REFERENCE: R-2577A

PROJECT: 37405

SEE SHEET 3 FOR PLAN SHEET LAYOUT AT TIME OF INVESTIGATION

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LINE	STATION	PLAN
-L-	0+00 - 305+00	4 - 28
-Y1A-	10+00 - 16+61	5
-Y1B-	10+41 - 18+00	5 - 6
-Y1C-	10+00 - 11+44	5
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-Y2-	12+00 - 14+12	6
-Y3-	10+36 - 12+97	7
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-Y5A-	10+00 - 16+32	29
-Y6-	12+09 - 14+00	9
-Y7-	10+36 - 12+00	10
-Y8-	10+36 - 12+50	11
-Y9-	10+36 - 15+64	12
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-Y11-	12+00 - 14+92	13
-Y12-	22+00 - 24+35	14
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-Y16-	18+00 - 20+88	20
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-Y18-	10+39 - 11+15	23
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-Y22-	10+39 - 11+20	24
-Y23-	10+42 - 17+03	27, 30
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LINE	STATION	CROSS SECTION
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-Y1B-	10+41 - 18+00	161 - 166
-Y1C-	10+00 - 11+44	167
-Y1D-	12+00 - 13+97	168 - 169
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-Y2-	12+00 - 14+12	171
-Y3-	10+36 - 12+97	172
-Y4-	10+36 - 14+00	173
-Y5-	10+16 - 23+69	174 - 181
-Y5A-	10+00 - 16+32	182 - 186
-Y6-	12+09 - 14+00	187
-Y7-	10+36 - 12+00	188
-Y8-	10+36 - 12+50	189
-Y9-	10+36 - 15+64	190 - 192
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-Y14-	10+16 - 14+24	197
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-Y25-	10+36 - 13+00	210 - 211

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APPENDIX	TITLE	SHEETS
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STATE OF NORTH CAROLINA
DEPARTMENT OF TRANSPORTATION
DIVISION OF HIGHWAYS
GEOTECHNICAL ENGINEERING UNIT

ROADWAY SUBSURFACE INVESTIGATION

COUNTY *FORSYTH*

PROJECT DESCRIPTION *US 158 (REIDSVILLE RD.) FROM NORTH OF US 421 /I 40 BUS. TO SR 1965 (BELEWS CREEK RD)*

INVENTORY

STATE	STATE PROJECT REFERENCE NO.	SHEET NO.	TOTAL SHEETS
N.C.	R-2577A	1	215

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.

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

PERSONNEL

J. MIZE

A. BOZORGI

M. SNYDER

T. WILLIAMS

INVESTIGATED BY *RK&K, LLP*

DRAWN BY *J. MIZE*

CHECKED BY

SUBMITTED BY *RK&K, LLP*

DATE *JUNE 2019*

RK&K
P: (919) 878-9560
900 Ridgefield Drive Suite 350 | Raleigh, North Carolina 27609-3960
NC License No. F-0112
Engineers | Construction Managers | Planners | Scientists
www.rkk.com
Responsive People | Creative Solutions

NORTH CAROLINA PROFESSIONAL SEAL 018580 ENGINEER GARY R. TAYLOR

DocuSigned by:
Gary R. Taylor
194B327A8527405...
10/2/2019

SIGNATURE DATE

DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED

PROJECT REFERENCE NO.	SHEET NO.
R-2577A	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 UNCONSOLIDATED, SEMI-CONSOLIDATED, OR WEATHERED EARTH MATERIALS THAT CAN BE PENETRATED WITH A CONTINUOUS FLIGHT POWER AUGER AND YIELD LESS THAN 100 BLOWS PER FOOT ACCORDING TO THE STANDARD PENETRATION TEST (AASHTO T 206, ASTM D1586). SOIL CLASSIFICATION IS BASED ON THE AASHTO SYSTEM. BASIC DESCRIPTIONS GENERALLY INCLUDE THE FOLLOWING: CONSISTENCY, COLOR, TEXTURE, MOISTURE, AASHTO CLASSIFICATION, AND OTHER PERTINENT FACTORS SUCH AS MINERALOGICAL COMPOSITION, ANGULARITY, STRUCTURE, PLASTICITY, ETC. FOR EXAMPLE,
VERY STIFF, GRAY, SILTY CLAY, MOIST WITH INTERBEDDED FINE SAND LAYERS, HIGHLY PLASTIC, A-7-6

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	50 MX													
#40	30 MX		50 MX	51 MN										
#200	15 MX	25 MX	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
MATERIAL PASSING #40														
LL	—		—		40 MX	41 MN	40 MX	41 MN	40 MX	41 MN	40 MX	41 MN			
PI	6 MX		NP		10 MX	10 MX	11 MN	11 MN	10 MX	10 MX	11 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 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 0.5 0.5 TO 1.0 1 TO 2 2 TO 4 > 4

TEXTURE OR GRAIN SIZE

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

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

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

SOIL MOISTURE - CORRELATION OF TERMS

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

PLASTICITY

	PLASTICITY INDEX (PI)	DRY STRENGTH
NON PLASTIC	0-5	VERY LOW
SLIGHTLY PLASTIC	6-15	SLIGHT
MODERATELY PLASTIC	16-25	MEDIUM
HIGHLY PLASTIC	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.
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.

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 WHEN THEY ARE CONSIDERED OF SIGNIFICANCE.

COMPRESSIBILITY

SLIGHTLY COMPRESSIBLE	LL < 31
MODERATELY COMPRESSIBLE	LL = 31 - 50
HIGHLY COMPRESSIBLE	LL > 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
- SPT, SPT CMT, VST, PMT — TEST BORING
- AUGER BORING
- CORE BORING
- MW — MONITORING WELL
- PIEZOMETER INSTALLATION
- SLOPE INDICATOR INSTALLATION
- CONE PENETROMETER TEST
- SOUNDING ROD
- TEST BORING WITH CORE
- SPT N-VALUE

RECOMMENDATION SYMBOLS

- UNDERCUT
- SHALLOW UNDERCUT
- UNCLASSIFIED EXCAVATION - UNSUITABLE WASTE
- UNCLASSIFIED EXCAVATION - ACCEPTABLE DEGRADABLE ROCK
- UNCLASSIFIED EXCAVATION - ACCEPTABLE, BUT NOT TO BE USED IN THE TOP 3 FEET OF EMBANKMENT OR BACKFILL

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

SAMPLE ABBREVIATIONS

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

EQUIPMENT USED ON SUBJECT PROJECT

DRILL UNITS:
- [ ] CME-45C
- [ ] CME-55
- [ ] CME-550
- [ ] VANE SHEAR TEST
- [ ] PORTABLE HOIST
- [X] DEIDRICH D-50
- [ ] _____

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

HAMMER TYPE:
- [X] AUTOMATIC [ ] MANUAL

CORE SIZE:
- [ ] -B _____ [ ] -H _____
- [ ] -N _____

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

ROCK DESCRIPTION

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 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, WOULD YIELD SPT N VALUES > 100 BPF*
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. *IF TESTED, WOULD YIELD 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 FOOT
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 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, SUCH AS SHALE, SLATE, ETC.

ARTESIAN - GROUND WATER THAT IS UNDER SUFFICIENT PRESSURE TO RISE ABOVE THE LEVEL AT WHICH IT IS ENCOUNTERED, BUT WHICH DOES NOT NECESSARILY RISE TO OR ABOVE THE GROUND SURFACE.

CALCAREOUS (CALC.) - SOILS THAT CONTAIN APPRECIABLE AMOUNTS OF CALCIUM CARBONATE.

COLLUVIUM - ROCK FRAGMENTS MIXED WITH SOIL DEPOSITED BY GRAVITY ON SLOPE OR AT BOTTOM OF SLOPE.

CORE RECOVERY (REC.) - TOTAL LENGTH OF ALL MATERIAL RECOVERED IN THE CORE BARREL DIVIDED BY TOTAL LENGTH OF CORE RUN AND EXPRESSED AS A PERCENTAGE.

DIKE - A TABULAR BODY OF IGNEOUS ROCK THAT CUTS ACROSS THE STRUCTURE OF ADJACENT ROCKS OR CUTS MASSIVE ROCK.

DIP - THE ANGLE AT WHICH A STRATUM OR ANY PLANAR FEATURE IS INCLINED FROM THE HORIZONTAL.

DIP DIRECTION (DIP AZIMUTH) - THE DIRECTION OR BEARING OF THE HORIZONTAL TRACE OF THE LINE OF DIP, MEASURED CLOCKWISE FROM NORTH.

FAULT - A FRACTURE OR FRACTURE ZONE ALONG WHICH THERE HAS BEEN DISPLACEMENT OF THE SIDES RELATIVE TO ONE ANOTHER PARALLEL TO THE FRACTURE.

FISSILE - A PROPERTY OF SPLITTING ALONG CLOSELY SPACED PARALLEL PLANES.

FLOAT - ROCK FRAGMENTS ON SURFACE NEAR THEIR ORIGINAL POSITION AND DISLODGED FROM PARENT MATERIAL.

FLOOD PLAIN (FP) - LAND BORDERING A STREAM, BUILT OF SEDIMENTS DEPOSITED BY THE STREAM.

FORMATION (FM.) - A MAPPABLE GEOLOGIC UNIT THAT CAN BE RECOGNIZED AND TRACED IN THE FIELD.

JOINT - FRACTURE IN ROCK ALONG WHICH NO APPRECIABLE MOVEMENT HAS OCCURRED.

LEDGE - A SHELF-LIKE RIDGE OR PROJECTION OF ROCK WHOSE THICKNESS IS SMALL COMPARED TO ITS LATERAL EXTENT.

LENS - A BODY OF SOIL OR ROCK THAT THINS OUT IN ONE OR MORE DIRECTIONS.

MOTTLED (MOT.) - IRREGULARLY MARKED WITH SPOTS OF DIFFERENT COLORS. MOTTLING IN SOILS USUALLY INDICATES POOR AERATION AND LACK OF GOOD DRAINAGE.

PERCHED WATER - WATER MAINTAINED ABOVE THE NORMAL GROUND WATER LEVEL BY THE PRESENCE OF AN INTERVENING IMPERVIOUS STRATUM.

RESIDUAL (RES.) SOIL - SOIL FORMED IN PLACE BY THE WEATHERING OF ROCK.

ROCK QUALITY DESIGNATION (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 AND EXPRESSED AS A PERCENTAGE OF THE TOTAL LENGTH OF STRATA AND EXPRESSED AS A PERCENTAGE.

TOPSOIL (TS.) - SURFACE SOILS USUALLY CONTAINING ORGANIC MATTER.

BENCH MARK:

ELEVATION: FEET

NOTES:

ABBREVIATIONS:
F.I.A.D. - FILLED IMMEDIATELY AFTER DRILLING

ROADWAY BORING ELEVATIONS DETERMINED FROM PROVIDED .TIN FILES

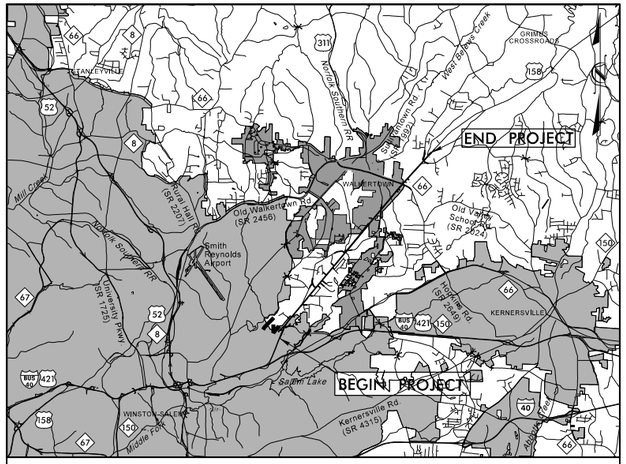
DATE: 8-15-14

09/08/99

TIP PROJECT: R–2577A

CONTRACT:

See Sheet 1-B For Conventional Symbols



VICINITY MAP (NTS)

STATE OF NORTH CAROLINA
DIVISION OF HIGHWAYS

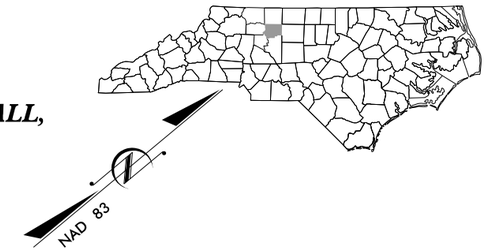
FORSYTH COUNTY

STATE	STATE PROJECT REFERENCE NO.	SHEET NO.	TOTAL SHEETS
N.C.	R–2577A	3	215

STATE PROJ. NO.	F. A. PROJ. NO.	DESCRIPTION
37405.1.2	N/A	PE

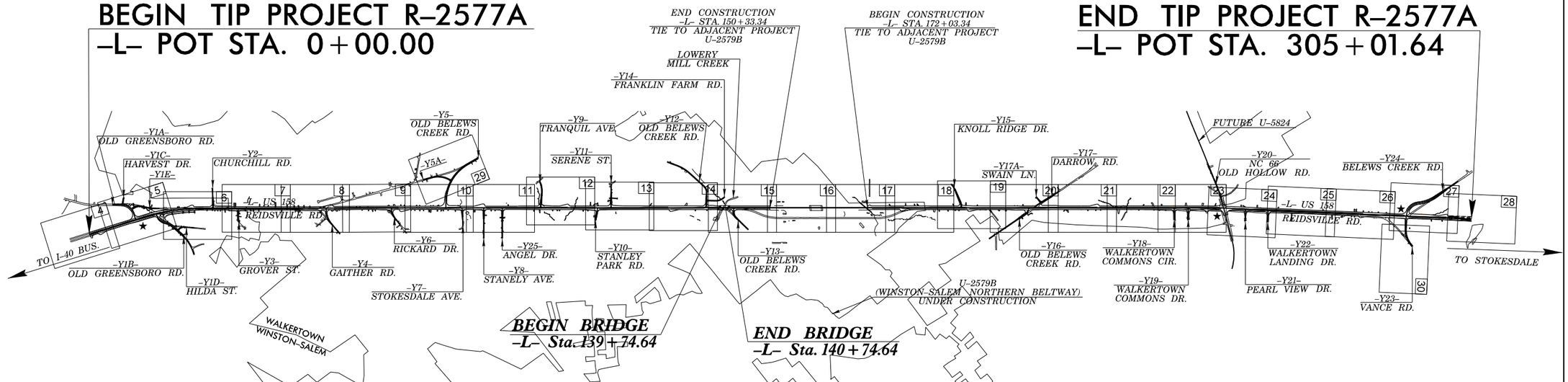
LOCATION: *US 158 (REIDSVILLE RD.) FROM NORTH OF US 421 /I–40 BUS. TO SR 1965 (BELEWS CREEK RD.)*

TYPE OF WORK: *GRADING, PAVING, WIDENING, DRAINAGE, CULVERTS, SIGNING, STRUCTURES, RETAINING WALL, SIGNALS, & UTILITIES*



BEGIN TIP PROJECT R–2577A
–L– POT STA. 0 + 00.00

END TIP PROJECT R–2577A
–L– POT STA. 305 + 01.64



NOTES:
1. A PORTION OF THIS PROJECT IS WITHIN THE MUNICIPAL BOUNDARIES OF THE CITY OF WINSTON–SALEM AND WALKERTOWN.
2. CLEARING ON THIS PROJECT SHALL BE PERFORMED TO THE LIMITS ESTABLISHED BY METHOD ___.
3. THIS PROJECT HAS PARTIAL CONTROL OF ACCESS WITH FULL CONTROL OF ACCESS AT POINTS AS SHOWN ON PLANS.

★ PROPOSED TRAFFIC SIGNAL

25% ROADWAY PLANS
DATE: 10-29-2018

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

GRAPHIC SCALES

50 25 0 50 100
PLANS

50 25 0 50 100
PROFILE (HORIZONTAL)

10 5 0 10 20
PROFILE (VERTICAL)

DESIGN DATA

ADT 2017 = 23,600
ADT 2040 = 35,000
V = 50 MPH
K = 8%
D = 60%
T = 14% *
* TTST = 8% DUAL = 6%

FUNC CLASS = ARTERIAL
STATEWIDE TIER

PROJECT LENGTH

LENGTH ROADWAY TIP PROJECT R–2577A..... 5.758 miles

LENGTH STRUCTURE TIP PROJECT R–2577A..... 0.019 miles

TOTAL LENGTH OF PROJECT R–2577A..... 5.777 miles

PLANS PREPARED BY:
RUMMEL, KLEPPER & KAHL, LLP
900 RIDGEFIELD DRIVE, SUITE 350
RALEIGH, NORTH CAROLINA 27609
NC LICENSE NO. F–0112
1–888–521–4455 OR 919–878–9560

FOR NORTH CAROLINA DEPARTMENT OF TRANSPORTATION

2018 STANDARD SPECIFICATIONS

RIGHT OF WAY DATE: October 21, 2019

LETTING DATE: October 19, 2021

Anthony A. Houser, PE
PROJECT ENGINEER

Cathy S. Houser, PE
PROJECT DESIGN ENGINEER

NCDOT CONTACT: Connie James, PE
DIVISION 9

HYDRAULICS ENGINEER

P.E.
SIGNATURE:

ROADWAY DESIGN ENGINEER

P.E.
SIGNATURE:

8/24/2019
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dbozorgi

Augest 27, 2019

WBS Number: 37405.1.1
TIP Number: R-2577A
County: Forsyth
Description: US 158 (Reidsville Rd.) from North of US 421 / I-40 Bus. to SR 1965 (Belews Creek Rd.)

Subject: Roadway Subsurface Inventory Report

PROJECT DESCRIPTION

The following alignments were investigated. Selected cross sections of these alignments are included in this report.

Line	Stations (±)
-L-	0+00 – 305+00
-Y1A-	10+00 – 16+61
-Y1B-	10+41 – 18+00
-Y1C-	10+00 – 11+44
-Y1D-	12+00 – 13+97
-Y1E-	12+17 – 16+27
-Y2-	12+00 – 14+12
-Y3-	10+36 – 12+97
-Y4-	10+36 – 14+00
-Y5-	10+16 – 23+69
-Y5A-	10+00 – 16+32
-Y6-	12+09 – 14+00
-Y7-	10+36 – 12+00
-Y8-	10+36 – 12+50
-Y9-	10+36 – 15+64
-Y10-	10+40 – 12+78
-Y11-	12+00 – 14+92
-Y12-	22+00 – 24+35
-Y13-	10+39 – 13+00
-Y14-	10+16 – 14+24
-Y15-	11+25 – 15+36
-Y16-	18+00 – 20+88
-Y17-	12+00 – 16+03
-Y17A-	10+00 – 11+55
-Y18-	10+39 – 11+15
-Y19-	10+39 – 11+15
-Y20-	96+40 – 100+21
-Y21-	10+39 – 11+35
-Y22-	10+39 – 11+20
-Y23-	10+42 – 17+03
-Y24-	13+09 – 23+94
-Y25-	10+36 – 13+00

PHYSIOGRAPHY AND GEOLOGY

The proposed project is located in the Piedmont Physiographic province. The Piedmont is characterized by a wide range of soil types atop crystalline and non-crystalline rock. The proposed project is located in an area that contains suburban residential, rural residential, and rural farming terrain. Typical natural land in the area is characterized by wooded rolling hills separated by small streams and creeks. This terrain has been flattened and the woods removed in the lower station part of the proposed project (i.e. -L- 1+00 to 100+00), and appears variably in the remainder of the project area.

The bedrock encountered within the proposed project is composed of biotite gneiss and granite. These rocks typically weather first to micaceous, saprolitic sands, then further to silts and clays. No differences were apparent in residual soils above these two types of rock, so they are assumed to both be pervasive and interfingered throughout the proposed project.

SOIL PROPERTIES

Soils encountered during the geotechnical investigation are split into four categories based on their origin. The origins consist of roadway embankment, artificial fill, alluvial soils, and residual soils.

Roadway Embankment:

Roadway Embankment throughout this project consists of brown-red, soft to stiff clayey sandy SILT and silty sandy moderately plastic CLAY; loose to medium dense, silty clayey gravelly SAND and sandy GRAVEL; with trace to some mica, and some gravel.

Artificial Fill:

Artificial Fills encountered in this project consist of brown-red to gray, loose to very dense, clayey to silty SAND with trace mica and trace to some gravel.

Alluvial Soils:

Alluvial soils encountered in the proposed project consist of gray to brown, very loose to loose, gravelly to silty clayey SAND; dark gray to red-brown, very soft to medium stiff, sandy to clayey SILT and sandy to silty slightly to highly plastic CLAY; with trace to some mica and trace to some organics.

Residual Soils:

Residual soils encountered in the proposed project covered the full range of soil types and consistencies. A typical residual soil profile includes a surface layer of sandy clay with less than 3 inches of topsoil, underlain by silts and sands. The upper clay layer is typically 3 feet thick, and the underlying silts and sands range in thickness from 0 feet to more than 30 feet. These silts and sands gradually become saprolitic with depth and are underlain by weathered and crystalline rock. Most residual soils contain mica, though the mica content of the soils varies from sample to sample.

GROUNDWATER

Springs: A potential spring head was observed in a proposed fill section at the following location:

Line	Stations (±)	Offset
-L-	81+83	LT

AREAS OF SPECIAL GEOTECHNICAL INTEREST

Alluvial Soils: The following areas contain alluvial soils:

Line	Stations (±)	Offset
-L-	81+10 – 82+90	LT
-L-	101+60 – 101+20	LT & RT
-L-	106+60 – 107+20	RT
-L-	107+30 – 108+10	LT
-L-	225+10 – 229+60	LT
-L-	228+60 – 229+30	RT
-L-	295+80 – 299+40	LT
-Y9-	14+25 – 15+25	RT

Highly Plastic Soils: The following areas contain soils with plasticity indices (PI) greater than 25 within proposed cut sections or greater than 35 within 3-ft of subgrade:

Line	Stations (±)	Offset
-L-	48+75 – 52+75	LT & RT
-L-	58+75 – 62+75	RT
-L-	62+75 – 70+75	LT & RT
-L-	72+75 – 79+25	LT & RT
-L-	89+60 – 94+75	LT & RT
-L-	110+75 – 112+50	RT
-L-	112+50 – 115+25	LT & RT
-L-	123+25 – 129+50	LT
-L-	184+75 – 190+75	LT & RT
-L-	190+75 – 193+25	LT
-L-	198+75 – 205+25	LT & RT
-L-	210+75 – 215+25	LT & RT
-L-	218+75 – 224+25	LT & RT
-L-	224+25 – 225+25	RT
-L-	234+75 – 235+17	RT
-L-	235+17 – 237+25	LT & RT
-L-	246+75 – 247+75	LT & RT
-L-	274+75 – 278+75	RT
-L-	278+75 – 281+25	LT & RT
-L-	282+75 – 290+25	LT & RT
-Y1A-	12+75 – 16+25	LT & RT
-Y1B-	12+75 – 14+75	LT & RT
-Y1B-	14+75 – 16+75	LT
-Y1D-	12+00 – 13+97	LT & RT
-Y5-	10+16 – 18+25	LT & RT
-Y5A-	10+00 – 15+25	LT & RT
-Y24-	13+08 – 17+25	LT & RT
-Y24-	17+60 – 19+75	RT
-Y24-	19+75 – 23+80	LT & RT
-Y25-	10+40 – 13+00	LT & RT

Weathered Rock: The following areas contain weathered rock above or within six (6) feet of proposed grade:

Line	Stations (±)	Offset
-L-	85+75 – 87+00	LT
-L-	89+25 – 90+75	LT
-L-	103+00 – 105+00	LT
-Y5-	16+25 – 20+00	LT & RT

Crystalline Rock: The following areas contain crystalline rock above or within six (6) feet of proposed grade:

Line	Stations (±)	Offset
-L-	135+00 – 137+00	LT
-Y5-	18+25 – 19+75	LT & RT
-Y12-	22+00 – 24+00	RT
-Y23-	11+25 – 12+75	LT & RT

Groundwater: The following areas contain groundwater within six (6) feet of the proposed grade:

Line	Stations (±)	Offset
-L-	58+75 – 61+25	LT & RT
-L-	78+50 – 81+25	LT & RT
-L-	82+75 – 87+25	LT & RT
-L-	182+75 – 185+25	LT & RT
-Y5-	17+75 – 23+68	LT
-Y9-	10+30 – 12+25	RT

The following areas contain groundwater within three (3) feet of the existing grade:

Line	Stations (±)	Offset
-L-	81+50 – 82+75	LT
-L-	106+25 – 106+75	RT
-L-	225+25 – 229+25	LT & RT
-Y9-	13+75 – 15+00	LT

Prepared by,

Gary Taylor, P.E.
Manager, Geotechnical
Registered, North Carolina 018580

James Mize, G.I.T.
Geologist, Geotechnical

NORTH CAROLINA PROFESSIONAL SEAL 018580 ENGINEER GARY R. TAYLOR

DocuSigned by: Gary R. Taylor 19[illegible]A8527485...

10/2/2019

DocuSigned by: James W. Mize E11D362115544D2...

Appendix A

Bulk Samples

The following bulk samples were collected from cut sections for laboratory testing:

Sample No.	Line	Station	Offset	Depth (ft)	Test(s) Performed
CBR-1	-L-	96+00	35 ft LT	1.0 – 10.0	
CBR-2	-L-	234+00	30 ft LT	0.0 – 8.5	

8/17/99

PROJECT REFERENCE NO.	SHEET NO.
R-2577A	4
R/W SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

INCOMPLETE PLANS
DO NOT USE FOR R/W ACQUISITION

DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED

NAD 83

BEGIN TIP PROJECT R-2577A
-L- STA. 0+00.00

MATCHLINE -L- STA. 4+50 SEE SHEET 5

US 158/ REIDSVILLE RD 24' BST

TO I-40 BUSINESS

EXISTING R/W

TEST STATION

L 1+00

L 3+00

ISBUS

PLANS PREPARED BY :
RK&K
RUMMEL, KLEPPER & KAHL, LLP
900 RIDGEFIELD DRIVE SUITE 350
RALEIGH, NORTH CAROLINA 27609-3960
NC LICENSE NO. F-0112 • (919) 878-9560

6/6/2019
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8/17/99

PROJECT REFERENCE NO.	SHEET NO.
R-2577A	5
R/W SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

INCOMPLETE PLANS
DO NOT USE FOR R/W ACQUISITION

DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED

NAD 83

BEGIN CONSTRUCTION
-YIC- POT Sta. 10+00.00

-YIC- PT Sta. 11+33.77

-YIC- PC Sta. 10+67.97

BEGIN CONSTRUCTION
-YIA- POT Sta. 10+00.00

-YIA- PC Sta. 11+83.20

-YIC- POT Sta. 11+58.93=
-YIA- POC Sta. 12+31.33

-YIE- PC Sta. 13+86.90

-YIE- PT Sta. 13+46.91

-YIE- PT Sta. 10+79.76

-YIE- PC Sta. 10+17.54

-YIE- POT Sta. 10+00.00

-YIE- PC Sta. 11+26.49

-YIE- PT Sta. 16+18.87

-YIE- POT Sta. 16+39.29=
-YIA- POC Sta. 14+51.12

-YIA- PT Sta. 15+69.16

-YIB- POT Sta. 10+00.00=
-L- POT Sta. 15+34.27

-YIB- PC Sta. 10+88.97

-YIA- POT Sta. 17+00.40=
-L- POT Sta. 10+71.69

-L- PC Sta. 12+45.50

-YIB- PRC Sta. 12+90.04

-YIC-

MATCHLINE -L- STA. 4+50 SEE SHEET 4

MATCHLINE -L- STA. 18+00 SEE SHEET 6

MATCHLINE -YIB- STA. 13+50 SEE SHEET 6

OLD GREENSBORO RD 32' BST

US 158/ REIDSVILLE RD 24' BST

TO EARL ST.

ISFD

ISBK&FD

ISBLKBUS

ISFBUS

2SFBUS (STUCCO)

2SFAPT (DORMS)

ISFAPT (DORMS)

2SFD

WOODS

GRASS

RUINS

STONE WALL

CYPRESS HEDGEROW

PLANS PREPARED BY :

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8/17/99

PROJECT REFERENCE NO.	SHEET NO.
R-2577A	6
R/W SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

INCOMPLETE PLANS
DO NOT USE FOR R/W ACQUISITION

DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED

NAD 83

-Y2- PC Sta. 10+96.47

BEGIN CONSTRUCTION
-Y2- POT Sta. 12+00.00

-Y2- PT Sta. 13+25.37

-L- PT Sta. 25+94.65

MATCHLINE -L- STA. 18+00 SEE SHEET 5

MATCHLINE -L- STA. 31+00 SEE SHEET 7

MATCHLINE -YIB- STA. 13+50 SEE SHEET 5

-YID- PC Sta. 12+19.00

BEGIN CONSTRUCTION
-YID- POC Sta. 12+00.00

-YID- POT Sta. 10+00.00

-YIB- PT Sta. 14+95.15

-YID- PT Sta. 13+86.68

-YIB- PC Sta. 16+97.93

-YID- POT Sta. 14+08.53=
-YIB- POT Sta. 16+16.74

END CONSTRUCTION
-YIB- POC Sta. 18+00.00

-Y2- POT Sta. 14+47.04=
-L- POT Sta. 27+99.66

★ PROPOSED TRAFFIC SIGNAL

PLANS PREPARED BY :
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RUMMEL, KLEPPER & KAHL, LLP
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PROJECT REFERENCE NO.	SHEET NO.
R-2577A	7
R/W SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

INCOMPLETE PLANS
DO NOT USE FOR R/W ACQUISITION

DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED

NAD 83

MATCHLINE -L- STA. 31+00 SEE SHEET 6

MATCHLINE -L- STA. 44+00 SEE SHEET 8

-Y3- POT Sta. 10+00.00=
-L- POT Sta. 33+55.00

-Y3- PC Sta. 11+66.91

END CONSTRUCTION
-Y3- PT Sta. 12+97.48

-Y3- POT Sta. 13+17.86

US 158/ REIDSVILLE RD 20' DST

TO OLD GREENSBORO RD.

TO DEAD END

PLANS PREPARED BY :
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8/17/99

PROJECT REFERENCE NO.	SHEET NO.
R-2577A	8
R/W SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

INCOMPLETE PLANS
DO NOT USE FOR R/W ACQUISITION

DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED

MATCHLINE -L- STA. 44+00 SEE SHEET 7

MATCHLINE -L- STA. 57+00 SEE SHEET 9

NAD 83

-Y4- POT Sta. 10+00.00=
-L- POT Sta.52+89.21

-L- PC Sta. 48+79.89

-L- PT Sta. 51+15.63

-Y4- PC Sta. 10+57.77

-Y4- PT Sta. 13+43.15

END CONSTRUCTION
-Y4- POT Sta. 14+00.00

TO STILLMERE CT.

TO DONNA AVE.

GLASMERE CT.

TAMRA LN (R BST)

GATHER RD (R BST)

EXISTING R/W

L 46+00

L 48+00

L 50+00

L 52+00

L 54+00

L 56+00

Y4 12+00

L 58+00

L 60+00

PLANS PREPARED BY :

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8/17/99

PROJECT REFERENCE NO.	SHEET NO.
R-2577A	9
R/W SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

INCOMPLETE PLANS
DO NOT USE FOR R/W ACQUISITION

DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED

MATCHLINE –L– STA. 57+00 SEE SHEET 8

MATCHLINE –L– STA. 71+00 SEE SHEET 10

NAD 83

OLD BELEWS CREEK RD 22' BST

OLD BELEWS CREEK RD 36' BST

US 158/ REIDSVILLE RD 28' BST

AUTUMN CHASE DR (PVT) 16' BST

TO GAUNTLET DR.

SILVER CHALICE DR 20' BST

TO DEAD END

RICHARD BRANCH

25' ESMT PB 36 PG 155

-L- PC Sta. 61+45.71

-L- PT Sta. 63+68.76

-Y6- PT Sta. 13+95.80

BEGIN CONSTRUCTION
-Y6- PC Sta. 12+08.93

-Y6- POT Sta. 10+00.00

-Y6- POT Sta. 14+35.27=
-L- POT Sta. 67+32.41

UTILITY MANHOLES
POSSIBLE ON-SITE
RETENTION/OIL SEPARATOR

ISBKBUS (CARWASH)

ISBKBUS DIESEL FUEL PUMP

GREASE MANHOLES

BLK WASH-PIT

KEROSENE PUMP

VENT PIPES

FUEL CAPS

GAS PUMPS U/MTL CANOPY

ISFBUS

ISBKD W/BSMT

ISFD W/BSMT

ISFD

ISBKD

WOODS

GRASS

SERVICE POLE

GREENHOUSE

WELL

WELL HOUSE

A/G OIL TANK

A/G LP TANK

A/G POOL

MTL CANOPY

WD CANOPY

MTL GATE

WD GATE ARBOR

48' CHL GATE

60' CHL GATE

72' WD GATE

VAR. HT BK WALL

VAR. HT RK WALL

BOLLARDS (TYP.)

MON. WELL

SPIGOT

6' CONC HW

8' CONC

24' C&G

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8/17/99

PROJECT REFERENCE NO.	SHEET NO.
R-2577A	10
R/W SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

INCOMPLETE PLANS
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NAD 83

MATCHLINE -Y5- STA. 19+75 SEE SHEET 29

MATCHLINE -L- STA. 71+00 SEE SHEET 9

MATCHLINE -L- STA. 84+50 SEE SHEET 11

-Y5- PT Sta. 22+71.59

-Y7- POT Sta. 10+00.00=
-L- POT Sta. 82+79.17

-Y5- POT Sta. 24+04.15=
-L- POT Sta. 79+25.00

-Y7- POT Sta. 13+88.15

-Y7- POT Sta. 12+00.00

END CONSTRUCTION

ARTIFICIAL FILL

ALLUVIAL

POSSIBLE SPRING HEAD

POSSIBLE SPRING HEAD ACCORDING TO PROPERTY OWNER

WOODS

SCATTERED TREES

POND

LANDSCAPE POND

SEPTIC PUMP

EXISTING R/W

R/W MON

TO US HWY 158 (REIDSVILLE RD.)

TO RICKARD DR.

US 158/ REIDSVILLE RD 28' BST

STOKESDALE AVE 20' BST

TRAFFIC DIAGRAM

-Y5- OLD BELEWS CREEK RD.

ADT 2017
ADT 2040

	2,850 / 3,650	
2,850 / 3,650		50 / 1,050
100 / 1,000		
10,500 / 13,950	-L- US 158	7,800 / 12,350
	-L- US 158	
	2,700 / 2,650	

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RUMMEL, KLEPPER & KAHL, LLP
900 RIDGEFIELD DRIVE SUITE 350
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abazor01

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PROJECT REFERENCE NO.	SHEET NO.
R-2577A	11
R/W SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

INCOMPLETE PLANS
DO NOT USE FOR R/W ACQUISITION

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NAD 83

MATCHLINE -L- STA. 84+50 SEE SHEET 10

MATCHLINE -L- STA. 98+00 SEE SHEET 12

-Y8- POT Sta. 10+00.00=
-L- POT Sta. 87+58.96

-Y25- POT Sta. 10+00.00=
-L- POT Sta. 91+66.72

END CONSTRUCTION
-Y8- POT Sta. 12+50.00

END CONSTRUCTION
-Y25- POT Sta. 13+00.00

SPECIAL CUT DITCH SEE DETAIL H

SPECIAL CUT DITCH SEE DETAIL H

TOE PROTECTION W/CL B-RIPRAP SEE DETAIL K

US 158/ REIDSVILLE RD 28' BST

SANDY AVE 20' BST

WOODS

SCATTERED TREES

LANDSCAPE POND

WD CANOPY

ISFD

ISBKD W/BSMT

VAR. HT BK WALL

SEPTIC PUMP

A/G LP TANK

48" WD GATE

SERVICE POLE

WELL

HTR

CB-G 1101

CB-G 1102

CB-G 1110

CB-G 1111

CB-F 1103

DI 1104

CB-F 1107

2GI-B 1105

2GI-B 1106

CB-F 1112

CB-F 1113

CB-F 1114

15" RCP-III

15" RCP-IV

REMOVE

EXISTING R/W

REB

LUCAS MARKER

6" UNK

85+00

90+00

95+00

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PROJECT REFERENCE NO.	SHEET NO.
R-2577A	12
R/W SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

INCOMPLETE PLANS
DO NOT USE FOR R/W ACQUISITION

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NAD 83

-Y9- POT Sta. 10+00.00

BEGIN CONSTRUCTION
-Y9- PC Sta. 10+35.75

-Y9- PT Sta. 12+83.63

-Y9- POT Sta. 16+03.54=
-L- POT Sta. 100+08.00

MATCHLINE -L- STA. 98+00 SEE SHEET 11

MATCHLINE -L- STA. 111+00 SEE SHEET 13

PALACE AVE (SR 2137)

EXISTING R/W

TO DEAD END

ALLUVIAL

WOODS

ISBKD

ISFD

BARN

VAR. HT CONC WALL

VAR. HT BLK WALL

VAR. HT BK WALL

60" CHL GATE

A/G LP TANK

WD ARBOR

REMOVE

LATERAL 4' BASE DITCH W/CL B RIPRAP SEE DETAIL C

TOE PROTECTION W/CL B RIPRAP SEE DETAIL K

INV=858.43'
48 TONS CL I RIPRAP
W/89 SY GEOTEXTILE
FOR BANKS ONLY

INV=864.00'

INV=880.49'

INV=880.00'

INV=868.09'
1 TON CL B RIPRAP
W/5 SY GEOTEXTILE

INV=874.00'

US 158/ REIDSVILLE RD 28' BST

MTL

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PROJECT REFERENCE NO.	SHEET NO.
R-2577A	13
R/W SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

INCOMPLETE PLANS
DO NOT USE FOR R/W ACQUISITION

DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED

NAD 83

MATCHLINE –L– STA. 111+00 SEE SHEET 12

MATCHLINE –L– STA. 124+50 SEE SHEET 14

-Y11- POT Sta. 10+00.00

BEGIN CONSTRUCTION
-Y11- POT Sta. 12+00.00

-Y10- POT Sta. 10+00.00=
-K- POT Sta.112+63.73

END CONSTRUCTION
-Y10- POT Sta. 12+77.76

-Y11- POT Sta. 15+30.91=
-L- POT Sta.115+60.12

US 158/ REIDSVILLE RD 28' BST

TO STANLEY CT.

STANLEY PARK RD 22' BST

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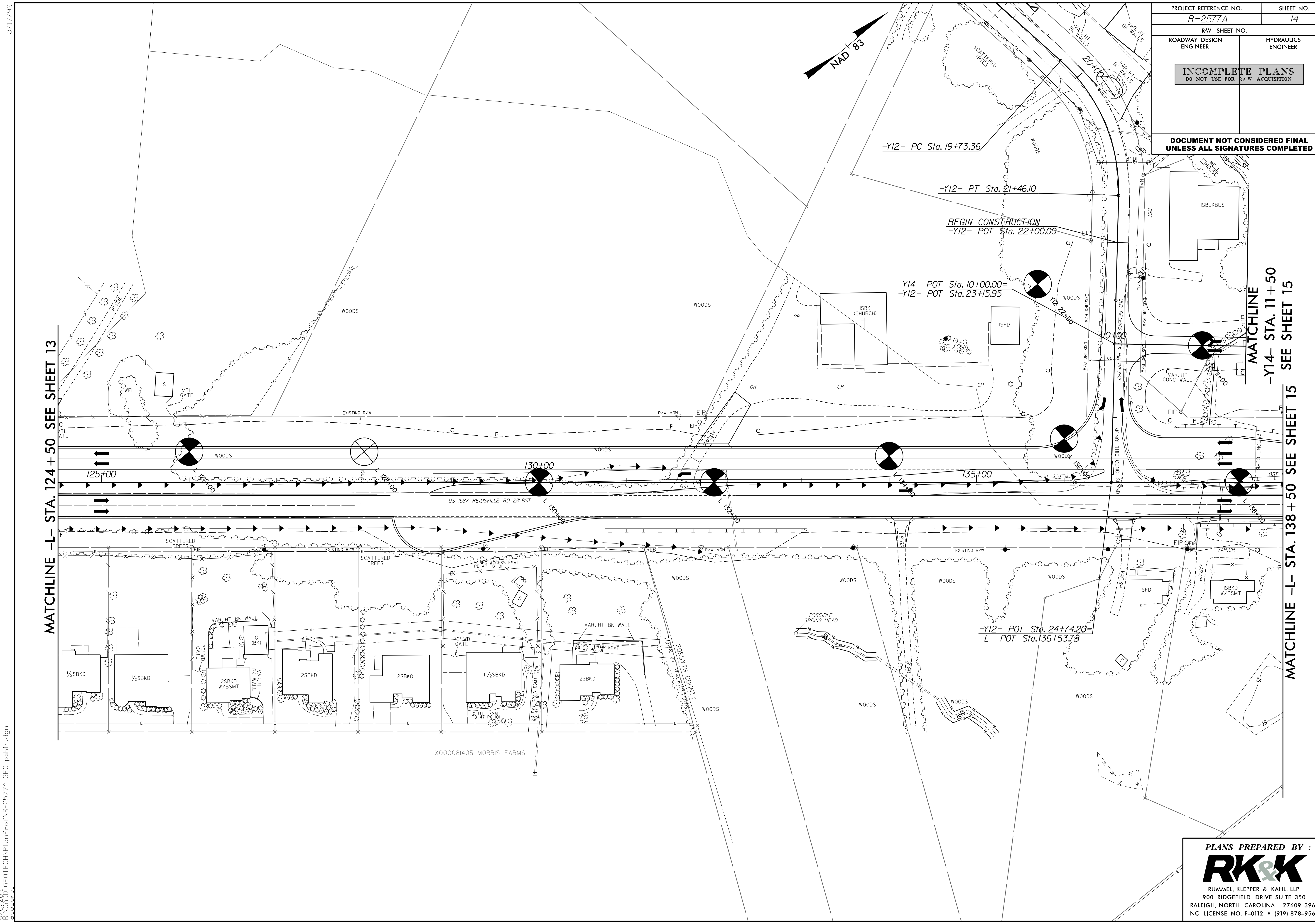
PROJECT REFERENCE NO.
R-2577A
SHEET NO.
14
R/W SHEET NO.
ROADWAY DESIGN ENGINEER
HYDRAULICS ENGINEER
INCOMPLETE PLANS
DO NOT USE FOR R/W ACQUISITION
DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED
NAD 83
MATCHLINE -L- STA. 124+50 SEE SHEET 13
MATCHLINE -L- STA. 138+50 SEE SHEET 15
MATCHLINE -Y14- STA. 11+50 SEE SHEET 15
-Y12- PC Sta. 19+73.36
-Y12- PT Sta. 21+46.10
BEGIN CONSTRUCTION
-Y12- POT Sta. 22+00.00
-Y14- POT Sta. 10+00.00=
-Y12- POT Sta.23+15.95
-Y12- POT Sta. 24+74.20=
-L- POT Sta.136+53.78
US 158/ REIDSVILLE RD 28' BST
OLD BELEWS CREEK RD 22' BST
MONOLITHIC CONC ISLAND
125+00
130+00
135+00
ISBK (CHURCH)
ISFD
ISBLKBUS
ISBKD W/BSMT
2SBKD
2SBKD W/BSMT
1½SBKD
G (BK)
VAR. HT BK WALL
VAR. HT BK WALLS
VAR. HT CONC WALL
72" WD GATE
MTL GATE
WELL
WELL HOUSE
5' NEG ACCESS ESMT PB 47 PG 101
20' PVT DRAIN ESMT PB 47 PG 101
10' UTIL ESMT PB 47 PG 101
TOWN OF WALKERTOWN
FORSYTH COUNTY
X000081405 MORRIS FARMS
POSSIBLE SPRING HEAD
SCATTERED TREES
WOODS
EXISTING R/W
R/W MON
EIP
REB
GR
VAR.GR
8' GR
6" CONC CURB
12" CI
8' SOIL
8" VC
8" DI
SS
NAIL
BST
60.00'
150.00'
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PROJECT REFERENCE NO.	SHEET NO.
R-2577A	15
R/W SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

INCOMPLETE PLANS
DO NOT USE FOR R/W ACQUISITION

DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED

NAD 83

MATCHLINE -Y14- STA. 11+50 SEE SHEET 14

MATCHLINE -L- STA. 138+50 SEE SHEET 14

MATCHLINE -L- STA. 151+00 SEE SHEET 16

-Y14- PC Sta. 12+07.47

-Y14- PT Sta. 13+90.00

END CONSTRUCTION
-Y14- POT Sta. 14+23.68

-Y13- POT Sta. 10+00.00=
-L- POT Sta.142+63.64

-Y13- PC Sta. 10+82.73

-Y13- PT Sta. 12+26.54

END CONSTRUCTION
-Y13- POT Sta. 13+00.00

-Y13- POT Sta. 16+13.06

BEGIN BRIDGE
-L- POT Sta.139+55.88

BEGIN APPROACH SLAB
-L- POT Sta.139+27.15

END APPROACH SLAB
-L- POT Sta.141+49.87

END BRIDGE
-L- POT Sta.141+21.00

DUKE POWER COMPANY EASEMENT
AS PER P.B. 46 PG. 136

LOWERY MILL CREEK

FRANKLIN FARM RD.(PVT)

OLD BELTWAY CREEK RD. (PVT)

TO DEAD END

EXISTING R/W STATE PROJ. 34839.1.1U2579B

20' SANITARY SEWER EASEMENT

ISFBUS

ISFD

ISRD

BARN (DILAP)

SEPTIC PUMP

HTR

POND

WOODS

MTL POLE (HIGH TENSION)

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PROJECT REFERENCE NO.	SHEET NO.
R-2577A	16
R/W SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

INCOMPLETE PLANS
DO NOT USE FOR R/W ACQUISITION

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NAD 83

NO DRAINAGE ON THIS PLANSHEET
THIS IS THE U-2579B PROJECT

20' SANITARY SEWER EASEMENT

SWGTAIR-BCM-STATE PROJ. 14BT011U2579BB

155+00

160+00

MATCHLINE –L– STA. 151+00 SEE SHEET 15

MATCHLINE –L– STA. 164+00 SEE SHEET 17

WOODS

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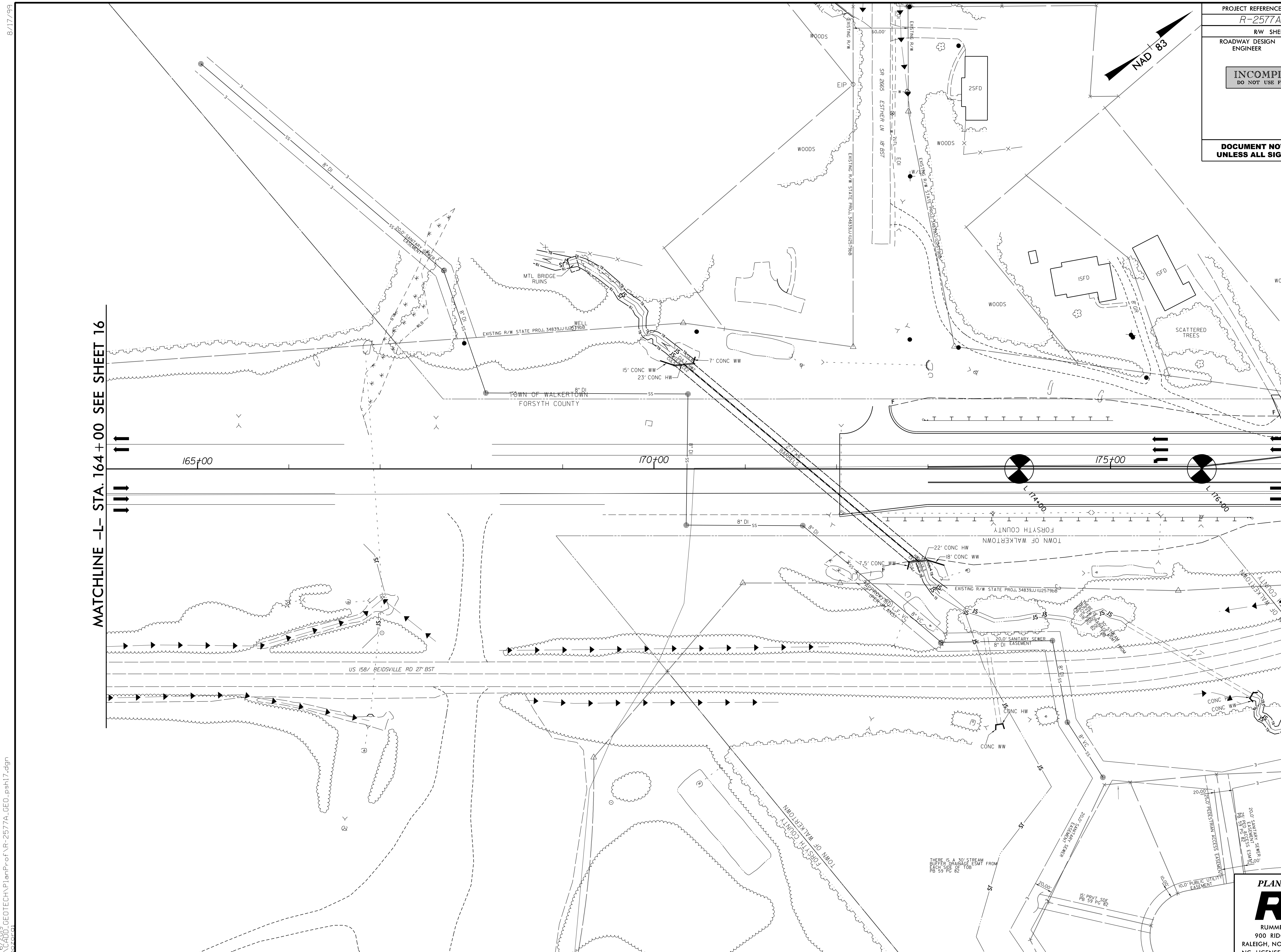
PROJECT REFERENCE NO.	SHEET NO.
R-2577A	17

R/W SHEET NO.

ROADWAY DESIGN ENGINEER | HYDRAULICS ENGINEER

INCOMPLETE PLANS
DO NOT USE FOR R/W ACQUISITION

DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED



NAD 83
MATCHLINE -L- STA. 164+00 SEE SHEET 16
MATCHLINE -L- STA. 177+00 SEE SHEET 18
165+00
170+00
175+00
L 174+00
L 176+00
SR 2665 ESTHER LN 18' BST
EXISTING R/W
60.00'
EIP
WOODS
2SFD
ISFD
SCATTERED TREES
EXISTING R/W STATE PROJ. 34839.1.1(U2579bB
8" DI
SS
20.0' SANITARY SEWER EASEMENT
MTL BRIDGE RUINS
WELL
7' CONC WW
15' CONC WW
23' CONC HW
TOWN OF WALKERTOWN
FORSYTH COUNTY
2-7'x6' BARRELS
8' GR
22' CONC HW
18' CONC WW
7.5' CONC WW
APPROX. 180 L.F. VC (PER PLANS)
8" VC
US 158/ REIDSVILLE RD 27' BST
CONC HW
CONC WW
THERE IS A 30' STREAM BUFFER DRAINAGE ESMT FROM EACH SIDE OF TOB PB 59 PG 82
20.0' SANITARY SEWER EASEMENT
25.0' PEDESTRIAN ACCESS EASEMENT
20.0' SANITARY SEWER EASEMENT 25' PED ACCESS ESMT PB 59 PG 82
10.0' PUBLIC UTILITY EASEMENT
15' PRVT SDE PB 59 PG 82
20.00'
10.00'

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PROJECT REFERENCE NO.	SHEET NO.
R-2577A	18
R/W SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

INCOMPLETE PLANS
DO NOT USE FOR R/W ACQUISITION

DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED

NAD 83

MATCHLINE –L– STA. 177+00 SEE SHEET 17

MATCHLINE –L– STA. 190+00 SEE SHEET 19

EIP
WD CANOPY
WELL HOUSE
VAR. HT WD WALL
VAR. HT BK WALL
WELL
2SFD
ISFD
G
S
WOODS
TOWN OF WALKERTOWN
FORSYTH COUNTY
W/LT
R/W MON
TEST STATION
L 178+00
L 180+00
L 182+00
L 184+00
L 185+00
L 186+00
L 188+00
US 158/ REIDSVILLE RD 28' BSF
12" DI
EXISTING R/W STATE PROJ. 34839.11.12579.08
NEGATIVE ACCESS & 10' UTILITY EASEMENT (PRIVATE) AS PER PB 52 PG 98
TOWN OF WALKERTOWN FORSYTH COUNTY
EIP SCATTERED TREES
WD RR TIMBERS
VAR GR
MTL CANOPY
A/G LP TANKS
DISAPPEARING STREAM
VAR. HT WD WALL
SEPTIC PUMP
A/G OIL TANK
25' ACCESS EASEMENT DB 1726 PG 2348
8" VC
8" DI
25' PRIVATE SEWER EASEMENT
APPROX. LOCATION 20' SEWER EASEMENT
10.0' PUBLIC UTILITY EASEMENT
20.0' SANITARY SEWER EASEMENT
50.00'
EXISTING R/W 10.0' PUBLIC UTILITY EASEMENT

FOR –L– PROFILE SEE SHT. 37

PLANS PREPARED BY :

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PROJECT REFERENCE NO.	SHEET NO.
R-2577A	19
R/W SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

INCOMPLETE PLANS
DO NOT USE FOR R/W ACQUISITION

DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED

NAD 83

-Y15- POT Sta. 10+00.00
-Y15- PC Sta. 10+22.04
BEGIN CONSTRUCTION
-Y15- POC Sta. 11+25.00
-Y15- PT Sta. 11+77.86
-Y15- PC Sta. 14+50.53
-Y15- PT Sta. 15+75.19=
-L- POT Sta.192+66.63

MATCHLINE -L- STA. 190+00 SEE SHEET 18

MATCHLINE -L- STA. 200+00 SEE SHEET 20

TO ESTHER LN.
1½SFD
OHP
KNOLL RIDGE DR 27 BST
SCATTERED TREES
ISBKD W/BSMT
EXISTING R/W
2 LANE
ISFD
HTR
RUINS
GR
VAR.GR
GR/SOIL
8" DI
W/LT
EIP
POOL
SEPTIC PUMP
AXLE
ISFBUS W/BSMT
A/C OIL TANK
VAR. HT BLK WALL
WELL
WELL HOUSE
WD CANOPY
MTL CANOPY
GRASS
SOIL
US 158/ REIDSVILLE RD 28' BST

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TRAFFIC DIAGRAM

ADT 2017
ADT 2040

–Y17– DARROW RD.

3,250 / 4,750

3,250 / 4,750 | 3,250 / 4,750

1,850 / 1,650

8,100 / 17,500 –L– US 158 –L– US 158 6,650 / 17,605

990 / 1,545

1,900 / 2,050 | 1,900 / 2,050

1,900 / 2,050

–Y16– OLD BELEWS CREEK RD.

PROJECT REFERENCE NO.	SHEET NO.
R-2577A	20
R/W SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

INCOMPLETE PLANS
DO NOT USE FOR R/W ACQUISITION

DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED

NAD 83

MATCHLINE –L– STA. 200+00 SEE SHEET 19

MATCHLINE –L– STA. 213+00 SEE SHEET 21

BEGIN CONSTRUCTION
–Y17– POT Sta. 12+00.00
–Y17– PC Sta. 12+29.13

BEGIN CONSTRUCTION
–Y17A– POT Sta. 10+00.00

–Y17– PRC Sta. 13+55.66

–Y17A– POT Sta. 11+68.92=
–Y17– POT Sta. 14+78.49
–Y17– PT Sta. 14+82.18

–Y16– POT Sta. 21+29.77 =
–L– POT Sta. 207+59.66

–Y17– POT Sta. 16+72.46=
–L– POT Sta. 208+62.25

–Y16– PT Sta. 20+93.66

–Y16– PC Sta. 19+38.42

BEGIN CONSTRUCTION
–Y16– POT Sta. 18+00.00

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PROJECT REFERENCE NO.	SHEET NO.
R-2577A	21
R/W SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

INCOMPLETE PLANS
DO NOT USE FOR R/W ACQUISITION

DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED

NAD 83

MATCHLINE –L– STA. 213+00 SEE SHEET 20

MATCHLINE –L– STA. 226+00 SEE SHEET 22

-Y17- POT Sta. 10+00.00

TO DEAD END

ROCK LN DR 20' BST

SR 2365/DARROW RD 22' BST

EXISTING R/W

48" CMP

A/C OIL TANK

ISBK

VAR GR

EIP

10+00

8" VC

SS

9' GR

MTL BENCH

WOODS

WD CANOPY OVER CONC (PICNIC SHELTER)

CONCRETE TABLES

VARIOUS WIDTH SOIL/GR WALKING TRAILS

POSSIBLE SPRING HEAD

JS

215+00

216+00

217+00

218+00

219+00

220+00

221+00

222+00

223+00

224+00

225+00

W/LT

6' BST

3SBKAPT

UK

VAR. HT BK WALL

SEPTIC PUMP

VAR. SOIL

GAZEBO

1½SFD W/BSMT

SCATTERED TREES

ISFD (DILAPIDATED)

SEPTIC PUMP

S

WELL

1SBKD W/BSMT

GR

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PROJECT REFERENCE NO.	SHEET NO.
R-2577A	22
R/W SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

INCOMPLETE PLANS
DO NOT USE FOR R/W ACQUISITION

DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED

NAD 83

MATCHLINE –L– STA. 226+00 SEE SHEET 21

MATCHLINE –L– STA. 238+50 SEE SHEET 23

ALLUVIAL

ALLUVIAL

5'x5' RCBC EXT.

DET.HW

8' CONC WW

6' CONC HW

8' VC

SP DET HW

EXISTING R/W

MARTIN MILL CREEK

US 158/ REIDSVILLE RD 27' BST

US 158/ REIDSVILLE RD 52' BST

NO GRATE

APPROX 185.4 L.F. DI (PER PLANS)

WOODS

ISBKD W/BSMT

VAR HT. BK WALL

MTL CANOPY

ISBKD W/BSMT

ISBKBUS

ISFD

SCATTERED TREES

ISBKD

A/G OIL TANK

WELL

VAR.GR

72" CHL GATE

MTL GATE

60" CHL GATE

48" WD GATE

230+00

235+00

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PROJECT REFERENCE NO.	SHEET NO.
R-2577A	23
R/W SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

INCOMPLETE PLANS
DO NOT USE FOR R/W ACQUISITION

DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED

NAD 83

MATCHLINE –L– STA. 238+50 SEE SHEET 22

MATCHLINE –L– STA. 248+00 SEE SHEET 24

-Y18- POT Sta. 10+00.00=
-L- POT Sta.239+51.19

-Y19- POT Sta. 10+00.00=
-L- POT Sta.242+63.32

-L- PC Sta. 246+64.24

240+00

245+00

250+00

US 158/ REIDSVILLE RD/64 BST

MONOLITHIC CONC ISLAND

WOODS

BARN (DILAPIDATED)

EXISTING R/W

TICKET BOOTH U/MTL CANOPY

MTL MOVIE SCREEN

A/G OIL TANK

VAR. HT BLK WALL

ISBKD W/BSMT

WELL

ISFD

MTL LT POST

MTL CHL GATE

VAR.GR

WALKERTOWN COMMONS DR 35' BST

TO US HWY 66 (OLD HOLLOW RD)

END CONSTRUCTION
-Y18- POT Sta. 11+15.00

-Y18- POT Sta. 12+74.43

END CONSTRUCTION
-Y19- POT Sta. 11+15.00

-Y19- POT Sta. 12+74.39

ISBKBUS

FREEZER

SPIGOT

GREASE MANHOLES

ISMTL BUS

BACK FLOW PREVENTER

CONC BASE INC. L.D.

VAR. HT BLK/BK WALL

20' WATER ESMT PB 49 PG 98

20' SANSEWER ESMT PB 49 PG 98

30' SANSEWER & WATER ESMT PB 49 PG 98

PLANS PREPARED BY :

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PROJECT REFERENCE NO.	SHEET NO.
R-2577A	24
R/W SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

INCOMPLETE PLANS
DO NOT USE FOR R/W ACQUISITION

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NAD 83

MATCHLINE –L– STA. 248+00 SEE SHEET 23

MATCHLINE –L– STA. 261+00 SEE SHEET 25

-Y20- POT Sta. 98+68.84=
-L- POT Sta.250+40.52

-L- PT Sta. 251+70.38

-Y20- PT Sta. 97+47.25

-Y21- POT Sta. 10+00.00=
-L- POT Sta.255+23.74

-Y22- POT Sta. 10+00.00=
-L- POT Sta.260+20.07

END CONSTRUCTION
-Y21- POT Sta.11+35.00

-Y21- POT Sta. 12+73.07

END CONSTRUCTION
-Y22- POT Sta.11+20.00

-Y22- POT Sta. 12+73.17

-Y20- PC Sta. 104+58.68

NC 66 SOUTH/ OLD HOLLOW RD 135' BST

MARTIN ST 18' BST

US 158/ REIDSVILLE RD 64' BST

US 158/ REIDSVILLE RD 54' BST

NEIL TRAIL DR 26' BST

NEAL TRAIL DRIVE
AR PVT RIGHT-OF-WAY
PB 55 PG 79

WALKERTOWN LANDING DR 36' BST

TO NEAL TRAIL DR.

TO WALKERTOWN LANDING DR.

ISBKD

ISFD W/BSMT

ISBKBUS

ISFBUS

5-ISL'S
5 GAS PUMPS
U/MTL CANOPY

3-ISL'S
3 GAS PUMPS
U/MTL CANOPY

CANOPY

BARN

GREASE TRAPS

SERVICE POLES

A/G OIL TANK

WELL

SCATTERED TREES

WOODS

MONOLITHIC CONC ISLAND

NON-EXCLUSIVE SANITARY SEWER & WATERLINE ESMT PB 55 PG 78

25' PSDE PB 55 PG 79

20' WATER ESMT PB 49 PG 98

TRAFFIC DIAGRAM

ADT 2017
ADT 2040

–Y20– OLD HOLLOW RD.
17,300 / 16,100

1,080 / 2,760
3,390 / 6,365
5,200 / 4,100

14,900 / 28,000 –L– US 158 –L– US 158 19,000 / 26,700

2,400 / 3,400
3,100 / 2,600

15,800 / 13,400
–Y20– OLD HOLLOW RD.

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PROJECT REFERENCE NO.	SHEET NO.
R-2577A	25
R/W SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

INCOMPLETE PLANS
DO NOT USE FOR R/W ACQUISITION

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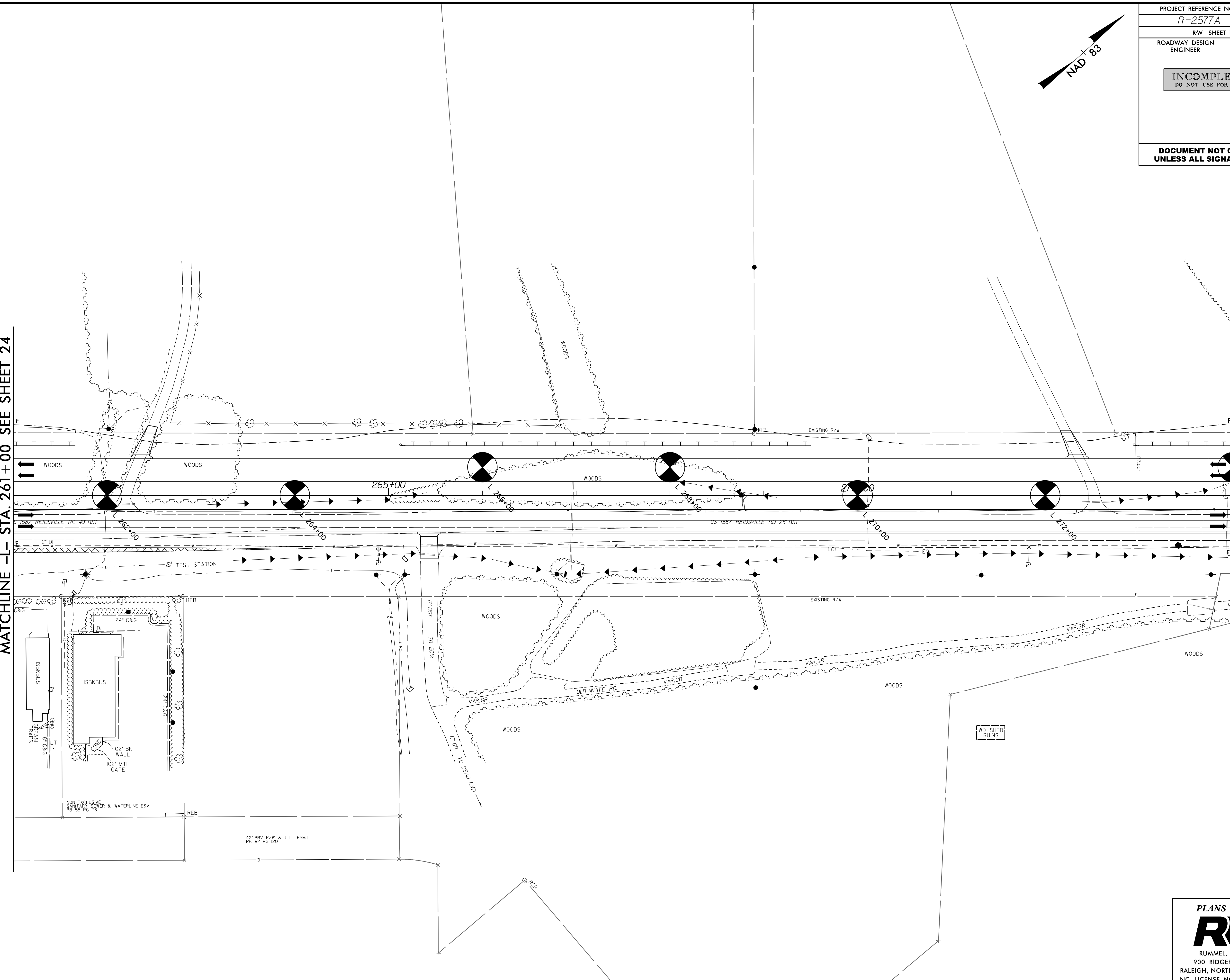

NAD 83
MATCHLINE -L- STA. 261+00 SEE SHEET 24
MATCHLINE -L- STA. 274+00 SEE SHEET 26
WOODS
US 158/ REIDSVILLE RD 40' BST
US 158/ REIDSVILLE RD 28' BST
12" DI
TEST STATION
265+00
L 262+00
L 264+00
L 266+00
L 268+00
L 270+00
L 272+00
EXISTING R/W
EIP
EOI
117.00'
REB
C&G
24" C&G
DI
ISBKBUS
GREASE TRAPS
18" C&G
LT
CONC
102" BK WALL
102" MTL GATE
NON-EXCLUSIVE SANITARY SEWER & WATERLINE ESMT PB 55 PG 78
46' PRV R/W & UTIL ESMT PB 62 PG 120
17' BST
SR 2012
FO
VAR.GR
OLD WHITE RD.
13' GR TO DEAD END
WD SHED RUINS

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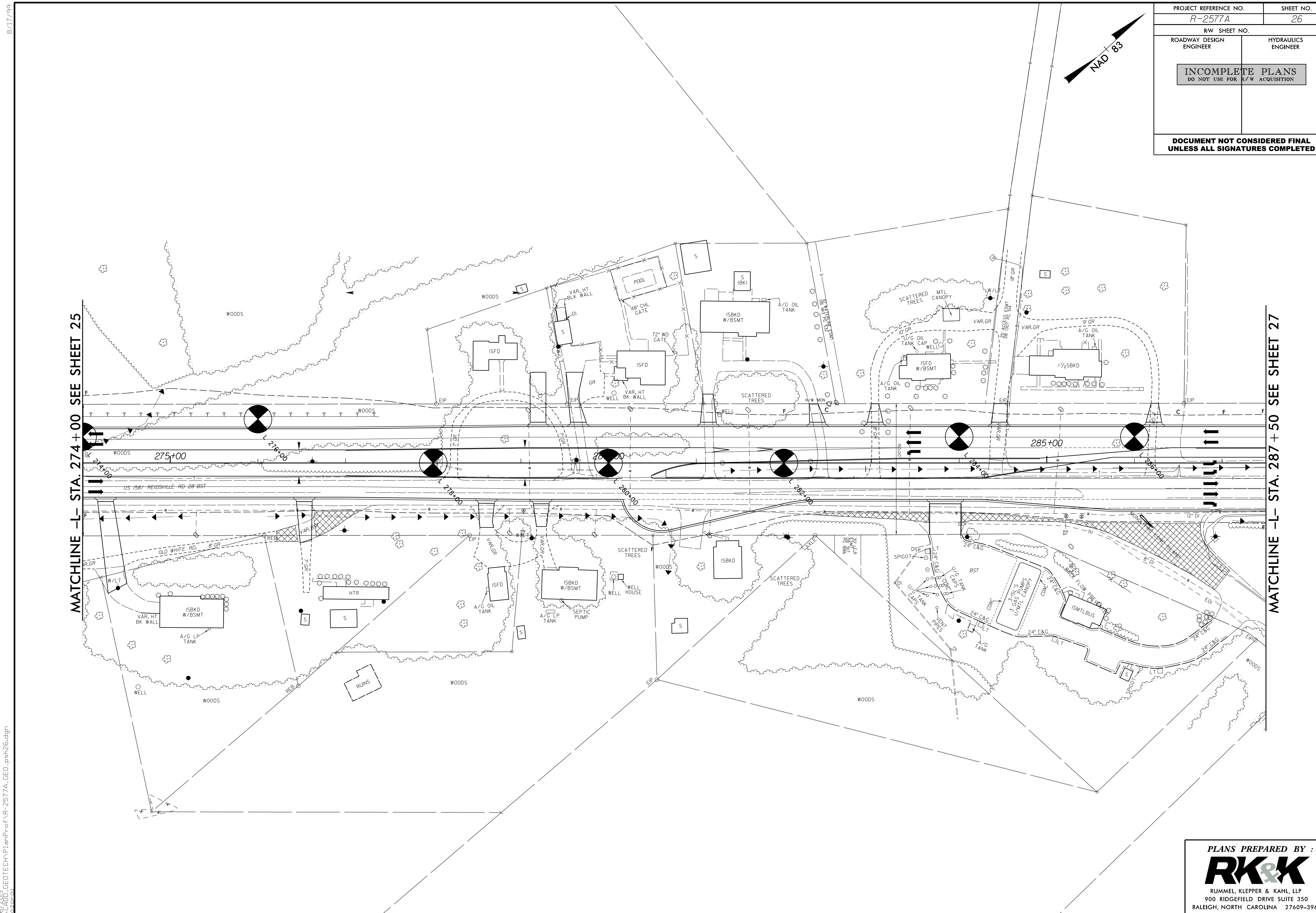

MATCHLINE -L- STA. 274+00 SEE SHEET 25
MATCHLINE -L- STA. 287+50 SEE SHEET 27
NAD 83
275+00
285+00
L 274+00
L 276+00
L 278+00
L 280+00
L 282+00
L 284+00
L 286+00
US 158/ REIDSVILLE RD 28' BST
OLD WHITE RD.
8' GR
WOODS
ISFD
ISFD W/BSMT
ISBKD
ISBKD W/BSMT
1½SBKD
ISMTLBUS
HTR
RUINS
POOL
S
S (BK)
VAR. HT BLK WALL
VAR. HT BK WALL
DI
48" CHL GATE
72" WD GATE
GR
WELL
WELL HOUSE
SEPTIC PUMP
A/G OIL TANK
A/G LP TANK
A/G TANK
U/G OIL TANK CAP
U/G TANK CAPS
VENT PIPES
SPIGOT
SCATTERED TREES
MTL CANOPY
10' WATERLINE ESMT DB 1813 PG 532
25' ACCESS ESMT DB 1307 PG 514
30' I.E.R ESMT DB 3117 PG 1886
R/W MON
EIP
REB
AXLE
W/LT
VAR.GR
VAR. BST
7' GR
8' GR
9' GR
10' GR
18' GR
150.00'
BST
CONC
3-ISL'S 3 GAS PUMPS U/MTL CANOPY
24" C&G
LT
BACK FLOW PREVENTER
MONOLITHIC CONC ISLAND
8" DI
12" DI
EOI

PROJECT REFERENCE NO. R-2577A

SHEET NO. 26

R/W SHEET NO.

ROADWAY DESIGN ENGINEER

HYDRAULICS ENGINEER

INCOMPLETE PLANS
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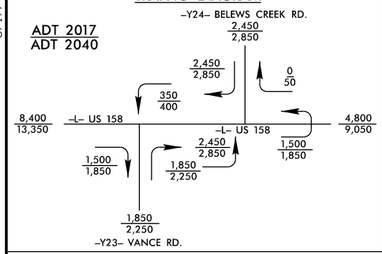
TRAFFIC DIAGRAM

ADT 2017
ADT 2040



PROJECT REFERENCE NO.	SHEET NO.
R-2577A	27
R/W SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

INCOMPLETE PLANS
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NAD 83

BEGIN CONSTRUCTION
-Y24- POC Sta.13+08.65

-Y24- PCC Sta. 16+08.65

-Y24- PRC Sta. 20+08.52

-Y24- PT Sta. 23+89.49

-Y23- PC Sta. 12+85.21

-Y23- POT Sta. 10+00.00=
-Y24- POT Sta. 24+35.99=
-L- POT Sta.290+62.72

BEGINS CONSTRUCTION
X-OVER1- POT Sta.300+00.00=
-L- POT Sta.300+00.00 (29.50-LT)

X-OVER1- PC Sta.300+06.77

MATCHLINE -L- STA. 287+50 SEE SHEET 26

MATCHLINE -L- STA. 301+00 SEE SHEET 28

MATCHLINE -Y23- STA. 13+00 SEE SHEET 30

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PROJECT REFERENCE NO.	SHEET NO.
R-2577A	28
R/W SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

INCOMPLETE PLANS
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NAD 83

MATCHLINE -L- STA. 301+00 SEE SHEET 27

END TIP PROJECT R-2577A
-L- STA. 305+01.64

-X-OVER1- PRC Sta. 302+54.72

-X-OVER1- POT Sta. 304+99.52

-X-OVER1- PT Sta. 304+89.67

EIP
EXISTING R/W
300+00
US 158/ RELIDSVILLE RD 27' BST
TO STOKESDALE
EOT
SCATTERED TREES
SHRUBS
WELL
ISBKD
AXLE
JS
ST

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PROJECT REFERENCE NO.	SHEET NO.
R-2577A	29
R/W SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

INCOMPLETE PLANS
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NAD 83

BEGIN CONSTRUCTION
-Y5A- POT Sta. 10+00.00

-Y5A- PC Sta. 12+00.00

-Y5A- PT Sta. 15+87.18

-Y5- PC Sta. 12+77.72

-Y5- POT Sta. 10+00.00
BEGIN CONSTRUCTION
-Y5- POT Sta. 10+15.82

-Y5A- POT Sta. 16+44.00=
-Y5- POC Sta. 17+90.00

MATCHLINE -Y5- STA. 19+75 SEE SHEET 10

OLD BELEWS CREEK RD 22' BST

EXISTING R/W

W/LT

EIP

IFO MARKER

SCATTERED TREES

TO US HWY 158

ISBKD

ISFD

2SFD

1½SFD

WELL

BARN

RUINS

SERVICE POLE

60' CHL GATE

48' CHL GATE

72' WD GATE

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PROJECT REFERENCE NO.	SHEET NO.
R-2577A	30
R/W SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

INCOMPLETE PLANS
DO NOT USE FOR R/W ACQUISITION

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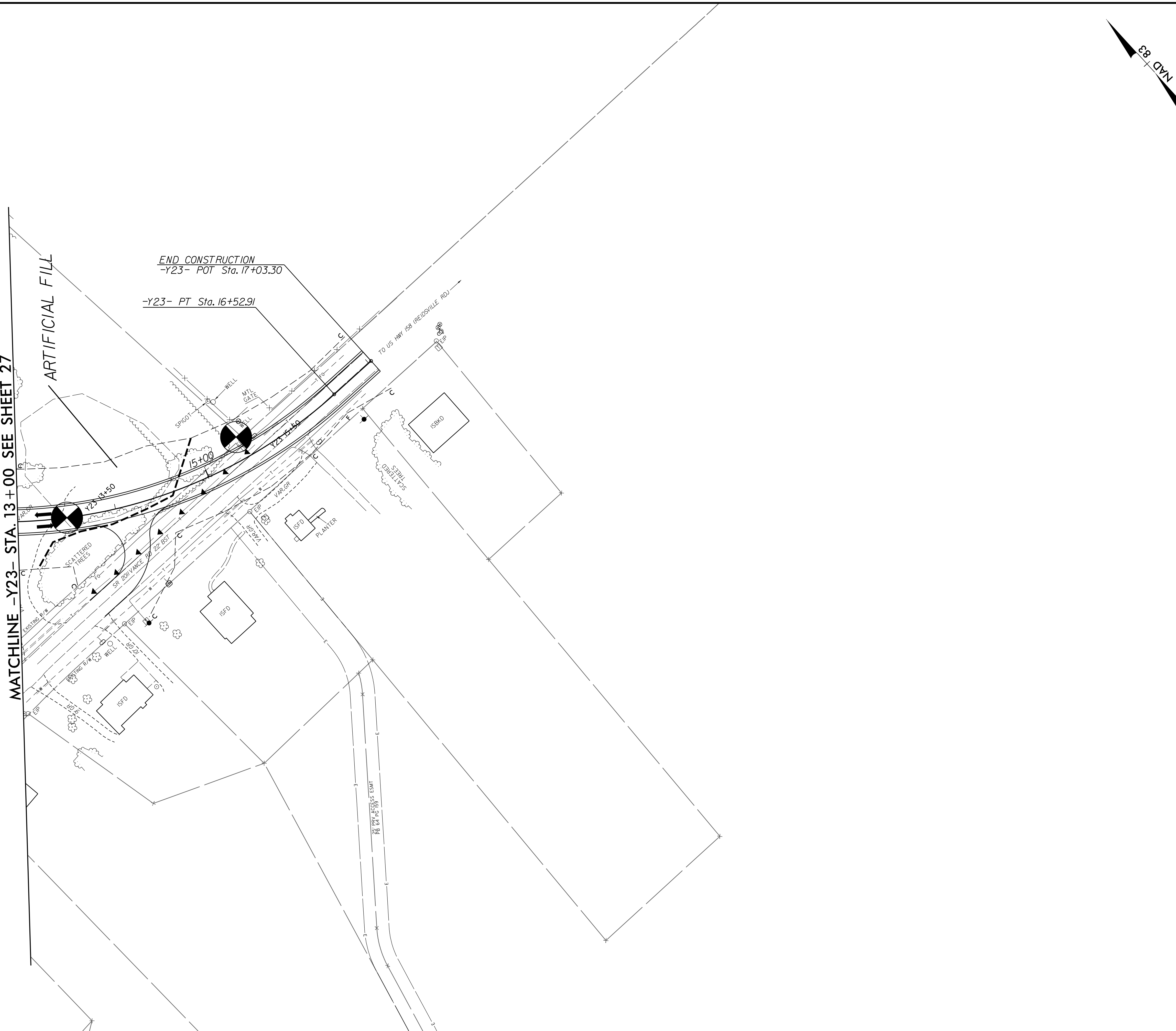

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6/23/16

0 5 10	PROJ. REFERENCE NO.	SHEET NO.
	R-2577A	31

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

920 910 900 890 880 870 860 850 840 930 920 910 900 890 880 870

Ⓐ ROADWAY EMBANKMENT Brown-red, soft to stiff, clayey sandy SILT and silty moderately plastic CLAY; loose to medium dense, silty clayey gravelly SAND and sandy GRAVEL; trace to some mica, some gravel, moist to wet

L 3+00

Existing Ground Line

2:1

Ⓐ

RESIDUAL

Brown-gray, medium stiff to very stiff, clayey SILT, trace mica, moist

Brown, stiff, silty CLAY, wet

Brown to brown-black, medium stiff to stiff, clayey SILT, saprolitic, little mica, wet

Gray-white, loose, silty fine SAND, trace mica, wet

6
16
13
6
14
8
7

DRY
3/19

3+00.00

Ⓐ ROADWAY EMBANKMENT Brown-red, soft to stiff, clayey sandy SILT and silty moderately plastic CLAY; loose to medium dense, silty clayey gravelly SAND and sandy GRAVEL; trace to some mica, some gravel, moist to wet

Existing Ground Line

2:1

Ⓐ

RESIDUAL

Brown-gray, medium stiff, clayey SILT, trace mica, moist

Brown-red, stiff, silty CLAY, wet

L 1+00
1+50

5
7
10

DRY
3/19

1+50.00

8/24/2019
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6/23/16

0 5 10	PROJ. REFERENCE NO.	SHEET NO.
	R-2577A	32

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

930 920 910 900 890 880 870 860 850

Ⓐ ROADWAY EMBANKMENT Brown-red, soft to stiff, clayey sandy SILT and silty moderately plastic CLAY; loose to medium dense, silty clayey gravelly SAND and sandy GRAVEL; trace to some mica, some gravel, moist to wet

Existing Ground Line

2:1

RESIDUAL

Brown, stiff, clayey SILT, trace mica, trace coarse sand, moist

Light gray-brown-white, medium dense to very dense, silty fine SAND, saprolitic, trace mica, moist

L 7+00

12 14 12 18 68

DRY 3/19

7+00.00

Existing Ground Line

2:1

ROADWAY EMBANKMENT Brown, medium stiff, clayey SILT, trace mica, wet

RESIDUAL Brown-gray, stiff to very stiff, fine sandy SILT, saprolitic, wet

L 5+00

7 7 5 9 28

DRY 3/19

5+00.00

8/24/2019
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6/23/16

0 5 10	PROJ. REFERENCE NO.	SHEET NO.
	R-2577A	33

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

930 920 910 900 890 880 870 860 850

Existing Ground Line

2:1

ROADWAY EMBANKMENT Brown, medium stiff to stiff, clayey SILT, trace mica, wet

2:1

L 11+00

RESIDUAL Brown to brown-gray-black, stiff to very stiff, clayey sandy SILT, saprolitic, trace to little mica, wet to saturated

4 12 12 12 16 15 15 20

03/19

11+00.00

940 930 920 910 900 890 880 870 860

(A) ROADWAY EMBANKMENT Brown-red, soft to stiff, clayey, sandy SILT and silty moderately plastic CLAY; loose to medium dense, silty clayey gravelly SAND and sandy GRAVEL; trace to some mica, some gravel, moist to wet

Existing Ground Line

2:1

(A)

2:1

L 9+00

RESIDUAL Brown-gray, stiff, sandy SILT, trace mica, moist

9 23 52 21 100/0.9

Light gray-brown to gray to brown, medium dense to very dense, silty SAND, trace mica, some rock fragments, moist

WEATHERED ROCK GRANITE

DRY 3/19

9+00.00

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

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6/23/16

0 5 10	PROJ. REFERENCE NO.	SHEET NO.
	R-2577A	34

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

950 940 930 920 910 900

Ⓐ Gray, very dense, gravelly SAND, trace gravel, wet

Existing Ground Line

2:1

ROADWAY EMBANKMENT Red-brown, stiff, clayey SILT, wet

L 15+00

2:1

Ⓐ

13
12
100/0.6
12

DRY
3/19

Brown-gray, stiff, clayey SILT, trace mica, wet

15+00.00

890 940 930 920 910 900 890 880 870 860

Ⓐ ROADWAY EMBANKMENT Brown-red, medium stiff, sandy clayey SILT, some gravel, trace mica, wet

Existing Ground Line

2:1

Ⓐ

L 13+00

SS-50

2:1

6
8
13
13
7
12
6

03/19

RESIDUAL

Brown-red to red, medium stiff to stiff, sandy clayey SILT and fine sandy SILT, trace mica, some rock fragments, saprolitic, wet to saturated

13+00.00

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

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6/23/16

0 5 10	PROJ. REFERENCE NO.	SHEET NO.
	R-2577A	35

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

960
950
940
930
920
910
900

Ⓐ ROADWAY EMBANKMENT Brown-red, medium stiff, silty sandy moderately plastic CLAY, moist

Existing Ground Line

RESIDUAL Red to gray-brown, stiff, fine sandy to clayey SILT, little mica, moist

L 19+00

SS-83

2:1

2:1

Ⓐ

6
9
8

DRY
3/19

19+00.00

L 17+00

Existing Ground Line

2:1

2:1

RESIDUAL Brown-red, stiff, sandy SILT, trace mica, moist

Red, stiff, silty CLAY, wet

10
13
8

DRY
3/19

17+00.00

8/24/2019
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6/23/16

0 5 10	PROJ. REFERENCE NO.	SHEET NO.
	R-2577A	36

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

950 940 930 920 910 900

(A) ROADWAY EMBANKMENT Brown-red, soft to stiff, clayey sandy SILT and silty moderately plastic CLAY; loose to medium dense, silty clayey gravelly SAND and sandy GRAVEL; trace to some mica, some gravel, moist to wet

(B) RESIDUAL Red, soft, silty CLAY, moist

L 23+00

Existing Ground Line

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

(2) (7) (8) (6) DRY 3/19

Brown-red to brown-gray, medium stiff to stiff, clayey SILT, trace mica, moist to wet

23+00.00

(A) RESIDUAL Brown, medium stiff, fine sandy CLAY, moist

L 21+00

Existing Ground Line

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

(7) (8) (6) DRY 3/19

Red, medium stiff to stiff, clayey SILT, trace rock fragments; moist

21+00.00

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6/23/16

0 5 10	PROJ. REFERENCE NO.	SHEET NO.
	R-2577A	37

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

950 940 930 920 910 900 960 950 940 930 920 910 960 950 940 930 920 910 900

L 28+50

(A) RESIDUAL - Red-brown, medium stiff, silty CLAY, trace mica, moist

Existing Ground Line

2:1 2:1

(5) (6) (9) (12)

DRY 3/19

Brown-orange, medium stiff to stiff, clayey to fine sandy SILT, moist

28+50.00

(A) ROADWAY EMBANKMENT Brown-red, medium stiff, silty sandy CLAY, moist

L 27+00

Existing Ground Line

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

(A) (4) (7) (10)

RESIDUAL Red, stiff, silty CLAY, trace mica, moist

DRY 3/19

27+00.00

L 25+00

Existing Ground Line

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

(6) (11) (17)

RESIDUAL - Red, medium stiff to stiff, silty CLAY, wet

DRY 3/19

Gray-brown, very stiff, clayey SILT, wet

25+00.00

8/24/2019
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6/23/16

0 5 10	PROJ. REFERENCE NO.	SHEET NO.
	R-2577A	38

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

950 940 930 920 910 900 890

L 29+50

(A) RESIDUAL Brown-red, stiff, silty CLAY, wet

Existing Ground Line

2:1 2:1

(A)

(9) (12) (6) (10) (10)

DRY 3/19

Brown to brown-white, medium stiff to stiff, clayey fine sandy SILT, saprolitic, trace mica, wet

29+50.00

L 29+00

SS-106

Existing Ground Line

2:1 2:1

(8) (10) (9) (10) (11)

DRY 3/19

RESIDUAL Brown-red, stiff, clayey to fine sandy SILT, moist to wet

29+00.00

—L—

960 950 940 930 920 910 900 890

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

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6/23/16

0 5 10	PROJ. REFERENCE NO.	SHEET NO.
	R-2577A	39

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

950 940 930 920 910 900 890

L 30+50

Ⓐ RESIDUAL Red-brown, medium stiff, fine sandy SILT, wet

2:1

Existing Ground Line

Red-brown to brown-black, loose, silty SAND, trace mica, wet

Red-brown, stiff to very stiff, fine sandy SILT, saprolitic, trace mica, wet

6
7
8
8
26

DRY
3/19

30+50.00

L 30+00

SS-118

Ⓐ RESIDUAL Red-brown, medium stiff, fine to coarse sandy CLAY, trace mica, wet

2:1

Existing Ground Line

Red-brown to brown-gray, stiff, fine sandy SILT, trace mica, wet

6
14
10
13
9

DRY
3/19

30+00.00

8/24/2019
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abozorgi

6/23/16

0 5 10	PROJ. REFERENCE NO.	SHEET NO.
	R-2577A	40

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

960 950 940 930 920 910 900

L 32+00

SS-134

(A) RESIDUAL Red-brown, medium stiff, silty moderately plastic CLAY, wet

Existing Ground Line

2:1

2:1

(A)

5
7
9
14

Brown-gray, stiff, fine sandy SILT, saprolitic, trace mica, wet

DRY
3/19

32+00.00

(A) RESIDUAL Red-brown, medium stiff, fine sandy SILT, wet

(B) Brown-red, stiff, fine to coarse sandy CLAY, wet

L 31+00

Existing Ground Line

(A)

2:1

6
10
71

(B)

DRY
3/19

Gray, very dense, silty fine to coarse SAND, trace to some rock fragments, wet

31+00.00

8/24/2019
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abozorgi

6/23/16

0 5 10	PROJ. REFERENCE NO.	SHEET NO.
	R-2577A	41

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

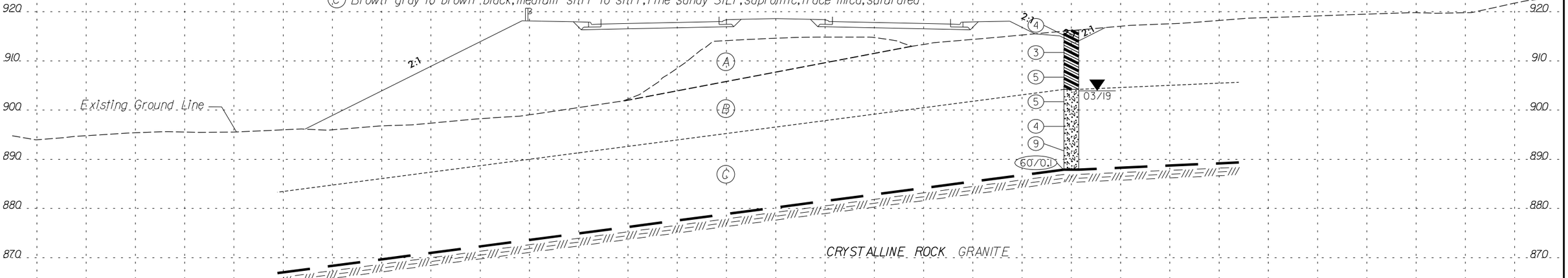
950 940 930 920 910 900 890 880 870

(A) ROADWAY EMBANKMENT Brown-red, soft to stiff, clayey sandy SILT and silty moderately plastic CLAY; loose to medium dense, silty clayey gravelly SAND and sandy GRAVEL; trace to some mica, some gravel, moist to wet

(B) RESIDUAL Red-brown, soft to medium stiff, silty CLAY, moist to saturated

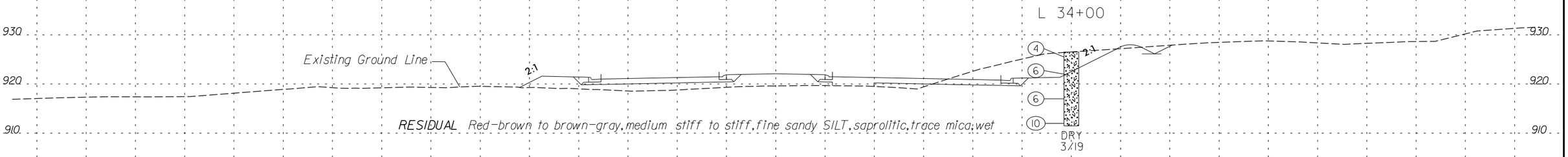
(C) Brown-gray to brown-black, medium stiff to stiff, fine sandy SILT, saprolitic, trace mica, saturated

L 36+00



36+00.00

L 34+00



RESIDUAL Red-brown to brown-gray, medium stiff to stiff, fine sandy SILT, saprolitic, trace mica, wet

34+00.00

8/24/2019
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abozorgi

6/23/16

0 5 10	PROJ. REFERENCE NO.	SHEET NO.
	R-2577A	42

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

960 950 940 930 920 910 900 890

(A) RESIDUAL Red-brown, medium stiff to stiff, silty CLAY, saprolitic, wet

L 40+00

Existing Ground Line

2:1

2:1

8
10
22

A

DRY
3/19

Brown-gray, very stiff, clayey SILT, saturated

40+00.00

(A) RESIDUAL Red-brown, soft, silty moderately plastic CLAY, wet

L 38+00

SS-151

Existing Ground Line

2:1

2:1

A

3
18
19

DRY
3/19

Brown-gray, very stiff, fine sandy SILT, saprolitic, wet

38+00.00

8/24/2019
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abozorgi

6/23/16

0 5 10	PROJ. REFERENCE NO.	SHEET NO.
	R-2577A	43

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

960 950 940 930 920 910 900

L 44+00

43+73

SS-157

Existing Ground Line

2:1 2:1 926.97 2:1

(A) RESIDUAL - Brown, loose, silty, clayey, fine to coarse SAND, wet

2:1 2:1 2:1 929.86

(4) (13) (8) DRY 3/19

Brown, stiff, silty CLAY, saprolitic, trace mica, wet

Brown, stiff, fine sandy SILT, trace mica, wet

43+50.00

L 42+00

Existing Ground Line

2:1 2:1 920.70 3:1

2:1 2:1 2:1 926.50

(4) (7) (9) DRY 3/19

RESIDUAL - Red-brown to brown, medium stiff, silty to sandy CLAY, wet

Brown, stiff, fine sandy SILT, trace mica, wet

42+00.00

8/24/2019
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abozorgi

6/23/16

0 5 10	PROJ. REFERENCE NO.	SHEET NO.
	R-2577A	44

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

970
960
950
940
930
920
910

Existing Ground Line

(A) RESIDUAL Red-brown, silty SAND, moist

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

L 48+00
48+01

Red, fine sandy clayey SILT, some mica, moist

DRY
FIAD
5/19

48+00.00

Existing Ground Line

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

L 46+00
45+97
S-700

RESIDUAL Red-brown to orange-red, clayey fine to coarse SAND; some mica; saprolitic, moist

DRY
FIAD
3/19

46+00.00

8/24/2019
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abozorgi

6/23/16

0 5 10	PROJ. REFERENCE NO.	SHEET NO.
	R-2577A	45

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

960 950 940 930 920 910 900

Existing Ground Line

(A) ROADWAY EMBANKMENT Red-brown, sandy CLAY, trace gravel, moist

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

RESIDUAL Brown-red, sandy highly plastic CLAY, trace mica, moist

49+00.00

970 960 950 940 930 920 910 900

Existing Ground Line

(A) RESIDUAL Red-brown, silty SAND, moist

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

(A) Red, fine sandy clayey SILT, moist

48+50.00

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

8/24/2018
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abozorgi

6/23/16

0 5 10	PROJ. REFERENCE NO.	SHEET NO.
	R-2577A	46

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

970
960
950
940
930
920
910

Ⓐ ROADWAY EMBANKMENT Red-brown, sandy CLAY, trace gravel, moist

Existing Ground Line

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

L 50+00
49+99

RESIDUAL Brown-red, sandy highly plastic CLAY, trace mica, moist

DRY
FIAD
5/19

50+00.00

970
960
950
940
930
920
910

Ⓐ ROADWAY EMBANKMENT Red-brown, sandy CLAY, trace gravel, moist

Existing Ground Line

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

RESIDUAL Brown-red, sandy highly plastic CLAY, trace mica, moist

49+50.00

900

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

8/24/2019
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6/23/16

0 5 10	PROJ. REFERENCE NO.	SHEET NO.
	R-2577A	47

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

960 950 940 930 920 910 900

Ⓐ ROADWAY EMBANKMENT Red-brown, sandy CLAY, trace gravel, moist

Existing Ground Line

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

RESIDUAL Brown-red, sandy highly plastic CLAY, trace mica, moist

51+00.00

960 950 940 930 920 910 900

Ⓐ ROADWAY EMBANKMENT Red-brown, sandy CLAY, trace gravel, moist

Existing Ground Line

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

RESIDUAL Brown-red, sandy highly plastic CLAY, trace mica, moist

50+50.00

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

8/24/2019
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6/23/16

0 5 10	PROJ. REFERENCE NO.	SHEET NO.
	R-2577A	48

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

960 950 940 930 920 910 900

Ⓐ ROADWAY EMBANKMENT Brown-red, soft to stiff, clayey sandy SILT and silty moderately plastic CLAY; loose to medium dense, silty clayey gravelly SAND and sandy GRAVEL; trace to some mica, some gravel, moist to wet

L 52+00
52+18
S-701

Existing Ground Line

3:1 2:1 2:1

RESIDUAL Brown-Red, coarse sandy highly plastic CLAY, trace mica, moist

DRY
FIAD
5/19

52+00.00

Ⓐ ROADWAY EMBANKMENT Brown-red, soft to stiff, clayey sandy SILT and silty moderately plastic CLAY; loose to medium dense, silty clayey gravelly SAND and sandy GRAVEL; trace to some mica, some gravel, moist to wet

Existing Ground Line

3:1 2:1 2:1

RESIDUAL Brown-Red, coarse sandy highly plastic CLAY, trace mica, moist

51+50.00

8/24/2009
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6/23/16

0 5 10	PROJ. REFERENCE NO.	SHEET NO.
	R-2577A	49

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

960 950 940 930 920 910 900

Ⓐ **ROADWAY EMBANKMENT** Brown-red, soft to stiff, clayey sandy SILT and silty moderately plastic CLAY; loose to medium dense, silty clayey gravelly SAND and sandy GRAVEL; trace to some mica, some gravel, moist to wet

Existing Ground Line

3:1 2:1 2:1 2:1

RESIDUAL Brown to brown-red, medium stiff to stiff, silty CLAY, wet

Brown, stiff, clayey SILT, saprolitic, trace mica, wet

Gray-black-brown, medium dense, silty fine to coarse SAND, saprolitic, saturated

53 + 00.00

980 970 960 950 940 930 920 910 900

Ⓐ **ROADWAY EMBANKMENT** Brown-red, soft to stiff, clayey sandy SILT and silty moderately plastic CLAY; loose to medium dense, silty clayey gravelly SAND and sandy GRAVEL; trace to some mica, some gravel, moist to wet

Existing Ground Line

3:1 2:1 2:1

RESIDUAL Brown-Red, coarse sandy highly plastic CLAY, trace mica, moist

52 + 50.00

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

8/24/2009
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dhoang

6/23/16

0 5 10	PROJ. REFERENCE NO.	SHEET NO.
	R-2577A	50

L 58+00
58+16
Existing Ground Line
2:1
RESIDUAL Red, fine sandy clayey SILT, some mica, moist
Brown-red, silty clayey SAND, saprolitic, moist
DRY
FIAD
5/19

58+00.00

L 56+00
SS-167
Existing Ground Line
934.00
(5)
(23)
(100/0.2)
03/19
RESIDUAL Brown-red, medium to very stiff, silty moderately plastic CLAY, saprolitic, trace mica, wet
WEATHERED ROCK BIOTITE GNEISS

56+00.00

(A) ROADWAY EMBANKMENT Brown-red, soft to stiff, clayey sandy SILT and silty moderately plastic CLAY; loose to medium dense, silty clayey gravelly SAND and sandy GRAVEL; trace to some mica, some gravel, moist to wet

L 54+00
Existing Ground Line
3:1
(A)
(6)
(5)
(12)
(20)
03/19
RESIDUAL Brown to brown-red, medium stiff to stiff, silty CLAY, wet
Brown, stiff, clayey SILT, saprolitic, trace mica, wet
Gray-black-brown, medium dense, silty fine to coarse SAND, saprolitic, saturated

54+00.00

8/24/2019
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6/23/16

0 5 10	PROJ. REFERENCE NO.	SHEET NO.
	R-2577A	51

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

960 950 940 930 920 910

L 60+00

S-702

Existing Ground Line

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

935.41

05/19

RESIDUAL Red-brown, sandy highly plastic CLAY, wet

Red-brown, clayey SAND, saprolite, some rock fragments, saturated

60+00.00

Existing Ground Line

2:1 2:1 2:1

RESIDUAL Red-brown, sandy highly plastic CLAY, wet

Red-brown, clayey SAND, saprolite, some rock fragments, saturated

59+50.00

Existing Ground Line

2:1 2:1 2:1

RESIDUAL Red-brown, sandy highly plastic CLAY, wet

Red-brown, clayey SAND, saprolite, some rock fragments, saturated

59+00.00

Existing Ground Line

2:1 2:1 2:1

RESIDUAL Red, fine sandy clayey SILT, some mica, moist

Brown-red, silty clayey SAND, saprolitic, moist

58+50.00

8/24/2019
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6/23/16

0 5 10	PROJ. REFERENCE NO.	SHEET NO.
	R-2577A	52

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

950 940 930 920

L 62+00

Existing Ground Line

3:1

2:1 2:1 2:1

933.14

RESIDUAL Red-brown, sandy lightly plastic CLAY, moist

DRY
FIAD
5/19

62+00.00

950 940 930 920

Existing Ground Line

3:1

2:1 2:1 2:1

933.71

RESIDUAL Red-brown, sandy lightly plastic CLAY, moist

61+50.00

950 940 930 920

Existing Ground Line

2:1

2:1 2:1 2:1

934.27

RESIDUAL Red-brown, sandy highly plastic CLAY, wet

Red-brown, clayey SAND, saprolite, some rock fragments, saturated

61+00.00

950 940 930 920

Existing Ground Line

2:1

2:1 2:1 2:1

934.84

RESIDUAL Red-brown, sandy highly plastic CLAY, wet

Red-brown, clayey SAND, saprolite, some rock fragments, saturated

60+50.00

950 940 930 920 910

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

8/24/2018
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6/23/16

0 5 10	PROJ. REFERENCE NO.	SHEET NO.
	R-2577A	53

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

960 950 940 930 920

L 64+00

S-703

Existing Ground Line

2:1 2:1 935.00

2:1

2:1

2:1 2:1 933.94

RESIDUAL

Red-orange-brown, sandy highly to slightly plastic CLAY, saprolitic, moist

DRY
FIAD
5/19

64+00.00

950 940 930 920

Existing Ground Line

2:1 2:1 934.00

2:1

2:1

2:1 2:1 933.23

RESIDUAL Red-orange-brown, sandy highly to slightly plastic CLAY, saprolitic, moist

63+50.00

950 940 930 920

Existing Ground Line

2:1 2:1 929.50

3:1

2:1

2:1 2:1 932.53

RESIDUAL Red-brown, sandy lightly plastic CLAY, moist

63+00.00

950 940 930 920

Existing Ground Line

3:1

2:1

2:1 2:1 932.57

RESIDUAL Red-brown, sandy lightly plastic CLAY, moist

62+50.00

910

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

8/24/2018
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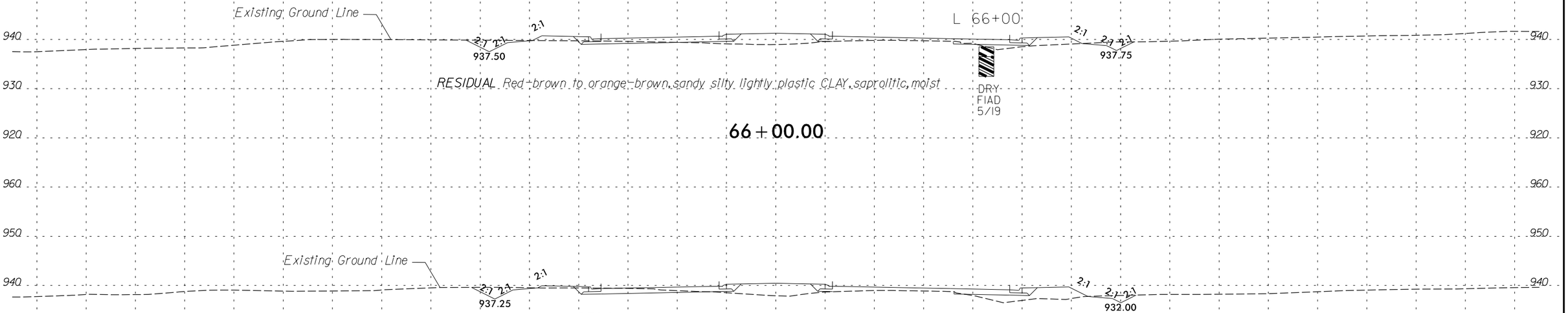
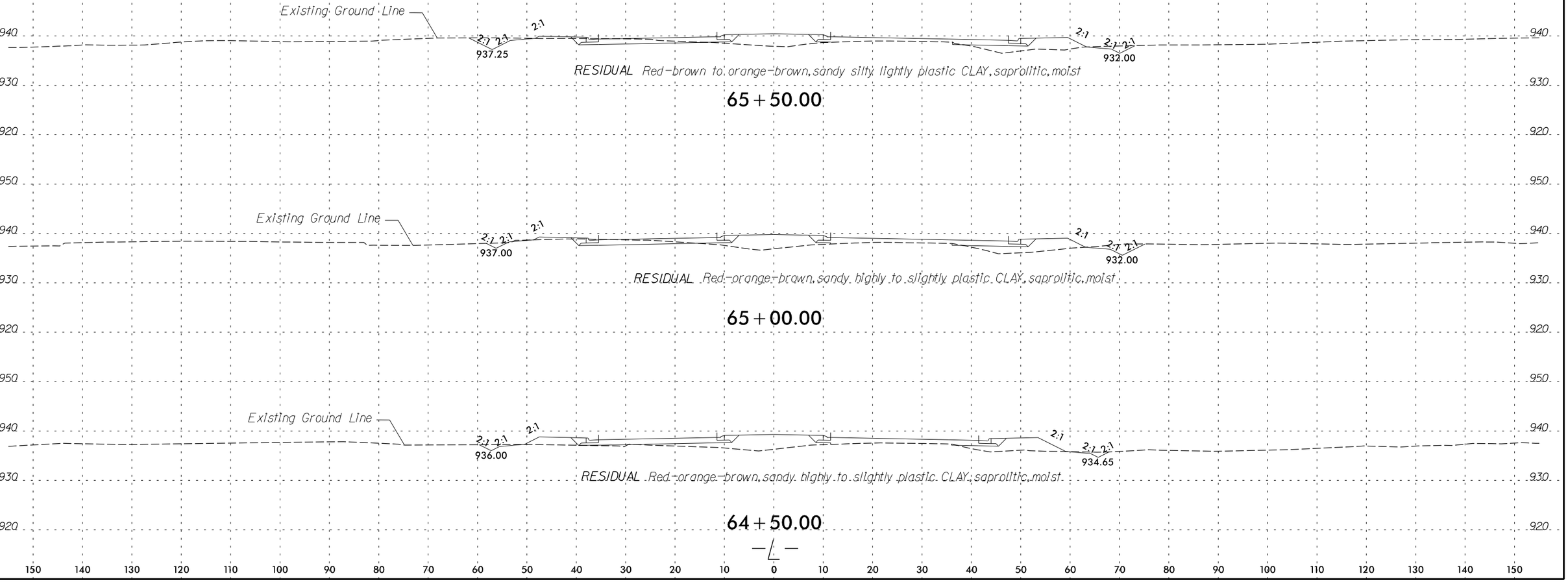
6/23/16

0 5 10	PROJ. REFERENCE NO.	SHEET NO.
	R-2577A	54

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

950 940 930 920 960 950 940 930 920 950 940 930 920 950 940 930 920





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6/23/16

0 5 10	PROJ. REFERENCE NO.	SHEET NO.
	R-2577A	55

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

960 950 940 930

Existing Ground Line

2:1 2:1 940.21

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

L 68+00

RESIDUAL Red-brown, sandy highly plastic CLAY, moist

Red, clayey sandy SILT, some mica, moist

DRY
FIAD
5/19

68+00.00

950 940 930

Existing Ground Line

2:1 2:1 939.11

2:1 2:1

RESIDUAL Red-brown, sandy highly plastic CLAY, moist

Red, clayey sandy SILT, some mica, moist

67+50.00

950 940 930 920

Existing Ground Line

2:1 2:1 938.00

2:1 2:1

RESIDUAL Red-brown to orange-brown, sandy silty lightly plastic CLAY, saprolitic, moist

67+00.00

950 940 930 920

Existing Ground Line

2:1 2:1 937.75

2:1 2:1 2:1 939.00

RESIDUAL Red-brown to orange-brown, sandy silty lightly plastic CLAY, saprolitic, moist

66+50.00

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

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6/23/16

0 5 10	PROJ. REFERENCE NO.	SHEET NO.
	R-2577A	56

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

960 950 940 930 920

Existing Ground Line

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

944.64

RESIDUAL Red-brown, sandy highly plastic CLAY, moist

Red-brown, sandy to clayey SILT, trace to some mica, moist

L 70+00

70+14

DRY

FIAD

5/19

70+00.00

960 950 940 930 920

Existing Ground Line

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

943.54

RESIDUAL Red-brown, sandy highly plastic CLAY, moist

Red-brown, clayey SILT, trace to some mica, moist

69+50.00

960 950 940 930 920

Existing Ground Line

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

942.43

RESIDUAL Red-brown, sandy highly plastic CLAY, moist

Red, clayey sandy SILT, some mica, moist

69+00.00

960 950 940 930 920

Existing Ground Line

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

941.32

RESIDUAL Red-brown, sandy highly plastic CLAY, moist

Red, clayey sandy SILT, some mica, moist

68+50.00

8/24/2018
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abozorgi

6/23/16

0 5 10	PROJ. REFERENCE NO.	SHEET NO.
	R-2577A	57

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

970 960 950 940 930

Existing Ground Line

2:1 2:1 948.58

RESIDUAL Red-brown, sandy moderately plastic CLAY, wet

Red-brown to orange-red-brack-white, fine to coarse sandy SILT, trace to some mica, saprolitic, wet

2:1 2:1

72 + 50.00

Ⓐ ROADWAY EMBANKMENT Brown-red, soft to stiff, clayey sandy SILT and silty moderately plastic CLAY; loose to medium dense, silty clayey gravelly SAND and sandy GRAVEL; trace to some mica, some gravel, moist to wet

L 72+00
S-704
Ⓐ

Existing Ground Line

2:1 2:1 947.88

RESIDUAL Red-brown, sandy moderately plastic CLAY, wet

Red-brown to orange-red-brack-white, fine to coarse sandy SILT, trace to some mica, saprolitic, wet

DRY
FIAD
5/19

2:1 2:1

72 + 00.00

Existing Ground Line

2:1 2:1 946.46

RESIDUAL Red-brown, sandy moderately plastic CLAY, wet

Red-brown to orange-red-brack-white, fine to coarse sandy SILT, trace to some mica, saprolitic, wet

2:1 2:1

71 + 00.00

Existing Ground Line

2:1 2:1 945.75

RESIDUAL Red-brown, sandy highly plastic CLAY, moist

Red-brown, clayey SILT, trace to some mica, moist

2:1 2:1

70 + 50.00

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

8/24/2019
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abozorgi

6/23/16

0 5 10	PROJ. REFERENCE NO.	SHEET NO.
	R-2577A	58

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

970
960
950
940
930

Existing Ground Line

(A) RESIDUAL Red-brown, sandy highly plastic CLAY, wet

Orange-red-brown, sandy SILT, some mica, wet

2:1 2:1 2:1

L 74+00

DRY
FIAD
5/19

74+00.00

970
960
950
940
930

Existing Ground Line

(A) RESIDUAL Red-brown, sandy highly plastic CLAY, wet

950.00

Orange-red-brown, sandy SILT, some mica, wet

2:1 2:1 2:1

73+50.00

970
960
950
940
930
920

Existing Ground Line

(A) RESIDUAL Red-brown, sandy highly plastic CLAY, wet

949.29

Orange-red-brown, sandy SILT, some mica, wet

2:1 2:1 2:1

73+00.00

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

8/24/2018
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abazorgi

6/23/16

0 5 10	PROJ. REFERENCE NO.	SHEET NO.
	R-2577A	59

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

980 970 960 950 940 930

Ⓐ ROADWAY EMBANKMENT Brown, gravelly silty SAND, moist

Ⓑ RESIDUAL Brown-orange, sandy highly plastic CLAY, wet

Existing Ground Line

2:1

2:1

Brown-red, clayey SAND, wet

75+50.00

Ⓐ RESIDUAL Red-brown, sandy highly plastic CLAY, wet

Existing Ground Line

2:1

2:1

Orange-red-brown, sandy SILT, some mica, wet

75+00.00

Ⓐ RESIDUAL Red-brown, sandy highly plastic CLAY, wet

Existing Ground Line

2:1 2:1

2:1

Orange-red-brown, sandy SILT, some mica, wet

74+50.00

8/24/2018
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abozorgi

6/23/16

PROJ. REFERENCE NO.	SHEET NO.
R-2577A	60

0 5 10

970 150 140 130 120 110 100 90 80 70 60 50 40 30 20 10 0 10 20 30 40 50 60 70 80 90 100 110 120 130 140 150 970

960 960

950 950

940 940

930 930

Existing Ground Line

2:1

2:1

(A) RESIDUAL Red-brown, sandy silty highly plastic CLAY, wet

(A)

Red-brown, clayey silty SAND, wet

77 + 50.00

970 970

960 960

950 950

940 940

930 930

Existing Ground Line

(A) ROADWAY EMBANKMENT Brown, gravelly silty SAND, moist

(B) RESIDUAL Red-brown, sandy silty highly plastic CLAY, wet

2:1

2:1

(A)

(B)

Red-brown, clayey silty SAND, wet

77 + 00.00

970 970

960 960

950 950

940 940

980 980

970 970

960 960

950 950

940 940

930 930

Existing Ground Line

(A) ROADWAY EMBANKMENT Brown, gravelly silty SAND, moist

(B) RESIDUAL Brown-orange, sandy highly plastic CLAY, wet

2:1

2:1

(A)

(B)

Brown-red, clayey SAND, wet

76 + 50.00

970 970

960 960

950 950

940 940

930 930

Existing Ground Line

(A) ROADWAY EMBANKMENT Brown, gravelly silty SAND, moist

(B) RESIDUAL Brown-orange, sandy highly plastic CLAY, wet

2:1

2:1

(A)

(B)

L 76+00
76+02

S-705

DRY
FIAD
5/19

Brown-red, clayey SAND, wet

76 + 00.00

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

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6/23/16

0 5 10	PROJ. REFERENCE NO.	SHEET NO.
	R-2577A	61

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

950 940 930 920 910 960 950 940 930 960 950 940 930 920 960 950 940 930 920

(A) RESIDUAL Brown-orange, medium stiff, coarse sandy slightly plastic CLAY, moist

Existing Ground Line

2:1 2:1

Brown-orange, soft to medium stiff, fine to coarse sandy clayey SILT, highly micaceous, moist

79+50.00

Existing Ground Line

(A) RESIDUAL Red-brown, sandy silty highly plastic CLAY, wet

2:1 2:1

(A)

Red-brown, clayey silty SAND, wet

79+00.00

Existing Ground Line

(A) RESIDUAL Red-brown, sandy silty highly plastic CLAY, wet

2:1 2:1

(A)

Red-brown, clayey silty SAND, wet

78+50.00

Existing Ground Line

(A) RESIDUAL Red-brown, sandy silty highly plastic CLAY, wet

L 78+00

2:1 2:1

(A)

Red-brown, clayey silty SAND, wet

DRY
FIAD
5/19

78+00.00

—L—

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

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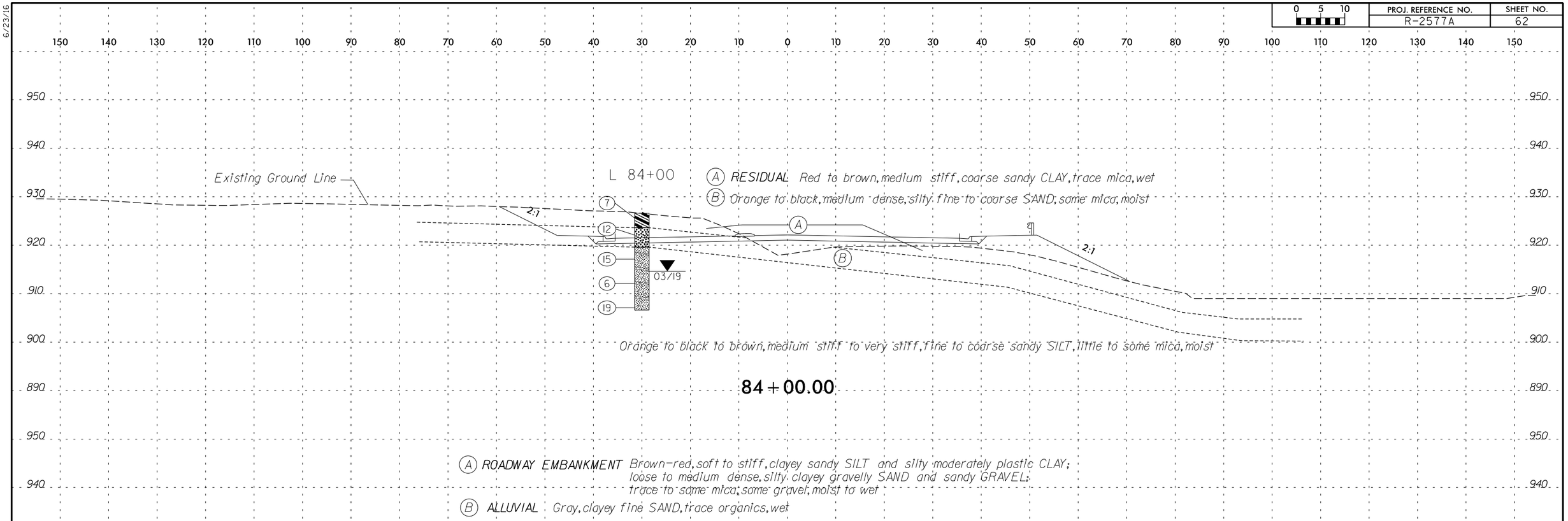
6/23/16

0 5 10	PROJ. REFERENCE NO.	SHEET NO.
	R-2577A	62



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dkoontz

6/23/16

0 5 10	PROJ. REFERENCE NO.	SHEET NO.
	R-2577A	63

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

950 940 930 920 910

(A) ROADWAY EMBANKMENT Brown-red, soft to stiff, clayey sandy SILT and silty moderately plastic CLAY; loose to medium dense, silty clayey gravelly SAND and sandy GRAVEL; trace to some mica, some gravel, moist to wet

(B) RESIDUAL Red-brown, medium stiff, coarse sandy highly plastic CLAY, moist

(C) WEATHERED ROCK GRANITE

Existing Ground Line

2:1 2:1

RESIDUAL Gray, very dense, silty fine to coarse SAND, saprolitic, moist

89+50.00

(A) ROADWAY EMBANKMENT Brown-red, soft to stiff, clayey sandy SILT and silty moderately plastic CLAY; loose to medium dense, silty clayey gravelly SAND and sandy GRAVEL; trace to some mica, some gravel, moist to wet

(B) RESIDUAL Red-brown, loose, silty SAND, moist

(C) Red-brown, medium stiff, coarse sandy silty CLAY, wet

L 88+00

SS-216

Existing Ground Line

2:1 2:1

4 7 8

DRY 03/19

Red, stiff, sandy fine to coarse SILT, some mica, moist

88+00.00

(A) RESIDUAL Red-brown, soft, coarse sandy CLAY, trace mica, moist

(B) Red-black, very dense, silty clayey fine to coarse SAND, little mica, saprolitic, moist

L 86+00

Existing Ground Line

2:1 2:1

3 64 100/0.2 03/19 60/0.0

WEATHERED ROCK GRANITE

CRYSTALLINE ROCK GRANITE

86+00.00

8/24/2019
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6/23/16

0 5 10	PROJ. REFERENCE NO.	SHEET NO.
	R-2577A	64

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

950 940 930 920 910

Existing Ground Line

(A) RESIDUAL Red-brown, soft to stiff, coarse sandy highly plastic CLAY, moist

2:1 2:1

(A)

Red, stiff, clayey sandy SILT, some mica, saprolitic, moist

91+00.00

950 940 930 920 910

(A) RESIDUAL Red-brown, medium stiff, coarse sandy highly plastic CLAY, moist

(B) WEATHERED ROCK GRANITE

Existing Ground Line

2:1 2:1

(B) (A)

RESIDUAL Gray, very dense, silty fine to coarse SAND, saprolitic, moist

90+50.00

950 940 930 920 910

(A) RESIDUAL Red-brown, medium stiff, coarse sandy highly plastic CLAY, moist

(B) WEATHERED ROCK GRANITE

Existing Ground Line

L 90+00

2:1 2:1

4 (B) (A)

100/0.1

87

DRY 3/19

RESIDUAL Gray, very dense, silty fine to coarse SAND, saprolitic, moist

90+00.00

—L—

950 940 930 920 910 900

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

8/24/2018
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6/23/16

0 5 10	PROJ. REFERENCE NO.	SHEET NO.
	R-2577A	65

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

940 930 920 910 950 940

Existing Ground Line

(A) RESIDUAL Red-brown, soft to stiff, coarse sandy highly plastic CLAY, moist

2:1

2:1

Red, stiff, clayey sandy SILT, some mica, saprolitic, moist

92+50.00

℄ 92+00

SS-232

(A) RESIDUAL Red-brown, soft to stiff, coarse sandy highly plastic CLAY, moist

Existing Ground Line

2:1

2:1

(3)
(8)
(11)
(8)

DRY
3/19

Red, stiff, clayey sandy SILT, some mica, saprolitic, moist

92+00.00

(A) RESIDUAL Red-brown, soft to stiff, coarse sandy highly plastic CLAY, moist

Existing Ground Line

2:1

2:1

Red, stiff, clayey sandy SILT, some mica, saprolitic, moist

91+50.00

940 930 920 910 900 950 940

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

8/24/2018
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abazorgi

6/23/16

0 5 10	PROJ. REFERENCE NO.	SHEET NO.
	R-2577A	66

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

940 930 920 910 900 890

Existing Ground Line

A

L 94+00

5

II

9

II

DRY
3/19

2:1

2:1

A RESIDUAL Red, medium stiff, coarse sandy highly plastic CLAY, wet

Red-brown to brown, stiff, fine sandy SILT, little to some mica, moist

94+00.00

Existing Ground Line

A

2:1

A RESIDUAL Red, medium stiff, coarse sandy highly plastic CLAY, wet

2:1

Red-brown to brown, stiff, fine sandy SILT, little to some mica, moist

93+50.00

Existing Ground Line

2:1

A RESIDUAL Red-brown, soft to stiff, coarse sandy highly plastic CLAY, moist

2:1

A

Red, stiff, clayey sandy SILT, some mica, saprolitic, moist

93+00.00

— 1 —

8/24/2018
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abozorgi

6/23/16

0 5 10	PROJ. REFERENCE NO.	SHEET NO.
	R-2577A	67

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

940 930 920 910 900 890

L 96+00

SS-240
CBR-1

Existing Ground Line

(A) RESIDUAL Red, medium stiff, silty moderately plastic CLAY, moist

2:1

7
10
9
8
10
9

DRY
3/19

White to red to brown, stiff, fine sandy clayey SILT, saprolitic, little to some mica, moist

96+00.00

Existing Ground Line

(A) RESIDUAL Red, medium stiff, silty moderately plastic CLAY, moist

2:1

White to red to brown, stiff, fine sandy clayey SILT, saprolitic, little to some mica, moist

95+00.00

Existing Ground Line

(A) RESIDUAL Red, medium stiff, coarse sandy highly plastic CLAY, wet

2:1

Red-brown to brown, stiff, fine sandy SILT, little to some mica, moist

94+50.00

8/24/2019
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6/23/16

0 5 10	PROJ. REFERENCE NO.	SHEET NO.
	R-2577A	68

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

910
900
890
880
870
860

Ⓐ ROADWAY EMBANKMENT Red-brown, medium stiff, sandy SILT, little mica, moist
Ⓑ RESIDUAL Red-brown, stiff, coarse sandy CLAY, trace mica, moist

L 100+00
99+83

Existing Ground Line
2:1
B
A
Pavement
7
8
11
Red-brown, stiff, sandy SILT, saprolitic, some mica, moist
DRY
FIAD
04/19

100+00.00

Existing Ground Line
2:1
L 98+00
Pavement
3:1
RESIDUAL
13
10
7
Red, stiff, coarse sandy CLAY, trace mica, moist
Red-brown-black, loose to medium dense, silty clayey SAND, saprolitic, little to some mica, moist
10
DRY
FIAD
04/19

98+00.00

8/24/2019
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abozorgi

6/23/16

0 5 10	PROJ. REFERENCE NO.	SHEET NO.
	R-2577A	69

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

910 900 890 880 870 860 850 840 920

L 102+00
102+01
SS-614

Existing Ground Line

2:1

Pavement

2:1

(9) (9) (7)

DRY
FIAD
04/19

(A) RESIDUAL Red-brown, stiff, sandy moderately plastic CLAY, trace mica, moist

(B) Red-brown, medium stiff to stiff, sandy SILT, some mica, moist

102+00.00

(A) ROADWAY EMBANKMENT Red-brown, soft to medium stiff, sandy SILT, trace to some mica, moist to saturated

(B) ALLUVIAL Gray, very loose, silty coarse SAND, saturated

L 101+00
101+04

2:1

Pavement

2:1

Existing Ground Line

(5) (4) (2) (1) (13) (37)

04/19

FIAD
4/19

RESIDUAL Gray, medium dense to dense, silty SAND, saprolitic, saturated

101+00.00

8/24/2019
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abozorgi

6/23/16

0 5 10	PROJ. REFERENCE NO.	SHEET NO.
	R-2577A	70

910 900 890 880 870 860 910 900 890 880 870 860 910 900 890 880 870 860 850 910 900 890 880 870 860 850

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

(A) ALLUVIAL Dark gray, sandy CLAY, trace mica, moist

(B) Dark gray, clayey fine to coarse SAND, saturated

Existing Ground Line

2:1

L 106+50

106+55

2:1

ROADWAY EMBANKMENT

Red-brown, fine sandy silty CLAY, trace mica, moist

RESIDUAL

Tan-gray-white, silty fine to coarse SAND, little rock fragments, saturated 05/19

(A)

(B)

106+50.00

(A) ROADWAY EMBANKMENT Red-brown, medium dense, silty SAND, moist

(B) RESIDUAL Red, very stiff, sandy CLAY, moist

L 106+00

(B)

2:1

16

16

94

DRY

03/19

(A)

2:1

Existing Ground Line

White-gray, black, very dense, silty to clayey SAND, saprolitic, trace mica, moist

106+00.00

L 104+00

SS-595

Existing Ground Line

2:1

(A) RESIDUAL Red-brown, medium stiff, coarse sandy moderately plastic CLAY, moist

(B) Red-brown, stiff to hard, sandy SILT, saprolitic, some mica, trace rock fragments, wet

6

40

13

100/0.9

100/0.7

100/0.6

(B)

2:1

(A)

WEATHERED ROCK GRANITE

DRY

FIAD

04/19

104+00.00

8/24/2018
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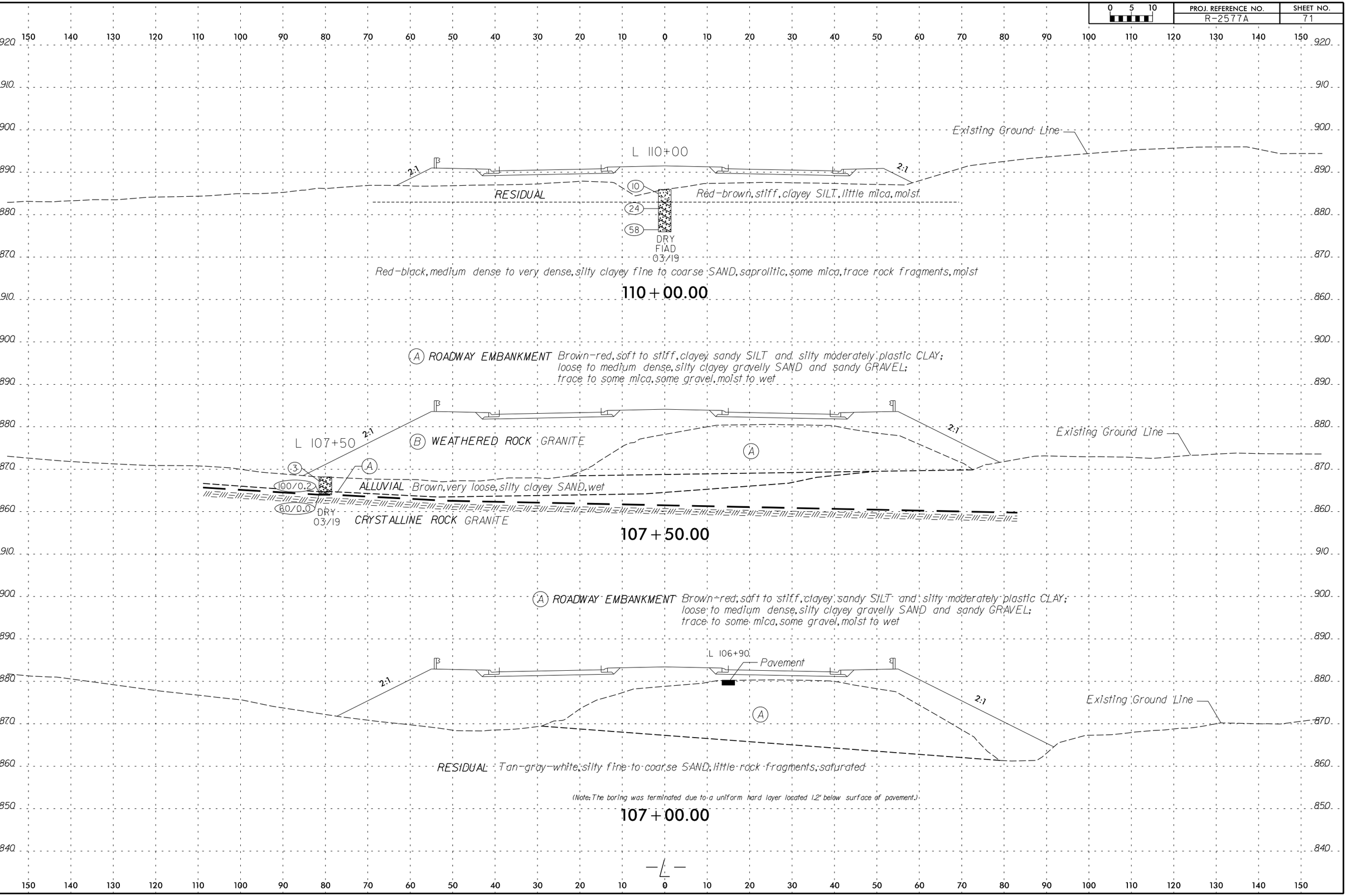
6/23/16

0 5 10	PROJ. REFERENCE NO.	SHEET NO.
	R-2577A	71



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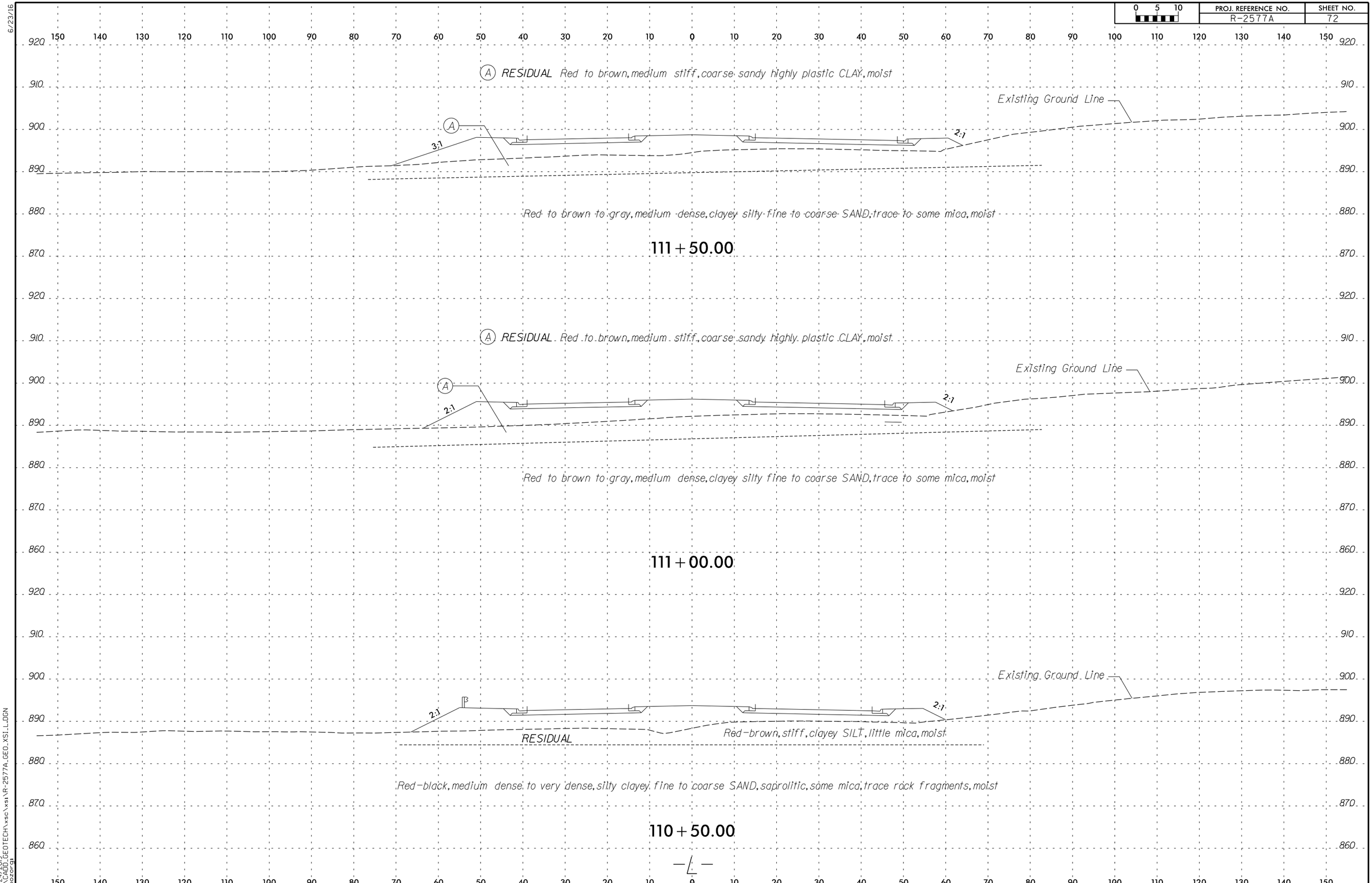
6/23/16

0 5 10	PROJ. REFERENCE NO.	SHEET NO.
	R-2577A	72



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6/23/16

0 5 10	PROJ. REFERENCE NO.	SHEET NO.
	R-2577A	73

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

920 910 900 890 880 870

Existing Ground Line

2:1 2:1

RESIDUAL Red to brown, soft to very stiff, fine sandy highly plastic CLAY, moist

Red to brown, loose, fine sandy clayey SILT, some mica, moist

113 + 00.00

920 910 900 890 880 870

Ⓐ RESIDUAL Red to brown, medium stiff, coarse sandy highly plastic CLAY, moist

Existing Ground Line

Ⓐ 3:1 2:1

Red to brown to gray, medium dense, clayey silty fine to coarse SAND, trace to some mica, moist

112 + 50.00

930 920 910 900 890 880

Ⓐ RESIDUAL Red to brown, medium stiff, coarse sandy highly plastic CLAY, moist

L 112+00

SS-260

Existing Ground Line

Ⓐ 2:1 2:1

5 10 17

DRY
03/19

Red to brown to gray, medium dense, clayey silty fine to coarse SAND, trace to some mica, moist

112 + 00.00

—L—

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

8/24/2019
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6/23/16

0 5 10	PROJ. REFERENCE NO.	SHEET NO.
	R-2577A	74

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

940 930 920 910 900

Existing Ground Line

2:1

2:1

RESIDUAL

Red to brown, soft to very stiff, fine sandy highly plastic CLAY, moist

Red to brown, loose, fine sandy clayey SILT, some mica, moist

115 + 00.00

920 910 900

Existing Ground Line

2:1

2:1

RESIDUAL

Red to brown, soft to very stiff, fine sandy highly plastic CLAY, moist

Red to brown, loose, fine sandy clayey SILT, some mica, moist

114 + 50.00

920 910 900 930

L 114+00

Existing Ground Line

2:1

2:1

RESIDUAL

(2) (16) (7)

Red to brown, soft to very stiff, fine sandy highly plastic CLAY, moist

Red to brown, loose, fine sandy clayey SILT, some mica, moist

DRY
03/19

114 + 00.00

920 910 900 890 880

Existing Ground Line

2:1

2:1

RESIDUAL

Red to brown, soft to very stiff, fine sandy highly plastic CLAY, moist

Red to brown, loose, fine sandy clayey SILT, some mica, moist

113 + 50.00

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

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6/23/16

0 5 10	PROJ. REFERENCE NO.	SHEET NO.
	R-2577A	75

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

950 940 930 920 910 900 890

L -118+00

Existing Ground Line

3:1

2:1

(3) (8) (32) (100/0.6) 03/19

RESIDUAL Red-brown, soft to stiff, sandy CLAY, wet

Brown-gray, dense, silty fine to coarse SAND, saprolitic, moist

WEATHERED ROCK GRANITE

118+00.00

940 930 920 910 900 890

(A) RESIDUAL Orange-brown, silty fine to coarse SAND, wet

L -116+00

115+94

Existing Ground Line

(A) 2:1

2:1

DRY 5/19

Orange-brown, sandy CLAY, some mica, wet

116+00.00

940 930 920 910 900 890

(A) RESIDUAL Orange-brown, silty fine to coarse SAND, wet

Existing Ground Line

(A) 2:1

2:1

Orange-brown, sandy CLAY, some mica, wet

115+50.00

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

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6/23/16

0 5 10	PROJ. REFERENCE NO.	SHEET NO.
	R-2577A	76

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

950 940 930 920 910

Existing Ground Line

2:1

(A) RESIDUAL Brown, loose, silty clayey SAND, moist

Red-brown, stiff, sandy CLAY, moist

Red-brown, loose, silty SAND, some mica, moist

123+00.00

950 940 930 920 910

Existing Ground Line

2:1

(A) RESIDUAL Brown, loose, silty clayey SAND, moist

L 122+00

(4) (12) Red-brown, stiff, sandy CLAY, moist

(7) Red-brown, loose, silty SAND, some mica, moist

DRY
3/19

122+00.00

960 950 940 930 920 910 900

(A) RESIDUAL Red-brown, loose, clayey silty SAND, moist

(B) Red-brown, stiff, fine sandy CLAY, little mica, moist

L 120+00

Existing Ground Line

2:1

(8) (A)

(10) (B)

(12)

DRY
03/19

Brown, medium dense, silty fine to coarse SAND, saprolitic, some mica, moist

120+00.00

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

8/24/2019
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6/23/16

0 5 10	PROJ. REFERENCE NO.	SHEET NO.
	R-2577A	77

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

960 950 940 930 920 910

(A) RESIDUAL Red, medium stiff, sandy highly plastic CLAY, trace mica, moist

(B) Red-gray, medium stiff, fine sandy SILT, some mica, moist

2:1 2:1 Existing Ground Line

Gray, medium dense, silty fine to coarse SAND, some mica, moist

124+50.00

950 940 930 920 910

L 124+00

(A) RESIDUAL Red, medium stiff, sandy highly plastic CLAY, trace mica, moist

(B) Red-gray, medium stiff, fine sandy SILT, some mica, moist

2:1 2:1 Existing Ground Line

5 6 11 14 DRY 3/19

Gray, medium dense, silty fine to coarse SAND, some mica, moist

124+00.00

960 950 940 930 920

(A) RESIDUAL Red, medium stiff, sandy highly plastic CLAY, trace mica, moist

(B) Red-gray, medium stiff, fine sandy SILT, some mica, moist

2:1 2:1 Existing Ground Line

Gray, medium dense, silty fine to coarse SAND, some mica, moist

123+50.00

940 930 920 910 900

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

8/24/2019
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abozorgi

6/23/16

0 5 10	PROJ. REFERENCE NO.	SHEET NO.
	R-2577A	78

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

950 940 930 920 910 900 950

L 126+00

SS-289

Existing Ground Line

(A) RESIDUAL Red-brown, medium stiff, sandy highly plastic CLAY, moist

2:1

7
10
6
12
45
DRY
3/19

Red-brown to brown, medium stiff to stiff, sandy SILT, little to some mica, moist

Gray-white, dense, silty fine to coarse SAND, saprolitic, trace mica, moist

126+00.00

940 930 920 910 960 950 940

(A) RESIDUAL Red-brown, medium stiff, sandy highly plastic CLAY, moist

2:1

Existing Ground Line

Red-brown to brown, medium stiff to stiff, sandy SILT, little to some mica, moist

Gray-white, dense, silty fine to coarse SAND, saprolitic, trace mica, moist

125+50.00

950 940 930 920 910

(A) RESIDUAL Red, medium stiff, sandy highly plastic CLAY, trace mica, moist

(B) Red-gray, medium stiff, fine sandy SILT, some mica, moist

2:1

Existing Ground Line

Gray, medium dense, silty fine to coarse SAND, some mica, moist

125+00.00

8/24/2018
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6/23/16

0 5 10	PROJ. REFERENCE NO.	SHEET NO.
	R-2577A	79

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

940 930 920 910 900

Ⓐ RESIDUAL Red-brown, sandy, highly plastic CLAY, wet

2:1

Ⓐ

2:1

Existing Ground Line

Red-brown, silty, SAND, wet

127+50.00

940 930 920 910 900

Ⓐ RESIDUAL Red-brown, medium stiff, sandy highly plastic CLAY, moist

2:1

Ⓐ

2:1

Existing Ground Line

Red-brown to brown, medium stiff to stiff, sandy SILT, little to some mica, moist

Gray-white, dense, silty fine to coarse SAND, saprolitic, trace mica, moist

127+00.00

940 930 920 910 900

Ⓐ RESIDUAL Red-brown, medium stiff, sandy highly plastic CLAY, moist

2:1

Ⓐ

2:1

Existing Ground Line

Red-brown to brown, medium stiff to stiff, sandy SILT, little to some mica, moist

Gray-white, dense, silty fine to coarse SAND, saprolitic, trace mica, moist

126+50.00

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

8/24/2018
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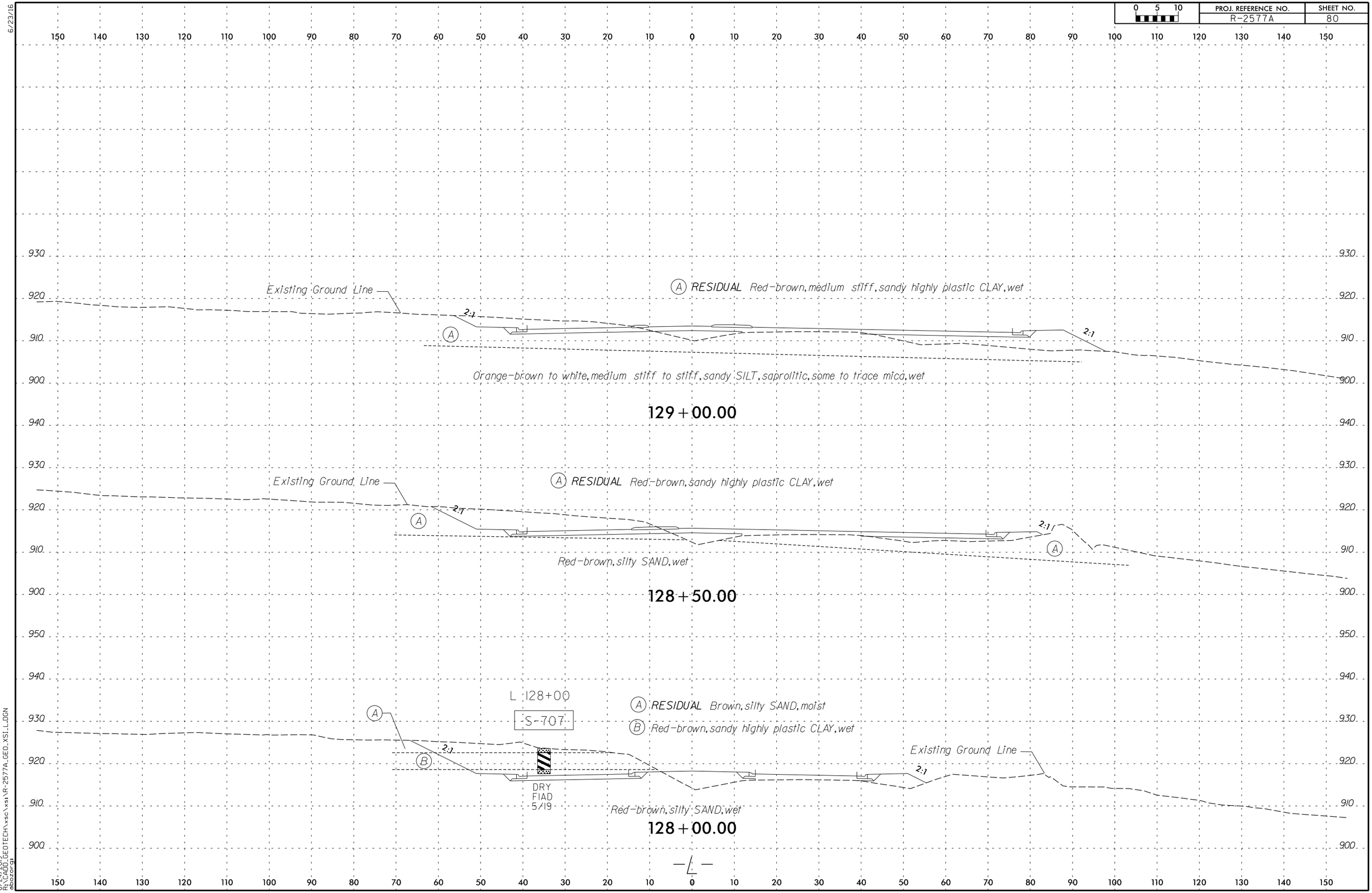
6/23/16

0 5 10	PROJ. REFERENCE NO.	SHEET NO.
	R-2577A	80



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6/23/16

PROJ. REFERENCE NO.	SHEET NO.
R-2577A	81

0 5 10

930 920 910 900 890 880 870

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

(A) ROADWAY EMBANKMENT Brown-red, soft to stiff, clayey sandy SILT and silty moderately plastic CLAY; loose to medium dense, silty clayey gravelly SAND and sandy GRAVEL; trace to some mica, some gravel, moist to wet

Existing Ground Line

L 132+00

2:1

(4) (2) (10) DRY 03/19

(A)

2:1

RESIDUAL Red, soft to stiff, fine sandy, silty CLAY, some to little mica, moist to wet

132+00.00

930 920 910 900 890 880 870

(A) ROADWAY EMBANKMENT Brown-red, soft to stiff, clayey sandy SILT and silty moderately plastic CLAY; loose to medium dense, silty clayey gravelly SAND and sandy GRAVEL; trace to some mica, some gravel, moist to wet

(B) RESIDUAL Red-brown, medium stiff, sandy highly plastic CLAY, wet

Existing Ground Line

(B)

L 130+00

2:1

(4) (13) (7) DRY 3/19

(A)

2:1

Orange-brown to white, medium stiff to stiff, sandy SILT, saprolitic, some to trace mica, wet

130+00.00

940 930 920 910 900 890

(A) ROADWAY EMBANKMENT Brown-red, soft to stiff, clayey sandy SILT and silty moderately plastic CLAY; loose to medium dense, silty clayey gravelly SAND and sandy GRAVEL; trace to some mica, some gravel, moist to wet

(B) RESIDUAL Red-brown, medium stiff, sandy highly plastic CLAY, wet

Existing Ground Line

2:1

(B)

(A)

2:1

Orange-brown to white, medium stiff to stiff, sandy SILT, saprolitic, some to trace mica, wet

129+50.00

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

9/20/2018
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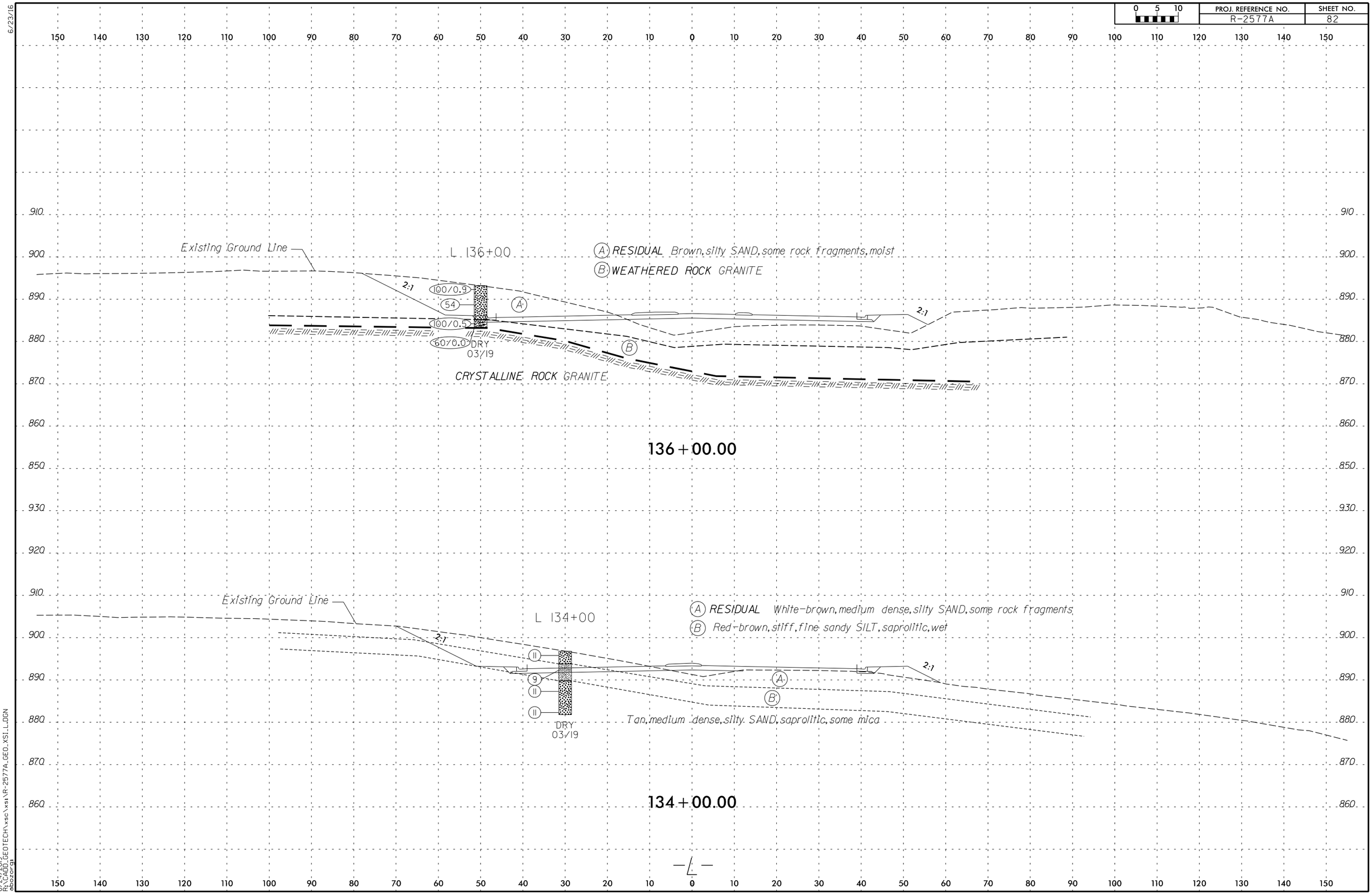
mcoop

6/23/16

0 5 10	PROJ. REFERENCE NO.	SHEET NO.
	R-2577A	82



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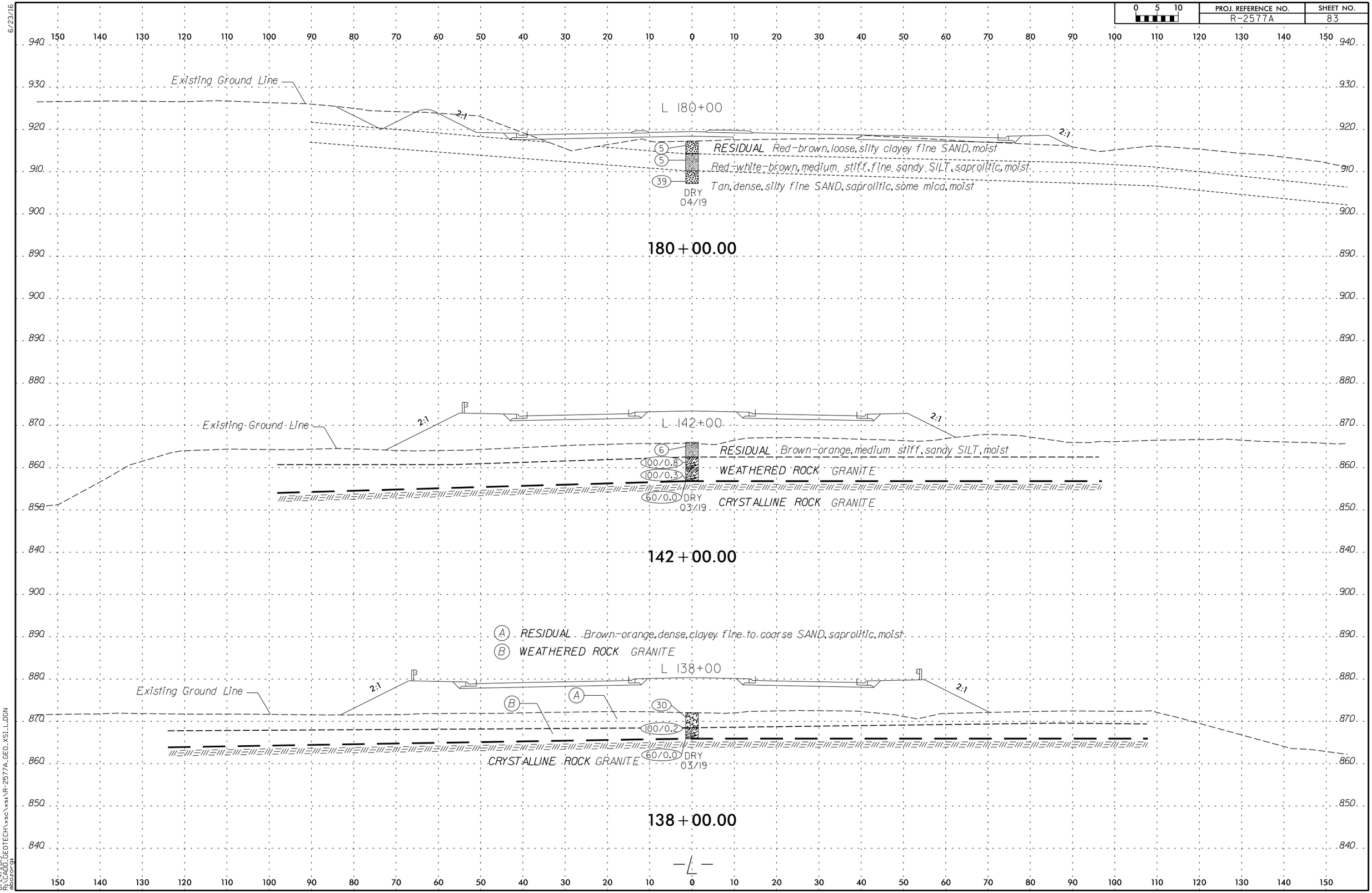
6/23/16

0 5 10	PROJ. REFERENCE NO.	SHEET NO.
	R-2577A	83



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6/23/16

0 5 10	PROJ. REFERENCE NO.	SHEET NO.
	R-2577A	84

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

960 950 940 930 920 910 900 890

Existing Ground Line

L 184+00

2:1 2:1

(A) ROADWAY EMBANKMENT Brown-red, soft to stiff, clayey sandy SILT and silty moderately plastic CLAY; loose to medium dense, silty clayey gravelly SAND and sandy GRAVEL; trace to some mica, some gravel, moist to wet

(7) (60) 04/19 RESIDUAL Brown, loose to very dense, silty fine to coarse SAND, wet

(60/0.0) CRYSTALLINE ROCK GRANITE

184+00.00

(A) ROADWAY EMBANKMENT Brown-red, soft to stiff, clayey sandy SILT and silty moderately plastic CLAY; loose to medium dense, silty clayey gravelly SAND and sandy GRAVEL; trace to some mica, some gravel, moist to wet

(B) RESIDUAL Brown-red, medium stiff, sandy clayey SILT, little mica, moist

(C) Brown-red, stiff, sandy CLAY, little mica, wet

Existing Ground Line

L 182+00

2:1 2:1

(B) (C) (A)

(5) (8) (50) 04/19

Gray-brown, very dense, silty fine to coarse SAND, saprolitic, some mica, trace rock fragments, saturated

182+00.00

8/24/2019
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6/23/16

0 5 10	PROJ. REFERENCE NO.	SHEET NO.
	R-2577A	85

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

960 950 940 930 920 910 900

Ⓐ ROADWAY EMBANKMENT Brown-red, soft to stiff, clayey sandy SILT and silty moderately plastic CLAY; loose to medium dense, silty clayey gravelly SAND and sandy GRAVEL; trace to some mica, some gravel, moist to wet

Ⓑ RESIDUAL Red-brown, stiff, coarse sandy highly plastic CLAY; saprolitic, trace mica, moist

Existing Ground Line

2:1

Ⓑ

Ⓐ

2:1

Red-brown, loose, silty clayey SAND; saprolitic, moist to saturated

185+00.00

Ⓐ ROADWAY EMBANKMENT Brown-red, soft to stiff, clayey sandy SILT and silty moderately plastic CLAY; loose to medium dense, silty clayey gravelly SAND and sandy GRAVEL; trace to some mica, some gravel, moist to wet

Existing Ground Line

2:1

2:1

Ⓐ

RESIDUAL

Brown, loose to very dense, silty fine to coarse SAND, wet

CRYSTALLINE ROCK

184+50.00

— 4 —

8/24/2018
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6/23/16

0 5 10	PROJ. REFERENCE NO.	SHEET NO.
	R-2577A	86

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

960 950 940 930 920 910 900

Existing Ground Line

L 186+00

SS-337

(A) RESIDUAL Red-brown, stiff, coarse sandy highly plastic CLAY, saprolitic, trace mica, moist

2:1

10

9

5

DRY
4/19

Red-brown to orange to black, loose, silty clayey SAND, saprolitic, trace mica, moist to saturated

2:1

186+00.00

(A) ROADWAY EMBANKMENT Brown-red, soft to stiff, clayey sandy SILT and silty moderately plastic CLAY; loose to medium dense, silty clayey gravelly SAND and sandy GRAVEL; trace to some mica, some gravel, moist to wet

(B) RESIDUAL Red-brown, stiff, coarse sandy highly plastic CLAY, saprolitic, trace mica, moist

Existing Ground Line

2:1

Red-brown, loose, silty clayey SAND, saprolitic, moist to saturated

2:1

185+50.00

8/24/2018
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6/23/16

0 5 10	PROJ. REFERENCE NO.	SHEET NO.
	R-2577A	87

Existing Ground Line

(A) RESIDUAL Orange-brown, sandy silty slightly plastic CLAY, trace mica, moist

2:1

2:1

Orange-brown, sandy highly plastic CLAY, little mica, moist

187+50.00

Existing Ground Line

(A) RESIDUAL Orange-brown, sandy silty slightly plastic CLAY, trace mica, moist

2:1

2:1

Orange-brown, sandy highly plastic CLAY, little mica, moist

187+00.00

Existing Ground Line

(A) RESIDUAL Red-brown, stiff, coarse sandy highly plastic CLAY, saprolitic, trace mica, moist

2:1

2:1

Red-brown, loose, silty clayey SAND, saprolitic, moist to saturated

186+50.00

8/24/2019
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6/23/16

0 5 10	PROJ. REFERENCE NO.	SHEET NO.
	R-2577A	88

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

970
960
950
940
930
920
910
900

Existing Ground Line

(A) RESIDUAL Orange-brown, sandy silty slightly plastic CLAY, trace mica, moist

2:1

2:1

RESIDUAL

Orange-brown, sandy highly plastic CLAY, little mica, moist

188+50.00

L 188+00

S-708
S-709

Existing Ground Line

(A) RESIDUAL Orange-brown, sandy silty slightly plastic CLAY, trace mica, moist

2:1

2:1

DRY
FIAD
5/19

Orange-brown, sandy highly plastic CLAY, little mica, moist

188+00.00

8/24/2018
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abozorgi

6/23/16

0 5 10	PROJ. REFERENCE NO.	SHEET NO.
	R-2577A	89

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

970
960
950
940
930
920
910

Existing Ground Line

(A) RESIDUAL Brown, loose, clayey SAND, wet
(B) Red-brown, stiff, silty highly plastic CLAY, wet

2:1

2:1

Red-brown to orange-brown, soft to stiff, fine to coarse sandy clayey SILT, trace to some mica, wet

189+50.00

970
960
950
940
930
920
910

Existing Ground Line

(A) RESIDUAL Brown, loose, clayey SAND, wet
(B) Red-brown, stiff, silty highly plastic CLAY, wet

2:1

2:1

Red-brown to orange-brown, soft to stiff, fine to coarse sandy clayey SILT, trace to some mica, wet

189+00.00

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

8/24/2018
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6/23/16

0 5 10	PROJ. REFERENCE NO.	SHEET NO.
	R-2577A	90

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

980 970 960 950 940 930 920 910

Existing Ground Line

(A) RESIDUAL Brown, loose, clayey SAND, wet

(B) Red-brown, stiff, silty highly plastic CLAY, wet

2:1

2:1

Red-brown to orange-brown, soft to stiff, fine to coarse sandy clayey SILT, trace to some mica; wet

190+50.00

Existing Ground Line

(A) RESIDUAL Brown, loose, clayey SAND, wet

(B) Red-brown, stiff, silty highly plastic CLAY, wet

L 190+00

4

10

8

3

DRY
4/19

2:1

2:1

Red-brown to orange-brown, soft to stiff, fine to coarse sandy clayey SILT, trace to some mica, wet

190+00.00

8/24/2019
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abozorgi

6/23/16

0 5 10	PROJ. REFERENCE NO.	SHEET NO.
	R-2577A	91

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

980 970 960 950 940 930 920 910

Existing Ground Line

(A) RESIDUAL Red-brown, medium stiff, sandy highly plastic CLAY, trace organics, moist

(B) Red-brown, stiff, clayey SILT, some mica, moist

2:1

2:1

Tan to dark gray, loose, silty fine SAND, saprolitic, some mica, moist to wet

191+50.00

980 970 960 950 940 930 920 910

Existing Ground Line

(A) RESIDUAL Red-brown, medium stiff, sandy highly plastic CLAY, trace organics, moist

(B) Red-brown, stiff, clayey SILT, some mica, moist

2:1

2:1

Tan to dark gray, loose, silty fine SAND, saprolitic, some mica, moist to wet

191+00.00

8/24/2018
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150 140 130 120 110 100 90 80 70 60 50 40 30 20 10 0 10 20 30 40 50 60 70 80 90 100 110 120 130 140 150

6/23/16

0 5 10	PROJ. REFERENCE NO.	SHEET NO.
	R-2577A	92

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

980 970 960 950 940 930 920

Existing Ground Line

(A) RESIDUAL Red-brown, medium stiff, sandy highly plastic CLAY, trace organics, moist

(B) Red-brown, stiff, clayey SILT, some mica, moist

2:1

2:1

Tan to dark gray, loose, silty fine SAND, saprolitic, some mica, moist to wet

192+50.00

L 192+00

SS-344

Existing Ground Line

(A) RESIDUAL Red-brown, medium stiff, sandy highly plastic CLAY, trace organics, moist

(B) Red-brown, stiff, clayey SILT, some mica, moist

2:1

2:1

6 9 7 6

DRY 4/19

Tan to dark gray, loose, silty fine SAND, saprolitic, some mica, moist to wet

192+00.00

8/24/2018
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abazorgi

6/23/16

0 5 10	PROJ. REFERENCE NO.	SHEET NO.
	R-2577A	93

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

980 970 960 950 940 930 920

Existing Ground Line

2:1

2:1

RESIDUAL Brown-orange, stiff, sandy clayey SILT, some to little mica, moist

Tan to gray, loose, silty SAND, saprolitic, some mica, moist to wet

193+50.00

Existing Ground Line

(A) RESIDUAL Red-brown, medium stiff, sandy highly plastic CLAY, trace organics, moist

(B) Red-brown, stiff, clayey SILT, some mica, moist

2:1

2:1

Tan to dark gray, loose, silty fine SAND, saprolitic, some mica, moist to wet

193+00.00

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

8/24/2018
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abozorgi

6/23/16

0 5 10	PROJ. REFERENCE NO.	SHEET NO.
	R-2577A	94

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

990 980 970 960 950 940 930 920

L 196+00

SS-359

Existing Ground Line

2:1

2:1

(5) (5) (24)

DRY
04/19

RESIDUAL Brown-orange, medium stiff, sandy moderately plastic CLAY, trace mica, wet

Tan, medium dense, clayey SAND, moist

196+00.00

L 194+00

Existing Ground Line

2:1

2:1

(10) (8) (8) (8)

DRY
4/19

RESIDUAL Brown-orange, stiff, sandy clayey SILT, some to little mica, moist

Tan to gray, loose, silty SAND, saprolitic, some mica, moist to wet

194+00.00

8/24/2019
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6/23/16

0 5 10	PROJ. REFERENCE NO.	SHEET NO.
	R-2577A	95

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

990
980
970
960
950
940
930

Existing Ground Line

(A) RESIDUAL Brown, loose, clayey SAND, moist

2:1

2:1

Orange, stiff, clayey SILT, wet

Orange-brown, loose, silty SAND, some mica, moist

198+50.00

Existing Ground Line

L 198+00

(A) RESIDUAL Brown, loose, clayey SAND, moist

2:1

2:1

(5)

(II)

(6)

DRY
04/19

Orange, stiff, clayey SILT, wet

Orange-brown, loose, silty SAND, some mica, moist

198+00.00

8/24/2019
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abozorgi

6/23/16

0 5 10	PROJ. REFERENCE NO.	SHEET NO.
	R-2577A	96

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

990
980
970
960
950
940
930
920

Existing Ground Line

A

2:1

2:1

A RESIDUAL Orange-brown, medium stiff, coarse sandy highly plastic CLAY, trace mica, moist

Orange-tan to tan, stiff, fine to coarse sandy SILT, saprolitic, some mica, moist

199+50.00

Existing Ground Line

A

2:1

2:1

A RESIDUAL Orange-brown, medium stiff, coarse sandy highly plastic CLAY, trace mica, moist

Orange-tan to tan, stiff, fine to coarse sandy SILT, saprolitic, some mica, moist

199+00.00

8/24/2018
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abazorgi

6/23/16

0 5 10	PROJ. REFERENCE NO.	SHEET NO.
	R-2577A	97

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

990
980
970
960
950
940
930

Existing Ground Line

(A) *RESIDUAL* Orange-brown, medium stiff, coarse sandy highly plastic CLAY, trace mica, moist

2:1

2:1

Orange-tan to tan, stiff, fine to coarse sandy SILT, saprolitic, some mica, moist

200+50.00

L 200+00

(A) *RESIDUAL* Orange-brown, medium stiff, coarse sandy highly plastic CLAY, trace mica, moist

Existing Ground Line

2:1

2:1

(7)
(8)
(9)

DRY
4/19

Orange-tan to tan, stiff, fine to coarse sandy SILT, saprolitic, some mica, moist

200+00.00

8/24/2019
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6/23/16

0 5 10	PROJ. REFERENCE NO.	SHEET NO.
	R-2577A	98

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

1000
990
980
970
960
950
940
930

Existing Ground Line

(A) RESIDUAL Red-brown, sandy highly plastic highly plastic CLAY, trace mica, wet

2:1

2:1

Red-brown, fine sandy SILT, saprolitic, some mica, moist

201+50.00

Existing Ground Line

(A) RESIDUAL Red-brown, sandy highly plastic highly plastic CLAY, trace mica, wet

2:1

2:1

Red-brown, fine sandy SILT, saprolitic, some mica, moist

201+00.00

8/24/2018
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abozorgi

6/23/16

0 5 10	PROJ. REFERENCE NO.	SHEET NO.
	R-2577A	99

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

1000
990
980
970
960
950
940

Existing Ground Line

(A) RESIDUAL Red-brown, sandy highly plastic CLAY, trace mica, wet

2:1

2:1

Red-brown, fine sandy SILT, saprolitic, some mica, moist

202+50.00

L 202+00

SS-368

(A) RESIDUAL Red-brown, sandy highly plastic CLAY, trace mica, wet

Existing Ground Line

2:1

2:1

(7)

(7)

(8)

DRY
4/19

Red-brown, fine sandy SILT, saprolitic, some mica, wet

202+00.00

8/24/2018
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abozorgi

6/23/16

0 5 10	PROJ. REFERENCE NO.	SHEET NO.
	R-2577A	100

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

1000
990
980
970
960
950
940

Existing Ground Line

(A) RESIDUAL Orange-brown, stiff, silty highly plastic CLAY, trace mica, moist

2:1

2:1

Red-brown, stiff, fine sandy SILT, trace to some mica, moist

203+50.00

(A) RESIDUAL Red-brown, sandy highly plastic CLAY, trace mica, wet

Existing Ground Line

2:1

2:1

Red-brown, fine sandy SILT, saprolitic, some mica, moist

203+00.00

8/24/2019
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abozorgi

6/23/16

0 5 10	PROJ. REFERENCE NO.	SHEET NO.
	R-2577A	101

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

1010
1000
990
980
970
960
950
940

Existing Ground Line

(A) RESIDUAL Orange-brown, stiff, silty highly plastic CLAY, trace mica, moist

2:1

2:1

Red-brown, stiff, fine sandy SILT, trace to some mica, moist

204+50.00

L 204+00

Existing Ground Line

(A) RESIDUAL Orange-brown, stiff, silty highly plastic CLAY, trace mica, moist

2:1

2:1

11

10

10

DRY
4/19

Red-brown, stiff, fine sandy SILT, trace to some mica, moist

204+00.00

8/24/2019
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abozorgi

6/23/16

0 5 10	PROJ. REFERENCE NO.	SHEET NO.
	R-2577A	102

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

1010
1000
990
980
970
960
950

Existing Ground Line

2:1

2:1

RESIDUAL Red-brown to red-orange, medium stiff to stiff, coarse sandy SILT, little mica, moist

205+50.00

1010
1000
990
980
970
960
950

Existing Ground Line

A

A'

2:1

2:1

RESIDUAL Orange-brown, stiff, silty highly plastic CLAY, trace mica, moist

Red-brown, stiff, fine sandy SILT, trace to some mica, moist

205+00.00

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

8/24/2018
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6/23/16

0 5 10	PROJ. REFERENCE NO.	SHEET NO.
	R-2577A	103

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

1000
990
980
970
960
950

(A) ROADWAY EMBANKMENT Brown-red, soft to stiff, clayey sandy SILT and silty moderately plastic CLAY; loose to medium dense, silty clayey gravelly SAND and sandy GRAVEL; trace to some mica, some gravel, moist to wet

L 210+00

Existing Ground Line

2:1

2:1

(A)

(7)

(10)

(7)

DRY
4/19

RESIDUAL Brown, loose, clayey SAND, wet

Red-brown to tan, medium stiff to stiff, fine sandy SILT, some mica, wet

210+00.00

1000
990
980
970
960
950
940

L 206+00

SS-374

Existing Ground Line

2:1

2:1

(6)

(8)

(6)

DRY
4/19

RESIDUAL Red-brown to red-orange, medium stiff to stiff, coarse sandy SILT, little mica, moist

206+00.00

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

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6/23/16

0 5 10	PROJ. REFERENCE NO.	SHEET NO.
	R-2577A	104

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

990
980
970
960
950
940

(A) RESIDUAL Red-brown, stiff, coarse sandy highly plastic CLAY, trace mica, moist

Existing Ground Line

A

2:1

2:1

Red-brown to brown, stiff, fine to coarse sandy SILT, saprolitic, some mica, moist

211+00.00

1000
990
980
970
960
950
940

(A) ROADWAY EMBANKMENT Brown-red, soft to stiff, clayey sandy SILT and silty moderately plastic CLAY; loose to medium dense, silty clayey gravelly SAND and sandy GRAVEL; trace to some mica, some gravel, moist to wet

A

Existing Ground Line

2:1

2:1

RESIDUAL Brown, loose, clayey SAND, wet

Red-brown to tan, medium stiff to stiff, fine sandy SILT, some mica, wet

210+50.00

8/24/2018
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150 140 130 120 110 100 90 80 70 60 50 40 30 20 10 0 10 20 30 40 50 60 70 80 90 100 110 120 130 140 150

6/23/16

0 5 10	PROJ. REFERENCE NO.	SHEET NO.
	R-2577A	105

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

1000
990
980
970
960
950
940

Ⓐ RESIDUAL Red-brown, stiff, coarse sandy highly plastic CLAY, trace mica, wet

L 212+00

Existing Ground Line

Ⓐ 2:1 10 9 8 DRY 4/19 2:1 Ⓐ

Red-brown to brown, stiff, fine to coarse sandy SILT, saprolitic, some mica, wet

212+00.00

Ⓐ RESIDUAL Red-brown, stiff, coarse sandy highly plastic CLAY, trace mica, moist

Existing Ground Line

Ⓐ 2:1 2:1

Red-brown to brown, stiff, fine to coarse sandy SILT, saprolitic, some mica, moist

211+50.00

8/24/2019
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6/23/16

0 5 10	PROJ. REFERENCE NO.	SHEET NO.
	R-2577A	106

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

1000
990
980
970
960
950
940

Existing Ground Line

(A) RESIDUAL Brown-red, stiff, sandy highly plastic CLAY, trace roots, trace mica, moist

Brown-orange to red-brown-black, medium stiff to stiff, sandy SILT, saprolitic, trace to some mica, moist to wet

2:1

213+00.00

(A) RESIDUAL Red-brown, stiff, coarse sandy highly plastic CLAY, trace mica, moist

Red-brown to brown, stiff, fine to coarse sandy SILT, saprolitic, some mica, moist

212+50.00

8/24/2019
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6/23/16

0 5 10	PROJ. REFERENCE NO.	SHEET NO.
	R-2577A	107

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

1000 990 980 970 960 950 940

L 214+00

SS-395

(A) *RESIDUAL Brown-red, stiff, sandy highly plastic CLAY, trace roots, trace mica, moist*

Existing Ground Line

(A) (10) (8) (8) (7)

2:1 2:1

DRY
4/19

Brown-orange to red-brown-black, medium stiff to stiff, sandy SILT, saprolitic, trace to some mica, moist to wet

214+00.00

(A) *RESIDUAL Brown-red, stiff, sandy highly plastic CLAY, trace roots, trace mica, moist*

Existing Ground Line

(A) 2:1 2:1 (A)

Brown-orange to red-brown-black, medium stiff to stiff, sandy SILT, saprolitic, trace to some mica, moist to wet

213+50.00

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

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6/23/16

0 5 10	PROJ. REFERENCE NO.	SHEET NO.
	R-2577A	108

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

1000
990
980
970
960
950
940
930

Existing Ground Line

(A) RESIDUAL Brown-red, stiff, sandy highly plastic CLAY, trace roots, trace mica, moist

2:1

2:1

Brown-orange to red-brown-black, medium stiff to stiff, sandy SILT, saprolitic, trace to some mica, moist to wet

215+00.00

Existing Ground Line

(A) RESIDUAL Brown-red, stiff, sandy highly plastic CLAY, trace roots, trace mica, moist

2:1

2:1

Brown-orange to red-brown-black, medium stiff to stiff, sandy SILT, saprolitic, trace to some mica, moist to wet

214+50.00

8/24/2018
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abozorgi

6/23/16

0 5 10	PROJ. REFERENCE NO.	SHEET NO.
	R-2577A	109

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

990 980 970 960 950 940 930

L 216+00

(A) RESIDUAL Brown, very loose, clayey SAND, trace roots, wet

2:1 2:1

(3) (19) (7) DRY 4/19

(A)

Red-brown-orange, very stiff, sandy CLAY, moist

Brown-orange, medium stiff, fine sandy SILT, some mica, wet

Existing Ground Line

216+00.00

Existing Ground Line

(A) RESIDUAL Brown, very loose, clayey SAND, trace roots, wet

2:1 2:1

(A)

Red-brown-orange, very stiff, sandy CLAY, moist

Brown-orange, medium stiff, fine sandy SILT, some mica, wet

215+50.00

8/24/2019
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6/23/16

0 5 10	PROJ. REFERENCE NO.	SHEET NO.
	R-2577A	110

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

990
980
970
960
950
940
930

Ⓐ ROADWAY EMBANKMENT Brown-red, soft to stiff, clayey sandy SILT and silty moderately plastic CLAY; loose to medium dense, silty clayey gravelly SAND and sandy GRAVEL; trace to some mica, some gravel, moist to wet

Ⓑ RESIDUAL Brown, loose, clayey SAND, trace organics, moist

Existing Ground Line

2:1

2:1

Ⓐ

Ⓑ

Red-brown, medium stiff, silty CLAY, trace mica, wet

White-tan, loose, silty SAND, trace mica, saturated

218+50.00

Ⓐ ROADWAY EMBANKMENT Brown-red, soft to stiff, clayey sandy SILT and silty moderately plastic CLAY; loose to medium dense, silty clayey gravelly SAND and sandy GRAVEL; trace to some mica, some gravel, moist to wet

Ⓑ RESIDUAL Brown, loose, clayey SAND, trace organics, moist

Existing Ground Line

Ⓑ

2:1

L 218+00

Ⓐ

2:1

⑤

⑦

⑥

DRY
FIAD
4/19

Red-brown, medium stiff, silty CLAY, trace mica, wet

White-tan, loose, silty SAND, trace mica, saturated

218+00.00

8/24/2019
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6/23/16

0 5 10	PROJ. REFERENCE NO.	SHEET NO.
	R-2577A	111

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

990
980
970
960
950
940
930

Existing Ground Line

(A) RESIDUAL Red-brown, medium stiff, sandy highly plastic CLAY, little mica, moist

2:1

2:1

Red-brown to tan, medium stiff to stiff, fine to coarse sandy clayey SILT, saprolitic, some mica, moist to wet

219+50.00

(A) ROADWAY EMBANKMENT Brown-red, soft to stiff, clayey sandy SILT and silty moderately plastic CLAY; loose to medium dense, silty clayey gravelly SAND and sandy GRAVEL; trace to some mica, some gravel, moist to wet

(B) RESIDUAL Red-brown, medium stiff, sandy highly plastic CLAY, little mica, moist

Existing Ground Line

2:1

2:1

Red-brown to tan, medium stiff to stiff, fine to coarse sandy clayey SILT, saprolitic, some mica, moist to wet

219+00.00

8/24/2018
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abazorgi

6/23/16

0 5 10	PROJ. REFERENCE NO.	SHEET NO.
	R-2577A	112

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

990 980 970 960 950 940 930 920

Existing Ground Line

(A) RESIDUAL Red-brown, medium stiff, sandy highly plastic CLAY, little mica, moist

2:1

2:1

Red-brown to tan, medium stiff to stiff, fine to coarse sandy clayey SILT, saprolitic, some mica, moist to wet

220+50.00

L 220+00

SS-405

(A) RESIDUAL Red-brown, medium stiff, sandy highly plastic CLAY, little mica, moist

Existing Ground Line

2:1

2:1

(5) (8) (7) (7) (5)

DRY
FIAD.
4/19

Red-brown to tan, medium stiff to stiff, fine to coarse sandy clayey SILT, saprolitic, some mica, moist to wet

220+00.00

8/24/2019
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abozorgi

6/23/16

0 5 10	PROJ. REFERENCE NO.	SHEET NO.
	R-2577A	113

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

990 980 970 960 950 940 930

(A) RESIDUAL Red-brown, loose, sandy highly plastic CLAY, trace mica, moist

Existing Ground Line

2:1 2:1

Red-brown to brown, loose, silty fine to coarse SAND, saprolitic, some mica, moist

221+50.00

980 970 960 950 940 930 920

(A) RESIDUAL Red-brown, medium stiff, sandy highly plastic CLAY, little mica, moist

Existing Ground Line

2:1 2:1

Red-brown to tan, medium stiff to stiff, fine to coarse sandy clayey SILT, saprolitic, some mica, moist to wet

221+00.00

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

8/24/2019
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abozorgi

6/23/16

0 5 10	PROJ. REFERENCE NO.	SHEET NO.
	R-2577A	114

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

980 970 960 950 940 930 920

Ⓐ RESIDUAL Red-brown, loose, sandy highly plastic CLAY, trace mica, moist

Existing Ground Line

2:1

2:1

Red-brown to brown, loose, silty fine to coarse SAND, saprolitic, some mica, moist

222+50.00

L 222+00

Ⓐ RESIDUAL Red-brown, stiff, sandy highly plastic CLAY, trace mica, moist

Existing Ground Line

2:1

2:1

9

9

8

DRY
FJAD
4/19

Red-brown to brown, loose, silty fine to coarse SAND, saprolitic, some mica, moist

222+00.00

8/24/2019
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6/23/16

0 5 10	PROJ. REFERENCE NO.	SHEET NO.
	R-2577A	115

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

980 970 960 950 940 930 920

Ⓐ RESIDUAL: Red-orange-brown, stiff, sandy highly plastic CLAY, trace mica, moist

Existing Ground Line

Ⓐ

2:1

2:1

Red-brown to tan-brown, medium stiff to stiff, fine to coarse sandy SILT, saprolitic, some mica, moist

223+50.00

Ⓐ RESIDUAL: Red-orange-brown, stiff, sandy highly plastic CLAY, trace mica, moist

Existing Ground Line

Ⓐ

2:1

2:1

Red-brown to tan-brown, medium stiff to stiff, fine to coarse sandy SILT, saprolitic, some mica, moist

223+00.00

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

8/24/2019
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abozorgi

6/23/16

0 5 10	PROJ. REFERENCE NO.	SHEET NO.
	R-2577A	116

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

970
960
950
940
930
920
910

Existing Ground Line

A RESIDUAL Red-orange-brown, stiff, sandy highly plastic CLAY, trace mica, moist

2:1

Red-brown to tan-brown, medium stiff to stiff, fine to coarse sandy SILT, saprolitic, some mica, moist

224+50.00

L 224+00

SS-413

12
10
5

DRY
FIAD
4/19

224+00.00

8/24/2019
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abozorgi

6/23/16

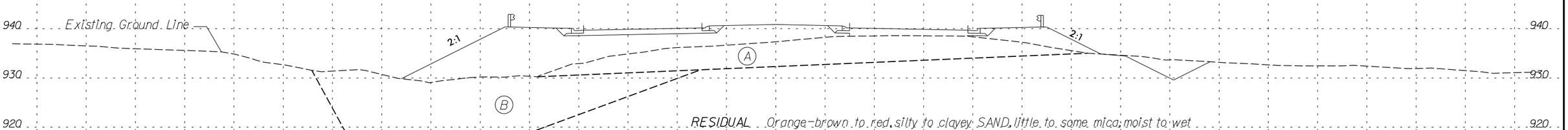
0 5 10	PROJ. REFERENCE NO.	SHEET NO.
	R-2577A	117

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

970
960
950
940
930
920
910

(A) *ROADWAY EMBANKMENT* Brown-red, soft to stiff, clayey sandy SILT and silty moderately plastic CLAY; loose to medium dense, silty clayey gravelly SAND and sandy GRAVEL; trace to some mica, some gravel, moist to wet

(B) *ALLUVIAL* Gray-brown to gray-tan, clayey SAND to gravelly SAND, some mica, saturated

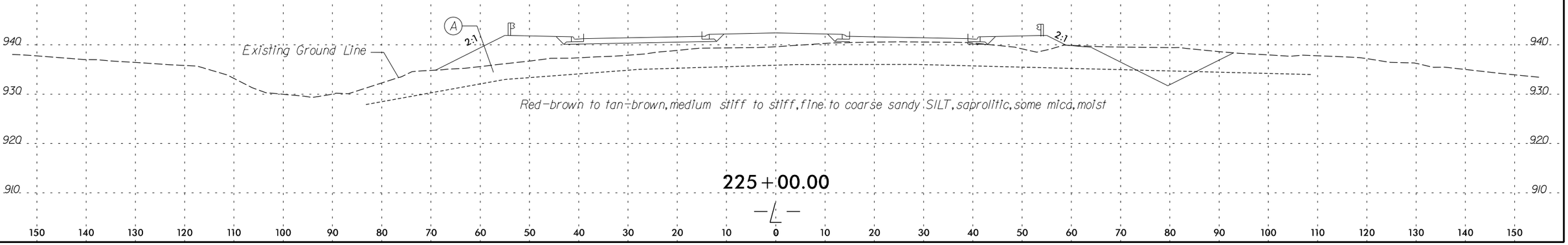


RESIDUAL Orange-brown to red, silty to clayey SAND, little to some mica, moist to wet

225+50.00

970
960
950
940
930
920
910

(A) *RESIDUAL* Red-orange-brown, stiff, sandy highly plastic CLAY, trace mica, moist



Red-brown to tan-brown, medium stiff to stiff, fine to coarse sandy SILT, saprolitic, some mica, moist

225+00.00

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

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6/23/16

0 5 10	PROJ. REFERENCE NO.	SHEET NO.
	R-2577A	118

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

960 950 940 930 920 910

Ⓐ ROADWAY EMBANKMENT Brown-red, soft to stiff, clayey sandy SILT and silty moderately plastic CLAY; loose to medium dense, silty clayey gravelly SAND and sandy GRAVEL; trace to some mica, some gravel, moist to wet

Ⓑ ALLUVIAL Gray to gray-tan, clayey to gravelly SAND, wet

Existing Ground Line

2:1

2:1

Ⓐ

Ⓑ

RESIDUAL Orange-brown, clayey SAND, little mica, wet

228+50.00

960 950 940 930 920 910

Ⓐ ROADWAY EMBANKMENT Brown-red, soft to stiff, clayey sandy SILT and silty moderately plastic CLAY; loose to medium dense, silty clayey gravelly SAND and sandy GRAVEL; trace to some mica, some gravel, moist to wet

Ⓑ ALLUVIAL Gray to gray-tan, clayey to gravelly SAND, wet

Existing Ground Line

2:1

L 228+00

2:1

05/19

Ⓐ

Ⓑ

RESIDUAL Orange-brown, clayey SAND, little mica, wet

228+00.00

960 950 940 930 920 910 900

Ⓐ ROADWAY EMBANKMENT Brown-red, soft to stiff, clayey sandy SILT and silty moderately plastic CLAY; loose to medium dense, silty clayey gravelly SAND and sandy GRAVEL; trace to some mica, some gravel, moist to wet

L 226+00

Ⓑ ALLUVIAL Gray-brown to gray-tan, clayey SAND to gravelly SAND, some mica; saturated

Existing Ground Line

2:1

2:1

05/19

FIAD 5/19

Ⓐ

Ⓑ

RESIDUAL Orange-brown to red, silty to clayey SAND, little to some mica, moist to wet

226+00.00

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

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6/23/16

0 5 10	PROJ. REFERENCE NO.	SHEET NO.
	R-2577A	119

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

960 950 940 930 920 910 900

(A) ROADWAY EMBANKMENT Brown-red, soft to stiff, clayey sandy SILT and silty moderately plastic CLAY; loose to medium dense, silty clayey gravelly SAND and sandy GRAVEL; trace to some mica, some gravel, moist to wet

(B) ALLUVIAL Black-brown to red-brown, soft to medium stiff, clayey SILT, some organics, wet

L 229+40
229+40

2:1

2:1

Existing Ground Line

4
2
5
4
4

04/19

RESIDUAL Brown, loose, silty clayey SAND, some mica, saturated

229+50.00

(A) ROADWAY EMBANKMENT Red-brown, loose, silty clayey SAND, trace gravel, moist

(B) Red-brown, medium stiff, sandy SILT, wet

(C) ALLUVIAL Brown, very loose, silty fine SAND, trace organics, saturated

(D) Gray, soft, sandy CLAY, saturated

(E) Gray to brown, very soft to soft, sandy to clayey SILT, some mica, saturated

L 228+95
228+95

L 228+90
228+90

Pavement

2:1

2:1

Existing Ground Line

A 6
B 4
2 D
2 E
2

DRY
FIAD
04/19

C
0
1
3
37
40
100/0.8

04/19

Brown, silty SAND, some mica, saprolitic

RESIDUAL Gray, soft, sandy SILT, saprolitic, some mica, saturated

WEATHERED ROCK GRANITE

229+00.00

8/24/2019
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6/23/16

0 5 10	PROJ. REFERENCE NO.	SHEET NO.
	R-2577A	120

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

970
960
950
940
930
920

L 232+00

SS-432

Existing Ground Line

2:1

7
20
7
5

RESIDUAL Brown, medium stiff, sandy modertely plastic CLAY, moist

Red-brown to gray, loose, silty fine to coarse SAND, moist

DRY
04/19

2:1

232+00.00

960
950
940
930
920
910

Ⓐ ROADWAY EMBANKMENT Brown-red, soft to stiff, clayey sandy SILT and silty moderately plastic CLAY; loose to medium dense, silty clayey gravelly SAND and sandy GRAVEL; trace to some mica, some gravel, moist to wet

L 230+00

2:1

Existing Ground Line

12
99
18
7

RESIDUAL Gray to brown, medium dense to very dense, sandy GRAVEL, saprolitic, some tree root

04/19

Brown to brown-gray, loose to medium dense, silty to clayey SAND, some mica, moist to wet

230+00.00

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

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6/23/16

0 5 10	PROJ. REFERENCE NO.	SHEET NO.
	R-2577A	121

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

980 970 960 950 940 930 920

Existing Ground Line

(A) RESIDUAL Red-brown, soft, fine to coarse sandy CLAY, trace mica, moist

2:1 2:1

Orange-brown, medium stiff, sandy SILT, saprolitic, trace mica, moist to saturated

234+50.00

L 234+00

CBR-2

(A) RESIDUAL Red-brown, soft, fine to coarse sandy moderately plastic CLAY, trace mica, moist

Existing Ground Line

2:1 2:1

3 6 6 4

DRY 4/19

Orange-brown, medium stiff, sandy SILT, saprolitic, trace mica, moist to saturated

234+00.00

— 4 —

8/24/2018
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6/23/16

0 5 10	PROJ. REFERENCE NO.	SHEET NO.
	R-2577A	122

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

980 970 960 950 940 930 920

Existing Ground Line

2:1

2:1

RESIDUAL Orange-brown, medium stiff to stiff, sandy highly plastic CLAY, saprolitic, wet

Black-brown-orange, medium stiff, clayey SILT, some mica, wet

235+50.00

980 970 960 950 940 930 920

Existing Ground Line

2:1

2:1

RESIDUAL Orange-brown, medium stiff to stiff, sandy highly plastic CLAY, saprolitic, wet

Black-brown-orange, medium stiff, clayey SILT, some mica, wet

235+00.00

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

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6/23/16

0 5 10	PROJ. REFERENCE NO.	SHEET NO.
	R-2577A	123

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

990
980
970
960
950
940
930
920

Existing Ground Line

2:1

2:1

RESIDUAL Orange-brown, medium stiff to stiff, sandy highly plastic CLAY, saprolitic, wet

Black-brown-orange, medium stiff, clayey SILT, some mica, wet

236+50.00

L 236+00

SS-440

Existing Ground Line

2:1

2:1

7
12
5

DRY
4/19

RESIDUAL Orange-brown, medium stiff to stiff, sandy highly plastic CLAY, saprolitic, wet

Black-brown-orange, medium stiff, clayey SILT, some mica, wet

236+00.00

8/24/2018
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6/23/16

0 5 10	PROJ. REFERENCE NO.	SHEET NO.
	R-2577A	124

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

990
980
970
960
950
940
930

Existing Ground Line

2:1

2:1

RESIDUAL Red-brown, medium stiff, fine sandy SILT, little mica, moist

Brown, loose, silty fine SAND, some mica, wet

237+50.00

990
980
970
960
950
940
930

Existing Ground Line

2:1

2:1

(A) RESIDUAL Orange-brown, medium stiff to stiff, sandy highly plastic CLAY, saprolitic, wet

(A)

Black-brown-orange, medium stiff, clayey SILT, some mica, wet

237+00.00

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

8/24/2018
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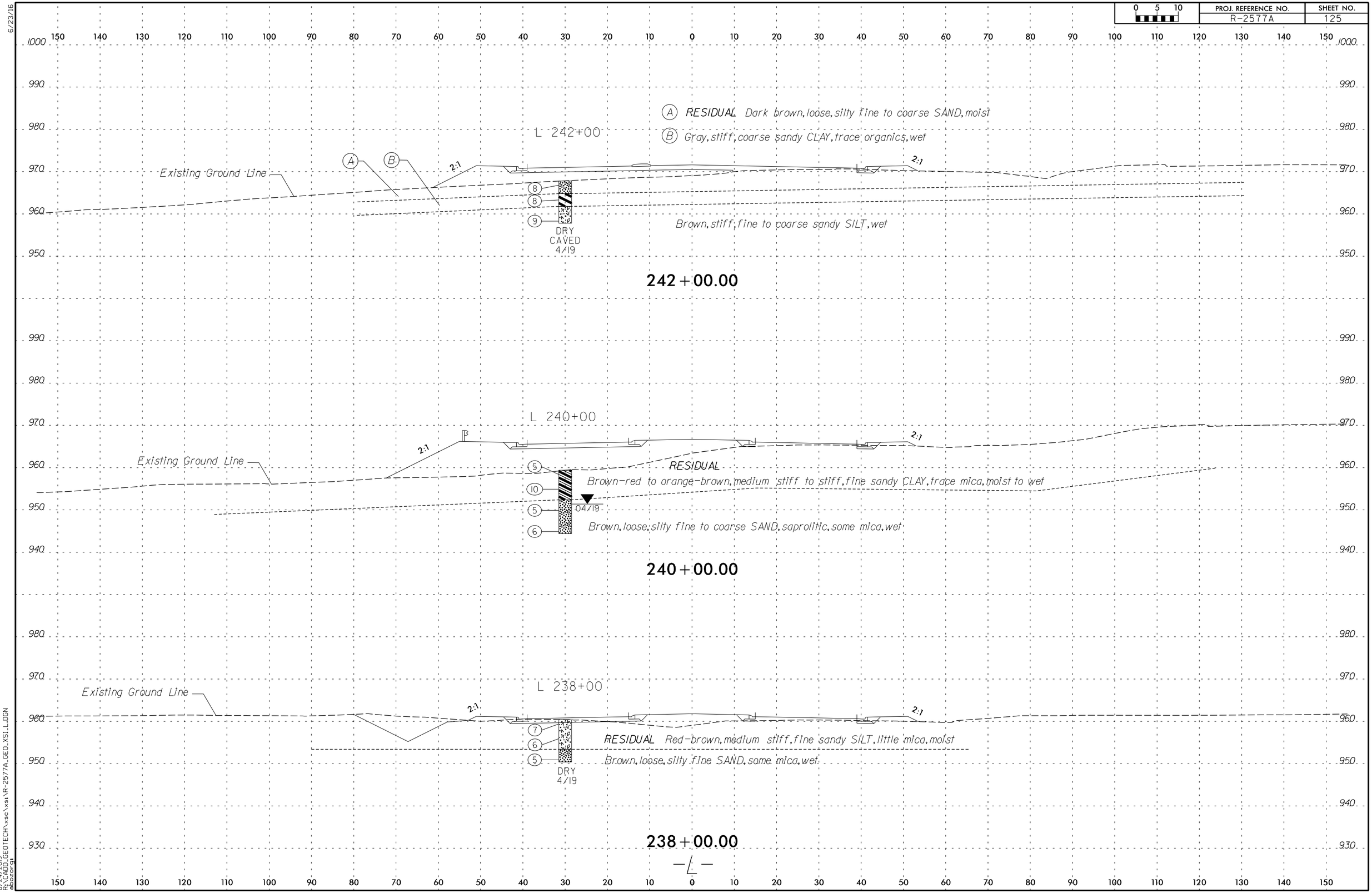
abazorgi

6/23/16

0 5 10	PROJ. REFERENCE NO.	SHEET NO.
	R-2577A	125



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6/23/16

0 5 10	PROJ. REFERENCE NO.	SHEET NO.
	R-2577A	126

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

1010
1000
990
980
970
960
950
940

Ⓐ ROADWAY EMBANKMENT Brown-red, soft to stiff, clayey sandy SILT and silty moderately plastic CLAY; loose to medium dense, silty clayey gravelly SAND and sandy GRAVEL; trace to some mica, some gravel, moist to wet

Existing Ground Line

2:1

L 246+00

Ⓐ

2:1

⑥
⑦
⑦ DRY FIAD 4/19

RESIDUAL Orange-brown to tan, loose, clayey silty fine SAND, trace to some mica, moist to wet

246+00.00

Existing Ground Line

2:1

L 244+00

2:1

③
⑧
⑤ DRY 4/19

RESIDUAL Brown-orange to red-brown, soft to stiff, coarse sandy CLAY, trace organics, moist to wet

Brown, medium stiff, fine sandy SILT, saprolitic, some mica, wet

244+00.00

8/24/2019
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6/23/16

0 5 10	PROJ. REFERENCE NO.	SHEET NO.
	R-2577A	127

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

1020
1010
1000
990
980
970
960

(A) ROADWAY EMBANKMENT Brown-red, soft to stiff, clayey sandy SILT and silty moderately plastic CLAY; loose to medium dense, silty clayey gravelly SAND and sandy GRAVEL; trace to some mica, some gravel, moist to wet

(B) RESIDUAL Brown, stiff, sandy highly plastic CLAY, trace mica, moist

Existing Ground Line

2:1

2:1

(B)

(A)

247+00.00

1000
990
980
970
960

(A) ROADWAY EMBANKMENT Brown-red, soft to stiff, clayey sandy SILT and silty moderately plastic CLAY; loose to medium dense, silty clayey gravelly SAND and sandy GRAVEL; trace to some mica, some gravel, moist to wet

Existing Ground Line

2:1

2:1

(A)

RESIDUAL Orange-brown to tan, loose, clayey silty fine SAND, trace to some mica, moist to wet

246+50.00

950

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

8/24/2019
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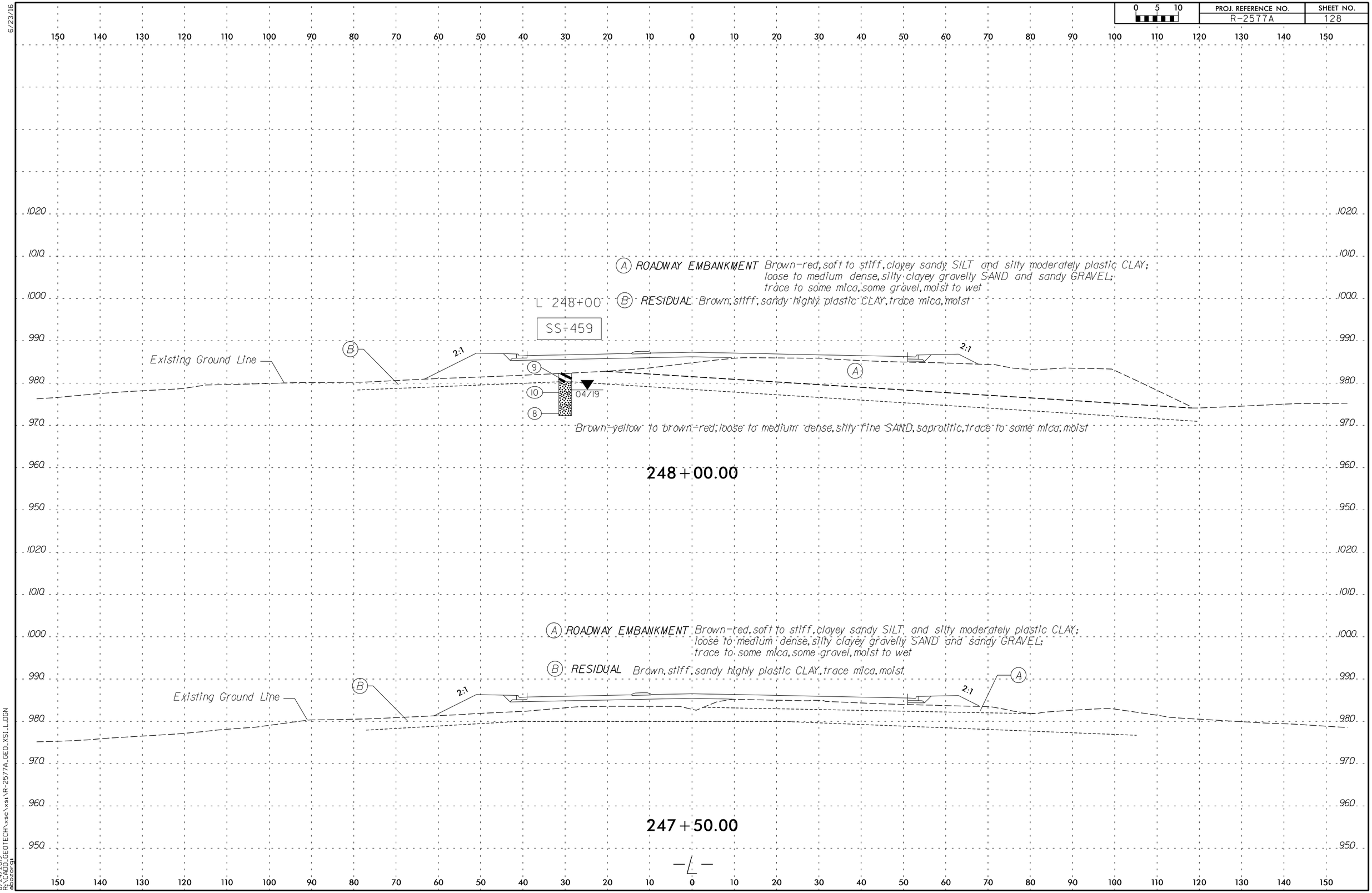
6/23/16

0 5 10	PROJ. REFERENCE NO.	SHEET NO.
	R-2577A	128



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6/23/16

0 5 10	PROJ. REFERENCE NO.	SHEET NO.
	R-2577A	129

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

1020
1010
1000
990
980
970
960

L 252+00

Existing Ground Line

2:1

2:1

(9) (A) (B) (IL) (9)

DRY
4/19

(A) ROADWAY EMBANKMENT Brown, loose, silty clayey fine to coarse SAND, trace gravel, moist

(B) RESIDUAL Red-brown, stiff, sandy CLAY, some mica, moist

Brown, loose, silty fine SAND, some mica, saprolitic, moist

252+00.00

L 249+50

Existing Ground Line

2:1

2:1

(10) (15) (7)

04/19

(A) ROADWAY EMBANKMENT Brown-red, medium dense, clayey SAND, trace gravel, moist

(B) RESIDUAL Red-brown, very stiff, sandy CLAY, little mica, moist

Red-gray-brown, loose, silty fine SAND, some mica, moist

249+50.00

8/24/2019
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6/23/16

0 5 10	PROJ. REFERENCE NO.	SHEET NO.
	R-2577A	130

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

1010
1000
990
980
970
960

Existing Ground Line

2:1

L 256+00

2:1

9
13
12

DRY
04/19

RESIDUAL Red-gray to brown-red, loose to medium dense, silty fine SAND, trace to some mica, moist

256+00.00

1010
1000
990
980
970
960

Existing Ground Line

2:1

A

L 254+00

2:1

A RESIDUAL Brown, very loose, silty SAND, little roots, moist

2
12
7

Red-orange-brown, stiff, sandy CLAY, little mica, wet

Red-brown, medium stiff, fine sandy SILT, wet

DRY
4/19

254+00.00

950

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

8/24/2019
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abozorgi

6/23/16

0 5 10	PROJ. REFERENCE NO.	SHEET NO.
	R-2577A	131

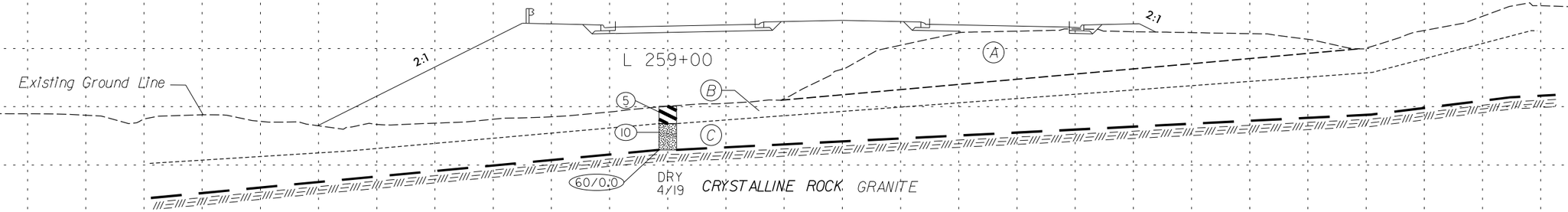
150 140 130 120 110 100 90 80 70 60 50 40 30 20 10 0 10 20 30 40 50 60 70 80 90 100 110 120 130 140 150

1010
1000
990
980
970
960
950

(A) ROADWAY EMBANKMENT Brown-red, soft to stiff, clayey sandy SILT and silty moderately plastic CLAY; loose to medium dense, silty clayey gravelly SAND and sandy GRAVEL; trace to some mica, some gravel, moist to wet

(B) RESIDUAL Red-brown, medium stiff, coarse sandy CLAY, trace mica, moist

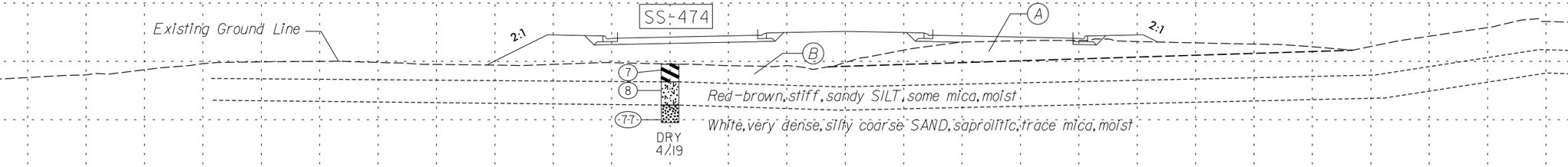
(C) Orange-brown, stiff, fine sandy SILT, saprolitic, trace mica, moist



259+00.00

(A) ROADWAY EMBANKMENT Brown-red, soft to stiff, clayey sandy SILT and silty moderately plastic CLAY; loose to medium dense, silty clayey gravelly SAND and sandy GRAVEL; trace to some mica, some gravel, moist to wet

(B) RESIDUAL Red-brown, medium stiff, sandy moderately plastic CLAY, trace mica, moist



258+00.00

8/24/2019
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abozorgi

6/23/16

0 5 10	PROJ. REFERENCE NO.	SHEET NO.
	R-2577A	132

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

1010
1000
990
980
970
960
950

(A) RESIDUAL Brown, medium stiff, coarse sandy moderately plastic CLAY, moist

L 264+00

SS-482

Existing Ground Line

2:1

2:1

(A)

(6)
(11)
(7)

Red-brown to brown, loose to medium dense, silty fine SAND, saprolitic, some mica, wet

DRY
04/19

264+00.00

(A) RESIDUAL Red-brown, soft, coarse sandy slightly plastic CLAY, moist

L 262+00

SS-477

Existing Ground Line

2:1

2:1

(A)

(3)
(12)
(9)

Red-brown to white, loose to medium dense, silty coarse SAND, saprolitic, trace mica, wet

DRY
04/19

262+00.00

8/24/2018
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6/23/16

0 5 10	PROJ. REFERENCE NO.	SHEET NO.
	R-2577A	133

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

1010
1000
990
980
970
960
950
1010
1000
990
980
970
960
950
940

Ⓐ ROADWAY EMBANKMENT Brown-red, soft to stiff, clayey sandy SILT and silty moderately plastic CLAY; loose to medium dense, silty clayey gravelly SAND and sandy GRAVEL; trace to some mica, some gravel, moist to wet

L 268+00

2:1

2:1

Existing Ground Line

Ⓐ

3
10
7
7

04/19

RESIDUAL Brown to red-brown, soft to stiff, sandy to clayey SILT, trace roots, some mica, moist

Red-brown to white-brown, loose, silty SAND, trace to some mica, moist to saturated

268+00.00

Ⓐ ROADWAY EMBANKMENT Brown-red, soft to stiff, clayey sandy SILT and silty moderately plastic CLAY; loose to medium dense, silty clayey gravelly SAND and sandy GRAVEL; trace to some mica, some gravel, moist to wet

Ⓑ RESIDUAL Brown-red, medium stiff, sandy CLAY, moist

Ⓒ Red-brown to brown, medium dense, silty SAND, saprolitic, trace mica, wet

L 266+00

2:1

2:1

Existing Ground Line

Ⓑ

Ⓐ

Ⓒ

6
10
8
39

DRY
04/19

Brown, stiff, sandy SILT, trace mica, wet

Brown, dense, silty SAND; saprolitic, trace mica, wet

266+00.00

8/24/2019
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6/23/16

0 5 10	PROJ. REFERENCE NO.	SHEET NO.
	R-2577A	134

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

1010
1000
990
980
970
960
950

L 272+00 (A) RESIDUAL Red-brown, medium stiff, sandy moderately plastic CLAY, some mica, moist

SS-496

Existing Ground Line

2:1

2:1

(A)

(6)
(7)
(8)

Red-orange-brown to brown-gray, medium stiff to stiff, fine sandy SILT, saprolitic, some mica, moist

DRY
04/19

272+00.00

(A) RESIDUAL Red-brown, medium stiff, fine sandy SILT, some mica, moist

L 270+00

Existing Ground Line

2:1

2:1

(A)

(6)
(7)
(6)

DRY
4/19

White to red-black-brown, loose to medium dense, silty fine to coarse SAND, saprolitic, trace to some mica, wet

270+00.00

8/24/2019
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abozorgi

6/23/16

0 5 10	PROJ. REFERENCE NO.	SHEET NO.
	R-2577A	135

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

1000
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Ⓐ ROADWAY EMBANKMENT Brown-red, soft to stiff, clayey sandy SILT and silty moderately plastic CLAY; loose to medium dense, silty clayey gravelly SAND and sandy GRAVEL; trace to some mica, some gravel, moist to wet

Existing Ground Line

2:1

2:1

Ⓐ

RESIDUAL Red-brown, medium stiff to very stiff, coarse sandy CLAY, trace roots, trace mica, moist to wet

Brown, loose, silty fine SAND, saprolitic, some mica, moist

274+50.00

Ⓐ ROADWAY EMBANKMENT Brown-red, soft to stiff, clayey sandy SILT and silty moderately plastic CLAY; loose to medium dense, silty clayey gravelly SAND and sandy GRAVEL; trace to some mica, some gravel, moist to wet

L 274+00

Existing Ground Line

2:1

2:1

Ⓐ

6
10
15
6

DRY
4/19

RESIDUAL Red-brown, medium stiff to very stiff, coarse sandy CLAY, trace roots, trace mica, moist to wet

Brown, loose, silty fine SAND, saprolitic, some mica, moist

274+00.00

8/24/2019
R:\CADD_GEOTECH\xsc\xsi\R-2577A_GEO_XSI_L.DGN
abozorgi

6/23/16

0 5 10	PROJ. REFERENCE NO.	SHEET NO.
	R-2577A	136

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

1010
1000
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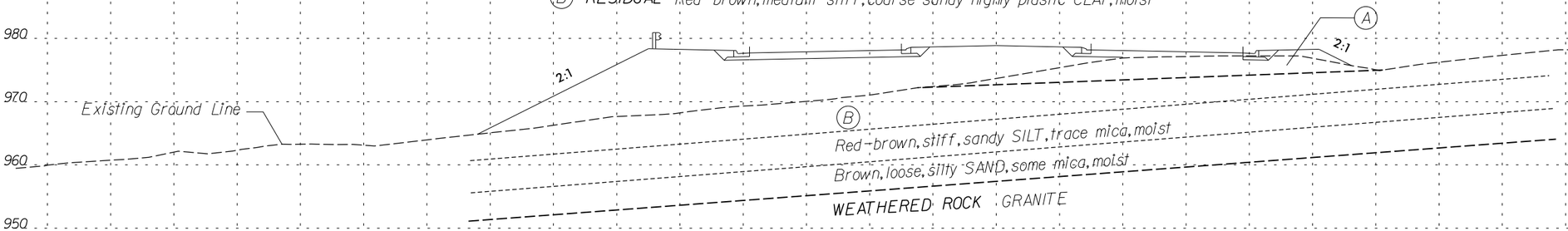
960
950

(A) ROADWAY EMBANKMENT Brown-red, soft to stiff, clayey, sandy SILT and silty moderately plastic CLAY; loose to medium dense, silty clayey gravelly SAND and sandy GRAVEL; trace to some mica, some gravel, moist to wet

(B) RESIDUAL Red-brown, medium stiff, coarse sandy highly plastic CLAY, moist

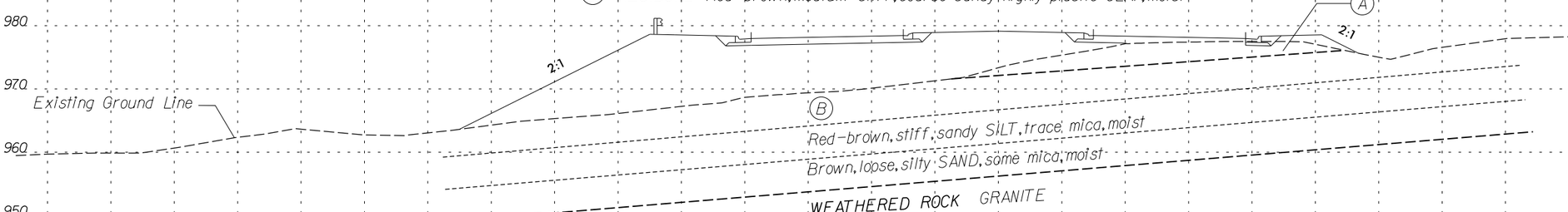


275+50.00

1010
1000
990
980
970
960
950
940
930

(A) ROADWAY EMBANKMENT Brown-red, soft to stiff, clayey sandy SILT and silty moderately plastic CLAY; loose to medium dense, silty clayey gravelly SAND and sandy GRAVEL; trace to some mica, some gravel, moist to wet

(B) RESIDUAL Red-brown, medium stiff, coarse sandy highly plastic CLAY, moist



275+00.00

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

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6/23/16

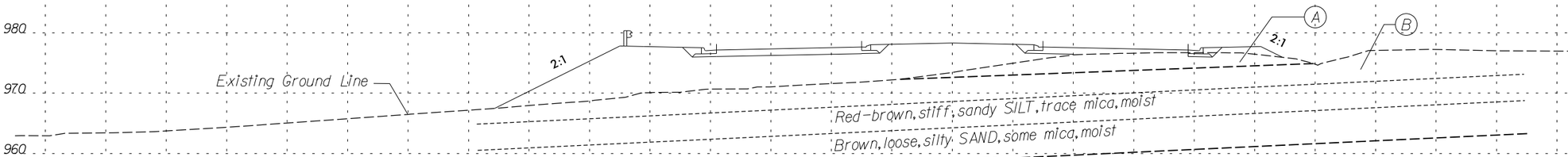
0 5 10	PROJ. REFERENCE NO.	SHEET NO.
	R-2577A	137

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

1010
1000
990
980
970
960
950
940

(A) ROADWAY EMBANKMENT Brown-red, soft to stiff, clayey sandy SILT and silty moderately plastic CLAY; loose to medium dense, silty clayey gravelly SAND and sandy GRAVEL; trace to some mica, some gravel, moist to wet

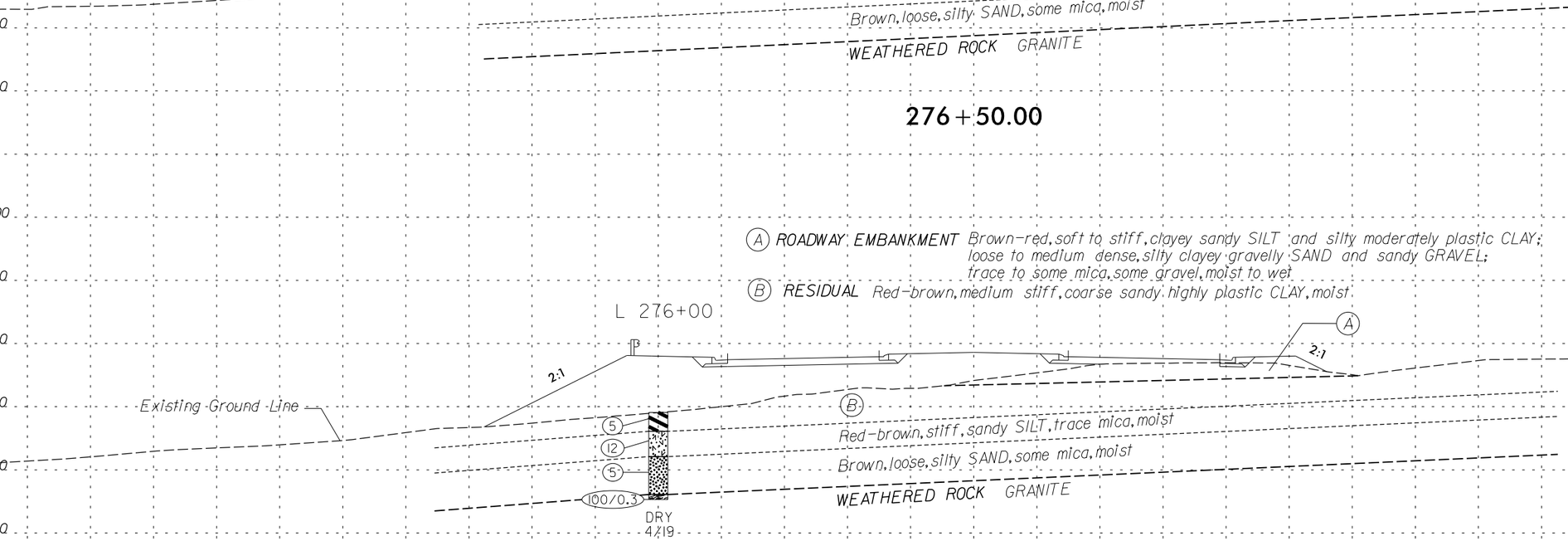
(B) RESIDUAL Red-brown, medium stiff, coarse sandy, highly plastic CLAY, moist



276+50.00

(A) ROADWAY EMBANKMENT Brown-red, soft to stiff, clayey sandy SILT and silty moderately plastic CLAY; loose to medium dense, silty clayey gravelly SAND and sandy GRAVEL; trace to some mica, some gravel, moist to wet

(B) RESIDUAL Red-brown, medium stiff, coarse sandy, highly plastic CLAY, moist



276+00.00

8/24/2009
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abozorgi

6/23/16

0 5 10	PROJ. REFERENCE NO.	SHEET NO.
	R-2577A	138

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

1000
990
980
970
960
950
940

Ⓐ ROADWAY EMBANKMENT Brown-red, soft to stiff, clayey sandy SILT and silty moderately plastic CLAY; loose to medium dense, silty clayey gravelly SAND and sandy GRAVEL; trace to some mica, some gravel, moist to wet

Existing Ground Line

2:1

2:1

Ⓐ

RESIDUAL Red-brown, medium stiff to stiff, coarse sandy highly plastic CLAY, trace roots, trace mica, moist

Red-brown, medium stiff, fine sandy SILT, trace mica, moist

277+50.00

1000
990
980
970
960
950
940

Ⓐ ROADWAY EMBANKMENT Brown-red, soft to stiff, clayey sandy SILT and silty moderately plastic CLAY; loose to medium dense, silty clayey gravelly SAND and sandy GRAVEL; trace to some mica, some gravel, moist to wet

Existing Ground Line

2:1

2:1

Ⓐ

RESIDUAL Red-brown, medium stiff to stiff, coarse sandy highly plastic CLAY, trace roots, trace mica, moist

Red-brown, medium stiff, fine sandy SILT, trace mica, moist

277+00.00

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

8/24/2019
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6/23/16

0 5 10	PROJ. REFERENCE NO.	SHEET NO.
	R-2577A	139

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

1010
1000
990
980
970
960
950
940

Ⓐ ROADWAY EMBANKMENT Brown-red, soft to stiff, clayey sandy SILT and silty moderately plastic CLAY; loose to medium dense, silty clayey gravelly SAND and sandy GRAVEL; trace to some mica, some gravel, moist to wet

Existing Ground Line

2:1

Ⓐ

2:1

RESIDUAL Red-brown, medium stiff to stiff, coarse sandy highly plastic CLAY, trace roots, trace mica, moist

Red-brown, medium stiff, fine sandy SILT, trace mica, moist

278+50.00

Ⓐ ROADWAY EMBANKMENT Brown-red, soft to stiff, clayey sandy SILT and silty moderately plastic CLAY; loose to medium dense, silty clayey gravelly SAND and sandy GRAVEL; trace to some mica, some gravel, moist to wet

L 278+00

Existing Ground Line

2:1

Ⓐ

2:1

RESIDUAL

4
10
7

Red-brown, medium stiff to stiff, coarse sandy highly plastic CLAY, trace roots, trace mica, moist

Red-brown, medium stiff, fine sandy SILT, trace mica, moist

DRY
4/19

278+00.00

8/24/2019
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abozorgi

6/23/16

0 5 10	PROJ. REFERENCE NO.	SHEET NO.
	R-2577A	140

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

1010
1000
990
980
970
960
950

(A) ROADWAY EMBANKMENT Brown-red, soft to stiff, clayey sandy SILT and silty moderately plastic CLAY; loose to medium dense, silty clayey gravelly SAND and sandy GRAVEL; trace to some mica, some gravel, moist to wet

(B) RESIDUAL Red-brown, coarse sandy highly plastic CLAY, trace mica, trace roots, moist

Existing Ground Line

2:1

2:1

A

B

Red-brown to red-orange-brown, medium stiff to stiff, fine sandy clayey SILT, trace to some mica, moist

279+50.00

1010
1000
990
980
970
960
950

(A) ROADWAY EMBANKMENT Brown-red, soft to stiff, clayey sandy SILT and silty moderately plastic CLAY; loose to medium dense, silty clayey gravelly SAND and sandy GRAVEL; trace to some mica, some gravel, moist to wet

(B) RESIDUAL Red-brown, coarse sandy highly plastic CLAY, trace mica, trace roots, moist

Existing Ground Line

2:1

2:1

A

B

Red-brown to red-orange-brown, medium stiff to stiff, fine sandy clayey SILT, trace to some mica, moist

279+00.00

940

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

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6/23/16

0 5 10	PROJ. REFERENCE NO.	SHEET NO.
	R-2577A	141

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

1000
990
980
970
960
950
940

Ⓐ ROADWAY EMBANKMENT Brown-red, soft to stiff, clayey sandy SILT and silty moderately plastic CLAY; loose to medium dense, silty clayey gravelly SAND and sandy GRAVEL; trace to some mica, some gravel, moist to wet

Ⓑ RESIDUAL Red-brown, coarse sandy highly plastic CLAY, trace mica, trace roots, moist

Existing Ground Line

2:1

2:1

Ⓐ Ⓑ

Red-brown to red-orange-brown, medium stiff to stiff, fine sandy clayey SILT, trace to some mica, moist

280+50.00

Ⓐ ROADWAY EMBANKMENT Brown-red, soft to stiff, clayey sandy SILT and silty moderately plastic CLAY; loose to medium dense, silty clayey gravelly SAND and sandy GRAVEL; trace to some mica, some gravel, moist to wet

Ⓑ RESIDUAL Red-brown, medium stiff, coarse sandy highly plastic CLAY, trace mica, trace roots, moist

L 280+00

SS-510

Existing Ground Line

2:1

2:1

Ⓐ Ⓑ

(5) (8) (5)

DRY
4/19

Red-brown to red-orange-brown, medium stiff to stiff, fine sandy clayey SILT, trace to some mica, moist

280+00.00

8/24/2018
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abozorgi

6/23/16

0 5 10	PROJ. REFERENCE NO.	SHEET NO.
	R-2577A	142

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

1000
990
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950
940

Existing Ground Line

2:1

2:1

RESIDUAL Red-brown, medium stiff to stiff, sandy SILT, little roots, trace to some mica, moist

White-brown, loose, silty SAND, moist

281+50.00

1000
990
980
970
960
950
940

Existing Ground Line

2:1

2:1

(A) RESIDUAL Red-brown, coarse sandy highly plastic CLAY, trace mica, trace roots, moist

Red-brown to red-orange-brown, medium stiff to stiff, fine sandy clayey SILT, trace to some mica, moist

281+00.00

8/24/2018
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abozorgi

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

6/23/16

0 5 10	PROJ. REFERENCE NO.	SHEET NO.
	R-2577A	143

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

1000
990
980
970
960
950
940

Ⓐ ROADWAY EMBANKMENT Brown-red, soft to stiff, clayey sandy SILT and silty moderately plastic CLAY; loose to medium dense, silty clayey gravelly SAND and sandy GRAVEL; trace to some mica, some gravel, moist to wet

Existing Ground Line

2:1

2:1

Ⓐ

RESIDUAL Red-brown, medium stiff to stiff, sandy SILT, little roots, trace to some mica, moist

White-brown, loose, silty SAND, moist

282+50.00

L 282+00

Existing Ground Line

2:1

2:1

RESIDUAL

4
8
7

DRY
4/19

Red-brown, medium stiff to stiff, sandy SILT, little roots, trace to some mica, moist

White-brown, loose, silty SAND, moist

282+00.00

8/24/2019
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abozorgi

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

6/23/16

0 5 10	PROJ. REFERENCE NO.	SHEET NO.
	R-2577A	144

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

1000
990
980
970
960
950
940

Existing Ground Line

(A) RESIDUAL Red-brown, medium stiff, coarse sandy highly plastic CLAY, trace mica, trace roots, moist

Red-brown, medium stiff to stiff, sandy SILT, saprolitic, some mica, moist

2:1

2:1

283+50.00

(A) ROADWAY EMBANKMENT Brown-red, soft to stiff, clayey sandy SILT and silty moderately plastic CLAY; loose to medium dense, silty clayey gravelly SAND and sandy GRAVEL; trace to some mica, some gravel, moist to wet

(B) RESIDUAL Red-brown, medium stiff, coarse sandy highly plastic CLAY, trace mica, trace roots, moist

Existing Ground Line

2:1

2:1

Red-brown, medium stiff to stiff, sandy SILT, saprolitic, some mica, moist

283+00.00

8/24/2018
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6/23/16

0 5 10	PROJ. REFERENCE NO.	SHEET NO.
	R-2577A	145

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

1000
990
980
970
960
950
940

Existing Ground Line

(A) RESIDUAL Red-brown, medium stiff, coarse sandy highly plastic CLAY, trace mica, trace roots, moist

2:1

2:1

Red-brown, medium stiff to stiff, sandy SILT, saprolitic, some mica, moist

284+50.00

L 284+00

SS-517

Existing Ground Line

(A) RESIDUAL Red-brown, medium stiff, coarse sandy highly plastic CLAY, trace mica, trace roots, moist

2:1

2:1

(5)
(8)
(6)
(10)

DRY
4/19

Red-brown, medium stiff to stiff, sandy SILT, saprolitic, some mica, wet

284+00.00

8/24/2019
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6/23/16

0 5 10	PROJ. REFERENCE NO.	SHEET NO.
	R-2577A	146

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

1000
990
980
970
960
950
940

Existing Ground Line

(A) RESIDUAL Red-brown, medium stiff to stiff, coarse sandy highly plastic CLAY, trace roots, moist

2:1

2:1

(A)

Red-brown, medium stiff, sandy SILT, trace mica, moist

285+50.00

1000
990
980
970
960
950
940

Existing Ground Line

(A) RESIDUAL Red-brown, medium stiff to stiff, coarse sandy highly plastic CLAY, trace roots, moist

2:1

2:1

(A)

Red-brown, medium stiff, sandy SILT, trace mica, moist

285+00.00

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

8/24/2018
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6/23/16

0 5 10	PROJ. REFERENCE NO.	SHEET NO.
	R-2577A	147

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

1000
990
980
970
960
950
940
930

Existing Ground Line

2:1

Ⓐ RESIDUAL Red-brown, medium stiff to stiff, coarse sandy highly plastic CLAY, trace roots, moist

Red-brown, medium stiff, sandy SILT, trace mica, moist

286+50.00

L 286+00

SS-520

Existing Ground Line

2:1

Ⓐ RESIDUAL Red-brown, medium stiff to stiff, coarse sandy highly plastic CLAY, trace roots, moist

5
8
7
DRY
4/19

Red-brown, medium stiff, sandy SILT, trace mica, moist

286+00.00

8/24/2019
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abozorgi

6/23/16

0 5 10	PROJ. REFERENCE NO.	SHEET NO.
	R-2577A	148

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

990
980
970
960
950
940
930

Existing Ground Line

2:1

2:1

RESIDUAL Brown to red, medium stiff to stiff, coarse sandy highly plastic CLAY, trace roots, wet

Tan-brown, medium stiff, sandy SILT, saprolitic, wet

287+50.00

Existing Ground Line

2:1

2:1

(A) RESIDUAL Red-brown, medium stiff to stiff, coarse sandy highly plastic CLAY, trace roots, moist

(A)

Red-brown, medium stiff, sandy SILT, trace mica, moist

287+00.00

8/24/2019
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abozorgi

6/23/16

0 5 10	PROJ. REFERENCE NO.	SHEET NO.
	R-2577A	149

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

990
980
970
960
950
940
930

Existing Ground Line

2:1

2:1

RESIDUAL Brown to red, medium stiff to stiff, coarse sandy highly plastic CLAY, trace roots, wet

Tan-brown, medium stiff, sandy SILT, saprolitic, wet

288+50.00

990
980
970
960
950
940
930

Existing Ground Line

2:1

2:1

L 288+00

6
12
7

DRY
4/19

RESIDUAL Brown to red, medium stiff to stiff, coarse sandy highly plastic CLAY, trace roots, wet

Tan-brown, medium stiff, sandy SILT, saprolitic, wet

288+00.00

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

8/24/2019
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6/23/16

0 5 10	PROJ. REFERENCE NO.	SHEET NO.
	R-2577A	150

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

990
980
970
960
950
940
930

Ⓐ ROADWAY EMBANKMENT Brown-red, soft to stiff, clayey sandy SILT and silty moderately plastic CLAY; loose to medium dense, silty clayey gravelly SAND and sandy GRAVEL; trace to some mica, some gravel, moist to wet

Existing Ground Line

2:1

2:1

Ⓐ

RESIDUAL Brown to red-orange-brown, medium stiff to stiff, coarse sandy highly plastic CLAY, trace mica, moist

Red-brown, medium stiff, sandy SILT, some mica, moist

289+50.00

990
980
970
960
950
940
930

Ⓐ ROADWAY EMBANKMENT Brown-red, soft to stiff, clayey sandy SILT and silty moderately plastic CLAY; loose to medium dense, silty clayey gravelly SAND and sandy GRAVEL; trace to some mica, some gravel, moist to wet

Existing Ground Line

2:1

2:1

Ⓐ

RESIDUAL Brown to red-orange-brown, medium stiff to stiff, coarse sandy highly plastic CLAY, trace mica, moist

Red-brown, medium stiff, sandy SILT, some mica, moist

289+00.00

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

8/24/2018
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6/23/16

0 5 10	PROJ. REFERENCE NO.	SHEET NO.
	R-2577A	151

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

990
980
970
960
950
940
930

Ⓐ ROADWAY EMBANKMENT Brown-red, soft to stiff, clayey sandy SILT and silty moderately plastic CLAY; loose to medium dense, silty clayey gravelly SAND and sandy GRAVEL; trace to some mica, some gravel, moist to wet

Existing Ground Line

2:1

Ⓐ

2:1

RESIDUAL Brown to red-orange-brown, medium stiff to stiff, coarse sandy highly plastic CLAY, trace mica, moist

Red-brown, medium stiff, sandy SILT, some mica, moist

290+50.00

Ⓐ ROADWAY EMBANKMENT Brown-red, soft to stiff, clayey sandy SILT and silty moderately plastic CLAY; loose to medium dense, silty clayey gravelly SAND and sandy GRAVEL; trace to some mica, some gravel, moist to wet

L 290+00

Existing Ground Line

2:1

Ⓐ

2:1

RESIDUAL Brown to red-orange-brown, medium stiff to stiff, coarse sandy highly plastic CLAY, trace mica, moist

Red-brown, medium stiff, sandy SILT, some mica, moist

Ⓐ 4
14
6

DRY
4/19

290+00.00

— 1 —

8/24/2019
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abozorgi

6/23/16

0 5 10	PROJ. REFERENCE NO.	SHEET NO.
	R-2577A	152

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

980 970 960 950 940 930 920

Ⓐ *RESIDUAL Red-brown, loose, clayey SAND, some mica, trace roots*

L 294+00

Existing Ground Line

2:1 2:1

B

5 7 6 A

Brown, medium stiff, sandy SILT, some mica

DRY
04/19

294+00.00

Ⓐ *ROADWAY EMBANKMENT Brown-red, soft to stiff, clayey sandy SILT and silty moderately plastic CLAY; loose to medium dense, silty clayey gravelly SAND and sandy GRAVEL; trace to some mica, some gravel, moist to wet*

Ⓑ *RESIDUAL Brown, loose, clayey SAND, trace roots, trace mica, moist*

L 292+00

Existing Ground Line

2:1 2:1

A B

8 14 14

brown, stiff, sandy CLAY, saprolitic, trace mica, moist

Brown, medium dense, silty SAND, saprolitic, some mica, moist

DRY
04/19

292+00.00

8/24/2019
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dbozorgi

6/23/16

0 5 10	PROJ. REFERENCE NO.	SHEET NO.
	R-2577A	153

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

970 960 950 940 930 920 910 900 890

L 298+00

SS-556

(A) ROADWAY EMBANKMENT Brown-red, soft to stiff, clayey sandy SILT and silty moderately plastic CLAY; loose to medium dense, silty clayey gravelly SAND and sandy GRAVEL; trace to some mica, some gravel, moist to wet

(B) ALLUVIAL Brown, medium stiff, coarse sandy highly plastic CLAY, wet

(C) Brown, loose, clayey coarse SAND, little roots, wet

2:1

2:1

Existing Ground Line

(B) (C) (A)

4 9 4 3 4

04/19

RESIDUAL Black, soft to medium stiff, sandy SILT, some mica, saturated

298+00.00

L 296+00

SS-551

(A) ROADWAY EMBANKMENT Brown-red, soft to stiff, clayey sandy SILT and silty moderately plastic CLAY; loose to medium dense, silty clayey gravelly SAND and sandy GRAVEL; trace to some mica, some gravel, moist to wet

(B) ALLUVIAL Brown to gray-brown, medium stiff, coarse sandy moderately plastic CLAY, trace roots, wet

2:1

2:1

Existing Ground Line

(A) (B)

4 5 4 3 3 4

DRY
04/19

RESIDUAL Gray to brown, soft to medium stiff, sandy to clayey SILT, saturated

296+00.00

8/24/2019
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abozorgi

6/23/16

0 5 10	PROJ. REFERENCE NO.	SHEET NO.
	R-2577A	154

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

970
960
950
940
930

Existing Ground Line

2:1

L 302+00

4
6
10

RESIDUAL Brown, medium stiff to stiff, sandy SILT, saprolitic, trace to some mica, moist

DRY
04/19

302+00.00

920
910
970
960
950
940
930
920
910

A RESIDUAL Red-brown, stiff to very stiff, sandy CLAY, trace mica, moist

Existing Ground Line

2:1

L 300+00

10
16
A
8
4

Red-brown to black, medium stiff to stiff, sandy SILT, trace mica, moist to wet

DRY
04/19

300+00.00

—L—

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

8/24/2019
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abozorgi

6/23/16

0 5 10	PROJ. REFERENCE NO.	SHEET NO.
	R-2577A	155

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

970
960
950
940
930
920
910

Existing Ground Line

2:1

L 304+00

2:1

4
6
6

RESIDUAL

Red-brown, medium stiff, sandy SILT, trace to some mica, moist to wet

DRY
04/19

304+00.00

8/24/2019
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abozorgi

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

6/23/16

0 5 10	PROJ. REFERENCE NO.	SHEET NO.
	R-2577A	156

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

960 950 940 930 920 910 900

Existing Ground Line

2:1

2:1

RESIDUAL Brown, stiff to very stiff, silty CLAY, trace mica, wet

Brown-white, very stiff, clayey SILT, wet

12+50.00

Existing Ground Line

YIA 12+00

2:1

2:1

RESIDUAL Brown, stiff to very stiff, silty CLAY, trace mica, wet

21

11

16

DRY
3/19

Brown-white, very stiff, clayey SILT, wet

12+00.00

-YIA-

8/24/2019
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abozorgi

6/23/16

0 5 10	PROJ. REFERENCE NO.	SHEET NO.
	R-2577A	157

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

960 950 940 930 920 910 900 950 940 930 920 910 900 890

Existing Ground Line

(A) RESIDUAL Brown, stiff to very stiff, silty highly plastic CLAY, trace mica, trace rock fragments, wet

2:1 2:1

(A)

Brown-gray, very stiff, sandy clayey SILT, little mica, wet

Light brown-white, medium dense, silty SAND, trace rock fragments, moist

WEATHERED ROCK BIOTITE GNEISS

13+50.00

Existing Ground Line

(A) RESIDUAL Brown, stiff to very stiff, silty highly plastic CLAY, trace mica, trace rock fragments, wet

2:1 2:1

(A)

Brown-gray, very stiff, sandy clayey SILT, little mica, wet

Light brown-white, medium dense, silty SAND, trace rock fragments, moist

WEATHERED ROCK BIOTITE GNEISS

13+00.00

-Y1A-

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

8/24/2019
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abozorgi

6/23/16

0 5 10	PROJ. REFERENCE NO.	SHEET NO.
	R-2577A	158

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

960 950 940 930 920 910 900 890

Existing Ground Line

(A) RESIDUAL Brown, stiff to very stiff, silty highly plastic CLAY, trace mica, trace rock fragments, wet

2:1 2:1

(A)

Brown-gray, very stiff, sandy clayey SILT, little mica, wet

Light brown-white, medium dense, silty SAND, trace rock fragments, moist

WEATHERED ROCK BIOTITE GNEISS

14+50.00

(A) RESIDUAL Brown, stiff to very stiff, silty highly plastic CLAY, trace mica, trace rock fragments, wet

Existing Ground Line

Y1A 14+00

2:1 2:1

(A)

10

18 Brown-gray, very stiff, sandy clayey SILT, little mica, wet

19

16 Light brown-white, medium dense, silty SAND, trace rock fragments, moist

WEATHERED ROCK

100/0.3 DRY 3/19 BIOTITE GNEISS

14+00.00

-Y1A-

8/24/2019
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abozorgi

6/23/16

0 5 10	PROJ. REFERENCE NO.	SHEET NO.
	R-2577A	159

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

950
940
930
920
910
900

Existing Ground Line

2:1 2:1

RESIDUAL Brown-red, coarse sandy highly plastic CLAY, moist

15+50.00

Existing Ground Line

Ⓐ RESIDUAL Brown, stiff to very stiff, silty highly plastic CLAY, trace mica, trace rock fragments, wet

2:1 2:1

Ⓐ

Brown-gray, very stiff, sandy clayey SILT, little mica, wet

Light brown-white, medium dense, silty SAND, trace rock fragments, moist

WEATHERED ROCK BIOTITE GNEISS

15+00.00

-Y1A-

8/24/2019
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abozorgi

6/23/16

0 5 10	PROJ. REFERENCE NO.	SHEET NO.
	R-2577A	160

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

940
930
920
910
900
890
880

Existing Ground Line

2:1

2:1

Y1A 16+00

DRY
FIAD
3/19

RESIDUAL *Brown-red, coarse sandy highly plastic CLAY, moist*

16+00.00

-Y1A-

8/24/2018
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abozorgi

6/23/16

0 5 10	PROJ. REFERENCE NO.	SHEET NO.
	R-2577A	161

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

950
940
930
920
910
900
890

Existing Ground Line

(A) ROADWAY EMBANKMENT Brown-red, soft to stiff, clayey sandy SILT and silty moderately plastic CLAY; loose to medium dense, silty clayey gravelly SAND and sandy GRAVEL; trace to some mica, some gravel, moist to wet

2:1 6:1 2:1

RESIDUAL Red-brown, very stiff, silty highly plastic CLAY, trace rock fragments, wet

Gray-brown, stiff, sandy clayey SILT, trace mica, wet

12+50.00

(A) ROADWAY EMBANKMENT Brown-red, soft to stiff, clayey sandy SILT and silty moderately plastic CLAY; loose to medium dense, silty clayey gravelly SAND and sandy GRAVEL; trace to some mica, some gravel, moist to wet

Existing Ground Line

YIB 11+50

2:1 6:1 2:1

RESIDUAL Red-brown, very soft to soft, silty to sandy CLAY, wet

Brown, medium stiff, clayey SILT, trace mica, saturated

2
1
6
5
03/19

11+50.00

-YIB-

8/24/2019
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abozorgi

6/23/16

0 5 10	PROJ. REFERENCE NO.	SHEET NO.
	R-2577A	162

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

950 940 930 920 910 900

Existing Ground Line

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

RESIDUAL Red-brown, very stiff, silty highly plastic CLAY, trace rock fragments, wet

Gray-brown, stiff, sandy clayey SILT, trace mica, wet

14+00.00

940 930 920 910 900

Existing Ground Line

YIB 13+50

SS-64

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

Red-brown, very stiff, silty highly plastic CLAY, trace rock fragments, wet (20) (28)

RESIDUAL

Gray-brown, stiff, sandy clayey SILT, trace mica, wet (12)

DRY 03/19

13+50.00

940 930 920 910 900 890

Existing Ground Line

2:1 6:1 2:1

RESIDUAL Red-brown, very stiff, silty highly plastic CLAY, trace rock fragments, wet

Gray-brown, stiff, sandy clayey SILT, trace mica, wet

13+00.00

-YIB-

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

8/24/2019
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abozorgi

6/23/16

0 5 10	PROJ. REFERENCE NO.	SHEET NO.
	R-2577A	163

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

950 940 930 920 910 900 890

Existing Ground Line

(A) RESIDUAL Red-brown, medium stiff, silty highly plastic CLAY, wet

6:1 2:1

(A)

Red, stiff, clayey SILT, trace mica, wet

WEATHERED ROCK GRANITE

15+00.00

Existing Ground Line

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

RESIDUAL Red-brown, very stiff, silty highly plastic CLAY, trace rock fragments, wet

Gray-brown, stiff, sandy clayey SILT, trace mica, wet

14+50.00

-YIB-

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

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6/23/16

0 5 10	PROJ. REFERENCE NO.	SHEET NO.
	R-2577A	164

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

950 940 930 920 910 900 890

Existing Ground Line

(A) ROADWAY EMBANKMENT Brown-red, soft to stiff, clayey sandy SILT and silty moderately plastic CLAY; loose to medium dense, silty clayey gravelly SAND and sandy GRAVEL; trace to some mica, some gravel, moist to wet

(B) RESIDUAL Red-brown, medium stiff, silty highly plastic CLAY, wet

(B) 0.04 FT./FT. 6:1 2:1 (A)

Red, stiff, clayey SILT, trace mica, wet

WEATHERED ROCK

GRANITE

16+00.00

Existing Ground Line

(A) RESIDUAL Red-brown, medium stiff, silty highly plastic CLAY, wet

(A) 2:1 YIB 15+50 6:1 2:1

7
14
100/0.5
DRY
03/19

Red, stiff, clayey SILT, trace mica, wet

WEATHERED ROCK

GRANITE

15+50.00

-YIB-

8/24/2019
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abozorgi

6/23/16

0 5 10	PROJ. REFERENCE NO.	SHEET NO.
	R-2577A	165

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

940
930
920
910
900
890

Existing Ground Line

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

RESIDUAL Red-brown, medium stiff to very stiff, clayey SILT, trace mica, moist

Gray-brown, medium stiff, sandy SILT, trace mica, moist

17+00.00

(A) ROADWAY EMBANKMENT Brown-red, soft to stiff, clayey sandy SILT and silty moderately plastic CLAY; loose to medium dense, silty clayey gravelly SAND and sandy GRAVEL; trace to some mica, some gravel, moist to wet

(B) RESIDUAL Red-brown, medium stiff, silty highly plastic CLAY, wet

Existing Ground Line

(B) 2:1 6:1 (A) 2:1

Red, stiff, clayey SILT, trace mica, wet

WEATHERED ROCK GRANITE

16+50.00

-Y1B-

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

8/24/2019
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abozorgi

6/23/16

0 5 10	PROJ. REFERENCE NO.	SHEET NO.
	R-2577A	166

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

940
930
920
910
900
890
880

Existing Ground Line

YIB 17+50

6
15
8
7

DRY
03/19

6:1 6:1 2:1

RESIDUAL Red-brown, medium stiff to very stiff, clayey SILT, trace mica, moist

Gray-brown, medium stiff, sandy SILT, trace mica, moist

17+50.00

-YIB-

8/24/2019
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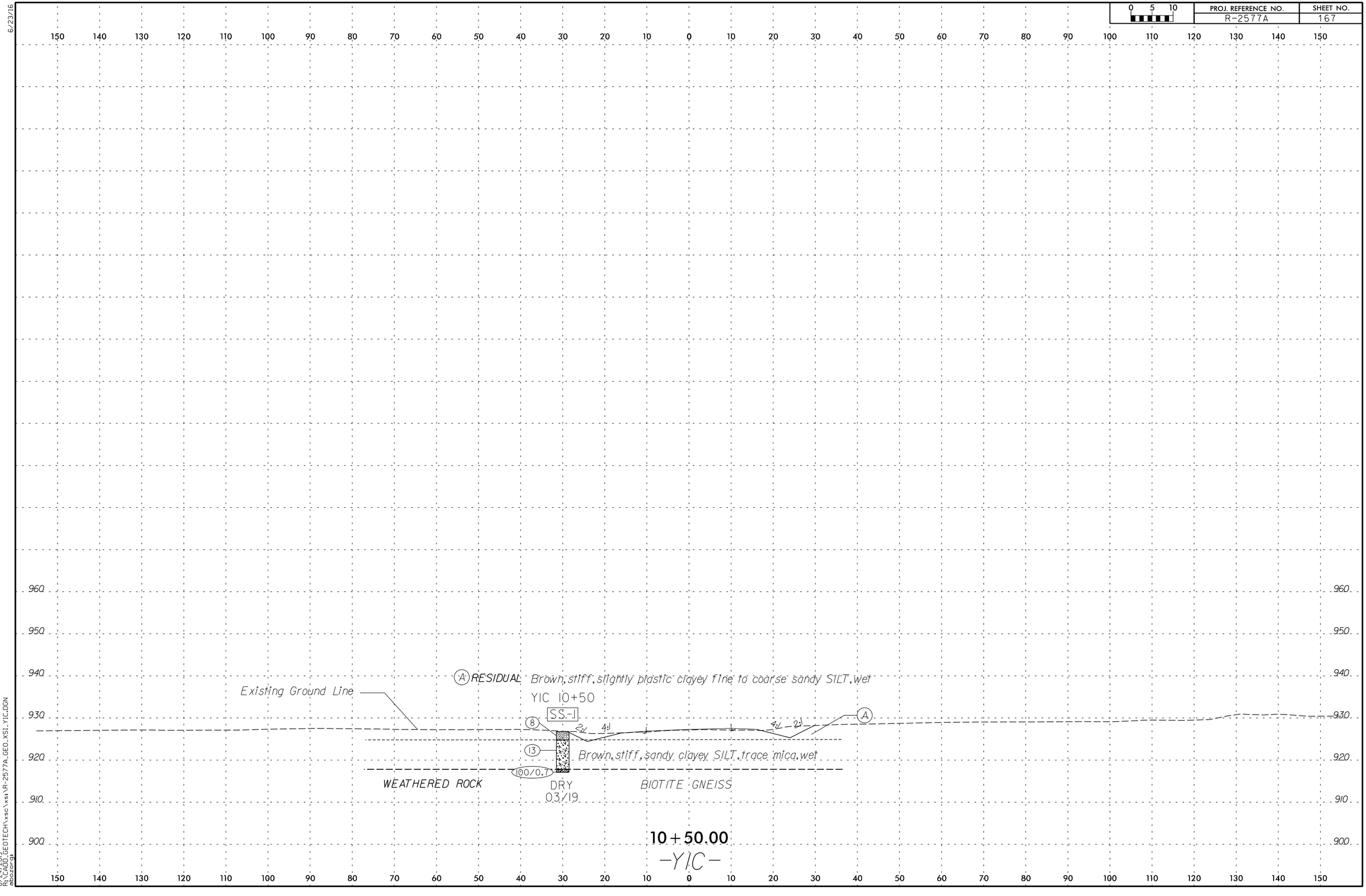
abozorgi

6/23/16

0 5 10	PROJ. REFERENCE NO.	SHEET NO.
	R-2577A	167



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abozorgi

6/23/16

0 5 10	PROJ. REFERENCE NO.	SHEET NO.
	R-2577A	168

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

950
940
930
920

Existing Ground Line

(A) RESIDUAL Red, medium stiff, silty highly plastic CLAY, trace rock fragments, wet

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

(A)

Red-brown, stiff, clayey SILT, trace to little mica, wet

910
900

12+50.00

950
940
930
920

Existing Ground Line

(A) RESIDUAL Red, medium stiff, silty highly plastic CLAY, trace rock fragments, wet

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

(A)

Red-brown, stiff, clayey SILT, trace to little mica, wet

910
900

12+00.00

-YID-

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

8/24/2019
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abozorgi

6/23/16

0 5 10	PROJ. REFERENCE NO.	SHEET NO.
	R-2577A	169

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

950
940
930
920
910
900
890

Existing Ground Line

(A) RESIDUAL Red, medium stiff, silty highly plastic CLAY, trace rock fragments, wet

2% 4:1 4% 2:1

(A)

Red-brown, stiff, clayey SILT, trace to little mica, wet

13+50.00

(A) RESIDUAL Red, medium stiff, silty highly plastic CLAY, trace rock fragments, wet

Existing Ground Line

YID 13+00
13+12

2% 4:1 4% 2:1

(A)

(4)
(13)
(9)
DRY
03/19

Red-brown, stiff, clayey SILT, trace to little mica, wet

13+00.00

-YID-

8/24/2019
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150 140 130 120 110 100 90 80 70 60 50 40 30 20 10 0 10 20 30 40 50 60 70 80 90 100 110 120 130 140 150

6/23/16

0 5 10	PROJ. REFERENCE NO.	SHEET NO.
	R-2577A	170

(A) *ROADWAY EMBANKMENT* Brown-gray, dense, silty SAND, some gravel, moist

(B) *RESIDUAL* Brown soft to stiff, silty sandy CLAY, trace mica, wet

YIE 15+50

Existing Ground Line

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

(40) (3) (11) (14)

DRY 03/19

Brown, stiff, clayey SILT, trace mica, wet

15+50.00

Existing Ground Line

YIE 13+50

2:1 4:1 2:1

(14) (6) (9)

DRY 03/19

RESIDUAL Brown, medium stiff to stiff, silty sandy CLAY, moist to wet

Brown-gray, stiff, clayey SILT, trace mica, wet

13+50.00

-YIE-

8/24/2019
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abozorgi

6/23/16

0 5 10	PROJ. REFERENCE NO.	SHEET NO.
	R-2577A	171

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

950
940
930
920
910
900
890

Y2 13+00

Existing Ground Line

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

16
22
6

DRY
03/19

RESIDUAL Brown-gray, medium stiff to very stiff, sandy clayey SILT, saprolitic, trace to little mica, moist to wet

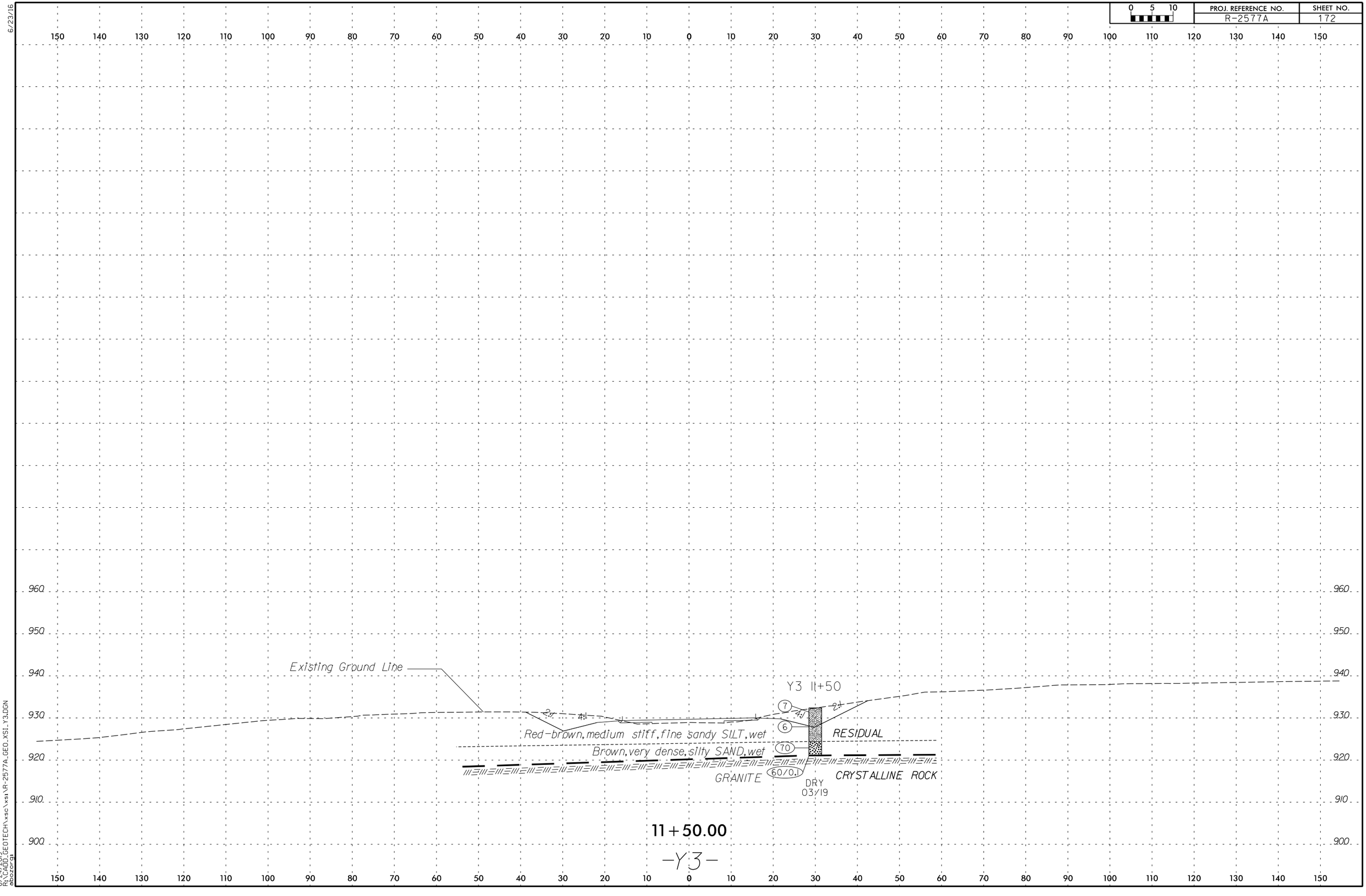
13+00.00

-Y2-

8/24/2019
R:\CADD\GEOTECH\xsc\xs1\R-2577A_GEO_XS1_Y2.DGN
abozorgi

6/23/16

0 5 10	PROJ. REFERENCE NO.	SHEET NO.
	R-2577A	172



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abozorgi

6/23/16

0 5 10	PROJ. REFERENCE NO.	SHEET NO.
	R-2577A	173

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

960
950
940
930
920
910
900

Y4 12+00

SS-160

Existing Ground Line

RESIDUAL

4:1

4:1 2:1

3
13
8

DRY
03/19

Brown to red-brown, soft to stiff, fine to coarse sandy clayey SILT, wet

Brown, loose, silty fine to coarse SAND, saprolitic, trace mica, wet

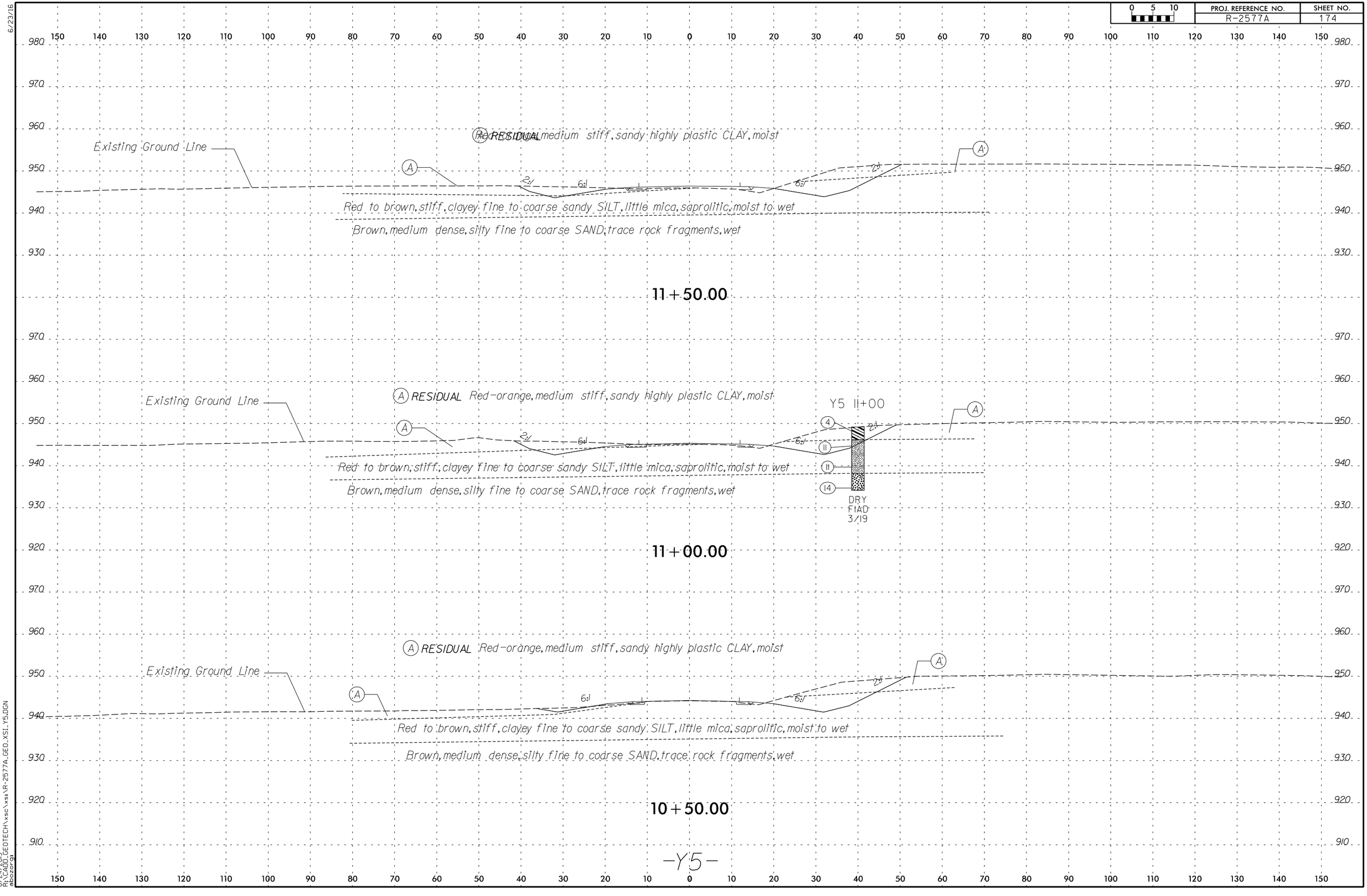
12+00.00

-Y4-

8/24/2019
R:\CADD\GEOTECH\xsc\xs1\R-2577A_GEO_XSI_Y4.DGN
abozorgi

6/23/16

0 5 10	PROJ. REFERENCE NO.	SHEET NO.
	R-2577A	174



-Y5-

8/24/2019
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abazorgi

6/23/16

0 5 10	PROJ. REFERENCE NO.	SHEET NO.
	R-2577A	175

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

980 970 960 950 940 930

Existing Ground Line

Y5 13+00

4 9 10

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

RESIDUAL

Red-orange, medium stiff to stiff, coarse sandy highly plastic CLAY, trace mica, moist

Red, stiff, clayey sandy SILT, some mica, moist

DRY
03/19

13+00.00

970 960 950 940 930

Existing Ground Line

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

RESIDUAL

Red-orange, medium stiff to stiff, coarse sandy highly plastic CLAY, trace mica, moist

Red, stiff, clayey sandy SILT, some mica, moist

12+50.00

970 960 950 940 930 920

Existing Ground Line

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

RESIDUAL

Red-orange, medium stiff to stiff, coarse sandy highly plastic CLAY, trace mica, moist

Red, stiff, clayey sandy SILT, some mica, moist

12+00.00

-Y5-

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

8/24/2019
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abozorgi

6/23/16

0 5 10	PROJ. REFERENCE NO.	SHEET NO.
	R-2577A	176

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

980 970 960 950 940 930

(A) RESIDUAL Red-orange, medium stiff, coarse sandy highly plastic CLAY, moist

Existing Ground Line

2:1 6:1 6:1

Red, stiff, coarse sandy SILT, little mica, moist

14+50.00

970 960 950 940 930

(A) RESIDUAL Red-orange, medium stiff, coarse sandy highly plastic CLAY, moist

Existing Ground Line

2:1 6:1 6:1

Red, stiff, coarse sandy SILT, little mica, moist

14+00.00

970 960 950 940 930 920

Existing Ground Line

2:1 6:1 6:1

Red-orange, medium stiff to stiff, coarse sandy highly plastic CLAY, trace mica, moist

RESIDUAL

Red, stiff, clayey sandy SILT, some mica, moist

13+50.00

-Y5-

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

8/24/2019
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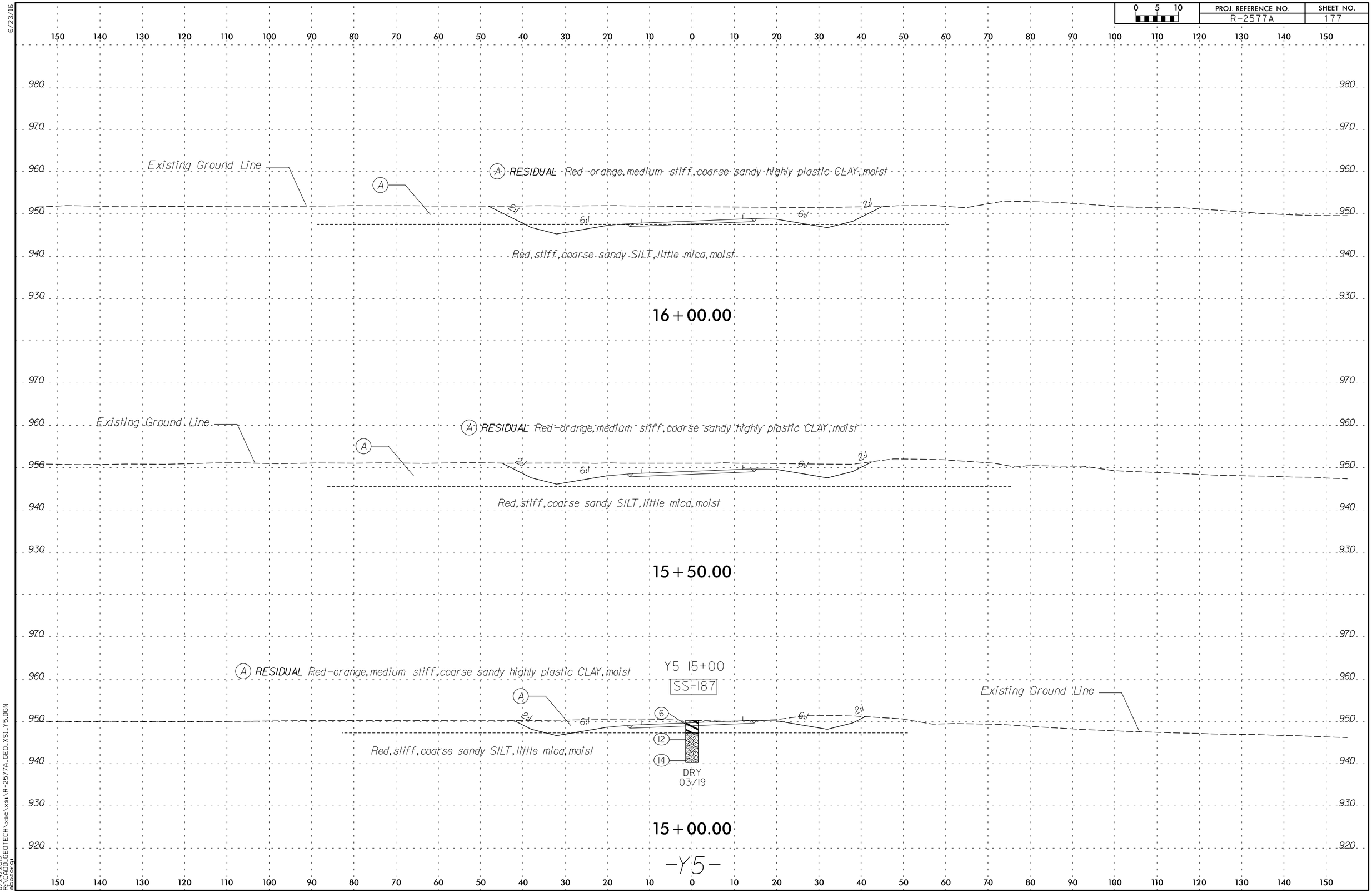
6/23/16

0 5 10	PROJ. REFERENCE NO.	SHEET NO.
	R-2577A	177



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6/23/16

0 5 10	PROJ. REFERENCE NO.	SHEET NO.
	R-2577A	178

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

980 970 960 950 940 930 920

Existing Ground Line

(A) RESIDUAL Orange to brown, medium stiff, silty highly plastic CLAY, moist

(B) Red, stiff, fine sandy clayey SILT, saprolitic, some mica, moist

Y5 17+00

(A) 2:1 (B) 6:1 6:1 2:1

7 14 100/0.4 100/0.7 93

WEATHERED ROCK GRANITE

RESIDUAL Gray to white, very dense, silty fine to coarse SAND, trace rock fragments, moist

DRY 03/19

17 + 00.00

Existing Ground Line

(A) RESIDUAL Orange to brown, medium stiff, silty highly plastic CLAY, moist

(B) Red, stiff, fine sandy clayey SILT, saprolitic, some mica, moist

(A) (B) 2:1 6:1 6:1 2:1

WEATHERED ROCK GRANITE

RESIDUAL Gray to white, very dense, silty fine to coarse SAND, trace rock fragments, moist

16 + 50.00

-Y5-

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

8/24/2019
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6/23/16

0 5 10	PROJ. REFERENCE NO.	SHEET NO.
	R-2577A	179

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

980 970 960 950 940 930

Existing Ground Line

(A) RESIDUAL Orange to brown, medium stiff, silty highly plastic CLAY, moist

(B) Red, stiff, fine sandy clayey SILT, saprolitic, some mica, moist

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

WEATHERED ROCK GRANITE

RESIDUAL Gray to white, very dense, silty fine to coarse SAND, trace rock fragments, moist

18+00.00

980 970 960 950 940 930

Existing Ground Line

(A) RESIDUAL Orange to brown, medium stiff, silty highly plastic CLAY, moist

(B) Red, stiff, fine sandy clayey SILT, saprolitic, some mica, moist

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

WEATHERED ROCK GRANITE

RESIDUAL Gray to white, very dense, silty fine to coarse SAND, trace rock fragments, moist

17+50.00

920

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

-Y5-

8/24/2019
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6/23/16

0 5 10	PROJ. REFERENCE NO.	SHEET NO.
	R-2577A	180

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

980 970 960 950 940 930 920

(A) RESIDUAL Brown to red, medium stiff, coarse sandy CLAY, trace gravel, moist
(B) Gray, dense, silty SAND, some rock fragments, saprolitic, moist
(C) WEATHERED ROCK GRANITE

Y5 19+00

Existing Ground Line

Red to brown, stiff, fine sandy SILT, some mica, saprolitic, moist

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

7 12 11 45 03/19 100/0.3 60/0.0

CRYSTALLINE ROCK GRANITE

19+00.00

(A) RESIDUAL Brown to red, medium stiff, coarse sandy CLAY, trace gravel, moist
(B) Gray, dense, silty SAND, some rock fragments, saprolitic, moist
(C) WEATHERED ROCK GRANITE

Existing Ground Line

Red to brown, stiff, fine sandy SILT, some mica, saprolitic, moist

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

CRYSTALLINE ROCK GRANITE

18+50.00

-Y5-

8/24/2019
R:\CADD_GEOTECH\xsc\xs\R-2577A_GEO_XS1_Y5.DGN
abozorgi

6/23/16

0 5 10	PROJ. REFERENCE NO.	SHEET NO.
	R-2577A	181

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

970 960 950 940 930 920

Ⓐ RESIDUAL Orange-brown, medium stiff, coarse sandy CLAY, wet

Ⓑ Red-brown, stiff, fine to coarse sandy SILT, little mica, moist

Y5 23+00

Existing Ground Line

2:1

4
9
21
03/19

White to gray, medium dense, silty fine to coarse SAND, saprolitic, moist

60/0.0

CRYSTALLINE ROCK GRANITE

23+00.00

Y5 21+00

SS-203

Existing Ground Line

Ⓐ RESIDUAL Brown-orange, medium stiff, coarse sandy moderately plastic CLAY, moist

Ⓑ Gray, very dense, silty fine SAND, saprolitic, moist

5
78
12
13
21
03/19

Brown, stiff, coarse sandy SILT, saprolitic, some mica, wet

6:1

Gray, medium dense, silty fine to coarse SAND, saprolitic, trace rock fragments, moist to wet

100/0.6

WEATHERED ROCK GRANITE

21+00.00

-Y5-

8/24/2019
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abozorgi

6/23/16

0 5 10	PROJ. REFERENCE NO.	SHEET NO.
	R-2577A	182

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

980 970 960 950 940 930

Existing Ground Line

(A) RESIDUAL Brown, medium stiff, silty highly plastic CLAY, wet

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

(A)

Brown-red to brown-black, stiff, clayey SILT, saprolitic, trace mica, wet

11+00.00

970 960 950 940 930

Existing Ground Line

(A) RESIDUAL Brown, medium stiff, silty highly plastic CLAY, wet

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

(A)

Brown-red to brown-black, stiff, clayey SILT, saprolitic, trace mica, wet

10+50.00

970 960 950 940 930

Existing Ground Line

(A) RESIDUAL Brown, medium stiff, silty highly plastic CLAY, wet

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

(A)

Brown-red to brown-black, stiff, clayey SILT, saprolitic, trace mica, wet

10+00.00

920

-Y5A-

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

8/24/2019
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abozorgi

6/23/16

0 5 10	PROJ. REFERENCE NO.	SHEET NO.
	R-2577A	183

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

980 970 960 950 940 930

Existing Ground Line

(A) RESIDUAL Brown, medium stiff, silty highly plastic CLAY, wet

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

(A)

Brown-red to brown-black, stiff, clayey SILT, saprolitic, trace mica, wet

12 + 50.00

970 960 950 940 930

Existing Ground Line

(A) RESIDUAL Brown, medium stiff, sandy highly plastic CLAY, wet

Y5A 12+00

SS-170

2:1 4:1 (A) (5) 4:1 2:1 (11) (8)

Brown-red to brown-black, stiff, clayey SILT, saprolitic, trace mica, wet

DRY 03/19

12 + 00.00

970 960 950 940 930 920

Existing Ground Line

(A) RESIDUAL Brown, medium stiff, silty highly plastic CLAY, wet

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

(A)

Brown-red to brown-black, stiff, clayey SILT, saprolitic, trace mica, wet

11 + 50.00

-Y5A-

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

8/24/2019
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abozorgi

6/23/16

0 5 10	PROJ. REFERENCE NO.	SHEET NO.
	R-2577A	184

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

980 970 960 950 940 930

Existing Ground Line

(A) RESIDUAL Brown, stiff, sandy highly plastic CLAY, wet

Y5A 14+00

(A) (11) (8) (8)

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

Brown, stiff, fine sandy SILT, saprolitic, trace mica, wet

WEATHERED ROCK (100/0.8) GRANITE

DRY
03/19

14+00.00

970 960 950 940 930

Existing Ground Line

(A) RESIDUAL Brown, stiff, sandy highly plastic CLAY, wet

(A) 2:1 4:1 4:1 2:1

Brown, stiff, fine sandy SILT, saprolitic, trace mica, wet

WEATHERED ROCK GRANITE

13+50.00

970 960 950 940 930 920

Existing Ground Line

(A) RESIDUAL Brown, medium stiff, silty highly plastic CLAY, wet

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

(A)

Brown-red to brown-black, stiff, clayey SILT, saprolitic, trace mica, wet

13+00.00

-Y5A-

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

8/24/2019
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abozorgi

6/23/16

0 5 10	PROJ. REFERENCE NO.	SHEET NO.
	R-2577A	185

Existing Ground Line

(A) RESIDUAL Red to brown, loose, clayey silty SAND, trace mica, moist

(B) Red, stiff, sandy slightly plastic CLAY, moist

2:1 4:1 (B) 4:1 2:1 (A)

Brown to orange, loose to dense, silty clayey coarse SAND, saprolitic, moist

WEATHERED ROCK GRANITE

15+50.00

Existing Ground Line

(A) RESIDUAL Brown, stiff, sandy highly plastic CLAY, wet

(A) 2:1 4:1 4:1 2:1

Brown, stiff, fine sandy SILT, saprolitic, trace mica, wet

WEATHERED ROCK GRANITE

15+00.00

Existing Ground Line

(A) RESIDUAL Brown, stiff, sandy highly plastic CLAY, wet

(A) 2:1 4:1 4:1 2:1

Brown, stiff, fine sandy SILT, saprolitic, trace mica, wet

WEATHERED ROCK GRANITE

14+50.00

-Y5A-

8/26/2019
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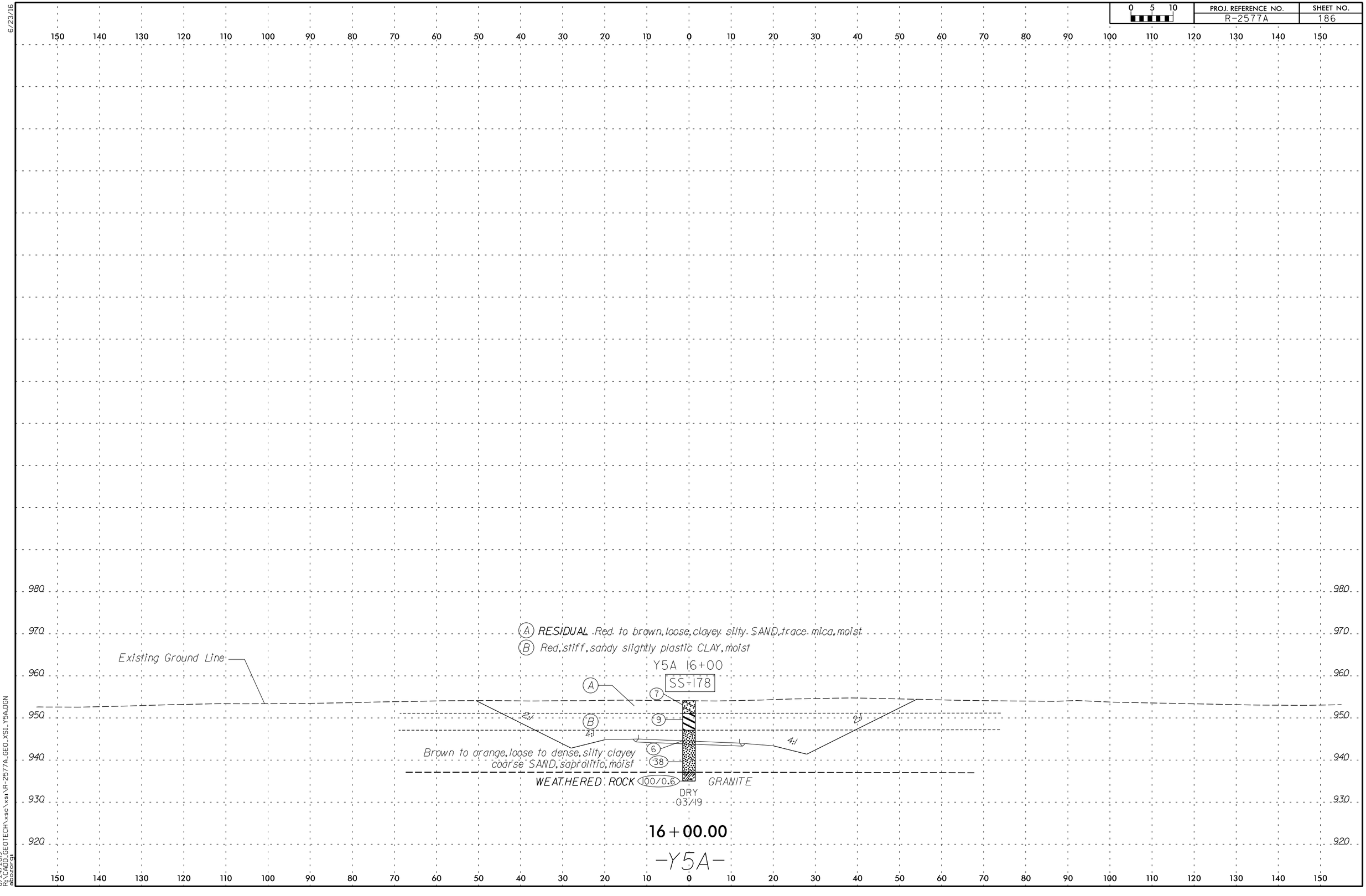
6/23/16

0 5 10	PROJ. REFERENCE NO.	SHEET NO.
	R-2577A	186



8/24/2018
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abazorgi

6/23/16

0 5 10	PROJ. REFERENCE NO.	SHEET NO.
	R-2577A	187

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

980
970
960
950
940
930
920

Existing Ground Line

(A) RESIDUAL Orange-brown to red, medium stiff to stiff, coarse sandy moderately plastic CLAY, trace organics, trace mica, moist

Y6 13+00
SS-582

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

(5) (A) (9) (6)

Red-brown, loose, silty fine to coarse SAND, saprolitic, some mica, moist

DRY
FIAD
04/19

13+00.00

-Y6-

8/24/2018
R:\CADD\GEOTECH\xsc\xs1\R-2577A_GEO_XS1_Y6.DGN
abozorgi

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

6/23/16

0 5 10	PROJ. REFERENCE NO.	SHEET NO.
	R-2577A	188

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

950
940
930
920
910
900
890

Y7 11+00

A ARTIFICIAL FILL Brown to dark gray, loose to very dense, clayey silty SAND, moist, some gravel

Existing Ground Line

2:1

4:1 2:1

A

6

100/0.8

100/0.8

RESIDUAL Brown, silty SAND, saturated

WEATHERED ROCK GRANITE

DRY
FIAD
04/19

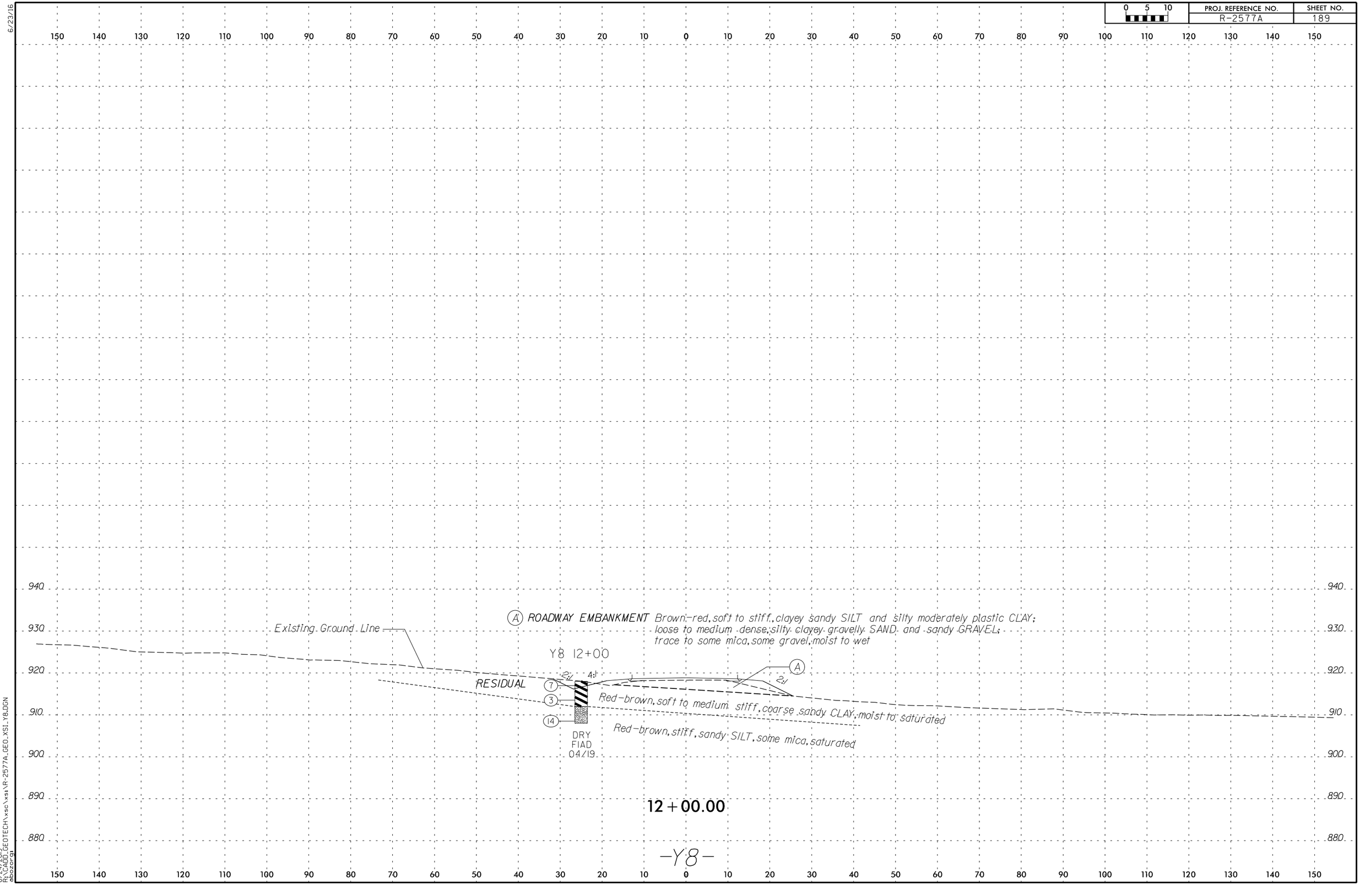
11+00.00

-Y7-

8/24/2019
R:\CADD\GEOTECH\xsc\xs1\R-2577A_GEO_XSI_Y7.DGN
abozorgi

6/23/16

0 5 10	PROJ. REFERENCE NO.	SHEET NO.
	R-2577A	189



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abozorgi

6/23/16

0 5 10	PROJ. REFERENCE NO.	SHEET NO.
	R-2577A	190

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

910
900
890
880
870
860
850

Existing Ground Line

Y9 13+00

(A) ROADWAY EMBANKMENT Brown-red, soft to stiff, clayey sandy SILT and silty moderately plastic CLAY; loose to medium dense, silty clayey gravelly SAND and sandy GRAVEL; trace to some mica, some gravel, moist to wet

(B) RESIDUAL Red to brown to black, medium stiff, coarse sandy CLAY, some organics, moist to wet

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

(B) (7) (5) (1) 03/19

(A)

White, very loose, silty SAND, saprolitic, saturated

13+00.00

910
900
890
880
870
860

Existing Ground Line

Y9 11+00

(A) ROADWAY EMBANKMENT Brown-red, soft to stiff, clayey sandy SILT and silty moderately plastic CLAY; loose to medium dense, silty clayey gravelly SAND and sandy GRAVEL; trace to some mica, some gravel, moist to wet

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

(6) (55) (19) 03/19

(A)

RESIDUAL

Brown-red-black to gray, loose to very dense, silty clayey fine to coarse SAND, some rock fragments, little mica, saprolitic, moist

11+00.00

910
900
890
880
870
860

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

-Y9-

8/24/2019
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abozorgi

6/23/16

0 5 10	PROJ. REFERENCE NO.	SHEET NO.
	R-2577A	191

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

900
890
880
870
860
850

Existing Ground Line

(A) ROADWAY EMBANKMENT Brown-red, soft to stiff, clayey sandy SILT and silty moderately plastic CLAY; loose to medium dense, silty clayey gravelly SAND and sandy GRAVEL; trace to some mica, some gravel, moist to wet

(B) ALLUVIAL Brown, sandy slightly plastic CLAY, wet

RESIDUAL Gray-brown, clayey SAND, saturated

Y9 14+50

S-706

2:1

2:1

A

B

05/19

FIAD
5/19

14+50.00

900
890
880
870
860
850

Existing Ground Line

(A) ROADWAY EMBANKMENT Brown-red, soft to stiff, clayey sandy SILT and silty moderately plastic CLAY; loose to medium dense, silty clayey gravelly SAND and sandy GRAVEL; trace to some mica, some gravel, moist to wet

2:1

A

2:1

RESIDUAL Gray-brown, clayey SAND, saturated

14+00.00

-Y9-

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

8/24/2019
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abozorgi

6/23/16

0 5 10	PROJ. REFERENCE NO.	SHEET NO.
	R-2577A	192

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

910
900
890
880
870
860
850

Ⓐ ROADWAY EMBANKMENT Brown-red, soft to stiff, clayey sandy SILT and silty moderately plastic CLAY; loose to medium dense, silty clayey gravelly SAND and sandy GRAVEL; trace to some mica, some gravel, moist to wet

2:1

2:1

Existing Ground Line

Ⓐ

RESIDUAL Gray-brown, clayey SAND, saturated

15+50.00

Ⓐ ROADWAY EMBANKMENT Brown-red, soft to stiff, clayey sandy SILT and silty moderately plastic CLAY; loose to medium dense, silty clayey gravelly SAND and sandy GRAVEL; trace to some mica, some gravel, moist to wet

Ⓑ ALLUVIAL Brown, sandy slightly plastic CLAY, wet

Existing Ground Line

2:1

2:1

Ⓐ

Ⓑ

RESIDUAL Gray-brown, clayey SAND, saturated

15+00.00

-Y9-

8/24/2019
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abozorgi

6/23/16

0 5 10	PROJ. REFERENCE NO.	SHEET NO.
	R-2577A	193

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

930
920
910
900
890
880
870

Existing Ground Line

Y10 11+00

2:1

2:1

7
10
4

DRY
03/19

RESIDUAL

Red to brown, medium stiff to stiff, fine sandy clayey SILT, trace to some mica, moist

11+00.00

-Y10-

8/24/2018
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6/23/16

0 5 10	PROJ. REFERENCE NO.	SHEET NO.
	R-2577A	194

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

940
930
920
910
900
890

Existing Ground Line

(A) *RESIDUAL* Red to brown, stiff, fine sandy CLAY, trace mica, moist

Y1114+50

(A)

Pavement

2:1

2:1

9
13
6

Red to brown, stiff, fine sandy clayey SILT, some mica, moist

Brown, loose, silty fine to coarse SAND, saprolitic, some mica, moist

DRY
FIAD
03/19

14+50.00

930
920
910
900
890
880

Existing Ground Line

Y1113+00

SS-272

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

5
5

RESIDUAL Red to brown, medium stiff, coarse sandy moderately plastic CLAY, moist

100/0.7

WEATHERED ROCK GRANITE

DRY
03/19

13+00.00

—Y1I—

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

8/24/2019
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abozorgi

6/23/16

0 5 10	PROJ. REFERENCE NO.	SHEET NO.
	R-2577A	195

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

920
910
900
890
880
870
860

(A) *RESIDUAL* Red, stiff, coarse sandy moderately plastic CLAY, little mica, wet

(B) White-dark gray, medium dense to very dense, silty fine to coarse SAND, saprolitic, wet

Existing Ground Line

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

CRYSTALLINE ROCK GRANITE

Y12 22+50
SS-308

8
17
94
60/0.1
60/0.0

DRY
03/19

22+50.00
-Y12-

8/24/2018
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abozorgi

6/23/16

0 5 10	PROJ. REFERENCE NO.	SHEET NO.
	R-2577A	196

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

900
890
880
870
860
850
840

Existing Ground Line

Y13 11+00

2:1 4:1 2:1

DRY
FIAD
05/19

RESIDUAL Brown, clayey SAND, moist

11+00.00

-Y13-

8/24/2018
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abozorgi

6/23/16

0 5 10	PROJ. REFERENCE NO.	SHEET NO.
	R-2577A	197

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

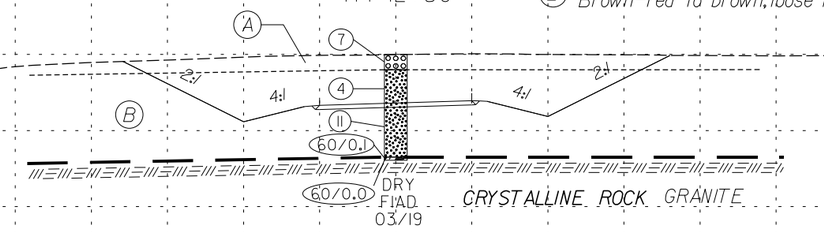
900 890 880 870 860 850 840

Y14 12+50

Existing Ground Line

(A) RESIDUAL Gray-red-brown, loose, sandy GRAVEL, moist

(B) Brown-red to brown, loose to medium dense, silty clayey SAND, moist

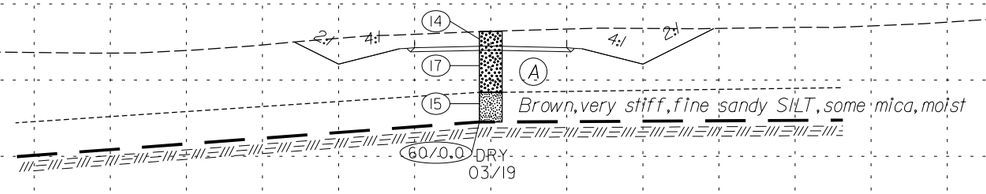


12+50.00

(A) RESIDUAL Brown-red to gray, medium dense, silty gravelly SAND, saprolitic, some mica, moist

Existing Ground Line

Y14 11+00



CRYSTALLINE ROCK GRANITE

11+00.00

-Y14-

8/24/2018
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dbcarey

6/23/16

0 5 10	PROJ. REFERENCE NO.	SHEET NO.
	R-2577A	198

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

990 980 970 960 950 940 930

Existing Ground Line

Y15 14+00

SS-349

Pavement

4:1 2:1

RESIDUAL (12) (14)

Red-brown, stiff to very stiff, sandy SILT, some mica, wet (13)

(8)

DRY
FIAD
04/19

14+00.00

Existing Ground Line

Y15 12+00

4:1 2:1

Pavement

Red-brown, stiff, sandy SILT, some mica, moist (11)

RESIDUAL (14)

Red-brown, loose, silty SAND, saprolitic, some mica, wet (8)

DRY
FIAD
04/19

12+00.00

-Y15-

8/24/2019
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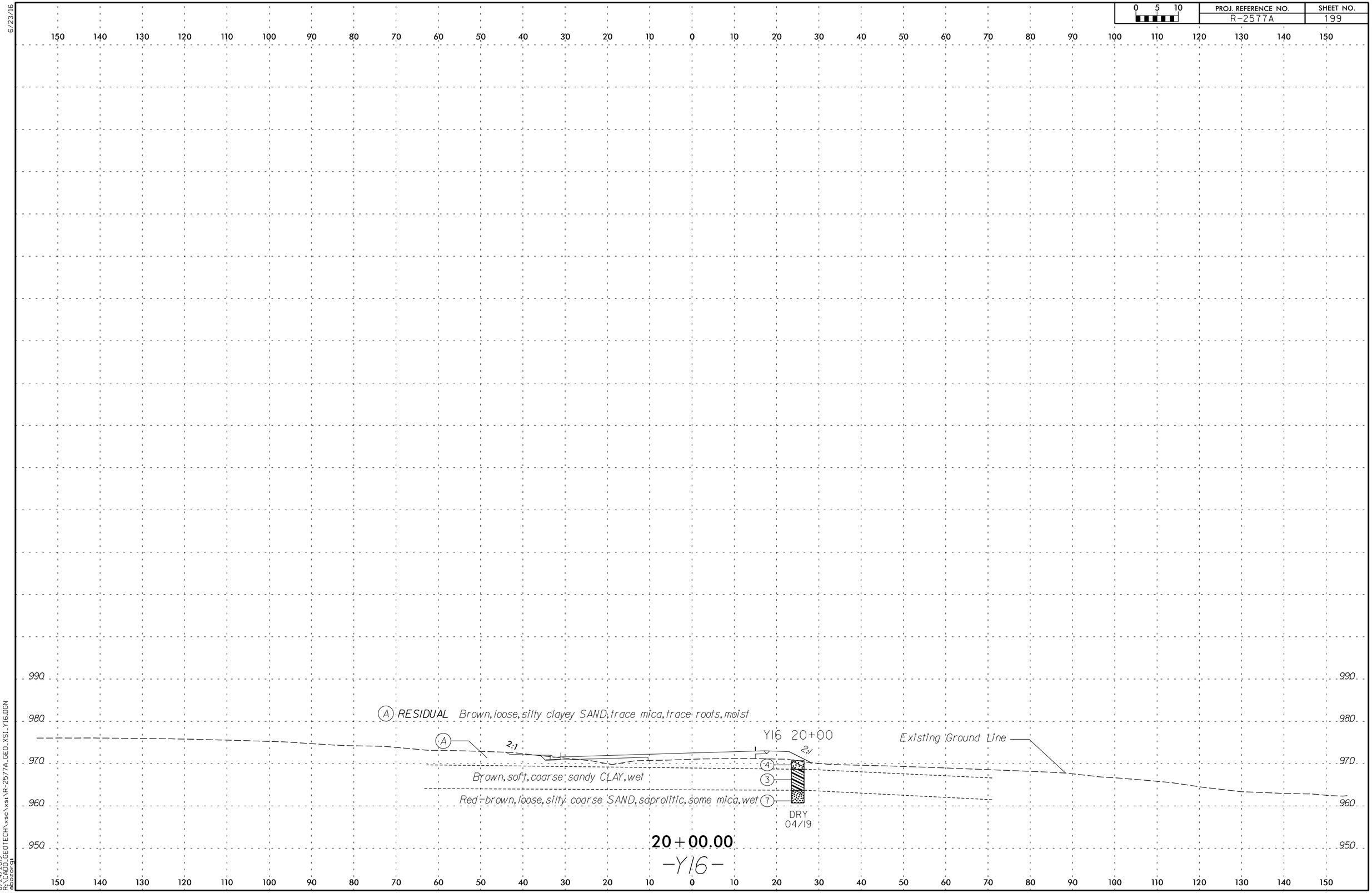
abozorgi

6/23/16

0 5 10	PROJ. REFERENCE NO.	SHEET NO.
	R-2577A	199



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abozorgi

6/23/16

0 5 10	PROJ. REFERENCE NO.	SHEET NO.
	R-2577A	200

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

Existing Ground Line

Y17 14+00

2:1

(9) (15) (7)

DRY
04/19

(A) RESIDUAL Brown, loose, silty clayey SAND, wet

2:1

Red-brown, very stiff, coarse sandy CLAY, little mica, moist

Red-brown, loose, silty fine to coarse SAND, little mica, little clay, moist

970 960 950

14+00.00

980 970 960 950

Existing Ground Line

Y17 12+50

2:1

(6) (16) (9)

DRY
FIAD
04/19

(A) RESIDUAL Brown, loose, silty SAND, moist

6:1

Red-brown, very stiff, sandy CLAY, wet

Brown-red-orange, loose, silty SAND, saprolitic, little mica, wet

980 970 960 950

12+50.00

-Y17-

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

8/24/2019
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abozorgi

6/23/16

0 5 10	PROJ. REFERENCE NO.	SHEET NO.
	R-2577A	201

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

990 980 970 960 950

Existing Ground Line

Y23 15+50

2:1 6:1 6:1

(6) (8) (5)

RESIDUAL Red-brown, medium stiff to stiff, coarse sandy CLAY, trace mica, wet

Brown-tan, loose, silty SAND, saprolitic, wet

DRY
04/19

15+50.00

980 970 960 950

Existing Ground Line

Y23 13+50

SS-575

(A) ARTIFICIAL FILL Red-brown, medium dense, clayey fine to coarse SAND, trace mica, moist

(A) (16) (8) (9) (7)

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

RESIDUAL Pink to white-brown, loose, silty SAND, saprolitic, moist

DRY
04/19

13+50.00

980 970 960 950 940 930

Existing Ground Line

Y23 11+50

SS-579

(A) ARTIFICIAL FILL Gray-brown, loose, silty clayey SAND, trace quartz gravel, moist

(B) RESIDUAL Red-brown, stiff, sandy moderately plastic CLAY, moist

(A) (7) (10) (60/0.1) (60/0.0)

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

(B)

DRY
04/19

CRYSTALLINE ROCK GRANITE

11+50.00

-Y23-

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

8/24/2019
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abozorgi

6/23/16

0 5 10	PROJ. REFERENCE NO.	SHEET NO.
	R-2577A	202

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

980 970 960 950 940 930

Existing Ground Line

(A) RESIDUAL Brown-red, medium stiff, sandy highly plastic CLAY, trace roots, moist

2:1 6:1 6:1 2:1 (A)

Red-brown to orange-brown, medium stiff to stiff, sandy SILT, some mica, moist

14+50.00

970 960 950 940 930

Y24 14+00

SS-541

Existing Ground Line

(A) RESIDUAL Brown-red, medium stiff, sandy highly plastic CLAY, trace roots, moist

2:1 (7) (9) (7) 6:1 6:1 2:1 (A)

DRY
04/19

Red-brown to orange-brown, medium stiff to stiff, sandy SILT, some mica, moist

14+00.00

960 950 940 930

Existing Ground Line

(A) RESIDUAL Brown-red, medium stiff, sandy highly plastic CLAY, trace roots, moist

2:1 6:1 6:1 2:1 (A)

Red-brown to orange-brown, medium stiff to stiff, sandy SILT, some mica, moist

13+50.00

-Y24-

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

8/24/2019
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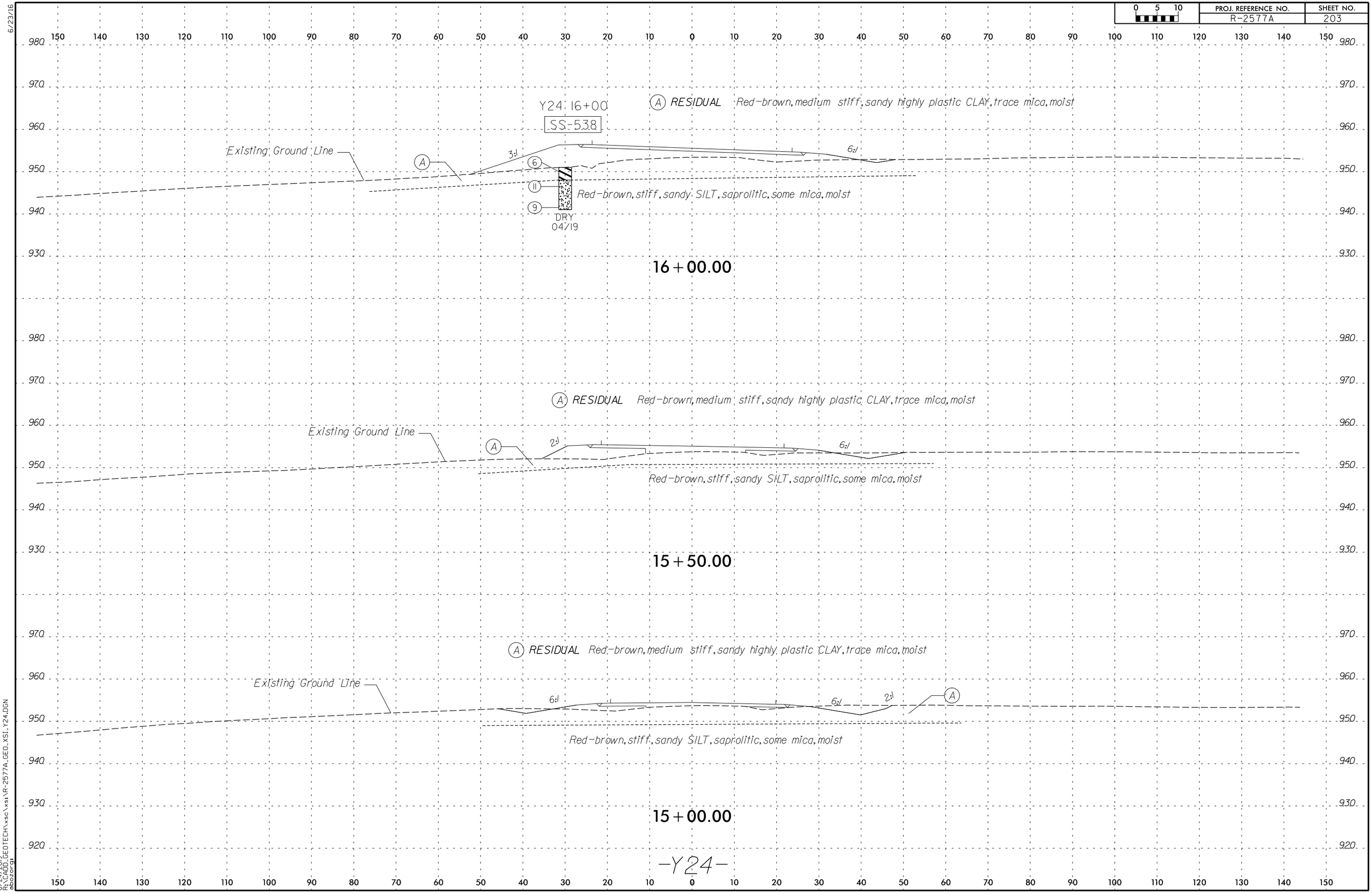
abozorgi

6/23/16

0 5 10	PROJ. REFERENCE NO.	SHEET NO.
	R-2577A	203



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abozorgi

6/23/16

0 5 10	PROJ. REFERENCE NO.	SHEET NO.
	R-2577A	204

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

980 970 960 950 940 930 920

Ⓐ RESIDUAL Red-brown, medium stiff, sandy highly plastic CLAY, trace mica, moist

Existing Ground Line

Ⓐ

3:1

6:1

Red-brown, stiff, sandy SILT, saprolitic, some mica, moist

17+00.00

Ⓐ RESIDUAL Red-brown, medium stiff, sandy highly plastic CLAY, trace mica, moist

Existing Ground Line

Ⓐ

3:1

6:1

Red-brown, stiff, sandy SILT, saprolitic, some mica, moist

16+50.00

-Y24-

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

8/24/2019
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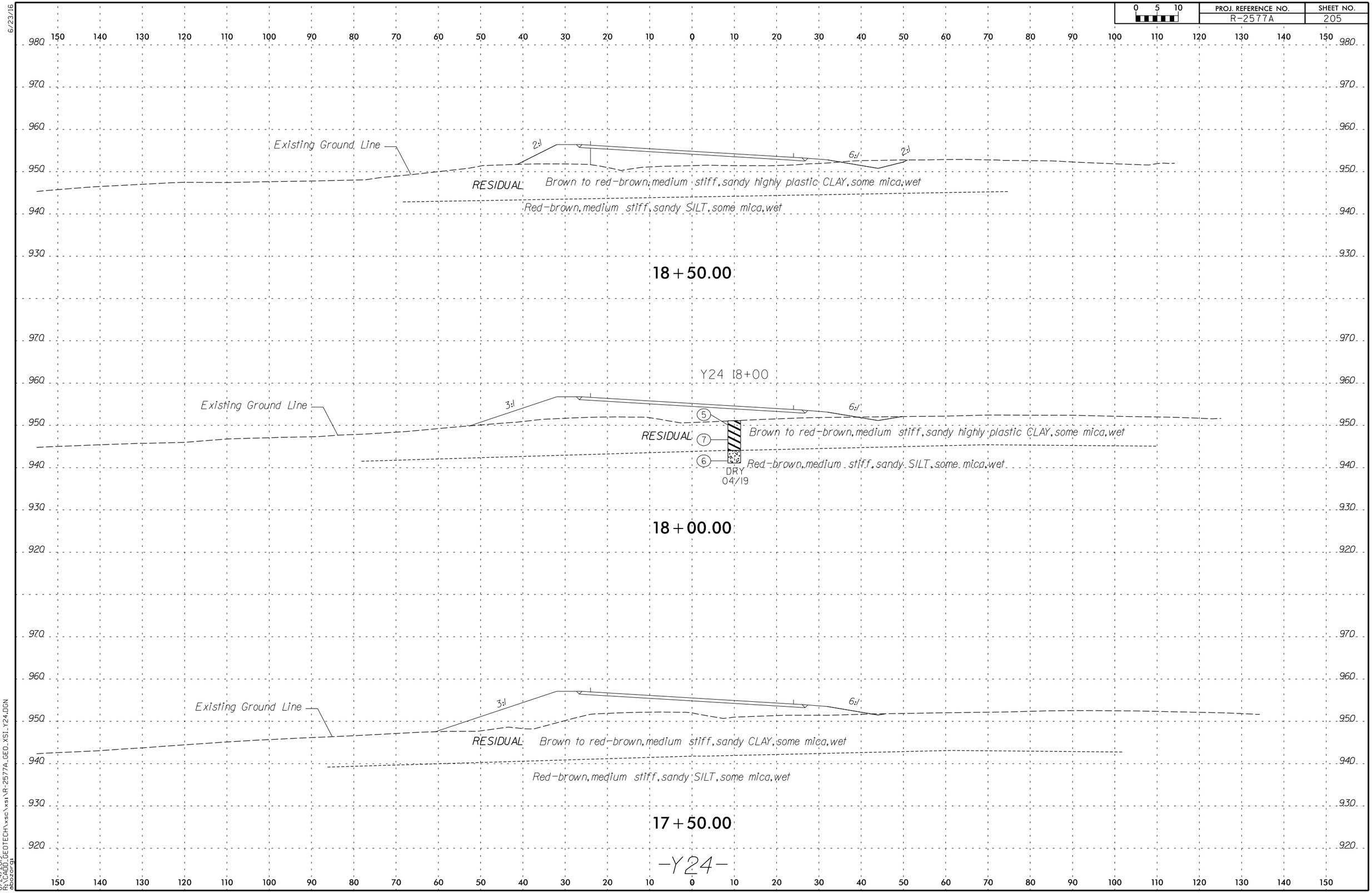
abozorgi

6/23/16

0 5 10	PROJ. REFERENCE NO.	SHEET NO.
	R-2577A	205



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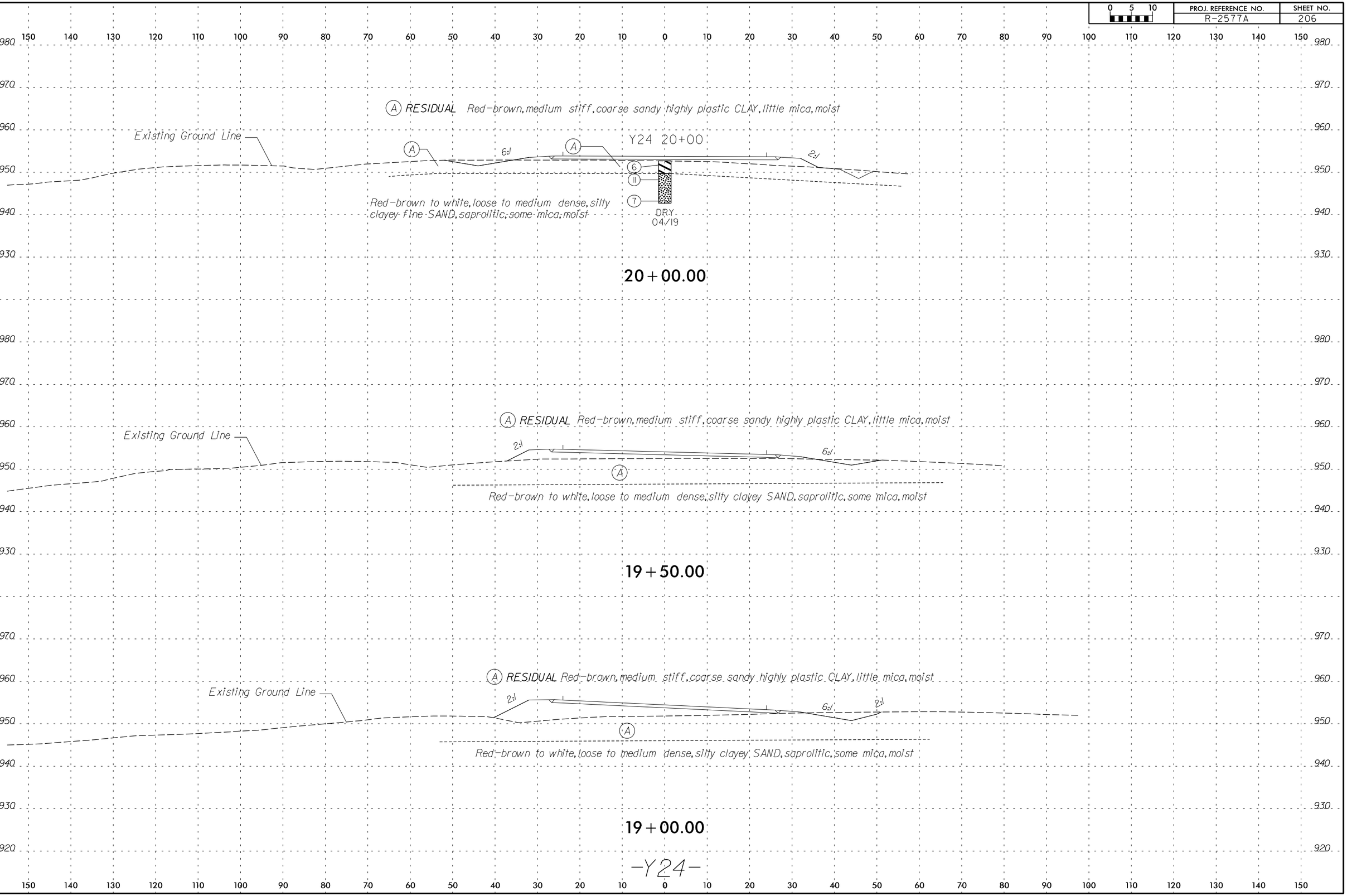
6/23/16

0 5 10	PROJ. REFERENCE NO.	SHEET NO.
	R-2577A	206



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abozor01

6/23/16

0 5 10	PROJ. REFERENCE NO.	SHEET NO.
	R-2577A	207

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

980
970
960
950
940
930
920

Existing Ground Line

2:1 6:1 1 1 2:1

RESIDUAL Red-brown, stiff, coarse sandy highly plastic CLAY, trace mica, moist

White, loose, silty coarse SAND, saprolitic, little mica, moist

21+00.00

Existing Ground Line

(A) RESIDUAL Red-brown, medium stiff, coarse sandy highly plastic CLAY, little mica, moist

2:1 6:1 1 1 2:1

(A) Red-brown to white, loose to medium dense, silty clayey SAND, saprolitic, some mica, moist

20+50.00

-Y24-

8/24/2018
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abozorgi

6/23/16

0 5 10	PROJ. REFERENCE NO.	SHEET NO.
	R-2577A	208

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

980 970 960 950 940 930

Existing Ground Line

RESIDUAL

2:1 6:1 6:1

Red-brown, stiff, coarse sandy highly plastic CLAY, trace mica, moist

White, loose, silty coarse SAND, saprolitic, little mica, moist

22+50.00

970 960 950 940 930

Y24 22+00

SS-529

Existing Ground Line

RESIDUAL

2:1 6:1 2:1

8 10 8

DRY
04/19

Red-brown, stiff, coarse sandy highly plastic CLAY, trace mica, moist

White, loose, silty coarse SAND, saprolitic, little mica, moist

22+00.00

970 960 950 940 930

Existing Ground Line

RESIDUAL

2:1 6:1 2:1

Red-brown, stiff, coarse sandy highly plastic CLAY, trace mica, moist

White, loose, silty coarse SAND, saprolitic, little mica, moist

21+50.00

920

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

-Y24-

8/24/2019
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6/23/16

0 5 10	PROJ. REFERENCE NO.	SHEET NO.
	R-2577A	209

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

980 970 960 950 940 930

Existing Ground Line

2:1

RESIDUAL

Red-brown, stiff, coarse sandy highly plastic CLAY, trace mica, moist

White, loose, silty coarse SAND, saprolitic, little mica, moist

2:1

23+50.00

970 960 950 940 930 920

Existing Ground Line

2:1

RESIDUAL

Red-brown, stiff, coarse sandy highly plastic CLAY, trace mica, moist

White, loose, silty coarse SAND, saprolitic, little mica, moist

2:1

23+00.00

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

-Y24-

8/24/2019
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abozorgi

6/23/16

0 5 10	PROJ. REFERENCE NO.	SHEET NO.
	R-2577A	210

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

950 940 930 920 910

Y25 11+50

SS-591

(A) RESIDUAL Red-brown, stiff, sandy highly plastic CLAY, wet

Existing Ground Line

(A) 2:1 4:1 (8) 4:1 2:1

Red-brown, stiff, sandy SILT, saprolitic, little mica, wet (9)

Gray-white, dense, silty SAND, wet (11) (33)

DRY
FIAD
04/19

11+50.00

940 930 920 910 900

(A) RESIDUAL Red-brown, stiff, sandy highly plastic CLAY, wet

Existing Ground Line

(A') 2:1 4:1 4:1 2:1

Red-brown, stiff, sandy SILT, saprolitic, little mica, wet

Gray-white, dense, silty SAND, wet

11+00.00

930 920 910 900 890

(A) RESIDUAL Red-brown, stiff, sandy highly plastic CLAY, wet

Existing Ground Line

3.148:1 (A) 2:1

Red-brown, stiff, sandy SILT, saprolitic, little mica, wet

Gray-white, dense, silty SAND, wet

10+50.00

-Y25-

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

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ebocong

6/23/16

0 5 10	PROJ. REFERENCE NO.	SHEET NO.
	R-2577A	211

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

950 940 930 920 910

Existing Ground Line

(A) RESIDUAL Red-brown, stiff, sandy highly plastic CLAY, wet

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

(A)

Red-brown, stiff, sandy SILT, saprolitic, little mica, wet

Gray-white, dense, silty SAND, wet

13+00.00

950 940 930 920 910 900

(A) RESIDUAL Red-brown, stiff, sandy highly plastic CLAY, wet

Existing Ground Line

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

(A)

Red-brown, stiff, sandy SILT, saprolitic, little mica, wet

Gray-white, dense, silty SAND, wet

12+50.00

940 930 920 910 900 890

(A) RESIDUAL Red-brown, stiff, sandy highly plastic CLAY, wet

Existing Ground Line

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

(A)

Red-brown, stiff, sandy SILT, saprolitic, little mica, wet

Gray-white, dense, silty SAND, wet

12+00.00

-Y25-

8/24/2019
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abozarg1

PROJECT REFERENCE NO.	SHEET NO.
R–2577A	212

NORTH CAROLINA DEPARTMENT OF TRANSPORTATION
DIVISION OF HIGHWAYS
GEOTECHNICAL ENGINEERING UNIT

SUBSURFACE INVESTIGATION

APPENDICES

REFERENCE: R–2577A

PROJECT: 37405

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GEOTECHNICAL BORING REPORT
BORE LOG

WBS 37405.1.1	**TIP** R-2577A	**COUNTY** FORSYTH	**GEOLOGIST** J Mize	
SITE DESCRIPTION US 158 From North of US 421/I-40 Bus. To SR 1965 (Belews Creek Rd.)				**GROUND WTR (ft)**
BORING NO. L 139+50	**STATION** 139+52	**OFFSET** 17 ft RT	**ALIGNMENT** -L-	**0 HR.** Dry
COLLAR ELEV. 865.1 ft	**TOTAL DEPTH** 19.0 ft	**NORTHING** 872,382	**EASTING** 1,657,182	**24 HR.** FIAD
DRILL RIG/HAMMER EFF./DATE SME275 DIEDRICH D-50 90% 11/08/2018		**DRILL METHOD** H.S. Augers	**HAMMER TYPE** Automatic	
DRILLER T Williams	**START DATE** 04/23/19	**COMP. DATE** 04/23/19	**SURFACE WATER DEPTH** N/A	

ELEV (ft)	DRIVE ELEV (ft)	DEPTH (ft)	BLOW COUNT 0.5ft	0.5ft	0.5ft	BLOWS PER FOOT 0 25 50 75 100	SAMP. NO.	MOI	LOG	SOIL AND ROCK DESCRIPTION ELEV. (ft) / DEPTH (ft)
870										
865										865.1 GROUND SURFACE 0.0 0.6' Asphalt, 1.2' ABC
	863.3	1.8								863.3 1.8 **ROADWAY EMBANKMENT** Brown-black, loose to medium dense, sandy GRAVEL (A-1-b)
	861.6	3.5	12	8	7	15		M		
860			5	4	4	8		M		
	856.6	8.5								
855			8	5	6	11		M		
	851.6	13.5								853.1 12.0 Gray-brown, medium stiff, sandy CLAY (A-7-6), trace gravel
850			2	3	2	5		M		
	846.6	18.5								847.0 18.1
	846.1	19.0	60/0.1			60/0.1				846.1 19.0 **CRYSTALLINE ROCK** GRANITE
			60/0.0			60/0.0				Boring Terminated at Elevation 846.1 ft in Crystalline Rock: GRANITE

WBS 37405.1.1	**TIP** R-2577A	**COUNTY** FORSYTH	**GEOLOGIST** J Mize	
SITE DESCRIPTION US 158 From North of US 421/I-40 Bus. To SR 1965 (Belews Creek Rd.)				**GROUND WTR (ft)**
BORING NO. L 141+00	**STATION** 140+84	**OFFSET** 18 ft RT	**ALIGNMENT** -L-	**0 HR.** Dry
COLLAR ELEV. 863.4 ft	**TOTAL DEPTH** 19.4 ft	**NORTHING** 872,483	**EASTING** 1,657,267	**24 HR.** FIAD
DRILL RIG/HAMMER EFF./DATE SME275 DIEDRICH D-50 90% 11/08/2018		**DRILL METHOD** H.S. Augers	**HAMMER TYPE** Automatic	
DRILLER T Williams	**START DATE** 04/23/19	**COMP. DATE** 04/23/19	**SURFACE WATER DEPTH** N/A	

ELEV (ft)	DRIVE ELEV (ft)	DEPTH (ft)	BLOW COUNT 0.5ft	0.5ft	0.5ft	BLOWS PER FOOT 0 25 50 75 100	SAMP. NO.	MOI	LOG	SOIL AND ROCK DESCRIPTION
865										863.4 GROUND SURFACE 0.0 0.8' Asphalt, 1.9' ABC
860	859.9	3.5	4	5	5	10		M		860.7 2.7 **ROADWAY EMBANKMENT** Brown to red-brown, soft to stiff, sandy SILT (A-4), little mica, trace gravel
855	854.9	8.5	6	3	4	7		M		
850	849.9	13.5	2	2	1	3		W		
845	844.9	18.5								845.9 17.5 **WEATHERED ROCK** GRANITE
	844.0	19.4	100/0.2			100/0.2				844.0 19.4 Boring Terminated at Elevation 844.0 ft on Crystalline Rock: GRANITE
			60/0.0			60/0.0				

SOIL TEST RESULTS

SAMPLE NO.	*LINE*	*STATION*	*OFFSET*	*DEPTH INTERVAL*	*AASHTO CLASS.*	*L.L.*	*P.I.*	*% BY WEIGHT*				*% PASSING SIEVE*				*% MOISTURE*	*% ORGANIC*
								C. SAND	*F. SAND*	*SILT*	*CLAY*	*10*	*40*	*60*	*200*		
SS-1	-Y1C-	10+50	30' LT	0.0 - 1.5	A-4 (1)	30	9	32	25	13	30	96	76	66	42.1	21.3	N/A
SS-106	-L-	29+00	55' LT	0.0 - 1.5	A-4 (0)	40	4	21	40	18	21	89	78	70	42.3	26.2	N/A
SS-118	-L-	30+00	55' LT	8.5 - 10	A-5 (1)	52	4	7	59	18	16	100	98	93	43.5	30.5	N/A
SS-134	-L-	32+00	50' RT	3.5 - 5	A-7-5 (25)	66	20	1	18	30	51	100	100	99	87.5	41.3	N/A
SS-151	-L-	38+00	40' LT	0.0 - 1.5	A-7-6 (9)	45	18	19	24	13	44	98	89	80	59.2	31.7	N/A
SS-157	-L-	43+73	30' LT	0.0 - 1.5	A-2-4 (0)	21	6	40	26	10	24	97	71	58	35	13.2	N/A
SS-160	-Y4-	12+00	18' LT	0.0 - 1.5	A-4 (0)	26	7	33	25	12	30	100	80	67	43.9	17.4	N/A
SS-167	-L-	56+00	30' LT	0.0 - 1.5	A-7-6 (12)	46	22	25	16	9	50	100	84	75	61.5	20.2	N/A
SS-170	-Y5A-	12+00	25' RT	0.0 - 1.5	A-7-5 (22)	65	35	24	12	6	58	99	83	76	64.7	16.4	N/A
SS-178	-Y5A-	16+00	CL	3.5 - 5	A-7-5 (8)	54	15	23	26	19	32	100	85	77	56.6	30.7	N/A
SS-187	-Y5-	15+00	CL	0.0 - 1.5	A-7-5 (24)	64	33	21	11	8	60	99	84	79	69.5	25.8	N/A
SS-203	-Y5-	21+00	CL	0.0 - 1.5	A-7-6 (11)	45	22	24	17	9	50	100	84	76	60.7	15.7	N/A
SS-213	-L-	80+00	25' LT	0.0 - 1.5	A-6 (6)	38	15	29	18	11	42	98	79	70	54.1	18	N/A
SS-216	-L-	88+00	25' LT	0.0 - 1.5	A-2-4 (0)	21	6	45	22	12	21	99	67	54	35.3	10.6	N/A
SS-232	-L-	92+00	25' LT	3.5 - 5	A-7-5 (20)	65	31	23	16	10	51	100	84	77	63.9	32.1	N/A
SS-240	-L-	96+00	35' LT	0.0 - 1.5	A-7-5 (26)	80	22	12	10	6	72	100	92	88	80.1	36.4	N/A
SS-260	-L-	112+00	CL	0.0 - 1.5	A-7-6 (14)	68	47	36	21	5	38	98	74	63	44.8	20.6	N/A
SS-272	-Y11-	13+00	25' RT	0.0 - 1.5	A-7-6 (9)	48	24	29	20	7	44	95	77	68	51.1	31.2	N/A
SS-289	-L-	126+00	35' LT	0.0 - 1.5	A-7-5 (24)	63	29	14	13	8	65	99	91	86	74.2	31.1	N/A
SS-308	-Y12-	22+50	90' RT	0.0 - 1.5	A-7-5 (3)	51	21	44	20	6	30	99	71	55	37.1	29.6	N/A
SS-337	-L-	186+00	30' LT	0.0 - 1.5	A-7-5 (24)	72	34	22	13	3	62	100	83	78	67.6	41.5	N/A
SS-344	-L-	192+00	40' LT	0.0 - 1.5	A-7-5 (23)	66	35	20	16	5	59	99	86	79	65.8	21	N/A
SS-349	-Y15-	14+00	25' RT	3.5 - 5	A-5 (1)	62	3	26	34	21	19	100	86	74	43.8	29.9	N/A
SS-359	-L-	196+00	30' LT	0.0 - 1.5	A-7-6 (5)	45	16	33	17	13	37	93	72	63	48.5	20.9	N/A
SS-368	-L-	202+00	20' LT	0.0 - 1.5	A-7-5 (34)	78	40	17	9	7	67	100	88	83	76.1	34.1	N/A
SS-374	-L-	206+00	30' LT	0.0 - 1.5	A-4 (2)	26	9	33	17	9	41	100	78	67	51.7	26.4	N/A
SS-395	-L-	214+00	30' LT	0.0 - 1.5	A-7-5 (22)	71	38	24	15	8	53	97	80	74	61.6	28.8	N/A
SS-405	-L-	220+00	40' LT	0.0 - 1.5	A-7-5 (26)	74	41	24	13	7	56	99	83	76	64.4	36.1	N/A
SS-413	-L-	224+00	20' LT	0.0 - 1.5	A-7-5 (21)	75	34	23	21	15	41	100	84	77	61.6	42.1	N/A
SS-432	-L-	232+00	30' LT	3.5 - 5	A-7-5 (19)	78	21	18	15	10	57	100	88	82	69.4	37.6	N/A
SS-440	-L-	236+00	30' LT	0.0-1.5	A-7-6 (13)	54	30	28	17	4	51	97	78	70	55	25.2	N/A
SS-459	-L-	248+00	30' LT	0.0-1.5	A-7-5 (35)	86	43	16	14	5	65	100	90	85	72.7	34.2	N/A
SS-474	-L-	258+00	30' LT	0.0-1.5	A-7-6 (7)	44	20	28	22	5	45	98	82	71	52	16.4	N/A
SS-477	-L-	262+00	CL	0.0-1.5	A-6 (3)	34	12	36	18	9	37	98	74	63	47	25.5	N/A
SS-482	-L-	264+00	CL	0.0-1.5	A-7-6 (11)	51	24	28	16	6	50	99	81	71	56.9	27.7	N/A
SS-496	-L-	272+00	CL	0.0-1.5	A-7-6 (2)	44	19	34	34	7	25	99	83	66	36.9	25.4	N/A
SS-50	-L-	13+00	100' RT	3.5 - 5	A-5 (3)	50	6	17	35	23	25	99	91	82	53.4	33.8	N/A
SS-510	-L-	280+00	CL	0.0-1.5	A-7-5 (35)	81	41	16	10	7	67	98	86	83	75	36.5	N/A
SS-517	-L-	284+00	30' LT	3.5-5	A-5 (3)	57	5	31	22	24	23	100	80	69	52	28.2	N/A
SS-520	-L-	286+00	30' LT	0.0-1.5	A-7-6 (10)	56	32	36	19	13	32	98	74	63	46.6	22.6	N/A
SS-529	-Y24-	22+00	25' LT	0.0-1.5	A-7-6 (11)	58	33	36	18	7	39	98	73	63	47.4	17.9	N/A
SS-538	-Y24-	16+00	30' LT	0.0-1.5	A-7-5 (29)	73	34	17	9	10	64	100	87	83	75.6	36.2	N/A
SS-541	-Y24-	14+00	30' LT	0.0-1.5	A-7-5 (23)	64	33	19	14	11	56	99	86	80	67.9	28	N/A
SS-551	-L-	296+00	40' LT	3.5-5	A-6 (3)	37	16	43	16	8	33	98	66	55	41.6	16.8	N/A
SS-556	-L-	298+00	50' LT	0.0-1.5	A-7-6 (9)	46	25	36	13	9	42	99	71	63	51.8	18.3	N/A
SS-575	-Y23-	13+50	CL	3.5-5	A-2-5 (0)	52	2	35	38	16	11	99	77	64	34.7	13.2	N/A
SS-579	-Y23-	11+50	CL	3.5-5	A-7-6 (7)	50	23	32	24	4	40	95	74	65	45.8	23.4	N/A

SOIL TEST RESULTS

SAMPLE NO.	*LINE*	*STATION*	*OFFSET*	*DEPTH INTERVAL*	*AASHTO CLASS.*	*L.L.*	*P.I.*	*% BY WEIGHT*				*% PASSING SIEVE*				*% MOISTURE*	*% ORGANIC*
								C. SAND	*F. SAND*	*SILT*	*CLAY*	*10*	*40*	*60*	*200*		
SS-582	-Y6-	13+00	15' RT	0.0-1.5	A-7-6 (12)	47	24	23	17	9	51	98	83	75	60.5	26.9	N/A
SS-591	-Y25-	11+50	20' RT	0.0-1.5	A-7-6 (26)	62	34	14	14	1	71	100	92	86	74.1	33.3	N/A
SS-595	-L-	104+00	35' LT	0.0-1.5	A-7-6 (7)	42	19	30	18	6	46	94	75	66	50.7	19.6	N/A
SS-614	-L-	102+00	16' RT	0.0-1.5	A-7-5 (2)	46	16	31	33	1	35	93	79	64	37.1	23.6	N/A
SS-64	-Y1B-	13+50	CL	0.0 - 1.5	A-7-6 (15)	56	30	27	19	6	48	100	81	73	56.9	33.1	N/A
SS-83	-L-	19+00	CL	0.0 - 1.5	A-7-5 (13)	53	18	14	22	21	43	99	90	85	67.6	28.6	N/A
S-700	-L-	45+97	45' RT	2 - 3	A-2-5 (0)	52	5	46	32	5	17	95	71	52	24.9	22	N/A
S-701	-L-	52+18	38' RT	1 - 3	A-7-5 (25)	75	38	17	20	10	53	98	89	81	64.1	28.9	N/A
S-702	-L-	60+00	39' RT	1 - 2	A-7-5 (19)	59	27	17	15	10	58	97	86	81	67.7	28.1	N/A
S-703	-L-	64+00	41' RT	1 - 3	A-7-6 (20)	60	32	22	14	8	56	98	85	77	64.4	25.8	N/A
S-704	-L-	72+00	43' RT	1 - 2	A-7-5 (16)	53	22	17	14	7	62	99	87	83	71	31.7	N/A
S-705	-L-	76+02	47' RT	3 - 4	A-7-5 (34)	76	41	17	8	8	67	98	87	82	74.7	29.1	N/A
S-706	-Y9-	14+50	35' RT	1 - 3	A-7-6 (8)	43	15	22	19	19	40	99	85	78	61	34.4	N/A
S-707	-L-	128+00	35' LT	1 - 2	A-7-6 (15)	51	26	21	16	10	53	99	86	78	64.4	26	N/A
S-708	-L-	188+00	30' LT	1 - 2	A-6 (2)	35	14	38	21	10	31	98	73	60	41.8	13.2	N/A
S-709	-L-	188+00	30' LT	3 - 4	A-7-5 (28)	81	38	22	12	7	59	99	84	78	67.4	30.7	N/A
CBR-1	-L-	96+00	35' LT	1 - 10	A-7-5 (6)	55	11	26	24	14	36	99	82	73	53.6	22.8	N/A
CBR-2	-L-	234+00	30' LT	0.0 - 8.5	A-7-5 (9)	56	19	25	25	21	29	98	82	74	55.5	32	N/A