Inventory

STATE	STATE PROJECT REFERENCE NO.	SHEET NO.	TOTAL SHEETS
N.C.	U-3621B	1	29

STATE PROJ. NO.	F. A. PROJ. NO.	DESCRIPTION
34964.1.1	STP-1604(1)	PE
34964.3.1	STP-1604(5)	R/W, UTIL
34964.2.3	STP-1604(6)	CONST.

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

CONTENTS

LINE	STATION	PLAN	PROFILE	XSECT
-L-	10+00 TO 25+50	4, 5	10	
-L-	26+00 TO 38+50	5, 6	10, 11	14-23
-L-	39+00 TO 44+50	6	11	
-L-	44+90	6	11	24
-L-	45+50 TO 83+24	6-9	11, 12	
-SR1-	10+00 TO 15+00	7	13	
-Y13A-	10+00 TO 13+74	6	13	25-27
RETAINING WALL 1	44+90 TO 49+09	5	28	
RETAINING WALL 2	52+37 TO 56+77	6	28	

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

ROADWAY SUBSURFACE INVESTIGATION

PROJ. REFERENCE NO. 34964.1.1 (U-3621B) F.A. PROJ. STP-1604(1)

COUNTY NASH

PROJECT DESCRIPTION SR 1604 (HUNTER HILL RD.) IN ROCKY MOUNT FROM SR 1616 (COUNTRY CLUB RD.) TO NC 43/48 (BENVENUE RD.)

INVENTORY

CAUTION NOTICE

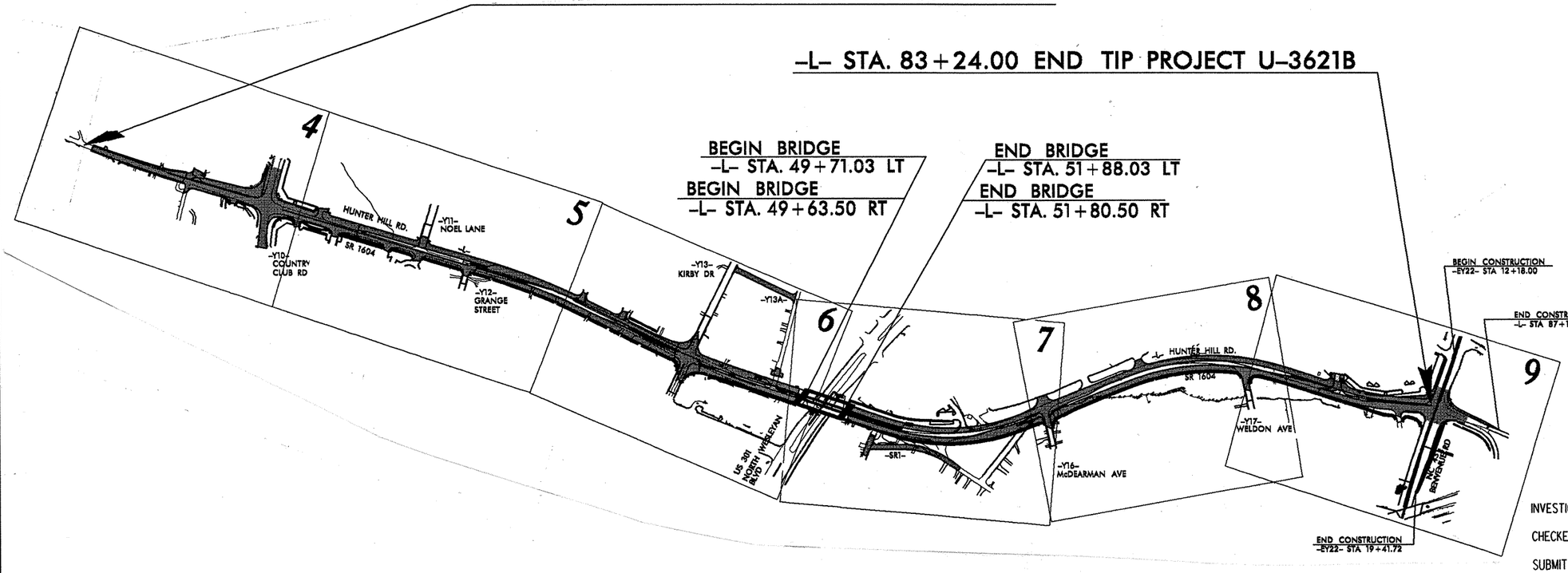
THE SUBSURFACE INFORMATION AND THE SUBSURFACE INVESTIGATION ON WHICH IT IS BASED WERE MADE FOR THE PURPOSE OF STUDY, PLANNING, AND DESIGN, AND NOT FOR CONSTRUCTION OR PAY PURPOSES. THE VARIOUS FIELD BORING LOGS, ROCK CORES, AND SOIL TEST DATA AVAILABLE MAY BE REVIEWED OR INSPECTED IN RALEIGH BY CONTACTING 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.

-L- STA. 10+00.00 BEGIN TIP PROJECT U-3621B

-L- STA. 83+24.00 END TIP PROJECT U-3621B



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SUBMITTED BY N.T. ROBERSON

DATE JULY, 2008

NORTH CAROLINA LICENSED SEAL 2124 GEOLOGIST NATHAN DANIEL MOHS

DRAWN BY: D.W. FIELDS, N.D. MOHS

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

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

CONTRACT: C202586 ID: U-3621B

PROJECT REFERENCE NO.	SHEET NO.
34964.1.1 (U3621B)	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 PLASTIC INDEX	6 MX			NP	40 MX 10 MX	41 MN 10 MX	40 MX 41 MN 11 MN 11 MN	40 MX 10 MX	41 MN 10 MX	40 MX 11 MN	41 MN 11 MN	SOILS WITH LITTLE OR MODERATE AMOUNTS OF ORGANIC MATTER		HIGHLY ORGANIC SOILS
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/FT^2)
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) PL — PLASTIC LIMIT	- WET - (W)	SEMISOLID; REQUIRES DRYING TO ATTAIN OPTIMUM MOISTURE
OM — OPTIMUM MOISTURE SL — SHRINKAGE LIMIT	- MOIST - (M)	SOLID; AT OR NEAR OPTIMUM MOISTURE
	- 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 DMT 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-___
- [ ] BK-51
- [ ] CME-45C
- [X] CME-550
- [ ] PORTABLE HOIST
- [ ] _____
- [ ] _____

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

HAMMER TYPE:
- [X] AUTOMATIC [ ] MANUAL

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

HAND TOOLS:
- [ ] POST HOLE DIGGER
- [X] 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:

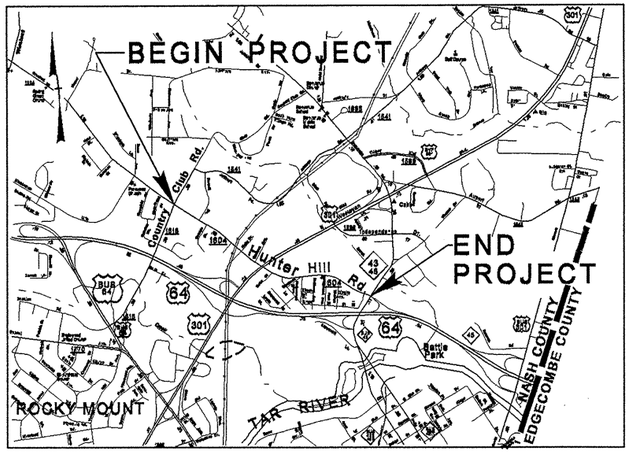
REVISED 02/23/06

09/08/99

TIP PROJECT: U-3621B

CONTRACT:

See Sheet 1-A For Index of Sheets



VICINITY MAP

STATE OF NORTH CAROLINA
DIVISION OF HIGHWAYS

NASH COUNTY

STATE	STATE PROJECT REFERENCE NO.	SHEET NO.	TOTAL SHEETS
N.C.	U-3621B	2A	29

STATE PROJ. NO.	F.A. PROJ. NO.	DESCRIPTION
34964.1.1	STP-1604(1)	PE

LOCATION: SR 1604 (HUNTER HILL RD) IN ROCKY MOUNT FROM SR 1616 (COUNTRY CLUB RD) TO NC 43/48 (BENVENUE RD)

TYPE OF WORK: GRADING, WIDENING, PAVING, DRAINAGE, STRUCTURES, SIGNALS AND GUARDRAIL.

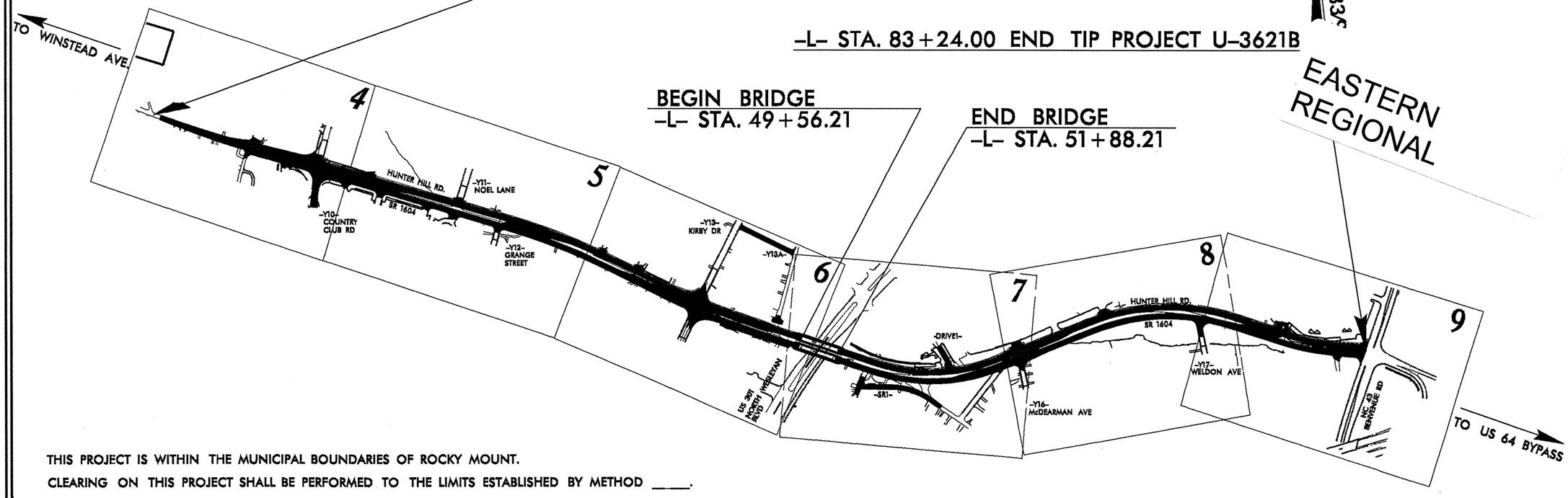
INCOMPLETE PLANS
DO NOT USE FOR R/W ACQUISITION

PRELIMINARY PLANS
DO NOT USE FOR CONSTRUCTION

NAD 83

–L– STA. 10+00.00 BEGIN TIP PROJECT U-3621B

–L– STA. 83+24.00 END TIP PROJECT U-3621B



THIS PROJECT IS WITHIN THE MUNICIPAL BOUNDARIES OF ROCKY MOUNT.

CLEARING ON THIS PROJECT SHALL BE PERFORMED TO THE LIMITS ESTABLISHED BY METHOD ____.

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 2007 = 9,100
ADT 2030 = 20,400
DHV = 11 %
D = 55 %
T = 2 % *
V = 50 MPH

* TTST=1% DUAL=1%

PROJECT LENGTH

LENGTH ROADWAY TIP PROJECT U-3621B = 1.343 MILES
LENGTH STRUCTURE TIP PROJECT U-3621B = 0.044 MILES
TOTAL LENGTH TIP PROJECT U-3621B = 1.387 MILES

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

2006 STANDARD SPECIFICATIONS

RIGHT OF WAY DATE: AUGUST 15, 2008

LETTING DATE: MAY 18, 2010

TED S. WALLS
PROJECT ENGINEER

ALLISON K. WHITE
PROJECT DESIGN ENGINEER

HYDRAULICS ENGINEER

SIGNATURE: P.E.

ROADWAY DESIGN ENGINEER

SIGNATURE: P.E.

DIVISION OF HIGHWAYS STATE OF NORTH CAROLINA

STATE HIGHWAY DESIGN ENGINEER P.E.

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STATE OF NORTH CAROLINA
DEPARTMENT OF TRANSPORTATION

Michael F. Easley
GOVERNOR

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

Lyndo Tippett
SECRETARY

June 18, 2008

STATE PROJECT: 34964.1.1 (U-3621B)
FEDERAL PROJECT: STP-1604 (1)
COUNTY: Nash

DESCRIPTION: SR 1604 (Hunter Hill Rd.) in Rocky Mount from SR 1616 (Country Club Rd.) to NC 43/48 (Benvenue Rd.)

SUBJECT: Geotechnical Report – Inventory

Project Description

This project consists of widening Hunter Hill Rd. (-L-, SR 1604) in Rocky Mount to four lanes with median and turn lanes. The project begins just west of the intersection of Country Club Rd. (SR 1616, -L- Sta. 20+05) and extends 1.4 miles east to Benvenue Rd. A new alignment (-Y13A-) is planned as a connector between Kirby Dr and Hillcrest St. The intersection of Hunter Hill Rd. and Memory Ln. (-SR1-), is being realigned. Two retaining walls are also planned along the project at -L- Stations 44+90, and 52+37.

The geotechnical field investigation was conducted from March to May 2008. The Geotechnical Engineering Unit's drilling crew used an ATV-mounted CME-550 drill machine during the field investigation. Standard Penetration Tests were performed in selected borings and additional borings were advanced using continuous flight augers. Representative soil samples were collected for visual classification in the field and submitted for laboratory analysis by NCDOT's Materials and Tests Unit.

The following alignments, totaling 1.55 miles, were investigated. Subsurface soil profiles, or cross-sections, of these alignments are included in this report:

Line		Station	
-L-	10+00	to	83+24
-Y13A-	10+00	to	13+74
-SR1-	10+00	to	15+00

Areas of Special Geotechnical Interest

1) Highly Plastic Clay Soils: Occurrences of highly plastic clay soil (Plasticity Index greater than 25) are noted below:

Alignment	Station	Offset
-L-	12+50	50 LT
-L-	19+00	40 LT
-L-	25+00	30 LT
-L-	27+50	20 LT
-L-	29+00	24 RT
-L-	30+50	30 LT
-L-	32+15	2 LT
-L-	35+30	32 RT
-L-	35+65	50 LT
-L-	38+50	30 LT
-L-	41+50	35 RT
-L-	44+90	52 RT
-L-	46+20	48 RT
-L-	47+00	55 RT
-L-	48+12	58 RT
-L-	49+10	60 RT
-L-	52+08	52 LT
-L-	53+32	35 LT
-L-	54+20	63 LT
-L-	55+88	40 LT
-L-	56+77	40 LT
-L-	58+00	40 RT
-L-	59+00	15 RT
-L-	60+00	40 RT
-L-	63+00	5 RT
-L-	66+00	CL
-L-	72+00	60 LT
-Y13A-	10+70	25 RT
-Y13A-	11+50	CL
-SR1-	10+50	CL
-SR1-	14+25	35 LT

Physiography and Geology

The project corridor is located in Nash County within the city of Rocky Mount. A mixture of homes, businesses, and churches are located along the alignment. Topography is typical of the Upper Coastal Plain and ranges from flat to gently sloping. Natural ground elevations along upland portions of the project generally range from 105 to 125 feet.

The project lies within the Coastal Plain Geologic Province of North Carolina. The Coastal Plain is a wedge of sedimentary material, covering much of the Southeastern United States, that thickens to the east. These sediments were deposited during the transgression and regression of the Atlantic Ocean. Deposition of these sediments began as early as the Cretaceous Period, and includes recent Quaternary deposits. Sediments mainly consist of sand and clay, with large amounts of limestone in the southern region.

The geology of this region primarily consists of a thin veneer (0.3-0.5 feet) of surficial Quaternary sand and silt capping the majority of the project. Due to the vertical scale of the profiles in this report, these soils are typically not shown. These soils were probably derived from leaching of the underlying clay soils belonging to the Pliocene-age Yorktown Formation which is exposed at the surface.

The project area is drained by tributaries of the Tar River. Surface drainage is good to excellent throughout the proposed corridor.

Soil Properties

Soils encountered at the project site include roadway embankment, artificial fill, and Coastal Plain deposits.

Roadway embankment soil along the -L- alignment ranges up to 5 feet in height. These soils overly Coastal Plain deposits. Where sampled, the embankment soil consists of moist, soft to stiff, silty clay, and loose to medium dense, silty sand (AASHTO classifications of A-7-6, and A-2-4). In some areas, clay in the roadway embankment has a PI greater than 25.

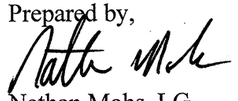
Artificial fill was encountered along the -Y13A- alignment. Soil from an adjacent open field has been pushed into a mound during past construction activity, (see sheet 6). This artificial soil consists of moist, loose, silty sand (A-2-4). A small quantity of artificial fill was also encountered along the -L- alignment in the parking lot of a business. This material is moist, soft, highly plastic, silty clay (A-7-6).

The Coastal Plain soils consist primarily of moist, soft to hard, silty clay (A-7-5 and A-7-6) and moist, stiff, sandy clay (A-6). A significant amount of moist, loose to medium dense, silty sand (A-2-4) is found on or near the ground surface. Areas containing highly plastic soils are listed above in the section “Areas of Special Geotechnical Interest”.

Groundwater

Groundwater was encountered in numerous borings on this project. Groundwater, when encountered in Coastal Plain soil, was variable across the project, ranging from 0.5 feet to 20 feet below the ground surface. The field investigation was performed during a period of extreme drought across the region. Based on the investigation, groundwater is not anticipated to cause problems during construction.

Prepared by,



Nathan Mohs, LG
Engineering Geologist

PROJECT REFERENCE NO.	SHEET NO.
34964.1.1 (U-3621B)	3-8

EARTHWORK BALANCE SHEET

Volumes in Cubic Yards

PROJECT U-3621B COUNTY: Nash DATE: COMPILED BY: WAD 11/18/2010 SHEET 1 OF 1 SHEET

Checked By: akw 11/29/2010

STATION	STATION	EXCAVATION					EMBANKMENT				BORROW	WASTE			
		TOTAL UNCLASS.	ROCK	UNDERCUT	UNSUIT. UNCLASS.	SUITABLE UNCLASS.	TOTAL	ROCK	EARTH	EMBANK. +25%		ROCK	SUITABLE	UNSUIT.	TOTAL
PHASE I															
-L- 10+56.82	40+50.00 (LT)	1,409			163	1,246	4,112		4,112	5,140	3,894			163	163
-L- 40+50.00	49+56.21 (LT)	1,000				1,000	4,554		4,554	5,693	4,693				
-L- 51+88.21	81+50.00 (LT)	643				643	17,620		17,620	22,025	21,382				
-L- 81+50.00	87+00.00 (LT)	260				260	224		224	280	20				
-L- 61+00.00	71+00.00 (RT)	23				23	7,964		7,964	9,955	9,932				
-Y10- 11+36.00	13+00.00	103				103	266		266	333	230				
-Y11- 12+00.00	12+97.80	22				22	4		4	5			17		17
-Y13- 13+31.13	15+00.00 (LT)	655				655	7		7	9			646		646
-Y13A- 10+16.00	13+63.68	2,277		747	784	1,493	747		747	934			559	1,531	2,090
-Y16- 10+41.37	11+80.00	4				4	102		102	128	124				
-EY22- 12+50.00	19+00.00	1,581				1,581	1		1	1			1,580		1,580
PHASE I SUBTOTAL		7,977		747	947	7,030	35,601		35,601	44,501	40,274		2,802	1,694	4,496
Waste In Lieu of Borrow											-2,802		-2,802		-2,802
TOTAL PHASE I		7,977		747	947	7,030	35,601		35,601	44,501	37,471			1,694	1,694
PHASE II															
-L- 10+56.82	40+50.00 (RT)	1,421			1,023	398	4,889		4,889	6,111	5,713			1,023	1,023
-L- 40+50.00	49+56.21 (RT)	19				19	4,815		4,815	6,019	6,000				
-L- 51+88.21	61+00.00 (RT)	176				176	10,683		10,683	13,354	13,178				
-L- 71+00.00	83+00.00 (RT)	557				557	2,792		2,792	3,490	2,933				
-Y10- 14+59.22	16+29.22	108				108	414		414	518	410				
-Y12- 10+37.54	11+00.00	7				7	78		78	98	91				
-Y13- 16+50.00	17+66.68 (RT)	95				95	183		183	229	134				
-Y17- 10+39.76	11+90.00	5				5	66		66	83	78				
-SR1- 10+13.31	15+00.00	107				107	38		38	48			60		60
PHASE II SUBTOTAL		2,495			1,023	1,472	23,958		23,958	29,948	28,535		60	1,023	1,083
Waste In Lieu of Borrow											-60		-60		-60
TOTAL PHASE II		2,495			1,023	1,472	23,958		23,958	29,948	28,476			1,023	1,023
PHASES I - II TOTAL		10,472		747	1,970	8,502	59,559		59,559	74,449	65,947			2,717	2,717
MATERIAL FOR SHOULDER CONSTRUCTION							1,900		1,900	2,375	2,375				
LOSS DUE TO CLEARING & GRUBBING		-730				-730					730				
ADDITIONAL UNDERCUT				1,100			1,100		1,100	1,375	1,375			1,100	1,100
SELECT GRANULAR MATERIAL, CLASS III IN LIEU OF BACKFILL FOR UNDERCUT							-1,900		-1,900	-2,375	-2,375				
PROJECT TOTAL		9,742		1,847	1,970	7,772	60,659		60,659	75,824	68,052			3,817	3,817
EST. 5% TO REPLACE TOP SOIL ON BORROW PIT											3,403				
GRAND TOTAL		9,742		1,847	1,970	7,772	60,659		60,659	75,824	71,454			3,817	3,817
SAY		9,850		1,900							71,700				
DDE = 870 CY															
EST. SHALLOW UNDERCUT CONTINGENCY = 1000 CY															
EST. SHALLOW UNDERCUT BY STATIONS = 950 CY															
TOTAL EST. SHALLOW UNDERCUT = 1950 CY															

NOTE: EARTHWORK QUANTITIES ARE CALCULATED BY THE ROADWAY DESIGN UNIT. THESE EARTHWORK QUANTITIES ARE BASED IN PART ON SUBSURFACE DATA PROVIDED BY THE GEOTECHNICAL ENGINEERING UNIT.

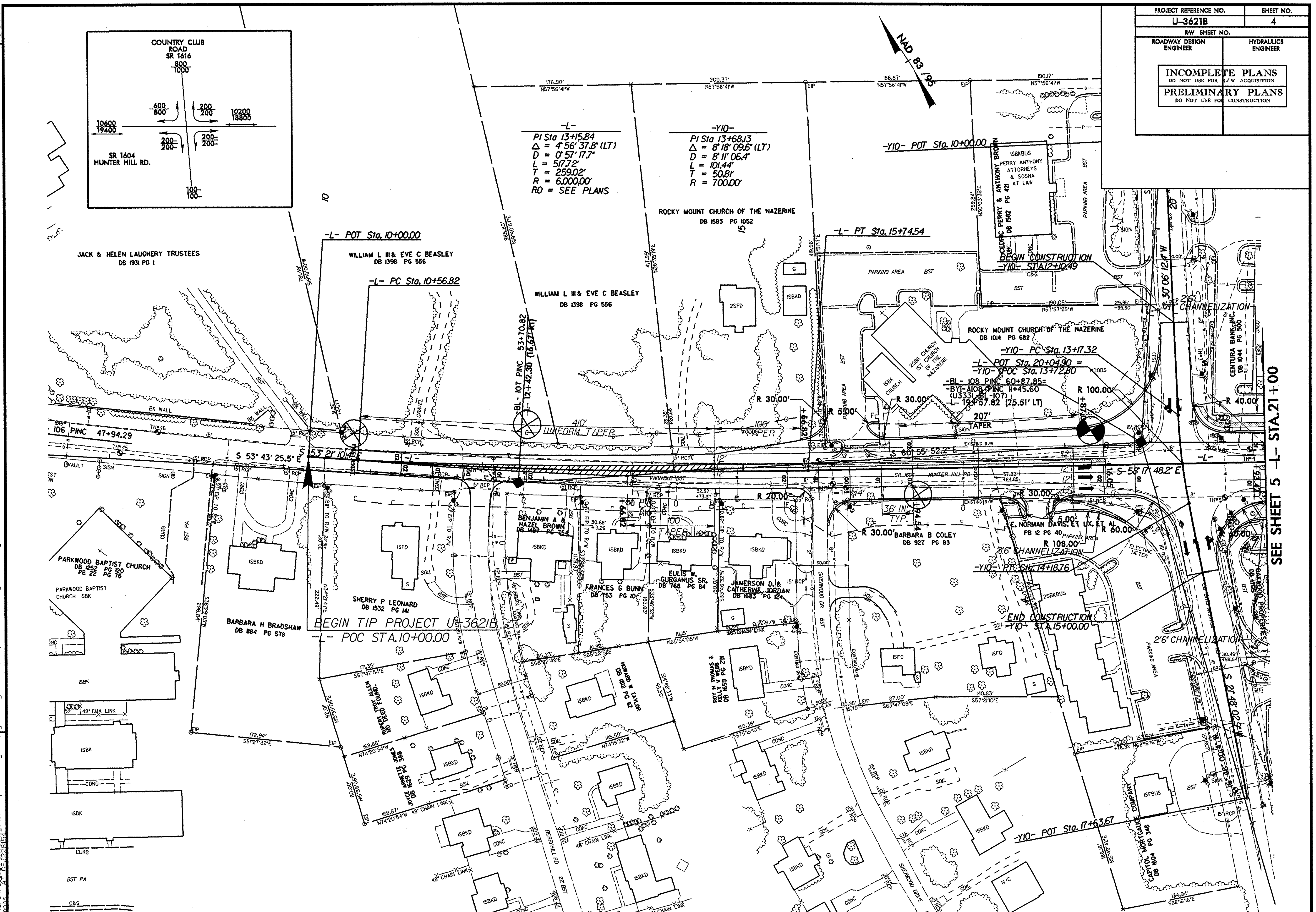
PROJECT REFERENCE NO. U-3621B | SHEET NO. 4

R/W SHEET NO.

ROADWAY DESIGN ENGINEER | HYDRAULICS ENGINEER

INCOMPLETE PLANS — DO NOT USE FOR R/W ACQUISITION

PRELIMINARY PLANS — DO NOT USE FOR CONSTRUCTION



COUNTRY CLUB ROAD SR 1616
SR 1604 HUNTER HILL RD.
NAD 83/95
-L-
PI Sta 13+15.84
Δ = 4° 56' 37.8" (LT)
D = 0° 57' 17.7"
L = 517.72'
T = 259.02'
R = 6,000.00'
RO = SEE PLANS
-Y10-
PI Sta 13+68.13
Δ = 8° 18' 09.6" (LT)
D = 8° 11' 06.4"
L = 101.44'
T = 50.81'
R = 700.00'
-Y10- POT Sta. 10+00.00
-L- POT Sta. 10+00.00
-L- PC Sta. 10+56.82
-L- PT Sta. 15+74.54
BEGIN CONSTRUCTION -Y10- STA. 12+10.49
END CONSTRUCTION -Y10- STA. 15+00.00
BEGIN TIP PROJECT U-3621B -L- POC STA. 10+00.00
-Y10- PC Sta. 13+17.32
-Y10- PT Sta. 14+18.76
-Y10- POT Sta. 17+63.67
JACK & HELEN LAUGHERY TRUSTEES DB 1931 PG 1
WILLIAM L III & EVE C BEASLEY DB 1398 PG 556
ROCKY MOUNT CHURCH OF THE NAZERINE DB 1583 PG 1052
ROCKY MOUNT CHURCH OF THE NAZERINE DB 1014 PG 682
CENTURA BANK INC. DB 1044 PG 500
PARKWOOD BAPTIST CHURCH DB 1252 PG 120 PB 22 PG 76
BARBARA H BRADSHAW DB 884 PG 578
SHERRY P LEONARD DB 1532 PG 141
BENJAMIN A & HAZEL BROWN
FRANCES G BUNN DB 753 PG 10
EULIS W. GURGANUS SR. DB 768 PG 84
JAMERSON D. & CATHERINE JORDAN DB 1683 PG 124
BARBARA B COLEY DB 927 PG 83
E. NORMAN DAVIS, ET UX, ET AL PB 12 PG 40
HOWARD W TAYLOR DB 1182 PG 12
JOYCE ANNETTE JONES DB 1629 PG 388
CAPITOL MORTGAGE COMPANY DB 1604 PG 348
S 53° 43' 25.5" E
S 53° 21' 10.4" E
S 60° 55' 52.2" E
S 58° 17' 48.2" E
S 30° 06' 12.4" W
S 21° 48' 02.6" W
410' UNIFORM TAPER
100' TAPER
207' TAPER
2'6" CHANNELIZATION
SHERWOOD DR
BERRYHILL RD
SEE SHEET 5 -L- STA. 21+00

REVISIONS

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PROJECT REFERENCE NO.	SHEET NO.
U-3621B	5
R/W SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

INCOMPLETE PLANS
DO NOT USE FOR R/W ACQUISITION

PRELIMINARY PLANS
DO NOT USE FOR CONSTRUCTION

NAD 83 /95

REVISIONS

8/17/99

SR 1604 HUNTER HILL RD.
10200
18800
200
200
200
200
200
200
GRANGE STREET

-L-
Pls Sta 32+05.29
θs = 2°06'03.0"
Ls = 220.00'
LT = 146.68'
ST = 73.34'

Pl Sta 34+30.95
Δ = 5°48'50.0" (RT)
D = 1°54'35.5"
L = 304.41'
T = 152.34'
R = 3,000.00'
RO = SEE PLANS

Pls Sta 36+56.37
θs = 2°06'03.0"
Ls = 220.00'
LT = 146.68'
ST = 73.34'

-Y11- POT Sta. 10+00.00

-Y11- STA.12+00.00
BEGIN CONSTRUCTION

-L- POT Sta. 28+38.37 =
-Y11- POT Sta. 13+33.88

-L- POT Sta. 30+95.60 =
-Y12- POT Sta. 10+00.00

-Y12- STA.11+10.00
END CONSTRUCTION

POT Sta. 13+80.35

-L- STA.21+00

SEE SHEET 4

SEE SHEET 6 -L- STA.35+00

ROADWAY EMBANKMENT

CENTURA BANK INC.
DB 1044 PG 500
ISCONCBUS

BODDIE NOELL ENTERPRISES INC.
DB 850 PG 693
DB 1032 PG 523

-BL-109 PINC 67+47.04
(GPS U3331-57)
-L- 26+16.87 (11.95' LT)

-BL-110 PINC 75+40.74=
-BY3 - AIC PINC 5+00.00
(GPS U3331-16)
-L- 34+08.90 (24.07' LT)

2'6" CHANNELIZATION

100' MEDIAN TAPER

510' UNIFORM TAPER

180.00' TAPER

88' INC. TYP

OAKWOOD PROPERTIES
DB 1705 PG 215

ROSE HILL ENTERPRISES
DB 1639 PG 849

HUNTER HILL SENIOR VILLAGE REST HOME

ISF STORAGE

ISFBLKBUS
FOOD LION

ISBLKBUS
HUNTER HILL PUB

ISBLKM BUS

CANOPY

TIMOTHY ALLEN COLEY
DB 1688 PG 374

PATRICIA A. BULLOCK
DB 1714 PG 605

THOMAS C. ROBBINS
DB 1082 PG 414

THOMAS C. ROBBINS, III
DB 935 PG 129

-BY6- 200
PINC 8+17.08s

-L- SC Sta. 32+78.61

J. B. OVERTON HEIRS
(NO RECORDS FOUND)

TERRY & SHIRLEY P. HEARNS
DB 1001 PG 829

RAYMOND CHEEK'S
DB 854 PG 991

JIMMIE L. BULLOCK
DB 1640 PG 696

FRANKLIN PROPERTIES
DB 1263 PG 271

ALBERT & BETTIE WISE
DB 1650 PG 412

DARRYL L. & PAMELA HUGHES
DB 1407 PG 337

PARKING AREA BST

SR 1604 HUNTER HILL RD

EXISTING R/W

WOODS

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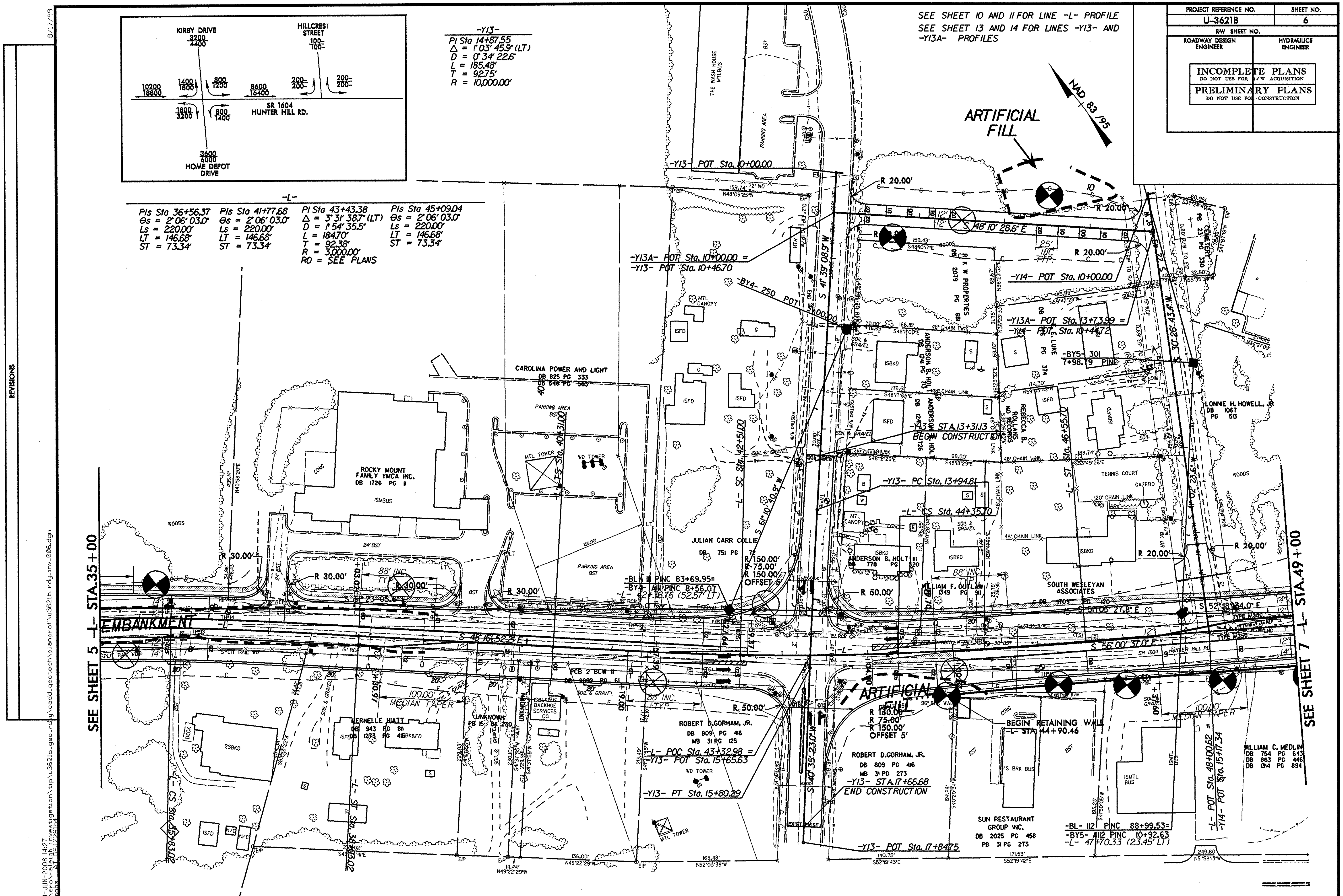

PROJECT REFERENCE NO. U-3621B
SHEET NO. 6
R/W SHEET NO.
ROADWAY DESIGN ENGINEER
HYDRAULICS ENGINEER
INCOMPLETE PLANS DO NOT USE FOR R/W ACQUISITION
PRELIMINARY PLANS DO NOT USE FOR CONSTRUCTION
SEE SHEET 10 AND 11 FOR LINE -L- PROFILE
SEE SHEET 13 AND 14 FOR LINES -Y13- AND -Y13A- PROFILES
NAD 83/95
ARTIFICIAL FILL
KIRBY DRIVE 3200 4400
HILLCREST STREET 100 100
10200 18800
1400 1800
800 1200
8600 16400
200 200
SR 1604 HUNTER HILL RD.
1800 3200
800 1400
3600 6000 HOME DEPOT DRIVE
-Y13-
PI Sta 14+87.55
Δ = 1° 03' 45.9" (LT)
D = 0° 34' 22.6"
L = 185.48'
T = 92.75'
R = 10,000.00'
-L-
PIs Sta 36+56.37 Θs = 2° 06' 03.0" Ls = 220.00' LT = 146.68' ST = 73.34'
PIs Sta 41+77.68 Θs = 2° 06' 03.0" Ls = 220.00' LT = 146.68' ST = 73.34'
PI Sta 43+43.38 Δ = 3° 31' 38.7" (LT) D = 1° 54' 35.5" L = 184.70' T = 92.38' R = 3,000.00' RO = SEE PLANS
PIs Sta 45+09.04 Θs = 2° 06' 03.0" Ls = 220.00' LT = 146.68' ST = 73.34'
CAROLINA POWER AND LIGHT DB 825 PG 333
ROCKY MOUNT FAMILY YMCA INC. DB 1726 PG 11
JULIAN CARR COLLIE DB 751 PG
ANDERSON B. HOLT III DB 778 PG 20
WILLIAM F. OUTLAW DB 1349 PG 911
SOUTH WESLEYAN ASSOCIATES DB 1109 PG 120
LONNIE H. HOWELL, JR DB 1067 PG 513
R K W PROPERTIES DB 2079 PG 68
REBECCA B. ROLLANS
VERNELLE HIATT DB 943 PG 88 DB 1293 PG 415
ROBERT D. GORHAM, JR. DB 809 PG 416 MB 31 PG 125
ROBERT D. GORHAM, JR. DB 809 PG 416 MB 31 PG 273
SUN RESTAURANT GROUP INC. DB 2025 PG 458 PB 31 PG 273
WILLIAM C. MEDLIN DB 754 PG 645 DB 863 PG 446 DB 1314 PG 894
-Y13- POT Sta. 10+00.00
-Y13A- POT Sta. 10+00.00 = -Y13- POT Sta. 10+46.70
-BY4- 250 POT Sta. 10+00.00
-Y14- POT Sta. 10+00.00
-Y13A- POT Sta. 13+73.99 = -Y14- POT Sta. 10+44.72
-BY5- 301 PINE 7+98.79
-Y13- STA. 13+31.13 BEGIN CONSTRUCTION
-Y13- PC Sta. 13+94.81
-L- S Sta. 44+35.70
-L- ST Sta. 46+55.70
-BL- 111 PINC 83+69.95 = -BY4- 411 PINC 8+56.07 -L- 42+36.76 (52.57' LT)
-L- POC Sta. 43+32.98 = -Y13- POT Sta. 15+65.63
-Y13- PT Sta. 15+80.29
-Y13- STA. 17+66.68 END CONSTRUCTION
-Y13- POT Sta. 17+84.75
BEGIN RETAINING WALL -L- STA 44+90.46
-BL- 112 PINC 88+99.53 = -BY5- 412 PINC 10+92.63 -L- 47+70.33 (23.45' LT)
-L- POT Sta. 48+00.62
-Y14- POT Sta. 15+17.34
S 48° 16' 52.2" E
S 56° 00' 37.0" E
S 48° 10' 28.6" E
S 41° 39' 08.5" W
S 61° 10' 10.9" W
S 40° 35' 23.0" W
S 30° 26' 43.4" W
S 52° 18' 34.0" E
S 51° 05' 27.8" E
EMBANKMENT
88' INC. TYP.
100.00' MEDIAN TAPER
SEE SHEET 5 -L- STA. 35+00
SEE SHEET 7 -L- STA. 49+00
REVISIONS
8/17/99
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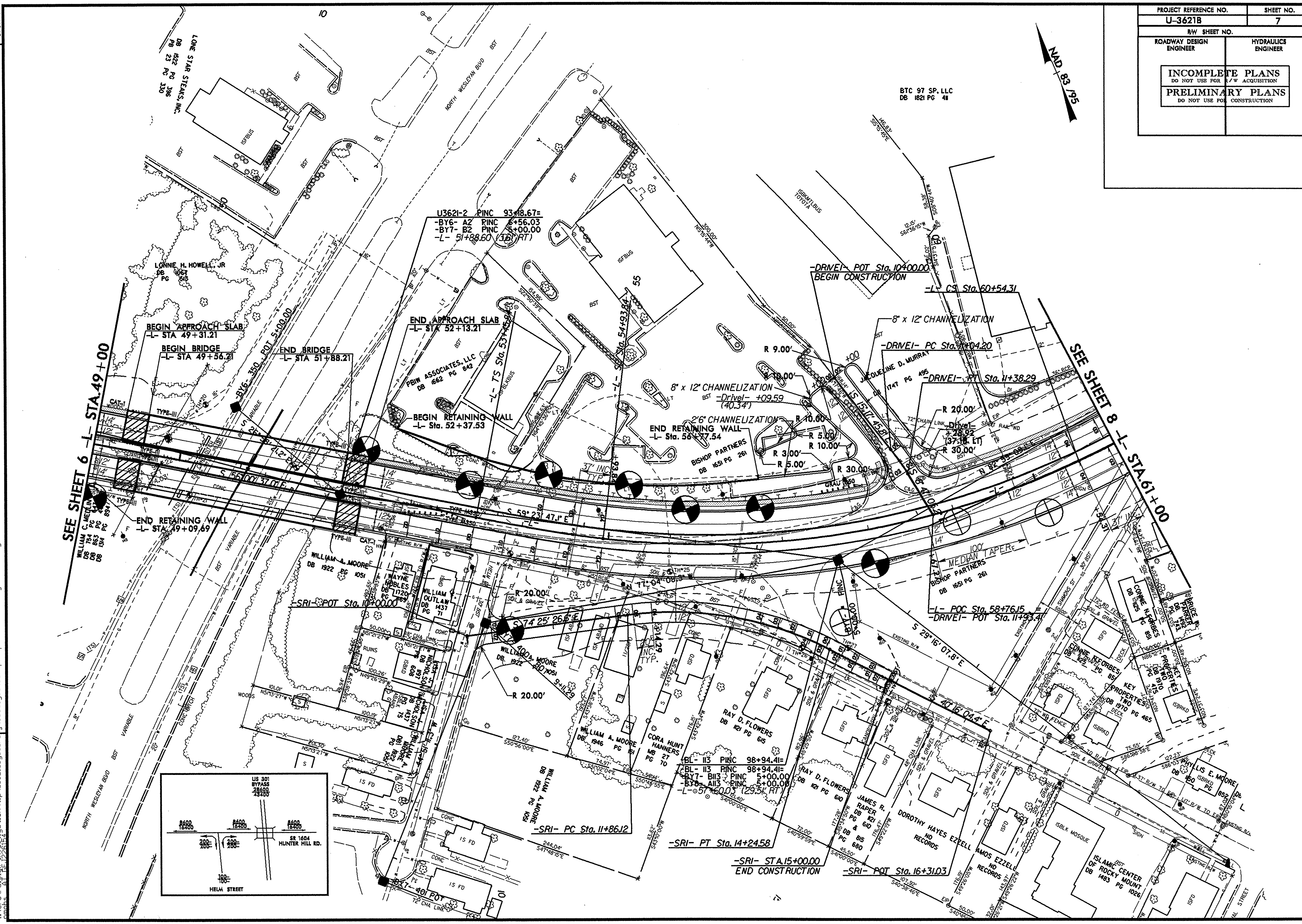
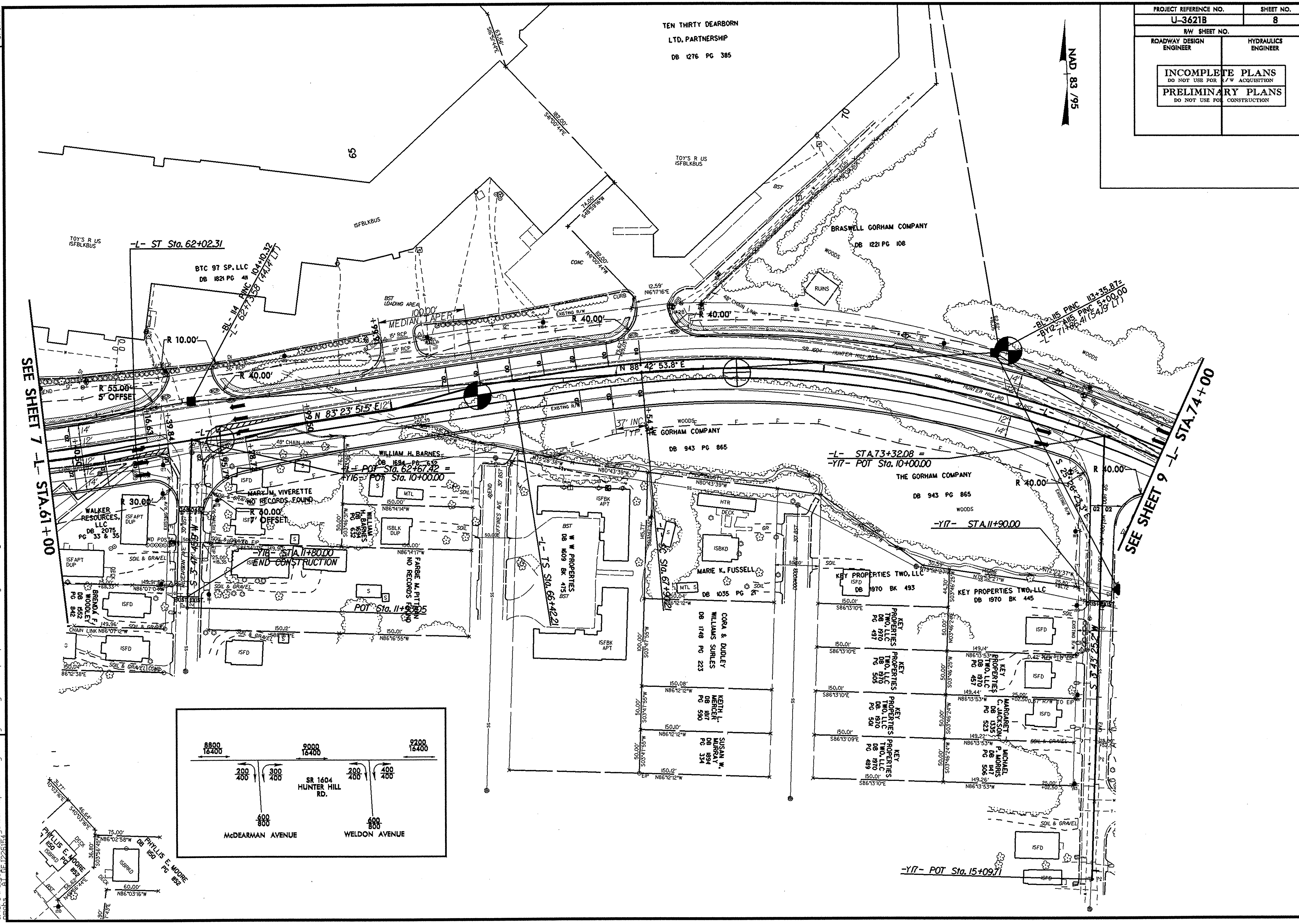

PROJECT REFERENCE NO.
U-3621B
SHEET NO.
7
R/W SHEET NO.
ROADWAY DESIGN ENGINEER
HYDRAULICS ENGINEER
INCOMPLETE PLANS
DO NOT USE FOR R/W ACQUISITION
PRELIMINARY PLANS
DO NOT USE FOR CONSTRUCTION
NAD 83/95
REVISIONS
SEE SHEET 6 -L- STA.49+00
SEE SHEET 8 -L- STA.61+00
BTC 97 SP, LLC
DB 1821 PG 411
LONE STAR STEAKS, INC.
LONNIE H. HOWELL, JR
BEGIN APPROACH SLAB
-L- STA 49+31.21
BEGIN BRIDGE
-L- STA 49+56.21
END BRIDGE
-L- STA 51+88.21
END APPROACH SLAB
-L- STA 52+13.21
BEGIN RETAINING WALL
-L- Sta. 52+37.53
END RETAINING WALL
-L- STA 49+09.69
END RETAINING WALL
-L- Sta. 56+77.54
U3621-2 PINC 93+18.67=
-BY6- A2 PINC 8+56.03
-BY7- B2 PINC 5+00.00
-L- 51+88.60 (36.1' RT)
PBIW ASSOCIATES, LLC
DB 1662 PG 842
-DRIVE1- POT Sta. 10+00.00
BEGIN CONSTRUCTION
-L- CS Sta. 60+54.31
8' x 12' CHANNELIZATION
-DRIVE1- PC Sta. 10+04.20
-DRIVE1- PT Sta. 11+38.29
JACQUELINE D. MURRAY
BISHOP PARTNERS
DB 1651 PG 261
2'6" CHANNELIZATION
-L- POC Sta. 58+76.15
-DRIVE1- POT Sta. 11+93.41
MEDIAN TAPER
S 29° 16' 07.8" E
S 59° 23' 47.1" E
S 74° 25' 26.6" E
WILLIAM A. MOORE
DB 1922 PG 1051
WILLIAM OUTLAW
-SR1- POT Sta. 10+00.00
-SR1- PC Sta. 11+86.12
-SR1- PT Sta. 14+24.58
-SR1- STA.15+00.00
END CONSTRUCTION
-SR1- POT Sta. 16+31.03
CORA HUNT HANNERS
RAY D. FLOWERS
DB 1121 PG 615
JAMES R. RAPER
DOROTHY HAYES EZZELL
NO RECORDS
AMOS EZZELL
NO RECORDS
ISLAMIC CENTER OF ROCKY MOUNT
DB 1483 PG 1026
CONNIE N. FORBES
KEY PROPERTIES TWO
DB 1970 PG 465
PHYLLIS E. MOORE
NORTH WESLEYAN BLVD
US 301 BYPASS
SR 1604 HUNTER HILL RD.
HELM STREET


PROJECT REFERENCE NO. U-3621B
SHEET NO. 8
R/W SHEET NO.
ROADWAY DESIGN ENGINEER
HYDRAULICS ENGINEER
INCOMPLETE PLANS DO NOT USE FOR R/W ACQUISITION
PRELIMINARY PLANS DO NOT USE FOR CONSTRUCTION
NAD 83/95
TEN THIRTY DEARBORN LTD. PARTNERSHIP DB 1276 PG 385
TOY'S R US ISFBLKBUS
BRASWELL GORHAM COMPANY DB 1221 PG 108
BTC 97 SP. LLC DB 1821 PG 48
-L- ST Sta. 62+02.31
MEDIAN TAPER
N 88° 42' 53.8" E
N 83° 23' 51.5" E
SR 1604 HUNTER HILL RD.
THE GORHAM COMPANY DB 943 PG 865
-L- STA.73+32.08 = -Y17- POT Sta. 10+00.00
-Y17- STA.11+90.00
-L- POT Sta. 62+67.42 = -Y16- POT Sta. 10+00.00
WILLIAM H. BARNES DB 1694 PG 632
MARY M. VIVERETTE NO RECORDS FOUND
WALKER RESOURCES, LLC DB 2075 PG 33 & 35
-Y18- STA.11+80.00 END CONSTRUCTION
FARBE M. PITTMAN NO RECORDS FOUND
W W PROPERTIES DB 1609 BK 475
-L- TS Sta. 66+42.21
MARIE K. FUSSELL DB 1035 PG 6
KEY PROPERTIES TWO, LLC DB 1970 BK 493
KEY PROPERTIES TWO, LLC DB 1970 BK 445
CORA & DUDLEY WILLIAMS SURLES DB 1748 PG 223
KEITH L. MERCER DB 1817 PG 590
SUSAN W. MORALLY DB 1894 PG 334
MARGARET C. JACKSON DB 1335 PG 523
P. MICHAEL MORRIS DB 1147 PG 506
-Y17- POT Sta. 15+09.71
SEE SHEET 7 -L- STA.61+00
SEE SHEET 9 -L- STA.74+00
8800 16400
9000 16400
9200 16400
SR 1604 HUNTER HILL RD.
McDEARMAN AVENUE
WELDON AVENUE
PHYLLIS E. MOORE DB 852
REVISIONS
8/17/99
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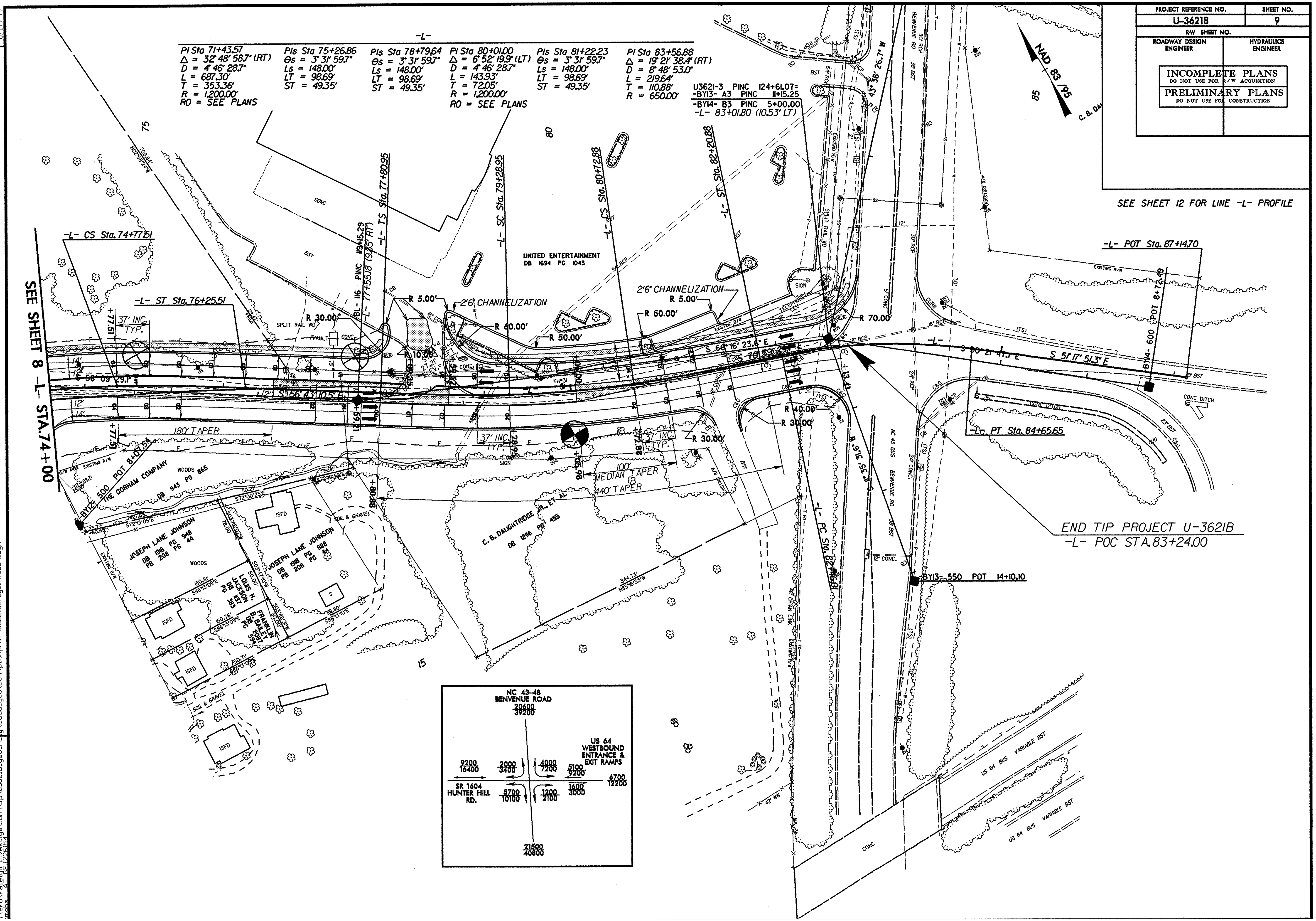
8/17/99

REVISIONS



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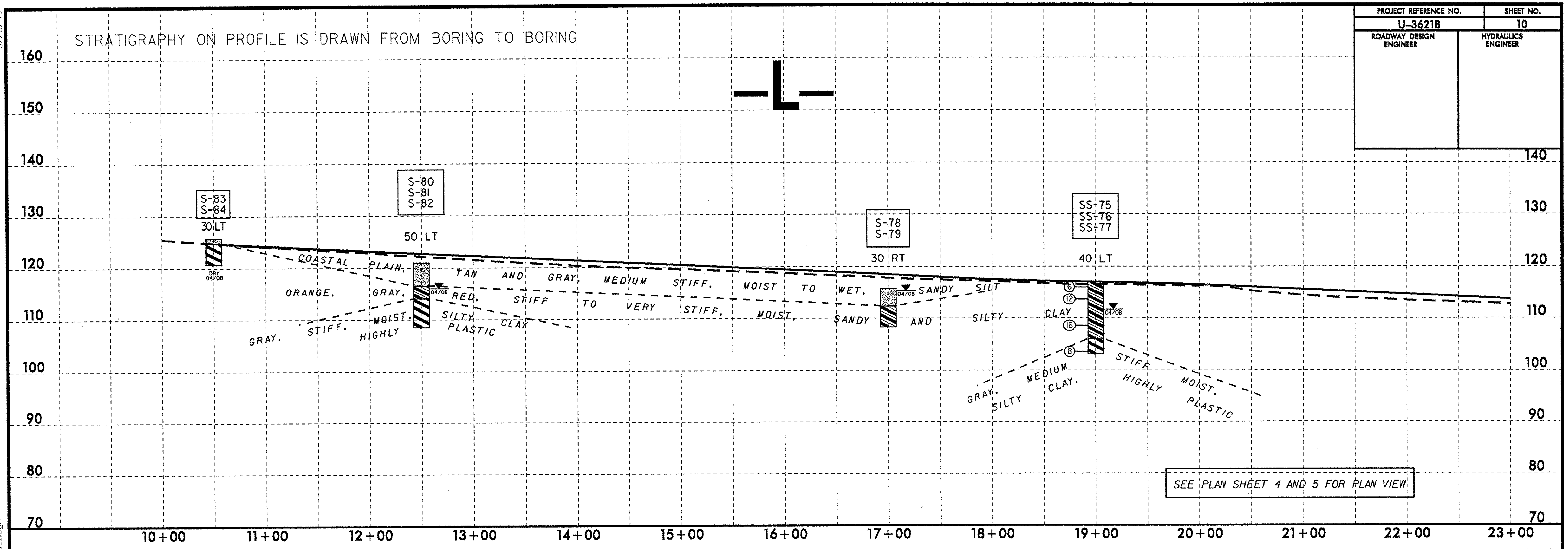
PROJECT REFERENCE NO.	SHEET NO.
U-3621B	10
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

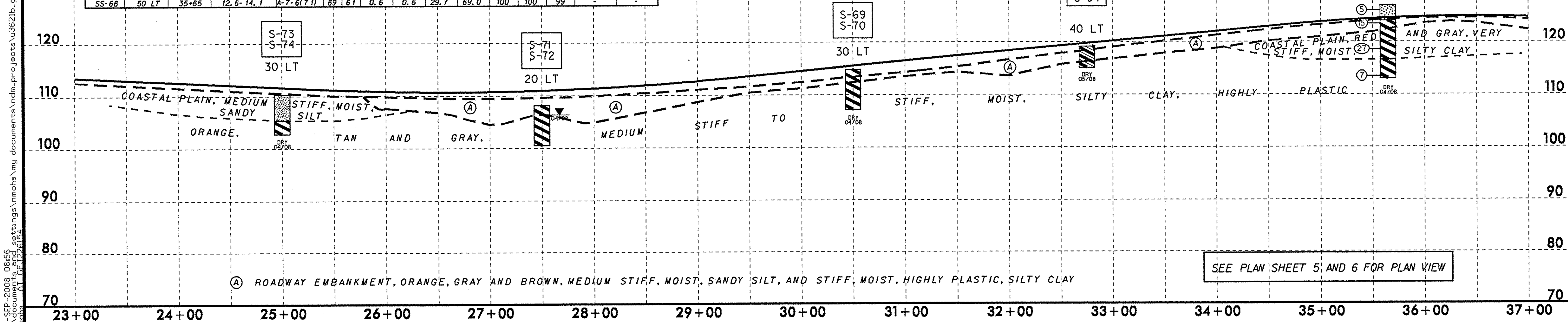
STRATIGRAPHY ON PROFILE IS DRAWN FROM BORING TO BORING

-L-



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-83	30 LT	10+50	0.0-1.0	A-4(0)	15	1	35.3	33.1	21.5	10.1	100	74	38	-	-
S-84	30 LT	10+50	1.0-5.0	A-7-6(14)	44	24	22.0	17.0	18.7	42.4	100	83	65	-	-
S-80	50 LT	12+50	0.0-4.5	A-4(0)	17	5	29.1	32.3	22.5	16.1	100	81	44	-	-
S-81	50 LT	12+50	4.5-7.0	A-6(8)	40	22	26.8	23.2	19.7	30.3	100	82	54	-	-
S-82	50 LT	12+50	7.0-12.5	A-7-6(32)	58	36	8.9	10.7	23.9	56.5	100	94	83	-	-
S-78	30 RT	17+00	0.0-3.5	A-4(0)	14	2	40.8	23.8	21.3	14.1	99	70	39	-	-
S-79	30 RT	17+00	3.5-7.4	A-6(3)	39	20	38.7	27.4	7.6	26.2	100	72	37	-	-
SS-75	40 LT	19+00	0.0-1.5	A-6(3)	37	24	43.8	22.2	19.9	14.1	98	66	37	-	-
SS-76	40 LT	19+00	2.4-3.9	A-6(11)	39	24	22.2	22.0	21.5	34.3	100	85	60	-	-
SS-77	40 LT	19+00	12.4-13.9	A-7-6(33)	51	34	0.8	15.9	30.8	52.5	100	100	92	-	-
S-73	30 LT	25+00	0.0-5.0	A-4(0)	19	6	31.9	33.7	18.3	16.1	99	78	40	-	-
S-74	30 LT	25+00	5.0-7.6	A-7-6(18)	44	28	17.2	15.3	25.1	42.4	100	88	71	-	-
S-71	20 LT	27+50	0.0-4.0	A-7-6(19)	47	30	13.8	21.3	22.2	42.6	100	91	70	-	-
S-72	20 LT	27+50	4.0-7.6	A-7-6(36)	57	40	4.1	13.2	25.9	56.9	100	97	87	-	-
S-69	30 LT	30+50	0.0-5.0	A-7-6(17)	48	29	18.1	18.3	23.0	40.6	100	88	66	-	-
S-70	30 LT	30+50	5.0-7.6	A-7-6(12)	43	21	8.1	28.4	22.8	40.6	100	95	66	-	-
S-94	40 LT	32+75	0.0-4.0	A-6(12)	36	19	17.6	11.6	32.3	38.5	100	88	72	-	-
SS-66	50 LT	35+65	0.0-1.5	A-2-4(0)	14	NP	42.6	33.1	14.1	10.2	100	73	28	-	-
SS-67	50 LT	35+65	2.6-4.1	A-7-6(9)	48	24	42.4	10.8	8.2	38.6	99	67	51	-	-
SS-68	50 LT	35+65	12.6-14.1	A-7-6(71)	89	61	0.6	0.6	29.7	69.0	100	100	99	-	-



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PROJECT REFERENCE NO.	SHEET NO.
U-3621B	11
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-64	30 LT	38+50	3.0- 6.0	A-6(1)	29	14	41.2	24.8	11.7	22.3	100	73	36	-	-
S-65	30 LT	38+50	6.0- 7.4	A-7-6(17)	49	31	24.8	13.4	15.1	46.7	100	84	63	-	-
S-63	35RT	41+50	4.0- 7.6	A-7-5(37)	71	37	10.4	5.5	21.2	62.9	100	93	85	-	-
S-60	60 LT	42+80	0.0- 4.0	A-2-4(0)	14	NP	49.9	35.1	10.9	4.1	99	66	18	-	-
S-61	60 LT	42+80	4.0- 9.0	A-6(1)	25	13	38.6	28.2	14.9	18.3	100	75	39	-	-
S-62	60 LT	42+80	9.0- 12.6	A-4(4)	32	7	21.1	11.6	18.6	48.7	100	85	69	-	-
SS-45	52 RT	44+90	0.0- 1.5	A-7-6(7)	48	27	35.5	17.3	16.8	30.5	86	61	44	-	-
SS-46	52 RT	44+90	2.9- 4.4	A-6(4)	35	19	37.6	21.9	16.1	24.4	99	76	42	-	-
SS-47	52 RT	44+90	7.1- 9.4	A-7-6(41)	63	39	2.8	3.5	30.8	62.9	100	98	94	-	-
SS-48	52 RT	44+90	12.9- 14.4	A-7-6(9)	52	24	29.6	21.7	16.1	32.5	96	74	50	-	-
SS-49	48 RT	46+20	7.1- 8.6	A-7-5(7.3)	91	61	0.2	0.2	28.5	71.1	100	100	100	-	-
SS-50	55 RT	47+00	0.0- 1.5	A-6(4)	35	20	37.4	22.9	27.5	12.2	100	76	42	-	-
SS-51	55 RT	47+00	7.2- 8.7	A-7-5(48)	79	37	0.6	1.0	31.4	67.0	100	100	99	-	-
SS-52	58 RT	48+12	0.0- 1.0	A-2-4(0)	24	9	45.3	22.9	15.5	16.2	97	63	35	-	-
SS-53	58 RT	48+12	3.3- 4.8	A-6(3)	35	20	37.4	24.8	13.5	24.4	100	76	40	-	-
SS-54	58 RT	48+12	8.3- 9.8	A-7-6(52)	74	45	1.2	1.6	28.1	69.0	100	99	97	-	-
SS-55	60 RT	49+10	0.0- 1.5	A-2-4(0)	14	NP	51.2	32.3	12.5	4.1	100	67	19	-	-
SS-56	60 RT	49+10	7.5- 9.0	A-7-5(53)	81	42	0.4	0.4	28.1	71.1	100	100	99	-	-
SS-57	60 RT	49+10	17.5- 19.0	A-7-6(12)	45	31	17.3	32.5	15.7	34.5	100	93	54	-	-
SS-58	60 RT	49+10	22.5- 24.0	A-4(0)	23	NP	4.3	37.4	42.1	16.2	100	96	74	-	-

STRATIGRAPHY ON PROFILE IS DRAWN FROM BORING TO BORING

S-64, S-65 — 60 LT
S-63 — 35 RT
S-60, S-61, S-62 — 60 LT
SS-45, SS-46, SS-47, SS-48 — 52 RT
SS-49 — 48 RT
SS-50, SS-51 — 55 RT
SS-52, SS-53, SS-54 — 58 RT
SS-55, SS-56, SS-57, SS-58 — 60 RT

(A) COASTAL PLAIN, TAN AND GRAY, LOOSE, MOIST, SILTY SAND

RED, ORANGE AND GRAY, MEDIUM TO VERY STIFF, MOIST, SANDY SILT

GRAY, STIFF, MOIST, SANDY SILT

ROADWAY EMBANKMENT, ORANGE, SOFT TO MED. STIFF, MOIST, SILTY CLAY

HIGHLY PLASTIC SANDY CLAY

ROADWAY EMBANKMENT, TAN TO GRAY, LOOSE TO MEDIUM DENSE, MOIST, SILTY SAND

HIGHLY PLASTIC SANDY CLAY

DARK GRAY, SANDY SOFT TO VERY STIFF, SILT WITH SHELLS

(A) ROADWAY EMBANKMENT, ORANGE, GRAY AND BROWN, MEDIUM STIFF, MOIST, SANDY SILT, AND STIFF, MOIST, HIGHLY PLASTIC, SILTY CLAY

SEE PLAN SHEET 6 AND 7 FOR PLAN VIEW

37+00 38+00 39+00 40+00 41+00 42+00 43+00 44+00 45+00 46+00 47+00 48+00 49+00 50+00 51+00

(A) COASTAL PLAIN, GRAY AND ORANGE, LOOSE TO MEDIUM DENSE, WET TO SATURATED, COARSE SAND

(B) ROADWAY EMBANKMENT, RED AND ORANGE, STIFF, MOIST, SILTY CLAY, HIGHLY PLASTIC, AND LOOSE, MOIST, CLAYEY SAND

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-34	52 LT	52+08	4.0- 5.5	A-6(5)	38	18	29.1	24.2	12.3	34.3	100	83	49	-	-
SS-35	52 LT	52+08	9.0- 10.5	A-7-5(10)	52	21	32.7	11.9	17.0	38.4	99	73	56	-	-
SS-36	52 LT	52+08	19.0- 20.5	A- 1-b(0)	20	NP	79.2	13.9	6.9	0.0	98	44	8	-	-
SS-37	52 LT	52+08	24.0- 25.5	A-7-6(41)	57	39	1.2	7.9	42.4	48.5	100	99	96	-	-
SS-38	52 LT	52+08	29.0- 30.5	A-7-6(11)	41	19	15.6	28.6	41.5	14.2	99	90	65	-	-
SS-30	35 LT	53+32	0.0- 1.5	A- 2-4(0)	14	NP	49.5	32.5	16.0	2.0	100	70	21	-	-
SS-31	35 LT	53+32	4.4- 5.9	A-7-6(10)	43	26	28.9	22.2	18.6	30.3	100	82	52	-	-
SS-32	35 LT	53+32	9.4- 10.9	A-7-6(51)	71	49	3.2	3.6	24.4	68.7	99	97	93	-	-
SS-33	35 LT	53+32	24.4- 25.9	A-7-6(30)	49	31	2.2	10.3	49.1	38.4	100	99	92	-	-
SS-28	63 LT	54+20	8.9- 10.4	A- 1-b(0)	21	NP	75.6	10.7	7.7	6.1	99	46	15	-	-
SS-29	63 LT	54+20	13.9- 15.4	A-7-6(34)	59	31	2.0	10.1	33.3	54.5	100	99	94	-	-
SS-25	64 LT	55+18	0.0- 1.5	A-4(2)	25	10	32.7	15.6	27.5	24.2	99	75	53	-	-
SS-26	64 LT	55+18	3.3- 4.8	A-7-6(12)	41	18	17.6	13.9	28.1	40.4	100	88	70	-	-
SS-24	40 LT	55+88	24.8- 26.3	A-6(12)	36	17	0.8	38.2	40.8	20.2	100	100	79	-	-
SS-20	40 LT	56+77	0.0- 1.5	A-2-4(0)	14	1	49.1	25.7	19.2	6.1	96	61	27	-	-
SS-21	40 LT	56+77	4.8- 6.3	A-2-7(6)	73	48	64.6	4.2	6.9	24.2	97	44	31	-	-
SS-22	40 LT	56+77	9.8- 11.3	A-7-5(76)	94	63	0.2	0.8	28.3	70.7	100	100	100	-	-

SS-34, SS-35, SS-36, SS-37, SS-38 — 52 LT
SS-30, SS-31, SS-32, SS-33 — 35 LT
SS-28, SS-29, ST-1, ST-2 — 63 LT
SS-25, SS-26 — 64 LT
SS-24 — 40 LT
SS-20, SS-21, SS-22, SS-23 — 40 LT
S-15, S-16 — 40 RT
S-97, S-98 — 15 RT
S-12, S-13, S-14 — 40 RT
5 RT

COASTAL PLAIN, TAN, ORANGE AND GRAY, LOOSE TO MEDIUM DENSE, MOIST, SILTY AND CLAYEY SAND, AND SOFT, MOIST, SANDY SILT

ORANGE, RED AND GRAY, VERY STIFF, MOIST, SANDY SILTY CLAY

COASTAL PLAIN, ORANGE, GRAY AND TAN, STIFF TO VERY STIFF, MOIST, SILTY CLAY, HIGHLY PLASTIC

MOIST, SANDY

DARK GRAY, MEDIUM STIFF, SANDY CLAY

GRAY, VERY STIFF, WITH SOFT, WET, SHELLS

ORANGE AND TAN, LOOSE, MOIST, SILTY SAND TO SANDY

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-23	40 LT	56+77	14.8- 16.3	A- 2-4(0)	22	NP	50.1	31.9	9.9	8.1	100	84	19	-	-
S-15	40 RT	58+00	0.0- 5.0	A-7-6(22)	51	32	8.7	23.0	23.8	44.4	100	94	73	-	-
S-16	40 RT	58+00	5.0- 10.0	A- 2-7(2)	45	19	53.3	12.3	14.1	20.2	97	52	35	-	-
S-97	15 RT	59+00	0.0- 1.0	A- 2-7(4)	47	28	43.2	18.0	8.4	30.4	87	60	35	-	-
S-98	15 RT	59+00	1.0- 4.0	A-7-6(15)	51	26	18.8	21.5	19.1	40.5	100	89	63	-	-
S-12	40 RT	60+00	0.0- 6.5	A-7-6(9)	51	26	28.1	22.4	15.2	34.3	98	71	50	-	-
S-13	40 RT	60+00	6.5- 8.5	A-7-6(47)	65	42	0.6	1.6	29.1	68.7	100	100	98	-	-
S-14	40 RT	60+00	8.5- 14.5	A-7-6(17)	53	29	15.4	22.0	22.2	40.4	100	91	65	-	-

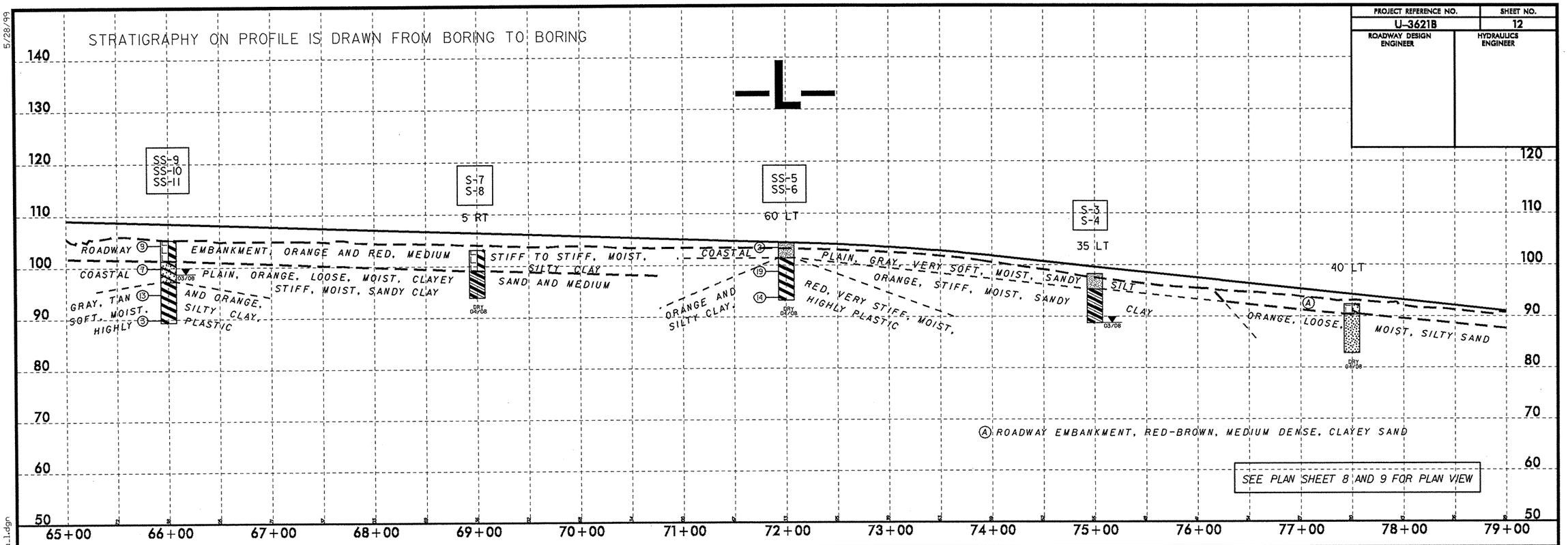
SEE PLAN SHEET 7 AND 8 FOR PLAN VIEW

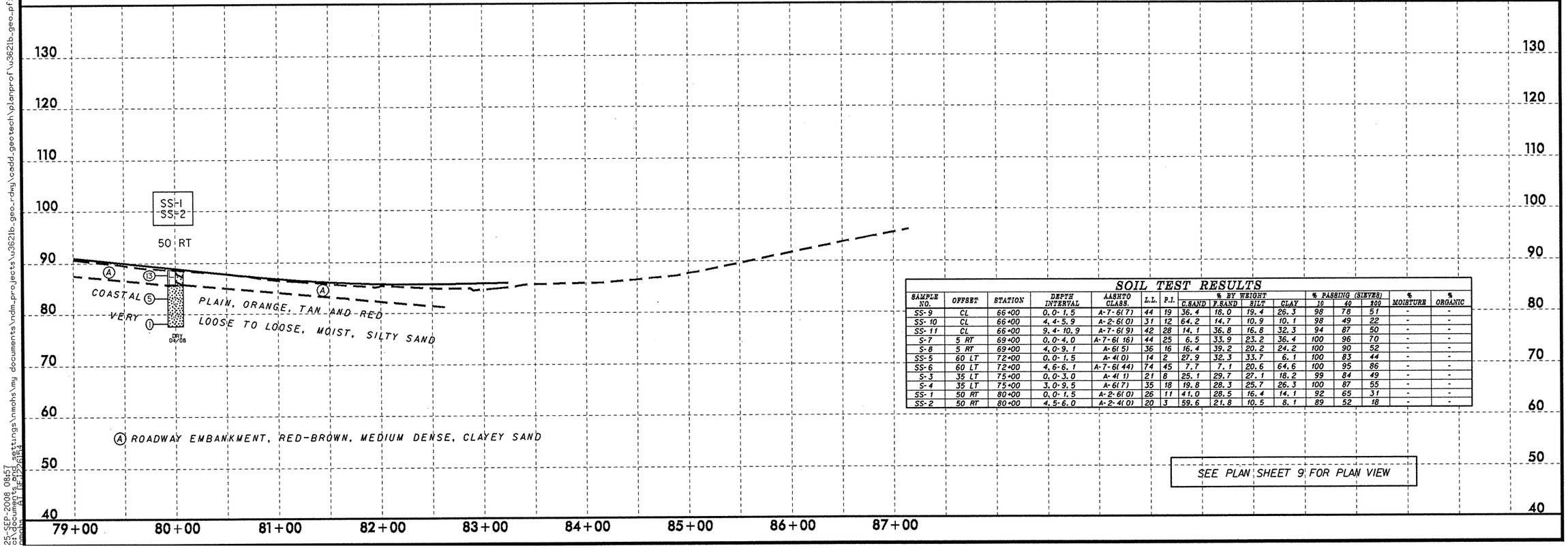
51+00 52+00 53+00 54+00 55+00 56+00 57+00 58+00 59+00 60+00 61+00 62+00 63+00 64+00 65+00

5/28/99

PROJECT REFERENCE NO.	SHEET NO.
U-3621B	12
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

STRATIGRAPHY ON PROFILE IS DRAWN FROM BORING TO BORING





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-9	CL	66+00	0.0-1.5	A-7-6(7)	44	19	36.4	18.0	19.4	26.3	98	78	51	-	-
SS-10	CL	66+00	4.4-5.9	A-2-6(0)	31	12	64.2	14.7	10.9	10.1	98	49	22	-	-
SS-11	CL	66+00	9.4-10.9	A-7-6(9)	42	28	14.1	36.8	16.8	32.3	94	87	50	-	-
S-7	5 RT	69+00	0.0-4.0	A-7-6(16)	44	25	6.5	33.9	23.2	36.4	100	96	70	-	-
S-8	5 RT	69+00	4.0-9.1	A-6(5)	36	16	16.4	39.2	20.2	24.2	100	90	52	-	-
SS-5	60 LT	72+00	0.0-1.5	A-4(0)	14	2	27.9	32.3	33.7	6.1	100	83	44	-	-
SS-6	60 LT	72+00	4.6-6.1	A-7-6(44)	74	45	7.7	7.1	20.6	64.6	100	95	86	-	-
S-3	35 LT	75+00	0.0-3.0	A-4(1)	21	8	25.1	29.7	27.1	18.2	99	84	49	-	-
S-4	35 LT	75+00	3.0-9.5	A-6(7)	35	18	19.8	28.3	25.7	26.3	100	87	55	-	-
SS-1	50 RT	80+00	0.0-1.5	A-2-6(0)	26	11	41.0	28.5	16.4	14.1	92	65	31	-	-
SS-2	50 RT	80+00	4.5-6.0	A-2-4(0)	20	3	59.6	21.8	10.5	8.1	89	52	18	-	-

SEE PLAN SHEET 9 FOR PLAN VIEW

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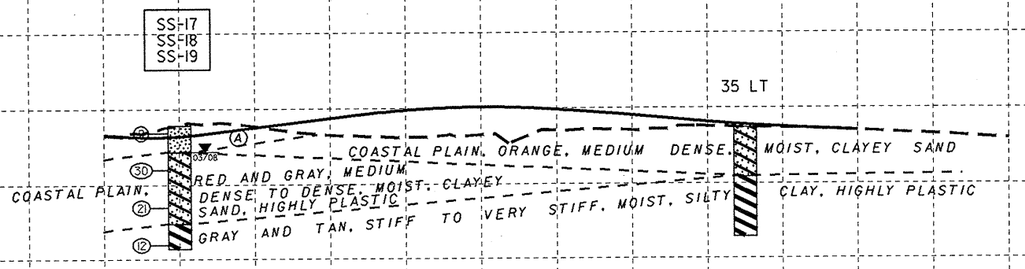
PROJECT REFERENCE NO.	SHEET NO.
U-3621B	13
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

STRATIGRAPHY ON PROFILE IS DRAWN FROM BORING TO BORING

-SR1-

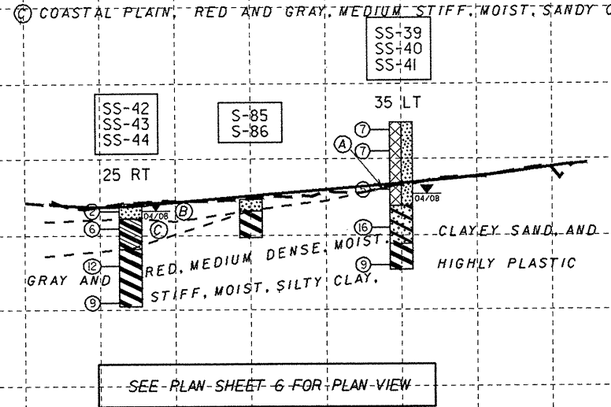


SOIL TEST RESULTS

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-17	CL	10+50	0.0-1.5	A-2-4(0)	18	7	41.6	27.3	17.0	14.1	100	72	34	-	-
SS-18	CL	10+50	4.8-6.3	A-2-7(3)	51	26	54.1	11.7	7.9	26.3	99	55	35	-	-
SS-19	CL	10+50	14.8-16.3	A-7-5(43)	69	36	1.0	1.8	24.4	72.7	100	100	97	-	-

-Y13A-

(A) ARTIFICIAL FILL, TAN AND GRAY, LOOSE, MOIST, SILTY SAND
(B) COASTAL PLAIN, GRAY, VERY LOOSE, MOIST, SILTY SAND
(C) COASTAL PLAIN, RED AND GRAY, MEDIUM STIFF, MOIST, SANDY CLAY



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-42	25 RT	10+70	0.0-1.5	A-2-4(0)	17	NP	52.8	36.1	9.0	2.0	99	69	14	-	-
SS-43	25 RT	10+70	2.3-3.8	A-6(4)	35	21	29.8	31.7	12.1	26.4	100	82	41	-	-
SS-44	25 RT	10+70	7.3-8.8	A-7-6(55)	73	48	0.2	0.4	26.3	73.1	99	99	99	-	-
S-85	CL	11+50	0.0-1.5	A-2-4(0)	11	NP	40.5	35.9	13.5	10.1	100	74	27	-	-
S-86	CL	11+50	1.5-5.0	A-7-6(12)	46	27	20.3	26.1	11.0	42.6	100	88	56	-	-
SS-39	35 LT	12+50	0.0-1.5	A-2-4(0)	14	NP	49.7	30.9	13.3	6.1	100	70	22	-	-
SS-40	35 LT	12+50	12.9-14.4	A-2-7(3)	52	31	60.1	7.9	5.6	26.4	93	48	30	-	-
SS-41	35 LT	12+50	17.9-19.4	A-7-6(64)	86	58	0.8	1.2	18.8	79.2	97	97	95	-	-

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	U-3621B	14

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115 110 105

Ⓐ

COASTAL PLAIN, ORANGE AND GRAY, STIFF, MOIST, HIGHLY PLASTIC, SILTY CLAY

27+00.00

115 110 105

Ⓐ

COASTAL PLAIN, ORANGE AND GRAY, STIFF, MOIST, HIGHLY PLASTIC, SILTY CLAY

26+50.00

115 110 105

Ⓐ

COASTAL PLAIN, GRAY, MEDIUM STIFF, MOIST, SANDY SILT

Ⓐ ROADWAY EMBANKMENT, ORANGE, GRAY AND BROWN, MEDIUM STIFF, MOIST, SANDY SILT, AND STIFF, MOIST, HIGHLY PLASTIC, SILTY CLAY

26+00.00

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	U-3621B	15

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115 110

-Y11-

Ⓐ

COASTAL PLAIN, ORANGE AND GRAY, STIFF, MOIST, HIGHLY PLASTIC, SILTY CLAY

28+50.00

115 110 105

COASTAL PLAIN, ORANGE AND GRAY, STIFF, MOIST, HIGHLY PLASTIC, SILTY CLAY

Ⓐ

28+00.00

SOIL TEST RESULTS

SAMPLE NO.	OFFSET	STATION	DEPTH INTERVAL	AASHTO CLASS.	L.L.	P.I.	% BY WEIGHT				% PASSING (SIEVES)			% MOISTURE	% ORGANIC
							C.SAND	F.SAND	SILT	CLAY	10	40	200		
S-71	20 LT	27+50	0.0-4.0	A-7-6(19)	47	30	13.8	21.3	22.2	42.6	100	91	70	-	-
S-72	20 LT	27+50	4.0-7.6	A-7-6(36)	57	40	4.1	13.2	25.9	56.9	100	97	87	-	-

S-71
S-72

125 120 115 110 105 100

04/08

COASTAL PLAIN, ORANGE AND GRAY, STIFF, MOIST, HIGHLY PLASTIC, SILTY CLAY

Ⓐ ROADWAY EMBANKMENT, ORANGE, GRAY AND BROWN, MEDIUM STIFF, MOIST, SANDY SILT, AND STIFF, MOIST, HIGHLY PLASTIC, SILTY CLAY

27+50.00

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PROJ. REFERENCE NO.	SHEET NO.
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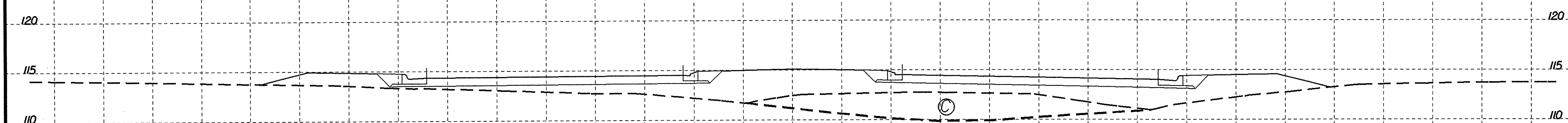
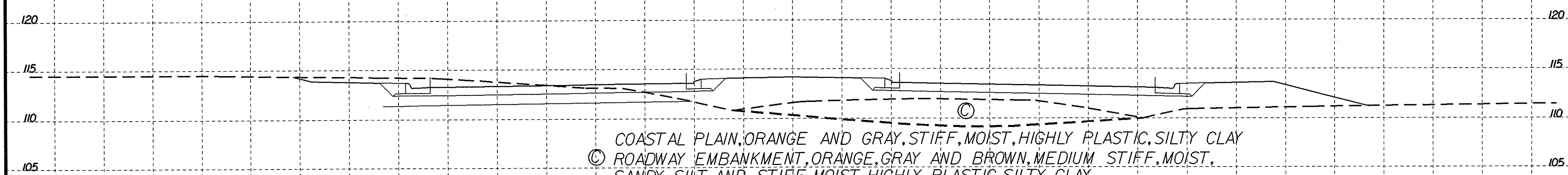


COASTAL PLAIN, ORANGE, STIFF, MOIST, HIGHLY PLASTIC, SILTY CLAY

30+00.00



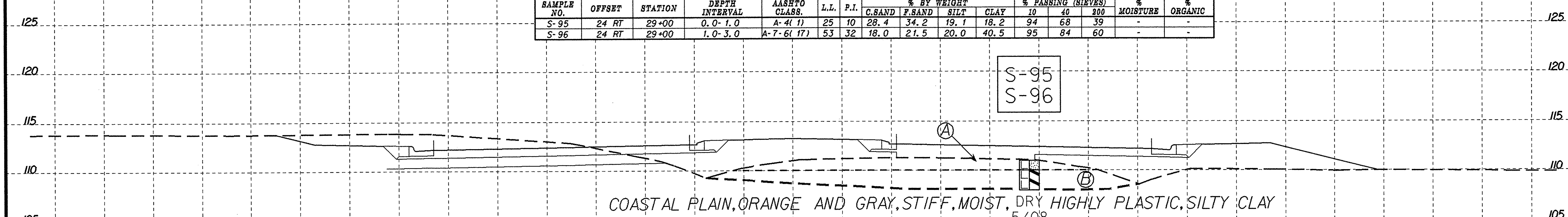
COASTAL PLAIN, ORANGE AND GRAY, STIFF, MOIST, HIGHLY PLASTIC, SILTY CLAY

© ROADWAY EMBANKMENT, ORANGE, GRAY AND BROWN, MEDIUM STIFF, MOIST, SANDY SILT, AND STIFF, MOIST, HIGHLY PLASTIC, SILTY CLAY

29+50.00

SOIL TEST RESULTS

SAMPLE NO.	OFFSET	STATION	DEPTH INTERVAL	AASHTO CLASS.	L.L.	P.I.	% BY WEIGHT				% PASSING (SIEVES)			% MOISTURE	% ORGANIC
							C.SAND	F.SAND	SILT	CLAY	10	40	200		
S-95	24 RT	29+00	0.0-1.0	A-4(1)	25	10	28.4	34.2	19.1	18.2	94	68	39	-	-
S-96	24 RT	29+00	1.0-3.0	A-7-6(17)	53	32	18.0	21.5	20.0	40.5	95	84	60	-	-



COASTAL PLAIN, ORANGE AND GRAY, STIFF, MOIST, DRY 5/08 HIGHLY PLASTIC, SILTY CLAY

Ⓐ ROADWAY EMBANKMENT, BROWN, MEDIUM STIFF, MOIST, SANDY SILT

Ⓑ ROADWAY EMBANKMENT, ORANGE AND GRAY, STIFF, MOIST, HIGHLY PLASTIC, SILTY CLAY

29+00.00

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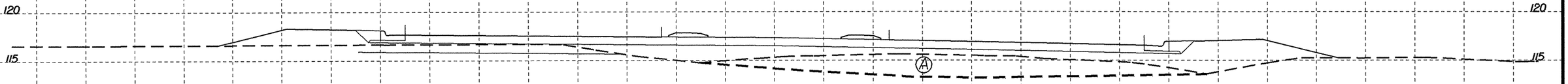
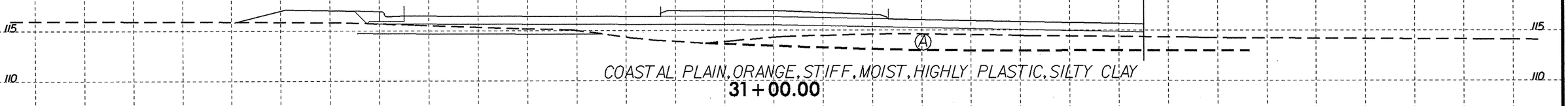


COASTAL PLAIN, ORANGE, STIFF, MOIST, HIGHLY PLASTIC, SILTY CLAY

31+50.00

-Y12-



COASTAL PLAIN, ORANGE, STIFF, MOIST, HIGHLY PLASTIC, SILTY CLAY

31+00.00

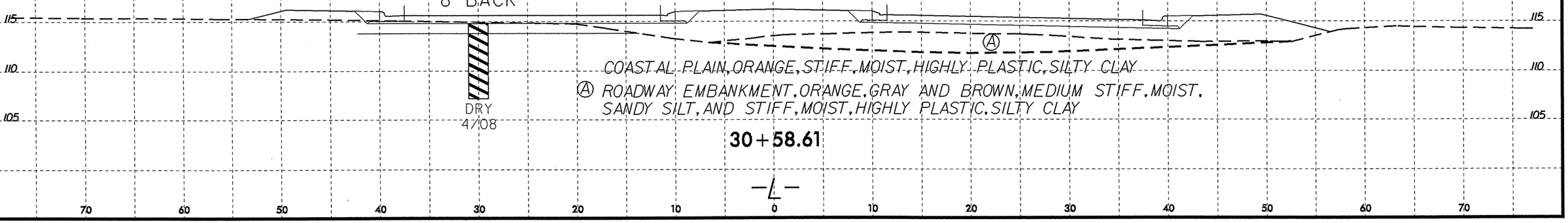
SOIL TEST RESULTS

SAMPLE NO.	OFFSET	STATION	DEPTH INTERVAL	AASHTO CLASS.	L.L.	P.I.	% BY WEIGHT				% PASSING (SIEVES)			% MOISTURE	% ORGANIC
							C.SAND	F.SAND	SILT	CLAY	10	40	200		
S-69	30 LT	30+50	0.0-5.0	A-7-6(17)	48	29	18.1	18.3	23.0	40.6	100	88	66	-	-
S-70	30 LT	30+50	5.0-7.6	A-7-6(12)	43	21	8.1	28.4	22.8	40.6	100	95	66	-	-

130 125 120 115 110 105

S-69
S-70

8' BACK



DRY
4/08

COASTAL PLAIN, ORANGE, STIFF, MOIST, HIGHLY PLASTIC, SILTY CLAY

Ⓐ ROADWAY EMBANKMENT, ORANGE, GRAY AND BROWN, MEDIUM STIFF, MOIST, SANDY SILT, AND STIFF, MOIST, HIGHLY PLASTIC, SILTY CLAY

30+58.61

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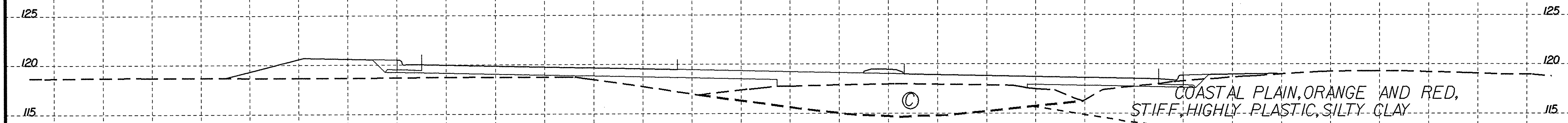
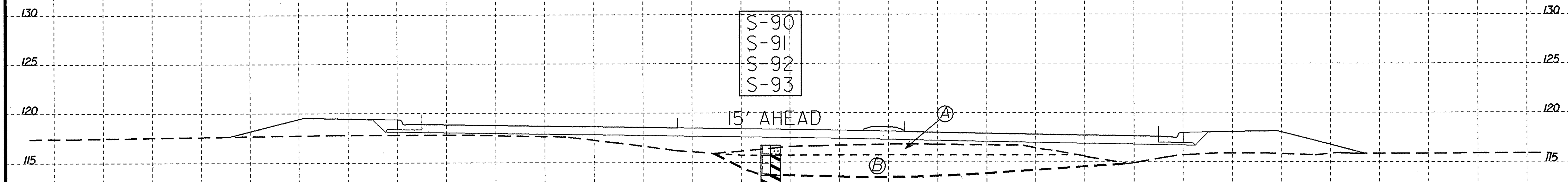


32+50.00

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-90	2 LT	32+15	0.0-1.0	A-2-4(0)	24	8	40.5	26.7	10.4	22.3	90	66	32	-	-
S-91	2 LT	32+15	1.0-2.0	A-7-6(11)	42	26	7.3	37.5	16.7	38.5	96	91	56	-	-
S-92	2 LT	32+15	2.0-3.0	A-7-6(21)	48	30	8.5	18.4	22.4	50.7	97	94	73	-	-
S-93	2 LT	32+15	3.0-4.0	A-7-6(18)	48	29	12.2	21.1	24.2	42.6	99	93	68	-	-



32+00.00

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125
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115

COASTAL PLAIN, ORANGE AND GRAY, STIFF, MOIST, SANDY CLAY

Ⓑ COASTAL PLAIN, TAN, MEDIUM STIFF, MOIST, SANDY SILT

33+50.00

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

125
120
115

COASTAL PLAIN, ORANGE AND GRAY, STIFF, MOIST, SANDY CLAY

33+00.00

COASTAL PLAIN, ORANGE AND RED, STIFF, HIGHLY PLASTIC, SILTY CLAY

125
120
115

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-94	40 LT	32+75	0.0-4.0	A-6(12)	36	19	17.6	11.6	32.3	38.5	100	88	72	-	-

130
125
120
115
110

S-94

3' BEHIND

DRY
5/08

COASTAL PLAIN, ORANGE AND GRAY, STIFF, MOIST, SANDY CLAY

Ⓐ ROADWAY EMBANKMENT, TAN, ORANGE AND GRAY, LOOSE, MOIST, SILTY SAND, AND STIFF, MOIST, HIGHLY PLASTIC, SILTY CLAY

32+78.61

COASTAL PLAIN, ORANGE AND RED, STIFF, HIGHLY PLASTIC, SILTY CLAY

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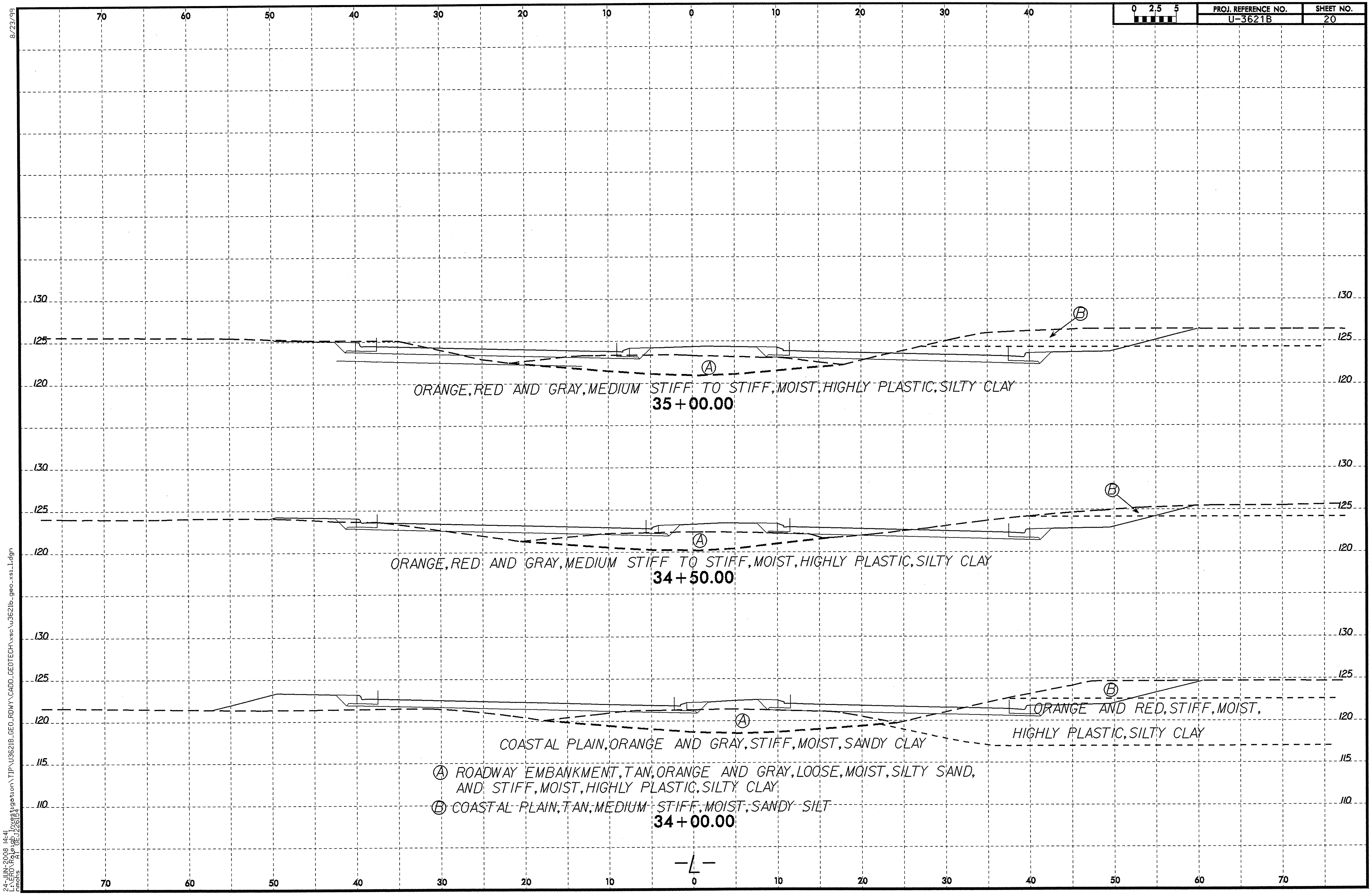

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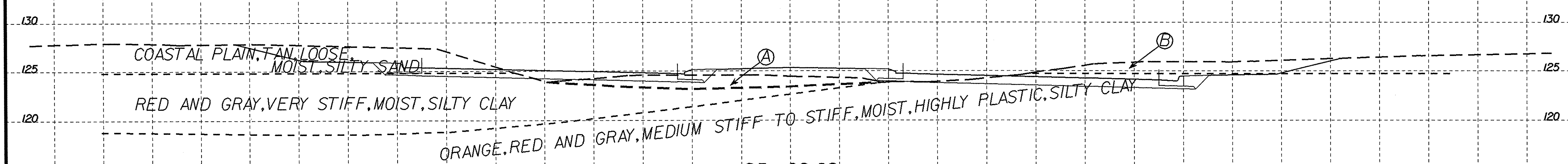
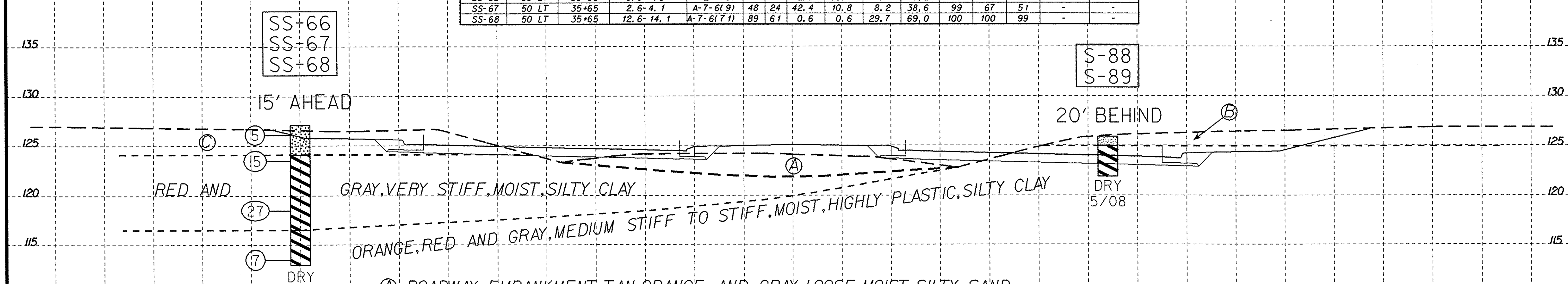


35+83.02

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-88	32 RT	35+30	0.0-1.0	A-4(0)	23	10	36.7	27.0	14.1	22.3	99	77	39	-	-
S-89	32 RT	35+30	1.0-4.0	A-7-6(12)	48	27	26.7	20.9	11.9	40.5	100	82	55	-	-
SS-66	50 LT	35+65	0.0-1.5	A-2-4(0)	14	NP	42.6	33.1	14.1	10.2	100	73	28	-	-
SS-67	50 LT	35+65	2.6-4.1	A-7-6(9)	48	24	42.4	10.8	8.2	38.6	99	67	51	-	-
SS-68	50 LT	35+65	12.6-14.1	A-7-6(71)	89	61	0.6	0.6	29.7	69.0	100	100	99	-	-



Ⓐ ROADWAY EMBANKMENT,TAN,ORANGE AND GRAY,LOOSE,MOIST,SILTY SAND, AND STIFF,MOIST,HIGHLY PLASTIC,SILTY CLAY

Ⓑ COASTAL PLAIN,TAN,MEDIUM STIFF,MOIST,SANDY SILT

Ⓒ COASTAL PLAIN,TAN,LOOSE,MOIST,SILTY SAND

35+50.00

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ROADWAY EMBANKMENT, TAN, ORANGE AND GRAY, LOOSE, MOIST, SILTY SAND, AND STIFF, MOIST, HIGHLY PLASTIC, SILTY CLAY

COASTAL PLAIN, ORANGE, STIFF, MOIST, SANDY CLAY

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

37+00.00

130
125
120

Ⓒ Ⓐ Ⓑ

RED AND GRAY, VERY STIFF, MOIST, SILTY CLAY

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

36+50.00

130
125
120
115
110

COASTAL PLAIN, TAN, LOOSE, MOIST, SILTY SAND

Ⓐ Ⓑ

RED AND GRAY, VERY STIFF, MOIST, SILTY CLAY

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

Ⓐ ROADWAY EMBANKMENT, TAN, ORANGE AND GRAY, LOOSE, MOIST, SILTY SAND, AND STIFF, MOIST, HIGHLY PLASTIC, SILTY CLAY

Ⓑ COASTAL PLAIN, TAN, MEDIUM STIFF, MOIST, SANDY SILT

Ⓒ COASTAL PLAIN, TAN, LOOSE, MOIST, SILTY SAND

36+00.00

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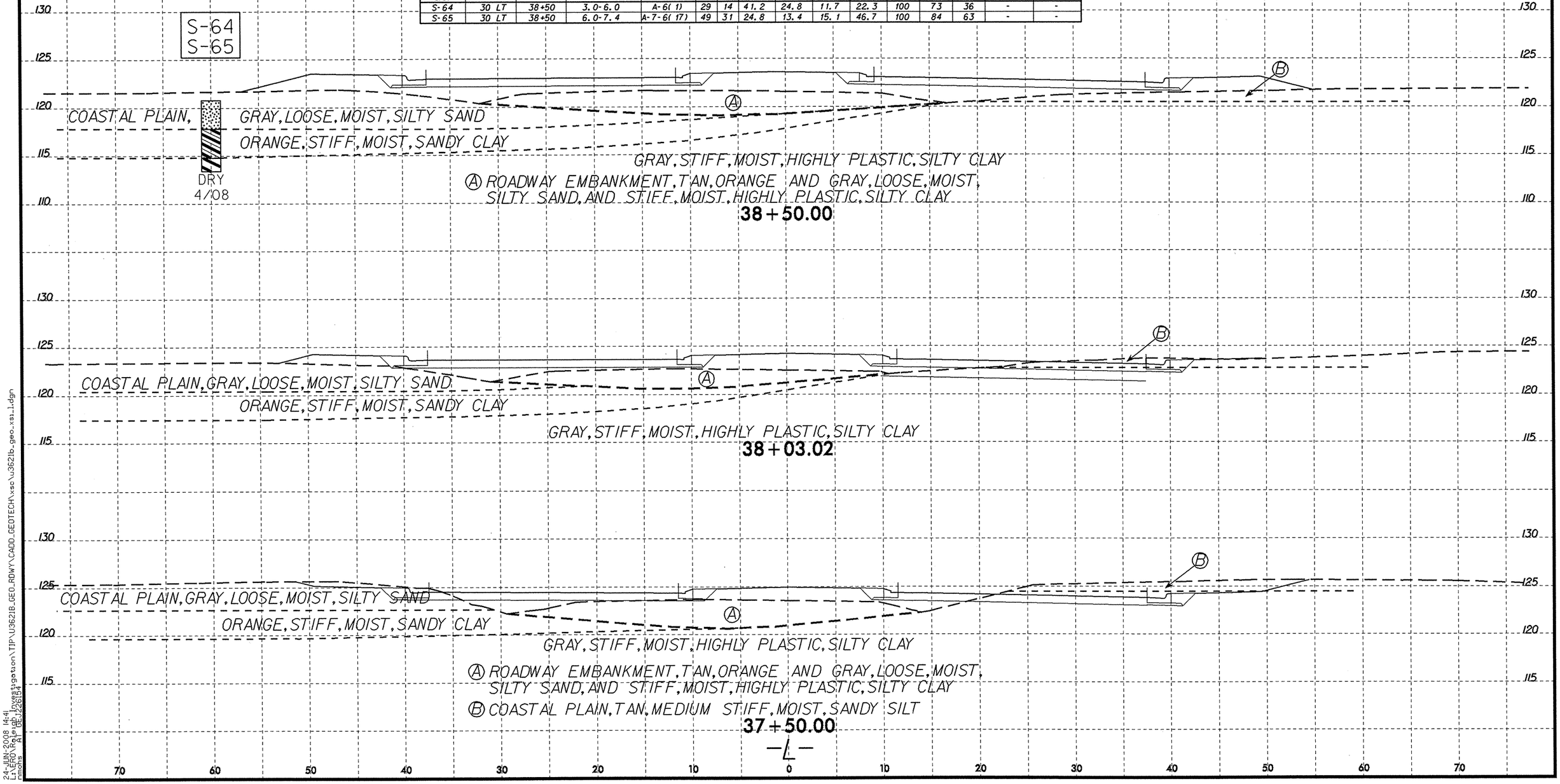
0 2.5 5	PROJ. REFERENCE NO.	SHEET NO.
	U-3621B	23

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-64	30 LT	38+50	3.0-6.0	A-6(1)	29	14	41.2	24.8	11.7	22.3	100	73	36	-	-
S-65	30 LT	38+50	6.0-7.4	A-7-6(17)	49	31	24.8	13.4	15.1	46.7	100	84	63	-	-



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0 2.5 5	PROJ. REFERENCE NO.	SHEET NO.
	U-3621B	24

SOIL TEST RESULTS

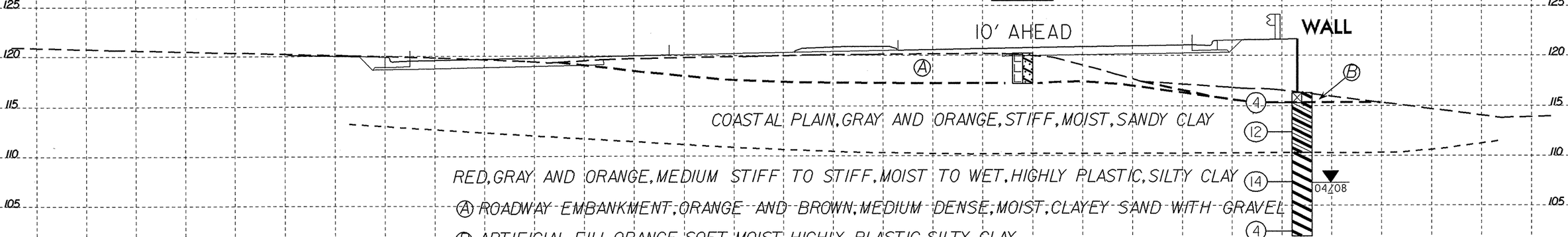
SAMPLE NO.	OFFSET	STATION	DEPTH INTERVAL	AASHTO CLASS.	L.L.	P.I.	% BY WEIGHT				% PASSING (SIEVES)			% MOISTURE	% ORGANIC
							C.SAND	F.SAND	SILT	CLAY	10	40	200		
SS-45	52 RT	44+90	0.0-1.5	A-7-6(7)	48	27	35.5	17.3	16.8	30.5	86	61	44	-	-
SS-46	52 RT	44+90	2.9-4.4	A-6(4)	35	19	37.6	21.9	16.1	24.4	99	76	42	-	-
SS-47	52 RT	44+90	7.1-9.4	A-7-6(41)	63	39	2.8	3.5	30.8	62.9	100	98	94	-	-
SS-48	52 RT	44+90	12.9-14.4	A-7-6(9)	52	24	29.6	21.7	16.1	32.5	96	74	50	-	-
S-87	24 RT	45+00	0.0-3.0	A-2-6(1)	33	16	37.7	30.0	12.1	20.3	88	58	30	-	-

SS-45
SS-46
SS-47
SS-48

S-87

10' AHEAD

WALL



COASTAL PLAIN, GRAY AND ORANGE, STIFF, MOIST, SANDY CLAY

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

Ⓐ ROADWAY EMBANKMENT, ORANGE AND BROWN, MEDIUM DENSE, MOIST, CLAYEY SAND WITH GRAVEL

Ⓑ ARTIFICIAL FILL, ORANGE, SOFT, MOIST, HIGHLY PLASTIC, SILTY CLAY

44+90.46

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PROJ. REFERENCE NO.	SHEET NO.
U-3621B	25

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COASTAL PLAIN, GRAY AND TAN, LOOSE, MOIST TO SATURATED, SILTY SAND

GRAY, STIFF, MOIST, HIGHLY PLASTIC, SILTY CLAY

11+00.00

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-42	25 RT	10+70	0.0-1.5	A-2-4(0)	17	NP	52.8	36.1	9.0	2.0	99	69	14	-	-
SS-43	25 RT	10+70	2.3-3.8	A-6(4)	35	21	29.8	31.7	12.1	26.4	100	82	41	-	-
SS-44	25 RT	10+70	7.3-8.8	A-7-6(55)	73	48	0.2	0.4	26.3	73.1	99	99	99	-	-

SS-42
SS-43
SS-44

20' AHEAD

145 140 135 130 125 120 115 110

COASTAL PLAIN, GRAY, VERY LOOSE, SATURATED, SILTY SAND (2) 04/08

RED AND GRAY, MEDIUM STIFF, MOIST, SANDY CLAY (6)

GRAY, STIFF, MOIST, HIGHLY PLASTIC, SILTY CLAY (12)

(9)

10+50.00

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0 2.5 5	PROJ. REFERENCE NO.	SHEET NO.
	U-3621B	26

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135 130 125 120

ARTIFICIAL FILL, TAN AND GRAY, LOOSE, MOIST, SILTY SAND

COASTAL PLAIN, TAN, LOOSE, MOIST, SILTY SAND

COASTAL PLAIN, GRAY AND RED, MEDIUM DENSE, MOIST, HIGHLY PLASTIC, CLAYEY SAND

12+00.00

140 135 130 125 120

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	11+50	0.0-1.5	A-2-4(0)	11	NP	40.5	35.9	13.5	10.1	100	74	27	-	-
S-86	CL	11+50	1.5-5.0	A-7-6(12)	46	27	20.3	26.1	11.0	42.6	100	88	56	-	-

S-85
S-86

SILTY SAND

COASTAL PLAIN, TAN, LOOSE, MOIST,

ORANGE, STIFF, MOIST, HIGHLY PLASTIC, SILTY CLAY

DRY
05/08

11+50.00

-Y13A-

140 135 130 125 120

70 60 50 40 30 20 10 0 10 20 30 40 50 60 70

8/23/99

PROJ. REFERENCE NO.	SHEET NO.
U-3621B	27

0 2.5 5

70 60 50 40 30 20 10 0 10 20 30 40

135 130 125

COASTAL PLAIN, GRAY AND RED, MEDIUM DENSE, MOIST, HIGHLY PLASTIC, CLAYEY SAND

13+37.94

135 130 125

ARTIFICIAL FILL, TAN AND GRAY, LOOSE, MOIST, SILTY SAND

COASTAL PLAIN, GRAY AND RED, MEDIUM DENSE, MOIST, HIGHLY PLASTIC, CLAYEY SAND

13+00.00

SOIL TEST RESULTS

SAMPLE NO.	OFFSET	STATION	DEPTH INTERVAL	AASHTO CLASS.	L.L.	P.I.	% BY WEIGHT				% PASSING (SIEVES)			% MOISTURE	% ORGANIC
							C.SAND	F.SAND	SILT	CLAY	10	40	200		
SS-39	35 LT	12+50	0.0- 1.5	A-2-4(0)	14	NP	49.7	30.9	13.3	6.1	100	70	22	-	-
SS-40	35 LT	12+50	12.9- 14.4	A-2-7(3)	52	31	60.1	7.9	5.6	26.4	93	48	30	-	-
SS-41	35 LT	12+50	17.9- 19.4	A-7-6(64)	86	58	0.8	1.2	18.8	79.2	97	97	95	-	-

150 145 140 135 130 125 120 115

SS-39
SS-40
SS-41

7 7 5 16 9

ARTIFICIAL FILL, TAN AND GRAY, LOOSE, MOIST, SILTY SAND

04/08

COASTAL PLAIN, GRAY AND RED, MEDIUM DENSE, MOIST, HIGHLY PLASTIC, CLAYEY SAND

GRAY, STIFF, MOIST, HIGHLY PLASTIC, SILTY CLAY

12+50.00

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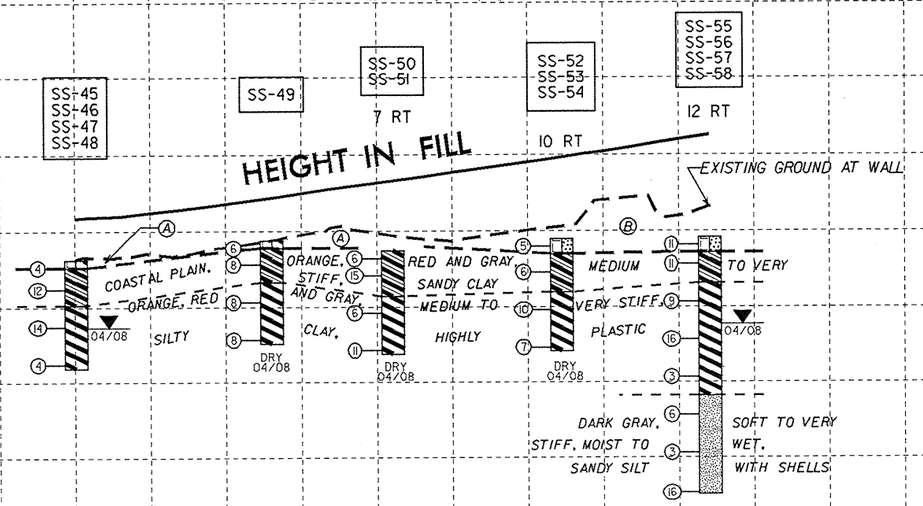
PROJECT REFERENCE NO.	SHEET NO.
U-3621B	28
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

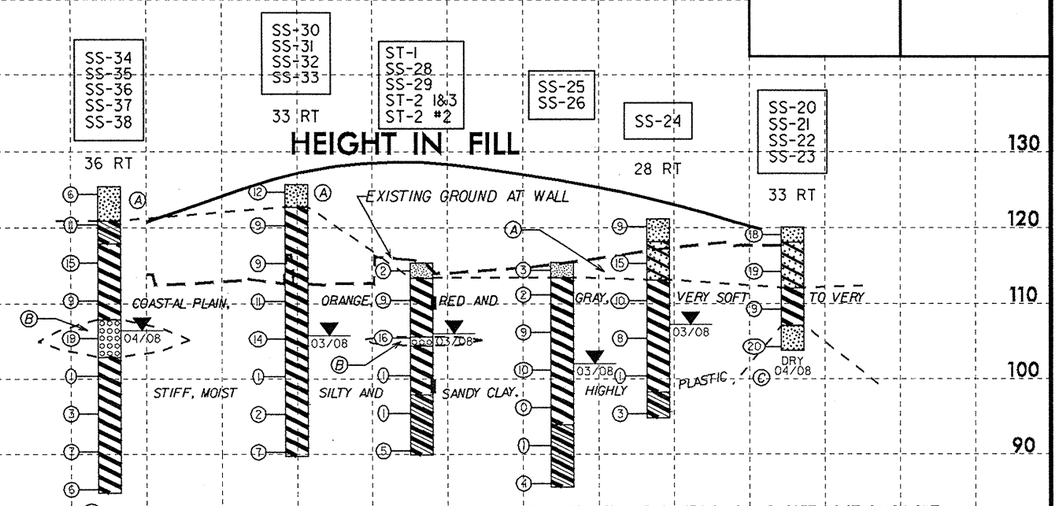
RETAINING WALL 1



(A) ROADWAY EMBANKMENT, ORANGE, SOFT TO MEDIUM STIFF, MOIST, SILTY CLAY, HIGHLY PLASTIC
(B) ROADWAY EMBANKMENT, TAN AND GRAY, LOOSE TO MEDIUM DENSE, MOIST, SILTY SAND

-WALL 1-

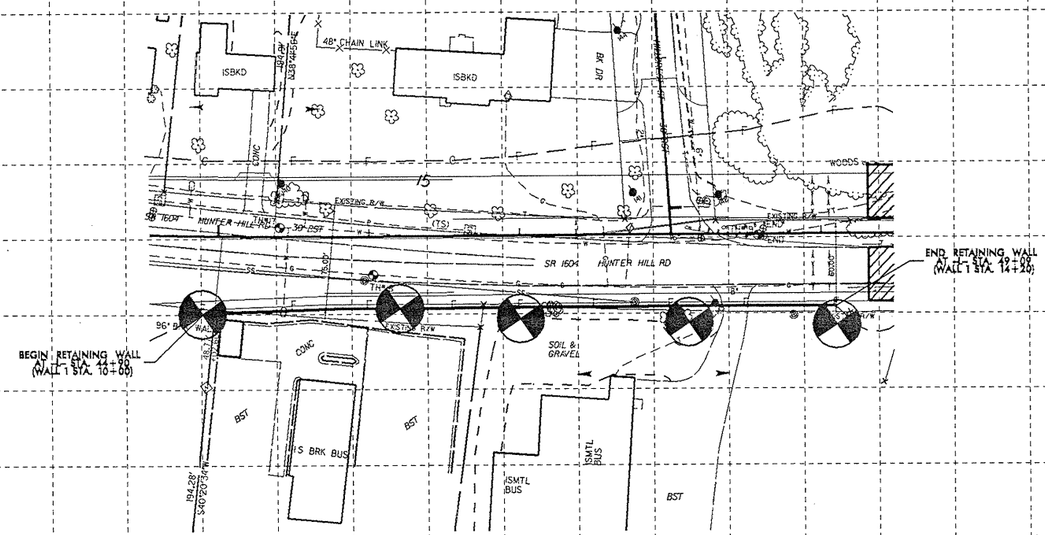
RETAINING WALL 2



(A) COASTAL PLAIN, ORANGE, TAN AND GRAY, LOOSE TO MEDIUM DENSE, MOIST, SILTY AND CLAYEY SAND AND SOFT, MOIST, SANDY SILT
(B) GRAY AND ORANGE, MEDIUM DENSE, WET, COARSE SAND
(C) ORANGE AND TAN, MEDIUM DENSE, MOIST, SILTY SAND

-WALL 2-

10 11 12 13 14



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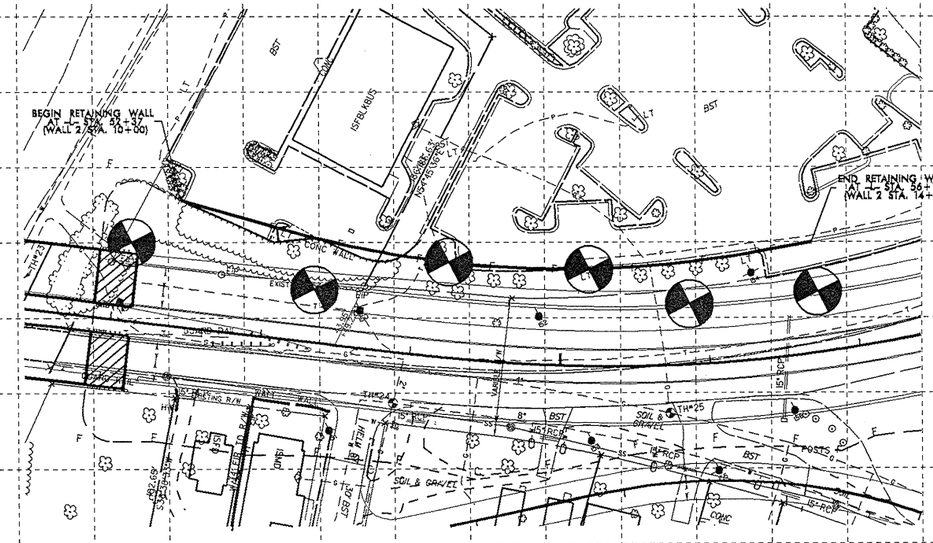

PROJECT REFERENCE NO.	SHEET NO.
U-6321B	29
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

RETAINING WALL 1

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-45	CL	10+00	0.0- 1.5	A-7-6(17)	48	27	35.5	17.3	16.8	30.5	86	61	44	-	-
SS-46	CL	10+00	2.9- 4.4	A-6(4)	35	19	37.6	21.9	16.1	24.4	99	76	42	-	-
SS-47	CL	10+00	7.1- 9.4	A-7-6(41)	63	39	2.8	3.5	30.8	62.9	100	98	94	-	-
SS-48	CL	10+00	12.9- 14.4	A-7-6(9)	52	24	29.6	21.7	16.1	32.5	96	74	50	-	-
SS-49	CL	11+31	7.1- 8.6	A-7-5(73)	91	61	0.2	0.2	28.5	71.1	100	100	100	-	-
SS-50	7 RT	12+11	0.0- 1.5	A-6(4)	35	20	37.4	22.9	27.5	12.2	100	76	42	-	-
SS-51	7 RT	12+11	7.2- 8.7	A-7-5(48)	79	37	0.6	1.0	31.4	67.0	100	100	99	-	-
SS-52	10 RT	13+23	0.0- 1.0	A-2-4(0)	24	9	45.3	22.9	15.5	16.2	97	63	35	-	-
SS-53	10 RT	13+23	3.3- 4.8	A-6(3)	35	20	37.4	24.8	13.5	24.4	100	76	40	-	-
SS-54	10 RT	13+23	8.3- 9.8	A-7-6(52)	74	45	1.2	1.6	28.1	69.0	100	99	97	-	-
SS-55	10 RT	14+21	0.0- 1.5	A-2-4(0)	14	NP	51.2	32.3	12.5	4.1	100	67	19	-	-
SS-56	10 RT	14+21	7.5- 9.0	A-7-5(53)	81	42	0.4	0.4	28.1	71.1	100	100	99	-	-
SS-57	10 RT	14+21	17.5- 19.0	A-7-6(12)	45	31	17.3	32.5	15.7	34.5	100	93	54	-	-
SS-58	10 RT	14+21	22.5- 24.0	A-4(0)	23	NP	4.3	37.4	42.1	16.2	100	96	74	-	-

RETAINING WALL 2

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-34	36 RT	9+75	4.0- 5.5	A-6(5)	38	18	29.1	24.2	12.3	34.3	100	83	49	-	-
SS-35	36 RT	9+75	9.0- 10.5	A-7-5(10)	52	21	32.7	11.9	17.0	38.4	99	73	56	-	-
SS-36	36 RT	9+75	19.0- 20.5	A-1-b(0)	20	NP	79.2	13.9	6.9	0.0	98	44	8	-	-
SS-37	36 RT	9+75	24.0- 25.5	A-7-6(41)	57	39	1.2	7.9	42.4	48.5	100	99	96	-	-
SS-38	36 RT	9+75	29.0- 30.5	A-7-6(11)	41	19	15.6	28.6	41.5	14.2	99	90	65	-	-
SS-30	33 RT	11+00	0.0- 1.5	A-2-4(0)	14	NP	49.5	32.5	16.0	2.0	100	70	21	-	-
SS-31	33 RT	11+00	4.4- 5.9	A-7-6(10)	43	26	28.9	22.2	18.6	30.3	100	82	52	-	-
SS-32	33 RT	11+00	9.4- 10.9	A-7-6(51)	71	49	3.2	3.6	24.4	68.7	99	97	93	-	-
SS-33	33 RT	11+00	24.4- 25.9	A-7-6(30)	49	31	2.2	10.3	49.1	38.4	100	99	92	-	-
ST-1	CL	11+83	4.4- 6.2	A-7-6(61)	83	57	1.0	2.0	24.2	72.7	95	94	93	-	-
SS-28	CL	11+83	8.9- 10.4	A-1-b(0)	21	NP	75.6	10.7	7.7	6.1	99	46	15	-	-
SS-29	CL	11+83	13.9- 15.4	A-7-6(34)	59	31	2.0	10.1	33.3	54.5	100	99	94	-	-
ST-2 183	CL	11+83	15.4- 17.4	A-7-6(16)	48	27	19.5	16.6	35.6	28.4	99	85	65	-	-
ST-2 #2	CL	11+83	15.4- 17.4	A-6(5)	35	18	31.8	20.3	25.6	22.3	99	82	50	-	-
SS-25	CL	12+76	0.0- 1.5	A-4(2)	25	10	32.7	15.6	27.5	24.2	99	75	53	-	-
SS-26	CL	12+76	3.3- 4.8	A-7-6(12)	41	18	17.6	13.9	28.1	40.4	100	88	70	-	-
SS-24	28 RT	13+40	24.8- 26.3	A-6(12)	36	17	0.8	38.2	40.8	20.2	100	100	79	-	-
SS-20	35 RT	14+25	0.0- 1.5	A-2-4(0)	14	1	49.1	25.7	19.2	6.1	96	61	27	-	-
SS-21	35 RT	14+25	4.8- 6.3	A-2-7(6)	73	48	64.6	4.2	6.9	24.2	97	44	31	-	-
SS-22	35 RT	14+25	9.8- 11.3	A-7-5(76)	94	63	0.2	0.8	28.3	70.7	100	100	100	-	-
SS-23	35 RT	14+25	14.8- 16.3	A-2-4(0)	22	NP	50.1	31.9	9.9	8.1	100	84	19	-	-

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