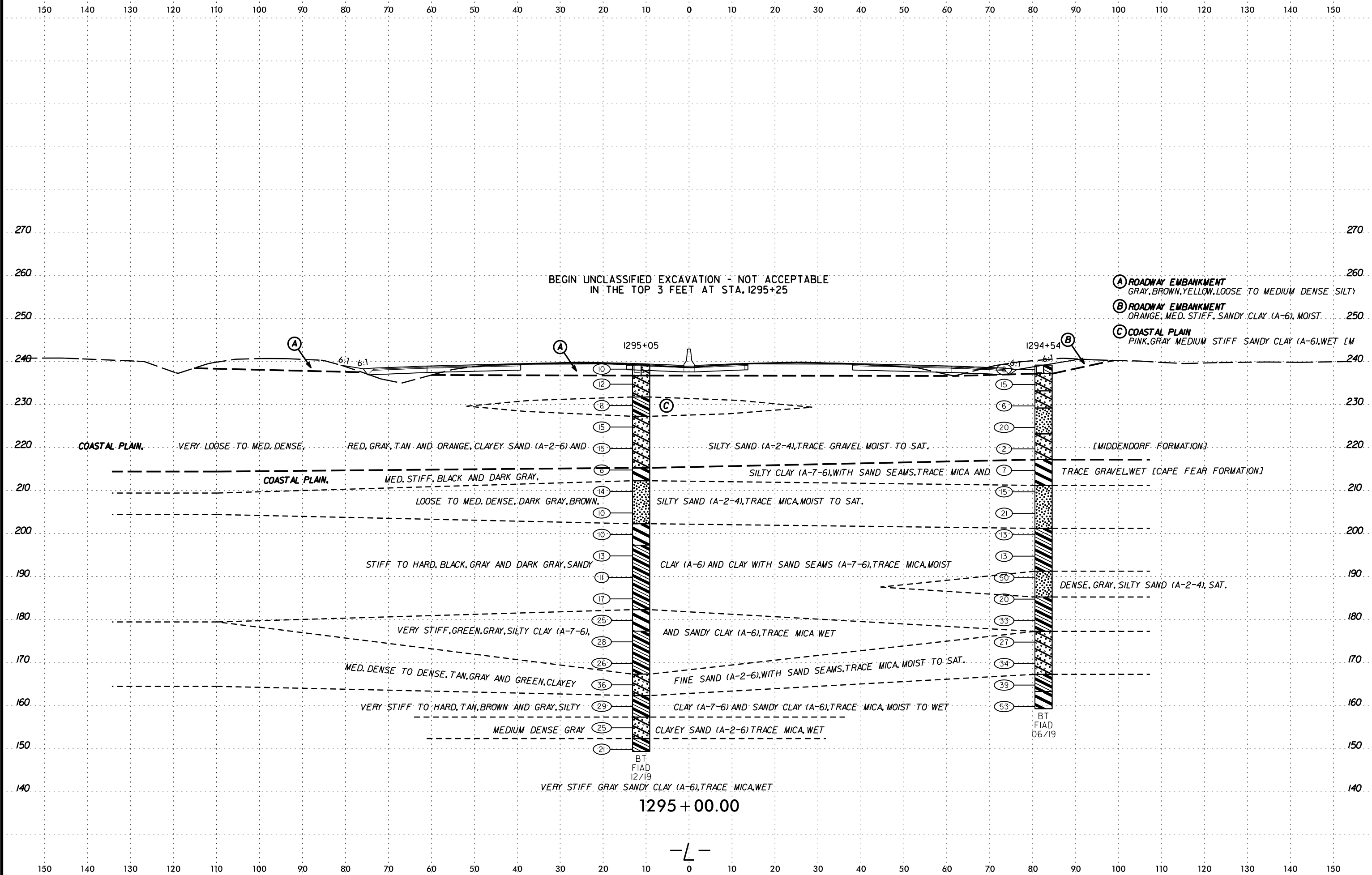
SOIL TEST RESULTS

SAMPLE NO.	OFFSET	STATION	DEPTH INTERVAL	AASHTO CLASS.	L.L.	P.I.	% BY WEIGHT				% PASSING (SIEVES)		% MOISTURE	% ORGANIC	
							C. SAND	F. SAND	SH/T	CLAY	10	40			
SS-4608	5 LT	1288+00	0-1.5	A-6 (2)	34	18	40	21	11	28	91	67	38.2	10.8	ND
SS-26	70 RT	1288+00	0.0-1.5	A-2-4 (0)	16	4	47	26	17	16	95	72	34.3	8.5	ND

SCHEMATIC DESIGN
 11/11/15
 J. W. BRYAN
 11/11/15

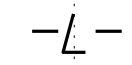


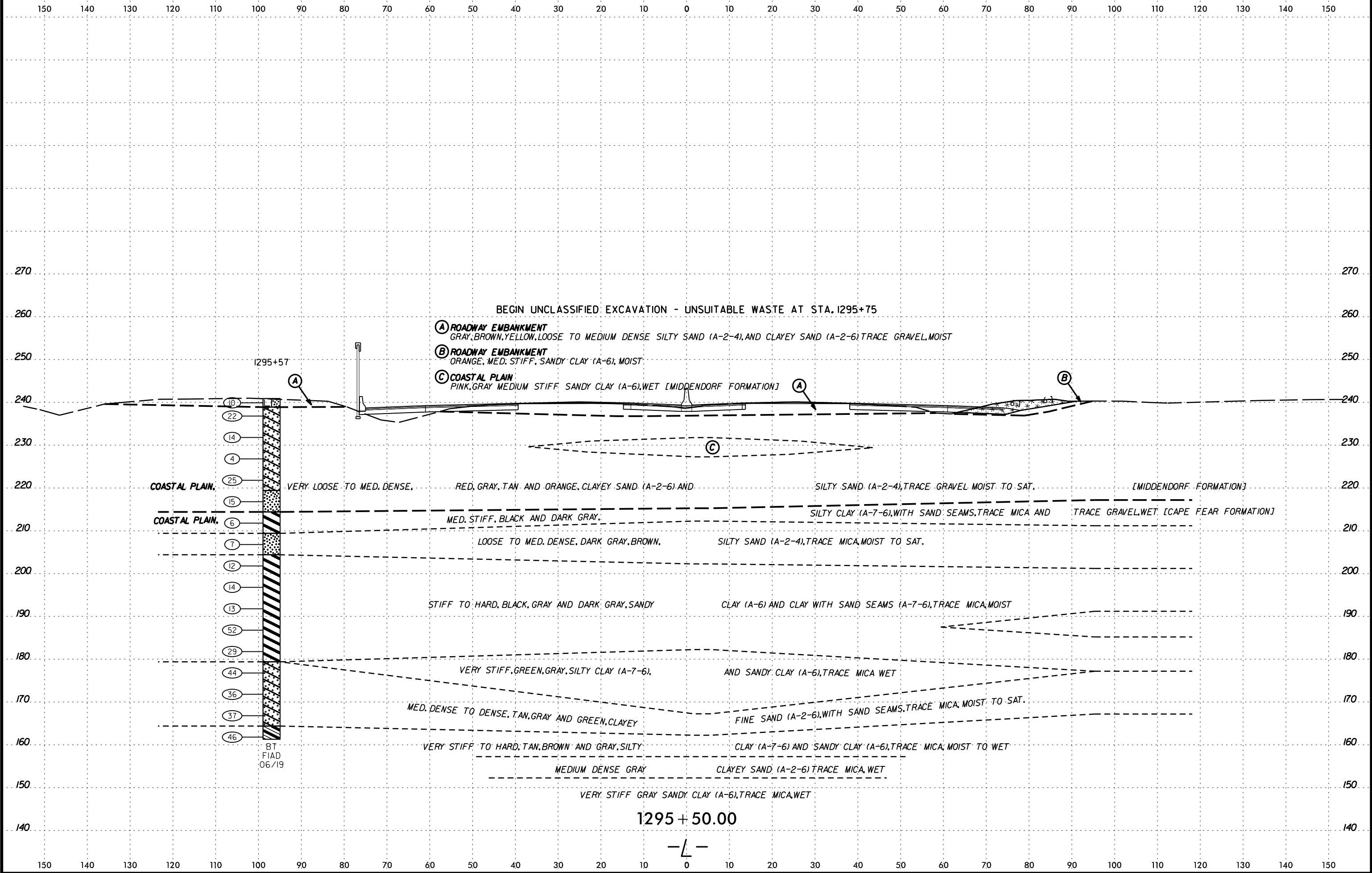
DATE: 6/23/16
DRAWN BY: J. BRYAN
CHECKED BY: J. BRYAN
SCALE: AS SHOWN



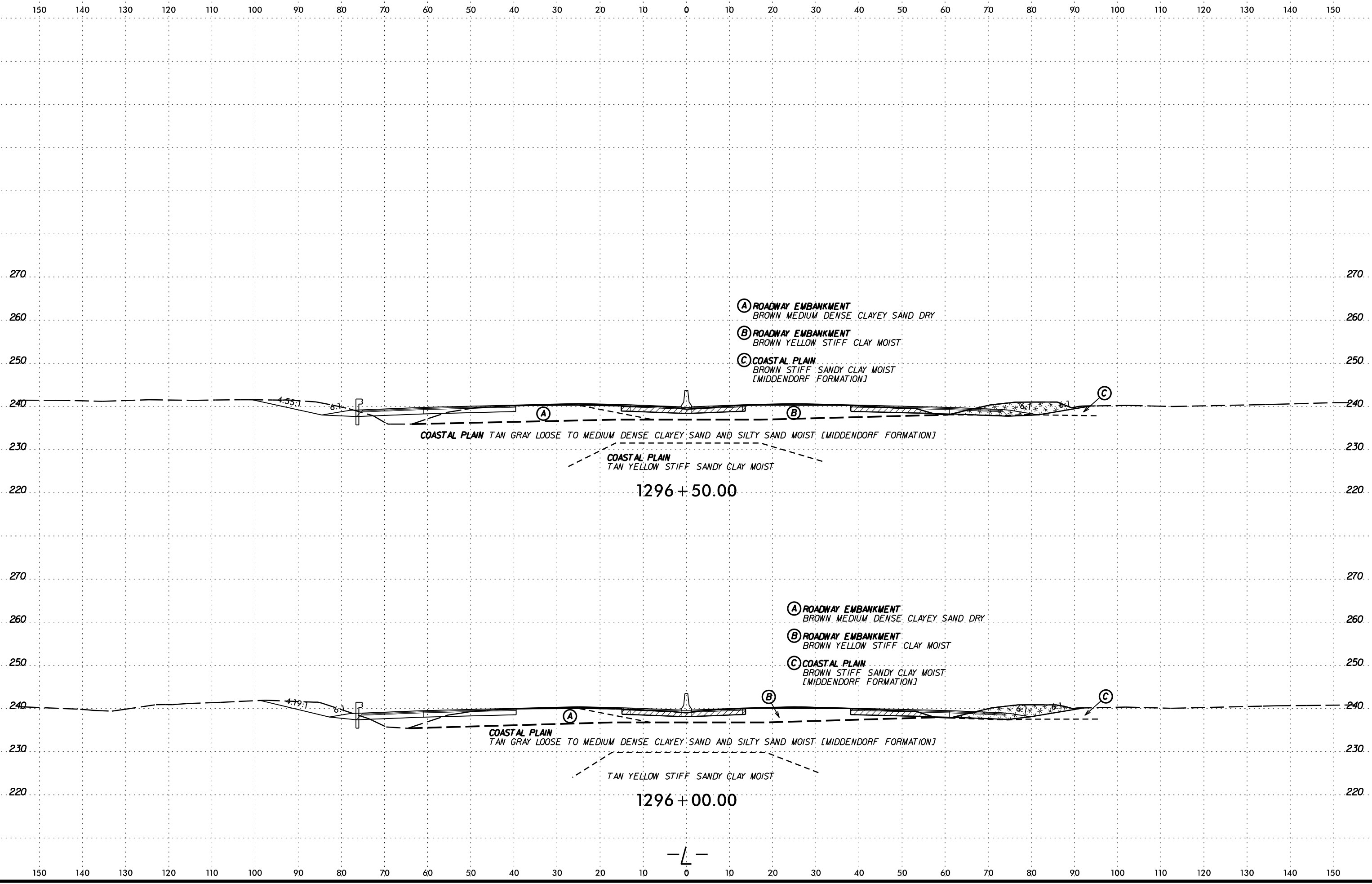
SCHEMATIC CROSS SECTION
DATE: 06/23/16
BY: JLR/AVG

1295 + 00.00



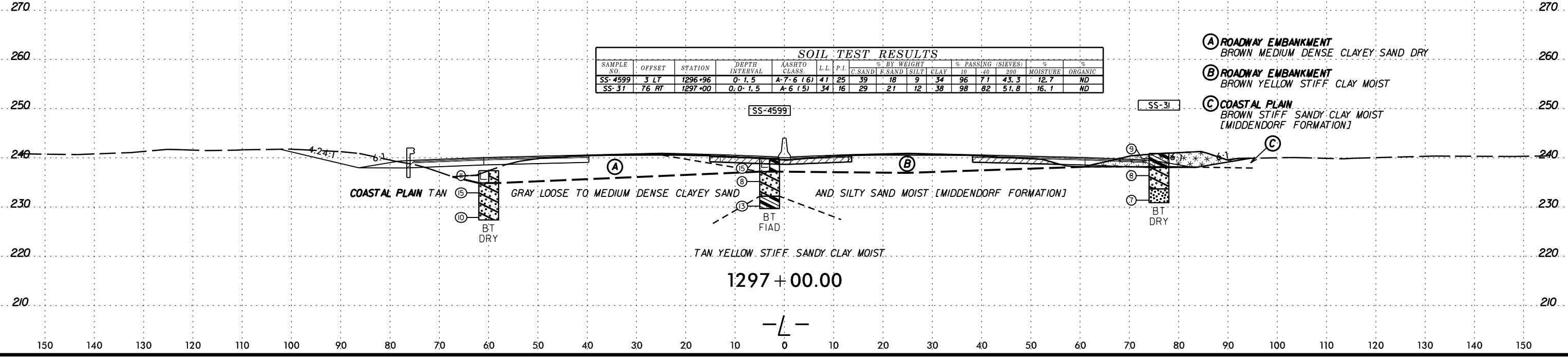
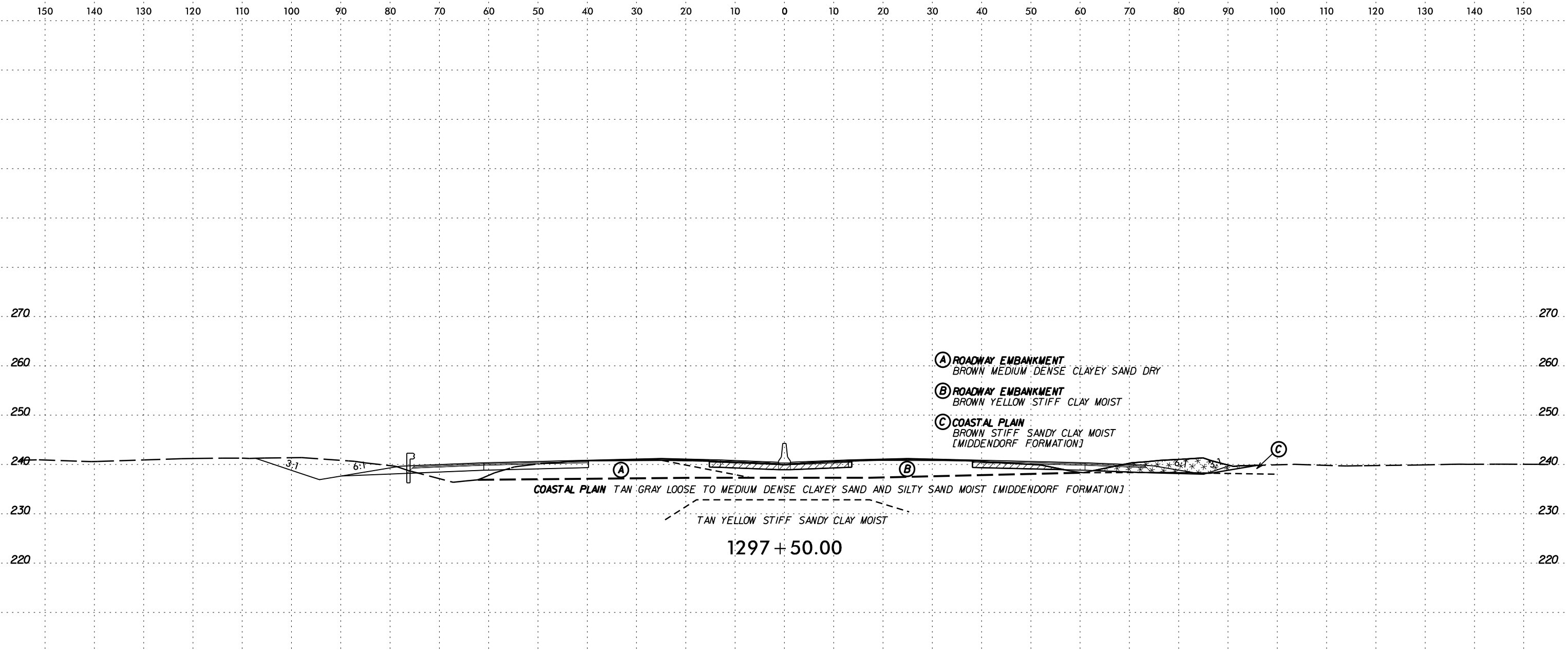


6/23/16



SCHEMATIC CONNECTION TO SHEET 26

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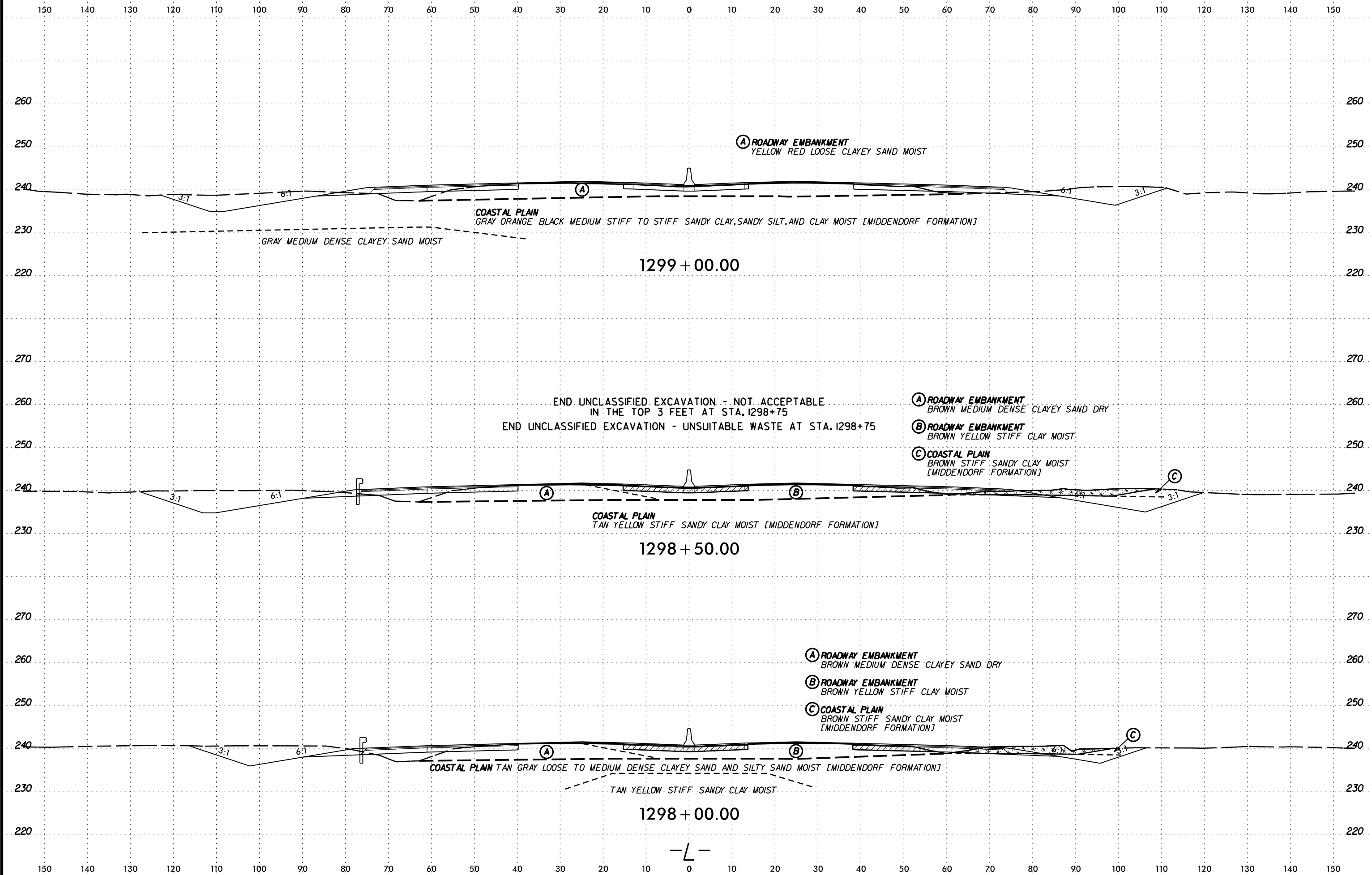
SOIL TEST RESULTS															
SAMPLE NO.	OFFSET	STATION	DEPTH INTERVAL	ASHTO CLASS.	L.L.	P.L.	% BY WEIGHT				% PASSING (SIEVES)		% MOISTURE	% ORGANIC	
							C. SAND	F. SAND	SILT	CLAY	10	40			300
SS-4599	3 LT	1296+96	0'-1.5	A-7-6 (6)	41	25	39	18	9	34	96	71	43.3	12.7	ND
SS-31	76 RT	1297+00	0'-1.5	A-6 (5)	34	16	29	21	12	38	98	82	51.8	16.1	ND

SCALE: 1"=20'

6/23/16



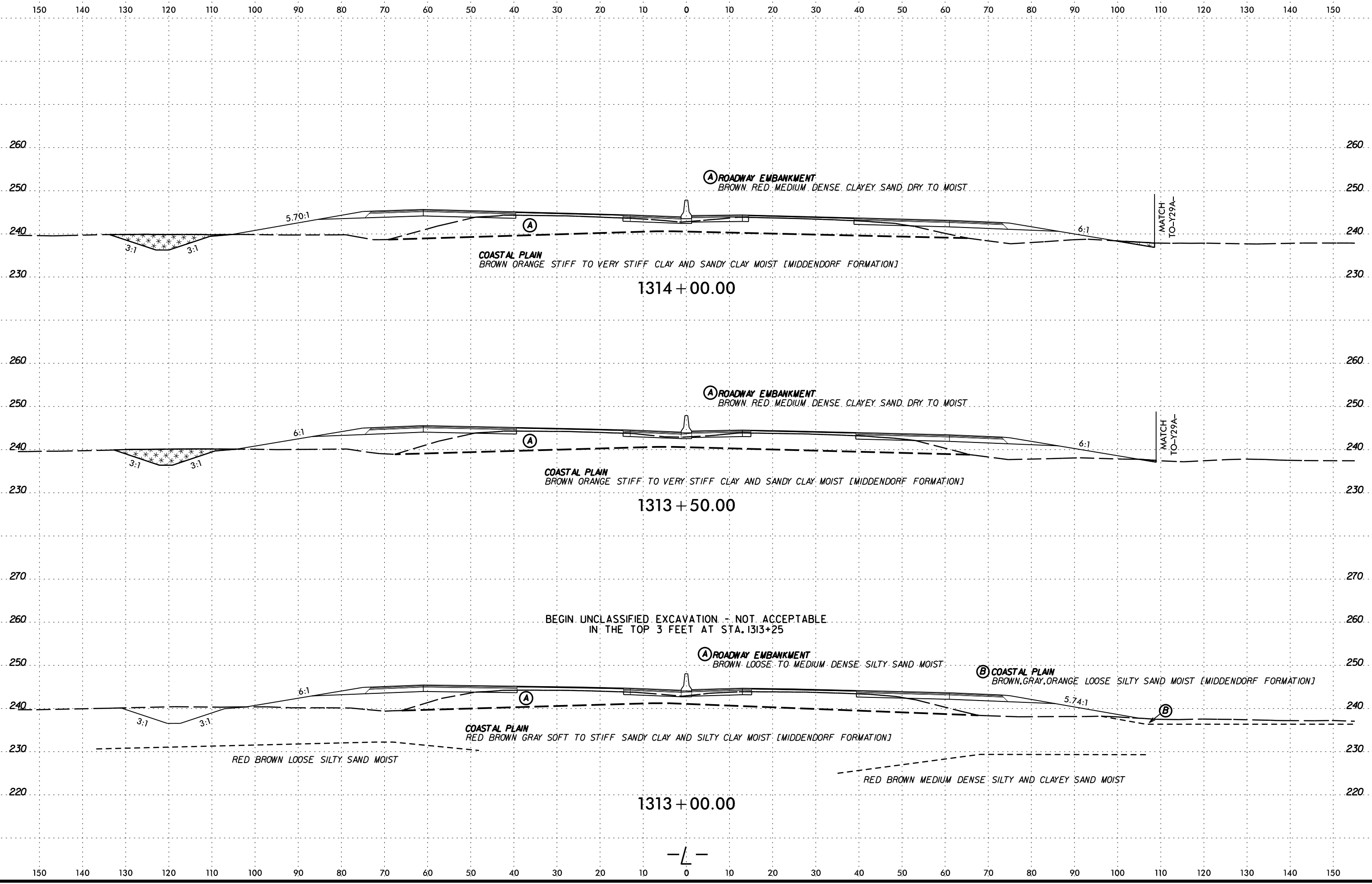
PROJ. REFERENCE NO.	SHEET NO.
I-5986B	29



SYTIME
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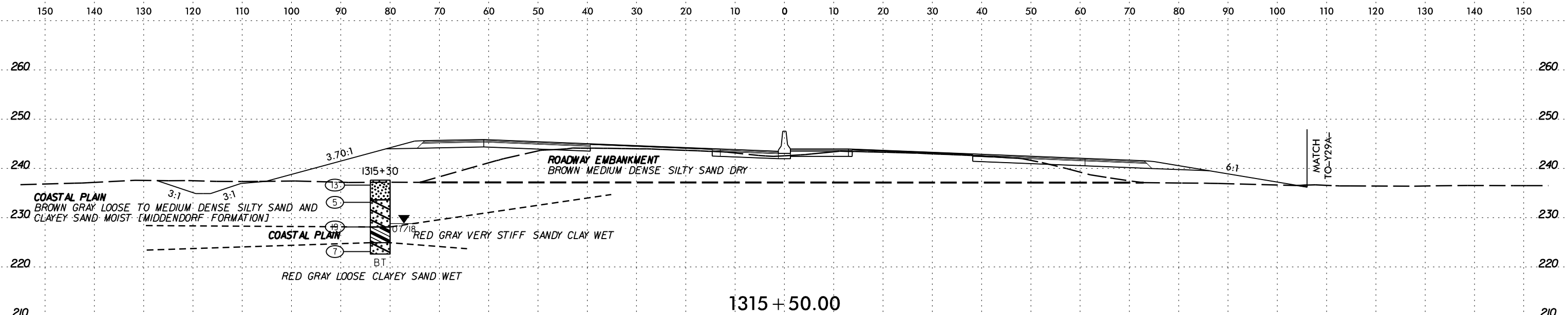
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6/23/16



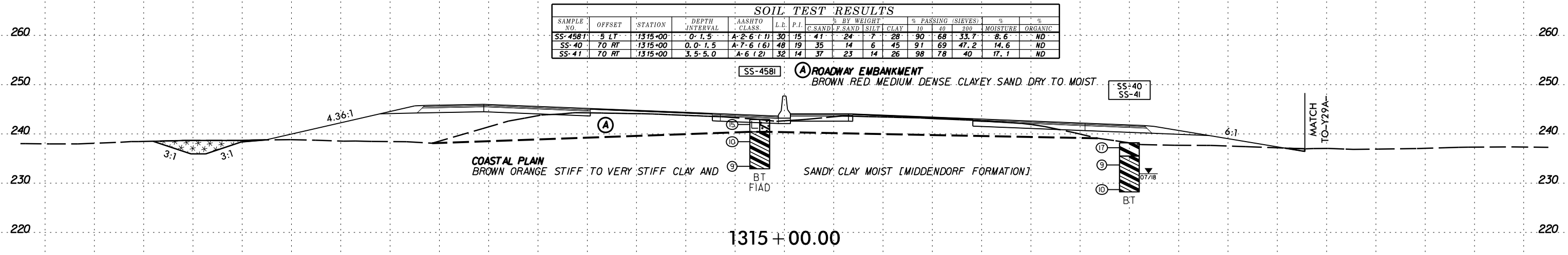
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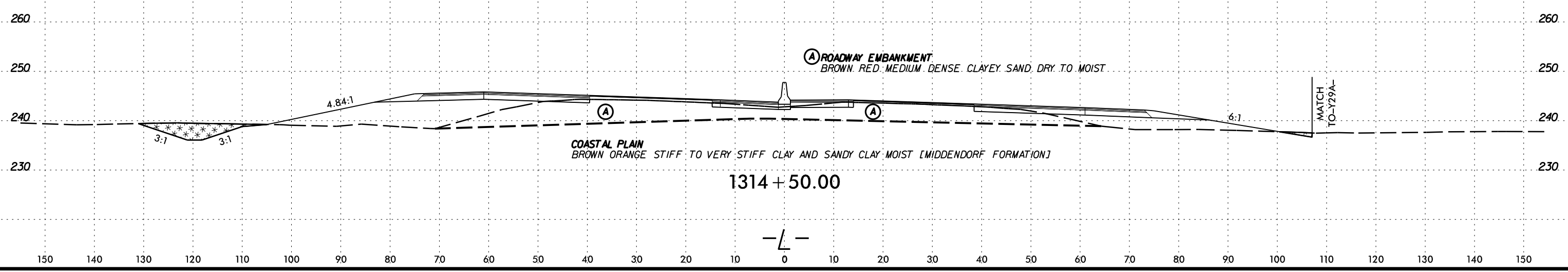


1315 + 50.00

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-4581	5 LT	1315+00	0-1.5	A-2.6 (1)	30	15	41	24	7	28	90	68	33.7	8.6	ND
SS-40	70 RT	1315+00	0.0-1.5	A-7.6 (6)	48	19	35	14	6	45	91	69	47.2	14.6	ND
SS-41	70 RT	1315+00	3.5-5.0	A-6 (2)	32	14	37	23	14	26	98	78	40	17.1	ND



1315 + 00.00



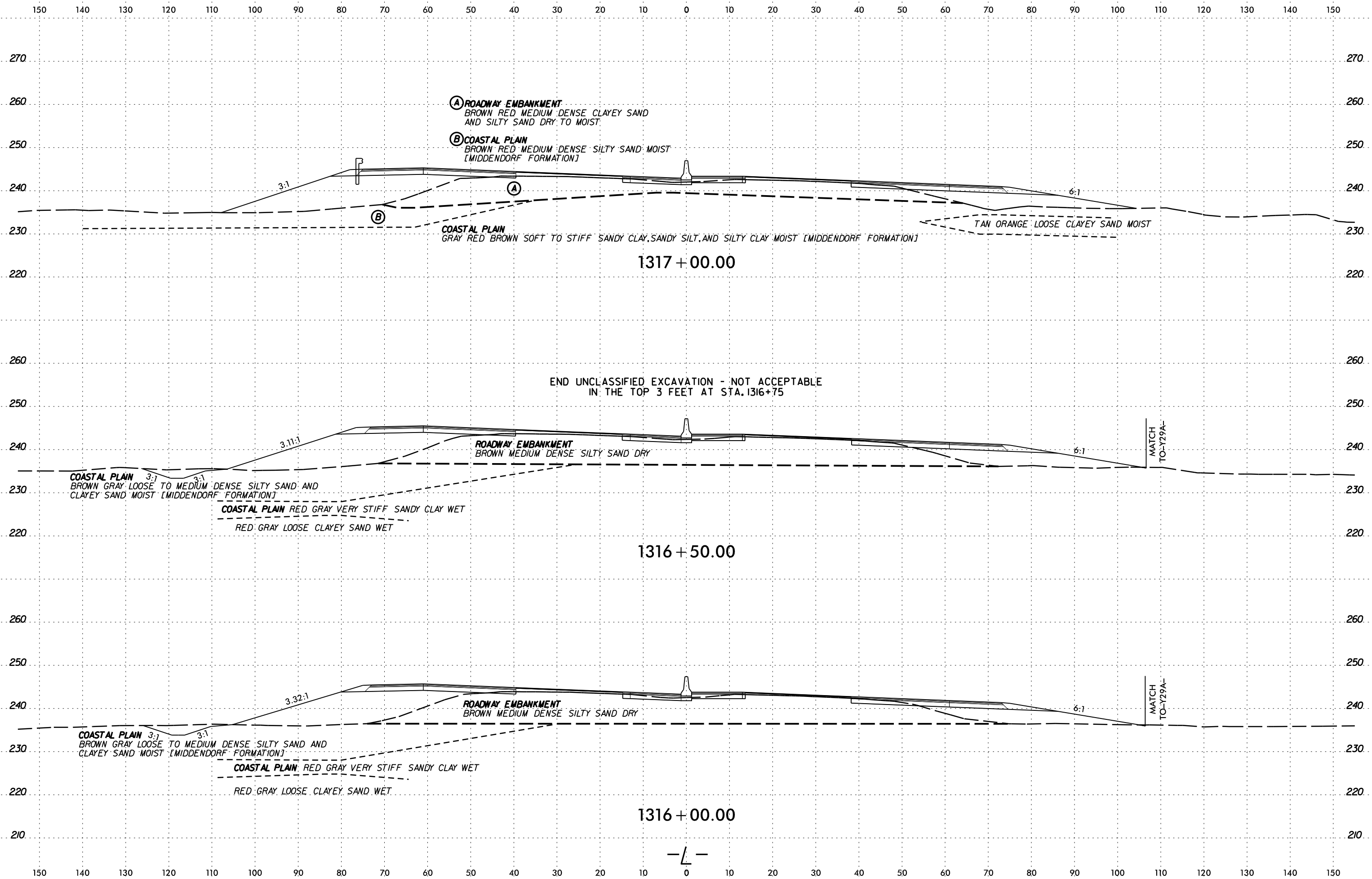
1314 + 50.00

SYTIME
CON
ARRIVE

6/23/16



PROJ. REFERENCE NO.	SHEET NO.
I-5986B	32

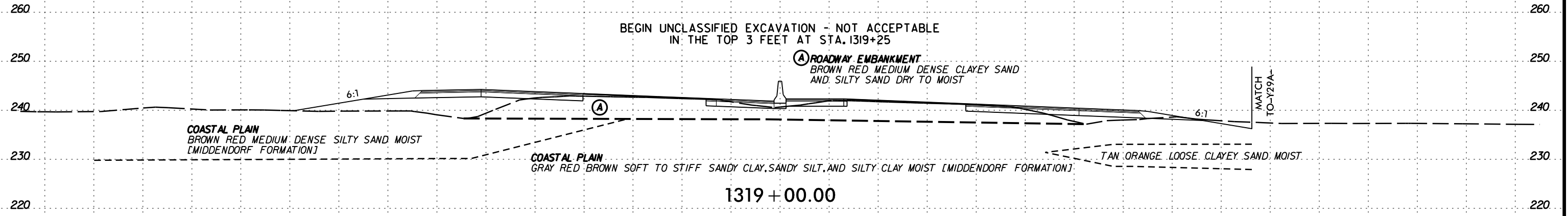


SYTIME
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6/23/16

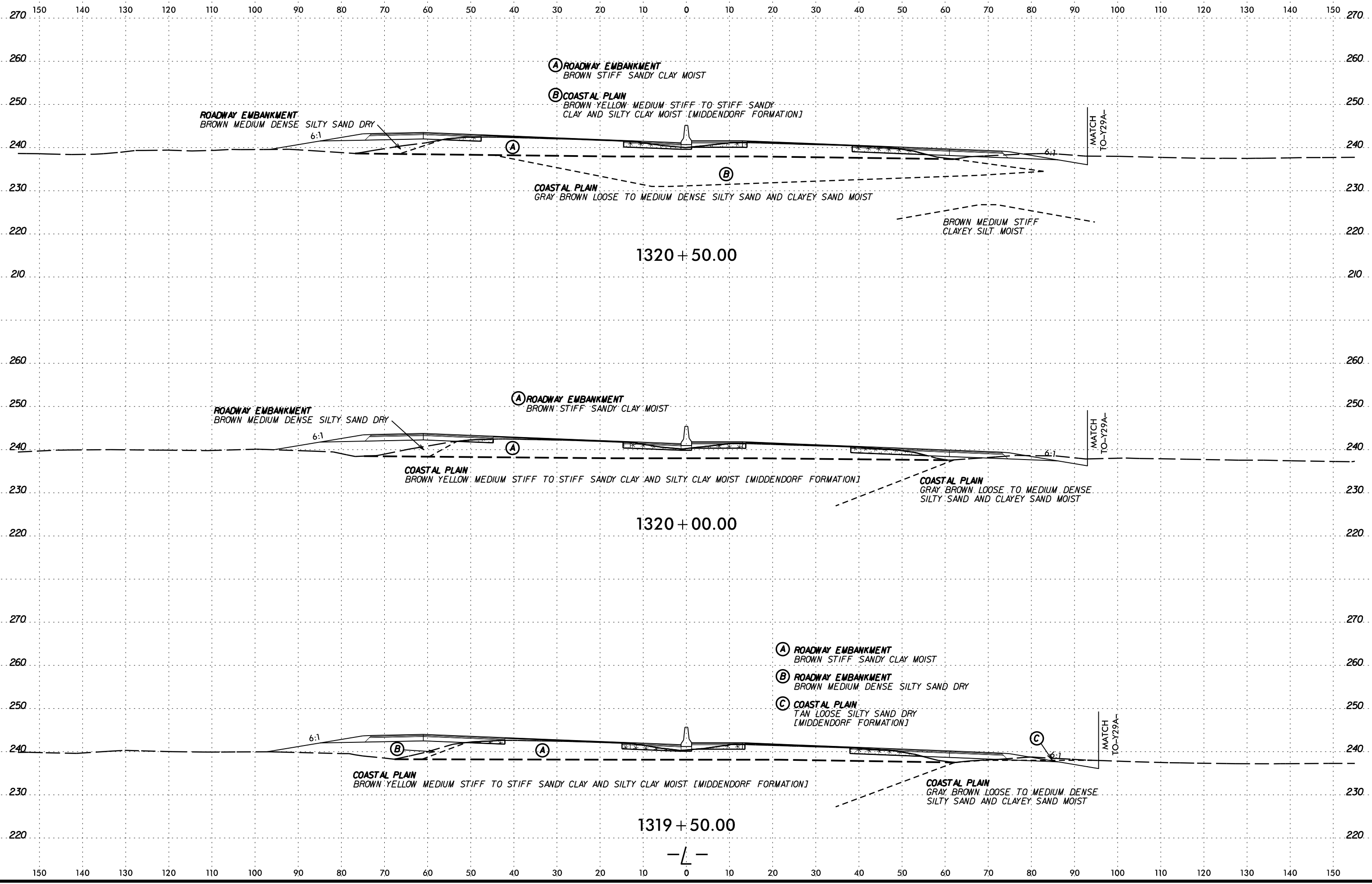
150 140 130 120 110 100 90 80 70 60 50 40 30 20 10 0 10 20 30 40 50 60 70 80 90 100 110 120 130 140 150



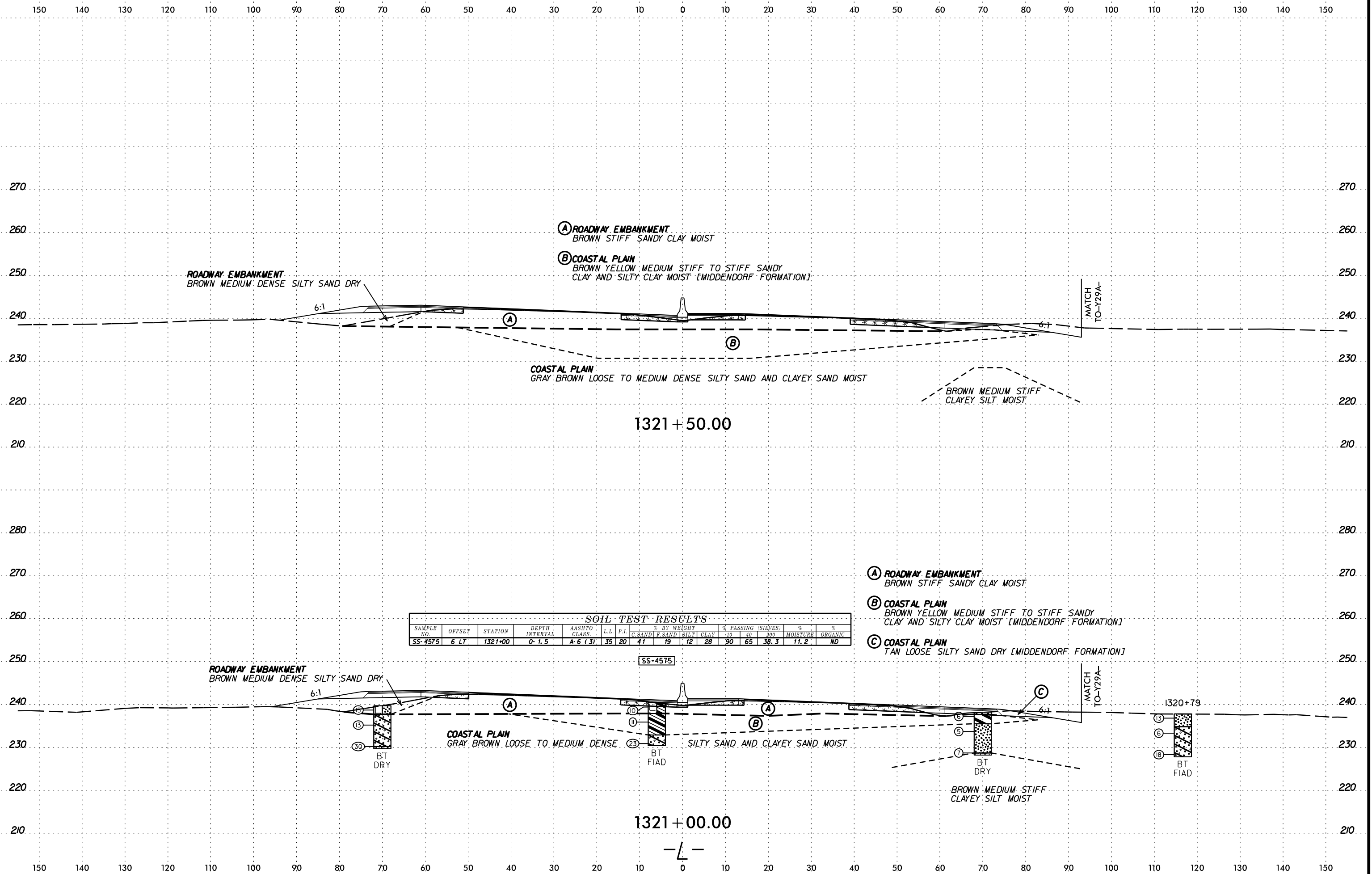
1319+00.00

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SYTIME
CON
JUL
BRN



SYTIME
CON
JULY
RRAVE



ROADWAY EMBANKMENT
BROWN MEDIUM DENSE SILTY SAND DRY

(A) ROADWAY EMBANKMENT
BROWN STIFF SANDY CLAY MOIST

(B) COASTAL PLAIN
BROWN YELLOW MEDIUM STIFF TO STIFF SANDY
CLAY AND SILTY CLAY MOIST [MIDDENDORF FORMATION]

COASTAL PLAIN
GRAY BROWN LOOSE TO MEDIUM DENSE SILTY SAND AND CLAYEY SAND MOIST

BROWN MEDIUM STIFF
CLAYEY SILT MOIST

1321 + 50.00

ROADWAY EMBANKMENT
BROWN MEDIUM DENSE SILTY SAND DRY

(A) ROADWAY EMBANKMENT
BROWN STIFF SANDY CLAY MOIST

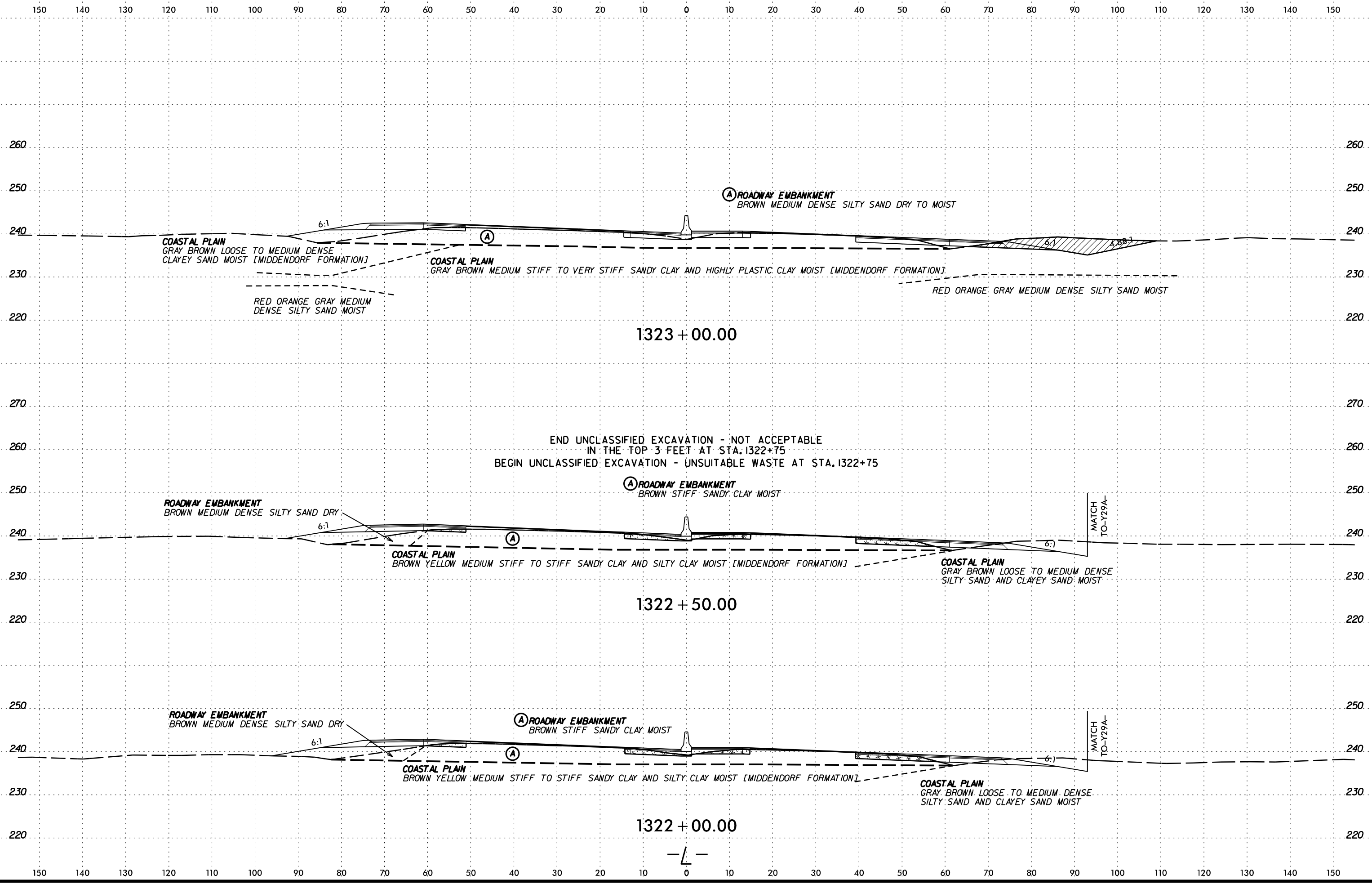
(B) COASTAL PLAIN
BROWN YELLOW MEDIUM STIFF TO STIFF SANDY
CLAY AND SILTY CLAY MOIST [MIDDENDORF FORMATION]

(C) COASTAL PLAIN
TAN LOOSE SILTY SAND DRY [MIDDENDORF FORMATION]

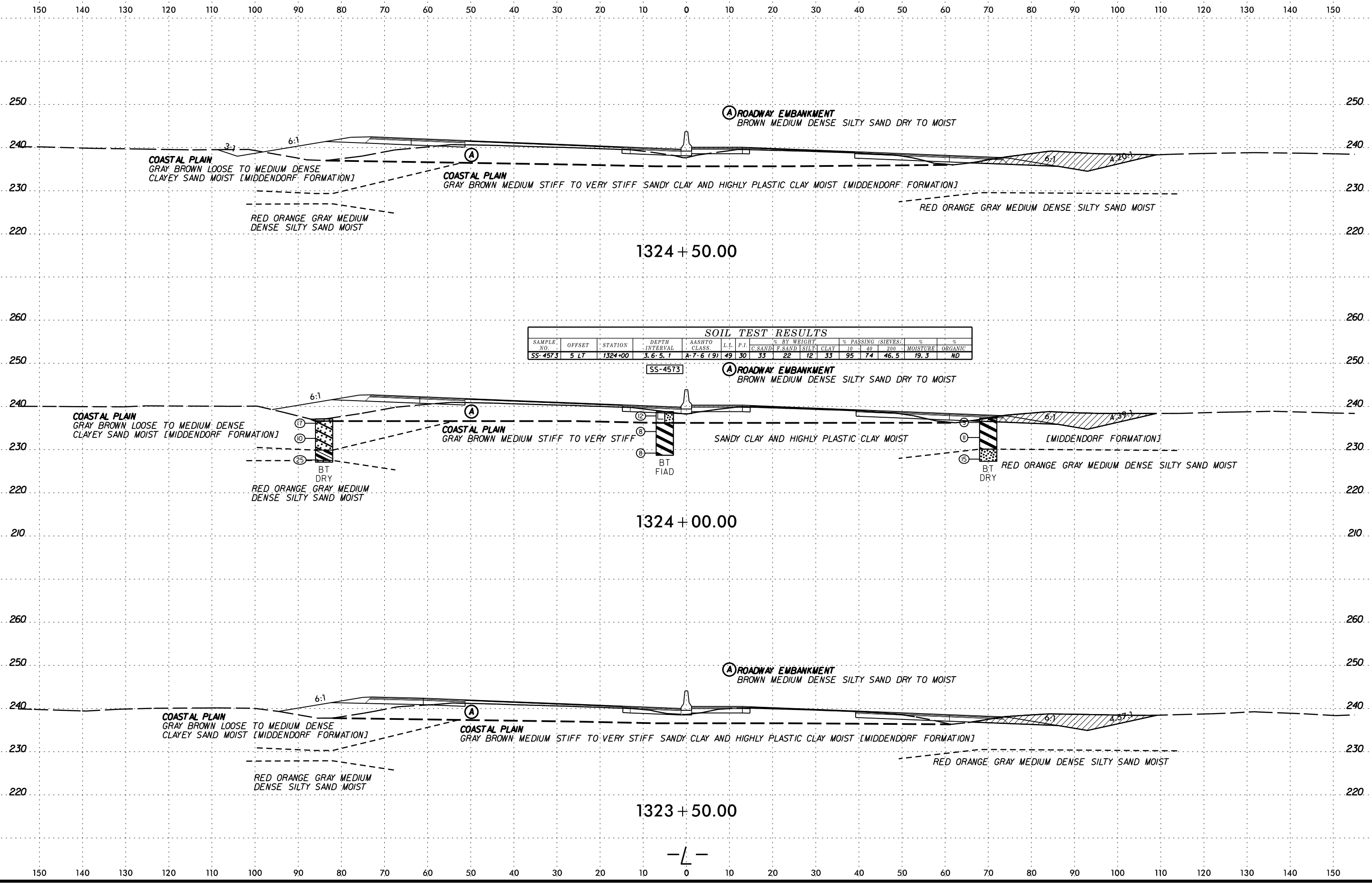
SAMPLE NO.	OFFSET	STATION	DEPTH INTERVAL	AASHTO CLASS	L.L.	P.I.	% BY WEIGHT				% PASSING (SIEVES)		% MOISTURE	% ORGANIC	
							C SAND	F SAND	SILT	CLAY	#10	#40			#200
SS-4575	6 FT	1321+00	0-1.5	A-6 (3)	35	20	41	19	12	28	90	65	38.3	11.2	ND

1321 + 00.00

SYSTEMS
 DESIGN
 CONSULTANTS
 INC.
 10000
 JEFFERSON
 AVENUE
 SUITE 100
 DENVER
 CO 80201
 (303) 733-8800
 WWW.SDCON.COM



SECTION
CON
SURFACE
LINE



SOIL TEST RESULTS

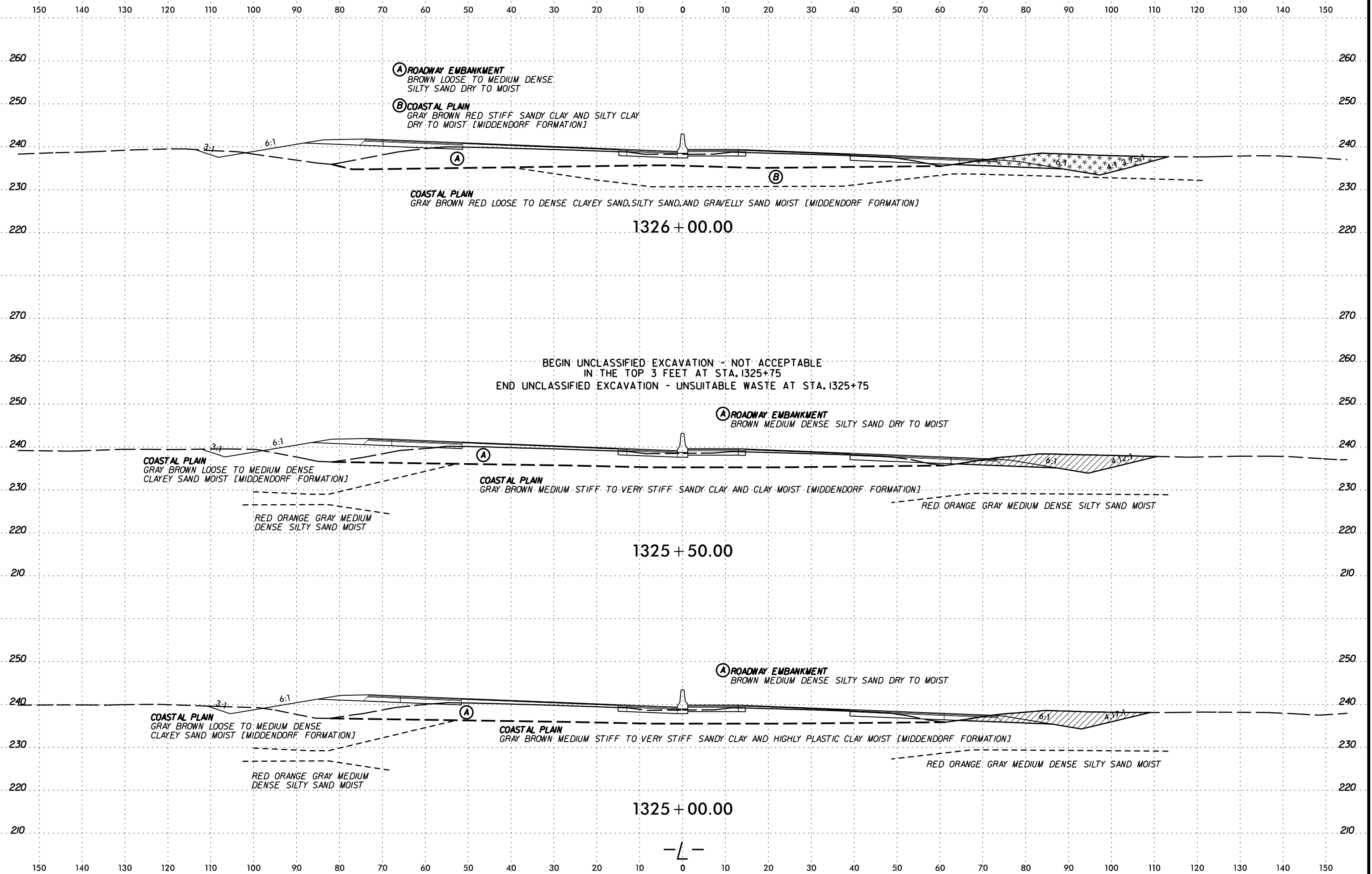
SAMPLE NO.	OFFSET	STATION	DEPTH INTERVAL	AASHTO CLASS.	L.L.	P.I.	% BY WEIGHT				% PASSING (SIEVES)		% MOISTURE	% ORGANIC	
							C. SAND	F. SAND	SILT	CLAY	10	40			200
SS-4573	5 LT	1324+00	3.6-5.1	A-7-6 (9)	49	30	33	22	12	33	95	74	46.5	19.3	ND

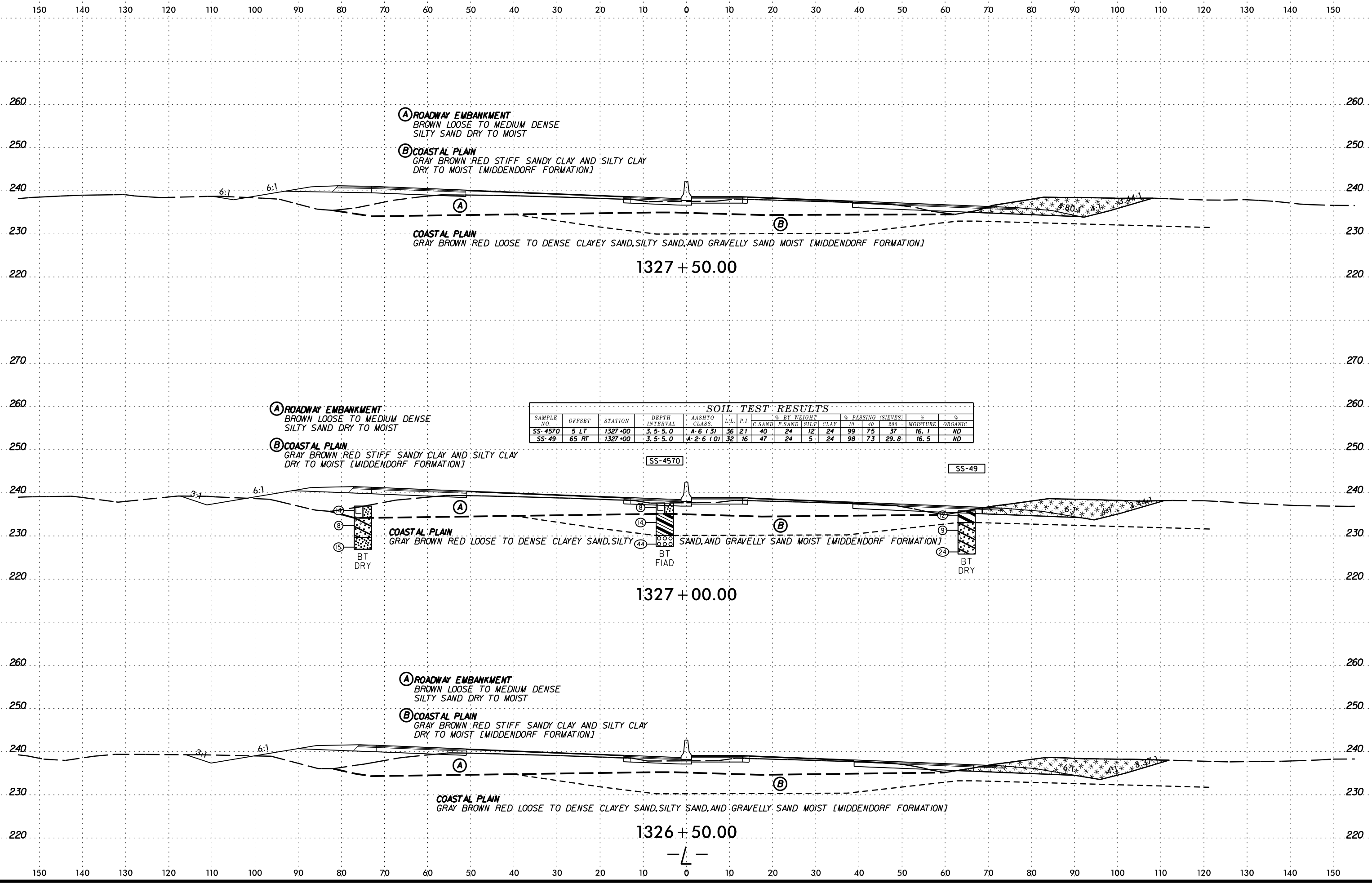
SCHEMATIC CONSTRUCTION PERMITS

6/23/16
SECTION LOCATION
SHEETS TO BE USED



PROJ. REFERENCE NO.	SHEET NO.
1-5986B	38

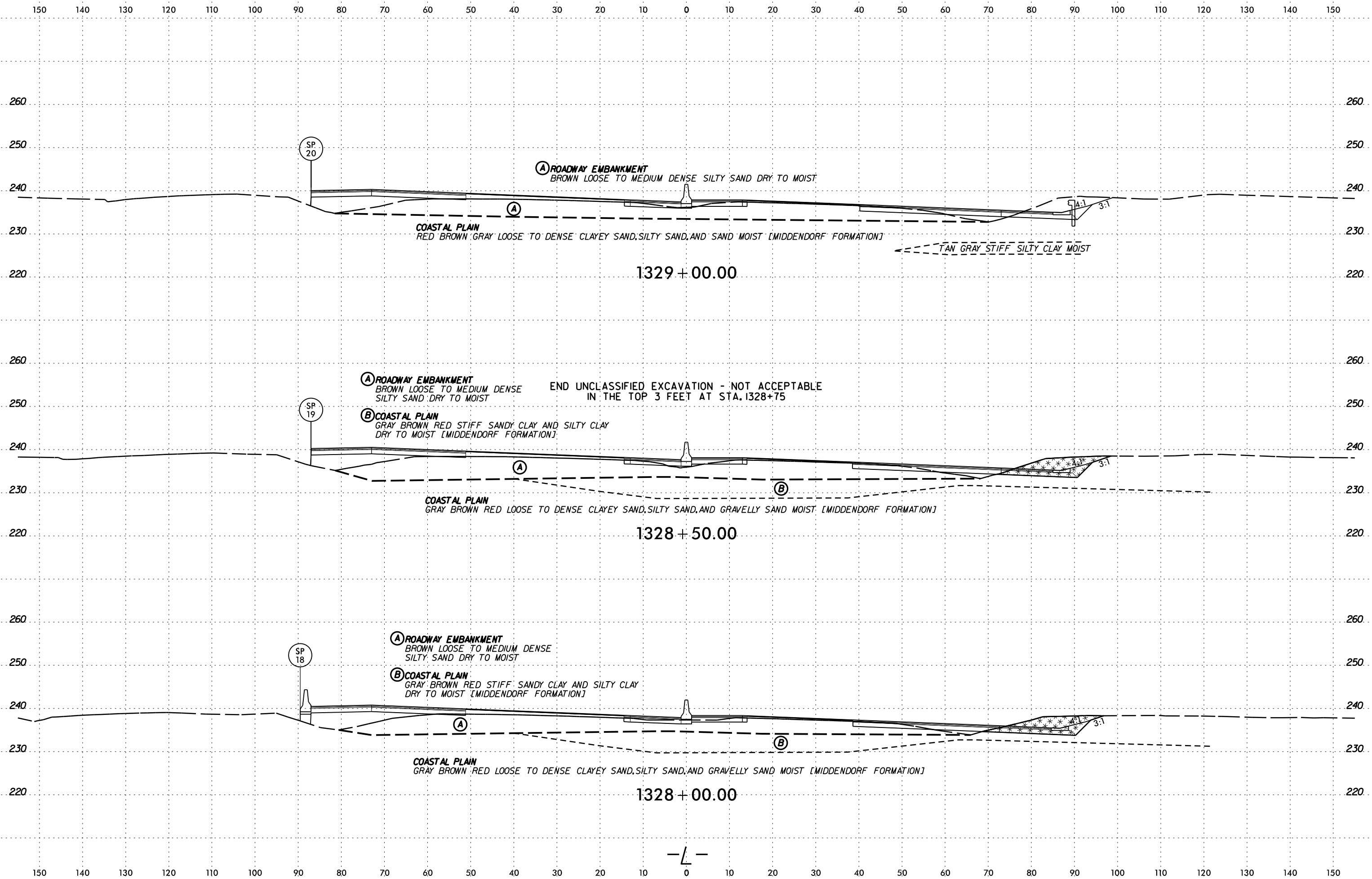




SOIL TEST RESULTS

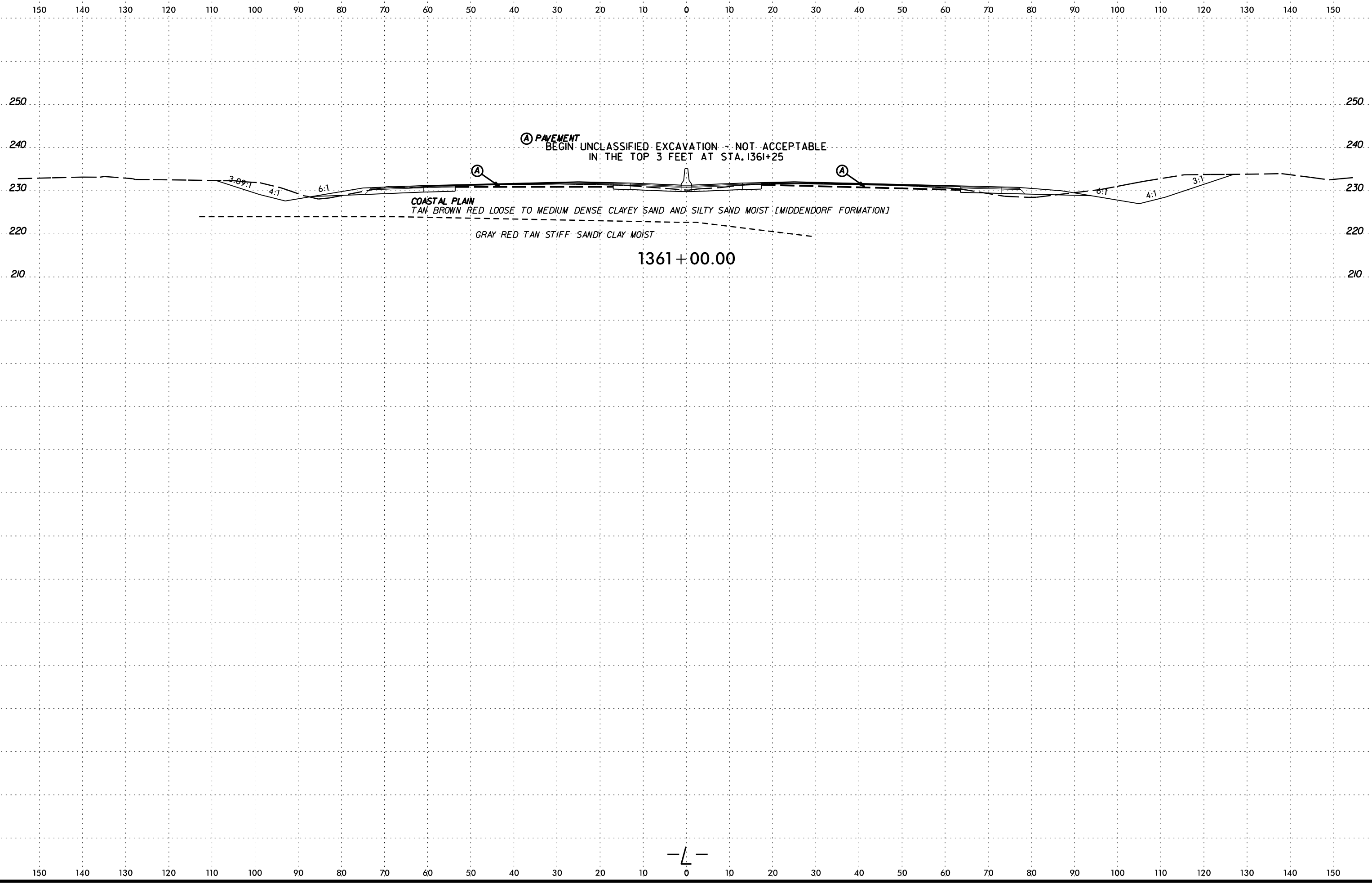
SAMPLE NO.	OFFSET	STATION	DEPTH INTERVAL	AASHTO CLASS.	L.L.	P.I.	% BY WEIGHT				% PASSING (SIEVES)			% MOISTURE	% ORGANIC
							C. SAND	F. SAND	SILT	CLAY	10	40	200		
SS-4570	5 LT	1327+00	3.5-5.0	A-6 (3)	36	21	40	24	12	24	99	75	37	16.1	ND
SS-49	65 RT	1327+00	3.5-5.0	A-2-6 (0)	32	16	47	24	5	24	98	73	29.8	16.5	ND

DATE PLOTTED: 06/23/16



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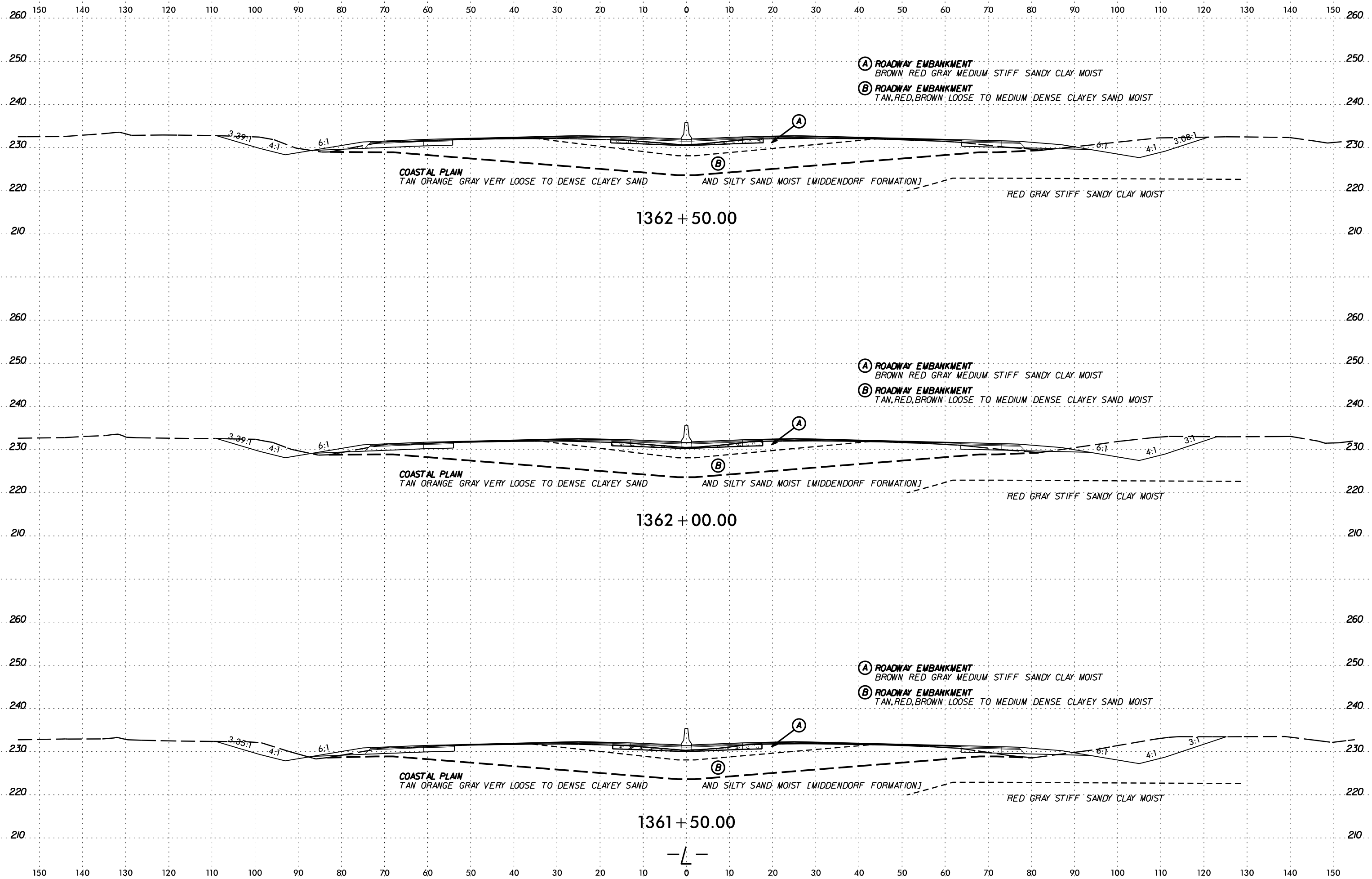
6/23/16



DATE: 6/23/16
DRAWN BY: [illegible]
CHECKED BY: [illegible]
SCALE: AS SHOWN

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6/23/16



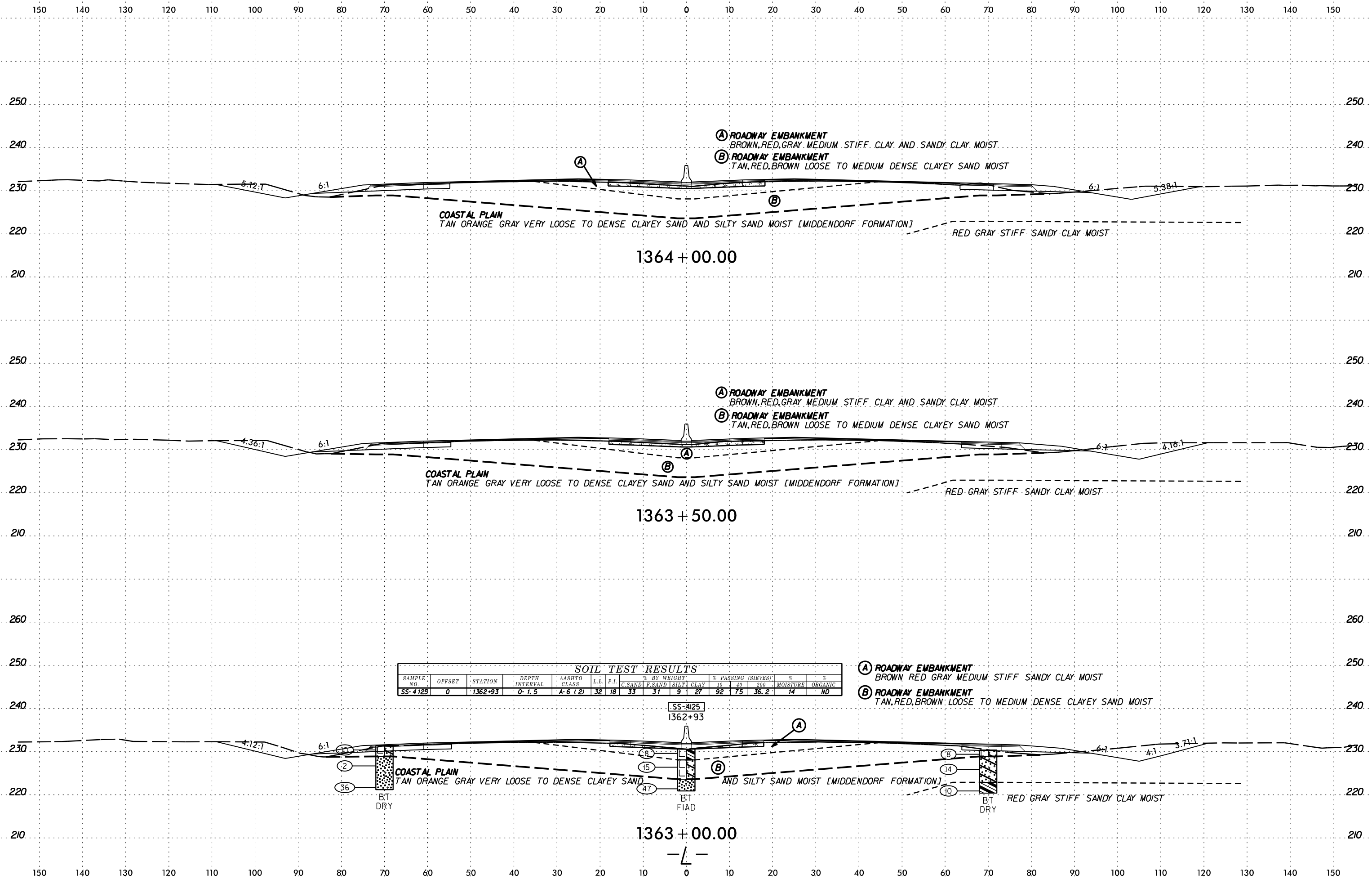
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1362 + 50.00

1362 + 00.00

1361 + 50.00

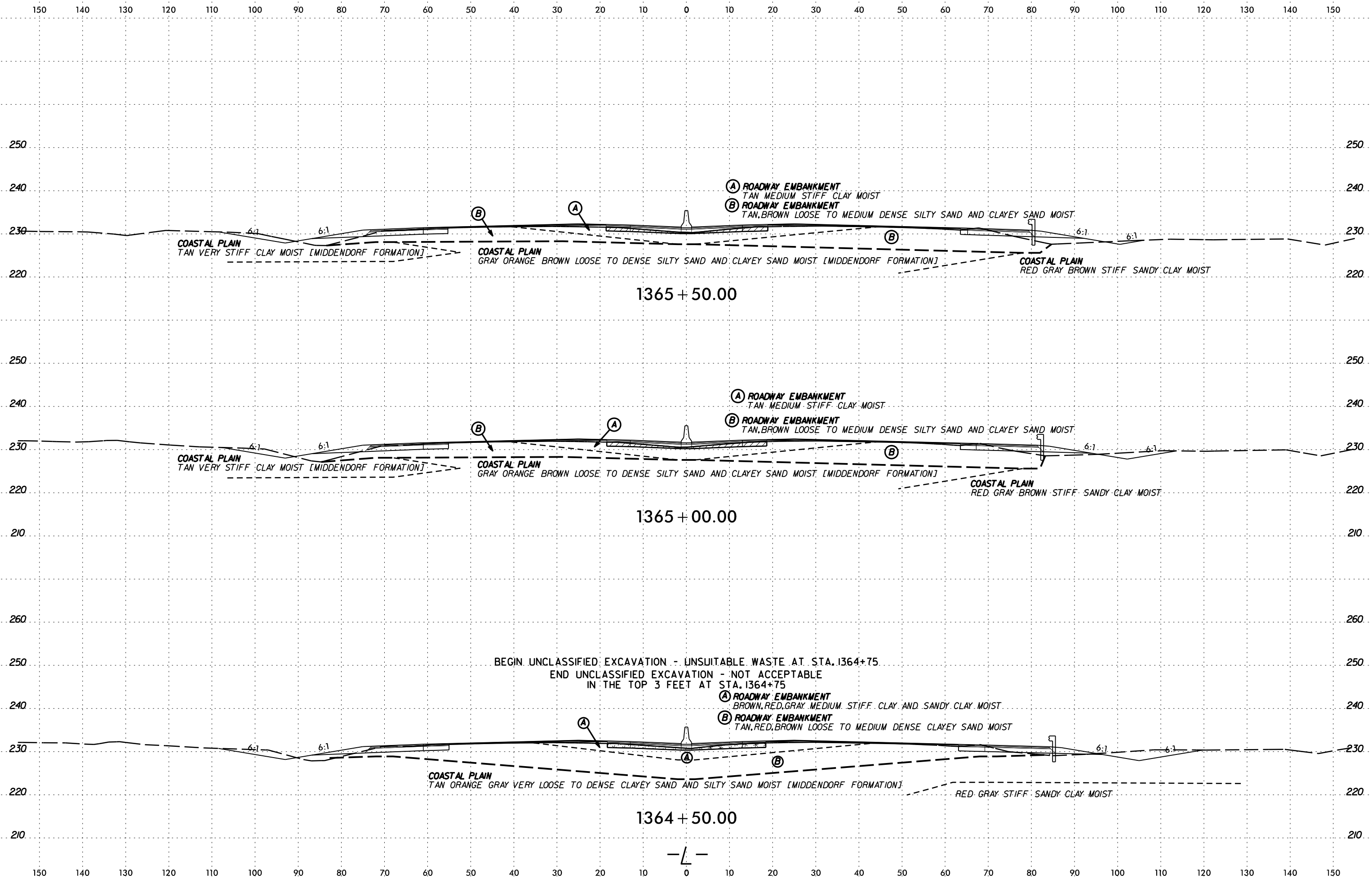
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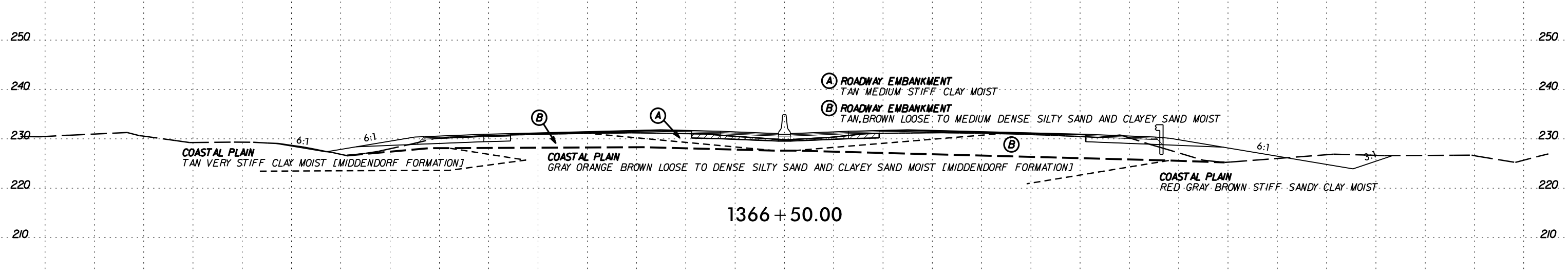
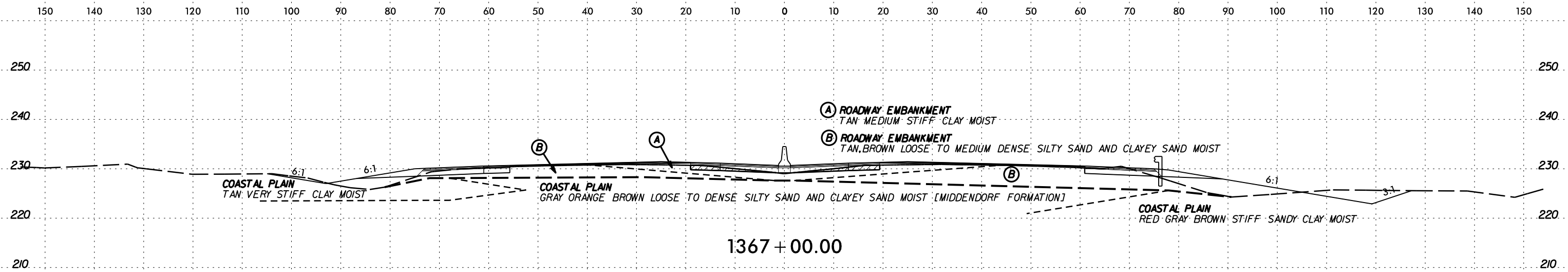
SOIL TEST RESULTS

SAMPLE NO.	OFFSET	STATION	DEPTH INTERVAL	AASHTO CLASS	LL	P.I.	% BY WEIGHT				% PASSING (SIEVES)		MOISTURE	ORGANIC	
							C. SAND	F. SAND	SILT	CLAY	#20	#60			
SS-4125	0	1362+93	0-1.5	A-6 (2)	32	18	33	31	9	27	92	75	36.2	14	ND

SYSTEMS DESIGN CONSULTANTS INC. 11500 JEFFERSON AVE. SUITE 200, DALLAS, TX 75220
 TEL: 972.343.8800 FAX: 972.343.8801 WWW.SDCINC.COM

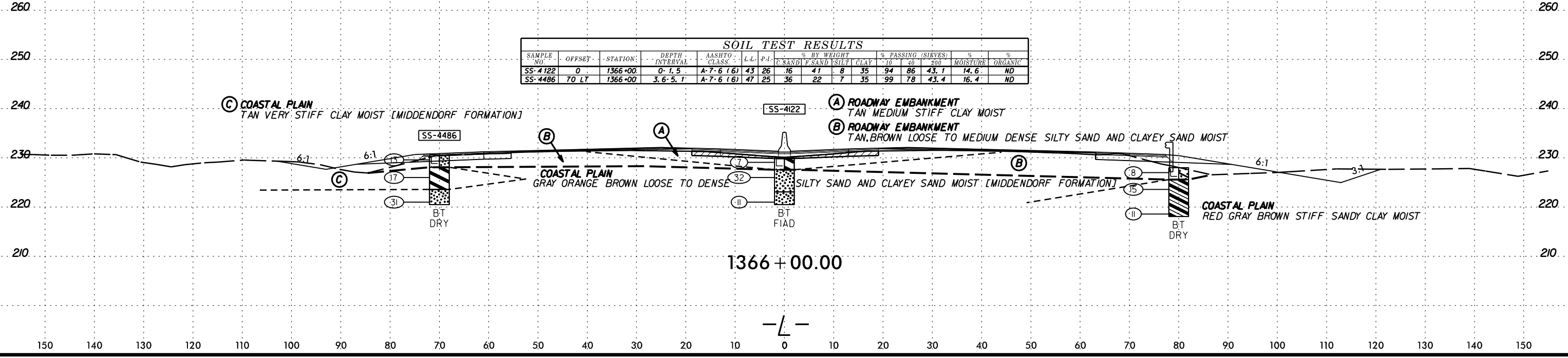


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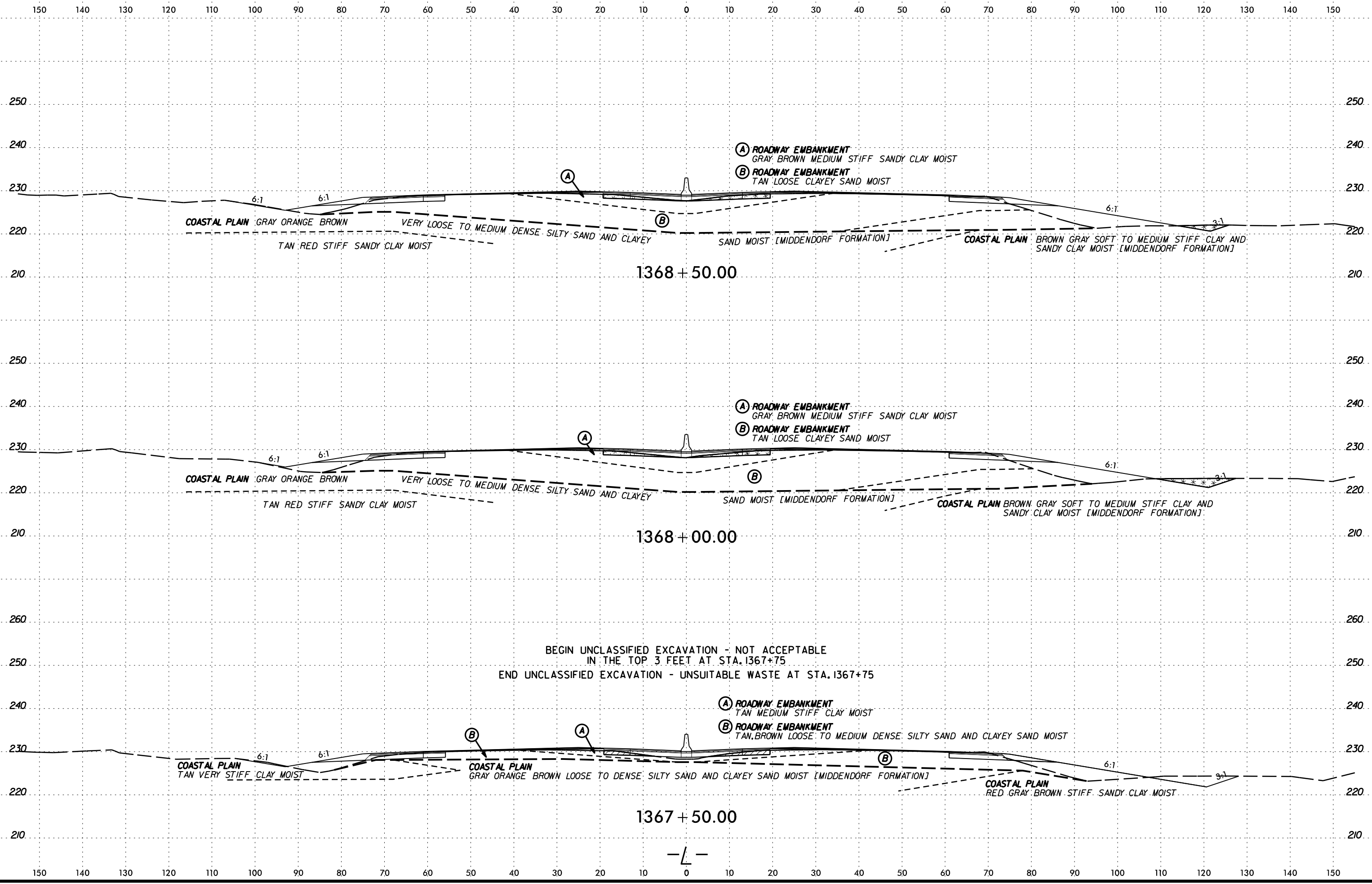


SOIL TEST RESULTS

SAMPLE NO.	OFFSET	STATION	DEPTH INTERVAL	AASHTO CLASS	L.L.	P.L.	% BY WEIGHT				MOISTURE	ORGANIC			
							C. SAND	F. SAND	SILT	CLAY					
SS-4122	0	1366+00	0-1.5'	A-7-6 (6)	43	26	16	41	8	35	94	86	43.1	14.6	ND
SS-4486	70 LT	1366+00	3.6-5.1'	A-7-6 (6)	47	25	36	22	7	35	99	78	43.4	16.4	ND

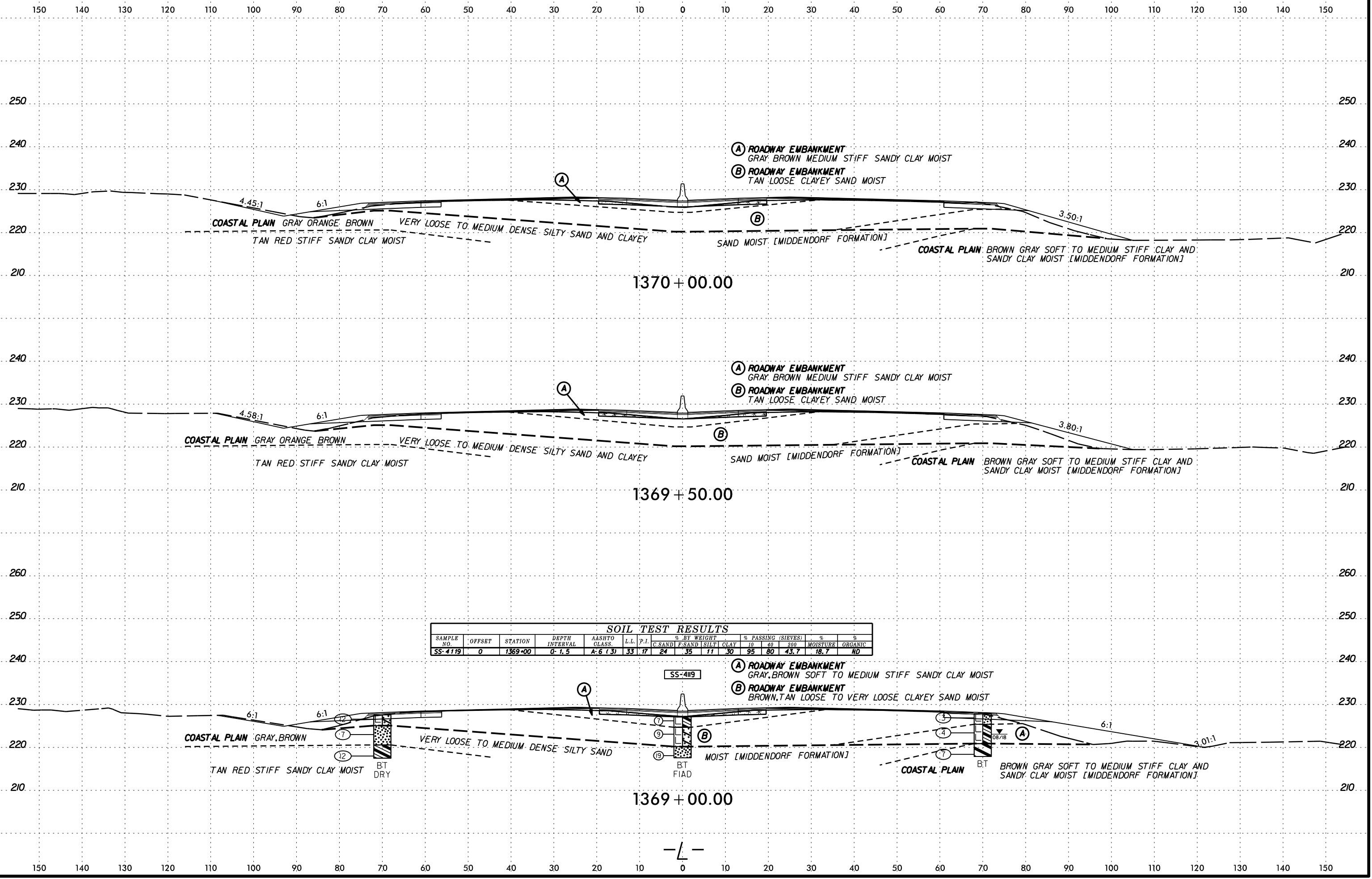


SCALE: 1"=20'



SECTION 1367+50.00 TO 1368+50.00

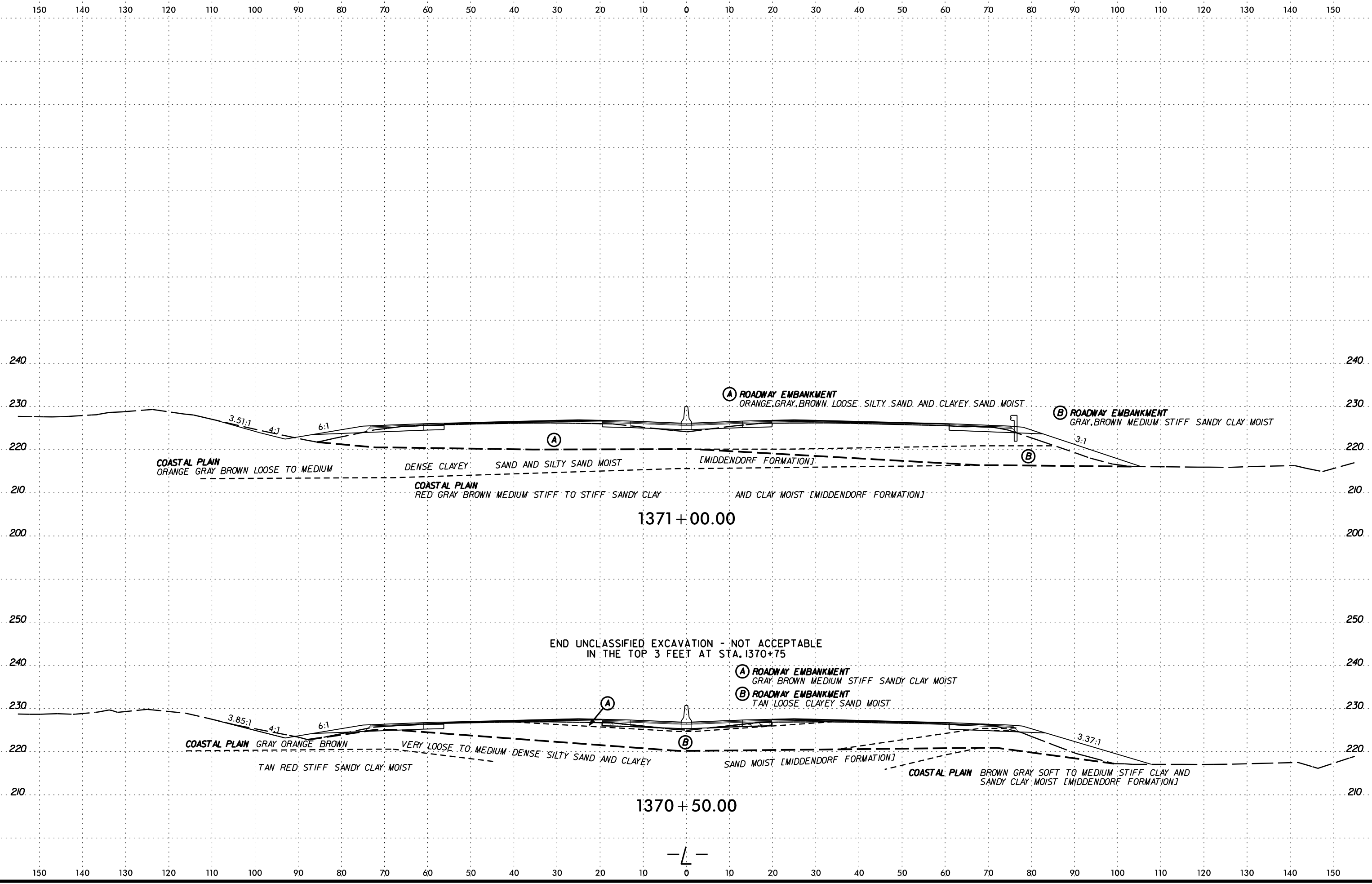
6/23/16



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			
SS-4119	0	1369+00	0-1.5	A-6 (3)	33	17	24	35	11	30	95	80	43.7	18.7	ND

SECTION LOCATION SURVEY

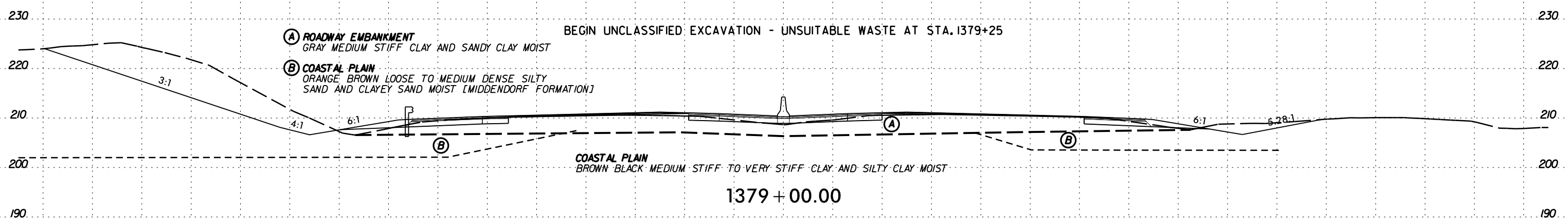
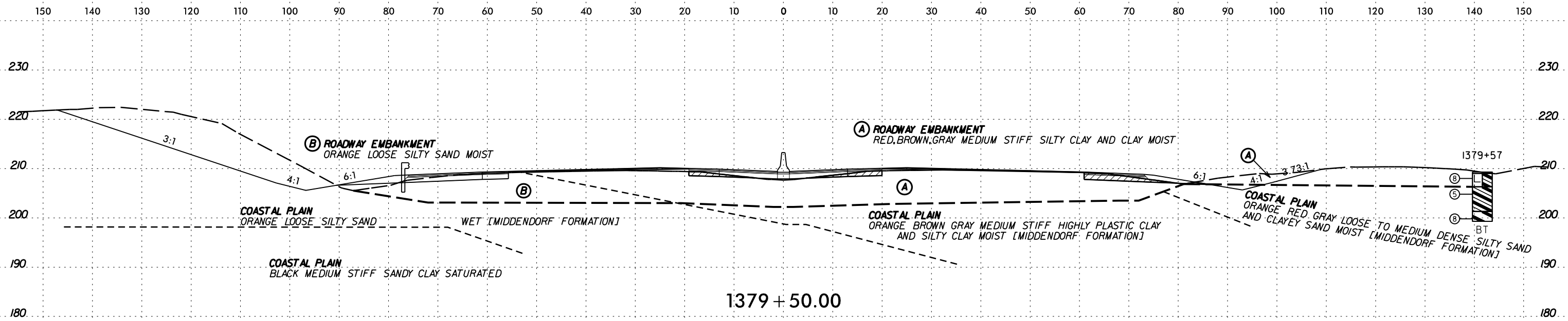


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6/23/16



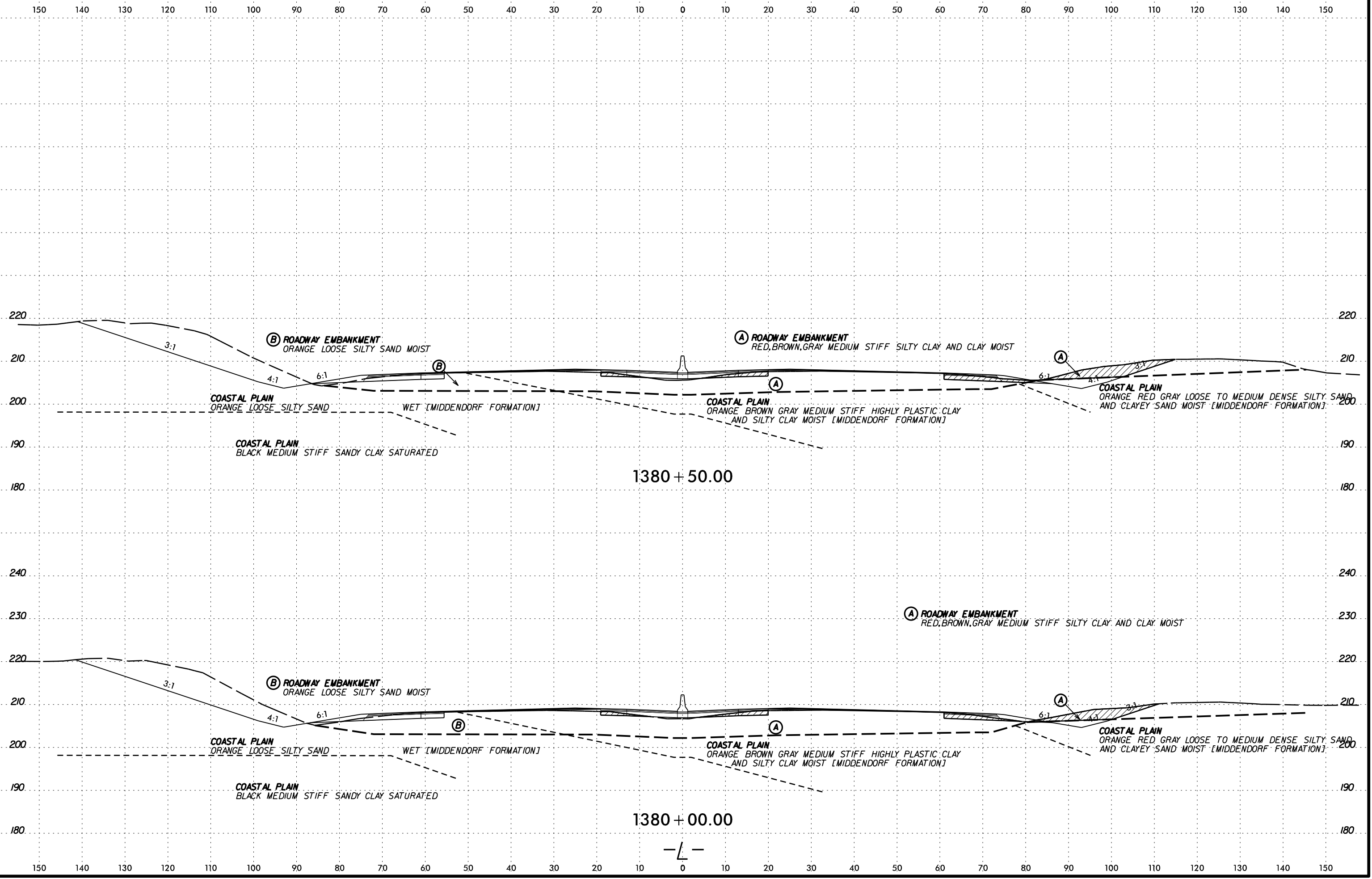
PROJ. REFERENCE NO.	SHEET NO.
I-5986B	49



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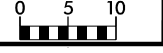
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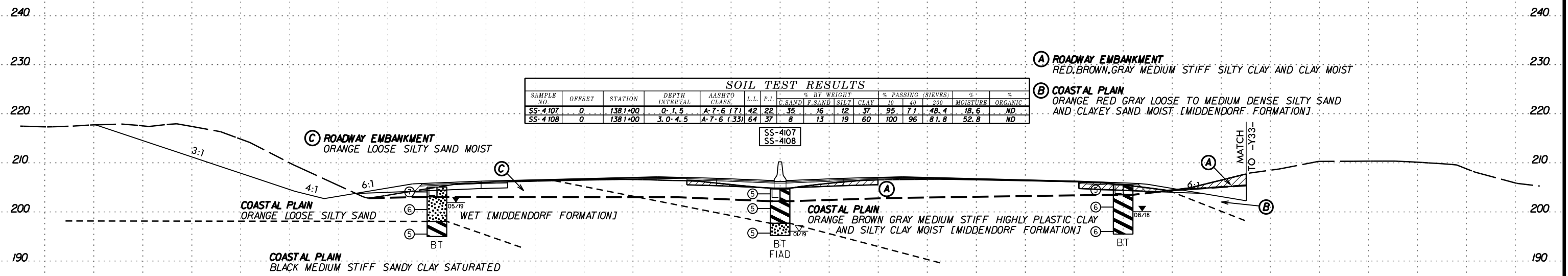
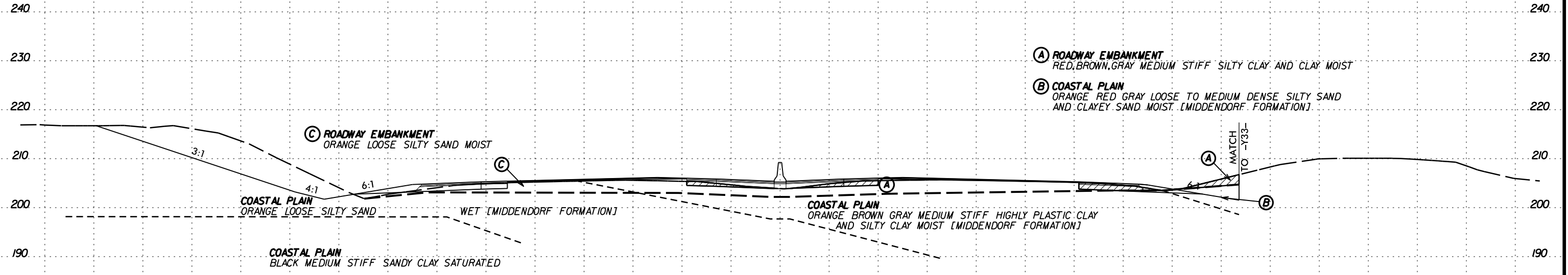


SECTION ON
SOUTH SIDE OF
ROADWAY

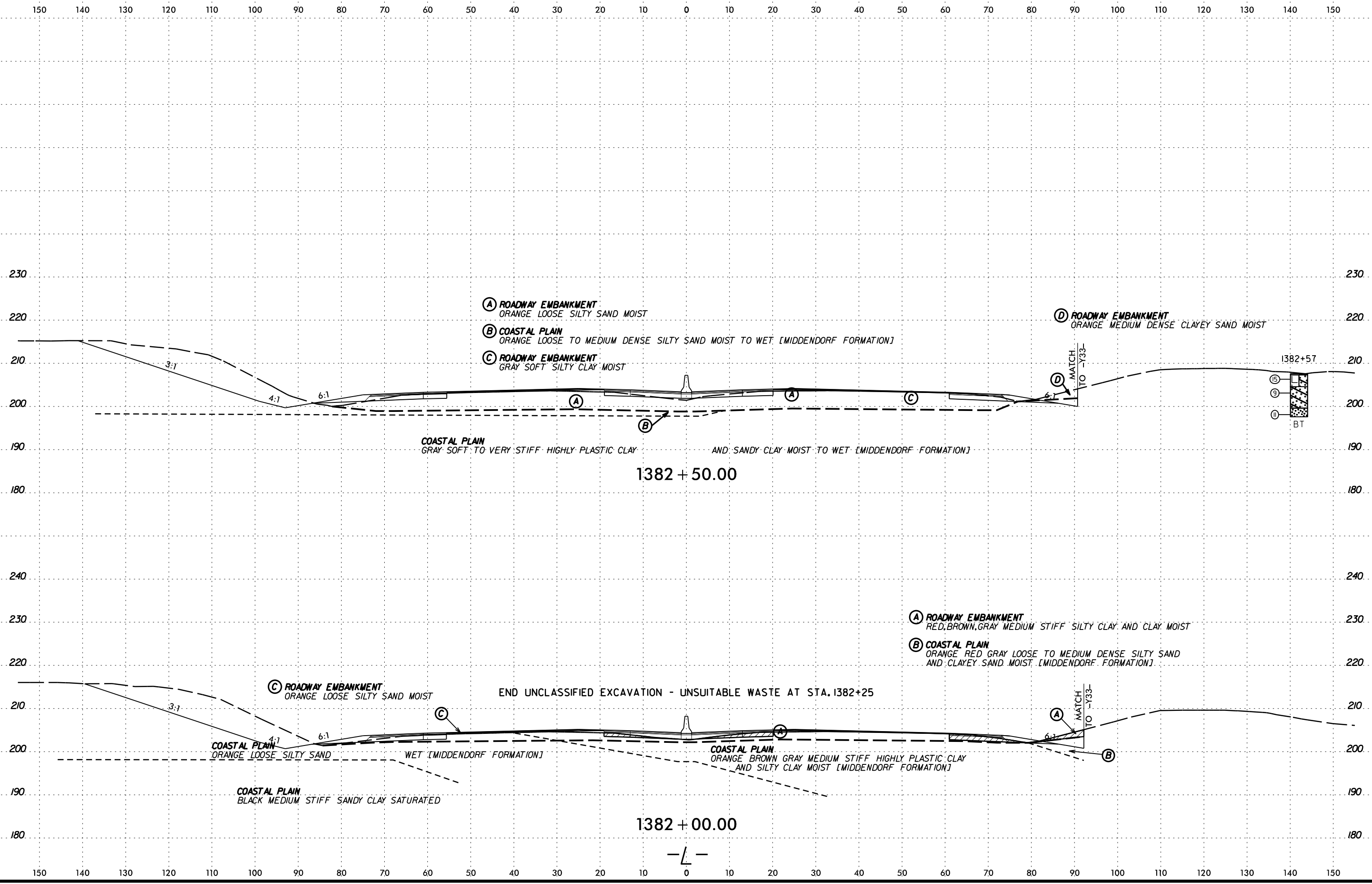
6/23/16



150 140 130 120 110 100 90 80 70 60 50 40 30 20 10 0 10 20 30 40 50 60 70 80 90 100 110 120 130 140 150



SCHEMATIC CONSTRUCTION



SCHEMATIC CROSS SECTION
DATE: 6/23/16
BY: [illegible]

1382 + 50.00

1382 + 00.00

- (A) ROADWAY EMBANKMENT
ORANGE LOOSE SILTY SAND MOIST
- (B) COASTAL PLAIN
ORANGE LOOSE TO MEDIUM DENSE SILTY SAND MOIST TO WET [MIDDENDORF FORMATION]
- (C) ROADWAY EMBANKMENT
GRAY SOFT SILTY CLAY MOIST

- (D) ROADWAY EMBANKMENT
ORANGE MEDIUM DENSE CLAYEY SAND MOIST

- (A) ROADWAY EMBANKMENT
RED, BROWN, GRAY MEDIUM STIFF SILTY CLAY AND CLAY MOIST
- (B) COASTAL PLAIN
ORANGE RED GRAY LOOSE TO MEDIUM DENSE SILTY SAND AND CLAYEY SAND MOIST [MIDDENDORF FORMATION]

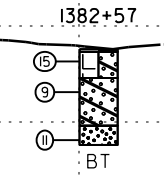
- (C) ROADWAY EMBANKMENT
ORANGE LOOSE SILTY SAND MOIST

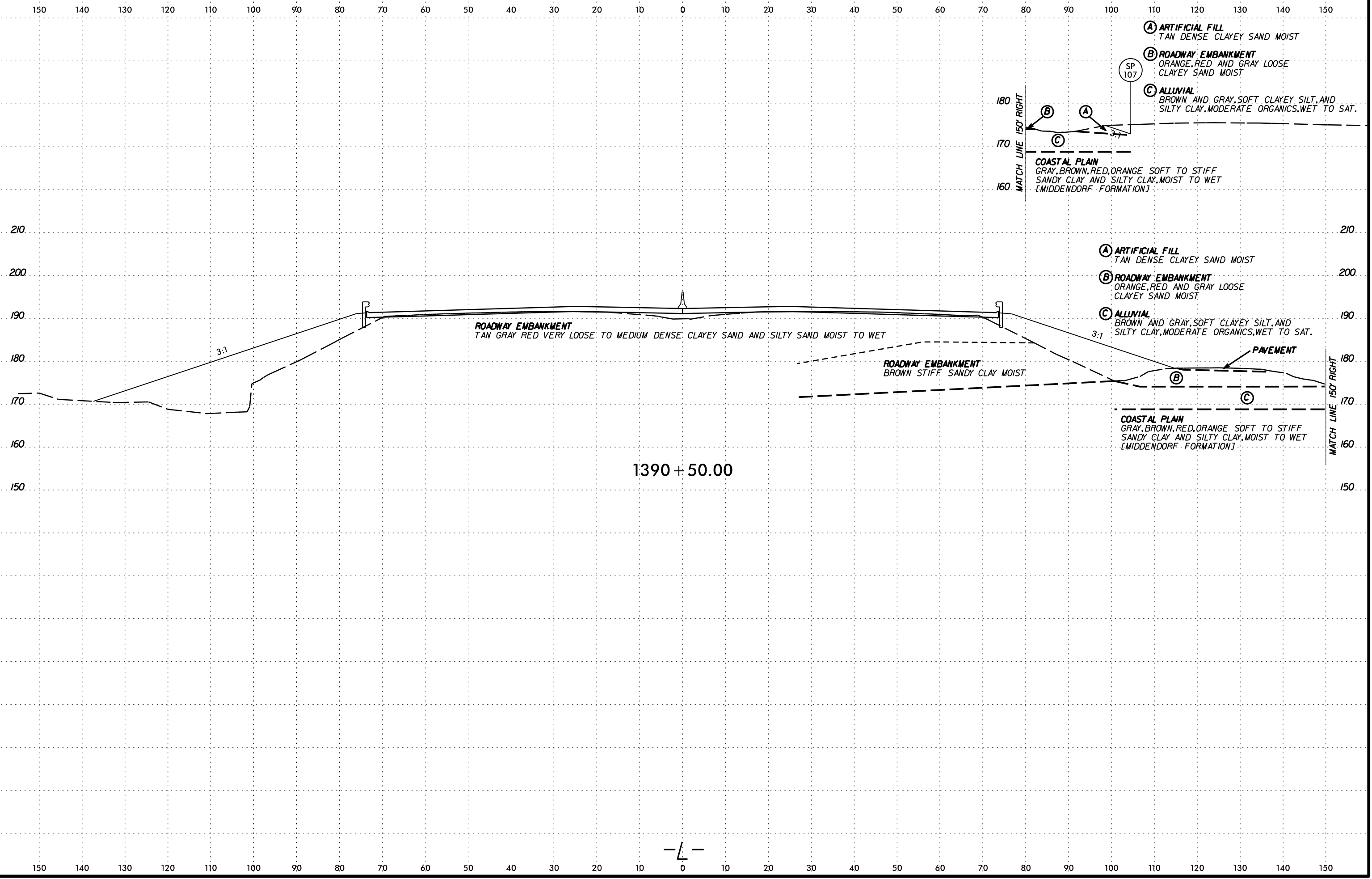
END UNCLASSIFIED EXCAVATION - UNSUITABLE WASTE AT STA. 1382+25

COASTAL PLAIN
ORANGE LOOSE SILTY SAND

COASTAL PLAIN
BLACK MEDIUM STIFF SANDY CLAY SATURATED

COASTAL PLAIN
ORANGE BROWN GRAY MEDIUM STIFF HIGHLY PLASTIC CLAY AND SILTY CLAY MOIST [MIDDENDORF FORMATION]





- (A) ARTIFICIAL FILL
TAN DENSE CLAYEY SAND MOIST
- (B) ROADWAY EMBANKMENT
ORANGE, RED AND GRAY LOOSE CLAYEY SAND MOIST
- (C) ALLUVIAL
BROWN AND GRAY, SOFT CLAYEY SILT, AND SILTY CLAY, MODERATE ORGANICS, WET TO SAT.

SP 107

MATCH LINE 150' RIGHT
180
170
160

COASTAL PLAIN
GRAY, BROWN, RED, ORANGE SOFT TO STIFF SANDY CLAY AND SILTY CLAY, MOIST TO WET [MIDDENDORF FORMATION]

- (A) ARTIFICIAL FILL
TAN DENSE CLAYEY SAND MOIST
- (B) ROADWAY EMBANKMENT
ORANGE, RED AND GRAY LOOSE CLAYEY SAND MOIST
- (C) ALLUVIAL
BROWN AND GRAY, SOFT CLAYEY SILT, AND SILTY CLAY, MODERATE ORGANICS, WET TO SAT.

MATCH LINE 150' RIGHT
210
200
190
180
170
160
150

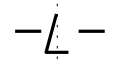
ROADWAY EMBANKMENT
TAN GRAY RED VERY LOOSE TO MEDIUM DENSE CLAYEY SAND AND SILTY SAND MOIST TO WET

ROADWAY EMBANKMENT
BROWN STIFF SANDY CLAY MOIST

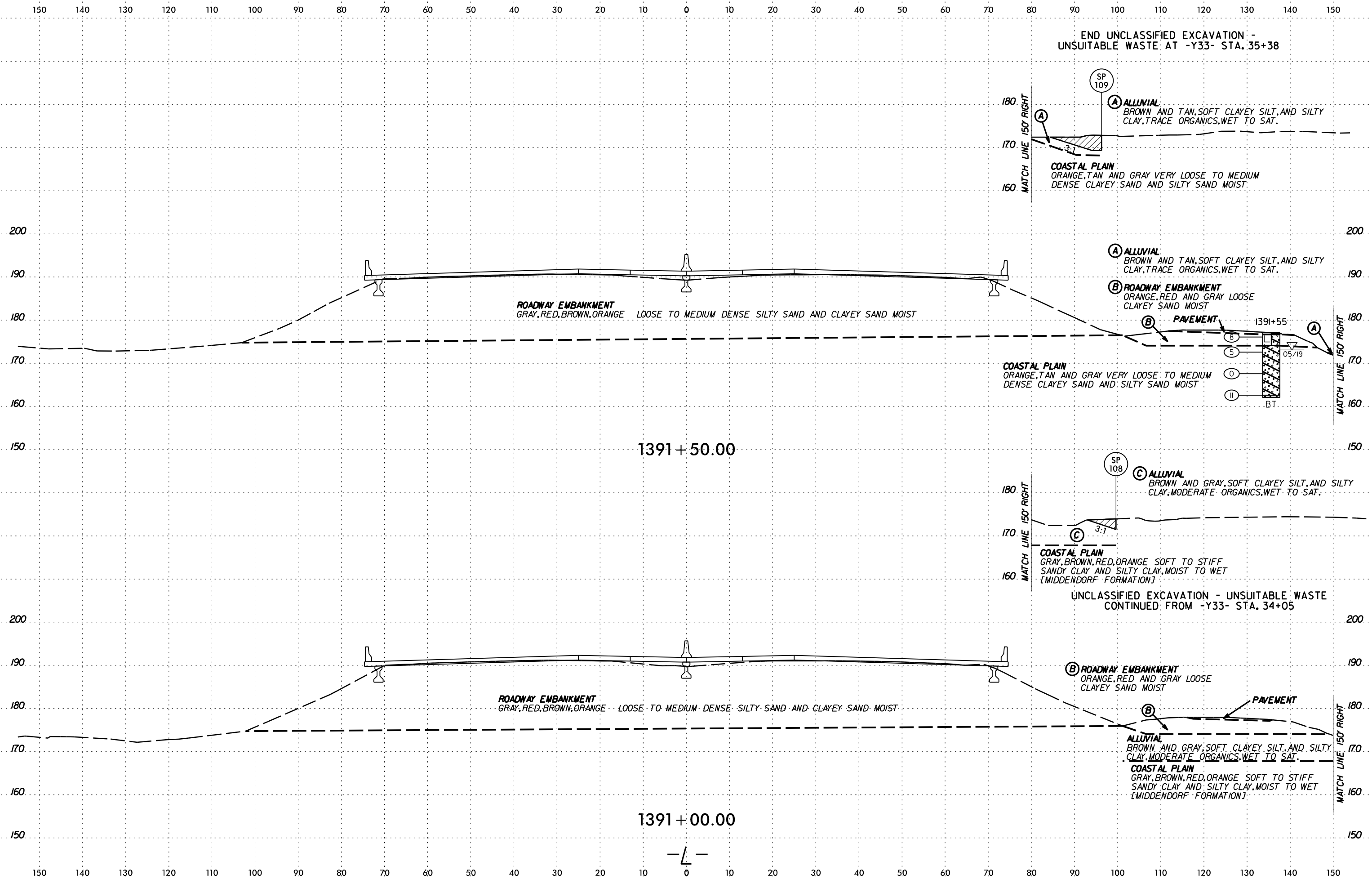
COASTAL PLAIN
GRAY, BROWN, RED, ORANGE SOFT TO STIFF SANDY CLAY AND SILTY CLAY, MOIST TO WET [MIDDENDORF FORMATION]

PAVEMENT

1390 + 50.00

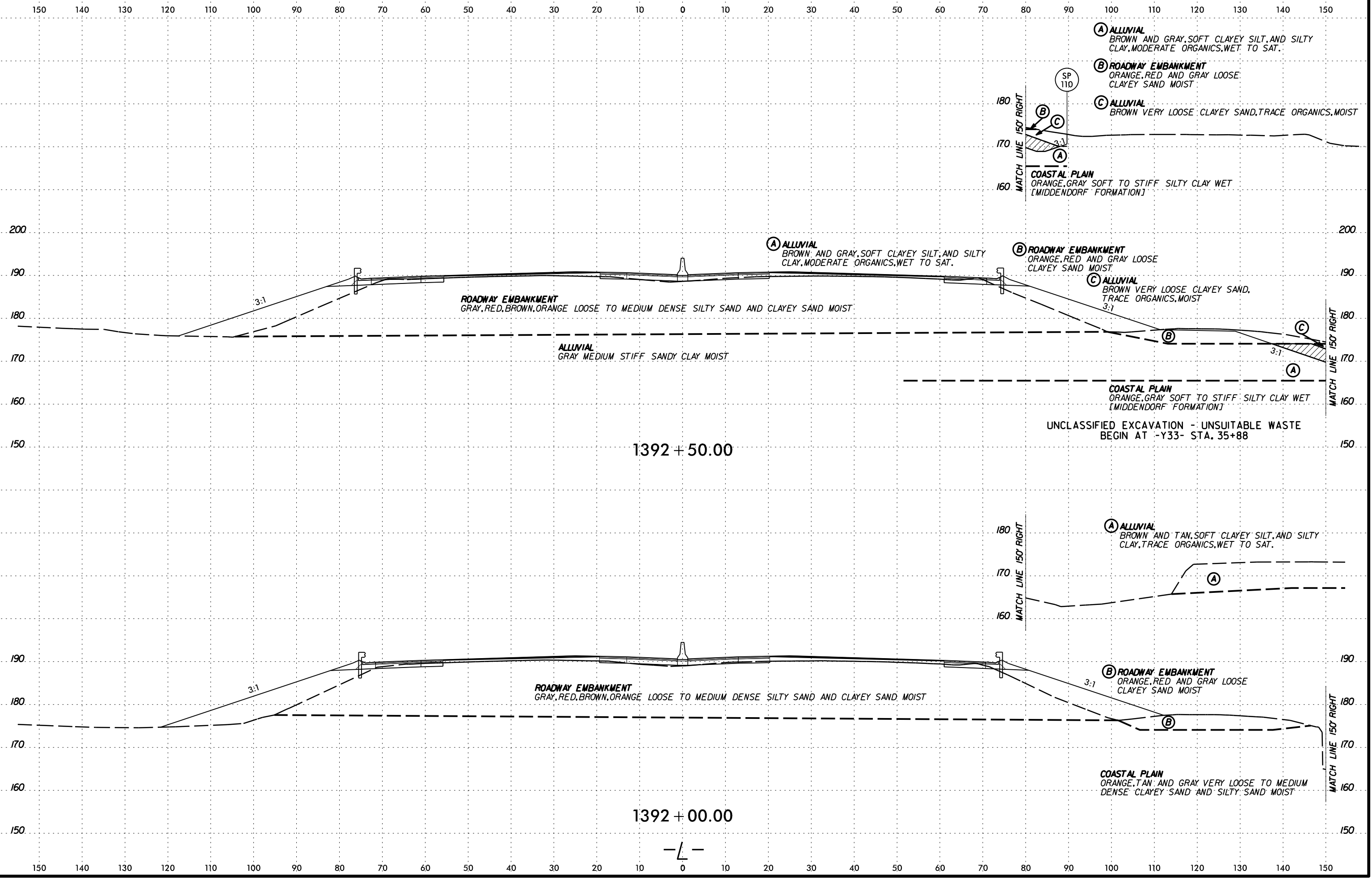


SYTIME
CON
ARRIVE

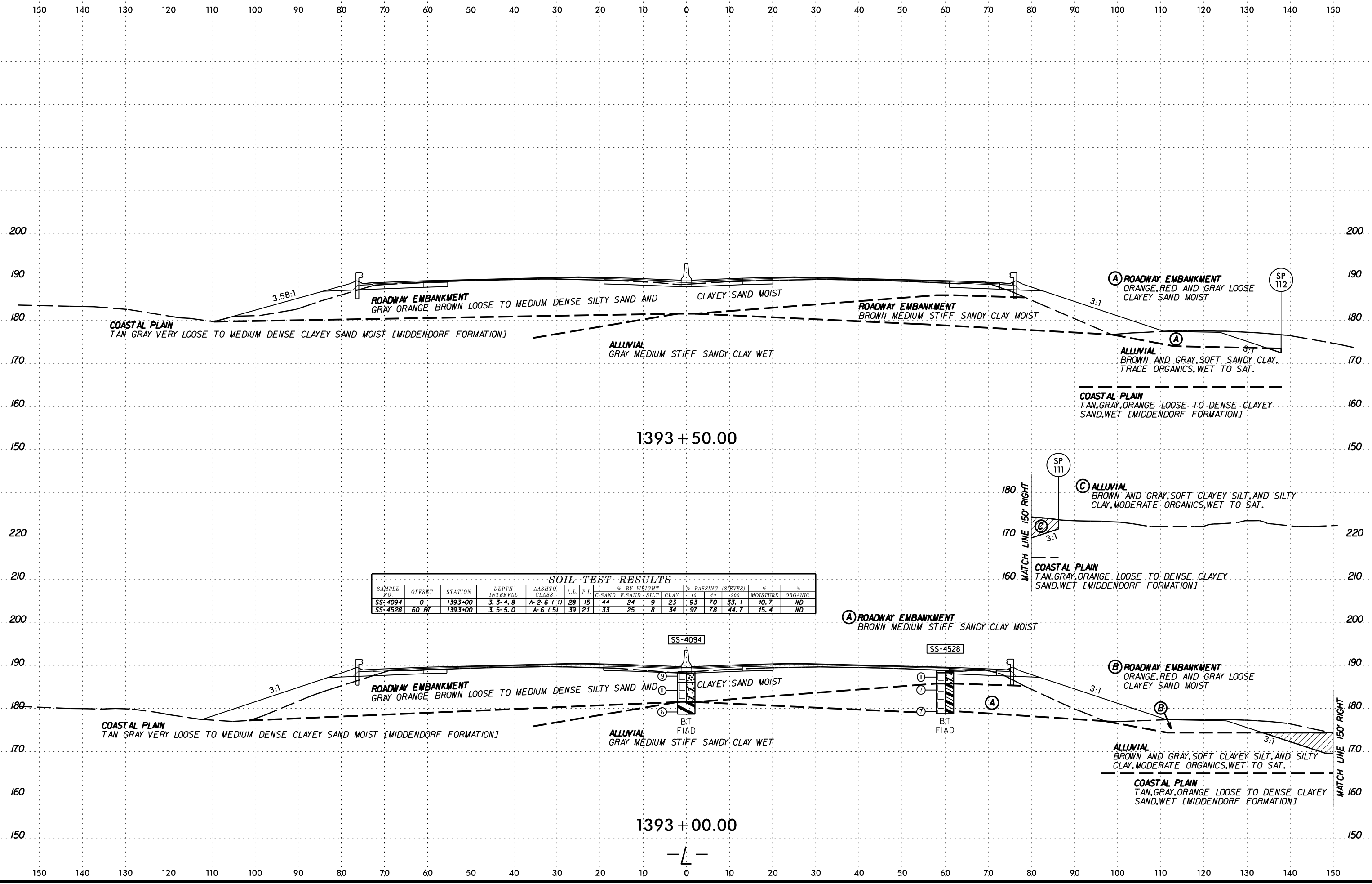


SECTION CUTS TO BE MADE AT THE LOCATION OF THE PAVEMENT STRUCTURE

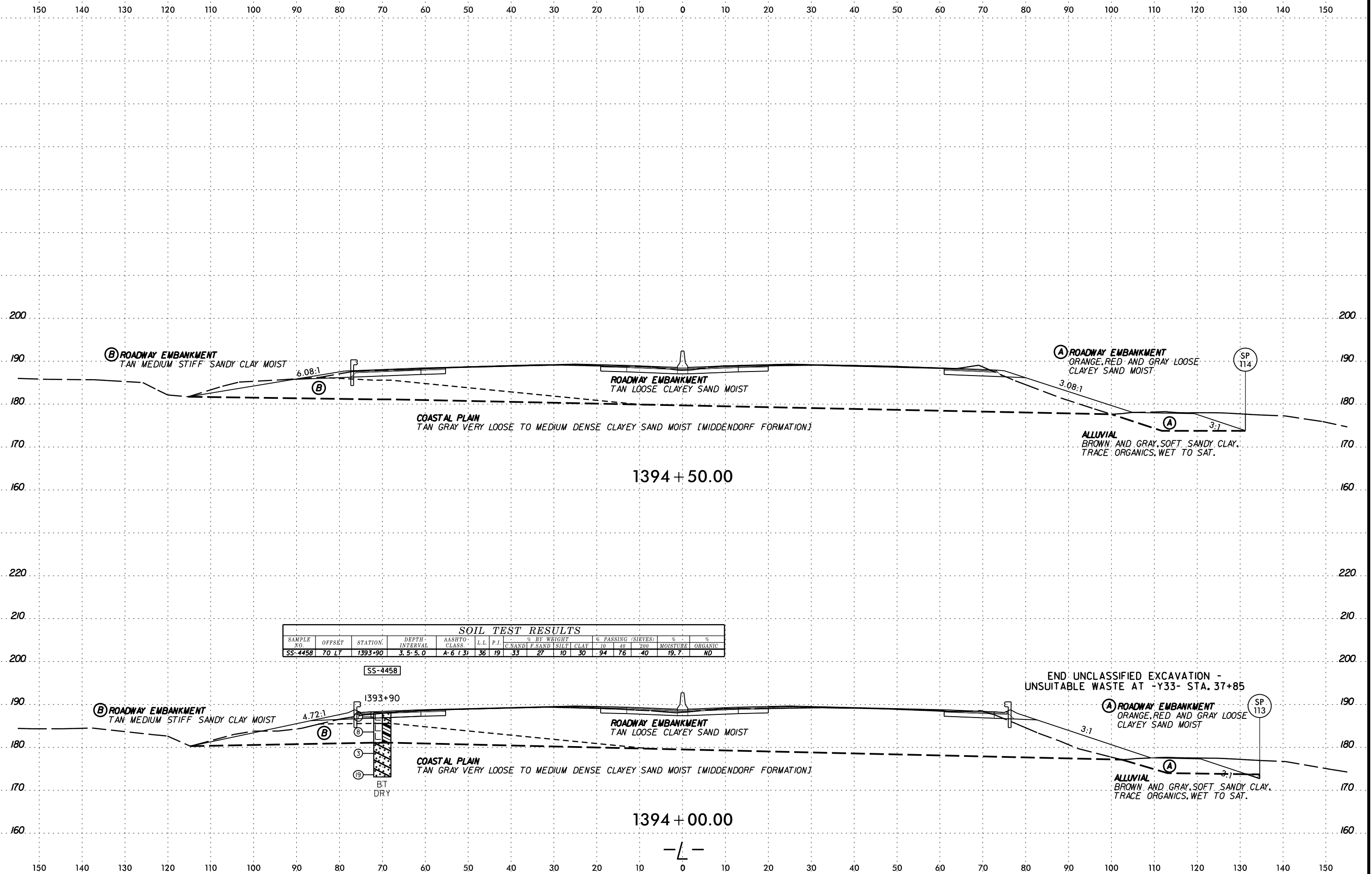
6/23/16



SYTIME
CON
ARRIVE



SYSTEMS DESIGN & CONSTRUCTION
 10000 JEFFERSON AVENUE
 SUITE 1000
 DENVER, CO 80202
 (303) 733-8800
 WWW.SDCONSTRUCTION.COM

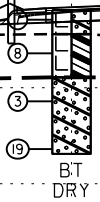


SOIL TEST RESULTS

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-4458	70 LT	1393+90	3.5-5.0	A-6 (3)	36	19	33	27	10	30	94	76	.40	19.7	ND

SS-4458

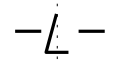
1393+90

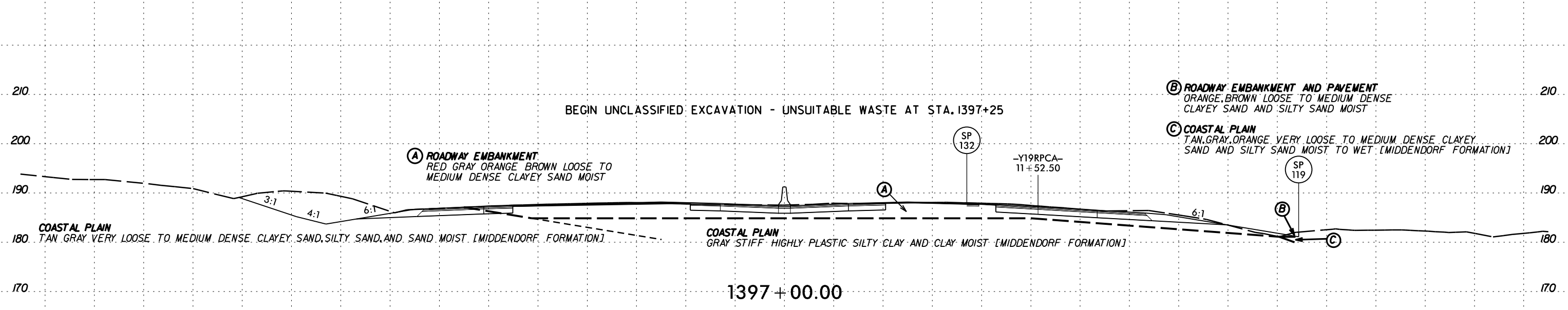
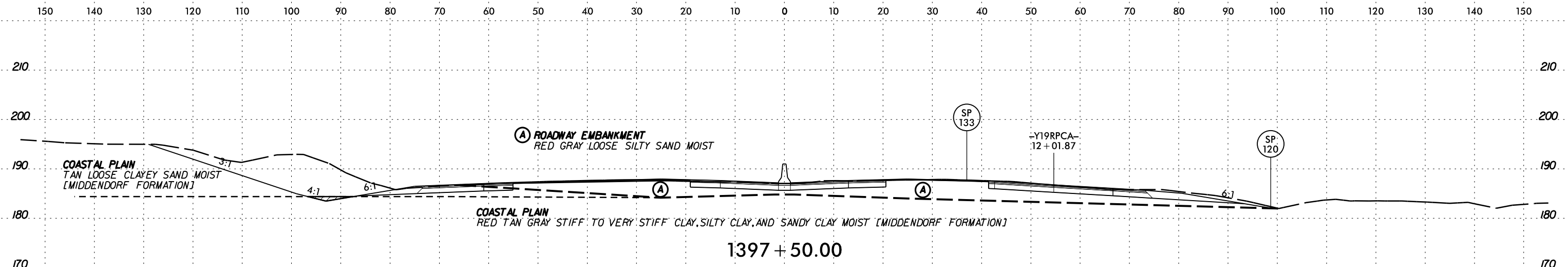


END UNCLASSIFIED EXCAVATION - UNSUITABLE WASTE AT -Y33- STA. 37+85

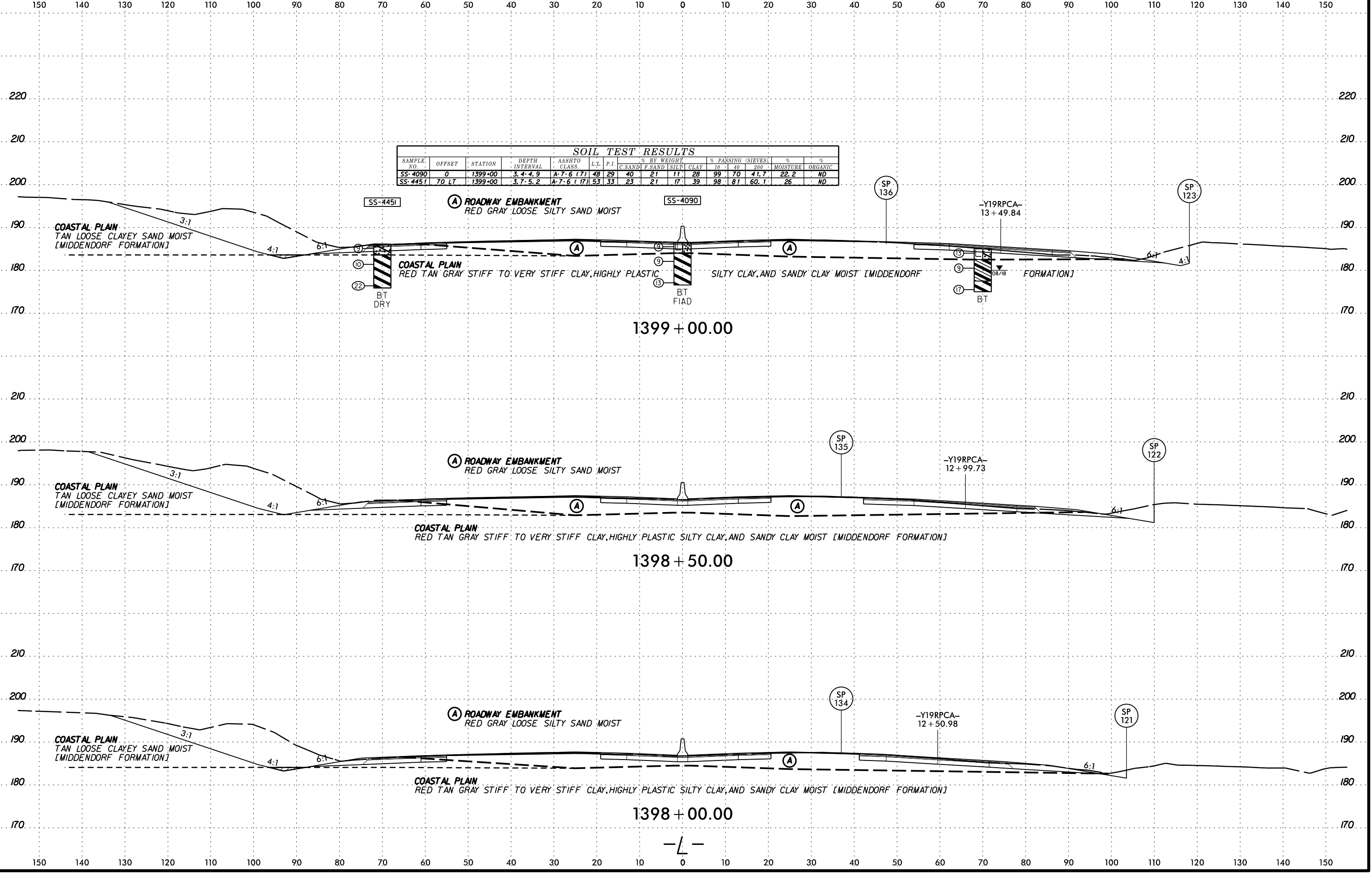
SP 113

1394 + 00.00



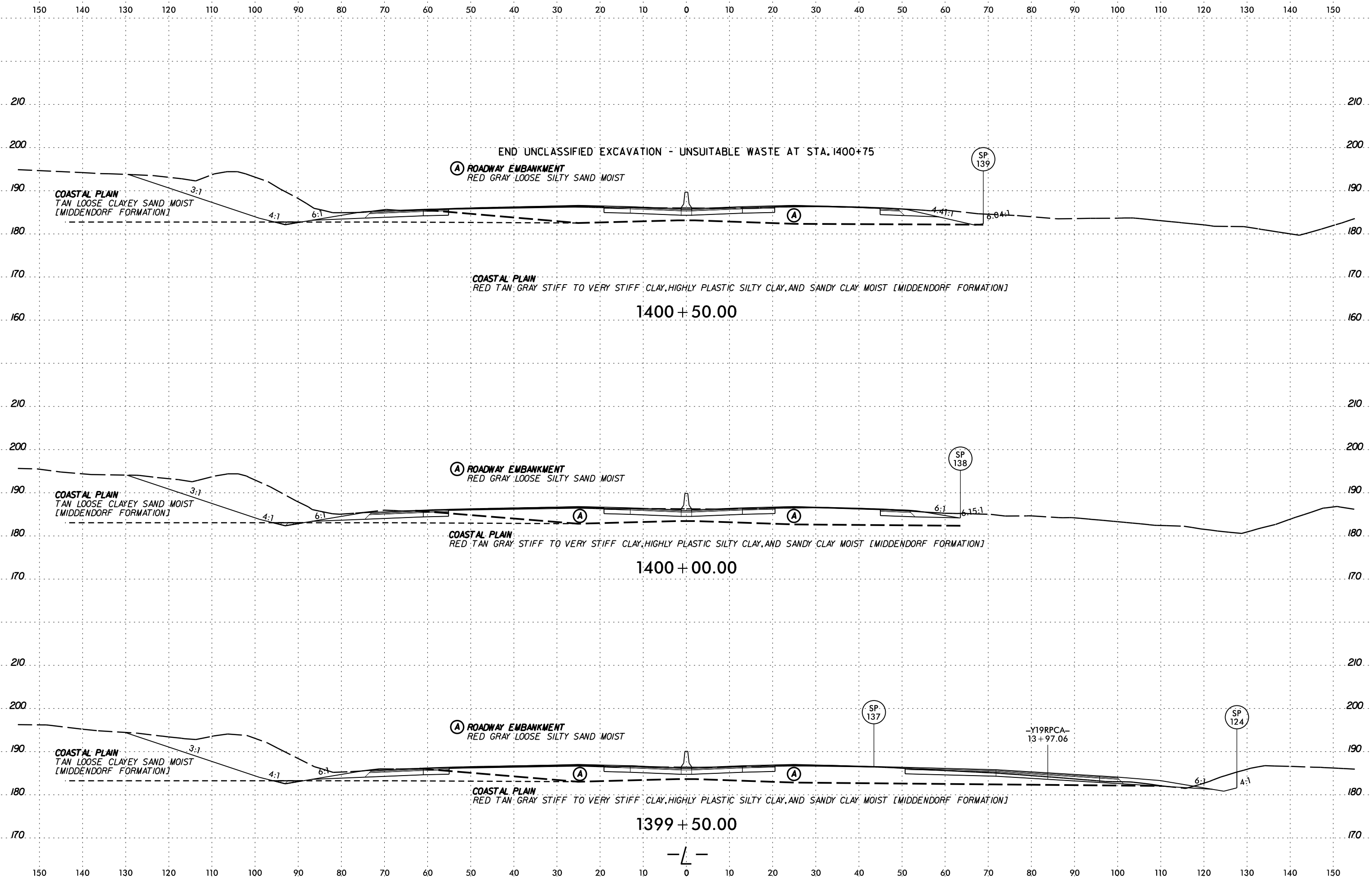


DATE PLOTTED: 6/23/16
SCALE: AS SHOWN
SHEET NO.: 58
PROJECT: I-5986B



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	200				
SS-4090	0	1399+00	3.4-4.9	A-7-6 (17)	48	29	40	21	11	28	99	70	41.7	22.2	ND
SS-4451	70 LT	1399+00	3.7-5.2	A-7-6 (17)	53	33	23	21	17	39	98	81	60.1	26	ND

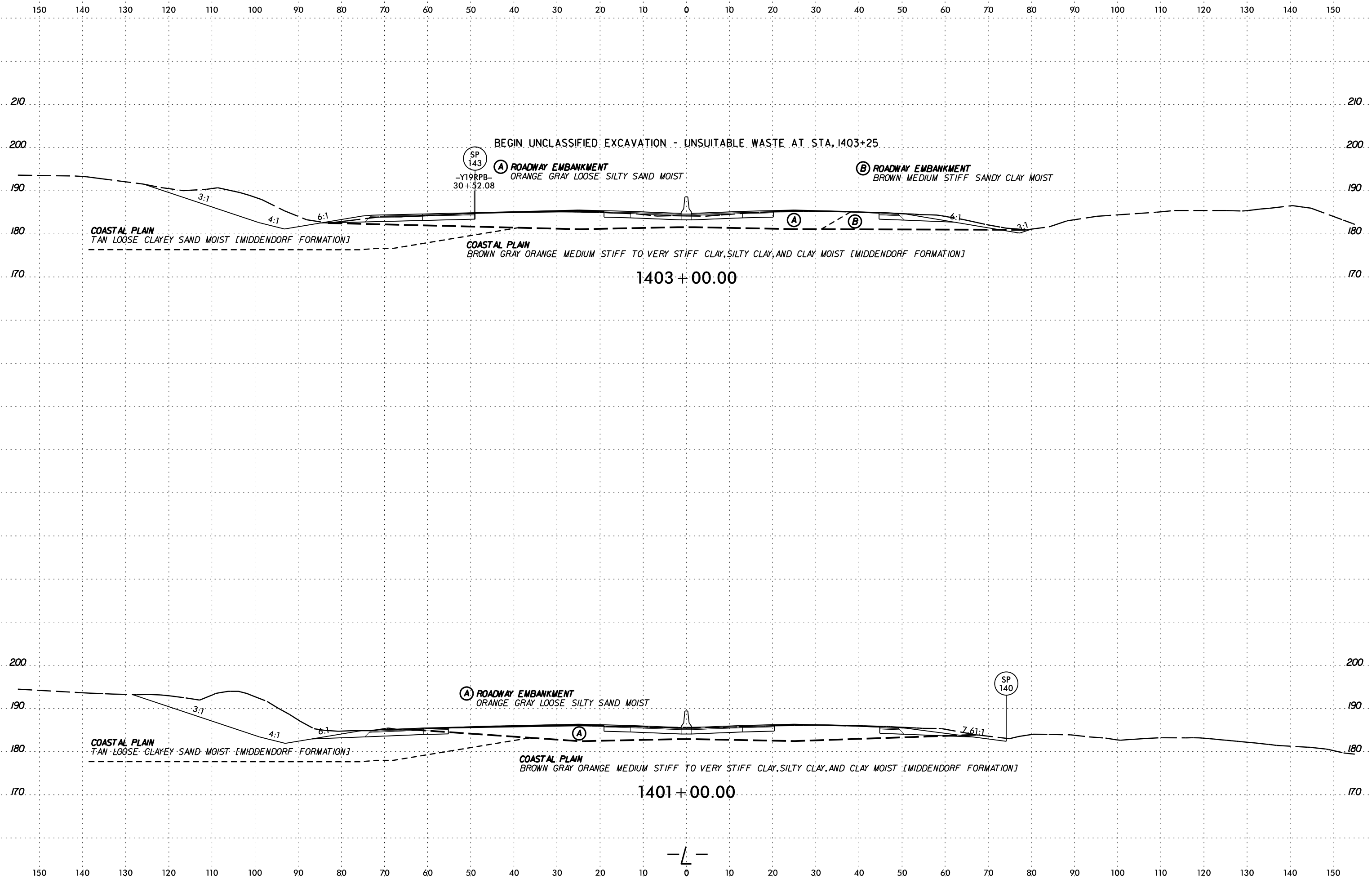
DATE PLOTTED: 06/23/16



6/23/16

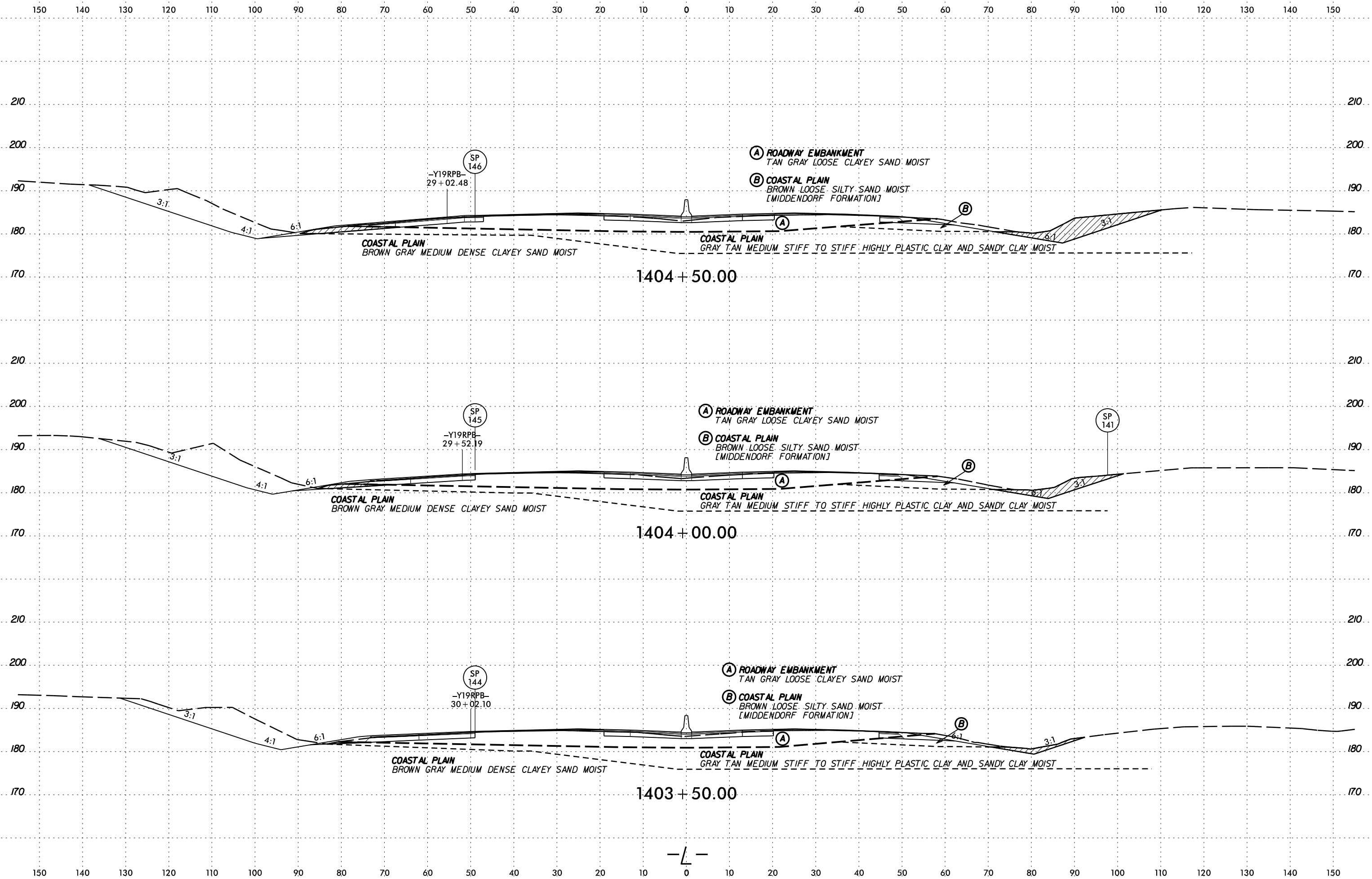


PROJ. REFERENCE NO.	SHEET NO.
I-5986B	61

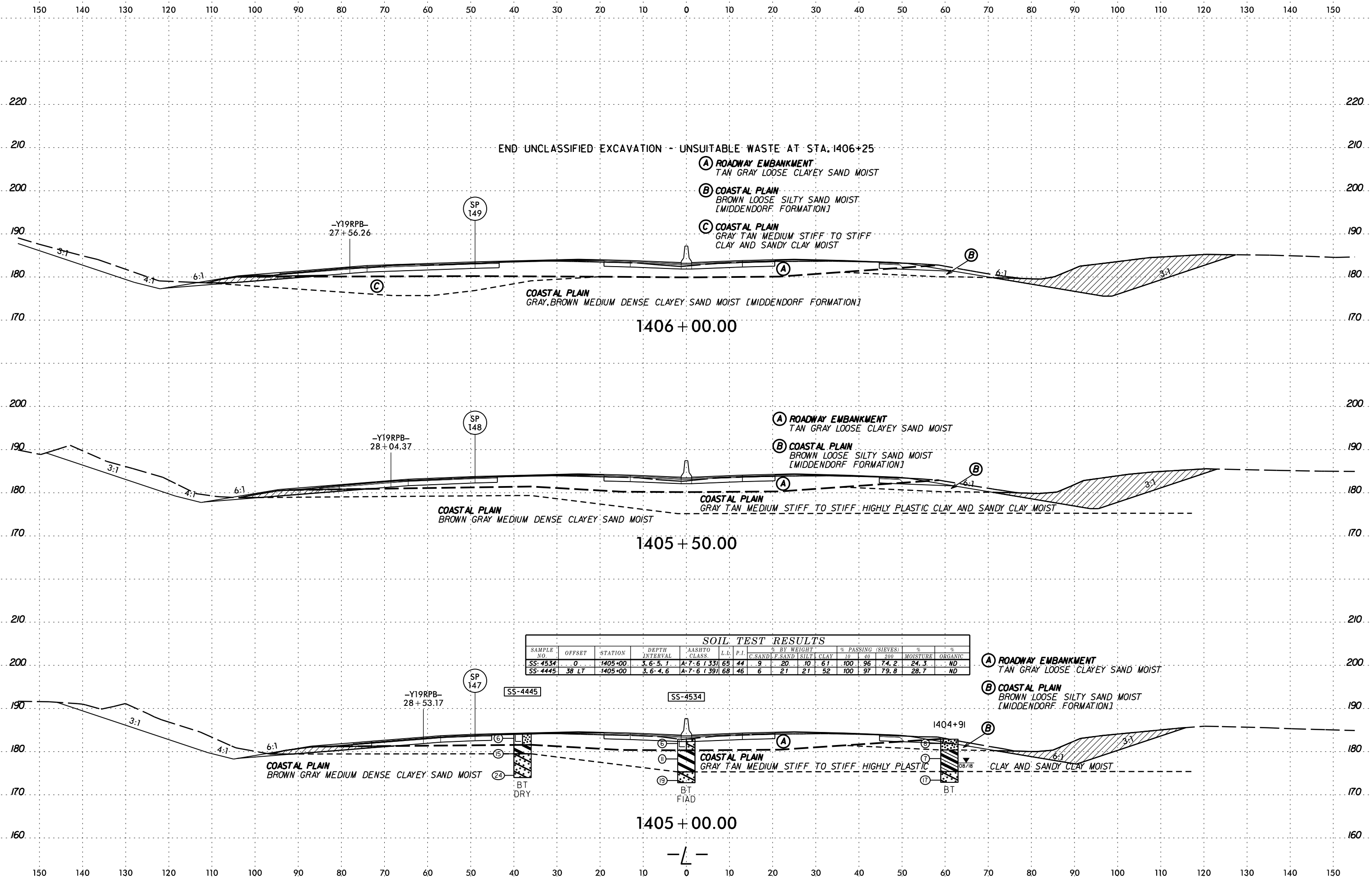


DATE: 6/23/16
DRAWN BY: [illegible]
CHECKED BY: [illegible]
SCALE: AS SHOWN

-L-



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END UNCLASSIFIED EXCAVATION - UNSUITABLE WASTE AT STA. 1406+25

- (A) ROADWAY EMBANKMENT
TAN GRAY LOOSE CLAYEY SAND MOIST
- (B) COASTAL PLAIN
BROWN LOOSE SILTY SAND MOIST
[MIDDENDORF FORMATION]
- (C) COASTAL PLAIN
GRAY TAN MEDIUM STIFF TO STIFF
CLAY AND SANDY CLAY MOIST

1406 + 00.00

1405 + 50.00

1405 + 00.00

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-4534	0	1405+00	3.6-5.1	A-7-6 (33)	65	44	9	20	10	61	100	96	74.2	24.3	ND
SS-4445	38 LT	1405+00	3.6-4.6	A-7-6 (39)	68	46	6	21	21	52	100	97	79.8	28.7	ND

- (A) ROADWAY EMBANKMENT
TAN GRAY LOOSE CLAYEY SAND MOIST
- (B) COASTAL PLAIN
BROWN LOOSE SILTY SAND MOIST
[MIDDENDORF FORMATION]

SS-4445

SS-4534

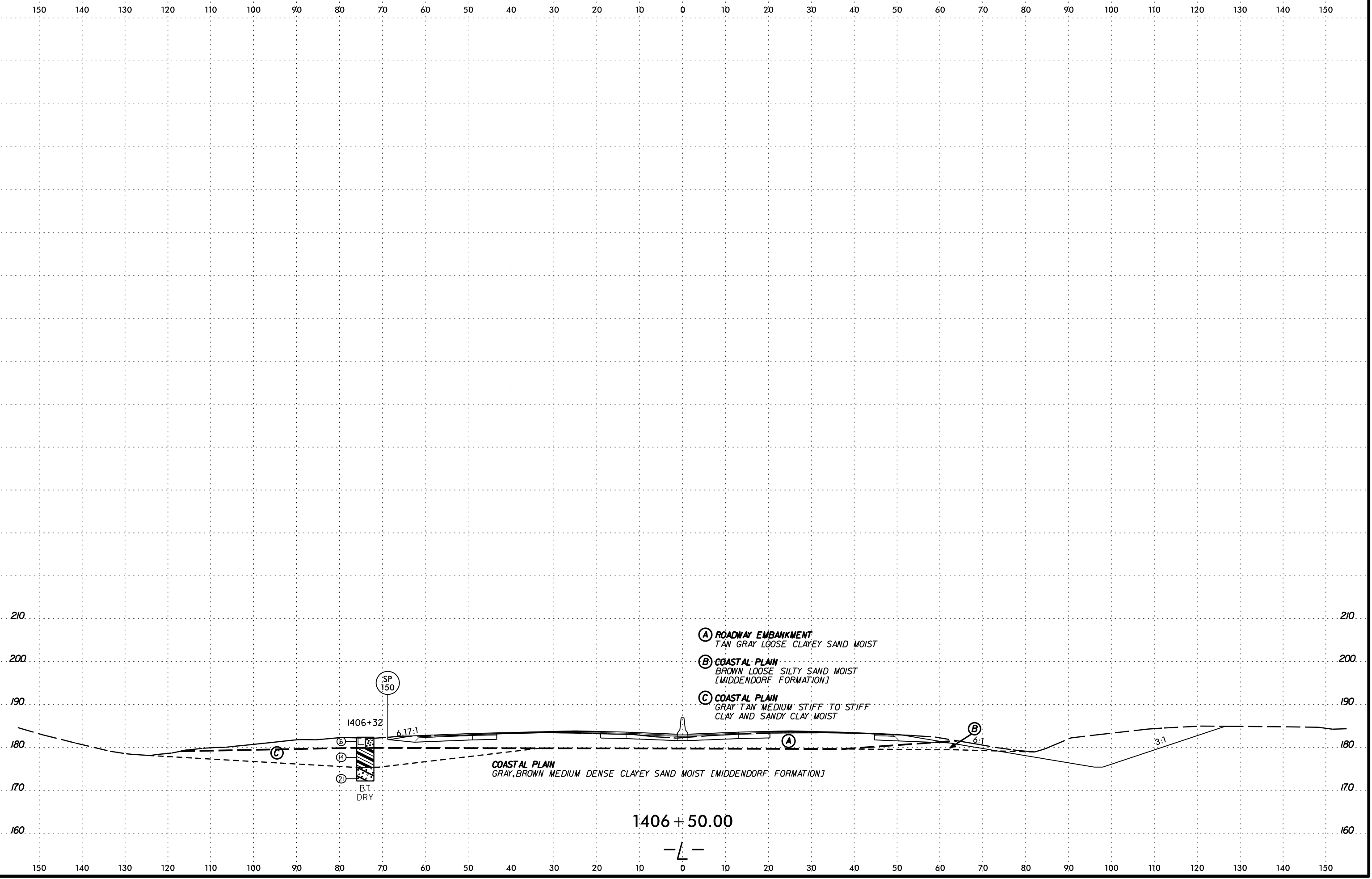
BT DRY

BT FIAD

BT

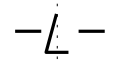
SCHEMATIC CROSS SECTION
 OF
 ROADWAY EMBANKMENT
 AT
 STATION 1405+00.00

6/23/16

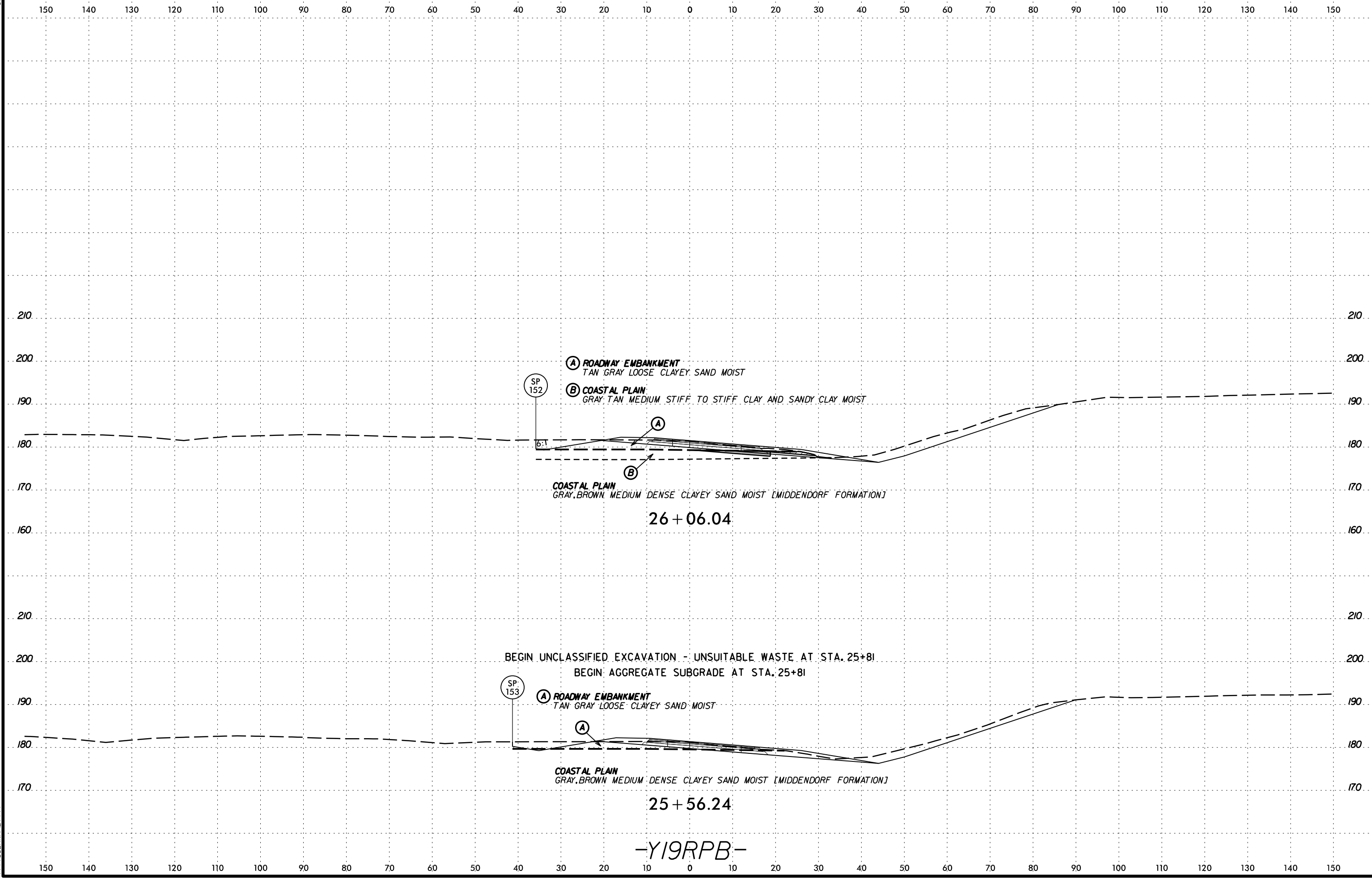


DATE: 6/23/16
BY: [illegible]
CHECKED: [illegible]
SCALE: AS SHOWN
SHEET NO.: 64
PROJECT: I-5986B

1406 + 50.00



6/23/16



(A) **ROADWAY EMBANKMENT**
TAN GRAY LOOSE CLAYEY SAND MOIST

(B) **COASTAL PLAIN**
GRAY, TAN MEDIUM STIFF TO STIFF CLAY AND SANDY CLAY MOIST

COASTAL PLAIN
GRAY, BROWN MEDIUM DENSE CLAYEY SAND MOIST [MIDDENDORF FORMATION]

26 + 06.04

BEGIN UNCLASSIFIED EXCAVATION - UNSUITABLE WASTE AT STA. 25+81
BEGIN AGGREGATE SUBGRADE AT STA. 25+81

(A) **ROADWAY EMBANKMENT**
TAN GRAY LOOSE CLAYEY SAND MOIST

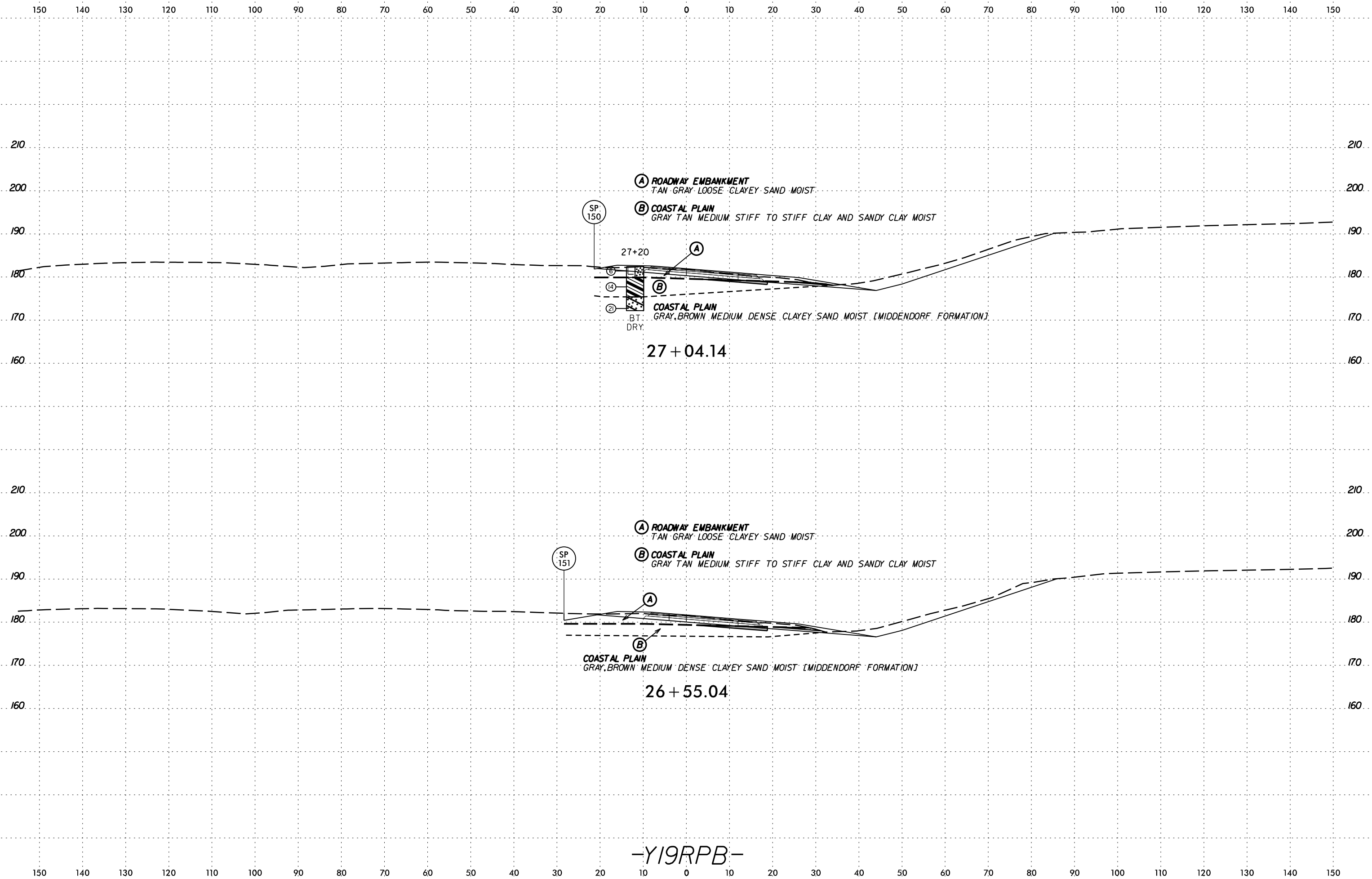
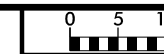
COASTAL PLAIN
GRAY, BROWN MEDIUM DENSE CLAYEY SAND MOIST [MIDDENDORF FORMATION]

25 + 56.24

-Y19RPB-

SYNCHRO SOFTWARE

6/23/16



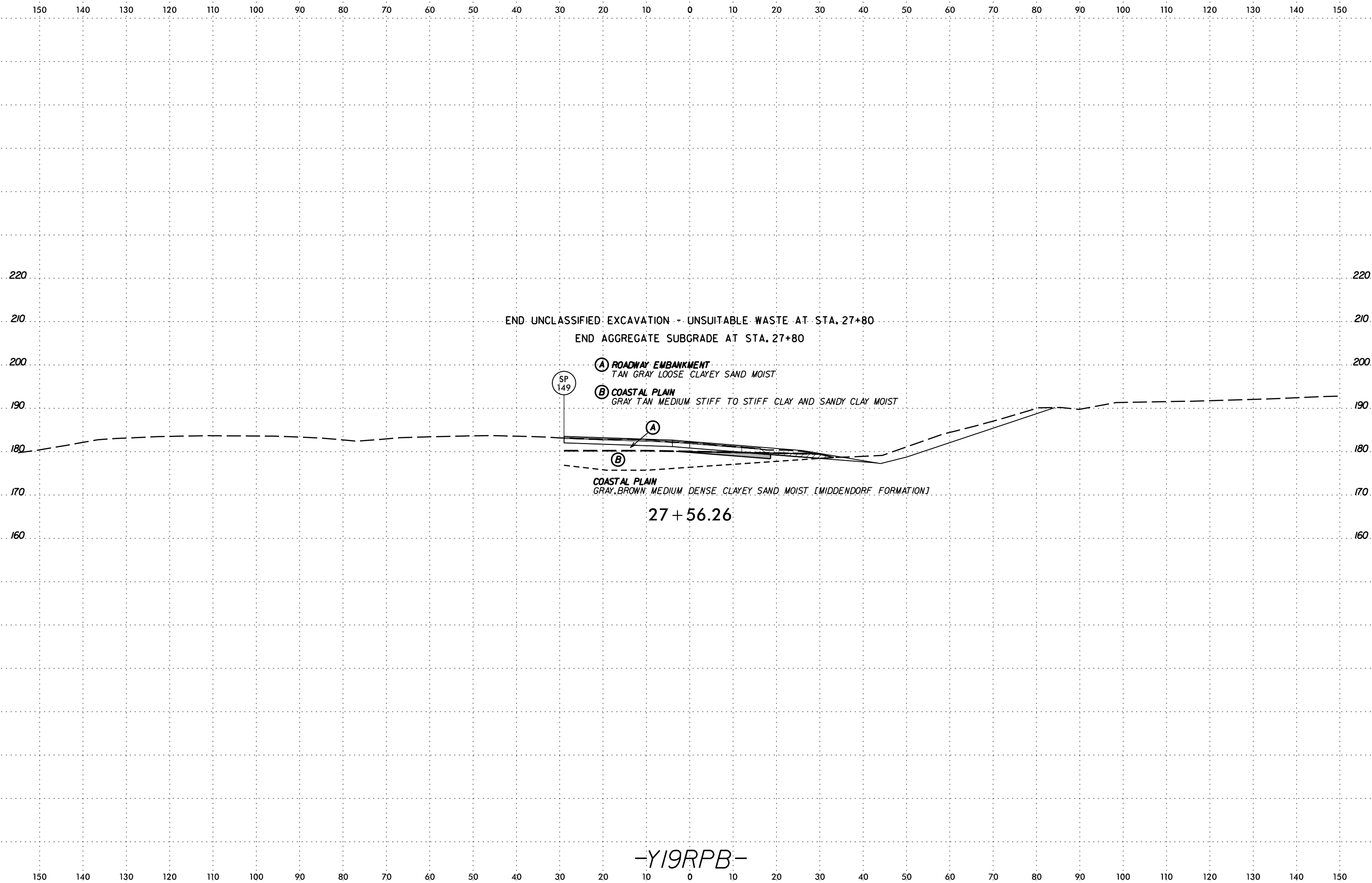
27 + 04.14

26 + 55.04

-Y19RPB-

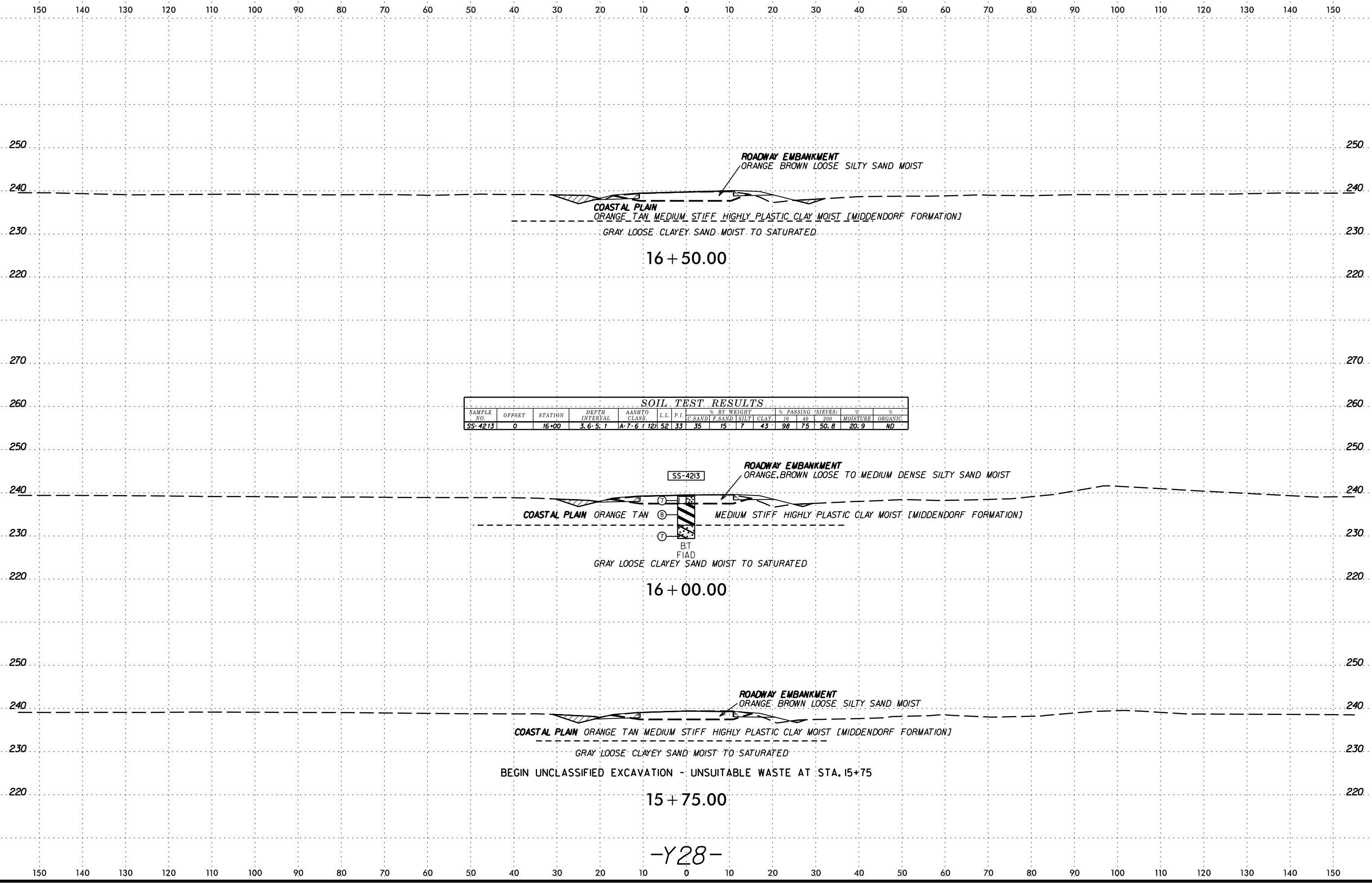
SYTIME
CON
ARRIVE
JULY

6/23/16



-Y19RPB-

DATE: 6/23/16
DRAWN BY: J. W. BROWN
CHECKED BY: J. W. BROWN
SCALE: AS SHOWN
SHEET NO.: 67
PROJECT: I-5986B



16 + 50.00

16 + 00.00

15 + 75.00

-Y28-

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-4213	0	16+00	3.6-5.1	A-7-6 (12)	52	33	35	15	7	43	98	75	50.8	20.9	ND

ROADWAY EMBANKMENT
ORANGE BROWN LOOSE SILTY SAND MOIST

COASTAL PLAIN
ORANGE TAN MEDIUM STIFF HIGHLY PLASTIC CLAY MOIST [MIDDENDORF FORMATION]
GRAY LOOSE CLAYEY SAND MOIST TO SATURATED.

ROADWAY EMBANKMENT
ORANGE BROWN LOOSE TO MEDIUM DENSE SILTY SAND MOIST

SS-4213

COASTAL PLAIN ORANGE TAN
MEDIUM STIFF HIGHLY PLASTIC CLAY MOIST [MIDDENDORF FORMATION]
GRAY LOOSE CLAYEY SAND MOIST TO SATURATED

BT
FIAD

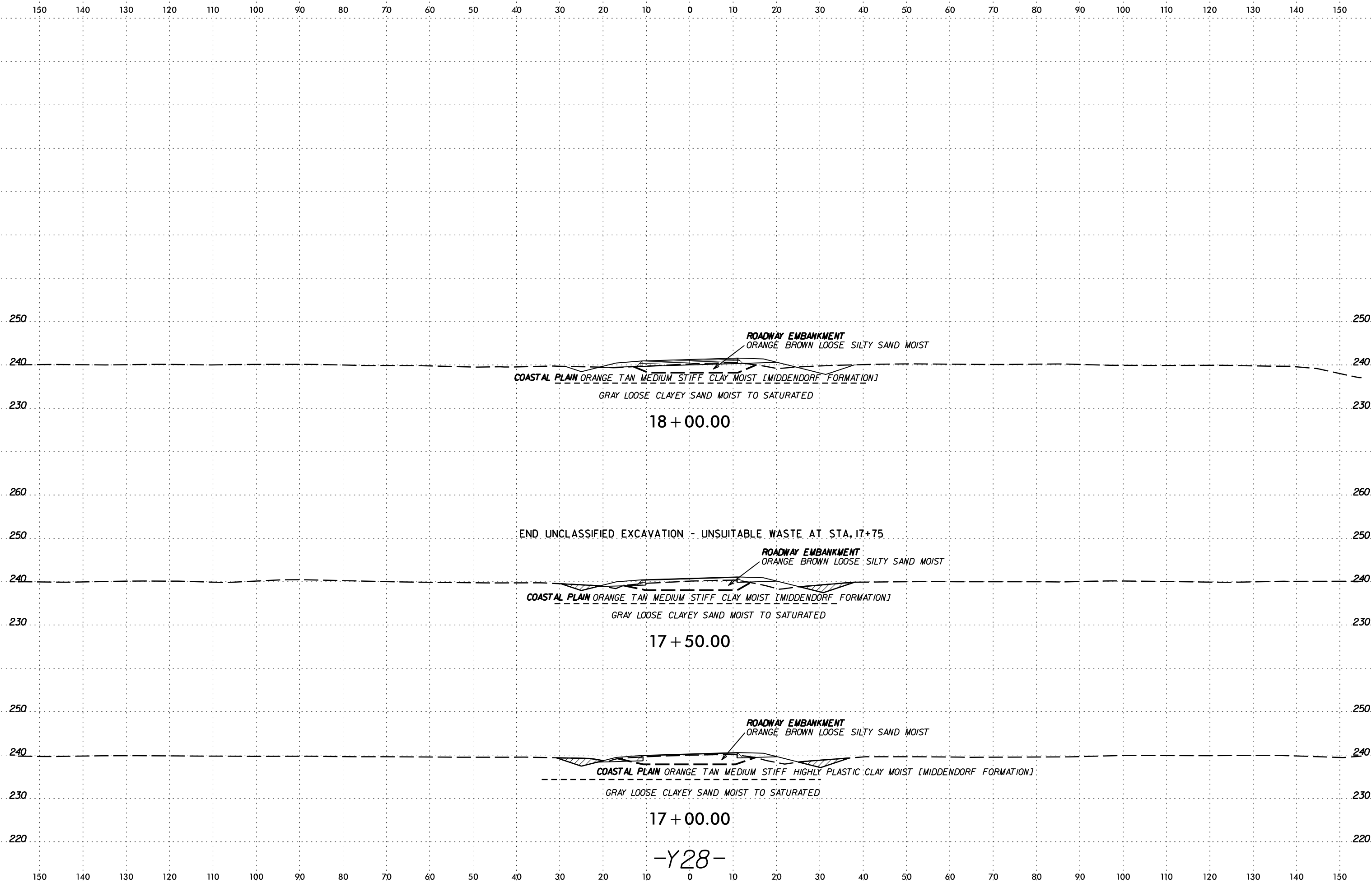
ROADWAY EMBANKMENT
ORANGE BROWN LOOSE SILTY SAND MOIST

COASTAL PLAIN ORANGE TAN MEDIUM STIFF HIGHLY PLASTIC CLAY MOIST [MIDDENDORF FORMATION]
GRAY LOOSE CLAYEY SAND MOIST TO SATURATED

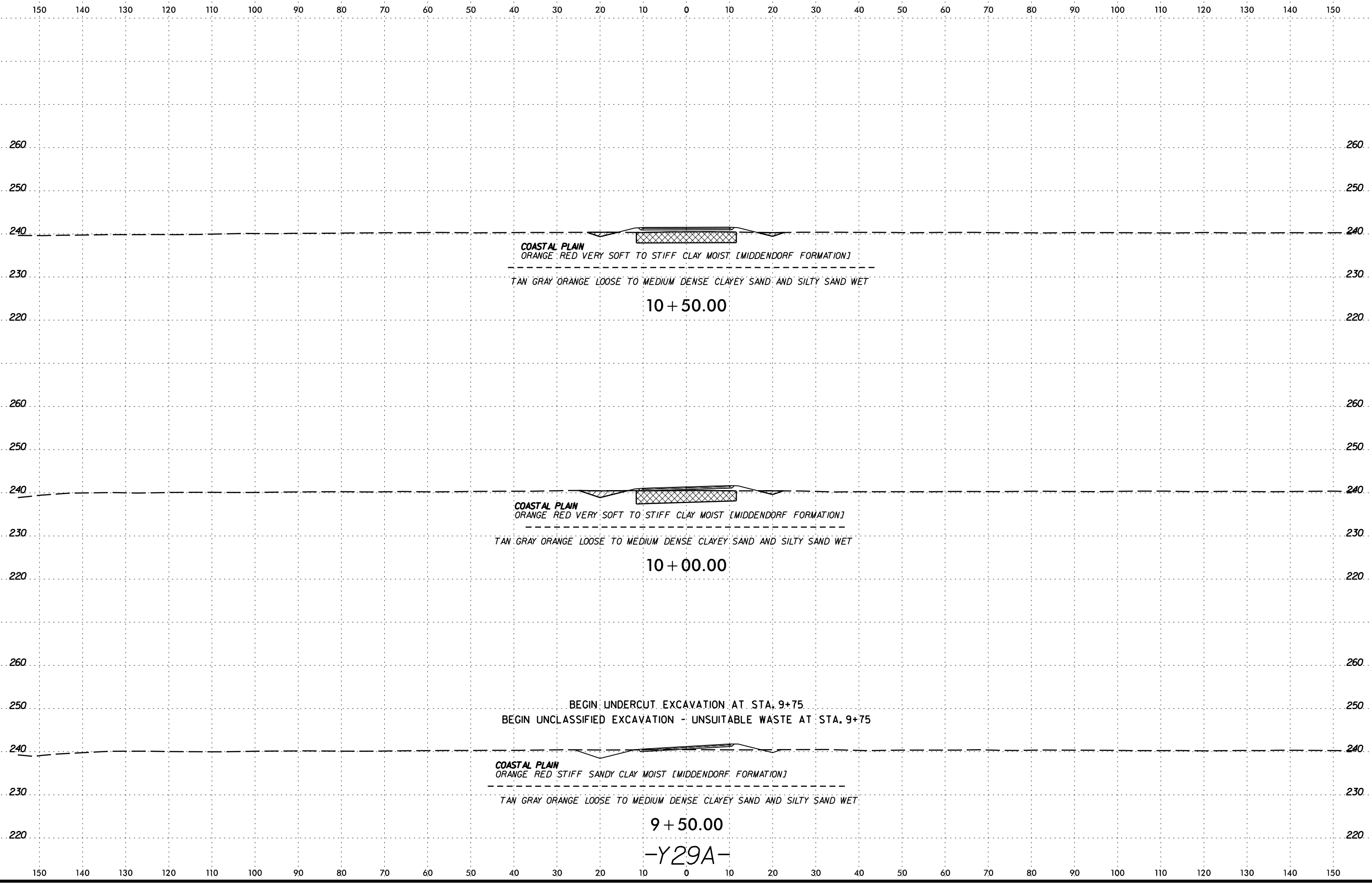
BEGIN UNCLASSIFIED EXCAVATION - UNSUITABLE WASTE AT STA. 15+75

SCHEMATIC CROSS SECTION OF ROADWAY

6/23/16



SCHEMATIC CROSS SECTION
DATE: 6/23/16
BY: JLR/AVM



COASTAL PLAIN
ORANGE RED VERY SOFT TO STIFF CLAY MOIST [MIDDENDORF FORMATION]

TAN GRAY ORANGE LOOSE TO MEDIUM DENSE CLAYEY SAND AND SILTY SAND WET

10 + 50.00

COASTAL PLAIN
ORANGE RED VERY SOFT TO STIFF CLAY MOIST [MIDDENDORF FORMATION]

TAN GRAY ORANGE LOOSE TO MEDIUM DENSE CLAYEY SAND AND SILTY SAND WET

10 + 00.00

BEGIN UNDERCUT EXCAVATION AT STA. 9+75
BEGIN UNCLASSIFIED EXCAVATION - UNSUITABLE WASTE AT STA. 9+75

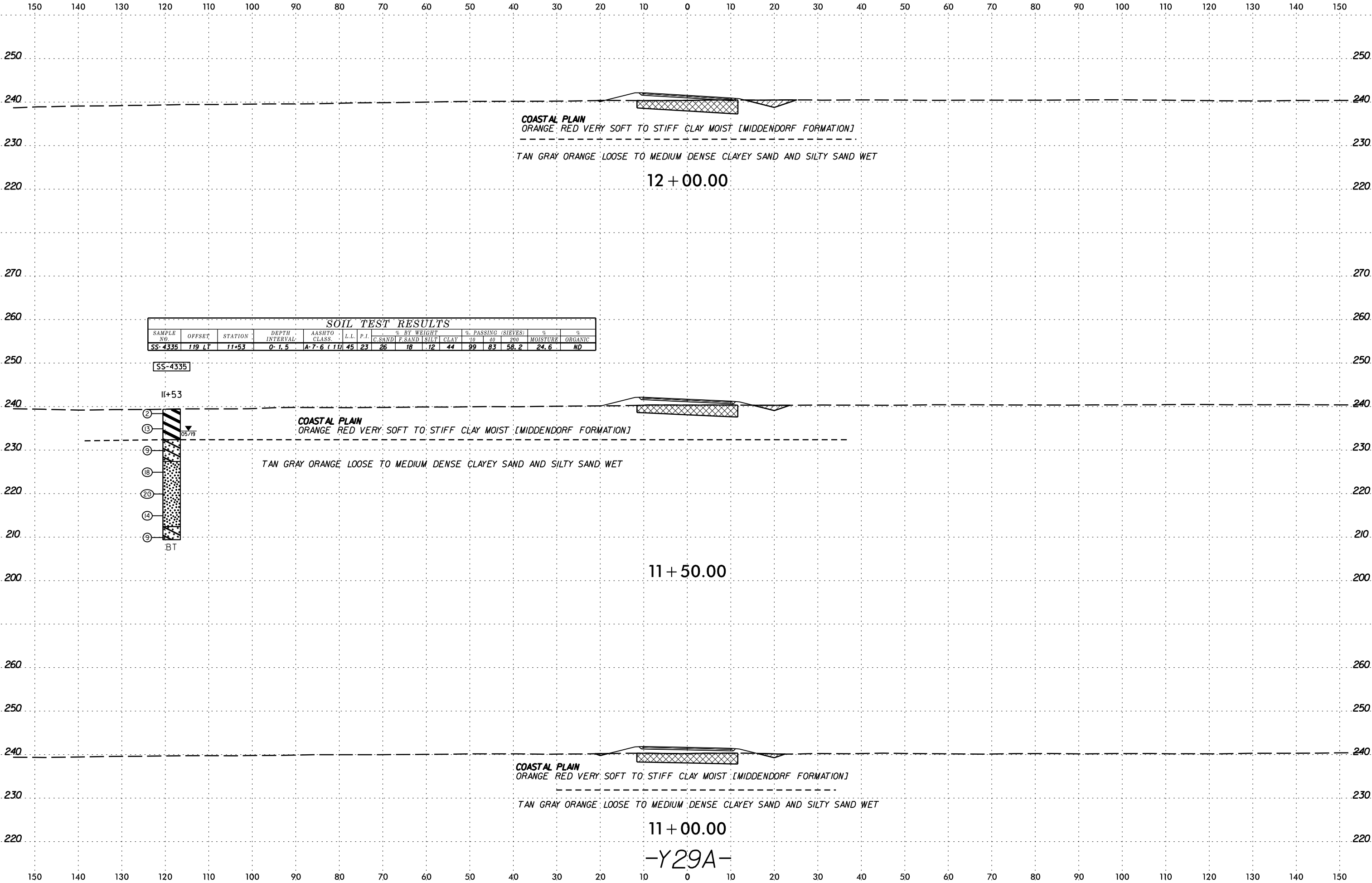
COASTAL PLAIN
ORANGE RED STIFF SANDY CLAY MOIST [MIDDENDORF FORMATION]

TAN GRAY ORANGE LOOSE TO MEDIUM DENSE CLAYEY SAND AND SILTY SAND WET

9 + 50.00

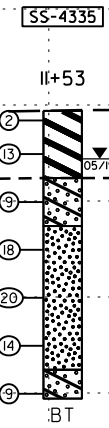
-Y29A-

SYTIME
CON
ARRIVE
JULY

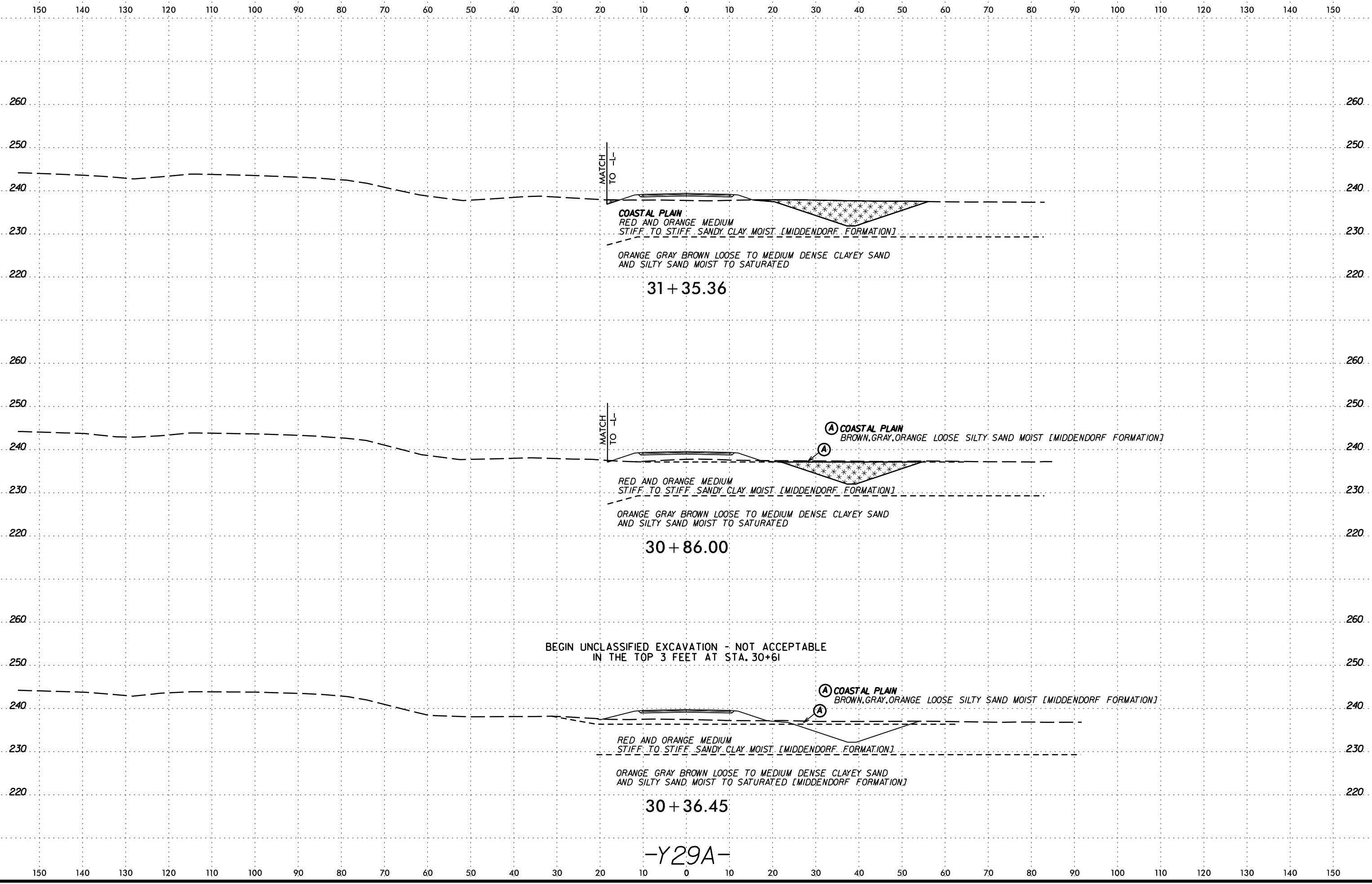


SOIL TEST RESULTS

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-4335	119 LT	11+53	0-1.5	A-7.6 (11)	45	23	26	18	12	44	99	83	58.2	24.6	ND

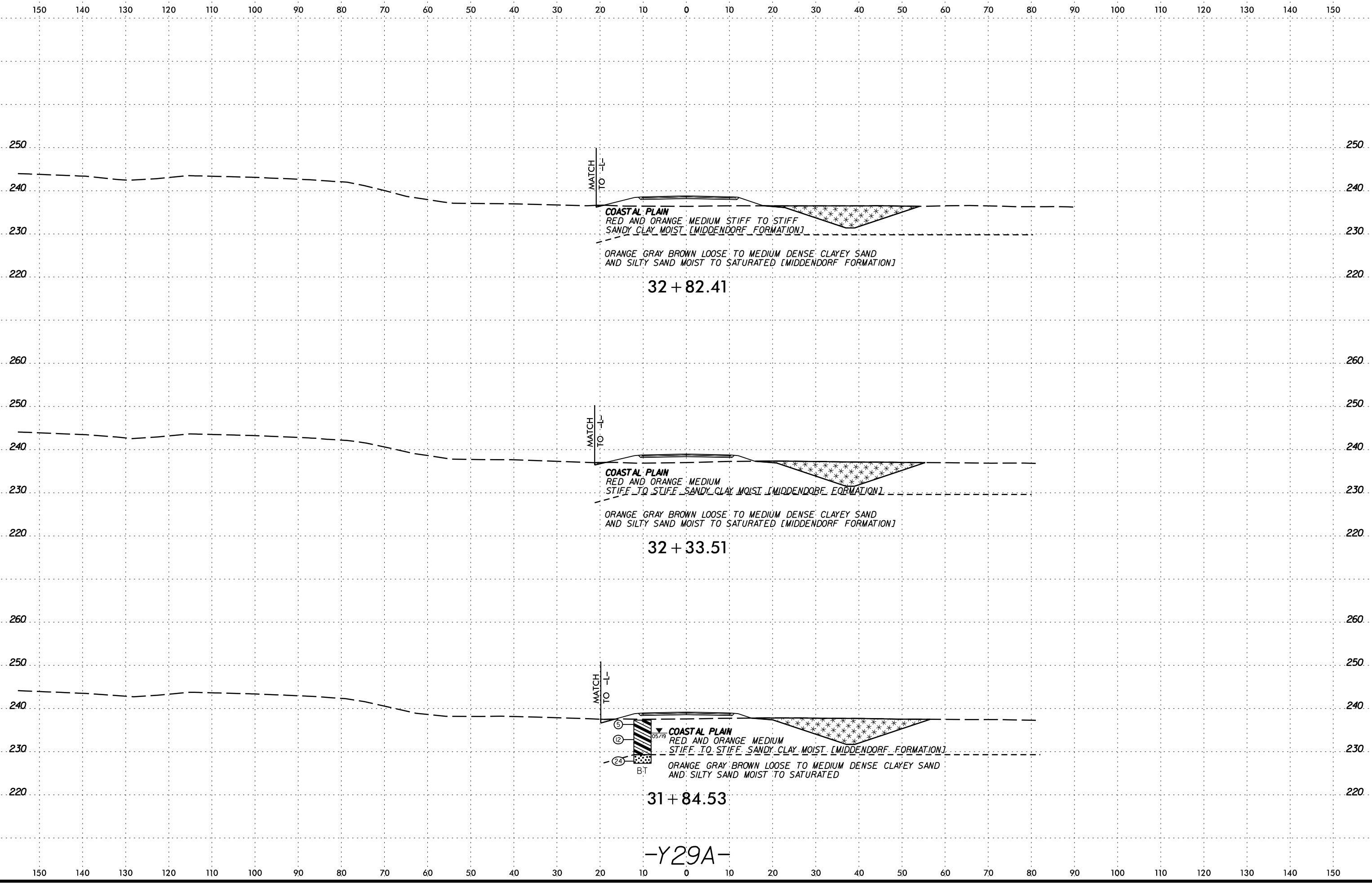


SCHEMATIC SECTION
DATE: 05/19/16
DRAWN BY: J. BRYAN
CHECKED BY: J. BRYAN



-Y29A-

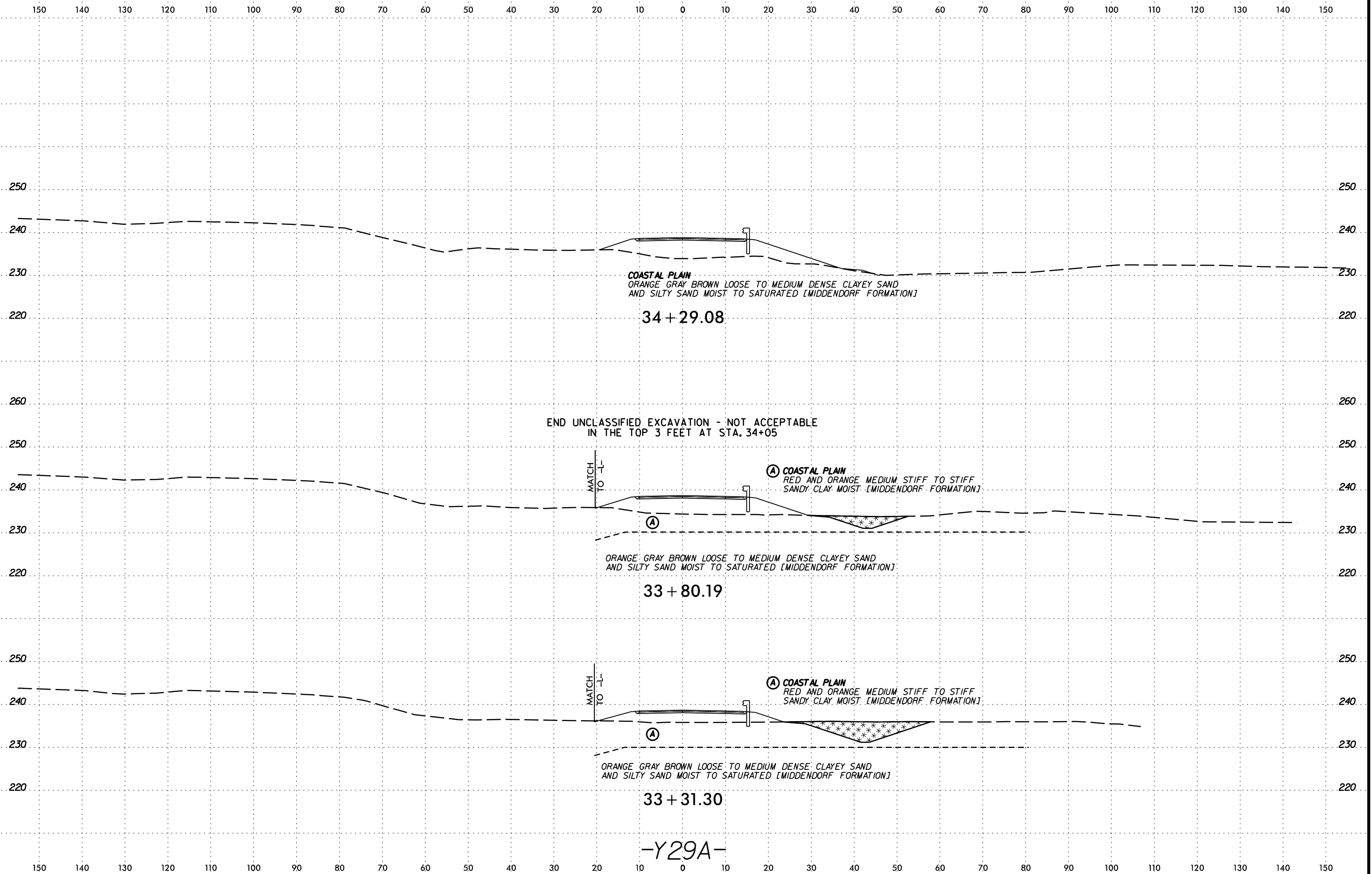
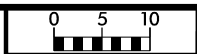
DATE: 6/23/16
DRAWN BY: J. BARRANE
CHECKED BY: J. BARRANE
SCALE: AS SHOWN



SYTIME
CON
ARRIVE

-Y29A-

6/23/16



COASTAL PLAIN
ORANGE GRAY BROWN LOOSE TO MEDIUM DENSE CLAYEY SAND
AND SILTY SAND MOIST TO SATURATED [MIDDENDORF FORMATION]

34 + 29.08

END UNCLASSIFIED EXCAVATION - NOT ACCEPTABLE
IN THE TOP 3 FEET AT STA. 34+05

MATCH
TO -L-

(A) COASTAL PLAIN
RED AND ORANGE MEDIUM STIFF TO STIFF
SANDY CLAY MOIST [MIDDENDORF FORMATION]

ORANGE GRAY BROWN LOOSE TO MEDIUM DENSE CLAYEY SAND
AND SILTY SAND MOIST TO SATURATED [MIDDENDORF FORMATION]

33 + 80.19

MATCH
TO -L-

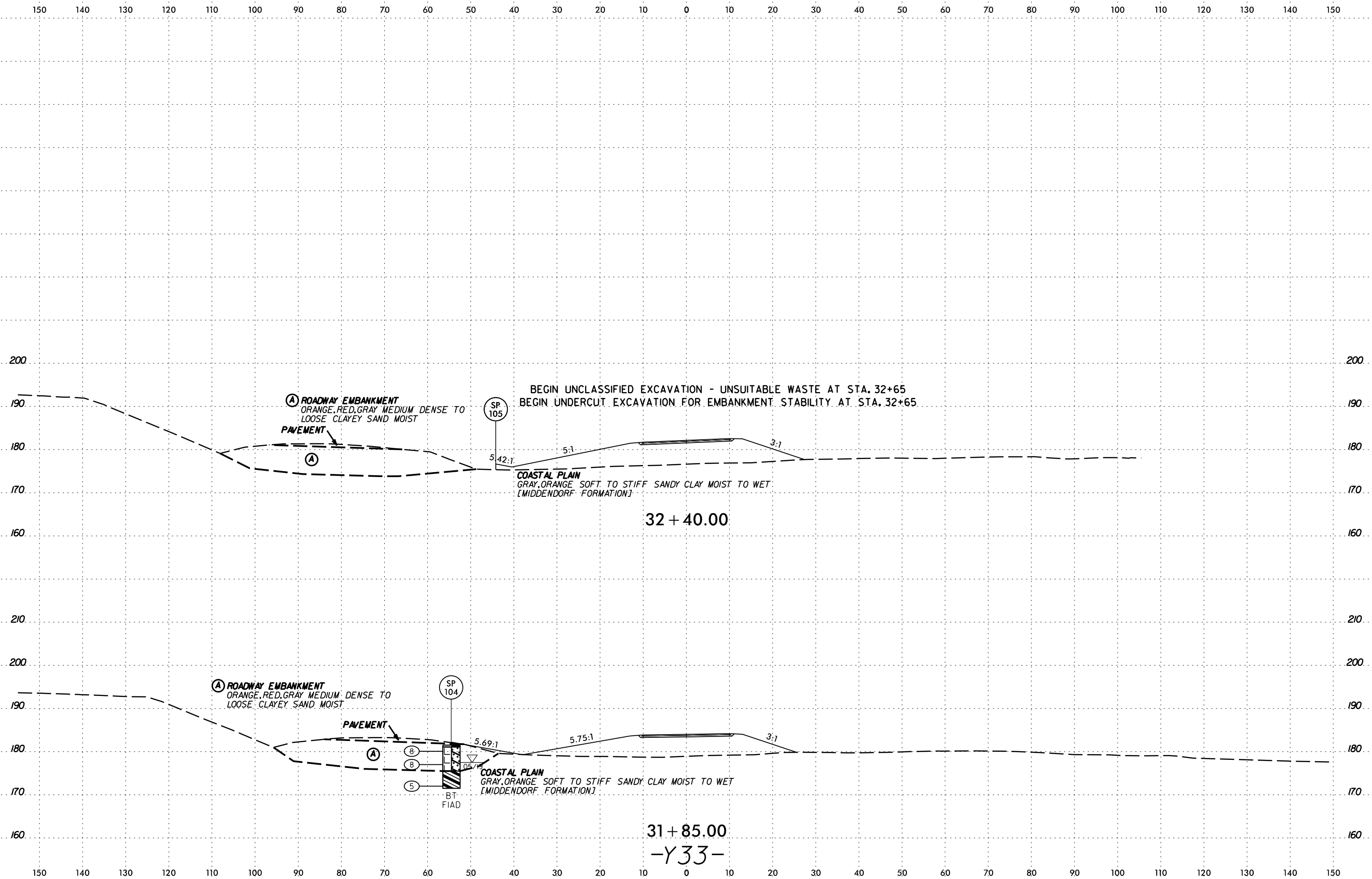
(A) COASTAL PLAIN
RED AND ORANGE MEDIUM STIFF TO STIFF
SANDY CLAY MOIST [MIDDENDORF FORMATION]

ORANGE GRAY BROWN LOOSE TO MEDIUM DENSE CLAYEY SAND
AND SILTY SAND MOIST TO SATURATED [MIDDENDORF FORMATION]

33 + 31.30

-Y29A-

SECTION
DATE
BY
CHECKED
APPROVED

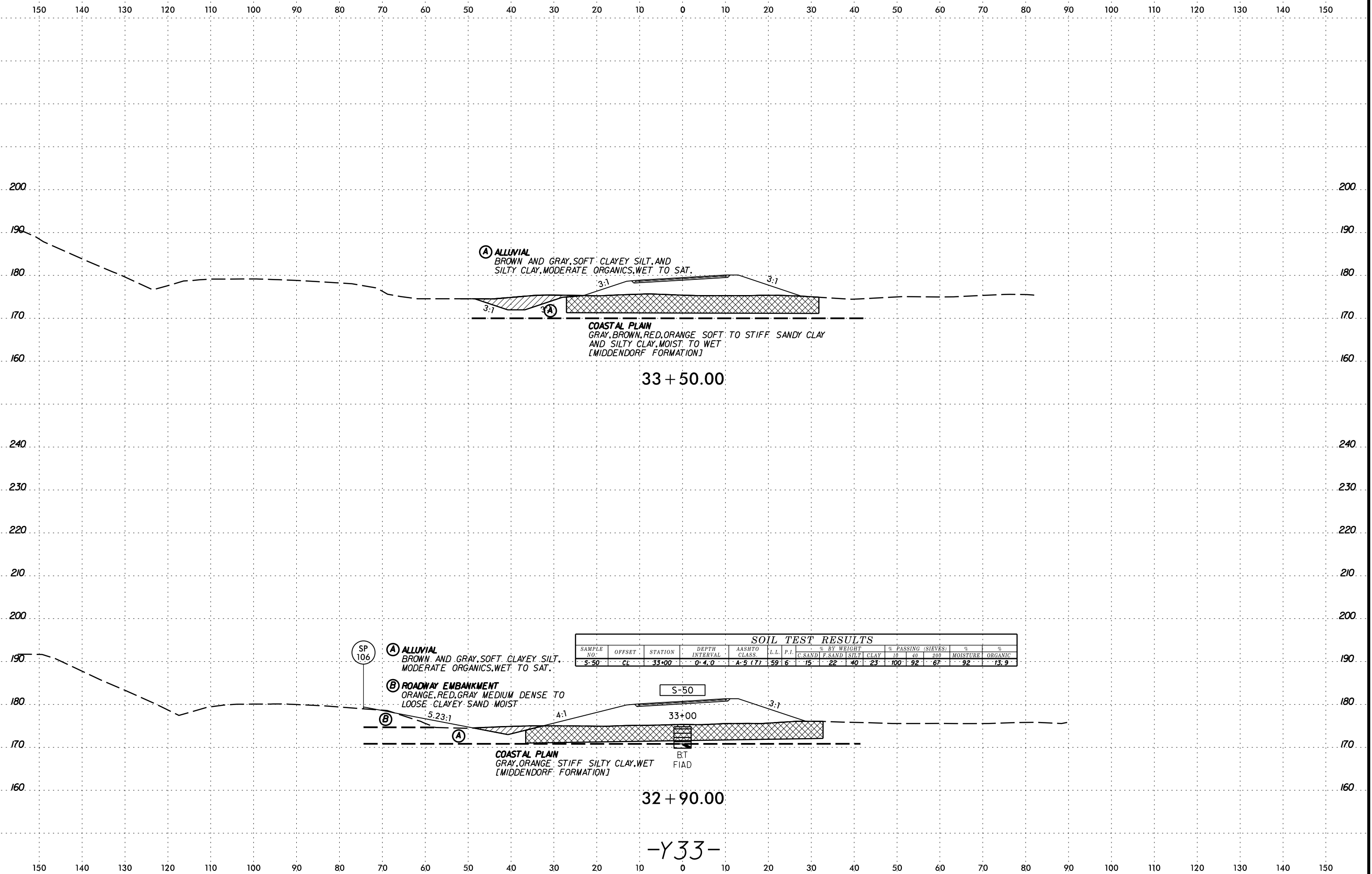


SYTIME CONSTRUCTION SERVICES

32 + 40.00
-Y33-

31 + 85.00
-Y33-

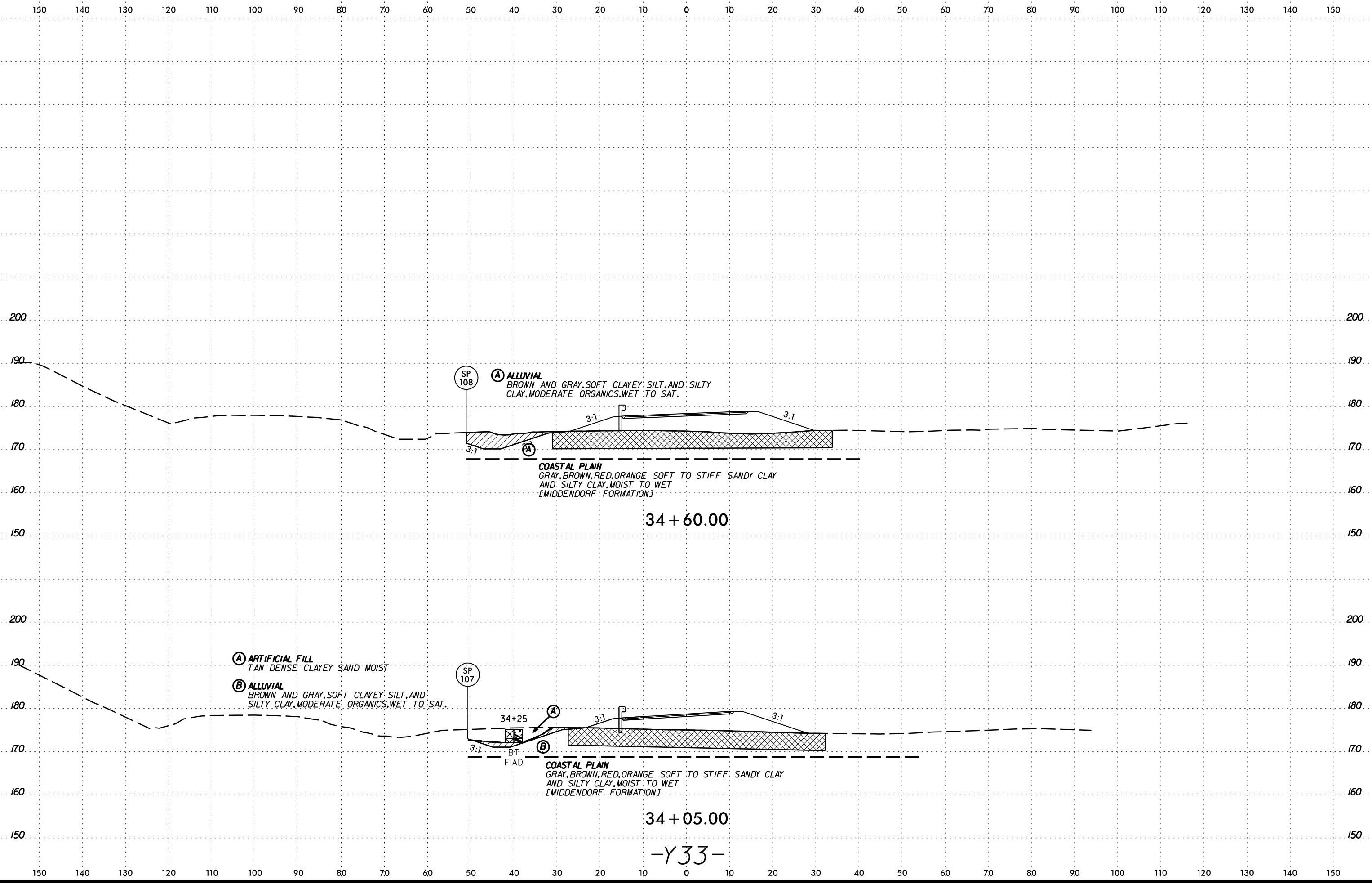
6/23/16



32 + 90.00

-Y33-

6/23/16



SP 108
(A) ALLUVIAL
 BROWN AND GRAY, SOFT CLAYEY SILT, AND SILTY CLAY, MODERATE ORGANICS, WET TO SAT.

COASTAL PLAIN
 GRAY, BROWN, RED, ORANGE SOFT TO STIFF SANDY CLAY AND SILTY CLAY, MOIST TO WET [MIDDENDORF FORMATION]

34 + 60.00

(A) ARTIFICIAL FILL
 TAN DENSE CLAYEY SAND MOIST
(B) ALLUVIAL
 BROWN AND GRAY, SOFT CLAYEY SILT, AND SILTY CLAY, MODERATE ORGANICS, WET TO SAT.

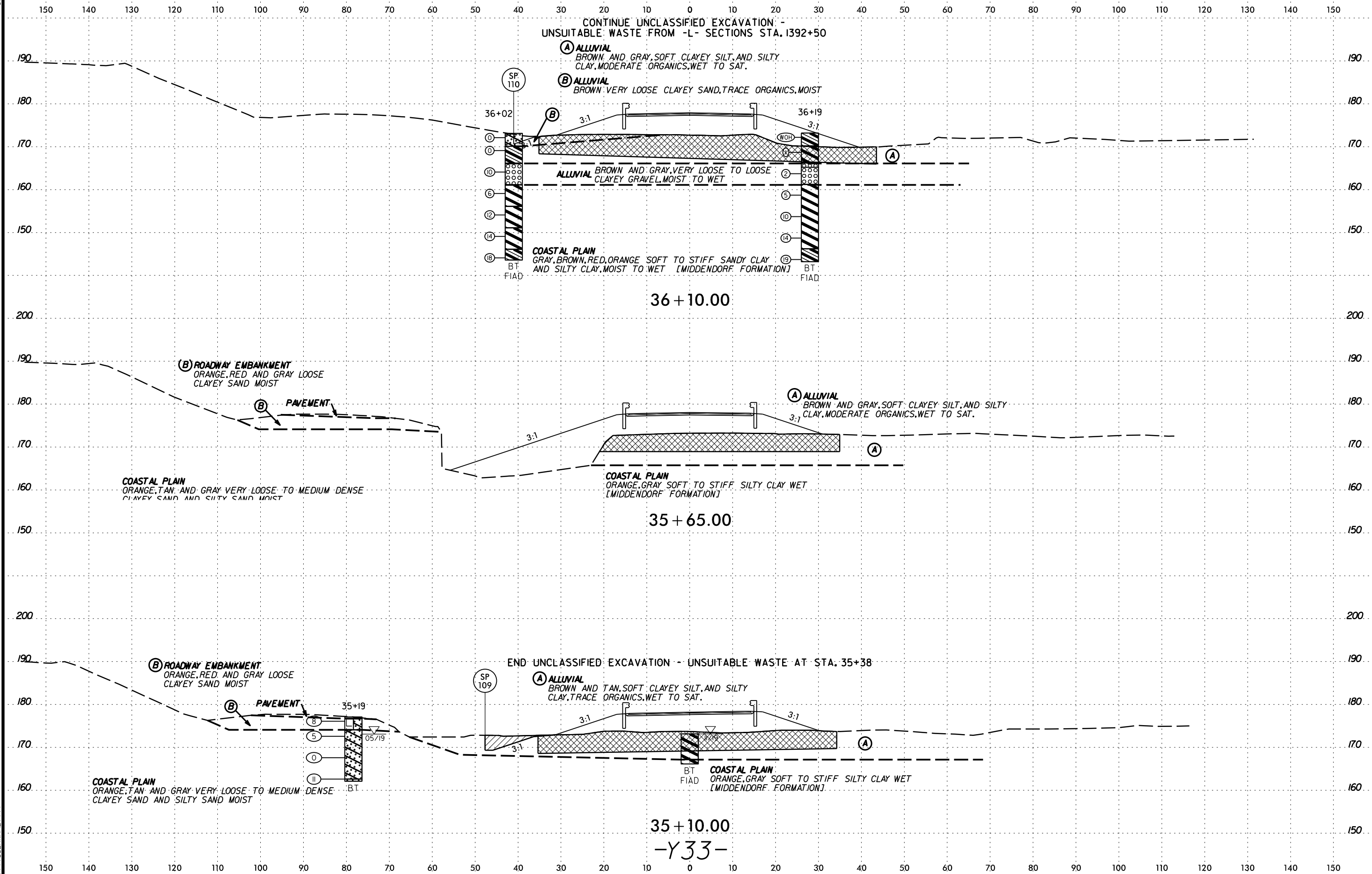
SP 107
 34+25
 BT
 FIAD

COASTAL PLAIN
 GRAY, BROWN, RED, ORANGE SOFT TO STIFF SANDY CLAY AND SILTY CLAY, MOIST TO WET [MIDDENDORF FORMATION]

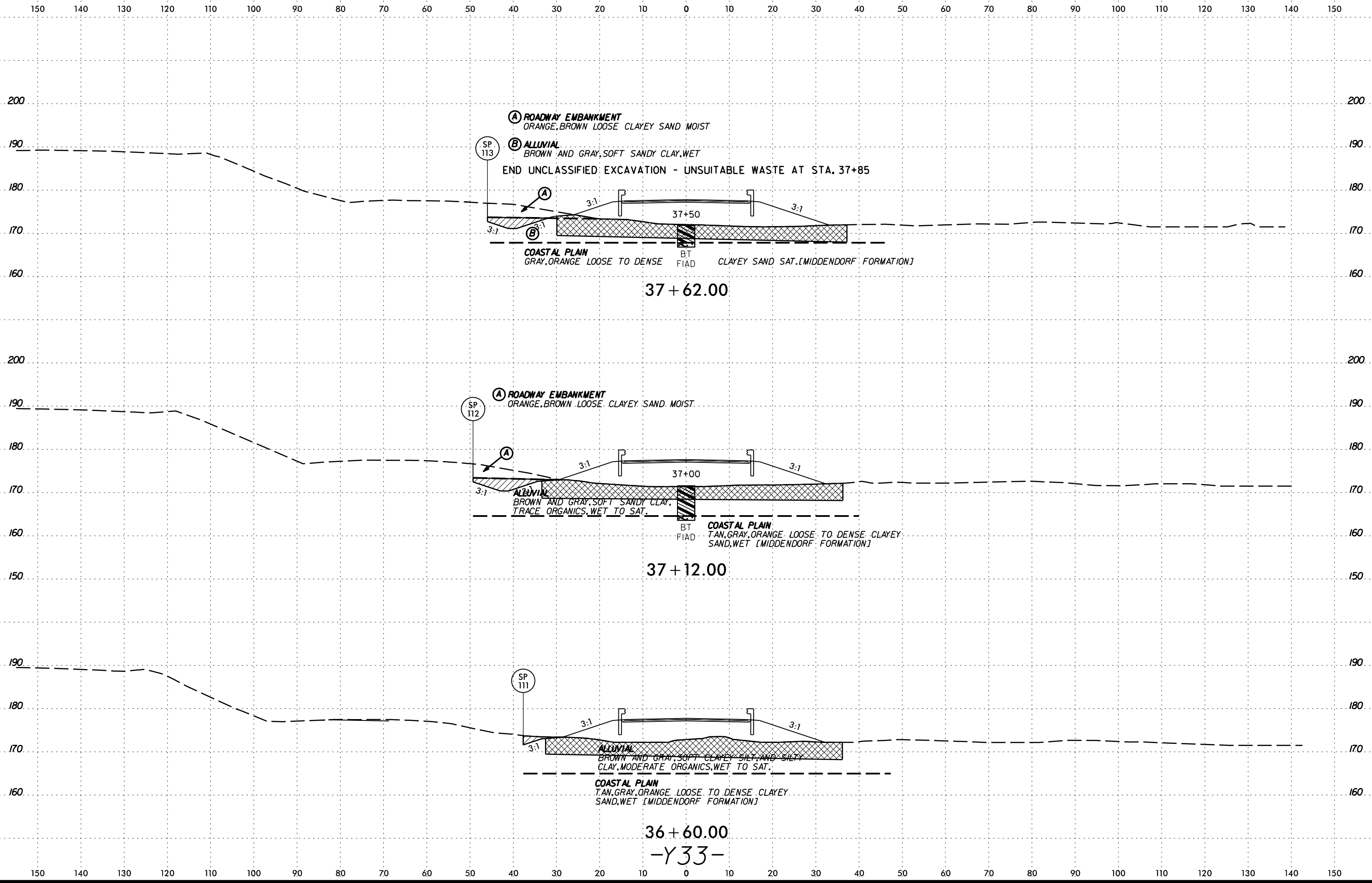
34 + 05.00

-Y33-

DATE PLOTTED: 6/23/16 10:58 AM

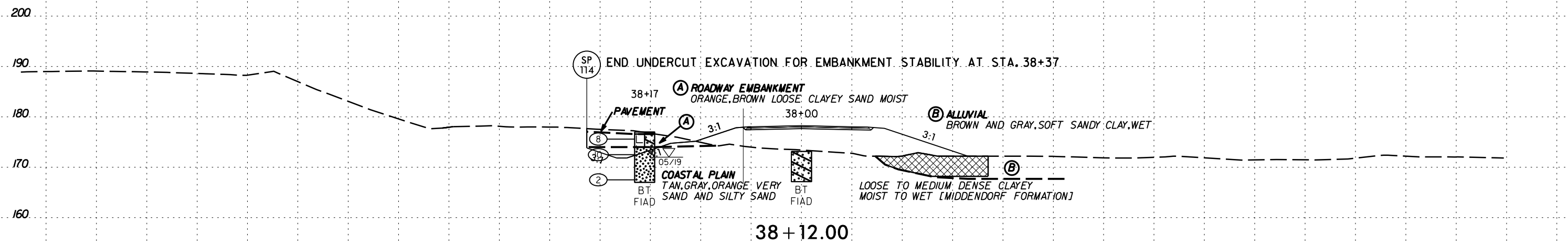
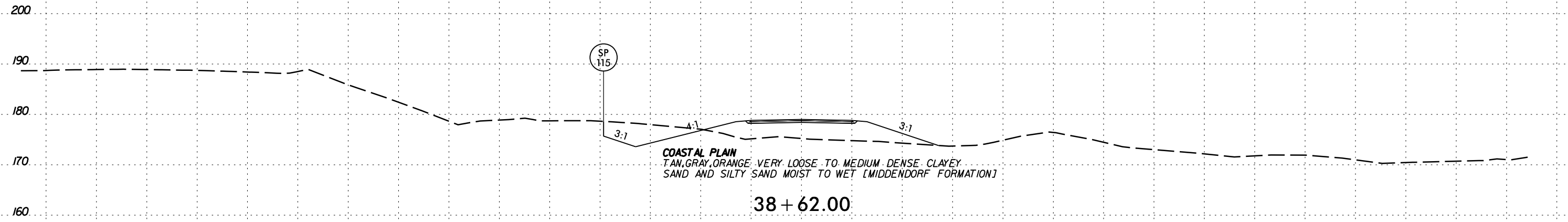


35+10.00
-Y33-



6/23/16

150 140 130 120 110 100 90 80 70 60 50 40 30 20 10 0 10 20 30 40 50 60 70 80 90 100 110 120 130 140 150

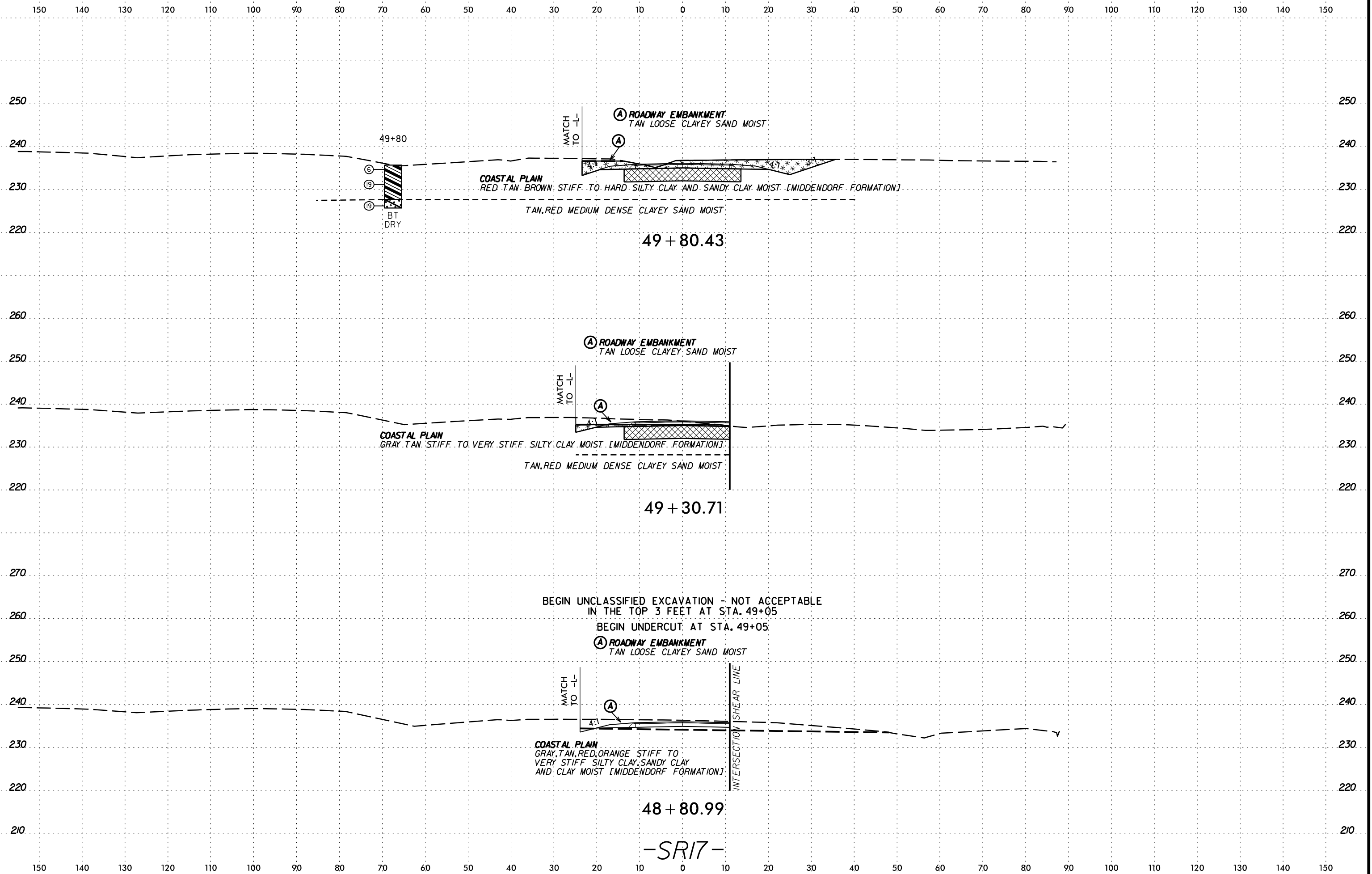


-Y33-

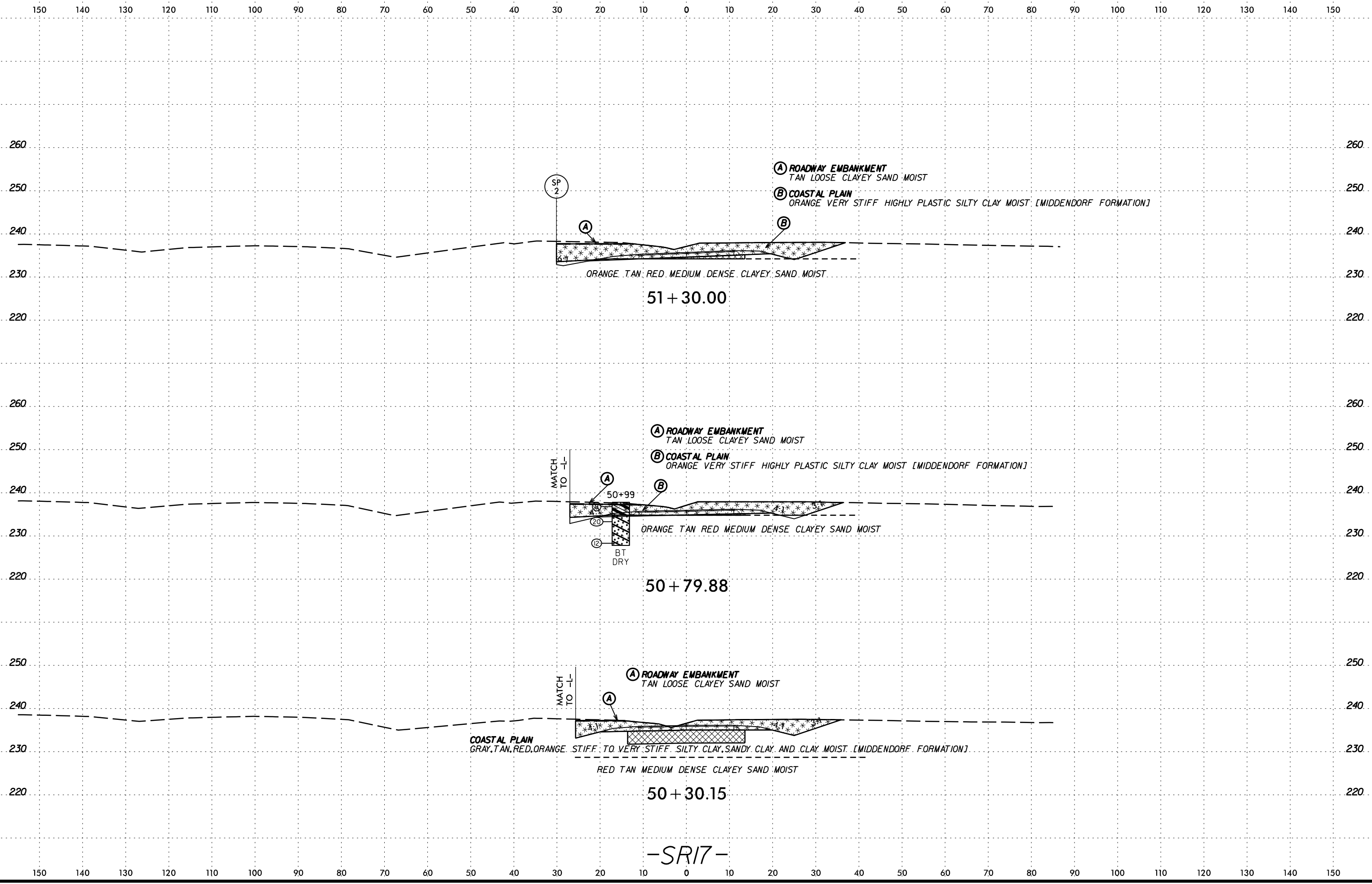
150 140 130 120 110 100 90 80 70 60 50 40 30 20 10 0 10 20 30 40 50 60 70 80 90 100 110 120 130 140 150

SCHEMATIC CONSTRUCTION PLAN

6/23/16
SCHEMATIC CROSS SECTION
SHEET NO. 82



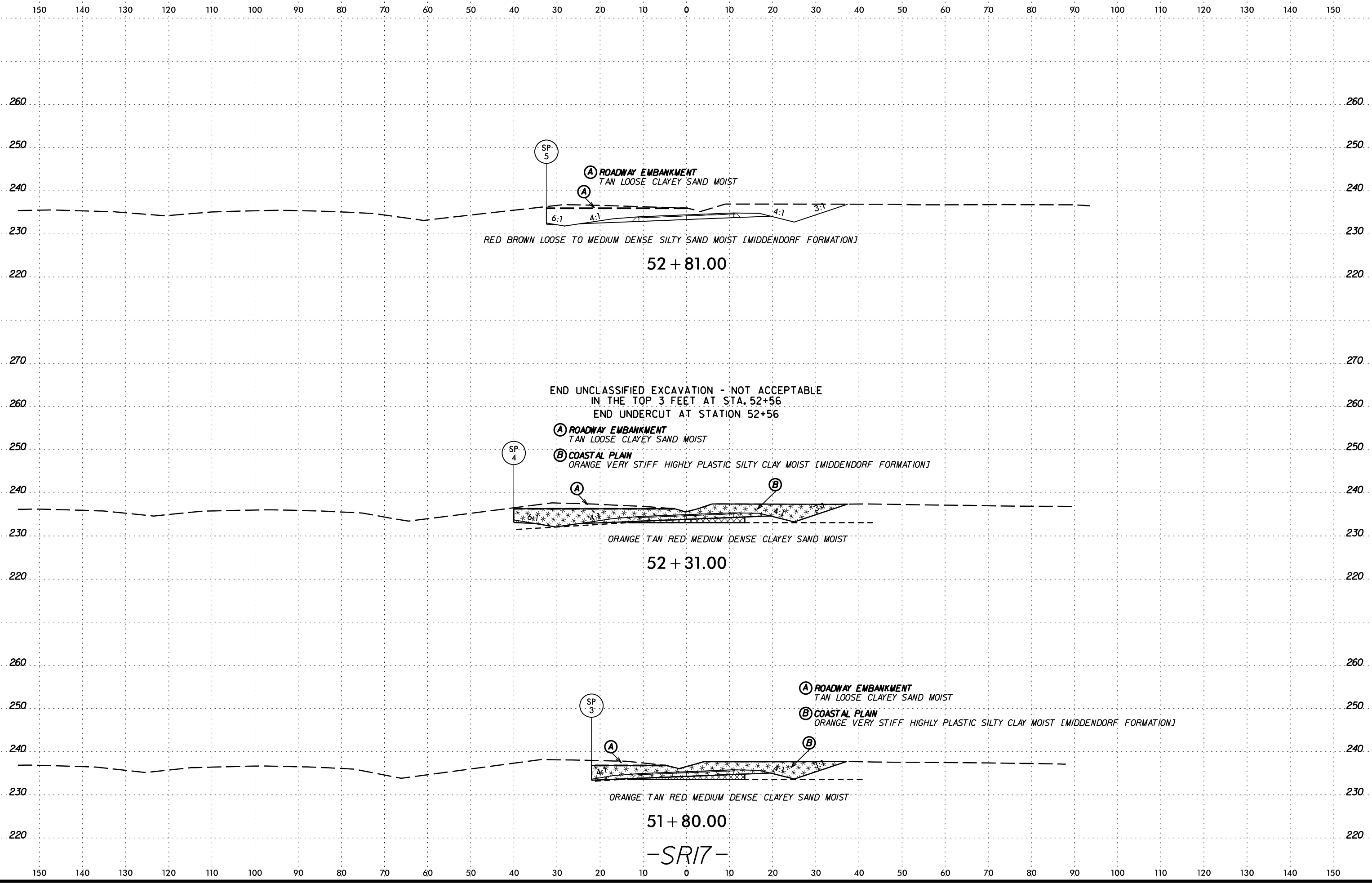
-SR17-



-SR17-

SYTIME
CON
ARRIVE

6/23/16



RED BROWN LOOSE TO MEDIUM DENSE SILTY SAND MOIST [MIDDENDORF FORMATION]

52 + 81.00

END UNCLASSIFIED EXCAVATION - NOT ACCEPTABLE
IN THE TOP 3 FEET AT STA. 52+56
END UNDERCUT AT STATION 52+56

ORANGE TAN RED MEDIUM DENSE CLAYEY SAND MOIST

52 + 31.00

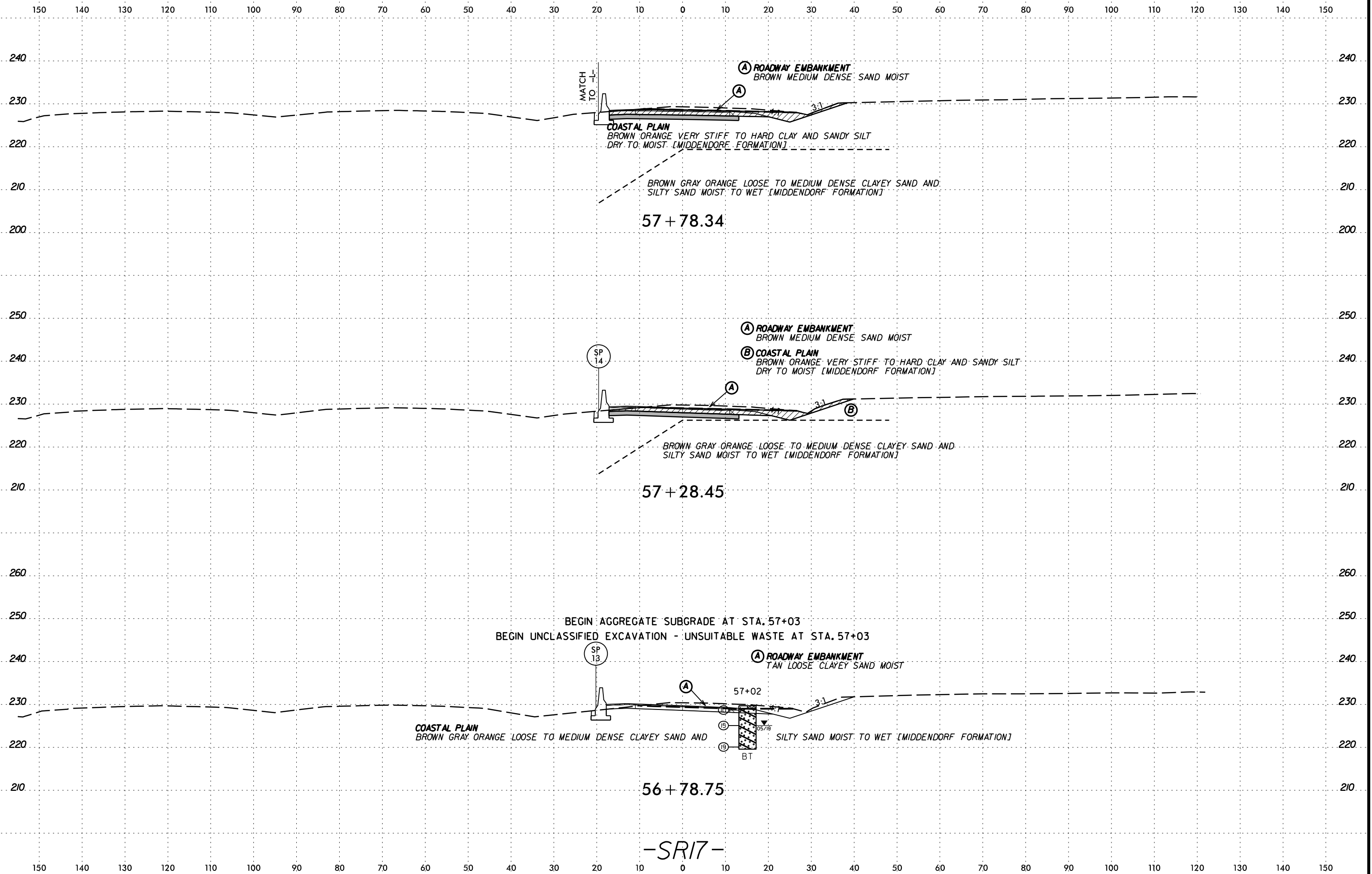
ORANGE TAN RED MEDIUM DENSE CLAYEY SAND MOIST

51 + 80.00

-SR17-

SYTIME
CON
ARRIVE

6/23/16
SCHEMATIC
CONSTRUCTION
ARRANGEMENT



57 + 78.34

57 + 28.45

56 + 78.75

-SR17-

MATCH TO

SP 13

SP 14

(A) ROADWAY EMBANKMENT
BROWN MEDIUM DENSE SAND MOIST

(A) ROADWAY EMBANKMENT
BROWN MEDIUM DENSE SAND MOIST

(B) COASTAL PLAIN
BROWN ORANGE VERY STIFF TO HARD CLAY AND SANDY SILT
DRY TO MOIST [MIDDENDORF FORMATION]

COASTAL PLAIN
BROWN ORANGE VERY STIFF TO HARD CLAY AND SANDY SILT
DRY TO MOIST [MIDDENDORF FORMATION]

BROWN GRAY ORANGE LOOSE TO MEDIUM DENSE CLAYEY SAND AND
SILTY SAND MOIST TO WET [MIDDENDORF FORMATION]

BROWN GRAY ORANGE LOOSE TO MEDIUM DENSE CLAYEY SAND AND
SILTY SAND MOIST TO WET [MIDDENDORF FORMATION]

COASTAL PLAIN
BROWN GRAY ORANGE LOOSE TO MEDIUM DENSE CLAYEY SAND AND

(A) ROADWAY EMBANKMENT
TAN LOOSE CLAYEY SAND MOIST

SILTY SAND MOIST TO WET [MIDDENDORF FORMATION]

BEGIN AGGREGATE SUBGRADE AT STA. 57+03
BEGIN UNCLASSIFIED EXCAVATION - UNSUITABLE WASTE AT STA. 57+03

BT

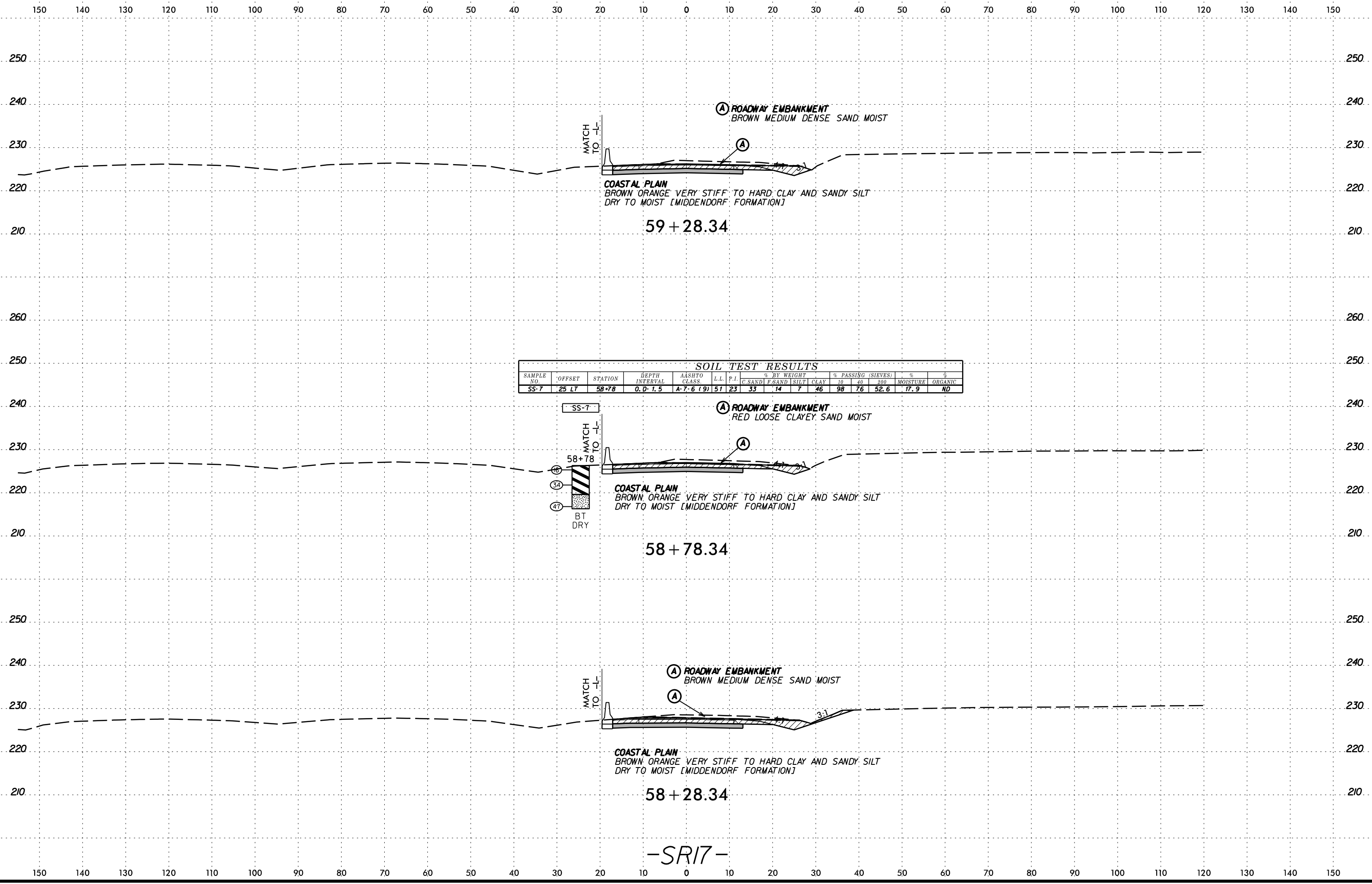
57+02

10

15

19

05/18



(A) ROADWAY EMBANKMENT
 BROWN MEDIUM DENSE SAND MOIST
 (A)
 COASTAL PLAIN
 BROWN ORANGE VERY STIFF TO HARD CLAY AND SANDY SILT
 DRY TO MOIST [MIDDENDORF FORMATION]

59 + 28.34

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			300
SS-7	25 LT	58+78	0.0-1.5	A-7.6 (9)	51	23	33	14	7	46	98	76	52.6	17.9	ND

SS-7
 (A) ROADWAY EMBANKMENT
 RED LOOSE CLAYEY SAND MOIST
 (A)
 COASTAL PLAIN
 BROWN ORANGE VERY STIFF TO HARD CLAY AND SANDY SILT
 DRY TO MOIST [MIDDENDORF FORMATION]

58 + 78.34

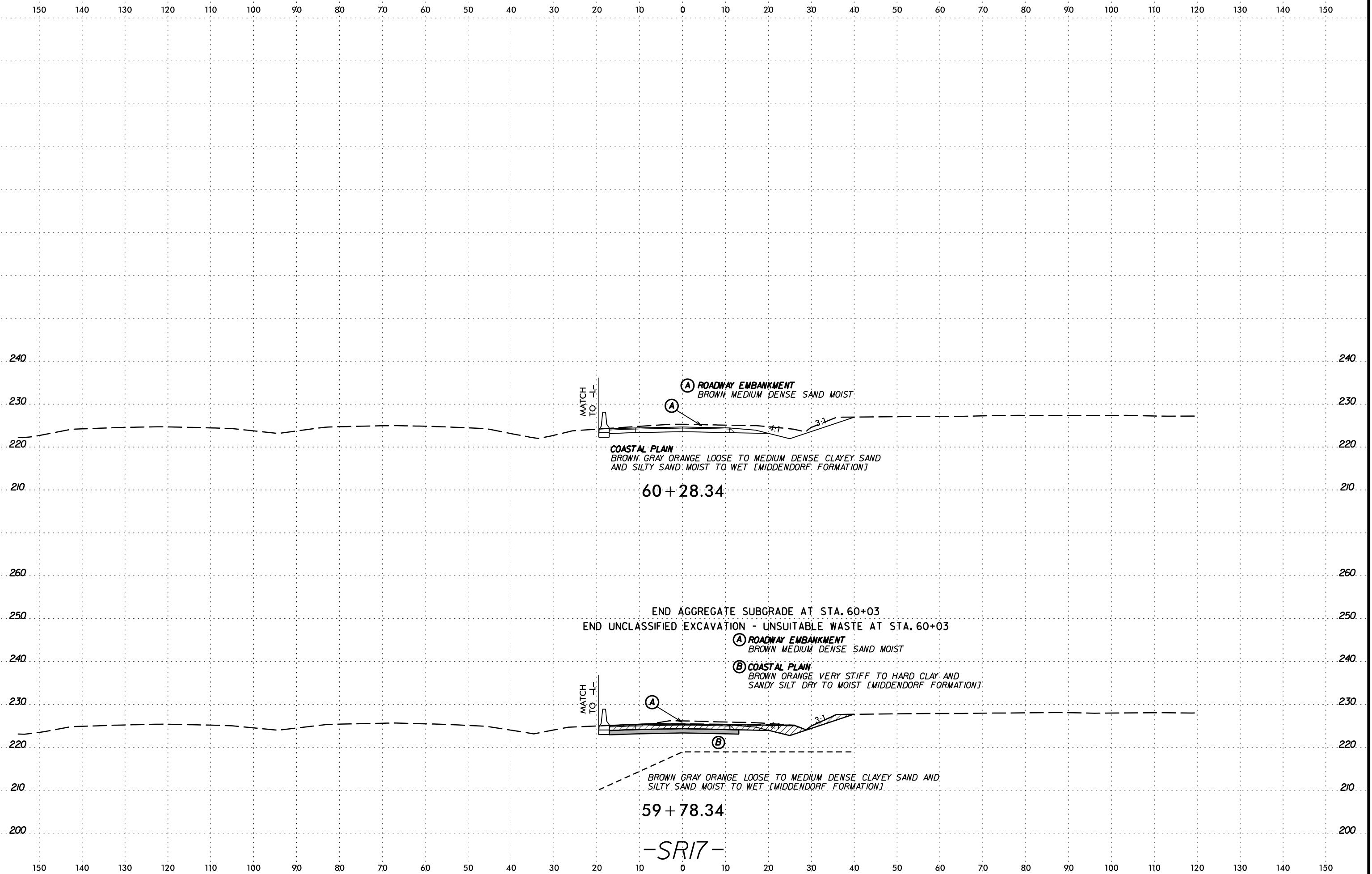
(A) ROADWAY EMBANKMENT
 BROWN MEDIUM DENSE SAND MOIST
 (A)
 COASTAL PLAIN
 BROWN ORANGE VERY STIFF TO HARD CLAY AND SANDY SILT
 DRY TO MOIST [MIDDENDORF FORMATION]

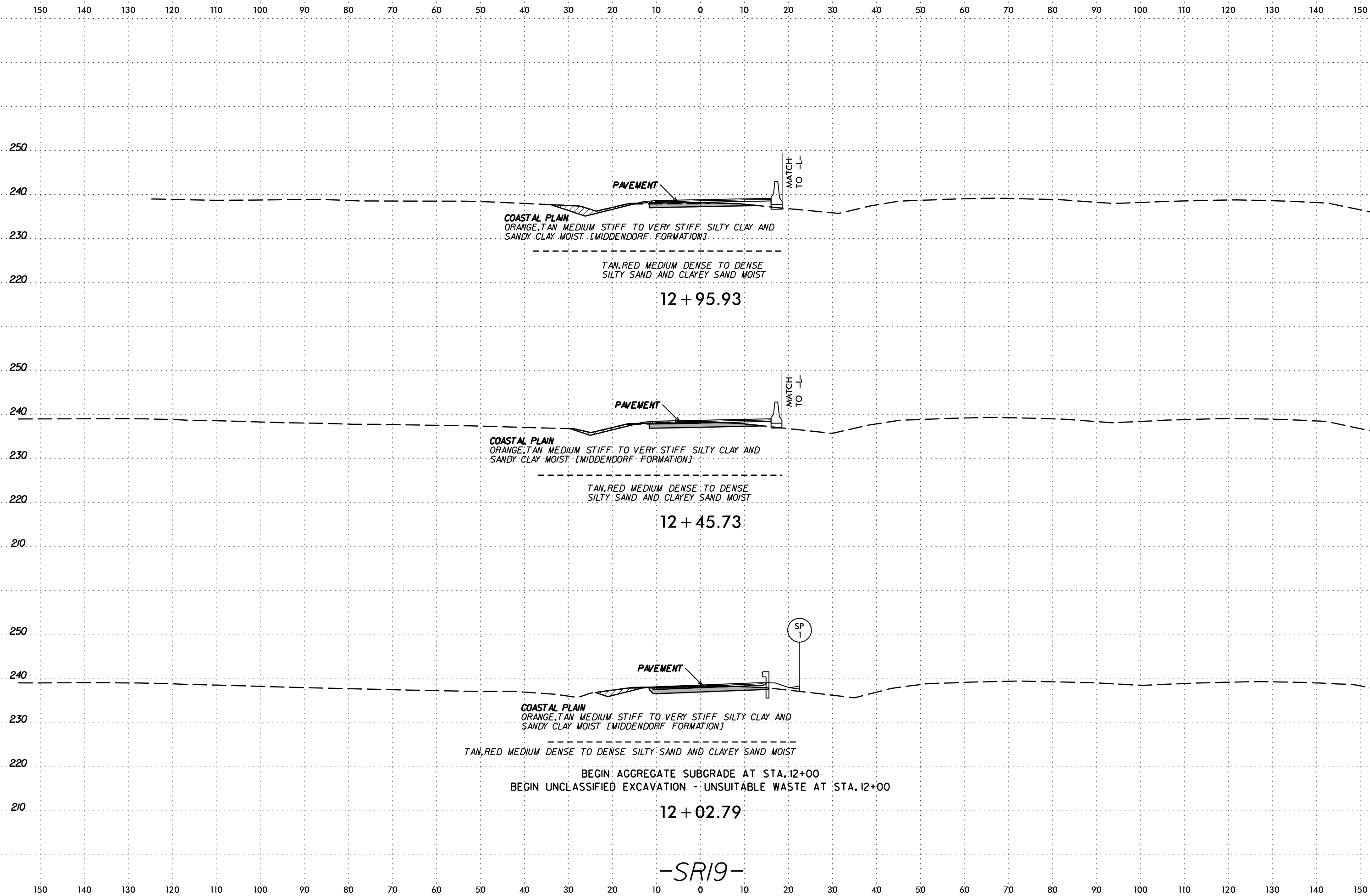
58 + 28.34

-SR17-

SCHEMATIC CONSTRUCTION

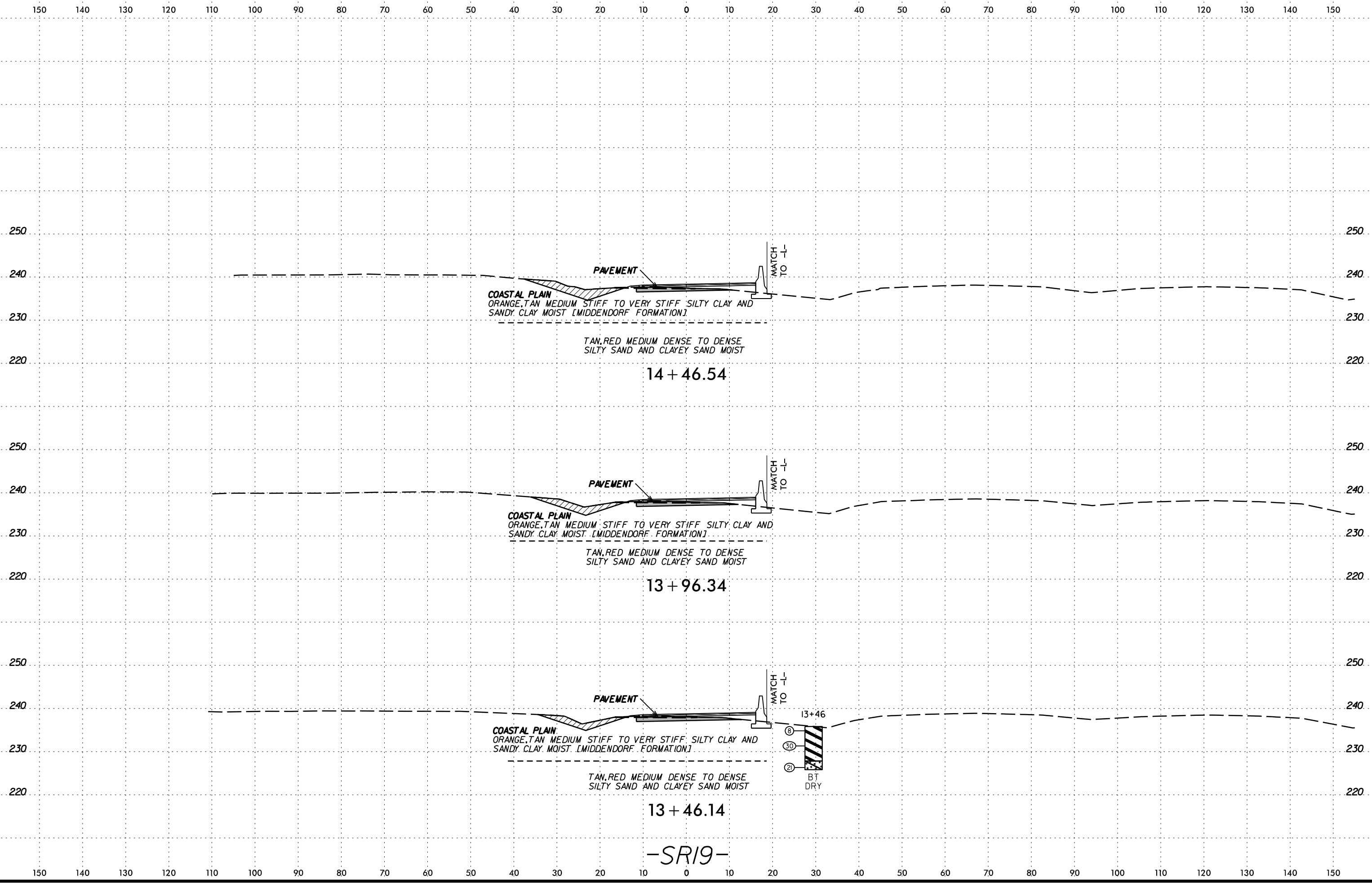
6/23/16
SECTION
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-SR19-

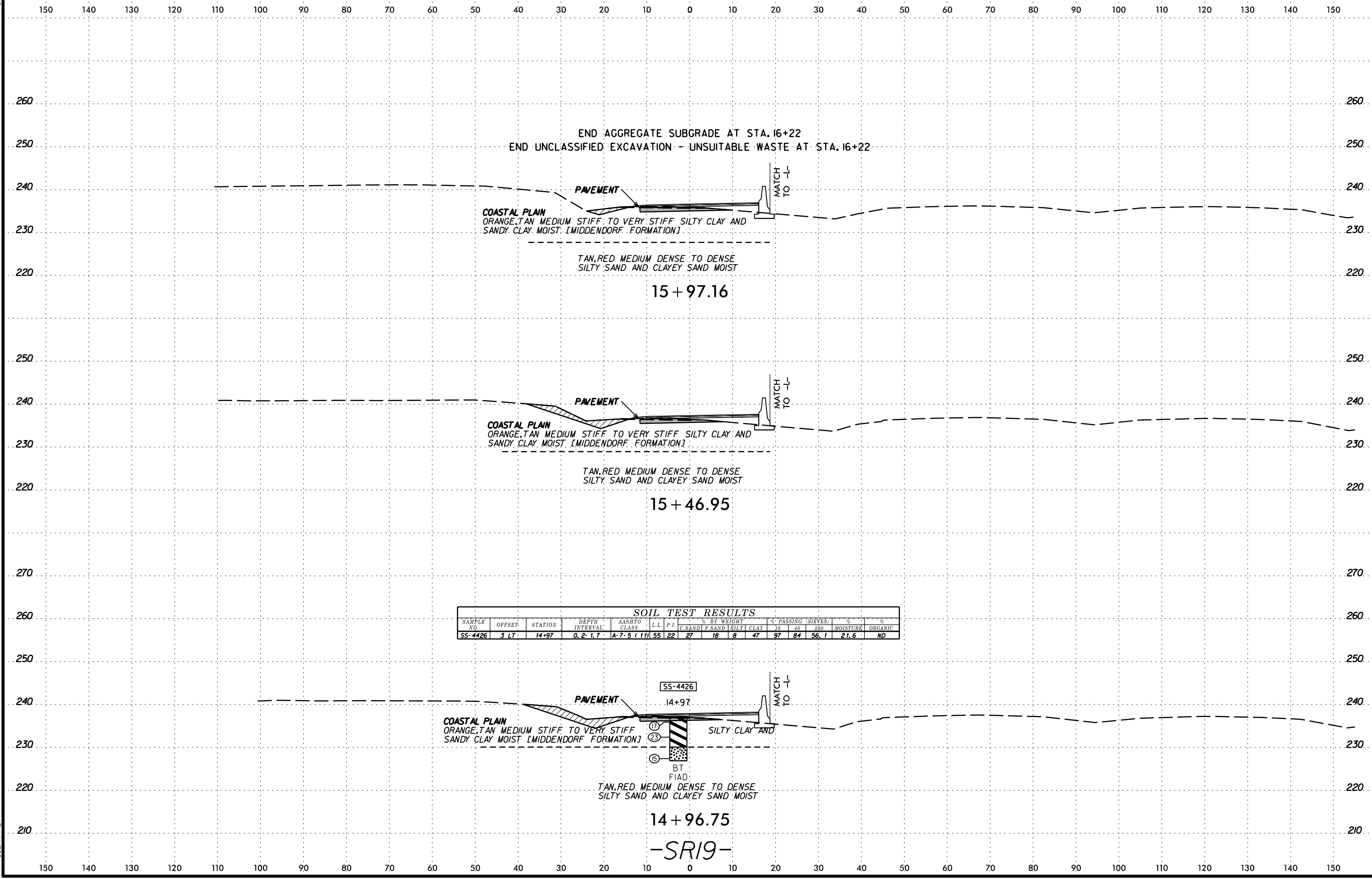
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END AGGREGATE SUBGRADE AT STA. 16+22
END UNCLASSIFIED EXCAVATION - UNSUITABLE WASTE AT STA. 16+22

PAVEMENT
COASTAL PLAIN
ORANGE, TAN MEDIUM STIFF TO VERY STIFF SILTY CLAY AND SANDY CLAY MOIST [MIDDENDORF FORMATION]

TAN, RED MEDIUM DENSE TO DENSE
SILTY SAND AND CLAYEY SAND MOIST

15 + 97.16

PAVEMENT
COASTAL PLAIN
ORANGE, TAN MEDIUM STIFF TO VERY STIFF SILTY CLAY AND SANDY CLAY MOIST [MIDDENDORF FORMATION]

TAN, RED MEDIUM DENSE TO DENSE
SILTY SAND AND CLAYEY SAND MOIST

15 + 46.95

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	75	200	475		
SS-4426	3 LT	14+97	0.2 - 1.7	A-7-5 (11)	55	22	27	18	8	47	97	84	56.1	21.6	ND

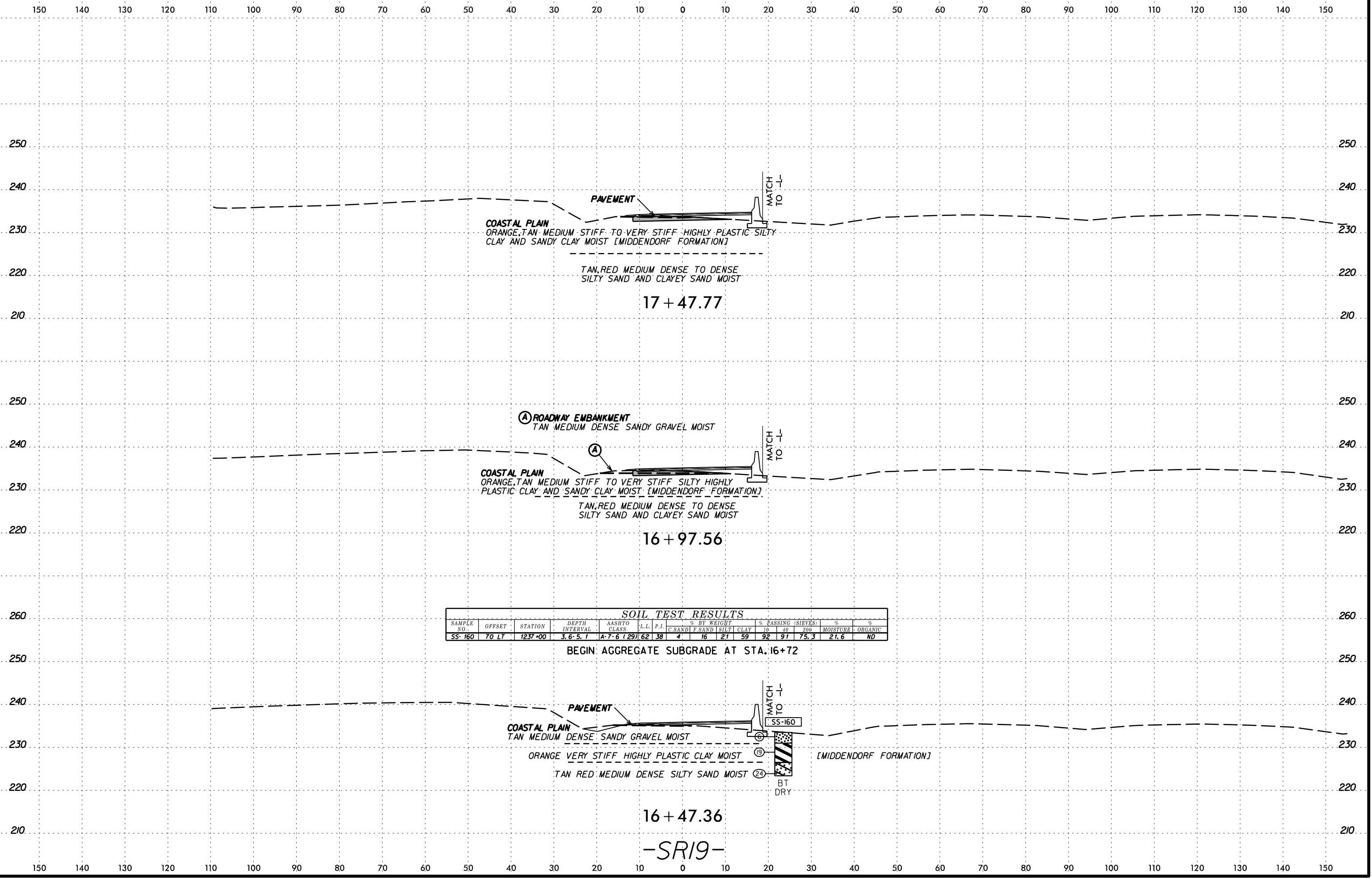
PAVEMENT
COASTAL PLAIN
ORANGE, TAN MEDIUM STIFF TO VERY STIFF SANDY CLAY MOIST [MIDDENDORF FORMATION]

BT FIAD
TAN, RED MEDIUM DENSE TO DENSE
SILTY SAND AND CLAYEY SAND MOIST

14 + 96.75

-SR19-

6/23/16



PAVEMENT

COASTAL PLAIN
ORANGE, TAN MEDIUM STIFF TO VERY STIFF HIGHLY PLASTIC SILTY
CLAY AND SANDY CLAY MOIST [MIDDENDORF FORMATION]

TAN, RED MEDIUM DENSE TO DENSE
SILTY SAND AND CLAYEY SAND MOIST

17 + 47.77

(A) ROADWAY EMBANKMENT
TAN MEDIUM DENSE SANDY GRAVEL MOIST

(A)

COASTAL PLAIN
ORANGE, TAN MEDIUM STIFF TO VERY STIFF SILTY HIGHLY
PLASTIC CLAY AND SANDY CLAY MOIST [MIDDENDORF FORMATION]

TAN, RED MEDIUM DENSE TO DENSE
SILTY SAND AND CLAYEY SAND MOIST

16 + 97.56

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	200			
SS-160	70 LT	1237+00	3.6-5.1	A-7-6 (29)	62	38	4	16	21	59	92	91	75.3	21.6	ND

BEGIN AGGREGATE SUBGRADE AT STA. 16+72

PAVEMENT

COASTAL PLAIN
TAN MEDIUM DENSE SANDY GRAVEL MOIST

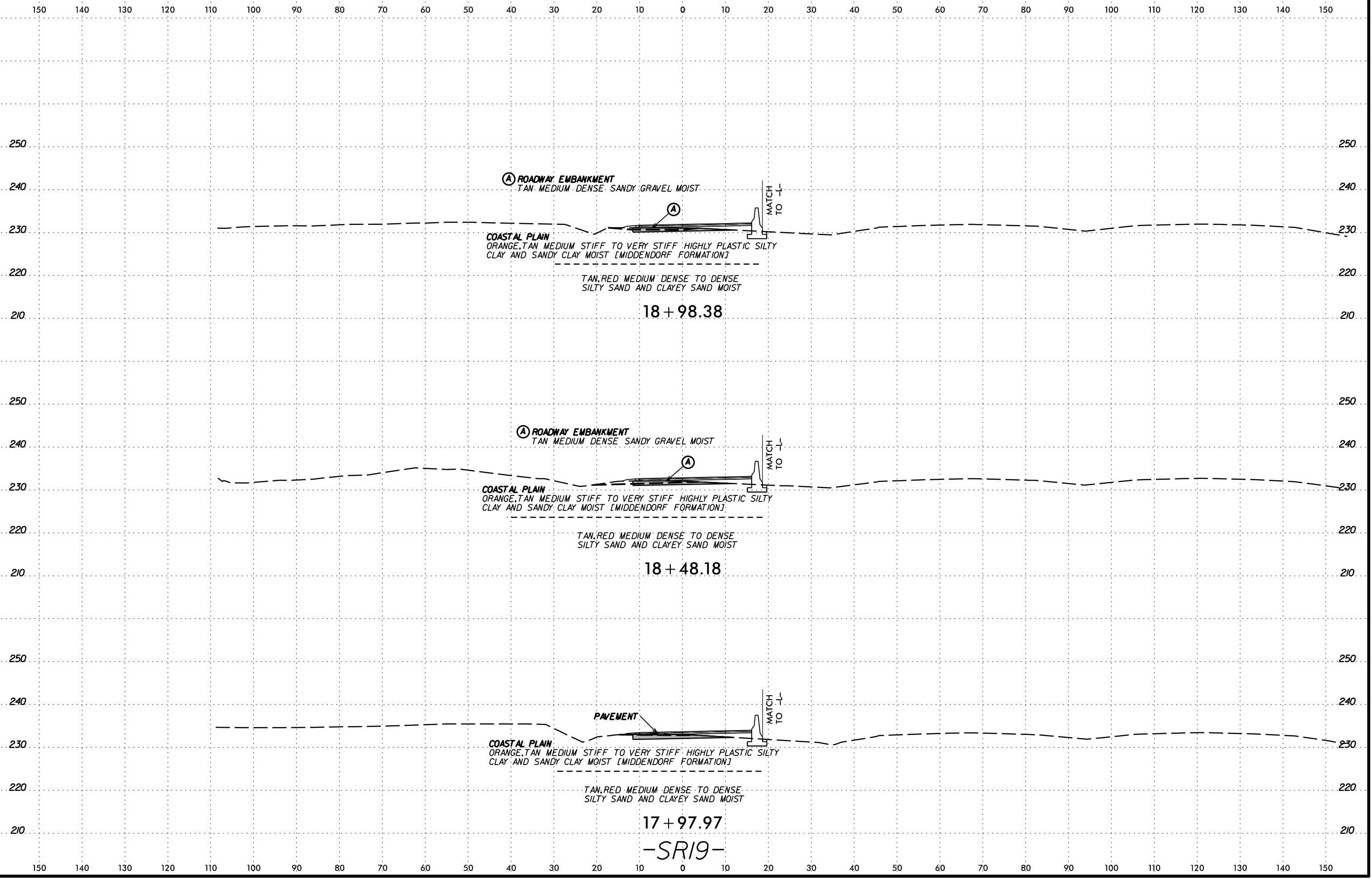
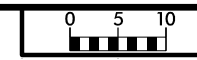
ORANGE VERY STIFF HIGHLY PLASTIC CLAY MOIST [MIDDENDORF FORMATION]

TAN RED MEDIUM DENSE SILTY SAND MOIST

BT DRY

16 + 47.36

-SR19-



(A) ROADWAY EMBANKMENT
TAN. MEDIUM DENSE SANDY GRAVEL MOIST

COASTAL PLAIN
ORANGE, TAN MEDIUM STIFF TO VERY STIFF HIGHLY PLASTIC SILTY CLAY AND SANDY CLAY MOIST [MIDDENDORF FORMATION]

TAN, RED MEDIUM DENSE TO DENSE
SILTY SAND AND CLAYEY SAND MOIST

18 + 98.38

(A) ROADWAY EMBANKMENT
TAN MEDIUM DENSE SANDY GRAVEL MOIST

COASTAL PLAIN
ORANGE, TAN MEDIUM STIFF TO VERY STIFF HIGHLY PLASTIC SILTY CLAY AND SANDY CLAY MOIST [MIDDENDORF FORMATION]

TAN, RED MEDIUM DENSE TO DENSE
SILTY SAND AND CLAYEY SAND MOIST

18 + 48.18

PAVEMENT

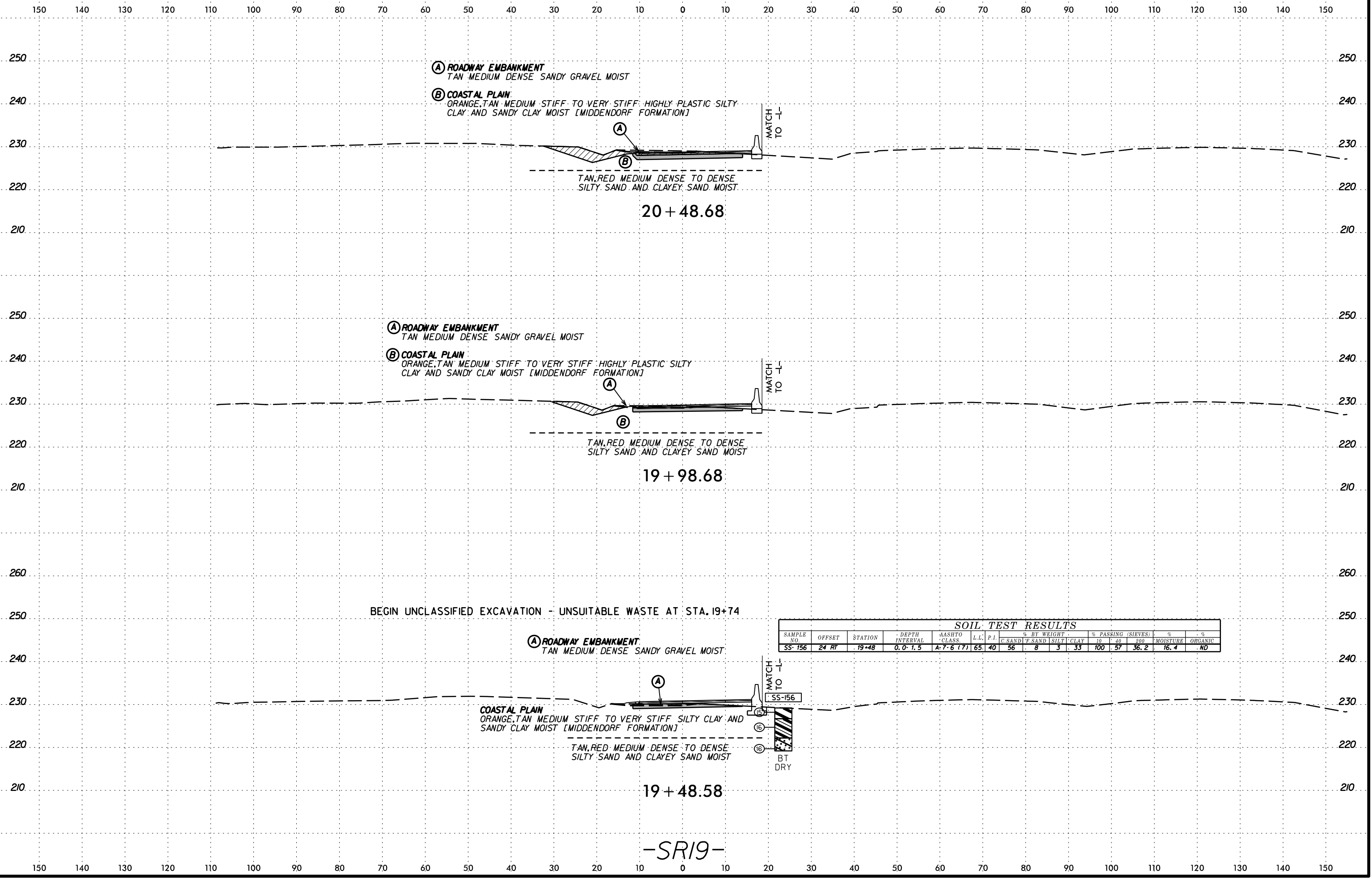
COASTAL PLAIN
ORANGE, TAN MEDIUM STIFF TO VERY STIFF HIGHLY PLASTIC SILTY CLAY AND SANDY CLAY MOIST [MIDDENDORF FORMATION]

TAN, RED MEDIUM DENSE TO DENSE
SILTY SAND AND CLAYEY SAND MOIST

17 + 97.97

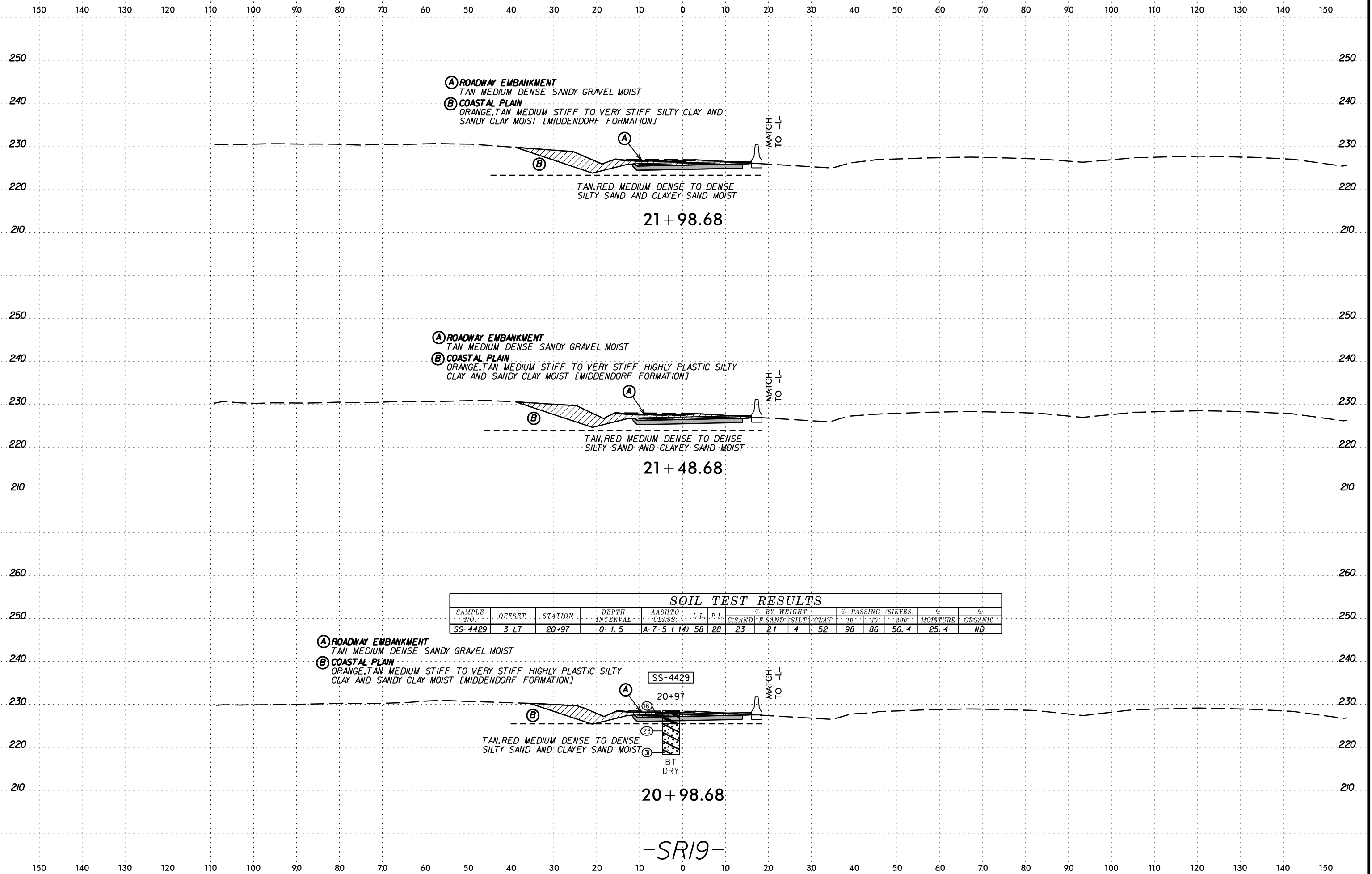
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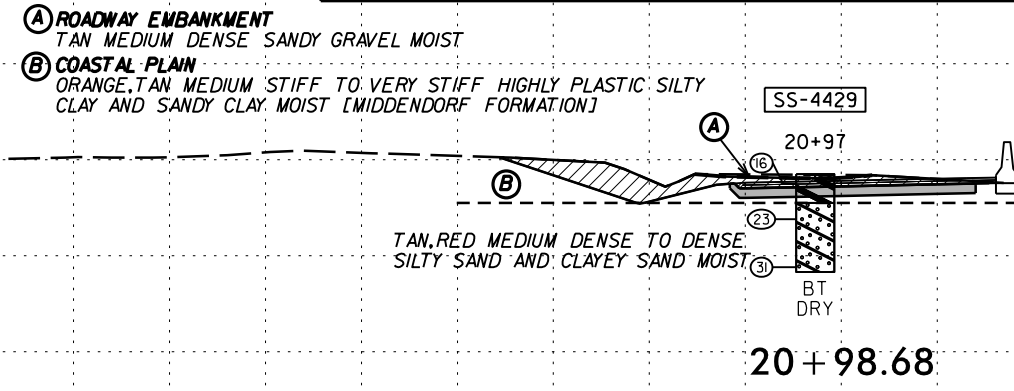


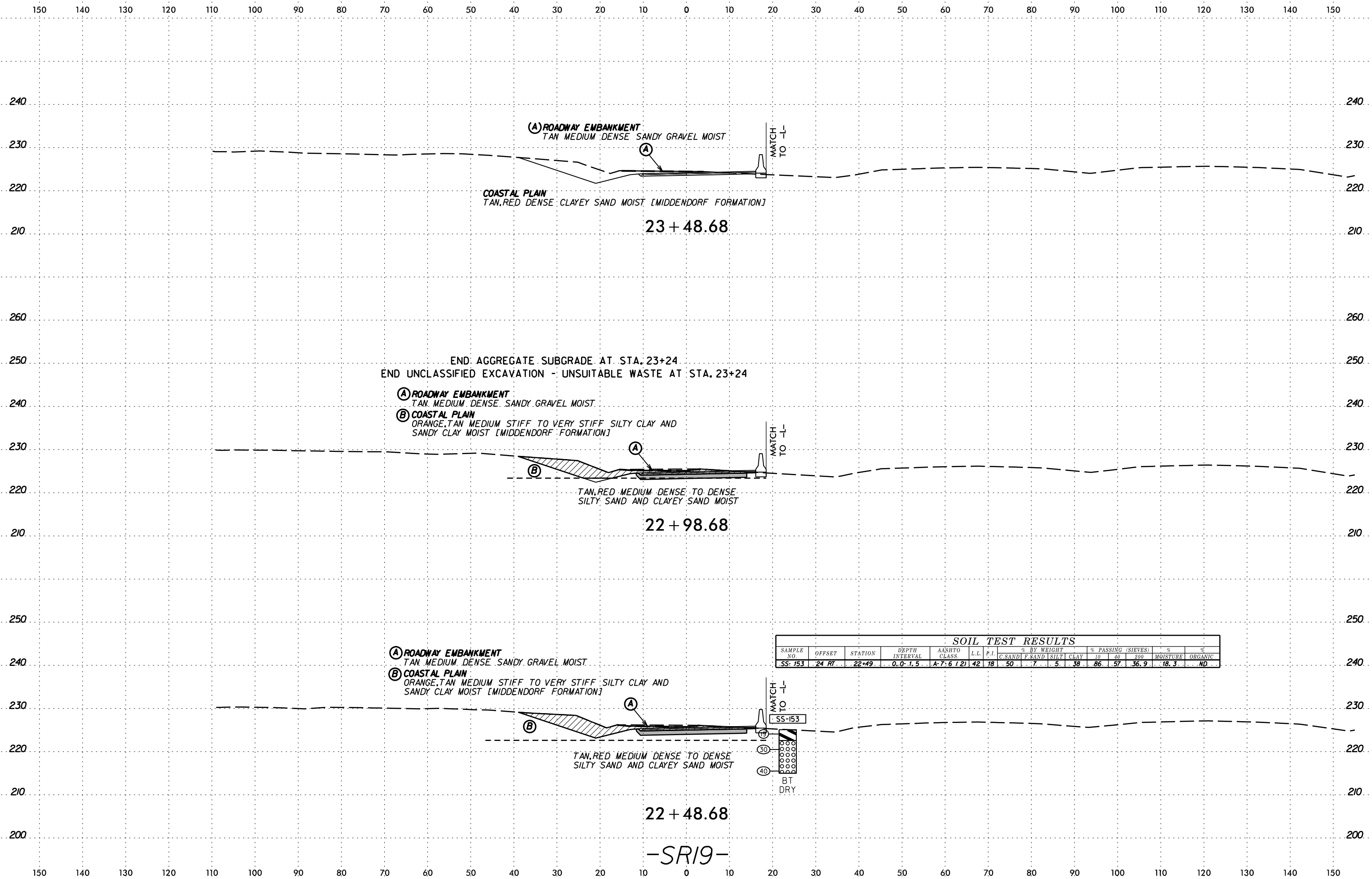
SOIL TEST RESULTS																
SAMPLE NO.	OFFSET	STATION	DEPTH INTERVAL	AASHTO CLASS.	L.L.	P.I.	% BY WEIGHT				% PASSING (SIEVES)				MOISTURE	ORGANIC
							C. SAND	F. SAND	SILT	CLAY	10	40	200			
SS-156	24 RT	19+48	0.0-1.5	A-7-6 (7)	65	40	56	8	3	33	100	57	36.2	16.4	ND	

6/23/16



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-4429	3' LT	20+97	0-1.5	A-7-5 (14)	58	28	23	21	4	52	98	86	56.4	25.4	ND





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			
SS-153	24 FT.	22+49	0.0-1.5	A-7-6 (2)	42	18	50	7	5	38	86	57	36.9	18.3	ND