

REFERENCE: U-5760

PROJECT: 46381

CONTENTS

<u>SHEET NO.</u>	<u>DESCRIPTION</u>
1	TITLE SHEET
2	LEGEND (SOIL & ROCK)
3-6	SITE PLAN SHEETS
7-II	PROFILES

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

STRUCTURE
SUBSURFACE INVESTIGATION

COUNTY FORSYTH
PROJECT DESCRIPTION KERNERSVILLE SOUTHERN
LOOP, AT US 421/BUS. 40 TO NC 66 (WEST
MOUNTAIN ST.) IN KERNERSVILLE
SITE DESCRIPTION WALL 1, WALL 2, WALL 3 AND
WALL 4

STATE	STATE PROJECT REFERENCE NO.	SHEET NO.	TOTAL SHEETS
N.C.	U-5760	1	11

CAUTION NOTICE

THE SUBSURFACE INFORMATION AND THE SUBSURFACE INVESTIGATION ON WHICH IT IS BASED WERE MADE FOR THE PURPOSE OF STUDY, PLANNING AND DESIGN, AND NOT FOR CONSTRUCTION OR PAY PURPOSES. THE VARIOUS FIELD BORING LOGS, ROCK CORES AND SOIL TEST DATA AVAILABLE MAY BE REVIEWED OR INSPECTED IN RALEIGH BY CONTACTING THE N.C. DEPARTMENT OF TRANSPORTATION, GEOTECHNICAL ENGINEERING UNIT AT (919) 707-6850. THE SUBSURFACE PLANS AND REPORTS, FIELD BORING LOGS, ROCK CORES AND SOIL TEST DATA ARE NOT PART OF THE CONTRACT.

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

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

- NOTES:
- THE INFORMATION CONTAINED HEREIN IS NOT IMPLIED OR GUARANTEED BY THE N.C. DEPARTMENT OF TRANSPORTATION AS ACCURATE NOR IS IT CONSIDERED PART OF THE PLANS, SPECIFICATIONS OR CONTRACT FOR THE PROJECT.
 - BY HAVING REQUESTED THIS INFORMATION, THE CONTRACTOR SPECIFICALLY WAIVES ANY CLAIMS FOR INCREASED COMPENSATION OR EXTENSION OF TIME BASED ON DIFFERENCES BETWEEN THE CONDITIONS INDICATED HEREIN AND THE ACTUAL CONDITIONS AT THE PROJECT SITE.

PERSONNEL

C. L. SMITH

B. E. FOSTER

J. K. STICKNEY

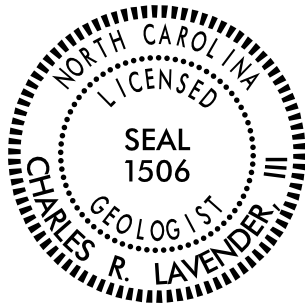
INVESTIGATED BY C. R. LAVENDER, III

DRAWN BY K. B. MILLER ^{DS}

CHECKED BY J. E. BEVERLY JEB

SUBMITTED BY K. B. MILLER ^{DS} [Signature]

DATE MAY 2021



DocuSigned by:

[Signature]

8EEA8D1BBA2E438...

SIGNATURE

5/12/2021

DATE

DOCUMENT NOT CONSIDERED FINAL
UNLESS ALL SIGNATURES COMPLETED

NORTH CAROLINA DEPARTMENT OF TRANSPORTATION

DIVISION OF HIGHWAYS

GEOTECHNICAL ENGINEERING UNIT

SUBSURFACE INVESTIGATION

SOIL AND ROCK LEGEND, TERMS, SYMBOLS, AND ABBREVIATIONS

SOIL DESCRIPTION										GRADATION										ROCK DESCRIPTION										TERMS AND DEFINITIONS									
SOIL IS CONSIDERED UNCONSOLIDATED, SEMI-CONSOLIDATED, OR WEATHERED EARTH MATERIALS THAT CAN BE PENETRATED WITH A CONTINUOUS FLIGHT POWER AUGER AND YIELD LESS THAN 100 BLOWS PER FOOT ACCORDING TO THE STANDARD PENETRATION TEST (AASHTO T 206, ASTM D1586). SOIL CLASSIFICATION IS BASED ON THE AASHTO SYSTEM. BASIC DESCRIPTIONS GENERALLY INCLUDE THE FOLLOWING: CONSISTENCY, COLOR, TEXTURE, MOISTURE, AASHTO CLASSIFICATION, AND OTHER PERTINENT FACTORS SUCH AS MINERALOGICAL COMPOSITION, ANGULARITY, STRUCTURE, PLASTICITY, ETC. FOR EXAMPLE, <i>VERY STIFF, GRAY, SILTY CLAY, MOIST WITH INTERBEDDED FINE SAND LAYERS, HIGHLY PLASTIC, A-7-6</i>										WELL GRADED - INDICATES A GOOD REPRESENTATION OF PARTICLE SIZES FROM FINE TO COARSE. UNIFORMLY GRADED - INDICATES THAT SOIL PARTICLES ARE ALL APPROXIMATELY THE SAME SIZE. GAP-GRADED - INDICATES A MIXTURE OF UNIFORM PARTICLE SIZES OF TWO OR MORE SIZES.										HARD ROCK IS NON-COASTAL PLAIN MATERIAL THAT WOULD YIELD SPT REFUSAL IF TESTED. AN INFERRED ROCK LINE INDICATES THE LEVEL AT WHICH NON-COASTAL PLAIN MATERIAL WOULD YIELD SPT REFUSAL. SPT REFUSAL IS PENETRATION BY A SPLIT SPOON SAMPLER EQUAL TO OR LESS THAN 0.1 FOOT PER 60 BLOWS IN NON-COASTAL PLAIN MATERIAL. THE TRANSITION BETWEEN SOIL AND ROCK IS OFTEN REPRESENTED BY A ZONE OF WEATHERED ROCK. ROCK MATERIALS ARE TYPICALLY DIVIDED AS FOLLOWS: 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 YIELD 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.										ALLUVIUM (ALLUV.) - SOILS THAT HAVE BEEN TRANSPORTED BY WATER. AQUIFER - A WATER BEARING FORMATION OR STRATA. ARENACEOUS - APPLIED TO ROCKS THAT HAVE BEEN DERIVED FROM SAND OR THAT CONTAIN SAND. ARGILLACEOUS - APPLIED TO ALL ROCKS OR SUBSTANCES COMPOSED OF CLAY MINERALS, OR HAVING A NOTABLE PROPORTION OF CLAY IN THEIR COMPOSITION, SUCH AS SHALE, SLATE, ETC. ARTESIAN - GROUND WATER THAT IS UNDER SUFFICIENT PRESSURE TO RISE ABOVE THE LEVEL AT WHICH IT IS ENCOUNTERED, BUT WHICH DOES NOT NECESSARILY RISE TO OR ABOVE THE GROUND SURFACE. CALCAREOUS (CALC.) - SOILS THAT CONTAIN APPRECIABLE AMOUNTS OF CALCIUM CARBONATE. COLLUVIUM - ROCK FRAGMENTS MIXED WITH SOIL DEPOSITED BY GRAVITY ON SLOPE OR AT BOTTOM OF SLOPE. CORE RECOVERY (REC.) - TOTAL LENGTH OF ALL MATERIAL RECOVERED IN THE CORE BARREL DIVIDED BY TOTAL LENGTH OF CORE RUN AND EXPRESSED AS A PERCENTAGE. DIKE - A TABULAR BODY OF IGNEOUS ROCK THAT CUTS ACROSS THE STRUCTURE OF ADJACENT ROCKS OR CUTS MASSIVE ROCK. DIP - THE ANGLE AT WHICH A STRATUM OR ANY PLANAR FEATURE IS INCLINED FROM THE HORIZONTAL. DIP DIRECTION (DIP AZIMUTH) - THE DIRECTION OR BEARING OF THE HORIZONTAL TRACE OF THE LINE OF DIP, MEASURED CLOCKWISE FROM NORTH. FAULT - A FRACTURE OR FRACTURE ZONE ALONG WHICH THERE HAS BEEN DISPLACEMENT OF THE SIDES RELATIVE TO ONE ANOTHER PARALLEL TO THE FRACTURE. FISSILE - A PROPERTY OF SPLITTING ALONG CLOSELY SPACED PARALLEL PLANES. FLOAT - ROCK FRAGMENTS ON SURFACE NEAR THEIR ORIGINAL POSITION AND DISLOOED FROM PARENT MATERIAL. FLOOD PLAIN (FP) - LAND BORDERING A STREAM, BUILT OF SEDIMENTS DEPOSITED BY THE STREAM. FORMATION (FM.) - A MAPPABLE GEOLOGIC UNIT THAT CAN BE RECOGNIZED AND TRACED IN THE FIELD. JOINT - FRACTURE IN ROCK ALONG WHICH NO APPRECIABLE MOVEMENT HAS OCCURRED. LEDGE - A SHELF-LIKE RIDGE OR PROJECTION OF ROCK WHOSE THICKNESS IS SMALL COMPARED TO ITS LATERAL EXTENT. LENS - A BODY OF SOIL OR ROCK THAT THINS OUT IN ONE OR MORE DIRECTIONS. MOTTLED (MOT.) - IRREGULARLY MARKED WITH SPOTS OF DIFFERENT COLORS. MOTTLING IN SOILS USUALLY INDICATES POOR AERATION AND LACK OF GOOD DRAINAGE. PERCHED WATER - WATER MAINTAINED ABOVE THE NORMAL GROUND WATER LEVEL BY THE PRESENCE OF AN INTERVENING IMPERVIOUS STRATUM. RESIDUAL (RES.) SOIL - SOIL FORMED IN PLACE BY THE WEATHERING OF ROCK. ROCK QUALITY DESIGNATION (ROD) - A MEASURE OF ROCK QUALITY DESCRIBED BY TOTAL LENGTH OF ROCK SEGMENTS EQUAL TO OR GREATER THAN 4 INCHES DIVIDED BY THE TOTAL LENGTH OF CORE RUN AND EXPRESSED AS A PERCENTAGE. SAPROLITE (SAP.) - RESIDUAL SOIL THAT RETAINS THE RELIC STRUCTURE OR FABRIC OF THE PARENT ROCK. SILL - AN INTRUSIVE BODY OF IGNEOUS ROCK OF APPROXIMATELY UNIFORM THICKNESS AND RELATIVELY THIN COMPARED WITH ITS LATERAL EXTENT, THAT HAS BEEN EMPLACED PARALLEL TO THE BEDDING OR SCHISTOSITY OF THE INTRUDED ROCKS. SLICKENSIDE - POLISHED AND STRIATED SURFACE THAT RESULTS FROM FRICTION ALONG A FAULT OR SLIP PLANE. STANDARD PENETRATION TEST (PENETRATION RESISTANCE) (SPT) - NUMBER OF BLOWS (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 (SROD) - A MEASURE OF ROCK QUALITY DESCRIBED BY TOTAL LENGTH OF ROCK SEGMENTS WITHIN A STRATUM EQUAL TO OR GREATER THAN 4 INCHES DIVIDED BY THE TOTAL LENGTH OF STRATA AND EXPRESSED AS A PERCENTAGE. TOPSOIL (TS.) - SURFACE SOILS USUALLY CONTAINING ORGANIC MATTER.									
SOIL LEGEND AND AASHTO CLASSIFICATION										MINERALOGICAL COMPOSITION										WEATHERING																			
GENERAL CLASS.										MINERAL NAMES SUCH AS QUARTZ, FELDSPAR, MICA, TALC, KAOLIN, ETC. ARE USED IN DESCRIPTIONS WHEN THEY ARE CONSIDERED OF SIGNIFICANCE.										FRESH ROCK FRESH, CRYSTALS BRIGHT, FEW JOINTS MAY SHOW SLIGHT STAINING. ROCK RINGS UNDER HAMMER IF CRYSTALLINE.																			
GROUP CLASS.																				VERY SLIGHT (V SL.) 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.																			
SYMBOL																				SLIGHT (SL.) 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.																			
% PASSING #10 #40 #200										SLIGHTLY COMPRESSIBLE MODERATELY COMPRESSIBLE HIGHLY COMPRESSIBLE										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.																			
MATERIAL PASSING #40 LL PI										PERCENTAGE OF MATERIAL										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. <i>IF TESTED, WOULD YIELD SPT REFUSAL</i>																			
GROUP INDEX										GROUND WATER										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. <i>IF TESTED, WOULD YIELD SPT N VALUES > 100 BPF</i>																			
USUAL TYPES OF MAJOR MATERIALS										MISCELLANEOUS SYMBOLS										VERY SEVERE (V SEV.) ALL ROCK EXCEPT QUARTZ DISCOLORED OR STAINED. ROCK FABRIC ELEMENTS ARE DISCERNIBLE BUT MASS IS EFFECTIVELY REDUCED TO SOIL STATUS, WITH ONLY FRAGMENTS OF STRONG ROCK REMAINING. SAPROLITE IS AN EXAMPLE OF ROCK WEATHERED TO A DEGREE THAT ONLY MINOR VESTIGES OF ORIGINAL ROCK FABRIC REMAIN. <i>IF TESTED, WOULD YIELD SPT N VALUES < 100 BPF</i>																			
GEN. RATING AS SUBGRADE										RECOMMENDATION SYMBOLS										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.																			
PI OF A-7-5 SUBGROUP IS ≤ LL - 30; PI OF A-7-6 SUBGROUP IS > LL - 30										ABBREVIATIONS										ROCK HARDNESS																			
CONSISTENCY OR DENSENESS										EQUIPMENT USED ON SUBJECT PROJECT										BENCH MARK:																			
PRIMARY SOIL TYPE										DRILL UNITS:										ELEVATION: FEET																			
COMPACTNESS OR CONSISTENCY										ADVANCING TOOLS:										NOTES:																			
RANGE OF STANDARD PENETRATION RESISTANCE (N-VALUE)										HAMMER TYPE:																													
RANGE OF UNCONFINED COMPRESSIVE STRENGTH (TONS/FT ²)										CORE SIZE:																													
N/A										HAND TOOLS:																													
< 2										[X] AUTOMATIC [] MANUAL																													
2 TO 4										[] -B [] -H [] -N																													
4 TO 8																																							
8 TO 15																																							
15 TO 30																																							
> 30																																							
INDURATION																																							
FOR SEDIMENTARY ROCKS, INDURATION IS THE HARDENING OF MATERIAL BY CEMENTING, HEAT, PRESSURE, ETC.																																							
FRIABLE																																							
MODERATELY INDURATED																																							
INDURATED																																							
EXTREMELY INDURATED																																							

5/14/99

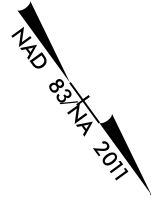
\$DATE\$

REVISIONS

Kimley»Horn
421 FAYETTEVILLE STREET, SUITE 600
RALEIGH, NC 27601

RIGHT-OF-WAY REV.
CONST. REV.

PROJECT REFERENCE NO.		SHEET NO.
U-5760		3
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER	
DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED		



-L- POT Sta. 10+00.00

LOWE'S

SHOP-CURVED
GUARDRAIL (R=35')
CONNECT TO EXIST
GUARDRAIL

15+00

NOTE: STREAM EXTENDS
BEYOND SURVEY LIMITS

100-YR
FLOODPLAIN

FLOODWAY

FLOODWAY

100-YR FLOODPLAIN

500-YR FLOODPLAIN

L 19+00 LT

-L-
HARMON CREEK RD
N 53° 57' 38.6" W

SEE
NOTE 1

CR

CB-F

15" RCP-IV

CB-G

15" RCP-IV

CB-F

15" RCP-IV

CB-F

15" RCP-IV

CB-F

15" RCP-IV

CB-F

15" RCP-IV

CB-F

15" RCP-IV

CB-F

15" RCP-IV

CB-F

15" RCP-IV

CB-F

15" RCP-IV

CB-F

15" RCP-IV

CB-F

15" RCP-IV

CB-F

15" RCP-IV

CB-F

15" RCP-IV

CB-F

15" RCP-IV

CB-F

15" RCP-IV

CB-F

15" RCP-IV

CB-F

15" RCP-IV

CB-F

15" RCP-IV

CB-F

15" RCP-IV

CB-F

15" RCP-IV

CB-F

15" RCP-IV

CB-F

15" RCP-IV

CB-F

15" RCP-IV

CB-F

TRANSITION TO EXIST
VALLEY GUTTER

BEGIN TIP PROJECT U-5760
BEGIN CONSTRUCTION
-L- POT Sta. 13+30.00

-L- PC Sta. 16+61.93

KOHL'S

MATCHLINE -L- STA 19+00 (SEE SHEET 5)

MATCHLINE (SEE SHEET 5)

-L-
PI Sta 21+79.43
 $\Delta = 58^{\circ} 23' 52.8"$ (RT)
D = 6' 11" 14.8"
L = 943.8'
T = 517.50'
R = 926.00'
SE = 0.04
RO = 216'

NOTE:
1. BEGIN MSE WALL -WALL J- (STRUCTURES ITEM)
-L- STA 15+00.00 (68.75' LT)
INSTALL 48" CL FENCE 1' INSIDE WALL (TYP)

3 ARNOLD C. KING
HELEN H. PRINCE
DB 2250 PG 829
DB 3267 PG 197

100 TOWN OF KERNERSVILLE
DB 2207 PG 106
PB 42 PG 86-89
PB 44 PG 32-35

RADI DIMENSIONS ARE TO THE EDGE OF
PAVEMENT UNLESS OTHERWISE NOTED
(APPLIES TO ALL SHEETS)

ALL DRIVEWAY RADII ARE 10' UNLESS
OTHERWISE NOTED (APPLIES TO ALL SHEETS)

SEE SHEET 17 FOR -L- PROFILE
SEE SHEETS W-1 THRU W-XX FOR WALL PLANS



SEE SHEET 28-1 FOR INTERSECTION DETAILS
SEE SHEETS 2B-3 AND 2B-4 FOR GORE DETAILS
SEE SHEETS 7 AND 18 FOR -L PROFILE
SEE SHEETS 23 THRU 23 FOR -YI (LT) PROFILE
SEE SHEETS 23 AND 23 FOR -YI (RT) PROFILE
SEE SHEET 25 FOR -YIRPB- PROFILE
SEE SHEET 25 FOR -YILPB- PROFILE
SEE SHEET 26 FOR -YIRPD- PROFILE
SEE SHEET 26 FOR -YILPD- PROFILE
SEE SHEETS 5-1 THRU 5-XX FOR STRUCTURE PL
SEE SHEETS W-X THRU W-XX FOR WALL PLANS
SEE SHEETS C-1 THRU C-XX FOR CULVERT PLAN

5/14/99

\$DATE\$

Kimley»Horn

421 FAYETTEVILLE STREET, SUITE 600
RALEIGH, NC 27601

RIGHT-OF-WAY REV.
CONST. REV.

PROJECT REFERENCE NO. SHEET NO.

U-5760

5

ROADWAY DESIGN
ENGINEER

HYDRAULICS
ENGINEER

DOCUMENT NOT CONSIDERED FINAL
UNLESS ALL SIGNATURES COMPLETED

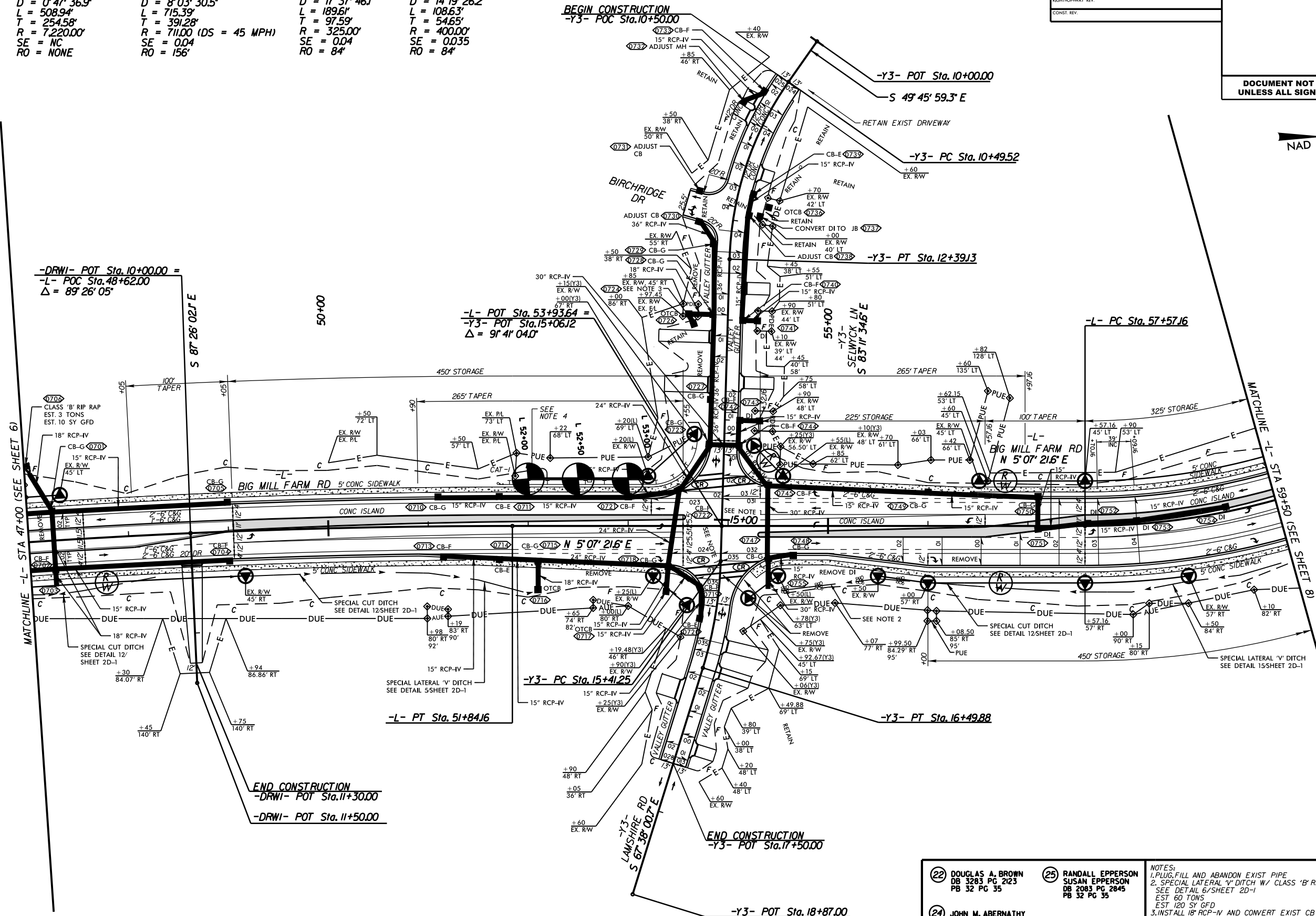
NAD 83/NA 2011

-L-
PI Sta 49+29.80
 $\Delta = 4^{\circ} 02' 19.7''$ (RT)
D = $0^{\circ} 47' 36.9''$
L = 508.94'
T = 254.58'
R = 7,220.00'
SE = NC
RO = NONE

PI Sta 61+48.44
 $\Delta = 5^{\circ} 38' 59.7''$ (LT)
D = $8^{\circ} 03' 30.5''$
L = 715.39'
T = 391.28'
R = 711.00 (DS = 45 MPH)
SE = 0.04
RO = 156'

-Y3-
PI Sta 11+47.11
 $\Delta = 33^{\circ} 25' 35.3''$ (LT)
D = $17^{\circ} 37' 46.1''$
L = 189.61'
T = 97.59'
R = 325.00'
SE = 0.04
RO = 84'

PI Sta 15+95.90
 $\Delta = 15^{\circ} 33' 33.9''$ (RT)
D = $14^{\circ} 19' 26.2''$
L = 108.63'
T = 54.65'
R = 400.00'
SE = 0.035
RO = 84'



22 DOUGLAS A. BROWN
DB 3283 PG 2123
PB 32 PG 35

25 RANDALL EPPERSON
SUSAN EPPERSON
DB 2083 PG 2045
PB 32 PG 35

24 JOHN M. ABERNATHY
TERRY W. ABERNATHY
DB 1943 PG 2568
PB 32 PG 35

NOTES:
1. PLUG, FILL AND ABANDON EXIST PIPE
2. SPECIAL LATERAL 'V' DITCH W/ CLASS 'B' RIP RAP
SEE DETAIL 6/SHEET 2D-1
EST. 60 TONS
EST. 120 SY GFD
3. INSTALL 18" RCP-IV AND CONVERT EXIST CB TO JB
4. CONSTRUCT RETAINING WALL - WALL 3- FROM -L- STA 52+00.00 TO
53+23.18 (48' LT) AND INSTALL 48" CHAIN LINK FENCE 1' INSIDE WALL

SEE SHEET 2B-1 FOR INTERSECTION DETAILS
SEE SHEET 18 FOR -L- PROFILE
SEE SHEET 27 FOR -Y3- PROFILE
SEE SHEET 29 FOR -DRWI- PROFILE
SEE SHEETS W-X THRU W-XX FOR WALL PLANS

5/14/99

\$DATE\$

REVISIONS

-L-		-Y9-	
PI Sta 116+89.16	PI Sta 120+07.00	PI Sta 12+92.95	PI Sta 14+39.71
$\Delta = 21' 40" 28.2" (RT)$	$\Delta = 29' 10" 03.1" (LT)$	$\Delta = 1' 03' 11.1" (LT)$	$\Delta = 1' 48' 54.1" (RT)$
$D = 8' 03' 30.5"$	$D = 8' 03' 30.5"$	$D = 1' 08' 45.3"$	$D = 5' 27' 24.3"$
$L = 268.97'$	$L = 361.97'$	$L = 91.90'$	$L = 101.37'$
$T = 136.11'$	$T = 184.99'$	$T = 45.95'$	$T = 50.69'$
$R = 711.00'$	$R = 711.00'$	$R = 5,000.00'$	$R = 3,200.00'$
$SE = 0.04$	$SE = RC$		
$RO = 144'$	$RO = 72'$		
$DS = 45 MPH$	$DS = 45 MPH$		

Kimley»Horn

421 FAYETTEVILLE STREET, SUITE 600
RALEIGH, NC 27601

RIGHT-OF-WAY REV.
CONST. REV.

PROJECT REFERENCE NO. SHEET NO.

U-5760

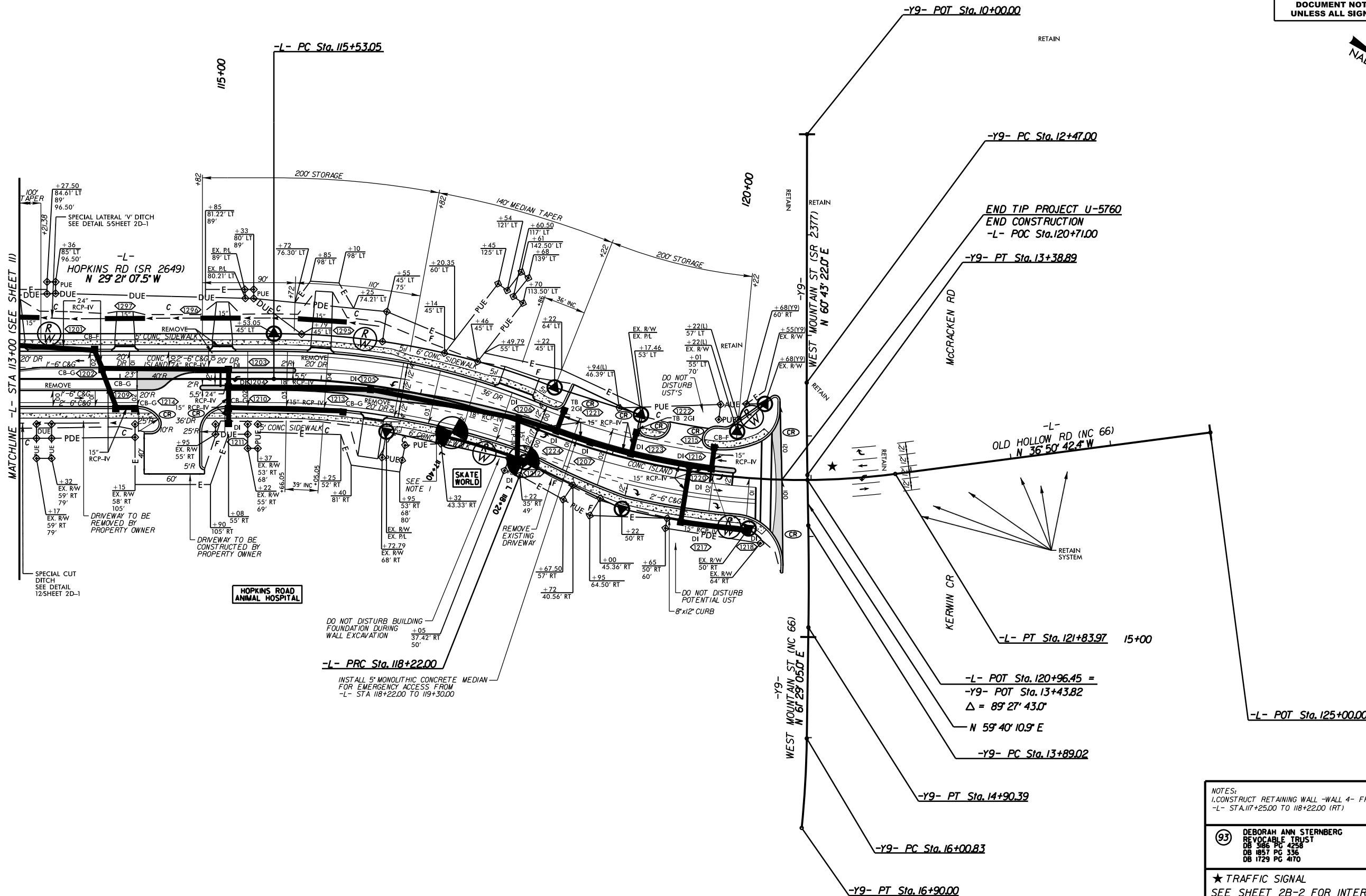
6

ROADWAY DESIGN
ENGINEER

HYDRAULICS
ENGINEER

DOCUMENT NOT CONSIDERED FINAL
UNLESS ALL SIGNATURES COMPLETED

NAD 83/NA 2011



NOTES:
1. CONSTRUCT RETAINING WALL - WALL 4- FROM
-L- STA 117+25.00 TO 118+22.00 (RT)

(93) DEBORAH ANN STERNBERG
REVOCABLE TRUST
DB 386 PG 4258
DB 1857 PG 336
DB 1729 PG 4170

★ TRAFFIC SIGNAL
SEE SHEET 2B-2 FOR INTERSECTION DETAIL
SEE SHEET 21 FOR -L- PROFILE
SEE SHEETS W-XX THRU W-XX FOR WALL PLANS



-WALL_1-

5/14/99

PROJECT REFERENCE NO.		SHEET NO.
U-5760		9
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER	
INCOMPLETE PLANS DO NOT USE FOR R/W ACQUISITION		
DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED		

1040

1030

1020

1010

1000

990

980

970

960

950

940

930

920

910

900

890

880

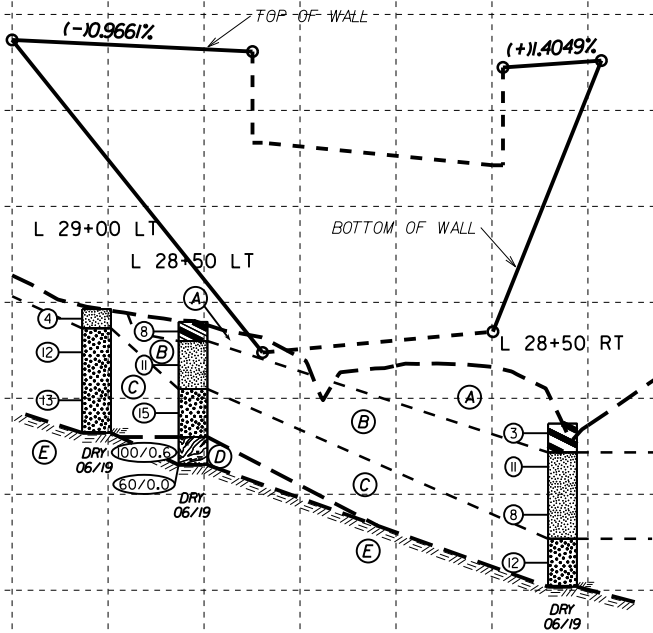
870

860

850

840

- (A) RESIDUAL - RED TO BROWN, MOIST, SOFT TO MED. STIFF, SANDY AND SILTY CLAY WITH TRACE ORGANICS
(B) RESIDUAL - BROWN, MED. STIFF TO STIFF, SANDY CLAYEY SILT WITH TRACE ORGANICS
(C) RESIDUAL - BROWN, MOIST TO WET, MED. DENSE, SILTY SAND
(D) WEATHERED ROCK (GRANITE)
(E) CRYSTALLINE ROCK (GRANITE)



NOTE: BORINGS ARE PROJECTED ONTO THE PROFILE
AND STRATIGRAPHY IS DRAWN THROUGH THE BORINGS

-WALL_2-

1010

1000

990

980

970

960

950

940

930

920

910

900

890

880

870

860

850

840

10+00

11+00

12+00

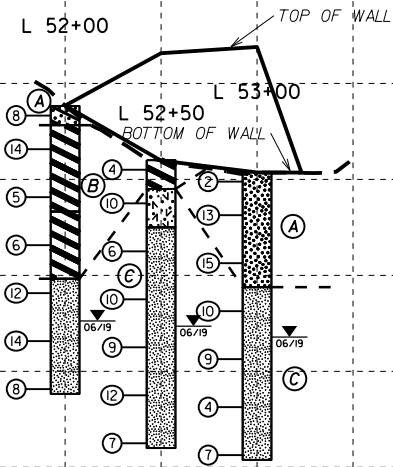
13+00

10-MAY-2021 11:30
U-5760-GEOL-FWAL-WALL2-PFL.dgn
\$\$\$\$\$ STRANGE \$\$\$

5/14/99

PROJECT REFERENCE NO.		SHEET NO.
U-5760		10
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER	
INCOMPLETE PLANS DO NOT USE FOR R/W ACQUISITION		
DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED		

- (A) RESIDUAL - BROWN,MOIST,V.LOOSE TO MED.DENSE,CLAYEY AND SILTY SAND
- (B) RESIDUAL - RED TO BROWN,MOIST TO SAT,MED.STIFF TO STIFF,SILTY CLAY WITH TRACE MICA
- (C) RESIDUAL - BROWN TO GRAY,MOIST TO SATURATED,MED.STIFF TO STIFF,CLAYEY AND SANDY SILT WITH LITTLE MICA AND TRACE ROCK FRAGMENTS



NOTE: BORINGS ARE PROJECTED ONTO THE PROFILE
AND STRATIGRAPHY IS DRAWN THROUGH THE BORINGS

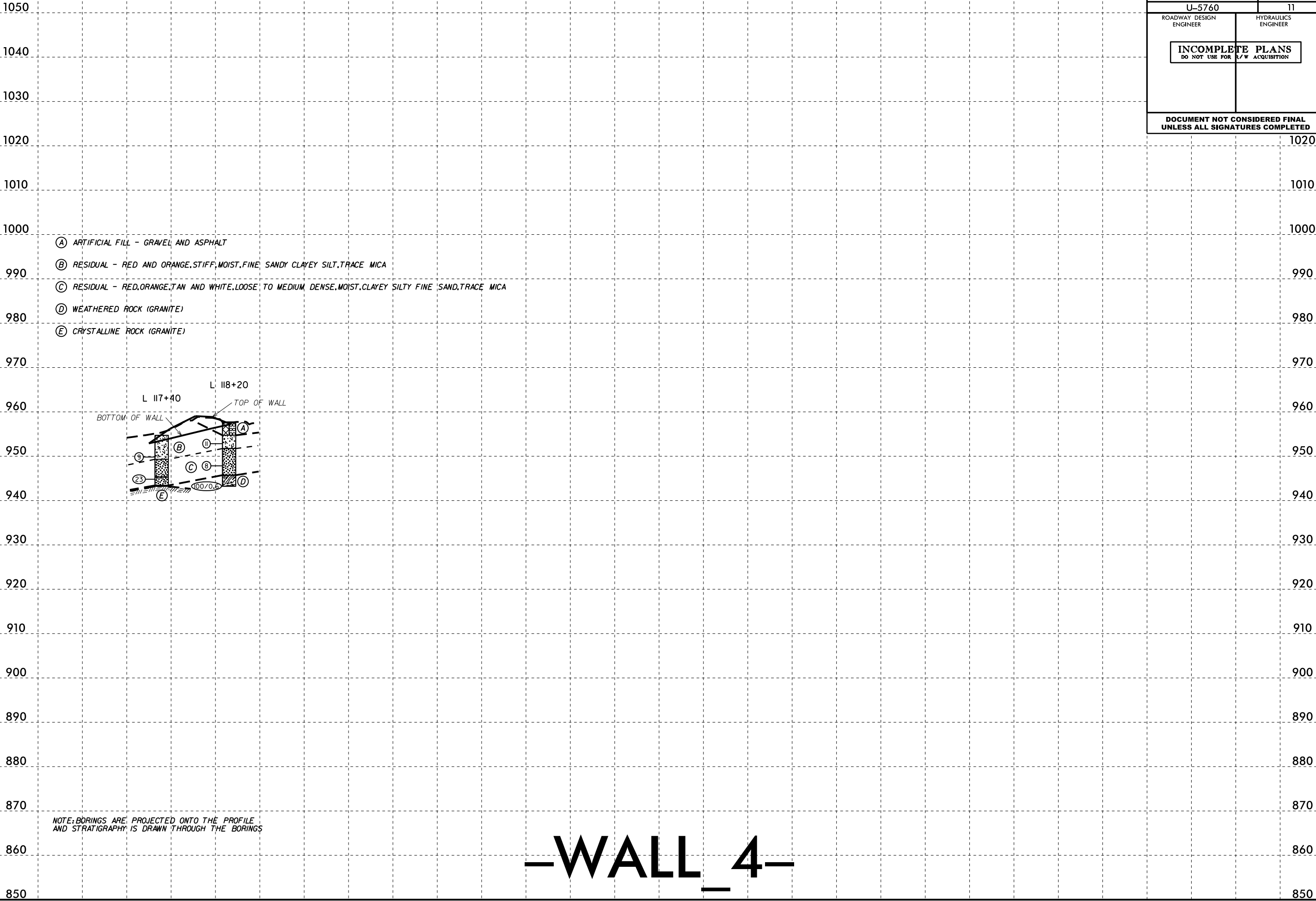
-WALL_3-

10-MAY-2021 11:31
U-5760-GEOT-HWAL-WALL3-PFL.dgn
\$\$\$\$\$ISTRANNO\$\$\$\$\$

52 + 00 53 + 00

5/14/99

PROJECT REFERENCE NO.		SHEET NO.	
U-5760		11	
ROADWAY DESIGN ENGINEER		HYDRAULICS ENGINEER	
INCOMPLETE PLANS DO NOT USE FOR R/W ACQUISITION			
DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED			



-WALL_4-