

**PROJECT DESCRIPTION**

THIS PROJECT INCLUDES THE PROPOSED RECONSTRUCTION OF THE EXISTING BRIDGES WOO 75-17.56 AND WOO 75-19.03 ALONG I-75 WHERE IT CROSSES OVER THE CSX RAILROAD AND TOUSSAINT CREEK IN WOOD COUNTY, OHIO.

**GEOLOGY**

THE PROJECT SITE IS LOCATED IN AN AREA OF WOOD COUNTY, OHIO, WHERE THE SOIL PROFILE CONDITIONS CONSIST OF GLACIAL TILL CONTAINING AN UNSORTED, UNSTRATIFIED MIXTURE OF CLAY, SILT, SAND, AND COARSER FRAGMENTS DEPOSITED DISCONTINUOUSLY BY ADVANCING ICE.

**RECONNAISSANCE**

ON JUNE 6, 2012 A SITE RECONNAISSANCE WAS MADE. THE EXISTING PAVEMENT AND BRIDGES WERE OBSERVED TO BE IN GOOD CONDITIONS. THE SURROUNDING AREA IS DESCRIBED AS AGRICULTURE FARMLAND WITH CULTIVATED FIELDS.

**SUBSURFACE EXPLORATION**

THE SOIL EXPLORATION FOR THE BRIDGE REPLACEMENTS CONSISTED OF SIX DRIVE SAMPLE BORINGS TO DEPTHS OF 22 TO 56.5 FEET. THE BORINGS WERE DRILLED DURING OCTOBER, 2012. THE BORINGS WERE DRILLED WITH AN ATV-MOUNTED DRILL RIG, USING 3 1/4-INCH I.D. HOLLOW STEM AUGERS TO ADVANCE THE HOLES THROUGH SOIL. THE HAMMER WAS LAST CALIBRATED ON NOVEMBER 29, 2012 AND HAS A DRILL ROD ENERGY RATIO (ER) OF 80.2 PERCENT. DISTURBED SOIL SAMPLES WERE OBTAINED IN ACCORDANCE WITH THE STANDARD PENETRATION TEST (AASHTO T206) AT 2.5 FOOT INTERVALS FOR THE FULL DEPTH OF THE SOIL BORINGS. UNDISTURBED SOIL SAMPLES WERE OBTAINED AT DEPTHS SHOWN ON THE BORING LOGS AND IN THE PROFILE.

**EXPLORATION FINDINGS**

APPROXIMATELY 6 TO 12 INCHES OF TOPSOIL WERE ENCOUNTERED AT THE GROUND SURFACE OF BORING LOCATIONS S-1 THROUGH S-6. UNDERLYING TOPSOIL IS FILL MATERIAL. THE FILL CONSISTS OF BROWN AND DARK BROWN CLAY AND SILT WITH VARYING AMOUNTS OF SAND AND GRAVEL. THE FILL EXTENDS TO DEPTHS BETWEEN 6 AND 33.5 FEET. UNDERLYING THE FILL WERE ORIGINAL GLACIAL TILL SOILS THAT CONSISTED OF A-4A, A-6A, A-6B, OR A-7-6 SOILS. THE GLACIAL TILL EXTENDED TO THE BOTTOM OF THE SHALLOWER BORINGS AND TO THE TOP OF BEDROCK AT BORINGS S-1 THROUGH S-6.

**SPECIFICATIONS**

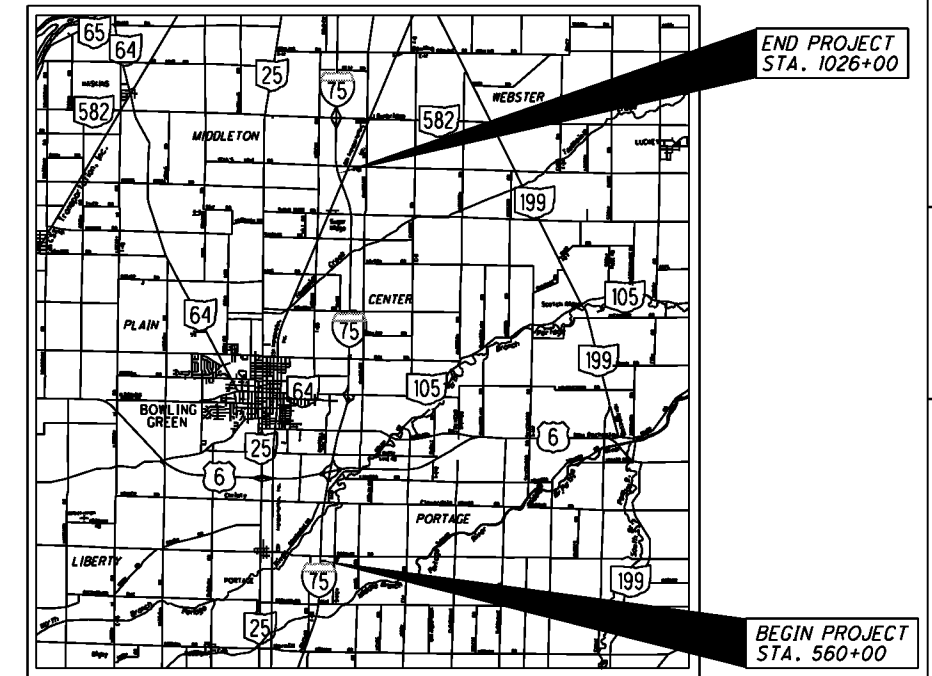
THIS GEOTECHNICAL EXPLORATION WAS PERFORMED IN ACCORDANCE WITH THE STATE OF OHIO, DEPARTMENT OF TRANSPORTATION, OFFICE OF GEOTECHNICAL ENGINEERING, SPECIFICATIONS FOR GEOTECHNICAL EXPLORATIONS, DATED JULY 2011.

**AVAILABLE INFORMATION**

ALL AVAILABLE SOIL INFORMATION THAT CAN BE CONVENIENTLY SHOWN ON THE GEOTECHNICAL EXPLORATION SHEETS HAS BEEN SO REPORTED. ADDITIONAL EXPLORATIONS MAY HAVE BEEN MADE TO STUDY SOME SPECIAL ASPECT OF THE PROJECT. COPIES OF THIS DATA, IF ANY, MAY BE INSPECTED IN THE DISTRICT DEPUTY DIRECTOR'S OFFICE, THE OFFICE OF GEOTECHNICAL ENGINEERING AT 1600 WEST BROAD STREET OR THE OFFICE OF STRUCTURAL ENGINEERING AT 1980 WEST BROAD STREET.

**LEGEND**

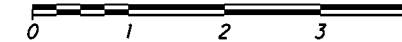
DESCRIPTION	ODOT CLASS	CLASSIFIED MECH./VISUAL	
FINE SAND	A-3	1	3
SANDY SILT	A-4a	4	2
SILT AND CLAY	A-6a	41	88
SILTY CLAY	A-6b	10	49
ELASTIC CLAY	A-7-5	1	0
CLAY	A-7-6	4	4
	<b>TOTAL</b>	<b>70</b>	<b>146</b>
DOLOMITE WEATHERED			
DOLOMITE			
UNCONTROLLED FILL			
PAVEMENT OR BASE = X = APPROXIMATE THICKNESS	VISUAL		
SOD AND TOPSOIL = X = APPROXIMATE THICKNESS	VISUAL		
EXPLORATION LOCATION - PLAN VIEW			
DRIVE SAMPLE AND/OR ROCK CORE BORING PLOTTED TO VERTICAL SCALE ONLY. HORIZONTAL BAR INDICATES A CHANGE IN STRATIGRAPHY.			
AUGER BORING PLOTTED TO VERTICAL SCALE ONLY. HORIZONTAL BAR INDICATES A CHANGE IN STRATIGRAPHY.			
<b>WC</b>	INDICATES WATER CONTENT IN PERCENT.		
<b>W</b>	INDICATES FREE WATER ELEVATION.		
<b>N<sub>60</sub></b>	INDICATES STANDARD PENETRATION RESISTANCE NORMALIZED TO 60% DRILL ROD ENERGY RATIO.		
●	INDICATES A PLASTIC MATERIAL WITH A MOISTURE CONTENT EQUAL TO OR GREATER THAN THE LIQUID LIMIT MINUS 3.		
⊕	INDICATES A NON-PLASTIC MATERIAL WITH A MOISTURE CONTENT GREATER THAN 25% OR GREATER THAN 19% WITH A WET APPEARANCE.		
<b>*</b>	INDICATES A SAMPLE TAKEN WITHIN 3 FT OF PROPOSED GRADE.		
<b>SS</b>	INDICATES A SPLIT-SPOON SAMPLE.		
<b>ST</b>	INDICATES A SHELBY TUBE SAMPLE.		
<b>NP</b>	INDICATES A NON-PLASTIC SAMPLE.		



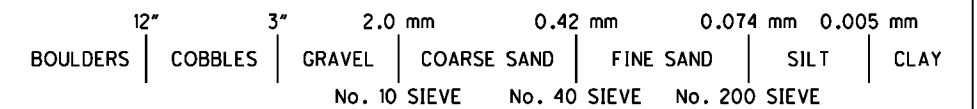
LOCATION MAP

LATITUDE: 41°25'38" LONGITUDE: 83°36'56"

SCALE IN MILES



**PARTICLE SIZE DEFINITIONS**



RECON. - J.W. 9/19/2012  
 DRILLING - JW & JD, KT & RP 9/19/12 - 10/22/12  
 DRAWN - SCY 11/08/2013  
 REVIEWED - AKR 11/08/2013

DESIGN AGENCY  
**BOWSER - MORNER**  
 4518 TAYLORSVILLE ROAD  
 DAYTON, OHIO 45424

PID NO.  
**92079**

**SOIL PROFILE**

**WOO-75-10.61**

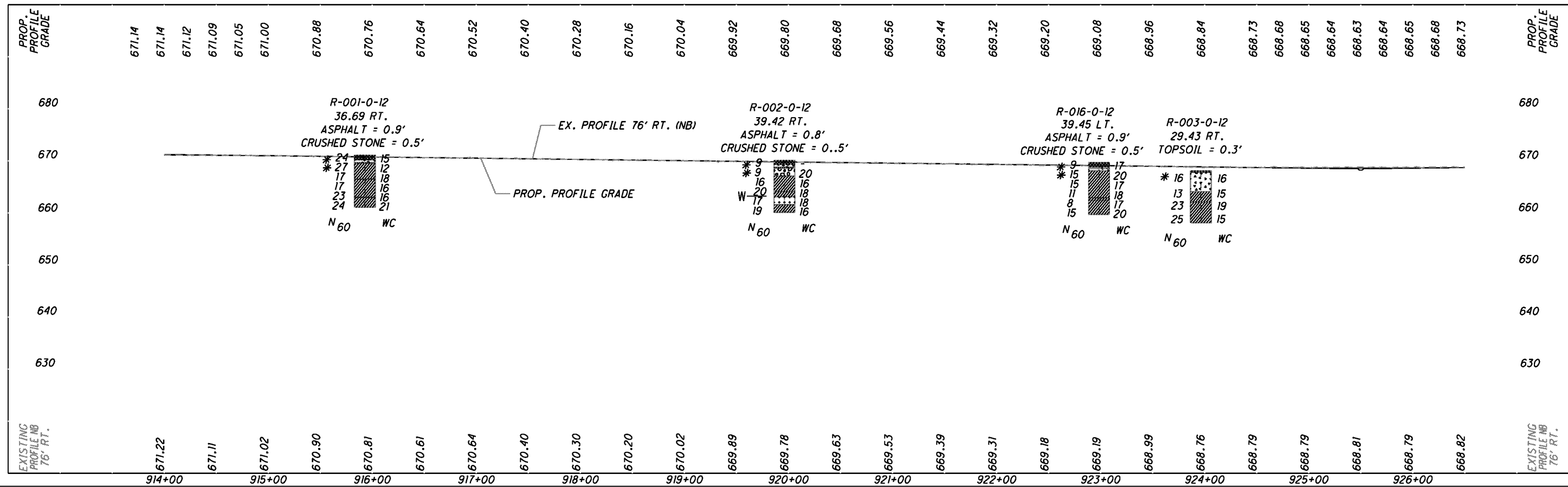
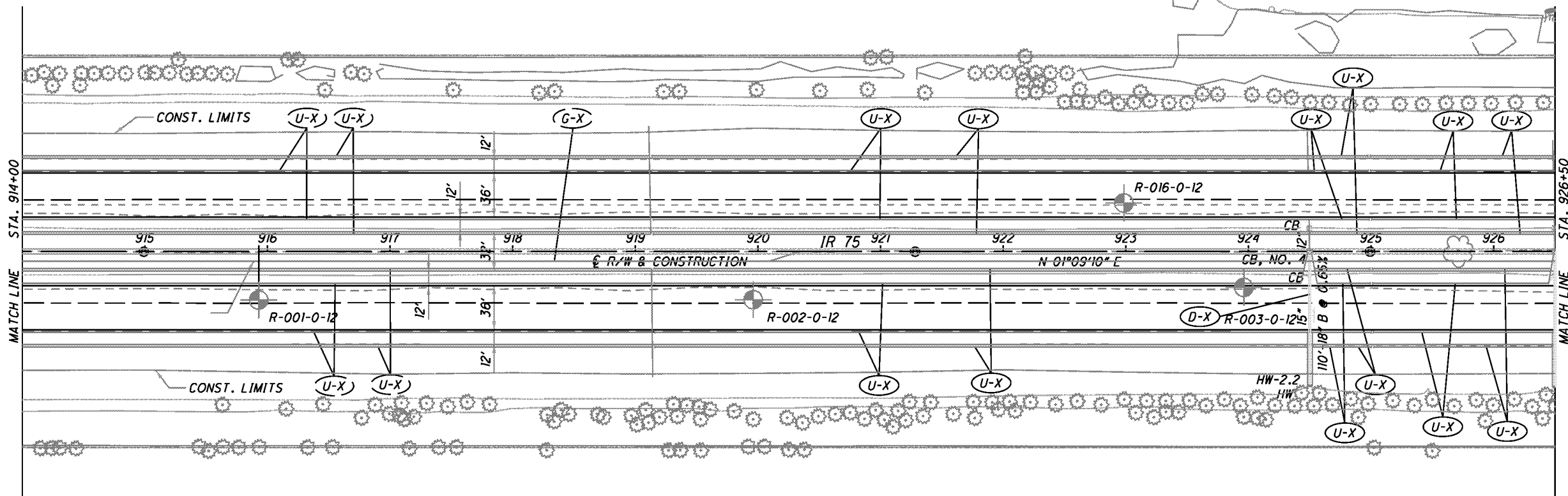


SUMMARY OF SOIL TEST DATA  
I.R. 75

EXPLORATION NO., STATION & OFFSET	FROM	TO	SAMPLE ID	% REC	% GR	% CS	% FS	% SILT	% CLAY	LL	PL	PI	% WC	OHIO CLASS (GI)	EXPLORATION NO., STATION & OFFSET	FROM	TO	SAMPLE ID	% REC	% GR	% CS	% FS	% SILT	% CLAY	LL	PL	PI	% WC	OHIO CLASS (GI)
R-019-0-12 STA. 1001+01.4, 27.76' RT.	01.00-02.50	02.50-05.00	SS-1	100	2	4	14	34	46	40	21	19	14	A-6b (12)*	R-027-0-12 STA. 1020+19.2, 26.08' LT.	01.00-02.50	02.50-05.00	SS-1	100	2	5	14	36	43	35	19	16	15	A-6b (10)*
	02.50-05.00	06.00-07.50	SS-2	100	3	5	12	34	46	35	20	15	14	A-6a (10)		02.50-05.00	06.00-07.50	SS-2	100	3	5	13	35	44	32	17	15	A-6a (10)	
	06.00-07.50	08.50-10.00	SS-3	100	-	-	-	-	-	-	-	-	15	A-6a (VISUAL)		06.00-07.50	08.50-10.00	SS-3	100	-	-	-	-	-	-	-	-	12	A-6a (VISUAL)
	08.50-10.00		SS-4	100	-	-	-	-	-	-	-	-	13	A-6a (VISUAL)		08.50-10.00		SS-4	100	-	-	-	-	-	-	-	-	16	A-6a (VISUAL)
R-020-0-12 STA. 1005+06.6, 26.56' RT.	01.00-02.50	02.50-05.00	SS-1	44	3	7	15	38	37	29	18	11	14	A-6a (8)*	R-028-0-12 STA. 1016+11, 25.88' LT.	01.00-02.50	02.50-05.00	SS-1	100	4	6	13	36	41	33	18	15	17	A-6a (10)*
	02.50-05.00	06.00-07.50	SS-2	100	3	5	13	34	45	35	19	16	16	A-6b (10)		02.50-05.00	06.00-07.50	SS-2	39	4	6	14	36	40	34	19	15	20	A-6a (10)
	06.00-07.50	08.50-10.00	SS-3	100	-	-	-	-	-	-	-	-	17	A-6a (VISUAL)		06.00-07.50	08.50-10.00	SS-3	100	-	-	-	-	-	-	-	-	13	A-6a (VISUAL)
	08.50-10.00		SS-4	100	-	-	-	-	-	-	-	-	14	A-6a (VISUAL)		08.50-10.00		SS-4	17	-	-	-	-	-	-	-	-	16	A-6a (VISUAL)
R-021-0-12 STA. 1008+99, 46.0' RT.	01.50-03.00	03.00-04.50	SS-1	100	3	7	14	66	10	31	18	13	14	A-6a (9)*	R-029-0-12 STA. 1012+00.9, 47.36' LT.	01.50-03.00	03.00-04.50	SS-1	33	6	6	14	35	39	29	18	11	16	A-6a (8)*
	03.00-04.50	04.50-06.00	SS-2	100	4	6	41	39	10	33	19	14	17	A-6a (10)		03.00-04.50	04.50-06.00	SS-2	100	9	6	13	-72-	-	29	17	12	15	A-6a (8)
	04.50-06.00	06.00-07.50	SS-3	100	-	-	-	-	-	-	-	-	15	A-6a (VISUAL)		04.50-06.00	06.00-07.50	SS-3	72	-	-	-	-	-	-	-	-	14	A-6a (VISUAL)
	06.00-07.50	07.50-09.00	SS-4	100	-	-	-	-	-	-	-	-	15	A-6a (VISUAL)		06.00-07.50	07.50-09.00	SS-4	78	-	-	-	-	-	-	-	-	14	A-6a (VISUAL)
	07.50-09.00	09.00-10.50	SS-5	100	-	-	-	-	-	-	-	-	15	A-6a (VISUAL)		07.50-09.00	09.00-10.50	SS-5	67	-	-	-	-	-	-	-	-	13	A-6a (VISUAL)
	09.00-10.50		SS-6	100	-	-	-	-	-	-	-	-	15	A-6a (VISUAL)		09.00-10.50		SS-6	56	-	-	-	-	-	-	-	-	13	A-6a (VISUAL)
R-022-0-12 STA. 1013+00.9, 45.61' RT.	01.50-03.00	03.00-04.50	SS-1	100	5	5	13	69	8	29	17	12	14	A-6a (9)*	R-030-0-12 STA. 1008+11.1, 48.46' LT.	01.50-03.00	03.00-04.50	SS-1	72	4	6	14	37	39	30	17	13	17	A-6a (9)*
	03.00-04.50	04.50-06.00	SS-2	89	3	5	13	68	11	32	18	14	14	A-6a (10)		03.00-04.50	04.50-06.00	SS-2	83	6	6	13	-75-	-	29	16	13	12	A-6a (9)
	04.50-06.00	06.00-07.50	SS-3	100	-	-	-	-	-	-	-	-	15	A-6a (VISUAL)		04.50-06.00	06.00-07.50	SS-3	67	-	-	-	-	-	-	-	-	16	A-6a (VISUAL)
	06.00-07.50	07.50-09.00	SS-4	100	-	-	-	-	-	-	-	-	14	A-6a (VISUAL)		06.00-07.50	07.50-09.00	SS-4	100	-	-	-	-	-	-	-	-	14	A-6a (VISUAL)
	07.50-09.00	09.00-10.50	SS-5	89	-	-	-	-	-	-	-	-	16	A-6a (VISUAL)		07.50-09.00	09.00-10.50	SS-5	83	-	-	-	-	-	-	-	-	13	A-6a (VISUAL)
	09.00-10.50		SS-6	100	-	-	-	-	-	-	-	-	14	A-6a (VISUAL)		09.00-10.50		SS-6	50	-	-	-	-	-	-	-	-	17	A-6a (VISUAL)
R-023-0-12 STA. 1017+13.5, 25.84' RT.	01.00-02.50	02.50-05.00	SS-1	100	1	6	14	70	9	32	18	14	14	A-6a (10)*	R-031-0-12 STA. 1004+02.1, 40.34' LT.	01.00-02.50	02.50-05.00	SS-1	100	3	5	13	37	42	32	18	14	14	A-6a (10)*
	02.50-05.00	06.00-07.50	SS-2	100	4	6	13	67	10	34	19	15	12	A-6a (10)		02.50-05.00	06.00-07.50	SS-2	100	5	5	12	36	42	30	17	13	22	A-6a (9)
	06.00-07.50	08.50-10.00	SS-3	100	-	-	-	-	-	-	-	-	13	A-6a (VISUAL)		06.00-07.50	08.50-10.00	SS-3	100	-	-	-	-	-	-	-	-	16	A-6a (VISUAL)
	08.50-10.00		SS-4	56	-	-	-	-	-	-	-	-	12	A-6a (VISUAL)		08.50-10.00		SS-4	100	-	-	-	-	-	-	-	-	15	A-6a (VISUAL)
R-024-0-12 STA. 1021+20.9, 40.26' RT.	01.50-03.00	03.00-04.50	SS-1	100	3	5	13	70	9	30	17	13	13	A-6a (9)*	R-032-0-12 STA. 1000+02.6, 39.64' LT.	01.50-03.00	03.00-04.50	SS-1	83	4	5	16	33	42	31	17	14	18	A-6a (10)*
	03.00-04.50	04.50-06.00	SS-2	100	5	6	13	66	10	32	18	14	12	A-6a (10)		03.00-04.50	04.50-06.00	SS-2	44	2	5	15	35	43	35	19	16	15	A-6b (10)
	04.50-06.00	06.00-07.50	SS-3	100	-	-	-	-	-	-	-	-	12	A-6a (VISUAL)		04.50-06.00	06.00-07.50	SS-3	100	-	-	-	-	-	-	-	-	15	A-6b (VISUAL)
	06.00-07.50	07.50-09.00	SS-4	100	-	-	-	-	-	-	-	-	12	A-6a (VISUAL)		06.00-07.50	07.50-09.00	SS-4	100	-	-	-	-	-	-	-	-	13	A-6b (VISUAL)
	07.50-09.00	09.00-10.50	SS-5	100	-	-	-	-	-	-	-	-	13	A-6a (VISUAL)		07.50-09.00	09.00-10.50	SS-5	100	-	-	-	-	-	-	-	-	13	A-6b (VISUAL)
	09.00-10.50		SS-6	100	-	-	-	-	-	-	-	-	13	A-6a (VISUAL)		09.00-10.50		SS-6	83	-	-	-	-	-	-	-	-	13	A-6b (VISUAL)
R-025-0-12 STA. 1028+34.5, 38.98' LT.	01.50-03.00	03.00-04.50	SS-1	56	-	-	-	-	-	-	-	-	0	-		01.50-03.00	03.00-04.50	SS-1	56	-	-	-	-	-	-	-	-	0	-
	03.00-04.50	04.50-06.00	SS-2	72	-	-	-	-	-	-	-	-	0	-		03.00-04.50	04.50-06.00	SS-2	72	-	-	-	-	-	-	-	-	0	-
	04.50-06.00	06.00-07.50	SS-3	39	-	-	-	-	-	-	-	-	0	-		04.50-06.00	06.00-07.50	SS-3	39	-	-	-	-	-	-	-	-	0	-
	06.00-07.50	07.50-09.00	SS-4	72	-	-	-	-	-	-	-	-	20	A-6a (VISUAL)		06.00-07.50	07.50-09.00	SS-4	72	-	-	-	-	-	-	-	-	20	A-6a (VISUAL)
	07.50-09.00	09.00-10.50	SS-5	67	-	-	-	-	-	-	-	-	19	A-6b (VISUAL)		07.50-09.00	09.00-10.50	SS-5	67	-	-	-	-	-	-	-	-	19	A-6b (VISUAL)
	09.00-10.50		SS-6	78	-	-	-	-	-	-	-	-	18	A-6b (VISUAL)		09.00-10.50		SS-6	78	-	-	-	-	-	-	-	-	18	A-6b (VISUAL)
R-026-0-12 STA. 1024+27.5, 38.96' LT.	01.50-03.00	03.00-04.50	SS-1	94	-	-	-	-	-	-	-	-	0	A-3 (VISUAL)*		01.50-03.00	03.00-04.50	SS-1	94	-	-	-	-	-	-	-	-	0	-
	03.00-04.50	04.50-06.00	SS-2	89	-	-	-	-	-	-	-	-	0	-		03.00-04.50	04.50-06.00	SS-2	89	-	-	-	-	-	-	-	-	0	-
	04.50-06.00	06.00-07.50	SS-3	78	-	-	-	-	-	-	-	-	0	-		04.50-06.00	06.00-07.50	SS-3	78	-	-	-	-	-	-	-	-	0	-
	06.00-07.50	07.50-09.00	SS-4	72	-	-	-	-	-	-	-	-	11	A-6b (VISUAL)		06.00-07.50	07.50-09.00	SS-4	72	-	-	-	-	-	-	-	-	11	A-6b (VISUAL)
	07.50-09.00	09.00-10.50	SS-5	100	-	-	-	-	-	-	-	-	15	A-6b (VISUAL)		07.50-09.00	09.00-10.50	SS-5	100	-	-	-	-	-	-	-	-	15	A-6b (VISUAL)
	09.00-10.50		SS-6	100	-	-	-	-	-	-	-	-	16	A-6b (VISUAL)		09.00-10.50		SS-6	100	-	-	-	-	-	-	-	-	16	A-6b (VISUAL)

SOIL PROFILE  
SUMMARY OF SOIL TEST DATA

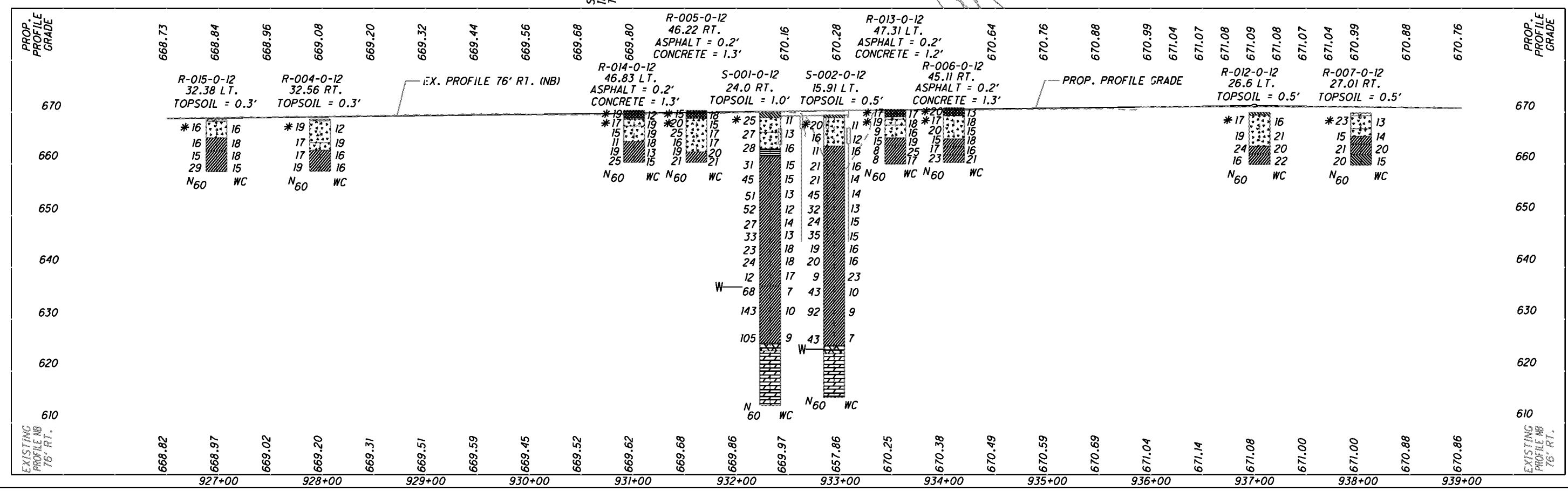
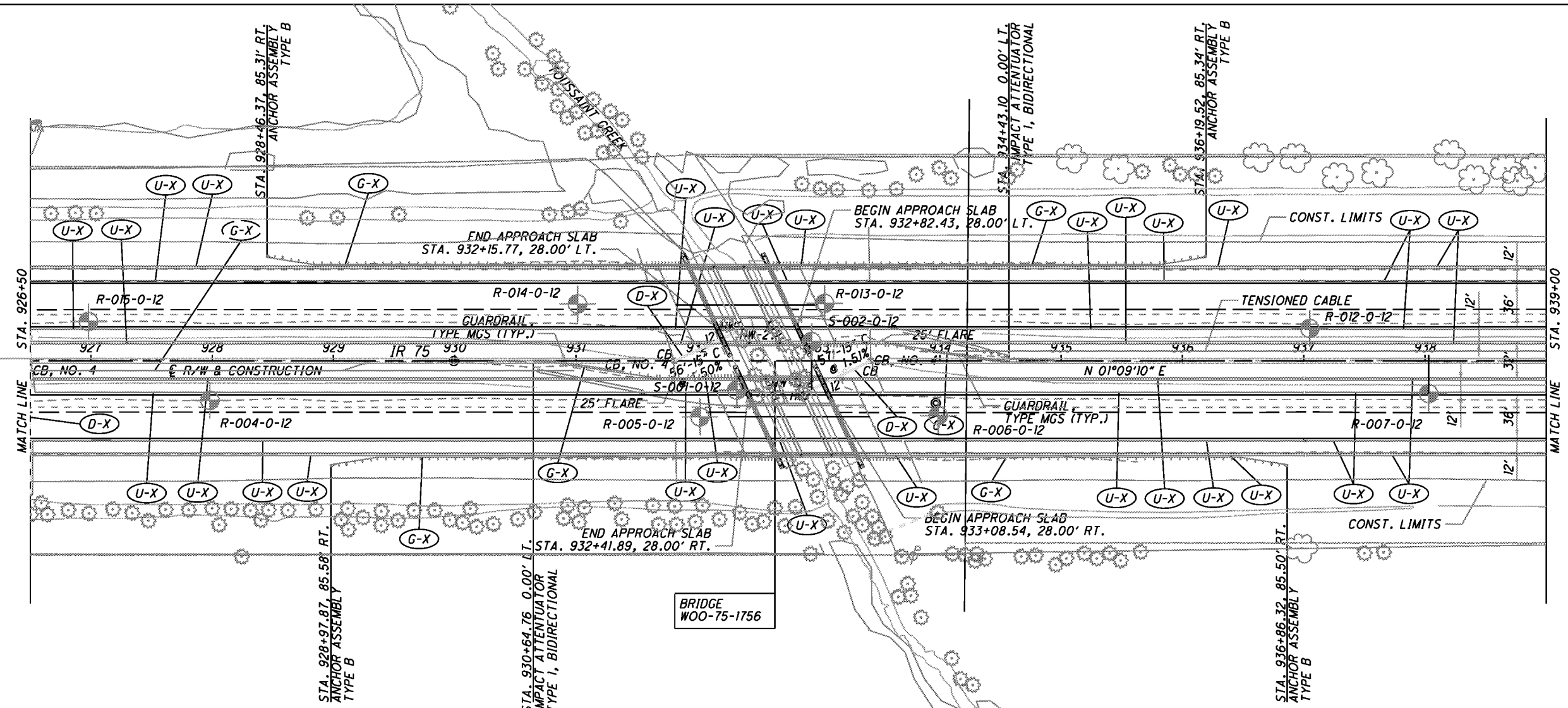
LUC-475-5.22 / 5.47



CALCULATED	
TLT	
CHECKED	
SRC	

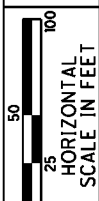
**PLAN AND PROFILE I.R. 75  
STA. 914+00 TO STA. 926+50**

**W00-75-10.61**

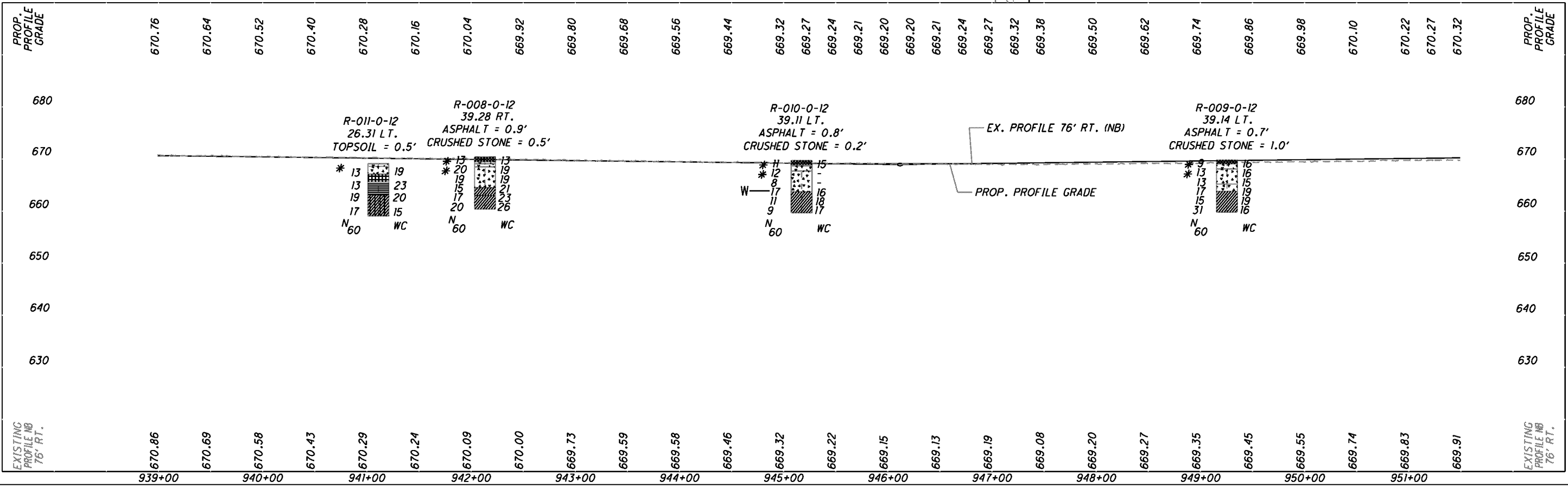
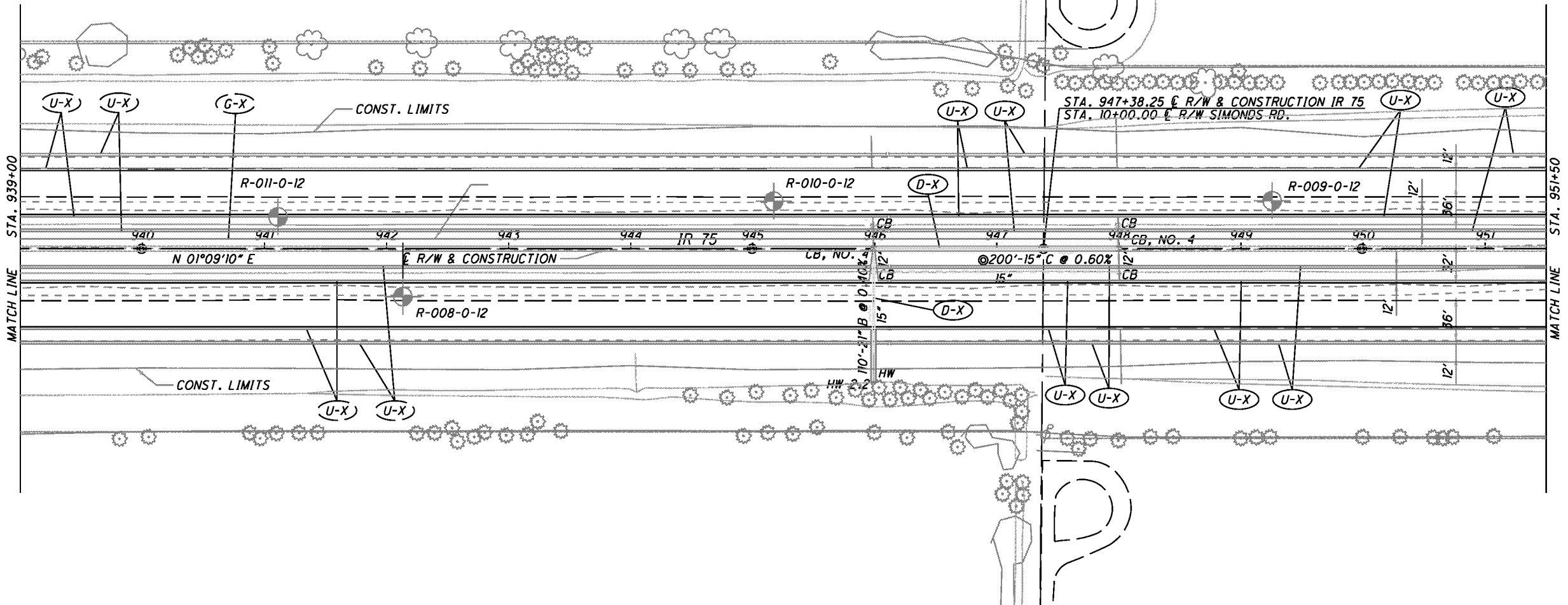


CALCULATED	TLT	CHECKED	SRC

**PLAN AND PROFILE I.R. 75  
STA. 926+50 TO STA. 939+00**



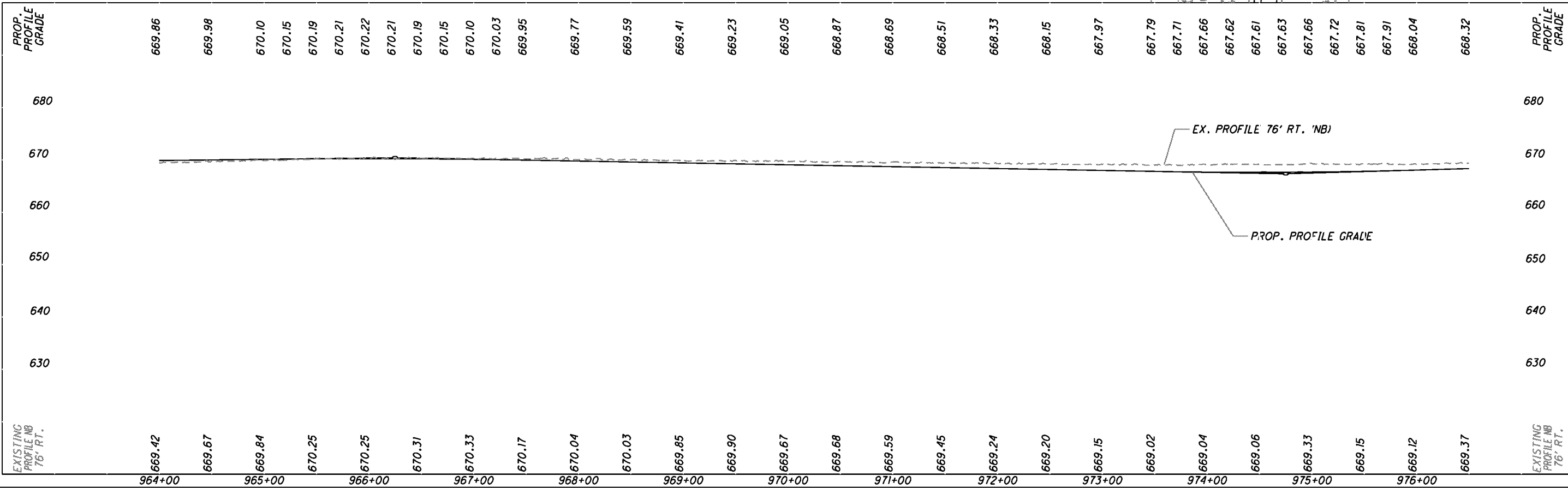
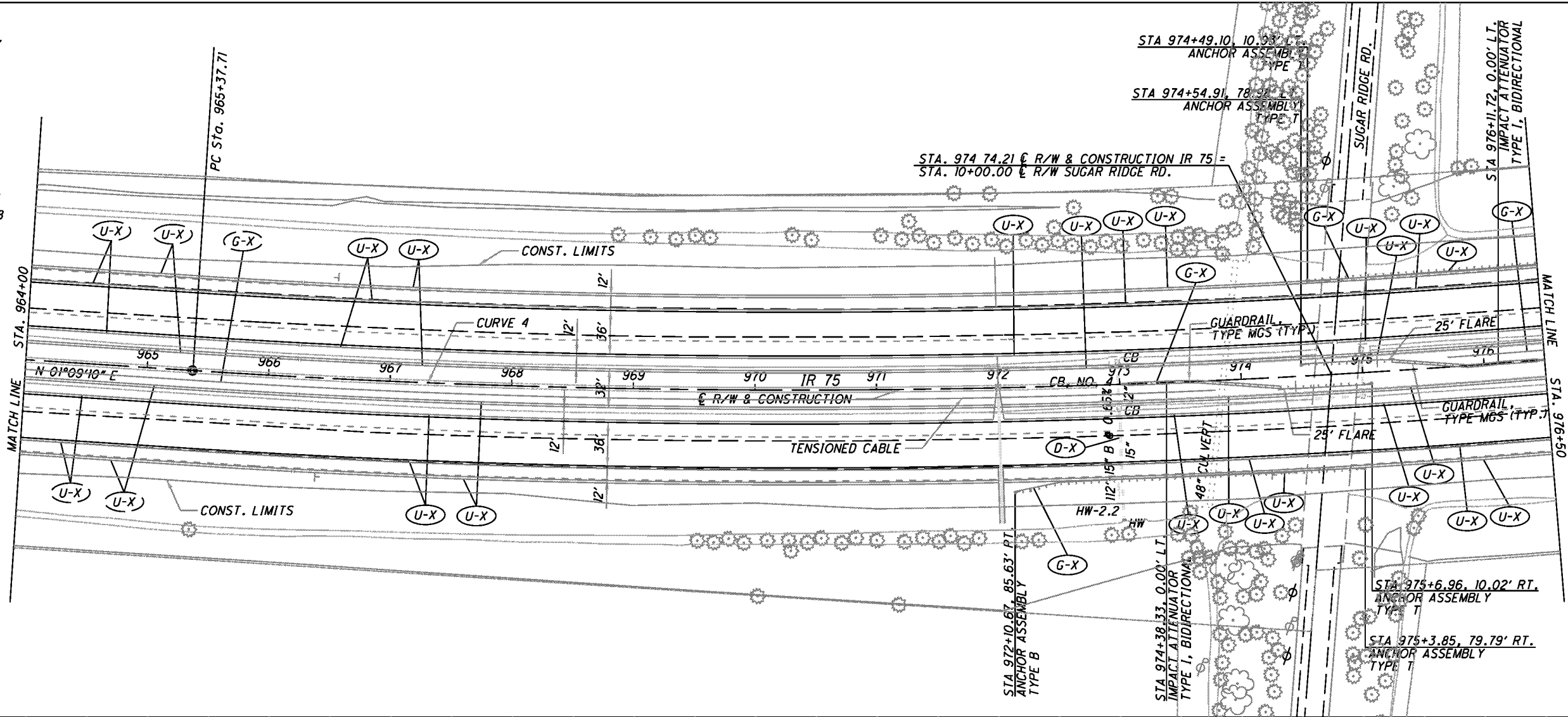
CALCULATED  
TLT  
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SRC



**W00-75-10.61**



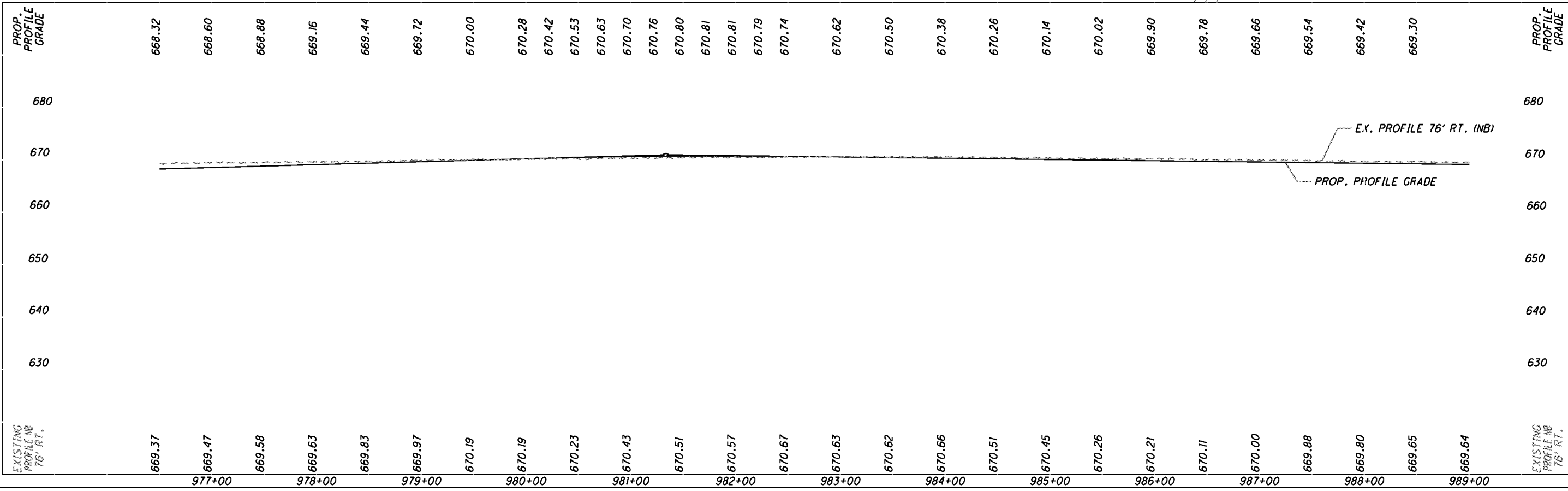
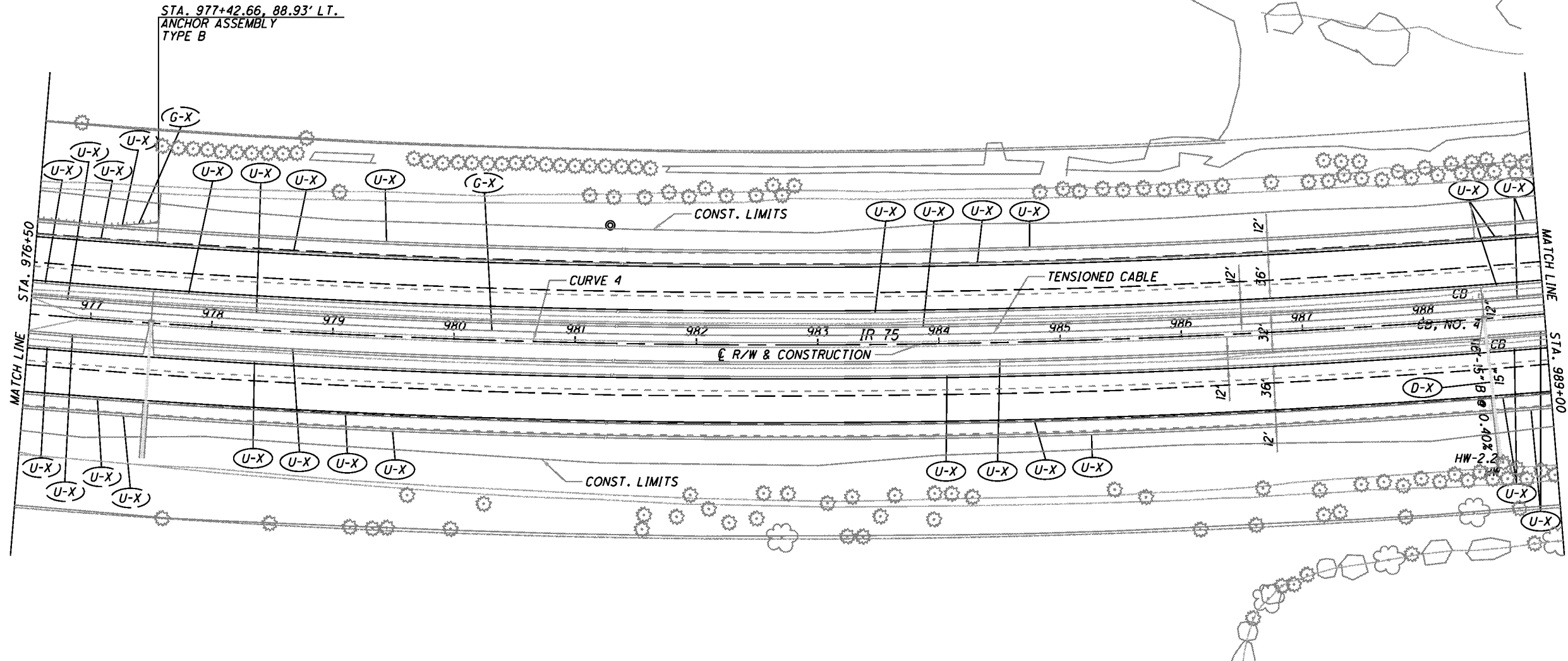
CURVE 4  
 P.I. = Sta. 979+68.07  
 D = 21°12'35" (LT)  
 Dc = 00°45'00"  
 R = 7639.44'  
 T = 1430.36'  
 L = 2827.97'  
 E = 132.75'  
 C = 2811.85'  
 C.B. = N 09°27'07" W  
 P.C. = Sta. 965+37.71  
 P.T. = Sta. 993+65.68



CALCULATED  
 TLT  
 CHECKED  
 SRC

**PLAN AND PROFILE I.R. 75  
 STA. 964+00 TO STA. 976+50**

**W00-75-10.61**



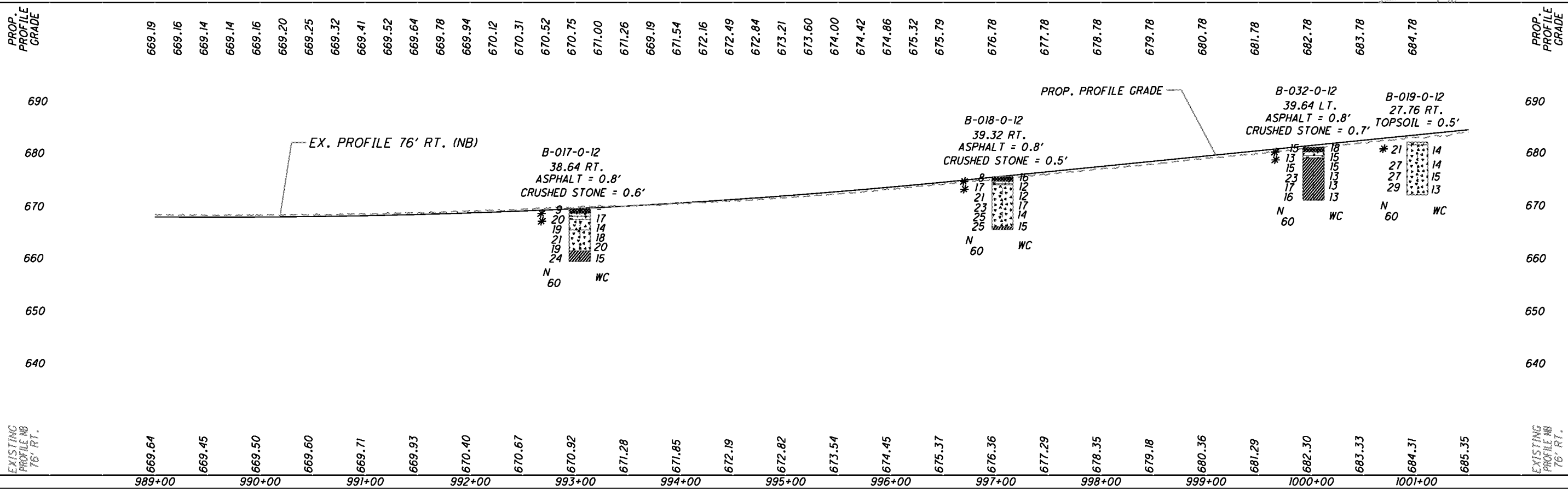
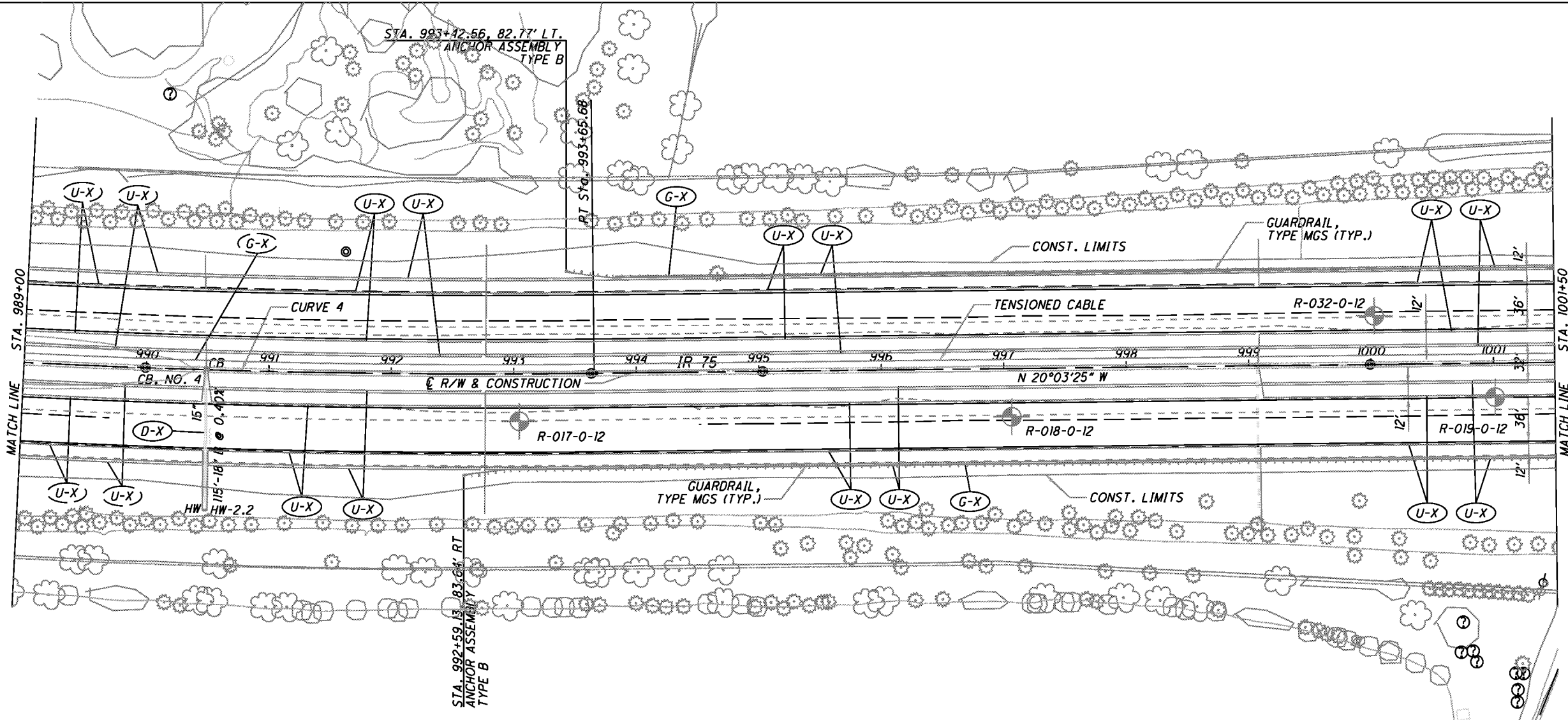
CALCULATED  
TLT  
CHECKED  
SRC

HORIZONTAL SCALE IN FEET

**PLAN AND PROFILE I.R. 75  
STA. 976+50 TO STA. 989+00**

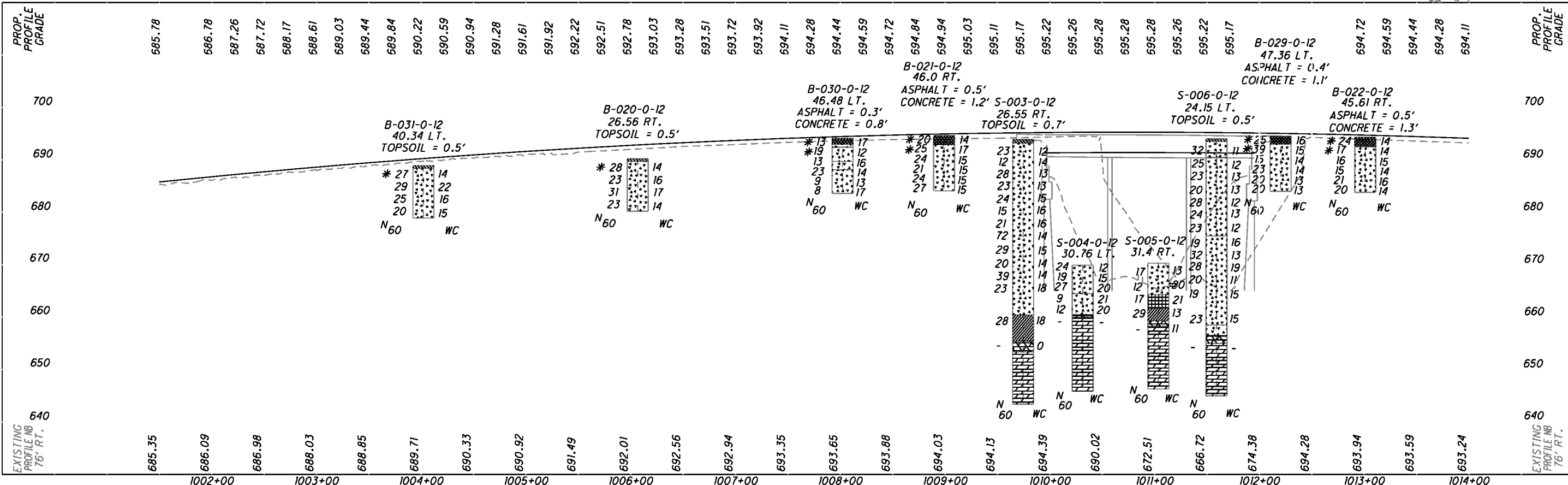
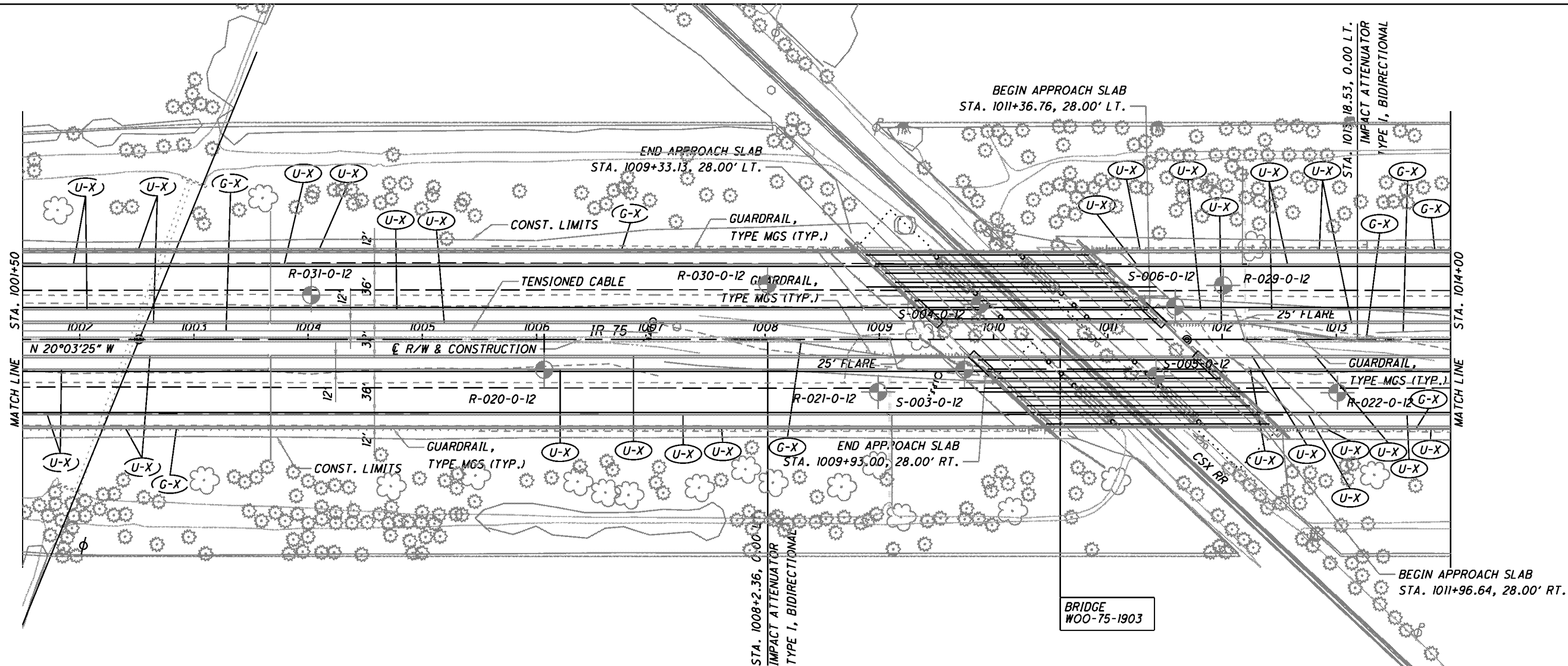
**W00-75-10.61**

CURVE 4  
 P.I. = Sta. 979+68.07  
 D = 21°12'35" (LT)  
 Dc = 00°45'00"  
 R = 7639.44'  
 T = 1430.36'  
 L = 2827.97'  
 E = 132.75'  
 C = 2811.85'  
 C.B. = N 09°27'07" W  
 P.C. = Sta. 965+37.71  
 P.T. = Sta. 993+65.68



PLAN AND PROFILE I.R. 75  
 STA. 989+00 TO STA. 1001+50

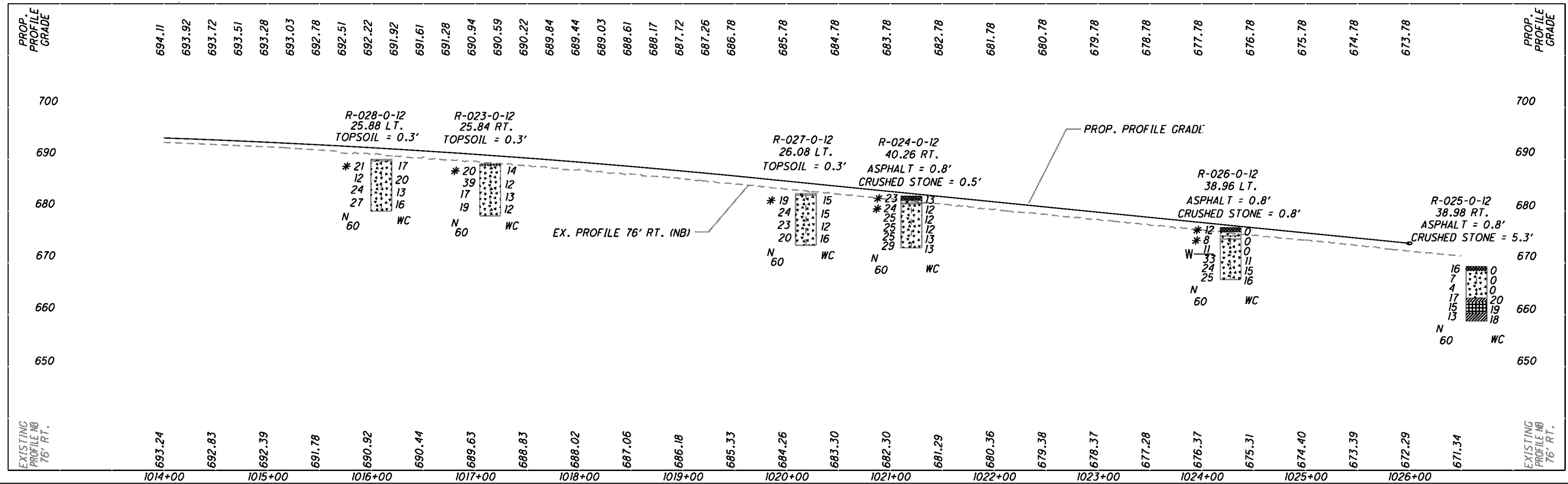
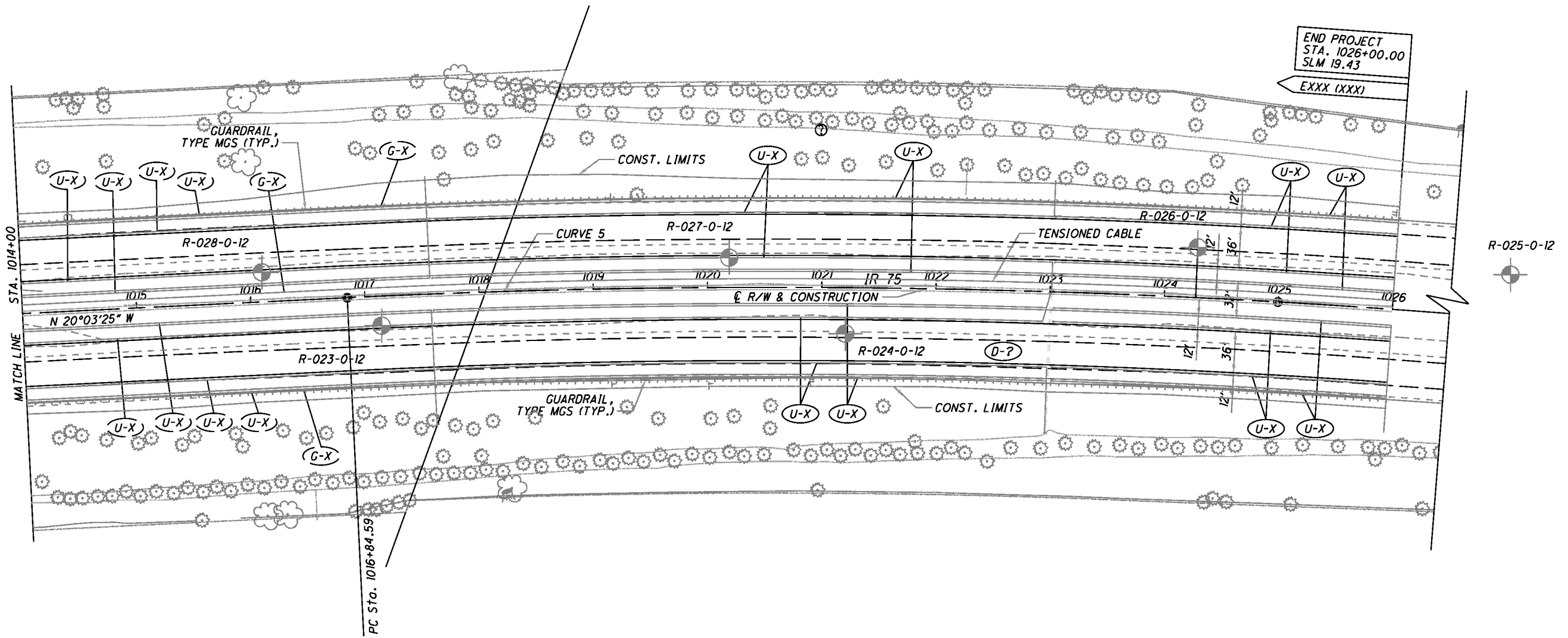
W00-75-10.61



CALCULATED	TLT	CHECKED	SRC

**PLAN AND PROFILE I.R. 75  
STA. 1001+50 TO STA. 1014+00**

**WOO-75-10.61**



CALCULATED  
TLT  
CHECKED  
SRC

**PLAN AND PROFILE I.R. 75  
STA. 1014+00 TO STA. 1026+50**

**W00-75-10.61**

PROJECT: WOO 75-17.56/19.03		DRILLING FIRM / OPERATOR: BMI / JW JD		DIEDRICH D.90		STATION / OFFSET: 932+32.6, 24.0 RT		EXPLORATION ID	
TYPE: ROADWAY		SAMPLING FIRM / LOGGER: BMI / JW JD		CME AUTOMATIC		ALIGNMENT: N/A		S-001-0-12	
PID: 92079 BR ID: N/A		3.25" HSA / NO2		CALIBRATION DATE: 11/29/12		ELEVATION: 669.9 (MSL) EOB: 56.5 ft.		PAGE	
START: 10/16/12 END: 10/16/12		SPT / NO		ENERGY RATIO (%): 80		LAT / LONG: 41.250190780, 83.365634880		1 OF 1	
MATERIAL DESCRIPTION AND NOTES		ELEV.		SPT / ROD		GRADATION (%)		INST.	
		669.9				GR		0001 CLASS (G)	
TOPSOIL Topsoil		668.9		5		CS FS SI QL LL PL PI MC			
VERY STIFF, BROWN, UNCONTROLLED FILL, CLAY AND SILT, TRACE OF SAND, MOIST (FILL)		666.1		8		-		-	
		662.9		9		2		29 32 36 37 13 24 16 A-60 (12)	
STIFF, BROWN AND GRAY, SILT AND CLAY, SOME SAND, MOIST		661.4		10		6		14 36 39 33 19 14 15 A-60 (10)	
				11		-		-	
VERY STIFF, BROWN AND GRAY, SILT AND CLAY, SOME SAND, TRACE OF GRAVEL, MOIST				12		-		-	
				13		-		-	
(Becomes gray at 13.5')				14		-		-	
				15		-		-	
(Becomes stiff at 23.5')				16		-		-	
				17		-		-	
				18		-		-	
				19		-		-	
				20		-		-	
				21		-		-	
				22		-		-	
				23		-		-	
				24		-		-	
				25		-		-	
				26		-		-	
				27		-		-	
				28		-		-	
				29		-		-	
				30		-		-	
				31		-		-	
				32		-		-	
				33		-		-	
				34		-		-	
				35		-		-	
				36		-		-	
				37		-		-	
				38		-		-	
				39		-		-	
				40		-		-	
				41		-		-	
				42		-		-	
				43		-		-	
				44		-		-	
				45		-		-	
				46		-		-	
				47		-		-	
				48		-		-	
				49		-		-	
				50		-		-	
				51		-		-	
				52		-		-	
				53		-		-	
				54		-		-	
				55		-		-	
		613.4		56		-		-	

NOTES: NONE  
 ABANDONMENT METHODS, MATERIALS, QUANTITIES: NOT RECORDED

STANDARD 0001 SOIL BORING LOG (6.5 X 10 - OH DOT 001 - 11/13 1057 - E&E.P1. 2828 BORING LOGS&GINT@PROJECTS\B7347-XXXX-XXXX.GPJ

PROJECT: WOO 75-17.56/18.03		DRILLING FIRM / OPERATOR: BMI / JD KB		STATION / OFFSET: 932+94.29, 15.91 LT		EXPLORATION ID S-002-0-12																					
TYPE: ROADWAY		SAMPLING FIRM / LOGGER: CME AUTOMATIC		ALIGNMENT: N/A		PAGE 1 OF 1																					
PID: 92079 BR ID: N/A		CALIBRATION DATE: 11/29/12		ELEVATION: 669.4 (MSL) EOB: 54.5 ft.																							
START: 9/19/12 END: 9/19/12		ENERGY RATIO (%): 80		LAT / LONG: 41.250252000, 83.365666670																							
MATERIAL DESCRIPTION AND NOTES		SPT / ROD		REC (%)		SAMPLE ID		HP (fts)		GRADATION (#)		ATTENBERG		OOOT CLASS (ft)		INST.											
		DEPTHS		N60		ID		(fts)		CR		LL		PL		PI											
		ELEV.																									
Topsoil		1						4.50																			
STIFF, BROWN AND GRAY, UNCONTROLLED FILL, SILT, SOME CLAY. TRACE OF SAN, TRACE OF GRAVEL TRACE OF ROOT, MOIST		2		20		SS-1A		4.50								11											
		3																									
		4		16		SS-2A		4.50								12											
		5																									
		6		11		SS-3A		4.25								16											
		7																									
		8																									
		9		21		SS-4A		4.50								16											
		10																									
		11		21		SS-5A		4.50		5		13		37		40		33		19		14		14		A-60 (10)	
		12																									
		13																									
		14																									
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		52																									
		53																									
		54																									

NOTES: NONE  
 ABANDONMENT METHODS, MATERIALS, QUANTITIES: NOT RECORDED

DRAWN  
SCY  
CHECKED  
AKR

STRUCTURE FOUNDATION INVESTIGATION

WOO-75-10.61

PROJECT: WOO 75-17.56/18.03		DRILLING FIRM / OPERATOR:		DIEDRICH D.90		STATION / OFFSET:		EXPLORATION ID	
TYPE: ROADWAY		SAMPLING FIRM / LOGGER:		CME AUTOMATIC		1009+74.4, 26.55 RT		S-003-0-12	
PID: 92079 BR ID: N/A		DRILLING METHOD: 3.25" HSA / NO2		CALIBRATION DATE: 11/29/12		ALIGNMENT: N/A		PAGE	
START: 10/17/12 END: 10/17/12		SPT / NO		ENERGY RATIO (%): 80		ELEVATION: 693.9 (MSL) EOB: 50.5 ft.		1 OF 1	
MATERIAL DESCRIPTION AND NOTES		DEPTHS		REC (%)		GRADATION (%)		0001 CLASS (di)	
ELEV.		SPT / ROD		SAMPLE ID		HP (fts)		INST.	
Topsoil									
VERY STIFF, DARK BROWN, UNCONTROLLED FILL, CLAY AND SILT, SOME SAND, TRACE OF CRUSHED STONE, MOIST		1							
		2		56		4.50		12	
		3							
		4		89		4.25		14	
		5							
		6		100		4.50		13	
		7							
		8							
		9		100		4.50		13	
		10							
		11		100		4.50		15	
		12							
		13							
		14		89		3.25		16	
		15							
		16		89		3.50		16	
		17							
		18							
		19		72		4.50		14	
		20							
		21							
		22		78		4.50		15	
		23							
		24		78		4.50		14	
		25							
		26		100		4.50		14	
		27							
		28							
		29		23		4.50		18	
		30							
		31							
		32							
		33							
		34		28		4.50		18	
		35							
		36							
		37							
		38							
		39		11		SS-14A		0	
		40							
		41							
		42							
		43							
		44							
		45		100		SS		-	
		46							
		47							
		48							
		49							
		50							
		E-68							
		643.4							
VERY STIFF, BROWN AND GRAY, SILT AND CLAY, SOME SAND, TRACE OF GRAVEL, MOIST		660.4							
Weathered Rock		655.4							
Auger refusal at 40.5'		653.4							
Hard slightly weathered gray dolomite; ROD = 92% F.F. = 0.7 Formation = silurian lockport dolomite									
NOTES: NONE									
ABANDONMENT METHODS, MATERIALS, QUANTITIES: NOT RECORDED									

STANDARD 0001 SOIL BORING LOG (8.5 X 11) - CH 001.C01 - 11/13 15:28 - E:\03P1\_28828 BORING LOGS\GINT\PROJECT\51573171-XXXX-XXXX.CPJ

(With trace of cobblestone at 21')

(Becomes gray at 6')

PROJECT:	WOO 75-17.56/19.03	DRILLING FIRM / OPERATOR:	BMI / JW JD	DRILL RIG:	STATION / OFFSET:	EXPLORATION ID
TYPE:	ROADWAY	SAMPLING FIRM / LOGGER:	BMI / JW JD	HAMMER:	1009+88.30.76 LT	S-004-0-12
PID:	92079	DRILLING METHOD:	3.25" HSA / NO2	CME AUTOMATIC	N/A	
START:	10/1/12	SAMPLING METHOD:	SPT / NO	CALIBRATION DATE:	669.9 (MSL) EOB: 24.0 ft.	PAGE 1 OF 1
	END: 10/1/12			ENERGY RATIO (%):	41.26167700, 83.37101500	
MATERIAL DESCRIPTION AND NOTES						
VERY STIFF, BROWN, UNCONTROLLED FILL, CRUSHED STONE, SOME SAND, TRACE OF GRAVEL, MOIST		ELEV.	DEPTHS	SPT/ROD	REC (%)	SAMPLE ID
	669.9	1	14	100	100	SS-1A
	666.4	2	10	24	100	SS-1A
		3	8			
VERY STIFF, BROWN AND GRAY, UNCONTROLLED FILL, SOME SAND, TRACE OF GRAVEL, MOIST		4	5	19	100	SS-2A
		5	8			
(With a trace of clay tile at 6')		6	7	27	100	SS-3A
		7	12			
STIFF, GRAY AND BROWN, SILT AND CLAY, SOME SAND, TRACE OF GRAVEL, MOIST		8	3	9	100	SS-4A
		9	4			
		10	3	12	100	SS-5A
		11	4	4	100	SS-5A
		12	5	12	100	SS-5A
		13				
Weathered Rock	656.4	14	100/2	-	-	SS-6A
Auger Refusal at 14'	655.3	15				
Hard weathered gray dolomite:		16				
ROD = 89%		17				
F.F. = 1		18				
Formation = Silurian lockport dolomite		19				
		20				
		21				
		22				
		23				
		24				
	645.9					

DRILLING FIRM / OPERATOR:	BMI / JW JD	DRILL RIG:	STATION / OFFSET:	EXPLORATION ID
SAMPLING FIRM / LOGGER:	BMI / JW JD <td>HAMMER:</td> <td>1011+41.7, 31.4 RT <td>S-005-0-12 </td></td>	HAMMER:	1011+41.7, 31.4 RT <td>S-005-0-12 </td>	S-005-0-12
DRILLING METHOD:	3.25" HSA / NO2 <td>CME AUTOMATIC</td> <td>N/A</td> <td></td>	CME AUTOMATIC	N/A	
SAMPLING METHOD:	SPT / NO <td>CALIBRATION DATE:</td> <td>670.3 (MSL) EOB: 22.0 ft.</td> <td>PAGE 1 OF 1</td>	CALIBRATION DATE:	670.3 (MSL) EOB: 22.0 ft.	PAGE 1 OF 1
		ENERGY RATIO (%):	41.26167700, 83.371076630	
MATERIAL DESCRIPTION AND NOTES				
VERY STIFF, BROWN AND GRAY, UNCONTROLLED FILL, CLAY AND SILT, SOME SAND, TRACE OF GRAVEL, TRACE OF CRUSHED STONE, MOIST FILL		ELEV.	DEPTHS	SPT/ROD
	670.3	1	9	17
		2	7	100
		3	6	
		4	3	12
		5	4	100
		6	5	
VERY STIFF, BROWN AND GRAY, SILT AND CLAY, SOME SAND		7	4	17
		8	6	67
		9	7	
		10	8	29
		11	14	
		12	100/4	-
		13		
		14		
		15		
		16		
		17		
		18		
		19		
		20		
		21		
		22		
	648.3			

NOTES: NONE

ABANDONMENT METHODS, MATERIALS, QUANTITIES: NOT RECORDED

PROJECT:	WOO 75-17.56/19.03	DRILLING FIRM / OPERATOR:	BMI / JW JD	DRILL RIG:	STATION / OFFSET:	EXPLORATION ID
TYPE:	ROADWAY	SAMPLING FIRM / LOGGER:	BMI / JW JD <td>HAMMER:</td> <td>1011+41.7, 31.4 RT <td>S-005-0-12</td> </td>	HAMMER:	1011+41.7, 31.4 RT <td>S-005-0-12</td>	S-005-0-12
PID:	92079	DRILLING METHOD:	3.25" HSA / NO2 <td>CME AUTOMATIC</td> <td>N/A</td> <td></td>	CME AUTOMATIC	N/A	
START:	10/1/12	SAMPLING METHOD:	SPT / NO <td>CALIBRATION DATE:</td> <td>670.3 (MSL) EOB: 22.0 ft.</td> <td>PAGE 1 OF 1</td>	CALIBRATION DATE:	670.3 (MSL) EOB: 22.0 ft.	PAGE 1 OF 1
	END: 10/2/12			ENERGY RATIO (%):	41.26167700, 83.371076630	
MATERIAL DESCRIPTION AND NOTES						
VERY STIFF, BROWN AND GRAY, UNCONTROLLED FILL, CLAY AND SILT, SOME SAND, TRACE OF GRAVEL, TRACE OF CRUSHED STONE, MOIST FILL		ELEV.	DEPTHS	SPT/ROD	REC (%)	SAMPLE ID
	670.3	1	9	17	100	SS-1A
		2	7	6		
		3	3	12	100	SS-2A
		4	4	5		
		5	4	12	100	SS-2A
		6	4	17	67	SS-3A
		7	6	7		
VERY STIFF, BROWN AND GRAY, SILT AND CLAY, SOME SAND		8	7	29	67	SS-4A
		9	8	14		
		10	100/4	-	22	SS-5A
		11				
		12				
		13				
		14				
		15				
		16				
		17				
		18				
		19				
		20				
		21				
		22				
	648.3					

NOTES: NONE

ABANDONMENT METHODS, MATERIALS, QUANTITIES: NOT RECORDED

