STATE	STATE PROJECT REFERENCE NO.	SHEET NO.	TOTAL SHEETS
N.C.	34821.1.3 (U-2525B)	1	166

TIP: U-2525B

WBS: 34821

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

ROADWAY SUBSURFACE INVESTIGATION

PROJ. REFERENCE NO. 34821.1.3 (U-2525B) F.A. PROJ. N/A

GUILFORD

PROJECT DESCRIPTION GREENSBORO EASTERN LOOP FROM NORTH OF US 70 RELOCATION TO US 29 NORTH

NOTE: SEE SHEET 2A FOR PLAN SHEET LAYOUT AT TIME OF INVESTIGATION

INVENTORY

CONTENTS:

LINE	STATION	SHEET NUMBERS PLAN	PROFILE	X-SECTS.	LINE	STATION	SHEET NUMBERS PLAN	PROFILE	X-SECTS.
-L-	11+22 to 48+50	4,5	40-42		-Y6-	10+00 to 11+50	26	-	
	48+50 to 49+00	5	42	86	-Y7-	10+00 to 13+76	10	-	
	49+00 to 53+50	5,6	42		-Y8-	12+28 to 22+47	12	-	
	53+50 to 59+00	6	42	87-91	-Y9-	10+66 to 12+98	14	-	
	59+00 to 62+00	6	42		-Y10-	10+00 to 31+07	17,18,27	-	
	62+00 to 63+00	6	42	92	-Y10A-	10+00 to 13+93	17	61	
	63+00 to 65+00	6	42		-Y11-	15+00 to 25+50	18,27	62	
	65+00 to 68+50	6,7	42,43	93-96		25+50 to 28+50	18,28	62	142,143
	68+50 to 106+00	7,8	43,44			28+50 to 30+50	28	62	
	106+00 to 115+00	8,9	44	96-102		30+50 to 35+00	28	62	144-146
	115+00 to 206+50	9-17	44-48			35+00 to 35+50	28	62	
	206+50 to 207+50	17	48	103,104	-LCAFLY-	10+00 to 23+80	20,21	63	
	207+50 to 211+00	17	48		-Y21A-	12+64 to 25+06	21	74	
	211+00 to 213+00	17	48	105,106	-Y13-	20+00 to 112+00	21,29-36	64-67	
	213+00 to 217+50	17,18	48		-I13CD-	10+00 to 33+23	21,32	-	
	217+50 to 218+00	18	48	107	-I3LPA-	10+00 to 23+54	21	67	
	218+00 to 224+00	18	48		-I13LPD-	10+00 to 24+02	21	71	
	224+00 to 233+00	18-19	48	108-113	-Y13RPB-	6+72 to 20+70	21,31	68	
	233+00 to 241+50	19	48,49			20+70 to 22+70	21	68	147,148
	241+50 to 242+50	19-20	49	114,115		22+70 to 28+70	21	68	
	242+50 to 256+00	20-21	49			28+70 to 31+20	21	68	116,117
	256+00 to 258+50	21	49	116,117		31+02 to 31+71	21	68	
	258+50 to 274+00	21	49,50		-Y13RPC-	10+00 to 27+81	20,21,32	69	
-Y1-	9+74 to 14+09	4	-		-I13RPC-	27+81 to 38+09	32,33	70	
-Y2-	10+00 to 14+39	4	-		-ISRV1-	10+00 to 18+00	30,31	72	
-Y3-	12+59 to 25+81	4	-			18+00 to 25+00	31	72	149-152
-Y3RPA-	10+00 to 23+81	4	51			25+00 to 25+50	31	72	
-Y3RPD-	10+00 to 30+96	4,5	52		-Y21-	10+00 to 11+00	33	73	
-Y4-	12+00 to 12+50	24	53			11+00 to 15+00	33	73	153-155
	12+50 to 15+50	24	53	118,119		15+00 to 17+50	33	73	
	15+50 to 39+00	7,24,25	53,54			17+50 to 24+50	33	73	156-159
	39+00 to 52+00	25,26	54	120-127		24+50 to 33+23	32,33	73	
	52+00 to 56+00	26	54		-Y22-	10+00 to 45+00	33,38	75,76	
-Y4RPA-	10+00 to 27+25	7,8	55		-I22LPA-	10+00 to 22+89	33	78	
-Y4RPB-	10+00 to 15+25	6	56	93-95	-I22LPD-	9+71 to 19+92	33	80	
	15+25 to 15+75	7	56	128	-I22RPA-	6+18 to 10+00	34	-	
	15+75 to 26+53	7	56		-Y22RPA-	10+00 to 30+04	33,34	77	
-Y4RPC-	10+00 to 15+00	7	57	94-95	-I22RPD-	9+65 to 20+97	33,34	79	
	15+00 to 23+50	7	57	129-134	-Y22RPD-	20+97 to 26+41	33	79	
	23+50 to 26+11	7	57		-I19-	10+00 to 15+00	33	81	
-Y4RPD-	10+00 to 14+80	7,8	58		-I23-	10+00 to 19+50	35	82	
	14+80 to 17+80	7	58	135,136		19+50 to 22+50	35	82	160,161
	17+80 to 25+38	7	58			22+50 to 43+00	33,34	82,83	
-Y5-	10+00 to 11+50	7,24	59			43+00 to 46+00	33	83	162,163
-Y5B-	12+00 to 16+93	25,26	59			46+00 to 46+08	33	83	
-Y5C-	10+00 to 17+00	25,26	60	137-141	-I26-	10+00 to 29+00	34,35	84	
	17+00 to 26+00	25	60			29+00 to 32+50	34	84	164-166
	10+00 to 12+30	25	-			32+50 to 39+01	34	84,85	

DRAWN BY: J. L. PEDRO, W. D. FIELDS

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

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CAUTION NOTICE

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

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

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

PERSONNEL

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SUBMITTED BY J. L. PEDRO

DATE JULY 2008

NORTH CAROLINA LICENSED SEAL 2157 GEOLOGIST JAIME LOVE PEDRO

8/5/08

PROJECT REFERENCE NO.	SHEET NO.
3482I.1.3 (U-2525B)	2

NORTH CAROLINA DEPARTMENT OF TRANSPORTATION
DIVISION OF HIGHWAYS
GEOTECHNICAL ENGINEERING UNIT

SUBSURFACE INVESTIGATION

SOIL AND ROCK LEGEND, TERMS, SYMBOLS, AND ABBREVIATIONS

SOIL DESCRIPTION

SOIL IS CONSIDERED TO BE THE 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 STANDARD PENETRATION TEST (AASHTO T206, ASTM D-1586). SOIL CLASSIFICATION IS BASED ON THE AASHTO SYSTEM. BASIC DESCRIPTIONS GENERALLY SHALL INCLUDE: CONSISTENCY, COLOR, TEXTURE, MOISTURE, AASHTO CLASSIFICATION, AND OTHER PERTINENT FACTORS SUCH AS MINERALOGICAL COMPOSITION, ANGULARITY, STRUCTURE, PLASTICITY, ETC. EXAMPLE:

VERY STIFF, GRAY, SILTY CLAY, MOIST WITH INTERBEDDED FINE SAND LAYERS, HIGHLY PLASTIC, A-7-6

SOIL LEGEND AND AASHTO CLASSIFICATION

GENERAL CLASS.	GRANULAR MATERIALS (≤ 35% PASSING #200)							SILT-CLAY MATERIALS (> 35% PASSING #200)				ORGANIC MATERIALS		
GROUP CLASS.	A-1		A-3	A-2				A-4	A-5	A-6	A-7	A-1, A-2 A-3	A-4, A-5 A-6, A-7	
	A-1-a	A-1-b		A-2-4	A-2-5	A-2-6	A-2-7				A-7-5 A-7-6			
SYMBOL														
% PASSING # 10 # 40 # 200	50 MX 30 MX 15 MX		50 MX 25 MX	51 MN 10 MX	35 MX	35 MX	35 MX	35 MX	36 MN	36 MN	36 MN	36 MN	GRANULAR SOILS	SILT-CLAY SOILS	MUCK, PEAT
LIQUID LIMIT	6 MX		NP		40 MX	41 MN	40 MX	41 MN	40 MX	41 MN	40 MX	41 MN	SOILS WITH LITTLE OR MODERATE AMOUNTS OF ORGANIC MATTER		HIGHLY ORGANIC SOILS
PLASTIC INDEX					10 MX	10 MX	11 MN	11 MN	10 MX	10 MX	11 MN	11 MN			
GROUP INDEX	0		0	0		4 MX		8 MX	12 MX	16 MX	No MX				
USUAL TYPES OF MAJOR MATERIALS	STONE FRAGS. GRAVEL, AND SAND		FINE SAND	SILTY OR CLAYEY GRAVEL AND SAND				SILTY SOILS		CLAYEY SOILS					
GEN. RATING AS A SUBGRADE	EXCELLENT TO GOOD							FAIR TO POOR				FAIR TO POOR	POOR	UNSUITABLE	

PI OF A-7-5 SUBGROUP IS ≤ LL - 30 ; PI OF A-7-6 SUBGROUP IS > LL - 30

CONSISTENCY OR DENSENESS

PRIMARY SOIL TYPE	COMPACTNESS OR CONSISTENCY	RANGE OF STANDARD PENETRATION RESISTENCE (N-VALUE)	RANGE OF UNCONFINED COMPRESSIVE STRENGTH (TONS/FT²)
GENERALLY GRANULAR MATERIAL (NON-COHESIVE)	VERY LOOSE LOOSE MEDIUM DENSE DENSE VERY DENSE	<4 4 TO 10 10 TO 30 30 TO 50 >50	N/A
GENERALLY SILT-CLAY MATERIAL (COHESIVE)	VERY SOFT SOFT MEDIUM STIFF STIFF VERY STIFF HARD	<2 2 TO 4 4 TO 8 8 TO 15 15 TO 30 >30	<0.25 0.25 TO 0.50 0.5 TO 1.0 1 TO 2 2 TO 4 >4

TEXTURE OR GRAIN SIZE

U.S. STD. SIEVE SIZE	4	10	40	60	200	270
OPENING (MM)	4.76	2.00	0.42	0.25	0.075	0.053

BOULDER (BLDR.)	COBBLE (COB.)	GRAVEL (GR.)	COARSE SAND (CSE. SD.)	FINE SAND (F SD.)	SILT (SL.)	CLAY (CL.)

GRAIN SIZE	MM	305	75	2.0	0.25	0.05	0.005
	IN.	12	3				

SOIL MOISTURE - CORRELATION OF TERMS

SOIL MOISTURE SCALE (ATTERBERG LIMITS)	FIELD MOISTURE DESCRIPTION	GUIDE FOR FIELD MOISTURE DESCRIPTION
	- SATURATED - (SAT.)	USUALLY LIQUID; VERY WET, USUALLY FROM BELOW THE GROUND WATER TABLE
LL — LIQUID LIMIT (PLASTIC RANGE (PI))		
	- WET - (W)	SEMISOLID; REQUIRES DRYING TO ATTAIN OPTIMUM MOISTURE
PL — PLASTIC LIMIT		
	- MOIST - (M)	SOLID; AT OR NEAR OPTIMUM MOISTURE
OM — OPTIMUM MOISTURE SL — SHRINKAGE LIMIT		
	- DRY - (D)	REQUIRES ADDITIONAL WATER TO ATTAIN OPTIMUM MOISTURE

PLASTICITY

	PLASTICITY INDEX (PI)	DRY STRENGTH
NONPLASTIC	0-5	VERY LOW
LOW PLASTICITY	6-15	SLIGHT
MED. PLASTICITY	16-25	MEDIUM
HIGH PLASTICITY	26 OR MORE	HIGH

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.

GRADATION

WELL GRADED - INDICATES A GOOD REPRESENTATION OF PARTICLE SIZES FROM FINE TO COARSE.
UNIFORM - INDICATES THAT SOIL PARTICLES ARE ALL APPROXIMATELY THE SAME SIZE. (ALSO POORLY GRADED)
GAP-GRADED - INDICATES A MIXTURE OF UNIFORM PARTICLES OF TWO OR MORE SIZES.

ANGULARITY OF GRAINS

THE ANGULARITY OR ROUNDNESS OF SOIL GRAINS IS DESIGNATED BY THE TERMS: ANGULAR, SUBANGULAR, SUBROUNDED, OR ROUNDED.

MINERALOGICAL COMPOSITION

MINERAL NAMES SUCH AS QUARTZ, FELDSPAR, MICA, TALC, KAOLIN, ETC. ARE USED IN DESCRIPTIONS WHENEVER THEY ARE CONSIDERED OF SIGNIFICANCE.

COMPRESSIBILITY

SLIGHTLY COMPRESSIBLE	LIQUID LIMIT LESS THAN 31
MODERATELY COMPRESSIBLE	LIQUID LIMIT EQUAL TO 31-50
HIGHLY COMPRESSIBLE	LIQUID LIMIT GREATER THAN 50

PERCENTAGE OF MATERIAL

ORGANIC MATERIAL	GRANULAR SOILS	SILT - CLAY SOILS	OTHER MATERIAL	
TRACE OF ORGANIC MATTER	2 - 3%	3 - 5%	TRACE	1 - 10%
LITTLE ORGANIC MATTER	3 - 5%	5 - 12%	LITTLE	10 - 20%
MODERATELY ORGANIC	5 - 10%	12 - 20%	SOME	20 - 35%
HIGHLY ORGANIC	>10%	>20%	HIGHLY	35% AND ABOVE

GROUND WATER

- WATER LEVEL IN BORE HOLE IMMEDIATELY AFTER DRILLING
- STATIC WATER LEVEL AFTER 24 HOURS
- PW — PERCHED WATER, SATURATED ZONE, OR WATER BEARING STRATA
- SPRING OR SEEP

MISCELLANEOUS SYMBOLS

- ROADWAY EMBANKMENT (RE) WITH SOIL DESCRIPTION
- SOIL SYMBOL
- ARTIFICIAL FILL (AF) OTHER THAN ROADWAY EMBANKMENT
- INFERRED SOIL BOUNDARY
- INFERRED ROCK LINE
- ALLUVIAL SOIL BOUNDARY
- 25/025 — DIP & DIP DIRECTION OF ROCK STRUCTURES
- SOUNDING ROD
- SPT CPT DPT DHT VST PMT — TEST BORING
- AUGER BORING
- CORE BORING
- MW — MONITORING WELL
- PIEZOMETER INSTALLATION
- SLOPE INDICATOR INSTALLATION
- SPT N-VALUE
- REF — SPT REFUSAL

SAMPLE DESIGNATIONS
S - BULK SAMPLE
SS - SPLIT SPOON SAMPLE
ST - SHELBY TUBE SAMPLE
RS - ROCK SAMPLE
RT - RECOMPACTED TRIAXIAL SAMPLE
CBR - CALIFORNIA BEARING RATIO SAMPLE

ABBREVIATIONS

AR - AUGER REFUSAL
BT - BORING TERMINATED
CL. - CLAY
CPT - CONE PENETRATION TEST
CSE. - COARSE
DMT - DILATOMETER TEST
DPT - DYNAMIC PENETRATION TEST
e - VOID RATIO
F - FINE
FOSS. - FOSSILIFEROUS
FRAC. - FRACTURED, FRACTURES
FRAGS. - FRAGMENTS
HI. - HIGHLY
MED. - MEDIUM
MICA. - MICACEOUS
MOD. - MODERATELY
NP - NON PLASTIC
ORG. - ORGANIC
PMT - PRESSUREMETER TEST
SAP. - SAPROLITIC
SD. - SAND, SANDY
SL. - SILT, SILTY
SLI. - SLIGHTLY
TCR - TRICONE REFUSAL
w - MOISTURE CONTENT
V - VERY
VST - VANE SHEAR TEST
WEA. - WEATHERED
γ - UNIT WEIGHT
γ_d - DRY UNIT WEIGHT

EQUIPMENT USED ON SUBJECT PROJECT

DRILL UNITS:
- [ ] MOBILE B-___
- [X] BK-51
- [ ] CME-45B
- [ ] CME-550
- [ ] PORTABLE HOIST
- [X] B-57
- [ ] _____

ADVANCING TOOLS:
- [ ] CLAY BITS
- [X] 6" CONTINUOUS FLIGHT AUGER
- [X] 8" HOLLOW AUGERS
- [X] HARD FACED FINGER BITS
- [ ] TUNG.-CARBIDE INSERTS
- [ ] CASING [ ] W/ ADVANCER
- [ ] TRICONE _____" STEEL TEETH
- [ ] TRICONE _____" TUNG.-CARB.
- [ ] CORE BIT
- [ ] _____

HAMMER TYPE:
- [ ] AUTOMATIC [X] MANUAL

CORE SIZE:
- [ ] -B_____
- [ ] -N_____
- [ ] -H_____

HAND TOOLS:
- [ ] POST HOLE DIGGER
- [ ] HAND AUGER
- [ ] SOUNDING ROD
- [ ] VANE SHEAR TEST
- [ ] _____

ROCK DESCRIPTION

HARD ROCK IS NON-COASTAL PLAIN MATERIAL THAT IF TESTED, WOULD YIELD SPT REFUSAL. 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:

WEATHERED ROCK (WR)	NON-COASTAL PLAIN MATERIAL THAT WOULD YIELD SPT N VALUES > 100 BLOWS PER FOOT IF TESTED.
CRYSTALLINE ROCK (CR)	FINE TO COARSE GRAIN IGNEOUS AND METAMORPHIC ROCK THAT WOULD YIELD SPT REFUSAL IF TESTED. ROCK TYPE INCLUDES GRANITE, GNEISS, GABBRO, SCHIST, ETC.
NON-CRYSTALLINE ROCK (NCR)	FINE TO COARSE GRAIN METAMORPHIC AND NON-COASTAL PLAIN SEDIMENTARY ROCK THAT WOULD YEILD SPT REFUSAL IF TESTED. ROCK TYPE INCLUDES PHYLLITE, SLATE, SANDSTONE, ETC.
COASTAL PLAIN SEDIMENTARY ROCK (CP)	COASTAL PLAIN SEDIMENTS CEMENTED INTO ROCK, BUT MAY NOT YIELD SPT REFUSAL. ROCK TYPE INCLUDES LIMESTONE, SANDSTONE, CEMENTED SHELL BEDS, ETC.

WEATHERING

FRESH	ROCK FRESH, CRYSTALS BRIGHT, FEW JOINTS MAY SHOW SLIGHT STAINING. ROCK RINGS UNDER HAMMER IF CRYSTALLINE.
VERY SLIGHT (V SLI.)	ROCK GENERALLY FRESH, JOINTS STAINED, SOME JOINTS MAY SHOW THIN CLAY COATINGS IF OPEN, CRYSTALS ON A BROKEN SPECIMEN FACE SHINE BRIGHTLY. ROCK RINGS UNDER HAMMER BLOWS IF OF A CRYSTALLINE NATURE.
SLIGHT (SLI.)	ROCK GENERALLY FRESH, JOINTS STAINED AND DISCOLORATION EXTENDS INTO ROCK UP TO 1 INCH. OPEN JOINTS MAY CONTAIN CLAY. IN GRANITOID ROCKS SOME OCCASIONAL FELDSPAR CRYSTALS ARE DULL AND DISCOLORED. CRYSTALLINE ROCKS RING UNDER HAMMER BLOWS.
MODERATE (MOD.)	SIGNIFICANT PORTIONS OF ROCK SHOW DISCOLORATION AND WEATHERING EFFECTS. IN GRANITOID ROCKS, MOST FELDSPARS ARE DULL AND DISCOLORED, SOME SHOW CLAY. ROCK HAS DULL SOUND UNDER HAMMER BLOWS AND SHOWS SIGNIFICANT LOSS OF STRENGTH AS COMPARED WITH FRESH ROCK.
MODERATELY SEVERE (MOD. SEV.)	ALL ROCK EXCEPT QUARTZ DISCOLORED OR STAINED. IN GRANITOID ROCKS, ALL FELDSPARS DULL AND DISCOLORED AND A MAJORITY SHOW KAOLINIZATION. ROCK SHOWS SEVERE LOSS OF STRENGTH AND CAN BE EXCAVATED WITH A GEOLOGIST'S PICK. ROCK GIVES "CLUNK" SOUND WHEN STRUCK. *IF TESTED, WOULD YIELD SPT REFUSAL*
SEVERE (SEV.)	ALL ROCK EXCEPT QUARTZ DISCOLORED OR STAINED. ROCK FABRIC CLEAR AND EVIDENT BUT REDUCED IN STRENGTH TO STRONG SOIL. IN GRANITOID ROCKS ALL FELDSPARS ARE KAOLINIZED TO SOME EXTENT. SOME FRAGMENTS OF STRONG ROCK USUALLY REMAIN. *IF TESTED, YIELDS SPT N VALUES > 100 BPF*
VERY SEVERE (V SEV.)	ALL ROCK EXCEPT QUARTZ DISCOLORED OR STAINED. ROCK FABRIC ELEMENTS ARE DISCERNIBLE BUT THE MASS IS EFFECTIVELY REDUCED TO SOIL STATUS, WITH ONLY FRAGMENTS OF STRONG ROCK REMAINING. SAPROLITE IS AN EXAMPLE OF ROCK WEATHERED TO A DEGREE SUCH THAT ONLY MINOR VESTIGES OF THE ORIGINAL ROCK FABRIC REMAIN. *IF TESTED, YIELDS SPT N VALUES < 100 BPF*
COMPLETE	ROCK REDUCED TO SOIL. ROCK FABRIC NOT DISCERNIBLE, OR DISCERNIBLE ONLY IN SMALL AND SCATTERED CONCENTRATIONS. QUARTZ MAY BE PRESENT AS DIKES OR STRINGERS. SAPROLITE IS ALSO AN EXAMPLE.

ROCK HARDNESS

VERY HARD	CANNOT BE SCRATCHED BY KNIFE OR SHARP PICK. BREAKING OF HAND SPECIMENS REQUIRES SEVERAL HARD BLOWS OF THE GEOLOGIST'S PICK.
HARD	CAN BE SCRATCHED BY KNIFE OR PICK ONLY WITH DIFFICULTY. HARD HAMMER BLOWS REQUIRED TO DETACH HAND SPECIMEN.
MODERATELY HARD	CAN BE SCRATCHED BY KNIFE OR PICK. GOUGES OR GROOVES TO 0.25 INCHES DEEP CAN BE EXCAVATED BY HARD BLOW OF A GEOLOGIST'S PICK. HAND SPECIMENS CAN BE DETACHED BY MODERATE BLOWS.
MEDIUM HARD	CAN BE GROOVED OR GOUGED 0.05 INCHES DEEP BY FIRM PRESSURE OF KNIFE OR PICK POINT. CAN BE EXCAVATED IN SMALL CHIPS TO PEICES 1 INCH MAXIMUM SIZE BY HARD BLOWS OF THE POINT OF A GEOLOGIST'S PICK.
SOFT	CAN BE GROVED OR GOUGED READILY BY KNIFE OR PICK. CAN BE EXCAVATED IN FRAGMENTS FROM CHIPS TO SEVERAL INCHES IN SIZE BY MODERATE BLOWS OF A PICK POINT. SMALL, THIN PIECES CAN BE BROKEN BY FINGER PRESSURE.
VERY SOFT	CAN BE CARVED WITH KNIFE. CAN BE EXCAVATED READILY WITH POINT OF PICK. PIECES 1 INCH OR MORE IN THICKNESS CAN BE BROKEN BY FINGER PRESSURE. CAN BE SCRATCHED READILY BY FINGERNAIL.

FRACTURE SPACING

TERM	SPACING
VERY WIDE	MORE THAN 10 FEET
WIDE	3 TO 10 FEET
MODERATELY CLOSE	1 TO 3 FEET
CLOSE	0.16 TO 1 FEET
VERY CLOSE	LESS THAN 0.16 FEET

BEDDING

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

INDURATION

FOR SEDIMENTARY ROCKS, INDURATION IS THE HARDENING OF THE 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.

TERMS AND DEFINITIONS

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, 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 (RQD) - 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 (SRQD) - 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.

BENCH MARK:

ELEVATION: FT.

NOTES:

REVISED 02/23/06

09/08/99

TIP PROJECT: U-2525B

CONTRACT:

25-JUN-2008 14:10
i:\ero\raleigh investigation\tip\u2525b_geo_rdwy\cadd_geotech\planprof\u2525b_geo_title_sht.dgn
jpedro AT GE.221395

STATE OF NORTH CAROLINA
DIVISION OF HIGHWAYS

GUILFORD COUNTY

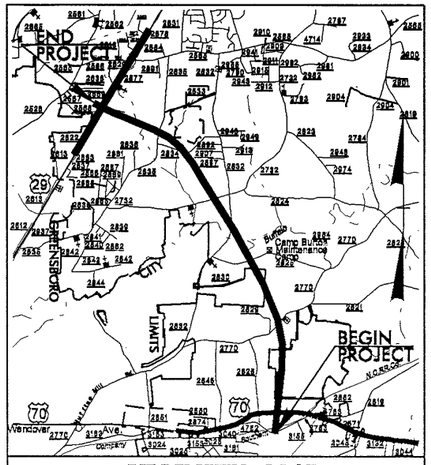
STATE	STATE PROJECT REFERENCE NO.	SHEET NO.	TOTAL SHEETS
N.C.	U-2525B	2A	166

STATE PROJ. NO.	F. A. PROJ. NO.	DESCRIPTION
34821.1.3		PE

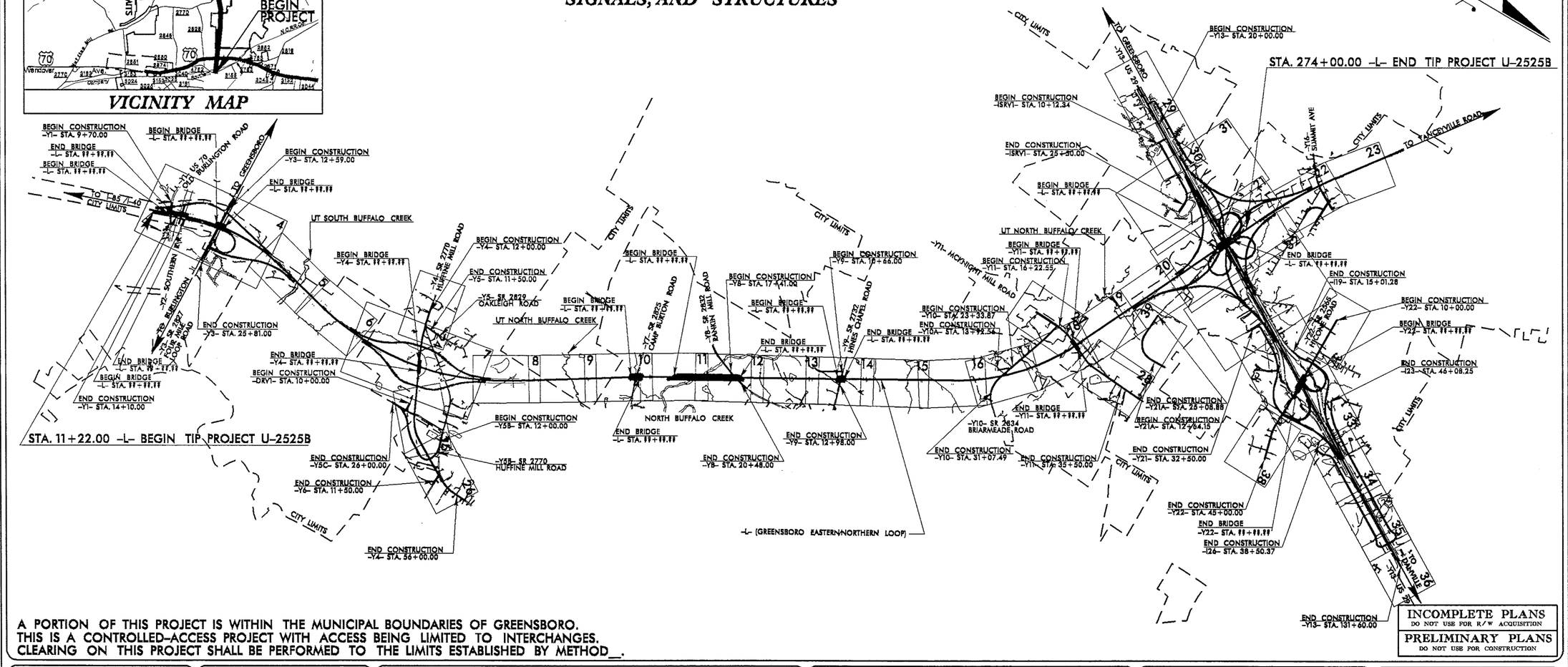
LOCATION: *GREENSBORO EASTERN LOOP FROM NORTH OF US 70 RELOCATION TO US 29 NORTH OF GREENSBORO*

TYPE OF WORK: *GRADING, DRAINAGE, PAVING, GUARDRAIL, CURB AND GUTTER, SIGNALS, AND STRUCTURES*

NAD 83



VICINITY MAP



A PORTION OF THIS PROJECT IS WITHIN THE MUNICIPAL BOUNDARIES OF GREENSBORO.
THIS IS A CONTROLLED-ACCESS PROJECT WITH ACCESS BEING LIMITED TO INTERCHANGES.
CLEARING ON THIS PROJECT SHALL BE PERFORMED TO THE LIMITS ESTABLISHED BY METHOD__.

INCOMPLETE PLANS
DO NOT USE FOR R/W ACQUISITION

PRELIMINARY PLANS
DO NOT USE FOR CONSTRUCTION

GRAPHIC SCALES

PLANS: 50 25 0 50 100

PROFILE (HORIZONTAL): 50 25 0 50 100

PROFILE (VERTICAL): 10 5 0 10 20

DESIGN DATA

ADT 2011 = N/A
ADT 2030 = 20000
DHV = 10 %
D = 60 %
T = 16 % *
V = 70 MPH

* TTST 5% DUAL 11%
FUNC CLASS = INTERSTATE

PROJECT LENGTH

LENGTH ROADWAY TIP PROJECT U-2525B = 0.000 Miles
LENGTH STRUCTURE TIP PROJECT U-2525B = 0.000 Miles
TOTAL LENGTH OF TIP PROJECT U-2525B = 4.977 Miles

Prepared In the Office of:
DIVISION OF HIGHWAYS
1000 Birch Ridge Dr., Raleigh NC, 27610

2006 STANDARD SPECIFICATIONS

RIGHT OF WAY DATE: JUNE 19, 2009

LETTING DATE: JUNE 21, 2011

JAMES A. SPEER, PE
PROJECT ENGINEER

DANIEL W. GARDNER JR., PE
PROJECT DESIGN ENGINEER

HYDRAULICS ENGINEER

P.E.
SIGNATURE:

ROADWAY DESIGN ENGINEER

P.E.
SIGNATURE:

DIVISION OF HIGHWAYS
STATE OF NORTH CAROLINA

P.E.
STATE HIGHWAY DESIGN ENGINEER

STATE OF NORTH CAROLINA
DEPARTMENT OF TRANSPORTATION

Michael F. Easley
GOVERNOR

P.O. BOX 25201, RALEIGH, N.C. 27611-5201

Lyndo Tippett
SECRETARY

July 1, 2008

STATE PROJECT: 34821.1.3 (U-2525B)
FEDERAL PROJECT: N/A
COUNTIES: Guilford
DESCRIPTION: Greensboro Eastern Loop from North of US 70 Relocation to US 29 North of Greensboro

SUBJECT: Geotechnical Report - Inventory

Project Description

This project consists of a proposed 5.0 mile, four-lane roadway (-L-) on new location between US 70 and US 29 north with a new interchange at US 29. This new section of the Greensboro Eastern Loop will connect to the existing loop that has been in use for some time. Also proposed is the widening of US 29 (-Y13-) and Hicone Road (-Y22-), and the interchange at -Y13- and -Y22- will also be reworked. Huffine Mill Road (-Y4-) and McKnight Mill Road (-Y11-) will be relocated. There will be a major interchange where -L- crosses the relocated -Y4-.

The geotechnical investigation was conducted during March and April of 2008 by the consultant group: S&ME. Two drill machines, a B-57 and BK-51, with manual hammers, were used during the investigation. Standard Penetration Tests were performed at selected locations and additional borings were advanced using continuous flight augers. Representative soil samples were collected for visual classification in the field and selected samples were submitted for laboratory analysis by the Materials and Tests Unit. Bulk samples were also collected for CBR testing.

The following alignments, totaling 16.4 miles, were investigated. Subsurface profiles and/or cross sections of these alignments are included in this report.

Line	Stations
-L-	11+22 to 274+00
-Y3RPA-	10+00 to 23+81
-Y3RPD-	10+00 to 30+96
-Y4-	12+00 to 56+00
-Y4RPA-	10+00 to 27+25
-Y4RPB-	10+00 to 26+53
-Y4RPC-	10+00 to 26+11
-Y4RPD-	10+00 to 25+38
-Y5-	10+00 to 11+50
-Y5B-	12+00 to 16+93
-Y5C-	10+00 to 26+00
-Y10A-	10+00 to 13+93
-Y11-	15+00 to 35+50
-LCAFLY-	10+00 to 23+80
-Y13-	20+00 to 112+00
-I13LPA-	10+00 to 23+54
-Y13RPB-	6+72 to 31+71
-Y13RPC-	10+00 to 27+81
-I13RPC-	27+81 to 38+09
-I13RPD-	10+00 to 24+02
-ISRV1-	10+00 to 25+50
-Y21-	10+00 to 33+23
-Y21A-	12+64 to 25+06
-Y22-	10+00 to 45+00
-Y22RPA-	10+00 to 30+04
-I22LPA-	10+00 to 22+89
-I22RPD-	9+65 to 20+97
-Y22RPD-	20+97 to 26+41
-I22LPD-	9+71 to 19+92
-I19-	10+00 to 15+00
-I23-	10+00 to 46+08
-I26-	10+00 to 39+01

Areas of Special Geotechnical Interest

1) Highly Plastic Clays: Highly plastic clays (PI > 25) were encountered on the project at the following locations:

Line	Stations	Offsets (ft)
-L-	24+50 to 29+00	LT to CL
-L-	53+80 to 57+00	LT to RT
-L-	76+00 to 77+00	17 to 160 RT
-L-	118+75 to 122+65	LT to RT
-L-	130+50 to 139+92	CL
-L-	143+80 to 148+55	CL to RT
-L-	151+67 to 173+37	LT to RT
-L-	193+08 to 196+20	CL to RT
-L-	214+95 to 217+15	CL
-L-	224+08 to 232+92	LT to RT
-L-	234+90 to 237+73	CL
-L-	240+00 to 243+72	LT to RT
-L-	247+70 to 249+92	CL
-L-	253+07 to 267+20	LT to RT
-L-	270+08 to 274+00	CL to RT
-Y3RPA-	18+08 to 21+40	CL
-Y3RPD-	25+06 to 30+96	CL
-Y4-	12+00 to 16+10	LT to RT
-Y4-	29+25 to 35+75	CL

-Y4-	38+14 to 53+06	CL
-Y4RPA-	16+08 to 18+50	CL to RT
-Y4RPC-	17+45 to 26+11	LT to RT
-Y4RPD-	19+30 to 23+15	CL
-Y5-	10+00 to 11+50	LT to CL
-Y5B-	12+00 to 16+93	LT to RT
-Y5C-	10+00 to 16+99	LT to RT
-Y11-	21+50 to 22+00	CL to RT
-Y11-	25+77 to 34+68	CL
-LCAFLY-	19+08 to 23+80	CL
-Y13-	20+00 to 82+55	LT to RT
-Y13-	104+05 to 112+00	LT to RT
-I13LPA-	10+00 to 16+40	CL
-Y13RPB-	10+00 to 31+71	LT to RT
-Y13RPC-	10+00 to 17+70	LT to CL
-Y13RPC-	25+90 to 27+81	CL
-I13RPC-	28+10 to 31+45	CL
-I13LPD-	10+00 to 14+70	LT to CL
-I13LPD-	19+08 to 22+60	CL to RT
-ISRV1-	10+00 to 12+16	CL
-ISRV1-	18+37 to 25+50	CL
-Y21-	10+40 to 24+25	CL
-Y22-	26+80 to 34+20	CL
-Y22-	38+40 to 45+00	CL
-Y22RPA-	10+00 to 15+07	CL to RT
-Y22RPA-	15+95 to 20+85	CL
-I22RPD-	9+65 to 13+75	CL
-I22RPD-	18+90 to 20+97	CL
-Y22RPD-	20+97 to 26+41	CL
-I22LPD-	12+80 to 19+92	CL
-I23-	22+65 to 26+70	LT to CL
-I23-	41+85 to 46+08	CL to RT
-I26-	11+57 to 22+80	LT to RT
-I26-	28+70 to 32+25	LT to RT
-L-	150+05 to 151+30	CL
-L-	156+07 to 157+85	CL
-L-	172+90 to 176+55	50 LT to CL
-L-	182+65 to 183+93	CL
-L-	189+45 to 196+50	CL to 20 RT
-L-	210+85 to 212+50	CL
-L-	217+25 to 218+62	CL
-L-	221+12 to 222+64	80 LT to CL
-L-	225+10 to 226+90	CL
-L-	241+12 to 243+88	CL
-Y3RPA-	10+00 to 11+00	17 LT to CL
-Y3RPD-	10+00 to 15+58	CL to 50 RT
-Y4-	21+95 to 27+81	25 LT to CL
-Y4RPA-	16+90 to 18+75	40 RT to CL
-Y4RPA-	25+49 to 27+15	CL
-Y4RPB-	10+20 to 15+65	7 RT to CL
-Y4RPB-	20+10 to 22+27	CL
-Y4RPB-	24+30 to 26+53	CL
-Y4RPC-	10+00 to 18+05	47 LT to CL
-Y4RPD-	15+12 to 19+43	35 LT to CL
-I13RPC-	28+60 to 31+02	CL
-Y21A-	16+89 to 22+00	CL to 25 RT
-I23-	20+60 to 22+40	CL
-I26-	22+70 to 29+05	CL to 25RT

A discussion of these highly plastic clay soils is located below in the section titled "Soil Properties".

2) Crystalline Rock: The crystalline rock on this project includes meta-granite, meta-diorite, meta-gabbro, and diabase, and was encountered in the following locations:

Line	Stations	Offsets (ft)
-L-	15+00 to 17+00	80 LT
-L-	36+30 to 71+50	40 LT to 30 RT
-L-	80+10 to 82+25	CL
-L-	106+85 to 117+80	CL to 80 RT
-L-	124+10 to 131+00	CL
-L-	138+90 to 140+80	50 LT to CL

Excavation of crystalline rock may require blasting (for further details see the discussion of Rock Properties below).

3) Groundwater: The following areas exhibit a high water table, seasonal high groundwater or the potential for groundwater related construction problems:

Line	Stations
-L-	56+00 to 59+00
-L-	64+00 to 100+00
-L-	117+00 to 125+50
-L-	199+00 to 215+00
-L-	219+50 to 238+50
-Y4RPA-	10+00 to 24+00
-Y4RPB-	10+00 to 19+50
-Y4RPC-	10+00 to 23+50
-Y4RPD-	15+00 to 17+50
-Y5C-	10+00 to 24+00
-Y13-	67+00 to 68+00
-Y13-	104+00 to 105+00
-I26-	29+00 to 39+01

4) Ponds: Several ponds occur on or within close proximity of right of way on this project. These were noted at the following locations:

Line	Station	Offset (ft)
-L-	11+40 to 12+90	475 LT to 580 LT
-L-	96+90 to 101+15	178 LT to 500 LT
-L-	116+76 to 118+07	465 LT to 550 LT
-L-	144+00 to 145+95	170 RT to 360 RT
-L-	163+20 to 164+78	110 LT to 60 RT
-L-	189+10 to 191+70	255 LT to 440 LT
-I13LPD-	17+67 to 18+85	91 LT to 286 LT
-Y4RPC-	19+58 to 21+00	360 RT to 510 RT
-Y10A-	12+60 to 13+93	145 RT to 290 RT
-Y11-	28+55 to 31+10	80 RT to 335 RT
-Y21-	26+22 to 28+00	145 LT to 48 RT
-I22RPD-	16+10 to 18+05	114 LT to 253 LT
-I22RPD-	13+08 to 15+20	70 LT to 222 LT
-I26-	33+09 to 36+67	5 LT to 186 LT

6) Water wells: Several water wells were found within or in close proximity to the proposed right of way at the following location:

Line	Stations and Offsets (ft)
-L-	77+60, 80 LT
-Y4-	11+78, 40 RT
-Y4-	13+65, 50 LT
-Y4-	51+32, 68 RT
-Y4-	52+60, 60 RT
-Y4RPA-	19+55, 300 RT
-Y4RPA-	21+50, 10 RT
-Y4RPB-	24+00, 185 LT
-Y5-	11+70, 70 LT
-Y5C-	11+35, 15 RT
-Y10-	14+50, 185 LT
-Y10A-	12+60, 25 RT
-Y11-	31+75, 130 LT
-Y22-	19+13, 122 LT
-I23-	34+90, 5 RT

NOTE: Some of these wells do not show on the plan sheets and were located in the field at the time of the investigation.

There are also several monitoring wells located at the end of the project on the Pallet Express, Inc. property. At the time of the investigation, they were inaccessible due to several tall stacks of wooden pallets.

7) Spring (-Y4RPB- 24+62, 70' LT): A flowing spring is located on the Billie Louise Coble property near the base of a fill slope at this site (see Plan Sheet No. 7). At the time of the investigation, a stream of water flowed from the hillside and drained into the ditch below.

8) Graveyard (-Y4RPD- 21+20, 50 to 75' RT): A small graveyard containing less than 10 grave stones was discovered in the woods next to -Y4RPD- (Plan Sheet No. 7). These did not appear on the plan sheets during the investigation.

9) Artificial Fill: Several areas of artificial fill occur at the following locations:

Line	Station	Offset (ft)
-L-	82+40 to 84+85	80 LT to 46 RT
-L-	269+47 to 274+00	-I13LPA- to –I13LPD-
-Y4-	43+65 to 44+40	25 LT to -Y5C-
-Y5B-	10+00 to 16+93	58 LT to 216 RT
-Y5C-	10+00 to 12+00	81 LT to 123 LT
-Y5C-	12+16 to 12+89	45 LT to -Y4-
-Y5C-	17+00 to 20+38	172 LT to 122 RT
-I13LPA-	16+00 to 23+54	LT to CL
-I13LPD-	10+00 to 13+28	CL to 184 RT

Physiography and Geology

The project is located in the central Piedmont Physiographic Province. The terrain is irregular with gently rolling hills interspersed with steep-sided drainage areas. Buffalo Creek and its tributaries typically flow across the project in a northeast to southeast direction. A mixture of family dwellings and woods occur along the beginning three quarters of the project within the project corridor. There is a mixture of single family dwellings, businesses, and scattered woods concentrated around the -Y13- and -Y22- project area.

Geologically, the project is located within the Carolina Slate Belt. Soils within the Slate Belt are derived from the underlying metamorphosed granite, diorite, and gabbro intrusions. Rocks in the Carolina Slate Belt are generally foliated, and trend in a northeasterly direction.

Soil Properties

Soils encountered during this investigation are separated into four categories based on origin. They consist of roadway embankment, artificial fill, alluvial, and residual soils.

Roadway Embankment soils are present along the existing roadways (-L-, -Y3-, -Y4-, -Y11-, -Y13-, and -Y22-) on the project. These soils consist of tan, orange, red and brown, medium stiff to very stiff, dry to moist, silty and sandy clay (A-7-6, A-6) and sandy silt (A-4). Minor amounts of gray and brown, moist, medium dense, silty and coarse sand (A-2-4, A-1-b). They are derived from the residual soils encountered near the embankments on the project.

Artificial Fill soils are present in several areas throughout the project. These areas are listed in "Areas of Special Geotechnical Interest." A small area of artificial fill along -L- consists of brown, loose, saturated, coarse sand and gravel (A-1-b). At the end of the project along -L-, -I13LPA-, and -I13LPD-, a large area of fill is present on the Pallet Express, Inc. property and consists of gray, dense, dry, sand and gravel (A-1-b) underneath a thin layer of asphalt. The fill next to -Y5B- and -Y5C- is related to a new sewer line that was

recently put in place. The fill material consists of tan, green, and brown, stiff, moist, sandy clay (A-6). Another area of fill located along -Y5C- (and next to -Y4-) is in the baseball field of a church. Soils include gray-brown and green, soft to stiff, moist to wet, sandy clay (A-6). A major fiber optic cable also runs through the center of the baseball field, which may cause some settlement issues if it was not properly compacted. A small area (75' x 200') of fill crosses -Y4- and -Y5C-, and consists of red-brown, medium stiff, moist, highly plastic, silty clay (A-7-5) with large asphalt fragments and concrete pipe pieces.

Alluvial soils are present in the floodplain Buffalo Creek as well as several small tributaries that cross the project corridor. These soils consist primarily of brown, soft to medium stiff, moist to wet, sandy silt (A-4) and medium dense, wet to saturated, silty and coarse sand (A-2-4 and A-1-b). The floodplain is approximately 100 to 300 feet in width in the vicinity of Rankin Mill Road (-Y8-). Alluvial soils also occur in the ponds along the project corridor.

Residual soils are derived from the weathering of underlying metamorphosed granite, diorite, and gabbro intrusions. These soils consist of tan, orange, red, and brown, medium stiff to hard, dry to wet, sandy and silty clay (A-6, A-7-6), and tan, brown, green, and white, stiff to hard, moist to wet, sandy silt (A-4). Smaller amounts of tan, brown, white, and green, loose to very dense, moist, silty sand (A-2-4). The surficial residual, silty clays exhibit moderate to high plastic indices from 26 to 54. Residual soils grade into weathered rock that retains the relict characteristics of the metamorphosed intrusions.

Rock Properties

Weathered rock and crystalline rock occur in several areas of the project. Weathered rock in the Carolina Slate Belt is derived from the underlying metamorphosed granite, diorite, and gabbro intrusions and ranges from 0.5 to 16.5 feet. Crystalline rock occurs in the areas noted above in the "Areas of Special Geotechnical Interest". The crystalline bedrock consists mostly of metamorphosed granite and diorite with some scattered occurrences of diabase.

Groundwater

Groundwater was encountered in numerous borings throughout the project corridor. Areas that exhibit high groundwater are discussed in "Areas of Special Geotechnical Interest." Groundwater is generally shallow in alluvial soils and occurs within 0.0 to 5.0 feet. Prior to and during this investigation, Guilford County was under severe drought conditions.

Ponds

Several ponds occur on or near the project right of way. These ponds are listed by alignment, station, and offsets in the "Areas of Special Geotechnical Interest". Two ponds cross -L- and -Y21-, and both are in fill sections.

Spring

A flowing spring is located on the Billie Louise Coble property near the base of a fill slope at this site (see Plan Sheet No. 7). At the time of the investigation, a stream of water flowed from the hillside and drained into the ditch below. NOTE: Property owner is aware of spring location.

Debris Piles

Two major debris piles were found during the investigation. One is located in the edge of the woods along -Y4RPC- Sta. 19+05 to 19+53, 45 to 103 feet left. The materials are remnants of a house with all its' contents (inside and out). The second debris area is located along -Y5C- Sta. 13+89 to 14+63, 18 to 85 feet right, and consists of concrete and metal pipes and old deck steps.

Graveyard

A small graveyard containing less than 10 grave stones was discovered in the woods next to -Y4RPD- on the Albert Rhew, Jr. property (Plan Sheet No. 7). These did not appear on the plan sheets during the investigation.

Prepared by,

Jaime Love Pedro

Jaime Love Pedro, LG
Engineering Geologist

BULK SAMPLES

The following bulk samples were taken for tests to determine the engineering properties of the soil:

Sample No.	Location	Depth (ft)	Test
CBR-1	-Y3RPA-, 22+00, 30' LT	3.0-8.0	California Bearing Ratio
CBR-2	-L-, 171+50, 80' RT	0.0-10.0	California Bearing Ratio

6/4/99

COMPUTED BY: PJS DATE: 12/04/08
CHECKED BY: VBB DATE: 01/09/13

PROJECT REFERENCE NO.	SHEET NO.
U-2525B	3-D

DIVISION OF HIGHWAYS
STATE OF NORTH CAROLINA

SUMMARY OF EARTHWORK

IN CUBIC YARDS

LOCATION		UNCLASSIFIED EXCAVATION	ROCK	UNDERCUT	UNSUITABLE EXCAVATION	SUITABLE EXCAVATION	TOTAL EMBANKMENT	ROCK EMBANKMENT	EARTH EMBANKMENT	EMBANKMENT (+) 20%	BORROW	ROCK WASTE	SUITABLE WASTE	UNSUITABLE WASTE	TOTAL WASTE
STATION	STATION														
PHASE I															
CONSTRUCT -L- LEFT															
SUMMARY NO. 1 (LT.)															
-L- 11+22.00	-L- 14+33.00 (BB)	532				532							532		532
TOTAL SUMMARY NO. 1		532				532							532		532
SUMMARY NO. 2 (LT.)															
-L- 18+48.53 (EB)	-L- 25+47.84 (BB)	30				30	50916		50916	61100	61070				
TOTAL SUMMARY NO. 2		30				30	50916		50916	61100	61070				
SUMMARY NO. 3 (LT.)															
-L- 27+08.63 (EB)	-L- 57+50.00	36537	689		5818	30030	326781	689	326092	392000	361281			5818	5818
-Y3RPA- 15+16.39	-Y3RPA- 23+37.00	219				219	48224		48224	57869	57650				
TOTAL SUMMARY NO. 3		36756	689		5818	30249	375005	689	374316	449869	418931			5818	5818
SUMMARY NO. 4 (LT.)															
-L- 57+50.00	-L- 87+50.00	80785	1886			78899	16244	1886	14358	19116			61669		61669
-Y4- 12+00.00	-Y4- 23+65.45 (BB)	168			134	34	72813		72813	87376	87342			134	134
-Y4RPA- 15+36.50	-Y4RPA- 26+56.00	12696				12696	16436		16436	19724	7028				
-Y4RPB- 14+80.24	-Y4RPB- 25+75.00	8140				8140	55467		55467	66561	58421				
-Y5- 10+50.00	-Y5- 11+50.00	63				63	33		33	40			23		23
TOTAL SUMMARY NO. 4		101852	1886		134	99832	160993	1886	159107	192817	152791		61692	134	61826
SUMMARY NO. 5 (LT.)															
-L- 87+50.00	-L- 117+50.00	47270	3282			43988	31596	3282	28314	37259			10011		10011
TOTAL SUMMARY NO. 5		47270	3282			43988	31596	3282	28314	37259			10011		10011
SUMMARY NO. 6 (LT.)															
-L- 117+50.00	-L- 128+34.80 (BB)	50070				50070	8221		8221	9866			40204		40204
TOTAL SUMMARY NO. 6		50070				50070	8221		8221	9866			40204		40204
SUMMARY NO. 7 (LT.)															
-L- 130+23.85 (EB)	-L- 137+80.00 (BB)						33488		33488	40186	40186				
-Y7- 10+00.00	-Y7- 15+25.00	31				31	400		400	480	449				
TOTAL SUMMARY NO. 7		31				31	33888		33888	40666	40635				
SUMMARY NO. 8 (LT.)															
-L- 152+00.00 (EB)	-L- 174+22.82 (BB)	3780				3780	102062		102062	122475	118695				
-Y8- 17+41.00	-Y8- 20+48.00	104				104							104		104
-DRV2- 10+00.00	-DRV2- 15+96.00	977				977	968		968	1162	185				
TOTAL SUMMARY NO. 8		4861				4861	103030		103030	123637	118880		104		104

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PROJECT REFERENCE NO.	SHEET NO.
U-2525B	3-E

DIVISION OF HIGHWAYS
STATE OF NORTH CAROLINA

SUMMARY OF EARTHWORK

IN CUBIC YARDS

LOCATION		UNCLASSIFIED EXCAVATION	ROCK	UNDERCUT	UNSUITABLE EXCAVATION	SUITABLE EXCAVATION	TOTAL EMBANKMENT	ROCK EMBANKMENT	EARTH EMBANKMENT	EMBANKMENT (+) 20%	BORROW	ROCK WASTE	SUITABLE WASTE	UNSUITABLE WASTE	TOTAL WASTE
STATION	STATION														
SUMMARY NO. 9 (LT.)															
-L- 175+80.00	-L- 205+50.00	32617				32617	138888		138888	166666	134049				
TOTAL SUMMARY NO. 9		32617				32617	138888		138888	166666	134049				
SUMMARY NO. 10 (LT.)															
-L- 205+50.00	-L- 236+00.00	154297	30	645	28040	126227	6778	30	6748	8128			118129	28685	146814
-Y10A- 10+33.87	-Y10A- 14+25.00	377				377	208		208	250			127		127
-Y11- 16+00.00	-Y11- 20+73.58 (BB)	644				644	1046		1046	1256	612				
TOTAL SUMMARY NO. 10		155318	30	645	28040	127248	8032	30	8002	9634	612		118256	28685	146941
SUMMARY NO. 11 (LT.)															
-L- 236+00.00	-L- 267+18.09 (BB)	7184		858	314	6870	112603		112603	135124	128254			1172	1172
-Y13RPB- 12+20.37	-Y13RPB- 27+13.70	288		463	277	11	48884		48884	58661	58650			740	740
TOTAL SUMMARY NO. 11		7472		1321	591	6881	161487		161487	193785	186904			1912	1912
SUMMARY NO. 12 (LT.)															
-L- 269+88.34 (EB)	-L- 274+50.00						12995		12995	15594	15594				
-Y13LPA- 12+56.58	-Y13LPA- 20+40.24	15150				15150	162		162	195			14955		14955
-Y15- 11+29.16	-Y15- 12+02.67	288				288							288		288
TOTAL SUMMARY NO. 12		15438				15438	13157		13157	15789	15594		15243		15243
PHASE II															
CONSTRUCT -L- RIGHT															
SUMMARY NO. 13 (RT.)															
-L- 18+44.00	-L- 25+38.94 (BB)	403				403	149		149	179			224		224
-Y3- 23+00.00	-Y3- 25+80.00	109				109	55		55	66			43		43
TOTAL SUMMARY NO. 13		512				512	204		204	245			267		267
SUMMARY NO. 14 (RT.)															
-L- 27+06.72 (EB)	-L- 57+50.00	23361	15		6339	17007	262756	15	262741	315305	298283			6339	6339
-Y3RPD- 15+16.86	-Y3RPD- 30+50.00	506				506	81221		81221	97466	96960				
TOTAL SUMMARY NO. 14		23867	15		6339	17513	343977	15	343962	412771	395243			6339	6339
SUMMARY NO. 15 (RT.)															
-L- 57+50.00	-L- 87+50.00	108867	15			108852	12485	15	12470	14979			93888		93888
-Y4- 25+47.95 (EB)	-Y4- 56+00.00	33951		1542	21073	12878	83957		83957	100749	87871			22615	22615
-Y4RPC- 14+63.54	-Y4RPC- 25+50.00	54135	1	1077	18409	35726	13034	1	13033	15641			20085	19486	39571
-Y4RPD- 14+37.31	-Y4RPD- 24+50.00	5334				5334	9566		9566	11480	6146				
-Y4A- 10+00.00	-Y4A- 15+00.00	296				296	6550		6550	7860	7564				
-DRV1- 10+00.00	-DRV1- 11+93.46	278				278							278		278
-DRV3- 10+14.10	-DRV3- 13+77.40	41				41	3762		3762	4515	4474				
-Y5B- 12+00.00	-Y5B- 16+81.17	5469				5469	34		34	41			5428		5428
-Y6- 10+12.00	-Y6- 11+50.00	293				293	4		4	5			288		288
-DET1- 10+23.26	-DET1- 21+44.12	4083				4083	874		874	1049			3034		3034
-EY4- 33+25.52	-EY4- 34+03.09	210				210							210		210
TOTAL SUMMARY NO. 15		212957	16	2619	39482	173460	130266	16	130250	156319	106055		123211	42101	165312

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COMPUTED BY: PJS DATE: 12/04/08
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PROJECT REFERENCE NO.	SHEET NO.
U-2525B	3-F

DIVISION OF HIGHWAYS
STATE OF NORTH CAROLINA

SUMMARY OF EARTHWORK

IN CUBIC YARDS

LOCATION		UNCLASSIFIED EXCAVATION	ROCK	UNDERCUT	UNSUITABLE EXCAVATION	SUITABLE EXCAVATION	TOTAL EMBANKMENT	ROCK EMBANKMENT	EARTH EMBANKMENT	EMBANKMENT (+) 20%	BORROW	ROCK WASTE	SUITABLE WASTE	UNSUITABLE WASTE	TOTAL WASTE
STATION	STATION														
SUMMARY NO. 16 (RT.)															
-L- 87+50.00	-L- 117+50.00	73692	6043			67649	33571	6043	27528	39077			34615		34615
TOTAL SUMMARY NO. 16		73692	6043			67649	33571	6043	27528	39077			34615		34615
SUMMARY NO. 17 (RT.)															
-L- 117+50.00	-L- 128+20.71 (BB)	52025				52025	9526		9526	11432			40593		40593
TOTAL SUMMARY NO. 17		52025				52025	9526		9526	11432			40593		40593
SUMMARY NO. 18 (RT.)															
-L- 130+10.17 (EB)	-L- 137+60.00 (BB)						41628		41628	49954	49954				
TOTAL SUMMARY NO. 18							41628		41628	49954	49954				
SUMMARY NO. 19 (RT.)															
-L- 152+61.25 (EB)	-L- 174+12.10 (BB)	7713				7713	68594		68594	82313	74600				
TOTAL SUMMARY NO. 19		7713				7713	68594		68594	82313	74600				
SUMMARY NO. 20 (RT.)															
-L- 175+22.10 (EB)	-L- 205+50.00	43616				43616	115372		115372	138447	94831				
TOTAL SUMMARY NO. 20		43616				43616	115372		115372	138447	94831				
SUMMARY NO. 21 (RT.)															
-L- 205+50.00	-L- 236+00.00	180837	92	556	29214	151531	7521	92	7429	9007			142616	29770	172386
-Y10- 30+29.75	-Y10- 31+07.49	16				16	52		52	63	47				
-Y11- 22+64.58 (EB)	-Y11- 35+00.00	1791		513	541	1250	5102		5102	6123	4873			1054	1054
TOTAL SUMMARY NO. 21		182644	92	1069	29755	152797	12675	92	12583	15193	4920		142616	30834	173440
SUMMARY NO. 22 (RT.)															
-L- 236+00.00	-L- 267.13.70 (BB)	8174		194		8174	193248		193248	231898	223724			194	194
-Y13RPC- 14+56.89	-Y13RPC- 26+90.78						62473		62473	74968	74968				
-Y13LPCT- 13+06.78	-Y13LPCT- 22+47.21	25692				25692	3172		3172	3807			21885		21885
-Y21A- 12+64.15	-Y21A- 25+08.88	1369				1369	5868		5868	7042	5673				
TOTAL SUMMARY NO. 22		35235		194		35235	264761		264761	317715	304365		21885	194	22079
SUMMARY NO. 23 (RT.)															
-L- 269+83.95 (EB)	-L- 274+00.00	125				125	19728		19728	23674	23549				
-Y13LPDT- 11+42.06	-Y13LPDT- 21+44.51	173				173	60849		60849	73019	72846				
TOTAL SUMMARY NO. 23		298				298	80577		80577	96693	96395				
PHASE III															
CONSTRUCT -Y13- LEFT															
SUMMARY NO. 24 (LT.)															
-Y13- 25+80.00	-Y13- 50+00.00	15627				15627	738		738	886			14741		14741
-Y14- 10+80.33	-Y4- 27+84.49	10863				10863	743		743	892			9971		9971
TOTAL SUMMARY NO. 24		26490				26490	1481		1481	1778			24712		24712

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PROJECT REFERENCE NO.	SHEET NO.
U-2525B	3-G

DIVISION OF HIGHWAYS
STATE OF NORTH CAROLINA

SUMMARY OF EARTHWORK

IN CUBIC YARDS

LOCATION		UNCLASSIFIED EXCAVATION	ROCK	UNDERCUT	UNSUITABLE EXCAVATION	SUITABLE EXCAVATION	TOTAL EMBANKMENT	ROCK EMBANKMENT	EARTH EMBANKMENT	EMBANKMENT (+) 20%	BORROW	ROCK WASTE	SUITABLE WASTE	UNSUITABLE WASTE	TOTAL WASTE
STATION	STATION														
SUMMARY NO. 25 (LT.)															
-Y13- 50+00.00	-Y13- 85+00.00	15814				15814	2797		2797	3357			12457		12457
-Y22RPBT- 10+00.00	-Y22RPBT- 15+15.16	5504				5504	1064		1064	1277			4227		4227
-Y22- 10+00.00	-Y22- 24+82.64 (BB)	3278				3278	31687		31687	38025	34747				
TOTAL SUMMARY NO. 25		24596				24596	35548		35548	42659	34747		16684		16684
SUMMARY NO. 26 (LT.)															
-Y13- 85+00.00	-Y13- 112+00.00	23052				23052	3130		3130	3756			19296		19296
-Y22LPA- 15+71.69	-Y22LPA- 20+21.19						18298		18298	21958	21958				
-Y22RPA- 15+53.45	-Y22RPA- 29+68.29	3751				3751	142625		142625	171150	167399				
-Y23- 10+39.00	-Y23- 45+75.02	20924	236	563	211	20477	15299	236	15063	18312			2401	774	3175
-Y23- 45+92.36	-Y23- 57+07.18	80			74	6	10848		10848	13018	13012			74	74
-EY24- 13+49.81	-EY24- 14+64.52	195				195							195		195
-Y29- 10+21.08	-Y29- 16+71.59	1314				1314	6604		6604	7925	6611				
-Y13- 120+50.00	-Y13- 131+57.64	282				282	26		26	32			250		250
TOTAL SUMMARY NO. 26		49598	236	563	285	49077	196830	236	196594	236151	208980		22142	848	22990
PHASE IV															
CONSTRUCT -Y13- RIGHT															
SUMMARY NO. 27 (RT.)															
-Y13- 25+80.00	-Y13- 50+00.00	3616				3616	1200		1200	1440			2176		2176
-SRV1- 10+12.34	-SRV1- 25+50.00	7792		1822	2994	4798	2626		2626	3152			1646	4816	6462
TOTAL SUMMARY NO. 27		11408		1822	2994	8414	3826		3826	4592			3822	4816	8638
SUMMARY NO. 28 (RT.)															
-Y13- 50+00.00	-Y13- 85+00.00	13208				13208	7881		7881	9458			3750		3750
-LACFLY- 46+00.00	-LACFLY- 55+67.83	147				147	91089		91089	109307	109160				
-Y21- 10+36.80	-Y21- 35+27.12	10296		2012	5452	4844	9120		9120	10944	6100			7464	7464
-Y22- 27+56.14 (EB)	-Y22- 45+00.00	3516				3516	11244		11244	13493	9977				
-Y21B- 10+12.00	-Y21B- 10+79.45	67				67	3		3	4			63		63
TOTAL SUMMARY NO. 28		27234		2012	5452	21782	119337		119337	143206	125237		3813	7464	11277
SUMMARY NO. 29 (RT.)															
-Y13- 85+00.00	-Y13- 112+00.00	21267		786	11635	9632	10635		10635	12762	3130			12421	12421
-Y13- 112+00.00	-Y13- 131+50.00	4507				4507	1056		1056	1268			3239		3239
-Y22LPD- 12+53.30	-Y22LPD- 15+96.31	13821				13821							13821		13821
-Y22RPD- 14+77.43	-Y22RPD- 26+05.68	33198				33198	437		437	525			32673		32673
-Y26- 10+39.00	-Y26- 27+80.00	11602				11602	7969		7969	9563			2039		2039
-Y26- 34+30.00	-Y26- 39+75.00	608				608	774		774	929	321				
TOTAL SUMMARY NO. 29		85003		786	11635	73368	20871		20871	25047	3451		51772	12421	64193

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PROJECT REFERENCE NO.	SHEET NO.
U-2525B	3-H

DIVISION OF HIGHWAYS
STATE OF NORTH CAROLINA

SUMMARY OF EARTHWORK

IN CUBIC YARDS

LOCATION		UNCLASSIFIED EXCAVATION	ROCK	UNDERCUT	UNSUITABLE EXCAVATION	SUITABLE EXCAVATION	TOTAL EMBANKMENT	ROCK EMBANKMENT	EARTH EMBANKMENT	EMBANKMENT (+) 20%	BORROW	ROCK WASTE	SUITABLE WASTE	UNSUITABLE WASTE	TOTAL WASTE
STATION	STATION														
SUMMARY TOTALS		1309135	12289	11031	130525	1166322	2564257	12289	2551968	3074680	2628244		732174	141556	873730
ROCK WASTE IN LIEU OF BORROW															
ADJUST FOR ROCK WASTE															
WASTE IN LIEU OF BORROW											-732174		-732174		-732174
SHOULDER MATERIAL							73300		73300	87960	87960				
LOSS DUE TO C & G		-55000				-55000					55000				
GRADE POINT UNDERCUT				1400			1400		1400	1680	1680			1400	1400
UNDERCUT CONTINGENCY				2000			2000		2000	2400	2400			2000	2000
GRAND TOTALS		1254135	12289	14431	130525	1111322	2640957	12289	2628668	3166720	2043110			144956	144956
+5% TO REPLACE TOPSOIL ON BORROW PIT											102156				
PROJECT GRAND TOTALS		1254135	12289	14431	130525	1111322	2640957	12289	2628668	3166720	2145266			144956	144956
SAY		1279300		15000							2188200				
PAVEMENT STRUCTURE VOLUME (-L-) = 50900 CY															
PAVEMENT STRUCTURE VOLUME (-Y- LINES) = 32200 CY															
PAVEMENT STRUCTURE VOLUME (RAMPS) = 11400 CY															
PAVEMENT STRUCTURE VOLUME (LOOPS) = 11400 CY															
DDE = 24195 CY															
GEOTEXTILE FOR SOIL STABILIZATION = 17000 SY															
SELECT GRANULAR MATERIAL = 17000 CY															

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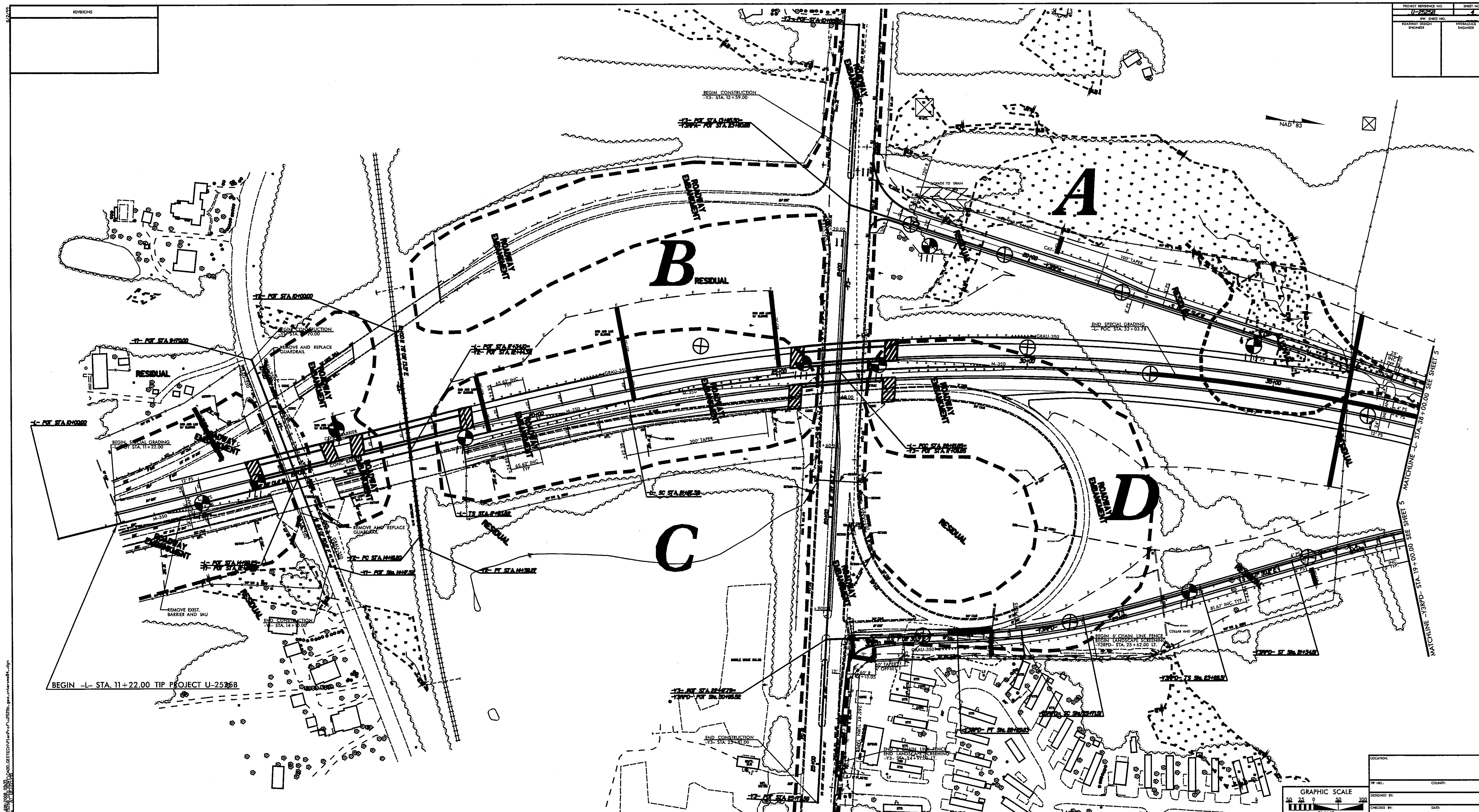

REVISIONS
PROJECT REFERENCE NO.
SHEET NO.
U-2525B
RW SHEET NO.
ROADWAY DESIGN ENGINEER
HYDRAULICS ENGINEER
NAD 83
A
B
RESIDUAL
C
D
ROADWAY EMBANKMENT
BEGIN CONSTRUCTION -Y3- STA. 12+59.00
END SPECIAL GRADING -L- POC STA. 33+03.78
BEGIN SPECIAL GRADING -L- POT STA. 11+22.00
REMOVE AND REPLACE GUARDRAIL
REMOVE EXIST. BARRIER AND IAU
300' TAPER
65.62' INC. TYP
GRADE TO DRAIN
BEGIN 6' CHAIN LINK FENCE BEGIN LANDSCAPE SCREENING -Y3RPD- STA. 25+62.00 LT.
END CONSTRUCTION -Y3- STA. 25+81.00
MATCHLINE -L- STA. 38+00.00 SEE SHEET 5
MATCHLINE -Y3RPD- STA. 19+00.00 SEE SHEET 5
BEGIN -L- STA. 11+22.00 TIP PROJECT U-2525B
GRAPHIC SCALE
50 25 0 50 100
PLANS
LOCATION:
TIP NO.:
COUNTY:
DESIGNED BY:
CHECKED BY:
DATE:

5/14/99

PROJECT REFERENCE NO.	SHEET NO.
U-2525B	5
R/W SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

NAD 83

-Y3RPA- POT STA. 10+00.00=
-L- POC STA. 39+54.00 47.00' LT.

-L- ST STA. 43+87.84

MATCHLINE -L- STA. 38+00.00 SEE SHEET 4

MATCHLINE -L- STA. 52+00.00 SEE SHEET 6

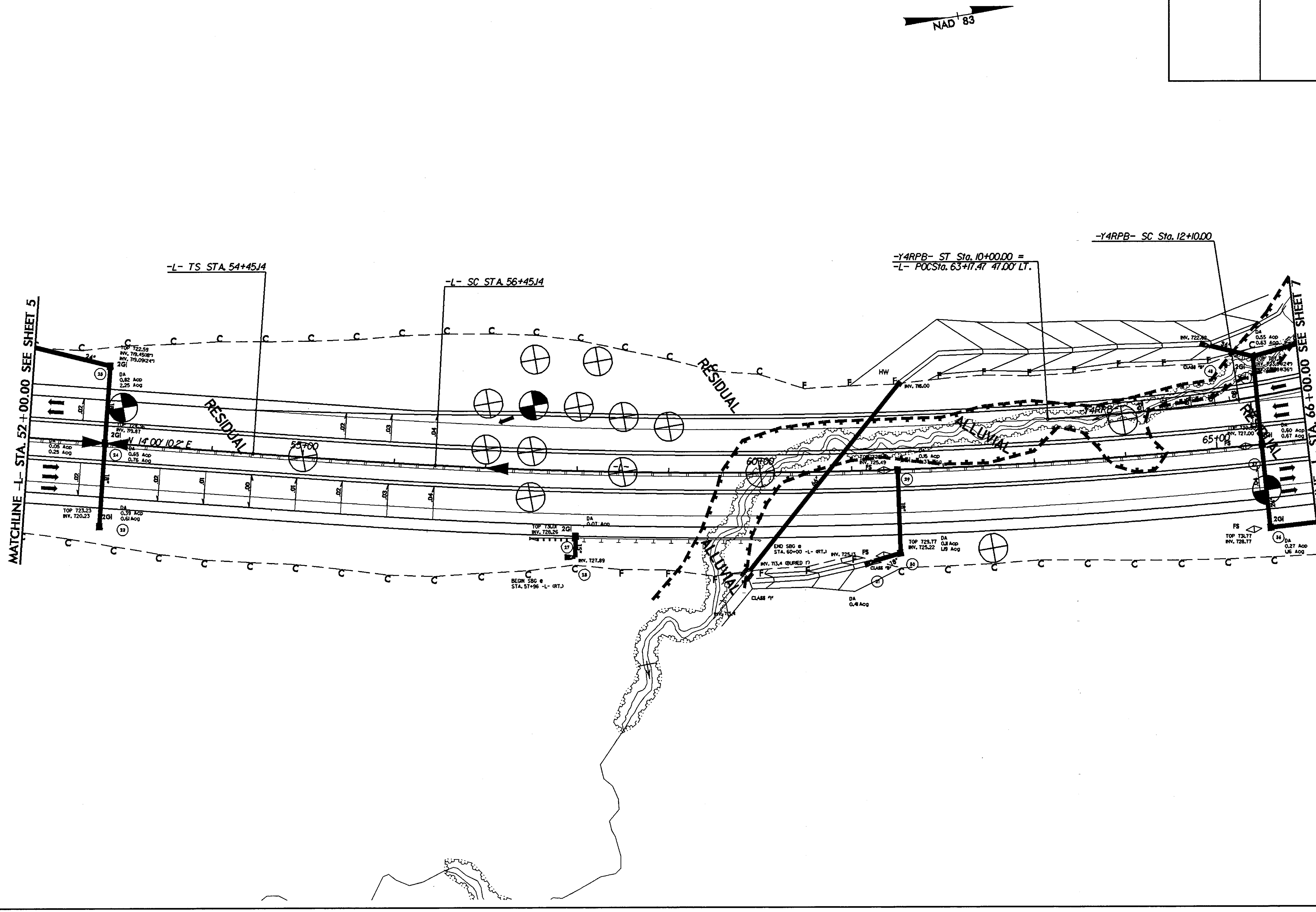
MATCHLINE -Y3RPD- STA. 19+00.00 SEE SHEET A

PSH
INV. 726.86
ROD AND LUG W/ ELBOWS
DA 0.31 Aop.
TOP 761.63
INV. 758.88
2GI
-Y3RPA-
ALLUVIAL
RESIDUAL
40+00
15"
PSH
INV. 718.00
CLASS "B"
ROD AND LUG W/ELBOWS
18" CSP
DA 0.08 Aop
TOP 752.32
INV. 748.82
2GI
FS
DA 0.50 Aop
TOP 749.12
INV. 745.62
-L-
-Y3RPD- 15+00
-L- CS STA. 39+94.14
TOP 749.25
INV. 745.20
DA 0.47 Aop
ROD AND LUG W/ ELBOWS
P&H
INV. 727.73
TOE PROTECTION SEE DETAIL "C"
DA 0.48 Aop
-Y3RPD- SC Sta. 12+45.00
-Y3RPD- ST Sta. 10+00.00 =
-L- POT Sta. 47+13.14 47.00' RT.
-Y3RPD- CS Sta. 18+89.51
LATERAL "V" DITCH SEE DETAIL "B"
LATERAL BASE DITCH SEE DETAIL "A"
CLASS "B"
INV. 715.24
INV. 718.42
DA 0.60 Aog
ROD AND LUG W/ ELBOWS
END SBG @ STA. 5+05 -L- (LT.)
TOP 727.41
INV. 724.66
DA 0.70 Aop
TOP 726.67
INV. 723.92
DA 0.05 Aop
0.21 Aog
50+00
14.00' 10.00'
DA 0.05 Aop
DA 0.02 Aop
TOP 728.45
INV. 725.45
TOP 729.31
INV. 725.36
TOP 729.31
INV. 726.56
END SBG @ STA. 50+25 -L- (RT.)
ROD AND LUG W/ ELBOWS
DA 0.68 Aop
INV. 706.09
CLASS "B"
LATERAL "V" DITCH SEE DETAIL "B"
TOE PROTECTION SEE DETAIL "C"
SWL
TANGENT
TANGENT

13-JUNE-2008 08:35
>U2525B_GEOTECH_PLAN_PROF_SHEETS_CADD_GEOTECH\PlanProf\u2525b_geo_interims05.dgn
29.01 0.00 12/31/95

5/14/99

PROJECT REFERENCE NO.	SHEET NO.
U-2525B	6
R/W SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER



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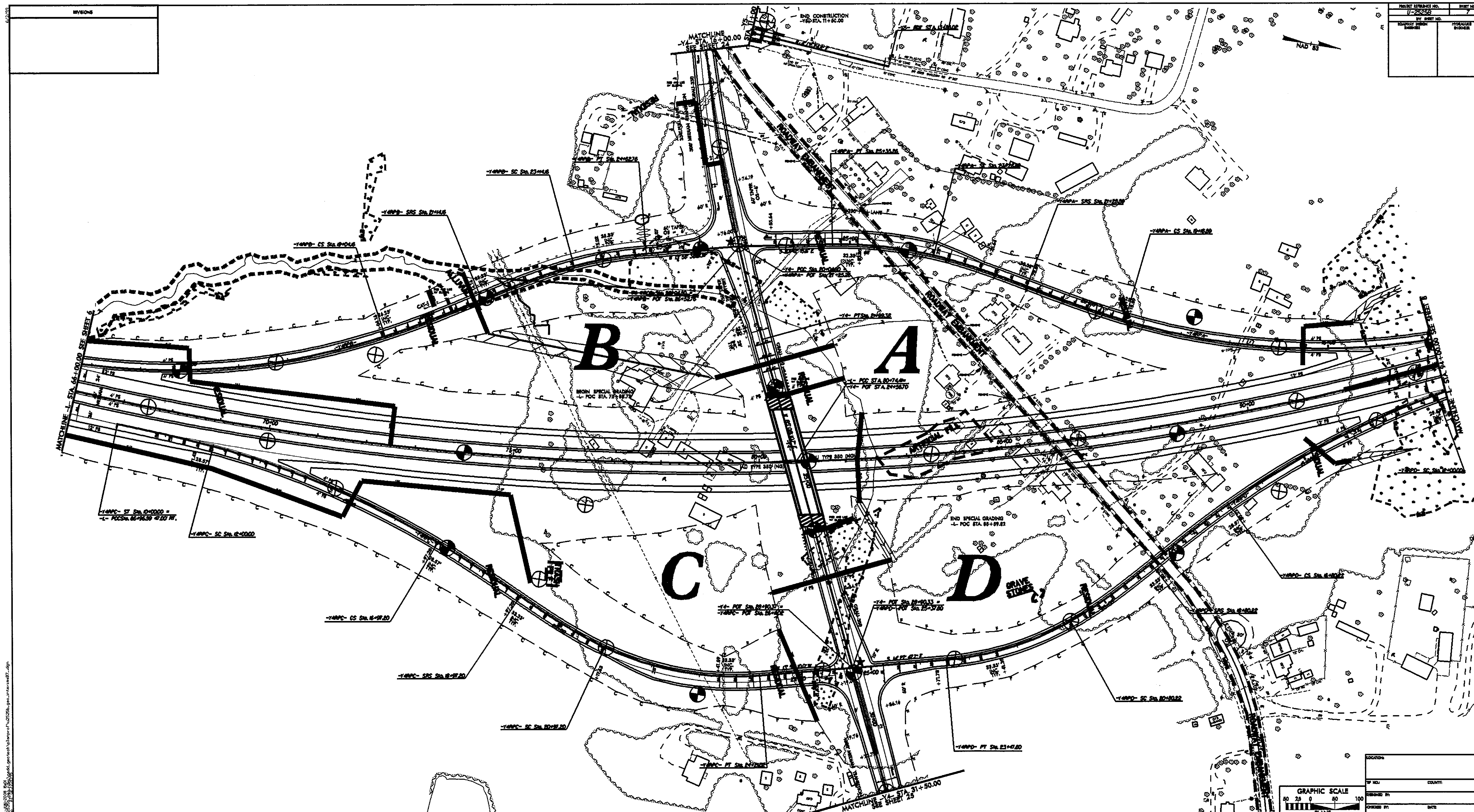
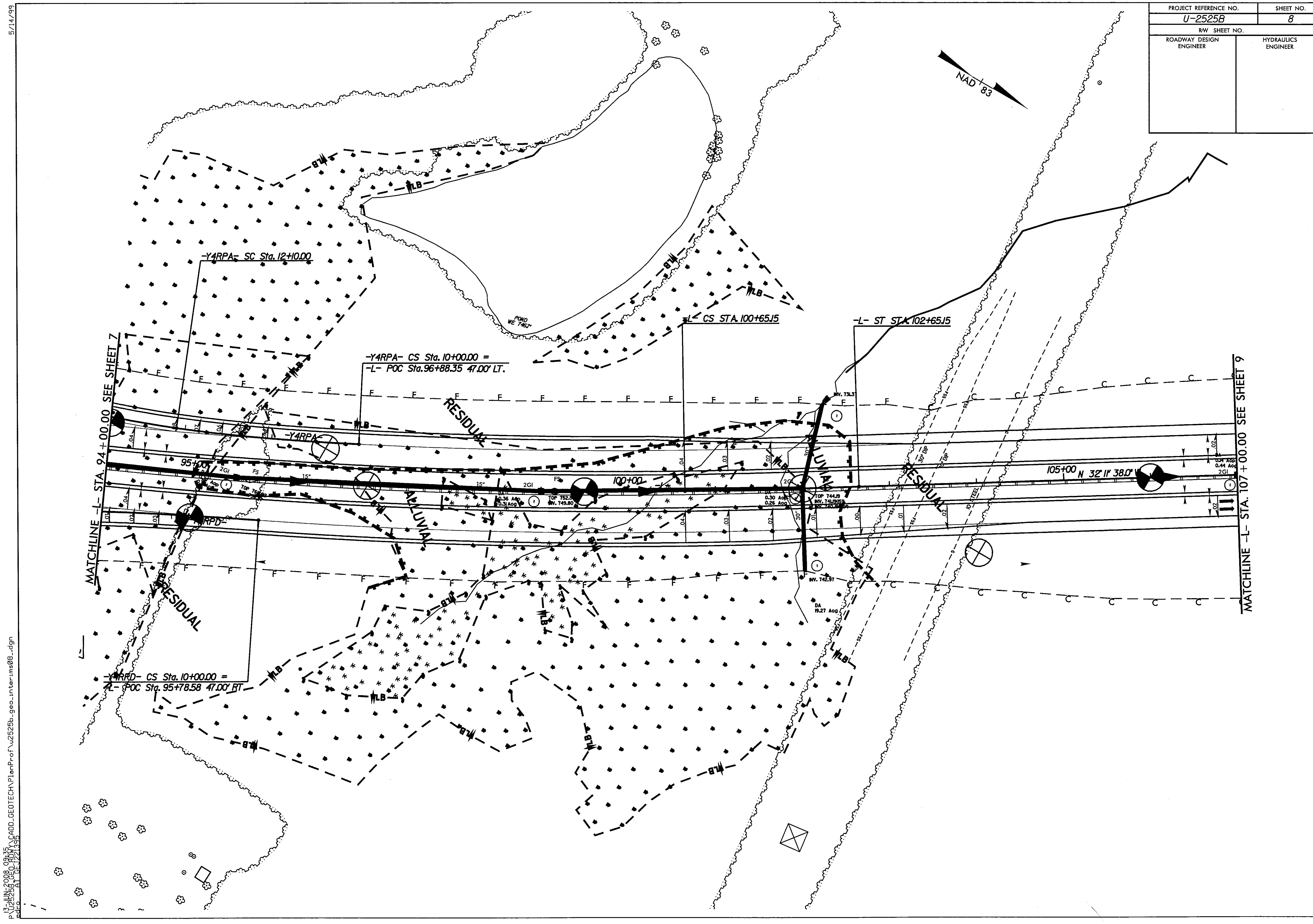

REVISIONS
PROJECT REFERENCE NO.
SHEET NO.
U-2525B
7
R/W SHEET NO.
ROADWAY DESIGN ENGINEER
HYDRAULICS ENGINEER
NAD 83
MATCHLINE -Y4- STA. 16+00.00 SEE SHEET 24
END CONSTRUCTION -Y5- STA. 11+50.00
MATCHLINE -L- STA. 66+00.00 SEE SHEET 6
MATCHLINE -Y4- STA. 31+50.00 SEE SHEET 25
ROADWAY EMBANKMENT
ARTIFICIAL FILL
A
B
C
D
GRAVE STONES
BEGIN SPECIAL GRADING -L- POC STA. 75+88.72
END SPECIAL GRADING -L- POC STA. 85+59.82
-L- POC STA. 80+74.41= -Y4- POT STA. 24+56.70
-Y4RPB- SC Sta. 23+14.6
-Y4RPB- SRS Sta. 21+14.6
-Y4RPB- CS Sta. 19+04.6
-Y4RPB- PT Sta. 24+62.76
-Y4RPA- CS Sta. 19+16.89
-Y4RPA- SRS Sta. 21+26.89
-Y4RPC- ST Sta. 10+00.00 = -L- POCSta. 66+96.59 47.00' RT.
-Y4RPC- SC Sta. 12+00.00
-Y4RPC- CS Sta. 16+97.20
-Y4RPC- SRS Sta. 18+97.20
-Y4RPC- SC Sta. 20+97.20
-Y4RPD- SC Sta. 20+80.22
-Y4RPD- CS Sta. 16+80.22
-Y4RPD- PT Sta. 23+47.60
-Y4RPD- SC Sta. 12+00.00
70+00
75+00
80+00
85+00
90+00
12' PS
4' PS
GRAPHIC SCALE
50 25 0 50 100
PLANS
LOCATION:
TIP NO.:
COUNTY:
DESIGNED BY:
CHECKED BY:
DATE:

PROJECT REFERENCE NO.	SHEET NO.
U-2525B	8
R/W SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

5/14/99



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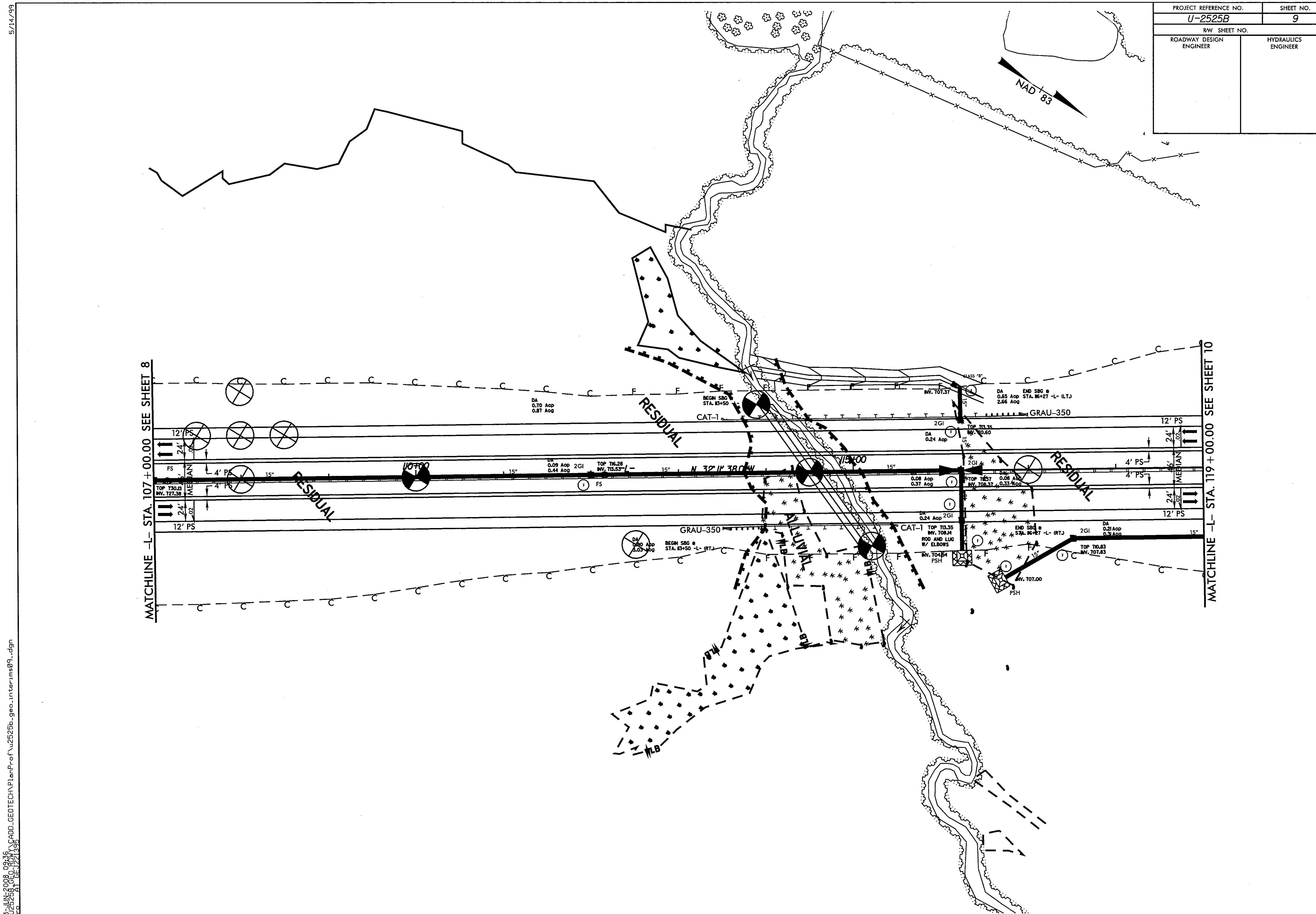
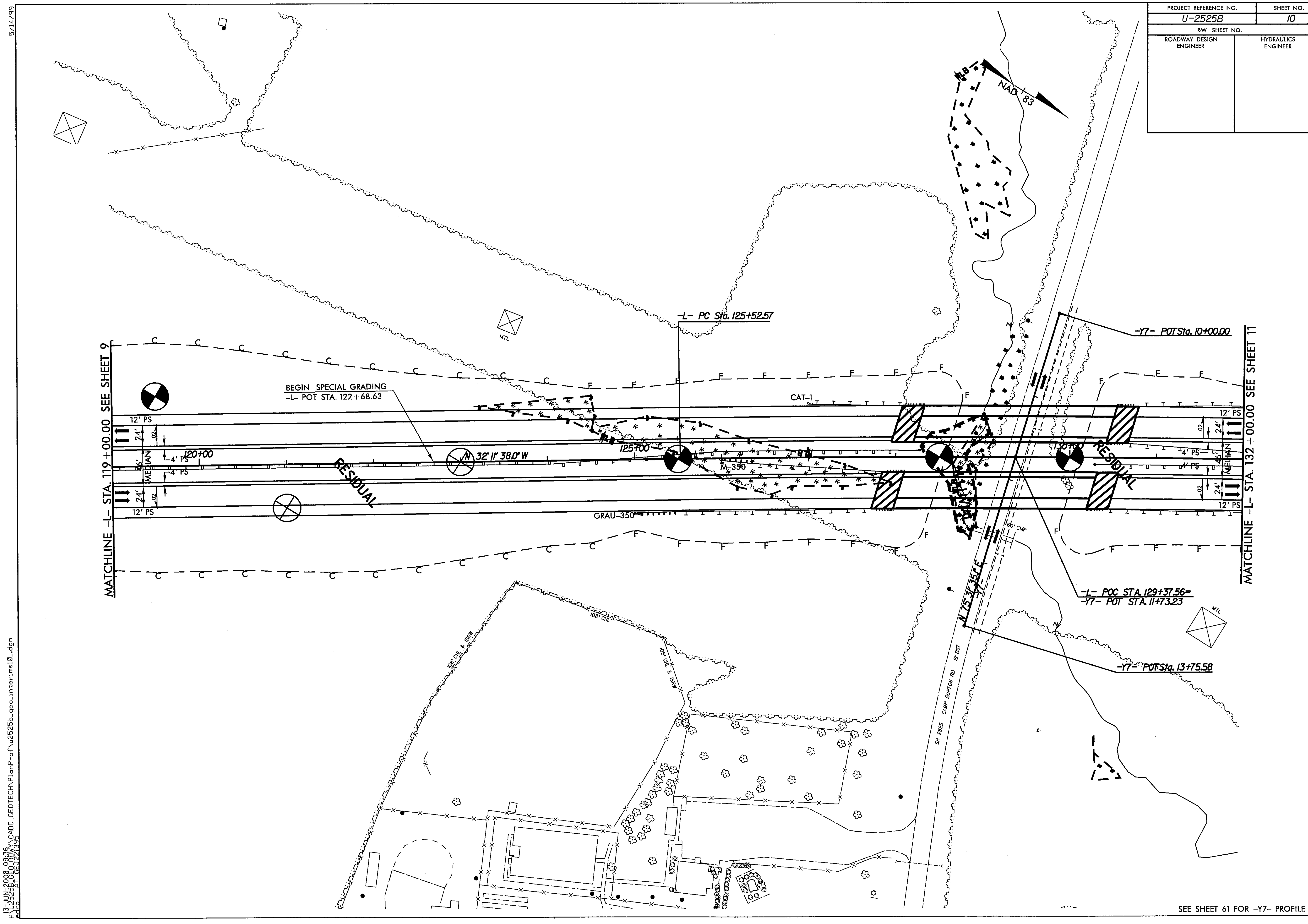
PROJECT REFERENCE NO.	SHEET NO.
U-2525B	9
R/W SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER



PROJECT REFERENCE NO.	SHEET NO.
U-2525B	10
RW SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER



SEE SHEET 61 FOR -Y7- PROFILE

5/14/99

13-JUN-2008 09:36
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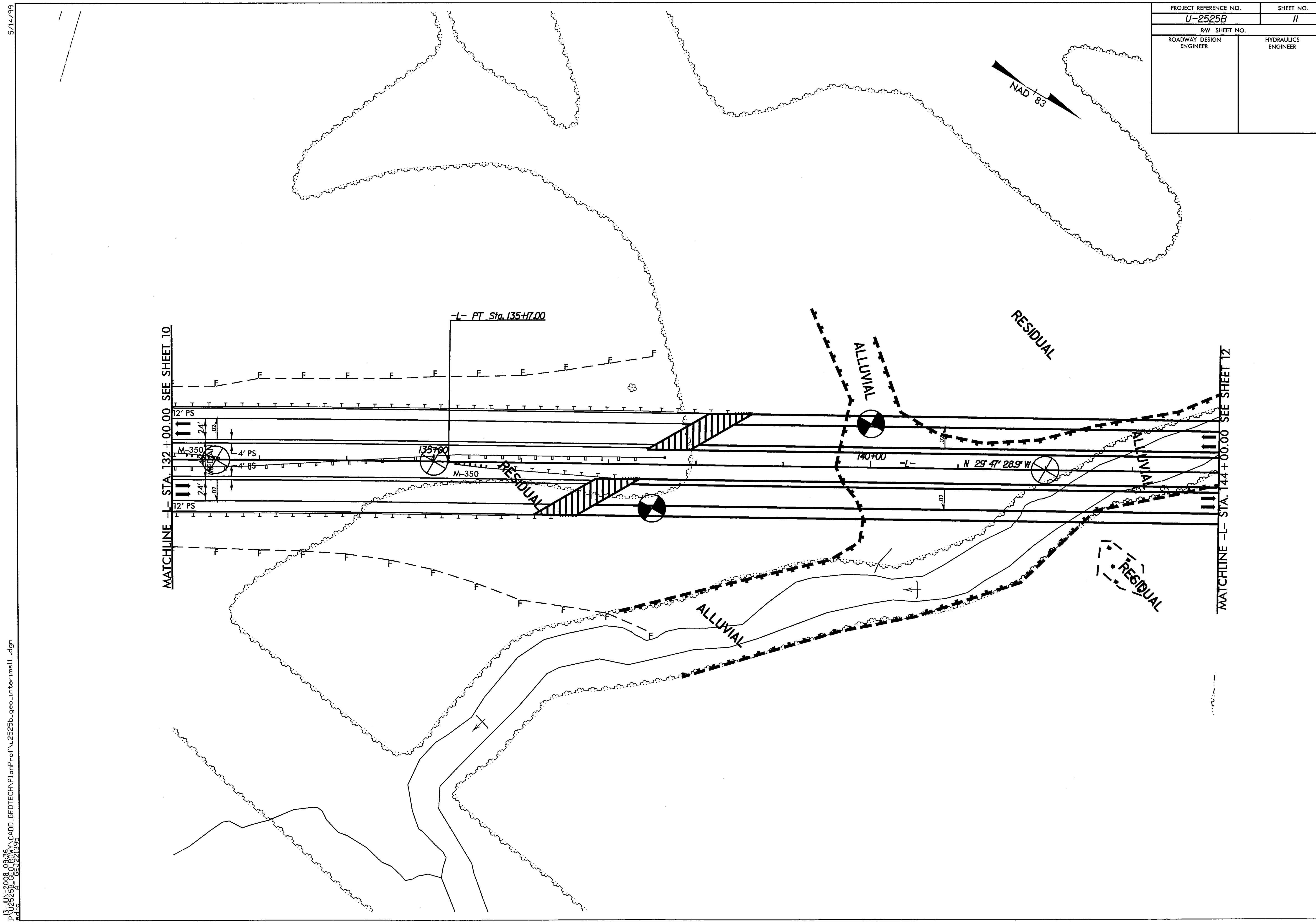
PROJECT REFERENCE NO.	SHEET NO.
U-2525B	11
R/W SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER



5/14/99

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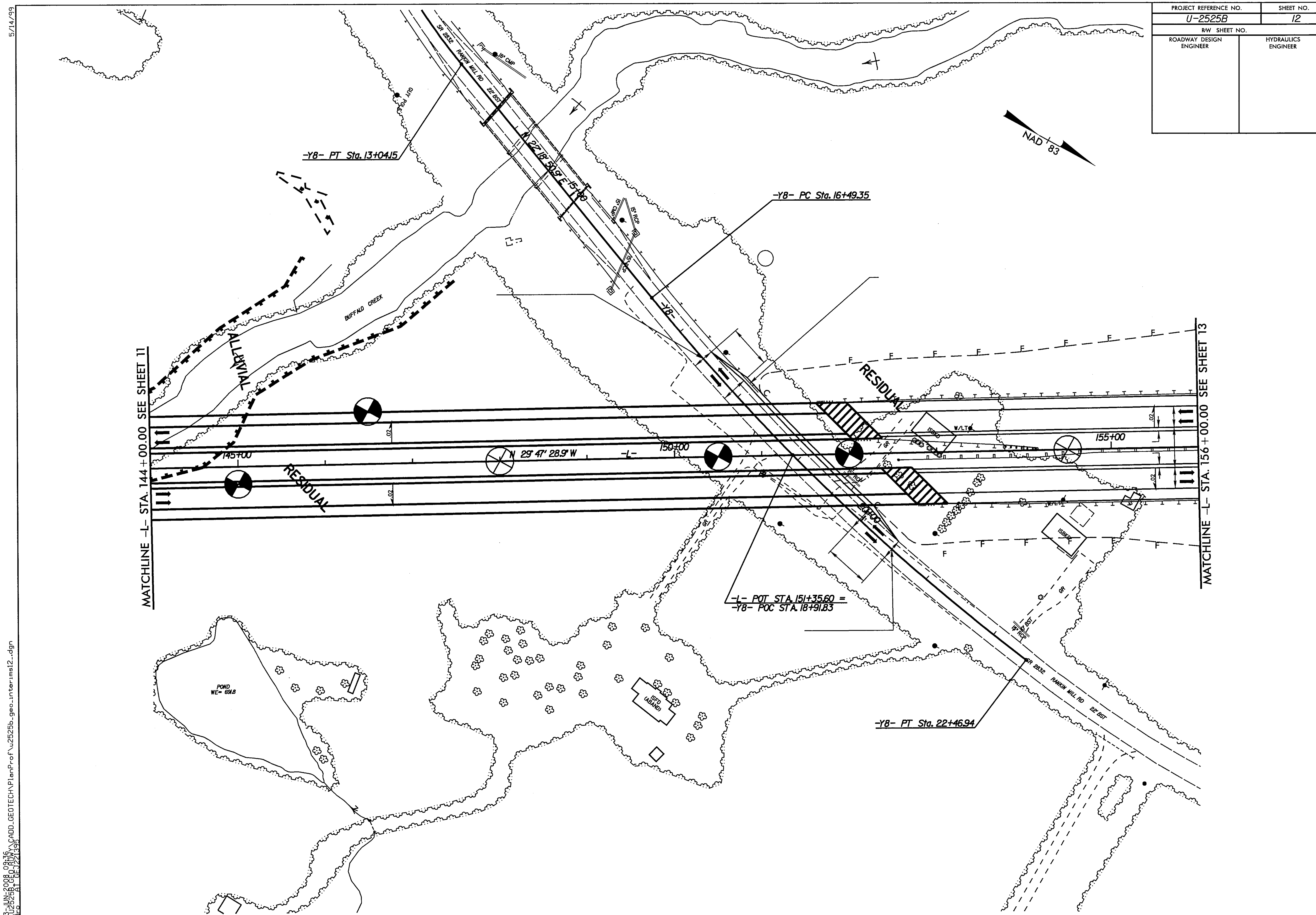
PROJECT REFERENCE NO.	SHEET NO.
U-2525B	12
R/W SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER



5/14/99

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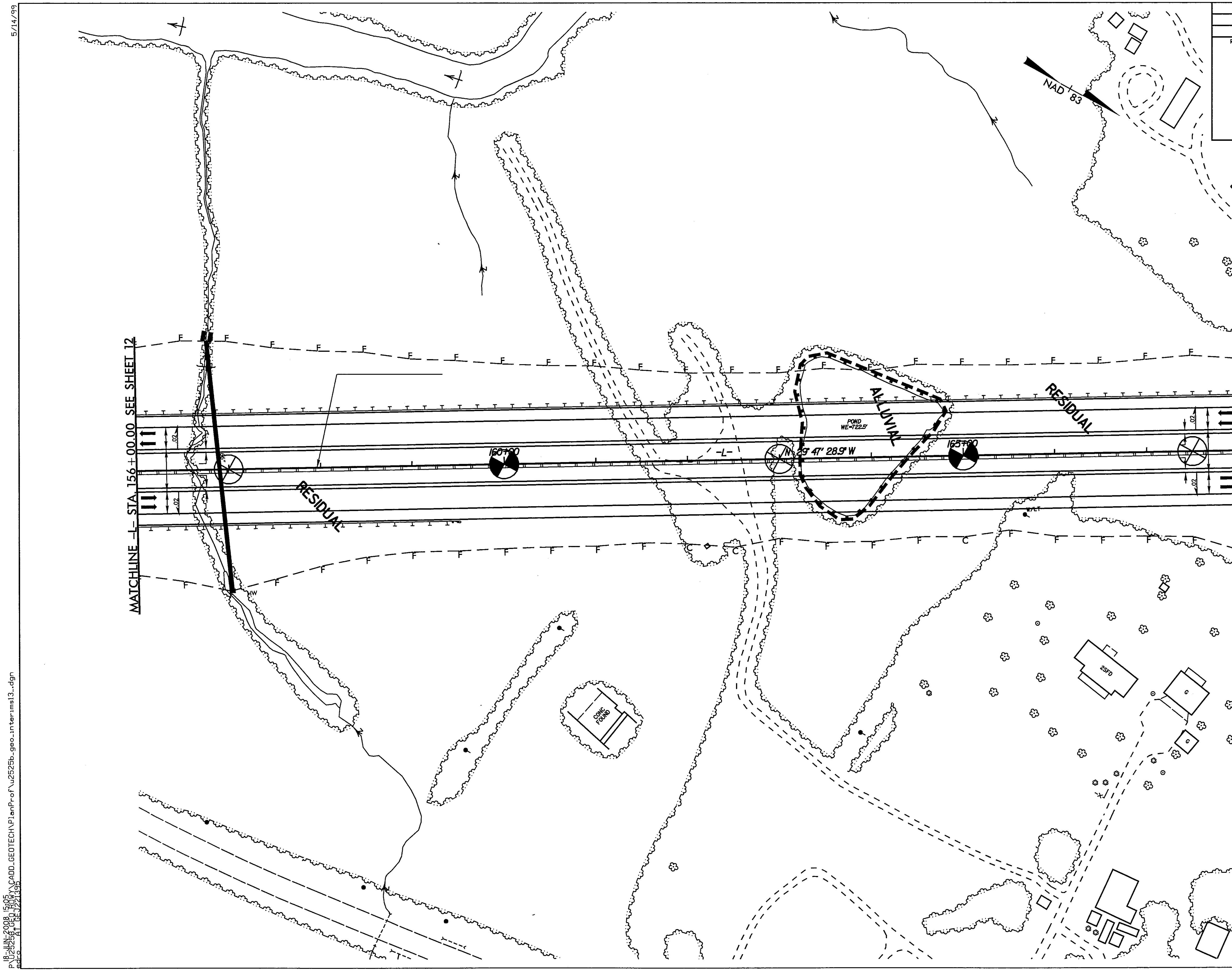
PROJECT REFERENCE NO.	SHEET NO.
U-2525B	13
R/W SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER



5/14/99

18-JUN-2008 15:05
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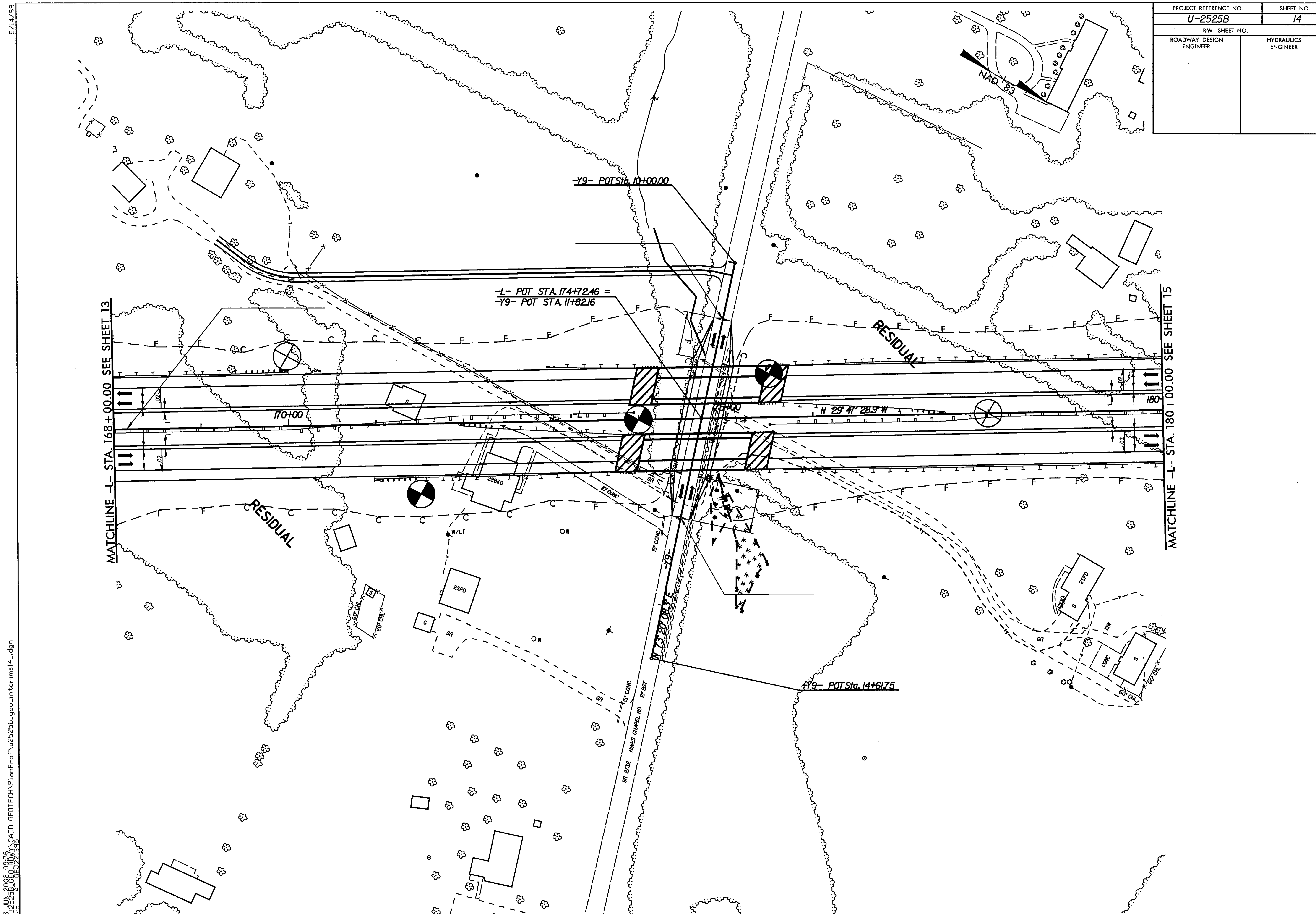
edro AT GEJ221395

5/14/99



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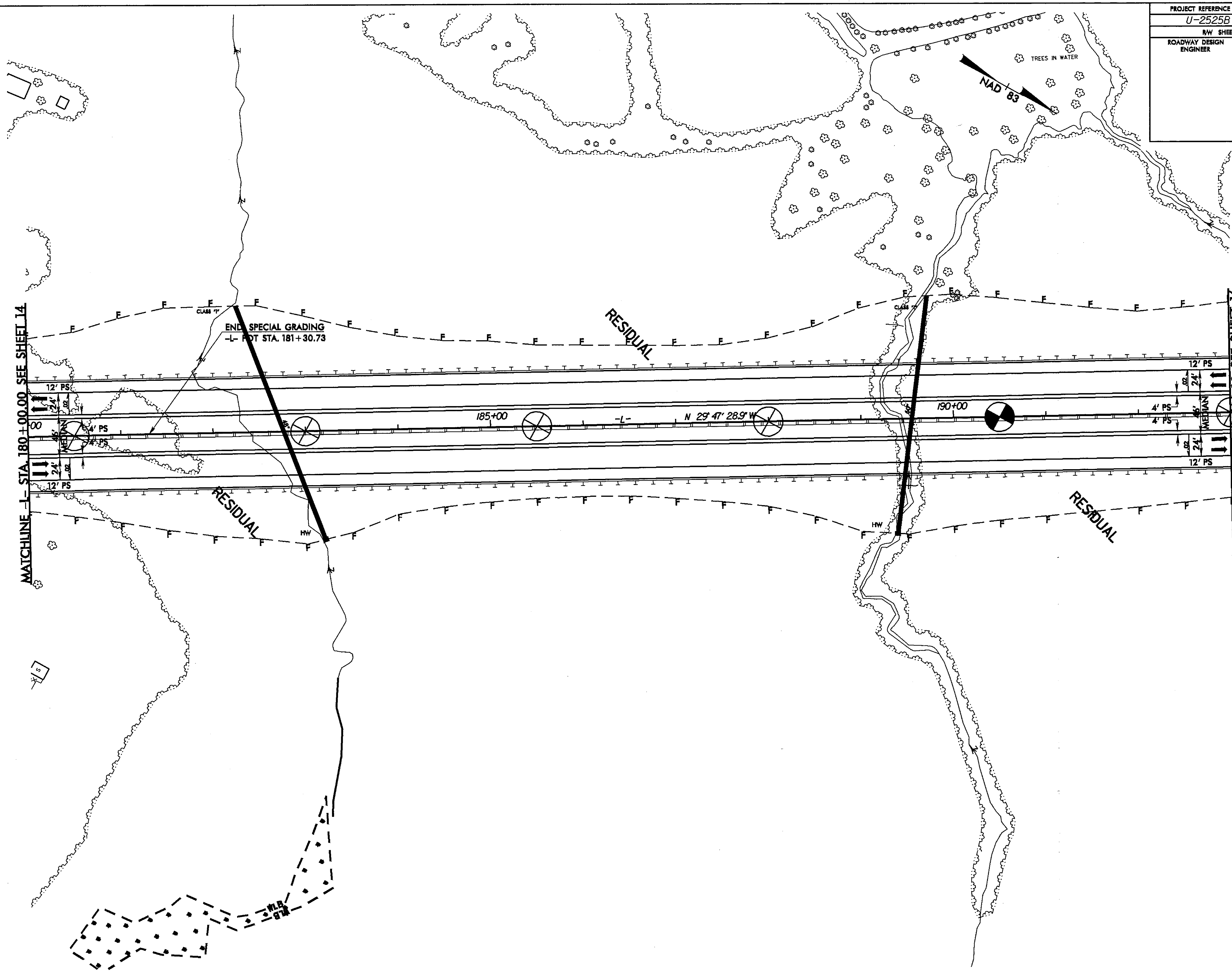
PROJECT REFERENCE NO.	SHEET NO.
U-2525B	15
R/W SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER



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AT GEJ221395

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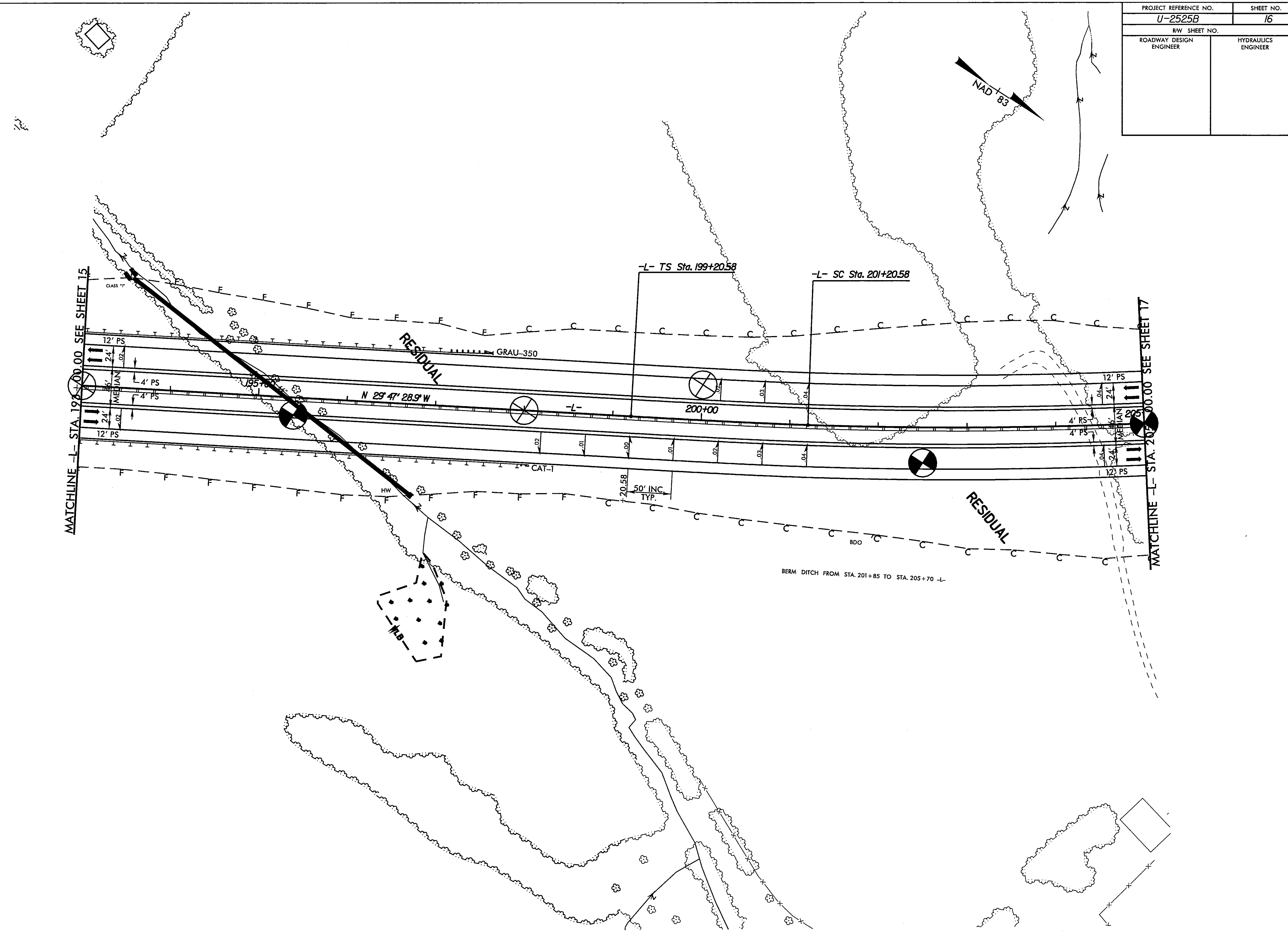
PROJECT REFERENCE NO.	SHEET NO.
U-2525B	16
R/W SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER



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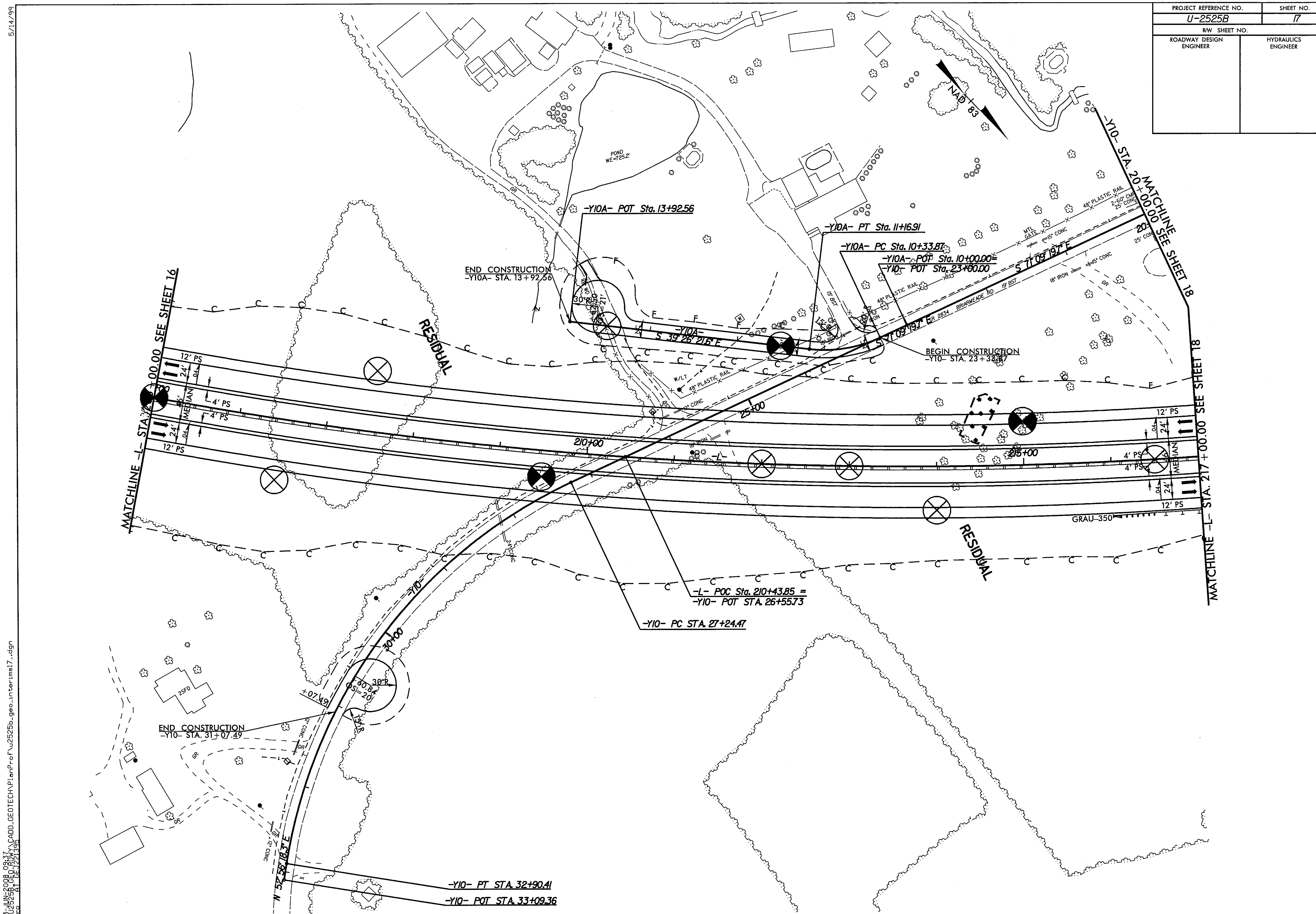
edro AT GEJ221395

5/14/99

PROJECT REFERENCE NO.	SHEET NO.
U-2525B	17
R/W SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER



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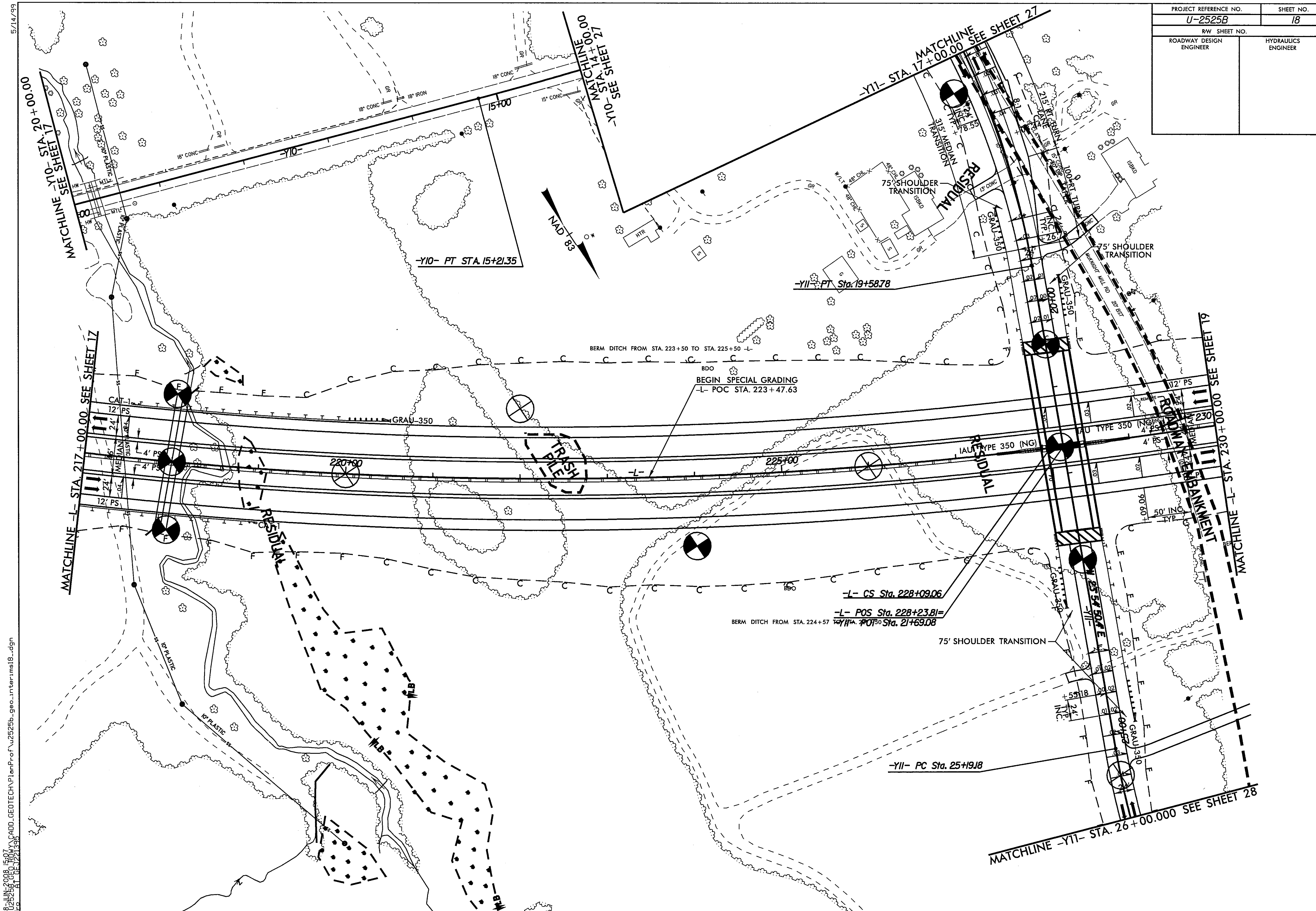
PROJECT REFERENCE NO.	SHEET NO.
U-2525B	18
R/W SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER



5/14/99

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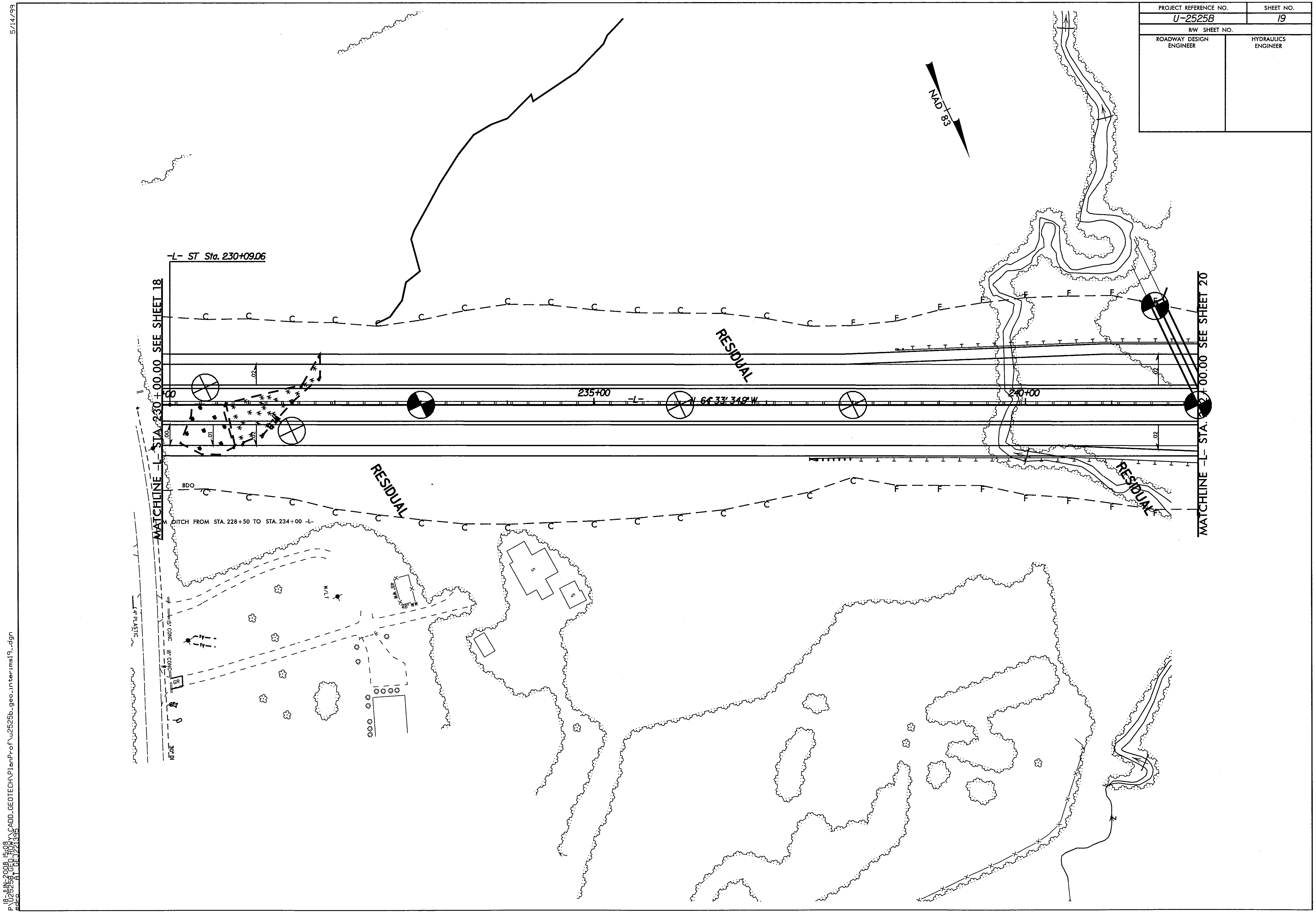
edro AT GEJ221395



PROJECT REFERENCE NO.
U-2525B
SHEET NO.
19
R/W SHEET NO.
ROADWAY DESIGN ENGINEER
HYDRAULICS ENGINEER
NAD 83
-L- ST Sta. 230+09.06
MATCHLINE -L- STA. 230+00.00 SEE SHEET 18
MATCHLINE -L- STA. 242+00.00 SEE SHEET 20
RESIDUAL
RESIDUAL
RESIDUAL
235+00
-L-
N 64° 33' 34.8" W
240+00
BDO
DITCH FROM STA. 228+50 TO STA. 234+00 -L-
5/14/99
18-JUN-2008 15:08
P:\U2525B\GEO\TDOT\CADD_GEOTECH\PlanProf\u2525b_geo_interims19.dgn

5/14/99

PROJECT REFERENCE NO.	SHEET NO.
U-2525B	20
R/W SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

NAD 83

580' FULL LANE
300' TAPER
580' FULL LANE
GRAU-350
RESIDUAL
RESIDUAL
12' PS
4' PS
4' PS
4' PS
4' PS
4' PS
12' PS
MEDIAN
MEDIAN
245+00
250+00
255
N 64°33'34.9"W
N 62°03'34.9"W
-L-
-LCAFLY-
-LCAFLY- POT Sta. 10+00.00 =
-L- POT Sta. 243+40.07 47.00' RT.
Δ = 2°30'
-LCAFLY- TS Sta. 13+05.56
-LCAFLY- SC Sta. 15+45.56
-LCAFLY- CS Sta. 17+34.52
-LCAFLY- SRS Sta. 19+74.52=
-Y13RPC- POT Sta. 10+00.00 12.00' RT.
N 11°40'40" 16.7"W
MATCHLINE -L- STA. 242+00.00 SEE SHEET 19
MATCHLINE -L- STA. 255+00.00 SEE SHEET 21
MATCHLINE -Y13RPC- STA. 12+00.00 SEE SHEET 21
MATCHLINE SEE SHEET 39
ARVID DR
30" DIP
Second Save Buried Creek

18-JUN-2008 15:10
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default

REVISIONS

PROJECT REFERENCE NO.	SHEET NO.
U-2525B	21
STATE PROJECT NUMBER	STATE SHEET NO.

MATCHLINE -Y13- STA. 43+50.00 SEE SHEET 31

MATCHLINE -Y13A- STA. 43+50.00 SEE SHEET 31

MATCHLINE -ACAFLY- STA. 43+50.00 SEE SHEET 31

MATCHLINE -Y13B- STA. 43+50.00 SEE SHEET 31

REMOVE EXISTING MEDIAN CROSSOVER

BEGIN SPECIAL GRADING -L- POT STA. 44+08.00

A

B

C

D

END -L- STA. 274+00.00 TIP PROJECT U-2525B

MATCHLINE -L- STA. 255+00.00 SEE SHEET 20

END GRADING AND PAVING -ICAFLY- STA. 23+80.69

BEGIN SPECIAL GRADING -L- POT STA. 24+67.00

MATCHLINE -ACAFLY- STA. 42+00.00 SEE SHEET 32

MATCHLINE -L- STA. 57+50.00 SEE SHEET 32

MATCHLINE -Y13C- STA. 57+50.00 SEE SHEET 32

MATCHLINE -Y13D- STA. 57+50.00 SEE SHEET 32

MATCHLINE -ACAFLY- STA. 43+50.00 SEE SHEET 22

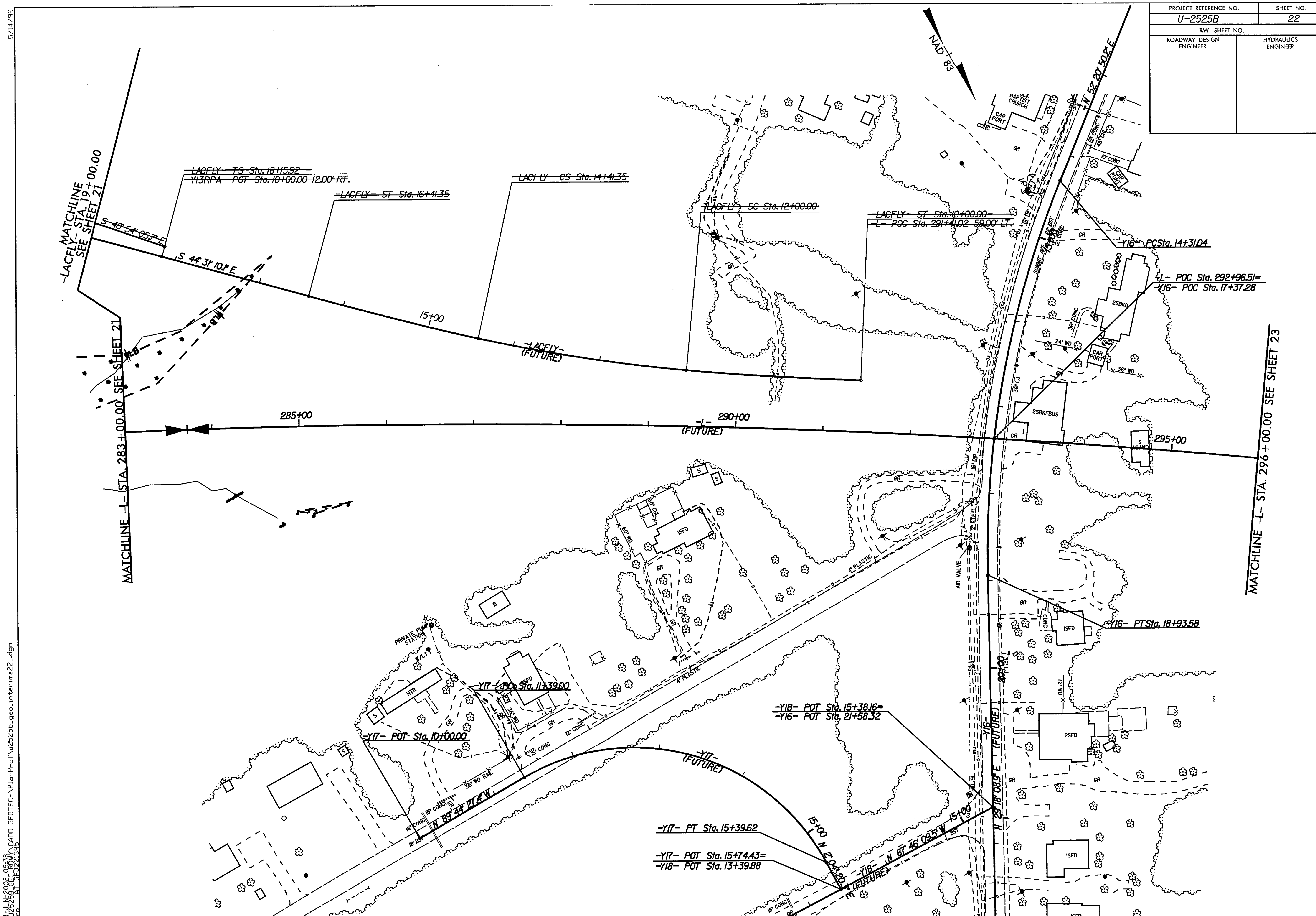
MATCHLINE -L- STA. 283+00.00 SEE SHEET 22

NAD 83

LOCATION:	
TIP NO.:	COUNTY:
DESIGNED BY:	
CHECKED BY:	DATE:

GRAPHIC SCALE
50 25 0 50 100
PLANS

PROJECT REFERENCE NO.	SHEET NO.
U-2525B	22
R/W SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER



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5/14/99

PROJECT REFERENCE NO.	SHEET NO.
U-2525B	23
R/W SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

48" CMP

ISBKD

48" CMP

NAD 83

MATCHLINE -L- STA. 296+00.00 SEE SHEET 22

300+00

305+00

N 53° 33' 55.7" W

RUINS

-L-

-L- CS Sta. 296+68.95

-L- ST Sta. 298+68.95

MB

MB

MB

MB

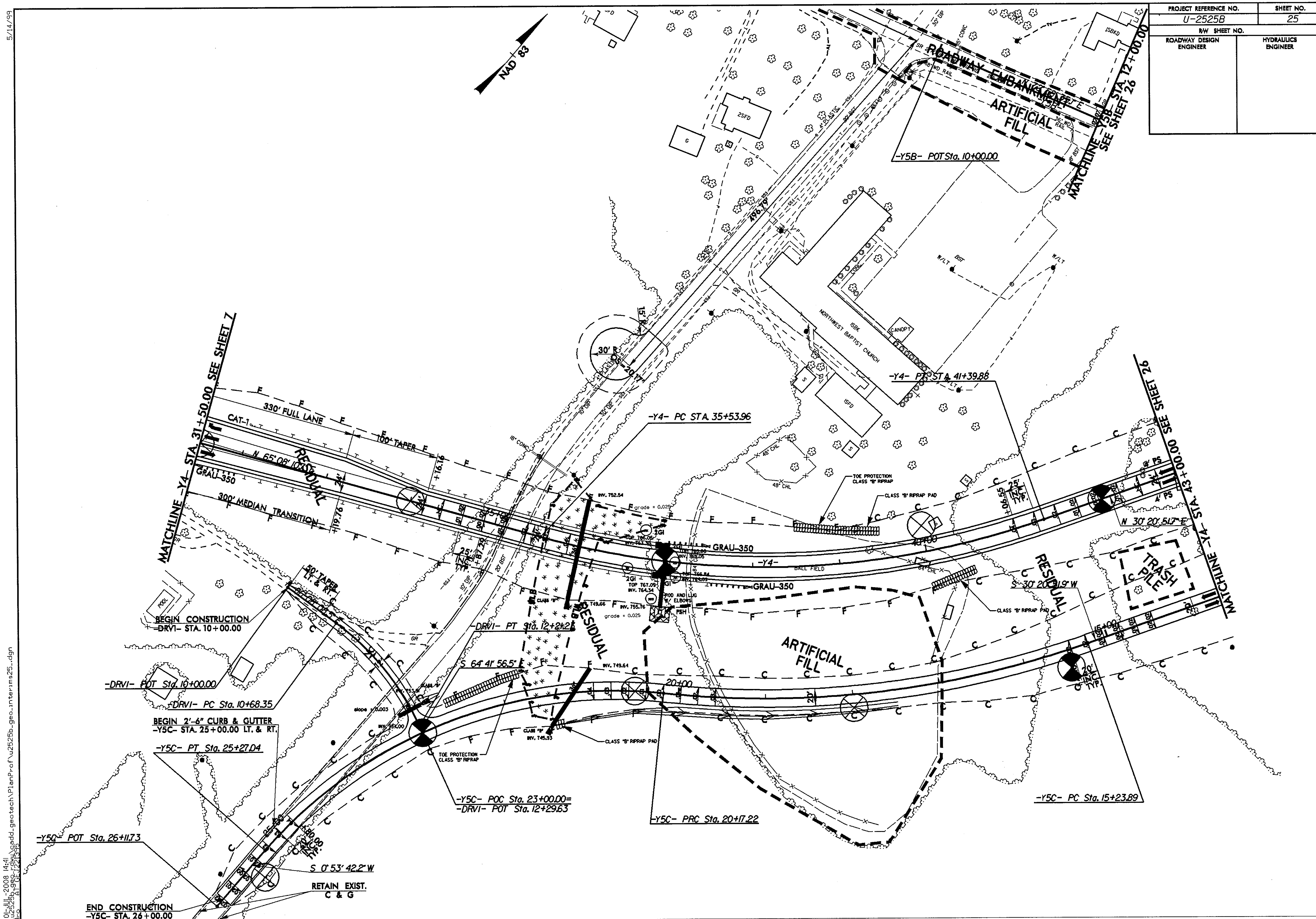
S

5/14/99

PROJECT REFERENCE NO.	SHEET NO.
U-2525B	24
R/W SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

13-JUN-2008 11:44

PROJECT REFERENCE NO.	SHEET NO.
U-2525B	25
R/W SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER



5/14/99

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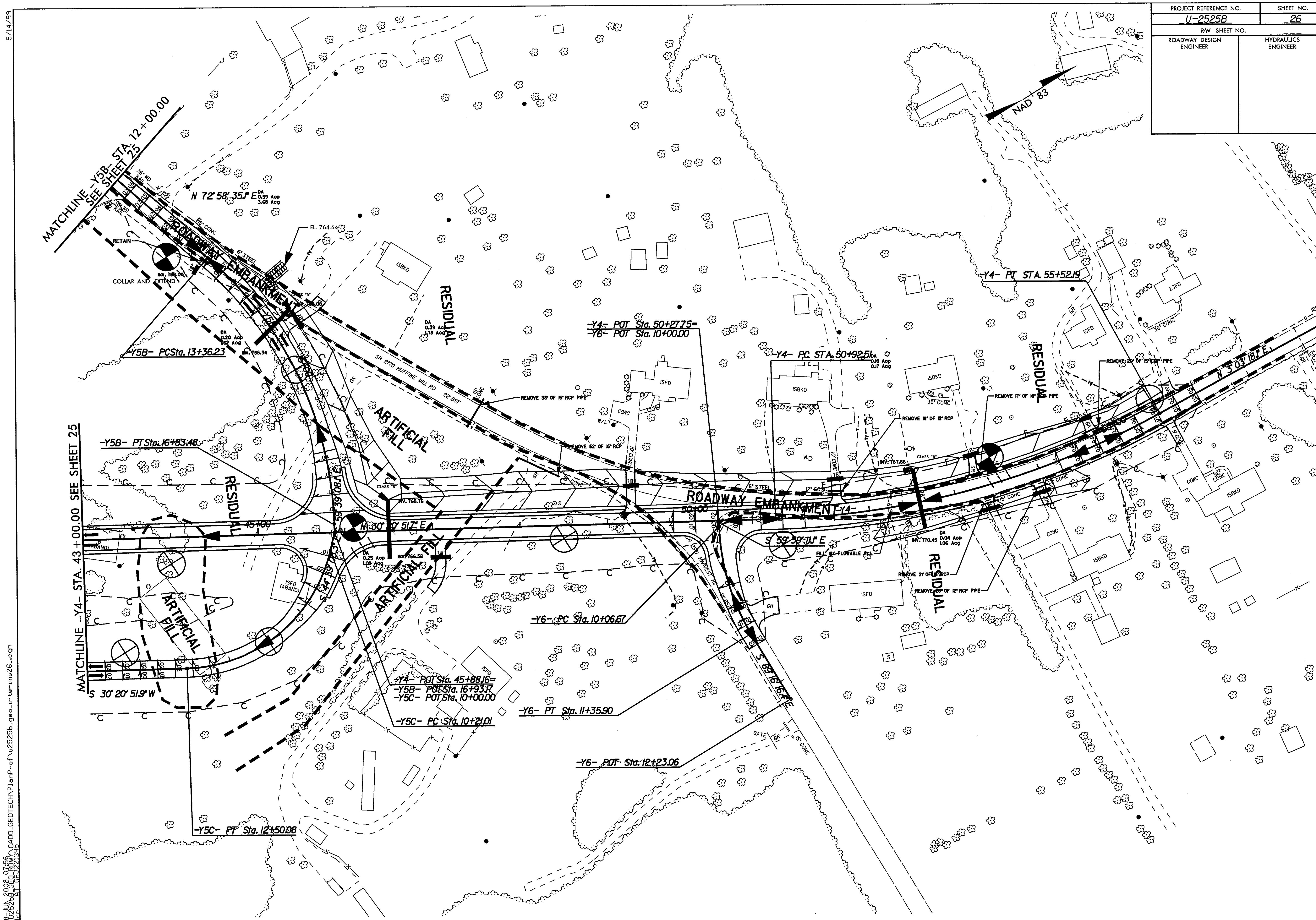
5/14/99

PROJECT REFERENCE NO.	SHEET NO.
U-2525B	26
R/W SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER



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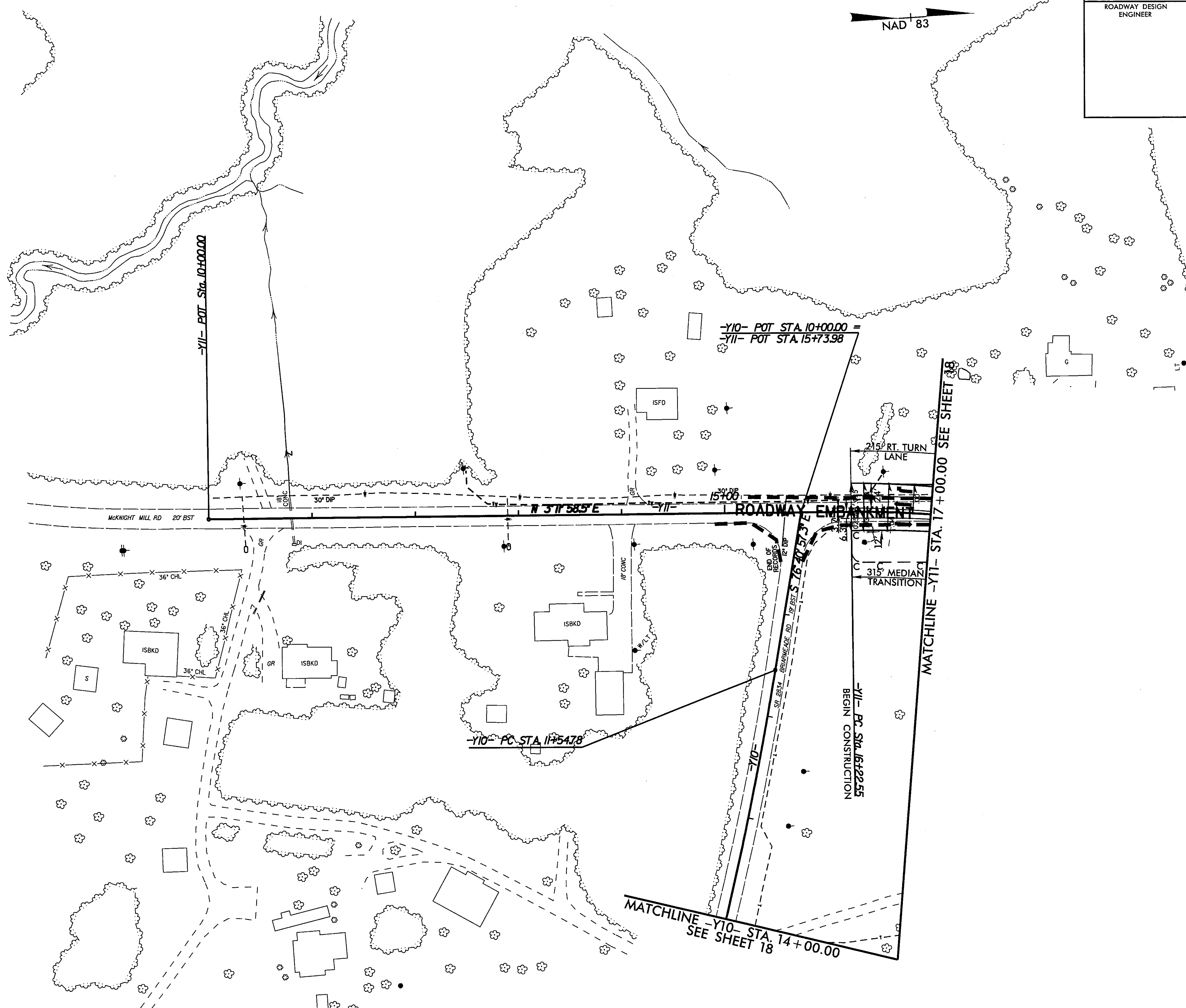
PROJECT REFERENCE NO.	SHEET NO.
U-2525B	27
R/W SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER



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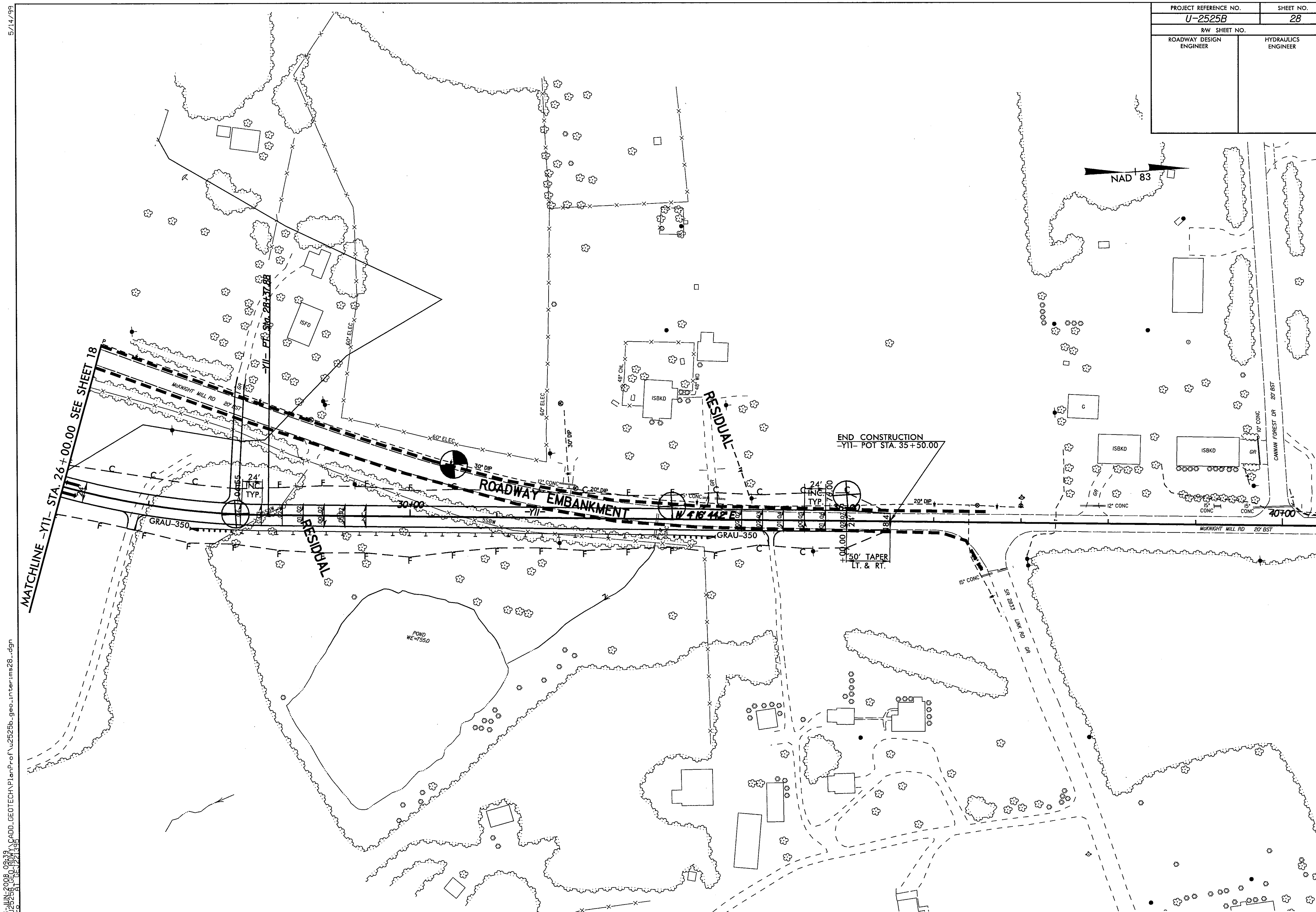
PROJECT REFERENCE NO.	SHEET NO.
U-2525B	28
R/W SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER



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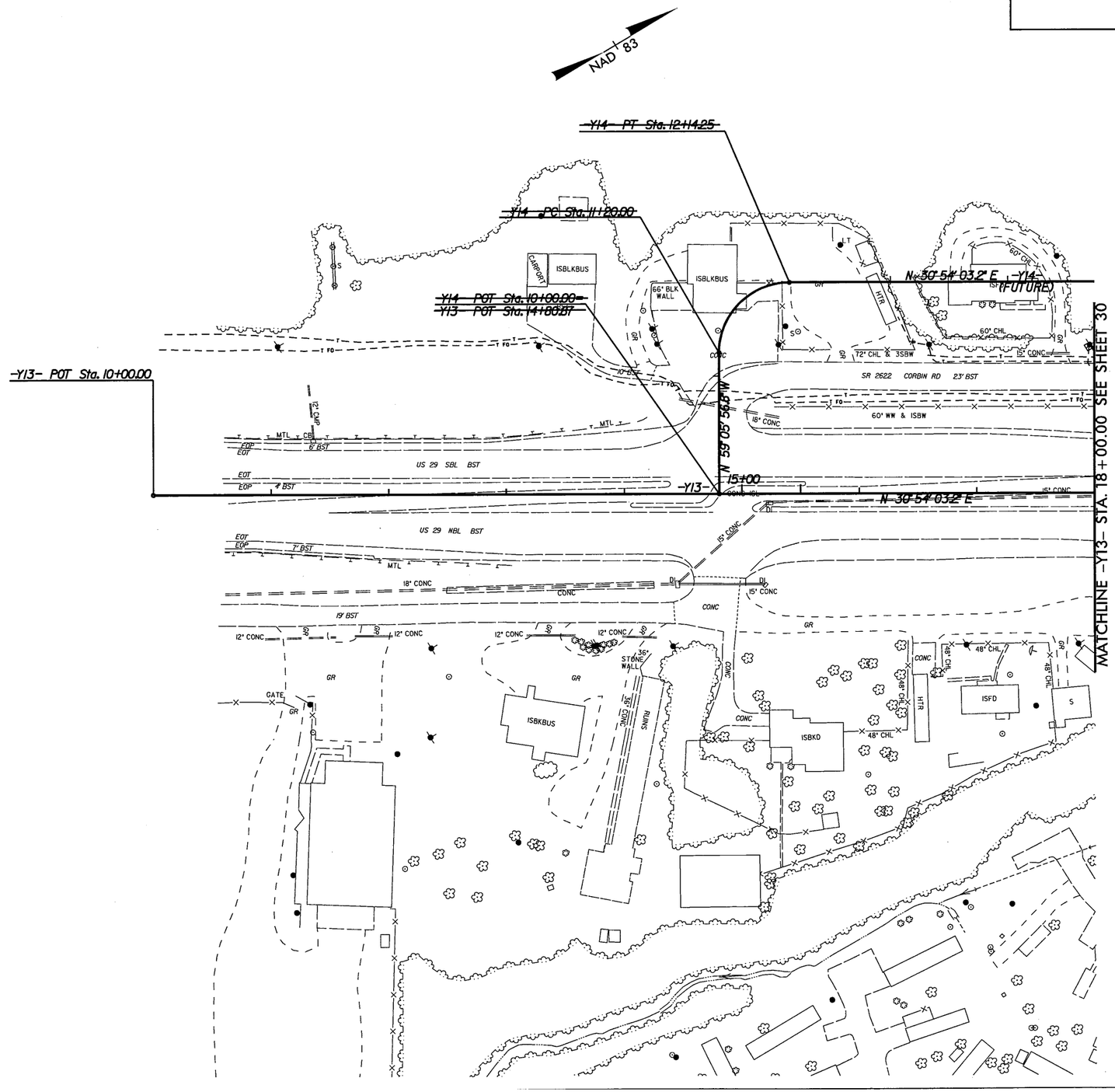
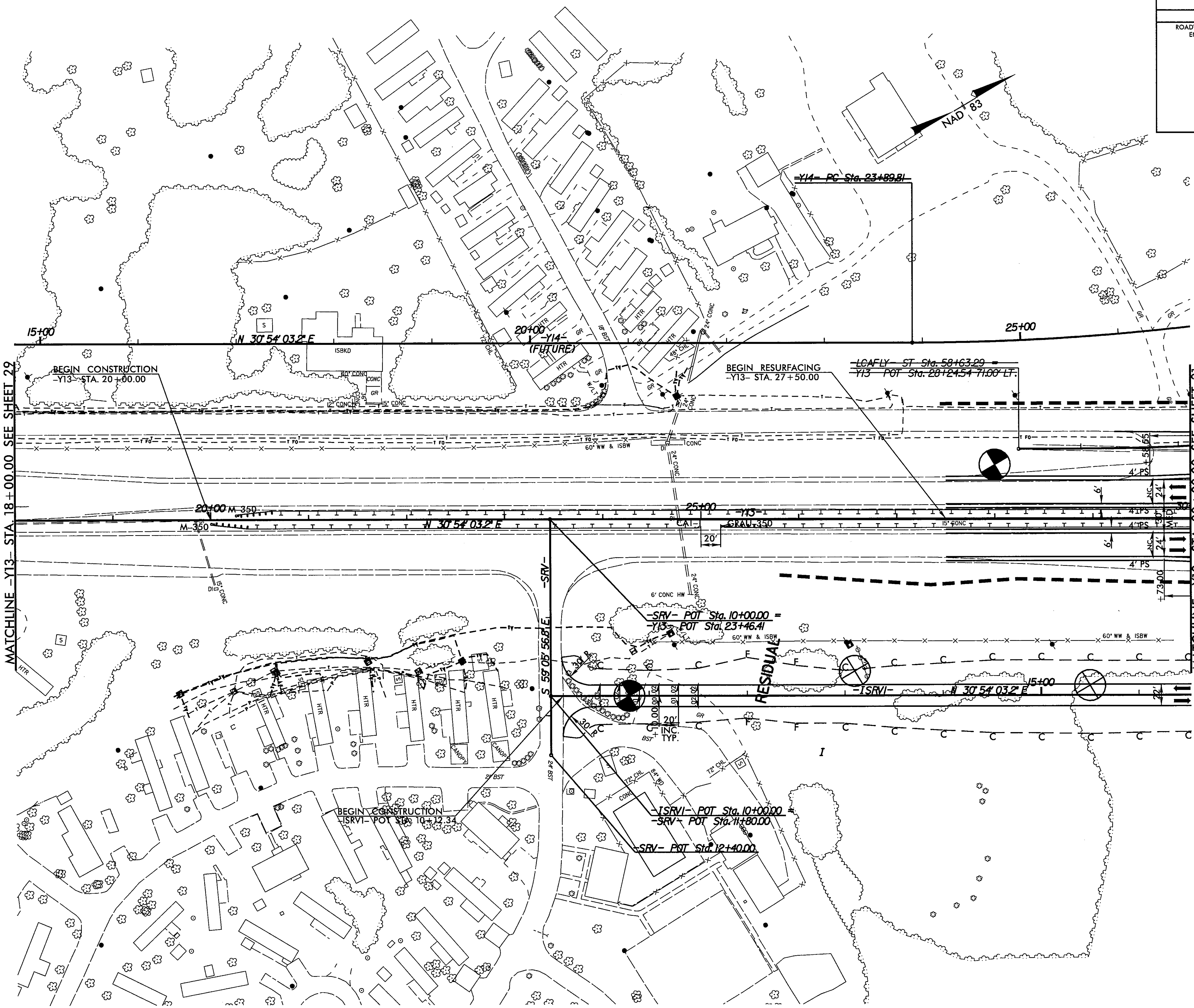
5/14/99

PROJECT REFERENCE NO.	SHEET NO.
U-2525B	29
R/W SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER



5/14/99

PROJECT REFERENCE NO.	SHEET NO.
U-2525B	30
R/W SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER



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REVISIONS

PROJECT REFERENCE NO.	SHEET NO.
U-2528	31
RW. SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

NORTH

MATCHLINE -Y13- STA. 30+00.00 SEE SHEET 30

MATCHLINE -Y13RPB- STA. 17+50.00 SEE SHEET 21

MATCHLINE -Y13- STA. 43+50.00 SEE SHEET 21

MATCHLINE -I CAFLY- STA. 23+50.00 SEE SHEET 21

MATCHLINE -Y13RPA- STA. 19+00 SEE SHEET 21

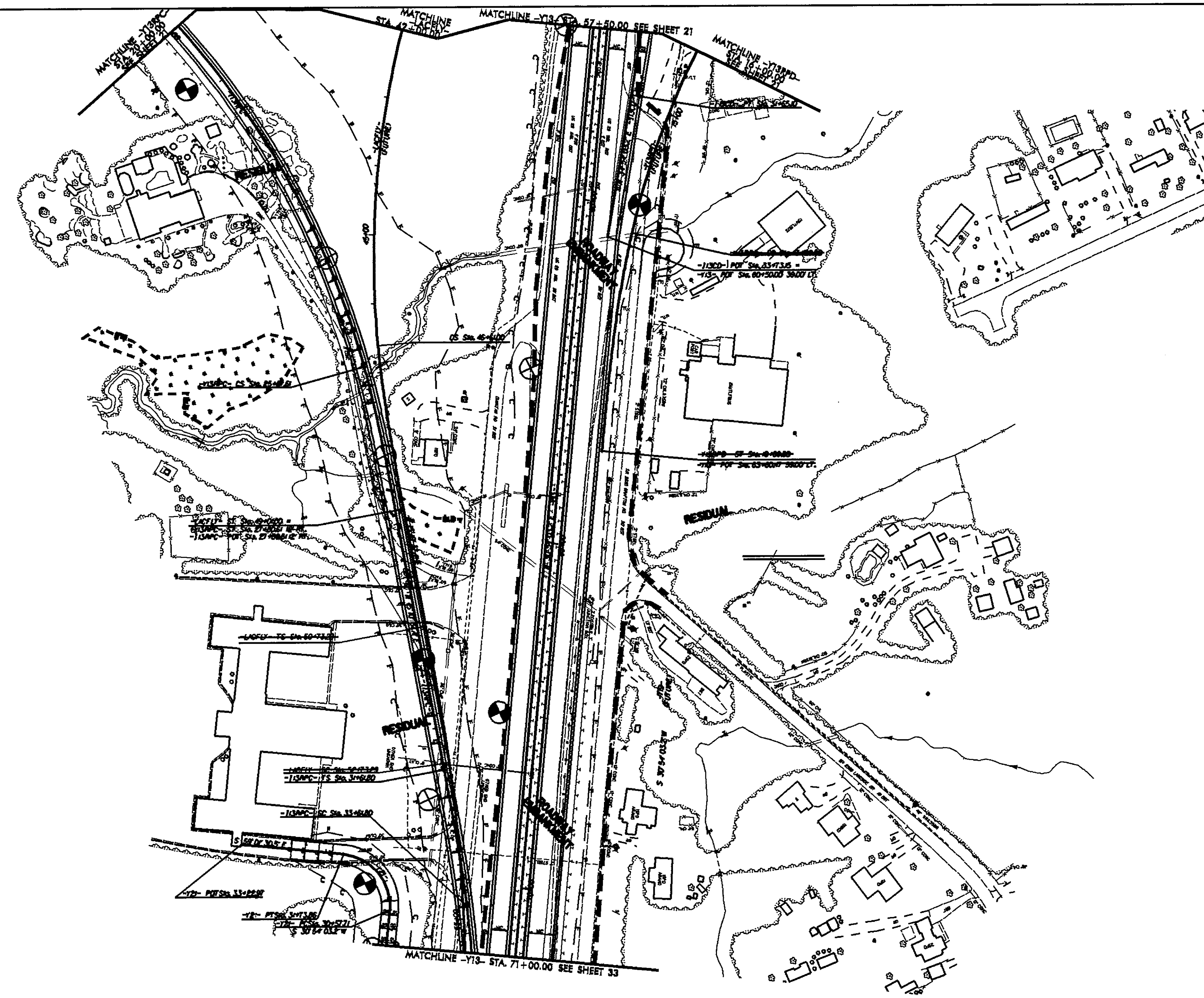
RESIDUAL

GRAPHIC SCALE
50 25 0 50 100
PLANS

LOCATION:	
TIP NO.:	COUNTY:
DESIGNED BY:	
CHECKED BY:	DATE:

REVISIONS

PROJECT REFERENCE NO.	SHEET NO.
U-2525B	32
R/W SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER



GRAPHIC SCALE

50 25 0 50 100

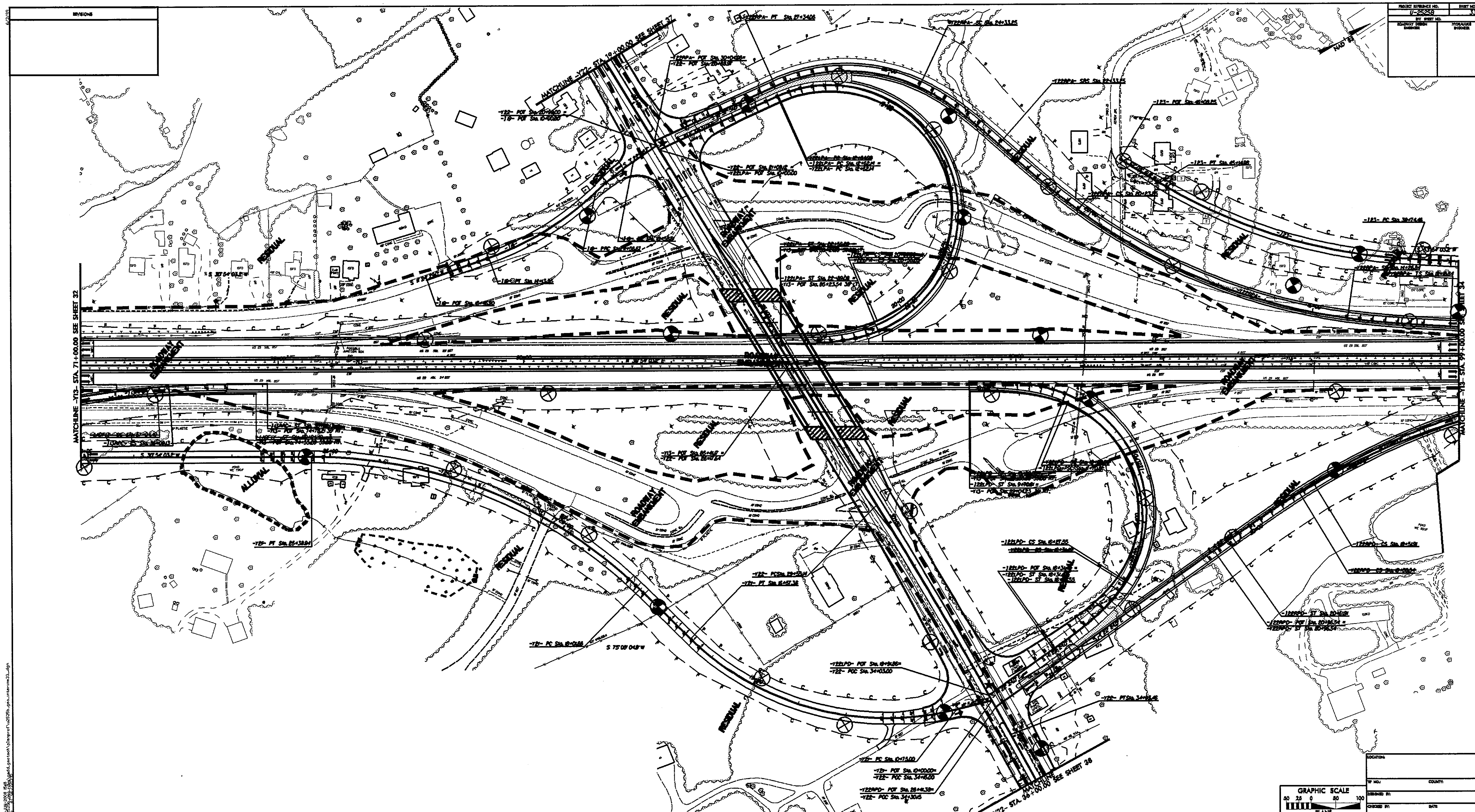
PLANS

LOCATION:

TIP NO.: COUNTY:

DESIGNED BY:

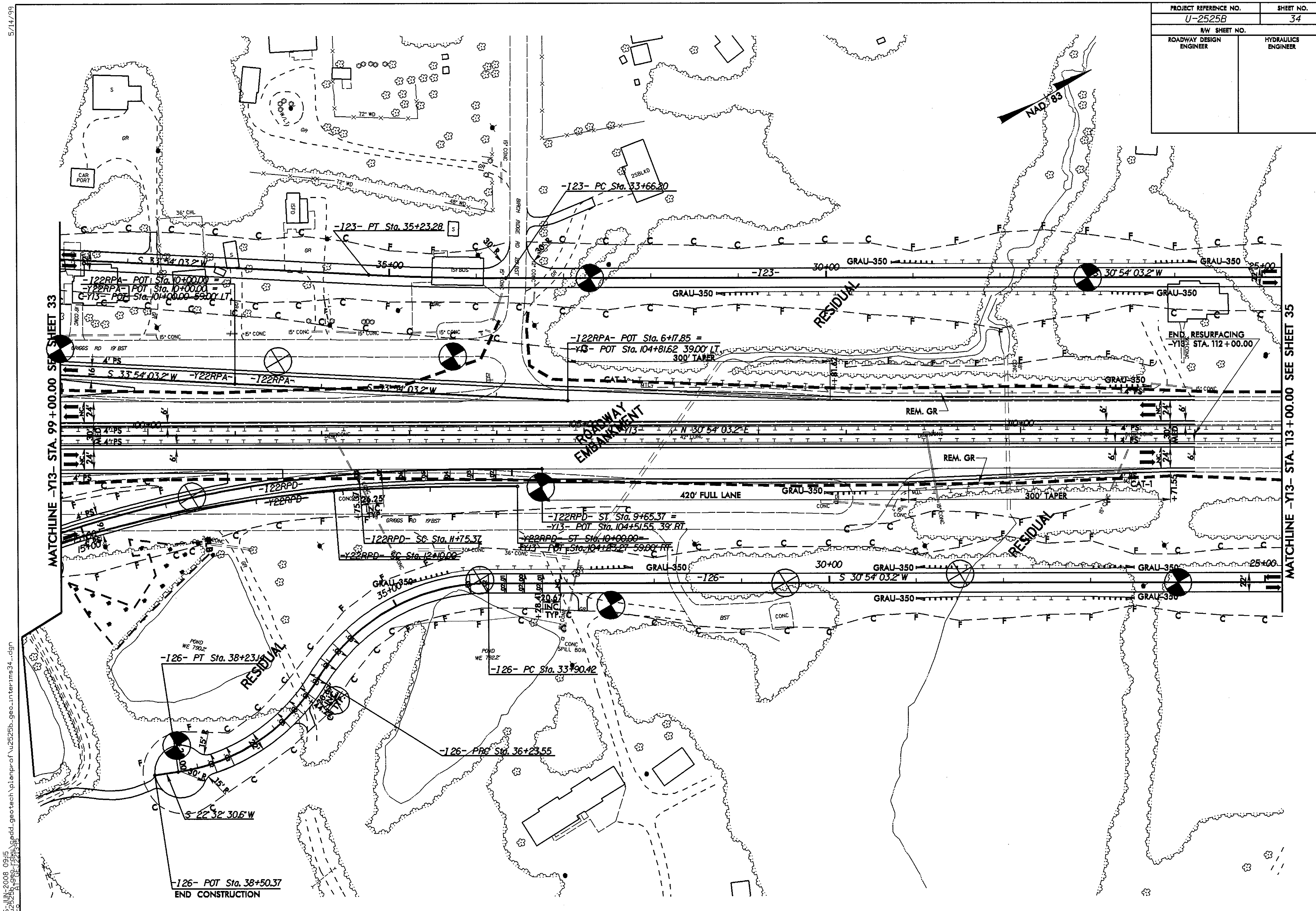
CHECKED BY: DATE:



REVISIONS
PROJECT REFERENCE NO.
U-2525B
SHEET NO.
33
R/W SHEET NO.
ROADWAY DESIGN ENGINEER
HYDRAULICS ENGINEER
NAD 83
MATCHLINE -Y22- STA. 19+00.00 SEE SHEET 37
MATCHLINE -Y13- STA. 71+00.00 SEE SHEET 32
MATCHLINE -Y13- STA. 99+00.00 SEE SHEET 34
MATCHLINE -Y22- STA. 36+00.00 SEE SHEET 38
RESIDUAL
ROADWAY EMBANKMENT
ALLUVIAL
-Y21- PC Sta. 10+01.66
S 75°08'04.8"W
-Y22- PT Sta. 34+65.46
-Y22RPA- PT Sta. 27+34.06
-Y123- POT Sta. 45+08.95
-Y123- PC Sta. 39+74.48
US 29 SBL BST
US 29 NBL BST
GRAPHIC SCALE
50 25 0 50 100
PLANS
LOCATION:
TIP NO.:
COUNTY:
DESIGNED BY:
CHECKED BY:
DATE:

5/14/99

PROJECT REFERENCE NO.	SHEET NO.
U-2525B	34
R/W SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER



16-JUN-2008 09:15
u2525b_geo_interims34.dgn

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PROJECT REFERENCE NO.	SHEET NO.
U-2525B	35
R/W SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

NAD 83

-123- PT Sta. 14+89.22

-123 PRC Sta. 13+37.62

-123- PC Sta. 11+30.00

S 30° 54' 03.2" W

N 59° 05' 57.0" W

-Y13- POT Sta. 125+81.64=
-126- PT Sta. 10+00.00
-123- PT Sta. 10+00.00

END OF INFORMATION

RESIDUAL

ROADWAY EMBANKMENT

N 30° 54' 03.2" E

S 59° 05' 57.0" E

-126- PC Sta. 11+30.00

-126- PT Sta. 15+09.00

-126- PRC Sta. 13+42.56

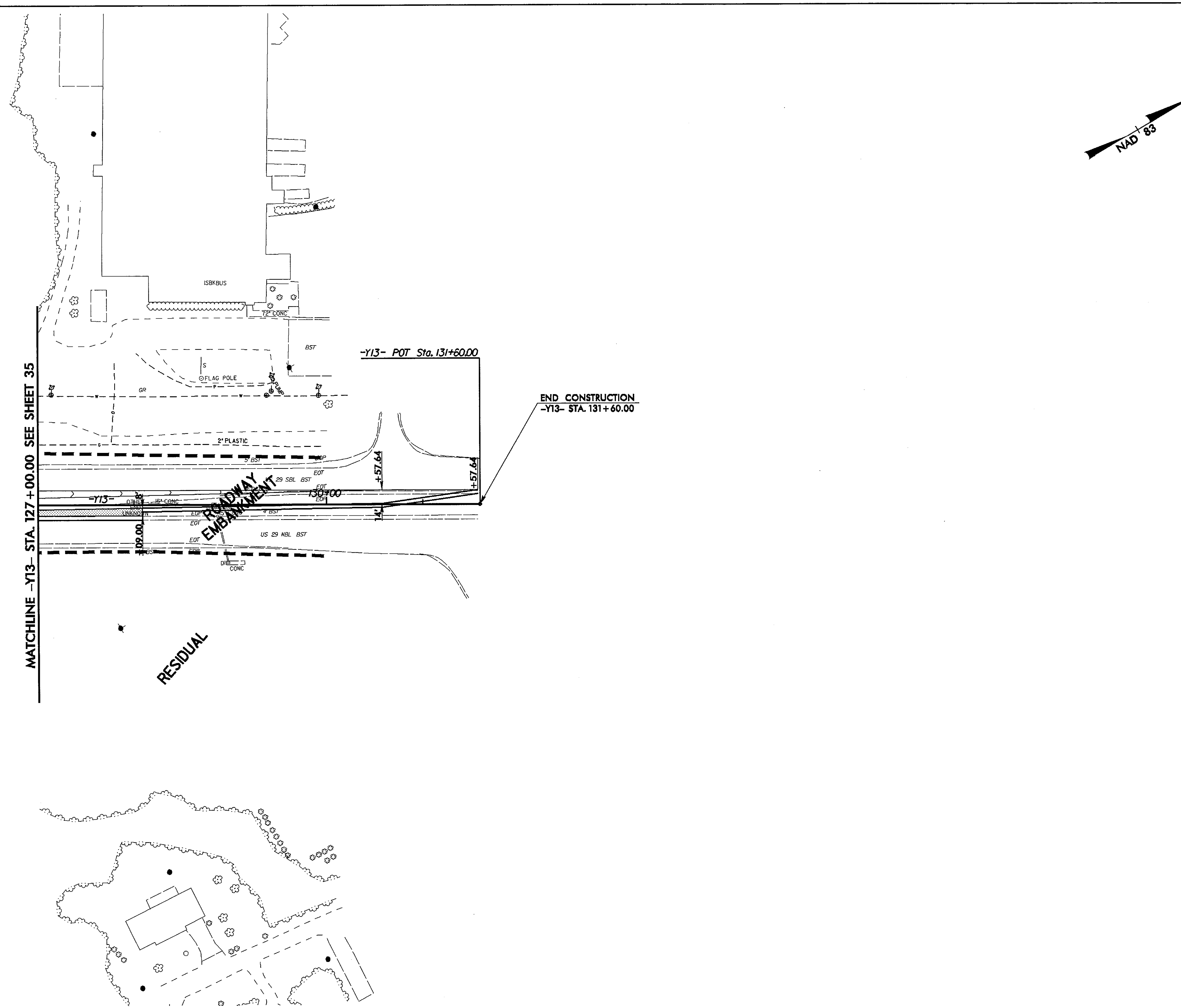
POWER SUB - STATION

MATCHLINE -Y13- STA. 113+00.00 SEE SHEET 34

MATCHLINE -Y13- STA. 127+00.00 SEE SHEET 36

PROJECT REFERENCE NO.	SHEET NO.
U-2525B	36
R/W SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

5/14/99



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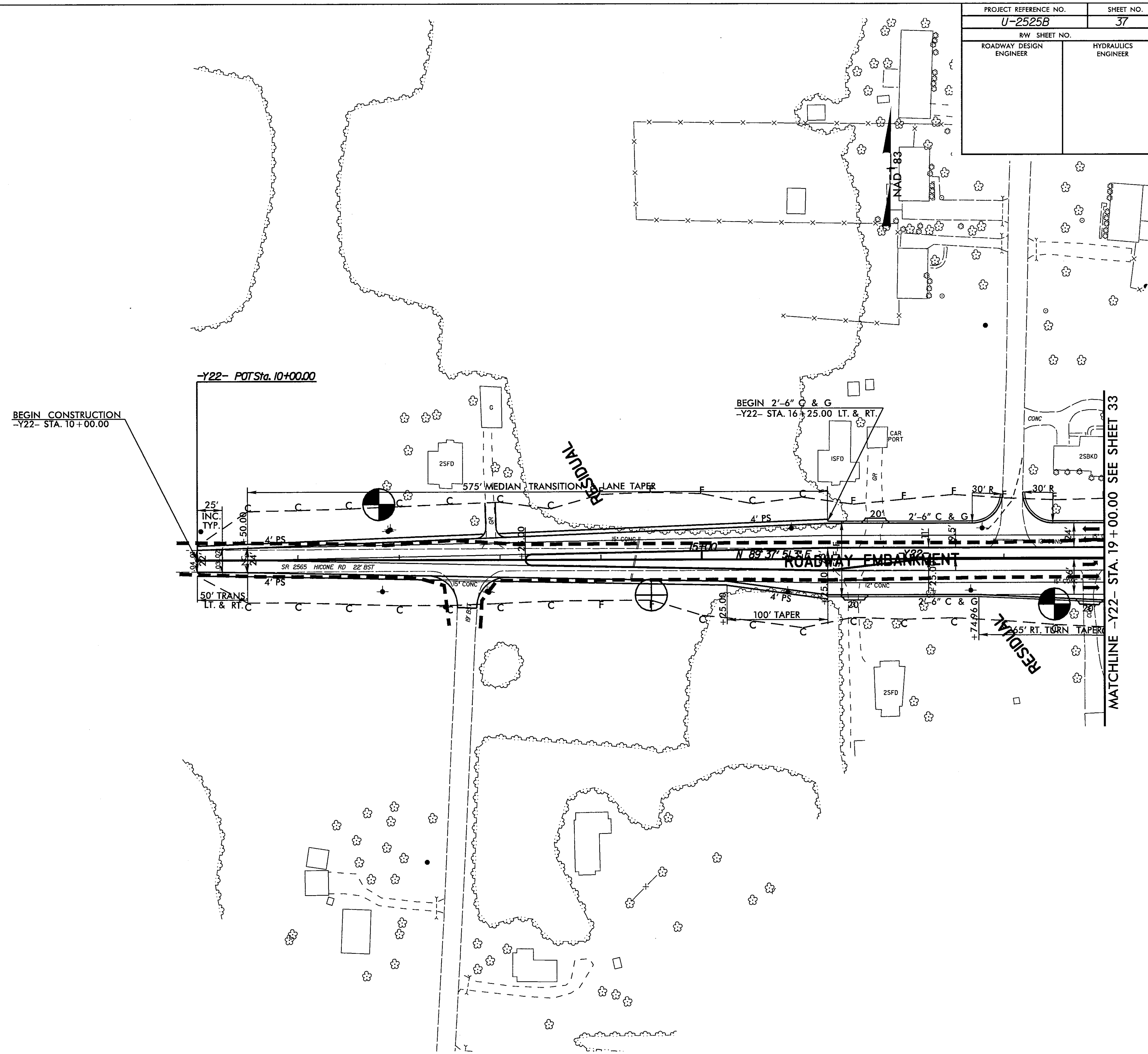
SEE SHEET 69 FOR -Y13- PROFILE

5/14/99

PROJECT REFERENCE NO.	SHEET NO.
U-2525B	37
R/W SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER



13-JUN-2008 09:40
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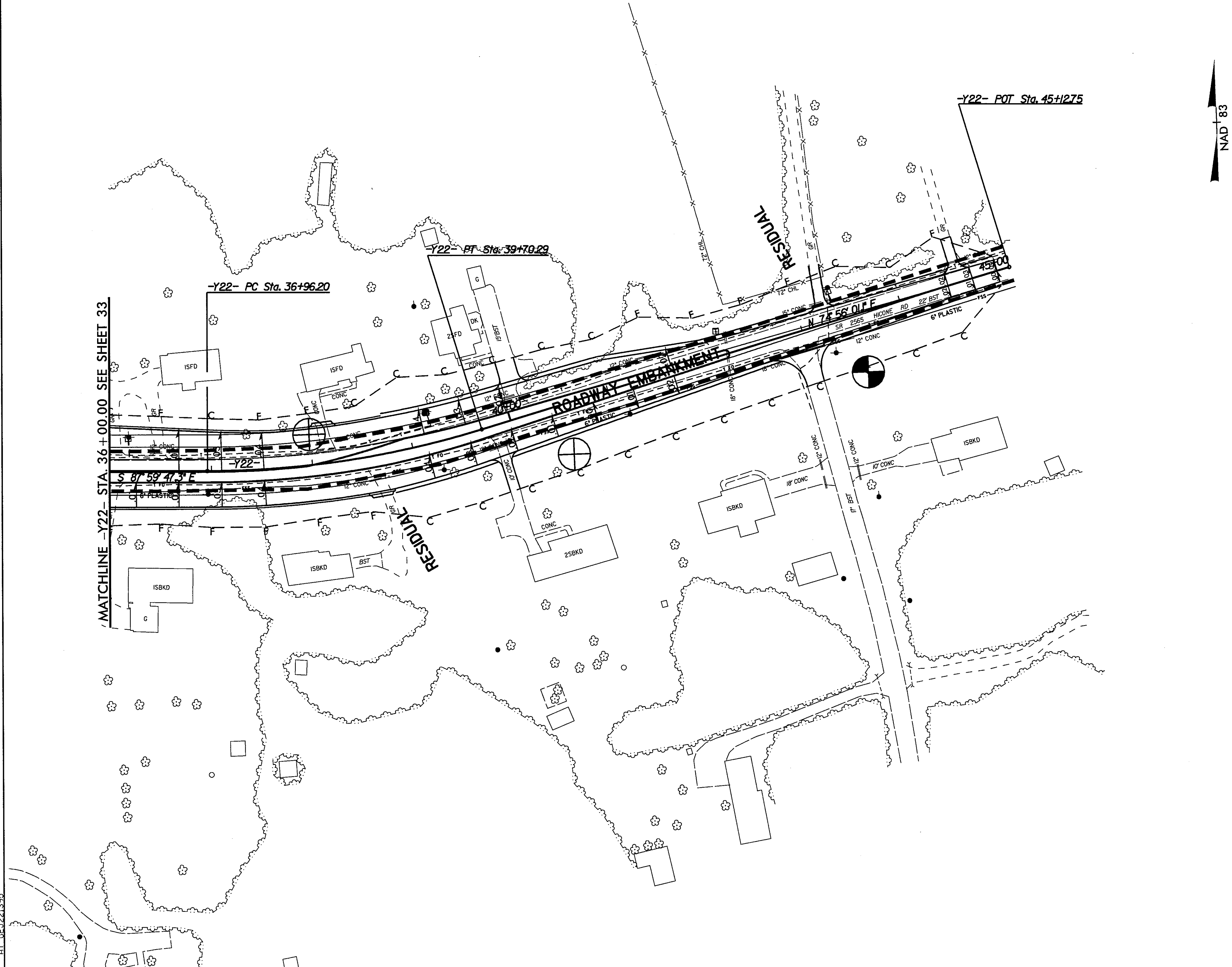
PROJECT REFERENCE NO.	SHEET NO.
U-2525B	38
R/W SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER



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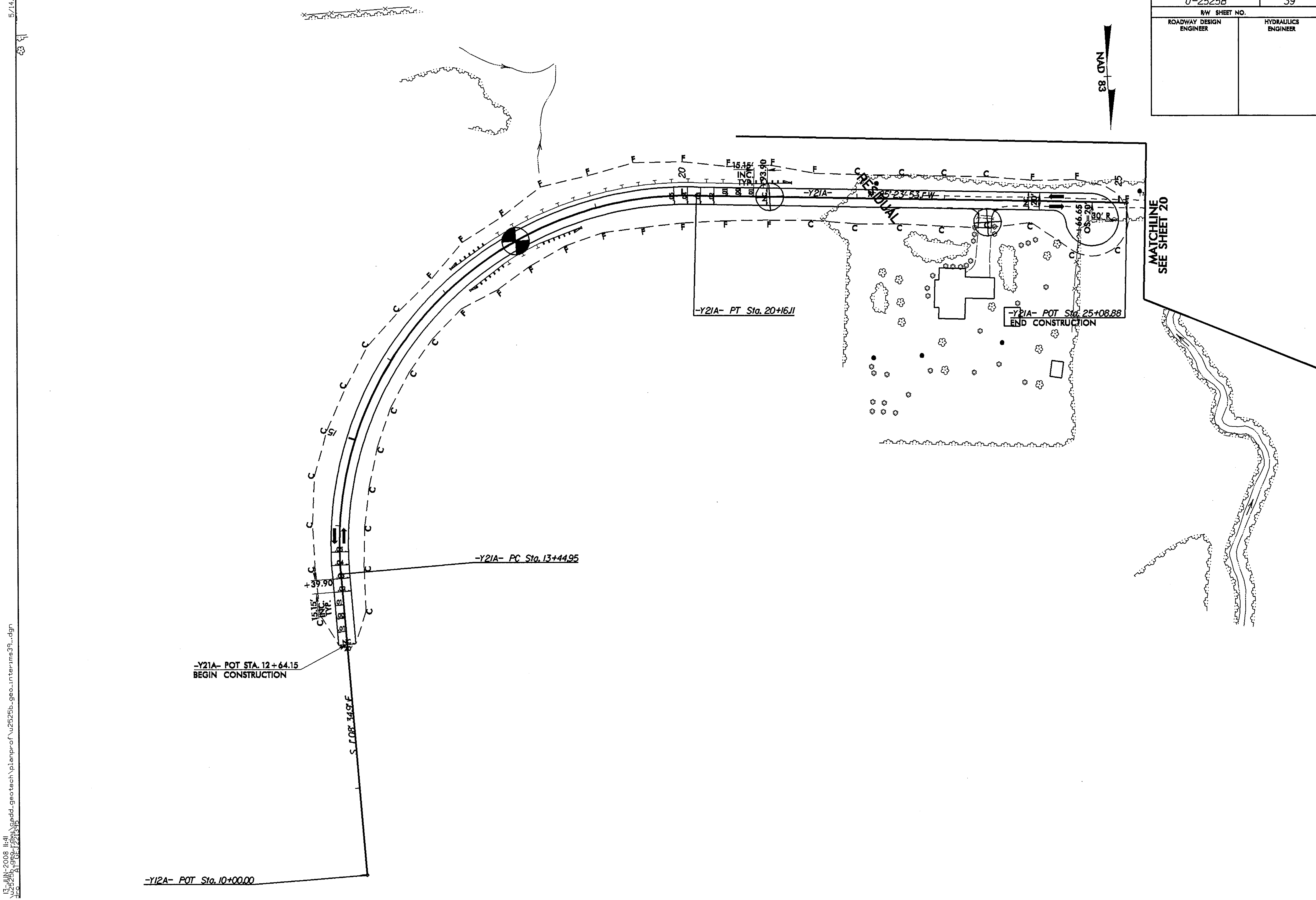
PROJECT REFERENCE NO.	SHEET NO.
U-2525B	39
R/W SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER



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PROJECT REFERENCE NO.	SHEET NO.
U-2525B	40
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

860 850 840 830 820 810 800 790 780 770 760 750 740 730 720 710 700 690 680 670 660

10+00 11+00 12+00 13+00 14+00 15+00 16+00 17+00 18+00 19+00 20+00 21+00 22+00 23+00 24+00

-L-

-Y1-
(OLD BURLINGTON RD.)

-Y2-
(SOUTHERN R/R)

SS-131

SS-132
SS-133
SS-134

SS-135
SS-136
SS-137

SS-141
SS-142
SS-143

80' LT

85' LT

15' LT

PROPOSED GRADE

EXISTING GROUND

ROADWAY EMBANKMENT, BROWN, TAN, ORANGE, LOOSE TO DENSE, DRY TO MOIST, SILTY SAND

DARK GRAY AND TAN-BROWN, RESIDUAL, WHITE, BROWN, AND GRAY, CRYSTALLINE ROCK (META-GABBRO)

ROADWAY EMBANKMENT, BROWN AND WHITE, MEDIUM DENSE, SILTY AND COARSE SAND

ROADWAY EMBANKMENT, TAN-BROWN, STIFF TO VERY STIFF, SANDY SILT

BROWN AND WHITE, DENSE, COARSE SAND

SILT AND CLAY WITH WOOD DEBRIS

RESIDUAL, BROWN, WHITE, TAN, AND GRAY, V. STIFF TO HARD, MOIST, SANDY SILT

37 24 23 — DRY AND GREEN, 3/08

4 5 7 15 33 20 44 72 86 — DRY 3/08

STIFF TO HARD, MOIST, SANDY

20 15 10 45 20 60 — 03/08 — DRY TO MOIST, STIFF TO HARD, MOIST, SAPROLITIC, SANDY SILT AND SILTY CLAY

15 18 16 38 31 13 34 61 — DRY 3/08

DRY 3/08

SOIL TEST RESULTS

SAMPLE NO.	OFFSET	STATION	DEPTH INTERVAL	AASHTO CLASS.	L.L.	P.I.	% BY WEIGHT C.SAND	F.SAND	SILT	CLAY	% PASSING (SIEVES) 10	40	200	% MOISTURE	% ORGANIC
SS-131	CL	13+00	3.0-4.5	A-2-4(0)	27	7	51.4	21.8	16.5	10.2	63	37	19	-	-
SS-132	15 LT	14+20	13.5-15.0	A-2-4(0)	29	10	46.3	22.7	16.7	14.3	76	50	27	-	-
SS-133	15 LT	14+20	33.5-35.0	A-4(0)	28	8	39.4	24.3	20.0	16.3	87	64	36	-	-
SS-134	15 LT	14+20	38.5-40.0	A-4(0)	28	4	28.2	31.0	22.4	18.4	100	86	47	-	-
SS-141	80 LT	16+00	3.3-4.8	A-4(0)	29	6	33.3	27.8	26.7	12.2	87	68	39	-	-
SS-142	80 LT	16+00	8.3-9.8	A-7-6(10)	42	18	16.1	25.7	31.6	26.5	97	86	64	-	-
SS-143	80 LT	16+00	18.3-19.8	A-4(0)	27	4	35.1	28.4	26.3	10.2	95	71	40	-	-
SS-135	CL	18+50	3.5-5.0	A-4(0)	29	6	30.4	25.5	15.5	28.6	97	79	47	-	-
SS-136	CL	18+50	18.5-20.0	A-1-b(0)	24	NP	53.3	27.8	12.9	6.1	79	48	19	-	-
SS-137	CL	18+50	28.5-30.0	A-6(6)	37	15	29.8	16.7	18.8	34.7	97	76	55	-	-

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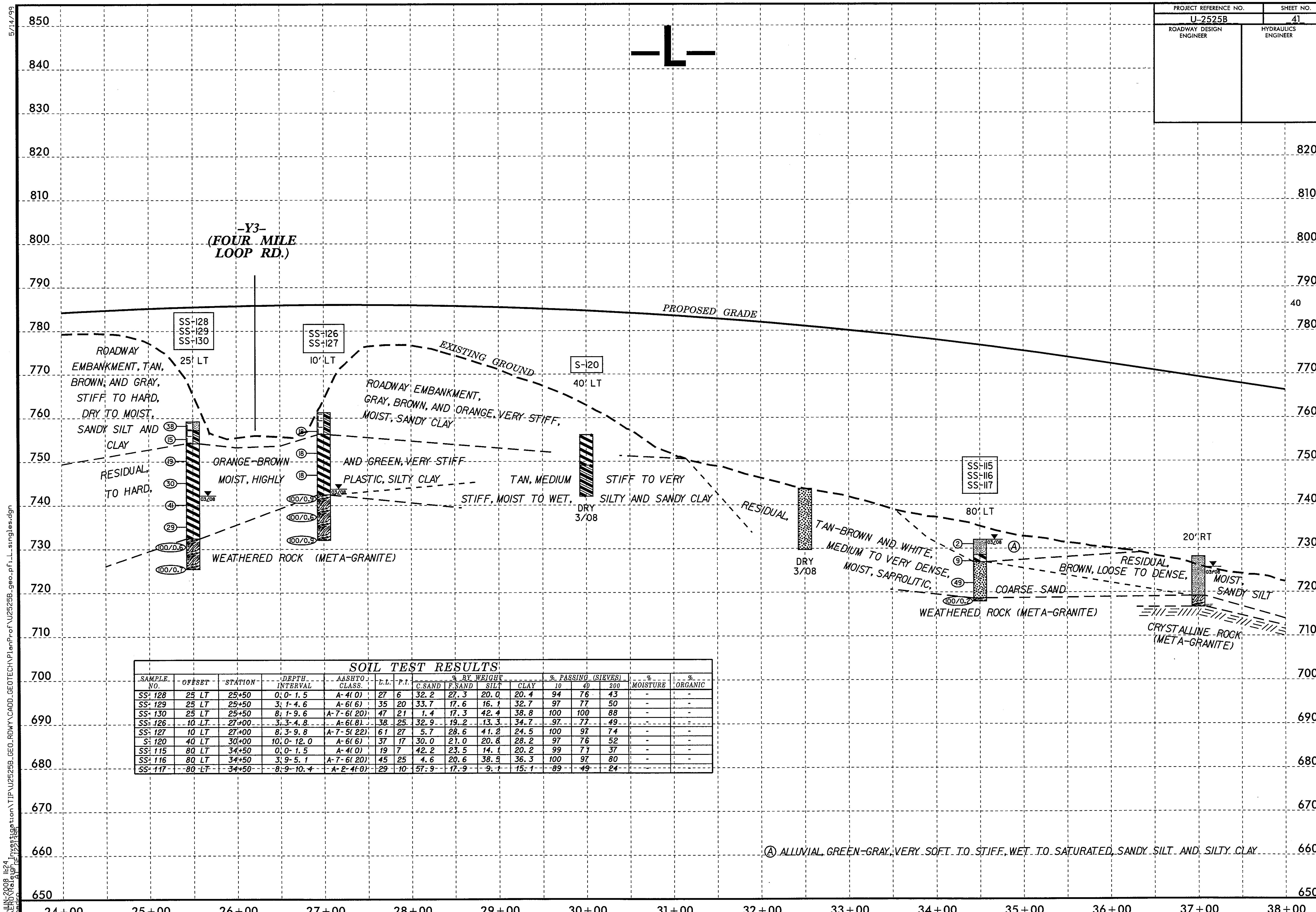
Locations and Profiles

PROJECT REFERENCE NO.	SHEET NO.
U-2525B	41
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

-L-



SOIL TEST RESULTS

SAMPLE NO.	OFFSET	STATION	DEPTH INTERVAL	AASHTO CLASS.	L.L.	P.I.	% BY WEIGHT C.SAND	F.SAND	SILT	CLAY	% PASSING (SIEVES) 10	40	200	% MOISTURE	% ORGANIC
SS-128	25 LT	25+50	0.0-1.5	A-4(0)	27	6	32.2	27.3	20.0	20.4	94	76	43	-	-
SS-129	25 LT	25+50	3.1-4.6	A-6(6)	35	20	33.7	17.6	16.1	32.7	97	77	50	-	-
SS-130	25 LT	25+50	8.1-9.6	A-7-6(20)	47	21	1.4	17.3	42.4	38.8	100	100	88	-	-
SS-126	10 LT	27+00	3.3-4.8	A-6(8)	38	25	32.9	19.2	13.3	34.7	97	77	49	-	-
SS-127	10 LT	27+00	8.3-9.8	A-7-5(22)	61	27	5.7	28.6	41.2	24.5	100	97	74	-	-
S-120	40 LT	30+00	10.0-12.0	A-6(6)	37	17	30.0	21.0	20.8	28.2	97	76	52	-	-
SS-115	80 LT	34+50	0.0-1.5	A-4(0)	19	7	42.2	23.5	14.1	20.2	99	71	37	-	-
SS-116	80 LT	34+50	3.9-5.1	A-7-6(20)	45	25	4.6	20.6	38.5	36.3	100	97	80	-	-
SS-117	80 LT	34+50	8.9-10.4	A-2-4(0)	29	10	57.9	17.9	9.1	15.1	89	49	24	-	-

PROJECT REFERENCE NO.	SHEET NO.
U-2525B	42
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

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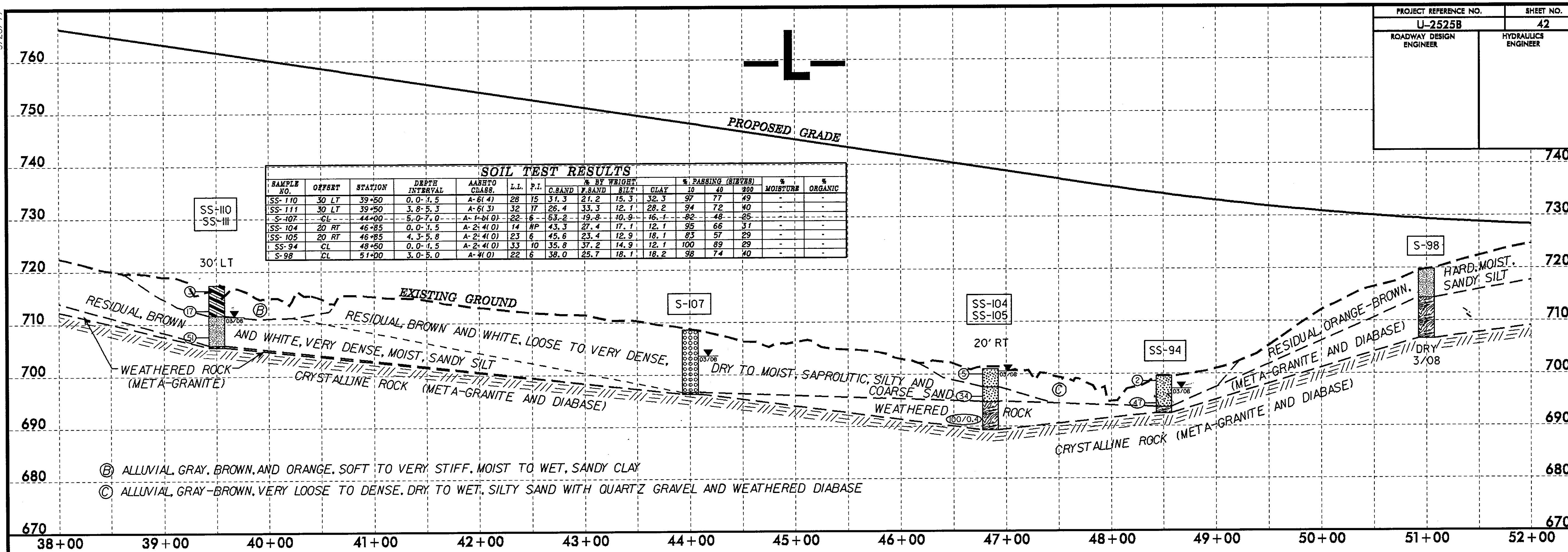


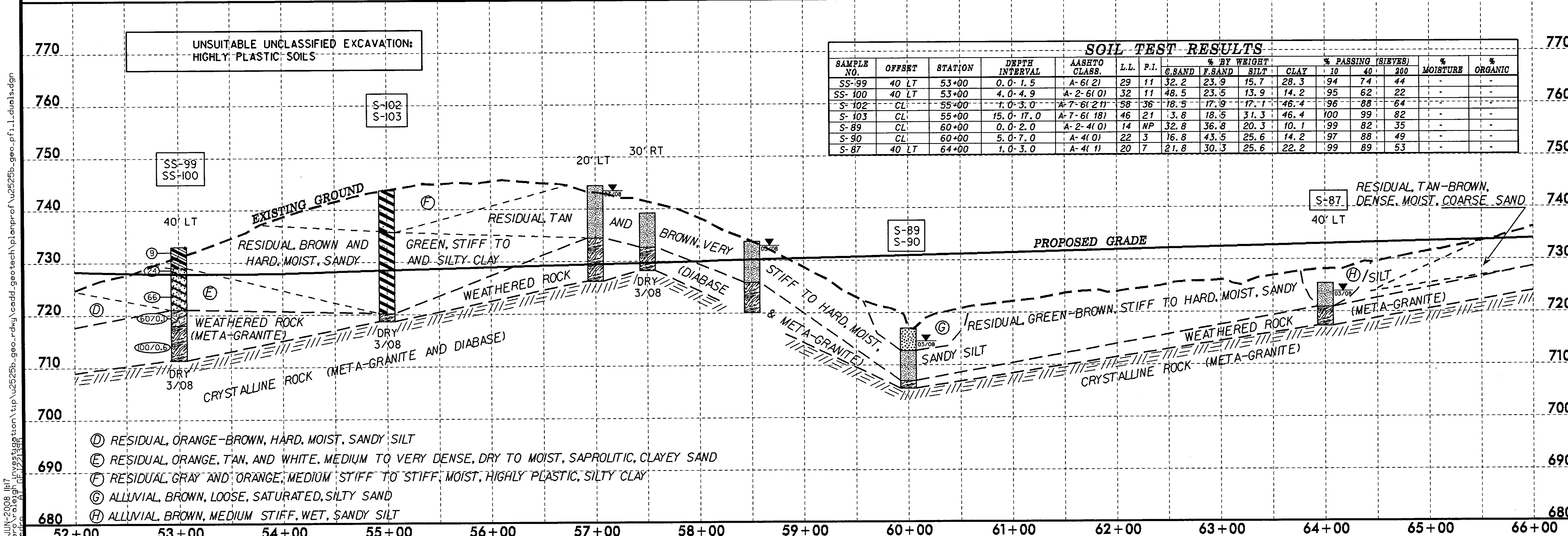
SOIL TEST RESULTS

SAMPLE NO.	OFFSET	STATION	DEPTH INTERVAL	AASHTO CLASS.	L.L.	P.I.	% BY WEIGHT C.SAND	F.SAND	SILT	CLAY	% PASSING (SIEVES) 10	40	200	% MOISTURE	% ORGANIC
SS-110	30 LT	39+50	0.0-1.5	A-6(4)	28	15	31.3	21.2	15.3	32.3	97	77	49	-	-
SS-111	30 LT	39+50	3.8-5.3	A-6(3)	32	17	26.4	33.3	12.1	28.2	94	72	40	-	-
~~S-107~~	~~CL~~	~~44+00~~	~~5.0-7.0~~	~~A-1-b(0)~~	~~22~~	~~6~~	~~53.2~~	~~19.8~~	~~10.9~~	~~16.1~~	~~82~~	~~48~~	~~25~~	-	-
SS-104	20 RT	46+85	0.0-1.5	A-2-4(0)	14	NP	43.3	27.4	17.1	12.1	95	66	31	-	-
SS-105	20 RT	46+85	4.3-5.8	A-2-4(0)	23	6	45.6	23.4	12.9	18.1	83	57	29	-	-
SS-94	CL	48+50	0.0-1.5	A-2-4(0)	33	10	35.8	37.2	14.9	12.1	100	89	29	-	-
S-98	CL	51+00	3.0-5.0	A-4(0)	22	6	38.0	25.7	18.1	18.2	98	74	40	-	-

Ⓑ ALLUVIAL, GRAY, BROWN, AND ORANGE, SOFT TO VERY STIFF, MOIST TO WET, SANDY CLAY

Ⓒ ALLUVIAL, GRAY-BROWN, VERY LOOSE TO DENSE, DRY TO WET, SILTY SAND WITH QUARTZ GRAVEL AND WEATHERED DIABASE

UNSUITABLE UNCLASSIFIED EXCAVATION: HIGHLY PLASTIC SOILS



SOIL TEST RESULTS

SAMPLE NO.	OFFSET	STATION	DEPTH INTERVAL	AASHTO CLASS.	L.L.	P.I.	% BY WEIGHT C.SAND	F.SAND	SILT	CLAY	% PASSING (SIEVES) 10	40	200	% MOISTURE	% ORGANIC
SS-99	40 LT	53+00	0.0-1.5	A-6(2)	29	11	32.2	23.9	15.7	28.3	94	74	44	-	-
SS-100	40 LT	53+00	4.0-4.9	A-2-6(0)	32	11	48.5	23.5	13.9	14.2	95	62	22	-	-
S-102	CL	55+00	1.0-3.0	A-7-6(21)	58	36	18.5	17.9	17.1	46.4	96	88	64	-	-
S-103	CL	55+00	15.0-17.0	A-7-6(18)	46	21	3.8	18.5	31.3	46.4	100	99	82	-	-
S-89	CL	60+00	0.0-2.0	A-2-4(0)	14	NP	32.8	36.8	20.3	10.1	99	82	35	-	-
S-90	CL	60+00	5.0-7.0	A-4(0)	22	3	16.8	43.5	25.6	14.2	97	88	49	-	-
S-87	40 LT	64+00	1.0-3.0	A-4(1)	20	7	21.8	30.3	25.6	22.2	99	89	53	-	-

Ⓓ RESIDUAL, ORANGE-BROWN, HARD, MOIST, SANDY SILT

Ⓔ RESIDUAL, ORANGE, TAN, AND WHITE, MEDIUM TO VERY DENSE, DRY TO MOIST, SAPROLITIC, CLAYEY SAND

Ⓕ RESIDUAL, GRAY AND ORANGE, MEDIUM STIFF TO STIFF, MOIST, HIGHLY PLASTIC, SILTY CLAY

Ⓖ ALLUVIAL, BROWN, LOOSE, SATURATED, SILTY SAND

Ⓗ ALLUVIAL, BROWN, MEDIUM STIFF, WET, SANDY SILT

5/28/99

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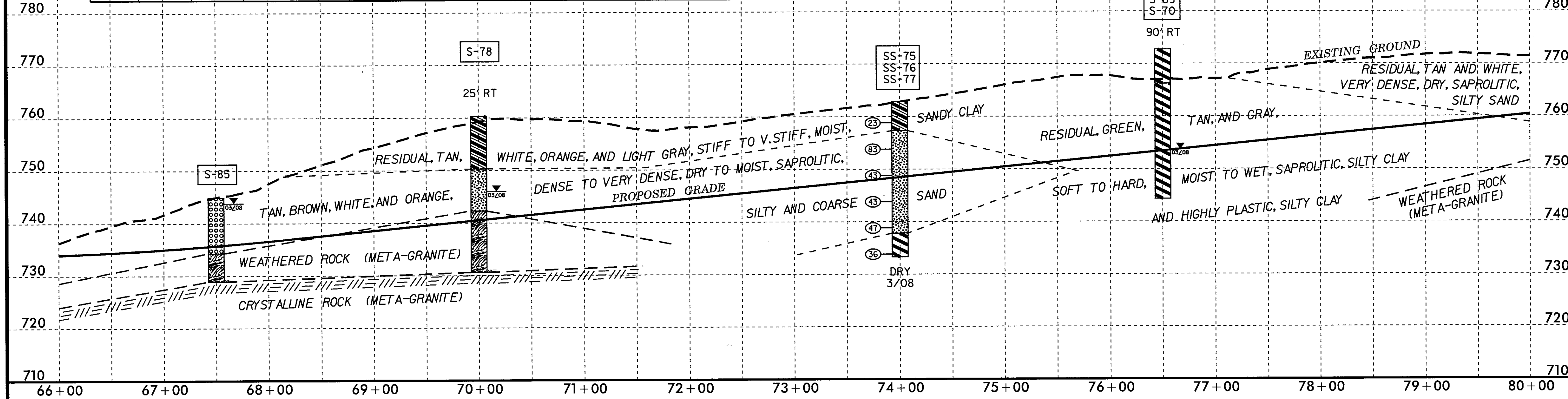
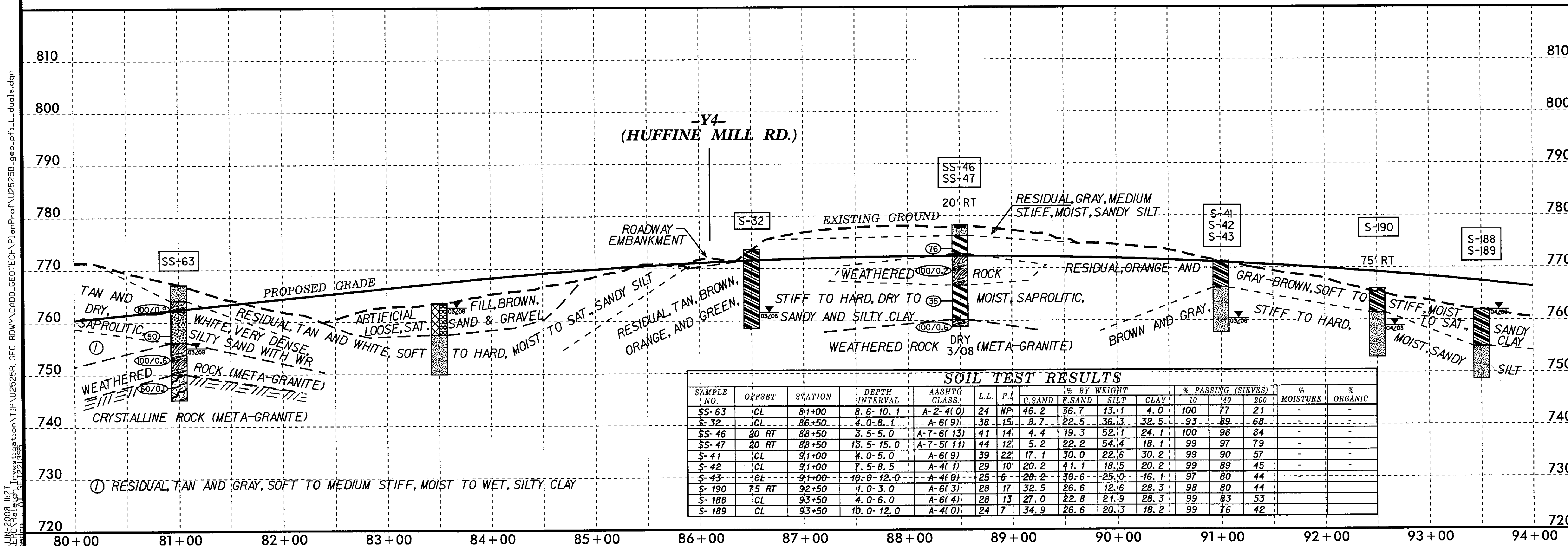
PROJECT REFERENCE NO.	SHEET NO.
U-2525B	43
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

-L-

SOIL TEST RESULTS

SAMPLE NO.	OFFSET	STATION	DEPTH INTERVAL	AASHTO CLASS.	L.L.	P.I.	% BY WEIGHT C.SAND	F.SAND	SILT	CLAY	% PASSING (SIEVES) 10	40	200	% MOISTURE	% ORGANIC
S-85	CL	67+50	4.0-6.0	A-1-b(0)	20	NP	59.0	21.0	13.9	6.1	92	50	21	-	-
S-78	25 RT	70+00	3.0-5.0	A-6(8)	40	16	20.4	20.2	17.1	42.4	97	83	61	-	-
SS-75	CL	74+00	3.0-4.5	A-6(2)	37	14	39.4	21.6	18.9	20.2	99	71	42	-	-
SS-76	CL	74+00	8.0-9.5	A-2-4(0)	26	7	52.7	17.8	15.4	14.1	83	47	28	-	-
SS-77	CL	74+00	28.0-29.5	A-7-5(5)	44	11	13.9	34.1	37.8	14.1	95	87	57	-	-
S-69	90 RT	76+50	2.0-4.0	A-7-6(26)	54	26	2.8	13.3	33.5	50.4	100	98	89	-	-
S-70	90 RT	76+50	20.0-22.0	A-7-6(14)	46	18	5.7	24.4	33.6	36.3	100	96	76	-	-





SOIL TEST RESULTS

SAMPLE NO.	OFFSET	STATION	DEPTH INTERVAL	AASHTO CLASS.	L.L.	P.I.	% BY WEIGHT C.SAND	F.SAND	SILT	CLAY	% PASSING (SIEVES) 10	40	200	% MOISTURE	% ORGANIC
SS-63	CL	81+00	8.6-10.1	A-2-4(0)	24	NP	46.2	36.7	13.1	4.0	100	77	21	-	-
S-32	CL	86+50	4.0-8.1	A-6(9)	38	15	8.7	22.5	36.3	32.5	93	89	68	-	-
SS-46	20 RT	88+50	3.5-5.0	A-7-6(13)	41	14	4.4	19.3	52.1	24.1	100	98	84	-	-
SS-47	20 RT	88+50	13.5-15.0	A-7-5(11)	44	12	5.2	22.2	54.4	18.1	99	97	79	-	-
S-41	CL	91+00	4.0-5.0	A-6(9)	39	22	17.1	30.0	22.6	30.2	99	90	57	-	-
S-42	CL	91+00	7.5-8.5	A-4(1)	29	10	20.2	41.1	18.5	20.2	99	89	45	-	-
S-43	CL	91+00	10.0-12.0	A-4(0)	25	6	28.2	30.6	25.0	16.1	97	80	44	-	-
S-190	75 RT	92+50	1.0-3.0	A-6(3)	28	17	32.5	26.6	12.6	28.3	98	80	44		
S-188	CL	93+50	4.0-6.0	A-6(4)	28	13	27.0	22.8	21.9	28.3	99	83	53		
S-189	CL	93+50	10.0-12.0	A-4(0)	24	7	34.9	26.6	20.3	18.2	99	76	42		

(1) RESIDUAL, TAN AND GRAY, SOFT TO MEDIUM STIFF, MOIST TO WET, SILTY CLAY

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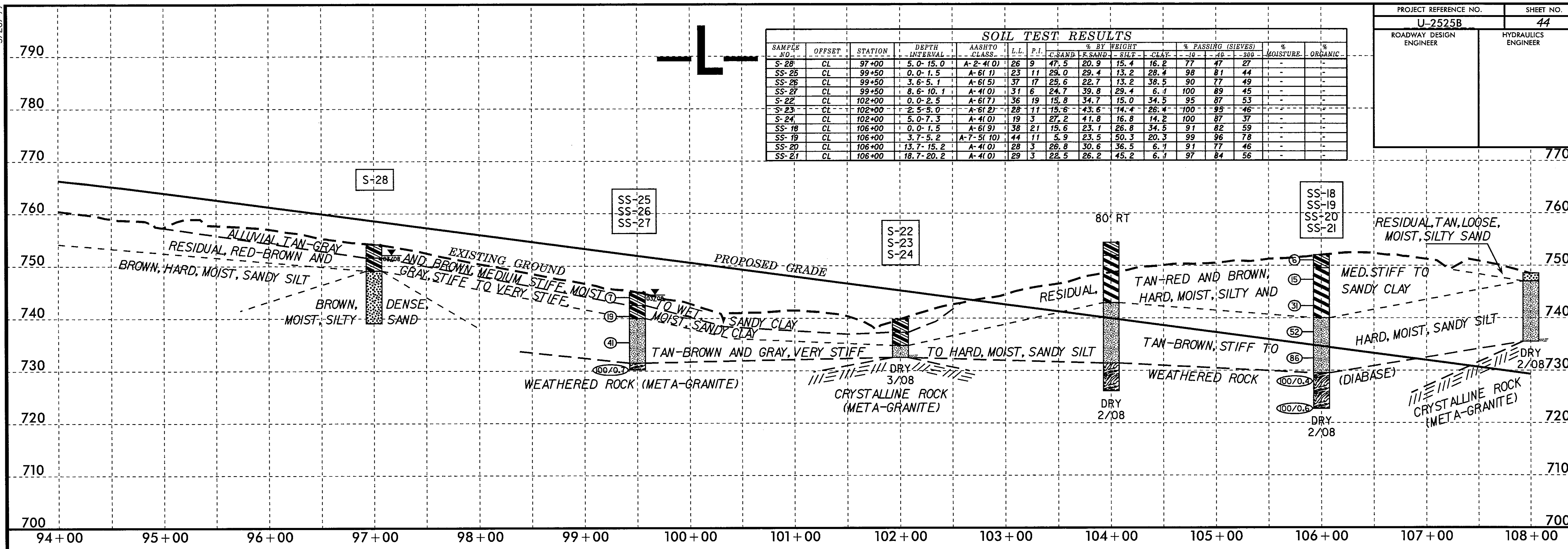
PROJECT REFERENCE NO.	SHEET NO.
U-2525B	44
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

-L-

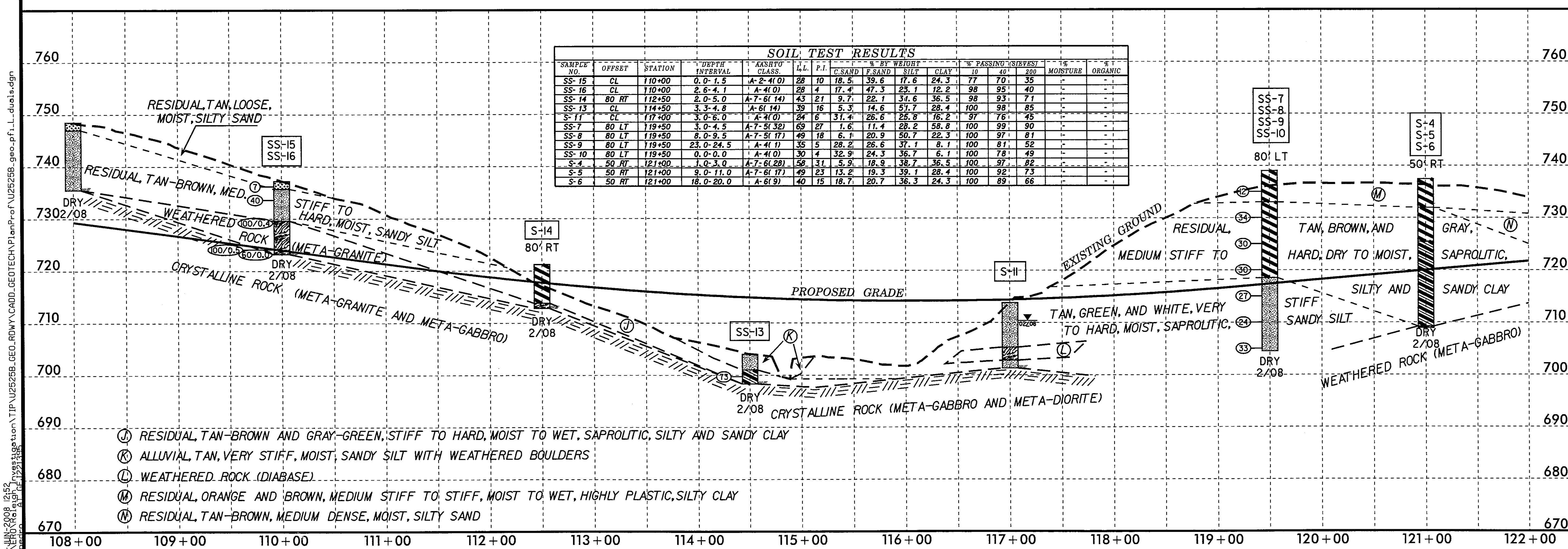
SOIL TEST RESULTS

SAMPLE NO.	OFFSET	STATION	DEPTH INTERVAL	AASHTO CLASS	L.L.	P.I.	% BY WEIGHT C.SAND	F.SAND	SILT	CLAY	% PASSING (SIEVES) 10	40	200	% MOISTURE	% ORGANIC
S-28	CL	97+00	5.0-15.0	A-2-4(0)	26	9	47.5	20.9	15.4	16.2	77	47	27	-	-
SS-25	CL	99+50	0.0-1.5	A-6(1)	23	11	29.0	29.4	13.2	28.4	98	81	44	-	-
SS-26	CL	99+50	3.6-5.1	A-6(5)	37	17	25.6	22.7	13.2	38.5	90	77	49	-	-
SS-27	CL	99+50	8.6-10.1	A-4(0)	31	6	24.7	39.8	29.4	6.1	100	89	45	-	-
S-22	CL	102+00	0.0-2.5	A-6(7)	36	19	15.8	34.7	15.0	34.5	95	87	53	-	-
S-23	CL	102+00	2.5-5.0	A-6(2)	28	11	15.6	43.6	14.4	26.4	100	95	46	-	-
S-24	CL	102+00	5.0-7.3	A-4(0)	19	3	27.2	41.8	16.8	14.2	100	87	37	-	-
SS-18	CL	106+00	0.0-1.5	A-6(9)	38	21	15.6	23.1	26.8	34.5	91	82	59	-	-
SS-19	CL	106+00	3.7-5.2	A-7-5(10)	44	11	5.9	23.5	50.3	20.3	99	96	78	-	-
SS-20	CL	106+00	13.7-15.2	A-4(0)	28	3	26.8	30.6	36.5	6.1	91	77	46	-	-
SS-21	CL	106+00	18.7-20.2	A-4(0)	29	3	22.5	26.2	45.2	6.1	97	84	56	-	-



SOIL TEST RESULTS

SAMPLE NO.	OFFSET	STATION	DEPTH INTERVAL	AASHTO CLASS.	L.L.	P.I.	% BY WEIGHT C.SAND	F.SAND	SILT	CLAY	% PASSING (SIEVES) 10	40	200	% MOISTURE	% ORGANIC
SS-15	CL	110+00	0.0-1.5	A-2-4(0)	28	10	18.5	39.6	17.6	24.3	77	70	35	-	-
SS-16	CL	110+00	2.6-4.1	A-4(0)	28	4	17.4	47.3	23.1	12.2	98	95	40	-	-
SS-14	80 RT	112+50	2.0-5.0	A-7-6(14)	43	21	9.7	22.1	31.6	36.5	98	93	71	-	-
SS-13	CL	114+50	3.3-4.8	A-6(14)	39	16	5.3	14.6	51.7	28.4	100	98	85	-	-
S-11	CL	117+00	3.0-6.0	A-4(0)	24	6	31.4	26.6	25.8	16.2	97	76	45	-	-
SS-7	80 LT	119+50	3.0-4.5	A-7-5(32)	69	27	1.6	11.4	28.2	58.8	100	99	90	-	-
SS-8	80 LT	119+50	8.0-9.5	A-7-5(17)	49	18	6.1	20.9	50.7	22.3	100	97	81	-	-
SS-9	80 LT	119+50	23.0-24.5	A-4(1)	35	5	28.2	26.6	37.1	8.1	100	81	52	-	-
SS-10	80 LT	119+50	0.0-0.0	A-4(0)	30	4	32.9	24.3	36.7	6.1	100	78	49	-	-
S-4	50 RT	121+00	1.0-3.0	A-7-6(28)	58	31	5.9	18.9	38.7	36.5	100	97	82	-	-
S-5	50 RT	121+00	9.0-11.0	A-7-6(17)	49	23	13.2	19.3	39.1	28.4	100	92	73	-	-
S-6	50 RT	121+00	18.0-20.0	A-6(9)	40	15	18.7	20.7	36.3	24.3	100	89	66	-	-



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PROJECT REFERENCE NO.	SHEET NO.
U-2525B	45
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

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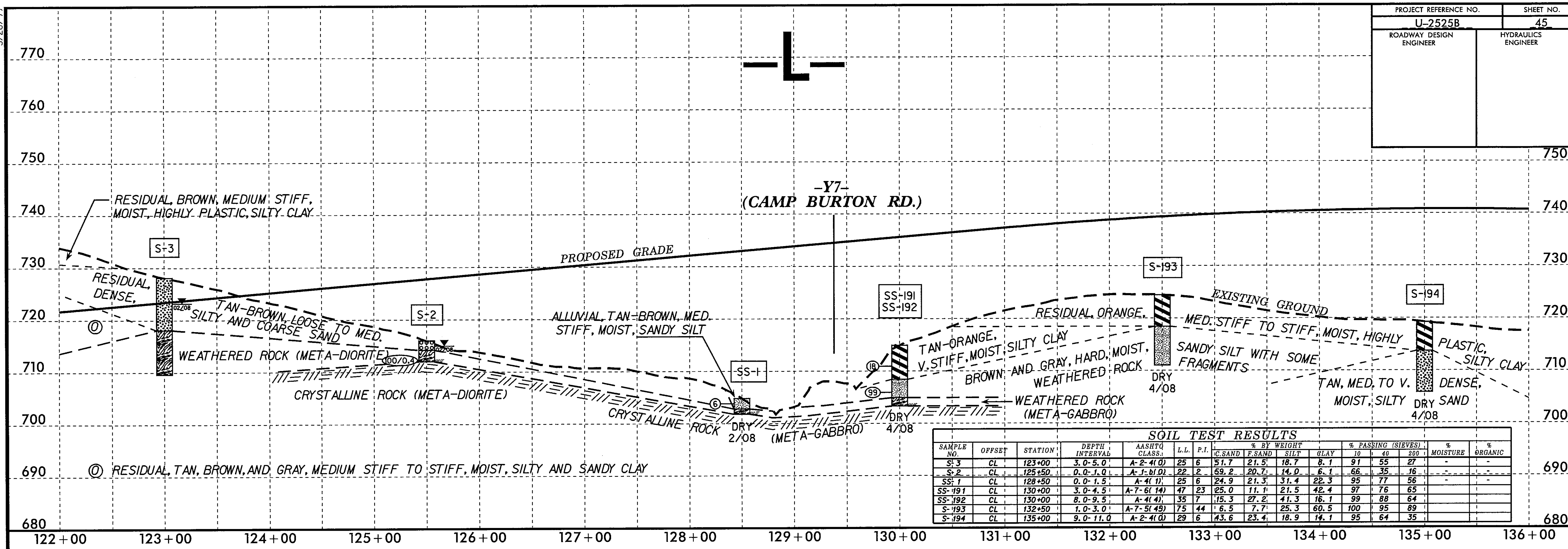
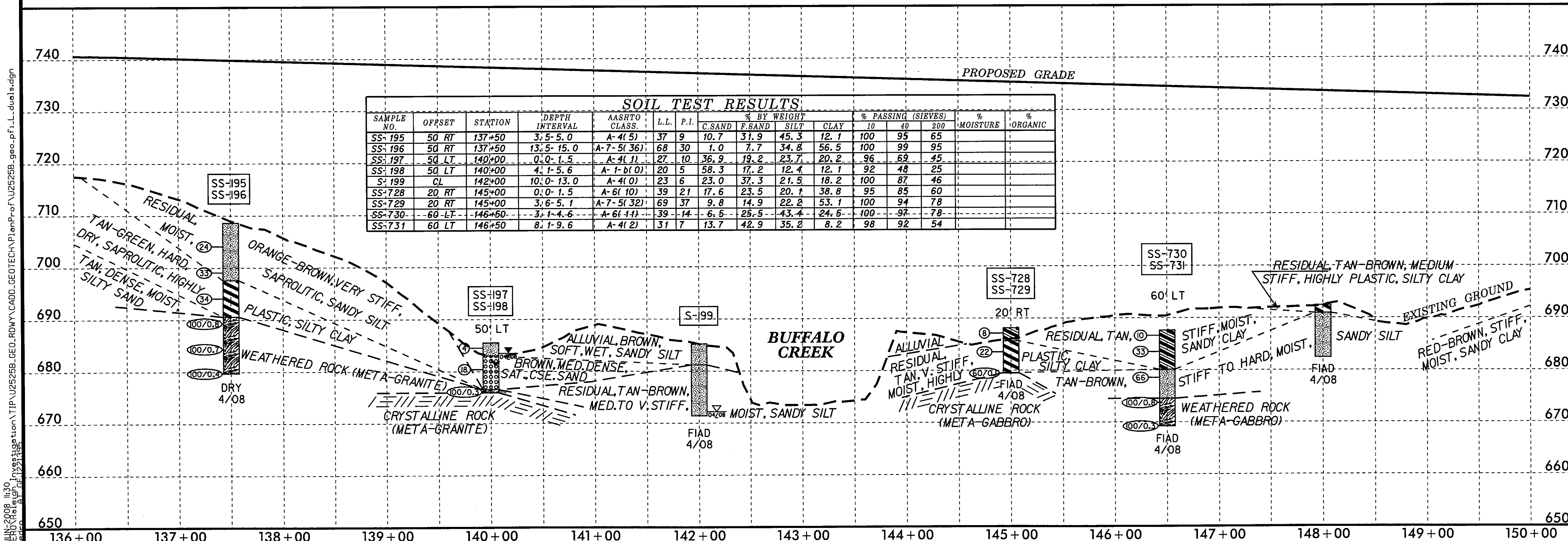


SOIL TEST RESULTS

SAMPLE NO.	OFFSET	STATION	DEPTH INTERVAL	AASHTO CLASS.	L.L.	P.I.	% BY WEIGHT C.SAND	F.SAND	SILT	CLAY	% PASSING (SIEVES) 10	40	200	% MOISTURE	% ORGANIC
S-3	CL	123+00	3.0-5.0	A-2-4(0)	25	6	51.7	21.5	18.7	8.1	91	55	27	-	-
S-2	CL	125+50	0.0-1.0	A-1-b(0)	22	2	69.2	20.7	14.0	6.1	66	35	16	-	-
SS-1	CL	128+50	0.0-1.5	A-4(1)	25	6	24.9	21.3	31.4	22.3	95	77	56	-	-
SS-191	CL	130+00	3.0-4.5	A-7-6(14)	47	23	25.0	11.1	21.5	42.4	97	76	65		
SS-192	CL	130+00	8.0-9.5	A-4(4)	35	7	15.3	27.2	41.3	16.1	99	88	64		
S-193	CL	132+50	1.0-3.0	A-7-5(45)	75	44	6.5	7.7	25.3	60.5	100	95	89		
S-194	CL	135+00	9.0-11.0	A-2-4(0)	29	6	43.6	23.4	18.9	14.1	95	64	35		



SOIL TEST RESULTS

SAMPLE NO.	OFFSET	STATION	DEPTH INTERVAL	AASHTO CLASS.	L.L.	P.I.	% BY WEIGHT C.SAND	F.SAND	SILT	CLAY	% PASSING (SIEVES) 10	40	200	% MOISTURE	% ORGANIC
SS-195	50 RT	137+50	3.5-5.0	A-4(5)	37	9	10.7	31.9	45.3	12.1	100	95	65		
SS-196	50 RT	137+50	13.5-15.0	A-7-5(36)	68	30	1.0	7.7	34.8	56.5	100	99	95		
SS-197	50 LT	140+00	0.0-1.5	A-4(1)	27	10	36.9	19.2	23.7	20.2	96	69	45		
SS-198	50 LT	140+00	4.1-5.6	A-1-b(0)	20	5	58.3	17.2	12.4	12.1	92	48	25		
S-199	CL	142+00	10.0-13.0	A-4(0)	23	6	23.0	37.3	21.5	18.2	100	87	46		
SS-728	20 RT	145+00	0.0-1.5	A-6(10)	39	21	17.6	23.5	20.1	38.8	95	85	60		
SS-729	20 RT	145+00	3.6-5.1	A-7-5(32)	69	37	9.8	14.9	22.2	53.1	100	94	78		
SS-730	60 LT	146+50	3.1-4.6	A-6(11)	39	14	6.5	25.5	43.4	24.5	100	97	78		
SS-731	60 LT	146+50	8.1-9.6	A-4(2)	31	7	13.7	42.9	35.2	8.2	98	92	54		

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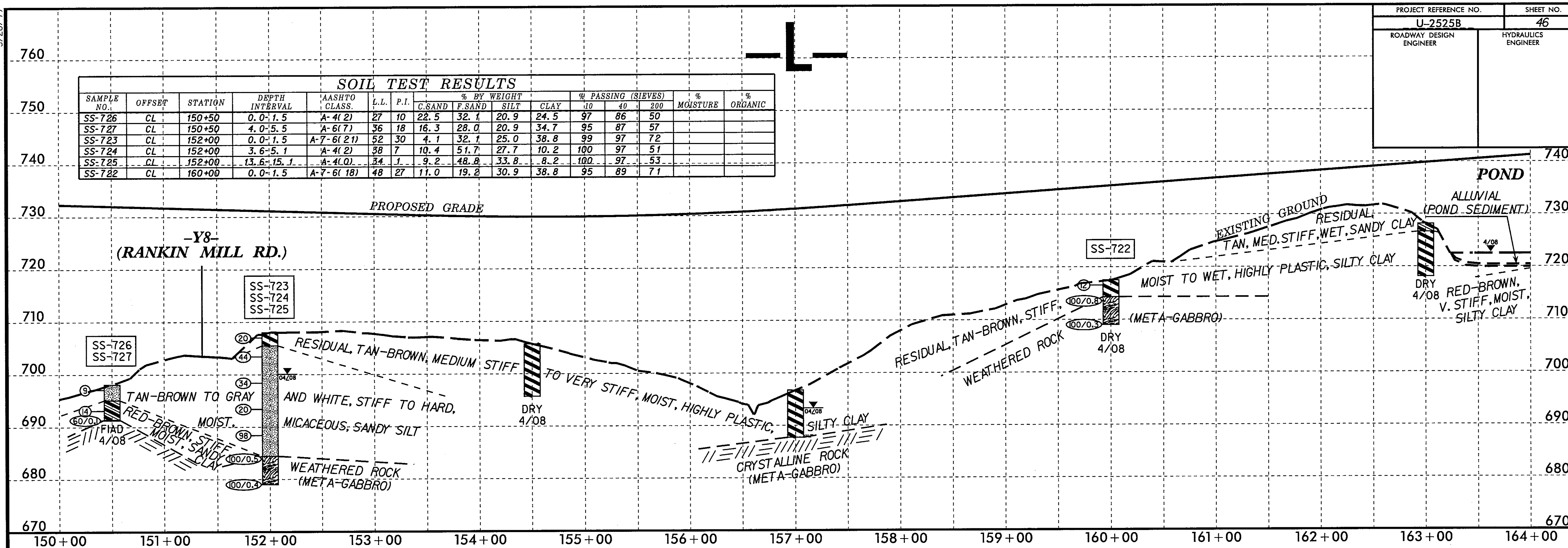
PROJECT REFERENCE NO.	SHEET NO.
U-2525B	46
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

-L-

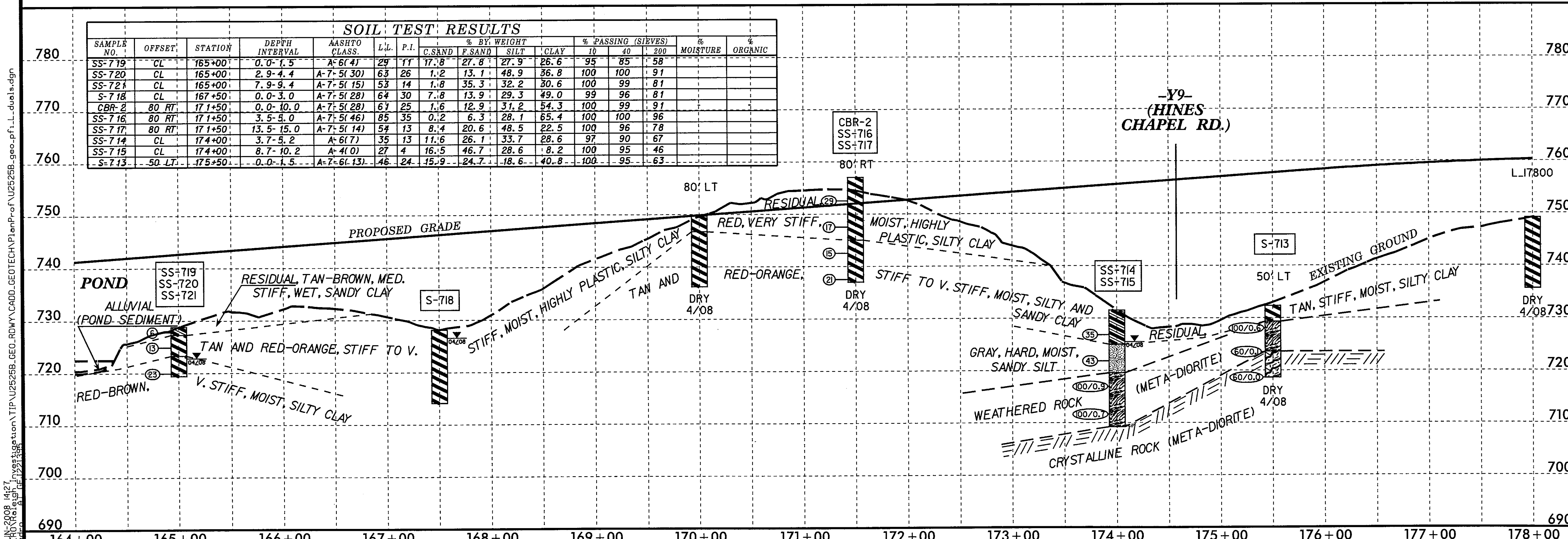
SOIL TEST RESULTS

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-726	CL	150+50	0.0-1.5	A-4(2)	27	10	22.5	32.1	20.9	24.5	97	86	50		
SS-727	CL	150+50	4.0-5.5	A-6(7)	36	18	16.3	28.0	20.9	34.7	95	87	57		
SS-723	CL	152+00	0.0-1.5	A-7-6(21)	52	30	4.1	32.1	25.0	38.8	99	97	72		
SS-724	CL	152+00	3.6-5.1	A-4(2)	38	7	10.4	51.7	27.7	10.2	100	97	51		
SS-725	CL	152+00	13.6-15.1	A-4(0)	34	1	9.2	48.8	33.8	8.2	100	97	53		
SS-722	CL	160+00	0.0-1.5	A-7-6(18)	48	27	11.0	19.2	30.9	38.8	95	89	71		



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-719	CL	165+00	0.0-1.5	A-6(4)	29	11	17.8	27.8	27.9	26.6	95	85	58		
SS-720	CL	165+00	2.9-4.4	A-7-5(30)	63	26	1.2	13.1	48.9	36.8	100	100	91		
SS-721	CL	165+00	7.9-9.4	A-7-5(15)	53	14	1.8	35.3	32.2	30.6	100	99	81		
S-718	CL	167+50	0.0-3.0	A-7-5(28)	64	30	7.8	13.9	29.3	49.0	99	96	81		
CBR-2	80 RT	171+50	0.0-10.0	A-7-5(28)	61	25	1.6	12.9	31.2	54.3	100	99	91		
SS-716	80 RT	171+50	3.5-5.0	A-7-5(46)	85	35	0.2	6.3	28.1	65.4	100	100	96		
SS-717	80 RT	171+50	13.5-15.0	A-7-5(14)	54	13	8.4	20.6	48.5	22.5	100	96	78		
SS-714	CL	174+00	3.7-5.2	A-6(7)	35	13	11.6	26.1	33.7	28.6	97	90	67		
SS-715	CL	174+00	8.7-10.2	A-4(0)	27	4	16.5	46.7	28.6	8.2	100	95	46		
S-713	50 LT	175+50	0.0-1.5	A-7-6(13)	46	24	15.9	24.7	18.6	40.8	100	95	63		



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PROJECT REFERENCE NO.	SHEET NO.
U-2525B	47
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

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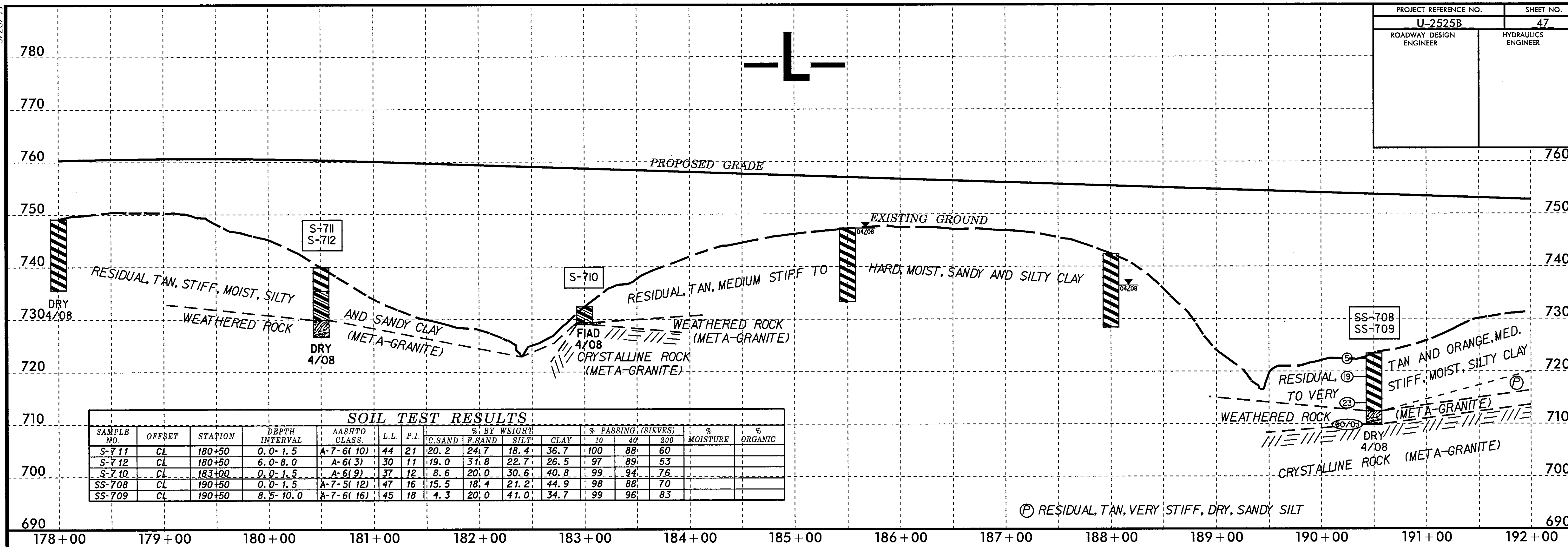
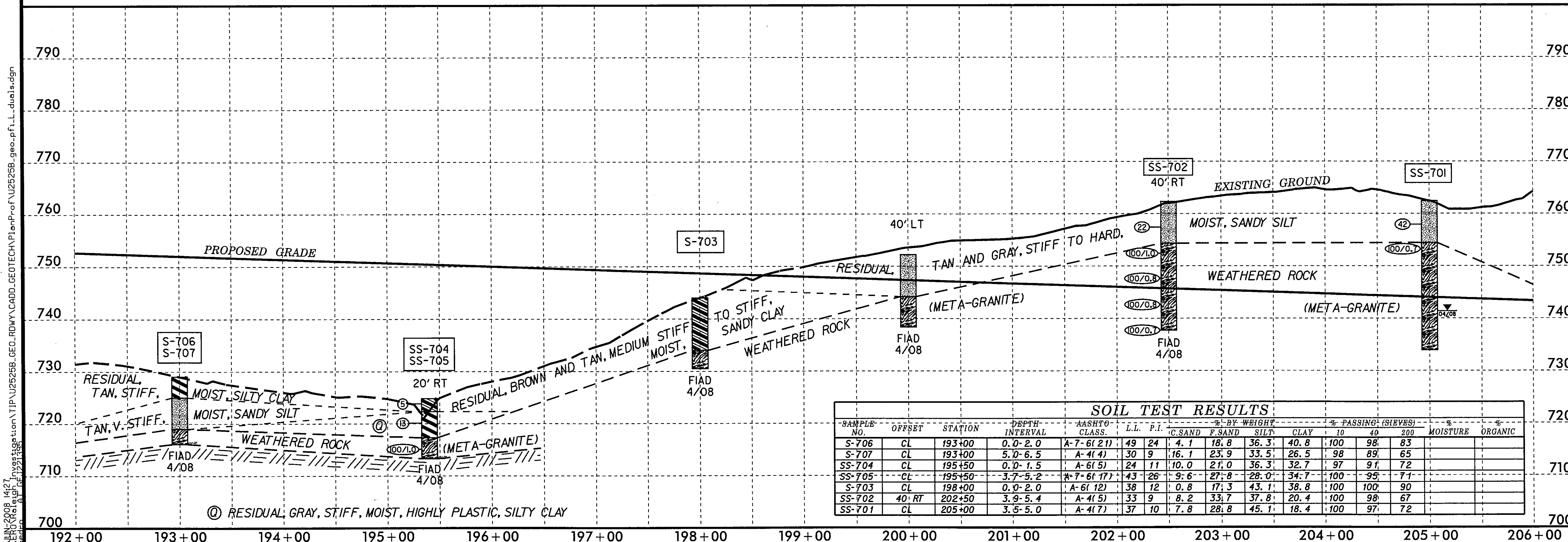


SOIL TEST RESULTS

SAMPLE NO.	OFFSET	STATION	DEPTH INTERVAL	AASHTO CLASS.	L.L.	P.I.	% BY WEIGHT C.SAND	F.SAND	SILT	CLAY	% PASSING (SIEVES) 10	40	200	% MOISTURE	% ORGANIC
S-711	CL	180+50	0.0-1.5	A-7-6(10)	44	21	20.2	24.7	18.4	36.7	100	88	60		
S-712	CL	180+50	6.0-8.0	A-6(3)	30	11	19.0	31.8	22.7	26.5	97	89	53		
S-710	CL	183+00	0.0-1.5	A-6(9)	37	12	8.6	20.0	30.6	40.8	99	94	76		
SS-708	CL	190+50	0.0-1.5	A-7-5(12)	47	16	15.5	18.4	21.2	44.9	98	88	70		
SS-709	CL	190+50	8.5-10.0	A-7-6(16)	45	18	4.3	20.0	41.0	34.7	99	96	83		



SOIL TEST RESULTS

SAMPLE NO.	OFFSET	STATION	DEPTH INTERVAL	AASHTO CLASS.	L.L.	P.I.	% BY WEIGHT C.SAND	F.SAND	SILT	CLAY	% PASSING (SIEVES) 10	40	200	% MOISTURE	% ORGANIC
S-706	CL	193+00	0.0-2.0	A-7-6(21)	49	24	4.1	18.8	36.3	40.8	100	98	83		
S-707	CL	193+00	5.0-6.5	A-4(4)	30	9	16.1	23.9	33.5	26.5	98	89	65		
SS-704	CL	195+50	0.0-1.5	A-6(5)	24	11	10.0	21.0	36.3	32.7	97	91	72		
SS-705	CL	195+50	3.7-5.2	A-7-6(17)	43	26	9.6	27.8	28.0	34.7	100	95	71		
S-703	CL	198+00	0.0-2.0	A-6(12)	38	12	0.8	17.3	43.1	38.8	100	100	90		
SS-702	40' RT	202+50	3.9-5.4	A-4(5)	33	9	8.2	33.7	37.8	20.4	100	98	67		
SS-701	CL	205+00	3.5-5.0	A-4(7)	37	10	7.8	28.8	45.1	18.4	100	97	72		

5/28/99

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PROJECT REFERENCE NO.	SHEET NO.
U-2525B	48
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

5/28/99

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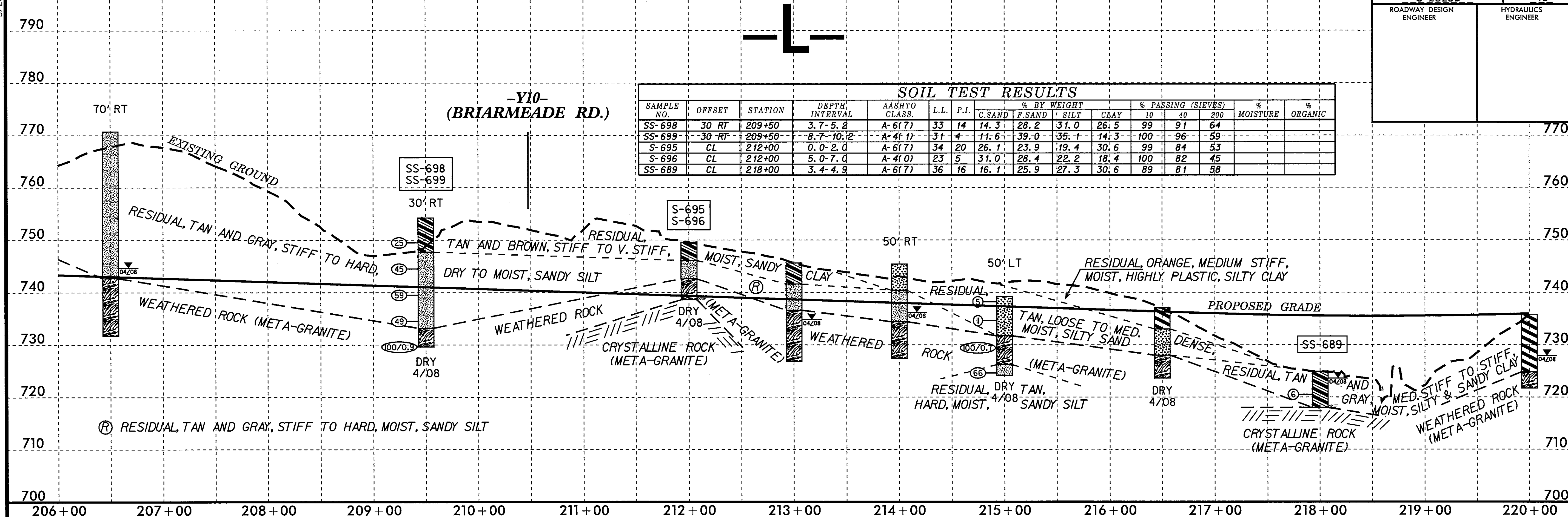
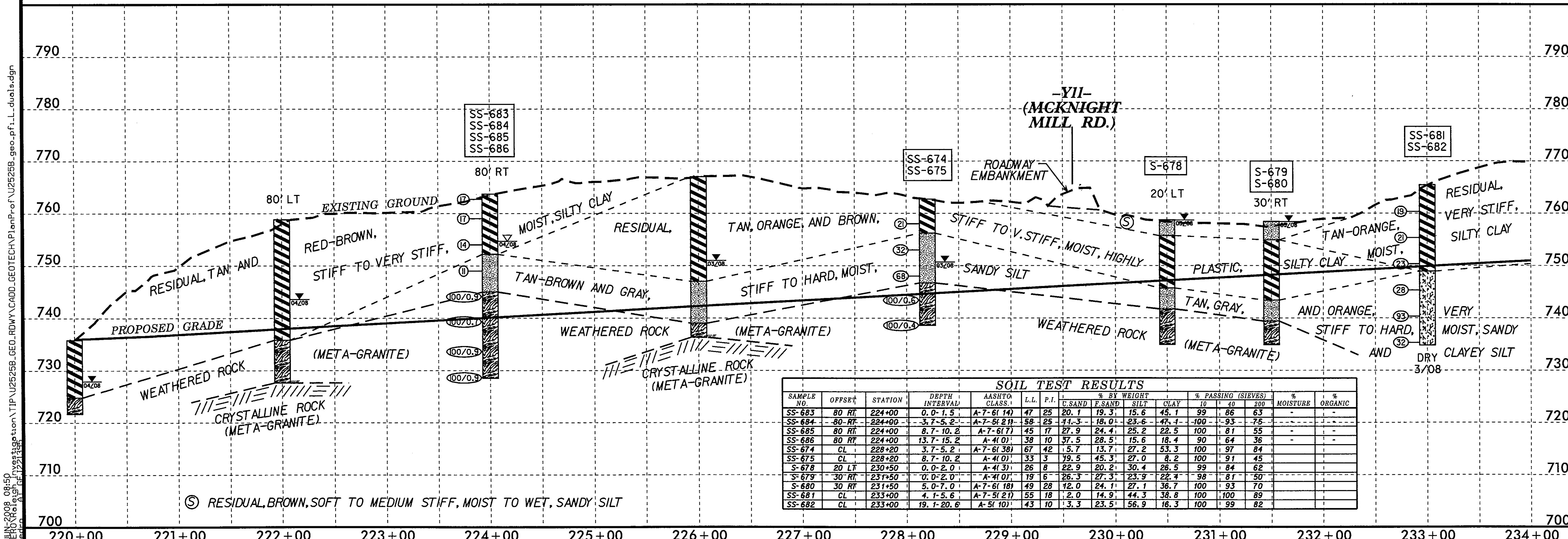


SOIL TEST RESULTS															
SAMPLE NO.	OFFSET	STATION	DEPTH INTERVAL	AASHTO CLASS.	L.L.	P.I.	% BY WEIGHT				% PASSING (SIEVES)			% MOISTURE	% ORGANIC
							C.SAND	F.SAND	SILT	CLAY	10	40	200		
SS-698	30 RT	209+50	3.7-5.2	A-6(7)	33	14	14.3	28.2	31.0	26.5	99	91	64		
SS-699	30 RT	209+50	8.7-10.2	A-4(1)	31	4	11.6	39.0	35.1	14.3	100	96	59		
S-695	CL	212+00	0.0-2.0	A-6(7)	34	20	26.1	23.9	19.4	30.6	99	84	53		
S-696	CL	212+00	5.0-7.0	A-4(0)	23	5	31.0	28.4	22.2	18.4	100	82	45		
SS-689	CL	218+00	3.4-4.9	A-6(7)	36	16	16.1	25.9	27.3	30.6	89	81	58		



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-683	80 RT	224+00	0.0-1.5	A-7-6(14)	47	25	20.1	19.3	15.6	45.1	99	86	63	-	-
SS-684	80 RT	224+00	3.7-5.2	A-7-5(21)	58	25	11.3	18.0	23.6	47.1	100	93	75	-	-
SS-685	80 RT	224+00	8.7-10.2	A-7-6(7)	45	17	27.9	24.4	25.2	22.5	100	81	55	-	-
SS-686	80 RT	224+00	13.7-15.2	A-4(0)	38	10	37.5	28.5	15.6	18.4	90	64	36	-	-
SS-674	CL	228+20	3.7-5.2	A-7-6(38)	67	42	5.7	13.7	27.2	53.3	100	97	84		
SS-675	CL	228+20	8.7-10.2	A-4(0)	33	3	19.5	45.3	27.0	8.2	100	91	45		
S-678	20 LT	230+50	0.0-2.0	A-4(3)	26	8	22.9	20.2	30.4	26.5	99	84	62		
S-679	30 RT	231+50	0.0-2.0	A-4(0)	19	6	26.3	27.3	23.9	22.4	98	81	50		
S-680	30 RT	231+50	5.0-7.0	A-7-6(18)	49	28	12.0	24.1	27.1	36.7	100	93	70		
SS-681	CL	233+00	4.1-5.6	A-7-5(21)	55	18	2.0	14.9	44.3	38.8	100	100	89		
SS-682	CL	233+00	19.1-20.6	A-5(10)	43	10	3.3	23.5	56.9	16.3	100	99	82		

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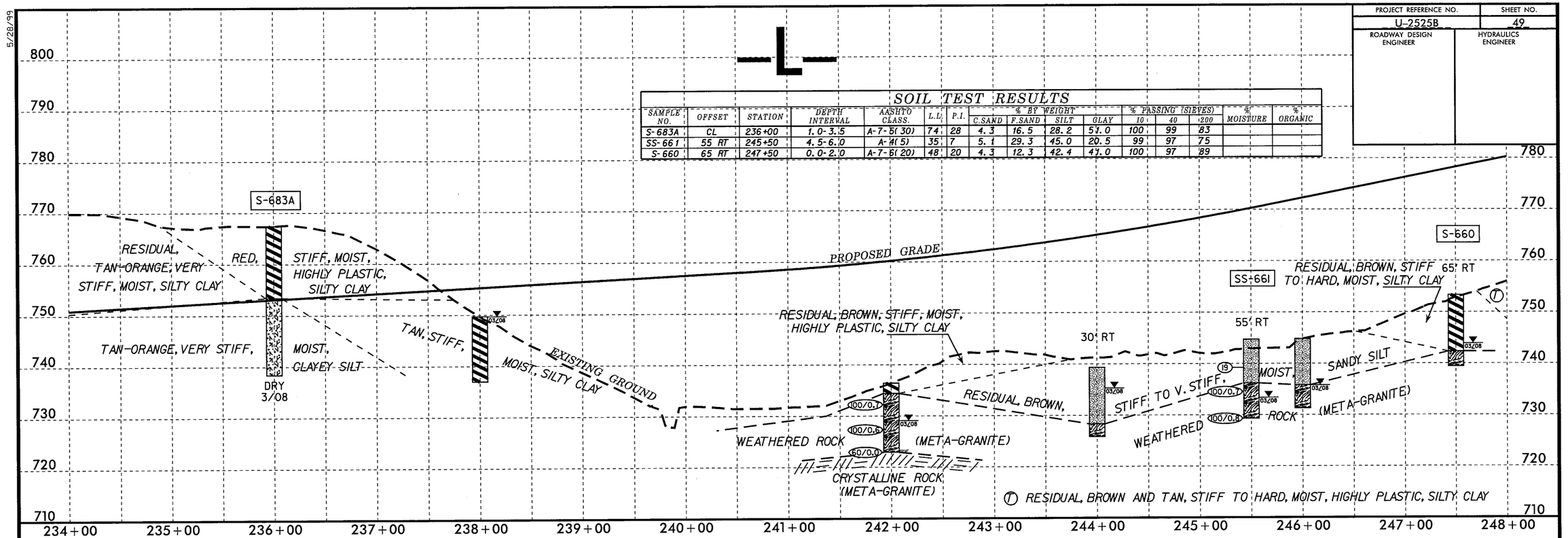
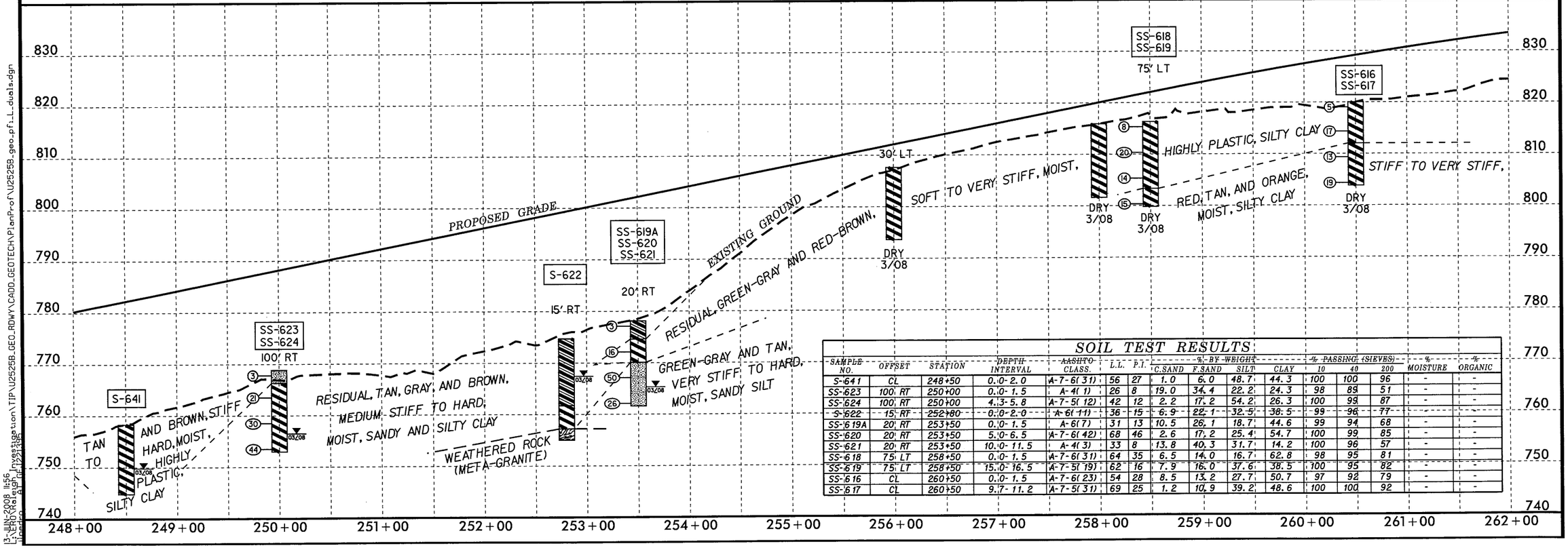
PROJECT REFERENCE NO.	SHEET NO.
U-2525B	49
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

SOIL TEST RESULTS

SAMPLE NO.	OFFSET	STATION	DEPTH INTERVAL	AASHTO CLASS.	L.L.	P.I.	% BY WEIGHT C.SAND	% BY WEIGHT F.SAND	% BY WEIGHT SILT	% BY WEIGHT CLAY	% PASSING (SIEVES) 10	% PASSING (SIEVES) 40	% PASSING (SIEVES) #200	% MOISTURE	% ORGANIC
S-683A	CL	236+00	1.0-3.5	A-7-5(30)	74	28	4.3	16.5	28.2	51.0	100	99	83		
SS-661	55' RT	245+50	4.5-6.0	A-4(5)	35	7	5.1	29.3	45.0	20.5	99	97	75		
S-660	65' RT	247+50	0.0-2.0	A-7-6(20)	48	20	4.3	12.3	42.4	41.0	100	97	89		





SOIL TEST RESULTS

SAMPLE NO.	OFFSET	STATION	DEPTH INTERVAL	AASHTO CLASS.	L.L.	P.I.	% BY WEIGHT C.SAND	% BY WEIGHT F.SAND	% BY WEIGHT SILT	% BY WEIGHT CLAY	% PASSING (SIEVES) 10	% PASSING (SIEVES) 40	% PASSING (SIEVES) #200	% MOISTURE	% ORGANIC
S-641	CL	248+50	0.0-2.0	A-7-6(31)	56	27	1.0	6.0	48.7	44.3	100	100	96	-	-
SS-623	100' RT	250+00	0.0-1.5	A-4(1)	26	8	19.0	34.4	22.2	24.3	98	89	51	-	-
SS-624	100' RT	250+00	4.3-5.8	A-7-5(12)	42	12	2.2	17.2	54.2	26.3	100	99	87	-	-
S-622	15' RT	252+80	0.0-2.0	A-6(11)	36	15	6.9	22.1	32.5	38.5	99	96	77	-	-
SS-619A	20' RT	253+50	0.0-1.5	A-6(7)	31	13	10.5	26.1	18.7	44.6	99	94	68	-	-
SS-620	20' RT	253+50	5.0-6.5	A-7-6(42)	68	46	2.6	17.2	25.4	54.7	100	99	85	-	-
SS-621	20' RT	253+50	10.0-11.5	A-4(3)	33	8	13.8	40.3	31.7	14.2	100	96	57	-	-
SS-618	75' LT	258+50	0.0-1.5	A-7-6(31)	64	35	6.5	14.0	16.7	62.8	98	95	81	-	-
SS-619	75' LT	258+50	15.0-16.5	A-7-5(19)	62	16	7.9	16.0	37.6	38.5	100	95	82	-	-
SS-616	CL	260+50	0.0-1.5	A-7-6(23)	54	28	8.5	13.2	27.7	50.7	97	92	79	-	-
SS-617	CL	260+50	9.7-11.2	A-7-5(31)	69	25	1.2	10.9	39.2	48.6	100	100	92	-	-

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PROJECT REFERENCE NO.	SHEET NO.
U-2525B	50
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

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920 910 900 890 880 870 860 850 840 830 820 810 800 790 780 770 760 750 740 730 720

890 880 870 860 850 840 830 820 810 800 790 780 770 760 750 740 730 720

262+00 263+00 264+00 265+00 266+00 267+00 268+00 269+00 270+00 271+00 272+00 273+00 274+00 275+00 276+00

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(WHITE ROCK RD.)

SS-631
SS-632
SS-633
SS-634
SS-635

20' LT

SS-654
SS-655
SS-656
SS-657

20' RT

50' RT

END INTERIM
-L- 274+00

PROPOSED GRADE

EXISTING GROUND

RESIDUAL, RED-ORANGE, STIFF TO VERY STIFF, MOIST, HIGHLY PLASTIC, SILTY CLAY

RED-TAN, STIFF TO VERY STIFF, MOIST, SANDY CLAY

RESIDUAL, RED AND TAN, STIFF, MOIST, SILTY CLAY

RESIDUAL, RED AND TAN, STIFF TO V.STIFF, MOIST, CLAYEY SILT

ARTIFICIAL FILL, GRAY, DENSE, DRY, SAND, GRAVEL, AND ASPHALT

SS-651
SS-652

HIGHLY PLASTIC, SILTY CLAY

TAN, VERY STIFF, MOIST, CLAYEY SILT

RED, TAN, AND LIGHT GRAY, STIFF TO HARD, MOIST, SANDY AND CLAYEY SILT WEATHERED ROCK (META-GRANITE)

DRY 3/08

50' RT

DRY 3/08

20' LT

03/08

20' RT

03/08

DRY 3/08

Y13 (US 29)

SOIL TEST RESULTS

SAMPLE NO.	OFFSET	STATION	DEPTH INTERVAL	AASHTO CLASS.	L.L.	P.I.	% BY WEIGHT C.SAND	% BY WEIGHT F.SAND	% BY WEIGHT SILT	% BY WEIGHT CLAY	% PASSING (SIEVES) 10	% PASSING (SIEVES) 40	% PASSING (SIEVES) 200	% MOISTURE	% ORGANIC
SS-631	20 LT	267+00	5.0-6.5	A-7-5(24)	63	31	11.6	17.6	18.1	52.7	100	97	73	-	-
SS-632	20 LT	267+00	10.0-11.5	A-6(17)	39	14	19.9	22.9	28.9	28.4	100	96	61	-	-
SS-633	20 LT	267+00	20.0-21.5	A-4(3)	35	8	18.6	28.4	32.7	20.3	100	96	58	-	-
SS-634	20 LT	267+00	30.0-31.5	A-4(2)	34	6	20.3	26.7	36.8	16.2	100	95	58	-	-
SS-635	20 LT	267+00	40.0-41.5	A-4(1)	34	4	25.8	27.6	38.6	8.0	100	92	53	-	-
SS-654	20 RT	270+00	3.5-5.0	A-7-5(28)	60	25	1.8	9.1	20.5	68.6	100	99	91		
SS-655	20 RT	270+00	8.5-10.0	A-7-5(16)	55	16	4.6	21.0	42.1	32.3	100	100	79		
SS-656	20 RT	270+00	28.5-30.0	A-7-5(10)	47	12	9.1	25.0	47.7	18.2	100	96	74		
SS-657	20 RT	270+00	33.5-35.0	A-5(7)	42	7	7.3	32.1	52.6	8.1	100	96	76		
SS-651	CL	279+00	8.5-10.0	A-7-5(35)	70	27	0.8	8.0	32.8	58.4	100	100	95	-	-
SS-652	CL	279+00	13.5-15.0	A-5(12)	67	16	1.0	36.8	50.1	12.1	100	100	78	-	-

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Level Name: pf_L_singles

PROJECT REFERENCE NO.	SHEET NO.
U-2525B	51
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

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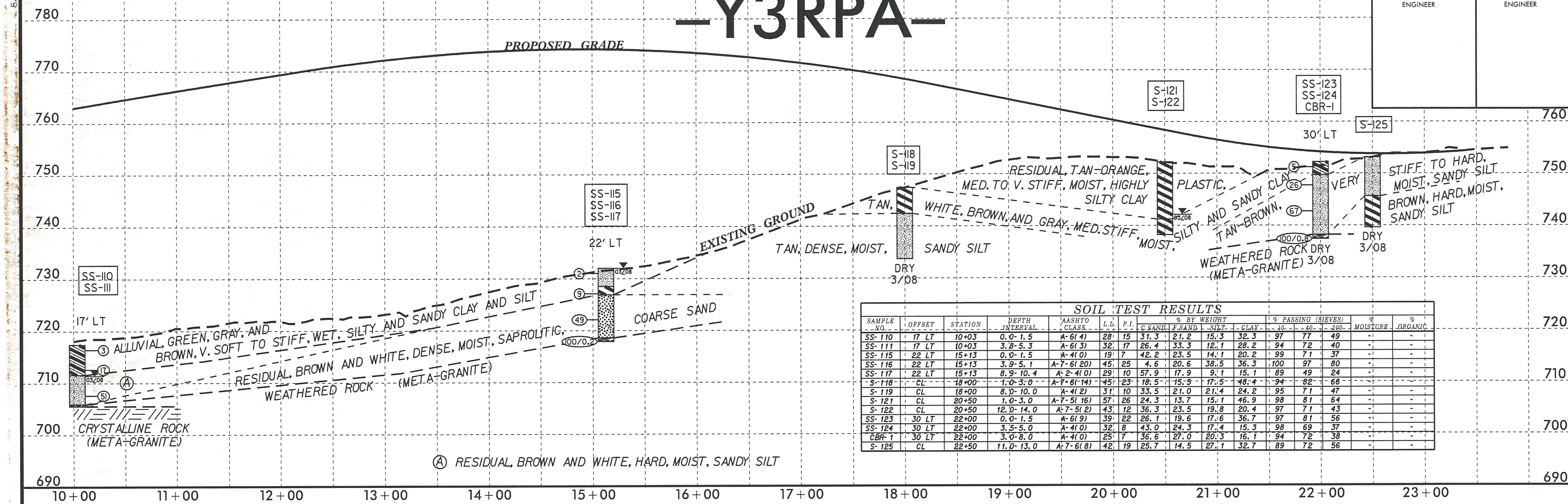

SOIL TEST RESULTS

SAMPLE NO.	OFFSET	STATION	DEPTH INTERVAL	AASHTO CLASS	L.L.	P.I.	% BY WEIGHT C.SAND	F.SAND	SILT	CLAY	% PASSING (SIEVES) 10	40	200	% MOISTURE	% ORGANIC
SS-110	17 LT	10+03	0.0-1.5	A-6(4)	28	15	31.3	21.2	15.3	32.3	97	77	49	-	-
SS-111	17 LT	10+03	3.8-5.3	A-6(3)	32	17	26.4	33.3	12.1	28.2	94	72	40	-	-
SS-115	22 LT	15+13	0.0-1.5	A-4(0)	19	7	42.2	23.5	14.1	20.2	99	71	37	-	-
SS-116	22 LT	15+13	3.9-5.1	A-7-6(20)	45	25	4.6	20.6	38.5	36.3	100	97	80	-	-
SS-117	22 LT	15+13	8.9-10.4	A-2-4(0)	29	10	57.9	17.9	9.1	15.1	89	49	24	-	-
S-118	CL	18+00	1.0-3.0	A-7-6(14)	45	23	18.5	15.5	17.5	48.4	94	82	66	-	-
S-119	CL	18+00	8.0-10.0	A-4(2)	31	10	33.5	21.0	21.4	24.2	95	71	47	-	-
S-121	CL	20+50	1.0-3.0	A-7-5(16)	57	26	24.3	13.7	15.1	46.9	98	81	64	-	-
S-122	CL	20+50	12.0-14.0	A-7-5(2)	43	12	36.3	23.5	19.8	20.4	97	71	43	-	-
SS-123	30 LT	22+00	0.0-1.5	A-6(9)	39	22	26.1	19.6	17.6	36.7	97	81	56	-	-
SS-124	30 LT	22+00	3.5-5.0	A-4(0)	32	8	43.0	24.3	17.4	15.3	98	69	37	-	-
CBR-1	30 LT	22+00	3.0-8.0	A-4(0)	25	7	36.6	27.0	20.3	16.1	94	72	38	-	-
S-125	CL	22+50	11.0-13.0	A-7-6(8)	42	19	25.7	14.5	27.1	32.7	89	72	56	-	-

5/28/99

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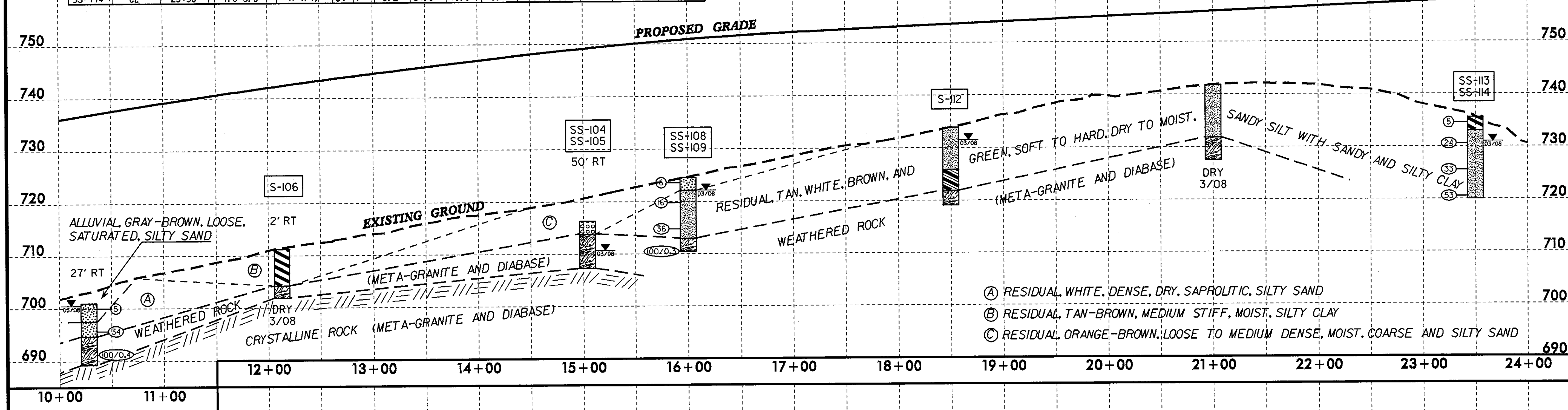
PROJECT REFERENCE NO.	SHEET NO.
U-2525B	52
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

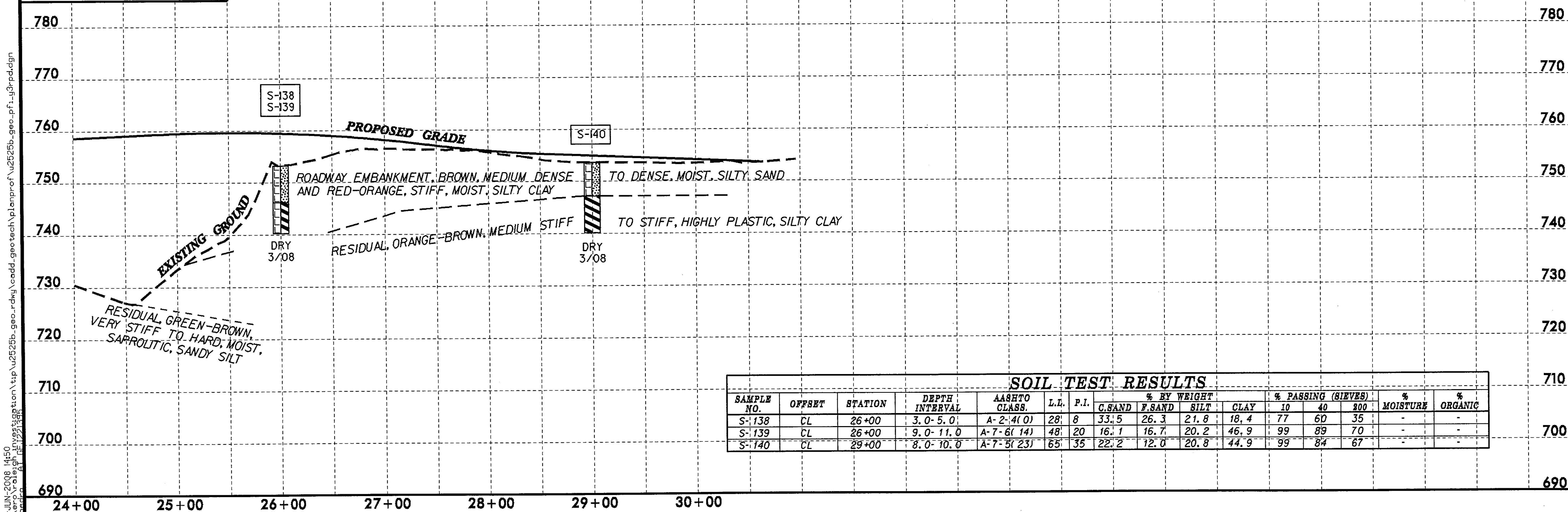
-Y3RPD-

5/28/99

SOIL TEST RESULTS

SAMPLE NO.	OFFSET	STATION	DEPTH INTERVAL	AASHTO CLASS.	L.L.	P.I.	% BY WEIGHT C.SAND	% BY WEIGHT F.SAND	% BY WEIGHT SILT	% BY WEIGHT CLAY	% PASSING (SIEVES) 10	% PASSING (SIEVES) 40	% PASSING (SIEVES) 200	% MOISTURE	% ORGANIC
S-106	2 RT	12+13	1.0-3.0	A-7-6(11)	41	22	24.6	16.1	16.9	42.3	98	80	61	-	-
SS-104	50 RT	15+04	0.0-1.5	A-2-4(0)	14	NP	43.3	27.4	17.1	12.1	95	66	31	-	-
SS-105	50 RT	15+04	4.3-5.8	A-2-4(0)	23	6	45.6	23.4	12.9	18.1	83	57	29	-	-
SS-108	CL	16+00	0.0-1.5	A-2-4(0)	13	1	52.2	20.4	13.3	14.1	94	58	28	-	-
SS-109	CL	16+00	3.8-5.3	A-4(0)	27	7	38.5	22.6	16.7	22.2	91	66	39	-	-
S-112	CL	18+50	9.0-11.0	A-6(11)	37	16	8.7	17.3	39.7	34.3	95	89	76	-	-
SS-113	CL	23+50	0.0-1.5	A-7-5(24)	55	24	5.4	12.3	29.8	52.4	100	97	86	-	-
SS-114	CL	23+50	4.0-5.5	A-4(4)	31	7	5.2	31.9	46.8	16.1	100	99	70	-	-





SOIL TEST RESULTS

SAMPLE NO.	OFFSET	STATION	DEPTH INTERVAL	AASHTO CLASS.	L.L.	P.I.	% BY WEIGHT C.SAND	% BY WEIGHT F.SAND	% BY WEIGHT SILT	% BY WEIGHT CLAY	% PASSING (SIEVES) 10	% PASSING (SIEVES) 40	% PASSING (SIEVES) 200	% MOISTURE	% ORGANIC
S-138	CL	26+00	3.0-5.0	A-2-4(0)	28	8	33.5	26.3	21.8	18.4	77	60	35	-	-
S-139	CL	26+00	9.0-11.0	A-7-6(14)	48	20	16.1	16.7	20.2	46.9	99	89	70	-	-
S-140	CL	29+00	8.0-10.0	A-7-5(23)	65	35	22.2	12.0	20.8	44.9	99	84	67	-	-

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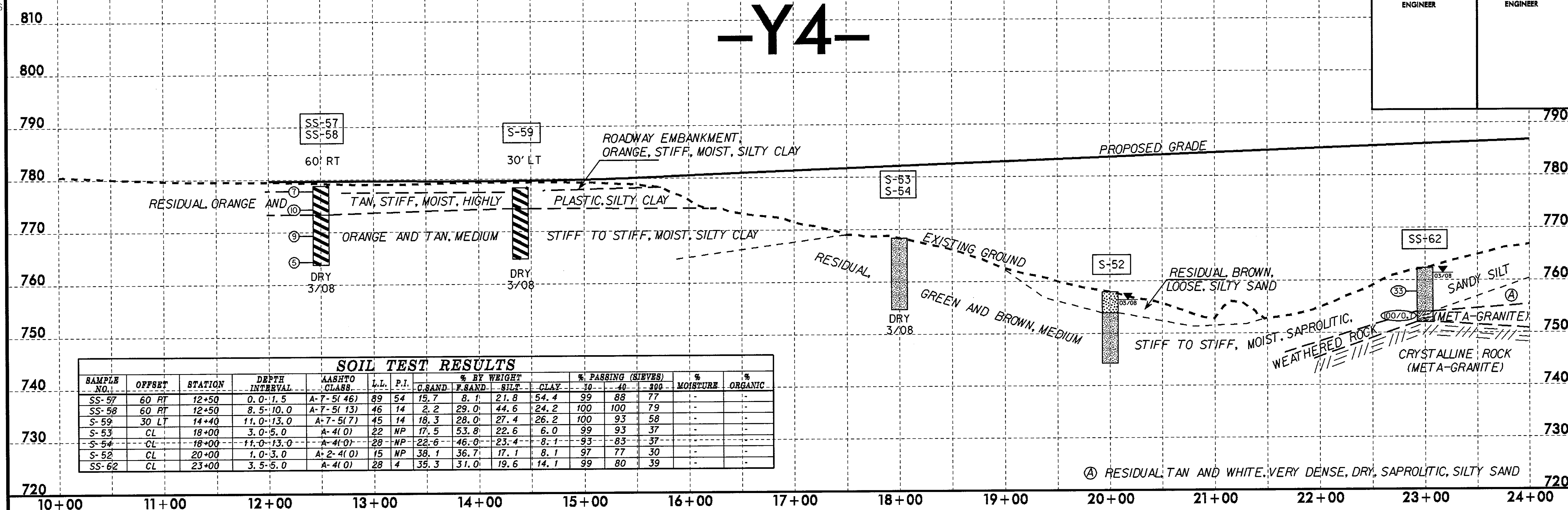
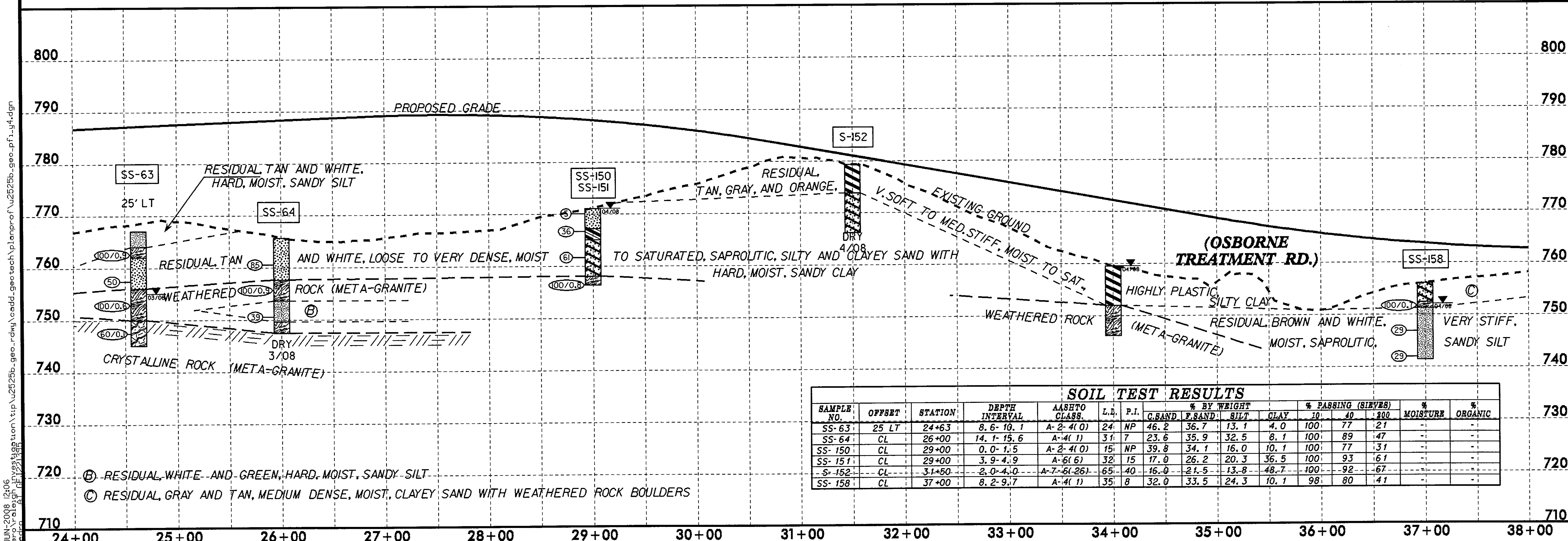
PROJECT REFERENCE NO.	SHEET NO.
U-2525B	53
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

-Y4-



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-57	60 RT	12+50	0.0-1.5	A-7-5(46)	89	54	15.7	8.1	21.8	54.4	99	88	77	-	-
SS-58	60 RT	12+50	8.5-10.0	A-7-5(13)	46	14	2.2	29.0	44.6	24.2	100	100	79	-	-
S-59	30 LT	14+40	11.0-13.0	A-7-5(7)	45	14	18.3	28.0	27.4	26.2	100	93	58	-	-
S-53	CL	18+00	3.0-5.0	A-4(0)	22	NP	17.5	53.8	22.6	6.0	99	93	37	-	-
S-54	CL	18+00	11.0-13.0	A-4(0)	28	NP	22.6	46.0	23.4	8.1	93	83	37	-	-
S-52	CL	20+00	1.0-3.0	A-2-4(0)	15	NP	38.1	36.7	17.1	8.1	97	77	30	-	-
SS-62	CL	23+00	3.5-5.0	A-4(0)	28	4	35.3	31.0	19.6	14.1	99	80	39	-	-

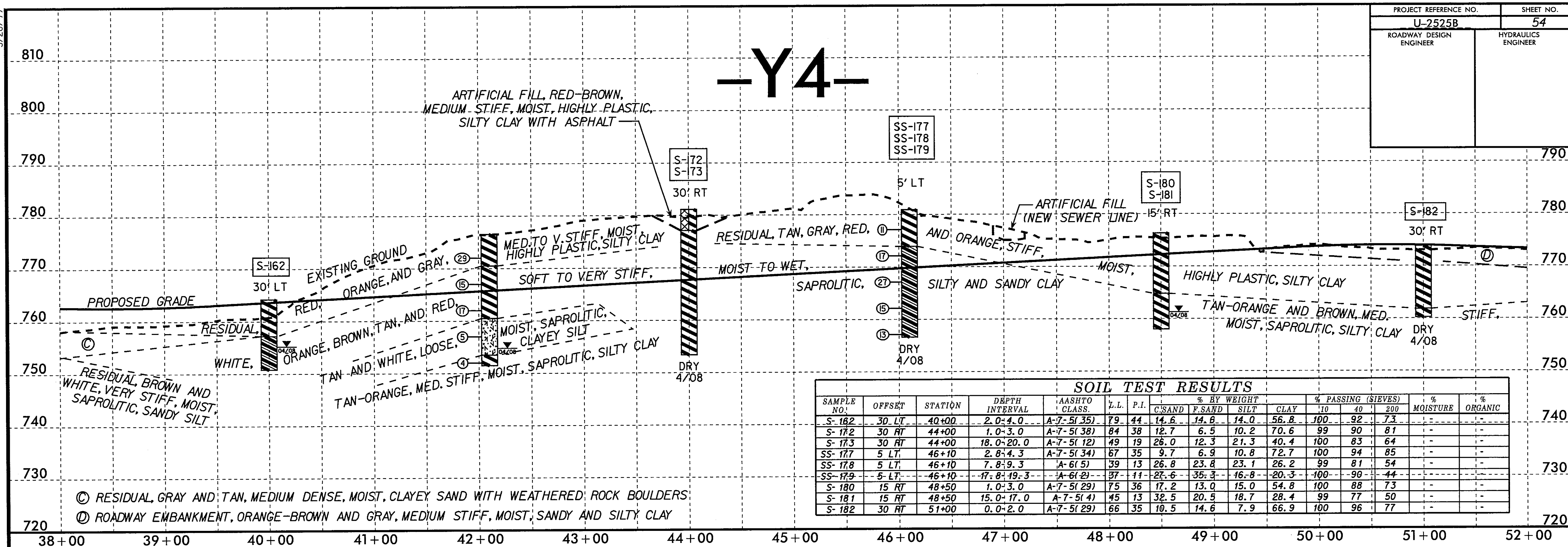


SOIL TEST RESULTS

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-63	25 LT	24+63	8.6-10.1	A-2-4(0)	24	NP	46.2	36.7	13.1	4.0	100	77	21	-	-
SS-64	CL	26+00	14.1-15.6	A-4(1)	31	7	23.6	35.9	32.5	8.1	100	89	47	-	-
SS-150	CL	29+00	0.0-1.5	A-2-4(0)	15	NP	39.8	34.1	16.0	10.1	100	77	31	-	-
SS-151	CL	29+00	3.9-4.9	A-6(6)	32	15	17.0	26.2	20.3	36.5	100	93	61	-	-
S-152	CL	31+50	2.0-4.0	A-7-6(26)	65	40	16.0	21.5	13.8	48.7	100	92	67	-	-
SS-158	CL	37+00	8.2-9.7	A-4(1)	35	8	32.0	33.5	24.3	10.1	98	80	41	-	-

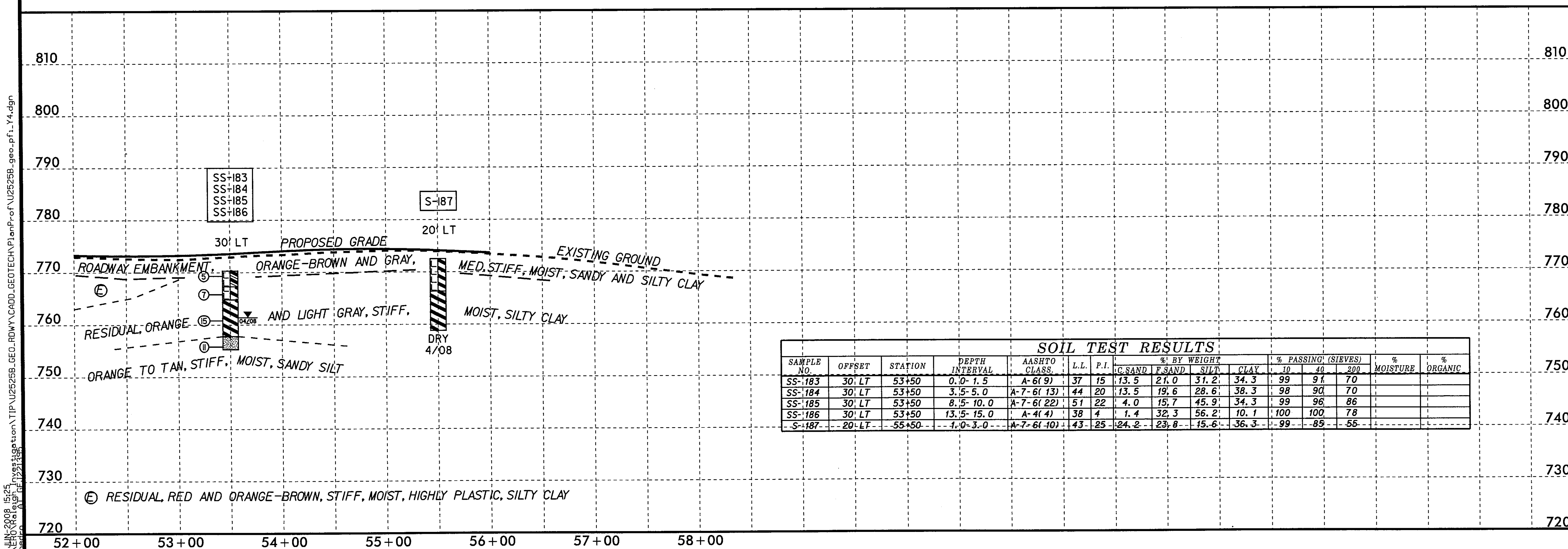
PROJECT REFERENCE NO.	SHEET NO.
U-2525B	54
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

-Y4-



SOIL TEST RESULTS

SAMPLE NO.	OFFSET	STATION	DEPTH INTERVAL	AASHTO CLASS.	L.L.	P.I.	% BY WEIGHT C.SAND	F.SAND	SILT	CLAY	% PASSING (SIEVES) 10	40	200	% MOISTURE	% ORGANIC
S-162	30 LT	40+00	2.0-4.0	A-7-5(35)	79	44	14.6	14.6	14.0	56.8	100	92	73	-	-
S-172	30 RT	44+00	1.0-3.0	A-7-5(38)	84	38	12.7	6.5	10.2	70.6	99	90	81	-	-
S-173	30 RT	44+00	18.0-20.0	A-7-5(12)	49	19	26.0	12.3	21.3	40.4	100	83	64	-	-
SS-177	5 LT	46+10	2.8-4.3	A-7-5(34)	67	35	9.7	6.9	10.8	72.7	100	94	85	-	-
SS-178	5 LT	46+10	7.8-9.3	A-6(5)	39	13	26.8	23.8	23.1	26.2	99	81	54	-	-
SS-179	5 LT	46+10	17.8-19.3	A-6(2)	37	11	27.6	35.3	16.8	20.3	100	90	44	-	-
S-180	15 RT	48+50	1.0-3.0	A-7-5(29)	75	36	17.2	13.0	15.0	54.8	100	88	73	-	-
S-181	15 RT	48+50	15.0-17.0	A-7-5(4)	45	13	32.5	20.5	18.7	28.4	99	77	50	-	-
S-182	30 RT	51+00	0.0-2.0	A-7-5(29)	66	35	10.5	14.6	7.9	66.9	100	96	77	-	-



SOIL TEST RESULTS

SAMPLE NO.	OFFSET	STATION	DEPTH INTERVAL	AASHTO CLASS.	L.L.	P.I.	% BY WEIGHT C.SAND	F.SAND	SILT	CLAY	% PASSING (SIEVES) 10	40	200	% MOISTURE	% ORGANIC
SS-183	30 LT	53+50	0.0-1.5	A-6(9)	37	15	13.5	21.0	31.2	34.3	99	91	70		
SS-184	30 LT	53+50	3.5-5.0	A-7-6(13)	44	20	13.5	19.6	28.6	38.3	98	90	70		
SS-185	30 LT	53+50	8.5-10.0	A-7-6(22)	51	22	4.0	15.7	45.9	34.3	99	96	86		
SS-186	30 LT	53+50	13.5-15.0	A-4(4)	38	4	1.4	32.3	56.2	10.1	100	100	78		
S-187	20 LT	55+50	1.0-3.0	A-7-6(10)	43	25	24.2	23.8	15.6	36.3	99	85	55		

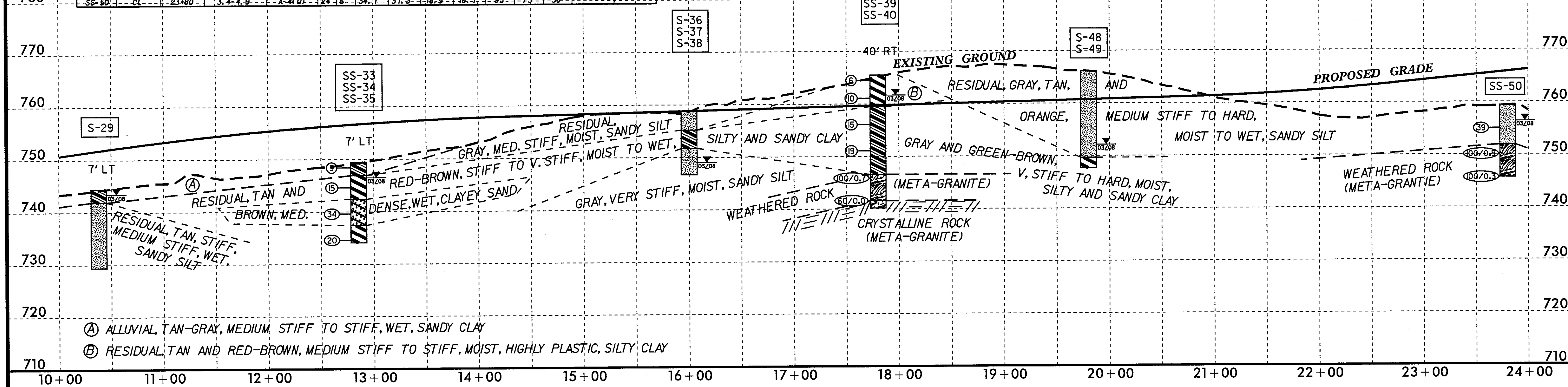
PROJECT REFERENCE NO.	SHEET NO.
U-2525B	55
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

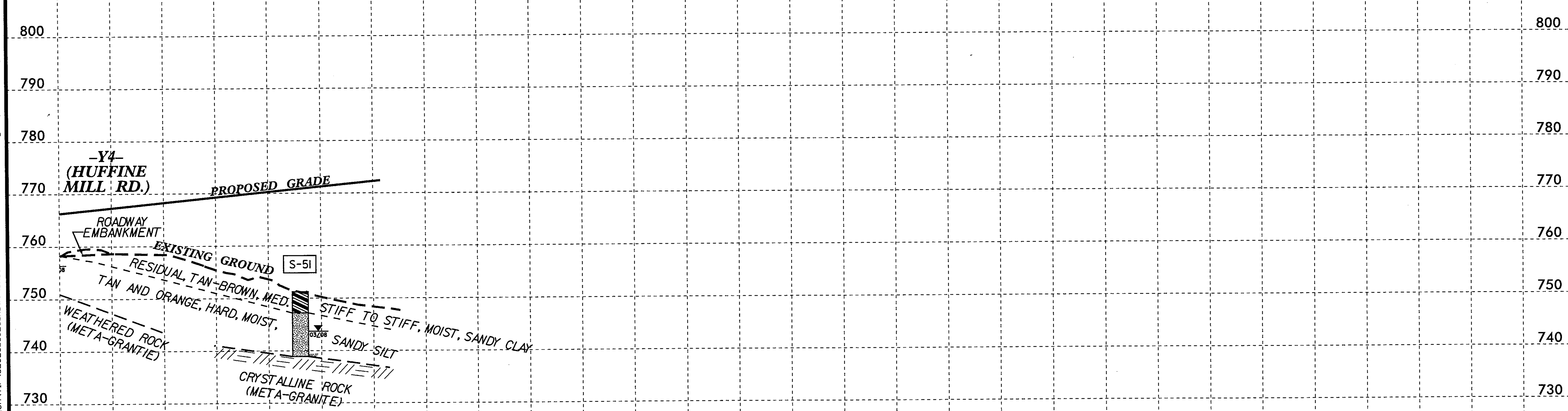
5/28/99

-Y4RPA-

SOIL TEST RESULTS

SAMPLE NO.	OFFSET	STATION	DEPTH INTERVAL	AASHTO CLASS.	L.L.	P.I.	% BY WEIGHT C.SAND	F.SAND	SILT	CLAY	% PASSING (SIEVES) 10	40	200	% MOISTURE	% ORGANIC
S-29	7 LT	10+38	2.5-15.0	A-4(1)	27	9	24.1	31.2	16.2	28.4	100	91	48	-	-
SS-33	7 LT	12+86	0.0-1.5	A-6(7)	33	19	22.1	25.2	20.3	32.5	99	89	57	-	-
SS-34	7 LT	12+86	3.8-5.3	A-7-6(13)	41	17	9.3	17.4	44.8	28.4	100	95	78	-	-
SS-35	7 LT	12+86	8.8-10.3	A-2-6(0)	35	12	37.9	20.1	23.7	18.3	44	31	20	-	-
S-36	CL	16+00	0.0-3.5	A-4(0)	15	3	32.0	36.1	15.6	16.2	98	83	37	-	-
S-37	CL	16+00	3.5-7.0	A-6(9)	37	19	15.0	29.2	25.4	30.4	100	93	62	-	-
S-38	CL	16+00	7.0-12.0	A-4(2)	27	10	21.9	27.0	28.8	22.3	95	83	53	-	-
SS-39	40 RT	17+80	0.5-1.5	A-7-6(20)	56	31	14.6	20.0	20.9	44.5	99	91	68	-	-
SS-40	40 RT	17+80	8.4-9.9	A-6(6)	37	12	20.6	20.8	40.3	18.2	100	86	64	-	-
S-48	CL	19+80	1.5-3.5	A-4(1)	23	6	16.9	33.3	23.6	26.2	97	90	56	-	-
S-49	CL	19+80	6.0-8.0	A-4(0)	23	3	5.6	32.1	48.2	14.1	98	95	70	-	-
SS-50	CL	23+80	3.4-4.9	A-4(0)	24	6	34.1	31.3	18.5	16.1	95	75	38	-	-





SOIL TEST RESULTS

SAMPLE NO.	OFFSET	STATION	DEPTH INTERVAL	AASHTO CLASS.	L.L.	P.I.	% BY WEIGHT C.SAND	F.SAND	SILT	CLAY	% PASSING (SIEVES) 10	40	200	% MOISTURE	% ORGANIC
S-51	CL	26+30	2.0-3.5	A-6(5)	38	17	30.6	23.0	18.1	28.2	94	75	47	-	-

720
710
24+00 25+00 26+00 27+00

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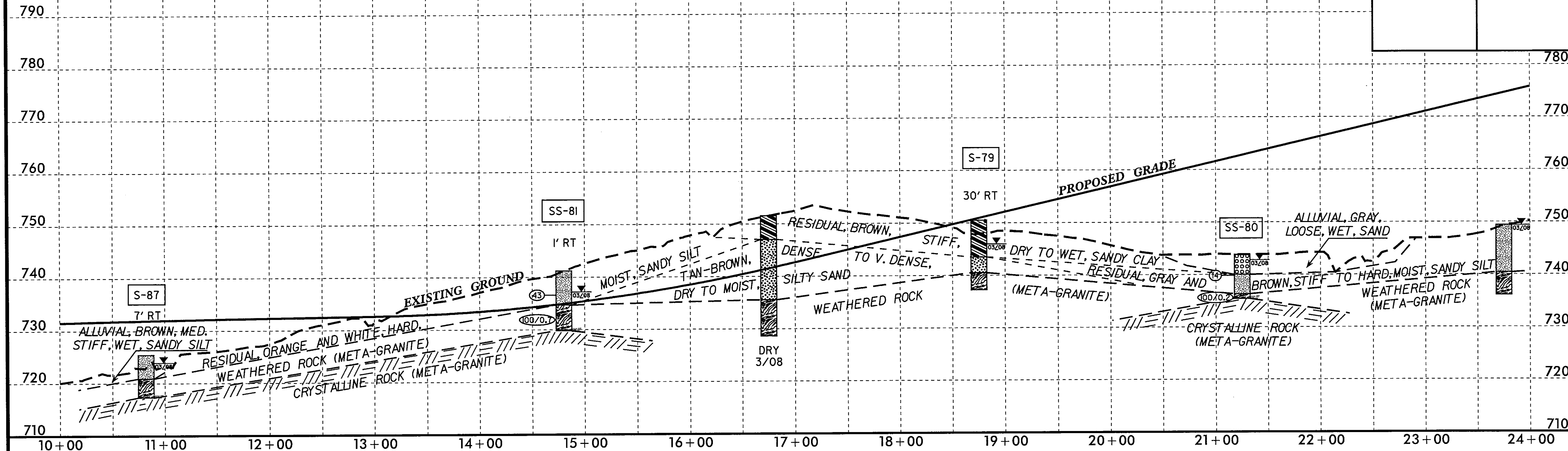
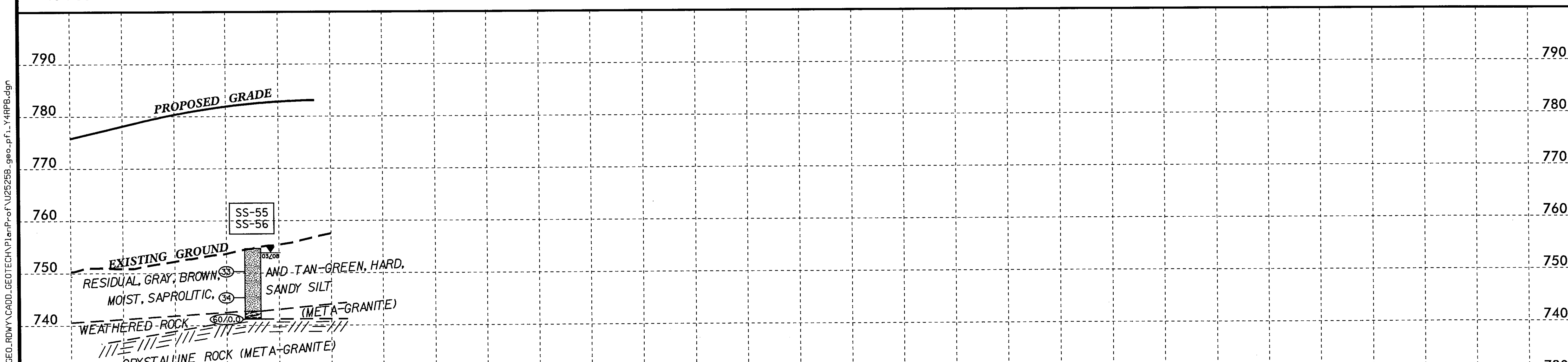
PROJECT REFERENCE NO.	SHEET NO.
U-2525B	56
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

-Y4RPB-





SOIL TEST RESULTS

SAMPLE NO.	OFFSET	STATION	DEPTH INTERVAL	AASHTO CLASS.	L.L.	P.I.	% BY WEIGHT C.SAND	% BY WEIGHT F.SAND	% BY WEIGHT SILT	% BY WEIGHT CLAY	% PASSING (SIEVES) 10	% PASSING (SIEVES) 40	% PASSING (SIEVES) 200	% MOISTURE	% ORGANIC
S-87	7 RT	10+82	1.0-3.0	A-4(1)	20	7	21.8	30.3	25.6	22.2	99	89	53	-	-
SS-81	1 RT	14+80	3.6-5.1	A-4(0)	27	5	27.4	37.5	16.9	18.2	100	87	40	-	-
S-79	30 RT	18+75	0.0-2.0	A-6(3)	31	15	31.3	26.4	12.0	30.3	97	77	45	-	-
SS-80	CL	21+25	3.8-4.5	A-4(1)	23	9	22.2	31.7	17.9	28.3	100	91	51	-	-
SS-55	CL	25+75	3.4-4.9	A-4(0)	27	8	22.6	40.3	19.0	18.1	93	83	40	-	-
SS-56	CL	25+75	8.4-9.9	A-4(1)	29	10	28.2	33.3	22.4	16.1	93	78	43	-	-

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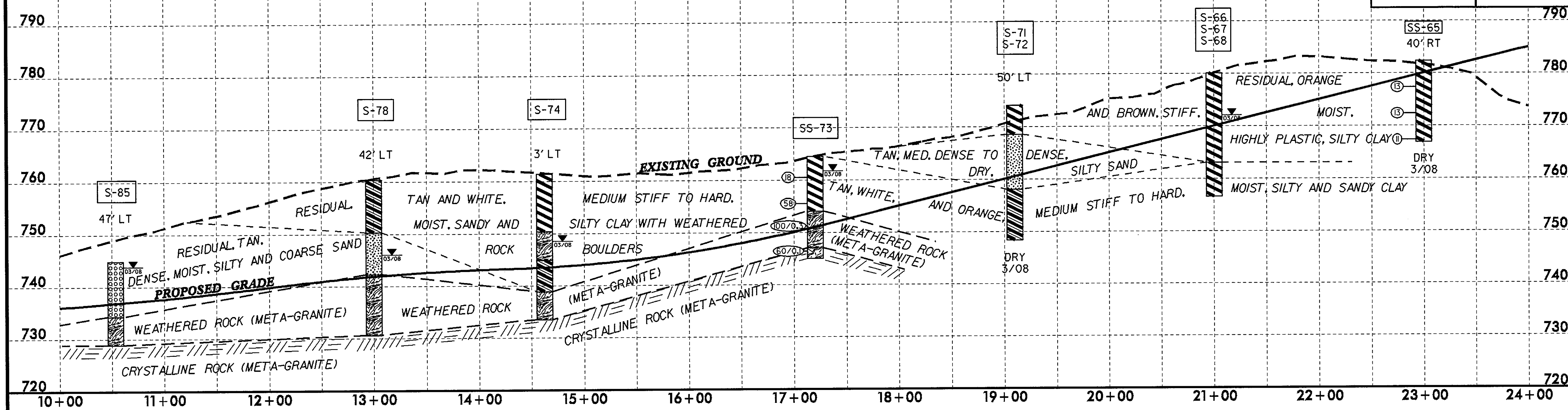
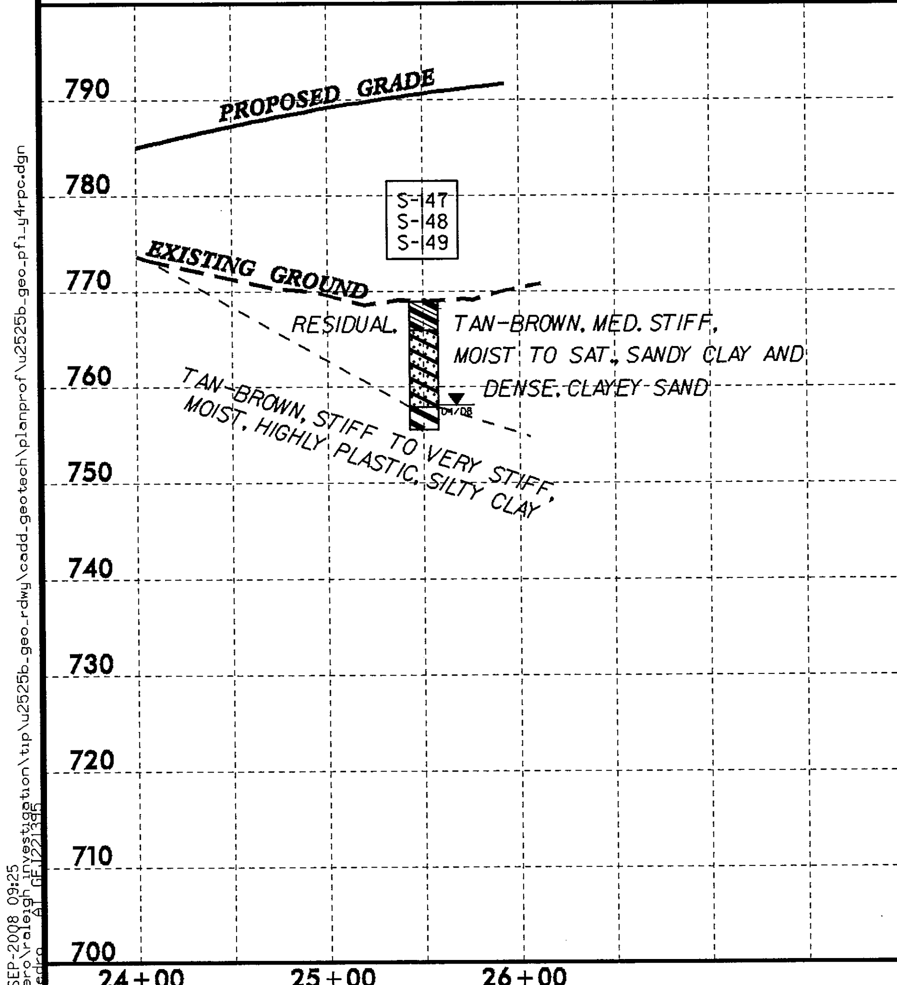
PROJECT REFERENCE NO.	SHEET NO.
U-2525B	57
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

-Y4RPC-





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		
S-85	47 LT	10+53	4.0-6.0	A-1-b(0)	20	NP	59.0	21.0	13.9	6.1	92	50	21	-	-
S-78	42 LT	13+00	0.0-0.0	A-6(8)	40	16	20.4	20.2	17.1	42.4	97	83	61	-	-
S-74	3 LT	14+63	17.0-20.0	A-6(11)	38	12	4.2	18.8	44.7	32.3	100	98	84	-	-
SS-73	CL	17+20	3.0-4.5	A-7-6(11)	45	20	10.3	30.9	20.5	38.3	100	98	64	-	-
S-71	50 LT	19+10	0.0-1.5	A-7-5(27)	57	26	4.6	9.3	27.5	58.5	100	98	89	-	-
S-72	50 LT	19+10	17.0-18.0	A-6(4)	37	13	27.2	26.0	18.5	28.3	100	83	51	-	-
S-66	CL	21+00	1.0-3.0	A-7-6(12)	49	31	28.4	21.0	12.3	38.3	98	82	52	-	-
S-67	CL	21+00	9.0-11.0	A-7-6(25)	66	38	23.8	10.5	19.4	46.4	98	80	66	-	-
S-68	CL	21+00	20.0-22.0	A-7-5(11)	52	20	27.8	12.7	23.2	36.3	97	76	60	-	-
SS-65	40 RT	23+00	4.0-5.5	A-7-5(21)	69	33	23.0	14.3	28.4	34.3	97	81	64	-	-
S-147	CL	25+50	1.0-3.0	A-6(2)	28	12	26.8	27.6	21.3	24.3	97	76	48	-	-
S-148	CL	25+50	7.0-9.0	A-2-6(0)	29	12	44.8	20.1	16.8	18.3	82	53	32	-	-
S-149	CL	25+50	11.0-13.0	A-7-6(15)	50	28	22.1	12.6	30.8	34.5	89	75	61	-	-

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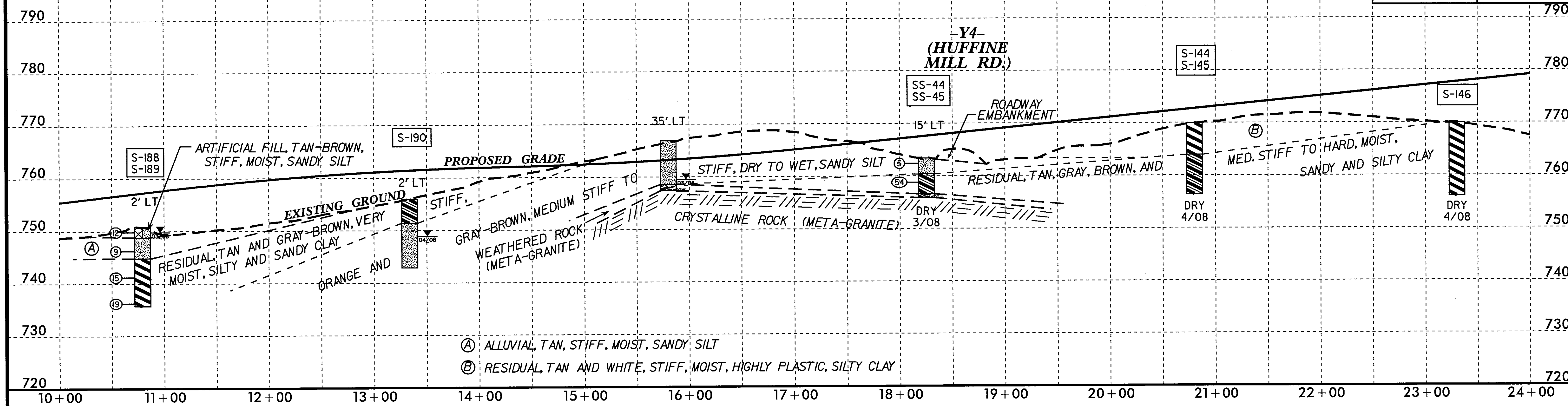
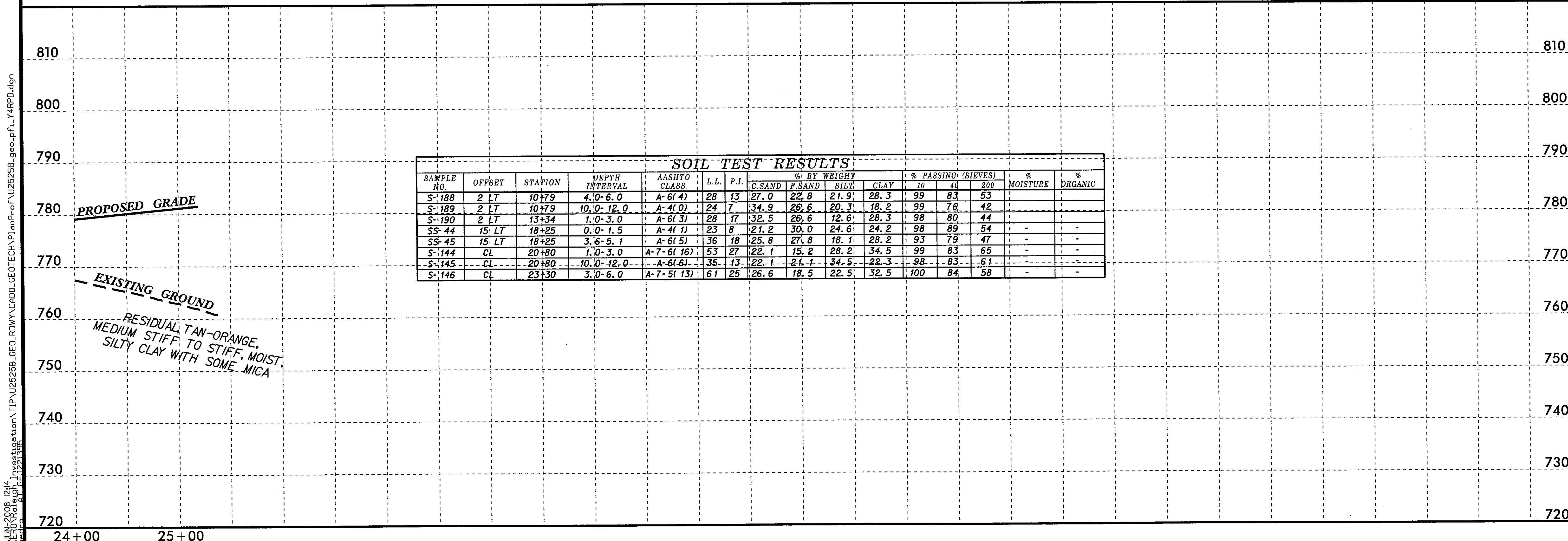
-Y4RPD-

PROJECT REFERENCE NO.	SHEET NO.
U-2525B	58
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER





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		
S-188	2 LT	10+79	4.0-6.0	A-6(4)	28	13	27.0	22.8	21.9	28.3	99	83	53		
S-189	2 LT	10+79	10.0-12.0	A-4(0)	24	7	34.9	26.6	20.3	18.2	99	76	42		
S-190	2 LT	13+34	1.0-3.0	A-6(3)	28	17	32.5	26.6	12.6	28.3	98	80	44		
SS-44	15 LT	18+25	0.0-1.5	A-4(1)	23	8	21.2	30.0	24.6	24.2	98	89	54	-	-
SS-45	15 LT	18+25	3.6-5.1	A-6(5)	36	18	25.8	27.8	18.1	28.2	93	79	47	-	-
S-144	CL	20+80	1.0-3.0	A-7-6(16)	53	27	22.1	15.2	28.2	34.5	99	83	65	-	-
S-145	CL	20+80	10.0-12.0	A-6(6)	35	13	22.1	21.1	34.5	22.3	98	83	61	-	-
S-146	CL	23+30	3.0-6.0	A-7-5(13)	61	25	26.6	18.5	22.5	32.5	100	84	58	-	-

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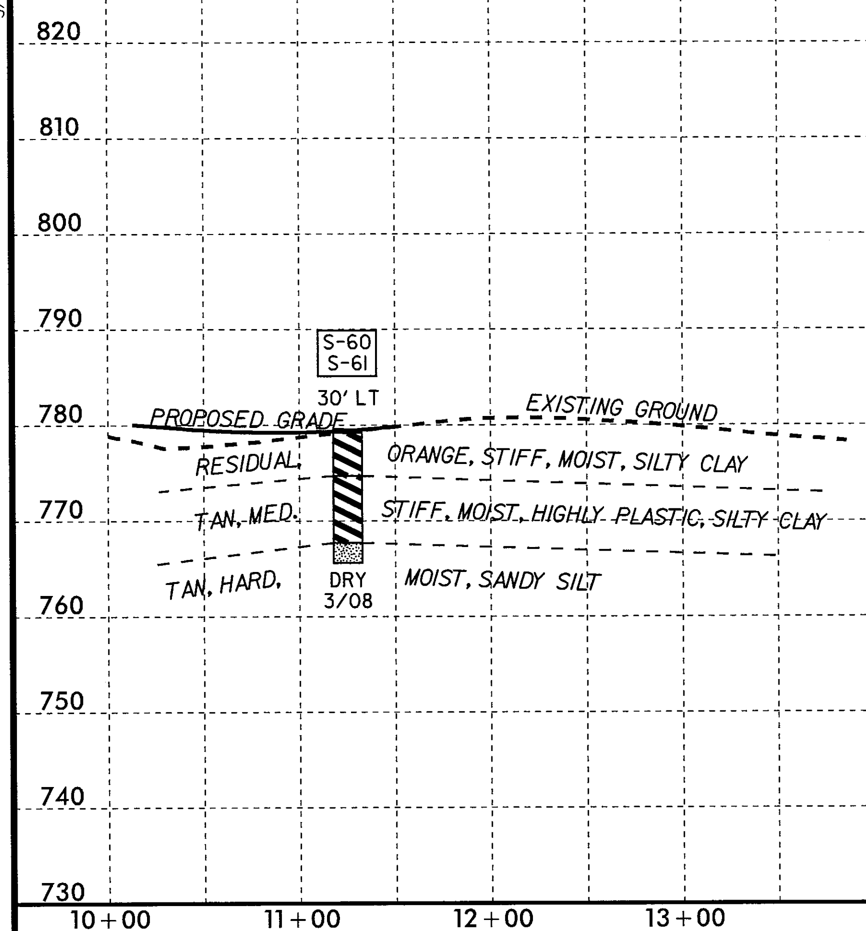
PROJECT REFERENCE NO.	SHEET NO.
U-2525B	59
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

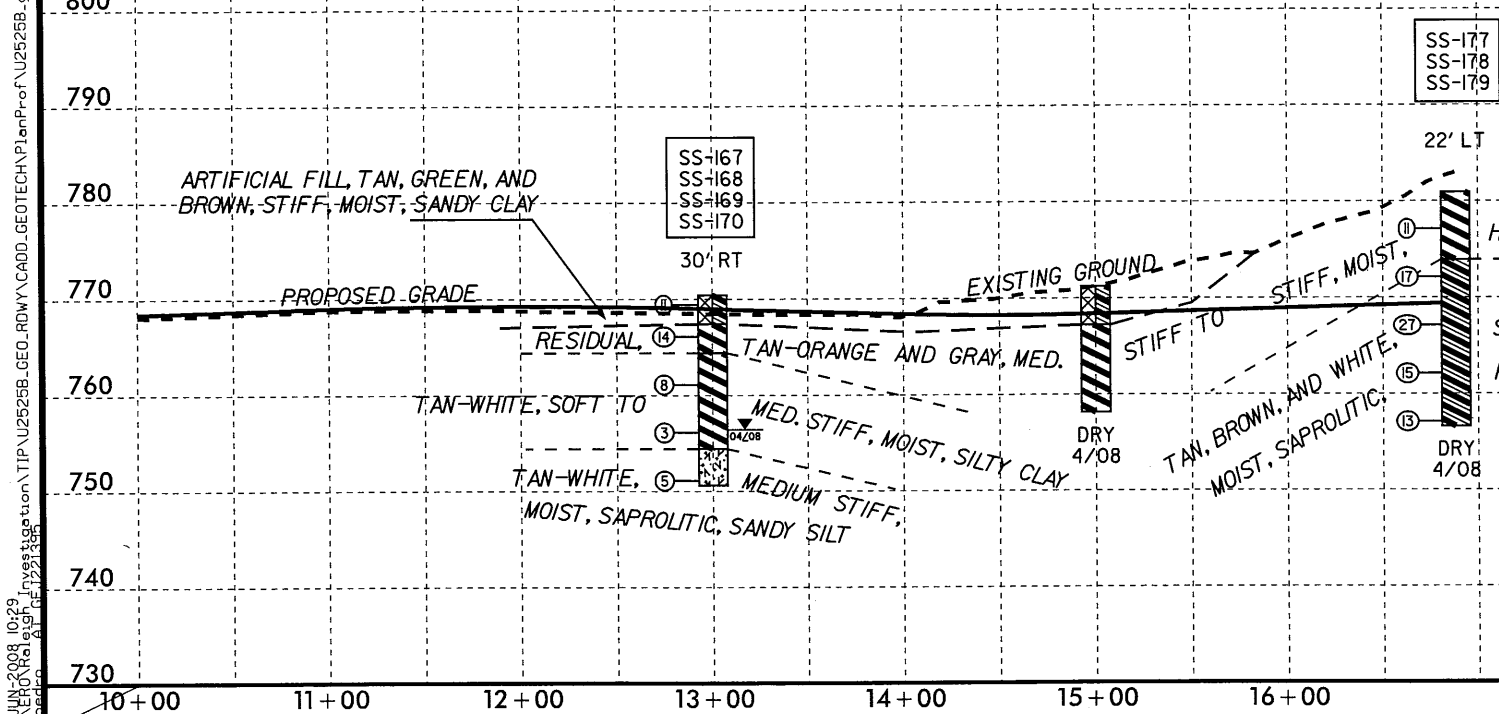
-Y5-



SOIL TEST RESULTS

SAMPLE NO.	OFFSET	STATION	DEPTH INTERVAL	AASHTO CLASS.	L.L.	P.I.	% BY WEIGHT C.SAND	F.SAND	SILT	CLAY	% PASSING (SIEVES) 10	40	200	% MOISTURE	% ORGANIC
S-60	30 LT	11+25	1.0-3.0	A-7-5(22)	59	25	8.3	18.5	18.8	54.4	100	96	77	-	-
S-61	30 LT	11+25	6.0-8.0	A-7-6(18)	48	26	4.4	30.8	24.4	40.3	100	98	73	-	-

-Y5B-

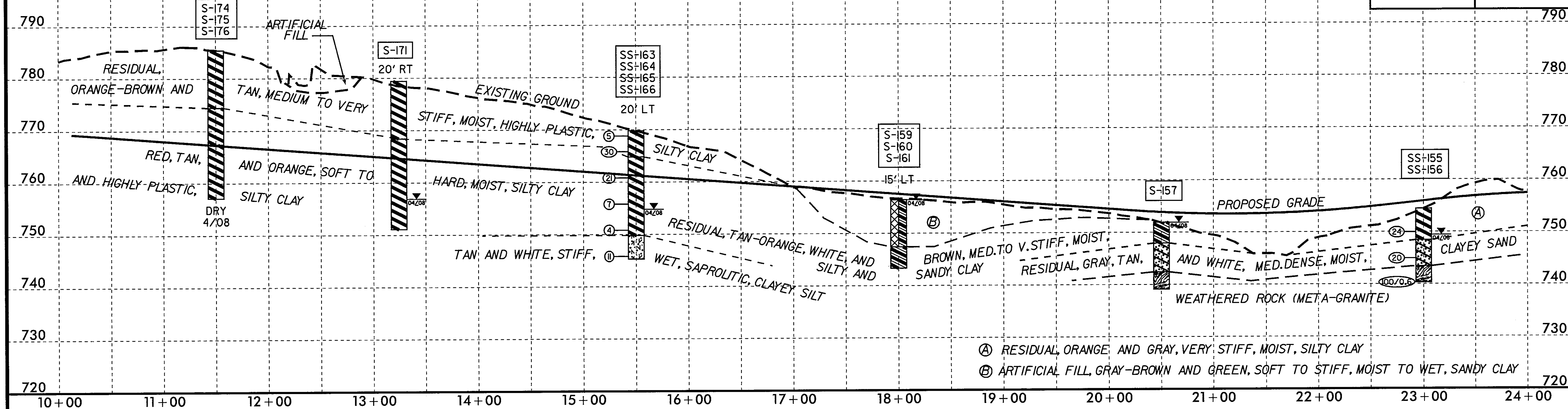


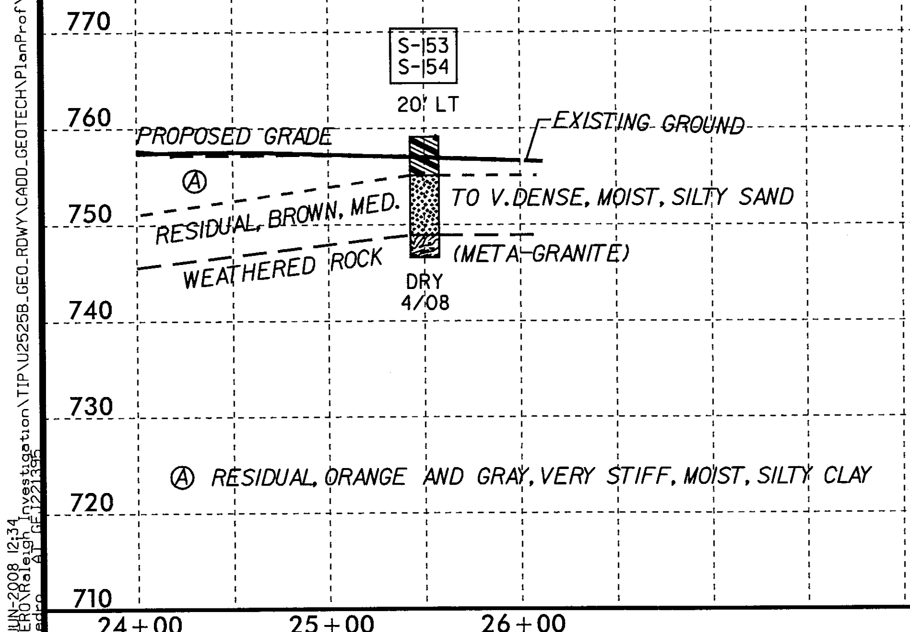
SOIL TEST RESULTS

SAMPLE NO.	OFFSET	STATION	DEPTH INTERVAL	AASHTO CLASS.	L.L.	P.I.	% BY WEIGHT C.SAND	F.SAND	SILT	CLAY	% PASSING (SIEVES) 10	40	200	% MOISTURE	% ORGANIC
SS-167	30 RT	13+00	0.0-1.5	A-6(1)	33	11	35.9	20.9	22.9	20.3	79	58	37	-	-
SS-168	30 RT	13+00	3.3-4.8	A-7-6(16)	57	30	23.4	17.0	9.2	50.5	97	82	60	-	-
SS-169	30 RT	13+00	8.3-9.8	A-7-5(10)	51	13	25.0	9.1	35.6	30.3	99	78	68	-	-
SS-170	30 RT	13+00	18.3-19.8	A-5(6)	48	9	28.1	14.3	31.4	26.2	98	76	61	-	-
SS-177	22 LT	16+88	2.8-4.3	A-7-5(34)	67	35	9.7	6.9	10.8	72.7	100	94	85	-	-
SS-178	22 LT	16+88	7.8-9.3	A-6(5)	39	13	26.8	23.8	23.1	26.2	99	81	54	-	-
SS-179	22 LT	16+88	17.8-19.3	A-6(2)	37	11	27.6	35.3	16.8	20.3	100	90	44	-	-

PROJECT REFERENCE NO.	SHEET NO.
U-2525B	60
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

-Y5C-





SOIL TEST RESULTS

SAMPLE NO.	OFFSET	STATION	DEPTH INTERVAL	AASHTO CLASS.	L.L.	P.I.	% BY WEIGHT C.SAND	% BY WEIGHT F.SAND	% BY WEIGHT SILT	% BY WEIGHT CLAY	% PASSING (SIEVES) 10	% PASSING (SIEVES) 40	% PASSING (SIEVES) 200	% MOISTURE	% ORGANIC
S-174	CL	11+50	3.0-5.0	A-7-5(26)	70	37	13.1	20.4	10.0	56.5	99	92	69	-	-
S-175	CL	11+50	12.0-15.0	A-7-5(18)	54	24	4.0	29.9	19.7	46.4	100	99	73	-	-
S-176	CL	11+50	25.0-27.0	A-7-5(25)	60	30	3.0	29.9	24.7	42.4	100	99	76	-	-
S-171	20 RT	13+20	12.0-15.0	A-7-5(12)	52	19	22.2	14.7	14.6	48.4	100	87	65	-	-
SS-163	20 LT	15+50	0.0-1.5	A-7-5(32)	69	37	10.5	11.8	27.0	50.7	99	93	79	-	-
SS-164	20 LT	15+50	8.0-9.5	A-7-5(28)	63	22	2.4	6.5	56.6	34.5	100	99	94	-	-
SS-165	20 LT	15+50	13.0-14.5	A-7-5(8)	55	11	26.6	16.2	38.9	18.3	100	81	61	-	-
SS-166	20 LT	15+50	23.0-24.5	A-5(1)	44	3	31.6	23.9	32.3	12.2	100	77	50	-	-
S-159	15 LT	18+00	1.0-3.0	A-6(3)	30	12	22.7	28.4	24.5	24.3	98	87	51	-	-
S-160	15 LT	18+00	6.0-7.5	A-6(8)	38	21	23.3	24.9	17.2	34.5	95	83	53	-	-
S-161	15 LT	18+00	10.0-12.0	A-6(5)	36	16	25.8	28.2	19.7	26.4	98	87	49	-	-
S-157	CL	20+50	0.5-2.0	A-6(1)	23	11	26.0	33.5	14.2	26.4	99	87	44	-	-
SS-155	CL	23+00	3.5-5.0	A-7-6(7)	51	23	25.4	32.0	16.2	26.4	100	87	47	-	-
SS-156	CL	23+00	8.5-10.0	A-2-6(1)	35	14	37.3	28.4	14.0	20.3	93	61	35	-	-
S-153	20 LT	25+50	0.5-2.0	A-6(7)	39	19	21.1	31.0	19.5	28.4	99	88	52	-	-
S-154	20 LT	25+50	6.0-8.0	A-2-4(0)	28	6	33.1	36.1	16.6	14.2	97	79	35	-	-

5/28/99

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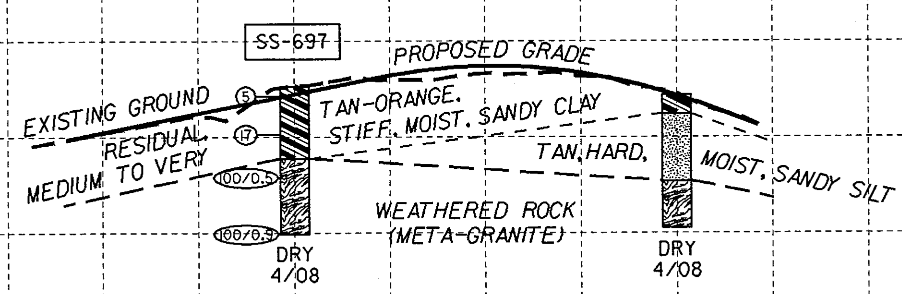


780
770
760
750
740
730
720
710
700
690

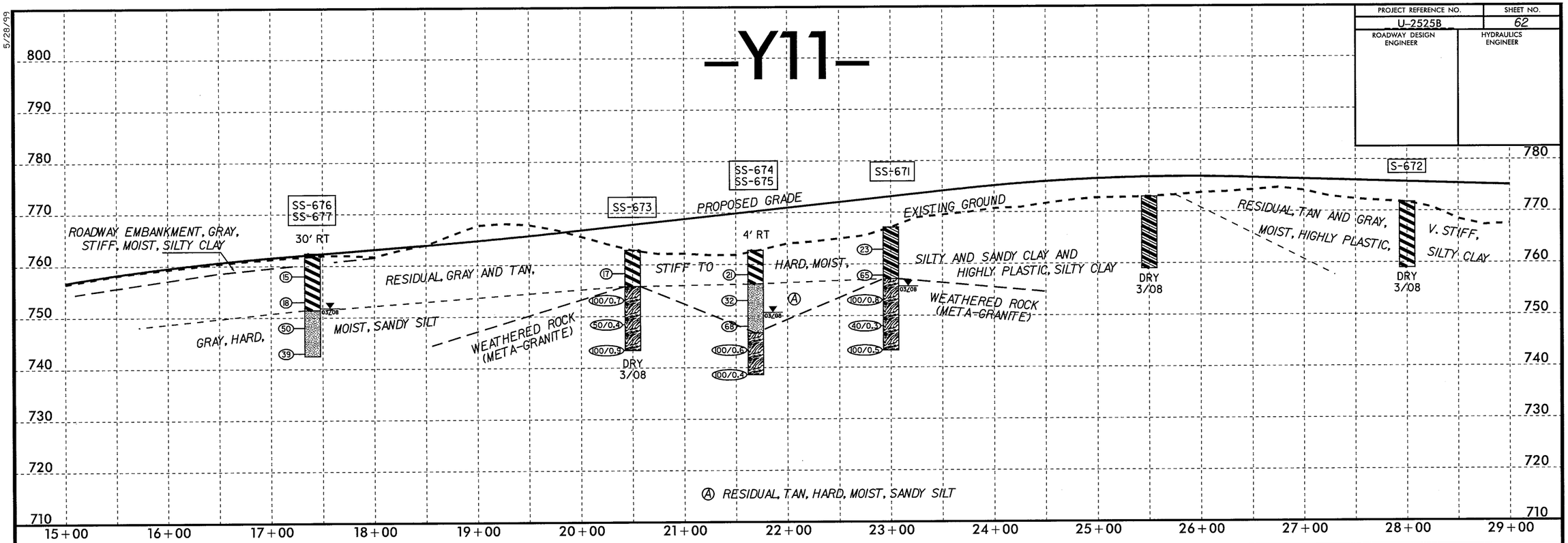
10+00 11+00 12+00 13+00

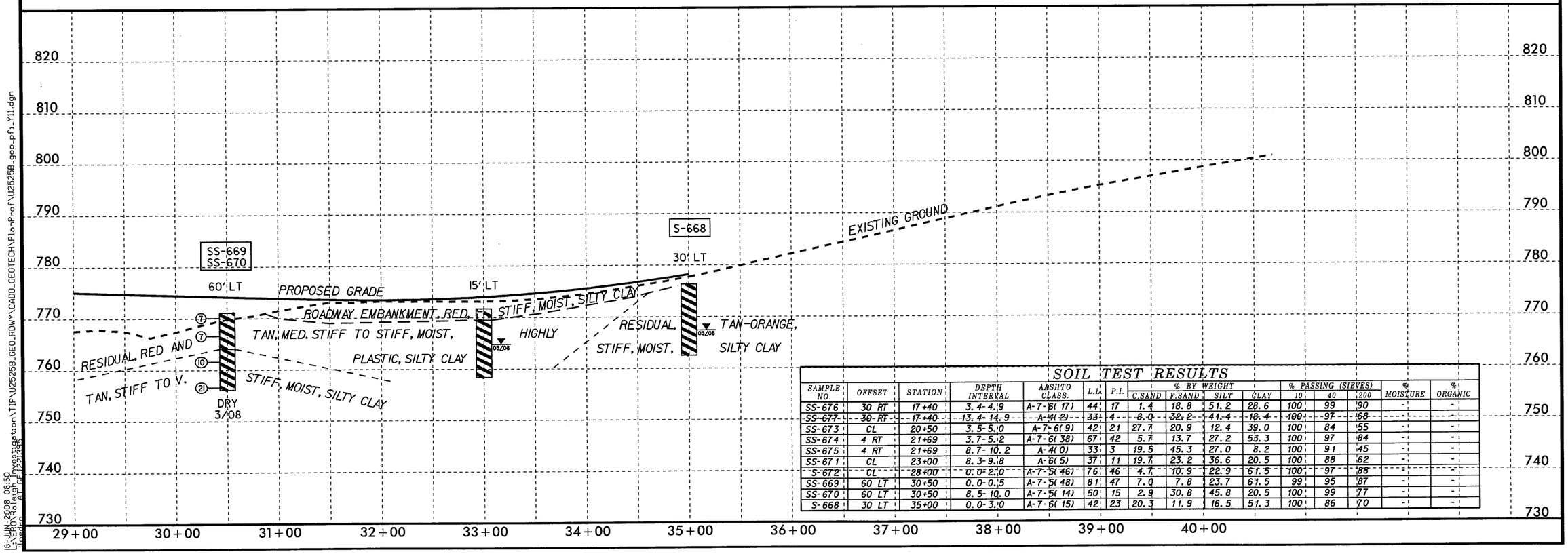
SOIL TEST RESULTS															
SAMPLE NO.	OFFSET	STATION	DEPTH INTERVAL	AASHTO CLASS.	L.L.	P.I.	% BY WEIGHT				% PASSING (SIEVES)			% MOISTURE	% ORGANIC
							C.SAND	F.SAND	SILT	CLAY	10	40	200		
SS-697	CL	11+50	0.0- 1.5	A-6(9)	39	17	17.8	21.6	19.8	40.8	99	90	64		

5/28/99

-Y11-

PROJECT REFERENCE NO.	SHEET NO.
U-2525B	62
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER





SOIL TEST RESULTS

SAMPLE NO.	OFFSET	STATION	DEPTH INTERVAL	AASHTO CLASS.	L.L.	P.I.	% BY WEIGHT C.SAND	F.SAND	SILT	CLAY	% PASSING (SIEVES) 10	40	200	% MOISTURE	% ORGANIC
SS-676	30 RT	17+40	3.4-4.9	A-7-5(17)	44	17	1.4	18.8	51.2	28.6	100	99	90	-	-
SS-677	30 RT	17+40	13.4-14.9	A-4(2)	33	4	8.0	32.2	41.4	18.4	100	97	68	-	-
SS-673	CL	20+50	3.5-5.0	A-7-6(9)	42	21	27.7	20.9	12.4	39.0	100	84	55	-	-
SS-674	4 RT	21+69	3.7-5.2	A-7-6(38)	67	42	5.7	13.7	27.2	53.3	100	97	84	-	-
SS-675	4 RT	21+69	8.7-10.2	A-4(0)	33	3	19.5	45.3	27.0	8.2	100	91	45	-	-
SS-671	CL	23+00	8.3-9.8	A-6(5)	37	11	19.7	23.2	36.6	20.5	100	88	62	-	-
S-672	CL	28+00	0.0-2.0	A-7-5(46)	76	46	4.7	10.9	22.9	61.5	100	97	88	-	-
SS-669	60 LT	30+50	0.0-0.5	A-7-5(48)	81	47	7.0	7.8	23.7	61.5	99	95	87	-	-
SS-670	60 LT	30+50	8.5-10.0	A-7-5(14)	50	15	2.9	30.8	45.8	20.5	100	99	77	-	-
S-668	30 LT	35+00	0.0-3.0	A-7-6(15)	42	23	20.3	11.9	16.5	51.3	100	86	70	-	-

5/14/99

PROJECT REFERENCE NO.	SHEET NO.
U-2525B	63
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

-LCAFLY-

END -LCAFLY- STA. 23+80.49

PROPOSED GRADE

EXISTING GROUND

SS-661 — 1' LT — 20' LT

RESIDUAL, BROWN, MOIST, SANDY SILT

STIFF TO V. STIFF, (META-GRANITE)

WEATHERED ROCK

S-660 — 1' LT

RESIDUAL, TAN-BROWN, SOFT, MOIST, SANDY SILT

BROWN, TAN, AND GRAY, STIFF TO HARD, MOIST, SILTY CLAY

SS-623 SS-624 — 12' RT

RESIDUAL, TAN, RED, AND ORANGE, (META-GRANITE)

WEATHERED ROCK

S-625 S-626 — 30' LT

RESIDUAL, RED, TAN, AND ORANGE, MED. STIFF TO HIGHLY PLASTIC, SILTY CLAY

MED. STIFF TO HARD, MOIST, SILTY CLAY

SS-627 SS-628 — 30' RT (WHITE ROCK RD.)

STIFF, MOIST, SILTY CLAY

DRY 3/08

SOIL TEST RESULTS

SAMPLE NO.	OFFSET	STATION	DEPTH INTERVAL	AASHTO CLASS.	L.L.	P.I.	% BY WEIGHT C.SAND	F.SAND	SILT	CLAY	% PASSING (SIEVES) 10	40	200	% MOISTURE	% ORGANIC
SS-661	1 LT	12+10	4.5-6.0	A-4(5)	35	7	5.1	29.3	45.0	20.5	99	97	75		
S-660	1 LT	14+10	0.0-2.0	A-7-6(20)	48	20	4.3	12.3	42.4	41.0	100	97	89		
SS-623	12 RT	16+65	0.0-1.5	A-4(1)	26	8	19.0	34.4	22.2	24.3	98	89	51	-	-
SS-624	12 RT	16+65	4.3-5.8	A-7-5(12)	42	12	2.2	17.2	54.2	26.3	100	99	87	-	-
S-625	30 LT	21+00	0.0-3.0	A-7-6(37)	70	40	5.1	12.8	19.4	62.8	98	96	83	-	-
S-626	30 LT	21+00	15.0-17.0	A-7-6(24)	53	23	1.2	14.2	46.1	38.5	100	100	90	-	-
SS-627	30 RT	23+00	0.0-1.5	A-7-5(43)	78	41	3.2	6.9	14.9	75.0	96	94	88	-	-
SS-628	30 RT	23+00	14.3-15.8	A-7-5(18)	63	16	3.2	17.4	42.9	36.5	93	92	80	-	-

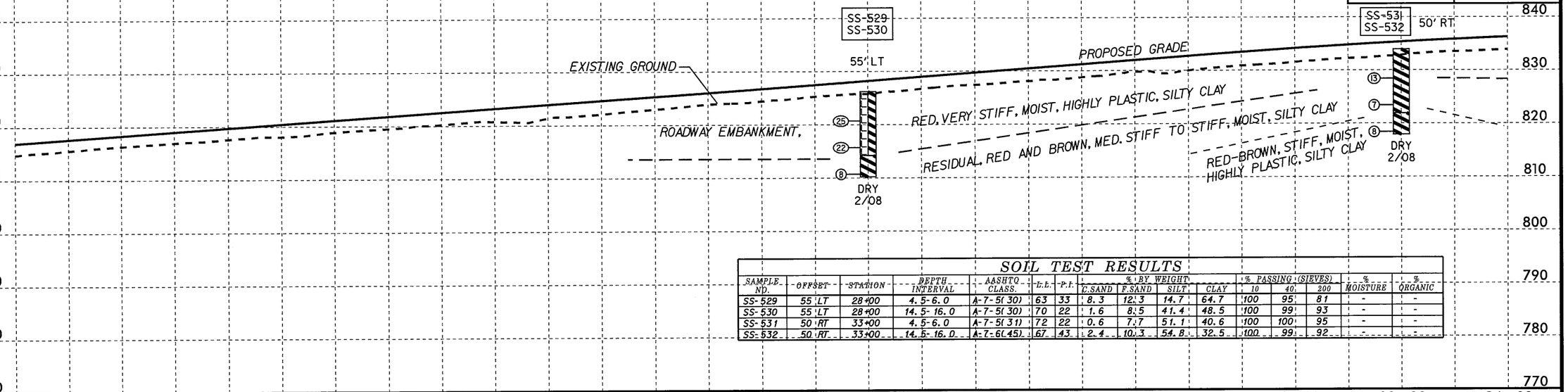
870 860 850 840 830 820 810 800 790 780 770 760 750 740 730 720 710 700 690 680 670

10+00 11+00 12+00 13+00 14+00 15+00 16+00 17+00 18+00 19+00 20+00 21+00 22+00 23+00 24+00

5/28/99

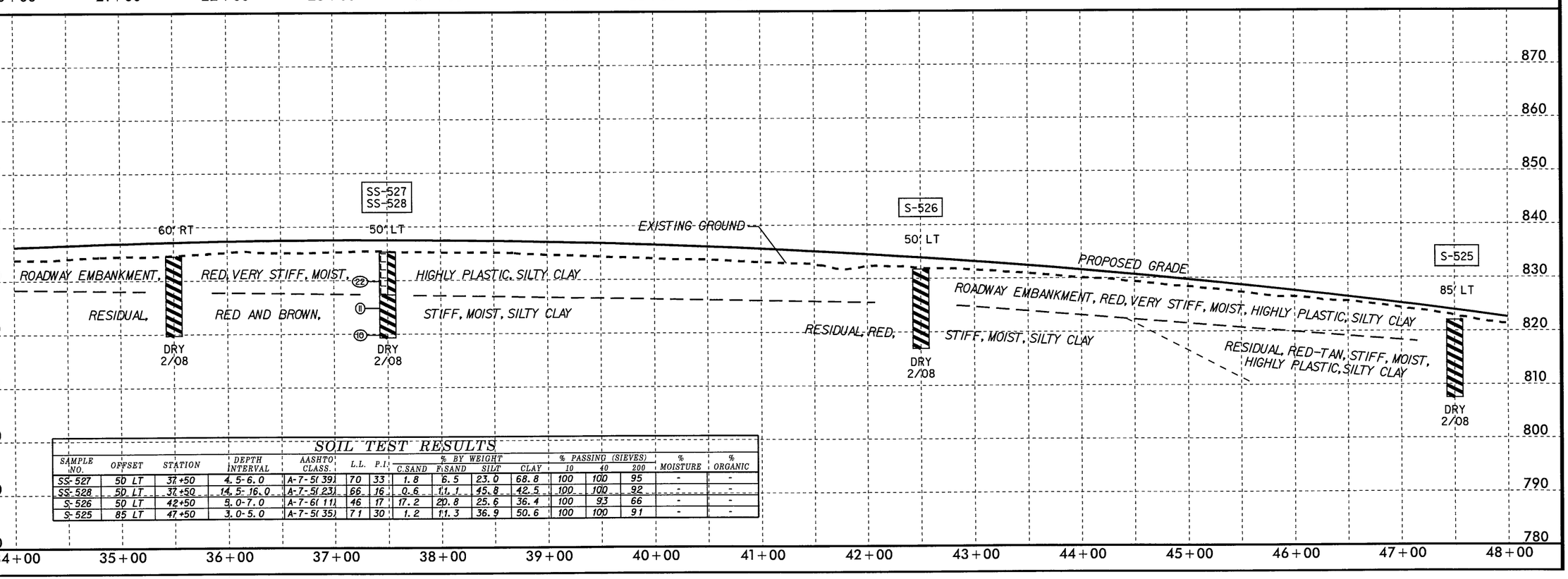
-Y13-

PROJECT REFERENCE NO.	SHEET NO.
U-2525B	64
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER



SOIL TEST RESULTS

SAMPLE NO.	OFFSET	STATION	DEPTH INTERVAL	AASHTO CLASS.	L.L.	P.I.	% BY WEIGHT C.SAND	F.SAND	SILT	CLAY	% PASSING (SIEVES) 10	40	200	% MOISTURE	% ORGANIC
SS-529	55' LT	28+00	4.5-6.0	A-7-5(30)	63	33	8.3	12.3	14.7	64.7	100	95	81	-	-
SS-530	55' LT	28+00	14.5-16.0	A-7-5(30)	70	22	1.6	8.5	41.4	48.5	100	99	93	-	-
SS-531	50' RT	33+00	4.5-6.0	A-7-5(31)	72	22	0.6	7.7	51.1	40.6	100	100	95	-	-
SS-532	50' RT	33+00	14.5-16.0	A-7-6(45)	67	43	2.4	10.3	54.8	32.5	100	99	92	-	-

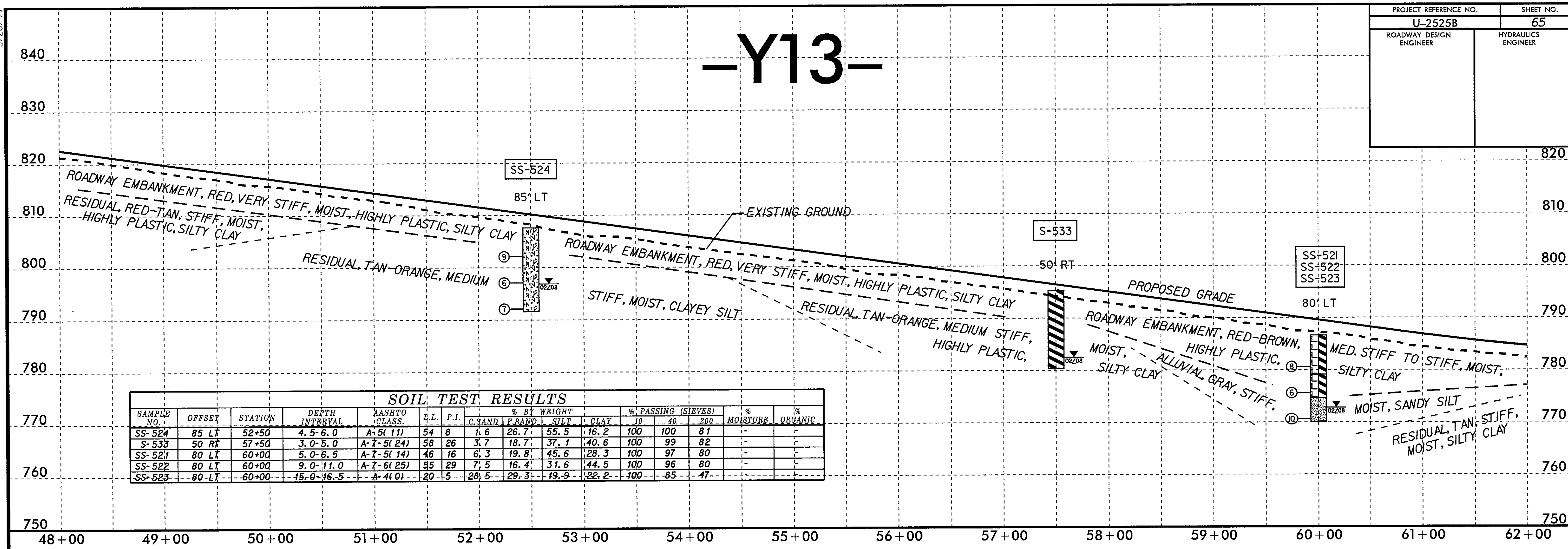


SOIL TEST RESULTS

SAMPLE NO.	OFFSET	STATION	DEPTH INTERVAL	AASHTO CLASS.	L.L.	P.I.	% BY WEIGHT C.SAND	F.SAND	SILT	CLAY	% PASSING (SIEVES) 10	40	200	% MOISTURE	% ORGANIC
SS-527	50 LT	37+50	4.5-6.0	A-7-5(39)	70	33	1.8	6.5	23.0	68.8	100	100	95	-	-
SS-528	50 LT	37+50	14.5-16.0	A-7-5(23)	66	16	0.6	11.1	45.8	42.5	100	100	92	-	-
S-526	50 LT	42+50	5.0-7.0	A-7-6(11)	46	17	17.2	20.8	25.6	36.4	100	93	66	-	-
S-525	85 LT	47+50	3.0-5.0	A-7-5(35)	71	30	1.2	11.3	36.9	50.6	100	100	91	-	-

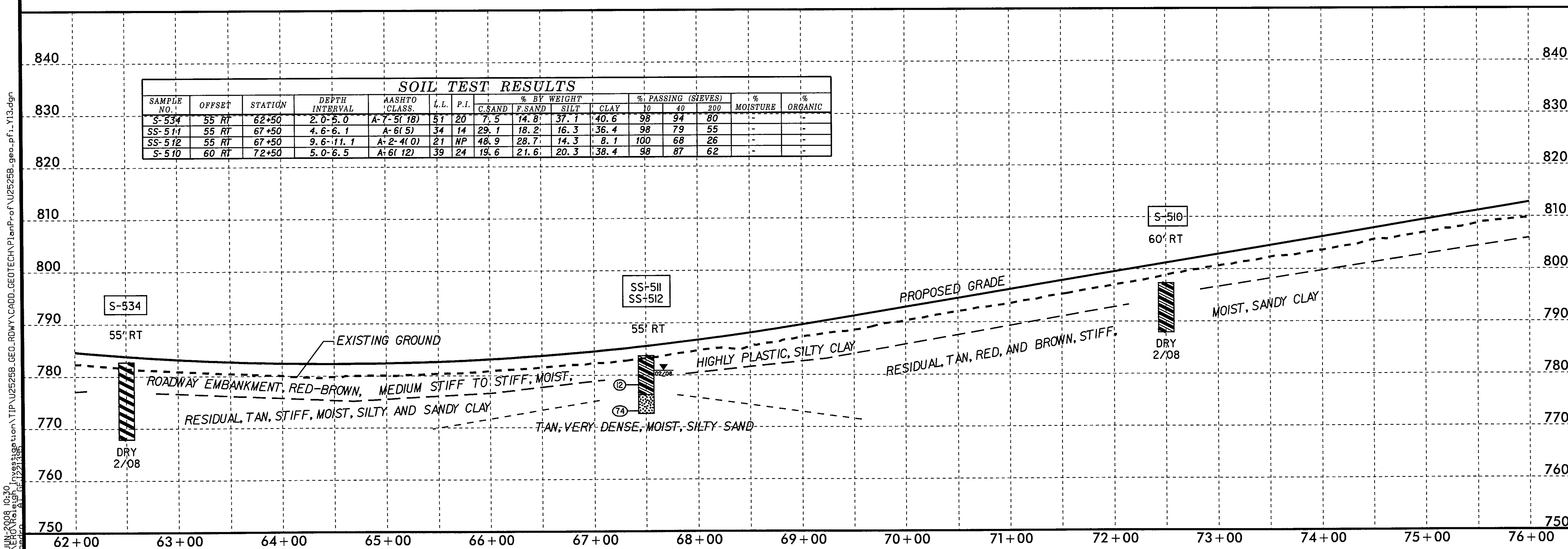
PROJECT REFERENCE NO.	SHEET NO.
U-2525B	65
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

-Y13-



SOIL TEST RESULTS

SAMPLE NO.	OFFSET	STATION	DEPTH INTERVAL	AASHTO CLASS.	L.L.	P.I.	% BY WEIGHT C.SAND	F.SAND	SILT	CLAY	% PASSING (SIEVES) 10	40	200	% MOISTURE	% ORGANIC
SS-524	85 LT	52+50	4.5-6.0	A-5(11)	54	8	1.6	26.7	55.5	16.2	100	100	81	-	-
S-533	50 RT	57+50	3.0-5.0	A-7-5(24)	58	26	3.7	18.7	37.1	40.6	100	99	82	-	-
SS-521	80 LT	60+00	5.0-6.5	A-7-5(14)	46	16	6.3	19.8	45.6	28.3	100	97	80	-	-
SS-522	80 LT	60+00	9.0-11.0	A-7-6(25)	55	29	7.5	16.4	31.6	44.5	100	96	80	-	-
SS-523	80 LT	60+00	15.0-16.5	A-4(0)	20	5	28.5	29.3	19.9	22.2	100	85	47	-	-



SOIL TEST RESULTS

SAMPLE NO.	OFFSET	STATION	DEPTH INTERVAL	AASHTO CLASS.	L.L.	P.I.	% BY WEIGHT C.SAND	F.SAND	SILT	CLAY	% PASSING (SIEVES) 10	40	200	% MOISTURE	% ORGANIC
S-534	55 RT	62+50	2.0-5.0	A-7-5(18)	51	20	7.5	14.8	37.1	40.6	98	94	80	-	-
SS-511	55 RT	67+50	4.6-6.1	A-6(5)	34	14	29.1	18.2	16.3	36.4	98	79	55	-	-
SS-512	55 RT	67+50	9.6-11.1	A-2-4(0)	21	NP	48.9	28.7	14.3	8.1	100	68	26	-	-
S-510	60 RT	72+50	5.0-6.5	A-6(12)	39	24	19.6	21.6	20.3	38.4	98	87	62	-	-

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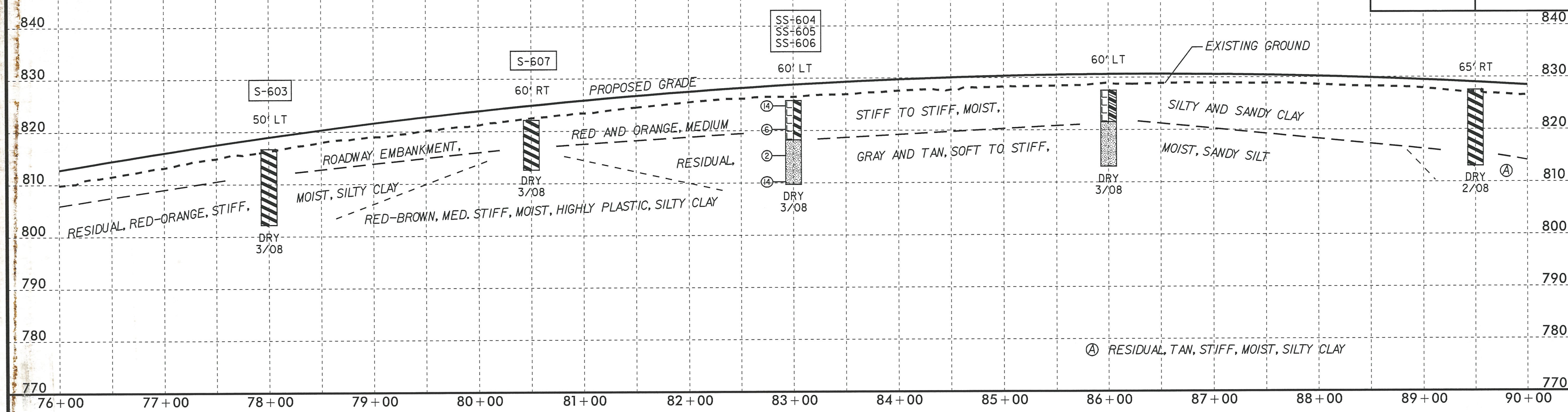
-Y13-

PROJECT REFERENCE NO.	SHEET NO.
U-2525B	66
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

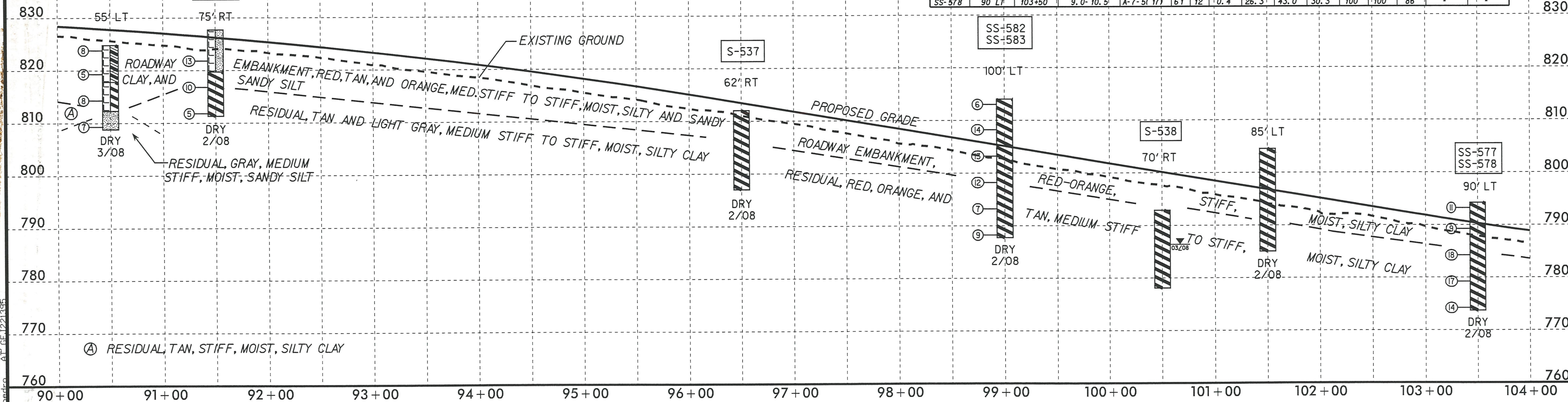
SOIL TEST RESULTS

SAMPLE NO.	OFFSET	STATION	DEPTH INTERVAL	AASHTO CLASS.	L.L.	P.I.	% BY WEIGHT C.SAND	F.SAND	SILT	CLAY	% PASSING (SIEVES) 10	40	200	% MOISTURE	% ORGANIC
S-603	50 LT	78+00	0.0-3.0	A-7-5(15)	53	17	5.1	17.0	31.3	46.6	93	90	77	-	-
S-607	60 RT	80+50	0.0-9.5	A-7-5(38)	74	31	2.2	8.3	33.1	56.5	100	99	93	-	-
SS-604	60 LT	85+00	4.5-6.0	A-7-5(14)	51	18	11.2	15.6	24.5	48.7	95	88	73	-	-
SS-605	60 LT	83+00	9.5-11.0	A-4(1)	22	7	24.7	26.6	20.3	28.4	98	82	52	-	-
SS-606	60 LT	83+00	14.5-16.0	A-4(2)	29	10	32.4	25.5	17.7	24.3	98	79	47	-	-



SOIL TEST RESULTS

SAMPLE NO.	OFFSET	STATION	DEPTH INTERVAL	AASHTO CLASS.	L.L.	P.I.	% BY WEIGHT C.SAND	F.SAND	SILT	CLAY	% PASSING (SIEVES) 10	40	200	% MOISTURE	% ORGANIC
SS-596	55 LT	90+50	0.0-1.5	A-6(9)	37	17	21.7	18.0	17.7	42.6	100	86	64	-	-
SS-597	55 LT	90+50	9.5-11.0	A-7-5(4)	44	11	34.2	17.8	23.6	24.3	100	75	52	-	-
SS-598	55 LT	90+50	14.5-16.0	A-4(0)	38	6	41.3	19.5	27.1	12.2	92	67	40	-	-
SS-535	75 RT	91+50	4.9-6.4	A-4(1)	30	9	32.5	23.5	23.7	20.3	92	72	45	-	-
SS-536	75 RT	91+50	9.7-11.4	A-7-5(14)	56	23	29.0	10.3	38.3	22.3	100	76	63	-	-
S-537	62 RT	96+50	3.0-6.0	A-7-6(4)	42	14	41.2	13.2	27.4	18.3	99	66	48	-	-
SS-582	100 LT	99+00	0.0-1.5	A-7-5(14)	52	14	7.9	19.2	34.5	38.4	99	95	78	-	-
SS-583	100 LT	99+00	14.8-16.3	A-7-5(19)	56	16	4.0	19.4	52.3	24.2	100	98	87	-	-
S-538	70 RT	100+50	2.0-4.0	A-7-5(20)	55	23	9.1	16.6	25.6	48.7	98	93	77	-	-
SS-577	90 LT	103+50	0.0-1.5	A-7-6(21)	49	22	4.8	13.5	23.0	58.6	98	95	85	-	-
SS-578	90 LT	103+50	9.0-10.5	A-7-5(17)	61	12	0.4	26.3	43.0	30.3	100	100	86	-	-



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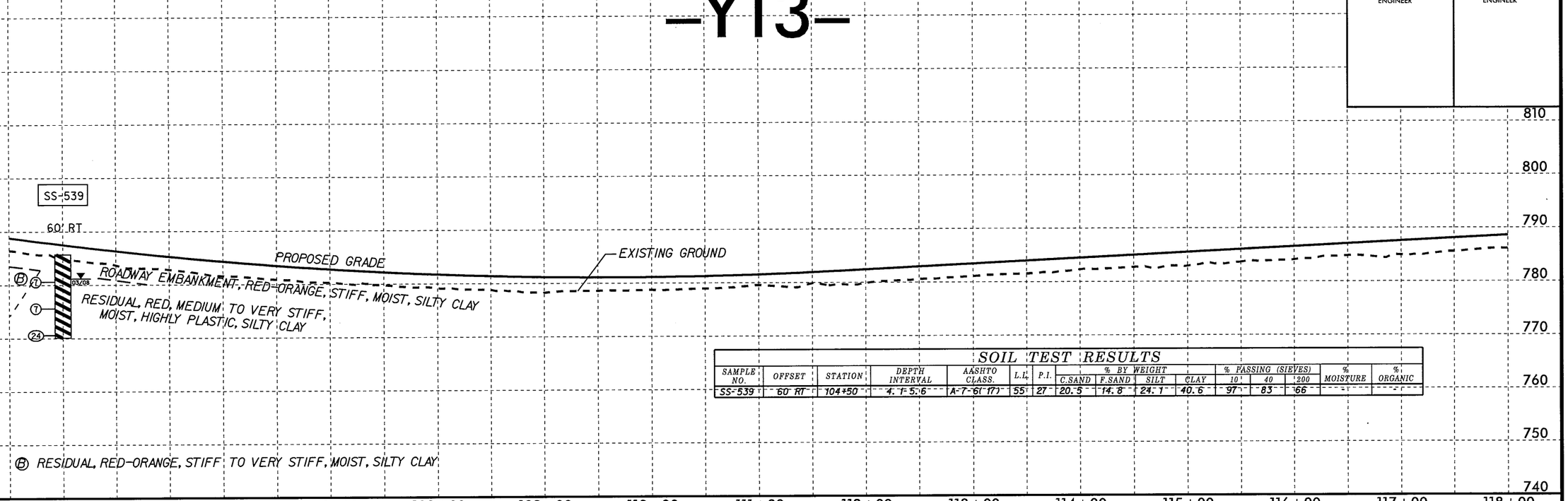
5/28/99

PROJECT REFERENCE NO.	SHEET NO.
U-2525B	67
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

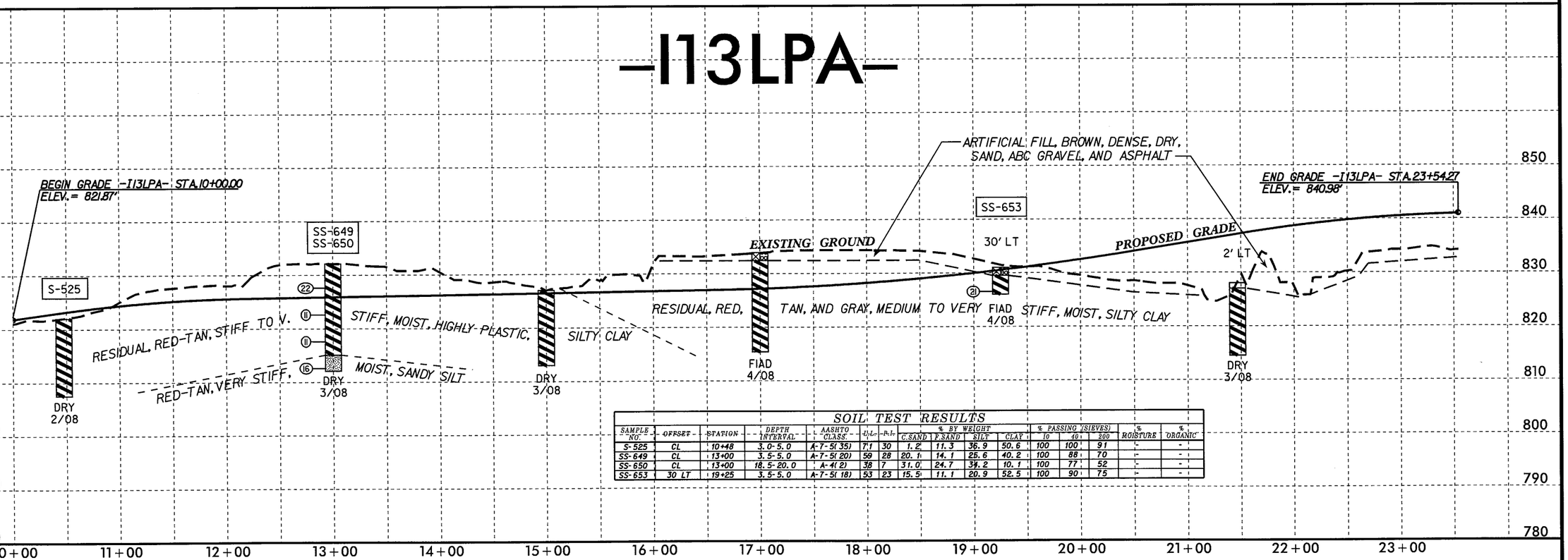
-Y13-



SOIL TEST RESULTS

SAMPLE NO.	OFFSET	STATION	DEPTH INTERVAL	AASHTO CLASS.	L.L.	P.I.	% BY WEIGHT C.SAND	F.SAND	SILT	CLAY	% PASSING (SIEVES) 10	40	200	% MOISTURE	% ORGANIC
SS-539	60' RT	104+50	4.1- 5.6	A-7-6(17)	55	27	20.5	14.8	24.1	40.6	97	83	66	-	-

-I13LPA-



SOIL TEST RESULTS

SAMPLE NO.	OFFSET	STATION	DEPTH INTERVAL	AASHTO CLASS	L.L.	P.I.	% BY WEIGHT C.SAND	F.SAND	SILT	CLAY	% PASSING (SIEVES) 10	40	200	% MOISTURE	% ORGANIC
S-525	CL	10+48	3.0- 5.0	A-7-5(35)	71	30	1.2	11.3	36.9	50.6	100	100	91	-	-
SS-649	CL	13+00	3.5- 5.0	A-7-5(20)	59	28	20.1	14.1	25.6	40.2	100	88	70	-	-
SS-650	CL	13+00	18.5- 20.0	A-4(2)	38	7	31.0	24.7	34.2	10.1	100	77	52	-	-
SS-653	30 LT	19+25	3.5- 5.0	A-7-5(18)	53	23	15.5	11.1	20.9	52.5	100	90	75	-	-

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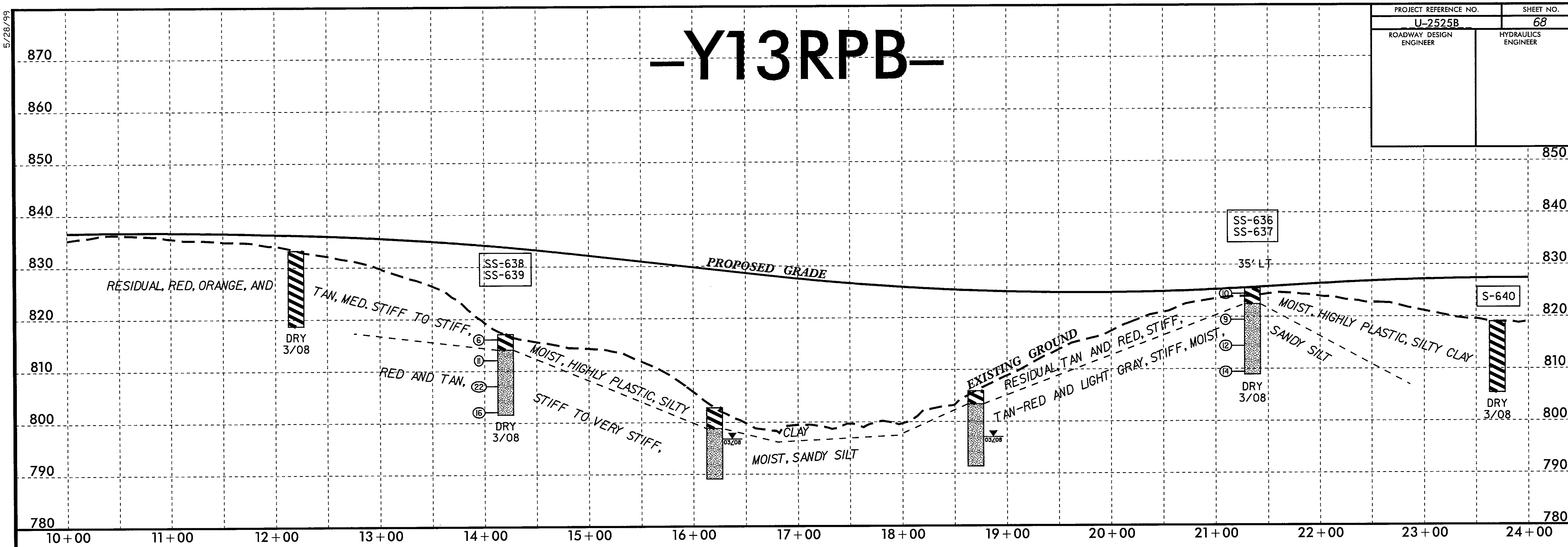
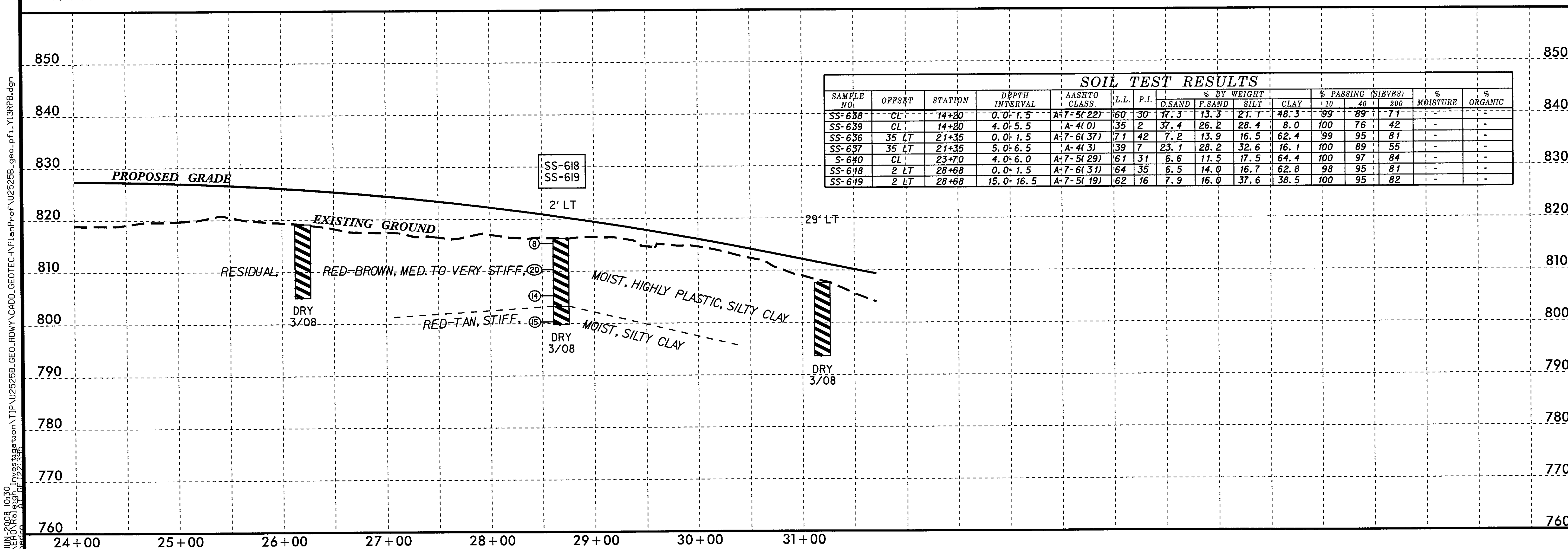
PROJECT REFERENCE NO.	SHEET NO.
U-2525B	68
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

-Y13RPB-



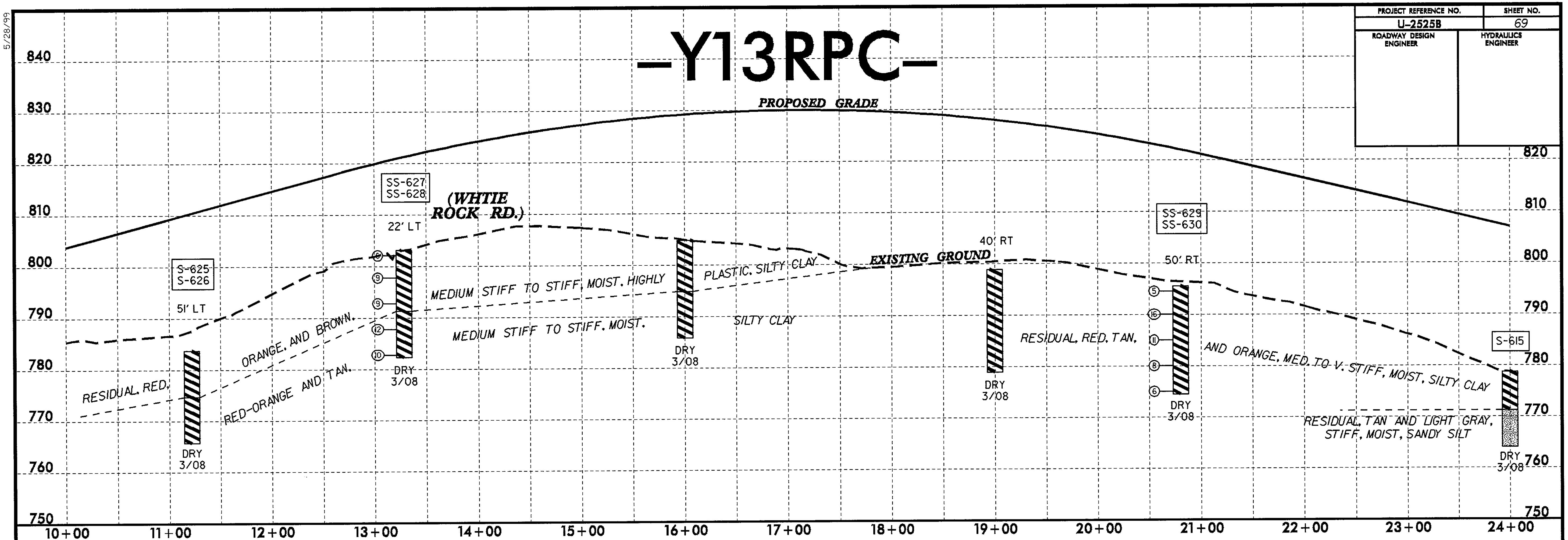


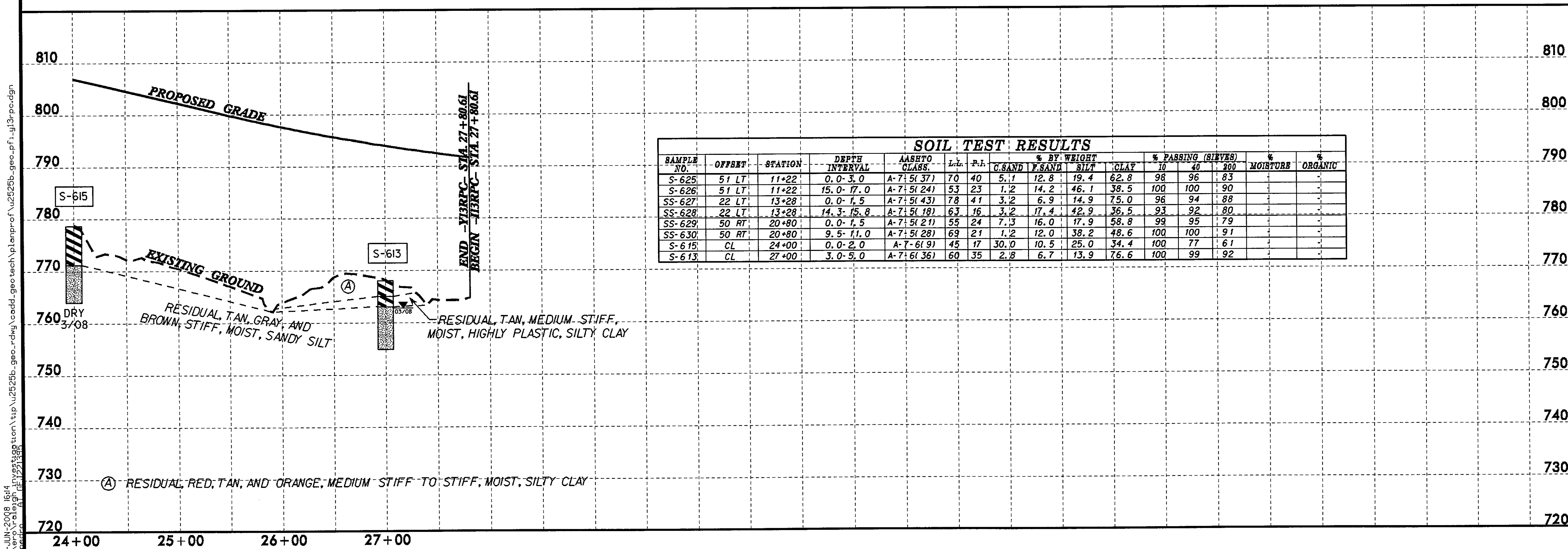
SOIL TEST RESULTS

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-638	CL	14+20	0.0-1.5	A-7-5(22)	60	30	17.3	13.3	21.1	48.3	99	89	71	-	-
SS-639	CL	14+20	4.0-5.5	A-4(0)	35	2	37.4	26.2	28.4	8.0	100	76	42	-	-
SS-636	35 LT	21+35	0.0-1.5	A-7-6(37)	71	42	7.2	13.9	16.5	62.4	99	95	81	-	-
SS-637	35 LT	21+35	5.0-6.5	A-4(3)	39	7	23.1	28.2	32.6	16.1	100	89	55	-	-
S-640	CL	23+70	4.0-6.0	A-7-5(29)	61	31	6.6	11.5	17.5	64.4	100	97	84	-	-
SS-618	2 LT	28+68	0.0-1.5	A-7-6(31)	64	35	6.5	14.0	16.7	62.8	98	95	81	-	-
SS-619	2 LT	28+68	15.0-16.5	A-7-5(19)	62	16	7.9	16.0	37.6	38.5	100	95	82	-	-

PROJECT REFERENCE NO.	SHEET NO.
U-2525B	69
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

-Y13RPC-





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		
S-625	51 LT	11+22	0.0-3.0	A-7-5(37)	70	40	5.1	12.8	19.4	62.8	98	96	83	-	-
S-626	51 LT	11+22	15.0-17.0	A-7-5(24)	53	23	1.2	14.2	46.1	38.5	100	100	90	-	-
SS-627	22 LT	13+28	0.0-1.5	A-7-5(43)	78	41	3.2	6.9	14.9	75.0	96	94	88	-	-
SS-628	22 LT	13+28	14.3-15.8	A-7-5(18)	63	16	3.2	17.4	42.9	36.5	93	92	80	-	-
SS-629	50 RT	20+80	0.0-1.5	A-7-5(21)	55	24	7.3	16.0	17.9	58.8	99	95	79	-	-
SS-630	50 RT	20+80	9.5-11.0	A-7-5(28)	69	21	1.2	12.0	38.2	48.6	100	100	91	-	-
S-615	CL	24+00	0.0-2.0	A-7-6(9)	45	17	30.0	10.5	25.0	34.4	100	77	61	-	-
S-613	CL	27+00	3.0-5.0	A-7-6(36)	60	35	2.8	6.7	13.9	76.6	100	99	92	-	-

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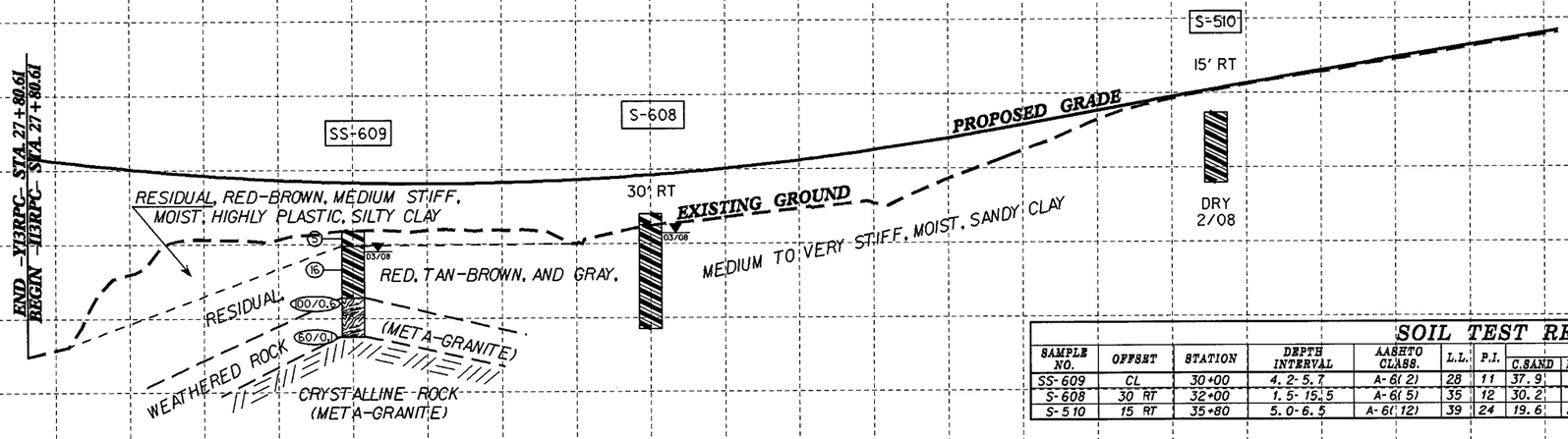
PROJECT REFERENCE NO.	SHEET NO.
U-2525B	70
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

-I13RPC-



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-609	CL	30+00	4.2-5.7	A-6(2)	28	11	37.9	19.2	18.8	24.2	100	70	47	-	-
S-608	30 RT	32+00	1.5-15.5	A-6(5)	35	12	30.2	13.9	23.6	32.3	100	76	59	-	-
S-510	15 RT	35+80	5.0-6.5	A-6(12)	39	24	19.6	21.6	20.3	38.4	98	87	62	-	-

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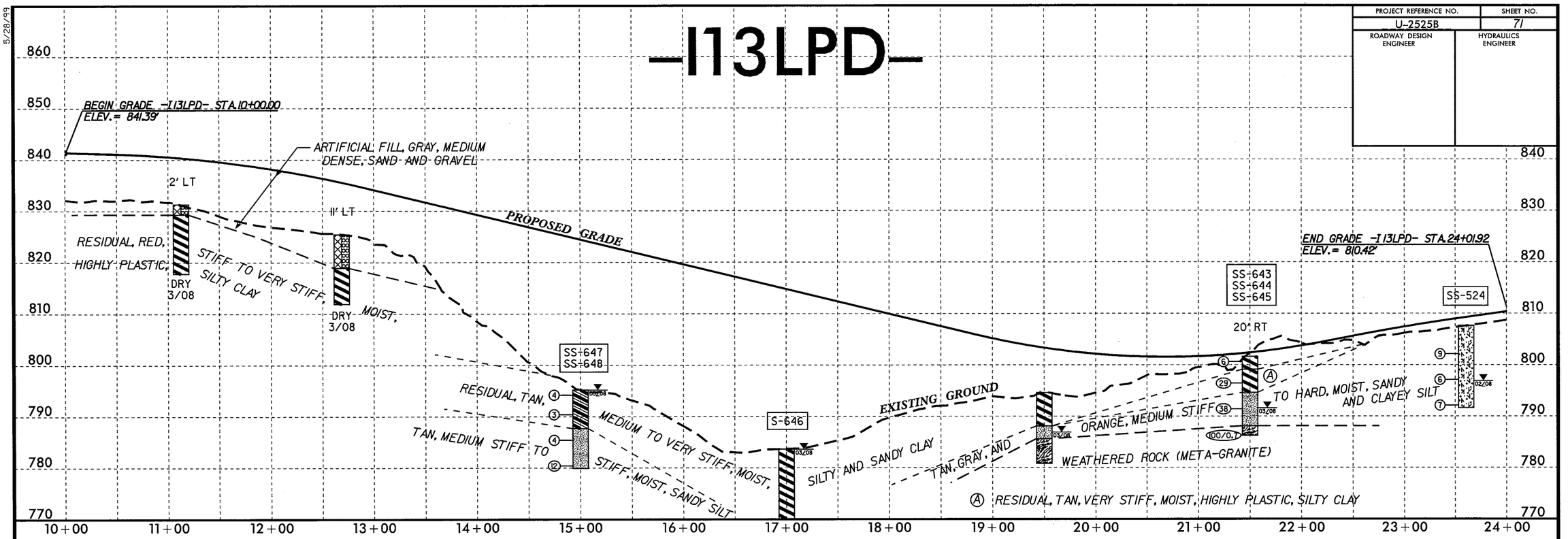
-I13LPD-

PROJECT REFERENCE NO.	SHEET NO.
U-2525B	71
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

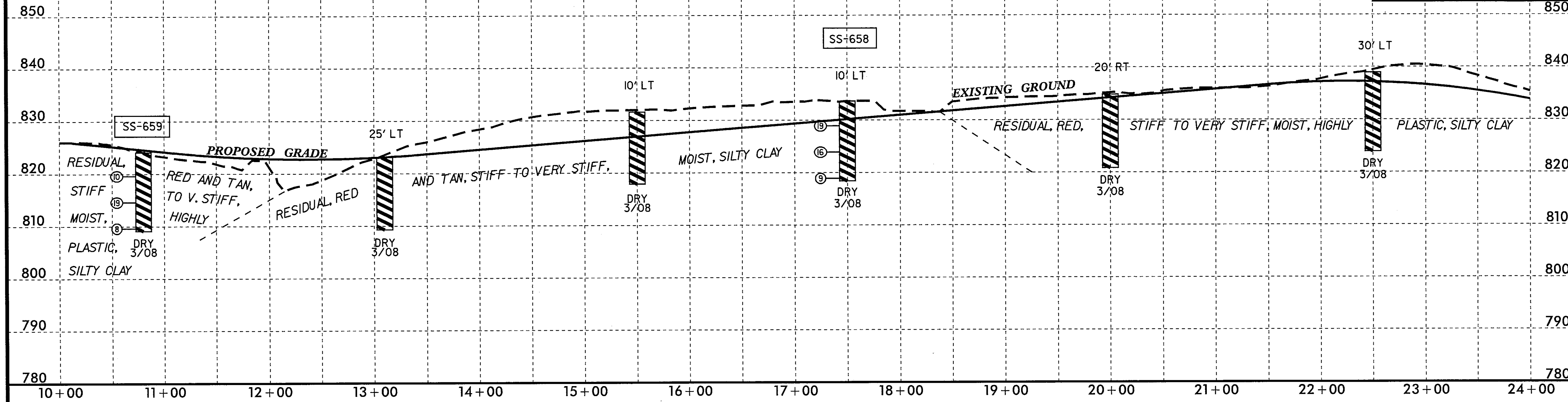


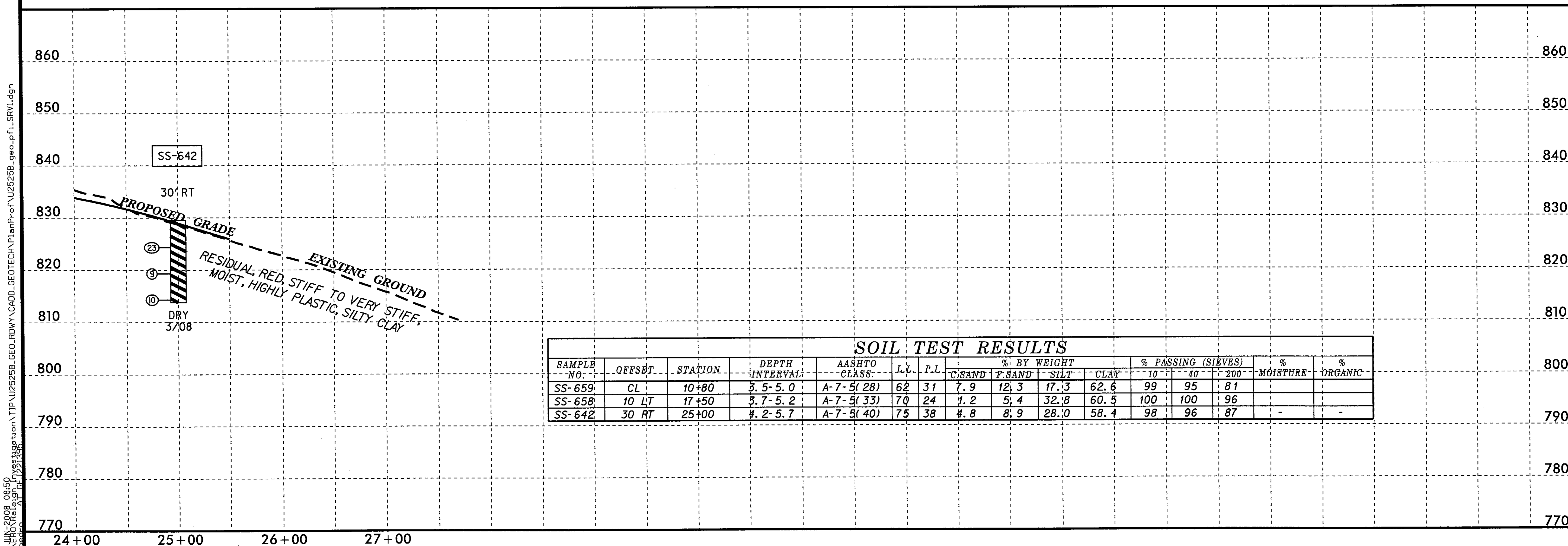
SOIL TEST RESULTS

SAMPLE NO.	OFFSET	STATION	DEPTH INTERVAL	AASHTO CLASS.	L.L.	P.I.	% BY WEIGHT C.SAND	F.SAND	SILT	CLAY	% PASSING (SIEVES) 10	40	200	% MOISTURE	% ORGANIC
SS-647	CL	15+00	0.0- 1.5	A-6(7)	30	14	18.1	21.5	32.2	28.2	100	89	65	-	-
SS-648	CL	15+00	13.8- 15.3	A-4(2)	34	3	7.0	33.4	53.5	6.0	100	99	68	-	-
S-646	CL	17+00	0.0- 2.0	A-7-5(22)	50	20	1.2	10.5	54.1	34.2	100	100	93	-	-
SS-643	20' RT	21+50	0.0- 1.5	A-7-6(11)	43	22	22.3	20.3	21.1	36.2	99	86	61	-	-
SS-644	20' RT	21+50	4.2- 5.7	A-7-6(20)	54	26	11.3	19.7	26.8	42.3	100	95	73	-	-
SS-645	20' RT	21+50	8.2- 10.7	A-4(1)	30	5	20.1	33.0	38.8	8.0	100	90	55	-	-
SS-524	CL	23+61	4.5- 6.0	A-5(11)	54	8	1.6	26.7	55.5	16.2	100	100	81	-	-

PROJECT REFERENCE NO.	SHEET NO.
U-2525B	72
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

-ISRV1-





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-659	CL	10+80	3.5-5.0	A-7-5(28)	62	31	7.9	12.3	17.3	62.6	99	95	81		
SS-658	10 LT	17+50	3.7-5.2	A-7-5(33)	70	24	1.2	5.4	32.8	60.5	100	100	96		
SS-642	30 RT	25+00	4.2-5.7	A-7-5(40)	75	38	4.8	8.9	28.0	58.4	98	96	87	-	-

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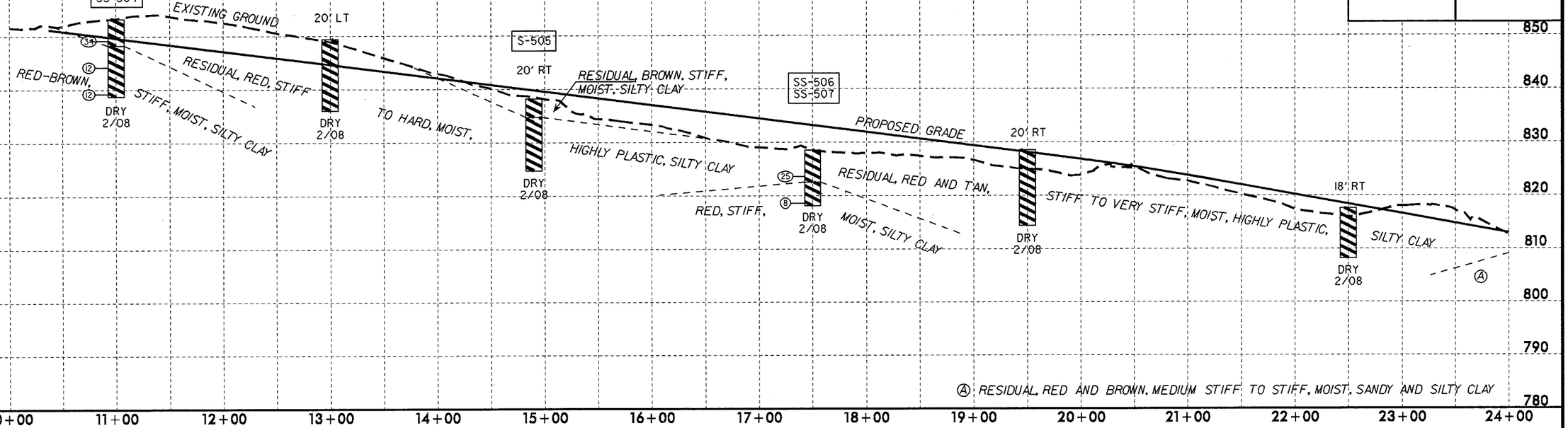
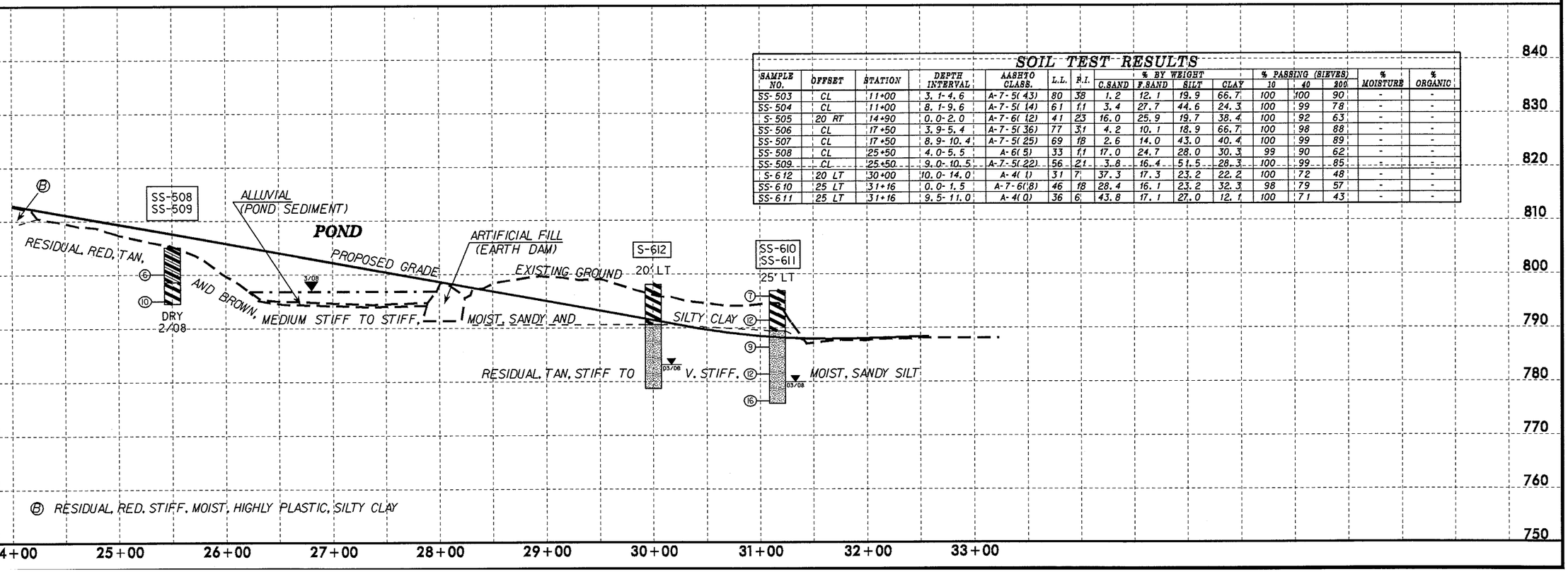
PROJECT REFERENCE NO.	SHEET NO.
U-2525B	73
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

-Y21-



SOIL TEST RESULTS

SAMPLE NO.	OFFSET	STATION	DEPTH INTERVAL	AASHTO CLASS.	L.L.	P.I.	% BY WEIGHT C.SAND	% BY WEIGHT F.SAND	% BY WEIGHT SILT	% BY WEIGHT CLAY	% PASSING (SIEVES) 10	% PASSING (SIEVES) 40	% PASSING (SIEVES) 200	% MOISTURE	% ORGANIC
SS-503	CL	11+00	3.1-4.6	A-7-5(43)	80	38	1.2	12.1	19.9	66.7	100	100	90	-	-
SS-504	CL	11+00	8.1-9.6	A-7-5(14)	61	11	3.4	27.7	44.6	24.3	100	99	78	-	-
S-505	20 RT	14+90	0.0-2.0	A-7-6(12)	41	23	16.0	25.9	19.7	38.4	100	92	63	-	-
SS-506	CL	17+50	3.9-5.4	A-7-5(36)	77	31	4.2	10.1	18.9	66.7	100	98	88	-	-
SS-507	CL	17+50	8.9-10.4	A-7-5(25)	69	18	2.6	14.0	43.0	40.4	100	99	89	-	-
SS-508	CL	25+50	4.0-5.5	A-6(5)	33	11	17.0	24.7	28.0	30.3	99	90	62	-	-
SS-509	CL	25+50	9.0-10.5	A-7-5(22)	56	21	3.8	16.4	51.5	28.3	100	99	85	-	-
S-612	20 LT	30+00	10.0-14.0	A-4(1)	31	7	37.3	17.3	23.2	22.2	100	72	48	-	-
SS-610	25 LT	31+16	0.0-1.5	A-7-6(18)	46	18	28.4	16.1	23.2	32.3	98	79	57	-	-
SS-611	25 LT	31+16	9.5-11.0	A-4(0)	36	6	43.8	17.1	27.0	12.1	100	71	43	-	-



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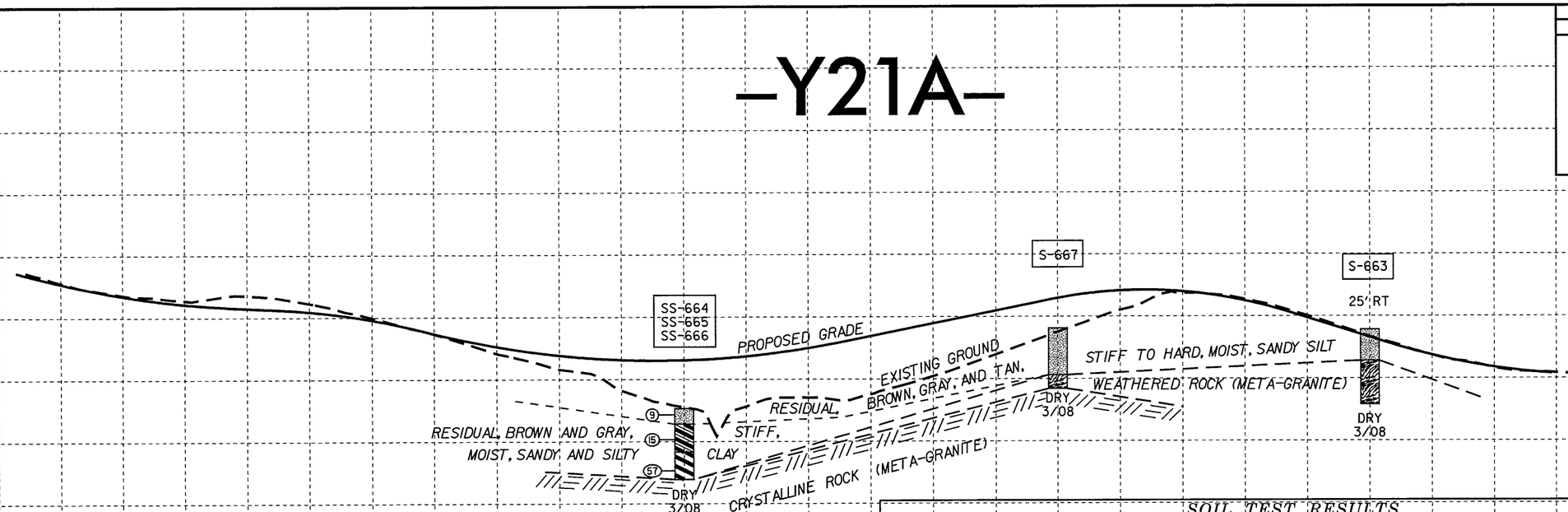
PROJECT REFERENCE NO.	SHEET NO.
U-2525B	74
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

-Y21A-



SOIL TEST RESULTS

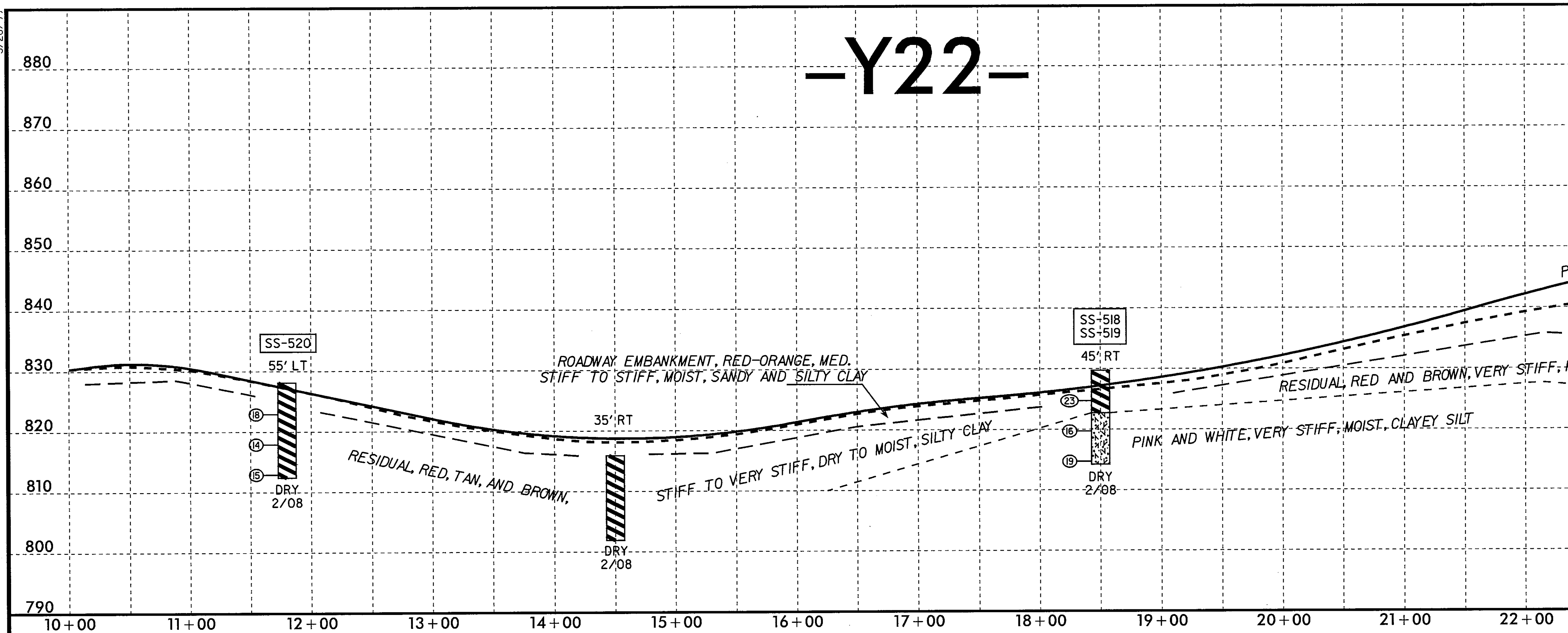
SAMPLE NO.	OFFSET	STATION	DEPTH INTERVAL	AASHTO CLASS.	L.L.	P.I.	% BY WEIGHT C.SAND	% BY WEIGHT F.SAND	% BY WEIGHT SILT	% BY WEIGHT CLAY	% PASSING (SIEVES) 10	% PASSING (SIEVES) 40	% PASSING (SIEVES) 200	% MOISTURE	% ORGANIC
SS-664	CL	18+00	0.0-1.5	A-4(0)	18	5	36.1	28.3	21.2	14.4	99	74	40		
SS-665	CL	18+00	4.0-5.5	A-6(4)	33	11	30.4	18.9	34.4	16.4	100	80	57		
SS-666	CL	18+00	9.0-10.5	A-7-6(11)	45	17	12.9	28.7	27.6	30.8	100	92	68		
S-667	CL	21+00	3.0-4.5	A-4(1)	26	10	47.2	15.6	16.7	20.5	98	61	39		
S-663	25 LT	23+50	0.0-2.0	A-4(3)	28	9	12.5	33.2	29.6	24.6	100	96	60		

PROJECT REFERENCE NO.	SHEET NO.
U-2525B	75

ROADWAY DESIGN ENGINEER

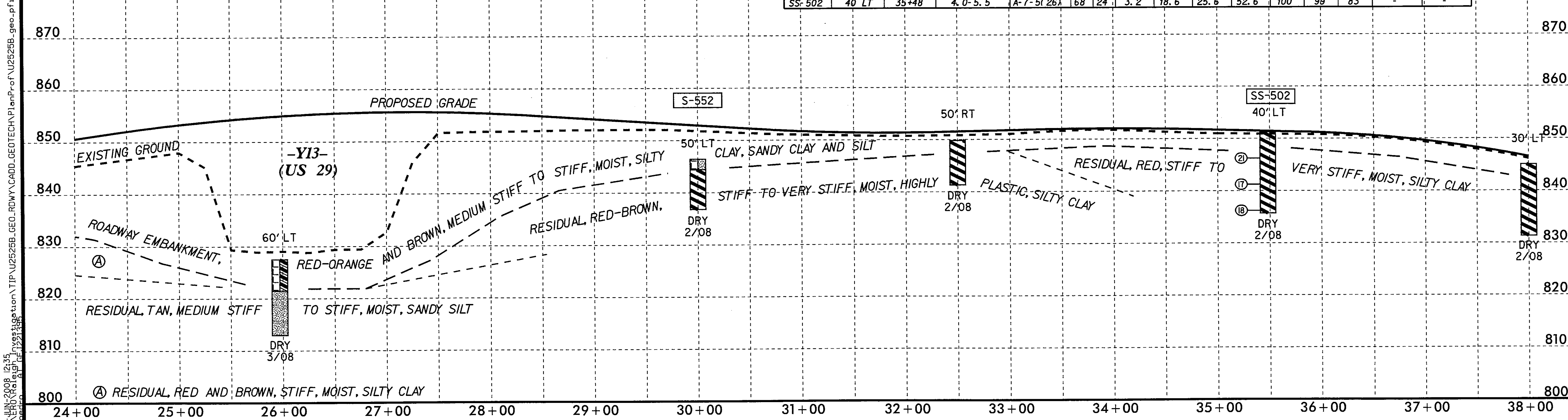
HYDRAULICS ENGINEER

-Y22-



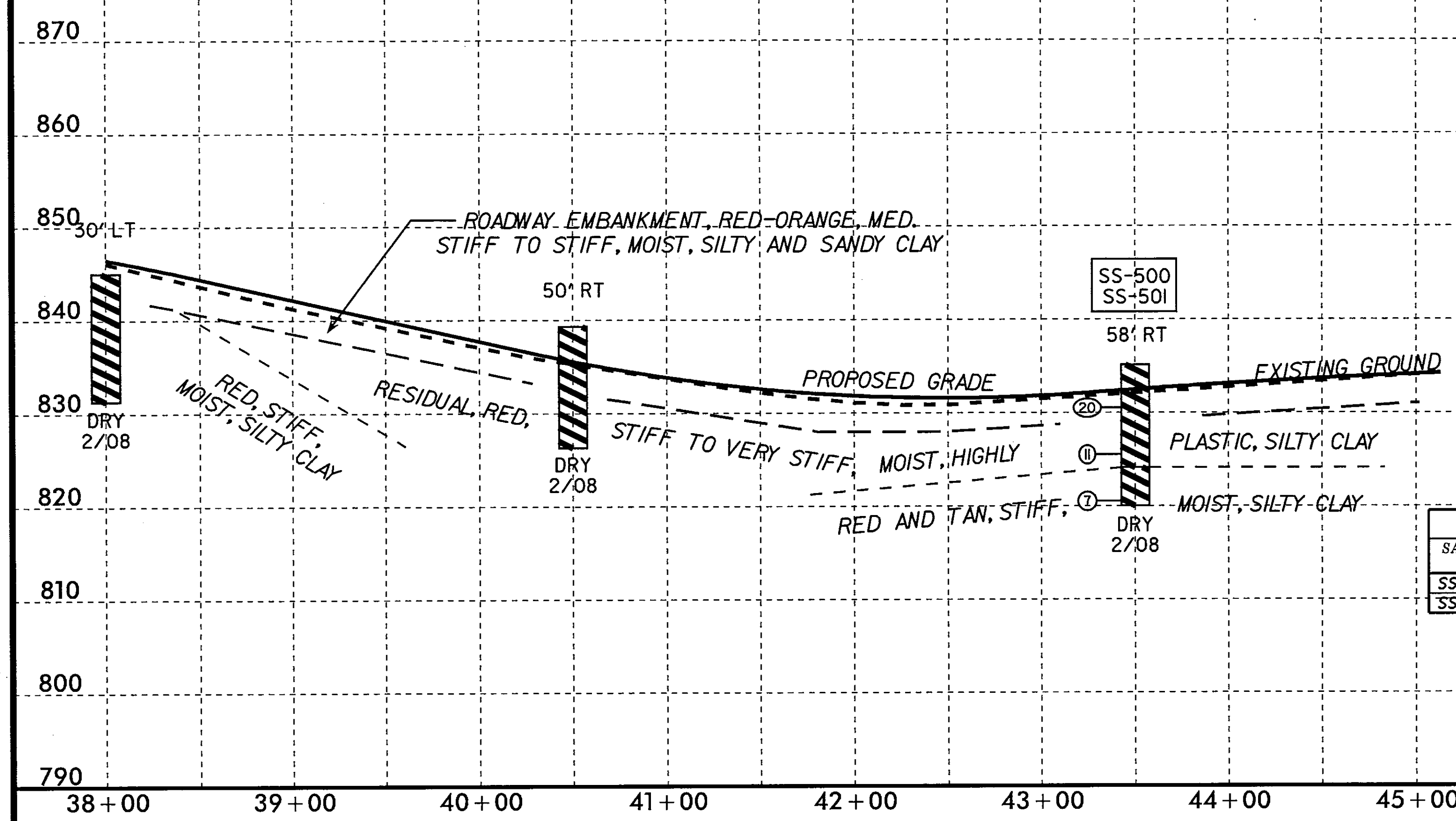
SOIL TEST RESULTS

SAMPLE NO.	OFFSET	STATION	DEPTH INTERVAL	AASHTO CLASS.	L.L.	P.I.	% BY WEIGHT C.SAND	% BY WEIGHT F.SAND	% BY WEIGHT SILT	% BY WEIGHT CLAY	% PASSING (SIEVES) 10	% PASSING (SIEVES) 40	% PASSING (SIEVES) 200	% MOISTURE	% ORGANIC
SS-520	55 LT	11+80	4.2-5.7	A-7-5(10)	53	21	36.0	9.3	22.3	32.4	98	67	56	-	-
SS-518	45 RT	18+50	4.0-5.5	A-7-5(25)	70	21	4.2	20.4	32.9	42.5	100	98	85	-	-
SS-519	45 RT	18+50	9.0-10.5	A-5(5)	42	7	20.0	19.6	44.2	16.2	100	86	67	-	-
S-552	50 LT	30+00	0.0-2.0	A-4(0)	17	6	26.1	29.5	22.0	22.4	99	84	51	-	-
SS-502	40 LT	35+48	4.0-5.5	A-7-5(26)	68	24	3.2	18.6	25.6	52.6	100	99	83	-	-



PROJECT REFERENCE NO.	SHEET NO.
U-2525B	76
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

-Y22-



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-500	58 RT	43+50	3.6-5.1	A-7-5(23)	65	31	20.2	12.3	25.0	42.5	100	84	71	-	-
SS-501	58 RT	43+50	13.6-15.1	A-7-5(26)	63	19	1.8	7.1	56.7	34.4	100	99	94	-	-

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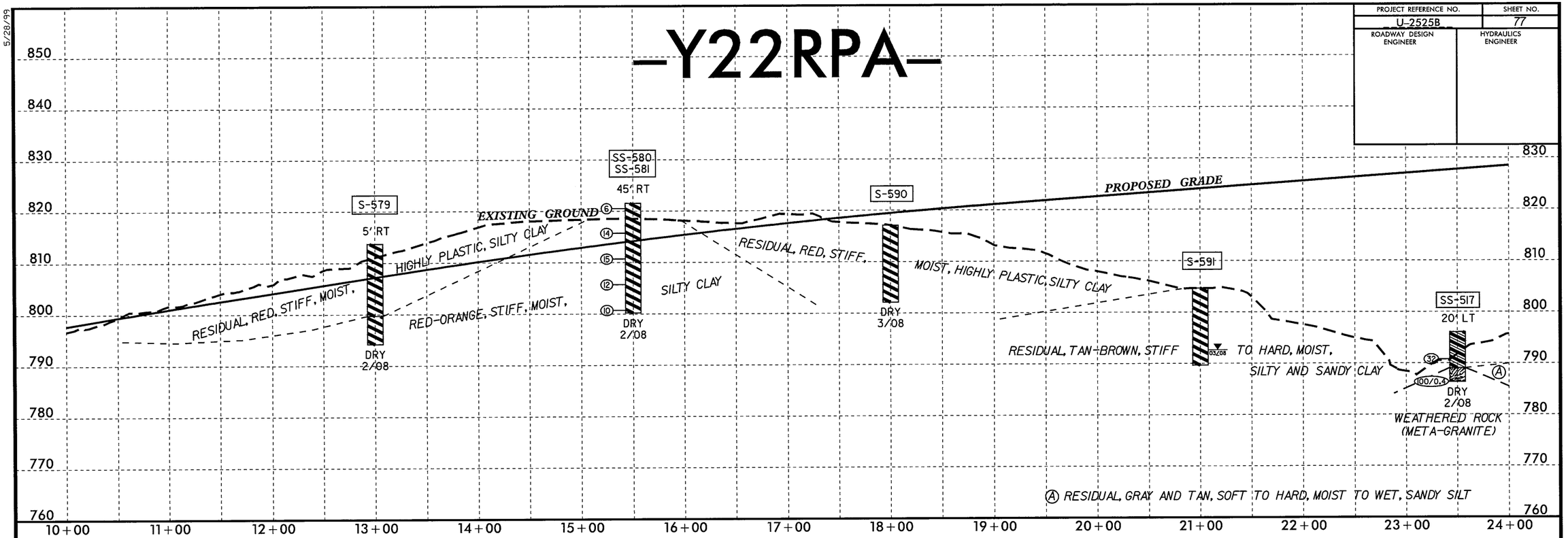
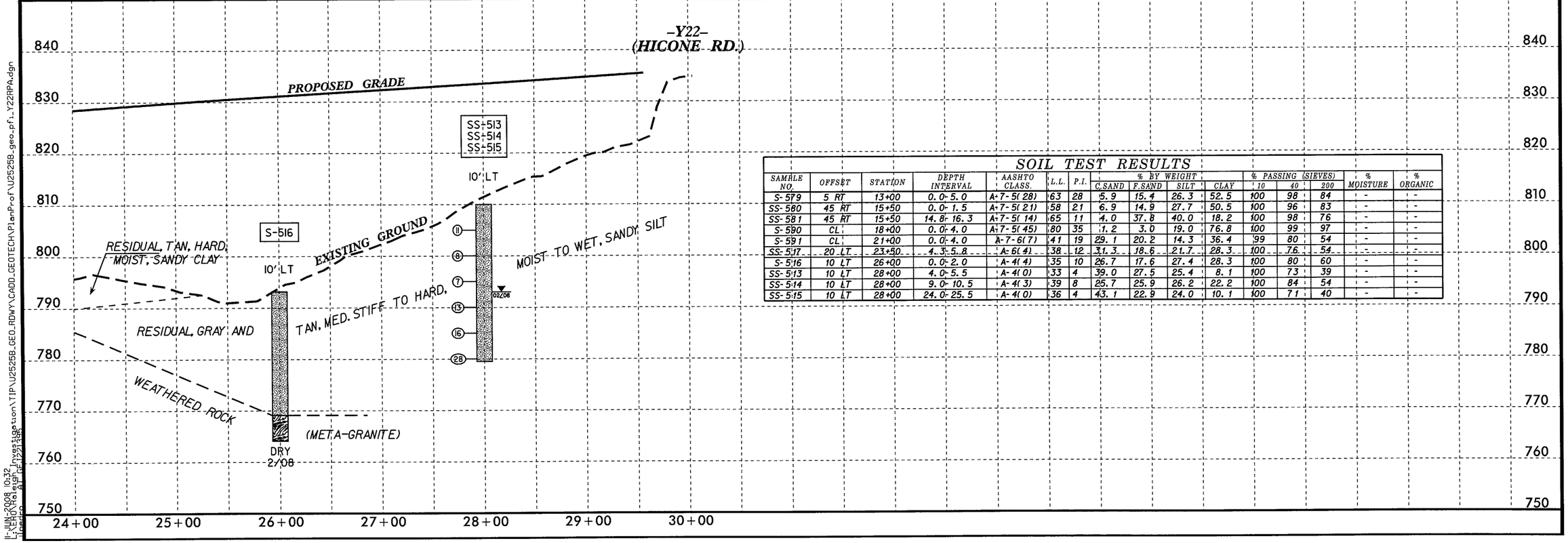
PROJECT REFERENCE NO.	SHEET NO.
U-2525B	77
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER





SOIL TEST RESULTS

SAMPLE NO.	OFFSET	STATION	DEPTH INTERVAL	AASHTO CLASS.	L.L.	P.I.	% BY WEIGHT C.SAND	F.SAND	SILT	CLAY	% PASSING (SIEVES) 10	40	200	% MOISTURE	% ORGANIC
S-579	5 RT	13+00	0.0- 5.0	A-7-5(28)	63	28	5.9	15.4	26.3	52.5	100	98	84	-	-
SS-580	45 RT	15+50	0.0- 1.5	A-7-5(21)	58	21	6.9	14.9	27.7	50.5	100	96	83	-	-
SS-581	45 RT	15+50	14.8- 16.3	A-7-5(14)	65	11	4.0	37.8	40.0	18.2	100	98	76	-	-
S-590	CL	18+00	0.0- 4.0	A-7-5(45)	80	35	1.2	3.0	19.0	76.8	100	99	97	-	-
S-591	CL	21+00	0.0- 4.0	A-7-6(7)	41	19	29.1	20.2	14.3	36.4	99	80	54	-	-
SS-517	20 LT	23+50	4.3- 5.8	A-6(4)	38	12	31.3	18.6	21.7	28.3	100	76	54	-	-
S-516	10 LT	26+00	0.0- 2.0	A-4(4)	35	10	26.7	17.6	27.4	28.3	100	80	60	-	-
SS-513	10 LT	28+00	4.0- 5.5	A-4(0)	33	4	39.0	27.5	25.4	8.1	100	73	39	-	-
SS-514	10 LT	28+00	9.0- 10.5	A-4(3)	39	8	25.7	25.9	26.2	22.2	100	84	54	-	-
SS-515	10 LT	28+00	24.0- 25.5	A-4(0)	36	4	43.1	22.9	24.0	10.1	100	71	40	-	-

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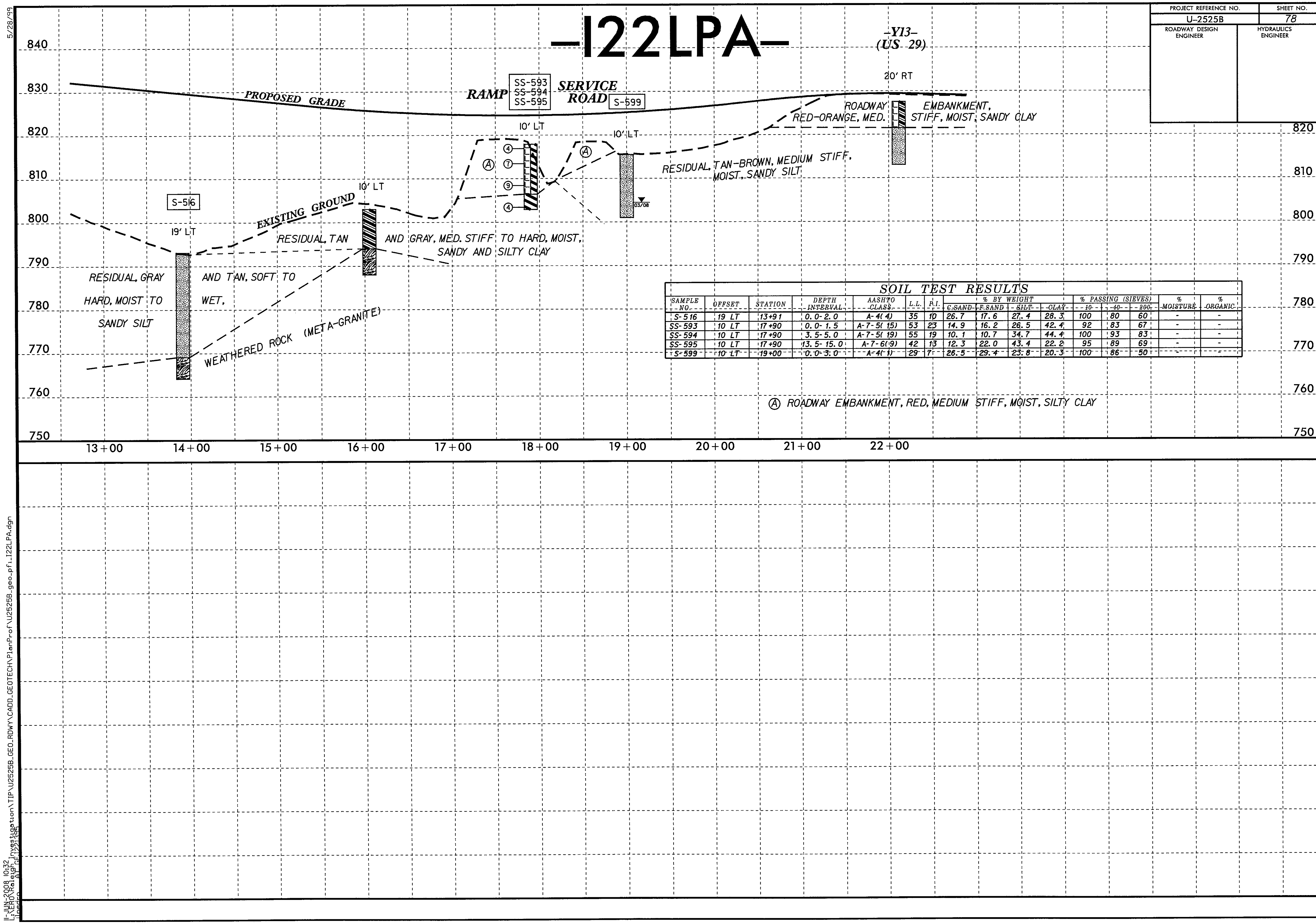


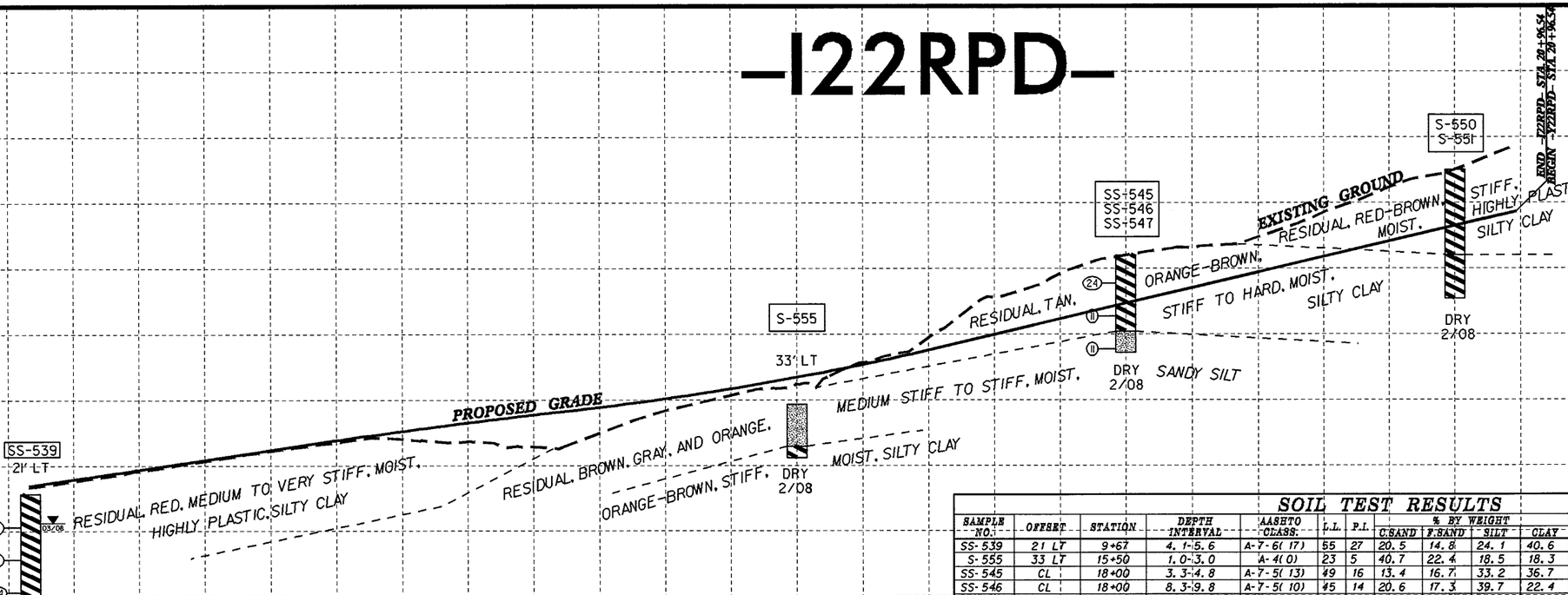
SOIL TEST RESULTS

SAMPLE NO.	OFFSET	STATION	DEPTH INTERVAL	AASHTO CLASS	L.L.	P.I.	% BY WEIGHT C.SAND	F.SAND	SILT	CLAY	% PASSING (SIEVES) 10	40	200	% MOISTURE	% ORGANIC
S-516	19 LT	13+91	0.0-2.0	A-4(4)	35	10	26.7	17.6	27.4	28.3	100	80	60	-	-
SS-593	10 LT	17+90	0.0-1.5	A-7-5(15)	53	23	14.9	16.2	26.5	42.4	92	83	67	-	-
SS-594	10 LT	17+90	3.5-5.0	A-7-5(19)	55	19	10.1	10.7	34.7	44.4	100	93	83	-	-
SS-595	10 LT	17+90	13.5-15.0	A-7-6(9)	42	13	12.3	22.0	43.4	22.2	95	89	69	-	-
S-599	10 LT	19+00	0.0-3.0	A-4(1)	29	7	26.5	29.4	23.8	20.3	100	86	50	-	-

5/28/99

PROJECT REFERENCE NO.	SHEET NO.
U-2525B	79
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

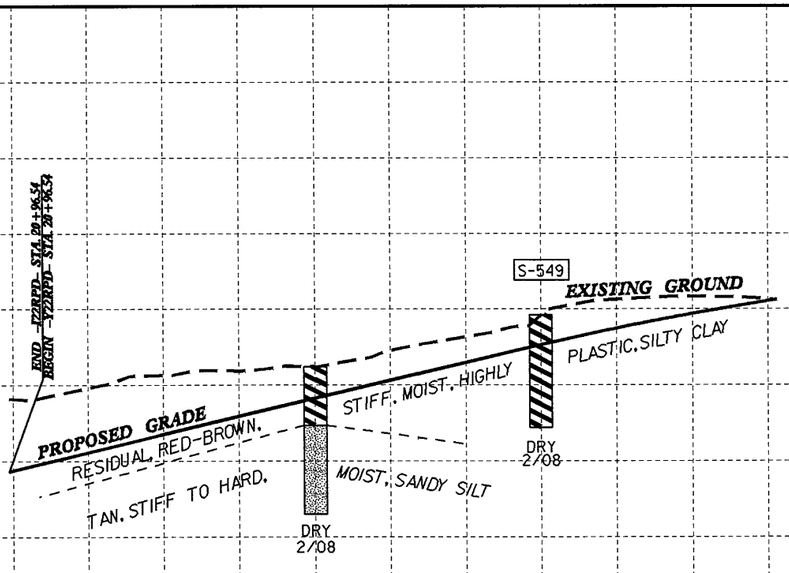
-I22RPD-



SOIL TEST RESULTS

SAMPLE NO.	OFFSET	STATION	DEPTH INTERVAL	AASHTO CLASS.	L.L.	P.I.	% BY WEIGHT C.SAND	% BY WEIGHT F.SAND	% BY WEIGHT SILT	% BY WEIGHT CLAY	% PASSING (SIEVES) #10	% PASSING (SIEVES) #40	% PASSING (SIEVES) #200	% MOISTURE	% ORGANIC
SS-539	21 LT	9+67	4.1-5.6	A-7-6(17)	55	27	20.5	14.8	24.1	40.6	97	83	66	-	-
S-555	33 LT	15+50	1.0-3.0	A-4(0)	23	5	40.7	22.4	18.5	18.3	98	68	41	-	-
SS-545	CL	18+00	3.3-4.8	A-7-5(13)	49	16	13.4	16.7	33.2	36.7	100	92	74	-	-
SS-546	CL	18+00	8.3-9.8	A-7-5(10)	45	14	20.6	17.3	39.7	22.4	100	86	68	-	-
SS-547	CL	18+00	13.3-14.8	A-4(3)	37	5	23.2	23.2	39.3	14.3	100	85	61	-	-
S-550	CL	20+50	3.0-4.5	A-7-5(33)	70	31	7.3	9.4	16.1	67.2	100	95	86	-	-
S-551	CL	20+50	13.0-14.5	A-7-5(28)	63	25	2.6	14.9	37.7	44.8	100	99	89	-	-

-Y22RPD-

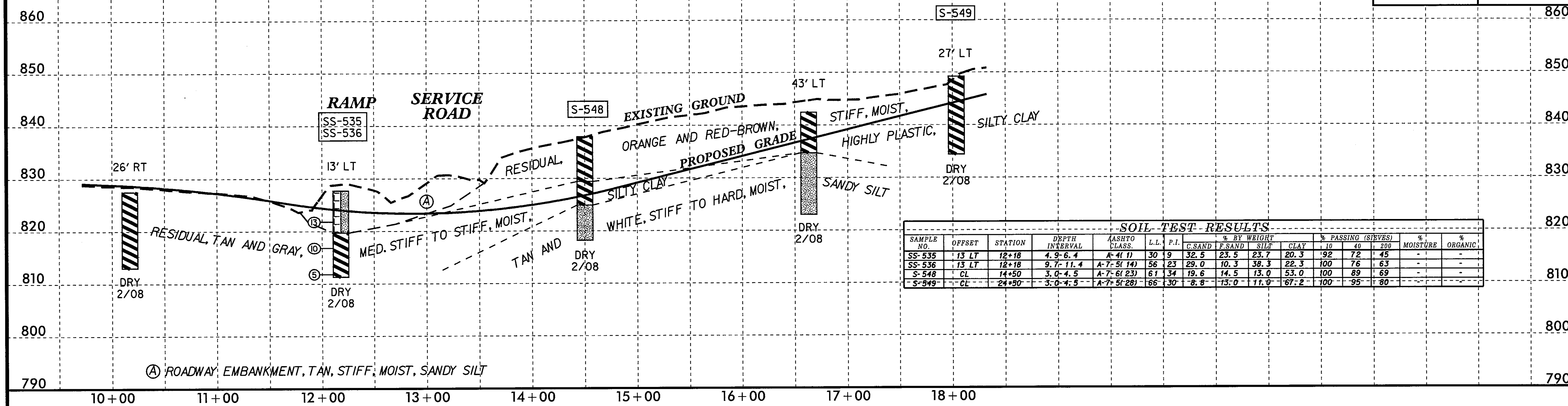


SOIL TEST RESULTS

SAMPLE NO.	OFFSET	STATION	DEPTH INTERVAL	AASHTO CLASS.	L.L.	P.I.	% BY WEIGHT C.SAND	% BY WEIGHT F.SAND	% BY WEIGHT SILT	% BY WEIGHT CLAY	% PASSING (SIEVES) #10	% PASSING (SIEVES) #40	% PASSING (SIEVES) #200	% MOISTURE	% ORGANIC
S-549	CL	24+50	3.0-4.5	A-7-5(28)	66	30	8.8	13.0	11.0	67.2	100	95	80	-	-

PROJECT REFERENCE NO.	SHEET NO.
U-2525B	80
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

-I22LPD-

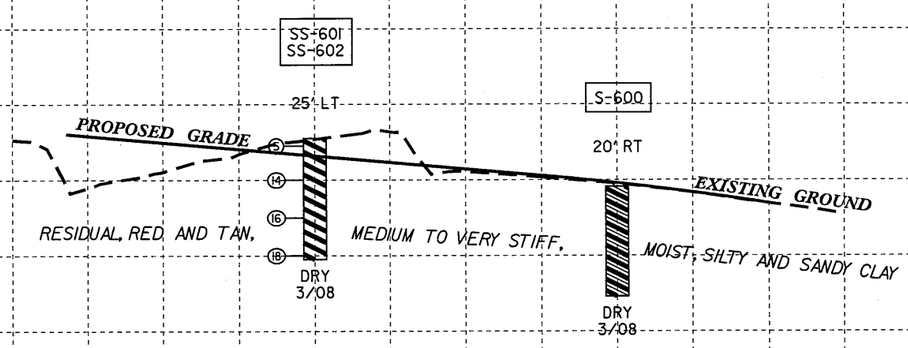


SOIL TEST RESULTS

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-535	13 LT	12+18	4.9-6.4	A-4(1)	30	9	32.5	23.5	23.7	20.3	92	72	45	-	-
SS-536	13 LT	12+18	9.7-11.4	A-7-5(14)	56	23	29.0	10.3	38.3	22.3	100	76	63	-	-
S-548	CL	14+50	3.0-4.5	A-7-6(23)	61	34	19.6	14.5	13.0	53.0	100	89	69	-	-
S-549	CL	24+50	3.0-4.5	A-7-5(28)	66	30	8.8	13.0	11.0	67.2	100	95	80	-	-

5/28/99

PROJECT REFERENCE NO.	SHEET NO.
U-2525B	81
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

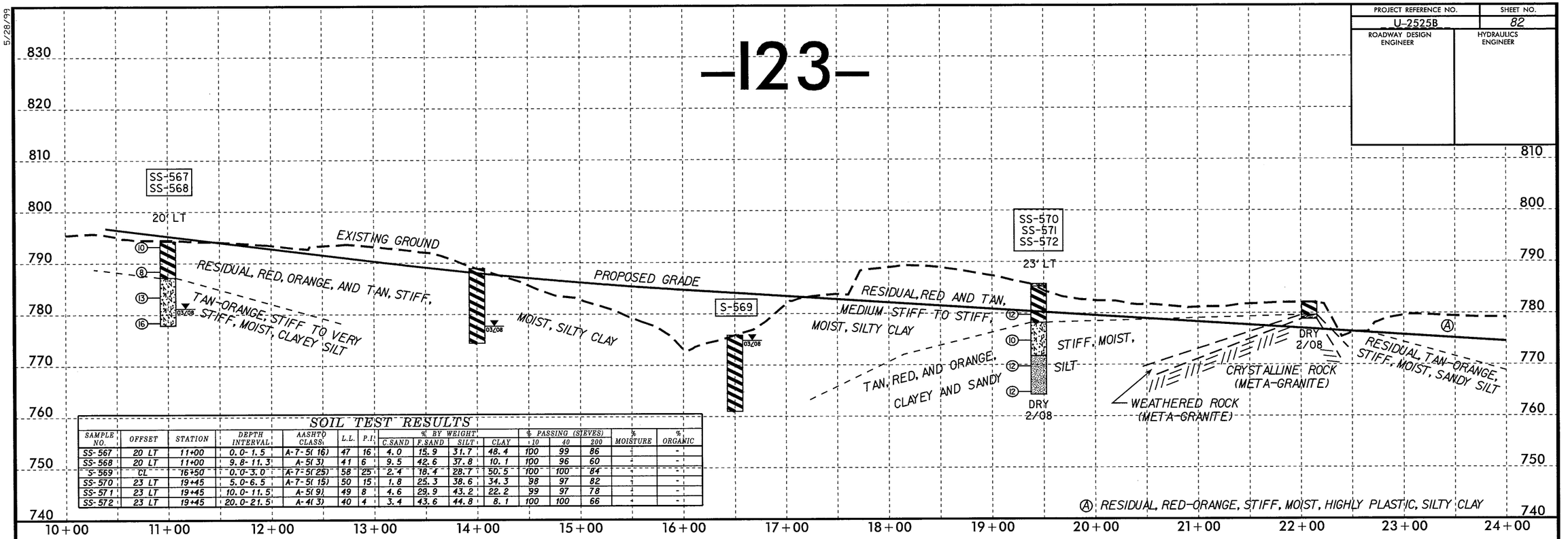


SOIL TEST RESULTS

SAMPLE NO.	OFFSET	STATION	DEPTH INTERVAL	AASHTO CLASS.	L.L.	P.I.	% BY WEIGHT C.SAND	F.SAND	SILT	CLAY	% PASSING (SIEVES) 10	40	200	% MOISTURE	% ORGANIC
SS-601	25' LT	12+00	0.0-1.5	A-7-6(10)	43	15	21.5	12.0	28.1	38.5	100	85	69	-	-
SS-602	25' LT	12+00	4.5-6.0	A-7-5(7)	48	12	29.6	17.8	34.3	18.2	100	78	59	-	-
S-600	20' RT	14+00	0.0-3.0	A-6(5)	37	11	24.1	17.8	23.6	34.4	100	85	62	-	-

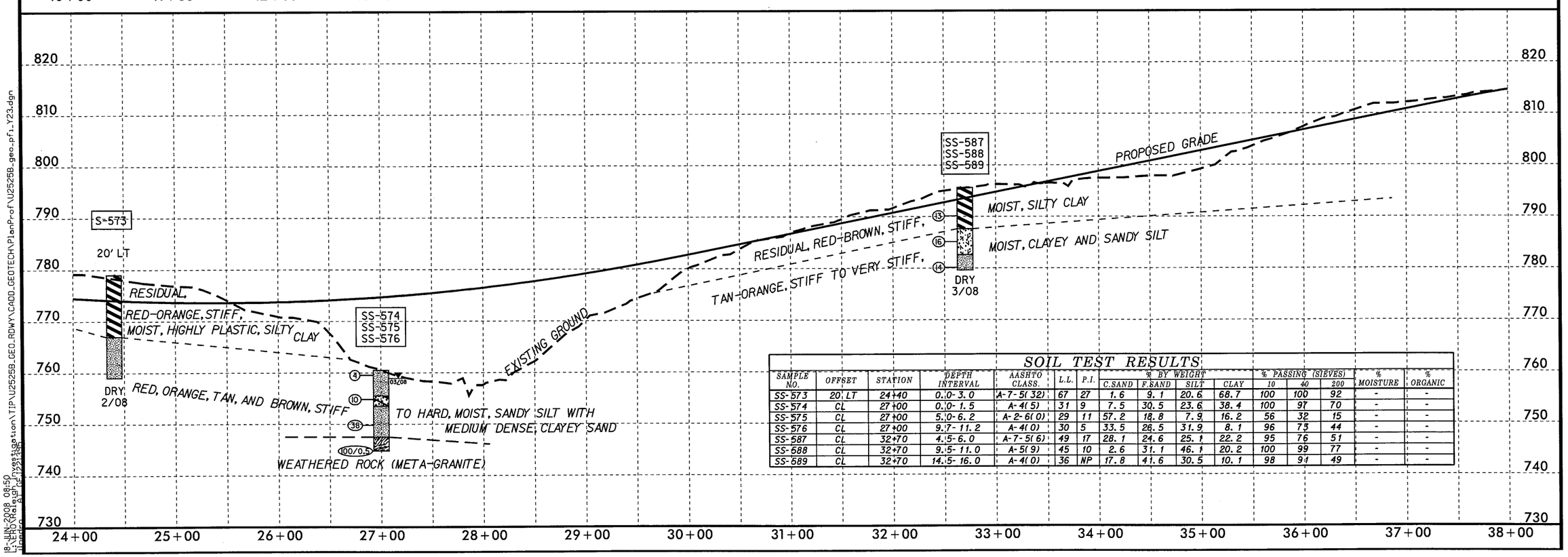
PROJECT REFERENCE NO.	SHEET NO.
U-2525B	82
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

5/28/99



SOIL TEST RESULTS

SAMPLE NO.	OFFSET	STATION	DEPTH INTERVAL	AASHTO CLASS.	L.L.	P.I.	% BY WEIGHT C.SAND	F.SAND	SILT	CLAY	% PASSING (SIEVES) 10	40	200	% MOISTURE	% ORGANIC
SS-567	20 LT	11+00	0.0- 1.5	A-7-5(16)	47	16	4.0	15.9	31.7	48.4	100	99	86	-	-
SS-568	20 LT	11+00	9.8- 11.3	A-5(3)	41	6	9.5	42.6	37.8	10.1	100	96	60	-	-
S-569	CL	16+50	0.0- 3.0	A-7-5(25)	58	25	2.4	18.4	28.7	50.5	100	100	84	-	-
SS-570	23 LT	19+45	5.0- 6.5	A-7-5(15)	50	15	1.8	25.3	38.6	34.3	98	97	82	-	-
SS-571	23 LT	19+45	10.0- 11.5	A-5(9)	49	8	4.6	29.9	43.2	22.2	99	97	78	-	-
SS-572	23 LT	19+45	20.0- 21.5	A-4(3)	40	4	3.4	43.6	44.8	8.1	100	100	66	-	-



SOIL TEST RESULTS

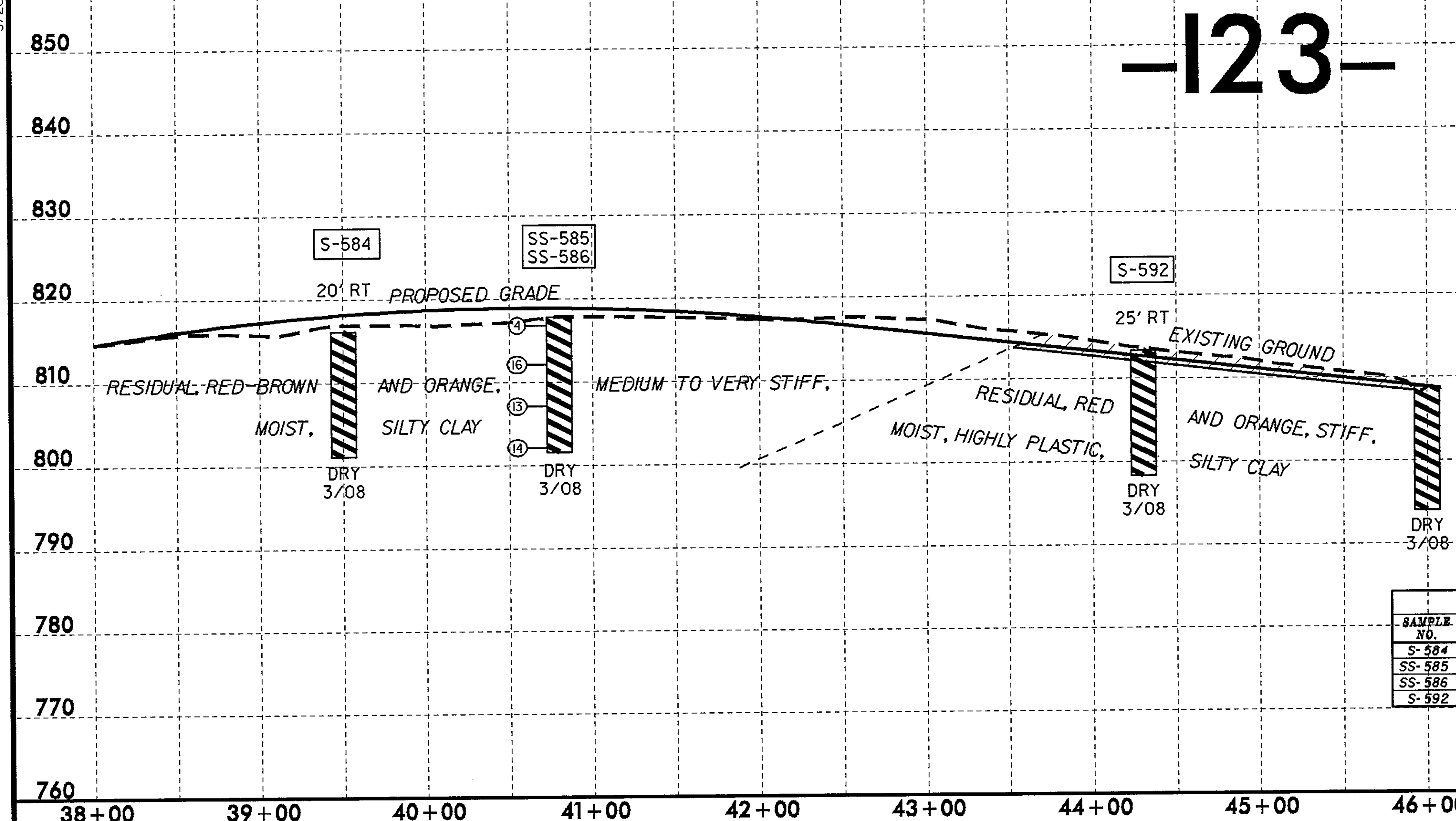
SAMPLE NO.	OFFSET	STATION	DEPTH INTERVAL	AASHTO CLASS.	L.L.	P.I.	% BY WEIGHT C.SAND	F.SAND	SILT	CLAY	% PASSING (SIEVES) 10	40	200	% MOISTURE	% ORGANIC
SS-573	20' LT	24+40	0.0- 3.0	A-7-5(32)	67	27	1.6	9.1	20.6	68.7	100	100	92	-	-
SS-574	CL	27+00	0.0- 1.5	A-4(5)	31	9	7.5	30.5	23.6	38.4	100	97	70	-	-
SS-575	CL	27+00	5.0- 6.2	A-2-6(0)	29	11	57.2	18.8	7.9	16.2	56	32	15	-	-
SS-576	CL	27+00	9.7- 11.2	A-4(0)	30	5	33.5	26.5	31.9	8.1	96	75	44	-	-
SS-587	CL	32+70	4.5- 6.0	A-7-5(6)	49	17	28.1	24.6	25.1	22.2	95	76	51	-	-
SS-588	CL	32+70	9.5- 11.0	A-5(9)	45	10	2.6	31.1	46.1	20.2	100	99	77	-	-
SS-589	CL	32+70	14.5- 16.0	A-4(0)	36	NP	17.8	41.6	30.5	10.1	98	91	49	-	-

PROJECT REFERENCE NO.	SHEET NO.
U-2525B	83

ROADWAY DESIGN ENGINEER

HYDRAULICS ENGINEER

-I23-

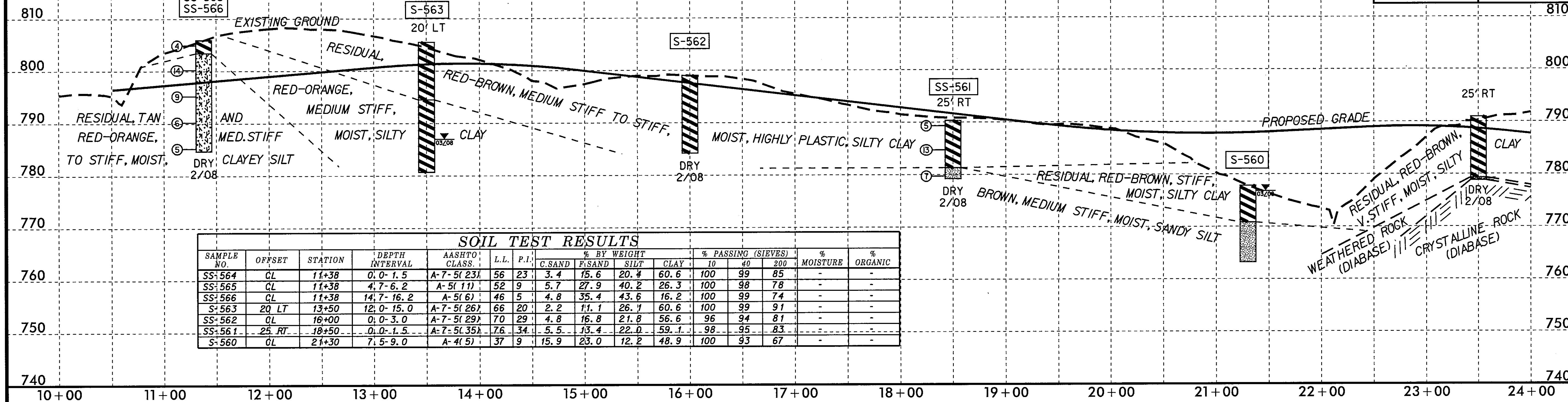


SOIL TEST RESULTS

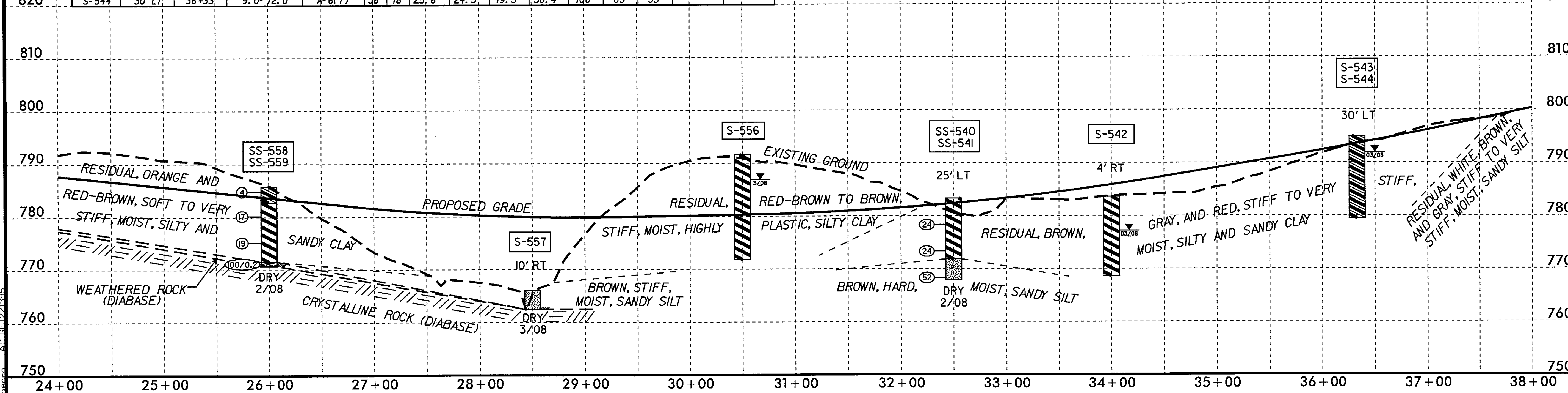
SAMPLE NO.	OFFSET	STATION	DEPTH INTERVAL	AASHTO CLASS.	L.L.	P.I.	% BY WEIGHT				% PASSING (SIEVES)			% MOISTURE	% ORGANIC
							C.SAND	F.SAND	SILT	CLAY	10	40	200		
S-584	20 RT	39+50	0.0-4.0	A-7-5(28)	67	25	3.8	13.1	18.4	64.6	100	98	86	-	-
SS-585	CL	40+80	0.0-1.5	A-7-6(16)	44	23	12.1	17.8	19.6	50.5	98	90	73	-	-
SS-586	CL	40+80	9.7-11.2	A-7-5(16)	58	12	2.8	22.0	46.9	28.3	100	99	85	-	-
S-592	25 RT	44+30	0.0-4.0	A-7-5(54)	90	45	2.6	5.1	15.6	76.8	100	99	94	-	-

PROJECT REFERENCE NO.	SHEET NO.
U-2525B	84
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

-126-



SAMPLE NO.	OFFSET	STATION	DEPTH INTERVAL	AASHTO CLASS.	L.L.	P.I.	% BY WEIGHT C.SAND	F.SAND	SILT	CLAY	% PASSING (SIEVES) 10	40	200	% MOISTURE	% ORGANIC
SS-564	CL	11+38	0.0-1.5	A-7-5(23)	56	23	3.4	15.6	20.4	60.6	100	99	85	-	-
SS-565	CL	11+38	4.7-6.2	A-5(11)	52	9	5.7	27.9	40.2	26.3	100	98	78	-	-
SS-566	CL	11+38	14.7-16.2	A-5(6)	46	5	4.8	35.4	43.6	16.2	100	99	74	-	-
S-563	20 LT	13+50	12.0-15.0	A-7-5(26)	66	20	2.2	11.1	26.1	60.6	100	99	91	-	-
SS-562	CL	16+00	0.0-3.0	A-7-5(29)	70	29	4.8	16.8	21.8	56.6	96	94	81	-	-
SS-561	25 RT	18+50	0.0-1.5	A-7-5(35)	76	34	5.5	13.4	22.0	59.1	98	95	83	-	-
S-560	CL	21+30	7.5-9.0	A-4(5)	37	9	15.9	23.0	12.2	48.9	100	93	67	-	-



SAMPLE NO.	OFFSET	STATION	DEPTH INTERVAL	AASHTO CLASS.	L.L.	P.I.	% BY WEIGHT C.SAND	F.SAND	SILT	CLAY	% PASSING (SIEVES) 10	40	200	% MOISTURE	% ORGANIC
SS-558	CL	26+00	0.0-1.5	A-6(10)	33	16	8.4	23.0	27.9	40.7	98	93	74	-	-
SS-559	CL	26+00	4.6-6.1	A-7-6(11)	43	15	7.7	30.8	35.0	26.5	100	97	71	-	-
S-557	10 RT	28+50	0.5-2.0	A-4(1)	26	4	15.3	25.5	38.9	20.4	100	91	65	-	-
S-556	CL	30+50	7.0-8.5	A-7-5(33)	70	35	6.9	14.1	24.0	55.0	98	94	82	-	-
SS-541	25 LT	32+50	0.0-0.0	A-4(4)	33	8	16.6	30.0	45.2	8.1	100	92	63	-	-
SS-540	25 LT	32+50	9.0-10.5	A-7-6(12)	48	22	19.3	23.9	24.3	32.5	98	86	61	-	-
S-542	4 RT	34+00	1.0-5.0	A-7-6(12)	42	17	9.1	19.5	38.9	32.5	95	90	73	-	-
S-543	30 LT	36+33	0.0-2.5	A-6(3)	30	11	27.0	24.5	20.1	28.4	96	78	52	-	-
S-544	30 LT	36+33	9.0-12.0	A-6(7)	38	18	25.6	24.5	19.5	30.4	100	83	55	-	-

5/28/99

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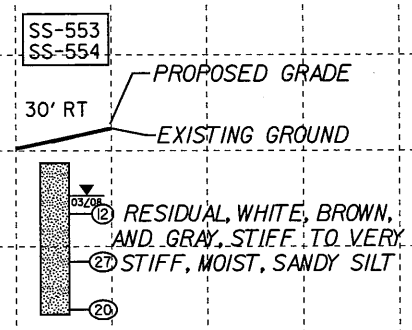
PROJECT REFERENCE NO.	SHEET NO.
U-2525B	85
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER



SOIL TEST RESULTS

SAMPDE NO.	OFESET	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-553	30 RT	38+20	4.3-5.8	A-4(0)	35	6	47.9	19.6	20.4	12.2	100	62	36	-	-
SS-554	30 RT	38+20	9.3-10.8	A-4(0)	32	5	43.8	23.2	22.8	10.2	98	64	37	-	-

840 830 820 810 800 790 780 770 760 750

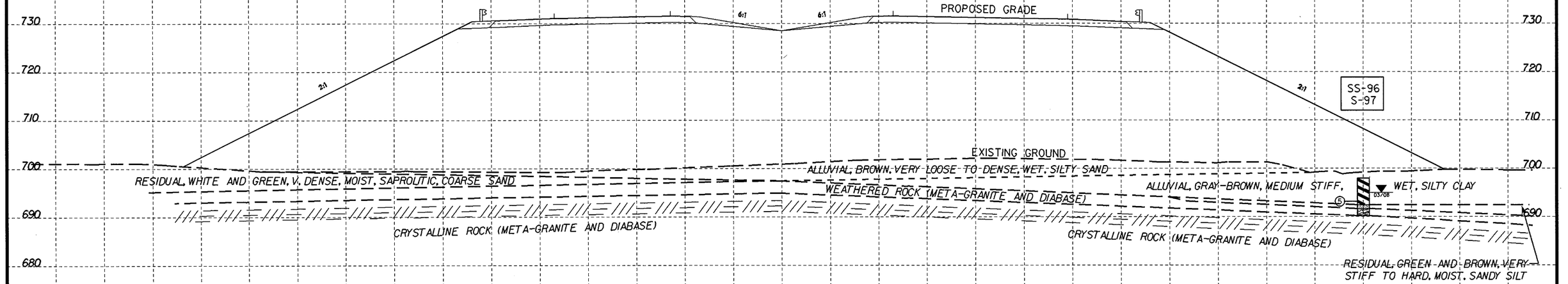
38+00

8/23/99

0 5 10	PROJ. REFERENCE NO.	SHEET NO.
	U-2525B	86

SOIL TEST RESULTS

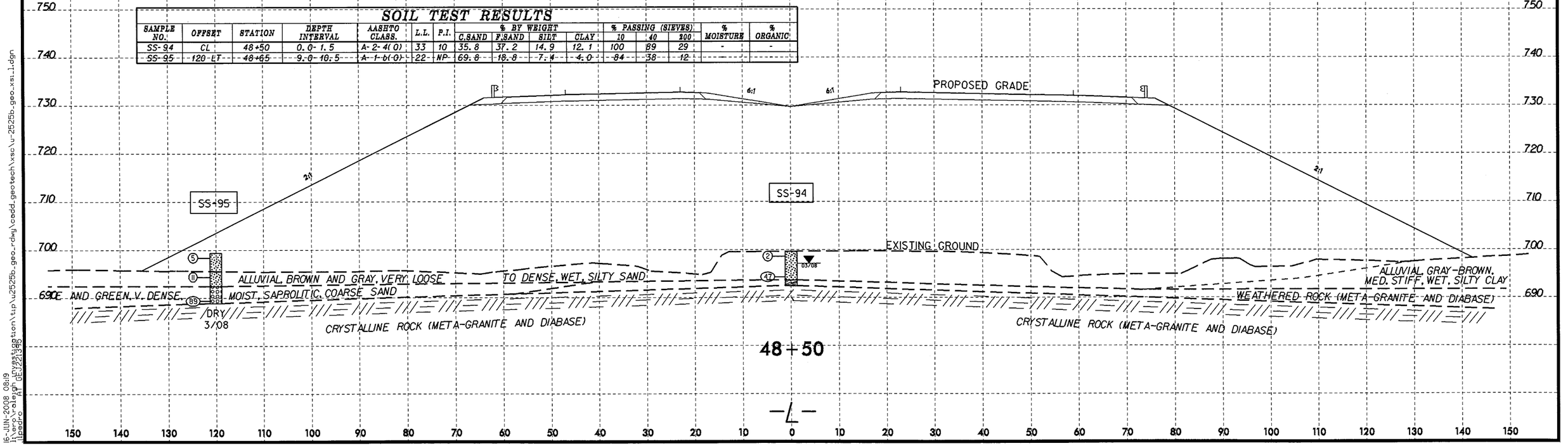
SAMPLE NO.	OFFSET	STATION	DEPTH INTERVAL	AASHTO CLASS.	L.L.	P.I.	% BY WEIGHT C.SAND	F.SAND	SILT	CLAY	% PASSING (SIEVES) 10	40	200	% MOISTURE	% ORGANIC
SS-96	120 RT	48+85	3.8-5.3	A-7-6(12)	43	18	6.5	30.9	24.2	38.4	100	95	70	-	-
S-97	120 RT	48+85	5.5-6.3	A-4(0)	23	4	15.8	36.8	27.2	20.2	96	89	54	-	-



49+00

SOIL TEST RESULTS

SAMPLE NO.	OFFSET	STATION	DEPTH INTERVAL	AASHTO CLASS.	L.L.	P.I.	% BY WEIGHT C.SAND	F.SAND	SILT	CLAY	% PASSING (SIEVES) 10	40	200	% MOISTURE	% ORGANIC
SS-94	CL	48+50	0.0-1.5	A-2-4(0)	33	10	35.8	37.2	14.9	12.1	100	89	29	-	-
SS-95	120-LT	48+65	9.0-10.5	A-1-b(0)	22	NP	69.8	18.8	7.4	4.0	84	38	12	-	-



48+50

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8/23/99

0 5 10	PROJ. REFERENCE NO.	SHEET NO.
	U-2525B	87

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

740 730 720 710

RESIDUAL, GRAY AND ORANGE, MED. STIFF TO STIFF, MOIST, HIGHLY PLASTIC, SILTY CLAY

EXISTING GROUND

2:1 PROPOSED GRADE

6:1 6:1 6:1 6:1 2:1

TAN, BROWN, AND GREEN, STIFF TO HARD, MOIST, SILTY CLAY

ORANGE, TAN, AND WHITE, MED. TO VERY DENSE, DRY TO MOIST, CLAYEY SAND

WEATHERED ROCK (META-GRANITE)

CRYSTALLINE ROCK (META-GRANITE)

54+50

750 740 730 720 710

RESIDUAL, GRAY AND ORANGE, MED. STIFF TO STIFF, MOIST, HIGHLY PLASTIC, SILTY CLAY

EXISTING GROUND

2:1 6:1 6:1 6:1 2:1

PROPOSED GRADE

RESIDUAL, TAN, BROWN, AND GREEN, STIFF TO HARD, MOIST, SILTY AND SANDY CLAY

ORANGE, TAN, AND WHITE, MED. TO VERY DENSE, DRY TO MOIST, CLAYEY SAND

WEATHERED ROCK (META-GRANITE)

CRYSTALLINE ROCK (META-GRANITE)

54+00

730 720 710

EXISTING GROUND

2:1 6:1 6:1 6:1 2:1

PROPOSED GRADE

RESIDUAL, TAN, BROWN, AND GREEN, STIFF TO HARD, MOIST, SILTY AND SANDY CLAY

ORANGE, TAN, AND WHITE, MED. TO VERY DENSE, DRY TO MOIST, CLAYEY SAND

WEATHERED ROCK (META-GRANITE) WITH CRYSTALLINE ROCK LENSE

CRYSTALLINE ROCK (META-GRANITE)

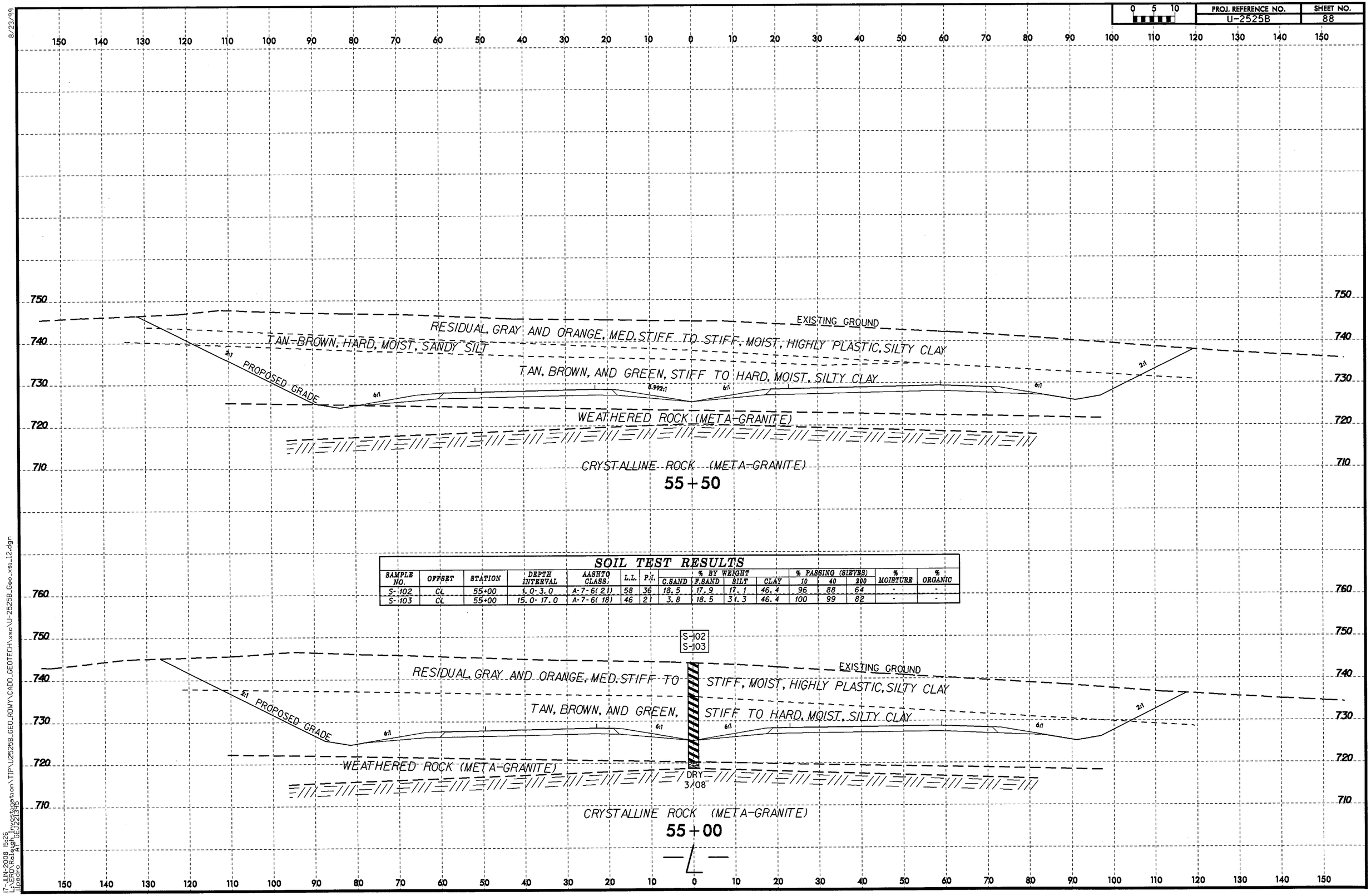
53+50

—L—

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

8/23/99

0 5 10	PROJ. REFERENCE NO.	SHEET NO.
	U-2525B	88



SOIL TEST RESULTS

SAMPLE NO.	OFFSET	STATION	DEPTH INTERVAL	AASHTO CLASS.	L.L.	P.I.	% BY WEIGHT C.SAND	% BY WEIGHT F.SAND	% BY WEIGHT SILT	% BY WEIGHT CLAY	% PASSING (SIEVES) 10	% PASSING (SIEVES) 40	% PASSING (SIEVES) 200	% MOISTURE	% ORGANIC
S-102	CL	55+00	1.0-3.0	A-7-6(21)	58	36	18.5	17.9	17.1	46.4	96	88	64	-	-
S-103	CL	55+00	15.0-17.0	A-7-6(18)	46	21	3.8	18.5	31.3	46.4	100	99	82	-	-

8/23/99

0 5 10	PROJ. REFERENCE NO.	SHEET NO.
	U-2525B	89

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

750
740
730
720

RESIDUAL, GRAY AND ORANGE, MED. STIFF TO STIFF, MOIST, HIGHLY PLASTIC, SILTY CLAY

EXISTING GROUND

RESIDUAL, TAN-BROWN, HARD, MOIST, SANDY SILT

2:1 PROPOSED GRADE

6:1

8.838:1

TAN, BROWN, AND GREEN, STIFF TO HARD, MOIST, SILTY CLAY

WEATHERED ROCK (META-GRANITE)

CRYSTALLINE ROCK (META-GRANITE)

56+50

750
740
730
720

RESIDUAL, GRAY AND ORANGE, MED. STIFF TO STIFF, MOIST, HIGHLY PLASTIC, SILTY CLAY

EXISTING GROUND

TAN-BROWN, HARD, MOIST, SANDY SILT

2:1 PROPOSED GRADE

6:1

9.908:1

TAN, BROWN, AND GREEN, STIFF TO HARD, MOIST, SILTY CLAY

WEATHERED ROCK (META-GRANITE)

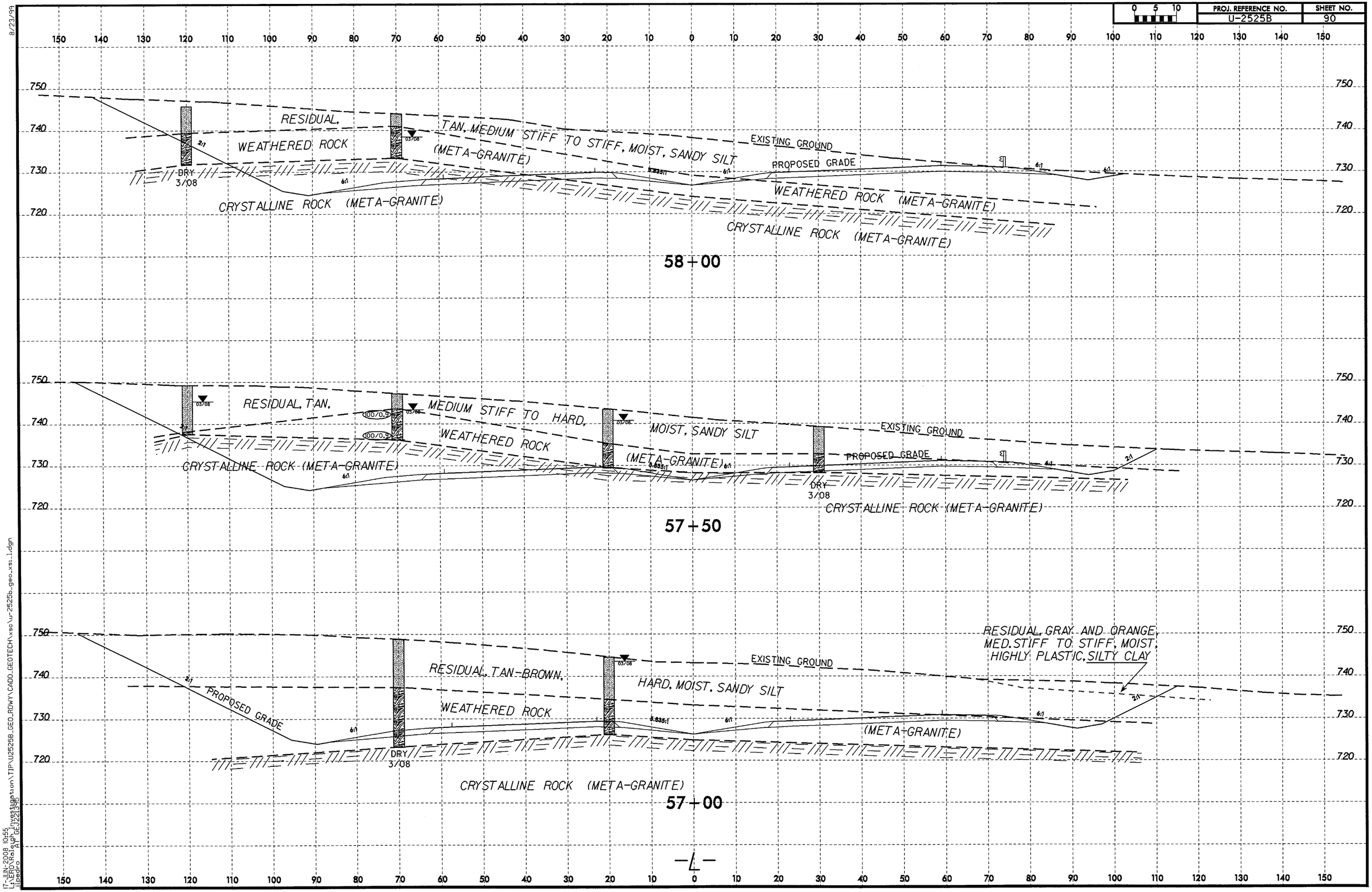
CRYSTALLINE ROCK (META-GRANITE)

56+00

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

8/23/99

0 5 10	PROJ. REFERENCE NO.	SHEET NO.
	U-2525B	90



8/23/99

0 5 10	PROJ. REFERENCE NO.	SHEET NO.
	U-2525B	91

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

740
730
720
710

EXISTING GROUND
RESIDUAL, ORANGE AND
TAN-BROWN, MEDIUM STIFF TO HARD, MOIST, SANDY SILT
WEATHERED ROCK (META-GRANITE AND DIABASE)
CRYSTALLINE ROCK (META-GRANITE AND DIABASE)
PROPOSED GRADE
2:1
6:1
3.835:1
2.44:1
03/08

59+00

RESIDUAL, TAN AND
WEATHERED ROCK (META-GRANITE)
EXISTING GROUND
BROWN, MEDIUM STIFF TO HARD, MOIST, SANDY SILT
CRYSTALLINE ROCK (META-GRANITE AND DIABASE)
WEATHERED ROCK (META-GRANITE AND DIABASE)
CRYSTALLINE ROCK (META-GRANITE AND DIABASE)
PROPOSED GRADE
2:1
6:1
3.835:1
3.84:1
03/08

58+50

—L—

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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Headro AI GEO221396

8/23/99

0 5 10	PROJ. REFERENCE NO.	SHEET NO.
	U-2525B	92

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

740 730 720 710

ALLUVIAL, BROWN, LOOSE, SATURATED, SILTY SAND

6:1 5.835:1 6:1 6:1 6:1

PROPOSED GRADE

EXISTING GROUND

RESIDUAL, GREEN-BROWN, HARD, MOIST, SANDY SILT

TAN-BROWN, DENSE TO VERY DENSE, DRY TO MOIST, COARSE SAND

WEATHERED ROCK (META-GRANITE)

CRYSTALLINE ROCK (META-GRANITE)

63+00

760 750 740 730 720 710

SOIL TEST RESULTS

SAMPLE NO.	OFFSET	STATION	DEPTH INTERVAL	AASHTO CLASS.	L.L.	P.I.	% BY WEIGHT C.SAND	% BY WEIGHT F.SAND	% BY WEIGHT SILT	% BY WEIGHT CLAY	% PASSING (SIEVES) 10	% PASSING (SIEVES) 40	% PASSING (SIEVES) 200	% MOISTURE	% ORGANIC
SS-88	90 RT	62+50	2.0-4.0	A-4(4)	31	10	16.2	31.1	34.5	18.2	97	89	58	-	-

SS-88

ALLUVIAL, BROWN, LOOSE, SATURATED, SILTY SAND

6:1 5.835:1 6:1 6:1 5.82:1

PROPOSED GRADE

EXISTING GROUND

RESIDUAL, GREEN-BROWN, HARD, MOIST, SANDY SILT

TAN-BROWN, DENSE TO VERY DENSE, DRY TO MOIST, COARSE SAND

WEATHERED ROCK (META-GRANITE)

DRY 3/08

CRYSTALLINE ROCK (META-GRANITE)

62+50

740 730 720 710

ALLUVIAL, BROWN, LOOSE, SATURATED, SILTY SAND

6:1 5.835:1 6:1 6:1 5.82:1

PROPOSED GRADE

EXISTING GROUND

RESIDUAL, GREEN-BROWN, HARD, MOIST, SANDY SILT

WEATHERED ROCK (META-GRANITE)

CRYSTALLINE ROCK (META-GRANITE)

62+00

-L-

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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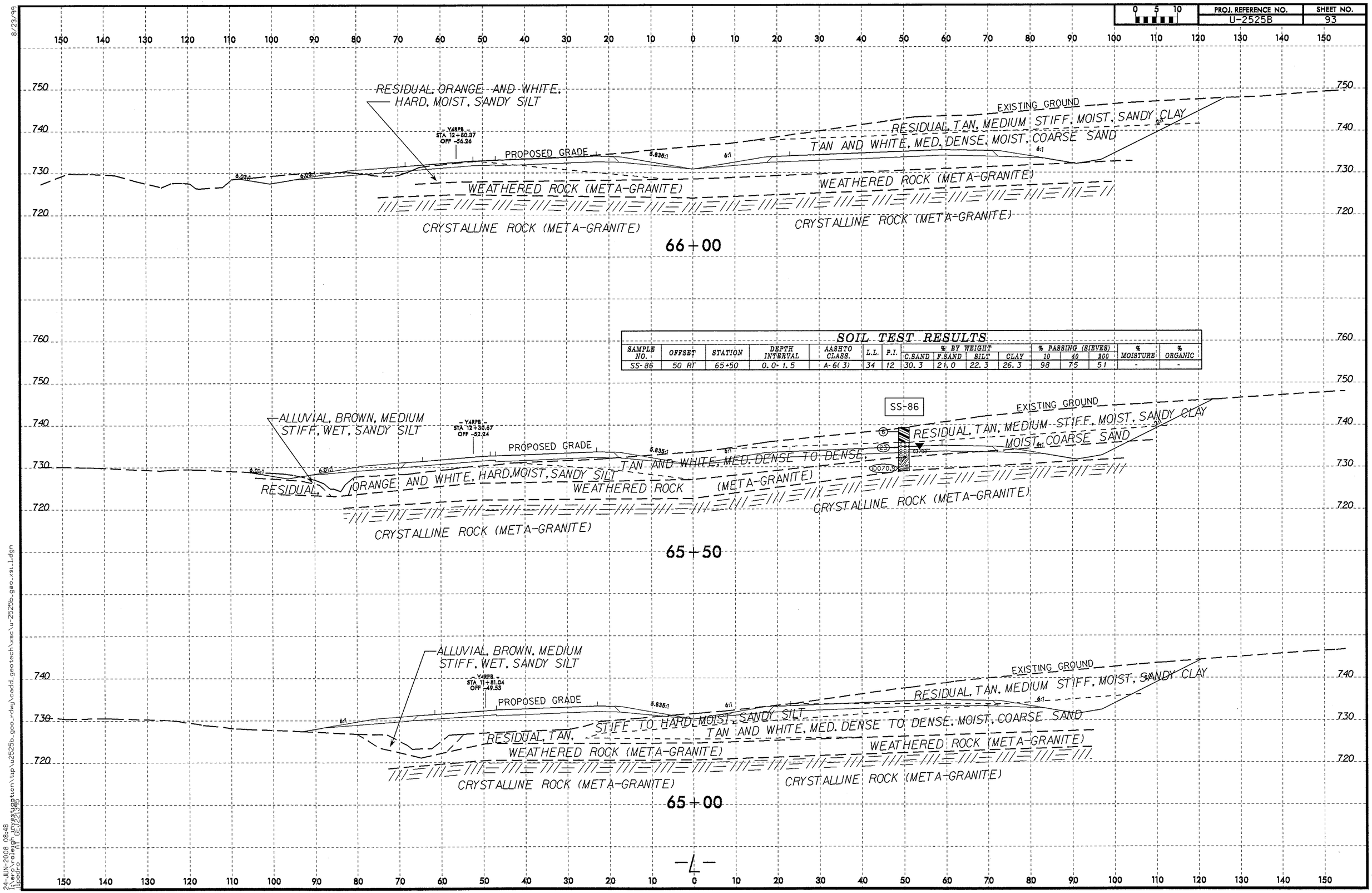
ajpedro GE221396

8/23/99

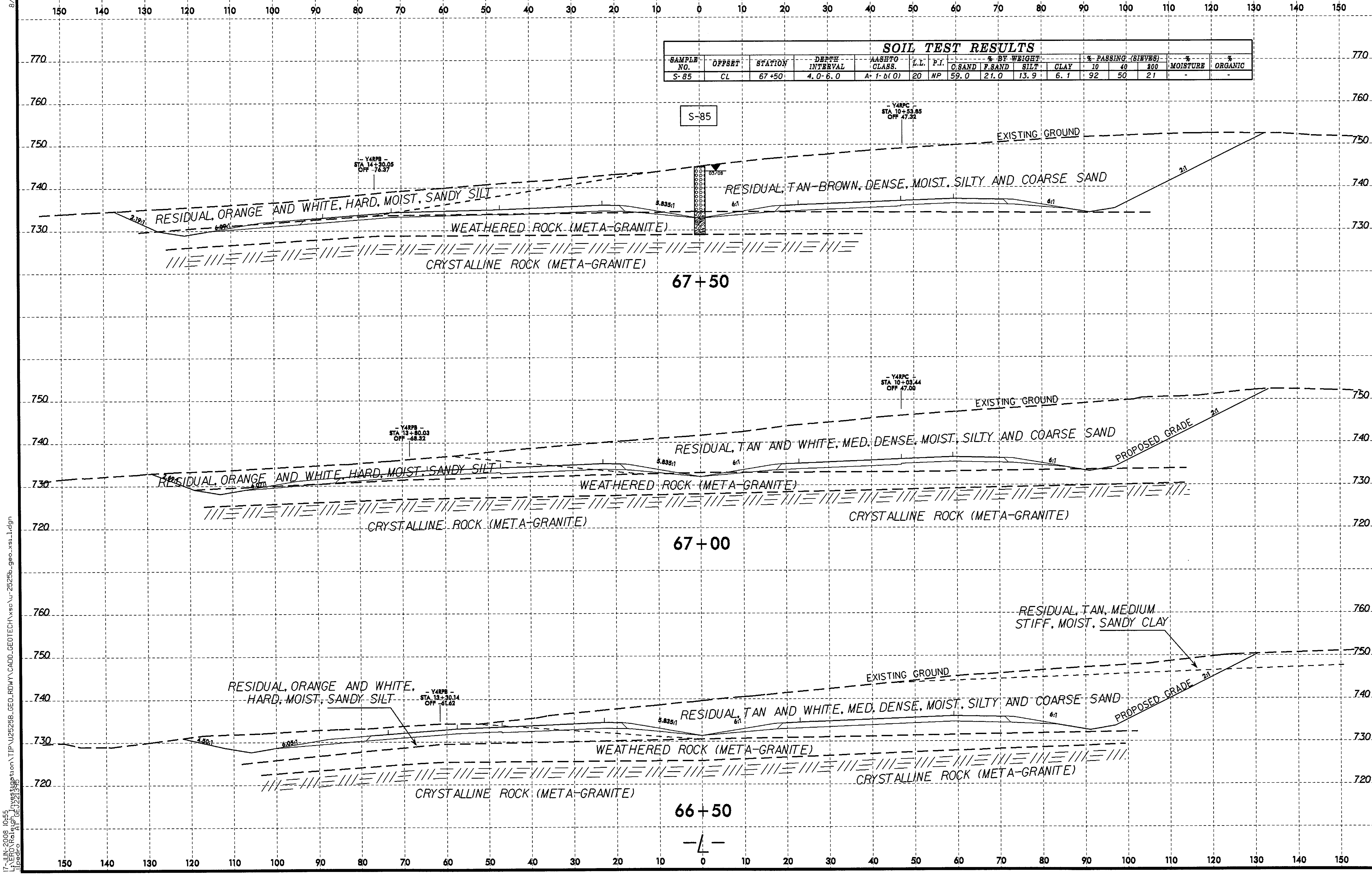
0 5 10	PROJ. REFERENCE NO.	SHEET NO.
	U-2525B	93



PROJ. REFERENCE NO.	SHEET NO.
U-2525B	94

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		
S-85	CL	67+50	4.0-6.0	A-1-b(0)	20	NP	59.0	21.0	13.9	6.1	92	50	21	-	-



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8/23/99

0 5 10	PROJ. REFERENCE NO.	SHEET NO.
	U-2525B	95

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

760
750
740
730

– Y4RPC –
STA. 11+54.77
OFF 50.79

EXISTING GROUND

RESIDUAL, TAN AND WHITE, STIFF, MOIST, SANDY CLAY

RESIDUAL, TAN-BROWN, DENSE TO VERY DENSE, MOIST, SILTY SAND

SP 24
6:1
5.835:1
6:1
4.01:1
2:1

WEATHERED ROCK (META-GRANITE)

CRYSTALLINE ROCK (META-GRANITE)

68+50

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-81	85 LT	68+00	3.6-5.1	A-4(0)	27	5	27.4	37.5	16.9	18.2	100	87	40	-	-

770
760
750
740
730

SS-81

– Y4RPB –
STA. 14+80.24
OFF -85.79

Y4RPC
STA. 11+04.28
OFF 48.47

EXISTING GROUND

RESIDUAL, ORANGE AND WHITE, SANDY SILT

HARD, MOIST,

RESIDUAL, TAN-BROWN, DENSE, MOIST, SILTY AND COARSE SAND

43
100/0.7
2.04:1
6.12:1
6:1
5.835:1
6:1
2:1

WEATHERED ROCK (META-GRANITE)

WEATHERED ROCK (META-GRANITE)

CRYSTALLINE ROCK (META-GRANITE)

68+00

–L–

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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Pedro A DeJesus

8/23/99

0 5 10	PROJ. REFERENCE NO.	SHEET NO.
	U-2525B	96

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

760
750
740
730

EXISTING GROUND

RESIDUAL, RED AND TAN-BROWN, MEDIUM STIFF TO HARD, MOIST, SANDY AND SILTY CLAY

PROPOSED GRADE TAN AND BROWN, STIFF TO HARD, MOIST, SANDY SILT

2:1 6:1 6:1 6:1 6:1 2:1

WEATHERED ROCK (DIABASE)

106+50

SOIL TEST RESULTS

SAMPLE NO.	OFFSET	STATION	DEPTH INTERVAL	AASHTO CLASS.	L.L.	P.I.	% BY WEIGHT C.SAND	% BY WEIGHT F.SAND	% BY WEIGHT SILT	% BY WEIGHT CLAY	% PASSING (SIEVES) 10	% PASSING (SIEVES) 40	% PASSING (SIEVES) 200	% MOISTURE	% ORGANIC
SS-18	CL	106+00	0.0-1.5	A-6(9)	38	21	15.6	23.1	26.8	34.5	91	82	59	-	-
SS-19	CL	106+00	3.7-5.2	A-7-5(10)	44	11	5.9	23.5	50.3	20.3	99	96	78	-	-
SS-20	CL	106+00	13.7-15.2	A-4(0)	28	3	26.8	30.6	36.5	6.1	91	77	46	-	-
SS-21	CL	106+00	18.7-20.2	A-4(0)	29	3	22.5	26.2	45.2	6.1	97	84	56	-	-

780
770
760
750
740
730
720

SS-18
SS-19
SS-20
SS-21

6 15 31 52 86 100/0.4 100/0.6

EXISTING GROUND

RESIDUAL, RED AND TAN-BROWN, MEDIUM STIFF TO HARD, MOIST, SANDY AND SILTY CLAY

PROPOSED GRADE

2:1 6:1 6:1 6:1 6:1 2:1

TAN AND BROWN, HARD, MOIST, SANDY SILT

WEATHERED ROCK (DIABASE)

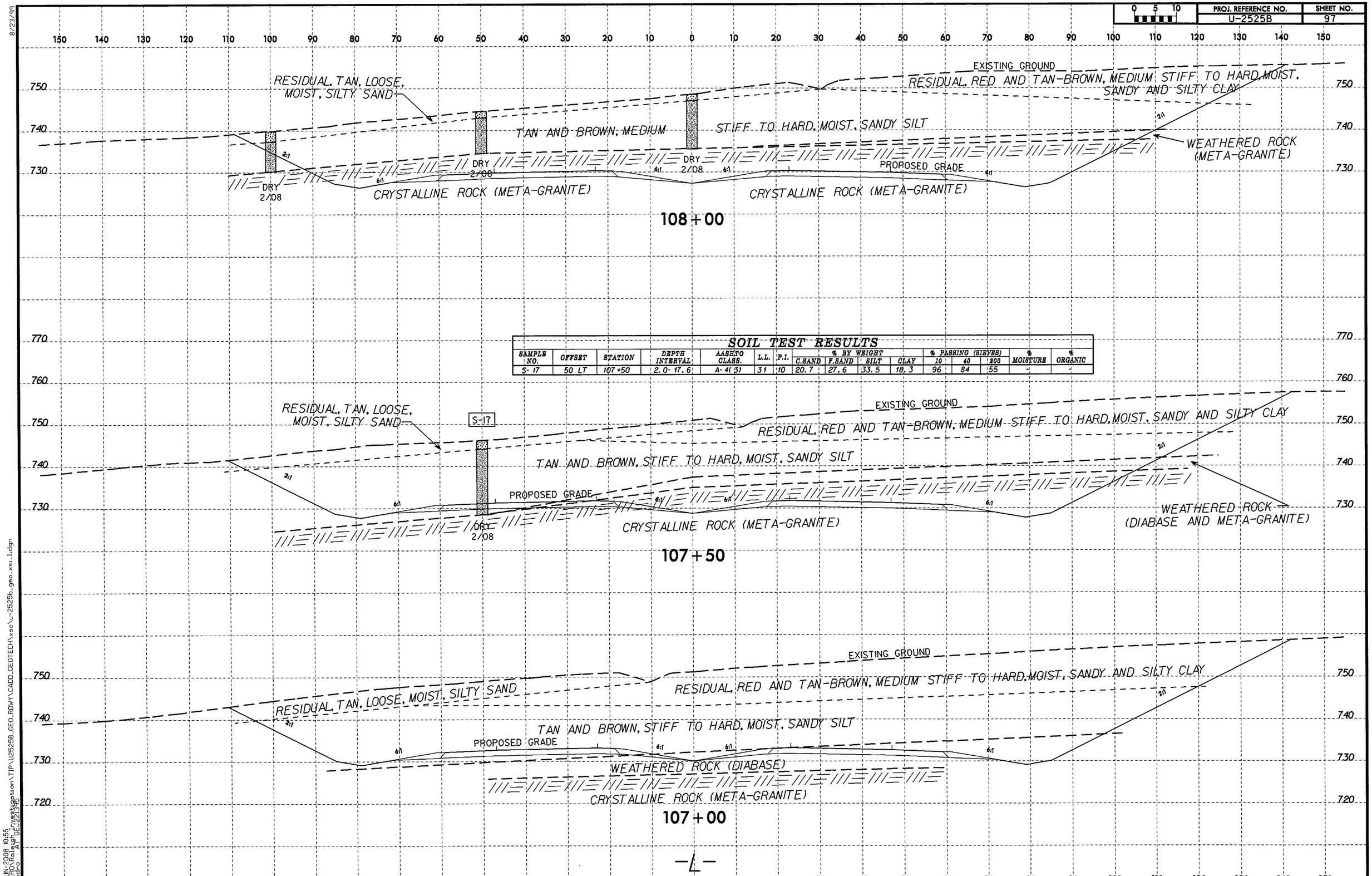
DRY
2/08

106+00

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

8/23/99

0 5 10	PROJ. REFERENCE NO.	SHEET NO.
	U-2525B	97



SOIL TEST RESULTS

SAMPLE NO.	OFFSET	STATION	DEPTH INTERVAL	AASHTO CLASS.	L.L.	P.I.	% BY WEIGHT C.SAND	F.SAND	SILT	CLAY	% PASSING (SIEVES) 10	40	200	% MOISTURE	% ORGANIC
S-17	50 LT	107+50	2.0-17.6	A-4(3)	31	10	20.7	27.6	33.5	18.3	96	84	55	-	-

8/23/99

0 5 10	PROJ. REFERENCE NO.	SHEET NO.
	U-2525B	98

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

750 740 730 720

RESIDUAL, TAN, LOOSE, MOIST, SILTY SAND

EXISTING GROUND

RESIDUAL, TAN AND BROWN, MEDIUM STIFF TO HARD, MOIST, SANDY SILT

WEATHERED ROCK (META-GRANITE)

PROPOSED GRADE

2:1 6:1

CRYSTALLINE ROCK (META-GRANITE AND META-GABBRO)

109+50

RESIDUAL, TAN, LOOSE, MOIST, SILTY SAND

EXISTING GROUND

RESIDUAL, TAN AND BROWN, MEDIUM STIFF TO HARD, MOIST, SANDY SILT

WEATHERED ROCK (META-GRANITE)

PROPOSED GRADE

2:1 6:1

CRYSTALLINE ROCK (META-GRANITE AND GABBRO)

109+00

760 750 740 730

RESIDUAL, RED AND TAN-BROWN, MED. STIFF TO HARD, MOIST, SANDY AND SILTY CLAY

RESIDUAL, TAN, LOOSE, MOIST, SILTY SAND

EXISTING GROUND

TAN AND BROWN, MEDIUM STIFF TO HARD, MOIST, SANDY SILT

DRY 2708

PROPOSED GRADE

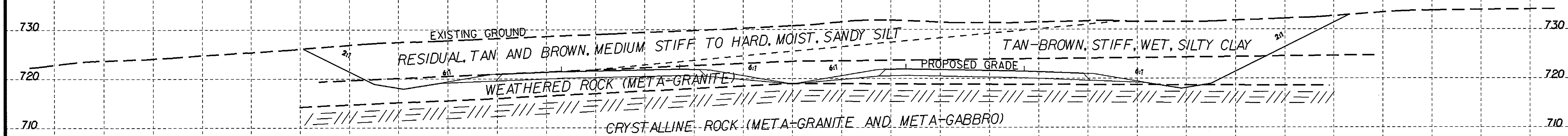
WEATHERED ROCK (META-GRANITE)

2:1 6:1

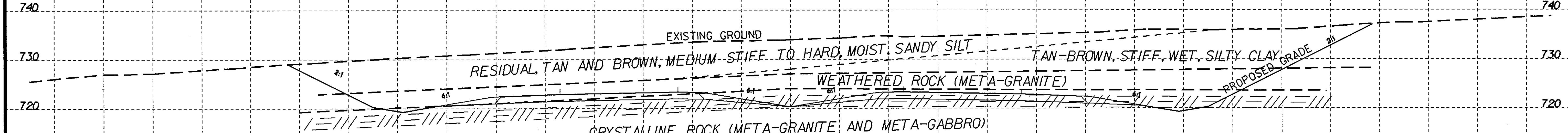
CRYSTALLINE ROCK (META-GRANITE)

108+50

PROJ. REFERENCE NO.	SHEET NO.
U-2525B	99



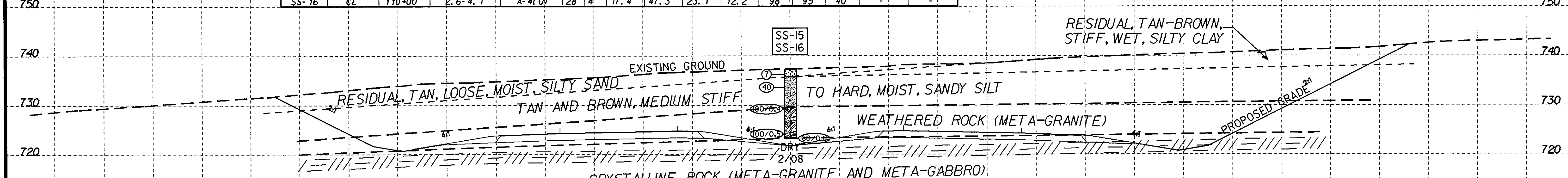
111+00



110+50

SOIL TEST RESULTS

SAMPLE NO.	OFFSET	STATION	DEPTH INTERVAL	AASHTO CLASS.	L.L.	P.I.	% BY WEIGHT C.SAND	% BY WEIGHT F.SAND	% BY WEIGHT SILT	% BY WEIGHT CLAY	% PASSING (SIEVES) 10	% PASSING (SIEVES) 40	% PASSING (SIEVES) 200	% MOISTURE	% ORGANIC
SS-15	CL	110+00	0.0-1.5	A-2-4(0)	28	10	18.5	39.6	17.6	24.3	77	70	35	-	-
SS-16	CL	110+00	2.6-4.1	A-4(0)	28	4	17.4	47.3	23.1	12.2	98	95	40	-	-



110+00

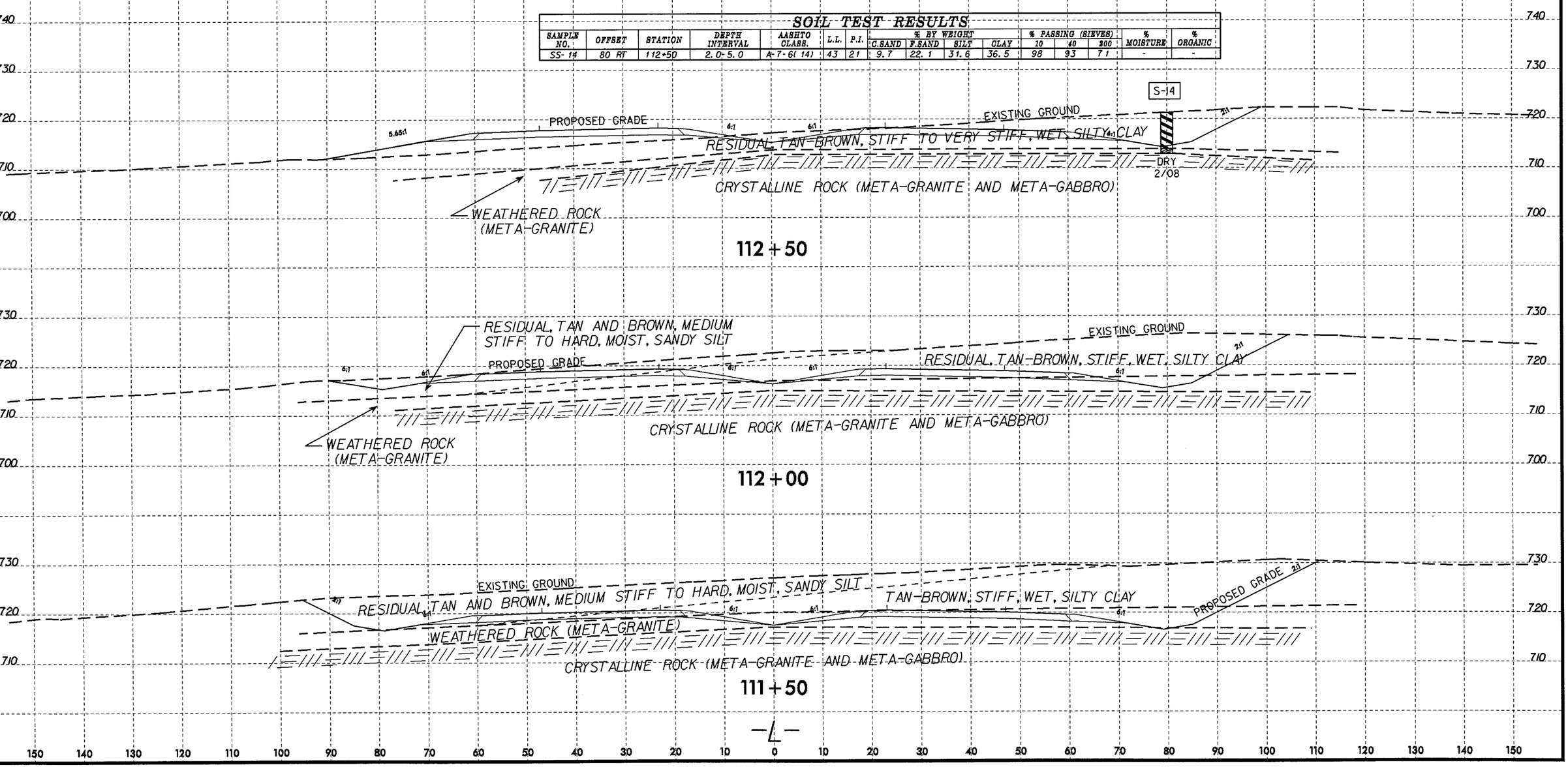
-L-

8/23/99

0 5 10	PROJ. REFERENCE NO.	SHEET NO.
	U-2525B	100

SOIL TEST RESULTS

SAMPLE NO.	OFFSET	STATION	DEPTH INTERVAL	AASHTO CLASS.	L.L.	P.I.	% BY WEIGHT C.SAND	F.SAND	SILT	CLAY	% PASSING (SIEVES) 10	40	200	% MOISTURE	% ORGANIC
SS-14	80 RT	112+50	2.0-5.0	A-7-6(14)	43	21	9.7	22.1	31.6	36.5	98	93	71	-	-



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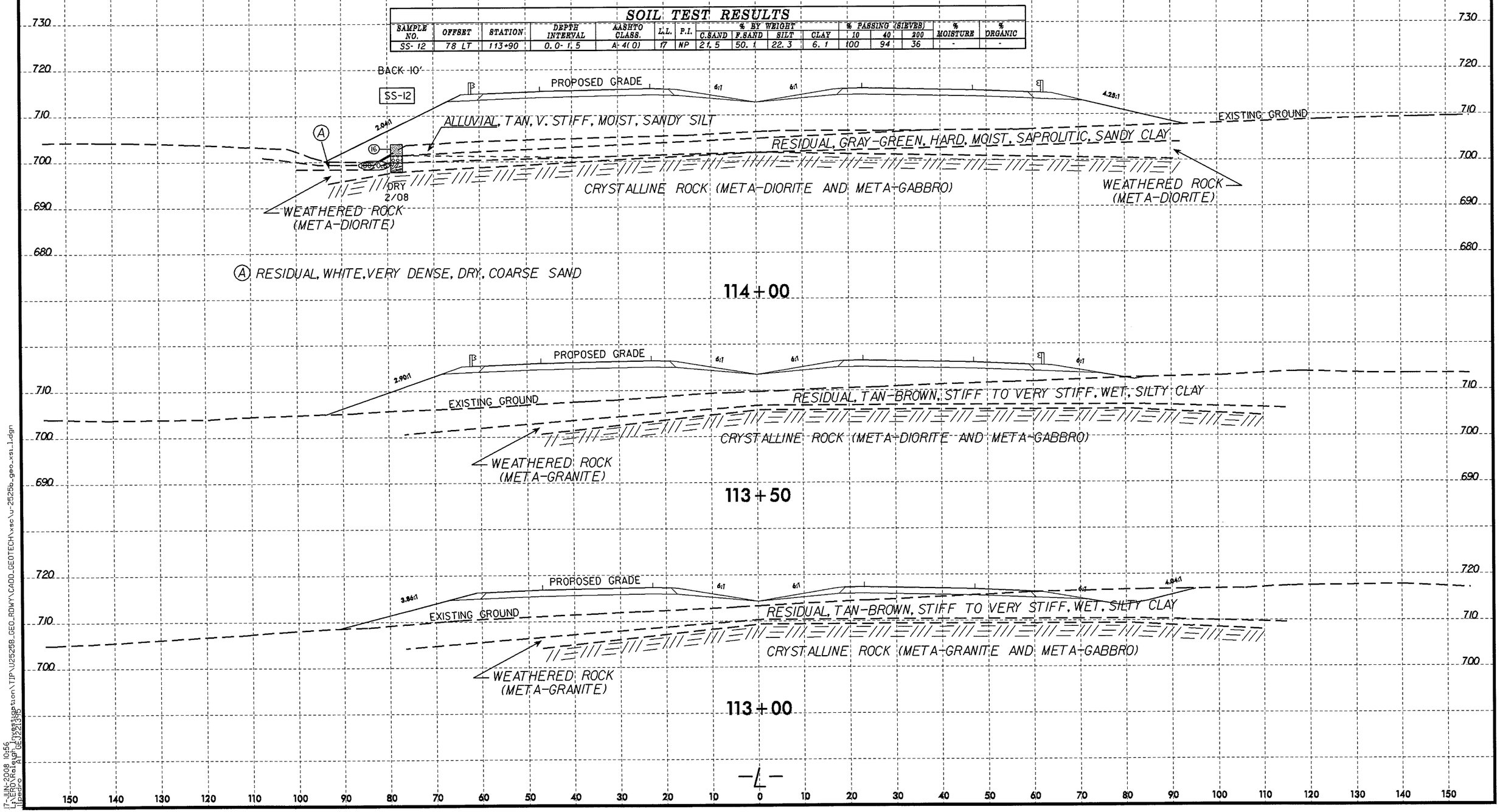
User: Pedro

8/23/99

0 5 10	PROJ. REFERENCE NO.	SHEET NO.
	U-2525B	101

SOIL TEST RESULTS

SAMPLE NO.	OFFSET	STATION	DEPTH INTERVAL	AASHTO CLASS.	L.L.	P.I.	% BY WEIGHT C.SAND	F.SAND	SILT	CLAY	% PASSING (SIEVES) 10	40	200	% MOISTURE	% ORGANIC
SS-12	78 LT	113+90	0.0-1.5	A-4(0)	17	NP	21.5	50.1	22.3	6.1	100	94	36	-	-



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8/23/99

0 5 10	PROJ. REFERENCE NO.	SHEET NO.
	U-2525B	102

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

710
700
690
680

PROPOSED GRADE

2.77:1 6:1 6:1 2.76:1

AHEAD 20'

EXISTING GROUND

RESIDUAL, GRAY AND BROWN, MED. STIFF, WET, SANDY SILT

ALLUVIAL, TAN, VERY STIFF, MOIST, SANDY SILT

(100/0.4')

DRY 2/08

WEATHERED ROCK (META-DIORITE)

CRYSTALLINE ROCK (META-DIORITE AND META-GABBRO)

WEATHERED ROCK (META-DIORITE)

© RESIDUAL, GRAY-GREEN, HARD, MOIST, SAPROLITIC, SANDY CLAY

115+00

730
720
710
700
690
680

SOIL TEST RESULTS

SAMPLE NO.	OFFSET	STATION	DEPTH INTERVAL	AASHTO CLASS.	L.L.	P.I.	% BY WEIGHT C.SAND	F.SAND	SILT	CLAY	% PASSING (SIEVES) 10	40	200	% MOISTURE	% ORGANIC
SS-13	CL	114+50	3.3-4.8	A-6(14)	39	16	5.3	14.6	51.7	28.4	100	98	85	-	-

PROPOSED GRADE SS-13

6:1 6:1 2.86:1 2.86:1

EXISTING GROUND

ALLUVIAL, TAN, V. STIFF, MOIST, SANDY SILT

(13)

DRY 2/08

WEATHERED ROCK (META-DIORITE)

WEATHERED ROCK (META-DIORITE)

CRYSTALLINE ROCK (META-DIORITE AND META-GABBRO)

Ⓑ RESIDUAL, GRAY-GREEN, HARD, MOIST, SAPROLITIC, SANDY CLAY

114+50

—L—

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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0 5 10	PROJ. REFERENCE NO.	SHEET NO.
	U-2525B	103

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

770
760
750
740

EXISTING GROUND

RESIDUAL, TAN AND ORANGE, STIFF TO HARD, DRY TO MOIST, SANDY AND SILTY CLAY

RESIDUAL, TAN, STIFF TO HARD, DRY TO MOIST, SANDY SILT

2:1 6:1 5.83:1 6:1 6:1 2:1

PROPOSED GRADE

WEATHERED ROCK (META-GRANITE)

207+00

780
770
760
750
740

EXISTING GROUND

RESIDUAL, TAN, VERY STIFF TO HARD, DRY TO MOIST, SILTY CLAY

RESIDUAL, TAN, STIFF TO HARD, DRY TO MOIST, SANDY SILT

2:1 6:1 5.83:1 6:1 2:1

04/08

PROPOSED GRADE

WEATHERED ROCK (META-GRANITE)

206+50

—L—

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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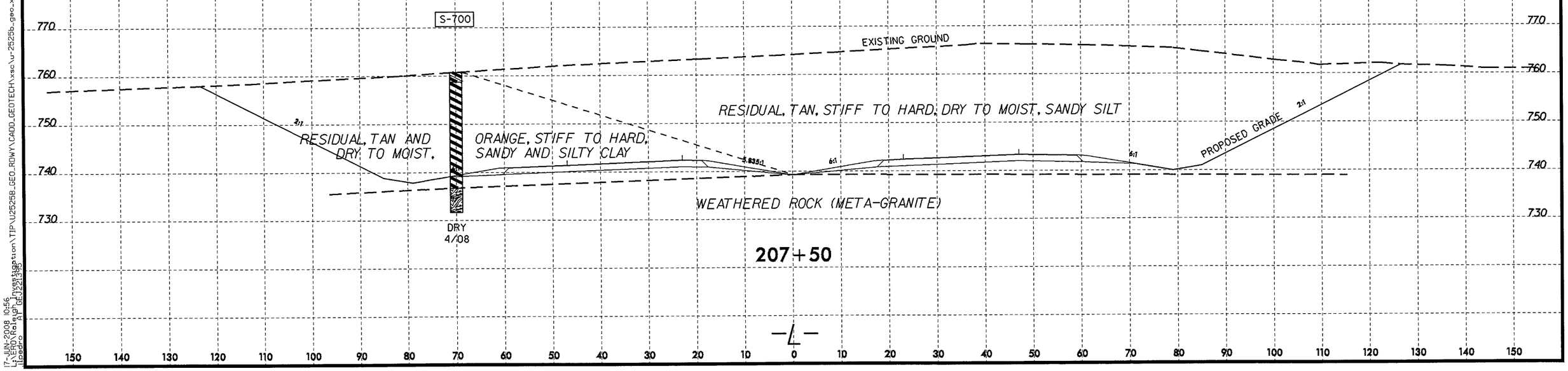
8/23/99

0 5 10	PROJ. REFERENCE NO.	SHEET NO.
	U-2525B	104

SOIL TEST RESULTS

SAMPLE NO.	OFFSET	STATION	DEPTH INTERVAL	AASHTO CLASS.	L.L.	P.I.	% BY WEIGHT C.SAND	% BY WEIGHT F.SAND	% BY WEIGHT SILT	% BY WEIGHT CLAY	% PASSING (SIEVES) 10	% PASSING (SIEVES) 40	% PASSING (SIEVES) 200	% MOISTURE	% ORGANIC
S-700	70 LT	207+50	3.0-5.0	A-7-6(9)	41	13	15.9	20.0	35.5	28.6	100	90	69		



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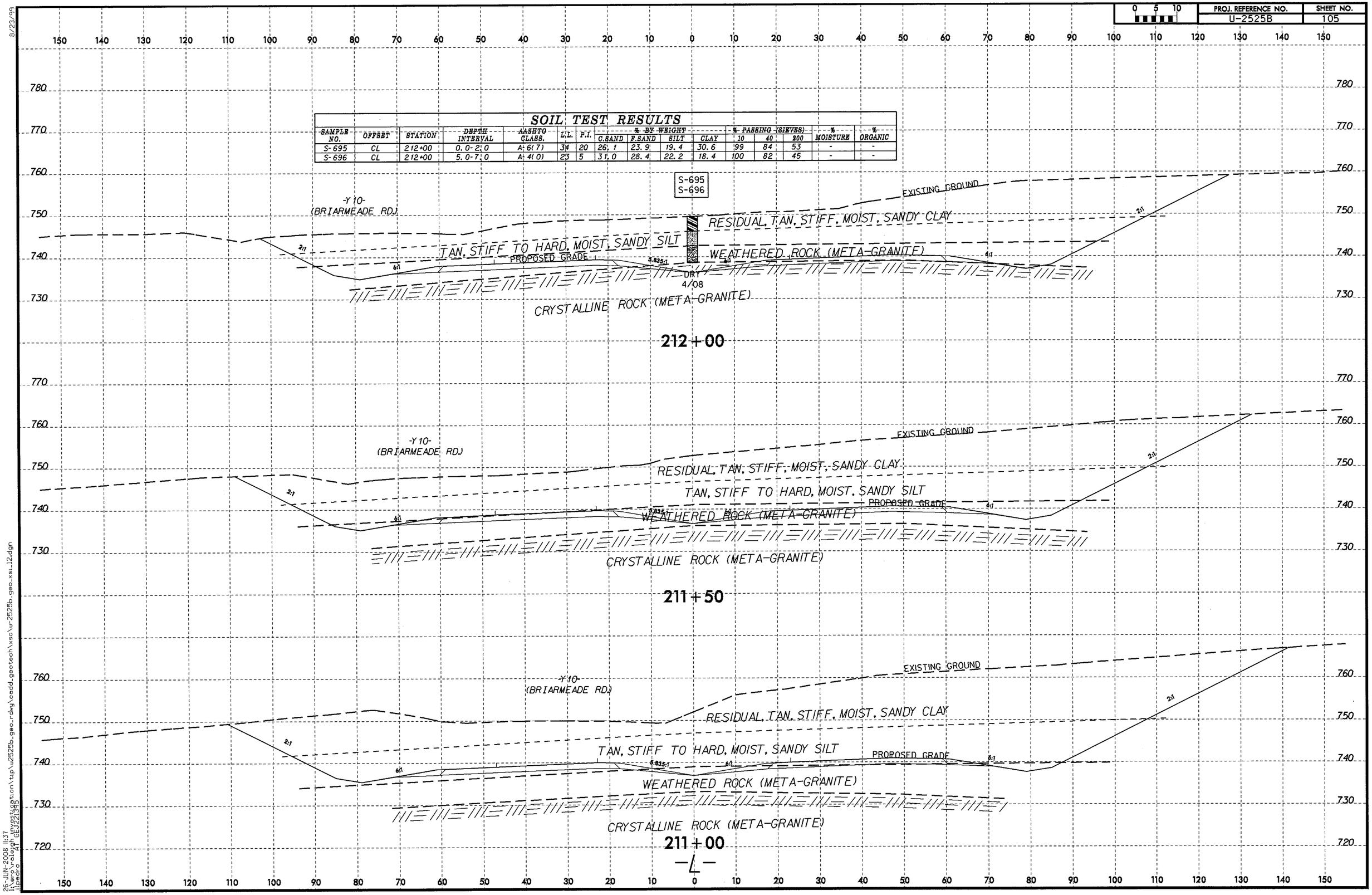
8/23/99

0 5 10	PROJ. REFERENCE NO.	SHEET NO.
	U-2525B	105

SOIL TEST RESULTS

SAMPLE NO.	OFFSET	STATION	DEPTH INTERVAL	AASHTO CLASS.	L.L.	P.I.	% BY WEIGHT C.SAND	F.SAND	SILT	CLAY	% PASSING (SIEVES) #10	#40	#200	% MOISTURE	% ORGANIC
S-695	CL	212+00	0.0-2.0	A-6(7)	34	20	26.1	23.9	19.4	30.6	99	84	53	-	-
S-696	CL	212+00	5.0-7.0	A-4(0)	23	5	31.0	28.4	22.2	18.4	100	82	45	-	-



8/23/99

0 5 10	PROJ. REFERENCE NO.	SHEET NO.
	U-2525B	106

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

760 750 740 730

-Y10-
(BRIARMEADE RD)

EXISTING GROUND

RESIDUAL, TAN, STIFF, MOIST, SANDY CLAY

TAN, STIFF TO HARD, MOIST, SANDY SILT

PROPOSED GRADE

2:1 6:1 6:1 2:1

5.835:1

04/08

WEATHERED ROCK (META-GRANITE)

213+00

760 750 740 730 720 710

-Y10-
(BRIARMEADE RD)

EXISTING GROUND

RESIDUAL, TAN, STIFF, MOIST, SANDY CLAY

TAN, STIFF TO HARD, MOIST, SANDY SILT

PROPOSED GRADE

2:1 6:1 6:1 2:1

5.835:1

WEATHERED ROCK (META-GRANITE)

CRYSTALLINE ROCK (META-GRANITE)

212+50

$-L-$

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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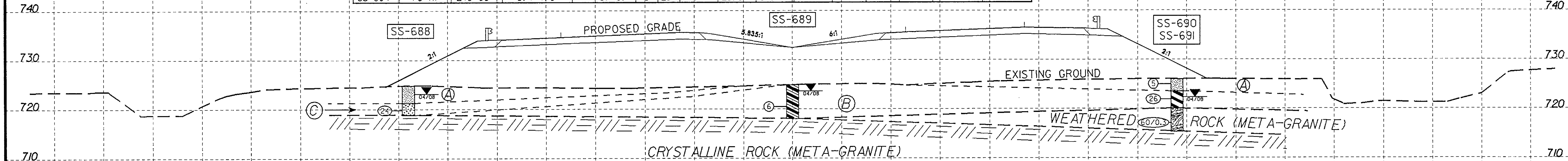
AT DEV221095

8/23/99

SOIL TEST RESULTS

SAMPLE NO.	OFFSET	STATION	DEPTH INTERVAL	AASHTO CLASS.	L.L.	P.I.	% BY WEIGHT C.SAND	% BY WEIGHT F.SAND	% BY WEIGHT SILT	% BY WEIGHT CLAY	% PASSING (SIEVES) 10	% PASSING (SIEVES) 40	% PASSING (SIEVES) 200	% MOISTURE	% ORGANIC
SS-688	78 LT	218+00	4.0-5.5	A-2-4(0)	27	8	48.4	24.3	15.1	12.2	70	45	22		
SS-689	CL	218+00	3.4-4.9	A-6(7)	36	16	16.1	25.9	27.3	30.6	89	81	58		
SS-690	78 RT	218+00	0.0-1.5	A-4(1)	22	5	14.7	25.7	37.1	22.4	98	89	64		
SS-691	78 RT	218+00	3.1-4.6	A-7-6(19)	45	28	7.1	26.3	31.8	34.7	100	97	74		

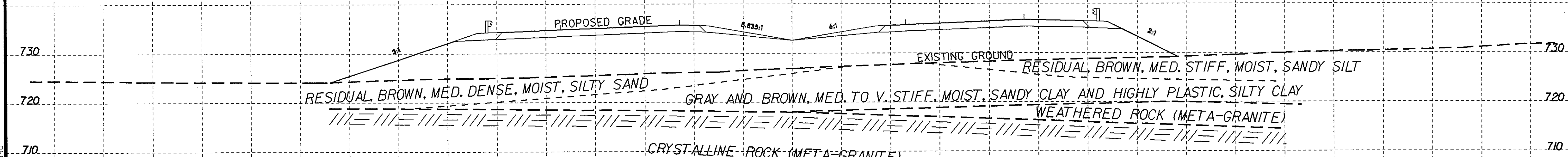


Ⓐ RESIDUAL, BROWN, MEDIUM STIFF, MOIST, SANDY SILT

Ⓑ RESIDUAL, GRAY AND BROWN, MED. TO V. STIFF, MOIST, SANDY CLAY AND HIGHLY PLASTIC, SILTY CLAY

Ⓒ RESIDUAL, BROWN, MEDIUM DENSE, MOIST, SILTY SAND

218+00



217+50

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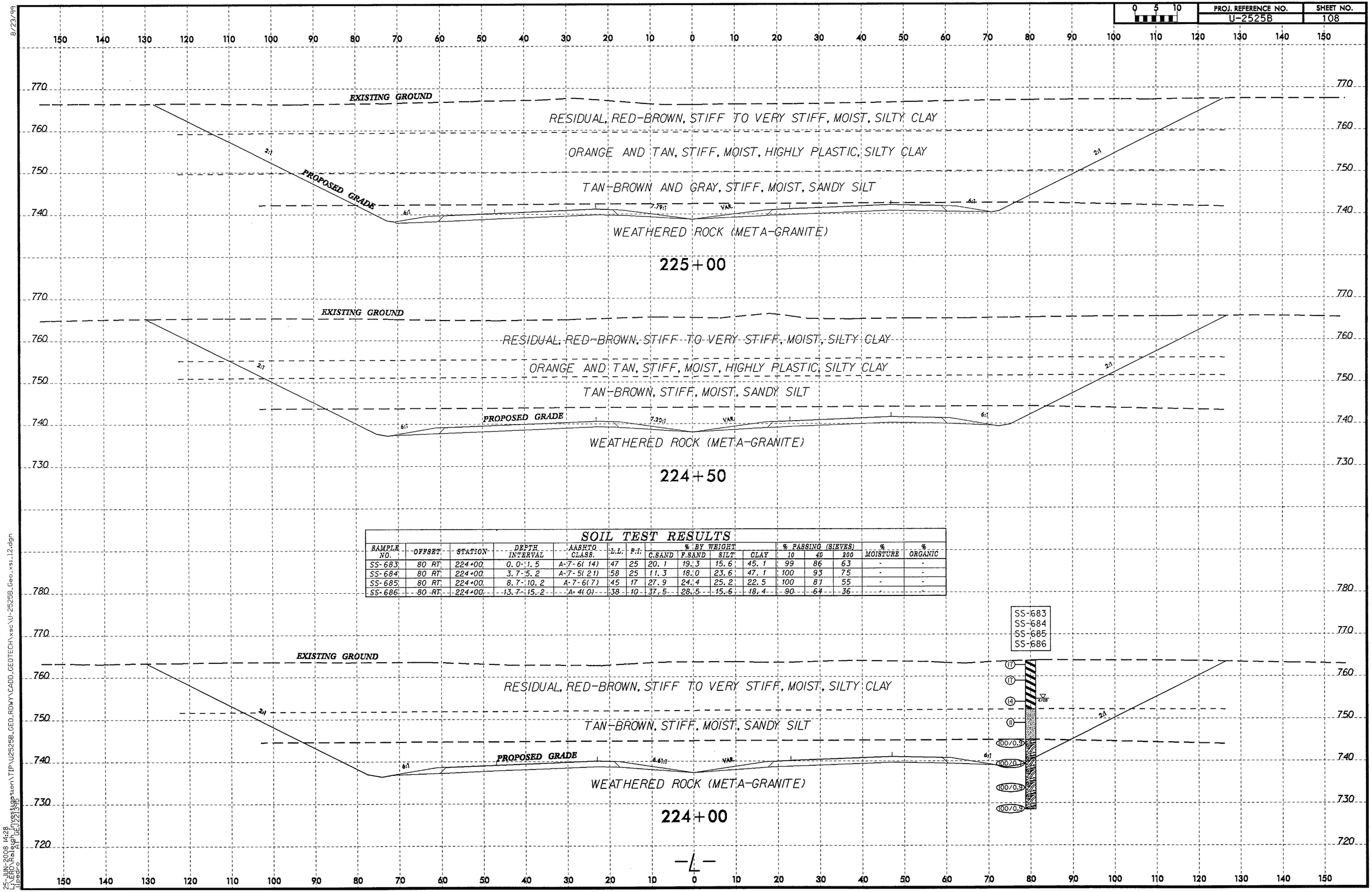
	U-2525B	108



SOIL TEST RESULTS

SAMPLE NO.	OFFSET	STATION	DEPTH INTERVAL	AASHTO CLASS.	L.L.	P.I.	% BY WEIGHT C.SAND	F.SAND	SILT	CLAY	% PASSING (SIEVES) 10	40	200	% MOISTURE	% ORGANIC
SS-683	80 RT	224+00	0.0-1.5	A-7-6(14)	47	25	20.1	19.3	15.6	45.1	99	86	63	-	-
SS-684	80 RT	224+00	3.7-5.2	A-7-5(21)	58	25	11.3	18.0	23.6	47.1	100	93	75	-	-
SS-685	80 RT	224+00	8.7-10.2	A-7-6(7)	45	17	27.9	24.4	25.2	22.5	100	81	55	-	-
SS-686	80 RT	224+00	13.7-15.2	A-4(0)	38	10	37.5	28.5	15.6	18.4	90	64	36	-	-

8/23/99

0 5 10	PROJ. REFERENCE NO.	SHEET NO.
	U-2525B	109

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

770 760 750 740 730

EXISTING GROUND

RESIDUAL, ORANGE AND TAN, STIFF, MOIST, HIGHLY PLASTIC, SILTY CLAY

2:1 PROPOSED GRADE

TAN AND GRAY, STIFF, MOIST, SANDY SILT

9.55:1 VAR. 2:1

WEATHERED ROCK (META-GRANITE)

CRYSTALLINE ROCK (META-GRANITE)

226+50

EXISTING GROUND

RESIDUAL, ORANGE AND TAN, STIFF, MOIST, HIGHLY PLASTIC, SILTY CLAY

2:1 PROPOSED GRADE 6:1

03/08

TAN AND GRAY, STIFF, MOIST, SANDY SILT

8.96:1 VAR. 6:1 2:1

WEATHERED ROCK (META-GRANITE)

CRYSTALLINE ROCK (META-GRANITE)

226+00

EXISTING GROUND

RESIDUAL, RED-BROWN, STIFF TO VERY STIFF, MOIST, SILTY CLAY

ORANGE AND TAN, STIFF, MOIST, HIGHLY PLASTIC, SILTY CLAY

2:1 PROPOSED GRADE 6:1

TAN AND GRAY, STIFF, MOIST, SANDY SILT

8.38:1 VAR. 6:1 2:1

WEATHERED ROCK (META-GRANITE)

CRYSTALLINE ROCK (META-GRANITE)

225+50

—L—

720

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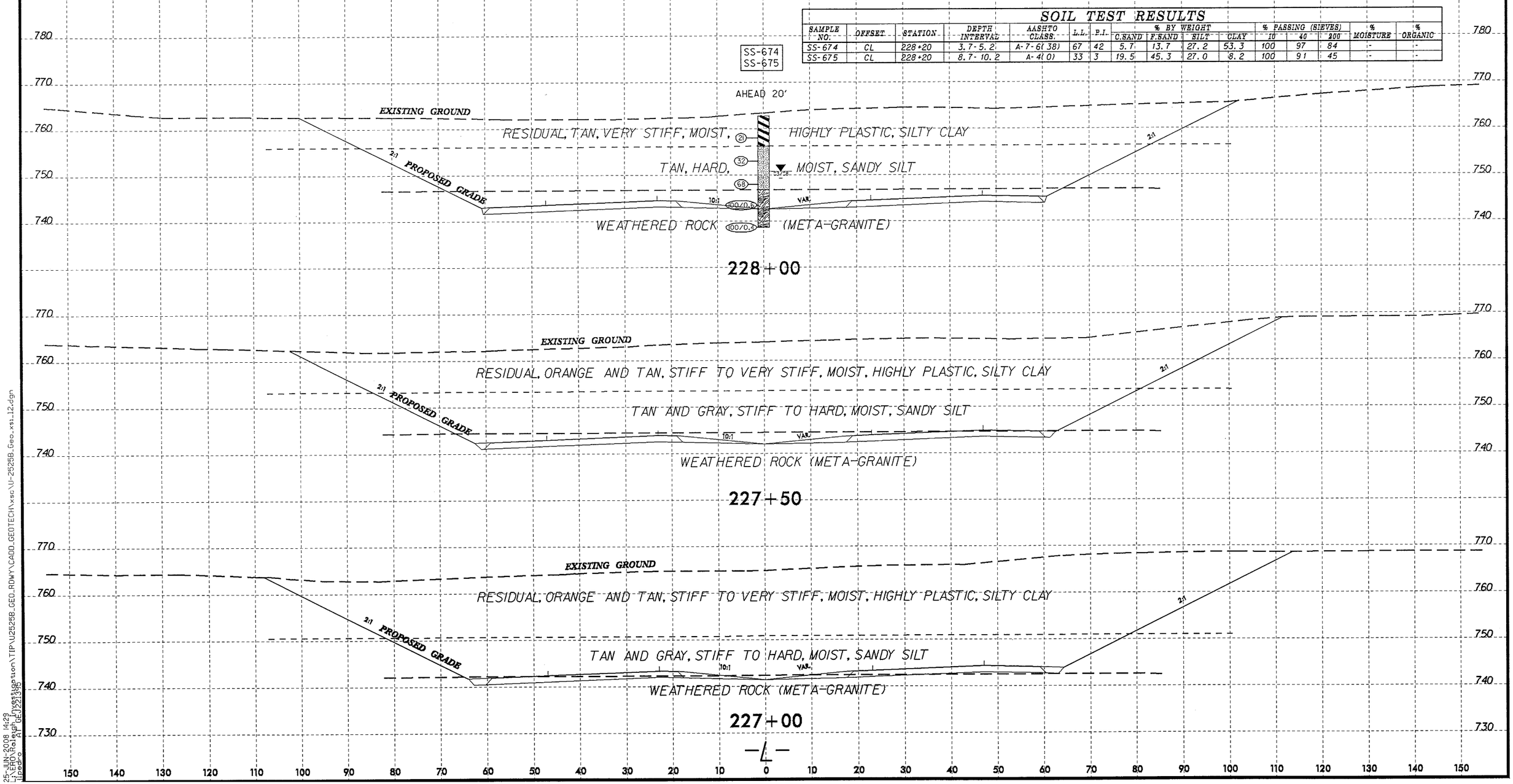
AT GEJ22195

8/23/99

0 5 10	PROJ. REFERENCE NO.	SHEET NO.
	U-2525B	110

SOIL TEST RESULTS

SAMPLE NO.	OFFSET	STATION	DEPTH INTERVAL	AASHTO CLASS.	L.L.	P.I.	% BY WEIGHT C.SAND	F.SAND	SILT	CLAY	% PASSING (SIEVES) 10	40	200	% MOISTURE	% ORGANIC
SS-674	CL	228+20	3.7-5.2	A-7-6(38)	67	42	5.7	13.7	27.2	53.3	100	97	84	-	-
SS-675	CL	228+20	8.7-10.2	A-4(0)	33	3	19.5	45.3	27.0	8.2	100	91	45	-	-



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0 5 10	PROJ. REFERENCE NO.	SHEET NO.
	U-2525B	111

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

770 760 750 740

EXISTING GROUND

RESIDUAL, BROWN, MEDIUM STIFF, MOIST, SANDY SILT

2:1

TAN AND BROWN, VERY STIFF, MOIST, HIGHLY PLASTIC, SILTY CLAY

PROPOSED GRADE

6:1 6:1

TAN AND GRAY, HARD, MOIST, SANDY SILT

WEATHERED ROCK (META-GRANITE)

230+00

ROADWAY EMBANKMENT

770 760 750 740

RESIDUAL, BROWN, MEDIUM STIFF, MOIST, SANDY SILT

2:1

EXISTING GROUND

TAN, VERY STIFF, MOIST, HIGHLY PLASTIC, SILTY CLAY

2:1

PROPOSED GRADE

TAN, HARD, MOIST, SANDY SILT

10:1 VAR.

WEATHERED ROCK (META-GRANITE)

229+50

RESIDUAL, BROWN, MEDIUM STIFF, MOIST, SANDY SILT

770 760 750 740

EXISTING GROUND

RESIDUAL, TAN, VERY STIFF, MOIST, HIGHLY PLASTIC, SILTY CLAY

2:1

2:1

PROPOSED GRADE

TAN, HARD, MOIST, SANDY SILT

10:1 VAR.

WEATHERED ROCK (META-GRANITE)

229+00

EXISTING GROUND

760 750 740 730

RESIDUAL, TAN, VERY STIFF, MOIST, HIGHLY PLASTIC, SILTY CLAY

2:1

2:1

PROPOSED GRADE

TAN, HARD, MOIST, SANDY SILT

10:1 VAR.

WEATHERED ROCK (META-GRANITE)

228+50

—L—

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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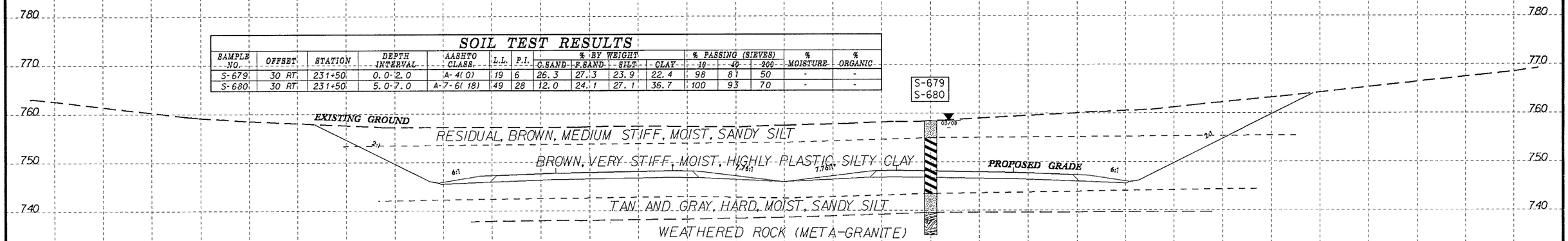
0 5 10	PROJ. REFERENCE NO.	SHEET NO.
	U-2525B	112

SOIL TEST RESULTS

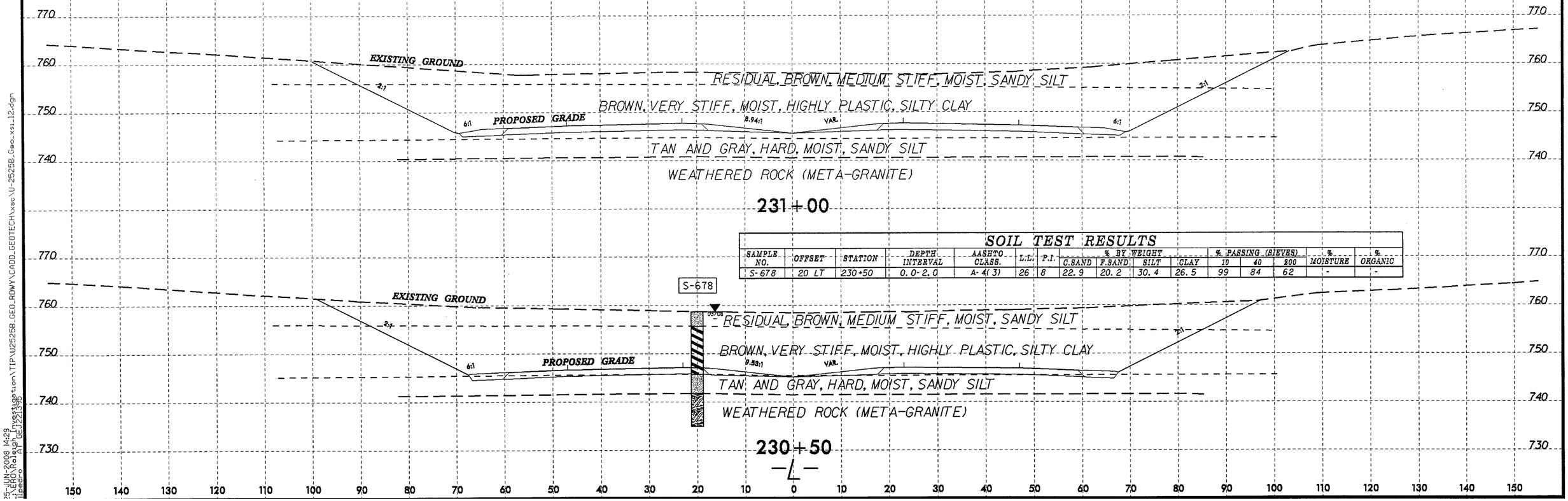
SAMPLE NO.	OFFSET	STATION	DEPTH INTERVAL	AASHTO CLASS.	L.L.	P.I.	% BY WEIGHT C.SAND	F.SAND	SILT	CLAY	% PASSING (SIEVES) 10	40	200	% MOISTURE	% ORGANIC
S-679	30 RT.	231+50	0.0-2.0	A-4(0)	19	6	26.3	27.3	23.9	22.4	98	81	50	-	-
S-680	30 RT.	231+50	5.0-7.0	A-7-6(18)	49	28	12.0	24.1	27.1	36.7	100	93	70	-	-



231+50

SOIL TEST RESULTS

SAMPLE NO.	OFFSET	STATION	DEPTH INTERVAL	AASHTO CLASS.	L.L.	P.I.	% BY WEIGHT C.SAND	F.SAND	SILT	CLAY	% PASSING (SIEVES) 10	40	200	% MOISTURE	% ORGANIC
S-678	20 LT	230+50	0.0-2.0	A-4(3)	26	8	22.9	20.2	30.4	26.5	99	84	62	-	-



231+00

230+50
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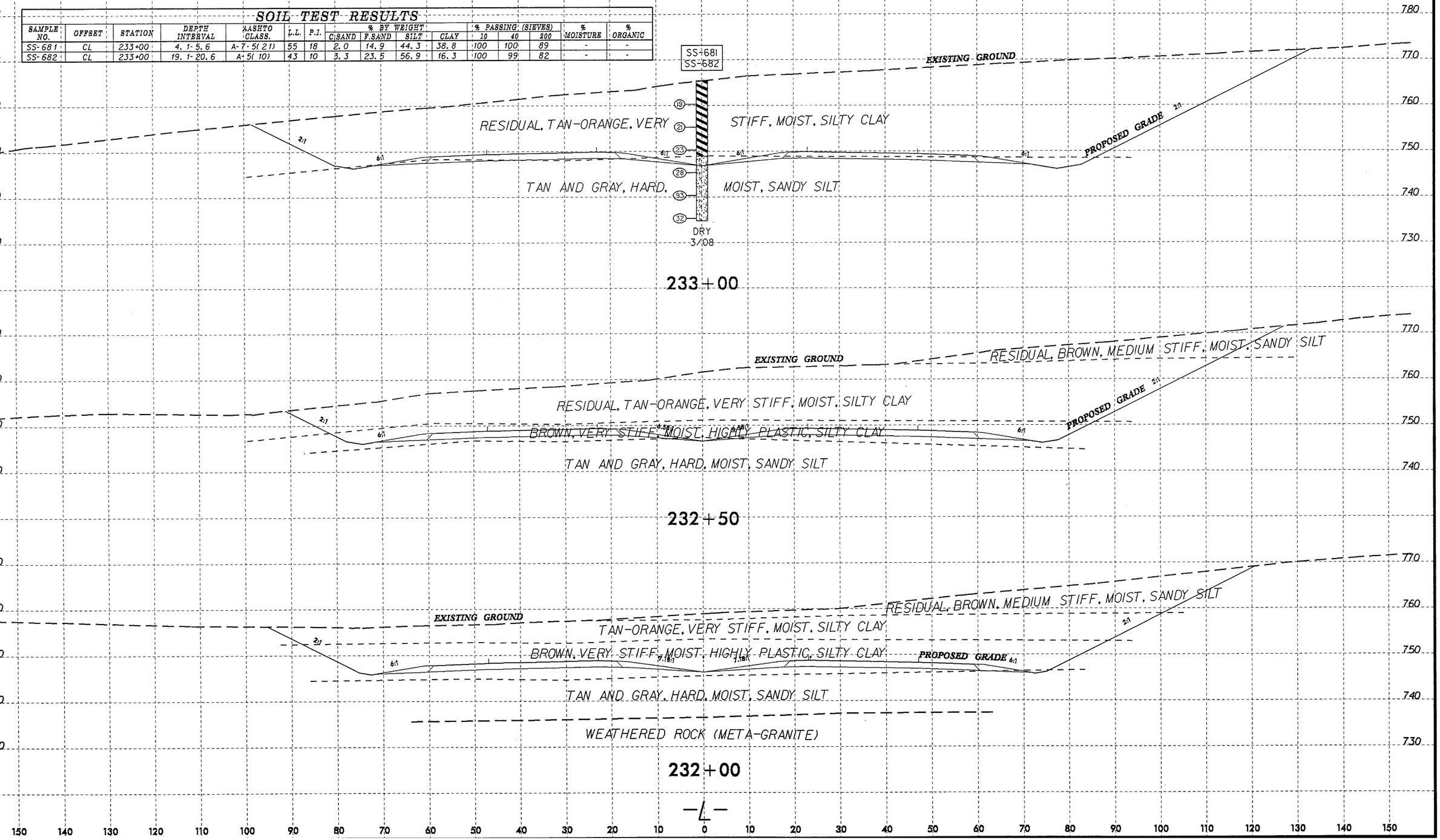
0 5 10	PROJ. REFERENCE NO.	SHEET NO.
	U-2525B	113

SOIL TEST RESULTS

SAMPLE NO.	OFFSET	STATION	DEPTH INTERVAL	AASHTO CLASS.	L.L.	P.I.	% BY WEIGHT C.SAND	F.SAND	SILT	CLAY	% PASSING (SIEVES) 10	40	200	% MOISTURE	% ORGANIC
SS-681	CL	233+00	4.1-5.6	A-7-5(21)	55	18	2.0	14.9	44.3	38.8	100	100	89	-	-
SS-682	CL	233+00	19.1-20.6	A-5(10)	43	10	3.3	23.5	56.9	16.3	100	99	82	-	-



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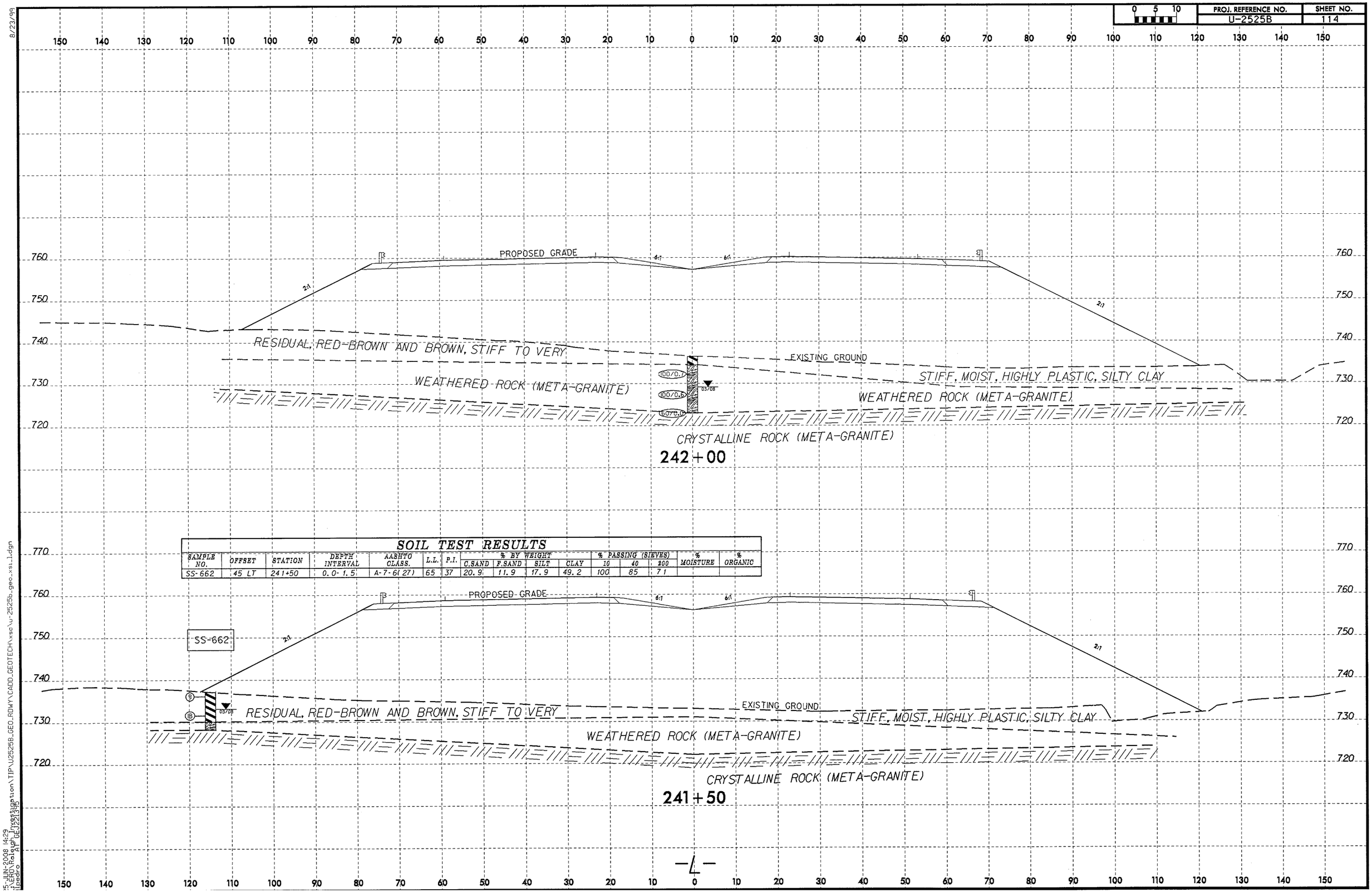
0 5 10	PROJ. REFERENCE NO.	SHEET NO.
	U-2525B	114



SOIL TEST RESULTS

SAMPLE NO.	OFFSET	STATION	DEPTH INTERVAL	AASHTO CLASS.	L.L.	P.I.	% BY WEIGHT C.SAND	F.SAND	SILT	CLAY	% PASSING (SIEVES) 10	40	200	% MOISTURE	% ORGANIC
SS-662	45 LT	241+50	0.0-1.5	A-7-6(27)	65	37	20.9	11.9	17.9	49.2	100	85	71		

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0 5 10	PROJ. REFERENCE NO.	SHEET NO.
	U-2525B	115

PROPOSED GRADE

2.65:1 6:1 6:1 2:1

RESIDUAL, RED-BROWN AND BROWN, STIFF TO VERY STIFF, MOIST, HIGHLY PLASTIC, SILTY CLAY

EXISTING GROUND

WEATHERED ROCK (META-GRANITE)

CRYSTALLINE ROCK (META-GRANITE)

CRYSTALLINE ROCK (META-GRANITE)

100/0.6

DRY
3/08

242+50

-L-

760 750 740 730 720

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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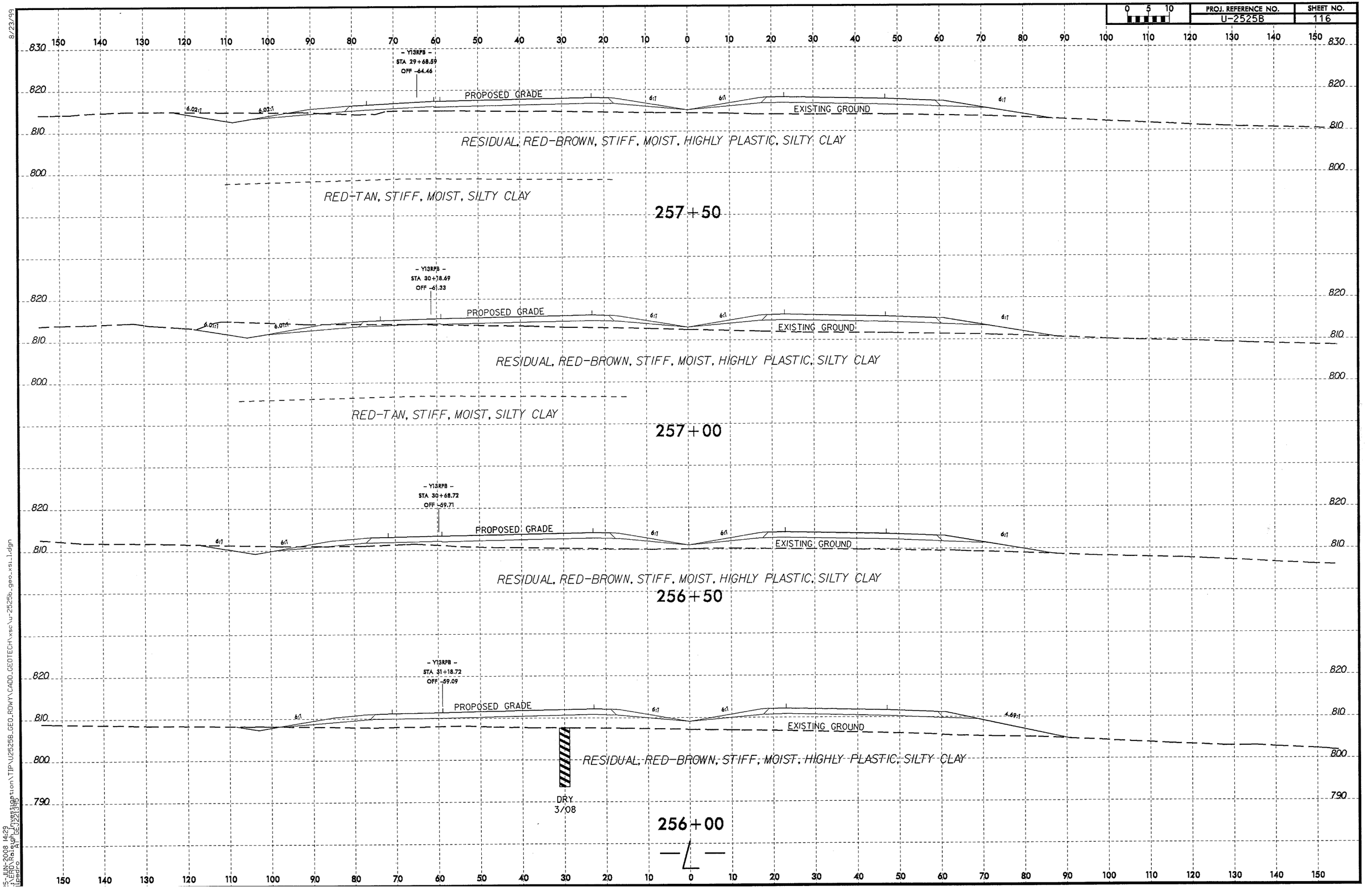
0 5 10	PROJ. REFERENCE NO.	SHEET NO.
	U-2525B	116



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0 5 10	PROJ. REFERENCE NO.	SHEET NO.
	U-2525B	117

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

SOIL TEST RESULTS

SAMPLE NO.	OFFSET	STATION	DEPTH INTERVAL	AASHTO CLASS.	L.L.	P.I.	% BY WEIGHT C.SAND	F.SAND	SILT	CLAY	% PASSING (SIEVES) 10	40	200	% MOISTURE	% ORGANIC
SS-618	75 LT	258+50	0.0-1.5	A-7-6(31)	64	35	6.5	14.0	16.7	62.8	98	95	87	-	-
SS-619	75 LT	258+50	15.0-16.5	A-7-5(79)	62	76	7.9	16.0	37.6	38.5	100	95	82	-	-

840 830 820 810 800

- Y13RPB -
STA 28+67.80
OFF -76.79

SS-618
SS-619

6.08:1 EXISTING GROUND 6:1 6:1 PROPOSED GRADE 6:1

8 20 14 15

RESIDUAL, RED-BROWN, STIFF TO VERY STIFF, MOIST, HIGHLY PLASTIC, SILTY CLAY

DRY
3/08

RED-TAN, STIFF TO VERY STIFF, MOIST, SILTY CLAY

258+50

- Y13RPB -
STA 29+18.33
OFF -69.57

6.05:1 6.05:1 PROPOSED GRADE 6:1 6:1 EXISTING GROUND 6:1

RESIDUAL, RED-BROWN, STIFF, MOIST, HIGHLY PLASTIC, SILTY CLAY

RED-TAN, STIFF, MOIST, SILTY CLAY

DRY
3/08

258+00

—L—

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jpadro AT GEO22135

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0 5 10	PROJ. REFERENCE NO.	SHEET NO.
	U-2525B	118

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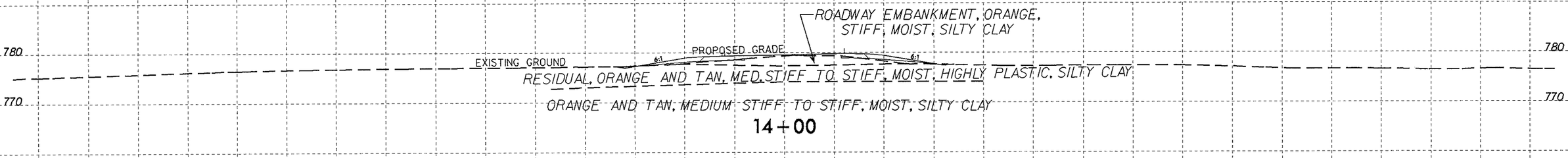
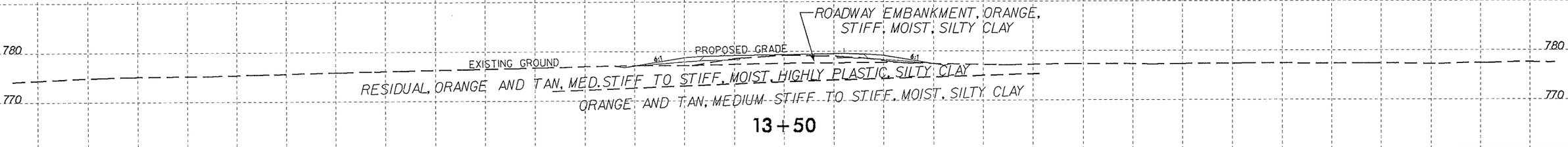
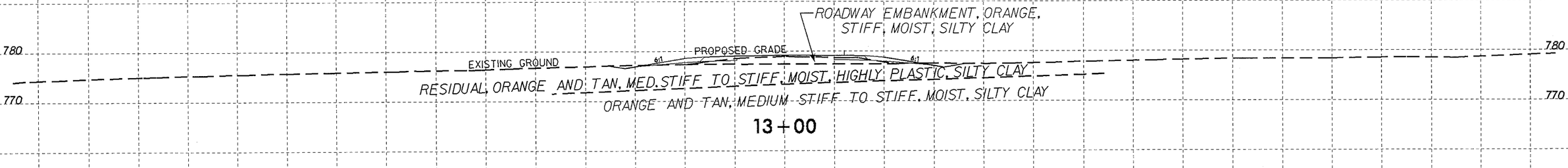


14+00



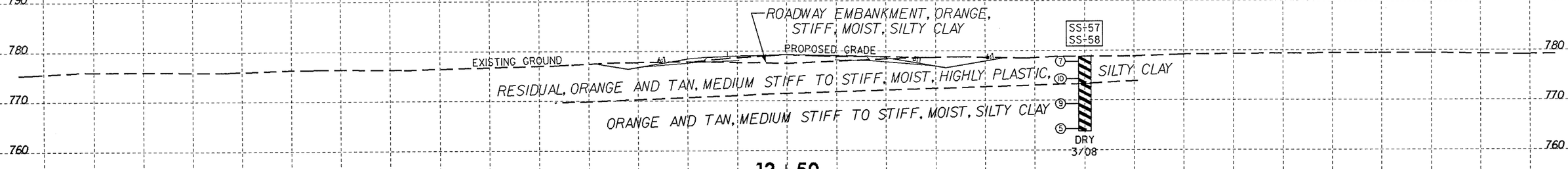
13+50



13+00

SOIL TEST RESULTS

SAMPLE NO.	OFFSET	STATION	DEPTH INTERVAL	AASHTO CLASS.	L.L.	P.I.	% BY WEIGHT C.SAND	% BY WEIGHT F.SAND	% BY WEIGHT SILT	% BY WEIGHT CLAY	% PASSING (SIEVES) 10	% PASSING (SIEVES) 40	% PASSING (SIEVES) 200	% MOISTURE	% ORGANIC
SS-57	60 RT	12+50	0.0-1.5	A-7-5(46)	89	54	15.7	8.1	21.8	54.4	99	88	77	-	-
SS-58	60 RT	12+50	8.5-10.0	A-7-5(13)	46	14	2.2	29.0	44.6	24.2	100	100	79	-	-



12+50

-Y4-

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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lpedro AT GEU221395

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PROJ. REFERENCE NO.	SHEET NO.
U-2525B	119

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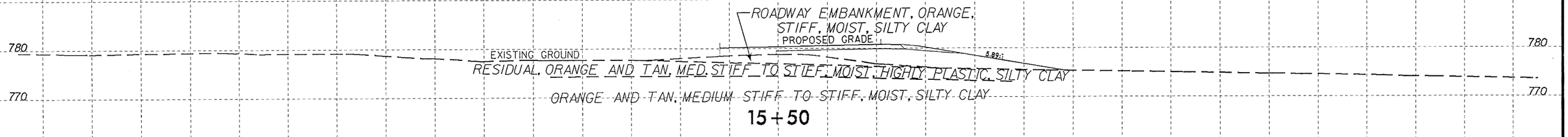
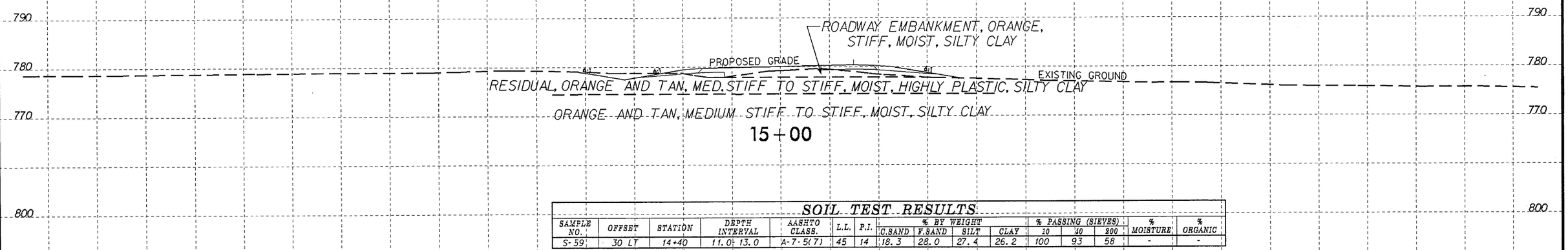
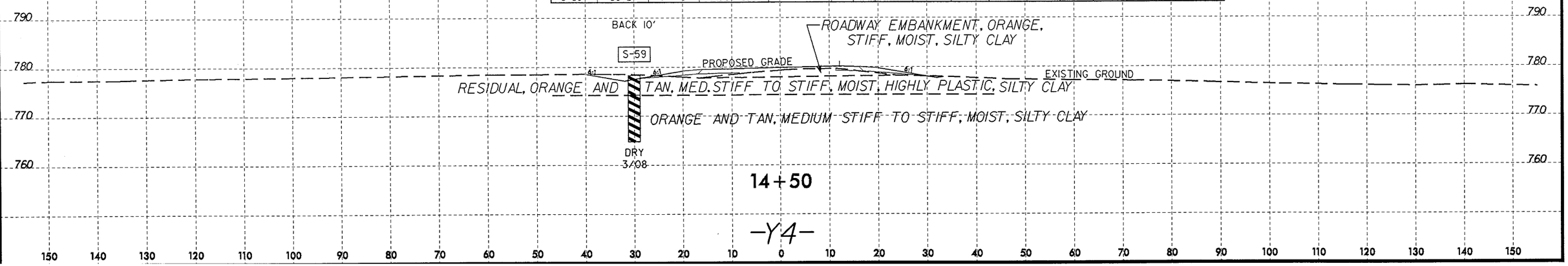




SOIL TEST RESULTS

SAMPLE NO.	OFFSET	STATION	DEPTH INTERVAL	AASHTO CLASS.	L.L.	P.I.	% BY WEIGHT C.SAND	% BY WEIGHT F.SAND	% BY WEIGHT SILT	% BY WEIGHT CLAY	% PASSING (SIEVES) 10	% PASSING (SIEVES) 40	% PASSING (SIEVES) 200	% MOISTURE	% ORGANIC
S-59	30 LT	14+40	11.0- 13.0	A-7-5(7)	45	14	18.3	28.0	27.4	26.2	100	93	58	-	-



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lpadro AT GEU2213/96

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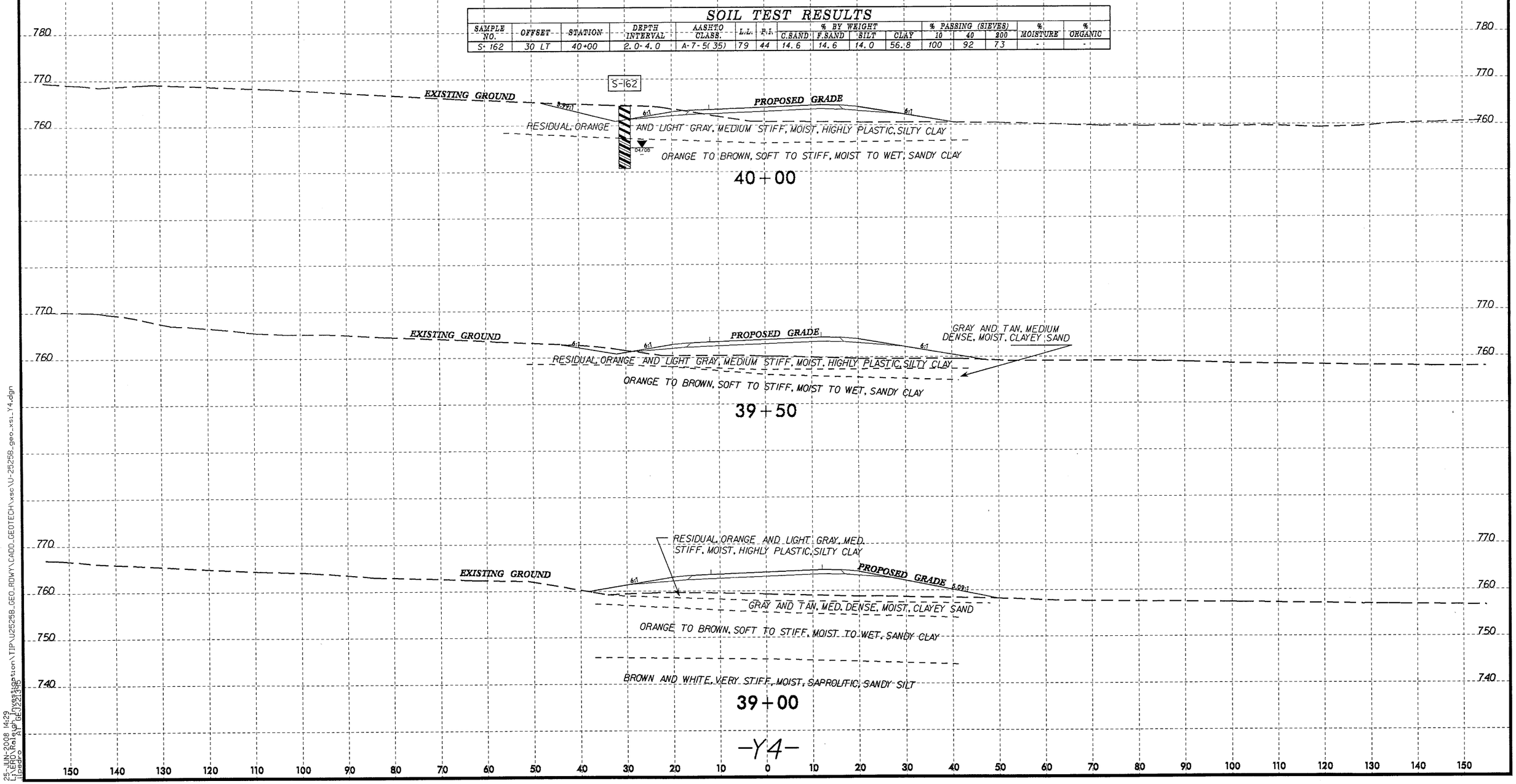
0 5 10	PROJ. REFERENCE NO.	SHEET NO.
	U-2525B	120

SOIL TEST RESULTS

SAMPLE NO.	OFFSET	STATION	DEPTH INTERVAL	AASHTO CLASS.	L.L.	P.I.	% BY WEIGHT C.SAND	F.SAND	SILT	CLAY	% PASSING (SIEVES) 10	40	200	% MOISTURE	% ORGANIC
S-162	30 LT	40+00	2.0-4.0	A-7-5(35)	79	44	14.6	14.6	14.0	56.8	100	92	73	-	-



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jpadro AT GE 22196

8/23/99

0 5 10	PROJ. REFERENCE NO.	SHEET NO.
	U-2525B	121

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

780 770 760 750

AHEAD 10'

EXISTING GROUND

PROPOSED GRADE

2:1 6:1 4:1

RESIDUAL, RED AND ORANGE, VERY (29) STIFF, MOIST, HIGHLY PLASTIC, SILTY CLAY

TAN-ORANGE, STIFF TO VERY (15) STIFF, MOIST, SILTY CLAY

(17)

TAN AND WHITE, MEDIUM STIFF, (5) MOIST, SAPROLITIC, CLAYEY SILT

04/08

(4)

TAN-ORANGE, MEDIUM STIFF, MOIST, SAPROLITIC, SILTY CLAY

42+00

EXISTING GROUND

PROPOSED GRADE

2:1 6:1 4:1

RESIDUAL, RED, ORANGE, AND LIGHT-GRAY, MEDIUM TO VERY STIFF, MOIST, HIGHLY PLASTIC, SILTY CLAY

TAN AND ORANGE-BROWN, SOFT TO STIFF, MOIST TO WET, SANDY AND SILTY CLAY

TAN AND WHITE, MEDIUM STIFF, MOIST, SAPROLITIC, CLAYEY SILT

TAN-ORANGE, MEDIUM STIFF, MOIST, SAPROLITIC, SILTY CLAY

41+50

EXISTING GROUND

PROPOSED GRADE

2:1 6:1 4:1

RESIDUAL, RED, ORANGE, AND LIGHT GRAY, MEDIUM TO VERY STIFF, MOIST, HIGHLY PLASTIC, SILTY CLAY

TAN AND ORANGE-BROWN, SOFT TO STIFF, MOIST TO WET, SANDY AND SILTY CLAY

TAN AND WHITE, MEDIUM STIFF, MOIST, SAPROLITIC, CLAYEY SILT

41+00

EXISTING GROUND

PROPOSED GRADE

2:1 6:1 4:1

RESIDUAL, ORANGE AND LIGHT GRAY, MEDIUM STIFF, MOIST, HIGHLY PLASTIC, SILTY CLAY

ORANGE TO BROWN, SOFT TO STIFF, MOIST TO WET, SANDY CLAY

40+50

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0 5 10	PROJ. REFERENCE NO.	SHEET NO.
	U-2525B	122

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

780
770

EXISTING GROUND
2:1 PROPOSED GRADE
6:1
6:1
2:1

ARTIFICIAL FILL, RED-BROWN, MEDIUM STIFF, MOIST, HIGHLY PLASTIC, SILTY CLAY

RESIDUAL, RED AND ORANGE, VERY STIFF, MOIST, HIGHLY PLASTIC, SILTY CLAY

RED, TAN, AND ORANGE, SOFT TO VERY STIFF, MOIST, SAPROLITIC, SILTY CLAY

780
770

43+50

780
770
760

EXISTING GROUND
2:1 PROPOSED GRADE
6:1
6:1
2:1

RESIDUAL, RED AND ORANGE, VERY STIFF, MOIST, HIGHLY PLASTIC, SILTY CLAY

RED, TAN, AND ORANGE, SOFT TO VERY STIFF, MOIST, SILTY CLAY

TAN AND WHITE, MEDIUM STIFF, MOIST, SAPROLITIC, CLAYEY SILT

TAN-ORANGE, MEDIUM STIFF, MOIST, SAPROLITIC, SILTY CLAY

780
770
760

43+00

780
770
760
750

EXISTING GROUND
2:1
6:1
6:1
2:1 PROPOSED GRADE

RESIDUAL, RED AND ORANGE, VERY STIFF, MOIST, HIGHLY PLASTIC, SILTY CLAY

TAN-ORANGE, STIFF TO VERY STIFF, MOIST, SILTY CLAY

TAN AND WHITE, MEDIUM STIFF, MOIST, SAPROLITIC, CLAYEY SILT

TAN-ORANGE, MEDIUM STIFF, MOIST, SAPROLITIC, SILTY CLAY

780
770
760
750

42+50

-Y4-

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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0 5 10	PROJ. REFERENCE NO.	SHEET NO.
	U-2525B	123

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

780
770

EXISTING GROUND

ARTIFICIAL FILL, RED-BROWN, MEDIUM STIFF TO STIFF, MOIST, HIGHLY PLASTIC, SILTY CLAY

RESIDUAL, RED, TAN, ORANGE, AND GRAY, VERY STIFF, MOIST, HIGHLY PLASTIC, SILTY CLAY

RED-ORANGE, BROWN, AND WHITE, SOFT TO VERY STIFF, MOIST, SAPROLITIC, MICACEOUS, SANDY AND SILTY CLAY

PROPOSED GRADE

2:1 6:1 6:1 2:1

45+00

780
770

EXISTING GROUND

ARTIFICIAL FILL, RED-BROWN, MEDIUM STIFF, MOIST, HIGHLY PLASTIC, SILTY CLAY

RESIDUAL, RED, TAN, ORANGE, AND GRAY, VERY STIFF, MOIST, HIGHLY PLASTIC, SILTY CLAY

RED, TAN, AND ORANGE, SOFT TO VERY STIFF, MOIST, SAPROLITIC, SILTY CLAY

PROPOSED GRADE

2:1 6:1 6:1 2:1

44+50

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		
S-172	30 RT	44+00	1.0-3.0	A-7-5(38)	84	38	12.7	6.5	10.2	70.6	99	90	81	-	-
S-173	30 RT	44+00	18.0-20.0	A-7-5(12)	49	19	26.0	12.3	21.3	40.4	100	83	64	-	-

800
790
780
770
760
750

S-172
S-173

ARTIFICIAL FILL, RED-BROWN, MEDIUM STIFF, MOIST, HIGHLY PLASTIC, SILTY CLAY

EXISTING GROUND

RESIDUAL, RED AND ORANGE, VERY STIFF, MOIST, HIGHLY PLASTIC, SILTY CLAY

PROPOSED GRADE 2:1

RED, TAN, AND ORANGE, SOFT TO VERY STIFF, MOIST, SAPROLITIC, SILTY CLAY

6:1 6:1 2:1

DRY
4/08

44+00

-Y4-

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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0 5 10	PROJ. REFERENCE NO.	SHEET NO.
	U-2525B	124

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

780
770

EXISTING GROUND

RESIDUAL, TAN AND GRAY, STIFF, MOIST, HIGHLY PLASTIC, SILTY CLAY

2:1 2:1

PROPOSED GRADE

6:1 6:1

TAN-ORANGE, BROWN, AND WHITE, MEDIUM TO VERY STIFF, MOIST, MICACEOUS, SANDY AND SILTY CLAY

46+50

SOIL TEST RESULTS

SAMPLE NO.	OFFSET	STATION	DEPTH INTERVAL	AASHTO CLASS.	L.L.	P.I.	% BY WEIGHT C.SAND	F.SAND	SILT	CLAY	% PASSING (SIEVES) 10	40	200	% MOISTURE	% ORGANIC
SS-177	5 LT	46+10	2.8-4.3	A-7-5(34)	67	35	9.7	6.9	10.8	72.7	100	94	85	-	-
SS-178	5 LT	46+10	7.8-9.3	A-6(5)	39	13	26.8	23.8	23.1	26.2	99	81	54	-	-
SS-179	5 LT	46+10	17.8-19.3	A-6(2)	37	11	27.6	35.3	16.8	20.3	100	90	44	-	-

SS-177
SS-178
SS-179

AHEAD 10'

ARTIFICIAL FILL, RED-BROWN, MEDIUM STIFF TO STIFF, MOIST, HIGHLY PLASTIC, SILTY CLAY

EXISTING GROUND

RESIDUAL, TAN AND GRAY, STIFF, MOIST, HIGHLY PLASTIC, SILTY CLAY

11 17 27 15 13

2:1 2:1

PROPOSED GRADE

6:1 6:1

TAN, BROWN, AND WHITE, STIFF TO VERY STIFF, MOIST, SAPROLITIC, MICACEOUS, SANDY CLAY

DRY
4/08

46+00

ARTIFICIAL FILL, RED-BROWN, MEDIUM STIFF TO STIFF, MOIST, HIGHLY PLASTIC, SILTY CLAY

EXISTING GROUND

RESIDUAL, RED, TAN, ORANGE, AND GRAY, VERY STIFF, MOIST, HIGHLY PLASTIC, SILTY CLAY

2:1 2:1

PROPOSED GRADE

6:1 6:1

RED-ORANGE, BROWN, AND WHITE, SOFT TO VERY STIFF, MOIST, SAPROLITIC, MICACEOUS, SANDY AND SILTY CLAY

45+50

-Y4-

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0 5 10	PROJ. REFERENCE NO.	SHEET NO.
	U-2525B	125

SOIL TEST RESULTS

SAMPLE NO.	OFFSET	STATION	DEPTH INTERVAL	AASHTO CLASS.	L.L.	P.I.	% BY WEIGHT C.SAND	F.SAND	SILT	CLAY	% PASSING (SIEVES) #10	#40	#200	% MOISTURE	% ORGANIC
S-180	15 RT	48+50	1.0-3.0	A-7-5(29)	75	36	17.2	13.0	15.0	54.8	100	88	73	-	-
S-181	15 RT	48+50	15.0-17.0	A-7-5(41)	45	13	32.5	20.5	18.7	28.4	99	77	50	-	-

S-180
S-181

ROADWAY EMBANKMENT, ORANGE-BROWN AND GRAY, MEDIUM STIFF, MOIST, SANDY AND SILTY CLAY
EXISTING -Y4-

EXISTING GROUND

PROPOSED GRADE

6:1 6:1 6:1 2:1

RESIDUAL, RED-ORANGE, MEDIUM STIFF TO STIFF, MOIST, HIGHLY PLASTIC, SILTY CLAY

TAN-ORANGE, MEDIUM STIFF, MOIST, CL/CH MICACEOUS, SILTY CLAY

48+50

ROADWAY EMBANKMENT, ORANGE-BROWN AND GRAY, MEDIUM STIFF, MOIST, SANDY AND SILTY CLAY
EXISTING -Y4-

EXISTING GROUND

PROPOSED GRADE

4.4:1 6:1 6:1 2:1

RESIDUAL, RED, ORANGE, AND BROWN, MEDIUM STIFF TO STIFF, MOIST, HIGHLY PLASTIC, SILTY CLAY

TAN-ORANGE, BROWN, AND WHITE, MEDIUM TO VERY STIFF, MOIST, MICACEOUS, SANDY AND SILTY CLAY

48+00

ROADWAY EMBANKMENT, ORANGE-BROWN AND GRAY, MEDIUM STIFF, MOIST, SANDY AND SILTY CLAY
EXISTING -Y4-

EXISTING GROUND

PROPOSED GRADE

6:1 6:1 2:1

RESIDUAL, RED, ORANGE, AND BROWN, MEDIUM STIFF TO STIFF, MOIST, HIGHLY PLASTIC, SILTY CLAY

TAN-ORANGE, BROWN, AND WHITE, MEDIUM TO VERY STIFF, MOIST, MICACEOUS, SANDY AND SILTY CLAY

47+50

EXISTING GROUND

RESIDUAL, RED, ORANGE, TAN AND GRAY, MEDIUM STIFF TO STIFF, MOIST, HIGHLY PLASTIC, SILTY CLAY

PROPOSED GRADE

6:1 6:1 2:1

TAN-ORANGE, BROWN, AND WHITE, MEDIUM TO VERY STIFF, MOIST, MICACEOUS, SANDY AND SILTY CLAY

47+00

-Y4-

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0 5 10	PROJ. REFERENCE NO.	SHEET NO.
	U-2525B	126

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

780
770
760

ROADWAY EMBANKMENT, ORANGE-BROWN AND GRAY, MEDIUM STIFF, MOIST, SANDY AND SILTY CLAY

PROPOSED GRADE

6:1 6:1 3.85:1

EXISTING GROUND

RESIDUAL, RED-ORANGE AND BROWN, MEDIUM STIFF TO STIFF, MOIST, HIGHLY PLASTIC, SILTY CLAY

TAN-ORANGE AND BROWN, MEDIUM STIFF, MOIST, SAPROLITIC, SILTY CLAY

50+50

780
770
760

ROADWAY EMBANKMENT, ORANGE-BROWN AND GRAY, MEDIUM STIFF, MOIST, SANDY AND SILTY CLAY

PROPOSED GRADE

6:1 6:1 3.59:1

EXISTING GROUND

RESIDUAL, RED-ORANGE, MEDIUM STIFF TO STIFF, MOIST, HIGHLY PLASTIC, SILTY CLAY

TAN-ORANGE AND BROWN, MEDIUM STIFF, MOIST, SAPROLITIC, SILTY CLAY

50+00

780
770
760

ROADWAY EMBANKMENT, ORANGE-BROWN AND GRAY, MEDIUM STIFF, MOIST, SANDY AND SILTY CLAY
EXISTING -Y4-

PROPOSED GRADE

6:1 6:1 6:1 2:1

EXISTING GROUND

RESIDUAL, RED-ORANGE, MEDIUM STIFF TO STIFF, MOIST, HIGHLY PLASTIC, SILTY CLAY

TAN-ORANGE AND BROWN, MEDIUM STIFF, MOIST, SAPROLITIC, SILTY CLAY

49+50

780
770
760

ROADWAY EMBANKMENT, ORANGE-BROWN AND GRAY, MEDIUM STIFF, MOIST, SANDY AND SILTY CLAY
EXISTING -Y4-

PROPOSED GRADE

6:1 6:1 6:1 2:1

EXISTING GROUND

RESIDUAL, RED-ORANGE, MEDIUM STIFF TO STIFF, MOIST, HIGHLY PLASTIC, SILTY CLAY

TAN-ORANGE AND BROWN, MEDIUM STIFF, MOIST, SAPROLITIC, SILTY CLAY

49+00

-Y4-

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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jpedro

8/23/99

0 5 10	PROJ. REFERENCE NO.	SHEET NO.
	U-2525B	127

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

780
770
760

ROADWAY EMBANKMENT, ORANGE-BROWN AND GRAY, MEDIUM STIFF, MOIST, SANDY AND SILTY CLAY

6:1 6:1 6:1

RESIDUAL, RED-ORANGE AND BROWN, MEDIUM STIFF TO STIFF, MOIST, HIGHLY PLASTIC, SILTY CLAY

TAN-ORANGE AND BROWN, MEDIUM STIFF, MOIST, SAPROLITIC, SILTY CLAY

52+00

780
770
760

ROADWAY EMBANKMENT, ORANGE-BROWN AND GRAY, MEDIUM STIFF, MOIST, SANDY AND SILTY CLAY

6:1 6:1 6:1

RESIDUAL, RED-ORANGE AND BROWN, MEDIUM STIFF TO STIFF, MOIST, HIGHLY PLASTIC, SILTY CLAY

TAN-ORANGE AND BROWN, MEDIUM STIFF, MOIST, SAPROLITIC, SILTY CLAY

51+50

SOIL TEST RESULTS

SAMPLE NO.	OFFSET	STATION	DEPTH INTERVAL	AASHTO CLASS.	L.L.	P.I.	% BY WEIGHT C.SAND	F.SAND	SILT	CLAY	% PASSING (SIEVES) 10	40	200	% MOISTURE	% ORGANIC
S-182	30 RT	51+00	0.0-2.0	A-7-5(29)	66	35	10.5	14.6	7.9	66.9	100	96	77	-	-

790
780
770
760

ROADWAY EMBANKMENT, ORANGE-BROWN AND GRAY, MEDIUM STIFF, MOIST, SANDY AND SILTY CLAY

S-182

PROPOSED GRADE

6:1 6:1 5.72%

EXISTING GROUND

RESIDUAL, RED-ORANGE AND BROWN, MEDIUM STIFF TO STIFF, MOIST, HIGHLY PLASTIC, SILTY CLAY

TAN-ORANGE AND BROWN, MEDIUM STIFF, MOIST, SAPROLITIC, SILTY CLAY

DRY
4/08

51+00

-Y4-

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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0 5 10	PROJ. REFERENCE NO.	SHEET NO.
	U-2525B	128

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

750
740
730

EXISTING GROUND
PROPOSED GRADE
RESIDUAL, ORANGE AND WHITE, HARD, MOIST, SANDY SILT
TAN-BROWN, DENSE TO V.DENSE, DRY TO MOIST, SILTY SAND
SP 25
WEATHERED ROCK (META-GRANITE)

15+75

750
740
730
720

EXISTING GROUND
PROPOSED GRADE
RESIDUAL, ORANGE AND WHITE, HARD, MOIST, SANDY SILT
TAN-BROWN, DENSE TO VERY DENSE, DRY TO MOIST, SILTY SAND
SP 22
6:1
6:1
WEATHERED ROCK (META-GRANITE)
CRYSTALLINE ROCK (META-GRANITE)

15+25

-Y4RPB-

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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0 5 10	PROJ. REFERENCE NO.	SHEET NO.
	U-2525B	129

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

760 750 740 730

SP 33

EXISTING GROUND

PROPOSED GRADE 2:1

4:1 4:1 6:1 6:1

RESIDUAL, TAN AND WHITE, MEDIUM STIFF TO HARD, MOIST, SILTY AND SANDY CLAY

WEATHERED ROCK (META-GRANITE)

CRYSTALLINE ROCK (META-GRANITE)

16+00

SP 32

EXISTING GROUND

RESIDUAL, TAN AND WHITE, MEDIUM STIFF TO HARD, MOIST, SILTY AND SANDY CLAY WITH WEATHERED ROCK BOULDERS

6:1 4:1 6:1 PROPOSED GRADE 6:1 2:1

WEATHERED ROCK (META-GRANITE)

CRYSTALLINE ROCK (META-GRANITE)

15+50

SP 31

EXISTING GROUND

RESIDUAL, TAN AND WHITE, MEDIUM STIFF TO HARD, MOIST, SILTY AND SANDY CLAY WITH WEATHERED ROCK BOULDERS

4:1 6:1 PROPOSED GRADE 6:1 2:1

WEATHERED ROCK (META-GRANITE)

CRYSTALLINE ROCK (META-GRANITE)

15+00

-Y4RPC-

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0 5 10	PROJ. REFERENCE NO.	SHEET NO.
	U-2525B	130

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

770 760 750 740

RESIDUAL, ORANGE, STIFF, MOIST, HIGHLY PLASTIC, SILTY CLAY

RESIDUAL, TAN, MED. DENSE TO DENSE, DRY, SILTY SAND

EXISTING GROUND

RESIDUAL, TAN AND LIGHT GRAY, MEDIUM STIFF TO HARD, MOIST, SILTY CLAY

PROPOSED GRADE

WEATHERED ROCK (META-GRANITE)

CRYSTALLINE ROCK (META-GRANITE)

17+50

SOIL TEST RESULTS

SAMPLE NO.	OFFSET	STATION	DEPTH INTERVAL	AASHTO CLASS.	L.L.	P.I.	% BY WEIGHT C.SAND	F.SAND	SILT	CLAY	% PASSING (SIEVES) 10	40	200	% MOISTURE	% ORGANIC
SS-73	CL	17+20	3.0-4.5	A-7-6(11)	45	20	10.3	30.9	20.5	38.3	100	98	64	-	-

SS-73

AHEAD 20'

SP 35

RESIDUAL, TAN AND LIGHT GRAY, MEDIUM STIFF TO HARD, MOIST, SILTY CLAY (META-GRANITE)

EXISTING GROUND

WEATHERED ROCK

PROPOSED GRADE

CRYSTALLINE ROCK (META-GRANITE)

17+00

SP 34

RESIDUAL, TAN AND WHITE, MEDIUM STIFF TO HARD, MOIST, SILTY AND SANDY CLAY

EXISTING GROUND

PROPOSED GRADE

WEATHERED ROCK (META-GRANITE)

CRYSTALLINE ROCK (META-GRANITE)

16+50

-Y4RPC-

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U-2525B	131

0 5 10

SOIL TEST RESULTS

SAMPLE NO.	OFFSET	STATION	DEPTH INTERVAL	AASHTO CLASS.	L.L.	P.I.	% BY WEIGHT C.SAND	% BY WEIGHT F.SAND	% BY WEIGHT SILT	% BY WEIGHT CLAY	% PASSING (SIEVES) 10	% PASSING (SIEVES) 40	% PASSING (SIEVES) 200	% MOISTURE	% ORGANIC
S-71	50 LT	19+10	0.0-1.5	A-7-5(27)	57	26	4.6	9.3	27.5	58.5	100	98	89	-	-
S-72	50 LT	19+10	17.0-18.0	A-6(4)	37	13	27.2	26.0	18.5	28.3	100	83	51	-	-

S-71
S-72

AHEAD 10'

RESIDUAL, ORANGE, STIFF, MOIST, HIGHLY PLASTIC, SILTY CLAY

PROPOSED GRADE 4:1

EXISTING GROUND

TAN, MED. DENSE TO DENSE, DRY, SILTY SAND

6:1

6:1

2:1

TAN, VERY STIFF, MOIST, SANDY CLAY

DRY
3/08

19+00

SP 38

RESIDUAL, ORANGE, STIFF, MOIST, HIGHLY PLASTIC, SILTY CLAY

PROPOSED GRADE 4:1

EXISTING GROUND

RESIDUAL, TAN, MED. DENSE TO DENSE, DRY, SILTY SAND

6:1

6:1

2:1

TAN, WHITE, AND ORANGE, MEDIUM STIFF TO HARD, MOIST, SILTY AND SANDY CLAY

18+50

SP 37

RESIDUAL, ORANGE, STIFF, MOIST, HIGHLY PLASTIC, SILTY CLAY

PROPOSED GRADE 4:1

EXISTING GROUND

RESIDUAL, TAN, MED. DENSE TO DENSE, DRY, SILTY SAND

TAN, WHITE, AND ORANGE, MEDIUM STIFF TO HARD, MOIST, SILTY AND SANDY CLAY

6:1

6:1

2:1

WEATHERED ROCK (META-GRANITE)

CRYSTALLINE ROCK (META-GRANITE)

18+00

-Y4RPC-

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0 5 10	PROJ. REFERENCE NO.	SHEET NO.
	U-2525B	132

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

770
760

EXISTING GROUND

RESIDUAL, RED-ORANGE AND BROWN, STIFF, MOIST, HIGHLY PLASTIC, SILTY CLAY

PROPOSED GRADE 4:1 6:1 6:1 2:1

TAN, MED. DENSE TO DENSE, DRY, SILTY SAND

TAN, WHITE, AND ORANGE, MEDIUM STIFF TO HARD, MOIST, SILTY AND SANDY CLAY

20+50

770
760

PROPOSED GRADE 4:1

RESIDUAL, RED-ORANGE AND BROWN, STIFF, MOIST, HIGHLY PLASTIC, SILTY CLAY

EXISTING GROUND 2:1

6:1 6:1

TAN, MED. DENSE TO DENSE, DRY, SILTY SAND

TAN, WHITE, AND ORANGE, MEDIUM STIFF TO HARD, MOIST, SILTY AND SANDY CLAY

20+00

770
760
750

PROPOSED GRADE 4:1

RESIDUAL, RED-ORANGE AND BROWN, STIFF, MOIST, HIGHLY PLASTIC, SILTY CLAY

EXISTING GROUND

TAN, MED. DENSE TO DENSE, DRY, SILTY SAND

6:1 6:1 2:1

TAN, WHITE, AND ORANGE, MEDIUM STIFF TO HARD, MOIST, SILTY AND SANDY CLAY

19+50

-Y4RPC-

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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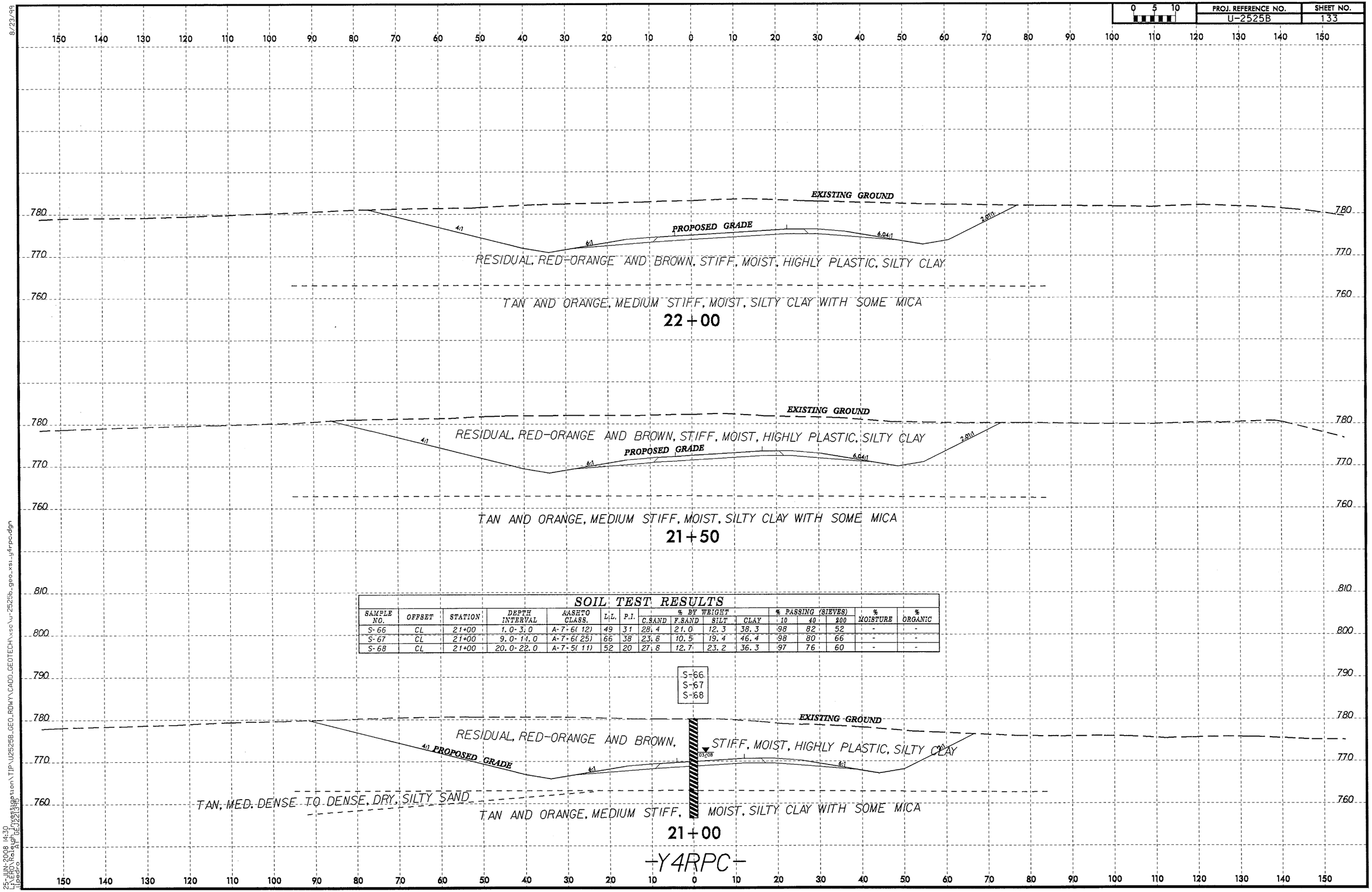
8/23/99

0 5 10	PROJ. REFERENCE NO.	SHEET NO.
	U-2525B	133



SOIL TEST RESULTS

SAMPLE NO.	OFFSET	STATION	DEPTH INTERVAL	AASHTO CLASS.	L.L.	P.I.	% BY WEIGHT C.SAND	F.SAND	SILT	CLAY	% PASSING (SIEVES) #10	#40	#200	% MOISTURE	% ORGANIC
S-66	CL	21+00	1.0-3.0	A-7-6(12)	49	31	28.4	21.0	12.3	38.3	98	82	52	-	-
S-67	CL	21+00	9.0-11.0	A-7-6(25)	66	38	23.8	10.5	19.4	46.4	98	80	66	-	-
S-68	CL	21+00	20.0-22.0	A-7-5(11)	52	20	27.8	12.7	23.2	36.3	97	76	60	-	-

-Y4RPC-

8/23/99

0 5 10	PROJ. REFERENCE NO.	SHEET NO.
	U-2525B	134

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

780

EXISTING GROUND

PROPOSED GRADE

6:1 6:1

780

RESIDUAL, RED-ORANGE AND BROWN, STIFF, MOIST, HIGHLY PLASTIC, SILTY CLAY

23+50

SOIL TEST RESULTS

SAMPLE NO.	OFFSET	STATION	DEPTH INTERVAL	AASHTO CLASS.	L.L.	P.I.	% BY WEIGHT C.SAND	% BY WEIGHT F.SAND	% BY WEIGHT SILT	% BY WEIGHT CLAY	% PASSING (SIEVES) 10	% PASSING (SIEVES) 40	% PASSING (SIEVES) 200	% MOISTURE	% ORGANIC
SS-65	40. RT	23+00	4.0-5.5	A-7-5(21)	69	33	23.0	14.3	28.4	34.3	97	81	64	-	-

800 790 780 770

SS-65

EXISTING GROUND

PROPOSED GRADE

4:1 6:1 6:1 2:1

13 13 11

DRY
3/08

RESIDUAL, RED-ORANGE AND BROWN, STIFF, MOIST, HIGHLY PLASTIC, SILTY CLAY

23+00

EXISTING GROUND

PROPOSED GRADE

4:1 6:1 6:1 2:1

780 770

RESIDUAL, RED-ORANGE AND BROWN, STIFF, MOIST, HIGHLY PLASTIC, SILTY CLAY

22+50

-Y4RPC-

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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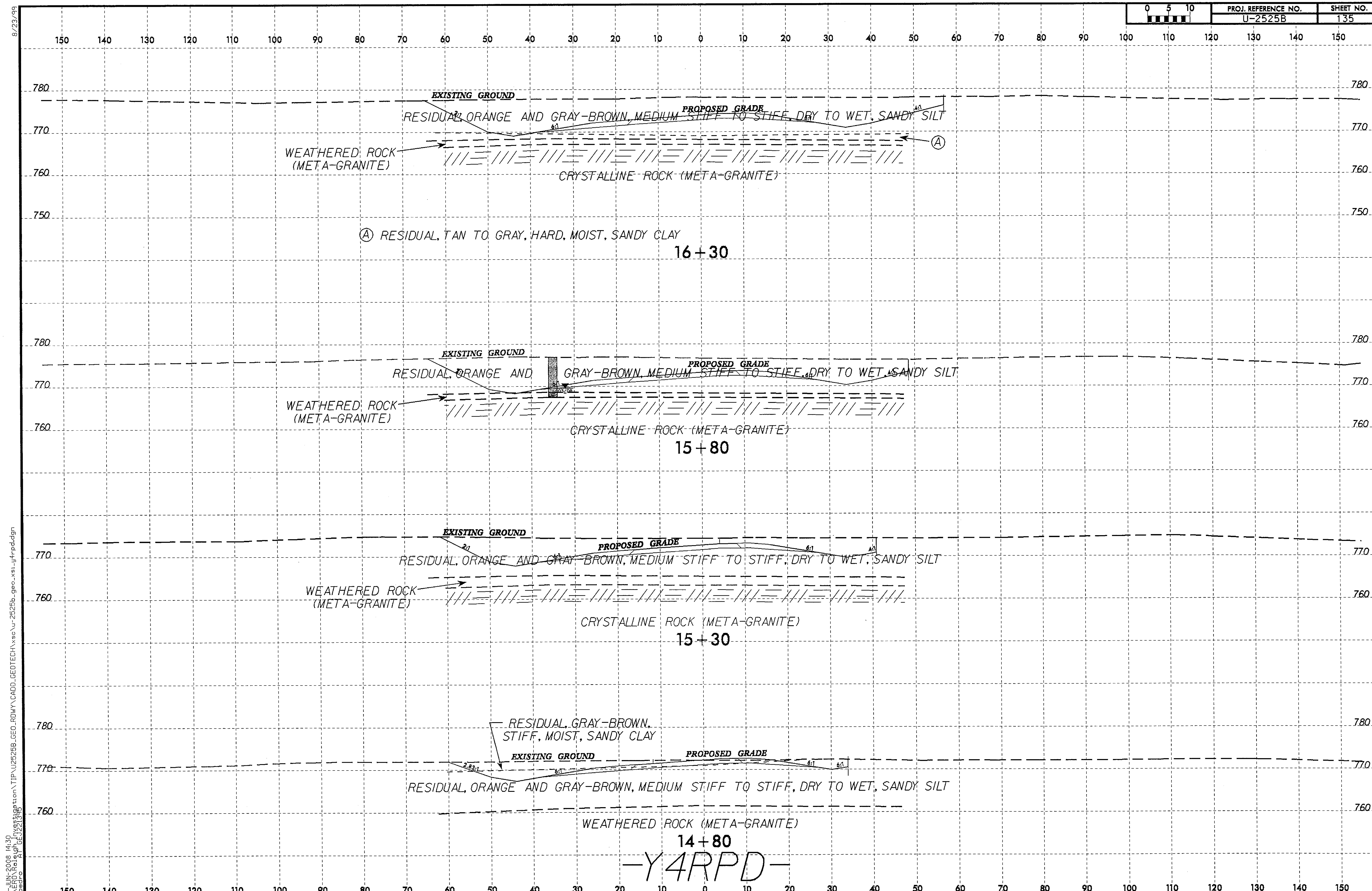
PROJ. REFERENCE NO.
U-2525B
SHEET NO.
135
0 5 10
8/23/99
EXISTING GROUND
PROPOSED GRADE
RESIDUAL, ORANGE AND GRAY-BROWN, MEDIUM STIFF TO STIFF, DRY TO WET, SANDY SILT
WEATHERED ROCK (META-GRANITE)
CRYSTALLINE ROCK (META-GRANITE)
Ⓐ RESIDUAL, TAN TO GRAY, HARD, MOIST, SANDY CLAY
16+30
15+80
15+30
RESIDUAL, GRAY-BROWN, STIFF, MOIST, SANDY CLAY
14+80
-Y4RPD-
780
770
760
750
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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0 5 10	PROJ. REFERENCE NO.	SHEET NO.
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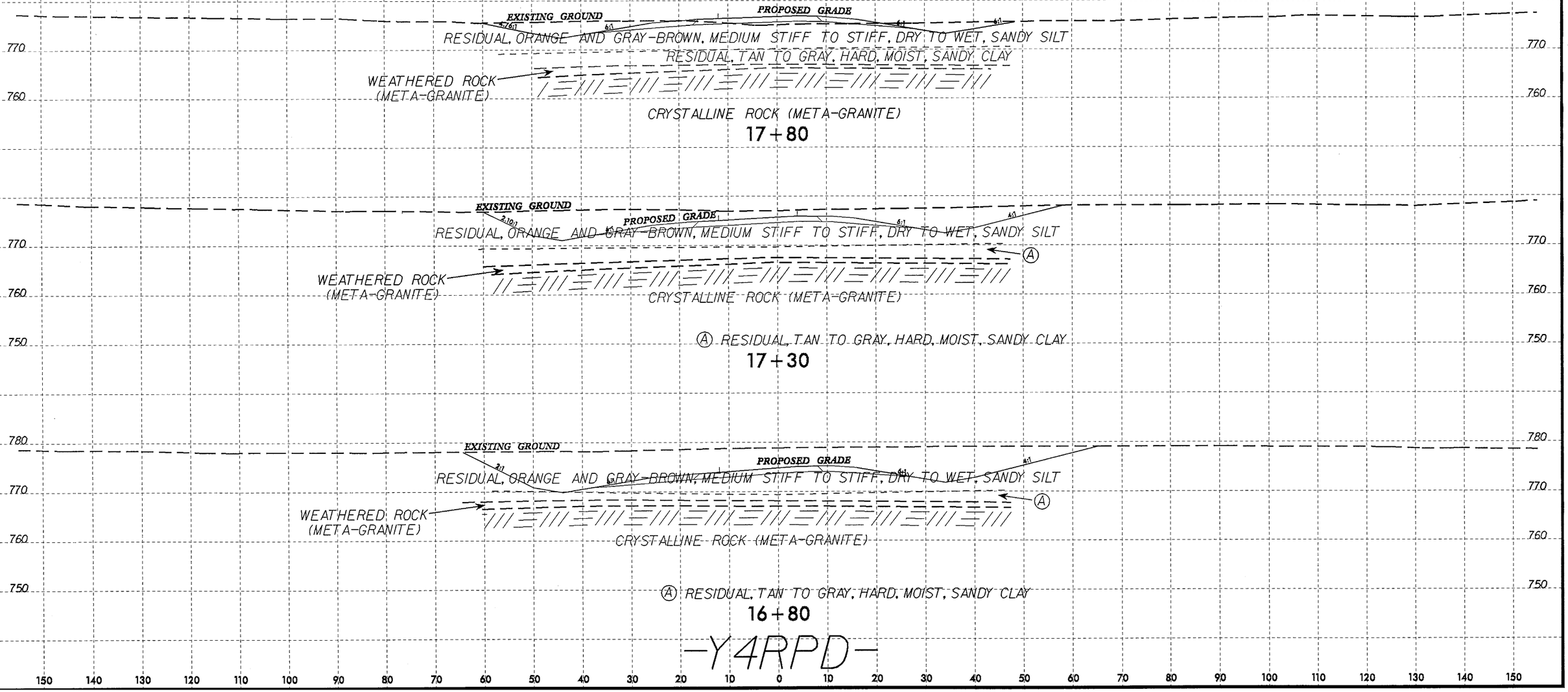

-Y4RPD-

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0 5 10	PROJ. REFERENCE NO.	SHEET NO.
	U-2525B	137

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

780

770

EXISTING GROUND

RESIDUAL, TAN, ORANGE, AND BROWN, SOFT TO STIFF, MOIST, HIGHLY PLASTIC, SILTY CLAY

2:1 2:1 2:1 2:1 PROPOSED GRADE

TAN AND ORANGE-BROWN, SOFT TO HARD, MOIST, SILTY CLAY AND HIGHLY PLASTIC, SILTY CLAY

11+00

780

770

EXISTING GROUND

RESIDUAL, ORANGE-BROWN, MEDIUM STIFF TO STIFF, MOIST, HIGHLY PLASTIC, SILTY CLAY

2:1 2:1 2:1 2:1 PROPOSED GRADE

TAN AND ORANGE-BROWN, SOFT TO HARD, MOIST, SILTY CLAY AND HIGHLY PLASTIC, SILTY CLAY

10+50

780

770

RESIDUAL, ORANGE-BROWN, MEDIUM STIFF TO STIFF, MOIST, HIGHLY PLASTIC, SILTY CLAY

TAN AND ORANGE-BROWN, SOFT TO HARD, MOIST, SILTY CLAY AND HIGHLY PLASTIC, SILTY CLAY

10+00

-Y5C-

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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0 5 10	PROJ. REFERENCE NO.	SHEET NO.
	U-2525B	138

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

780 770 760

EXISTING GROUND

RESIDUAL, RED-TAN AND ORANGE-BROWN, MEDIUM STIFF TO STIFF, MOIST, HIGHLY PLASTIC, SILTY CLAY

2:1 2:1 PROPOSED GRADE 2:1 2:1

RED-TAN AND ORANGE, SOFT TO HARD, MOIST, SILTY CLAY AND HIGHLY PLASTIC, SILTY CLAY

12+50

EXISTING GROUND

RESIDUAL, ORANGE-BROWN, MEDIUM STIFF TO STIFF, MOIST, HIGHLY PLASTIC, SILTY CLAY

2:1 2:1 PROPOSED GRADE 2:1 2:1

TAN AND ORANGE-BROWN, SOFT TO HARD, MOIST, SILTY CLAY AND HIGHLY PLASTIC, SILTY CLAY

12+00

SOIL TEST RESULTS

SAMPLE NO.	OFFSET	STATION	DEPTH INTERVAL	AASHTO CLASS.	L.L.	P.I.	% BY WEIGHT C.SAND	F.SAND	SILT	CLAY	% PASSING (SIEVES) 10	40	200	% MOISTURE	% ORGANIC
S-174	CL	11+50	3.0-5.0	A-7-5(26)	70	37	13.1	20.4	10.0	56.5	99	92	69	-	-
S-175	CL	11+50	12.0-15.0	A-7-5(18)	54	24	4.0	29.9	19.7	46.4	100	99	73	-	-
S-176	CL	11+50	25.0-27.0	A-7-5(25)	60	30	3.0	29.9	24.7	42.4	100	99	76	-	-

S-174
S-175
S-176

EXISTING GROUND

RESIDUAL, ORANGE-BROWN, MEDIUM STIFF TO STIFF, MOIST, HIGHLY PLASTIC, SILTY CLAY

2:1 2:1 PROPOSED GRADE 2:1 2:1

TAN AND ORANGE, STIFF TO HARD, MOIST, SILTY CLAY AND TAN-BROWN, SOFT TO MEDIUM STIFF, MOIST, HIGHLY PLASTIC, SILTY CLAY

DRY
4/08

11+50

-Y5C-

810 800 790 780 770 760

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

8/23/99

0 5 10	PROJ. REFERENCE NO.	SHEET NO.
	U-2525B	139

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

780 770 760

EXISTING GROUND

RESIDUAL, RED-TAN AND ORANGE, MEDIUM TO VERY STIFF, MOIST, HIGHLY PLASTIC, SILTY CLAY

2:1 2:1 PROPOSED GRADE 2:1 2:1

RED, TAN, AND ORANGE, SOFT TO MEDIUM STIFF, MOIST, SILTY CLAY

14+00

780 770 760

EXISTING GROUND

RESIDUAL, RED-TAN, STIFF, MOIST, HIGHLY PLASTIC, SILTY CLAY

2:1 2:1 PROPOSED GRADE 2:1 2:1

RED, TAN, AND ORANGE, SOFT TO MEDIUM STIFF, MOIST, SILTY CLAY

13+50

SOIL TEST RESULTS

SAMPLE NO.	OFFSET	STATION	DEPTH INTERVAL	AASHTO CLASS.	L.L.	P.I.	% BY WEIGHT C.SAND	% BY WEIGHT F.SAND	% BY WEIGHT SILT	% BY WEIGHT CLAY	% PASSING (SIEVES) 10	% PASSING (SIEVES) 40	% PASSING (SIEVES) 200	% MOISTURE	% ORGANIC
S-171	20 RT	13+20	12.0-15.0	A-7-5(12)	52	19	22.2	14.7	14.6	48.4	100	87	65	-	-

S-171

AHEAD 20'

780 770 760

EXISTING GROUND

RESIDUAL, RED-TAN, STIFF, MOIST, HIGHLY PLASTIC, SILTY CLAY

2:1 2:1 PROPOSED GRADE 2:1 2:1

RED, TAN, AND ORANGE, SOFT TO MEDIUM STIFF, MOIST, SILTY CLAY

04/08

13+00

800 790 780 770 760

-Y5C-

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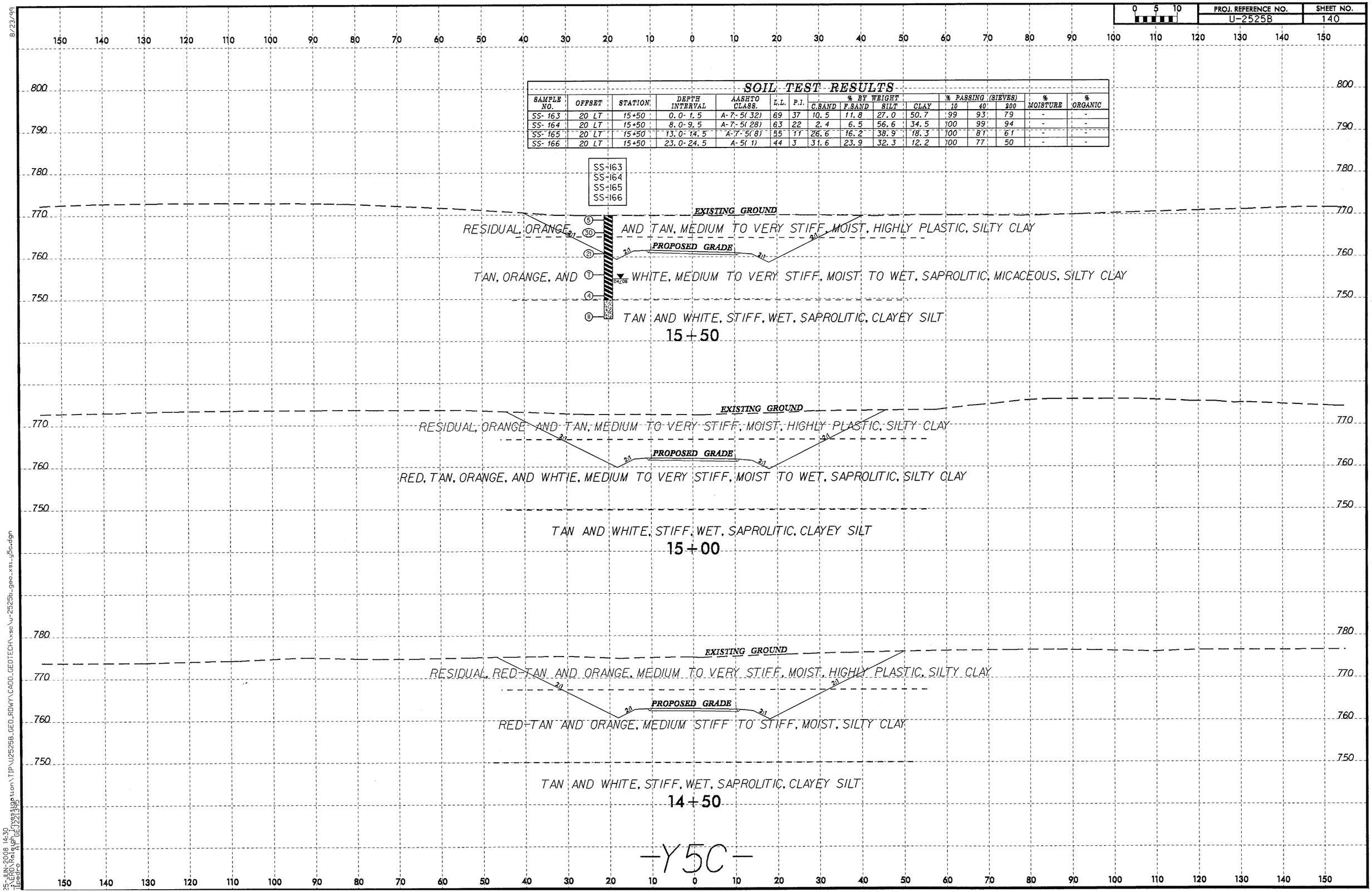
0 5 10	PROJ. REFERENCE NO.	SHEET NO.
	U-2525B	140

SOIL TEST RESULTS

SAMPLE NO.	OFFSET	STATION	DEPTH INTERVAL	AASHTO CLASS.	L.L.	P.I.	% BY WEIGHT C.SAND	F.SAND	SILT	CLAY	% PASSING (SIEVES) 10	40	200	% MOISTURE	% ORGANIC
SS-163	20 LT	15+50	0.0-1.5	A-7-5(32)	69	37	10.5	11.8	27.0	50.7	99	93	79	-	-
SS-164	20 LT	15+50	8.0-9.5	A-7-5(28)	63	22	2.4	6.5	56.6	34.5	100	99	94	-	-
SS-165	20 LT	15+50	13.0-14.5	A-7-5(8)	55	11	26.6	16.2	38.9	18.3	100	81	61	-	-
SS-166	20 LT	15+50	23.0-24.5	A-5(1)	44	3	31.6	23.9	32.3	12.2	100	77	50	-	-



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PROJ. REFERENCE NO.	SHEET NO.
U-2525B	141

0 5 10

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

760

PROPOSED GRADE

EXISTING GROUND

2:1 2:1 2:1 2:1

760

RESIDUAL, TAN-ORANGE, BROWN, AND WHITE, MEDIUM TO VERY STIFF, MOIST, SILTY AND SANDY CLAY

17+00

760

EXISTING GROUND

RESIDUAL, ORANGE AND TAN, MEDIUM TO VERY STIFF, MOIST, HIGHLY PLASTIC, SILTY CLAY

2:1 2:1

PROPOSED GRADE

760

750

TAN, ORANGE, AND WHITE, MEDIUM TO VERY STIFF, MOIST, SAPROLITIC, MICACEOUS, SILTY CLAY

750

740

TAN AND WHITE, STIFF, WET, SAPROLITIC, CLAYEY SILT

740

16+50

770

EXISTING GROUND

RESIDUAL, ORANGE AND TAN, MEDIUM TO VERY STIFF, MOIST, HIGHLY PLASTIC, SILTY CLAY

2:1 2:1

PROPOSED GRADE

770

760

TAN, ORANGE, AND WHITE, MEDIUM TO VERY STIFF, MOIST, SAPROLITIC, MICACEOUS, SILTY CLAY

760

750

TAN AND WHITE, STIFF, WET, SAPROLITIC, CLAYEY SILT

750

16+00

-Y5C-

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0 5 10	PROJ. REFERENCE NO.	SHEET NO.
	U-2525B	142

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

770
760

EXISTING GROUND
PROPOSED GRADE
2:1
3:1
3:1

RESIDUAL, TAN AND GRAY, VERY STIFF, MOIST, HIGHLY PLASTIC, SILTY CLAY

TAN, STIFF, MOIST, SANDY CLAY

27+00

770
760

EXISTING GROUND
PROPOSED GRADE
2:1
3:1
3:1

RESIDUAL, TAN AND GRAY, VERY STIFF, MOIST, HIGHLY PLASTIC, SILTY CLAY

TAN, STIFF, MOIST, SANDY CLAY

26+50

780
770

EXISTING GROUND
PROPOSED GRADE
3:1
3:1

RESIDUAL, TAN AND GRAY, VERY STIFF, MOIST, HIGHLY PLASTIC, SILTY CLAY

TAN, STIFF, MOIST, SANDY CLAY

26+00

780
770
760

EXISTING GROUND
PROPOSED GRADE
3:1
3:1

RESIDUAL, TAN, STIFF, MOIST, SANDY CLAY

DRY
3/08

25+50

-Y11-

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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8/23/99

PROJ. REFERENCE NO.	SHEET NO.
U-2525B	143

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

770

760

PROPOSED GRADE

3:1

2:1

EXISTING GROUND

RESIDUAL, TAN AND GRAY, VERY STIFF, MOIST, HIGHLY PLASTIC, SILTY CLAY

28+50

SOIL TEST RESULTS

SAMPLE NO.	OFFSET	STATION	DEPTH INTERVAL	AASHTO CLASS.	L.L.	P.I.	% BY WEIGHT C.SAND	F.SAND	SILT	CLAY	% PASSING (SIEVES) #10	#40	#200	% MOISTURE	% ORGANIC
S-672	CL	28+00	0.0-2.0	A-7-5(46)	76	46	4.7	10.9	22.9	61.5	100	97	88		

S-672

790

780

770

760

PROPOSED GRADE

3:1

2:1

EXISTING GROUND

RESIDUAL, TAN AND GRAY, VERY STIFF, MOIST, HIGHLY PLASTIC, SILTY CLAY

DRY
3/08

28+00

770

PROPOSED GRADE

2:1

4:1

3:1

EXISTING GROUND

RESIDUAL, TAN AND GRAY, VERY STIFF, MOIST, HIGHLY PLASTIC, SILTY CLAY

27+50

—Y11—

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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AT GEJ22135

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0 5 10	PROJ. REFERENCE NO.	SHEET NO.
	U-2525B	144

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

780
770
760
750

ROADWAY EMBANKMENT, RED AND TAN, MEDIUM STIFF, MOIST, SILTY CLAY

PROPOSED GRADE

2:1 4:1 2:1

EXISTING GROUND

RESIDUAL, RED AND TAN, MEDIUM STIFF TO STIFF, MOIST, HIGHLY PLASTIC, SILTY CLAY

TAN, STIFF TO VERY STIFF, MOIST, SILTY CLAY

31+50

770
760

ROADWAY EMBANKMENT, RED AND TAN, MEDIUM STIFF, MOIST, SILTY CLAY

PROPOSED GRADE

2:1 4:1 2:1

EXISTING GROUND

RESIDUAL, RED, MEDIUM STIFF, MOIST, HIGHLY PLASTIC, SILTY CLAY

TAN, STIFF TO VERY STIFF, MOIST, SILTY CLAY

31+00

SOIL TEST RESULTS

SAMPLE NO.	OFFSET	STATION	DEPTH INTERVAL	AASHTO CLASS.	L.L.	P.I.	% BY WEIGHT C.SAND	F.SAND	SILT	CLAY	% PASSING (SIEVES) 10	40	200	% MOISTURE	% ORGANIC
SS-669	60 LT	30+50	0.0-0.5	A-7-5(48)	81	47	7.0	7.8	23.7	61.5	99	95	87		
SS-670	60 LT	30+50	8.5-10.0	A-7-5(14)	50	15	2.9	30.8	45.8	20.5	100	99	77		

790
780
770
760
750

SS-669
SS-670

ROADWAY EMBANKMENT, RED AND TAN, MEDIUM STIFF, MOIST, SILTY CLAY

PROPOSED GRADE

2:1 4:1 2:1

EXISTING GROUND

7
7
10
21

RESIDUAL, RED, MEDIUM STIFF, MOIST, HIGHLY PLASTIC, SILTY CLAY

TAN, STIFF TO VERY STIFF, MOIST, SILTY CLAY

DRY
3/08

30+50

—Y11—

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0 5 10	PROJ. REFERENCE NO.	SHEET NO.
	U-2525B	145

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

780 770 760

ROADWAY EMBANKMENT, RED AND TAN, MEDIUM STIFF, MOIST, SILTY CLAY

PROPOSED GRADE

EXISTING GROUND

RESIDUAL, RED AND TAN, MEDIUM STIFF TO STIFF, MOIST, HIGHLY PLASTIC, SILTY CLAY

33+50

780 770 760

ROADWAY EMBANKMENT, RED AND TAN, MEDIUM STIFF, MOIST, SILTY CLAY

PROPOSED GRADE

EXISTING GROUND

RESIDUAL, TAN, MEDIUM STIFF TO STIFF, MOIST, HIGHLY PLASTIC, SILTY CLAY

03.08

33+00

780 770 760

ROADWAY EMBANKMENT, RED AND TAN, MEDIUM STIFF, MOIST, SILTY CLAY

PROPOSED GRADE

EXISTING GROUND

RESIDUAL, RED AND TAN, MEDIUM STIFF TO STIFF, MOIST, HIGHLY PLASTIC, SILTY CLAY

32+50

780 770 760 750

ROADWAY EMBANKMENT, RED AND TAN, MEDIUM STIFF, MOIST, SILTY CLAY

PROPOSED GRADE

EXISTING GROUND

RESIDUAL, RED AND TAN, MEDIUM STIFF TO STIFF, MOIST, HIGHLY PLASTIC, SILTY CLAY

TAN, STIFF TO VERY STIFF, MOIST, SILTY CLAY

32+00

—Y11—

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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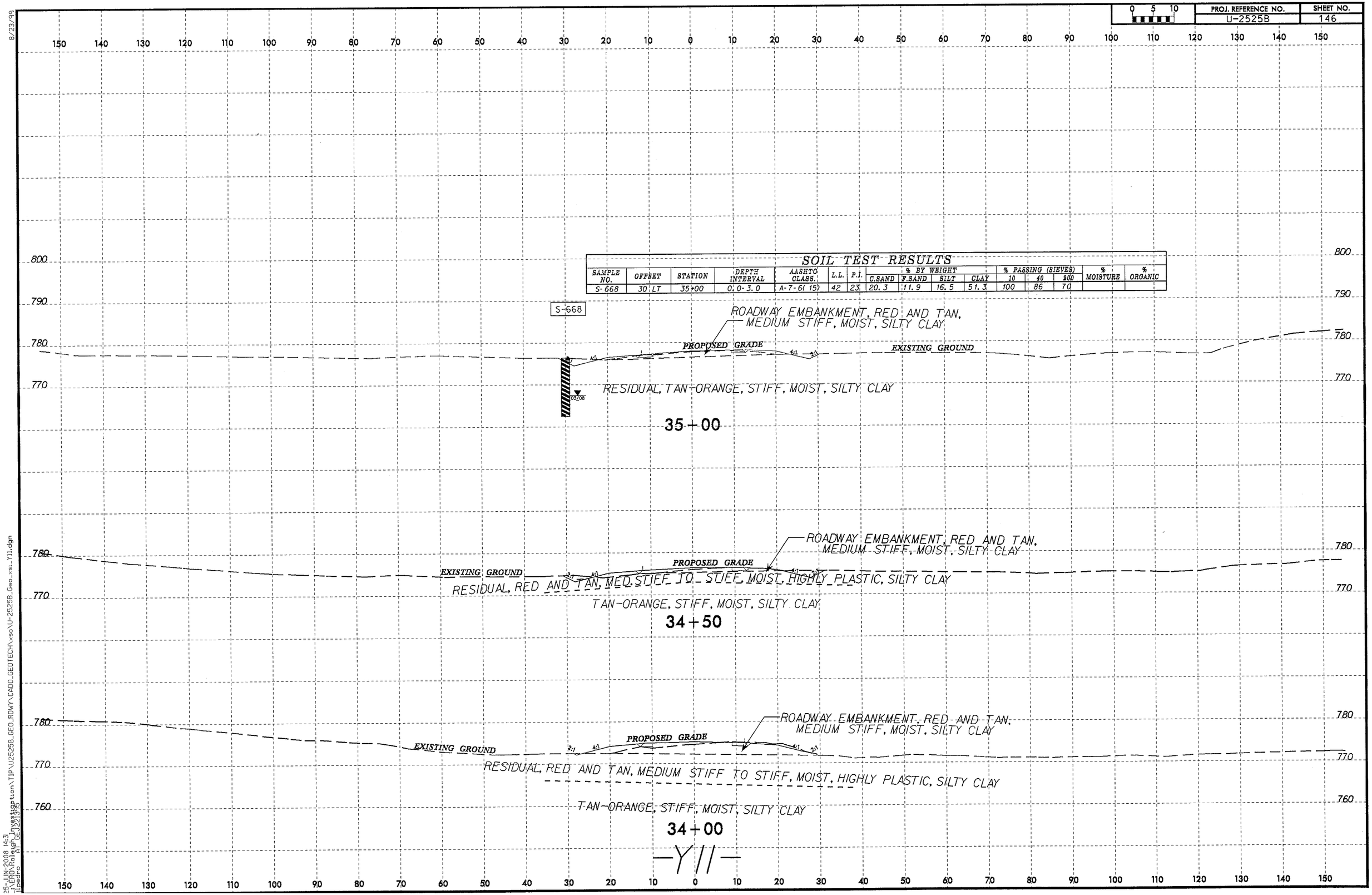
lpedro AT GEJ2135

8/23/99

0 5 10	PROJ. REFERENCE NO.	SHEET NO.
	U-2525B	146

SOIL TEST RESULTS

SAMPLE NO.	OFFSET	STATION	DEPTH INTERVAL	AASHTO CLASS.	L.L.	P.I.	% BY WEIGHT C.SAND	F.SAND	SILT	CLAY	% PASSING (SIEVES) 10	40	200	% MOISTURE	% ORGANIC
S-668	30' LT	35+00	0.0-3.0	A-7-6(15)	42	23	20.3	11.9	16.5	51.3	100	86	70		



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lpedro AT GE2221395

0 5 10	PROJ. REFERENCE NO.	SHEET NO.
	U-2525B	147

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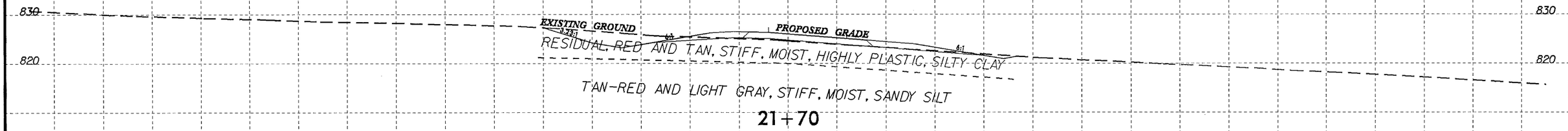
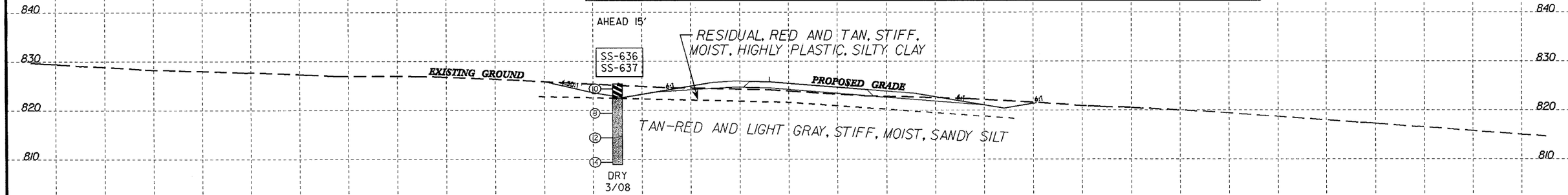
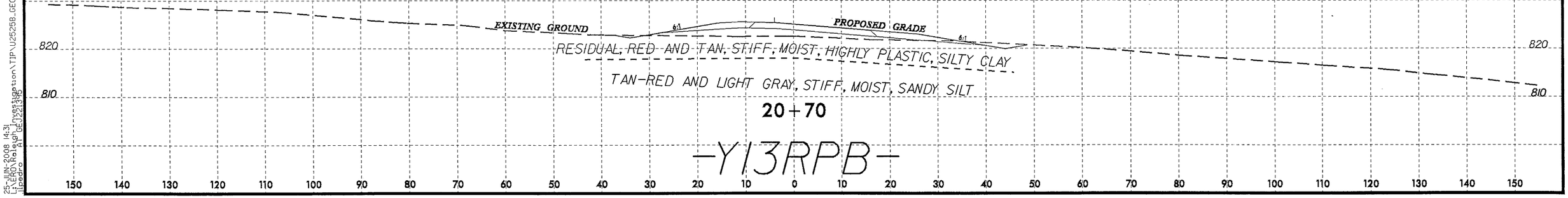


SOIL TEST RESULTS

SAMPLE NO.	OFFSET	STATION	DEPTH INTERVAL	AASHTO CLASS.	L.L.	P.I.	% BY WEIGHT C.SAND	F.SAND	SILT	CLAY	% PASSING (SIEVES) 10	40	200	% MOISTURE	% ORGANIC
SS-636	35 LT	21+35	0.0- 1.5	A-7-6(37)	71	42	7.2	13.9	16.5	62.4	99	95	81	-	-
SS-637	35 LT	21+35	5.0- 6.5	A-4(3)	39	7	23.1	28.2	32.6	16.1	100	89	55	-	-





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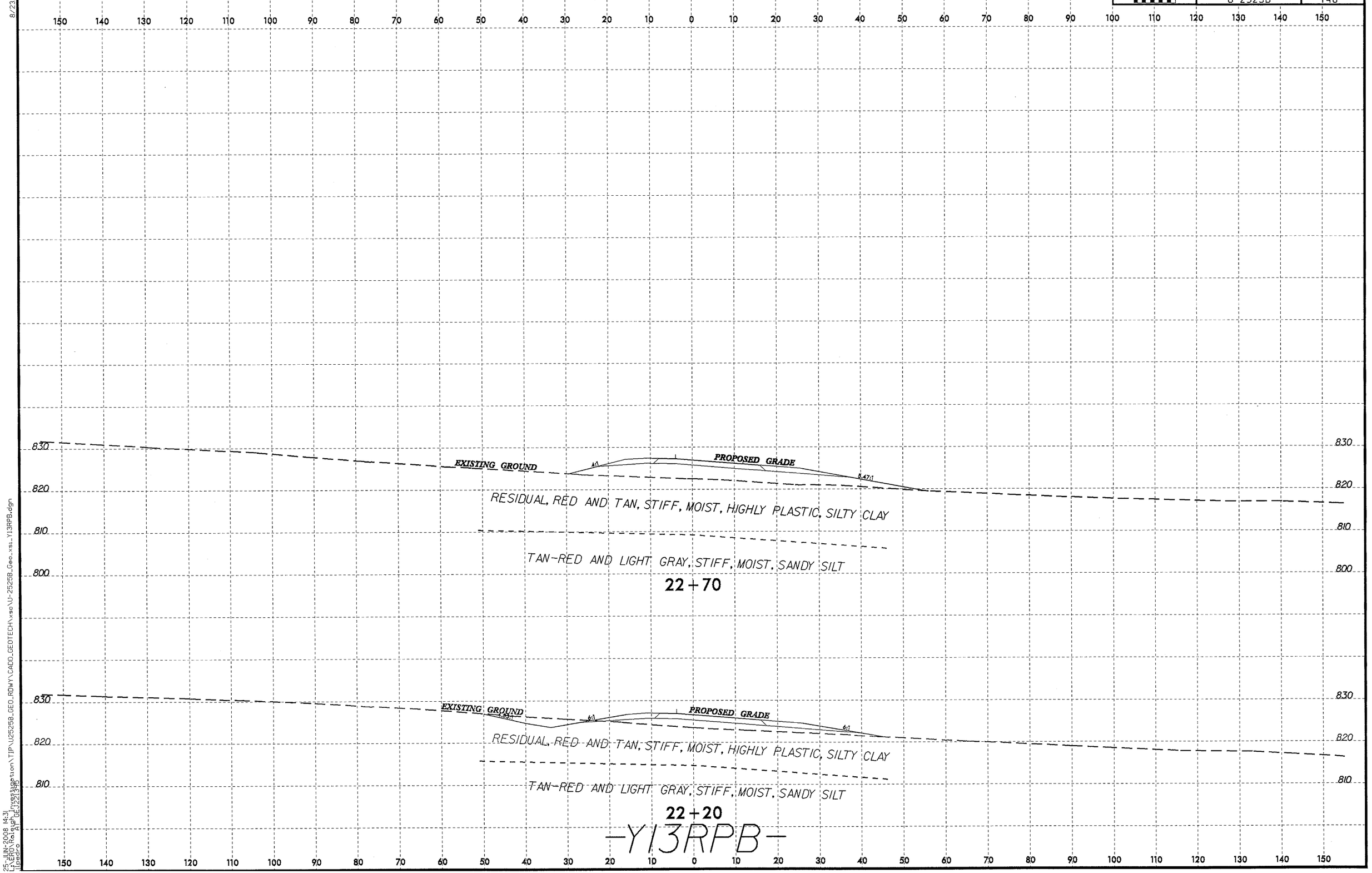
150 140 130 120 110 100 90 80 70 60 50 40 30 20 10 0 10 20 30 40 50 60 70 80 90 100 110 120 130 140 150

8/23/99

0 5 10	PROJ. REFERENCE NO.	SHEET NO.
	U-2525B	148

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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8/23/99

0 5 10	PROJ. REFERENCE NO.	SHEET NO.
	U-2525B	149

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

830

PROPOSED GRADE — EXISTING GROUND

2:1 4:1 4:1 2:1

RESIDUAL, RED, STIFF TO VERY STIFF, MOIST, HIGHLY PLASTIC, SILTY CLAY

19+50

830

PROPOSED GRADE — EXISTING GROUND

2:1 4:1 4:1 2:1

RESIDUAL, RED, STIFF TO VERY STIFF, MOIST, HIGHLY PLASTIC, SILTY CLAY

820

RED, STIFF TO VERY STIFF, MOIST, SILTY CLAY

19+00

830

PROPOSED GRADE — EXISTING GROUND

RESIDUAL, RED, STIFF TO VERY STIFF, MOIST, HIGHLY PLASTIC, SILTY CLAY

RED, STIFF TO VERY STIFF, MOIST, SILTY CLAY

18+50

830

PROPOSED GRADE — EXISTING GROUND

2:1 4:1 4:1 2:1

RESIDUAL, RED, STIFF TO VERY STIFF, MOIST, SILTY CLAY

18+00

-ISRV1-

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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lpedro
AP 0EJ2221345

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0 5 10	PROJ. REFERENCE NO.	SHEET NO.
	U-2525B	150

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

840
830

PROPOSED GRADE
EXISTING GROUND
2:1 4:1 4:1 2:1

RESIDUAL, RED, STIFF TO VERY STIFF, MOIST, HIGHLY PLASTIC, SILTY CLAY

21+50

840
830

PROPOSED GRADE
EXISTING GROUND
2:1 4:1 4:1 2:1

RESIDUAL, RED, STIFF TO VERY STIFF, MOIST, HIGHLY PLASTIC, SILTY CLAY

21+00

840
830

PROPOSED GRADE
EXISTING GROUND
2:1 4:1 4:1 2:1

RESIDUAL, RED, STIFF TO VERY STIFF, MOIST, HIGHLY PLASTIC, SILTY CLAY

20+50

840
830
820

PROPOSED GRADE
EXISTING GROUND
2:1 4:1 4:1 2:1

RESIDUAL, RED, STIFF TO VERY STIFF, MOIST, HIGHLY PLASTIC, SILTY CLAY

DRY
3/08

20+00

-ISRV1-

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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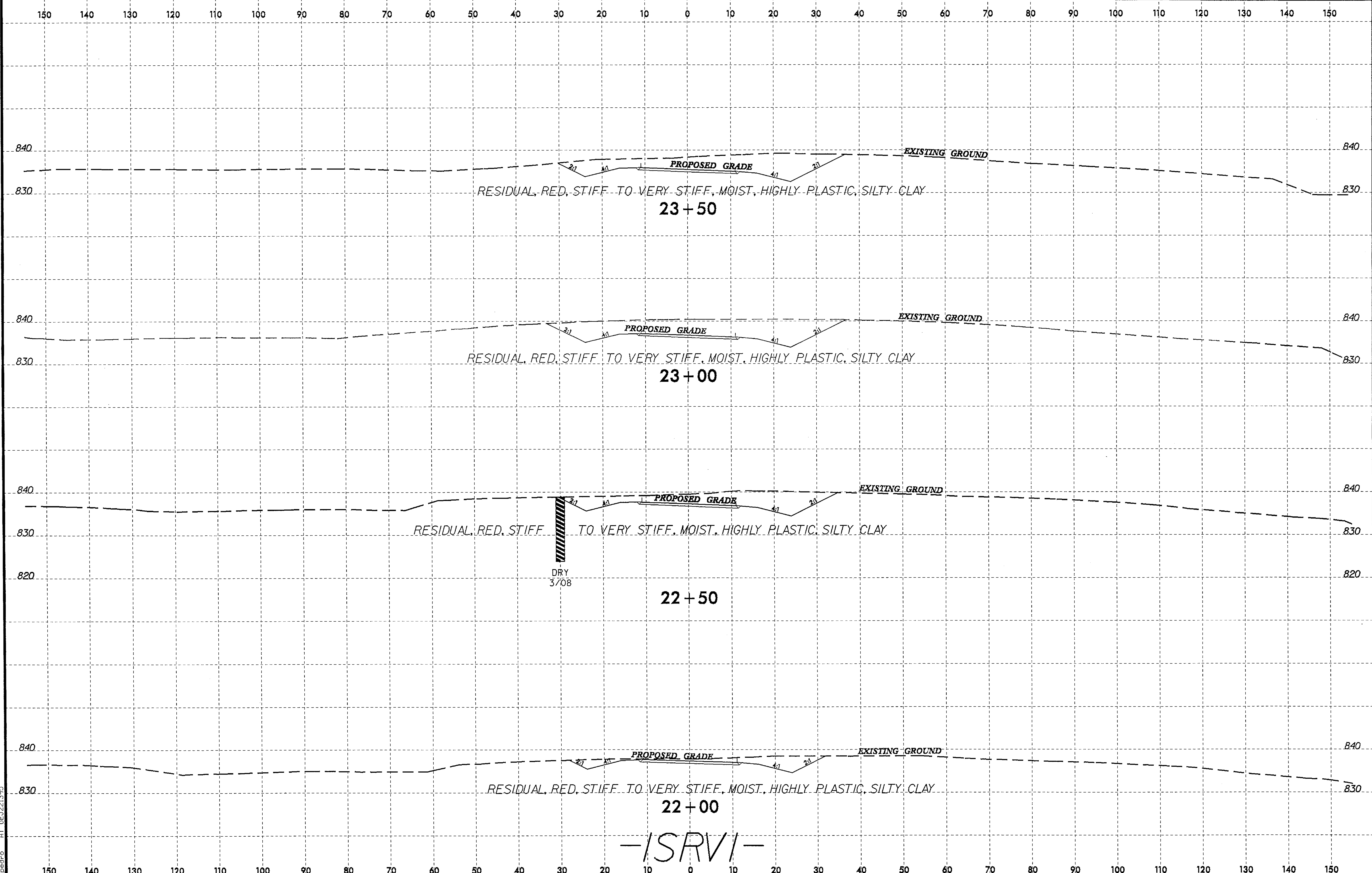
lpedro
AP 06.12.21395

PROJ. REFERENCE NO.	SHEET NO.
U-2525B	151



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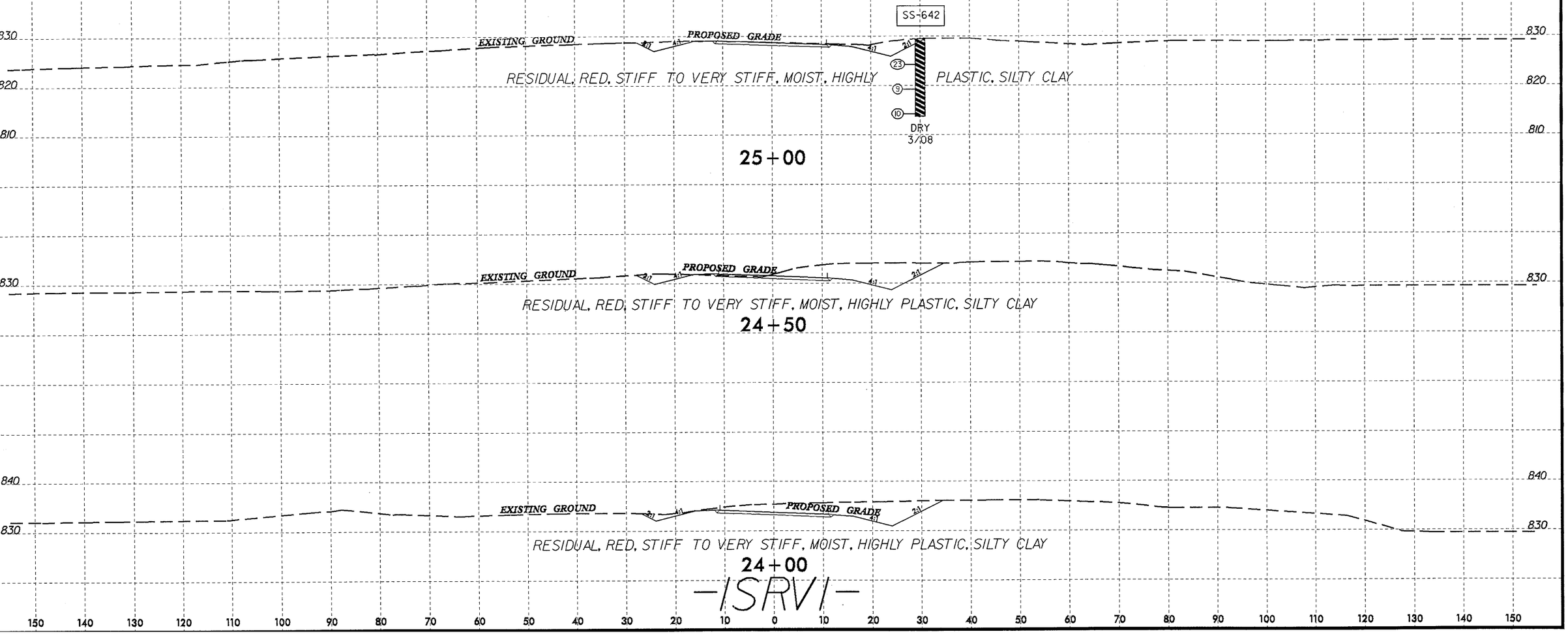
0 5 10	PROJ. REFERENCE NO.	SHEET NO.
	U-2525B	152

SOIL TEST RESULTS

SAMPLE NO.	OFFSET	STATION	DEPTH INTERVAL	AASHTO CLASS.	L.L.	P.I.	% BY WEIGHT C.SAND	% BY WEIGHT F.SAND	% BY WEIGHT SILT	% BY WEIGHT CLAY	% PASSING (SIEVES) 10	% PASSING (SIEVES) 40	% PASSING (SIEVES) 200	% MOISTURE	% ORGANIC
SS-642	30 RT	25+00	4.2-5.7	A-7-5(40)	75	38	4.8	8.9	28.0	58.4	98	96	87	-	-



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Pedro AT DE122195

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0 5 10	PROJ. REFERENCE NO.	SHEET NO.
	U-2525B	153

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

860
850
840

2:1 4:1 PROPOSED GRADE 4:1 2:1 EXISTING GROUND

RESIDUAL, RED, STIFF TO HARD, MOIST, HIGHLY PLASTIC, SILTY CLAY

RED-BROWN, STIFF, MOIST, SILTY CLAY

12+00

860
850
840

2:1 4:1 PROPOSED GRADE 4:1 2:1 EXISTING GROUND

RESIDUAL, RED, STIFF TO HARD, MOIST, HIGHLY PLASTIC, SILTY CLAY

RED-BROWN, STIFF, MOIST, SILTY CLAY

11+50

SOIL TEST RESULTS

SAMPLE NO.	OFFSET	STATION	DEPTH INTERVAL	AASHTO CLASS.	L.L.	P.I.	% BY WEIGHT C.SAND	% BY WEIGHT F.SAND	% BY WEIGHT SILT	% BY WEIGHT CLAY	% PASSING (SIEVES) 10	% PASSING (SIEVES) 40	% PASSING (SIEVES) 200	% MOISTURE	% ORGANIC
SS-503	CL	11+00	3.1-4.6	A-7-5(43)	80	38	1.2	12.1	19.9	66.7	100	100	90	-	-
SS-504	CL	11+00	8.1-9.6	A-7-5(14)	61	11	3.4	27.7	44.6	24.3	100	99	78	-	-

870
860
850
840

PROPOSED GRADE SS-503 SS-504 EXISTING GROUND

RESIDUAL, RED, HARD, (34) MOIST, HIGHLY PLASTIC, SILTY CLAY

RED-BROWN, STIFF, (12) MOIST, SILTY CLAY

(12)

DRY
2/08

11+00

-Y21-

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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jbedro AT DOT2135

8/23/99

PROJ. REFERENCE NO.	SHEET NO.
U-2525B	154

0 5 10

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

RESIDUAL, BROWN, STIFF, MOIST, SILTY CLAY

EXISTING GROUND

PROPOSED GRADE

2:1 4:1 4:1 2:1

840

RESIDUAL, RED, STIFF TO HARD, MOIST, HIGHLY PLASTIC, SILTY CLAY

14+00

850

EXISTING GROUND

PROPOSED GRADE

2:1 4:1 4:1 2:1

840

RESIDUAL, RED, STIFF TO HARD, MOIST, HIGHLY PLASTIC, SILTY CLAY

13+50

850

EXISTING GROUND

PROPOSED GRADE

2:1 4:1 4:1 2:1

840

830

RESIDUAL, RED, STIFF TO HARD, MOIST, HIGHLY PLASTIC, SILTY CLAY

DRY
2/08

13+00

850

EXISTING GROUND

PROPOSED GRADE

2:1 4:1 4:1 2:1

840

RESIDUAL, RED, STIFF TO HARD, MOIST, HIGHLY PLASTIC, SILTY CLAY

12+50

-Y21-

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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lpedro AP GEOPAK 95

8/23/99

0 5 10	PROJ. REFERENCE NO.	SHEET NO.
	U-2525B	155

SOIL TEST RESULTS

SAMPLE NO.	OFFSET	STATION	DEPTH INTERVAL	AASHTO CLASS.	L.L.	P.I.	% BY WEIGHT C.SAND	% BY WEIGHT F.SAND	% BY WEIGHT SILT	% BY WEIGHT CLAY	% PASSING (SIEVES) 10	% PASSING (SIEVES) 40	% PASSING (SIEVES) 200	% MOISTURE	% ORGANIC
S-505	20' RT	14+90	0.0-2.0	A-7-6(12)	41	23	16.0	25.9	19.7	38.4	100	92	63	-	-

BACK 10'

S-505

EXISTING GROUND

PROPOSED GRADE

RESIDUAL, BROWN, STIFF, MOIST, SILTY CLAY

RED, STIFF TO HARD, MOIST, HIGHLY PLASTIC, SILTY CLAY

DRY
2/08

15+00

EXISTING GROUND

PROPOSED GRADE

RESIDUAL, BROWN, STIFF, MOIST, SILTY CLAY

RED, STIFF TO HARD, MOIST, HIGHLY PLASTIC, SILTY CLAY

14+50

-Y21-

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AP 0EJ221395

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0 5 10	PROJ. REFERENCE NO.	SHEET NO.
	U-2525B	156

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

830 820 810

PROPOSED GRADE

EXISTING GROUND

4:1 4:1 2:1

RESIDUAL, RED AND TAN, STIFF TO VERY STIFF, MOIST, HIGHLY PLASTIC, SILTY CLAY

RED, STIFF, MOIST, SILTY CLAY

18+50

830 820

EXISTING GROUND

PROPOSED GRADE

4:1 4:1 2:1

RESIDUAL, RED AND TAN, STIFF TO VERY STIFF, MOIST, HIGHLY PLASTIC, SILTY CLAY

RED, STIFF, MOIST, SILTY CLAY

18+00

SOIL TEST RESULTS

SAMPLE NO.	OFFSET	STATION	DEPTH INTERVAL	AASHTO CLASS.	L.L.	P.I.	% BY WEIGHT C.SAND	F.SAND	SILT	CLAY	% PASSING (SIEVES) 10	40	200	% MOISTURE	% ORGANIC
SS-506	CL	17+50	3.9- 5.4	A-7-5(36)	77	31	4.2	10.1	18.9	66.7	100	98	88	-	-
SS-507	CL	17+50	8.9- 10.4	A-7-5(25)	69	18	2.6	14.0	43.0	40.4	100	99	89	-	-

850 840 830 820

SS-506
SS-507

PROPOSED GRADE

EXISTING GROUND

4:1 4:1

RESIDUAL, RED, VERY STIFF, MOIST, (25) HIGHLY PLASTIC, SILTY CLAY

RED, STIFF, (8) MOIST, SILTY CLAY

DRY
2/08

17+50

-Y21-

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ldedro
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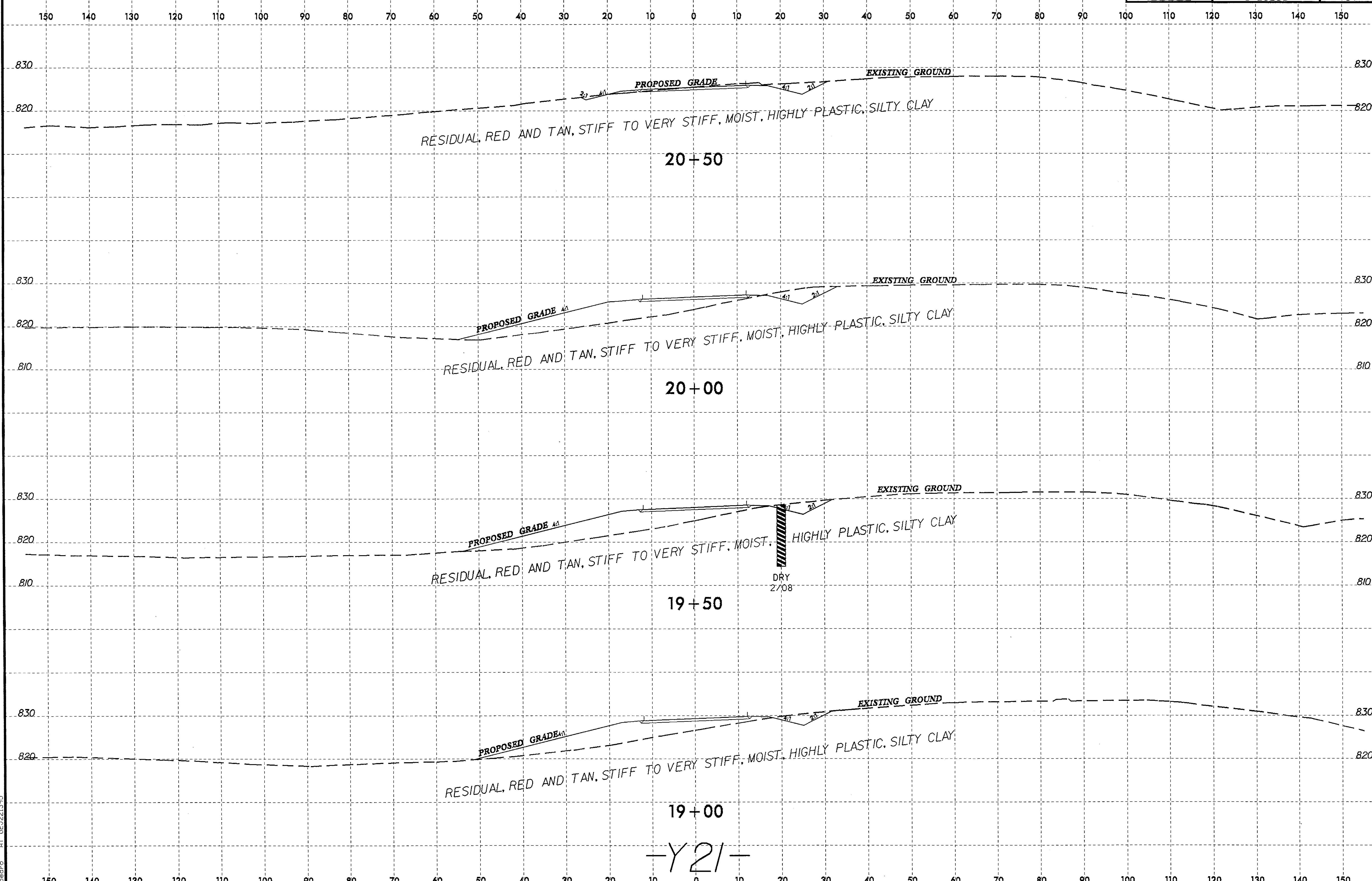
U-2525B	157



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0 5 10	PROJ. REFERENCE NO.	SHEET NO.
	U-2525B	158

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

820
810

PROPOSED GRADE
EXISTING GROUND
4:1
4:1
4:1

RESIDUAL, RED AND TAN, STIFF TO VERY STIFF, MOIST, HIGHLY PLASTIC, SILTY CLAY

DRY
2/08

22+50

820
810

PROPOSED GRADE
EXISTING GROUND
4:1
4:1
4:1

RESIDUAL, RED AND TAN, STIFF TO VERY STIFF, MOIST, HIGHLY PLASTIC, SILTY CLAY

22+00

820
810

PROPOSED GRADE
EXISTING GROUND
4:1
4:1
4:1

RESIDUAL, RED AND TAN, STIFF TO VERY STIFF, MOIST, HIGHLY PLASTIC, SILTY CLAY

21+50

820
810

PROPOSED GRADE
EXISTING GROUND
4:1
4:1
4:1

RESIDUAL, RED AND TAN, STIFF TO VERY STIFF, MOIST, HIGHLY PLASTIC, SILTY CLAY

21+00

-Y21-

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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lpedro
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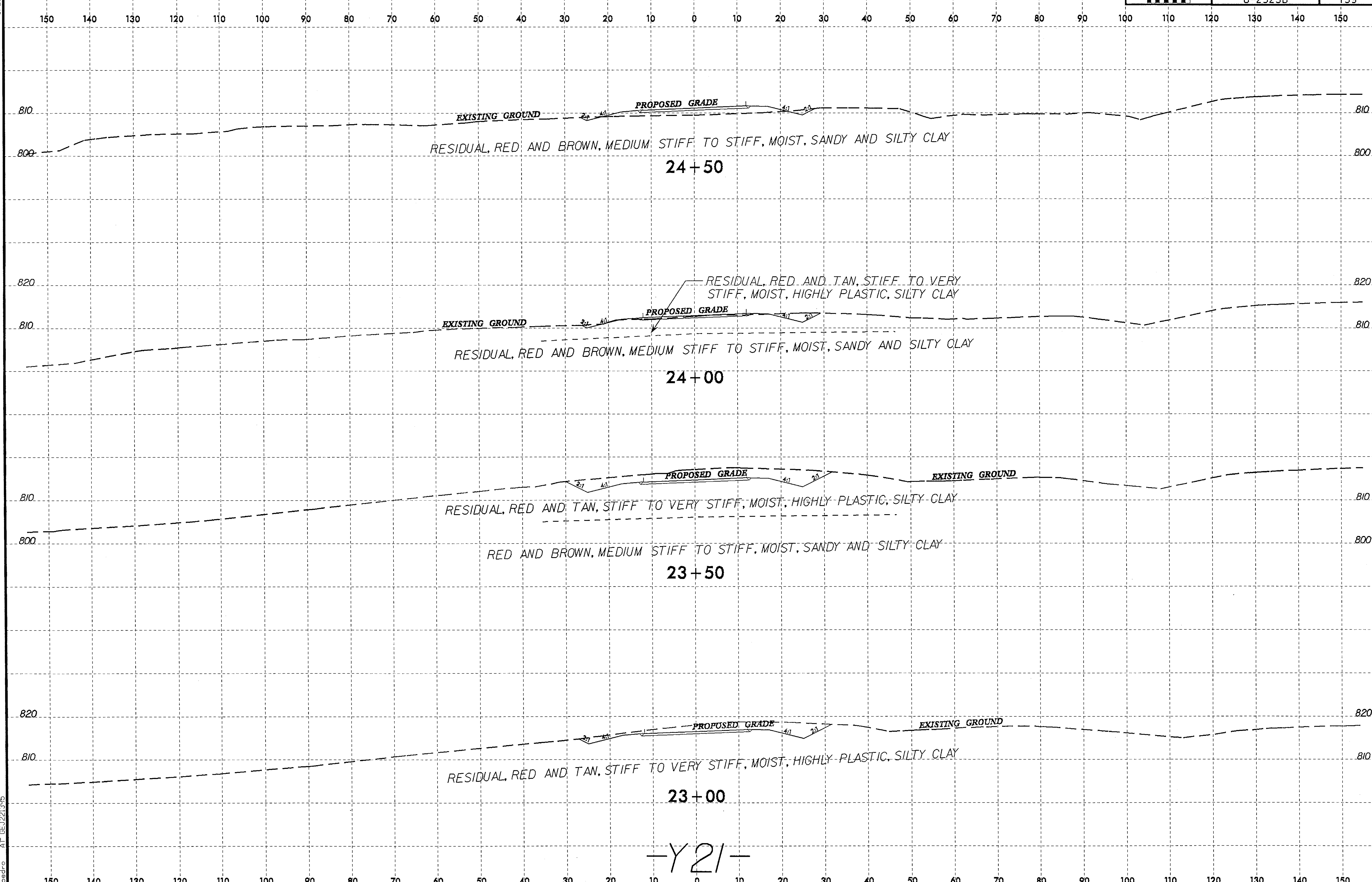
PROJ. REFERENCE NO.	SHEET NO.
U-2525B	159



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0 5 10

PROJ. REFERENCE NO.	SHEET NO.
U-2525B	160

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

790
780
770

RESIDUAL, TAN AND RED, STIFF, MOIST, SILTY CLAY
EXISTING GROUND
PROPOSED GRADE
TAN-RED AND ORANGE, STIFF, MOIST, CLAYEY AND SANDY SILT
DRY 2/08
CRYSTALLINE ROCK (META-GRANITE)
WEATHERED ROCK (META-GRANITE)

20+50

780
770

RESIDUAL, RED, STIFF, MOIST, SILTY CLAY
EXISTING GROUND
PROPOSED GRADE
TAN-RED AND ORANGE, STIFF, MOIST, CLAYEY AND SANDY SILT

20+00

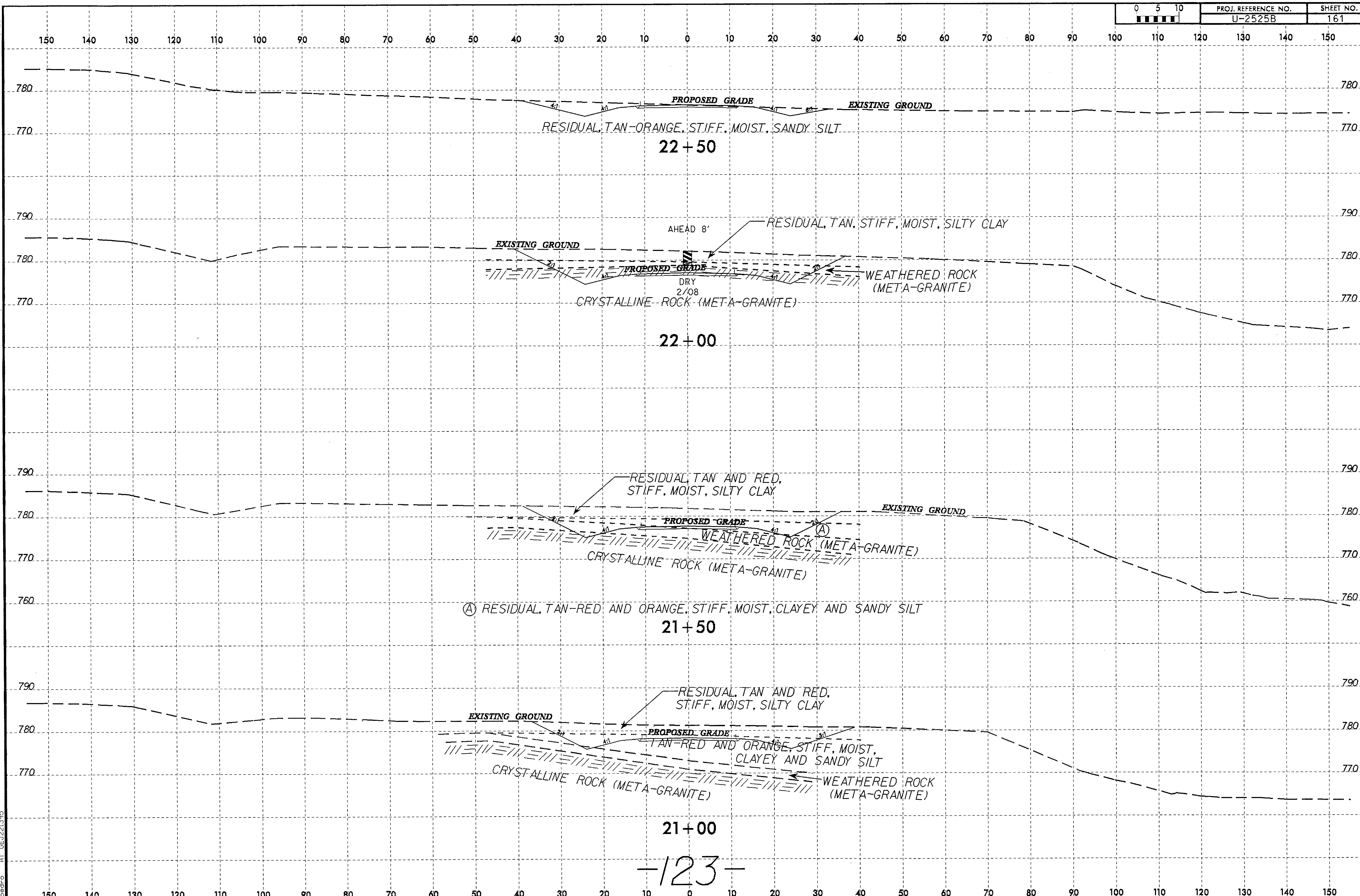
SOIL TEST RESULTS

SAMPLE NO.	OFFSET	STATION	DEPTH INTERVAL	AASHTO CLASS.	L.L.	P.I.	% BY WEIGHT C.SAND	F.SAND	SILT	CLAY	% PASSING (SIEVES) 10	40	200	% MOISTURE	% ORGANIC
SS-570	23' LT	19+45	5.0-6.5	A-7-5(15)	50	15	1.8	25.3	38.6	34.3	98	97	82	-	-
SS-571	23' LT	19+45	10.0-11.5	A-5(9)	49	8	4.6	29.9	43.2	22.2	99	97	78	-	-
SS-572	23' LT	19+45	20.0-21.5	A-4(3)	40	4	3.4	43.6	44.8	8.1	100	100	66	-	-

810
800
790
780
770
760

BACK 5'
SS-570
SS-571
SS-572
RESIDUAL, RED, STIFF, MOIST, SILTY CLAY WITH SOME GRAVEL
EXISTING GROUND
PROPOSED GRADE
TAN-RED AND ORANGE, STIFF, MOIST, CLAYEY AND SANDY SILT
12
10
12
12
DRY 2/08

19+50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U-2525B
SHEET NO.
161
RESIDUAL, TAN-ORANGE, STIFF, MOIST, SANDY SILT
PROPOSED GRADE
EXISTING GROUND
22+50
AHEAD 8'
RESIDUAL, TAN, STIFF, MOIST, SILTY CLAY
EXISTING GROUND
PROPOSED GRADE
DRY
2/08
WEATHERED ROCK
(META-GRANITE)
CRYSTALLINE ROCK (META-GRANITE)
22+00
RESIDUAL, TAN AND RED,
STIFF, MOIST, SILTY CLAY
EXISTING GROUND
PROPOSED GRADE
WEATHERED ROCK (META-GRANITE)
CRYSTALLINE ROCK (META-GRANITE)
(A) RESIDUAL, TAN-RED AND ORANGE, STIFF, MOIST, CLAYEY AND SANDY SILT
21+50
RESIDUAL, TAN AND RED,
STIFF, MOIST, SILTY CLAY
EXISTING GROUND
PROPOSED GRADE
TAN-RED AND ORANGE, STIFF, MOIST,
CLAYEY AND SANDY SILT
WEATHERED ROCK
(META-GRANITE)
CRYSTALLINE ROCK (META-GRANITE)
21+00

8/22/91

0 5 10	PROJ. REFERENCE NO.	SHEET NO.
	U-2525B	162

SOIL TEST RESULTS

SAMPLE NO.	OFFSET	STATION	DEPTH INTERVAL	AASHTO CLASS.	L.L.	P.I.	% BY WEIGHT C.SAND	% BY WEIGHT F.SAND	% BY WEIGHT SILT	% BY WEIGHT CLAY	% PASSING (SIEVES) 10	% PASSING (SIEVES) 40	% PASSING (SIEVES) 200	% MOISTURE	% ORGANIC
S-592	25 RT	44+30	0.0-4.0	A-7-5(54)	90	45	2.6	5.1	15.6	76.8	100	99	94	-	-

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

830 820 810 800

BACK 20'

S-592

EXISTING GROUND — PROPOSED GRADE — 4:1 — 4:1 — 4:1 — 4:1

RESIDUAL, RED AND ORANGE, STIFF, MOIST, HIGHLY PLASTIC, SILTY CLAY

DRY
3/08

44+50

820 810

EXISTING GROUND — PROPOSED GRADE — 4:1 — 4:1 — 4:1 — 4:1

RESIDUAL, RED AND ORANGE, STIFF, MOIST, HIGHLY PLASTIC, SILTY CLAY

44+00

820 810

RESIDUAL, RED-BROWN, MEDIUM TO VERY STIFF, MOIST, SILTY CLAY

EXISTING GROUND — PROPOSED GRADE — 3:1 — 4:1 — 4:1 — 4:1

RESIDUAL, RED AND ORANGE, STIFF, MOIST, HIGHLY PLASTIC, SILTY CLAY

43+50

820 810

EXISTING GROUND — PROPOSED GRADE — 3:1 — 4:1 — 4:1 — 4:1

RESIDUAL, RED-BROWN, MEDIUM TO VERY STIFF, MOIST, SILTY CLAY

RED AND ORANGE, STIFF, MOIST, HIGHLY PLASTIC, SILTY CLAY

43+00

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

0 5 10	PROJ. REFERENCE NO.	SHEET NO.
	U-2525B	163

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

810

800

790

EXISTING GROUND

PROPOSED GRADE

5:1 4:1 4:1 5:1

RESIDUAL, RED AND ORANGE, STIFF, MOIST, HIGHLY PLASTIC, SILTY CLAY

DRY
3708

46+00

EXISTING GROUND

PROPOSED GRADE

4:1 4:1 4:1 4:1

RESIDUAL, RED AND ORANGE, STIFF, MOIST, HIGHLY PLASTIC, SILTY CLAY

45+50

EXISTING GROUND

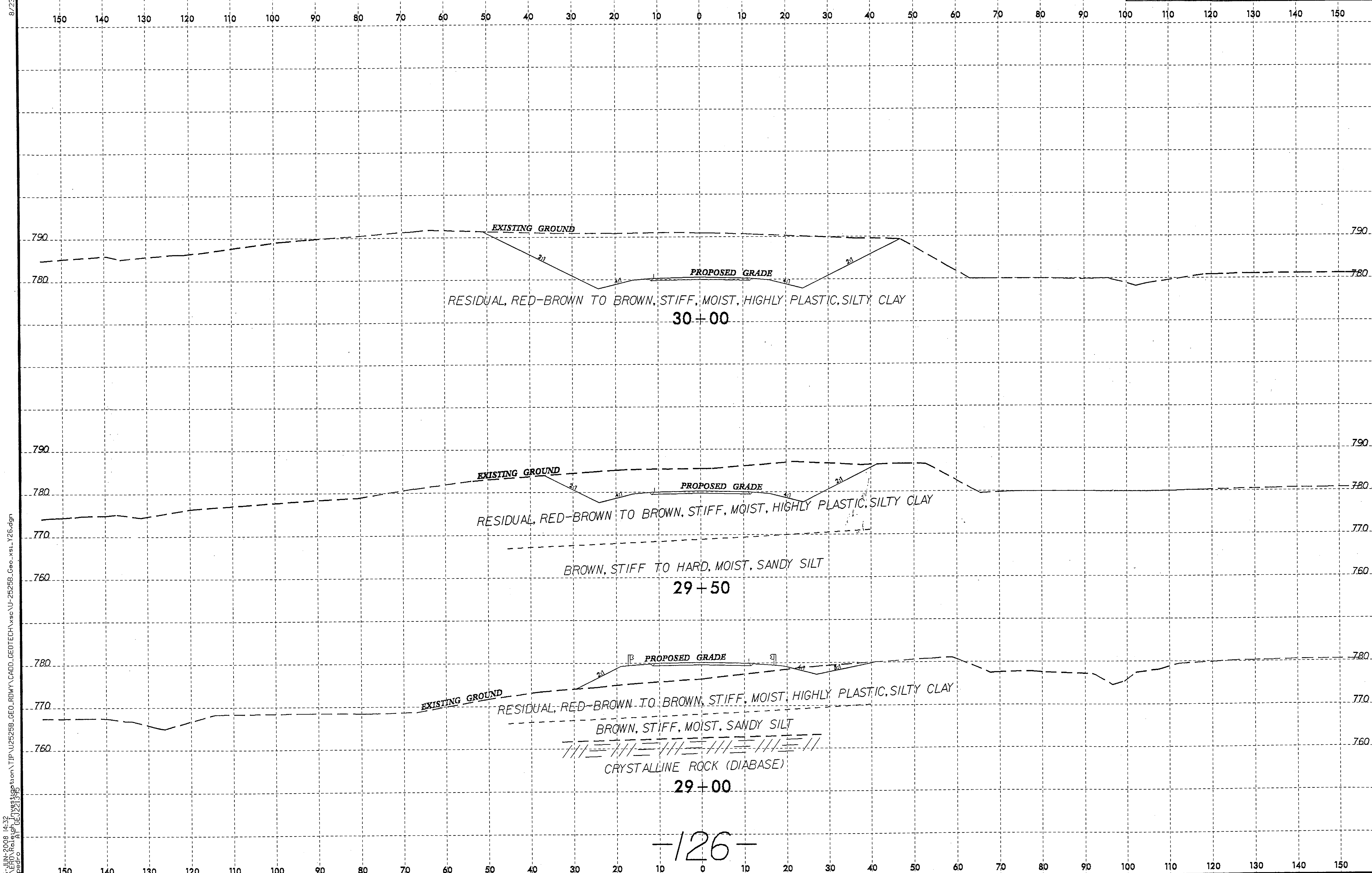
PROPOSED GRADE

4:1 4:1 4:1 4:1

RESIDUAL, RED AND ORANGE, STIFF, MOIST, HIGHLY PLASTIC, SILTY CLAY

45+00

PROJ. REFERENCE NO.	SHEET NO.
U-2525B	164



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PROJ. REFERENCE NO.	SHEET NO.
U-2525B	165

0 5 10

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

790
780
770

EXISTING GROUND

PROPOSED GRADE

2:1 4:1 4:1 2:1

RESIDUAL, RED-BROWN TO BROWN, STIFF, MOIST, HIGHLY PLASTIC, SILTY CLAY

RED AND TAN, VERY STIFF, MOIST, SILTY CLAY

BROWN, STIFF TO HARD, MOIST, SANDY SILT

31+50

790
780

EXISTING GROUND

PROPOSED GRADE

2:1 4:1 4:1 2:1

RESIDUAL, RED-BROWN TO BROWN, STIFF, MOIST, HIGHLY PLASTIC, SILTY CLAY

31+00

SOIL TEST RESULTS

SAMPLE NO.	OFFSET	STATION	DEPTH INTERVAL	AASHTO CLASS.	L.L.	P.I.	% BY WEIGHT C.SAND	F.SAND	SILT	CLAY	% PASSING (SIEVES) 10	40	200	% MOISTURE	% ORGANIC
S-556	CL	30+50	7.0-8.5	A-7-5(33)	70	35	6.9	14.1	24.0	55.0	98	94	82	-	-

810
800
790
780

S-556

EXISTING GROUND

PROPOSED GRADE

3.98

2:1 4:1 4:1 2:1

RESIDUAL, RED-BROWN TO BROWN, STIFF, MOIST, HIGHLY PLASTIC, SILTY CLAY

30+50

-126-

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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jpedro

8/23/99

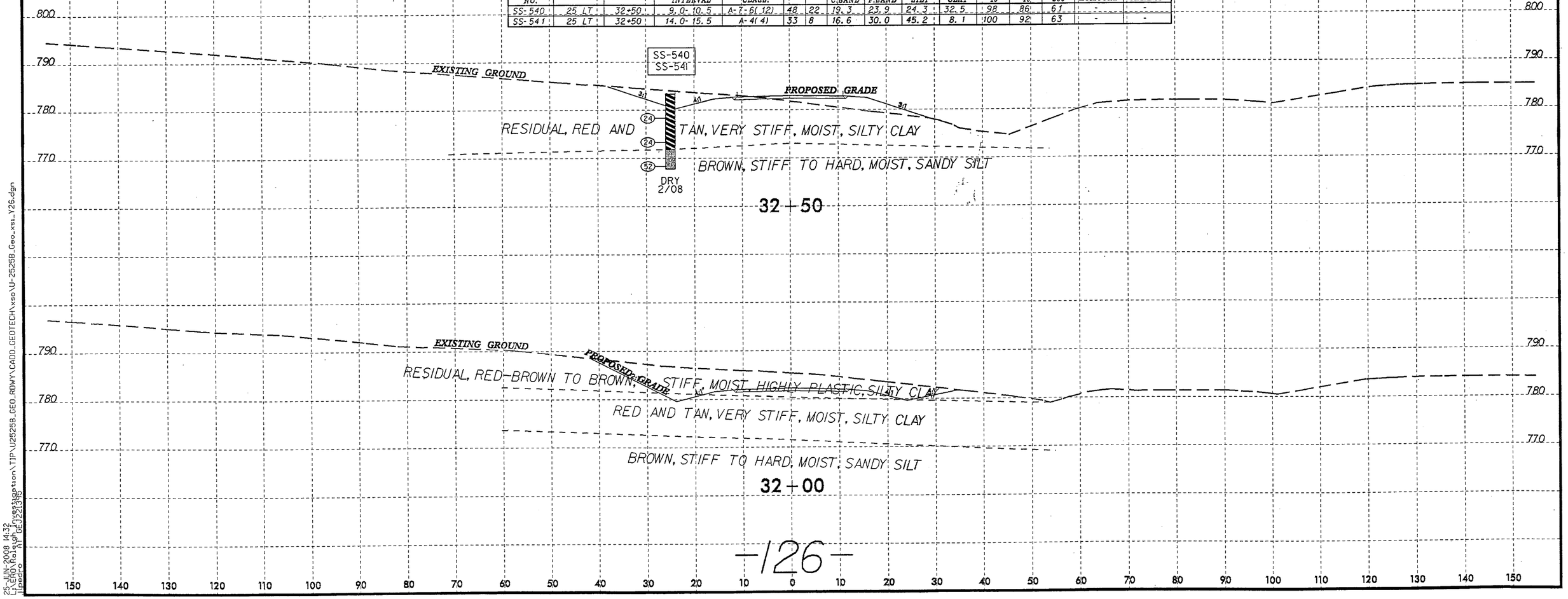
PROJ. REFERENCE NO.	SHEET NO.
U-2525B	166

0 5 10

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

SOIL TEST RESULTS

SAMPLE NO.	OFFSET	STATION	DEPTH INTERVAL	AASHTO CLASS.	L.L.	P.I.	% BY WEIGHT C.SAND	F.SAND	SILT	CLAY	% PASSING (SIEVES) 10	40	200	% MOISTURE	% ORGANIC
SS-540	25 LT	32+50	9.0- 10.5	A-7-6(12)	48	22	19.3	23.9	24.3	32.5	98	86	61	-	-
SS-541	25 LT	32+50	14.0- 15.5	A-4(4)	33	8	16.6	30.0	45.2	8.1	100	92	63	-	-



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