PROJECT DESCRIPTION

PAVEMENT REPLACEMENT OVER SUM-76 FROM S.L.M. 8.24 TO 10.00, SUM-77 FROM S.L.M. 9.74 TO 11.54, AND SUM-8 FROM S.LM. 0.00 TO 1.75. COVERS THE "SOUTH LEG" AND "WEST LEG", INCLUDES REHABILITATION OF SEVERAL STRUCTURES IN THE CITY OF AKRON, SUMMIT COUNTY, OHIO.

HISTORIC RECORDS

NUMEROUS HISTORIC GEOTECHNICAL RECORDS ARE AVAILABLE IN THE PROJECT AREA. THOSE HISTORIC BORINGS THAT COULD BE CONVENIENTLY SHOWN AND BELIEVED TO BE RELEVANT TO THE CURRENT PROJECT HAVE BEEN PRESENTED ON THIS SOIL PROFILE. ALL HISTORICAL INFORMATION IS AVAILABLE FOR REVIEW ON THE DEPARTMENT'S ONLINE TRANSPORTATION INFORMATION MAPPING SYSTEM, HTTPS://GIS.DOT.STATE.OH.US/TIMS/MAP/GEOTECH.

GEOLOGY

THE SITE LIES IN THE GLACIATED PORTION OF OHIO, WITHIN THE AKRON-CANTON INTERLOBATE PLATEAU PHYSIOGRAPHIC REGION. THE SOIL GENERALLY CONSISTS OF GRANULAR OUTWASH DEPOSITS, LAKEBED DEPOSITS CONSISTING OF SILT AND CLAY, AND GLACIAL TILL. THE AREA ALSO PREVIOUSLY CONTAINED MANY UNDRAINED DEPRESSIONS WITHIN WHICH PEAT AND ORGANIC SILTS ACCUMULATED. THESE DEPRESSIONS HAVE NOW MOSTLY BEEN COVERED BY HUMAN ACTIVITY. THE UNDERLYING BEDROCK CONSISTS OF MISSISSIPPIAN-AGE SANDSTONE AND SHALE IN THE WESTERN PART OF THE PROJECT AND SANDSTONE FROM THE PENNSYLVANIAN-AGE POTTSVILLE GROUP IN THE EASTERN PART OF THE PROJECT.

RECONNAISSANCE

THE LAND USE ADJACENT TO MOST OF THE PROJECT CONSIST OF RESIDENTIAL PROPERTY WITH OCCASIONAL COMMERCIAL PROPERTY. I-76 NEAR THE BEGINNING OF THE PROJECT CROSSES THE OHIO CANAL JUST NORTH OF SUMMIT LAKE. THE ADJACENT LAND USE IS RECREATION PARKS IN THIS AREA. THIS IS ALSO THE AREA WHERE HISTORICAL BORINGS ENCOUNTERED PEAT DEPOSITS.

SUBSURFACE EXPLORATION

SIXTY FIVE (65) ROADWAY BORINGS WERE COMPLETED ON IR 76, I-77 AND THE RAMPS. MOST OF THESE BORINGS WERE COMPLETED IN JANUARY, 2019, BUT SOME THAT WERE LOCATED IN A CONSTRUCTION ZONE WERE COMPLETED IN MARCH AND APRIL, 2020, AND TWENTY NINE (29) WERE COMPLETED ON I-77 IN JUNE 2020. SIX (6) STRUCTURE BORINGS WERE COMPLETED IN OCTOBER, 2019, AND NINE (9) STRUCTURE BORINGS WERE COMPLETED IN JULY, 2020. MOST OF THE BORINGS WERE DRILLED WITH A TRUCK MOUNTED ROTARY DRILL RIG. SOME OF THE STRUCTURE BORINGS WERE DRILLED WITH AN ATV-MOUNTED ROTARY DRILL RIG. ALL DRILL RIGS USED 3.25-INCH I.D. HOLLOW STEM AUGERS TO ADVANCE THE BORINGS THROUGH SOIL. DISTURBED SAMPLES WERE COLLECTED IN ACCORDANCE WITH THE STANDARD PENETRATION TEST (AASHTO T206) AT CONTINUOUS INTERVALS FOR THE ROADWAY BORINGS. THE STRUCTURE BORINGS WERE SAMPLED AT CONTINUOUS INTERVALS TO A DEPTH OF 7 FEET, THEN 2.5-FOOT INTERVALS TO A DEPTH OF 25 FEET, FOLLOWED BY 5-FOOT INTERVALS TO THE DEPTH OF BORING OR UNTIL ROCK WAS CORED. ROCK WAS CORED WITH AN NQ2 WIRELINE SYSTEM AFTER AUGER REFUSAL WAS ENCOUNTERED. THE HAMMER SYSTEMS FOR FOUR DIFFERENT DRILL RIGS WERE CALIBRATED BETWEEN APRIL 25, 2018 AND AUGUST 15, 2019. THE AVERAGE DRILL ROD ENERGY RATION (ER) WAS 87.1%. FOR THE CME-55, 83.7% FOR THE CME-75, 72% FOR THE CME-45, AND OVER 90% FOR THE CME 44 ATV.

ELEVEN (11) BORINGS ARE INCLUDED FROM A RECENT ADJACENT PROJECT, SUM-76-6.15 PID 100713. THESE BORINGS ARE LISTED BELOW. THE GEOTECHNICAL REPORT, DATED 7/31/2019, AND SOIL PROFILE SHEETS WERE PREPARED BY NEAS, INC. REFER TO THESE DOCUMENTS FOR A COMPLETE DESCRIPTION OF THE EXPLORATION AND SAMPLING OF THESE BORINGS.

B-045-1-18	B-046-0-18	B-047-0-18
B-048-0-18	B-050-0-18	B-077-0-18
B-077-1-18	B-077-2-18	B-077-3-18
B-077-4-18		

LEGEND

DESCRIPTION	ODOT CLASS	CLASSIFIED MECH.	CLASSIFIED VISUAL
GRAVEL AND/OR STONE FRAGMENTS	A-1-a	8	8
GRAVEL AND/OR STONE FRAGMENTS WITH SAND	A-1-b	18	7
FINE SAND	A-3	0	23
COARSE AND FINE SAND	A-3a	32	40
GRAVEL AND/OR ST. FRAG. WITH SAND AND SILT	A-2-4	8	7
GRAVEL AND/OR ST. FRAG. WITH SAND,SILT AND CLAY	A-2-6	0	0
SANDY SILT	A-4a	81	38
SILT	A-4b	17	31
SILT AND CLAY	A-6a	14	17
SILTY CLAY	A-6b	4	11
CLAY	A-7-6	0	3
	TOTAL	182	185
PEAT	VISUAL		
CLAYSTONE	VISUAL		
UNCONTROLLED FILL (UCF)	VISUAL		
SHALE	VISUAL		
SANDSTONE	VISUAL		
PAVEMENT OR BASE = X = APPROXIMATE THICKNESS	VISUAL		
SOD AND TOPSOIL = X = APPROXIMATE THICKNESS	VISUAL		

BORING LOCATION - PLAN VIEW.

HISTORIC BORING LOCATION - PLAN VIEW - SUM-76-8.42/SUM-77-9.77

DRIVE SAMPLE AND/OR ROCK CORE BORING PLOTTED TO VERTICAL SCALE ONLY. HORIZONTAL BAR INDICATES A CHANGE IN STRATIGRAPHY.

AUGUR BORING PLOTTED TO VERTICAL SCALE ONLY. HORIZONTAL BAR INDICATES A CHANGE IN STRATIGRAPHY.

WC INDICATES WATER CONTENT IN PERCENT.

N_{60} INDICATES STANDARD PENETRATION RESISTANCE NORMALIZED TO 60% DRILL ROD ENERGY RATIO.

X/Y/Z NUMBER OF BLOWS FOR STANDARD PENETRATION TEST (SPT):
X= NUMBER OF BLOWS FOR FIRST 6 INCHES.
Y= NUMBER OF BLOWS FOR SECOND 6 INCHES.
Z= NUMBER OF BLOWS FOR THIRD 6 INCHES.

W— INDICATES FREE WATER ELEVATION.

● 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.

* INDICATES A SAMPLE TAKEN WITHIN 3 FT OF PROPOSED GRADE.

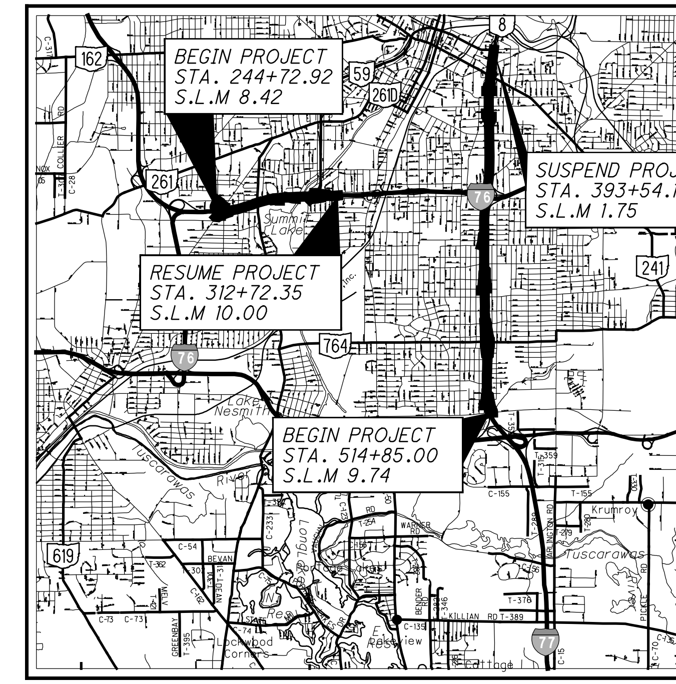
SS INDICATES A SPLIT SPOON SAMPLE.

ST INDICATES A SHELBY TUBE SAMPLE.

HA INDICATES A HAND AUGER SAMPLE.

NP INDICATES A NON-PLASTIC SAMPLE.

TR INDICATES A TOP OF ROCK.



LOCATION MAP

SCALE IN MILES

0 1 2 3 4

N

PARTICLE SIZE DEFINITIONS

BOULDERS	COBBLES	GRAVEL	COARSE SAND	FINE SAND	SILT	CLAY
12"	3"	2.0 mm (No. 10 SIEVE)	0.42 mm (No. 40 SIEVE)	0.074 mm (No. 200 SIEVE)	0.005 mm	

RECON. - DLZ - 12/2018
DRILLING - DLZ - 12/13/18 - 7/16/20
DRAWN - KM, SM 4/2019 - 11/2020
REVIEWED - PAN 8/2020 - 11/2020

E.L. ROBINSON ENGINEERING

PID NO. 102329

SOIL PROFILE

SUM-76/77/8- 8.24/9.74/0.00

EXPLORATION FINDINGS

THE ROADWAY BORINGS PREDOMINATELY ENCOUNTERED STIFF TO VERY STIFF SANDY SILT (A-4a) ALONG WITH MEDIUM DENSE TO VERY DENSE FINE AND COARSE SAND (A-3a) AND OTHER LAYERS OF GRANULAR SOILS. SOME SILTY CLAY (A-6b) WAS ALSO ENCOUNTERED. WHEN ENCOUNTERED, ROCK CONSISTED OF DECOMPOSED TO SEVERELY WEATHERED SHALE, SANDSTONE OR CLAYSTONE. FIVE BORINGS ENCOUNTERED SILT (A-4b) WITHIN 3 FEET OF SUBGRADE, B-011-0-18, B-016-0-20, B-033-0-18, B-038-0-18, AND P-017-0-20. NONE OF THE ROADWAY BORINGS ENCOUNTERED GROUNDWATER, ALTHOUGH SOME GRANULAR LAYERS WERE WET.

TWO BORINGS WERE DRILLED FOR THE BRIDGE AT I-76 OVER MANCHESTER ROAD, B-009-1-19 AND B-009-2-19. B-009-1-19 GENERALLY ENCOUNTERED LOOSE TO MEDIUM DENSE SANDY SILT (A-4a) ABOVE SLIGHTLY TO MODERATELY WEATHERED SANDSTONE, ENCOUNTERED AT A DEPTH OF 50 FEET. B-009-2-19 GENERALLY ENCOUNTERED STIFF TO VERY STIFF SILT AND CLAY (A-6a) WITH SOME SANDY SILT (A-4a) AND SILT (A-4b) TO A DEPTH OF 28.5 FEET, FOLLOWED BY LOOSE TO DENSE SAND AND SILT TO THE DEPTH OF BORING. NO BEDROCK WAS ENCOUNTERED AT B-009-2-19. GROUND WATER WAS ENCOUNTERED IN BOTH BORINGS BELOW ELEV. 956.

TWO BORINGS WERE DRILLED FOR THE BRIDGE AT I-76 OVER BOWERY STREET, B-014-1-19 AND B-014-2-19. BORING B-014-1-19 WAS LOCATED AT THE TOP OF THE ROADWAY EMBANKMENT AND B-013-2-19 WAS LOCATED BELOW THE BRIDGE. B-014-1-19 ENCOUNTERED EMBANKMENT FILL CONSISTING MOSTLY OF LOOSE TO MEDIUM DENSE SANDY SILT (A-4a) WITH SOME SAND AND GRAVEL SEAMS. BELOW THE EMBANKMENT FILL AND IN B-014-2-19, BOTH BORINGS ENCOUNTERED PREDOMINANTLY GRANULAR SOILS CONSISTING OF FINE SAND (A-3) AND COARSE AND FINE SAND (A-3a) WITH LAYERS OF SILT (A-4b) AND SANDY SILT (A-4a). THE SOIL WAS GENERALLY MEDIUM DENSE TO VERY DENSE. GROUND WATER WAS ENCOUNTERED IN BOTH BORINGS BELOW ELEV. 955.

TWO BORINGS WERE DRILLED FOR THE BRIDGE AT I-76 OVER LAKE SHORE BOULEVARD, B-014-3-19 AND B-014-4-19. BORING B-014-3-19 ENCOUNTERED PREDOMINANTLY COARSE AND FINE SAND (A-3a) TO A DEPTH OF 33.5 FEET, WITH LAYERS OF SANDY SILT (A-4a) AND SILT (A-4b). AT A DEPTH OF 33.5 FEET, THIS BORING ENCOUNTERED LOOSE UNCONTROLLED FILL THAT CONTAINED WOOD, FOLLOWED BY LOOSE TO MEDIUM DENSE SILT (A-4b) TO THE DEPTH OF THE BORING, 100 FEET. BORING B-014-4-19 ENCOUNTERED GRAVEL TO A DEPTH OF 8.5 FEET, VARY IN DENSITY FROM VERY LOOSE TO DENSE. BELOW THE GRAVEL, THE BORING ENCOUNTERED A LAYER OF VERY LOOSE TO LOOSE SANDY SILT (A-4a) TO A DEPTH OF 21 FEET, FOLLOWED BY LOOSE TO MEDIUM DENSE COARSE AND FINE SAND (A-3a) TO A DEPTH OF 53.5 FEET. BELOW THIS THE BORING ENCOUNTERED DENSE SANDY SILT (A-4a), LOOSE TO MEDIUM DENSE SILT (A-4b) AND VERY DENSE FINE SAND (A-3) TO THE DEPTH OF THE BORING, 100 FEET. GROUND WATER WAS ENCOUNTERED BELOW ELEV. 972 WITH OCCASIONAL WET SOIL LAYERS ABOVE THIS ELEVATION.

NINE BORINGS WERE DRILLED FOR ANTICIPATED RETAINING WALLS AT THE I-76 AND I-77 INTERCHANGE. BORING B2-001-0-20 ENCOUNTERED MEDIUM STIFF TO STIFF SANDY SILT (A-4a) AND SILT AND CLAY (A-6a), WITH AND SILTY CLAY (A-6b) TO A DEPTH OF 28.5 FEET, WITH A LAYER OF MEDIUM DENSE FINE SAND (A-3) FROM 3.5 TO 8.5 FEET DEEP. FROM A DEPTH OF 28.5 FEET TO THE DEPTH OF BORING (40 FEET) THIS BORING ENCOUNTERED BLACK SOIL CONSISITING OF SAND, COAL, SLAG, AND BRICK. WATER WAS ENCOUNTERED AT A DEPTH OF 33.1 FEET. BORINGS E3-001-0-20 TO E3-008-0-20 ENCOUNTERED STIFF TO VERY STIFF SANDY SILT (A-4a), SILT (A-4b), SILT AND CLAY (A-6a) AND SILTY CLAY (A-6b) ABOVE ROCK. ROCK WAS ENCOUNTERED AT A DEPTH OF 6 TO 11 FEET. BEDROCK IN THESE BORINGS CONSISTED OF DECOMPOSED TO MODERATELY WEATHERED SHALE AND MODERATELY TO HIGHLY WEATHERED SANDSTONE. GROUND WATER WAS ENCOUNTERED IN SIX OF THE EIGHT BORINGS AT DEPTHS VARYING FROM 38.1 TO 48.9 FEET.

REFER TO THE SOIL PROFILE SHEETS AND GEOTECHNICAL REPORT FOR SUM-76-6.15 PID 100713 FOR THE EXPLORATION FINDINGS FOR THE NEAS BORINGS.

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 2017.

AVAILABLE INFORMATION

THE SOIL, BEDROCK, AND GROUNDWATER INFORMATION COLLECTED FOR THIS SUBSURFACE EXPLORATION THAT CAN BE CONVENIENTLY DISPLAYED ON THE SOIL PROFILE SHEETS HAS BEEN PRESENTED. GEOTECHNICAL REPORTS, IF PREPARED, ARE AVAILABLE FOR REVIEW ON THE OFFICE OF CONTRACT SALES WEBSITE. HISTORICAL INFORMATION, IF ANY, IS AVAILABLE FOR REVIEW ON THE DEPARTMENT'S ONLINE TRANSPORTATION INFORMATION MAPPING SYSTEM, HTTPS://GIS.DOT.STATE.OH.US/TIMS/MAP/GEOTECH.

INDEX OF SHEETS

SUMMARY OF SOIL TEST DATA, SHEETS 3 - 28

LOCATION FROM STA.	TO STA.	PLAN VIEW SHEET	PROFILE SHEET	CROSS-SECTION SHEET	CUT MAX.	FILL EMB. MAX.
I.R.76						
244+72.92	312+72.35	29 - 41	29 - 41	62 - 97	<1 FT	<1 FT
I.R. 77						
325+00	407+09.97	98 - 112	98 - 112	136 - 154	<1 FT	<1 FT
S.R. 8						
4293+00	4330+75	112 - 120	112 - 120	155 - 156	<1 FT	<1 FT
325+00	636+00	120 - 127	120 - 127	157		
RAMP K		42	42		<1 FT	<1 FT
RAMP J		43 - 45	43 - 45		<1 FT	<1 FT
RAMP M		46	46		<1 FT	<1 FT
RAMP EN		47 - 51	47 - 51		<1 FT	<1 FT
RAMP SW		52	52		<1 FT	<1 FT
RAMP L		53 - 55	53 - 55		<1 FT	<1 FT
RAMP G		56 - 57	56 - 57		<1 FT	<1 FT
RAMP W10		58 - 59	58 - 59		<1 FT	<1 FT
RAMP W11		60 - 61	60 - 61		<1 FT	<1 FT
RAMP IR-77 NB		128 - 131	128 - 131		<1 FT	<1 FT
RAMP S10		132 - 133	132 - 133		<1 FT	<1 FT
RAMP S9		134 - 135	134 - 135		<1 FT	<1 FT

BORING LOGS, SHEETS 158 - 202

DRAWN SM CHECKED PAN

SOIL PROFILE

EXPLORATION NOTES (CONT.)

SUM-76/77/8-
8.24/9.74/0.00

2
202

	Station & Offset	Depth From To	% Agg	% C S	% F S	% Silt	% Clay	L L	P I	% W C	SHTL Class	Loss On Ign.
H-003-0-61	255+90 20'RT	0.3-7.0	0	6	18	48	28	NP	NP	15	A-4a	
		7.0-10.0	0	2	14	57	27	NP	NP	26	A-4b	
		10.0-14.0	10	6	13	44	27	27	10	14	A-4a*	
		14.0-23.0	0	5	14	46	35	29	11	12	A-6a	
		23.0-26.0	Dark Gray Broken Shale							8	Visual	
H-004-0-61	259+41 CL	0.4-3.0	45	5	9	29	12	NP	NP	12	A-4a	
		3.0-13.0	Brown Weathered Shale							6	Visual*	
		13.0-18.0	Gray and Brown Weathered Shale							8	Visual	
H-005-0-61	264+50 3'LT	0.2-4.0	20	5	17	34	24	NP	NP	17	A-4a	
		4.0-10.0	16	2	32	38	12	NP	NP	16	A-4a	
H-006-0-61	267+50 35'RT	0.0-4.0	22	15	30	21	12	NP	NP	9	A-2-4	
		4.0-10.0	17	7	32	29	15	NP	NP	16	A-4a	
		10.0-15.0	28	19	27	14	12	NP	NP	8	A-2-4	
		15.0-22.0	34	43	10	5	8	NP	NP	17	A-1-b	
		22.0-30.0	20	51	25	- 4 -		NP	NP	6	A-1-b	
H-007-0-61	268+75 CL	0.4-7.0	0	32	25	22	21	20	7	12	A-4a	
		7.0-14.0	16	40	37	- 7 -		NP	NP	4	A-3a	
		14.0-19.0	0	1	92	- 7 -		NP	NP	8	A-3	
		19.0-26.0	28	50	14	- 8 -		NP	NP	8	A-1-b	
		26.0-30.0	0	5	25	48	22	NP	NP	12	A-4a	
H-008-1-61	270+00 65'RT	0.4-4.0	0	8	14	40	38	33	16	25	A-6b	
		4.0-13.0	47	36	13	- 4 -		NP	NP	6	A-1-b	
		13.0-16.0	0	1	4	79	16	NP	NP	16	A-4b	
		16.0-18.0	0	15	78	- 7 -		NP	NP	20	A-3	
		18.0-21.0	52	29	13	- 6 -		NP	NP	11	A-1-a	
		21.0-28.0	0	2	9	58	31	NP	NP	15	A-4b	
		28.0-30.0	17	31	37	-15 -		NP	NP	12	A-3a	
H-008-0-61	270+20 CL	0.5-5.0	20	52	24	- 4 -		NP	NP	7	A-1-b	
		5.0-8.0	7	68	19	- 6 -		NP	NP	6	A-3a	
		8.0-9.0	35	37	20	- 8 -		NP	NP	6	A-1-b	
		9.0-12.0	49	29	14	- 8 -		NP	NP	9	A-1-b	
		12.0-15.0	0	9	79	- 12 -		NP	NP	9	A-3a	
		15.0-18.0	57	26	12	- 5 -		NP	NP	7	A-1-a	
H-014-0-61	276+09 CL'	0.0-3.0	30	12	25	21	12	NP	NP	11	A-2-4	
		3.0-5.0	19	8	26	30	17	NP	NP	16	A-4a	
		5.0-7.0	3	5	52	21	19	NP	NP	21	A-4a	
		7.0-9.0	Black Loamy Compact Peat							339	Visual	76%
		9.0-12.0	Black Fibrous Compact Peat							366	Visual	
		12.0-15.5	Brown to Black Fine-Textured Peat							101	Visual	17%
		15.5-21.0	0	32	61	- 7 -		NP	NP	23	A-3	
		21.0-26.0	0	22	67	-11-		NP	NP	22	A-3a	
		26.0-31.0	0	18	58	16	8	NP	NP	25	A-3a	

	Station & Offset	Depth From To	% Agg	% C S	% F S	% Silt	% Clay	L L	P I	% W C	SHTL Class	Loss On Ign.
H-022-0-61	283+75 CL	0.0-1.5	Random Fill - Dark Gray Silty Sandy Gravel W/Cinders and Frick Bats							—	Visual	
		1.5-3.0	Dark Gray Loamy Compact Peat							223	Visual	44%
		3.0-8.0	Dark Gray Fibrous Peat							734	Visual	86%
		8.0-12.0	Brown & Black Fine-Textured Peat							442	Visual	64%
		12.0-18.0	Gray Marly Sedimentary Peat					121	69	99	Visual	11%
		18.0-24.0	Gray Silty Marly Sedimentary Peat					104	45	76	Visual	9%
		24.0-27.0	0	1	2	64	33	90	60	45	A-7-5	5%
		27.0-30.0	66	20	8	- 6	-	NP	NP	12	A-1-a	
		30.0-35.0	69	23	5	- 3	-	NP	NP	8	A-1-a	
H-019-0-61	279+82 CL	0.5-2.0	21	11	15	26	27	NP	NP	26	A-4a	
		2.0-4.0	29	23	17	16	15	NP	NP	13	A-2-4	
		4.0-5.0	56	28	8	- 8	-	NP	NP	9	A-1-a	
		5.0-6.0	16	25	52	- 7	-	NP	NP	5	A-3	
		6.0-11.0	65	23	7	- 5	-	NP	NP	6	A-1-a	
		11.0-13.0	0	2	73	-25	-	NP	NP	8	A-3a	
		13.0-17.0	0	0	76	-24	-	NP	NP	7	A-3a	
		17.0-21.0	0	0	13	79	8	NP	NP	23	A-4b	
		21.0-26.0	0	0	73	-27	-	NP	NP	20	A-3a	
		26.0-30.0	0	0	41	55	4	NP	NP	18	A-4b	
		30.0-35.0	0	1	43	48	8	NP	NP	17	A-4a	
		35.0-41.0	0	0	4	79	17	NP	NP	23	A-4b	
H-021-0-61	282+35 15'RT	0.2-2.0	10	32	35	16	7	NP	NP	7	A-3a	
		2.0-3.0	43	18	20	12	7	NP	NP	13	A-1-b	
		3.0-5.0	43	23	22	5	7	NP	NP	18	A-1-b	
		5.0-6.0	Black Compact Peat							97	Visual	39%
		6.0-10.5	Brown Fibrous Coarse-Textured Peat							533	Visual	84%
		10.5-11.5	56	2	5	25	14	55	29	29	A-7-6	10%
		11.5-16.0	64	28	4	- 4	-	NP	NP	5	A-1-a	
		16.0-21.0	63	22	9	- 6	-	NP	NP	12	A-1-a	
H-024-0-61	285+06 CL	0.4-4.0	12	18	25	29	16	NP	NP	23	A-4a	
		4.0-5.0	58	12	12	13	5	NP	NP	17	A-1-b	
		5.0-10.0	56	22	13	- 9	-	NP	NP	10	A-1-a	
		10.0-15.0	48	33	11	- 8	-	NP	NP	6	A-1-b	
		15.0-19.0	23	9	58	-10	-	NP	NP	6	A-3	
		19.0-24.0	0	1	26	64	9	NP	NP	12	A-4b	
		24.0-29.0	0	1	51	42	6	NP	NP	18	A-4a	
		29.0-34.0	20	12	51	11	6	NP	NP	14	A-3a	
		34.0-38.0	32	6	36	22	4	NP	NP	14	A-2-4	
		38.0-43.0	0	1	46	46	7	NP	NP	16	A-4a	
		43.0-48.0	0	4	47	41	8	NP	NP	15	A-4a	
H-026-0-61	288+00 CL	0.4-5.0	51	17	10	12	10	28	9	13	A-2-4	
		5.0-10.0	29	42	14	10	5	NP	NP	7	A-1-b	
		10.0-12.0	40	41	12	- 7	-	NP	NP	8	A-1-b	
		12.0-17.0	38	43	13	- 6	-	NP	NP	3	A-1-b	
		17.0-22.0	10	21	62	- 7	-	NP	NP	5	A-3	
		22.0-23.0	11	22	57	-10	-	NP	NP	5	A-3	
		23.0-25.0	3	13	79	- 5	-	NP	NP	20	A-3	
		25.0-30.0	0	19	75	- 6	-	NP	NP	21	A-3	
		30.0-35.0	2	10	82	- 6	-	NP	NP	20	A-3	

	Station & Offset	Depth From-To	% Agg	% C.S.	% F.S.	% Silt	% Clay	L.L.	P.I.	% W.C.	SHTL Class	
H-001-0-61	247+00 CL	5.0-6.0	0	1	2	74	23	27	5	18	A-4b	
		10.0-11.0	29	5	12	33	21	21	2	16	A-4a	
		15.0-16.0	Gray Silty Clay W/Little Gravel								Visual	
		25.0-26.0	48	8	12	17	15	NP	NP	12	A-2-4	
H-002-0-61	253+00 CL	5.0-6.0	22	6	13	36	23	23	6	20	A-4a	
		10.0-11.0	40	1	5	35	19	25	6	13	A-4a	
H-015-0-61	276+15 CL	0.0-1.5	18	22	10	34	16	22	8	15	A-4a	
		1.5-3.0	33	7	21	18	21	21	5	14	A-4a	
		3.0-4.5	0	4	25	48	23	NP	NP	19	A-4a	
		4.5-6.0	16	11	10	40	23	NP	NP	18	A-4a	
		7.5-9.0	7	10	38	29	16	NP	NP	22	A-4a	
		9.0-10.5	Dark Brown Fibrous Peat							336	Visual	79%
		10.5-12.0	Dark Brown Fibrous Peat							359	Visual	67%
		12.0-13.5	Dark Brown Fibrous Peat							425	Visual	66%
		13.5-15.0	Dark Brown Fibrous Peat							227	Visual	37%
		15.0-16.5	Dark Brown Fibrous Peat							206	Visual	31%
		16.5-18.0	Dark Brown Fibrous Peat							284	Visual	44%
		18.5-19.5	11	27	57	- 5 -		NP	NP	20	A-3	
		25.0-26.0	8	36	49	- 7 -		NP	NP	24	A-3	
		30.0-31.0	0	1	19	53	27	NP	NP	11	A-4b	
		35.0-36.0	0	6	29	40	25	NP	NP	25	A-4a	
		40.0-41.0	0	8	66	20	6	NP	NP	24	A-3a	
		45.0-46.0	0	12	37	36	15	NP	NP	14	A-4a	
		50.0-51.0	0	11	54	27	8	NP	NP	18	A-3a	
		55.0-56.0	0	20	57	- 23 -		NP	NP	20	A-3a	
		60.0-61.0	0	14	70	- 16 -		NP	NP	21	A-3a	
H-017-0-61	277+90 CL	0.0-1.5	Random Fill - Black Sand W/Gravel, Stone Fragments and Cinders								Visual	
		1.5-3.0	Random Fill - Brown Silty Sandy Clay W/Gravel, Stone & Brick Fragments								Visual	
		3.0-4.5	Random Fill - Brown Silty Sandy Clay W/ Gravel, Stone & Brick Fragments								Visual	
		4.5-6.0	Brown Fibrous Peat							233	Visual	78%
		6.0-7.5	Brown Fibrous Compact Peat							270	Visual	45%
		7.5-9.0	Brown Fibrous Compact Peat							206	Visual	
		9.0-10.5	Brown Fibrous Compact Peat							219	Visual	
		10.5-12.0	26	17	41	11	5	NP	NP	31	A-3a	
		12.0-13.5	0	12	57	20	11	NP	NP	18	A-3a	
		13.5-15.0	59	11	13	10	7	NP	NP	11	A-1-b	
		20.0-21.0	Brown Gravel								Visual	
		25.0-26.0	Brown Silty Sandy Gravel								Visual	
		30.0-31.0	Brown Silty Sandy Gravel								Visual	
		35.0-36.0	Gray Clayey Silt W/Few Gravel								Visual	
		40.0-41.0	71	6	9	-14 -		NP	NP	16	A-1-a	
		45.0-46.0	0	0	48	50	2	NP	NP	18	A-4b	
		50.0-51.0	0	1	42	52	5	NP	NP	18	A-4b	
		55.0-56.0	17	0	62	- 21 -		NP	NP	19	A-3a	
		60.0-61.0	0	0	60	- 40 -		NP	NP	20	A-4a	

Station & Offset	Depth From-To	% Agg	% C.S	% F.S	% Silt	% Clay	L.L.	P.I.	% W.C.	SHTL Class	
H-023-0-61 284+00 CL	0.8-1.5	30	12	14	28	16	NP	NP	18	A-4a	
	1.5-3.0	26	20	21	12	19	NP	NP	19	A-2-4	
	4.5-6.0	Blackish-Brown Fibrous Fine-Textured Peat							487	Visual	85%
	6.0-7.5	Blackish-Brown Fibrous Fine-Textured Peat							252	Visual	44%
	7.5-9.0	Blackish-Brown Fine-Textured Peat, Slightly Fibrous							490	Visual	83%
	9.0-10.5	Blackish-Brown Fine-Textured Peat, Slightly Fibrous							303	Visual	31%
	10.5-12.0	Dark Gray Marly Sedimentary Peat					231	161	188	Visual	27%
	12.0-13.5	Dark Gray Marly Sedimentary Peat					100	NP	88	Visual	18%
	13.5-15.0	Dark Gray Marly Sedimentary Peat					124	50	100	Visual	17%
	15.0-16.5	Gray Marly Sedimentary Peat Mixed W/Blackish-Brown Fine-Textured Peat					126	33	94	Visual	16%
	16.5-18.0	Gray Marly Sedimentary Peat					84	28	81	Visual	14%
	18.0-19.5	Gray Silty Sedimentary Peat, Trace of Marl					71	24	59	Visual	14%
	19.5-21.0	Gray Silty Sedimentary Peat, Trace of Marl					51	15	59	Visual	14%
	21.0-22.5	Gray Silty Sedimentary Peat, Trace of Marl					40	14	36	Visual	9%
	22.5-23.5	Gray Silty Sedimentary Peat					53	12	54	Visual	
	25.0-26.0	54	18	14	6	8	NP	NP	11	A-1-a	
	30.0-31.0	86	9	3	- 2 -		NP	NP	7	A-1-a	
	35.0-36.0	67	16	9	- 8 -		NP	NP	9	A-1-a	
	40.0-41.0	89	6	3	- 2 -		NP	NP	10	A-1-a	
	50.0-51.0	5	44	41	-10 -		NP	NP	24	A-3	
	55.0-56.0	3	31	55	-11 -		NP	NP	23	A-3a	
	60.0-61.0	0	5	10	54	25	NP	NP	18	A-4b	
H-008-2-61 270+00 175'RT	0.4-5.0	16	26	40	-18-		NP	NP	7	A-3a	
	5.0-9.0	0	1	2	31	66	54	15	55	A-7-5	
	9.0-15.0	Dark Brown Sandy Fibrous Peat					Compact				
	15.0-17.0	Gray Marly Sedimentary Peat					102	44	143	Visual	24%
	17.0-25.0	6	19	68	- 7 -		NP	NP	88	Visual	8%
	25.0-30.0	13	24	51	-12 -		NP	NP	17	A-3	
									14	A-3a	
H-007-1-61 269+00 75'RT	0.2-4.0	Brown Silty Sand and Gravel								Visual	
	4.0-5.0	12	19	25	26	18	19	2	11	A-4a	
	5.0-9.0	17	47	19	8	9	24	7	16	A-2-4	
	9.0-12.0	55	19	20	- 6 -		NP	NP	10	A-1-a	
	12.0-20.0	40	45	11	- 4 -		NP	NP	12	A-1-b	

	Station & Offset	Depth From-To	% Agg	% C.S.	% F.S.	% Silt	% Clay	L.L.	P.I.	% W.C.	SHTL Class
H-017-4-61	271+00 75'RT	0.2-1.0	Brown Sandy Silt W/Gravel & Cinders								Visual
		1.0-2.0	Light Brown Sandy Silt W/Little Gravel								Visual
		2.0-3.0	Dark Brown Sandy Silt W/Some Gravel and Cinders								Visual
		3.0-4.0	12	15	33	23	17	NP	NP	15	A-4a
		4.0-5.0	48	24	24		- 4 -	NP	NP	4	A-1-b
		5.0-6.0	9	19	46	21	5	NP	NP	17	A-3a
		6.0-7.5	27	34	31		- 8 -	NP	NP	7	A-1-b
		7.5-9.0	52	13	24	5	6	NP	NP	11	A-1-b
		9.0-10.0	3	7	81	6	3	NP	NP	6	A-3
		10.0-11.0	21	51	24		- 4 -	NP	NP	10	A-1-b
		11.0-15.0	14	21	55		-10-	NP	NP	9	A-3
		15.0-18.0	0	2	94		- 4 -	NP	NP	22	A-3
H-017-4-61	271+00 150'RT	0.2-1.0	29	17	35	10	9	NP	NP	6	A-3a
		1.0-3.0	38	22	20	10	10	NP	NP	9	A-1-b
		3.0-7.0	0	3	17	43	37	27	9	19	A-4a
		7.0-8.5	0	6	24	35	35	37	19	25	A-6b
		8.5-14.0	Brown to Black Fine-Textured Peat							189	Visual
		14.0-15.0	Gray Sedimentary Peat					43	12	38	Visual
		15.0-18.0	12	17	46	14	11	NP	NP	17	A-3a
		18.0-24.0	10	18	60	9	3	NP	NP	20	A-3a
H-010-1-61	272+20 120'RT	0.0-3.0	20	9	19	36	16	NP	NP	10	A-4a
		3.0-6.0	34	20	19	19	8	NP	NP	12	A-2-4
		6.0-7.0	Brown Fibrous Peat							229	Visual
		7.0-11.0	0	9	76	11	4	NP	NP	18	A-3a
		11.0-11.5	0	3	42	38	17	NP	NP	28	A-4a
		11.5-12.0	4	30	56	6	4	NP	NP	7	A-3
		12.0-15.0	0	2	23	51	24	21	7	23	A-4b
		15.0-20.0	37	36	18		- 9 -	NP	NP	15	A-1-b
H-011-0-61	273+20 CL	0.0-2.0	0	7	74	24	5	NP	NP	12	A-3a
		2.0-5.0	0	21	74		- 5 -	NP	NP	1	A-3
		5.0-9.0	5	20	68		- 7 -	NP	NP	4	A-3
		9.0-11.0	0	28	57	10	5	NP	NP	5	A-3a
		11.0-16.0	0	1	8	59	32	29	9	27	A-4b
		16.0-17.0	64	9	18	4	5	NP	NP	12	A-1-b
H-012-0-61	274+25 29'RT	0.0-2.5	3	10	35	34	18	NP	NP	11	A-4a
		2.5-4.0	Brown Fibrous Peat							104	Visual
		4.0-7.0	8	10	79		- 3 -	NP	NP	5	A-3
		7.0-13.0	0	22	71		- 7 -	NP	NP	6	A-3
		13.0-16.0	0	17	63	9	11	NP	NP	19	A-3a
		16.0-18.0	0	29	48	12	11	NP	NP	20	A-3a
		18.0-24.0	0	1	5	58	36	26	8	28	A-4b
		24.0-28.0	64	22	13		- 1 -	NP	NP	18	A-1-a
H-013-4-61	275+40 70'LT	0.2-1.0	Brown Silty Sand W/Gravel, Roots and Cinders								Visual
		1.0-3.0	25	23	29	14	9	NP	NP	8	A-3a
		3.0-7.5	Dark Brown Fine-Textured Peat							372	Visual
		7.5-11.0	3	38	39	17	3	NP	NP	47	A-3a
		11.0-13.0	Dark Brown Fine-Textured Peat							154	Visual
		13.0-22.0	Gray Sedimentary Peat							85	Visual
		22.0-24.0	Gray Sedimentary Peat					81	37	65	Visual
		24.0-29.0	2	13	68		-17-	NP	NP	14	A-3a
H-013-3-61	275+47 57'RT	0.0-5.0	Gray Silt and Stone Fragments								Visual
		5.0-7.0	Brown Fibrous Peat							123	Visual
		7.0-9.5	0	4	91		- 5 -	NP	NP	10	A-3
		9.5-11.0	0	2	6	62	30	67	28	51	A-7-5
		11.0-16.0	18	24	43		-15-	NP	NP	18	A-3a
H-013-2-61	275+75 10'LT	0.0-5.0	Silty Sand and Brick Fragments								Visual
		5.0-6.0	Brown Decayed Wood With a Trace of Silt							11	Visual
		6.0-11.0	0	18	73		- 9 -	NP	NP	9	A-3
		11.0-14.0	4	28	60		- 8 -	NP	NP	23	A-3

	Station & Offset	Depth From-To	% Agg	% C S	% F S	% Silt	% Clay	L L	P I	% W C	SHTL Class
H-014-1-61	276+00 52'RT	0.0-4.0	Brown Silty Sand W/Sand, Roots & Bricks								Visual
		4.0-6.0	Cinders and Glass								Visual
		6.0-12.0	Brown Fibrous Peat							460	Visual
		12.0-14.0	Gray Sedimentary Peat					181	81	111	Visual
		14.0-15.0	7	11	67	14	1	NP	NP	38	A-3a
		15.0-20.0	Gray Sedimentary Peat							64	Visual
		20.0-24.0	0	0	5	61	34	70	37	54	A-7-5
		24.0-25.0	0	23	38	28	11	NP	NP	23	A-4a
		25.0-28.0	0	11	36	30	23	20	6	20	A-4a
		28.0-33.0	0	20	67		-13-	NP	NP	16	A-3a
H-015-1-61	276+50 70'LT	0.0-4.0	53	15	26		- 6-	NP	NP	17	A-1-b
		4.0-5.0	25	32	26		-17-	NP	NP	24	A-1-b
		5.0-10.0	16	21	42	9	12	NP	NP	18	A-3a
		10.0-15.0	13	31	40		-16-	NP	NP	17	A-3a
		15.0-20.0	10	30	42		-18-	NP	NP	16	A-3a
		20.0-25.0	13	21	45	12	9	NP	NP	20	A-3a
		25.0-30.0	34	24	32		-10-	NP	NP	16	A-1-b
		30.0-34.0	13	31	41		-15-	NP	NP	15	A-3a
		34.0-37.0	Black Fine-Textured Peat							311	Visual
		37.0-42.0	Gray Sedimentary Peat					145	89	94	Visual
		42.0-46.0	Gray Marly Sedimentary Peat							111	Visual
		46.0-50.0	0	1	8	63	28	86	46	64	A-7-5
H-015-2-61	277+00 70'LT	0.0-2.0	11	17	59		-13-	NP	NP	7	A-3a
		2.0-5.0	32	17	34	13	4	NP	NP	20	A-3a
		5.0-10.0	18	33	33		-16-	NP	NP	15	A-1-b
		10.0-15.0	26	26	35		-13-	NP	NP	16	A-1-b
		15.0-16.0	0	10	20	45	25	24	9	21	A-4a
		16.0-21.0	21	23	33	16	7	NP	NP	16	A-3a
H-016-0-61	277+00 35'LT	0.0-3.0	Brown Sandy Silt W/Trace of Gravel and Cinders								Visual
		3.0-6.0	16	11	11	36	26	29	11	19	A-6a
		6.0-9.0	33	13	19	24	11	29	14	20	A-2-6
		9.0-19.0	Dark Brown Fibrous Peat							309	Visual
		19.0-25.0	Brown to Gray Fibrous Peat							282	Visual
		25.0-29.0	Gray Sedimentary Peat-Trace of Marl					75	41	62	Visual
		29.0-34.0	0	14	55	27	4	NP	NP	19	A-3a
H-016-1-61	277+02 75'RT	0.0-2.5	48	8	20	17	7	NP	NP	7	A-1-b
		2.5-5.0	37	8	20	26	9	NP	NP	13	A-2-4
		5.0-6.0	34	1	21	30	14	NP	NP	20	A-4a
		6.0-14.0	Brown Fibrous Peat							368	Visual
		14.0-19.0	Gray Sedimentary Peat-Trace of Marl					45	15	42	Visual
		19.0-27.0	2	1	8	56	33	48	29	37	A-7-6
		27.0-28.0	0	28	57		-15-	NP	NP	16	A-3a
		28.0-35.0	0	1	5	46	48	36	12	41	A-6a
		35.0-42.0	0	2	10	45	43	31	11	32	A-6a
		42.0-46.0	0	1	4	55	40	31	9	34	A-4b
		46.0-48.5	0	0	3	63	34	31	11	30	A-6a
H-017-4-61	278+58 55'RT	0.0-1.5	58	13	11	11	7	NP	NP	7	A-1-b
		1.5-2.0	Brown Compact Fine-Textured Peat							43	Visual
		2.0-6.5	0	4	60	7	29	NP	NP	9	A-4a
		6.5-7.0	0	4	29	46	21	NP	NP	10	A-4a
		7.0-12.0	0	19	56	15	10	NP	NP	6	A-3a
H-017-2-61	278+75 135'LT	0.0-1.5	17	23	30	20	10	NP	NP	9	A-3a
		1.5-3.5	Brown Compact Fine-Textured Peat					110		Visual	52%
		3.5-5.0	67	18	6	7	2	NP	NP	8	A-1-a
H-018-0-61	279+10 21'LT	2.0-4.0	63	11	8	9	11	28	9	15	A-2-4
		4.0-10.0	65	18	7	3	4	NP	NP	5	A-1-a
H-018-1-61	279+20 98'LT	0.0-1.0	24	13	12	29	17	NP	NP	18	A-4a
		1.0-2.0	25	17	18	26	14	NP	NP	23	A-4a
		2.0-3.5	Black Fine-Textured Peat							52	Visual 25%
		3.5-5.0	42	7	14	17	20	NP	NP	30	A-1-b
		5.0-7.0	19	8	16	26	31	27	8	24	A-4a
		7.0-7.5	42	29	11	9	9	NP	NP	8	A-1-b

	Station & Offset		Depth From-To	% Agg	% C.S	% F.S	% Silt	% Clay	L.L.	P.I.	% W.C.	SHTL Class	
H-020-2-61	280+70	95'LT	0.0-3.0	(28	19	24	18	11	NP	NP)	9	A-2-4	
			3.0-4.0	7	7	17	31	38	32	12	23	A-6a	
			4.0-5.0	Gray Sandstone Fragments								Visual	
H-020-3-61	280+85	43'LT	0.0-1.5	Brown Silty Sand W/Trace of Gravel and Stone Fragments								Visual	
			1.5-3.0	Dark Brown Silt W/Trace of Roots								Visual	
			3.0-4.0	0	5	19	45	31	21	3	18	A-4a	
			4.0-5.0	34	9	23	17	17	22	3	13	A-2-4	
			5.0-6.0	39	18	14	13	16	25	8	12	A-2-4	
			6.0-12.0	67	20	6	4	3	NP	NP	7	A-1-a	
H-020-2-61	281+55	70'LT	0.2-3.0	Black Sandy Silt and Cinders								Visual	
			3.0-4.0	Black Sandy Silt and Cinders								Visual	
			4.0-5.0	Black Fine-Textured Compact Peat							135	Visual	66%
			5.0-9.0	Black Compact Fibrous Peat							194	Visual	45%
			9.0-10.0	(4	4	29	30	23	20	3)	26	A-4a	
			10.0-11.0	52	13	15	16	4	NP	NP	13	A-1-b	
			11.0-15.0	(59	20	10	5	6	NP	NP)	5	A-1-a	
H-021-0-61	282+05	110'RT	0.7-3.0	39	10	19	19	13	NP	NP	13	A-2-4	
			3.0-4.0	Reddish-Brown Compact Peat							138	Visual	71%
			4.0-6.0	15	7	18	32	28	29	12	22	A-6a	
			6.0-11.0	69	13	6	6	6	24	6	5	A-1-a	
H-021-3-61	282+50	130'LT	0.0-1.0	(29	43	25	- 3-		NP	NP)	9	A-1-b	
			1.0-2.0	(44	24	20	4	8	NP	NP)	17	A-1-b	
			2.0-9.0	Dark Brown Fibrous Peat							440	Visual	89%
			9.0-10.0	Gray Marly Sedimentary Peat					117	53	76	Visual	8%
			10.0-12.0	68	16	10	- 6-		NP	NP	7	A-1-a	
			12.0-14.0	(13	34	37	9	7	NP	NP)	17	A-3a	
H-021-2-61	282+50	50'LT	0.4-2.5	(30	22	21	14	13	20	3)	9	A-2-4	
			2.5-4.0	Black Fine-Textured Peat							153	Visual	66%
			4.0-10.0	Dark Brown Fibrous Peat							455	Visual	84%
			10.0-11.0	Gray Marly Sedimentary Peat					68	11	64	Visual	Visual
			11.0-15.0	60	25	8	3	4	NP	NP	8	A-1-a	
H-022-1-61	283+50	35'LT	0.5-3.0	47	18	10	14	11	27	8	12	A-2-4	
			3.0-4.0	Black Fine-Textured Peat							190	Visual	63%
			4.0-10.0	Black Fibrous Peat							709	Visual	94%
			10.0-11.0	Black Fine-Textured Peat							365	Visual	79%
			11.0-17.0	Gray Marly Sedimentary Peat					79	25	77	Visual	9%
			17.0-20.0	Gray Marly Sedimentary Peat					62	30	42	Visual	7%
			20.0-21.0	(59	13	15	6	7	20	8)	12	A-2-4	
H-022-4-61	283+80	90'RT	0.6-3.0	Black Sandy Clayey Silt W/Gravel and Tile								Visual	
			3.0-4.0	Black Silty Peat W/Trace of Marl							57	Visual	24%
			4.0-12.0	Black Fine-Textured Peat							412	Visual	66%
			12.0-18.0	Gray Sedimentary Peat Trace of Marl					127	60	93	Visual	11%
			18.0-24.0	Gray Sedimentary Peat					103	69	105	Visual	15%
			24.0-26.0	(0	2	5	6	63	30	144	104)	59	A-7-5
			26.0-27.0	32	16	26)	16	10	NP	NP	13	A-2-4	
			27.0-30.0	(69	19	5	4	3	NP	NP)	9	A-1-a	
H-022-2-61	283+90	95'LT	0.0-1.0	Brown Sandy Silt W/Gravel								Visual	
			1.0-2.0	Black Silty Peat W/Gravel & Decayed Wood							111	Visual	46%
			2.0-10.0	Brown Fibrous Peat							691	Visual	91%
			10.0-16.0	Gray Marly Sedimentary Peat Peat					148	66	116	Visual	11%
			16.0-21.0	Gray Sedimentary Peat W/Trace of Marl					80	36	68	Visual	9%
			21.0-22.0	(62	2	8	20	8	NP	NP)	20	A-2-4	
			22.0-24.0	(64	23	7	- 6 -		NP	NP)	11	A-1-a	
H-024-1-61	285+32	50'RT	0.4-2.0	(55	16	12	11	6	NP	NP)	7	A-1-b	
			2.0-4.0	0	5	18	62	15	NP	NP	73	A-4b	
			4.0-5.0	44	24	20	4	8	NP	NP	27	A-1-b	
			5.0-6.0	30	28	18	15	9	NP	NP	18	A-1-b	
			6.0-11.0	58	21	9	6	6	NP	NP	11	A-1-a	
			11.0-14.0	(29	43	25	- 3-		NP	NP)	7	A-1-b	
			14.0-15.0	(41	41	14	- 4-		NP	NP)	6	A-1-b	
H-020-1-61	286+20	85'LT	0.2-2.0	59	16	9	8	8	NP	NP	7	A-1-b	
			2.0-8.0	48	20	15	9	8	NP	NP	6	A-1-b	
			8.0-14.0	20	59	16	- 5-		NP	NP	6	A-1-b	

	Station & Offset	Depth From-To	% Agg	% C.S	% F.S	% Silt	% Clay	L.L.	P.I.	% W.C	SHTL Class
H-026-1-61	288+00 75'LT	0.0-2.0	44	12	12	18	14	32	11	15	A-2-6
		2.0-4.0	51	34	8	- 7-		NP	NP	7	A-1-a
		4.0-6.0	4	27	66	- 3-		NP	NP	5	A-3
		6.0-10.0	57	33	6	- 4-		NP	NP	6	A-1-a
		10.0-11.0	(51	34	8	- 7-		NP	NP)	4	A-1-a
		11.0-15.0	(4	27	66	- 3-		NP	NP)	4	A-3
H-026-2-61	288+00 180'RT	0.0-1.0	Brown Sandy Silt W/Gravel & Tile								Visual *
		1.0-4.0	Brown Sandy Silt W/Gravel & Tile							11	Visual *
		4.0-7.0	Brown Sandy Silt W/Gravel & Glass								Visual
		7.0-11.0	Brown to Gray Fine-Textured Peat							190	Visual 39%
		11.0-12.0	0	6	23	383	33	37	13	43	A-6a
		12.0-13.0	0	14	67	-19-		NP	NP	13	A-3a
		13.0-15.0	52	14	18	10	6	NP	NP	10	A-1-b
H-026-2-61	288+07 125'RT	1.0-3.5	Brown Sandy Clayey Silt W/Gravel and Cinders								Visual
		3.5-5.0	0	2	45	29	14	NP	NP	30	A-4a
		5.0-6.0	48	13	27	9	3	NP	NP	15	A-1-b
		6.0-7.0	48	11	14	13	14	24	9	15	A-2-4
H-027-2-61	288+85 110'RT	0.5-5.0	26	18	25	18	13	NP	NP	13	A-2-4
		5.0-5.5	18	7	34	18	23	NP	NP	32	A-4a
		5.5-6.5	27	15	27	18	13	24	10	15	A-2-4
		6.5-7.0	9	5	18	37	31	20	4	31	A-4a
H-027-3-61	289+00 75'LT	0.0-1.5	Bricks, Broken Tile, Concrete, & Soil								Visual
		1.5-3.0	29	11	18	34	8	NP	NP	8	A-4a
		3.0-4.0	Black Compact Peat							71	Visual 3
		4.0-6.0	16	6	29	27	22	21	7	11	A-4a
		6.0-11.0	63	14	9	4	10	NP	NP	6	A-1-a
H-028-0-61	289+72 15'RT	0.2-2.0	31	17	15	22	15	27	9	10	A-4a
		2.0-7.0	44	18	15	-23-		NP	NP	5	A-1-b
		7.0-11.0	36	42	12	-10-		NP	NP	6	A-1-b
H-029-1-61	290+00 170'LT	0.2-3.0	15	11	32	30	12	NP	NP	6	A-4a *
		3.0-5.0	37	17	13	22	11	24	8	12	A-2-4 *
		5.0-6.0	17	27	19	18	19	96	45	292-5	A-7-5 17%
		6.0-7.0	Dark Brown Compact Peat							219	Visual 81%
		7.0-8.0	Brown to Gray Fine-Textured Peat							186	Visual 35%
		8.0-10.0	3	24	50	1	22	NP	NP	13	A-3a
		10.0-16.0	67	9	8	14	2	NP	NP	10	A-1-b
H-029-2-61	290+00 100'RT	0.0-3.0	22	24	14	21	15	[illegible]		17	[illegible]
	290+00 100'RT	0.5-3.0	(26	18	25	18	13	NP	NP)	14	A-2-4
		3.0-6.0	(27	15	27	18	13	24	10)	14	A-2-4
		6.0-7.0	45	26	11	12	6	NP	NP	15	A-1-b
H-030-0-61	290+55 40'LT	0.0-3.0	Brown Sandy Silt W/Little Gravel								Visual
		3.0-8.0	34	33	19	-14-		NP	NP	8	A-1-b
		8.0-10.0	6	25	56	-13-		NP	NP	5	A-3a
	291+42 58'LT	0.4-3.0	Black Fine-Textured Peat							460	Visual
		3.0-5.0	Brown Fine-Textured Peat Slightly Fibrous							225	Visual
		5.0-7.0	0	12	63	18	7	NP	NP	35	A-3a
		7.0-9.0	0	14	55	-31-		NP	NP	10	A-3a
		9.0-14.0	6	26	55	-13-		NP	NP	20	A-3a
		14.0-19.0	0	26	62	-12-		NP	NP	21	A-3a

DRIVE-PRESS
PRESS-DRIVE

DRIVE-PRESS SAMPLE SOIL TEST DATA

H-026-1-61	276+55 65'LT	5.0-6.0	Dark Gray Silty Sand & Gravel								Visual
		10.0-11.0	Gravel W/Little Gray Clayey Silt								Visual
		15.0-16.0	Gray Silty Sand & Gravel								Visual
		20.0-21.0	Stone Fragments W/Some Gravel								Visual
		25.0-26.0	Gray Silty Sand and Gravel								Visual
		30.0-31.0	Gray Silty Sand & Stone Fragments								Visual
		35.0-36.0	56	20	19	0	5	NP	NP	17	A-1-a
		40.5-41.5	0	2	12	65	21	NP	NP	84	A-4b
		41.5-42.0	0	2	11	58	29	NP	NP	99	A-4b
		42.0-43.5	31	6	10	38	15	NP	NP	47	A-4a
		43.5-44.5	0	1	4	69	26	NP	NP	67	A-4b
		50.0-51.5	0	4	10	52	34	NP	NP	55	A-4b
		51.5-53.0	60	4	14	16	6	NP	NP	38	A-1-b
		53.0-54.5	57	8	13	16	6	71	42	54	A-7-6
		54.5-55.5	25	7	26	28	14	NP	NP	39	A-4a
		60.0-61.5	0	17	55	18	10	NP	NP	19	A-3a
		61.5-62.5	0	8	54	24	14	NP	NP	21	A-4a
		65.0-66.5	0	15	57	17	11	NP	NP	20	A-3a
		66.5-67.5	25	16	35	16	8	NP	NP	21	A-3a
		70.0-71.0	0	10	38	32	20	21	NP	17	A-4a

	BORING	STATION & OFFSET		DEPTH From	To	% Agg.	% C.S.	% F.S.	% Silt	% Clay	L.L.	P.I.	W.C.	SHTL CLASS
B-018-1-61	B-18-1	454 + 40	74' R	0.0-	1.7	Fill Material								
				1.7-	5.0	33	6	23	28	10	NP	NP	17	A-4a
				5.0-	8.0	0	1	24	58	17	24	3	21	A-4b
				8.0-	18.0	0	0	48	38	14	NP	NP	10	A-4a
						0	29	20	38	13	NP	NP	15	A-4a
				18.0-	27.0	9	0	7	72	12	24	1	23	A-4b
						3	4	21	51	21	25	6	20	A-4b
				27.0-	30.0	31	2	10	36	21	24	5	23	A-4a
				30.0-	35.0	Light Brown and Gray Sandstone								Visual
B-018-2-61	B-18-2	454 + 37	℄	0.0-	3.0	28	8	21	28	15	20	2	23	A-4a
				3.0-	6.5	53	4	14	20	9	32	6	22	A-2-4
				6.5-	17.0	2	4	29	45	20	22	4	17	A-4a
						2	5	28	49	16	23	3	19	A-4a
				17.0-	21.0	4	2	17	59	18	21	4	18	A-4b
				21.0-	26.0	19	6	20	39	16	23	5	17	A-4a
				26.0-	35.0	Light Brown and Gray Sandstone								Visual
B-018-3-61	B-18-3	454 + 70	107'L	0.0-	15.0	2	15	46	22	15	21	5	14	A-4a
						0	0	45	48	7	NP	NP	15	A-4a
						1	1	36	48	14	21	4	15	A-4a
				15.0-	18.0	21	19	34	19	7	20	2	20	A-3a
				18.0-	23.5	7	3	10	55	25	23	5	23	A-4b
				23.5-	35.0	Light Brown and Gray Sandstone								Visual
B-020-1-60	B-20-1	436 + 83	18' L	0.0-	7.0	12	12	36	28	12	26/-	5/0	22	A-4a
						4	4	39	31	22	23	8	10	A-4a
				7.0-	15.0	9	24	58	- 9	-	NP	NP	3	A-3
				15.0-	18.0	2	0	67	24	7	NP	NP	18	A-3a
				18.0-	28.0	0	1	37	49	13	19	3	17	A-4a
						1	0	41	46	12	NP	NP	16	A-4a
						1	3	43	47	6	NP	NP	18	A-4a
				28.0-	38.0	6	1	26	58	9	17	0	17	A-4b
						0	1	15	75	9	NP	NP	20	A-4b
				38.0-	41.0	20	6	19	41	14	18	2	15	A-4a
				41.0-	52.0	1	1	15	74	9	NP	NP	23	A-4b
						1	1	5	53	40	27	6	25	A-4b
				52.0-	58.0	25	32	29	- 14	-	NP	NP	11	A-1-b
				58.0-	62.0	Clayey Silt, with sand, some gravel								Visual
				62.0-	74.0	31	44	13	- 12	-	NP	NP	11	A-1-b
						37	44	16	- 3	-	NP	NP	13	A-1-b
				74.0-	87.0	7	23	54	- 16	-	NP	NP	15	A-3a
						1	4	70	- 25	-	NP	NP	17	A-3a
						5	34	50	- 11	-	NP	NP	18	A-3a
				87.0-	90.0	0	2	97	- 1	-	NP	NP	26	A-3
B-020-2-60	B-20-2	437 + 49	23'R	0.0-	1.0	11	18	39	25	7	NP	NP	20	A-3a
				1.0-	8.0	6	17	37	25	15	22	5	15	A-4a
						4	10	41	23	22	23	9	11	A-4a
				8.0-	28.0	13	26	50	9	2	NP	NP	6	A-3a
						0	0	80	18	2	NP	NP	23	A-3a
						0	1	75	21	3	NP	NP	19	A-3a
						1	0	73	21	5	NP	NP	18	A-3a
						0	1	72	25	2	NP	NP	17	A-3a
				28.0-	36.0	0	1	63	29	7	NP	NP	18	A-4a
						4	1	57	26	12	NP	NP	17	A-4a
B-020-4-60	B-20-4	438 + 58	38'L	0.5-	1.5	7	19	8	52	14	20/20	5/2	15	A-4b
				1.4-	10.0	9	21	44	17	9	NP	NP	11	A-3a
						5	28	45	13	9	NP	NP	13	A-3a
						11	29	47	8	5	NP	NP	18	A-3a
				10.0-	13.0	32	37	23	- 8	-	NP	NP	17	A-1-b
				13.0-	22.0	18	12	56	- 14	-	NP	NP	9	A-3a
						6	3	78	- 13	-	NP	NP	21	A-3a
				22.0-	24.0	29	25	37	- 9	-	NP	NP	13	A-1-b
B-021-1-60	B-21-1	430 + 70	11'L	0.0-	3.0	11	30	24	20	15	22	0	18	A-3a
				3.0-	7.0	7	41	42	- 10	-	NP	NP	8	A-3
				7.0-	10.0	25	44	20	- 11	-	NP	NP	6	A-1-b
				10.0-	13.0	34	26	14	18	8	19	0	10	A-2-4
				13.0-	19.0	39	37	18	- 6	-	NP	NP	5	A-1-b
				19.0-	31.5	0	7	88	- 5	-	NP	NP	3	A-3
						0	6	90	- 4	-	NP	NP	22	A-3
						0	7	89	- 4	-	NP	NP	21	A-3

	BORING	STATION & OFFSET	DEPTH From	To	% Agg.	% C.S.	% F.S.	% Silt	% Clay	L.L.	P.I.	W.C.	SHTL CLASS
B-020-4-61	B-20-4	438 + 58	38'L	0.5- 1.5	7	19	8	52	14	20/20	5/2	15	A-4b
				1.4-10.0	9	21	44	17	9	NP	NP	11	A-3a
					5	28	45	13	9	NP	NP	13	A-3a
					11	29	47	8	5	NP	NP	18	A-3a
				10.0-13.0	32	37	23	– 8	–	NP	NP	17	A-1-b
				13.0-22.0	18	12	56	– 14	–	NP	NP	9	A-3a
					6	3	78	– 13	–	NP	NP	21	A-3a
				22.0-24.0	29	25	37	– 9	–	NP	NP	13	A-1-b
B-021-1-61	B-21-1	430 + 70	11'L	0.0- 3.0	11	30	24	20	15	22	0	18	A-3a
				3.0- 7.0	7	41	42	– 10	–	NP	NP	8	A-3
				7.0-10.0	25	44	20	– 11	–	NP	NP	6	A-1-b
				10.0-13.0	34	26	14	18	8	19	0	10	A-2-4
				13.0-19.0	39	37	18	– 6	–	NP	NP	5	A-1-b
				19.0-31.5	0	7	88	– 5	–	NP	NP	3	A-3
					0	6	90	– 4	–	NP	NP	22	A-3
					0	7	89	– 4	–	NP	NP	21	A-3
B-021-1A-61	B-21-1A	430 + 72	11'L	31.5-59.0	1	10	87	– 2	–	NP	NP	15	A-3
					1	7	88	– 4	–	NP	NP	21	A-3
					1	4	91	– 4		NP	NP	20	A-3
					0	6	91	– 3	–	NP	NP	21	A-3
					0	5	91	– 4	–	NP	NP	19	A-3
				59.0-68.0	11	1	75	– 13	–	NP	NP	18	A-3a
					1	1	79	– 19	–	NP	NP	20	A-3a
				68.0-72.0	0	1	99	– 0	–	NP	NP	28	A-3
				72.0-77.0	2	1	83	– 14	–	NP	NP	17	A-3a
				77.0-80.5	1	1	93	– 5	–	NP	NP	21	A-3
				80.5-84.0	1	1	84	– 14	–	NP	NP	20	A-3a
B-021-2-61	B-21-2	431 + 74	46' L	0.0- 7.0	32	11	22	22	13	26	1	17	A-2-4
					49	9	15	14	13	27	6	15	A-2-4
				7.0-18.0	44	32	15	– 9	–	NP	NP	5	A-1-b
					26	43	22	– 9	–	NP	NP	4	A-1-b
				18.0-28.0	0	9	89	– 2	–	NP	NP	22	A-3
					11	13	73	– 3	–	NP	NP	20	A-3
				28.0-31.5	4	5	77	– 4	–	NP	NP	18	A-3a
B-021-3-61	B-21-3	432 + 19	21'R	0.0- 4.5	27	15	23	23	12	31	11	21	A-2-b
				4.5- 8.0	65	16	7	11	1	NP	NP	10	A-1-a
				8.0-13.0	38	12	37	13	0	NP	NP	12	A-1-b
				13.0-16.5	14	23	58	– 5	–	NP	NP	21	A-3
				16.5-21.0	50	27	21	– 2	–	NP	NP	16	A-1-a
				21.0-28.0	2	16	81	– 1	–	NP	NP	24	A-3
				28.0-33.0	21	32	44	– 3	–	NP	NP	17	A-1-b
				33.0-82.0	18	20	61	– 1	–	NP	NP	18	A-3
					2	15	80	– 3	–	NP	NP	22	A-3
					13	31	55	– 1	–	NP	NP	21	A-3
					0	14	85	– 1	–	NP	NP	26	A-3
					0	10	88	– 2	–	NP	NP	25	A-3
					0	2	96	– 2	–	NP	NP	26	A-3
					0	9	82	– 9	–	NP	NP	22	A-3
					0	1	98	– 1	–	NP	NP	25	A-3
					0	0	96	– 4	–	NP	NP	28	A-3
					1	1	95	– 3	–	NP	NP	21	A-3
				82.0-90.0	2	1	25	65	7	NP	NP	20	A-4b
					1	2	32	56	9	NP	NP	19	A-4b
B-021-4-61	B-21-4	432 + 78	54'R	0.0- 1.0	24	21	25	20	10	NP	NP	23	A-2-4
				1.0- 4.0	25	12	24	23	16	26	6	18	A-4a
				4.0- 8.0	42	33	12	– 13	–	NP	NP	9	A-1-b
				8.0-31.5	0	28	67	– 5	–	NP	NP	5	A-3
					7	22	66	– 5	–	NP	NP	3	A-3
					1	18	75	– 6	–	NP	NP	21	A-3
					0	20	77	– 3	–	NP	NP	21	A-3
					3	25	66	– 6	–	NP	NP	18	A-3
B-021-5-61	B-21-5	434 + 16	36'L	0.0- 3.5	23	23	30	13	11	NP	NP	49	A-3a
				3.5- 8.0	0	10	54	27	9	NP	NP	9	A-4a
				8.0-13.0	4	32	46	10	8	NP	NP	15	A-3a
				13.0-28.0	2	35	56	– 7	–	NP	NP	21	A-3
					22	26	42	– 10	–	NP	NP	15	A-3
					26	18	47	– 9	–	NP	NP	15	A-3
				28.0-31.5	21	28	38	– 13	–	NP	NP	12	A-3a

	BORING	STATION & OFFSET		DEPTH From	To	% Agg.	% C.S.	% F.S.	% Silt	% Clay	L.L.	P.I.	W.C.	SHTL CLASS
B-021-6-60	B-21-6	434 + 80	CL	0.0-	6.0	14	1	26	31	15	48	16	34	A-4a
				6.0-	8.5	8	13	44	24	11	139	33	80	
				8.5-	12.0	0	8	56	23	13	NP	NP	14	A-4a
				12.0-	18.0	22	30	41	–	7 –	NP	NP	17	A-1b
				18.0-	25.5	58	26	9	–	7 –	NP	NP	9	A-1a
				25.5-	30.0	1	10	86	–	3 –	NP	NP	22	A-3
						0	12	86	–	2 –	NP	NP	22	A-3
				30.0-	32.0	38	9	41	–	12 –	NP	NP	13	A-3a
				32.0-	33.5	53	10	25	–	12 –	NP	NP	11	A-1b
				33.5-	44.0	3	1	2	74	20	22	3	25	A-4b
						0	1	12	76	11	NP	NP	21	A-4b
						9	3	6	55	27	23	3	21	A-4b
				44.0-	52.0	4	5	21	48	22	18	3	15	A-4a
						21	6	16	40	17	17	1	16	A-4a
				52.0-	85.5	4	5	17	54	20	18	3	16	A-4b
						10	4	15	52	19	19	2	20	A-4b
						0	0	0	85	15	25	2	25	A-4b
						0	0	0	86	14	25	4	25	A-4b
						0	0	10	70	20	20	4	23	A-4b
				85.5-	88.3	0	0	71	–	29 –	–	–	21	A-3a
				88.3-	90.0	1	3	12	51	27	20	4	17	A-4b
B-021-7-60	B-21-7	435 + 50	CL	0.0-	7.0	19	14	30	23	14	NP	NP	24	A-4a
						3	12	46	27	12	NP	NP	13	A-4a
				7.0-	8.0	7	17	42	18	16	NP	NP	16	A-3a
				8.0-	13.0	15	33	44	–	8 –	NP	NP	10	A-3
				13.0-	18.0	51	29	10	–	10 –	NP	NP	6	A-1-a
				18.0-	31.5	1	3	91	–	5 –	NP	NP	22	A-3
						0	4	92	–	3 –	NP	NP	24	A-3
						0	5	90	–	5 –	NP	NP	22	A-3
R-001-0-59	R-1	441 + 86	CL.	0.3-	1.5	7	10	25	35	23	29/26	7/1	21	A-4a
				1.5-	8.0	25	16	36	14	9	18	0	12	A-3a
						16	20	47	10	7	–	–	12	A-3a
				8.0-	15.0	36	13	34	13	4	–	–	16	A-2-4
						26	14	30	24	6	19	0	22	A-2-4
R-002-0-59	R-2	445 + 21	130'L	0.0-	1.5	18	11	19	36	16	37	3	30	A-4a
				1.5-	5.5	23	12	37	18	10	17	0	15	A-2-4
				5.5-	9.0	5	21	62	–	12 –	NP	NP	8	A-3a *
				9.0-	11.0	47	5	34	9	5	NP	NP	14	A-1-b *
				11.0-	16.0	1	0	80	16	3	NP	NP	27	A-3a
R-003-0-59	R-3	449 + 38	45'L	0.3-	9.0	18	8	21	36	17	31	4	10	A-4a
						29	5	13	35	18	26	7	17	A-4a
						10	5	18	45	22	22	4	15	A-4a
				9.0-	19.0	7	3	15	52	23	23	3	18	A-4b
						2	4	16	53	25	24	4	19	A-4b
R-004-0-59	R-4	452 + 64	40'R	0.0-	1.5	36	19	20	20	5	–	0	21	A-1-b
				1.5-	14.0	10	6	30	35	19	22	2	15	A-4a
						9	7	28	36	20	23	6	12	A-4a
						20	10	20	33	17	25	7	12	A-4a
				14.0-	25.0	3	2	18	55	22	23	3	18	A-4b
						0	0	1	62	37	27	6	24	A-4b
						5	3	12	55	25	26	5	34	A-4b
				25.0-	28.5	37	0	53	–	10 –	–	–	6	A-3 *
R-010-0-59	R-10	447 + 69	28' R	0	- 2.5	19	15	29	22	15	24	3	20	A-4a
				2.5-	10.0	3	1	11	56	29	26	5	20	A-4b
				10.0-	12.0	53	4	30	–	13 –	NP	NP	10	A-1-b
				12.0-	27.0	Gray and Brown Broken Sandstone								Visual
R-011-0-59	R-11	450 + 38	41' R	0	-14.0	21	8	27	24	20	29	4	25	A-4a
						22	6	24	31	17	21	3	18	A-4a
						28	17	15	22	18	24	4	19	A-4a
				14.0-	18.0	10	5	13	50	22	20	3	17	A-4b
				18.0-	33.0	Gray and Brown Broken Sandstone								Visual
R-012-0-59	R-12	451 + 72.5	60' L	0.0-	2.0	18	11	39	18	14	22	2	21	A-3a
				2.0-	10.0	5	4	16	48	27	24	5	17	A-4a
						8	7	17	44	24	23	3	20	A-4a
				10.0-	13.0	31	31	25	–	13 –	NP	NP	5	A-1-b
				13.0-	20.0	0	3	91	–	6 –	NP	NP	5	A-3
				20.0-	22.5	4	7	14	51	24	22	3	20	A-4b *
				22.5-	27.5	Light Brown Broken Sandstone								Visual

	STATION & OFFSET		DEPTH FROM-TO	% AGG.	% C.S.	% F.S.	% SILT	% CLAY	L.L.	P.I.	% W.C.	SHTL CLASS.
						SR 8 (NORTHBOUND LANES)						
H-041-0-61	521+00	CL	0.0-3.0	0	4	17	54	25	NP	NP	16	A-4b
			3.0-9.5	35	6	18	25	16	21	5	13	A-4a
H-042-0-61	525+00	CL	0.6-3.0	19	9	21	35	16	21	3	12	A-4a *
			5.0-10.0	14	9	21	38	18	23	5	13	A-4a *
						SR 8 (CL SURVEY)						
H-043-0-61	327+00	CL	0.0-5.0	16	5	11	48	20	NP	NP	6	A-4a *
			5.0-10.0	0	5	31	37	27	20	3	13	A-4a
			10.0-14.0	17	6	23	38	16	NP	NP	17	A-4a
			14.0-18.5	26	4	19	32	19	18	3	13	A-4a
H-044-0-61	330+00	CL	0.0-4.0	30	7	33	18	12	NP	NP	9	A-2-4
			4.0-9.0	21	8	34	25	12	NP	NP	13	A-4a *
			9.0-14.0	34	7	25	21	13	NP	NP	16	A-2-4
			14.0-18.0	24	11	40	15	10	NP	NP	15	A-3a
			18.0-23.0	18	14	40	17	11	NP	NP	14	A-3a
			23.0-27.0	0	13	46	23	18	NP	NP	18	A-4a
H-044-0-61	339+00	CL	0.3-2.0	11	5	32	36	16	NP	NP	14	A-4a
			2.0-5.0	53	5	25	10	7	NP	NP	8	A-1-b
			5.0-7.0	0	3	11	28	58	35	15	21	A-6a
H-045-0-61	341+92	CL	0.3-1.0	6	8	27	35	24	20	5	14	A-4a
			1.0-3.5	4	6	18	50	22	NP	NP	13	A-4b
			3.5-7.0	9	10	44	25	12	NP	NP	9	A-4a
			7.0-11.5	34	6	33	13	9	NP	NP	7	A-2-4
H-046-0-61	350+35	CL	0.2-1.3	Cinders and Soil Mixture							-	Visual
			1.3-2.0	18	7	17	40	18	20	6	15	A-4a
			2.0-5.0	20	7	16	38	19	22	7	17	A-4a
			5.0-8.5	25	11	21	26	17	23	8	18	A-4a
			8.5-9.0	Dark-Gray Weathered Shale							18	Visual
			9.0-11.0	Gray Weathered Shale							8	Visual
H-047-0-61	512+05	CL	0.3-5.0	0	5	16	53	26	NP	NP	16	A-4b
			5.0-10.5	0	5	15	53	27	NP	NP	16	A-4b
			10.5-13.0	25	5	14	36	20	NP	NP	14	A-4a
			13.0-16.5	0	26	51	12	11	NP	NP	5	A-3a
						DRIVE SAMPLE SOIL TEST DATA						
						SR 8 (Northbound Lanes)						
H-048-0-61	513+73	57'Rt	2.5-3.5	Brown Gravelly Sand							-	Visual
			5.0-6.0	0	9	21	38	32	23	5	16	A-4a
			7.5-8.5	20	10	27	24	19	21	4	12	A-4a
			10.0-11.0	27	22	28	11	12	NP	NP	13	A-1-b
			15.0-16.0	10	7	55	16	12	NP	NP	12	A-3a
			20.0-21.0	Brown Gravelly Sand							-	Visual
			25.0-26.0	4	4	73		- 19 -	NP	NP	13	A-3a
			30.0-31.0	49	25	22		- 4 -	NP	NP	12	A-1-b
			35.0-36.0	14	7	23	29	27	19	4	13	A-4a
						SR 8 (Northbound Lanes) (Cont'd)						
B-016-0-63	518+19	120'Lt	2.5-3.5	10	6	17	37	30	25	7	16	A-4a
			5.0-6.0	0	6	21	43	30	24	6	15	A-4a
			7.5-8.5	12	7	20	33	28	23	7	14	A-4a
			10.0-11.0	15	7	17	35	26	24	7	13	A-4a
			12.5-13.5	17	4	14	37	28	23	4	14	A-4a
			15.0-16.0	0	5	13	54	28	20	2	12	A-4b
			17.5-18.5	Gray Gravelly Sand								Visual
			20.0-21.0	8	5	16	49	22	20	3	13	A-4a
			25.0-26.0	Brown Broken Weathered Sandstone Boulders							-	Visual
			30.0-31.0	29	22	24	14	11	NP	NP	11	A-1-b
			35.0-36.0	0	2	86	3	9	NP	NP	22	A-3a
			40.0-41.0	0	7	91		- 2 -	NP	NP	6	A-3
			45.0-46.0	30	17	36	9	8	NP	NP	13	A-1-b
			50.0-51.0	Gray Gravel							-	Visual
			55.0-55.4	Gray Silty Sand							-	Visual

	STATION & OFFSET		DEPTH FROM-TO	% AGG.	% C.S.	% F.S.	% SILT	% CLAY	L.L.	P.I.	% W.C.	SHTL CLASS.
			SR 8 (CL, SURVEY)									
H-045-0-61	333+68	43'Rt	5.0-6.0	41	6	11	25	17	23	7	15	A-4a
H-046-0-61	333+06	6'Rt	5.0-6.0	34	15	19	-	12 -	NP	NP	15	A-1-b
H-047-2-61	341+30	85'Lt	2.0-3.0	31	3	18	35	13	20	7	12	A-4a
			5.0-6.0	36	4	14	29	17	NP	NP	16	A-4a
H-051-1-61	350+43	110'Lt	2.0-3.0	Gray Clayey Silty Sand with Trace of Stone Fragments							15	Visual
			5.0-6.0	9	2	3	53	27	23	7	24	A-4o
			10.0-10.5	10	10	19	35	26	23	8	16	A-4a
H-051-0-61	350+35	CL	0.2-1.3	Cinders and Soil Mixture								Visual
			1.3-2.0	18	7	17	40	18	20	6	15	A-4a
			2.0-5.0	20	7	16	38	19	22	7	17	A-4a
			5.0-8.5	25	11	21	26	17	23	8	18	A-4a
			8.5-9.0	Dark Gray Weathered Shale							18	Visual
			9.0-11.0	Gray Weathered Shale							8	Visual
H-052-1-61	353+30	110'Lt	0.2-1.0	45	8	30	29	20	NP	NP	14	A-4-b
			1.0-2.5	28	4	19	47	24	27	18	15	A-4-b
			3.5-8.0	32	8	20	42	25	NP	NP	16	A-4a
			8.0-9.5	Gray Broken Sandstone					25	20	3	18	Visual
H-052-0-61	353+30	CL	0.8-3.0	47	7	23	16	7	NP	NP	14	A-1-b
			3.0-5.5	22	6	37	18	17	17	4	17	A-2-4
			5.5-11.0	12	6	23	38	21	21	8	16	A-4a
			11.0-13.5	10	4	21	40	25	29	28	13	A-4a
			13.5-16.0	Gray Broken Shale							12	Visual
			16.0-19.0	Gray Broken Shale							20	Visual*
			19.0-20.0	Gray Broken Shale							13	Visual
H-052-2-61	353+30	95'Rt	0.3-1.5	46	8	24	14	8	NP	NP	9	A-1-b
			1.5-3.0	6	4	26	36	28	19	4	20	A-4a
			3.0-6.0	0	4	12	56	28	NP	NP	22	A-4b
			6.0-10.0	7	8	18	43	24	20	6	13	A-4a
H-053-0-61	356+30	25'Rt	0.3-1.0	12	5	29	35	19	19	7	17	A-4a
			1.0-2.5	1	1	18	52	28	22	7	19	A-4b
			2.5-5.0	0	6	42	29	23	18	5	16	A-4a
			5.0-7.5	25	4	20	34	17	21	5	17	A-4a
			7.5-9.0	61	4	11	4	20	NP	NP	8	A-1-b
			9.0-10.0	Gray Weathered Shale							12	Visual
H-053-1-61	356+65	135'Lt	0.2-1.0	0	2	28	53	17	NP	NP	11	A-4b
			1.0-3.0	1	4	44	35	16	NP	NP	8	A-4a
			3.5-5.5	12	6	47	24	11	NP	NP	8	A-3a
			5.5-6.0	Gray Broken Shale							8	Visual
H-055-0-61	361+00	18'Rt	0.6-4.5	17	8	16	40	19	NP	NP	17	A-4a
			4.5-8.0	0	1	3	55	41	33	14	18	A-6a
			8.0-10.0	Gray Broken Shale						5	9	Visual
H-056-0-61	363+45	32'Lt	0.4-1.5	23	6	22	25	24	22	8	16	A-4a
			1.5-5.0	47	6	15	17	15	20	6	12	A-2-4
			5.0-9.0	20	10	19	29	22	20	13	16	A-4a *
			9.0-10.0	25	2	8	33	32	29	12	15	A-6a
			10.0-12.5	Dark Gray Broken Carbonaceous Shale							11	Visual
			12.5-13.3	Dark Gray Broken Carbonaceous Shale							9	Visual
H-057-0-61	366+65	CL	0.7-4.5	17	6	26	28	23	21	8	11	A-4a
			4.5-5.0	Gray Broken Shale							8	Visual
H-058-0-61	374+75	CL	0.6-2.5	0	5	16	45	34	24	7	18	A-4a
			2.5-5.0	9	4	15	46	26	22	6	17	A-4a
			5.0-7.0	8	6	19	48	19	NP	NP	18	A-4a
			7.0-10.5	21	5	28	35	11	NP	NP	14	A-4a
			10.5-14.0	52	5	16	17	10	NP	NP	16	A-2-4
			14.0-16.5	10	8	24	40	18	NP	NP	12	A-4a
			16.5-20.0	37	5	24	15	19	16	3	11	A-2-4
H-058-1-61	374+75	180'Rt	0.4-3.0	11	5	18	41	25	NP	NP	14	A-4a
			3.0-7.0	9	5	19	50	17	20	4	14	A-4b
			7.0-10.0	23	9	22	29	17	18	8	22	A-4a
H-059-0-61	378+60	CL	0.6-2.0	19	7	14	38	22	19	5	9	A-4a
			2.0-6.5	12	4	17	44	23	22	9	12	A-4a
			6.5-9.5	39	7	23	20	11	NP	NP	12	A-2-4
H-059-1-61	378+60	130'Rt	0.7-1.5	14	8	27	28	23	24	8	8	A-4a
			1.5-5.0	10	5	19	43	23	20	5	15	A-4a
			5.0-10.0	16	7	26	35	16	16	3	13	A-4a

	STATION & OFFSET		DEPTH FROM-TO	% AGG.	% C.S.	% F.S.	% SILT	% CLAY	L.L.	P.I.	% W.C.	SHTL CLASS.
H-060-0-61	382+78	CL	0.3-4.0	9	6	14	44	27	27	11	27	A-6a
			4.0-7.5	11	6	17	46	20	22	7	17	A-4a
			7.5-10.0	15	6	20	39	20	18	5	12	A-4a
H-061-0-61	388+00	CL	0.3-3.0	24	5	17	38	16	18	5	14	A-4a *
			3.0-5.0	38	4	17	27	14	19	5	15	A-4a *
			5.0-7.5	38	4	11	31	16	23	7	23	A-4a
H-062-0-61	391+54	65'Rt	0.6-1.5	12	4	14	48	22	NP	NP	25	A-4a
			1.5-7.5	7	7	19	41	26	21	7	16	A-4a
			7.5-10.0	16	7	40	25	12	NP	NP	13	A-4a
			10.0-11.0	73	1	16	6	4	NP	NP	20	A-1-a
H-051-1-61	350+43	110'Lt	2.0-3.0	Gray Clayey Silty Sand with Trace of Stone Fragments								Visual
			5.0-6.0	9	2	9	53	27	25	7	24	A-4b
			10.0-10.5	10	10	19	35	26	23	8	16	A-4a
H-053-1-61	356+38	175'Lt	2.0-3.0	0	4	72	12	12	NP	NP	10	A-3a
			5.0-6.0	7	6	73	6	8	NP	NP	18	A-3a
			10.0-11.0	30	3	48	9	10	NP	NP	23	A-3a
H-063-0-61	394+40	30'Lt	5.0-6.0	18	7	16	36	23	NP	NP	16	A-4a
			10.0-11.0	Gray Gravel and Stone Fragments							8	Visual

SUMMARY OF SOIL TEST DATA
I.R. 76

EXPLORATION NO. STATION & OFFSET	FROM	TO	SAMPLE ID	% REC	HP TSF	% GR	% CS	% FS	% SILT	% CLAY	LL	PL	PI	% WC	ODOT CLASS	(GI)
B-036-0-79	2.5	3.0	SS-1	-	-	56	3	5	25	11	24	18	6	6	A-4a	(0)
STA. 03+45, 100'RT.	5.0	5.5	SS-2	-	-	40	3	6	35	16	24	17	7	4	VISUAL	
B-037-0-79	2.5	3.0	SS-1	-	-	18	4	11	36	31	26	17	9	15	A-4a	-
STA. 09+50, 110'RT.	5.0	6.5	SS-2	-	-	26	7	13	30	24	23	16	7	12	A-4a	-
	7.5	8.5	SS-3	-	-	72	4	9	7	8	-	-	-	5	VISUAL	-
	10.0	11.5	SS-4	-	-	38	7	6	32	17	23	16	7	8	A-4a	-
	15.0	15.5	SS-5	-	-	9	12	54	7	18	NP	NP	NP	10	A-3a	-
B-038-0-79	2.5	3.5	SS-1	-	-	22	8	13	32	25	22	16	6	11	A-4a	-
STA. 03+80, 42'LT.	5.0	6.5	SS-2	-	-	18	10	13	37	22	21	16	5	9	A-4a	-
	7.5	9.0	SS-3	-	-	17	8	8	43	24	22	17	5	9	A-4a	-
	10.0	11.0	SS-4	-	-	19	7	8	43	23	22	16	6	6	A-4a	-
	15.0	15.3	SS-5	-	-	37	9	10	30	14	-	-	-	2	VISUAL	-
B-039-0-79	5.0	6.5	SS-1	-	-	0	1	2	52	45	31	23	8	24	A-4b	-
STA. 249+25, 75'LT.	10.0	11.0	SS-2	-	-	0	9	17	46	28	25	21	4	20	A-4a	-
	15.0	16.5	SS-3	-	-	17	2	4	49	28	19	15	4	12	A-4a	-
	20.0	21.0	SS-4	-	-	32	10	19	28	11	NP	NP	NP	11	A-4a	-
	25.0	25.8	SS-5	-	-	31	12	19	27	11	NP	NP	NP	8	A-4a	-
B-040-0-79	5.0	6.5	SS-1	-	-	4	3	2	48	43	33	23	10	15	A-4a	-
STA. 09+35, 62'RT.	7.5	8.8	SS-2	-	-	4	6	7	50	33	27	21	6	8	A-4b	-
	10.0	10.5	SS-3	-	-	17	5	7	45	26	28	20	8	9	VISUAL	-
B-041-0-79	2.5	3.5	SS-1	-	-	7	8	36	32	17	19	16	3	14	A-4a	-
STA. 5+05, 40' RT	5.0	6.5	SS-2	-	-	0	1	7	61	31	30	21	9	15	A-4b	-
	7.5	9.0	SS-3	-	-	0	1	8	40	51	38	19	19	26	A-6b	-
	10.0	11.5	SS-4	-	-	8	4	17	43	28	24	17	7	26	A-4a	-
	12.5	14.0	SS-5	-	-	12	3	16	45	24	21	18	3	17	A-4a	-
	15.0	16.5	SS-6	-	-	0	1	14	56	29	20	17	3	22	A-4b	(0)
	17.5	19.0	SS-7	-	-	7	4	14	46	29	20	16	4	1	A-4a	-
	20.0	21.5	SS-8	-	-	9	2	7	56	26	22	22	3	21	A-4b	(0)
	25.0	26.5	SS-9	-	-	0	3	19	52	26	NP	NP	NP	17	A-4b	-
	30.0	31.5	SS-10	-	-	21	7	14	35	23	NP	NP	NP	16	A-4a	-
B-042-0-79	2.5	4.0	SS-1	-	-	3	7	30	30	30	20	15	5	17	A-4a	(0)
STA. 9+00, 45' RT	5.0	6.5	SS-2	-	-	0	5	24	41	30	26	19	7	25	A-4a	(0)
	7.5	9.0	SS-3	-	-	9	4	22	42	23	21	16	5	14	A-4a	-
	10.0	11.5	SS-4	-	-	5	5	28	52	10	20	15	5	16	A-4b	-
	12.5	14.0	SS-5	-	-	9	3	17	49	22	22	17	5	16	A-4a	-
	15.0	16.5	SS-6	-	-	7	3	18	44	28	19	16	3	18	A-4a	(0)
	17.5	19.0	SS-7	-	-	0	3	40	32	25	16	13	3	21	A-4a	(0)
	20.0	21.5	SS-8	-	-	0	3	85	0	12	NP	NP	NP	23	A-3a	(0)
B-043-0-79	2.5	4.0	SS-1	-	-	7	7	33	28	25	19	16	3	12	A-4a	(0)
STA. 469+85, 25' RT	5.0	6.5	SS-2	-	-	20	6	29	25	20	19	15	4	11	A-4a	(0)
	7.5	9.0	SS-3	-	-	11	6	30	30	23	20	16	4	12	A-4a	-
	10.0	11.5	SS-4	-	-	21	7	22	22	21	20	18	2	16	A-4b	-
	12.5	14.0	SS-5	-	-	14	11	26	26	21	23	19	4	13	A-4a	-
	15.0	16.5	SS-6	-	-	1	2	26	26	28	29	19	10	30	A-4a	(0)
	17.5	19.0	SS-7	-	-	2	2	17	17	28	23	19	4	17	A-4b	-
	20.0	21.5	SS-8	-	-	4	19	57	57	10	NP	NP	NP	17	A-3a	-
	22.5	24.0	SS-9	-	-	2	36	42	42	13	NP	NP	NP	21	A-3a	(0)
	25.0	26.5	SS-10	-	-	7	4	13	13	26	21	18	3	19	A-4b	(0)
B-044-0-79	2.5	4.0	SS-1	-	-	15	1	6	39	39	39	23	16	37	A-4a	(0)
STA. 2+35, 42' RT	5.0	6.5	SS-2	-	-	1	4	80	4	11	NP	NP	NP	8	A-4a	-
	7.5	9.0	SS-3	-	-	2	3	81	3	11	NP	NP	NP	8	A-4a	-
	10.0	11.5	SS-4	-	-	5	4	72	8	11	NP	NP	NP	12	A-4b	-
	12.5	14.0	SS-5	-	-	3	2	61	16	18	NP	NP	NP	23	A-4a	-
	15.0	16.5	SS-6	-	-	2	2	34	34	28	21	14	7	25	A-4a	(0)
	17.5	19.0	SS-7	-	-	17	8	15	46	14	20	17	3	14	A-4b	-
	20.0	21.5	SS-8	-	-	12	8	21	35	24	18	15	3	14	A-3a	-
	22.5	24.0	SS-9	-	-	7	5	54	18	16	NP	NP	NP	13	A-3a	(0)
	25.0	26.5	SS-10	-	-	5	7	57	16	15	NP	NP	NP	14	A-4b	(0)
	28.0	28.2	SS-11	-	-	GRAY SANDSTONE								-	-	-
B-001-0-61	0.0	1.5	SS-1	-	-	- FILL - NO TESTS PERFORMED -								-	-	-
STA. 50+17, 77'LT.	2.5	4.0	SS-2	-	-	21	16	20	27	16	24	17	7	17	A-4a	(2)
	5.0	6.5	SS-3	-	-	7	8	65	14	6	-	-	-	20	A-3a	(0)
	7.5	9.0	SS-4	-	-	30	29	31	- 10 -		-	-	-	15	A-1-b	(0)
	10.0	11.0	SS-5	-	-	0	2	90	- 8 -		-	-	-	25	A-3	(0)
	11.0	11.5	SS-6	-	-	- INSUFFICIENT SAMPLE FOR TESTING -								-	-	-
	15.0	16.5	SS-7	-	-	0	0	0	66	34	26	23	3	27	A-4b	(8)
	18.0	19.5	SS-8	-	-	- NO RECOVERY -								-	-	
	19.5	21.0	SS-9	-	-	0	0	0	72	28	-	-	-	25	A-4b	(8)
	21.0	22.5	SS-10	-	-	0	0	0	63	37	26	20	6	27	A-4b	(8)
	25.0	25.5	SS-11	-	-	0	1	2	23	74	38	21	17	30	A-6b	(11)
	25.5	26.5	SS-12	-	-	4	19	66	- 11 -		-	-	-	18	A-3a	(0)
	28.5	30.0	SS-13	-	-	11	2	54	- 33 -		-	-	-	17	A-3a	(0)
B-002-0-61	0.0	1.5	SS-1	-	-	- FILL - NO TESTS PERFORMED -								-	-	-
STA. 49+57, 77'LT.	2.5	3.5	SS-2	-	-	7	11	20	39	23	-	-	-	47	A-4a	(5)
	3.5	4.0	SS-3	-	-	- INSUFFICIENT SAMPLE FOR TESTING -								-	-	-
	4.5	6.0	SS-4	-	-	24	22	32	16	6	38	25	13	17	A-2-6	(1)
	6.5	8.0	SS-5	-	-	21	32	36	- 11 -		-	-	-	14	A-1-b	(0)
	9.5	11.0	SS-6	-	-	11	2	2	27	58	32	19	13	28	A-6a	(9)
	14.0	14.5	SS-7	-	-	16	7	32	42	3	-	-	-	20	A-4a	(2)
	14.5	15.5	SS-8	-	-	0	0	0	82	18	-	-	-	30	A-4b	(8)
	17.0	18.5	SS-9	-	-	0	0	0	66	34	28	24	4	29	A-4b	(8)
	18.5	20.0	SS-10	-	-	0	0	0	70	30	27	22	5	32	A-4b	(8)
	23.5	24.5	SS-11	-	-	1	2	2	20	75	39	22	17	33	A-6b	(11)
	24.5	25.0	SS-12	-	-	19	13	51	- 17 -		-	-	-	15	A-3a	(0)
	28.5	30.0	SS-13	-	-	11	18	60	- 11 -		-	-	-	17	A-3a	(0)

SUMMARY OF SOIL TEST DATA
I.R. 76

EXPLORATION NO. STATION & OFFSET	FROM	TO	SAMPLE ID	% REC	HP TSF	% GR	% CS	% FS	% SILT	% CLAY	LL	PL	PI	% WC	ODOT CLASS	(GI)
B-003-0-61	0.0	1.5	SS-1	-	-		- FILL - NO TESTS PERFORMED -							-	-	-
STA. 50+25, 32'LT.	2.5	4.0	SS-2	-	-	7	5	17	31	40	51	24	27	32	A-7-6	(14)
	5.0	5.5	SS-3	-	-	10	13	36	25	16	23	16	7	21	A-4	(1)
	5.5	6.5	SS-4	-	-	21	40	22	- 17 -		-	-	-	43	A-1-b	(0)
	7.5	9.0	SS-5	-	-	7	29	50	- 14 -		-	-	-	20	A-3a	(0)
	10.0	11.5	SS-6	-	-	8	6	80	- 6 -		-	-	-	23	A-3	(0)
	12.5	14.0	SS-7	-	-	7	17	49	16	11	-	-	-	19	A-3a	(0)
	15.0	15.5	SS-8	-	-	0	1	85	13	1	-	-	-	26	A-3a	(0)
	15.5	16.5	SS-9	-	-	0	0	1	61	38	26	19	7	25	A-4b	(8)
	17.0	18.5	SS-10	-	-	1	1	6	65	27	24	20	4	25	A-4b	(8)
	20.0	21.5	SS-11	-	-	0	0	0	86	14	27	23	4	32	A-4b	(8)
	22.5	24.0	SS-12	-	-	0	0	1	50	49	29	20	9	30	A-4b	(8)
	25.0	26.5	SS-13	-	-	0	0	0	35	65	33	20	13	33	A-6a	(9)
	30.0	31.5	SS-14	-	-	28	29	34	- 9 -		-	-	-	13	A-1-b	(0)
	35.0	36.5	SS-15	-	-	26	36	31	- 7 -		-	-	-	15	A-1-b	(0)
	40.0	41.5	SS-16	-	-	30	27	37	- 6 -		-	-	-	14	A-1-b	(0)
	45.0	46.5	SS-17	-	-	20	24	44	- 12 -		-	-	-	15	A-3a	(0)
	50.0	51.5	SS-18	-	-	16	17	60	- 7 -		-	-	-	17	A-3	(0)
	55.0	56.5	SS-19	-	-	42	38	11	- 9 -		-	-	-	12	A-1-b	(0)
	60.0	61.5	SS-20	-	-	3	1	7	75	14	-	-	-	21	A-4b	(8)
	65.0	66.5	SS-21	-	-			-	NO RECOVERY	-				-	-	-
	66.5	68.0	SS-22	-	-	0	0	4	82	14	-	-	-	27	A-4b	(8)
	70.0	71.5	SS-23	-	-			-	NO RECOVERY	-				-	-	-
	71.5	73.0	SS-24	-	-	0	0	2	76	22	21	20	1	27	A-4b	(8)
	75.0	76.5	SS-25	-	-	0	0	29	63	8	-	-	-	22	A-4b	(7)
	78.0	79.5	SS-26	-	-	0	0	33	61	6	-	-	-	21	A-4b	(8)
	79.5	81.0	SS-27	-	-	0	0	33	60	7	-	-	-	24	A-4b	(6)
B-004-0-61	0.5	2.0	SS-1	-	-	16	22	27	22	13	21	17	4	11	A-2-4	(0)
STA. 50+62, CL	2.5	3.0	SS-2	-	-	12	27	35	14	40	51	46	5	14	A-3a	(0)
	3.0	4.0	SS-3	-	-	7	31	41	7	16	23	8	15	22	A-2-6	(2)
	5.0	6.5	SS-4	-	-	0	0	88	- 12 -		-	-	-	22	A-3a	(0)
	7.5	9.0	SS-5	-	-	0	7	76	- 17 -		-	-	-	17	A-3a	(0)
	10.0	11.5	SS-6	-	-	0	0	0	59	41	25	18	7	22	A-4b	(8)
	12.5	14.0	SS-7	-	-	0	2	0	61	37	25	18	7	22	A-4b	(8)
	15.0	16.5	SS-8	-	-	1	0	2	72	1	22	17	5	27	A-4b	(8)
	17.5	19.0	SS-9	-	-	0	0	1	60	38	25	18	7	21	A-4b	(8)
	20.0	20.5	SS-10	-	-	0	0	1	40	27	31	19	12	26	A-6a	(6)
	20.5	22.5	SS-11	-	-	0	0	84	- 16 -		-	-	-	23	A-3a	(0)
	25.0	26.5	SS-12	-	-	0	0	79	- 21 -		-	-	-	24	A-3a	(0)
	30.0	31.5	SS-13	-	-	0	0	2	62	36	23	18	5	23	A-4b	(8)
	35.0	36.5	SS-14	-	-	0	0	1	73	26	22	19	3	25	A-4b	(8)
	40.0	41.5	SS-15	-	-	52	33	9	- 6 -		-	-	-	11	A-1-a	(0)
B-005-0-61	0.5	2.0	SS-1	-	-	16	24	29	18	13	21	17	4	11	A-2-4	(0)
STA. 51+13, CL	2.5	3.0	SS-2	-	-	24	33	21	12	40	51	46	5	14	A-3a	(0)
	3.0	4.0	SS-3	-	-	0	2	82	9	16	23	8	15	23	A-2-6	(0)
	5.0	6.5	SS-4	-	-	0	3	84	- 18 -		-	-	-	20	A-3a	(0)
	7.5	9.0	SS-5	-	-	0	3	89	- 8 -		-	-	-	24	A-3a	(0)
	10.0	11.5	SS-6	-	-	0	1	8	64	41	25	18	7	21	A-4b	(8)
	13.5	15.0	SS-7	-	-	0	0	1	65	37	25	18	7	27	A-4b	(8)
	13.5	15.0	SS-7A	-	-	0	0	0	60	1	22	17	5	22	A-4b	(8)
	15.0	16.0	SS-8	-	-	0	0	0	72	38	25	18	7	26	A-4b	(8)
	16.0	16.5	SS-9	-	-	0	0	80	- 20 -		31	19	12	24	A-6a	(0)
	20.0	21.5	SS-10	-	-	0	1	75	18	6	-	-	-	22	A-3a	(0)
	25.0	26.5	SS-11	-	-	0	0	78	- 21 -		-	-	-	25	A-3a	(0)
	30.0	31.5	SS-12	-	-	0	0	0	70	30	21	18	3	24	A-4b	(8)
	33.5	35.0	SS-13	-	-	0	0	6	84	10	-	-	-	21	A-4b	(8)
	35.0	36.5	SS-14	-	-	0	0	3	83	14	-	-	-	25	A-1-a	(8)
	40.0	40.5	SS-15	-	-	45	29	8	13	5	-	-	-	10	A-1-b	(0)
	40.5	41.5	SS-16	-	-	58	26	8	- 8 -		-	-	-	9	A-1-a	(0)
	45.0	46.5	SS-17	-	-	54	30	11	- 5 -		-	-	-	15	A-1-a	(0)
	50.0	50.5	SS-18	-	-	10	25	42	- 23 -		-	-	-	18	A-3a	(0)
	55.0	56.0	SS-19	-	-	8	8	71	- 13 -		-	-	-		A-3a	(0)
	56.0	56.5	SS-20	-	-			-	INSUFFICIENT SAMPLE	-					-	-
	60.0	61.5	SS-21	-	-	0	0	17	71	12	-	-	-	21	A-4b	(8)
	65.0	66.5	SS-22	-	-	0	0	54	38	8	-	-	-	17	A-4a	(2)
	70.0	71.5	SS-23	-	-	1	9	79	- 11 -		-	-	-	19	A-3a	(0)
	75.0	76.5	SS-24	-	-	0	0	72	26	2	-	-	-	21	A-3a	(0)
	80.0	81.5	SS-25	-	-	0	1	66	29	4	-	-	-	19	A-3a	(0)
B-006-0-61	0.0	1.5	SS-1	-	-		- FILL - NO TESTS PERFORMED -							-	-	-
STA. 48+38, 26' RT	2.5	4.0	SS-2	-	-		- FILL - NO TESTS PERFORMED -							-	-	-
	5.0	6.5	SS-3	-	-	4	9	32	31	24	25	18	7	20	A-4a	(0)
	7.5	9.0	SS-4	-	-	26	7	27	25	15	19	16	3	14	A-4a	(0)
	10.0	11.5	SS-5	-	-	45	6	20	17	12	19	14	5	11	A-2-4	(0)
	12.5	13.0	SS-6	-	-		- INSUFFICIENT MATERIAL OF TESTING -							-	-	(8)
	13.0	14.0	SS-7	-	-	9	16	63	- 12 -		-	-	-	7	A-3a	(8)
	15.0	16.5	SS-7A	-	-	0	2	61	25	12	-	-	-	18	A-4a	(8)
	17.5	19.0	SS-8	-	-	0	3	0	9	13	-	-	-	11	A-3a	(8)
	20.0	21.5	SS-9	-	-	0	40	80	- 15 -		-	-	-	14	A-1-b	(0)
	22.5	24.0	SS-10	-	-	0	35	75	- 9 -		-	-	-	14	A-1-b	(0)
	25.0	26.5	SS-11	-	-	0	0	78	- 13 -		-	-	-	14	A-1-b	(0)
	30.0	31.5	SS-12	-	-	0	46	0	- 13 -		-	-	-	18	A-1-b	(8)
	35.0	36.5	SS-13	-	-	0	37	6	- 7 -		-	-	-	18	A-1-b	(8)
	40.0	41.5	SS-14	-	-	0	9	3	33	12	15	14	1	14	A-4a	(8)
	45.0	46.5	SS-15	-	-	45	16	8	14	5	16	15	1	12	A-1-b	(0)
	50.0	51.5	SS-16	-	-	58	15	8	8	13	-	-	-	15	A-3a	(0)
	55.0	56.5	SS-17	-	-	30	7	10	42	11	23	21	2	21	A-4a	(0)
B-007-0-61	0.5	2.0	SS-1	-	-		- FILL - NO TESTS PERFORMED -							-	-	-
STA. 49+10, 76' RT	2.5	4.0	SS-2	-	-	0	0	46	37	17	19	3	16	19	A-4a	(4)
	5.0	6.5	SS-3	-	-	21	60	14	- 5 -		-	-	-	4	A-1-b	(0)
	7.5	9.0	SS-4	-	-	9	55	33	- 3 -		-	-	-	4	A-1-b	(0)
	10.0	11.5	SS-5	-	-	11	44	41	- 4 -		-	-	-	4	A-1-b	(0)
	12.5	14.0	SS-6	-	-	16	63	17	- 4 -		-	-	-	4	A-1-b	(0)
	15.0	16.5	SS-7	-	-	0	2	94	- 4 -		-	-	-	5	A-3	(0)
	20.0	21.5	SS-7A	-	-	4	0	71	19	6	-	-	-	13	A-3a	(0)
	25.0	25.5	SS-8	-	-	1	0	8	77	14	22	22	0	23	A-4b	(8)
	25.5	26.5	SS-9	-	-	0	1	20	67	12	-	-	-	21	A-4b	(8)
	30.0	31.5	SS-10	-	-		- INSUFFICIENT MATERIAL OF TESTING -							-	-	-
	35.0	36.5	SS-11	-	-	47	24	18	- 11 -			-	-	9	A-4b	(0)
	40.0	41.5	SS-12	-	-	2	3	7	72	16	21	19	2	17	A-4b	(8)
	45.0	46.5	SS-13	-	-	0	0	16	74	10	-	-	-	22	A-4b	(8)
	50.0	51.5	SS-14	-	-	0	0	3	87	10	-	-	-	28	A-4b	(8)
	55.0	56.5	SS-15	-	-	0	0	3	87	10	-	-	-	26	A-4b	(8)
	60.0	61.0	SS-16	-	-	0	0	14	76	13	-	-	-	22	A-4b	(8)
	66.0	67.0	SS-17	-	-	3	48	39	- 10 -		-	-	-	9	A-1-b	(0)

SUMMARY OF SOIL TEST DATA
I.R. 76

EXPLORATION NO. STATION & OFFSET	FROM	TO	SAMPLE ID	% REC	HP TSF	% GR	% CS	% FS	% SILT	% CLAY	LL	PL	PI	% WC	ODOT CLASS	(GI)
B-007A-0-61	0.5	2.0	SS-1	-	-	- FILL - NO TESTS PERFORMED -								-	-	-
STA. 48+94, 69' RT	2.5	4.0	SS-2	-	-	4	32	43	12	9	25	15	10	14	A-2-4	(0)
	5.0	6.5	SS-3	-	-	26	18	30	21	5	-	-	-	11	A-2-4	(0)
	7.5	9.0	SS-4	-	-	32	49	14	- 5 -		-	-	-	5	A-1-b	(0)
	10.0	11.5	SS-5	-	-	10	37	49	- 4 -		-	-	-	5	A-3	(0)
	12.5	14.0	SS-6	-	-	22	32	39	- 7 -		-	-	-	4	A-1-b	(0)
	15.0	16.5	SS-7	-	-	25	46	24	- 5 -		-	-	-	5	A-1-b	(0)
	20.0	21.5	SS-8	-	-	0	2	84	11	3	-	-	-	10	A-3a	(0)
	25.0	26.0	SS-9	-	-	49	10	25	13	3	-	-	-	13	A-1-b	(0)
	30.0	31.5	SS-10	-	-	5	3	6	59	27	22	17	5	14	A-4b	(8)
	35.0	36.5	SS-11	-	-	10	5	8	52	25	22	18	4	14	A-4b	(8)
	40.0	41.5	SS-12	-	-	27	30	34	- 9 -		-	-	-	13	A-1-b	(0)
	45.0	46.5	SS-13	-	-	36	10	12	36	6	-	-	-	18	A-4a	(1)
	50.0	51.5	SS-14	-	-	4	1	7	74	14	20	20	0	10	A-4b	(8)
	55.0	56.5	SS-15	-	-	0	0	19	75	6	-	-	-	21	A-4b	(8)
	60.0	61.5	SS-16	-	-	36	5	6	43	10	20	18	2	20	A-4b	(4)
	65.0	66.5	SS-17	-	-	56	14	9	16	5	18	16	2	11	A-1-b	(0)
B-008-0-61	0.4	1.9	SS-1	-	-	- FILL - NO TESTS PERFORMED -								-	-	-
STA. 48+48, 76' RT	2.4	4.0	SS-2	-	-	- FILL - NO TESTS PERFORMED -								-	-	-
	5.0	6.5	SS-3	-	-	14	9	41	22	14	17	15	2	12	A-4a	(0)
	7.5	9.0	SS-4	-	-	8	40	31	8	13	25	15	10	12	A-2-4	(0)
	10.0	11.5	SS-5	-	-	5	16	70	- 9 -		-	-	-	10	A-3	(0)
	12.5	14.0	SS-6	-	-	56	31	39	- 6 -		-	-	-	13	A-1-a	(0)
	15.0	16.5	SS-7	-	-	9	42	24	- 5 -		-	-	-	8	A-1-b	(0)
	17.5	19.0	SS-8	-	-	9	41	39	6	5	-	-	-	18	A-1-b	(0)
	20.0	21.5	SS-9	-	-	15	30	46	- 9 -		-	-	-	16	A-3	(0)
	25.0	26.5	SS-10	-	-	2	0	77	17	4	-	-	-	18	A-3a	(0)
	30.0	30.5	SS-11	-	-	4	8	54	27	7	-	-	4	19	A-3a	(0)
	30.5	31.5	SS-12	-	-	3	0	18	71	8	-	-	-	17	A-4b	(8)
	35.0	36.5	SS-13	-	-	15	4	26	36	19	18	13	5	16	A-4a	(4)
	40.0	41.5	SS-14	-	-	15	12	12	36	25	21	15	6	17	A-4a	(5)
	44.5	46.0	SS-15	-	-	11	3	7	50	29	23	17	6	16	A-4b	(8)
	49.5	51.0	SS-16	-	-	1	0	10	73	16	20	19	1	22	A-4b	(8)
	54.5	56.0	SS-17	-	-	1	5	42	42	10	-	-	-	16	A-4a	(3)
	59.5	61.0	SS-18	-	-	0	0	14	58	28	19	17	2	18	A-4b	(8)
	64.5	66.0	SS-19	-	-	25	15	25	17	8	16	14	2	12	A-1-b	(0)
	69.5	71.0	SS-20	-	-	3	7	15	37	18	19	15	4	15	A-4a	(4)

SUMMARY OF SOIL TEST DATA
I.R. 77

EXPLORATION NO. STATION & OFFSET	FROM	TO	SAMPLE ID	% REC	HP TSF	% GR	% CS	% FS	% SILT	% CLAY	LL	PL	PI	% WC	ODOT CLASS	(GI)
B-003-1-60	0.0	1.5	SS-1	-	-	FILL - NO TESTS PERFORMED								-	-	-
STA. 377+40, 30'LT.	2.5	4.0	SS-2	-	-	4	4	12	46	34	30	18	12	21	A-6a	(9)
	4.0	6.0	SS-3	-	-	19	10	20	33	18	23	17	6	16	A-4a	(3)
	6.0	7.5	SS-4	-	-	17	7	19	32	25	24	16	8	23	A-4a	(4)
	9.0	10.5	SS-5	-	-	24	11	43	- 22 -		-	-	-	16	A-3a	(0)
B-003-2-60	0.0	1.5	SS-1	-	-	7	6	14	46	27	29	22	7	24	A-4a	(8)
STA. 378+20, 41'RT.	2.5	4.0	SS-2	-	-	7	6	17	46	24	23	17	6	17	A-4a	(7)
	5.0	6.5	SS-3	-	-	12	7	20	37	24	21	15	6	18	A-4a	(5)
	7.5	9.0	SS-4	-	-	12	9	30	30	19	19	16	3	15	A-4a	(3)
	10.0	11.5	SS-5	-	-	18	8	22	29	23	21	14	7	12	A-4a	(3)
B-003-3-60	0.0	1.5	SS-1	-	-	8	6	17	40	29	25	16	9	20	A-4a	(7)
STA. 378+63, 49'LT.	2.5	4.0	SS-2	-	-	2	4	21	58	15	-	-	0	23	A-4b	(8)
	5.0	6.5	SS-3	-	-	19	10	21	32	18	19	17	2	16	A-4a	(3)
	7.5	9.0	SS-4	-	-	49	4	33	7	7	-	-	0	10	A-1-b	(0)
	10.0	11.5	SS-5	-	-	36	5	38	9	12	-	-	0	15	A-2-4	(0)
	12.5	14.0	SS-6	-	-	26	5	42	17	10	-	-	0	19	A-2-4	(0)
	15.0	16.5	SS-7	-	-	49	9	19	15	8	19	-	19	13	A-1-b	(0)
B-003-4-60	0.0	1.5	SS-1	-	-	FILL - NO TESTS PERFORMED								-	A-4a	VISUAL
STA. 379+37, 14'RT.	2.5	4.0	SS-2	-	-	21	8	21	29	21	26	16	10	17	A-4b	(3)
	5.0	6.5	SS-3	-	-	9	7	21	41	22	21	17	4	17	A-4a	(6)
	7.5	9.0	SS-4	-	-	6	10	42	30	12	16	13	3	13	A-1-b	(1)
	9.0	10.5	SS-5	-	-	23	5	38	21	13	16	13	3	14	A-2-4	(0)
B-004-1-60	0.0	1.5	SS-1	-	-	6	5	14	47	28	37	21	16	23	A-6b	(10)
STA. 370+06, CL.	2.5	4.0	SS-2	-	-	1	4	19	51	25	25	19	6	14	A-4b	(8)
	4.0	6.0	SS-3	-	-	0	1	9	69	21	27	21	6	23	A-4b	(8)
	6.0	7.5	SS-4	-	-	32	15	28	14	11	22	18	4	18	A-2-4	(0)
	8.0	10.0	SS-5	-	-	4	6	20	52	18	20	14	6	16	A-4b	(7)
	10.0	11.5	SS-6	-	-	21	7	14	38	20	20	17	3	14	A-4b	(5)
	14.0	15.5	SS-7	-	-	13	12	13	34	28	27	19	8	13	A-4a	(5)
B-004-3-60	0.0	1.5	SS-1	-	-	2	10	24	41	23	22	16	6	17	A-4a	(6)
STA. 370+53, 61' LT.	5.0	6.5	SS-2	-	-	22	7	34	27	10	NP	NP	NP	14	A-4a	(0)
	7.5	9.0	SS-3	-	-	9	1	2	67	21	20	17	3	14	A-4b	(8)
	10.0	11.5	SS-4	-	-	2	8	21	46	23	20	16	4	15	A-4a	(7)
B-004-5-60	0.0	1.5	SS-1	-	-	22	10	24	31	13	33	28	5	36	A-4a	(2)
STA. 371+21, 39' RT.	3.0	4.5	SS-2	-	-	22	9	17	36	16	24	17	7	16	A-4a	(3)
	6.0	7.5	SS-3	-	-	10	8	17	43	22	23	17	6	18	A-4a	(6)
	9.0	10.5	SS-4	-	-	19	2	5	44	30	31	20	11	14	A-6a	(8)
B-004-8-60	0.0	1.5	SS-1	-	-	19	10	23	33	15	23	18	5	15	A-4a	(3)
STA. 371+22, 42' LT.	5.0	6.5	SS-2	-	-	7	6	21	46	20	22	17	5	17	A-4a	(6)
	10.0	11.5	SS-3	-	-	19	8	18	36	19	20	16	4	13	A-4a	(4)
	12.5	14.0	SS-4	-	-	30	5	15	31	19	22	15	7	13	A-4a	(3)
B-004-11-60	0.0	1.5	SS-1	-	-	9	7	19	46	19	30	22	8	23	A-4a	(6)
STA. 371+90, 9' RT.	2.5	4.0	SS-2	-	-	5	4	24	42	25	29	18	11	21	A-6a	(7)
	5.0	7.0	SS-3	-	-	5	7	24	41	23	22	15	7	15	A-4a	(6)
	7.0	8.5	SS-4	-	-	11	6	25	38	20	22	15	7	16	A-4a	(5)
	10.0	11.5	SS-5	-	-	22	3	21	39	15	22	15	7	19	A-4a	(4)
	11.5	13.0	SS-6	-	-	1	1	6	22	70	33/31	17/17	16/14	25	A-6a	(9)
	15.0	16.5	SS-7	-	-	8	1	5	8	78	32/32	17/18	15/14	21	A-6a	(9)
B-005-1-60	0.0	1.5	SS-1	-	-	25	10	16	36	13	31	22	9	21	A-4a	(3)
STA. 353+24, 105' LT.	3.0	4.5	SS-2	-	-	15	7	21	36	21	24	16	8	13	A-4a	(4)
	6.0	7.5	SS-3	-	-	12	8	19	41	20	24	18	6	16	A-4a	(5)
	9.0	10.5	SS-4	-	-	14	2	7	37	40	40	24	16	18	A-6b	(10)
	11.0	12.0	SS-5	-	-	55	12	4	21	8	30	20	10	9	A-2-4	(0)
	13.0	13.5	SS-6	-	-	46	10	10	25	9	25	20	5	12	A-2-4	(0)

SUMMARY OF SOIL TEST DATA
I.R. 77

EXPLORATION NO. STATION & OFFSET	FROM	TO	SAMPLE ID	% REC	HP TSF	% GR	% CS	% FS	% SILT	% CLAY	LL	PL	PI	% WC	ODOT CLASS (GI)
B-005-2-60	0.5	2.0	SS-1	-	-	15	6	21	33	25	29	17	12	12	A-6 (5)
STA. 353+85, 70' LT.	3.0	4.5	SS-2	-	-	26	5	20	26	23	23	16	7	7	A-4a (3)
	6.0	7.5	SS-3	-	-	30	5	10	38	17	29	19	10	14	A-4a (4)
	9.0	10.5	SS-4	-	-	50	12	3	27	8	29	18	11	12	A-2-6 (0)
	14.0	15.5	SS-5	-	-	44	17	5	21	13	33	22	11	13	A-2-6 (0)
B-005-3-60	0.5	1.5	SS-1	-	-	26	10	29	22	13	20	15	5	13	A-2-4 (0)
STA. 353+33, CL	3.0	4.5	SS-2	-	-	20	4	50	10	16	19	15	4	13	A-3a (0)
	6.0	7.5	SS-3	-	-	7	6	22	41	24	23	17	6	16	A-4a (6)
	9.0	10.5	SS-4	-	-	9	7	25	38	21	22	16	6	15	A-4a (5)
	15.0	16.5	SS-5	-	-	64	1	1	16	18	40	24	16	18	A-2-4 (0)
B-005-4-60	0.0	1.5	SS-1	-	-	34	9	23	22	12	21	15	6	16	A-2-4 (0)
STA. 353+28, 95' RT	2.5	4.0	SS-2	-	-	54	6	5	22	13	27	23	4	24	A-2-4 (0)
	4.0	5.5	SS-3	-	-	36	4	21	23	16	25	15	10	14	A-4a (1)
	5.5	7.0	SS-4	-	-	21	8	19	33	19	23	17	6	15	A-4a (3)
	8.0	9.5	SS-5	-	-	57	7	12	18	6	21	17	4	15	A-2-4 (0)
	10.5	12.0	SS-6	-	-	6	9	17	49	19	23	17	6	16	A-4a (7)
	13.0	14.5	SS-7	-	-	21	8	18	35	18	21	16	5	13	A-4a (4)
	15.5	17.0	SS-8	-	-	44	31	5	14	6	21	15	6	13	A-2-4 (0)
	18.0	19.0	SS-9	-	-	38	15	3	26	18	33	23	10	11	A-6a (2)
B-005-5-60	0.0	1.5	SS-1	-	-	41	4	23	19	13	22	16	6	7	A-2-4 (0)
STA. 353+83, 95' RT	3.0	4.5	SS-2	-	-	8	5	25	41	21	24	16	8	12	A-4a (6)
	6.0	7.5	SS-3	-	-	36	4	16	28	16	26	18	8	19	A-4a (2)
	9.0	10.5	SS-4	-	-	38	4	12	30	16	25	17	8	14	A-4a (2)
	11.5	13.0	SS-5	-	-	47	17	7	19	10	26	17	9	15	A-2-4 (0)
	14.0	15.5	SS-6	-	-	8	9	12	50	21	21	16	5	18	A-4b (7)
	16.0	17.5	SS-7	-	-	26	0	16	43	15	20	15	5	8	A-4a (5)
	18.0	19.0	SS-8	-	-	55	19	2	14	10	33	22	11	10	A-2-6 (0)
B-006-1-60	0.0	1.5	SS-1	-	-	4	6	34	39	17	23	19	4	9	A-4a (4)
STA. 337+91, 110' LT.	3.0	4.5	SS-2	-	-	30	4	22	26	18	26	16	10	12	A-4a (2)
	6.0	7.5	SS-3	-	-	40	8	39	11	2	-	-	-	9	A-2-4 (0)
	9.0	10.5	SS-4	-	-	44	10	36	- 10 -		-	-	-	8	A-1-b (0)
B-006-2-60	0.0	1.5	SS-1	-	-	9	7	19	46	19	30	22	8	23	A-4a (6)
STA. 371+90, 9' RT.	2.5	4.0	SS-2	-	-	5	4	24	42	25	29	18	11	21	A-6a (7)
	5.0	7.0	SS-3	-	-	5	7	24	41	23	22	15	7	15	A-4a (6)
	7.0	8.5	SS-4	-	-	11	6	25	38	20	22	15	7	16	A-4a (5)
	10.0	11.5	SS-5	-	-	22	3	21	39	15	22	15	7	19	A-4a (4)
	11.5	13.0	SS-6	-	-	1	1	6	22	70	33/31	17/17	16/14	25	A-6a (9)
	15.0	16.5	SS-7	-	-	8	1	5	8	78	32/32	17/18	15/14	21	A-6a (9)
B-006-3-60	0.0	1.5	SS-1	-	-	17	5	13	49	16	20	15	5	14	A-4a (6)
STA. 339+04, CL.	3.0	4.5	SS-2	-	-	33	4	29	17	17	25	19	6	14	A-2-4 (0)
	6.0	7.5	SS-3	-	-	56	8	21	12	3	18	16	2	12	A-1-b (0)
	9.0	10.5	SS-4	-	-	7	15	52	14	12	22	18	4	17	A-3a (0)
B-006-4-60	0.0	1.5	SS-1	-	-	54	0	18	15	13	24	16	8	10	A-2-4 (0)
STA. 338+65, 80' RT.	3.0	4.5	SS-2	-	-	10	3	28	40	19	23	17	6	15	A-4a (5)
	6.0	7.5	SS-3	-	-	25	4	39	18	14	20	13	7	11	A-2-4 (0)
	9.0	10.5	SS-4	-	-	31	8	44	10	7	-	-	-	9	A-3a (0)
	12.0	13.5	SS-5	-	-	31	8	41	14	6	-	-	-	11	A-2-4 (0)
	14.5	16.0	SS-6	-	-	51	3	31	5	10	-	-	-	8	A-1-b (0)
	17.0	18.5	SS-7	-	-	61	2	28	6	3	-	-	-	12	A-1-b (0)
	19.5	21.0	SS-8	-	-	29	5	26	20	20	29	19	10	20	A-4a (1)
B-006-5-60	0.0	1.5	SS-1	-	-	4	2	24	50	20	26	20	6	12	A-4b (7)
STA. 339+41, 95' RT.	3.0	4.5	SS-2	-	-	46	2	23	17	12	23	16	7	14	A-2-4 (0)
	6.0	7.5	SS-3	-	-	34	10	34	10	12	20	15	5	11	A-2-4 (0)
	9.0	10.5	SS-4	-	-	35	15	38	3	9	-	-	-	13	A-1-b (0)
	12.0	13.5	SS-5	-	-	41	7	40	- 12 -		-	-	-	12	A-2-4 (0)
	14.5	16.0	SS-6	-	-	44	0	45	9	2	-	-	-	13	A-2-4 (0)
	17.0	18.0	SS-7	-	-	36	1	53	4	6	-	-	-	15	A-3 (0)
	20.0	21.0	SS-8	-	-	49	0	43	6	2	-	-	-	15	A-3 (0)
	22.0	22.5	SS-9	-	-	42	4	41	8	5	-	-	-	18	A-2-4 (0)
BW-17	0.0	1.5	SS-1	-	-	5	6	31	37	21	25	20	5	26	A-4a (5)
STA. 341+76, 91' RT.	3.0	4.5	SS-2	-	-	4	5	21	35	35	27	18	9	16	A-4a (7)
	5.0	6.0	SS-3	-	-	45	0	3	44	8	-	-	-	13	A-4a (3)
BW-19	0.0	1.5	SS-1	-	-	1	4	28	48	19	27	24	3	29	A-4a (5)
STA. 343+58, 104' RT.	3.0	4.5	SS-2	-	-	4	7	33	36	20	21	16	5	15	A-4a (4)
	6.0	7.5	SS-3	-	-	5	8	22	43	22	21	17	4	15	A-4a (6)
	9.0	10.5	SS-4	-	-	50	3	34	7	6	-	-	0	13	A-1-b (0)
BW-21	0.0	1.5	SS-1	-	-	13	9	23	33	22	27	21	6	27	A-4a (4)
STA. 345+77, 119' RT.	3.0	4.5	SS-2	-	-	10	5	21	38	26	26	17	9	15	A-4a (6)
	6.0	7.5	SS-3	-	-	11	6	15	47	21	23	18	5	16	A-4a (7)
	9.0	10.5	SS-4	-	-	11	10	18	37	24	25	17	8	15	A-4a (5)
BW-23	0.0	1.5	SS-1	-	-	FILL - NO TESTS PERFORMED								-	- -
STA. 347+87, 94' RT.	3.0	4.5	SS-2	-	-	9	12	27	32	20	24	17	7	16	A-4a (3)
	6.0	7.5	SS-3	-	-	9	5	9	62	15	23	22	1	27	A-4b (8)
	9.0	10.5	SS-4	-	-	14	8	16	44	18	20	17	3	13	A-4a (5)
	12.0	13.5	SS-5	-	-	54	6	4	22	14	32	22	10	10	A-4a (0)
B-017-A-01	0.0	1.5	SS-1	-	-	15	11	47	15	12	21	18	3	5	A-3a (0)
STA. 472+77, 175' LT	3.0	4.5	SS-2	-	-	14	10	44	20	12	16	15	1	7	A-3a (0)
	6.0	7.5	SS-3	-	-	9	10	50	19	12	16	14	2	6	A-3a (0)
	8.5	10.0	SS-4	-	-	4	14	67	- 15 -		-	-	-	7	A-3a (0)
	11.0	12.5	SS-5	-	-	37	20	33	- 10 -		-	-	-	12	A-1-b (0)
	13.5	15.0	SS-6	-	-	31	19	29	- 21 -		-	-	-	12	A-1-b (0)
	16.0	17.5	SS-7	-	-	21	7	12	39	21	21	17	4	15	A-4a (5)
	17.5	18.5	SS-8	-	-	33	11	10	31	15	21	17	4	14	A-4a (2)
	18.5	20.0	SS-9	-	-	23	9	12	37	19	22	15	7	15	A-4a (4)
	21.5	23.0	SS-10	-	-	58	9	14	12	7	16	12	4	10	A-1-b (0)
B-017-A-02	0.5	2.0	SS-1	-	-	37	17	7	33	6	-	-	-	11	A-4a (1)
STA. 474+04, 153' LT	3.0	4.5	SS-2	-	-	7	9	39	23	22	23	17	6	16	A-4a (2)
	5.5	7.0	SS-3	-	-	43	12	37	2	6	18	15	3	12	A-1-b (0)
	8.0	9.5	SS-4	-	-	38	9	18	26	9	17	15	2	14	A-3a (0)
	10.5	12.0	SS-5	-	-	28	5	50	9	8	-	-	-	11	A-3a (0)
	13.5	15.0	SS-6	-	-	54	18	13	10	5	-	-	-	21	A-1-a (0)
	18.0	19.5	SS-7	-	-	16	7	37	32	8	14	11	3	10	A-4a (1)
	22.5	24.0	SS-8	-	-	14	6	70	- 10 -		-	-	-	15	A-3 (0)

SUMMARY OF SOIL TEST DATA
I.R. 77

EXPLORATION NO. STATION & OFFSET	FROM	-	TO	SAMPLE ID	% REC	HP TSF	% GR	% CS	% FS	% SILT	% CLAY	LL	PL	PI	% WC	ODOT CLASS	(GI)
B-017-A-03	0.0	-	1.5	SS-1	-	-	27	20	42	-	11	-	-	-	7	A-3a	(0)
STA. 474+66, 176' LT	3.0	-	4.5	SS-2	-	-	21	17	49	-	13	-	-	-	13	A-3a	(0)
	6.0	-	7.5	SS-3	-	-	22	21	42	-	15	-	-	-	14	A-3a	(0)
	8.5	-	10.0	SS-4	-	-	42	18	17	16	4	20	16	4	14	A-1-b	(0)
	11.0	-	12.5	SS-5	-	-	53	23	7	15	2	-	-	-	13	A-1-b	(0)
	13.5	-	15.0	SS-6	-	-	52	23	10	10	5	22	18	4	14	A-1-a	(0)
	16.0	-	17.5	SS-7	-	-	42	11	29	11	7	18	16	2	15	A-1-a	(0)
	18.5	-	20.0	SS-8	-	-	24	11	14	28	23	23	16	7	12	A-4a	(3)
	21.0	-	21.5	SS-9	-	-	36	6	22	26	8	16	14	2	11	A-2-4	(0)
B-017-A-04	0.0	-	1.5	SS-1	-	-	45	20	20	-	15	-	-	-	10	A-1-b	(0)
STA. 475+19, 166' LT	3.0	-	4.5	SS-2	-	-	27	5	36	23	9	-	-	-	14	A-2-4	(0)
	6.0	-	7.5	SS-3	-	-	6	6	59	18	11	-	-	-	14	A-3a	(0)
	8.5	-	10.0	SS-4	-	-	35	20	20	12	13	21	18	3	12	A-2-4	(0)
	11.0	-	12.5	SS-5	-	-	48	28	12	-	12	-	-	-	10	A-1-b	(0)
	13.5	-	15.0	SS-6	-	-	45	25	16	9	5	20	17	3	16	A-1-b	(0)
	16.0	-	17.5	SS-7	-	-	55	17	13	9	6	25	22	3	17	A-1-b	(0)
	18.5	-	19.5	SS-8	-	-	54	12	9	17	8	24	19	5	16	A-1-b	(3)
	23.0	-	24.5	SS-9	-	-	10	8	62	-	20	-	-	-	9	A-3a	(0)
	25.5	-	27.0	SS-10	-	-	5	4	51	26	14	18	15	3	12	A-4a	(1)
	30.5	-	31.0	SS-11	-	-	9	6	36	33	16	16	13	3	16	A-4a	(3)
B-017-A-05	0.0	-	1.5	SS-1	-	-	38	13	34	-	15	-	-	-	6	A-1-b	(0)
STA. 475+89, 193' LT	2.5	-	4.0	SS-2	-	-	46	16	19	-	19	-	-	-	7	A-1-b	(0)
	5.0	-	6.5	SS-3	-	-	32	11	37	-	20	-	-	-	9	A-2-4	(0)
	7.5	-	9.0	SS-4	-	-	11	18	39	-	32	-	-	-	15	A-3a	(0)
	10.0	-	11.5	SS-5	-	-	39	32	13	-	16	-	-	-	13	A-1-b	(0)
	12.5	-	14.0	SS-6	-	-	46	27	12	-	15	-	-	-	13	A-1-b	(0)
	15.0	-	16.5	SS-7	-	-	41	29	12	-	18	-	-	-	15	A-1-b	(0)
	20.0	-	21.5	SS-8	-	-	31	4	31	26	8	15	12	3	12	A-2-4	(0)
	25.0	-	26.5	SS-9	-	-	7	5	69	-	19	-	-	-	15	A-3a	(0)

SUMMARY OF SOIL TEST DATA
I.R. 76

EXPLORATION NO. STATION & OFFSET	FROM	TO	SAMPLE ID	% REC	HP TSF	% GR	% CS	% FS	% SILT	% CLAY	LL	PL	PI	% WC	ODOT CLASS	(GI)
B-004-0-18	1.0	2.5	SS-1	44	-	39	36	18	- 7 -		NP	NP	NP	11	A-1-b	(0)
STA. 248+32, 8' RT.	2.5	4.0	SS-2	67	-	18	6	8	43	25	26	17	9	9	A-4a	(7)
509049.840 N	4.0	5.5	SS-3	83	4.5+	-	-	-	-	-	-	-	-	7	A-4a	VISUAL
2228743.230 E	5.5	6.0	SS-4A	-	4.5+	-	-	-	-	-	-	-	-	8	A-4a	VISUAL
	6.0	7.0	SS-4B	100	-	-	-	-	-	-	-	-	-	-	ROCK	VISUAL
B-007-0-18	1.0	2.0	SS-1	56	-	50	5	5	26	14	29	19	10	7	A-4a	(1)
STA. 256+21, 10' RT.	2.5	4.0	SS-2	44	-	9	7	16	42	26	25	16	9	16	A-4a	(7)
509178.830 N	4.0	5.5	SS-3	39	2.5	-	-	-	-	-	-	-	-	14	A-4a	VISUAL
2229521.680 E	5.5	7.0	SS-4	22	3.75	-	-	-	-	-	-	-	-	10	A-6b	VISUAL
B-009-1-19	1.0	2.5	SS-1	89	-	42	23	27	- 8 -		-	-	-	13		
STA. 266+15, 64' RT.	2.5	4.0	SS-2	67	-	12	12	15	43	18	24	18	6	13	A-4a	(5)
509425.690 N	4.0	5.5	SS-3	83	-	22	9	14	36	19	22	15	7	12	A-4a	(4)
2230486.880 E	5.5	7.0	SS-4	11	-	23	8	9	41	19	25	16	9	11	A-4a	(5)
	8.5	10.0	SS-5	89	-	21	9	17	33	20	22	15	7	12	A-4a	(4)
	11.0	12.5	SS-6	72	-	21	7	10	43	19	26	18	8	12	A-4a	(5)
	13.5	15.0	SS-7	56	-	13	9	13	51	14	29	18	11	13	A-6a	(6)
	16.00	17.50	SS-8	106	-	-	-	-	-	-	-	-	-	11	A-4a	(VISUAL)
	18.50	20.00	SS-9	89	-	26	12	13	31	18	25	18	7	13	A-4a	(3)
	21.00	22.50	SS-10	100	-	-	-	-	-	-	-	-	-	15	A-4a	(VISUAL)
	23.50	25.00	SS-11	94	-	-	-	-	-	-	-	-	-	10	A-4a	(2)
	28.50	30.00	SS-12	94	-	1	6	83	-	-	-	-	-	4	A-3	(VISUAL)
	33.50	35.00	SS-13	100	-	8	5	43	30	14	NP	NP	NP	14	A-4a	(2)
	38.50	10.00	SS-14	94	-	26	16	22	24	12	19	16	3	10	A-4a	(0)
	43.50	45.00	SS-15	89	-	-	-	-	-	-	-	-	-	19	A-4a	(VISUAL)
	48.50	48.67	SS-16	100	-	-	-	-	-	-	-	-	-	14	Rock	(VISUAL)
B-009-2-19	1.00	2.50	SS-1	89	-	7	59	12	- 22 -		-	-	-	10	A-3a	(VISUAL)
STA. 268+29, 65' LT.	2.50	4.00	SS-2	28	-	-	-	-	-	-	-	-	-	15	A-4a	(VISUAL)
509615.110 N	4.00	5.50	SS-3	83	-	15	8	15	37	25	24	16	8	12	A-4a	(5)
2230650.730 E	5.50	7.00	SS-4	83	-	6	4	12	46	32	28	16	12	15	A-6a	(9)
	8.50	10.00	SS-5	100	-	-	-	-	-	-	-	-	-	20	A-6a	(VISUAL)
	11.00	12.50	SS-6	89	-	15	5	15	37	28	28	18	10	17	A-4a	(6)
	13.50	15.00	SS-7	94	-	-	-	-	-	-	-	-	-	11	A-4b	(VISUAL)
	16.00	17.50	SS-8	83	-	-	-	-	-	-	-	-	-	12	A-4b	(VISUAL)
	18.50	20.00	SS-9	89	-	5	4	13	50	28	28	16	12	15	A-6a	(9)
	21.00	22.50	SS-10	100	-	-	-	-	-	-	-	-	-	15	A-6a	(VISUAL)
	23.50	25.00	SS-11	89	-	-	-	-	-	-	-	-	-	14	A-6a	(VISUAL)
	28.50	30.00	SS-12	100	-	21	34	30	-	-	-	-	-	7	A-3a	(VISUAL)
	33.50	35.00	SS-13	100	-	-	-	-	-	-	-	-	-	5	A-3a	(VISUAL)
	38.50	40.00	SS-14	89	-	-	-	-	-	-	-	-	-	7	A-3a	(VISUAL)
	43.50	45.00	SS-15	83	-	0	0	35	56	9	NP	NP	NP	20	A-4b	(6)
	48.50	50.00	SS-16	100	-	6	15	73	-	-	-	-	-	19	A-3	(VISUAL)
	53.50	55.00	SS-17	100	-	43	34	10	-	-	-	-	-	10	A-1-b	(VISUAL)
	58.50	60.00	SS-18	78	-	-	-	-	-	-	-	-	-	21	A-4b	(VISUAL)
	63.50	65.00	SS-19	89	-	0	0	12	77	11	NP	NP	NP	21	A-4b	(8)
	68.50	70.00	SS-20	100	-	-	-	-	-	-	-	-	-	25	A-4b	(VISUAL)
	73.50	75.00	SS-21	78	-	-	-	-	-	-	-	-	-	27	A-4b	(VISUAL)
	78.50	80.00	SS-22	67	-	-	-	-	-	-	-	-	-	21	A-4b	(VISUAL)
	83.50	85.00	SS-23	94	-	8	18	5	50	19	23	19	4	22	A-4b	(7)
	88.50	90.00	SS-24	89	-	-	-	-	-	-	-	-	-	19	A-4b	(VISUAL)
	93.50	93.92	SS-25	100	-	-	-	-	-	-	-	-	-	9	A-4b	(VISUAL)
	98.50	98.92	SS-26	100	-	-	-	-	-	-	-	-	-	9	A-4b	(VISUAL)
B-010-0-18	1.0	2.5	SS-1	28	-	9	7	14	44	26	25	16	9	14	A-4a	(7)
STA.0+00, 0' LT	2.5	4.0	SS-2	50	-	31	13	13	30	13	32	21	11	12	A-6a	(2)
NORTHING =	4.0	5.5	SS-3	61	4.5	-	-	-	-	-	-	-	-	14	A-6a	VISUAL
EASTING =	5.5	7.0	SS-4	39	-	-	-	-	-	-	-	-	-	15	A-6a	VISUAL
B-011-0-18	1.0	2.5	SS-1	50	-	7	4	7	56	26	27	19	8	13	A-4b	(8)
STA.0+00, 0' LT	2.5	4.0	SS-2	61	-	5	7	15	42	31	26	16	10	13	A-4a	(8)
NORTHING =	4.0	5.5	SS-3	67	3	-	-	-	-	-	-	-	-	15	A-4a	VISUAL
EASTING =	5.5	7.0	SS-4	56	4.5	-	-	-	-	-	-	-	-	14	A-4a	VISUAL
	7.0	8.5	SS-5	89	-	-	-	-	-	-	-	-	-	13	A-4a	VISUAL
B-012-0-18	1.0	2.5	SS-1	56	-	70	17	8	- 5 -		NP	NP	NP	5	A-1-a	(0)
STA.0+00, 0' LT	2.5	4.0	SS-2	39	-	24	15	25	22	14	20	16	4	11	A-4a	(0)
NORTHING =	4.0	5.5	SS-3	67	4.5	-	-	-	-	-	-	-	-	13	A-6a	VISUAL
EASTING =	5.5	7.0	SS-4	56	3.75	-	-	-	-	-	-	-	-	12	A-6a	VISUAL
	7.0	8.5	SS-5	72	3	-	-	-	-	-	-	-	-	12	A-6a	VISUAL
B-013-0-18	1.0	2.5	SS-1	67	-	15	16	18	32	19	20	15	5	9	A-4a	(3)
STA.0+00, 0' LT	2.5	4.0	SS-2	67	4	8	6	14	48	24	25	17	8	12	A-4a	(7)
NORTHING =	4.0	5.5	SS-3	100	-	-	-	-	-	-	-	-	-	11	A-4a	VISUAL
EASTING =	5.5	7.0	SS-4	83	4.5+	-	-	-	-	-	-	-	-	10	A-4a	VISUAL
	7.0	8.5	SS-5	67	4.5+	-	-	-	-	-	-	-	-	11	A-4a	VISUAL
B-013-0-18	1.0	2.5	SS-1	67	-	15	16	18	32	19	20	15	5	9	A-4a	(3)
STA.0+00, 0' LT	2.5	4.0	SS-2	67	4	8	6	14	48	24	25	17	8	12	A-4a	(7)
NORTHING =	4.0	5.5	SS-3	100	-	-	-	-	-	-	-	-	-	11	A-4a	VISUAL
EASTING =	5.5	7.0	SS-4	83	4.5+	-	-	-	-	-	-	-	-	10	A-4a	VISUAL
	7.0	8.5	SS-5	67	4.5+	-	-	-	-	-	-	-	-	11	A-4a	VISUAL
B-014-0-20	1.5	3.0	SS-1	56	-	13	34	30	13	10	NP	NP	NP	11	A-3a	(0)
STA. 287+09, 15' LT.	3.0	4.5	SS-2	56	-	8	19	32	28	13	NP	NP	NP	14	A-4a	(1)
509853.650 N	4.5	6.0	SS-3	72	2.25	10	7	27	45	11	18	3	5	11	A-4a	(4)
2232520.740 E	6.0	7.5	SS-4	44	4.50	-	-	-	-	-	-	-	-	12	A-4a	(VISUAL)

SUMMARY OF SOIL TEST DATA
I.R. 76

EXPLORATION NO. STATION & OFFSET	FROM	TO	SAMPLE ID	% REC	HP TSF	% GR	% CS	% FS	% SILT	% CLAY	LL	PL	PI	% WC	ODOT CLASS	(GI)
B-014-1-19	1.50	3.0	SS-1	33	-	35	29	14	- 22 -		-	-	-	8	A-1-b	(VISUAL)
STA. 288+89, 85' LT.	3.00	4.5	SS-2	22	-	8	41	18	21	12	19	13	6	15	A-3a	(0)
509929.760 N	4.50	6.0	SS-3	89	-	17	19	30	20	14	19	14	5	14	A-2-4	(0)
2232698.810 E	6.00	7.5	SS-4	100	-	6	18	39	20	17	22	13	9	15	A-4a	(0)
	8.50	10.0	SS-5	89	-	8	23	46	12	11	NP	NP	NP	10	A-3a	(0)
	11.00	12.50	SS-6	100	-	-	-	-	-	-	-	-	-	13	A-4a	(VISUAL)
	13.50	15.00	SS-7	0	-	-	-	-	-	-	-	-	-	-	A-4a	(VISUAL)
	16.00	17.50	SS-8	100	-	18	15	30	- 37 -		-	-	-	15	A-4a	(VISUAL)
	18.50	20.00	SS-9	100	-	-	-	-	-	-	-	-	-	10	A-4a	(VISUAL)
	21.00	22.50	SS-10	83	-	2	8	24	46	20	36	31	5	32	A-4a	(6)
	23.50	25.00	SS-11	100	-	-	-	-	-	-	-	-	-	13	A-4b	(VISUAL)
	28.50	30.00	SS-12	100	-	11	16	21	31	21	19	13	6	11	A-4a	(3)
	33.50	35.00	SS-13	100	-	5	80	8	- 7 -		-	-	-	23	A-3a	(VISUAL)
	38.50	40.00	SS-14	94	-	34	40	19	- 7 -		-	-	-	14	A-3a	(VISUAL)
	43.50	45.00	SS-15	100	-	-	-	-	-	-	-	-	-	21	A-3a	(VISUAL)
	48.50	50.00	SS-16	100	-	0	6	81	- 13 -		-	-	-	19	A-3a	(VISUAL)
	53.50	55.00	SS-17	56	-	-	-	-	-	-	-	-	-	20	A-3a	(VISUAL)
	58.50	60.00	SS-18	100	-	1	0	53	38	8	NP	NP	NP	18	A-4a	(2)
	63.50	65.00	SS-19	100	-	-	-	-	-	-	-	-	-	21	A-3	(VISUAL)
	68.50	70.00	SS-20	100	-	-	-	-	-	-	-	-	-	20	A-3	(VISUAL)
	73.50	75.00	SS-21	100	-	0	0	90	- 10 -		-	-	-	21	A-3	(VISUAL)
	78.50	80.00	SS-22	100	-	-	-	-	-	-	-	-	-	21	A-3	(VISUAL)
	83.50	85.00	SS-23	89	-	-	-	-	-	-	-	-	-	22	A-3	(VISUAL)
	88.50	90.00	SS-24	100	-	2	5	87	- 6 -		-	-	-	21	A-3	(VISUAL)
	93.50	95.00	SS-25	100	-	-	-	-	-	-	-	-	-	20	A-3	(VISUAL)
	98.50	100.00	SS-26	100	-	-	-	-	-	-	-	-	-	17	A-3	(VISUAL)
B-014-2-19	1.00	2.50	SS-1	56	-	-	-	-	-	-	-	-	-	23	A-4a	(3)
STA. 290+23, 98' LT.	3.50	5.00	SS-2	56	-	-	-	-	-	-	-	-	-	15	A-4a	(1)
509947.540 N	6.00	7.50	SS-3	67	-	-	-	-	-	-	-	-	-	7	A-1-b	(0)
2232831.730 E	8.50	10.00	SS-4	83	-	32	32	29	-	-	-	-	-	5	A-1-b	(VISUAL)
	11.00	12.50	SS-5	100	-	5	38	51	-	-	-	-	-	5	A-3	(VISUAL)
	13.50	15.00	SS-6	83	-	-	-	-	-	-	-	-	-	4	A-3	(VISUAL)
	16.00	17.50	SS-7	89	-	-	-	-	-	-	-	-	-	11	A-3	(VISUAL)
	18.50	20.00	SS-8	61	-	66	17	12	-	-	-	-	-	11	A-1-a	(VISUAL)
	21.00	22.50	SS-9	100	-	23	10	47	14	6	NP	NP	NP	14	A-3a	(0)
	23.50	25.00	SS-10	100	-	42	16	28	-	-	-	-	-	12	A-1-b	(VISUAL)
	28.50	30.00	SS-11	100	-	0	3	54	34	9	NP	NP	NP	17	A-4a	(2)
	33.50	35.00	SS-12	56	-	-	-	-	-	-	-	-	-	19	A-3a	(VISUAL)
	38.50	40.00	SS-13	56	-	0	0	89	-	-	-	-	-	21	A-3a	(VISUAL)
	43.50	45.00	SS-14	100	-	-	-	-	-	-	-	-	-	19	A-3a	(VISUAL)
	48.50	50.00	SS-15	100	-	-	-	-	-	-	-	-	-	22	A-3a	(VISUAL)
	53.50	55.00	SS-16	100	-	0	0	86	-	-	-	-	-	24	A-3a	(VISUAL)
	58.50	60.00	SS-17	44	-	-	-	-	-	-	-	-	-	25	A-3a	(VISUAL)
	63.50	65.00	SS-18	33	-	-	-	-	-	-	-	-	-	23	A-3a	(VISUAL)
	68.50	70.00	SS-19	0	-	-	-	-	-	-	-	-	-	-	A-3a	(VISUAL)
	73.50	75.00	SS-20	50	-	-	-	-	-	-	-	-	-	23	A-3a	(VISUAL)
	78.50	80.00	SS-21	56	-	0	2	27	57	14	NP	NP	NP	16	A-4b	(7)
	83.50	85.00	SS-22	39	-	-	-	-	-	-	-	-	-	16	A-4b	(VISUAL)
	88.50	90.00	SS-23	78	-	-	-	-	-	-	-	-	-	19	A-3	(VISUAL)
	93.50	95.00	SS-24	56	-	-	-	-	-	-	-	-	-	21	A-3	(VISUAL)
	98.50	100.00	SS-25	83	-	0	4	89	-	-	-	-	-	19	A-3	(VISUAL)
B-014-4-19	1.00	2.50	SS-1	50	-	83	12	4	- 1 -		-	-	-	4	A-1-a	(VISUAL)
STA. 296+07, 49' LT.	2.50	4.00	SS-2	44	-	67	11	6	- 16 -		-	-	-	4	A-1-a	(VISUAL)
509917.780 N	4.00	5.50	SS-3	17	-	79	10	7	- 4 -		-	-	-	3	A-1-a	(VISUAL)
2233417.270 E	6.00	7.00	SS-4	17	-	47	14	20	12	7	20	16	4	53	A-1-b	(0)
	8.50	10.00	SS-5	33	-	9	13	34	28	16	18	14	4	15	A-4a	(2)
	11.00	12.50	SS-6	33	-	-	-	-	-	-	-	-	-	15	A-4a	(VISUAL)
	13.50	15.00	SS-7	100	-	3	6	22	47	22	22	15	7	14	A-4a	(7)
	16.00	17.50	SS-8	100	-	-	-	-	-	-	-	-	-	14	A-4a	(VISUAL)
	18.50	20.00	SS-9	89	-	10	10	21	39	20	25	18	7	16	A-4a	(5)
	21.00	22.50	SS-10	100	-	-	-	-	-	-	-	-	-	8	A-3a	(VISUAL)
	23.50	25.00	SS-11	100	-	10	28	43	-	-	-	-	-	10	A-3a	(VISUAL)
	28.50	30.00	SS-12	100	-	-	-	-	-	-	-	-	-	9	A-3a	(VISUAL)
	33.50	35.00	SS-13	83	-	-	-	-	-	-	-	-	-	9	A-3a	(VISUAL)
	38.50	40.00	SS-14	100	-	-	-	-	-	-	-	-	-	23	A-3a	(VISUAL)
	43.50	45.00	SS-15	100	-	1	0	79	- 19 -		-	-	-	18	A-3a	(VISUAL)
	48.50	50.00	SS-16	100	-	-	-	-	-	-	-	-	-	19	A-3a	(VISUAL)
	53.50	55.00	SS-17	100	-	2	0	46	42	10	NP	NP	NP	19	A-4a	(3)
	58.50	60.00	SS-18	100	-	-	-	-	-	-	-	-	-	28	A-4b	(VISUAL)
	63.50	65.00	SS-19	100	-	-	-	-	-	-	-	-	-	25	A-4b	(VISUAL)
	68.50	70.00	SS-20	100	-	3	3	18	53	23	18	14	4	17	A-4b	(8)
	73.50	75.00	SS-21	100	-	-	-	-	-	-	-	-	-	14	A-4b	(VISUAL)
	78.50	80.00	SS-22	100	-	-	-	-	-	-	-	-	-	22	A-3	(VISUAL)
	83.50	85.00	SS-23	100	-	-	-	-	-	-	-	-	-	17	A-3	(VISUAL)
	88.50	90.00	SS-24	100	-	2	8	82	-	-	-	-	-	19	A-3	(VISUAL)
	93.50	95.00	SS-25	83	-	-	-	-	-	-	-	-	-	7	A-3	(VISUAL)
	98.50	100.00	SS-26	100	-	-	-	-	-	-	-	-	-	17	A-3	(VISUAL)
B-015-0-20	1.00	2.50	SS-1	67	-	17	26	32	15	10	NP	NP	NP	11	A-3a	(0)
STA. 297+61, 52' LT.	2.50	4.00	SS-2	83	2.00	10	11	34	30	15	19	14	5	14	A-4a	(2)
509925.760 N	4.00	5.50	SS-3	61	-	2	2	77	11	8	NP	NP	NP	9	A-3a	(0)
2233570.320 E	5.50	5.67	SS-4	100	-	-	-	-	-	-	-	-	-	11	Rock	(VISUAL)
B-016-0-20	1.00	2.50	SS-1	50	0.50	13	8	38	27	14	23	16	7	15	A-4b	(VISUAL)
STA. 300+99, 122' RT.	2.50	4.00	SS-2	72	-	12	14	41	22	11	15	14	1	13	A-4a	(VISUAL)
509762.380 N	4.00	5.50	SS-3	78	-	-	-	-	-	-	-	-	-	22	A-4b	(VISUAL)
2233914.000 E	5.50	7.00	SS-4	67	-	-	-	-	-	-	-	-	-	15	A-4a	(VISUAL)
B-017-0-18	1.0	2.5	SS-1	56	-	17	21	34	17	11	16	13	3	9	A-3a	(0)
STA.0+00, 0' LT	2.5	4.0	SS-2	83	-	23	7	28	23	19	22	14	8	12	A-4a	(1)
509835.5200 N	4.0	5.5	SS-3	67	4.5+	-	-	-	-	-	-	-	-	13	A-4a	VISUAL
2233973.7200 E	5.5	7.0	SS-4	83	-	-	-	-	-	-	-	-	-	12	A-4a	VISUAL
	7.0	8.5	SS-5	67	-	-	-	-	-	-	-	-	-	15	A-4a	VISUAL
B-018-0-20	1.50	3.00	SS-1	78	4.50	5	0	50	30	15	NP	NP	NP	18	A-4a	(2)
STA. 306+00, 53' LT.	3.00	3.08	SS-2	100	-	-	-	-	-	-	-	-	-	4	A-1-a	(VISUAL)
509954.200 N	4.00	4.08	SS-3	100	-	-	-	-	-	-	-	-	-	3	A-1-a	(VISUAL)
2234409.220 E																
B-019-0-20	1.00	2.50	SS-1	-	-	7	15	52	17	9	NP	NP	NP	10	A-3a	(0)
STA. 309+61, 6' LT.	2.50	3.42	SS-2	-	-	-	-	-	-	-	-	-	-	7	A-3a	(VISUAL)
509919.220 N	4.00	4.08	SS-3	-	-	-	-	-	-	-	-	-	-	5	A-1-b	(VISUAL)
2234772.280 E																
B-020-0-20	1.00	2.50	SS-1	89	4.50	4	8	43	30	15	NP	NP	NP	10	A-4a	(2)
STA. 313+61, 7' LT.	2.50	4.00	SS-2	22	-	28	1	59	7	5	NP	NP	NP	7	A-3a	(0)
509932.900 N	4.00	5.50	SS-3	44	-	5	7	36	35	17	19	15	4	15	A-4a	(3)
2235171.430 E	5.50	7.00	SS-4	100	3.50	-	-	-	-	-	-	-	-	22	A-4b	(VISUAL)

SUMMARY OF SOIL TEST DATA
I.R. 76

EXPLORATION NO. STATION & OFFSET	FROM	TO	SAMPLE ID	% REC	HP TSF	% GR	% CS	% FS	% SILT	% CLAY	LL	PL	PI	% WC	ODOT CLASS	(GI)
B-045-1-18	1.50	3.00	SS-1	100	-	-	-	-	-	-	-	-	-	-	Rock	(VISUAL)
STA. 244+88, 54' LT.	3.00	4.50	SS-2	89	-	-	-	-	-	-	-	-	-	-	Rock	(VISUAL)
509043.1190 N	4.50	5.50	SS-3	100	-	-	-	-	-	-	-	-	-	-	Rock	(VISUAL)
2228163.7280 E	6.00	6.67	SS-4	100	-	-	-	-	-	-	-	-	-	-	Rock	(VISUAL)
B-046-0-18	1.50	3.00	SS-1	100	4.5+	10	12	11	47	20	24	18	6	8	A-4a	(6)
STA. 247+75, 52' RT.	3.00	4.50	SS-2	89	-	-	-	-	-	-	-	-	-	7	A-3a	(VISUAL)
508948.2480 N	4.50	6.00	SS-3	100	4.5+	16	12	6	43	23	29	18	11	8	A-6a	(7)
2228454.3250 E	6.00	7.50	SS-4	100	4.5+	-	-	-	-	-	-	-	-	10	A-6a	(VISUAL)
B-047-0-18	2.50	4.00	SS-1	100	4.5+	11	11	23	33	22	21	15	6	9	A-4a	(4)
STA. 9+09, 36 LT	5.00	5.40	SS-2A	100	4.5+	18	11	23	28	20	20	15	5	8	A-4a	(3)
508990.381 N	5.40	6.50	SS-2B	-	-	-	-	-	-	-	-	-	-	5	A-1-b	(VISUAL)
2228846.308 E	7.50	8.25	SS-3	100	-	-	-	-	-	-	-	-	-	-	Rock	(VISUAL)
	10.00	10.42	SS-4	100	-	-	-	-	-	-	-	-	-	-	Rock	(VISUAL)
B-048-0-18	0.00	1.50	SS-1	67	4.5+	14	21	17	31	17	23	17	6	11	A-4a	(3)
STA. 13+65, 12 RT	2.50	4.00	SS-2	100	-	-	-	-	-	-	-	-	-	-	Rock	(VISUAL)
509065.598 N	5.00	5.83	SS-3	100	-	-	-	-	-	-	-	-	-	-	Rock	(VISUAL)
2229298.328 E	7.50	9.00	SS-4	100	-	-	-	-	-	-	-	-	-	-	Rock	(VISUAL)
	10.00	10.83	SS-5	100	-	-	-	-	-	-	-	-	-	-	Rock	(VISUAL)
B-049-0-18	1.50	3.00	SS-1	67	4.5+	18	11	15	35	21	23	16	7	10	A-4a	(4)
STA. 260+19, 10 RT	3.00	4.50	SS-2	100	4.5+	19	10	13	38	20	24	17	7	10	A-4a	(5)
509239.768 N	4.50	6.00	SS-3	89	4.00	-	-	-	-	-	-	-	-	15	A-4a	(VISUAL)
2229668.467 E	6.00	7.50	SS-4	100	3.75	-	-	-	-	-	-	-	-	13	A-4a	(VISUAL)
B-050-0-18	2.50	4.00	SS-1	100	4.5+	21	12	15	35	17	22	15	7	8	A-4a	(3)
STA. 263+62, 63 RT	5.00	6.50	SS-2	100	4.5+	6	11	15	44	24	27	18	9	14	A-4a	(7)
509295.227 N	10.00	11.50	SS-4	39	-	-	-	-	-	-	-	-	-	9	A-4a	(VISUAL)
2230010.934 E	12.50	14.00	SS-5	100	4.25	-	-	-	-	-	-	-	-	15	A-4a	(VISUAL)
	15.00	16.50	SS-6	89	2.75	-	-	-	-	-	-	-	-	15	A-4a	(VISUAL)
	17.50	17.92	SS-7	20	-	-	-	-	-	-	-	-	-	-	Rock	(VISUAL)
	20.00	20.08	SS-8	100	-	-	-	-	-	-	-	-	-	-	Rock	(VISUAL)
B-077-0-18	1.50	3.00	SS-1	100	4.25	23	10	13	33	21	25	17	8	13	A-4a	(4)
STA. 4+68, 21' LT	3.00	4.50	SS-2	100	4.25	-	-	-	-	-	-	-	-	16	A-4a	(VISUAL)
508833.581 N	4.50	6.00	SS-3	100	4.5+	18	12	13	35	22	27	18	9	13	A-4a	(4)
2228430.192 E	6.00	7.50	SS-4	100	3.25	-	-	-	-	-	-	-	-	16	A-4a	(VISUAL)
B-077-1-18	1.50	3.00	SS-1	78	-	26	20	20	23	11	19	15	4	9	A-2-4	(0)
STA. 5+19, 5' RT	3.00	4.50	SS-2	56	-	21	32	17	21	9	NP	NP	NP	7	A-3a	(0)
509298.9420 N	4.50	6.00	SS-3	56	-	-	-	-	-	-	-	-	-	6	A-3a	(VISUAL)
2227999.3590 E	6.00	7.50	SS-4	78	4.5+	-	-	-	-	-	-	-	-	10	A-4a	(VISUAL)
B-077-2-18	1.50	3.00	SS-1	100	4.25	9	4	11	47	29	27	17	10	14	A-4a	(8)
STA. 3+27, 1' LT	3.00	4.50	SS-2	89	4.25	29	4	8	38	21	26	18	8	17	A-4a	(5)
509532.1480 N	4.50	6.00	SS-3	100	4.25	-	-	-	-	-	-	-	-	16	A-4a	(VISUAL)
2228102.465	6.00	7.50	SS-4	100	4.00	-	-	-	-	-	-	-	-	17	A-4a	(VISUAL)
B-077-3-18	1.50	3.00	SS-1	89	-	10	55	27	4	4	NP	NP	NP	6	A-1-b	(0)
STA. 7+95, 4' RT	3.00	3.50	SS-2A	78	-	-	-	-	-	-	-	-	-	7	A-1-b	(VISUAL)
509436.5060 N	3.50	4.50	SS-2B	-	4.25	-	-	-	-	-	-	-	-	18	A-4b	(VISUAL)
2228220.7030 E	4.50	6.00	SS-3	89	4.25	6	4	17	58	15	22	18	4	19	A-4b	(8)
	6.00	7.50	SS-4	100	3.25	-	-	-	-	-	-	-	-	19	A-4b	(VISUAL)
B-077-4-18	1.50	3.00	SS-1	100	4.25	2	3	9	53	33	29	19	10	16	A-4b	(8)
STA. 10+97, 8' RT	3.00	4.50	SS-2	100	4.25	-	-	-	-	-	-	-	-	22	A-4b	(VISUAL)
509298.2870 N	4.50	6.00	SS-3	100	4.00	0	1	2	69	28	30	23	7	22	A-4b	(8)
2228444.7490 E	6.00	7.50	SS-4	100	3.75	-	-	-	-	-	-	-	-	27	A-4b	(VISUAL)

SUMMARY OF SOIL TEST DATA
I.R. 77

EXPLORATION NO. STATION & OFFSET	FROM	TO	SAMPLE ID	% REC	HP TSF	% GR	% CS	% FS	% SILT	% CLAY	LL	PL	PI	% WC	ODOT CLASS	(GI)
B-021-0-18	1.0	2.5	SS-1	56	-	7	8	27	35	23	23	15	8	16	A-4a	(5)
STA. 520+31, 32' RT.	2.5	4.0	SS-2	78	-	11	7	28	34	20	23	15	8	13	A-4a	(4)
498338.221 N	4.0	5.5	SS-3	67	4.5+	-	-	-	-	-	-	-	-	17	A-4a	VISUAL
2243298.474 E	5.5	7.0	SS-4	22	4.5+	-	-	-	-	-	-	-	-	16	A-6b	VISUAL
B-022-0-18	1.0	2.5	SS-1	67	-	23	33	22	15	7	25	21	4	20	A-1-b	(0)
STA. 524+33, 28' LT.	2.5	4.0	SS-2	33	-	-	-	-	-	-	-	-	-	19	A-1-b	VISUAL
498726.460 N																
2243150.480 E																
B-023-0-18	1.0	2.5	SS-1	56	-	16	16	23	28	17	28	18	10	12	A-4a	(2)
STA. 526+65, 44' LT.	2.5	4.0	SS-2	44	-	18	17	24	27	14	27	18	9	0	A-4a	(1)
498961.710 N	4.0	5.5	SS-3	44	-	-	-	-	-	-	-	-	-	11	A-4a	VISUAL
2243146.060 E	5.5	7.0	SS-4	44	0.5	-	-	-	-	-	-	-	-	16	A-4a	VISUAL
B-024-0-18	1.0	2.5	SS-1	22	-	92	7	1	- 0 -		NP	NP	NP	6	A-1-a	(0)
STA. 325+90, 56' RT.	2.5	4.0	SS-2	56	-	20	12	24	29	15	22	15	7	13	A-4a	(2)
499130.110 N	4.0	5.5	SS-3	28	-	-	-	-	-	-	-	-	-	15	A-6b	VISUAL
2243256.220 E	5.5	7.0	SS-4	28	1	-	-	-	-	-	-	-	-	13	A-6b	VISUAL
B-025-0-18	1.0	2.5	SS-1	22	-	59	21	15	- 5 -		NP	NP	NP	11	A-1-a	(0)
STA. 329+90, 63' RT.	2.5	4.0	SS-2	28	-	23	10	30	21	16	21	13	8	12	A-4a	(0)
499529.970 N	4.0	5.5	SS-3	22	-	-	-	-	-	-	-	-	-	12	A-4a	VISUAL
2243265.060 E	5.5	7.0	SS-4	28	-	-	-	-	-	-	-	-	-	16	A-6b	VISUAL
B-026-0-18	1.0	2.5	SS-1	28	-	81	9	6	- 4 -		NP	NP	NP	9	A-1-a	(0)
STA. 333+90, 63' LT.	2.5	4.0	SS-2	50	-	59	10	20	8	3	NP	NP	NP	12	A-1-b	(0)
499930.390 N	4.0	5.5	SS-3	28	-	-	-	-	-	-	-	-	-	7	A-1-a	VISUAL
2243140.710 E	5.5	7.0	SS-4	39	2.5	-	-	-	-	-	-	-	-	5	ROCK	VISUAL
B-027-0-18	1.0	2.5	SS-1	56	-	12	43	36	- 9 -		NP	NP	NP	13	A-1-b	(0)
STA. 337+90, 7' RT.	2.5	4.0	SS-2	56	-	29	16	44	- 11 -		NP	NP	NP	12	A-3a	(0)
500330.760 N	4.0	5.5	SS-3	61	-	-	-	-	-	-	-	-	-	9	A-3a	VISUAL
2243212.280 E	5.5	7.0	SS-4	22	-	-	-	-	-	-	-	-	-	10	A-3a	VISUAL
B-028-0-18	1.0	2.5	SS-1	50	-	69	67	17	4	4	NP	NP	NP	7	A-1-a	(0)
STA. 342+68, 8' LT.	2.5	4.0	SS-2	44	-	33	13	39	- 15 -		NP	NP	NP	11	A-3a	(0)
500808.240 N	4.0	5.5	SS-3	22	-	-	-	-	-	-	-	-	-	15	A-3a	VISUAL
2243199.230 E	5.5	7.0	SS-4	6	-	-	-	-	-	-	-	-	-	14	ROCK	VISUAL
B-029-0-18	1.0	2.5	SS-1	67	-	25	44	26	- 5 -		NP	NP	NP	17	A-1-b	(0)
STA. 346+84, 49' RT.	2.5	4.0	SS-2	33	-	20	9	12	38	21	28	20	8	10	ROCK	VISUAL
501224.280 N	4.0	5.5	SS-3	39	-	-	-	-	-	-	-	-	-	6	ROCK	VISUAL
2243258.500 E	5.5	7.0	SS-4	50	-	-	-	-	-	-	-	-	-	8	ROCK	VISUAL
B-030-0-18	1.0	2.5	SS-1	50	-	25	4	7	44	20	31	21	10	8	ROCK	VISUAL
STA. 350+86, 52' LT.	2.5	4.0	SS-2	100	-	32	3	11	36	18	30	19	11	5	ROCK	VISUAL
501626.620 N	4.0	5.5	SS-3	83	-	-	-	-	-	-	-	-	-	6	ROCK	VISUAL
2243159.100 E																
B-031-0-18	1.0	2.5	SS-1	22	-	27	21	26	17	9	28	23	5	10	A-2-4	(0)
STA. 354+95, 7' RT.	2.5	4.0	SS-2	28	-	31	8	14	28	19	28	16	12	11	A-6a	(3)
502035.980 N	4.0	5.5	SS-3	61	-	-	-	-	-	-	-	-	-	8	ROCK	VISUAL
2243212.550 E	5.5	7.0	SS-4	28	-	-	-	-	-	-	-	-	-	6	ROCK	VISUAL
B-032-0-18	1.0	2.5	SS-1	50	-	15	9	18	40	18	27	19	8	11	A-4a	(5)
STA. 358+81, 7' LT.	2.5	4.0	SS-2	56	-	30	28	30	- 12 -		NP	NP	NP	8	A-1-b	(0)
502418.540 N	4.0	5.5	SS-3	28	-	-	-	-	-	-	-	-	-	15	ROCK	VISUAL
2243160.220 E	5.5	7.0	SS-4	17	-	-	-	-	-	-	-	-	-	4	ROCK	VISUAL
B-033-0-18	1.0	2.5	SS-1	50	-	15	13	17	36	19	24	16	8	12	A-4a	(4)
STA. 362+81, 68' RT.	2.5	4.0	SS-2	61	-	4	1	17	56	22	25	18	7	6	A-4b	(8)
502824.970 N	4.0	5.5	SS-3	61	-	-	-	-	-	-	-	-	-	15	A-6b	VISUAL
2243182.540 E	5.5	7.0	SS-4	56	1.75	-	-	-	-	-	-	-	-	16	A-6b	VISUAL
B-034-0-18	1.0	2.5	SS-1	78	-	19	46	29	- 6 -		NP	NP	NP	5	A-1-b	(0)
STA. 367+64, 64' LT.	2.5	4.0	SS-2	67	-	14	22	32	18	14	17	8	9	11	A-2-4	(0)
503289.880 N	4.0	5.5	SS-3	61	2.25	-	-	-	-	-	-	-	-	17	A-4a	VISUAL
2242993.550 E	5.5	7.0	SS-4	44	-	-	-	-	-	-	-	-	-	11	A-4a	VISUAL
	7.0	8.5	SS-5	56	-	-	-	-	-	-	-	-	-	17	A-4b	VISUAL
B-035-0-18	1.0	2.5	SS-1	56	-	28	17	15	22	18	27	15	12	12	A-6a	(2)
STA. 374+73, 6' RT.	2.5	4.0	SS-2	56	-	4	9	23	41	23	24	14	10	13	A-4a	(6)
504003.740 N	4.0	5.5	SS-3	61	4.5+	-	-	-	-	-	-	-	-	13	A-4a	VISUAL
2243043.300 E	5.5	7.0	SS-4	50	4.5+	-	-	-	-	-	-	-	-	11	A-4a	VISUAL
B-036-0-18	1.0	2.5	SS-1	11	-	29	37	26	- 8 -		NP	NP	NP	9	A-1-b	(0)
STA. 381+04, 6' LT.	2.5	4.0	SS-2	22	-	63	19	12	- 6 -		NP	NP	NP	9	UCF	VISUAL
504634.220 N	4.0	5.5	SS-3	61	4.5+	-	-	-	-	-	-	-	-	14	A-6a	VISUAL
2243035.320 E	5.5	7.0	SS-4	50	4.5+	-	-	-	-	-	-	-	-	12	A-6a	VISUAL
B-037-0-18	1.0	2.5	SS-1	22	-	20	41	34	- 5 -		NP	NP	NP	10	A-1-b	(0)
STA. 382+88, 49' RT.	2.5	4.0	SS-2	50	-	27	37	27	- 9 -		NP	NP	NP	10	A-1-b	(0)
504817.910 N	4.0	5.5	SS-3	11	4	-	-	-	-	-	-	-	-	11	A-6a	VISUAL
2243091.700 E	5.5	7.0	SS-4	28	-	-	-	-	-	-	-	-	-	16	A-3a	VISUAL
B-038-0-18	1.0	2.5	SS-1	13	-	14	27	28	20	11	18	12	6	12	A-3a	(0)
STA. 386+89, 48' LT.	2.5	4.0	SS-2	10	-	0	3	11	56	30	27	18	9	19	A-4b	(8)
505219.410 N	4.0	5.5	SS-3	16	4.25	-	-	-	-	-	-	-	-	14	A-4b	VISUAL
2242996.940 E	5.5	7.0	SS-4	25	4.25	-	-	-	-	-	-	-	-	14	A-4b	VISUAL
	7.0	8.5	SS-5	13	4	-	-	-	-	-	-	-	-	15	A-4b	VISUAL

SUMMARY OF SOIL TEST DATA
I.R. 77

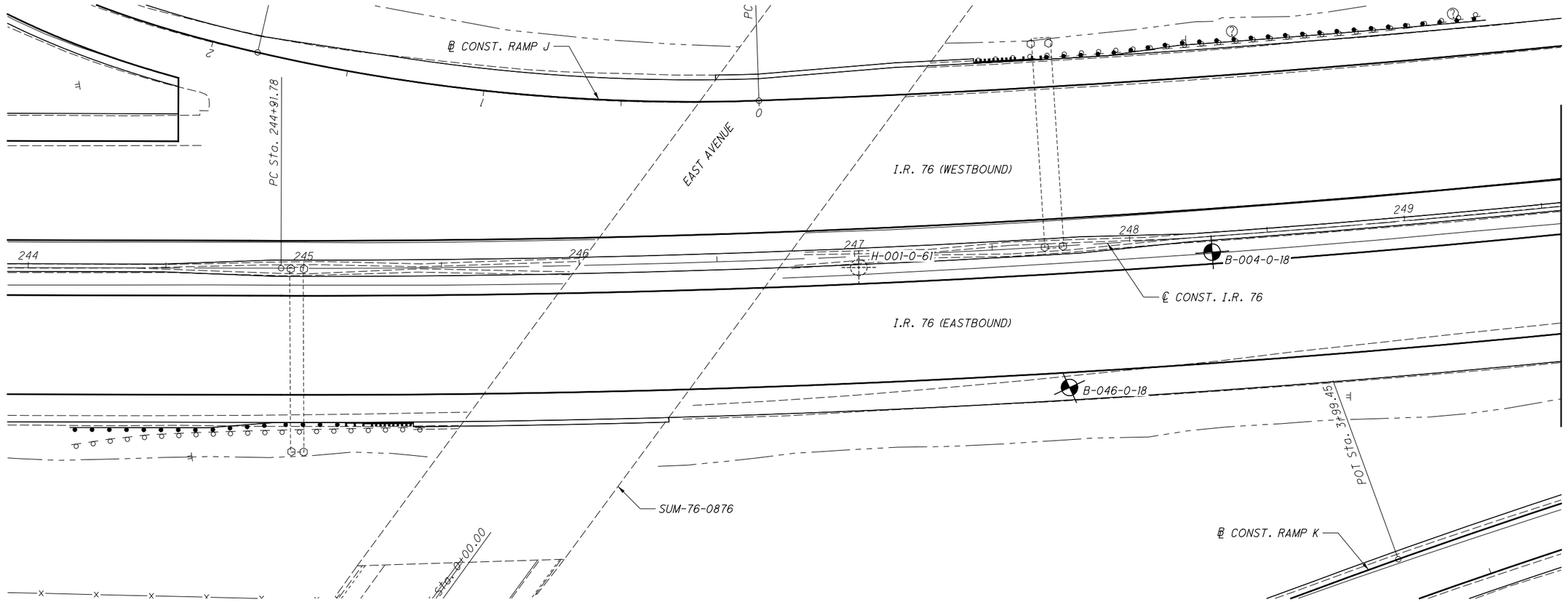
EXPLORATION NO. STATION & OFFSET	FROM	-	TO	SAMPLE ID	% REC	HP TSF	% GR	% CS	% FS	% SILT	% CLAY	LL	PL	PI	% WC	ODOT CLASS	(GI)
B-039-0-18	1.0	-	2.5	SS-1	56	-	14	9	16	41	20	28	20	8	11	A-4a	(5)
STA. 391+90, 7' RT.	2.5	-	4.0	SS-2	44	-	33	18	20	18	11	25	17	8	8	A-2-4	(0)
505720.930 N	4.0	-	5.5	SS-3	33	-	-	-	-	-	-	-	-	-	14	ROCK	VISUAL
2243055.880 E	5.5	-	7.0	SS-4	33	-	-	-	-	-	-	-	-	-	14	ROCK	VISUAL
B-040-0-18	1.0	-	2.5	SS-1	56	-	37	30	26	- 7 -		NP	NP	NP	8	A-1-b	(0)
STA. 394+85, 75' LT.	2.5	-	4.0	SS-2	72	-	16	12	8	42	22	29	20	9	4	ROCK	VISUAL
506015.960 N	4.0	-	5.5	SS-3	111	-	-	-	-	-	-	-	-	-	4	ROCK	VISUAL
2242975.860 E																	
B-041-0-18	1.0	-	2.5	SS-1	28	-	37	32	19	9	3	NP	NP	NP	5	A-1-b	(0)
STA. 398+62, 64' RT.	2.5	-	4.0	SS-2	56	-	59	18	14	- 9 -		NP	NP	NP	4	A-1-a	(0)
506392.040 N	4.0	-	5.5	SS-3	11	-	-	-	-	-	-	-	-	-	8	A-1-a	VISUAL
2243117.150 E																	
B-042-0-18	1.0	-	2.5	SS-1	39	-	54	17	21	- 8 -		NP	NP	NP	7	A-1-a	(0)
STA. 401+90, 63' LT.	2.5	-	4.0	SS-2	33	-	-	-	-	-	-	-	-	-	9	ROCK	VISUAL
506720.560 N	4.0	-	5.5	SS-3	6	-	-	-	-	-	-	-	-	-	9	ROCK	VISUAL
2242992.370 E	5.5	-	7.0	SS-4	-	-	-	-	-	-	-	-	-	-	7	ROCK	VISUAL
B-043-0-18	1.0	-	2.5	SS-1	67	-	69	14	12	- 5 -		NP	NP	NP	9	A-1-a	(0)
STA. 406+10, 8' RT.	2.5	-	4.0	SS-2	22	-	-	-	-	-	-	-	-	-	9	ROCK	VISUAL
507140.580 N	4.0	-	5.5	SS-3	17	-	-	-	-	-	-	-	-	-	9	ROCK	VISUAL
2243041.260 E																	

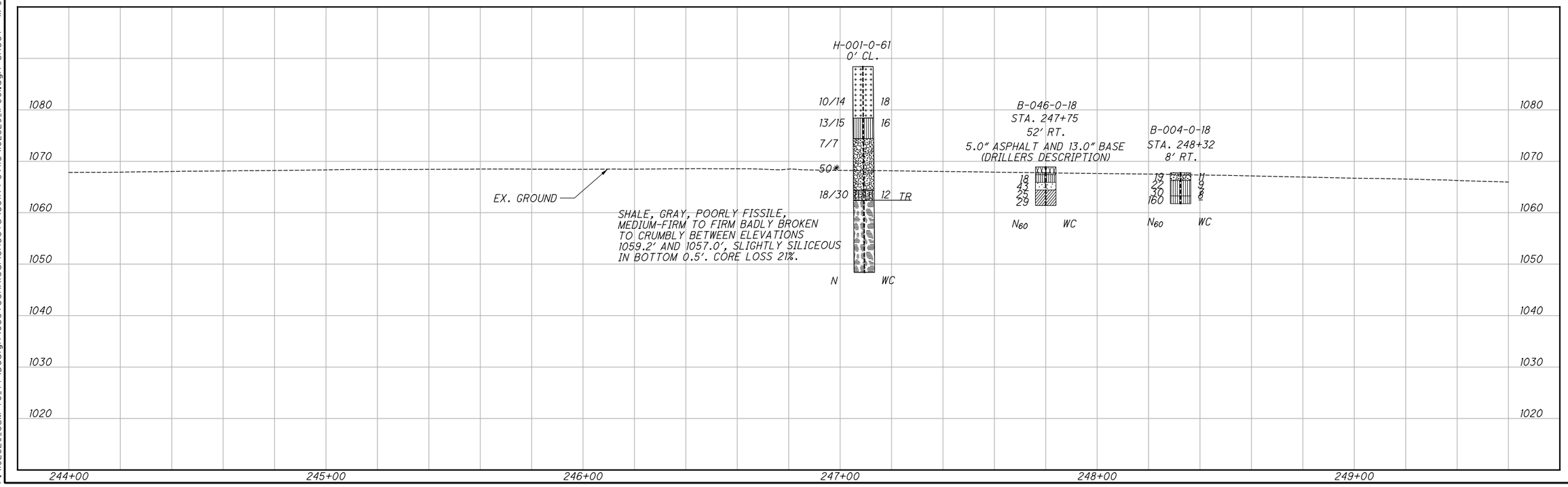
SUMMARY OF SOIL TEST DATA
I.R. 77

EXPLORATION NO. STATION & OFFSET	FROM	TO	SAMPLE ID	% REC	HP TSF	% GR	% CS	% FS	% SILT	% CLAY	LL	PL	PI	% WC	ODOT CLASS	(GI)
P-001-0-20	1.10	2.60	SS-1	0	-	8	25	37	15	15	16	17	NP	18	A-3a	0
STA. 4310+13, 8' LT.	3.50	4.30	SS-2	90	-	0	20	9	46	25	29	46	NP	4	Rock	(VISUAL)
508995.603 N	6.00	6.80	SS-3	90	-	CLAYSTONE, GREY, DECOMPOSED TO HIGHLY WEATHERED								4	Rock	(VISUAL)
2242835.291 E	8.50	9.20	SS-4	100	-	VERY WEAK								4	Rock	(VISUAL)
P-002-0-20	1.00	2.50	SS-1	72	-	9	42	17	27	5	15	NP	NP	10	A-3a	0
STA. 4310+80, 38' RT.	3.50	4.40	SS-2	91	-	0	12	11	54	23	28	21	7	5	Rock	(VISUAL)
509058.808 N	6.00	6.70	SS-3	100	-	CLAYSTONE, GREY, HIGHLY WEATHERED, VERY WEAK								5	Rock	(VISUAL)
2242886.491 E	8.50	9.10	SS-4	100	-									4	Rock	(VISUAL)
P-003-0-20	1.30	2.60	SS-1	83	-	19	56	13	2	10	NP	NP	NP	14	A-1-b	(0)
STA. 4314+12, 32' LT.	3.50	4.10	SS-2	100	-	0	36	16	28	20	28	19	9	4	Rock	(VISUAL)
509395.603 N	6.00	6.40	SS-3	60	-	CLAYSTONE, GREY, DECOMPOSED TO HIGHLY WEATHERED								4	Rock	(VISUAL)
2242852.076 E	8.50	9.10	SS-4	100	-	VERY WEAK								4	Rock	(VISUAL)
P-004-0-20	1.30	2.20	SS-1	61	-	10	41	21	26	2	18	NP	NP	11	A-3a	(0)
STA. 4314+82, 29' RT.	3.50	4.10	SS-2	100	-	0	36	15	33	16	26	19	7	4	Rock	(VISUAL)
509458.808 N	6.00	6.40	SS-3	100	-	CLAYSTONE, GREY, DECOMPOSED TO HIGHLY WEATHERED								4	Rock	(VISUAL)
2242913.516 E	8.50	8.90	SS-4	60	-	VERY WEAK								4	Rock	(VISUAL)
P-005-0-20	1.20	2.40	SS-1	94	-	9	47	29	13	2	19	18	1	14	A-1-b	(0)
STA. 4317+80, 10' RT.	3.50	4.20	SS-2	100	-	9	42	17	22	10	24	20	4	3	Rock	(VISUAL)
509769.552 N	6.00	6.40	SS-3	80	-	CLAYSTONE, GREY, DECOMPOSED TO HIGHLY WEATHERED								5	Rock	(VISUAL)
2242933.728 E	8.50	8.60	SS-4	100	-	VERY WEAK								3	Rock	(VISUAL)
P-006-0-20	1.20	2.70	SS-1	-	-	5	35	11	31	18	20	15	5	12	A-4a	(3)
STA. 4318+15, 35' LT.	3.50	4.10	SS-2	100	-	0	37	24	28	11	24	16	8	4	Rock	(VISUAL)
509795.603 N	6.00	6.40	SS-3	100	-	CLAYSTONE, GREY, DECOMPOSED TO HIGHLY WEATHERED								5	Rock	(VISUAL)
2242882.465 E	8.50	8.90	SS-4	20	-	VERY WEAK								5	Rock	(VISUAL)
P-007-0-20	1.30	2.80	SS-1	78	-	10	37	38	10	5	NP	NP	NP	18	A-3a	(0)
STA. 4321+13, 9' RT.	3.50	4.20	SS-2	88	-	0	17	11	49	23	28	21	7	6	Rock	(VISUAL)
510089.565 N	6.00	6.40	SS-3	80	-	CLAYSTONE, DARK GREY, DECOMPOSED TO HIGHLY								8	Rock	(VISUAL)
2242956.974 E	8.50	9.10	SS-4	57	-	WEATHERED, VERY WEAK								9	Rock	(VISUAL)
P-008-0-20	1.00	2.50	SS-1A	44	-	13	50	23	12	2	NP	NP	NP	9	A-1-b	(0)
STA. 4322+19, 8' LT.	2.25	2.50	SS-1B	-	4.00	8	34	23	23	12	-	-	-	13	A-7-6	(VISUAL)
510195.603 N	3.50	5.00	SS-2	39	-	8	34	23	23	12	28	25	3	6	Rock	(VISUAL)
2242955.529 E	6.00	6.60	SS-3	100	-	CLAYSTONE, GREY, DECOMPOSED TO HIGHLY WEATHERED								5	Rock	(VISUAL)
	8.50	9.10	SS-4	100	-	VERY WEAK								4	Rock	(VISUAL)
P-009-0-20	1.00	2.50	SS-1	6	-	AGGREGATE BASE								9	A-1-a	(VISUAL)
STA. 4322+06, 137' LT.	3.50	5.00	SS-2	56	2.25	4	24	30	30	12	37	20	17	19	A-6b	(3)
510195.603 N	6.00	7.50	SS-3	50	-	0	13	63	19	5	22	NP	NP	11	A-3a	(0)
2242824.067 E	8.50	10.00	SS-4	28	-	GREY SILTY CLAY								9	A-6b	(VISUAL)
P-010-0-20	1.10	2.60	SS-1	56	-	0	45	33	17	5	15	NP	NP	12	A-3a	(0)
STA. 4325+18, 35' RT.	3.50	4.40	SS-2	91	-	10	39	22	23	6	25	22	3	5	Rock	(VISUAL)
510489.565 N	6.00	6.40	SS-3	100	-	CLAYSTONE, GREY, DECOMPOSED TO HIGHLY WEATHERED								3	Rock	(VISUAL)
2243027.287 E	8.50	9.20	SS-4	100	-	VERY WEAK								4	Rock	(VISUAL)
P-011-0-20	1.00	2.50	SS-1	-	-	19	54	10	5	12	21	14	7	10	A-2-4	(0)
STA. 4326+28, 12' LT.	3.50	4.30	SS-2	100	-	4	22	32	34	8	20	NP	NP	6	Rock	(VISUAL)
510595.603 N	6.00	6.60	SS-3	100	-	CLAYSTONE, GREY, DECOMPOSED TO HIGHLY WEATHERED								5	Rock	(VISUAL)
2242987.968 E	8.50	9.10	SS-4	100	-	VERY WEAK								6	Rock	(VISUAL)
P-012-0-20	1.20	2.70	SS-1	72	3.50	4	15	13	39	29	24	15	9	16	A-4a	(7)
STA. 4326+01, 91' LT.	3.50	4.90	SS-2	6	-	14	17	32	26	11	17	NP	NP	9	A-4a	(0)
510595.603 N	6.00	7.50	SS-3	50	-	5	20	42	20	13	19	NP	NP	12	A-3a	(0)
2242899.043 E	8.50	10.00	SS-4	56	-	GREY CLAY (POSSIBLE CLAYSTONE)								6	A-7-6	(VISUAL)
P-013-0-20	1.00	2.50	SS-1	56	4.00	0	19	30	40	11	24	16	8	14	A-4a	(3)
STA. 4327+97, 48' LT.	3.50	4.10	SS-2	100	-	0	32	23	35	10	28	17	11	6	Rock	(VISUAL)
510771.172 N	6.00	6.40	SS-3	100	-	CLAYSTONE, GREY, DECOMPOSED TO HIGHLY WEATHERED								6	Rock	(VISUAL)
2242976.120 E	8.50	8.90	SS-4	100	-	VERY WEAK								7	Rock	(VISUAL)
P-014-0-20	1.10	2.60	SS-1	78	-	27	15	31	13	14	NP	NP	NP	12	A-2-4	(0)
STA. 4329+22, 31' RT.	3.50	4.40	SS-2	82	-	1	17	28	41	13	28	22	6	7	Rock	(VISUAL)
510889.565 N	6.00	6.40	SS-3	80	-	CLAYSTONE, GREY, DECOMPOSED TO HIGHLY WEATHERED								5	Rock	(VISUAL)
2243060.787 E	8.50	9.20	SS-4	100	-	VERY WEAK								4	Rock	(VISUAL)
P-015-0-20	1.00	1.80	SS-1	90	-	0	12	48	29	11	24	19	5	4	Rock	(VISUAL)
STA. 327+44, 9' RT.	3.50	3.90	SS-2	100	-	11	27	25	27	10	-	-	-	5	Rock	(VISUAL)
511289.565 N	6.00	6.10	SS-3	33	-	CLAYSTONE, GREY, DECOMPOSED TO HIGHLY WEATHERED								4	Rock	(VISUAL)
2243082.150 E	8.50	8.75	SS-4	100	-	VERY WEAK								4	Rock	(VISUAL)
P-016-0-20	1.20	2.70	SS-1	56	4.00	2	8	24	44	22	22	17	5	10	A-4a	(6)
STA. 328+48, 42' LT.	3.50	4.40	SS-2	82	-	0	4	10	65	21	25	22	3	6	Rock	(VISUAL)
511395.603 N	6.00	6.90	SS-3	82	-	CLAYSTONE, GREY, DECOMPOSED TO HIGHLY WEATHERED								6	Rock	(VISUAL)
2243026.160 E	8.50	8.90	SS-4	100	-	VERY WEAK								5	Rock	(VISUAL)
P-017-0-20	1.10	2.60	SS-1	78	4.00	0	7	7	52	34	25	18	7	13	A-4b	(8)
STA. 331+43, 8' RT.	3.50	4.90	SS-2	71	4.00	0	25	11	39	25	27	14	13	11	A-6a	(7)
511689.565 N	6.00	6.90	SS-3	100	-	CLAYSTONE, GREY, DECOMPOSED TO HIGHLY WEATHERED								8	Rock	(VISUAL)
2243082.529 E	8.50	9.25	SS-4	100	-	VERY WEAK								6	Rock	(VISUAL)
P-018-0-20	1.00	2.50	SS-1	56	3.25	23	54	10	4	9	NP	NP	NP	8	A-1-b	(0)
STA. 332+50, 11' LT.	3.50	5.00	SS-2	72	-	21	15	32	19	13	17	15	2	11	A-2-4	(0)
511795.603 N	6.00	7.50	SS-3	67	-	2	11	26	26	35	21	14	7	11	A-4a	(5)
2243067.107 E	8.50	10.00	SS-4	72	-	SHALE, BROWN, HIGHLY WEATHERED, VERY WEAK TO WEAK								9	Rock	(VISUAL)
P-019-0-20	1.00	2.50	SS-1	50	-	19	24	20	21	16	NP	NP	NP	8	A-4a	(0)
STA. 334+68, 61' RT.	3.50	5.00	SS-2	44	1.25	0	25	29	30	16	21	16	5	12	A-4a	(2)
512015.145 N	6.00	7.50	SS-3	39	-	5	24	36	23	12	20	NP	NP	11	A-3a	(0)
2243133.359 E	8.50	10.00	SS-4	11	-	BROWN GRAVEL AND STONE FRAG. WITH SAND AND SILT								13	A-2-4	(VISUAL)
P-020-0-20	1.00	2.50	SS-1	50	-	43	8	19	18	12	-	-	-	11	A-4a	(VISUAL)
STA. 336+52, 50' LT.	3.50	5.00	SS-2	11	-	BROWN GRAVEL AND STONE FRAG. WITH SAND AND SILT								4	A-2-4	(VISUAL)
512195.603 N	6.00	7.50	SS-3	56	-	0	10	8	55	27	28	20	8	11	A-4b	(8)
2243013.543 E	8.50	10.00	SS-4	67	-	0	14	48	31	7	NP	NP	NP	15	A-4a	(1)
P-022-0-20	1.20	2.70	SS-1	56	-	9	12	32	28	19	18	15	3	13	A-4a	(2)
STA. 340+04, 43' LT.	3.50	5.00	SS-2	72	-	5	8	32	39	16	17	15	2	11	A-4a	(4)
512547.380 N	6.00	7.50	SS-3	78	-	0	15	41	32	12	16	14	2	10	A-4a	(2)
2243020.543 E	8.50	10.00	SS-4	72	-	7	10	41	28	14	15	15	NP	11	A-4a	(1)
P-024-0-20	1.00	2.50	SS-1	44	-	0	17	45	28	10	18	17	1	9	A-4a	(1)
STA. 344+04, 55' LT.	3.50	5.00	SS-2	72	-	1	4	16	56	23	21	18	3	13	A-4b	(8)
512947.380 N	6.00	7.50	SS-3	72	-	13	8	33	28	18	16	15	1	11	A-4a	(2)
2242995.157 E	8.50	10.00	SS-4	72	-	20	10	56	11	3	NP	NP	NP	5	A-3a	(0)

SUMMARY OF SOIL TEST DATA
I.R. 77

EXPLORATION NO. STATION & OFFSET	FROM		TO	SAMPLE ID	% REC	HP TSF	% GR	% CS	% FS	% SILT	% CLAY	LL	PL	PI	% WC	ODOT CLASS	(GI)
P-025-0-20	1.00	-	2.50	SS-1	50	-	17	30	32	15	6	NP	NP	NP	7	A-3a	(0)
STA. 347+84, 59' RT.	3.50	-	5.00	SS-2	44	-	10	25	35	22	8	14	NP	NP	9	A-3a	(0)
513322.213 N	6.00	-	7.50	SS-3	17	-	BROWN GRAVEL AND STONE FRAG. WITH SAND AND SILT								7	A-2-4	(VISUAL)
2243106.176 E	8.50	-	10.00	SS-4	17	-	SAME AS SS-3								9	A-2-4	(VISUAL)
P-027-0-20	1.00	-	2.50	SS-1	50	-	33	20	17	15	15	-	-	-	11	A-3a	(VISUAL)
STA. 351+75, 80' RT.	3.50	-	4.25	SS-2A	44	-	52	17	19	9	3	-	-	-	5	A-2-4	(VISUAL)
513722.213 N	4.25	-	5.00	SS-2B	-	1.75	SAME AS SS-3								12	A-6b	(VISUAL)
2243120.197 E	6.00	-	7.50	SS-3	44	2.25	3	14	33	27	23	25	15	10	14	A-6b	(VISUAL)
	8.50	-	10.00	SS-4	56	3.75	SAME AS SS-3								14	A-6b	(VISUAL)
P-028-0-20	1.20	-	2.70	SS-1	61	-	27	16	28	17	12	NP	NP	NP	11	A-3a	(VISUAL)
STA. 352+04, 72' LT.	3.50	-	5.00	SS-2	56	1.25	4	19	37	25	15	20	16	4	14	A-4a	(1)
513747.380 N	6.00	-	7.40	SS-3	76	4.00	0	17	24	35	24	22	15	7	13	A-4a	(5)
2242961.484 E	8.50	-	8.70	SS-4	100	-	SANDSTONE, O. BR. DECOMP. TO H. WEATH., V. WEAK TO WEAK									Rock	(VISUAL)
P-029-0-20	1.10	-	2.60	SS-1	56	-	8	3	58	15	16	NP	NP	NP	10	A-3a	(0)
STA. 354+06, 85' LT.	3.50	-	5.00	SS-2	39	4.00	9	7	24	34	26	23	16	7	11	A-4a	(5)
513949.720 N	6.00	-	7.50	SS-3	44	-	32	7	28	17	16	19	16	3	11	A-2-4	(0)
2242949.484 E	8.50	-	10.00	SS-4	56	-	2	2	61	18	17	17	16	1	9	A-3a	(0)
P-030-0-20	1.00	-	2.50	SS-1	44	-	48	42	3	5	2	-	-	-	8	A-3a	(VISUAL)
STA. 355+21, 111' RT.	3.50	-	3.75	SS-2A	33	-	0	26	33	34	7	20	18	2	10	A-4a	(1)
514066.978 N	3.75	-	5.00	SS-2B	-	4.00	BROWN CLAY								13	A-7-6	(VISUAL)
2243137.848 E	6.00	-	6.40	SS-3	20	-	SANDSTONE, BROWN, HIGHLY WEATHERED,								6	Rock	(VISUAL)
	8.50	-	8.90	SS-4	20	-	WEAK TO MOD. STRONG								6	Rock	(VISUAL)





SOIL PROFILE

STA. 244+00.00 TO STA. 249+60.00 I.R. 76

BEGIN STA. 244+00.00

SUM-76/77/8-8.24/9.74/0.00

DRAWN SM CHECKED PAN

HORIZONTAL SCALE IN FEET 0 10 20 40

29
202

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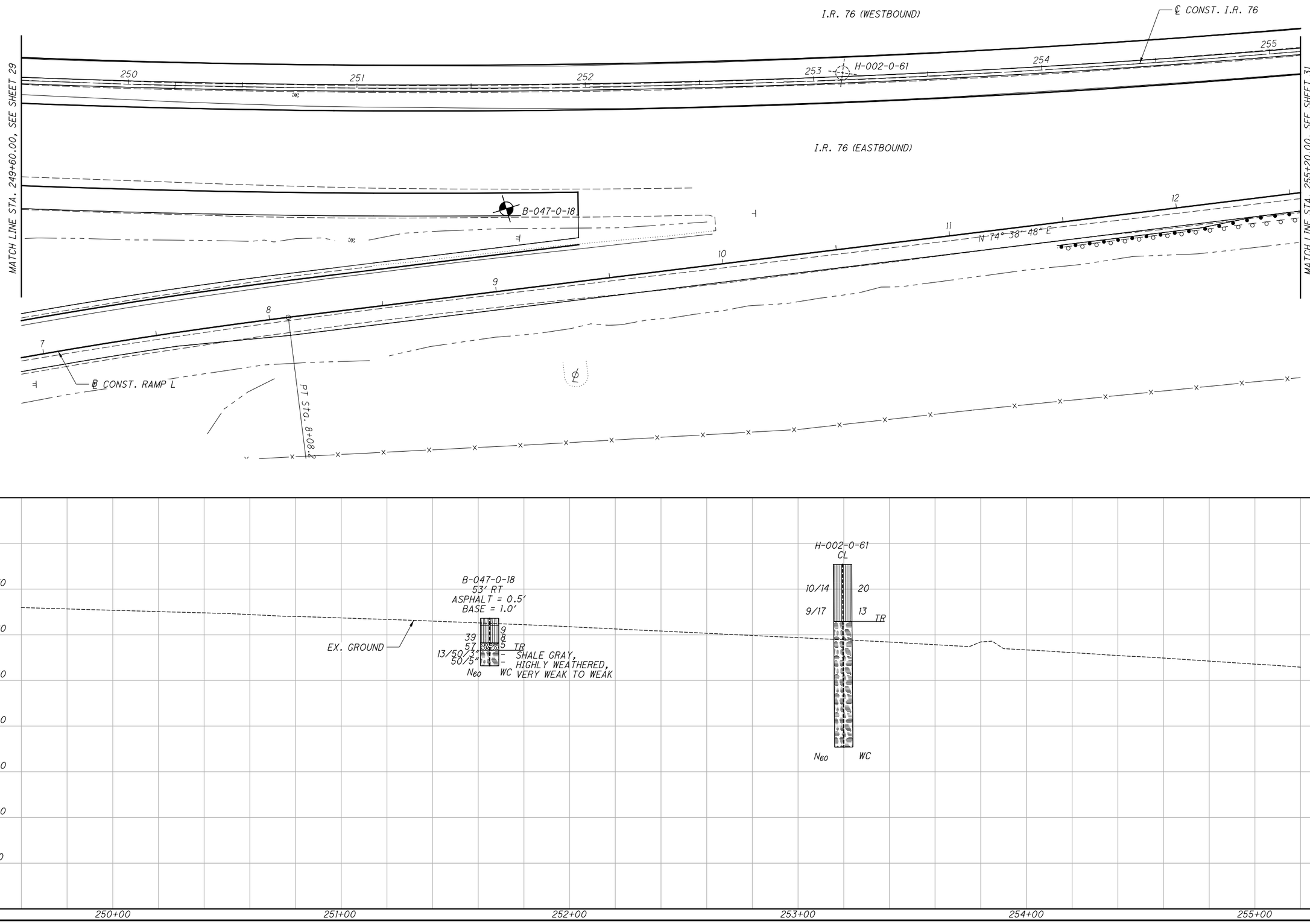


HORIZONTAL SCALE IN FEET
0 10 20 40

DRAWN SM
CHECKED PAN

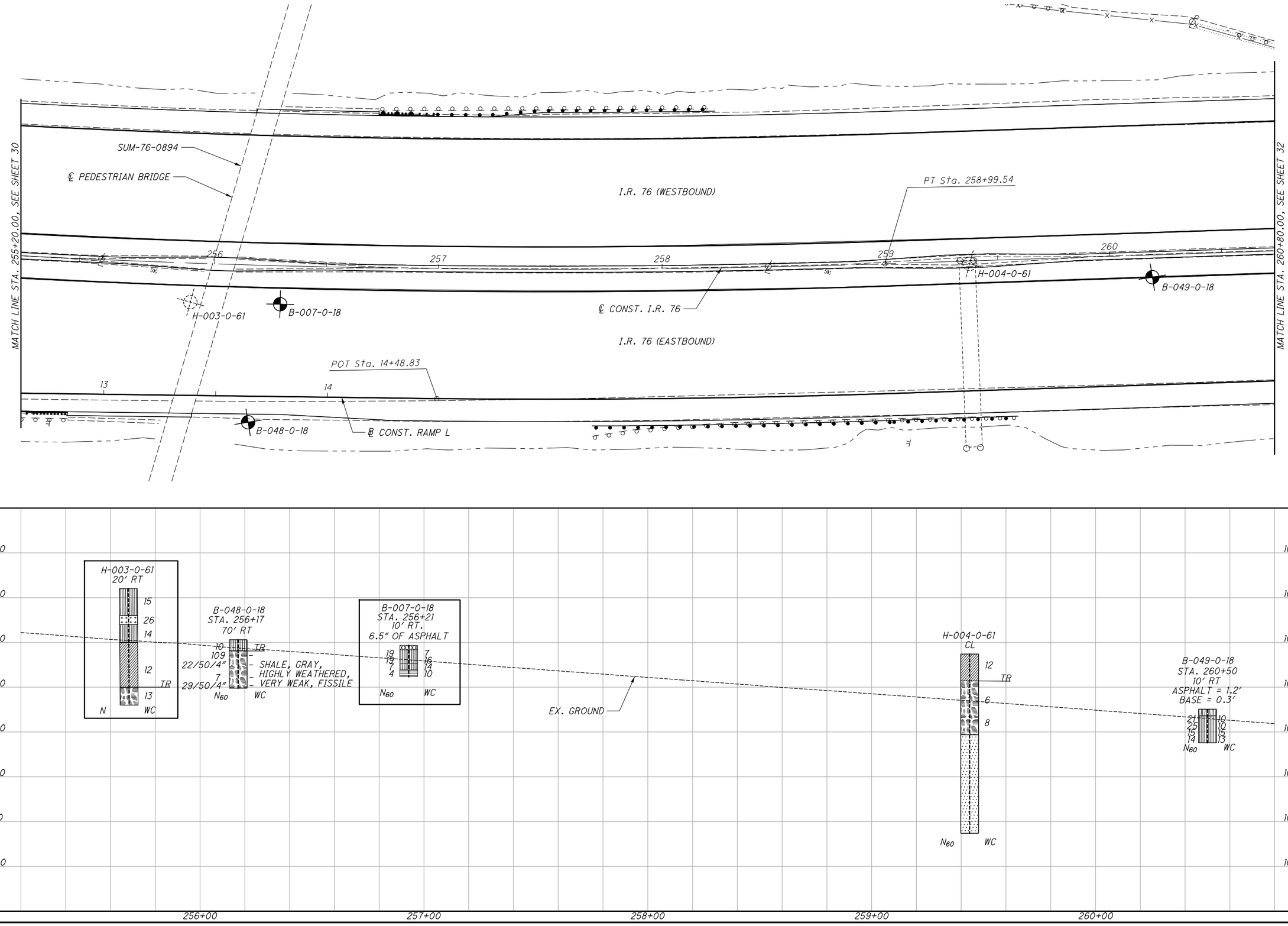
SOIL PROFILE

STA. 249+60.00 TO STA. 255+20.00 I.R. 76

SUM-76/77/8-8.24/9.74/0.00

30
202

P:\102329_SUM-76_77\Design\Geotechnical\Sheets\SoilProfile\102329_JP002.dgn Sheet 11/9/2020 8:34:53 AM kmihalcea



P:\102329_SUM-76_77\Design\Geotechnical\Sheets\Soil Profile\102329_IP003.dgn Sheet 11/9/2020 8:35:27 AM kmihalcea

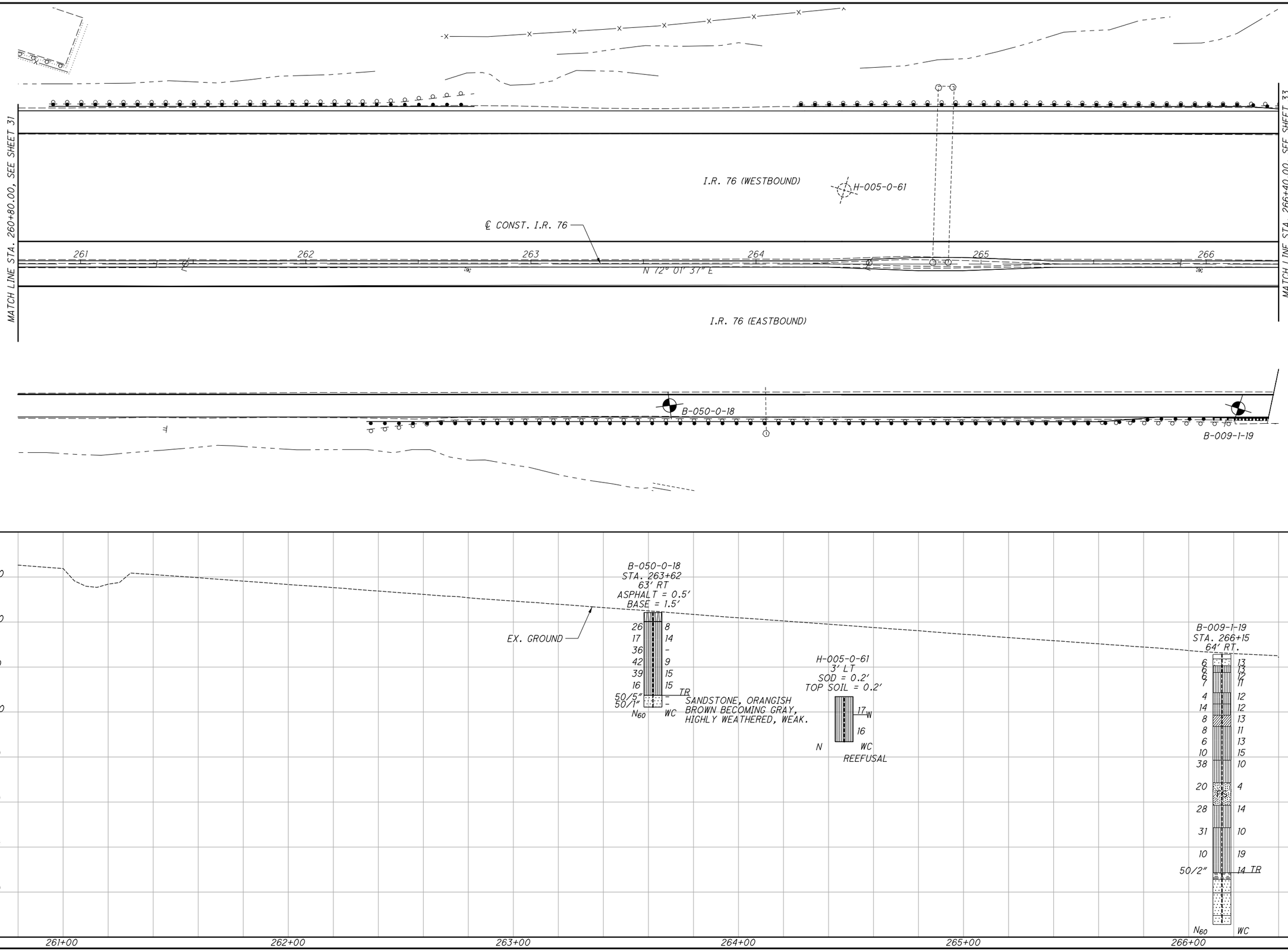
0 10 20 40
HORIZONTAL SCALE IN FEET

DRAWN SM CHECKED PAN

SOIL PROFILE

STA. 255+20.00 TO STA. 260+80.00 I.R. 76

SUM-76/77/8-8.24/9.74/0.00



HORIZONTAL SCALE IN FEET
0 10 20 40

DRAWN SM
CHECKED PAN

SOIL PROFILE
STA. 260+80.00 TO STA. 266+40.00 I.R. 76

SUM-76/77/8-
8.24/9.74/0.00

32
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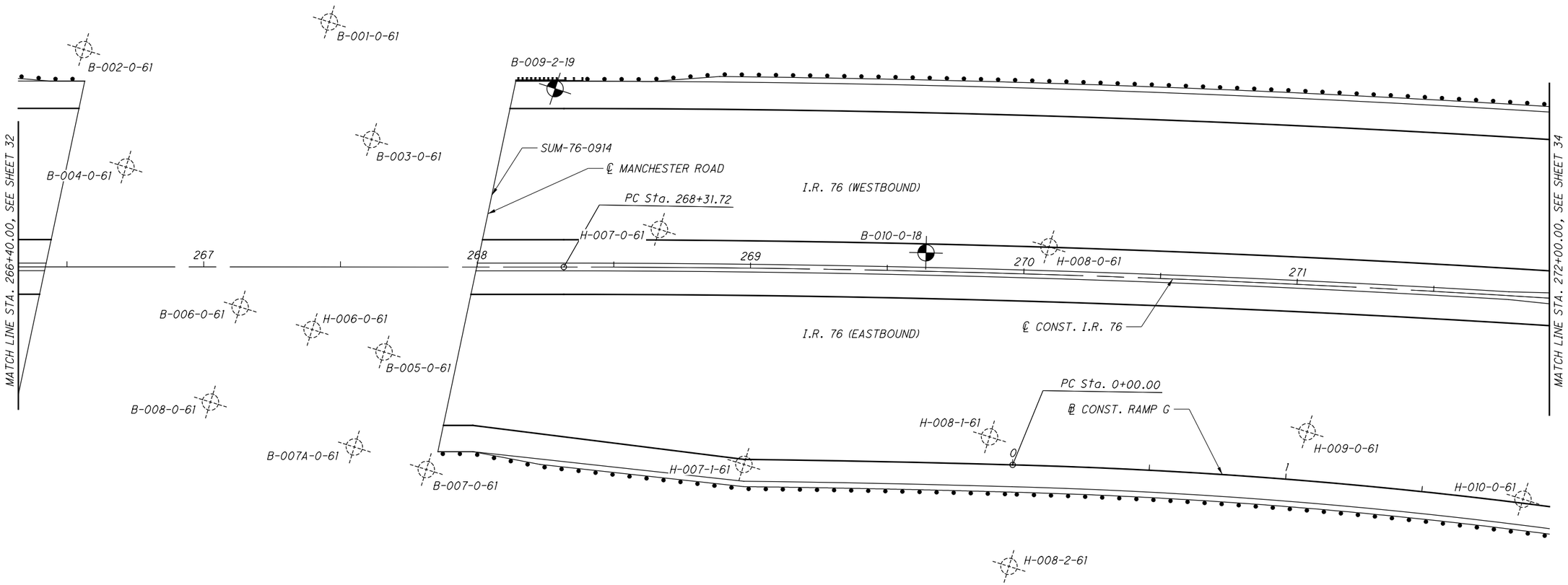

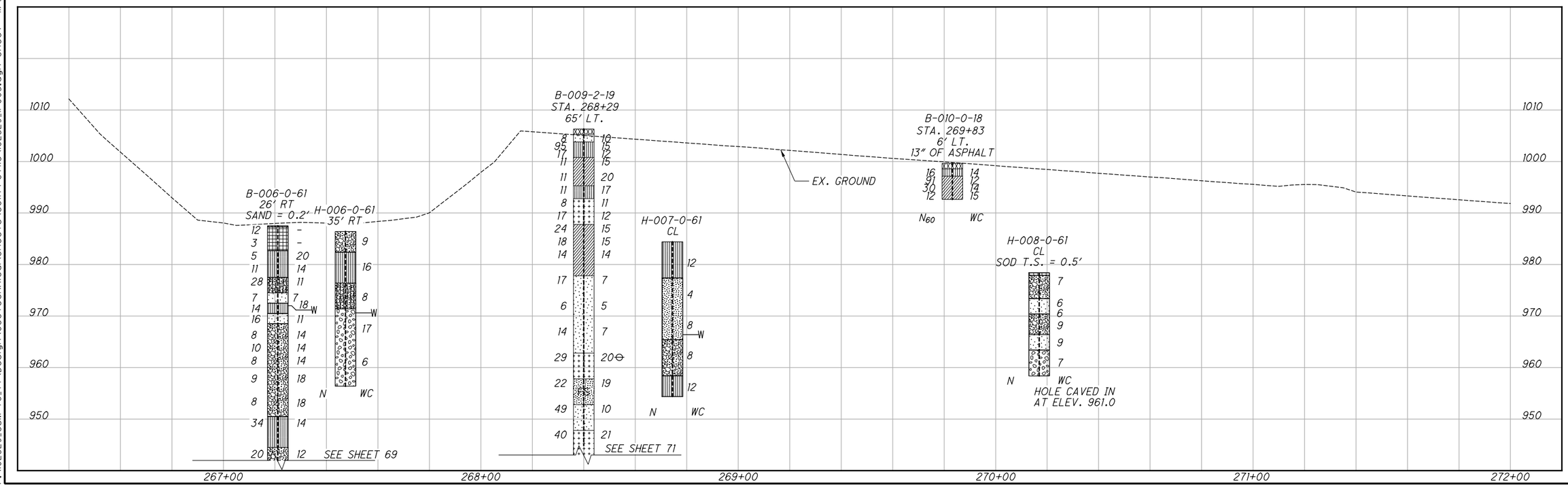

HORIZONTAL SCALE IN FEET
0 10 20 40

DRAWN SM
CHECKED PAN

SOIL PROFILE
STA. 266+40.00 TO STA. 272+00.00 I.R. 76

SUM-76/77/8-
8.24/9.74/0.00

33
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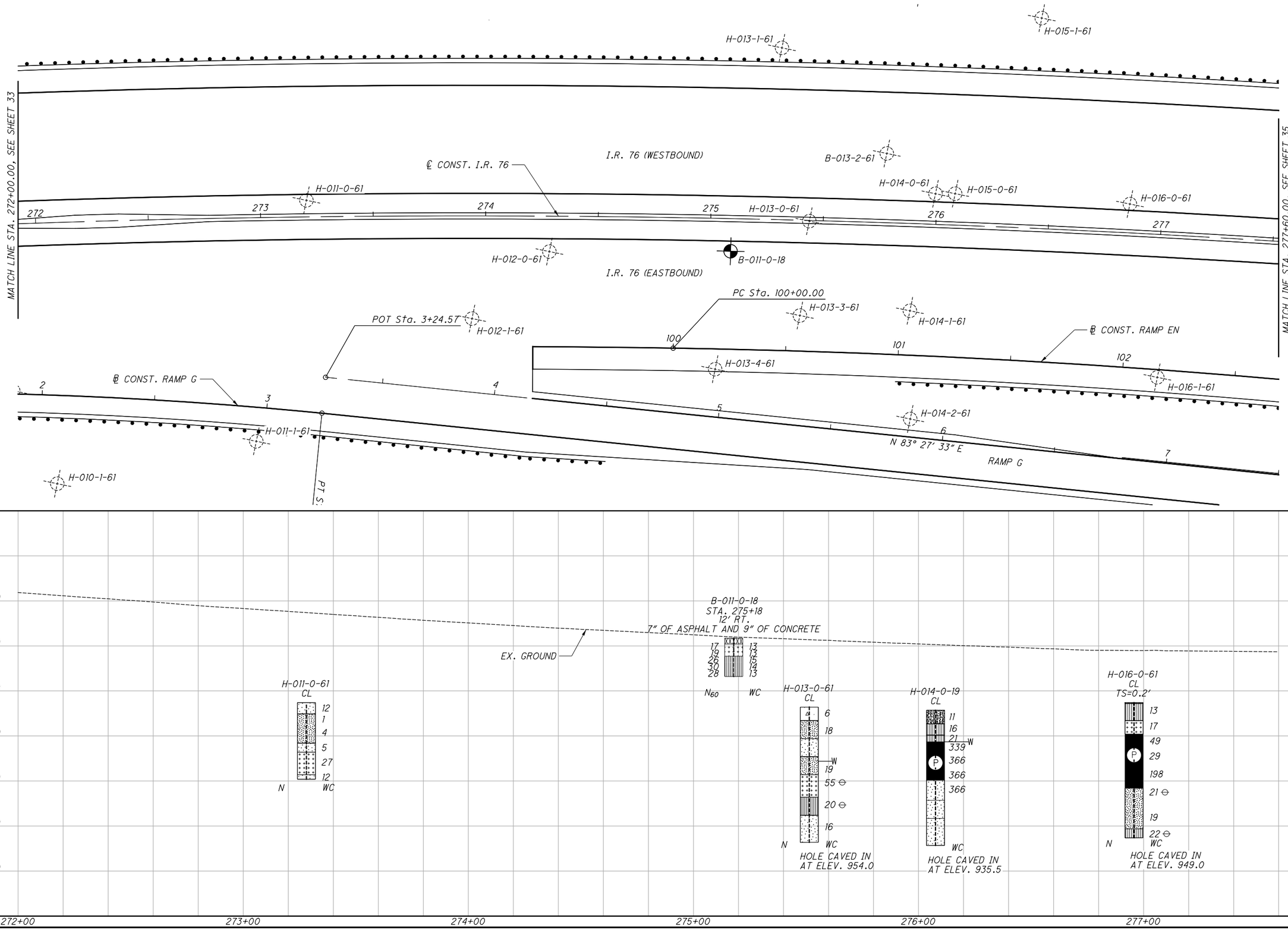


P:\102329_SUM-76_77\Design\Geotechnical\Sheets\Soil Profile\102329_IP006.dgn Sheet 11/9/2020 8:37:18 AM kmihalcea

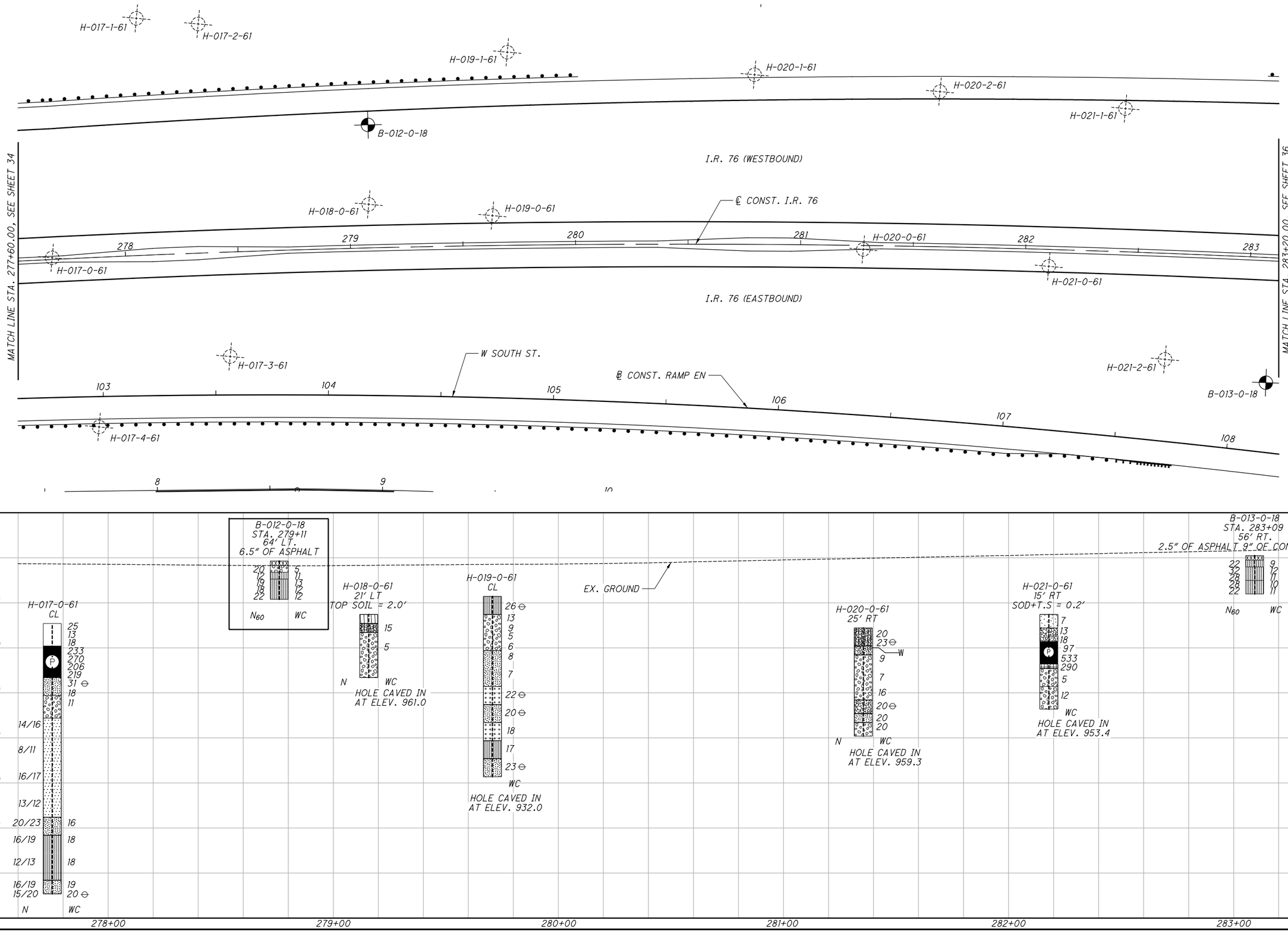
HORIZONTAL SCALE IN FEET
0 10 20 40

DRAWN SM CHECKED PAN

SOIL PROFILE

STA. 272+00.00 TO STA. 277+60.00 I.R. 76

SUM-76/77/8-8.24/9.74/0.00



HORIZONTAL SCALE IN FEET
0 10 20 40

DRAWN SM
CHECKED PAN

SOIL PROFILE
STA. 277+60.00 TO STA. 283+20.00 I.R. 76

SUM-76/77/8-
8.24/9.74/0.00

35
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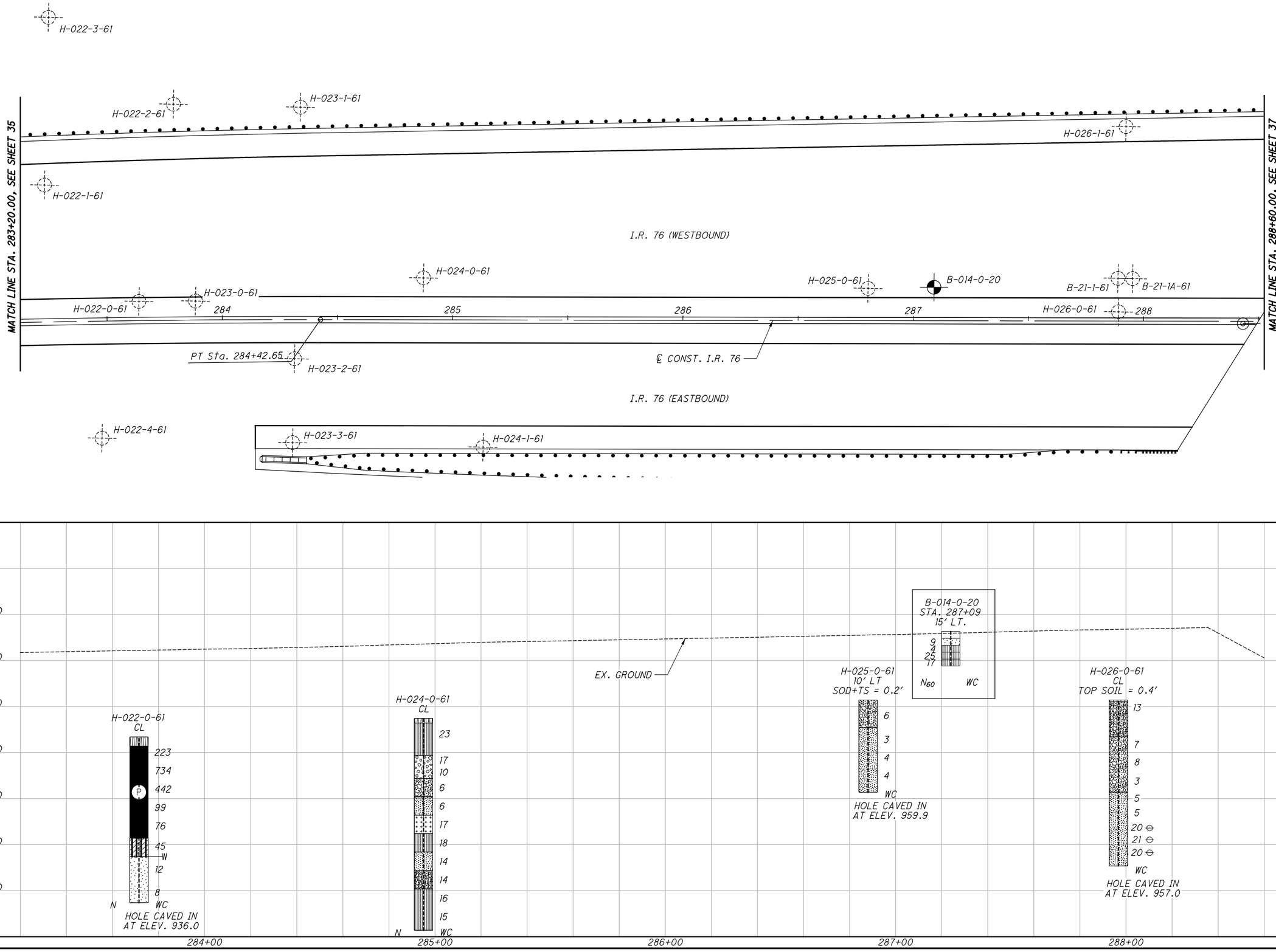


P:\102329_SUM-76_77\Design\Geotechnical\Sheets\Soil Profile\102329_IP008.dgn Sheet 11/9/2020 8:38:27 AM kmihalcea

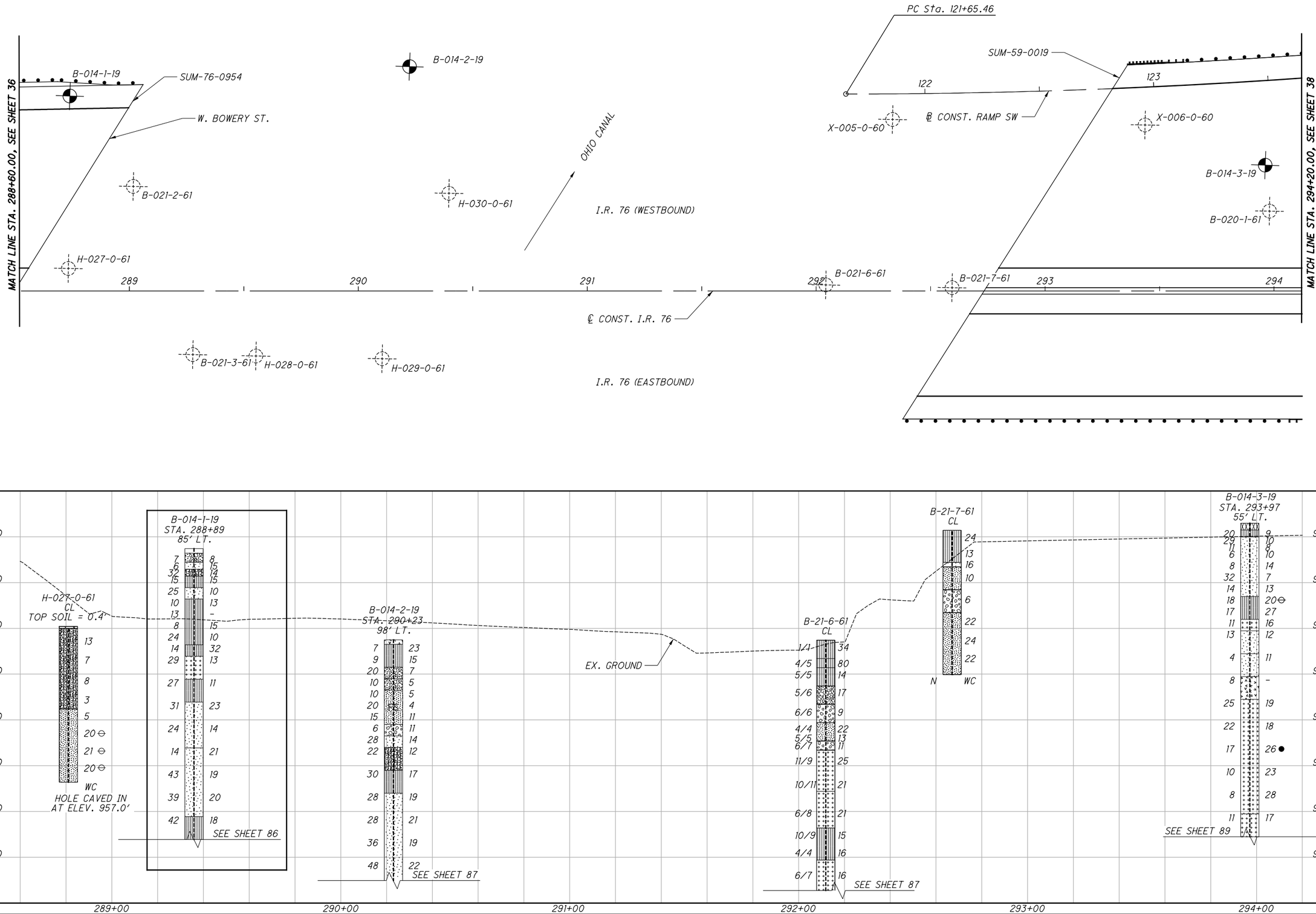
HORIZONTAL SCALE IN FEET
0 10 20 40

DRAWN SM
CHECKED PAN

SOIL PROFILE

STA. 283+20.00 TO STA. 288+60.00 I.R. 76

SUM-76/77/8-8.24/9.74/0.00



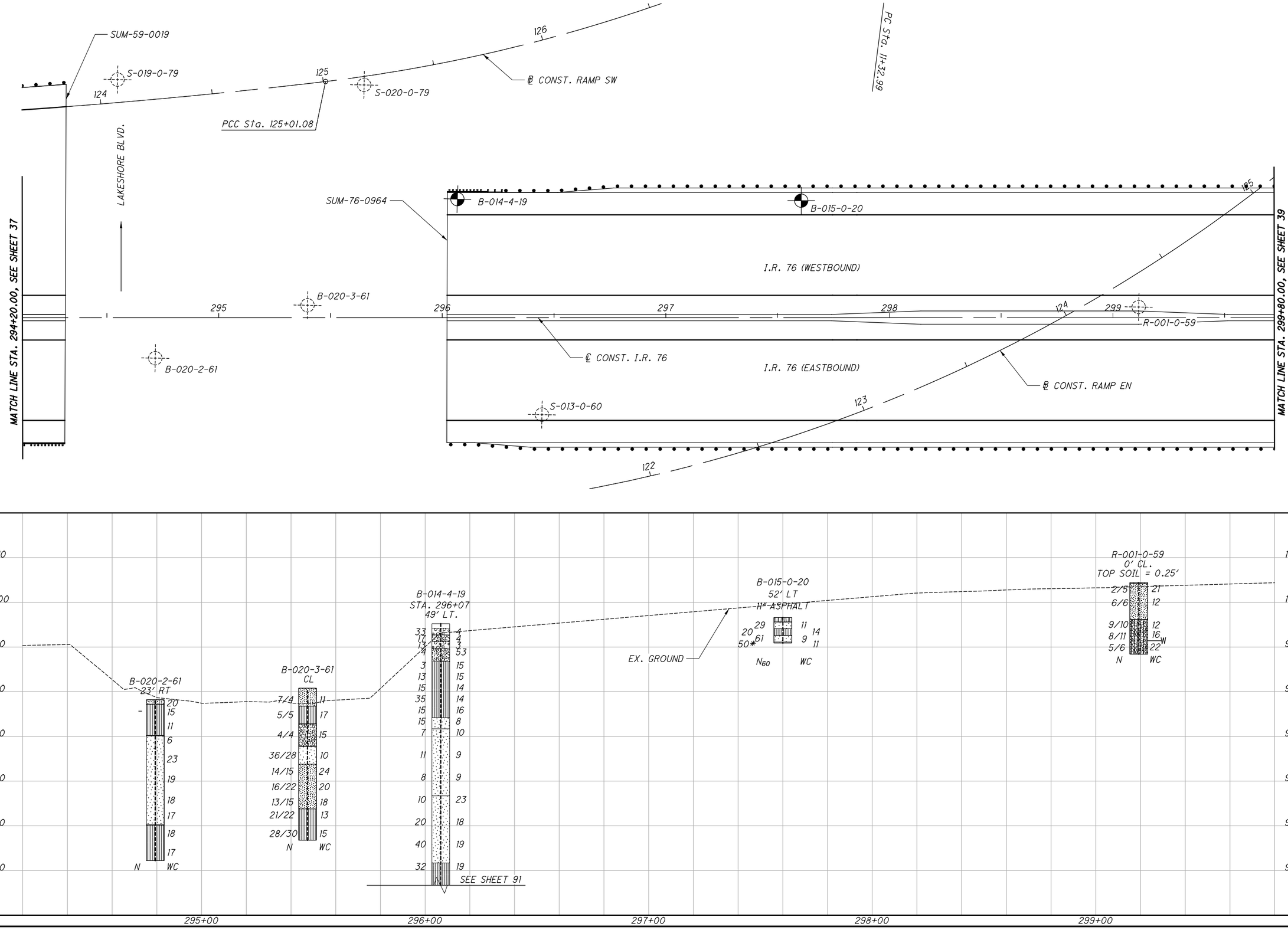
P:\102329_SUM-76_77\Design\Geotechnical\Sheets\Soil Profile\102329_IP009.dgn Sheet 11/9/2020 8:38:38 AM kmihalcea

HORIZONTAL SCALE IN FEET
0 10 20 40

DRAWN SM CHECKED PAN

SOIL PROFILE
STA. 288+60.00 TO STA. 294+20.00 I.R. 76
SUM-76/77/8-8.24/9.74/0.00

37
202



P:\102329_SUM-76_77\Design\Geotechnical\Sheets\Soil Profile\102329_IP010.dgn Sheet 11/9/2020 8:39:04 AM kmihalcea

HORIZONTAL SCALE IN FEET

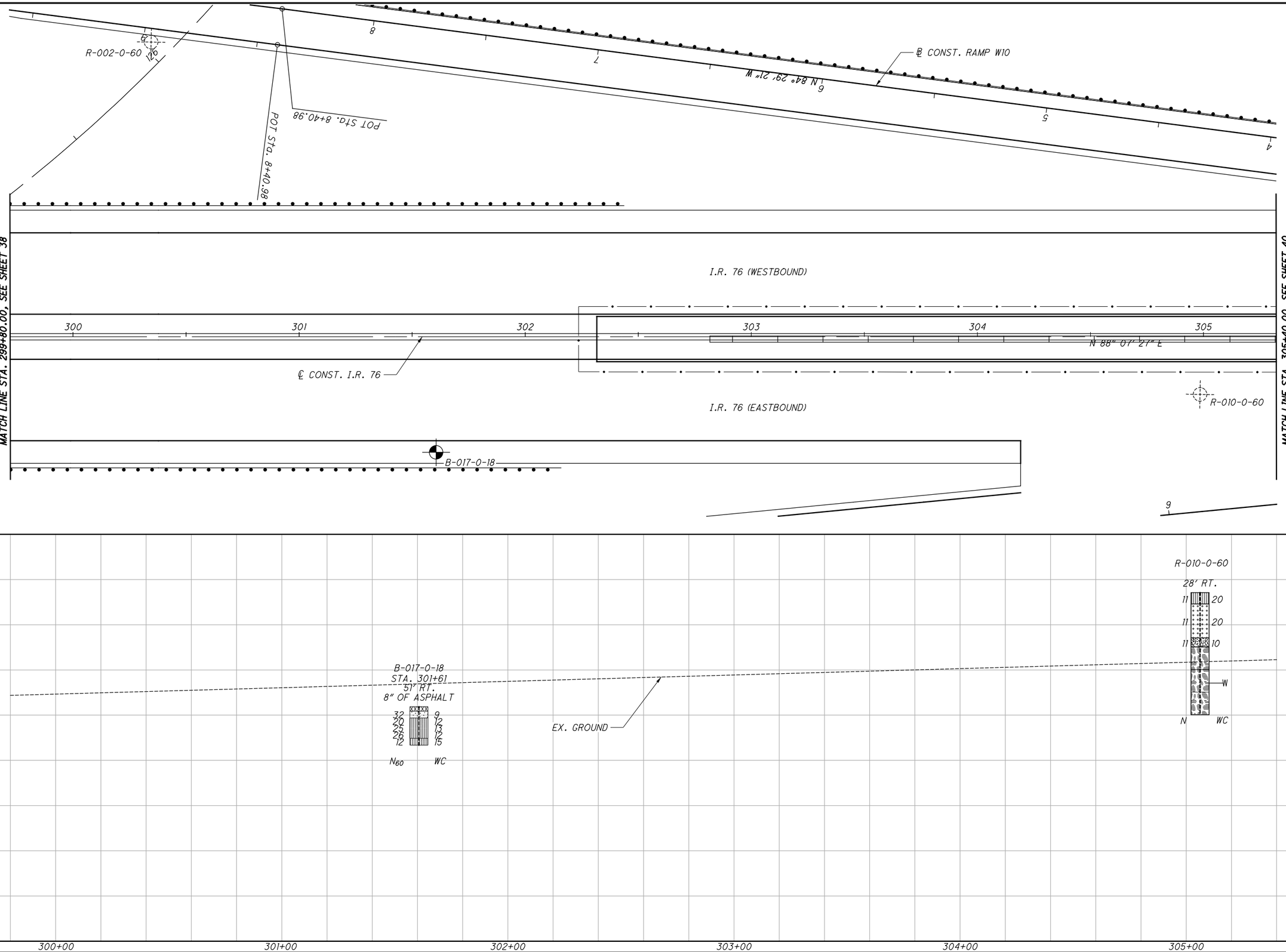
DRAWN SM CHECKED PAN

SOIL PROFILE

STA. 294+20.00 TO STA. 299+80.00 I.R. 76

SUM-76/77/8-8.24/9.74/0.00

38
202



P:\02329_SUM-76_77\Design\Geotechnical\Sheets\SoilProfile\02329_IP01.dgn Sheet 11/9/2020 8:39:37 AM kmihalcea

HORIZONTAL SCALE IN FEET

DRAWN SM CHECKED PAN

SOIL PROFILE

STA. 299+80.00 TO STA. 305+40.00 I.R. 76

SUM-76/77/8-8.24/9.74/0.00

39
202

PT Sta. 3+28.2

℄ CONST. RAMP W10

PC Sta. 0+00.00

R-012-0-59

B-018-0-20

R-003-0-60

I.R. 76 (WESTBOUND)

B-019-0-20

MATCH LINE STA. 305+40.00, SEE SHEET 39

MATCH LINE STA. 311+00.00, SEE SHEET 41

℄ CONST. I.R. 76

R-011-0-60

I.R. 76 (EASTBOUND)

R-004-0-59

℄ CONST. RAMP W11

B-018-0-20
53' LT
7" ASPHALT
10" CONCRETE
6" BASE
50* 58 18 4
N_{60} WC

EX. GROUND

B-019-0-20
6' LT
11" CONCRETE
7" BASE
50* 20 10 7
50* 5
N_{60} WC

1020 1010 1000 990 980 970 960 950

306+00 307+00 308+00 309+00 310+00 311+00

HORIZONTAL SCALE IN FEET
0 10 20 40

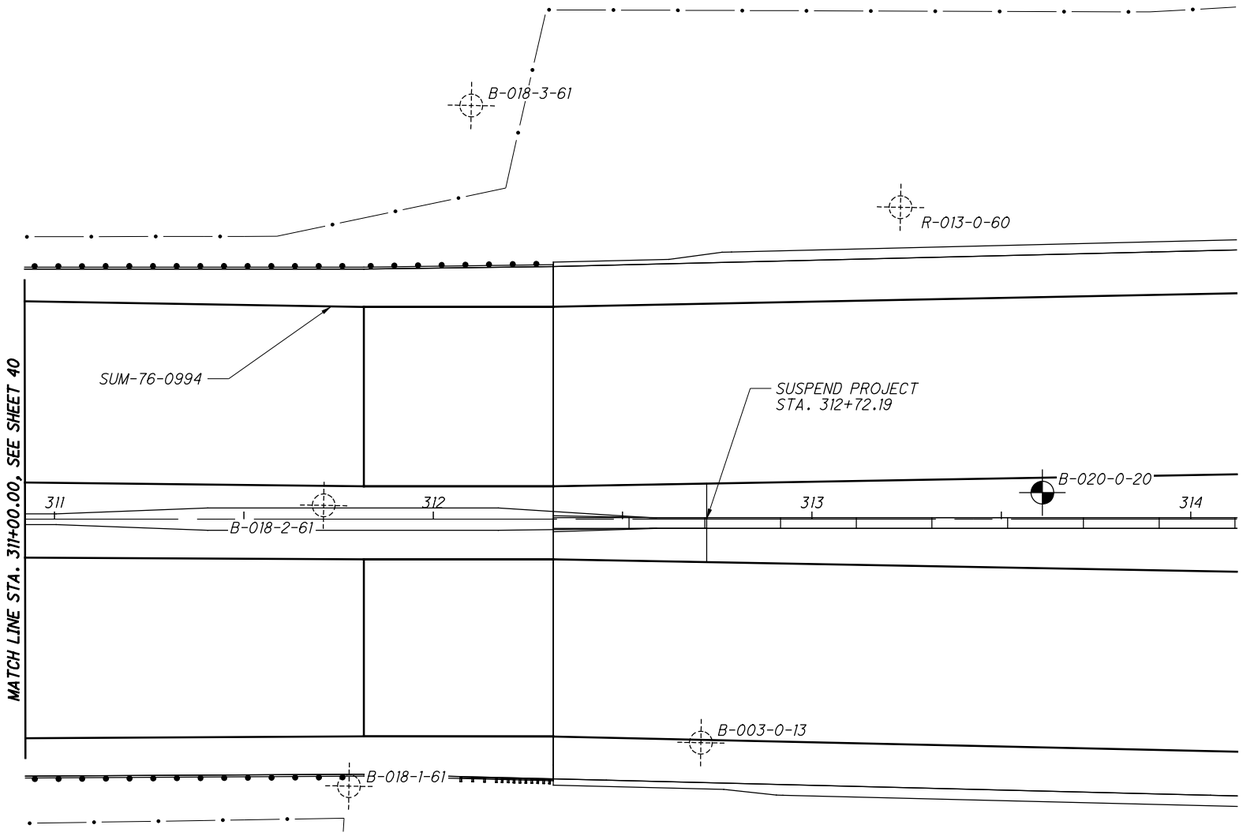
DRAWN SM CHECKED PAN

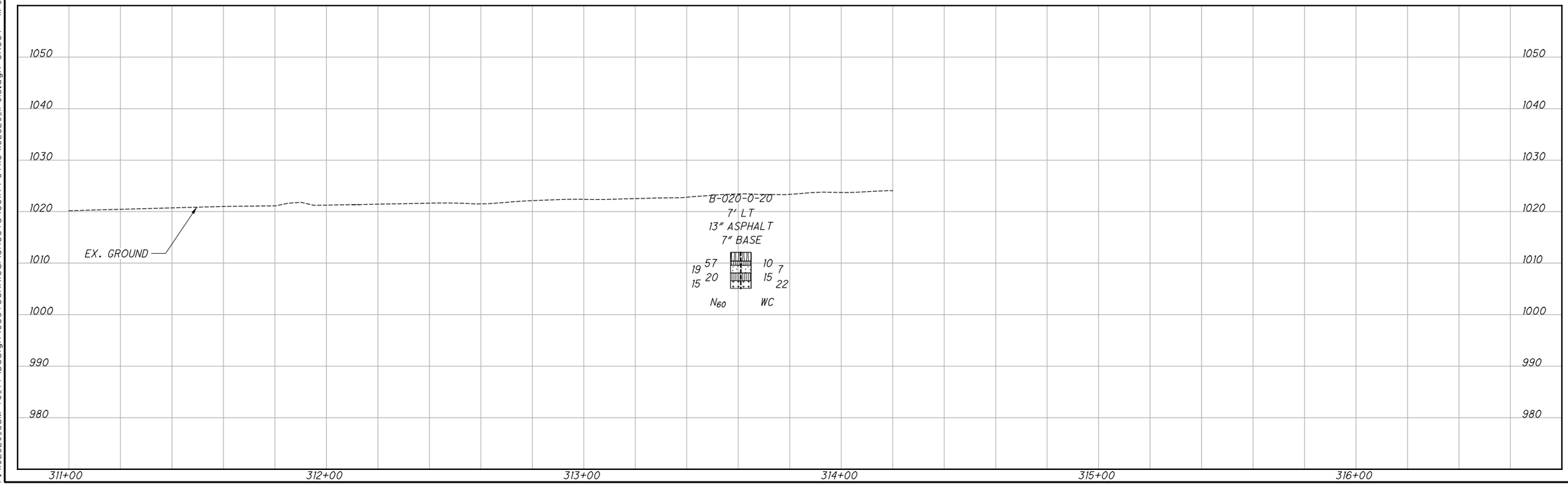
SOIL PROFILE
STA. 305+40.00 TO STA. 311+00.00 I.R. 76

SUM-76/77/8-
8.24/9.74/0.00

40
202

P:\102329_SUM-76_77\Design\Geotechnical\Sheets\SoilProfile\102329_IP012.dgn Sheet 11/9/2020 8:40:09 AM kmihalcea





N

0 10 20 40
HORIZONTAL SCALE IN FEET

DRAWN SM
CHECKED PAN

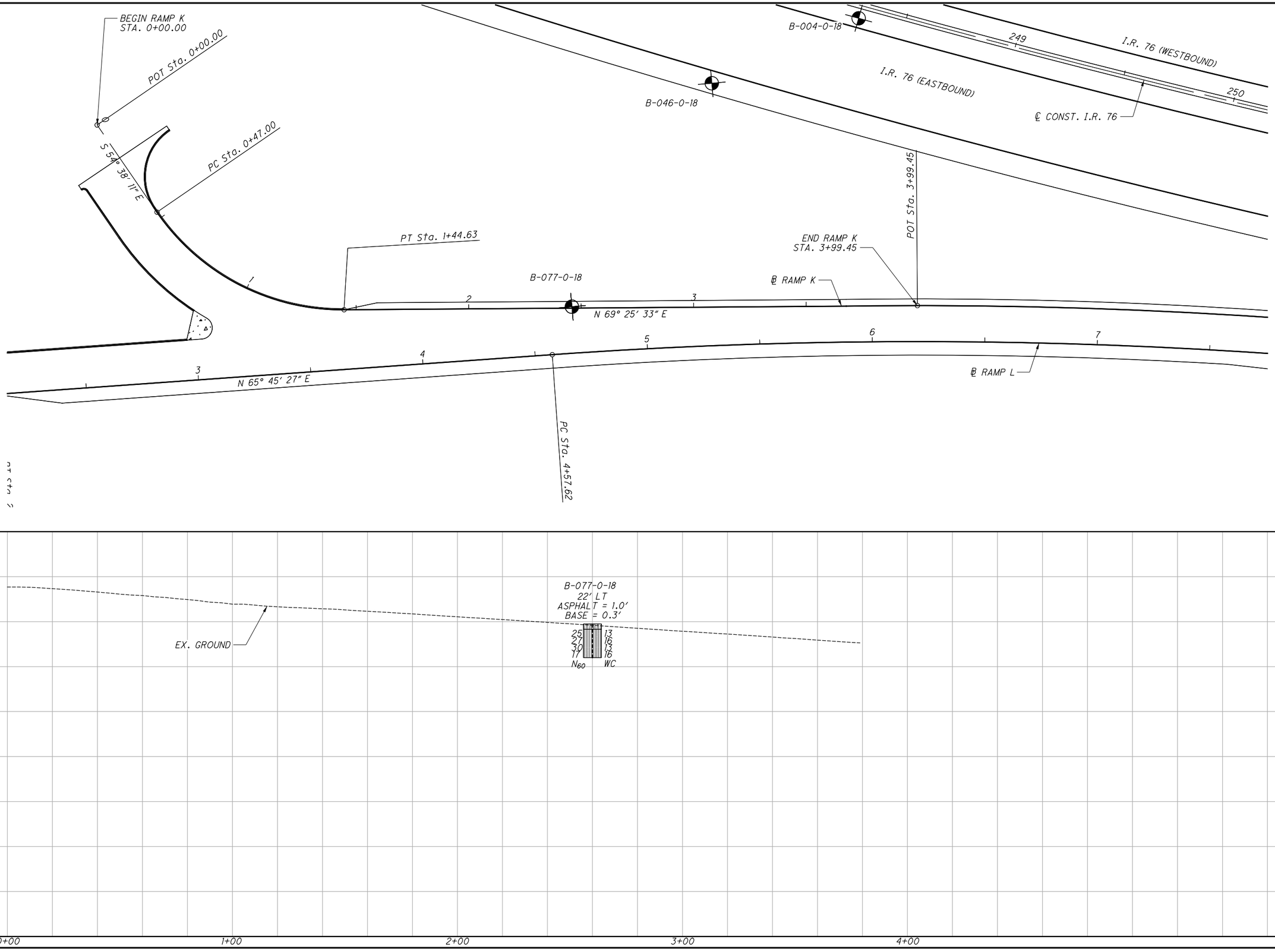
SOIL PROFILE

STA. 311+00.00 TO STA. 312+65.00 I.R. 76

SUM-76/77/8-8.24/9.74/0.00

41
202

P:\102329_SUM-76_77\Design\Geotechnical\Sheets\Soil Profile\102329_IP013.dgn Sheet 11/9/2020 8:40:40 AM kmihalea



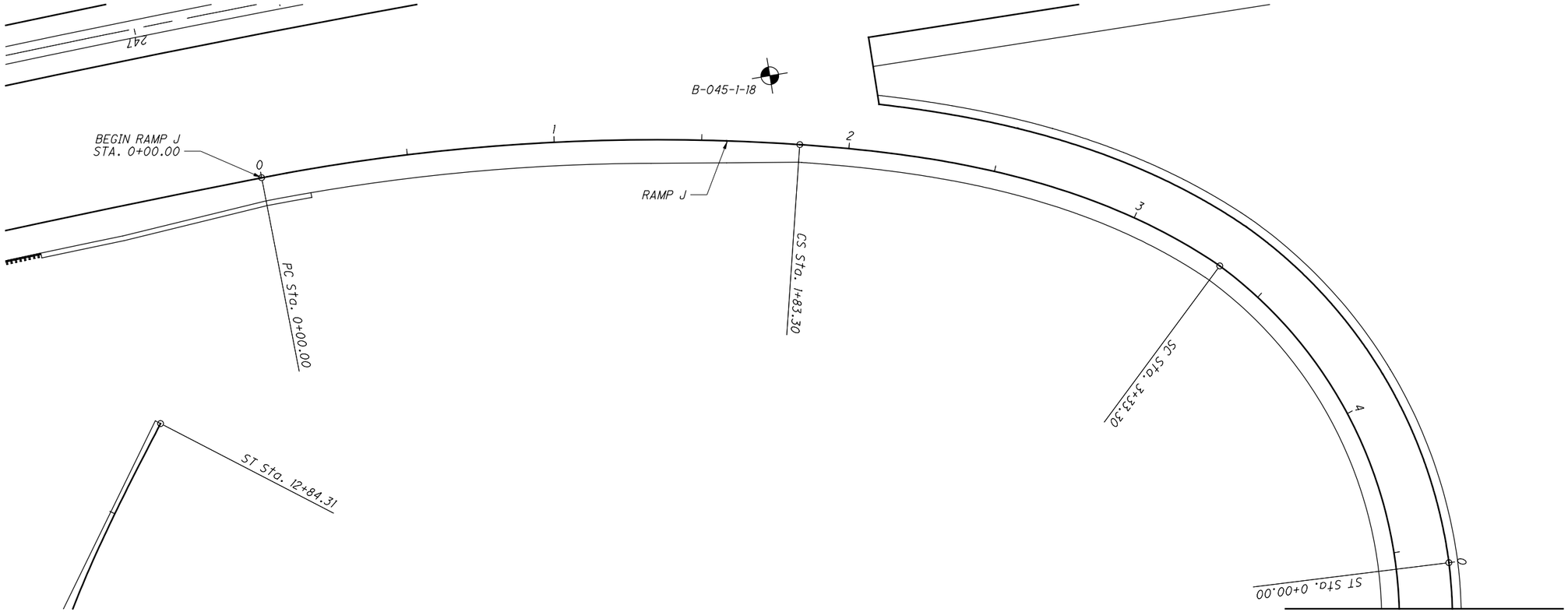
P:\102329_SUM-76_77\Design\Geotechnical\Sheets\Soil Profile\102329_IP401.dgn Sheet 11/9/2020 8:41:11 AM kminalcea

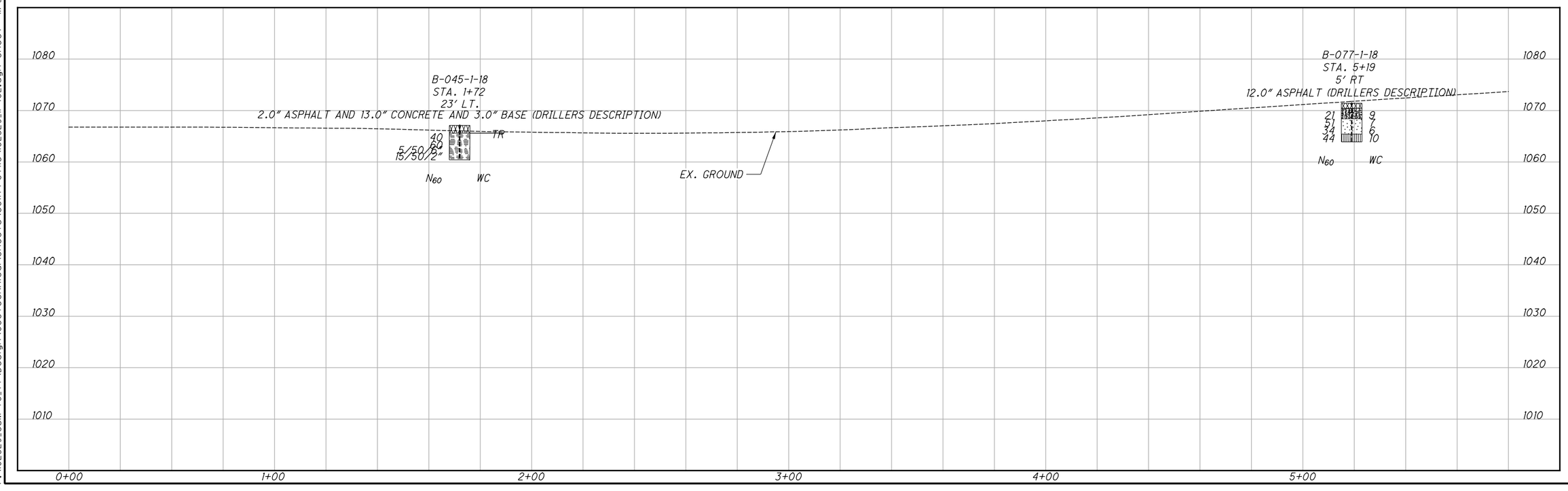
HORIZONTAL SCALE IN FEET
0 10 20 40

DRAWN SM
CHECKED PAN

SOIL PROFILE
BEGIN STA. 0+00.00 TO END STA. 3+97.72 RAMP K

SUM-76/77/8-8.24/9.74/0.00





HORIZONTAL SCALE IN FEET
0 10 20 40

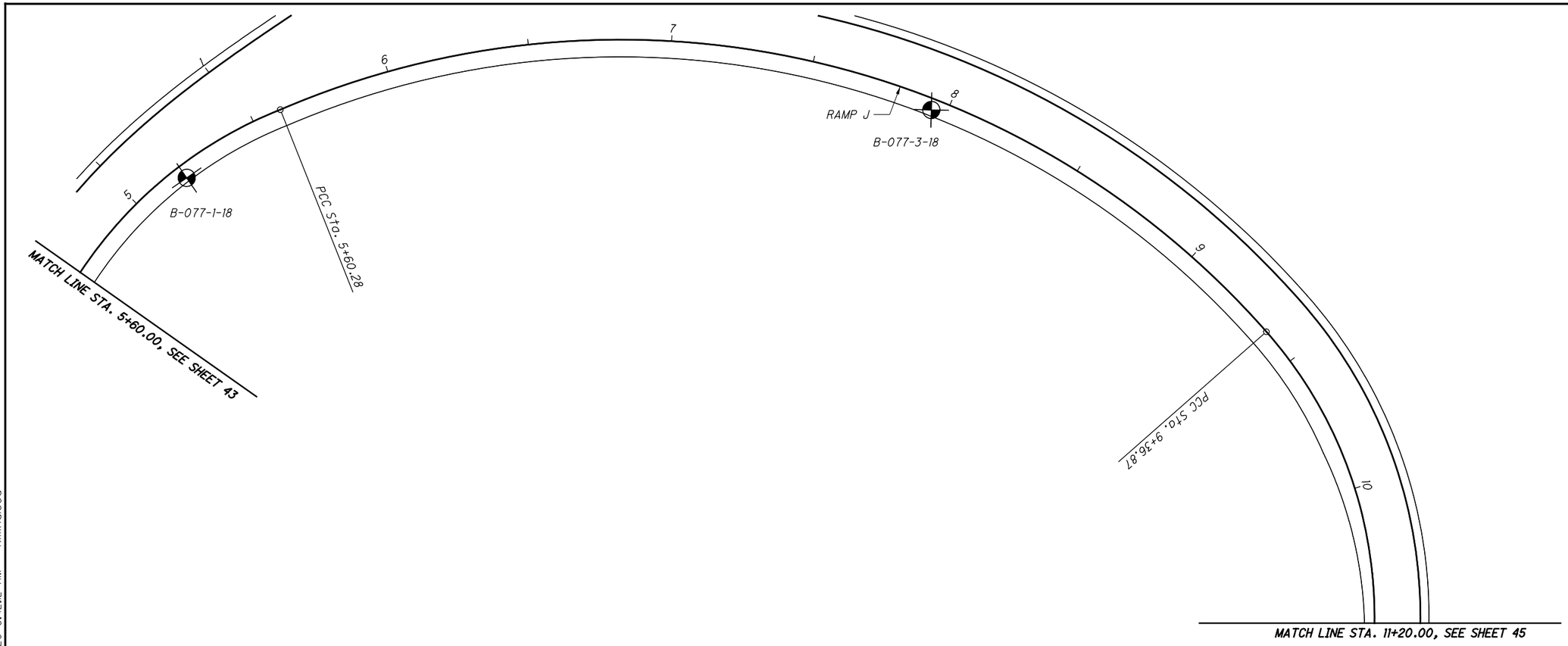
DRAWN SM
CHECKED PAN

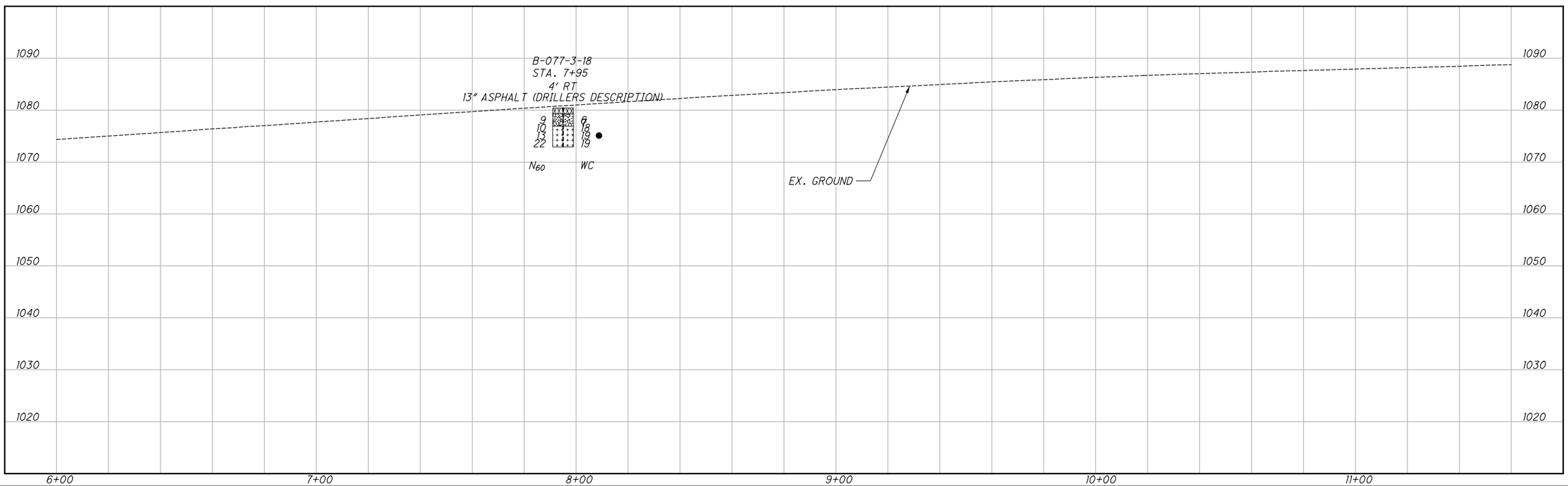
SOIL PROFILE
STA. 0+00.00 TO STA. 5+60.00 RAMP J
BEGIN STA. 0+00.00

SUM-76/77/8-
8.24/9.74/0.00

43
202

P:\102329_SUM-76_77\Design\Geotechnical\Sheets\SoilProfile\102329_JP402.dgn Sheet 11/9/2020 8:41:42 AM kmihalcea





P:\102329_SUM-76.77\Design\Geotechnical\Sheets\Soil Profile\102329_IP403.dgn Sheet 11/9/2020 8:42:12 AM kmihalcea

HORIZONTAL SCALE IN FEET
0 10 20 40

DRAWN SM
CHECKED PAN

SOIL PROFILE

STA. 5+60.00 TO STA. 11+20.00 RAMP J

SUM-76/77/8-8.24/9.74/0.00

P:\102329_SUM-76_77\Design\Geotechnical\Sheets\Soil Profile\102329_IP404.dgn Sheet 11/9/2020 8:42:40 AM kmihalcea

N

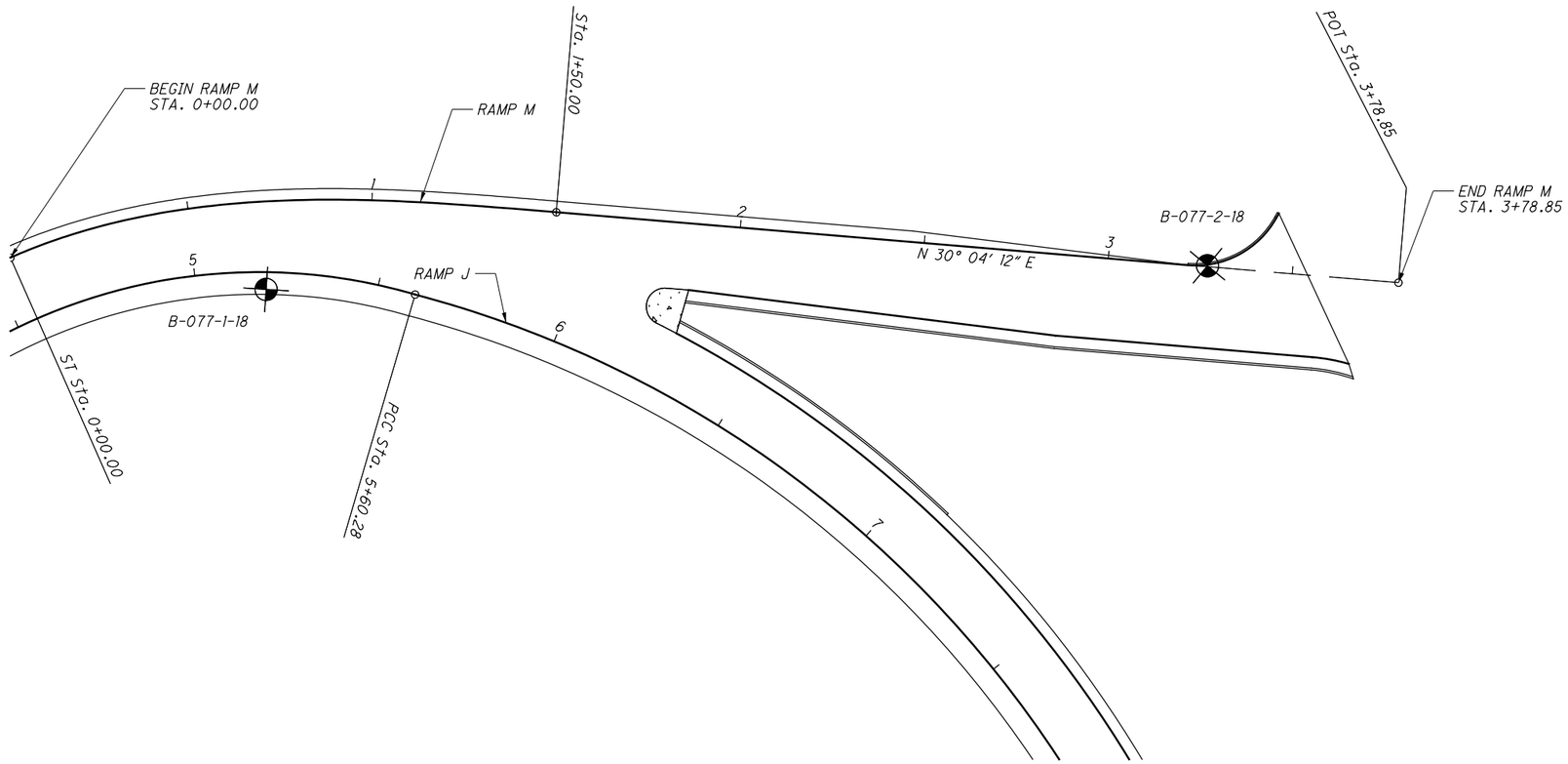
0 10 20 40
HORIZONTAL SCALE IN FEET

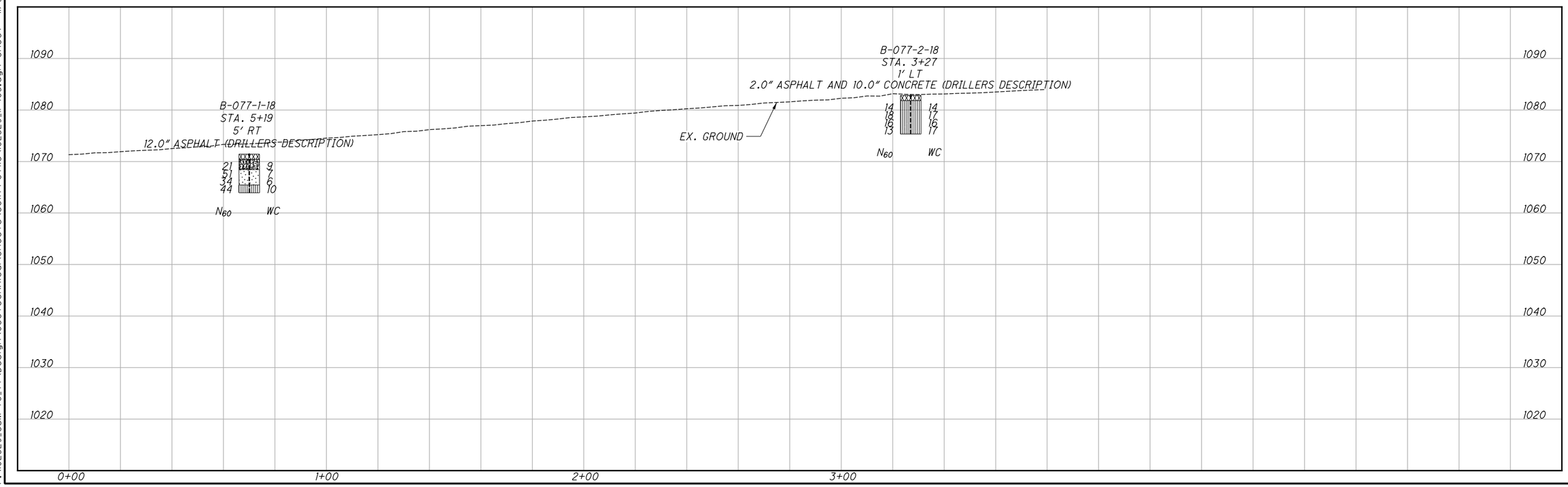
DRAWN SM
CHECKED PAN

SOIL PROFILE
STA. 11+20.00 TO END STA. 13+73.95 RAMP J

SUM-76/77/8-8.24/9.74/0.00

/



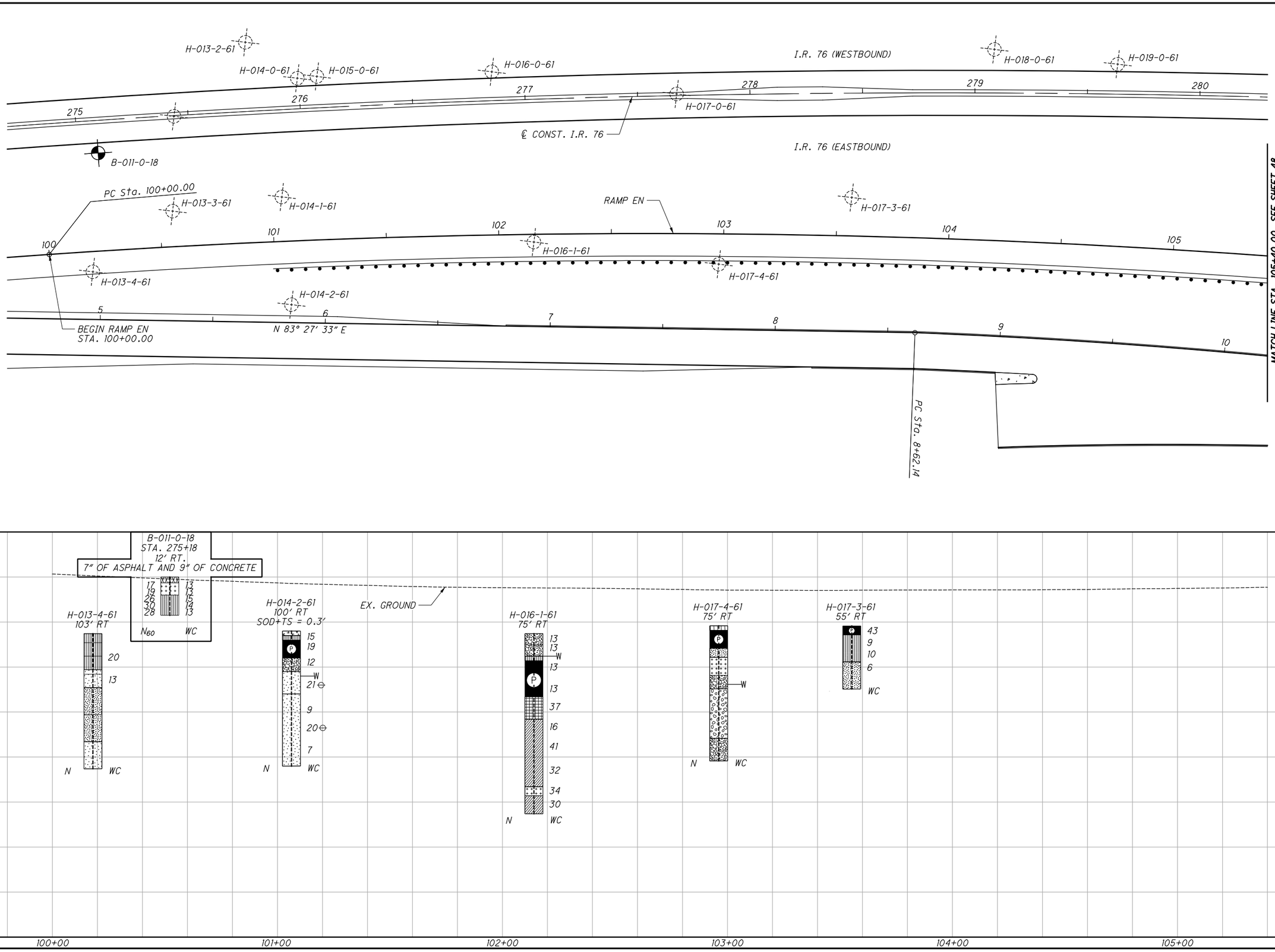


HORIZONTAL SCALE IN FEET
0 10 20 40

DRAWN SM
CHECKED PAN

SOIL PROFILE
BEGIN STA. 0+00.00 TO STA. 3+78.85 RAMP M

SUM-76/77/8-
8.24/9.74/0.00



P:\102329_SUM-76_77\Design\Geotechnical\Sheets\Soil Profile\102329_IP406.dgn Sheet 11/9/2020 8:43:40 AM kminalcea

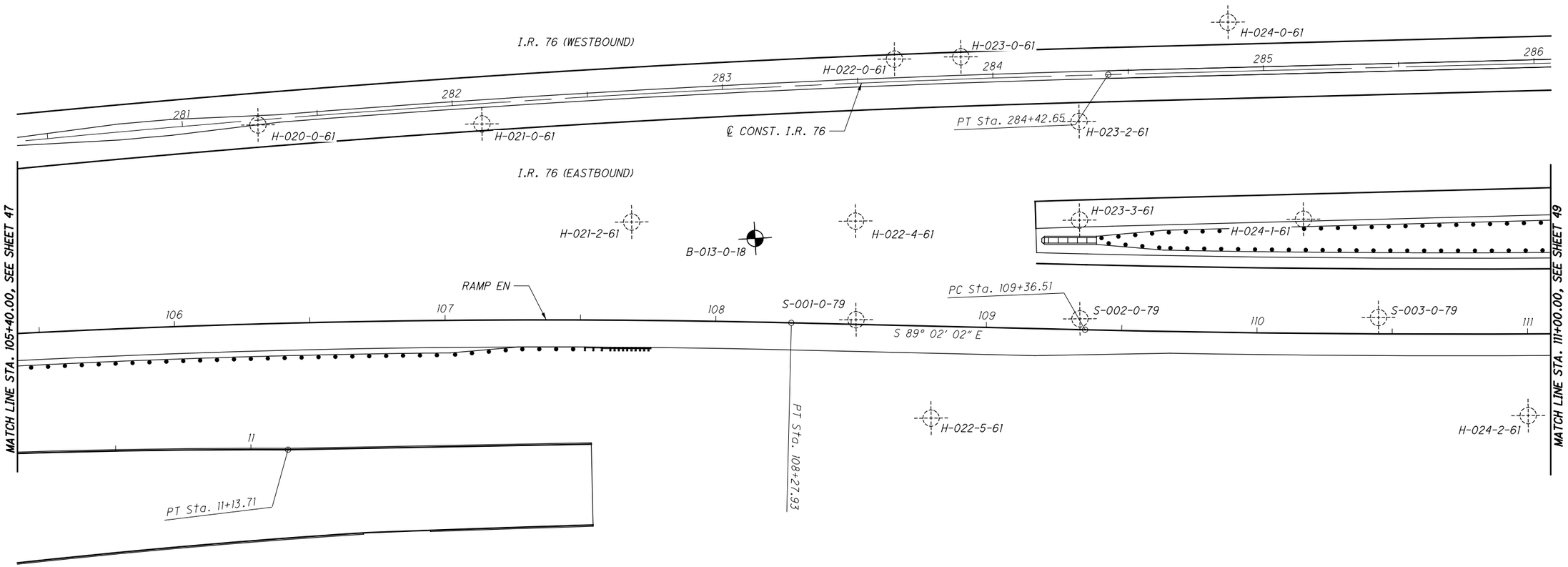
HORIZONTAL SCALE IN FEET
0 10 20 40

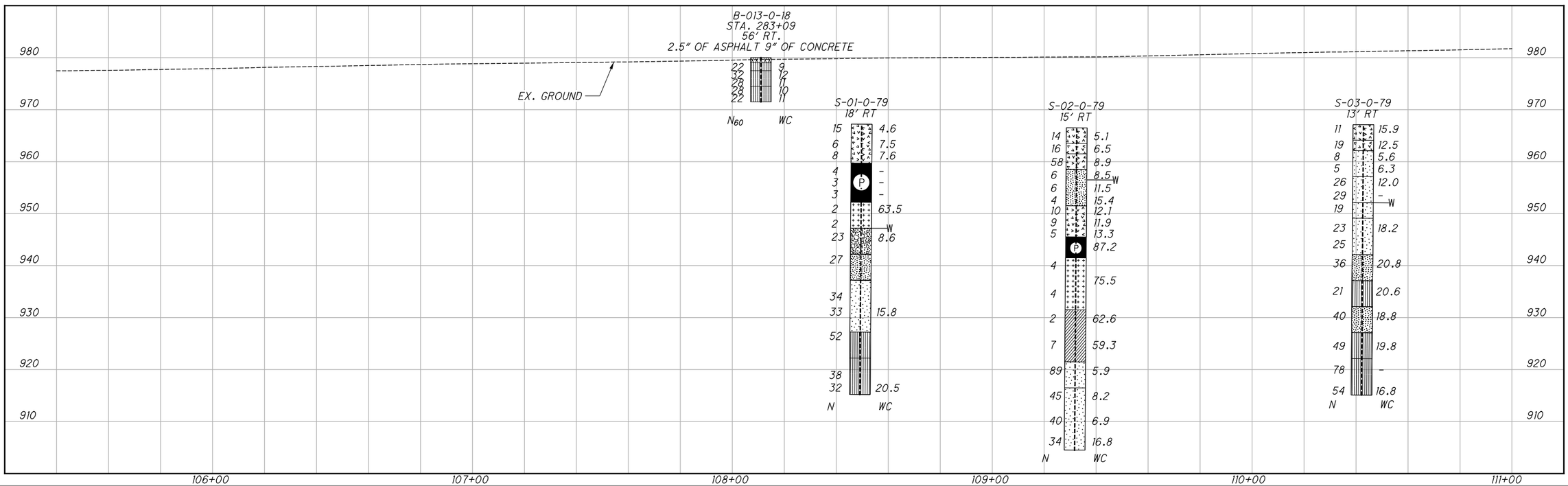
DRAWN SM CHECKED PAN

SOIL PROFILE

BEGIN STA. 100+00.00 TO STA. 105+40.00 RAMP EN

SUM-76/77/8-
8.24/9.74/0.00





SOIL PROFILE

STA. 105+40.00 TO STA. 111+00.00 RAMP EN

HORIZONTAL SCALE IN FEET

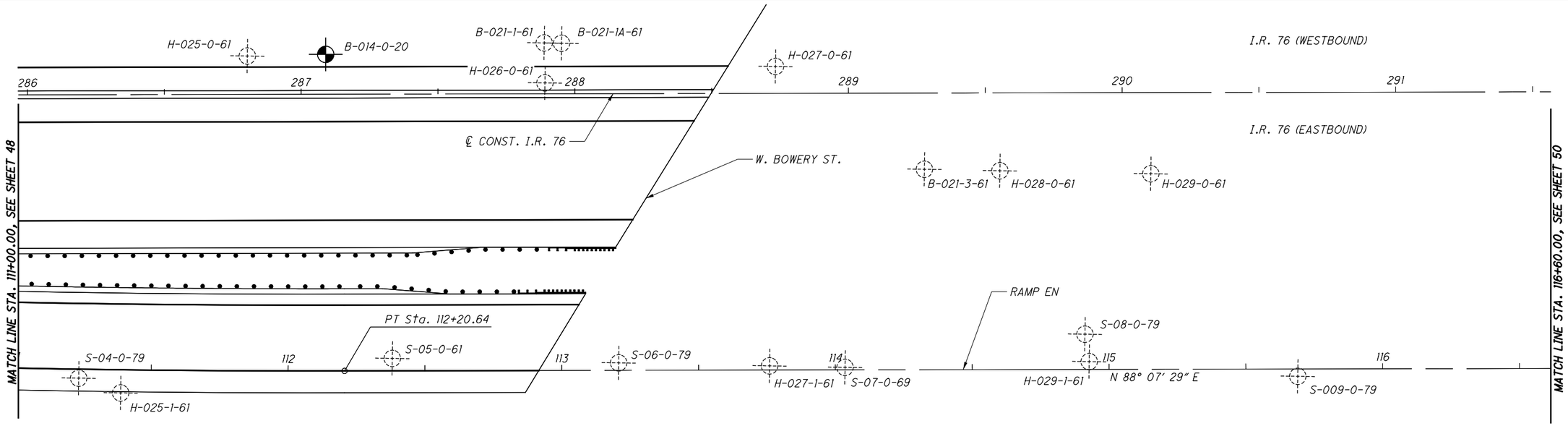
0 10 20 40

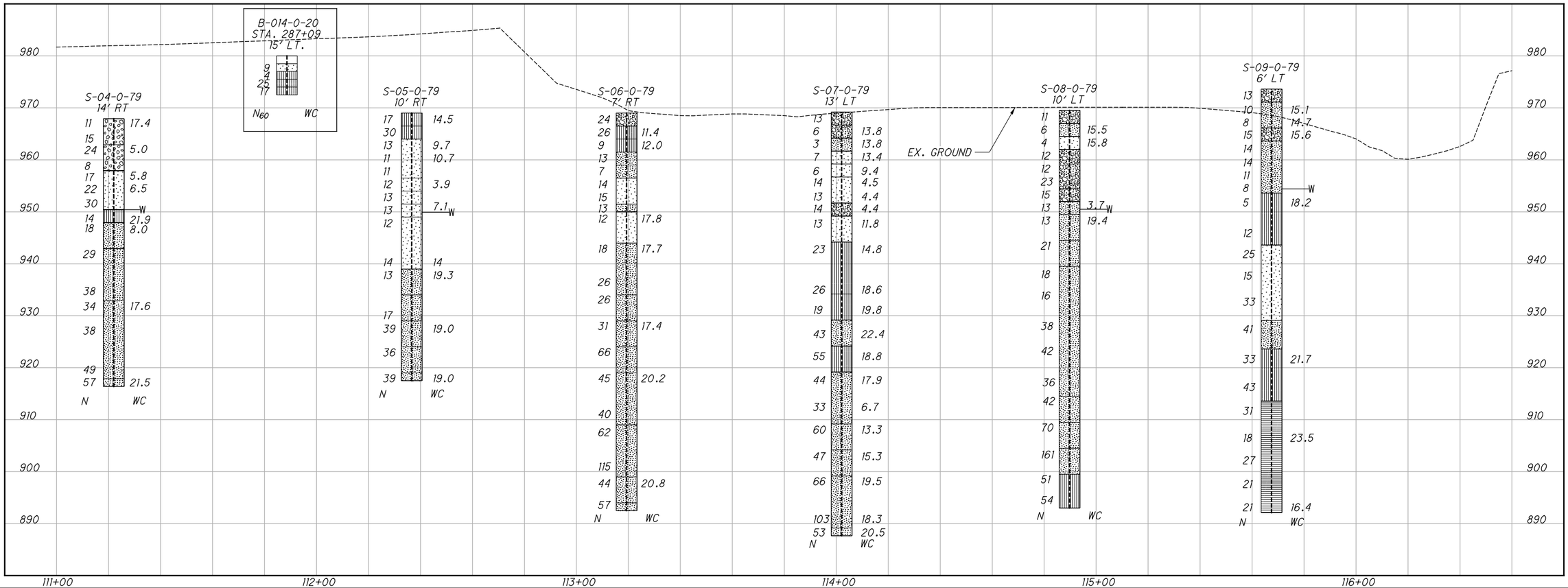
DRAWN SM CHECKED PAN

SUM-76/77/8-
8.24/9.74/0.00

48
202

P:\102329_SUM-76_77\Design\Geotechnical\Sheets\Soil Profile\102329_IP407.dgn Sheet 11/9/2020 8:43:53 AM kmihalcea





HORIZONTAL SCALE IN FEET
0 10 20 40

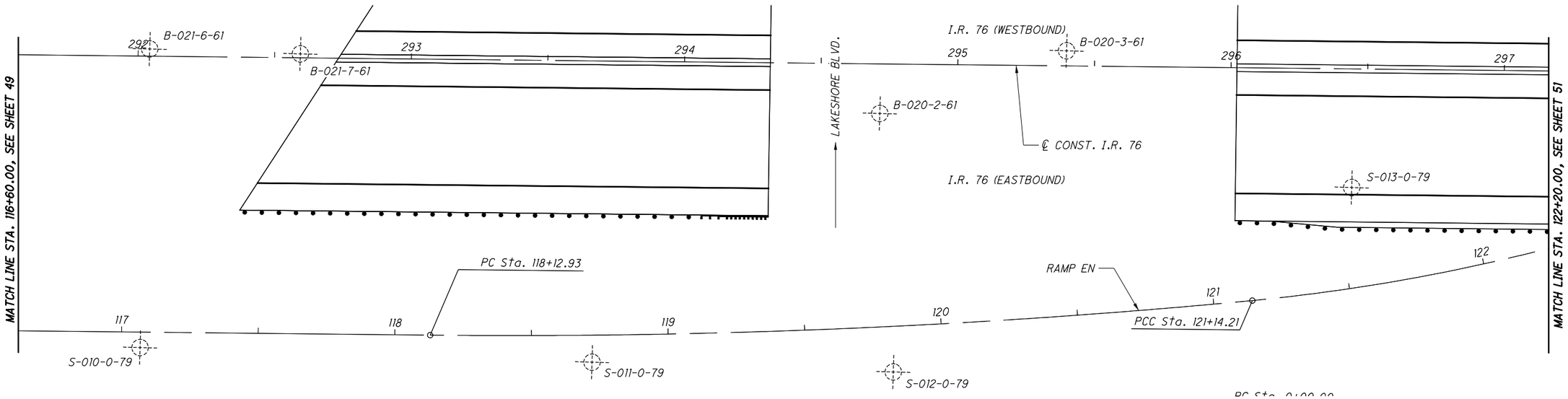
DRAWN SM
CHECKED PAN

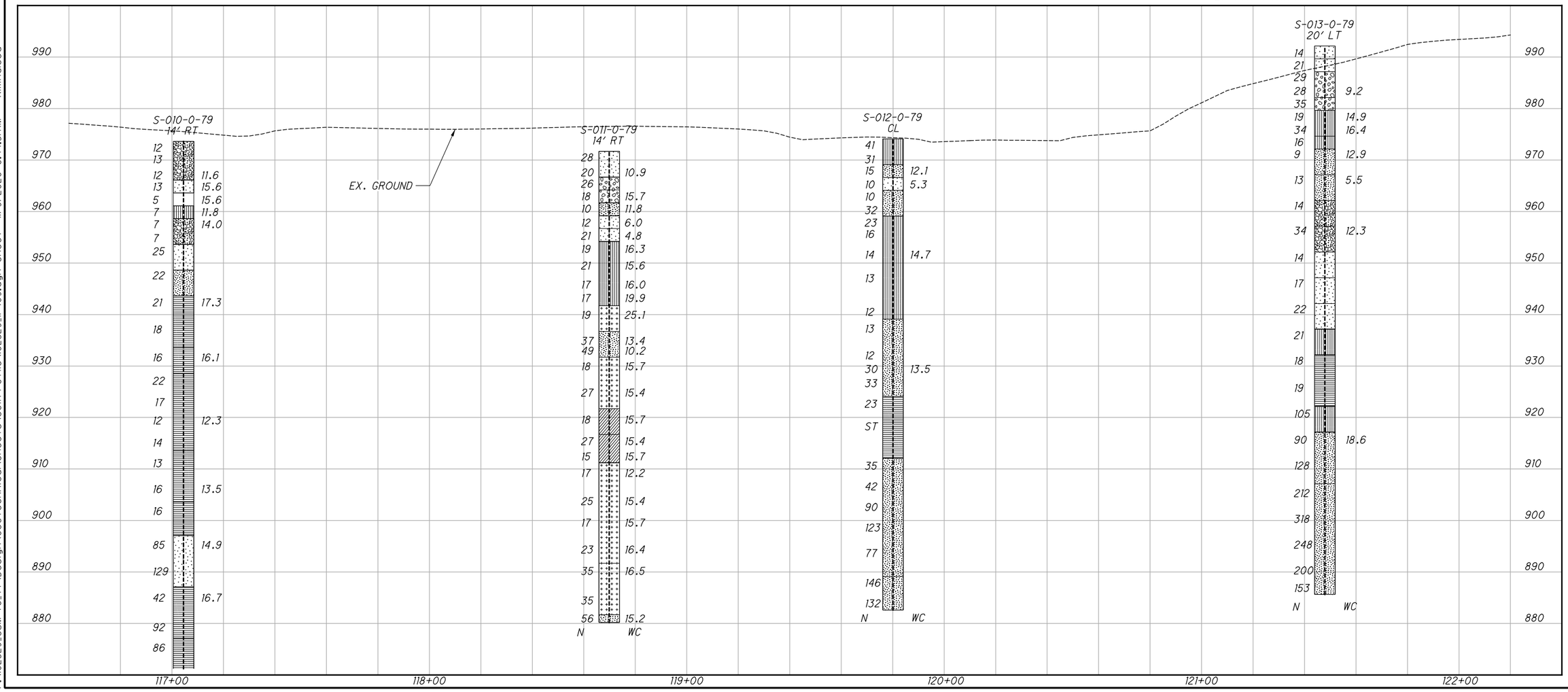
SOIL PROFILE
STA. 111+00.00 TO STA. 116+60.00 RAMP EN

SUM-76/77/8-
8.24/9.74/0.00

49
202

P:\102329_SUM-76_77\Design\Geotechnical\Sheets\Soil Profile\102329_IP408.dgn Sheet 11/9/2020 8:44:16 AM kmihalcea





P:\102329_SUM-76_77\Design\Geotechnical\Sheets\Soil Profile\102329_IP409.dgn Sheet 11/9/2020 8:44:51 AM kmihalcea

SOIL PROFILE
STA. 122+20.00 RAMP EN
STA. 116+60.00 TO STA. 122+20.00

SUM-76/77/8-8.24/9.74/0.00

HORIZONTAL SCALE IN FEET
0 10 20 40

DRAWN SM CHECKED PAN

SOIL PROFILE

STA. 122+20.00 TO STA. END RAMP EN

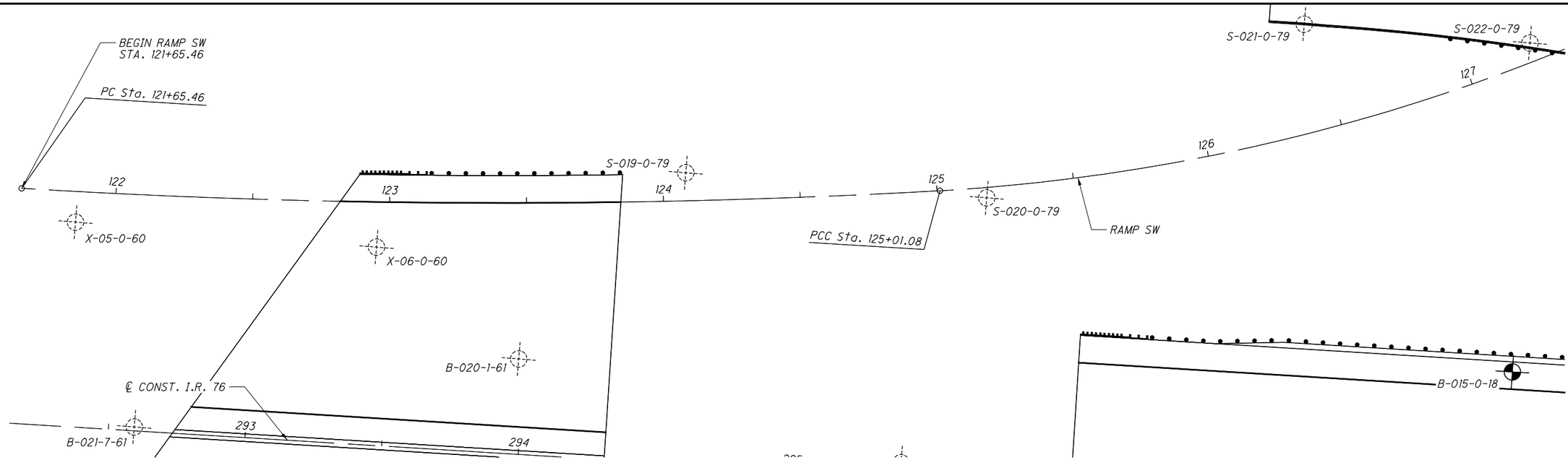
DRAWN SM | CHECKED PAN

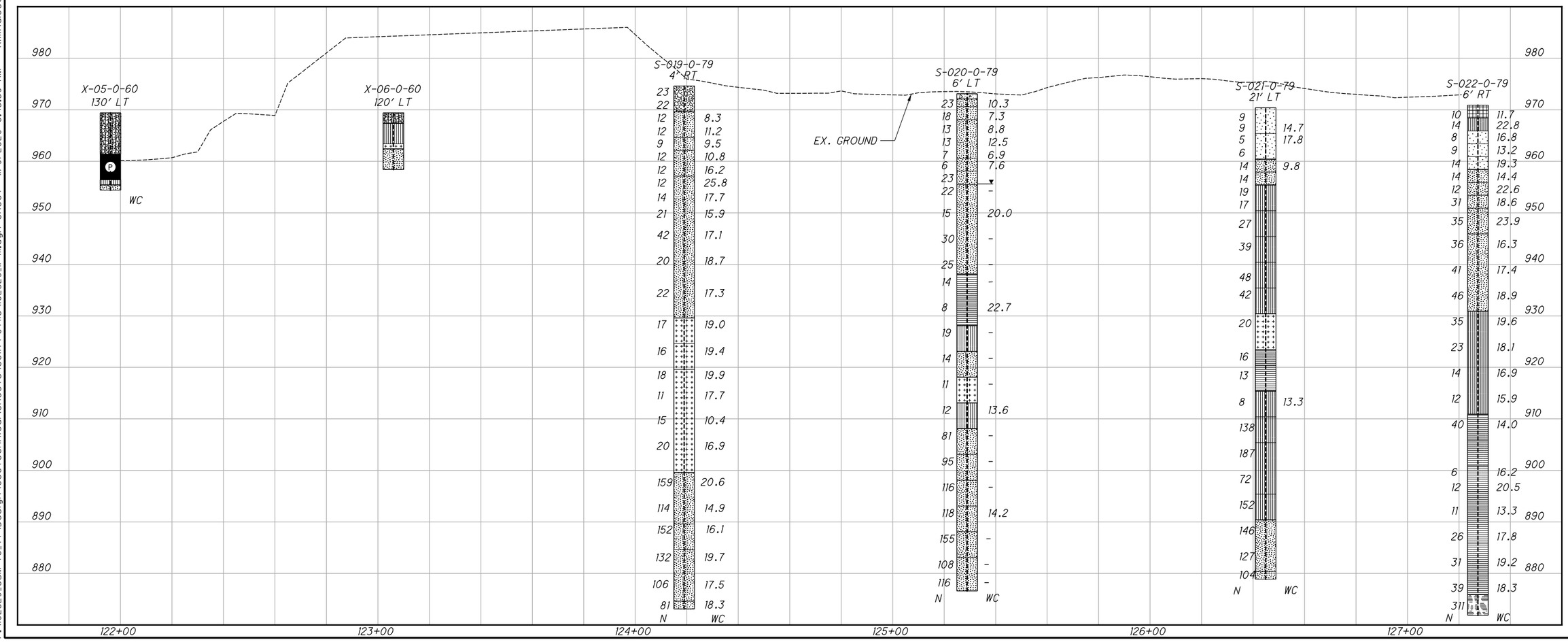
HORIZONTAL SCALE IN FEET
0 10 20 40

SUM-76/77/8-8.24/9.74/0.00

51
202

P:\102329_SUM-76_77\Design\Geotechnical\Sheets\Soil Profile\102329_IP410.dgn Sheet 11/9/2020 8:45:25 AM kmihalcea





HORIZONTAL SCALE IN FEET
0 10 20 40

DRAWN SM
CHECKED PAN

SOIL PROFILE
BEGIN STA. 122+00.00 TO END RAMP SW

SUM-76/77/8-
8.24/9.74/0.00

HORIZONTAL SCALE IN FEET
0 10 20 40

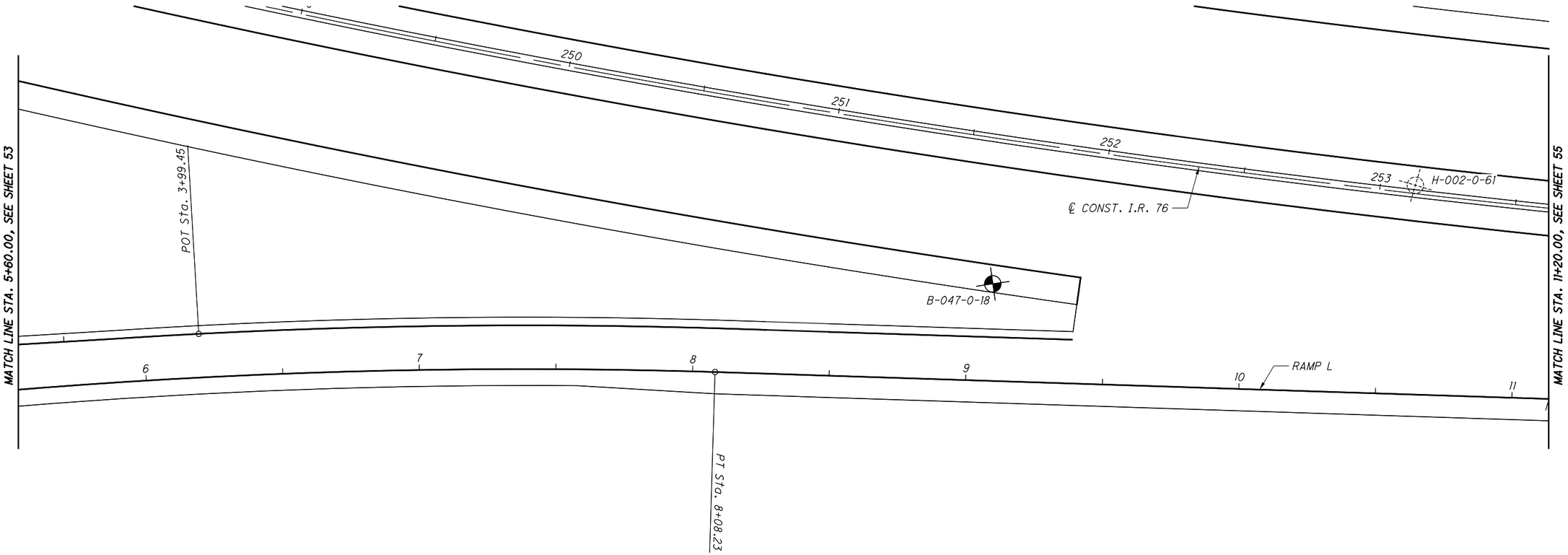
DRAWN SM
CHECKED PAN

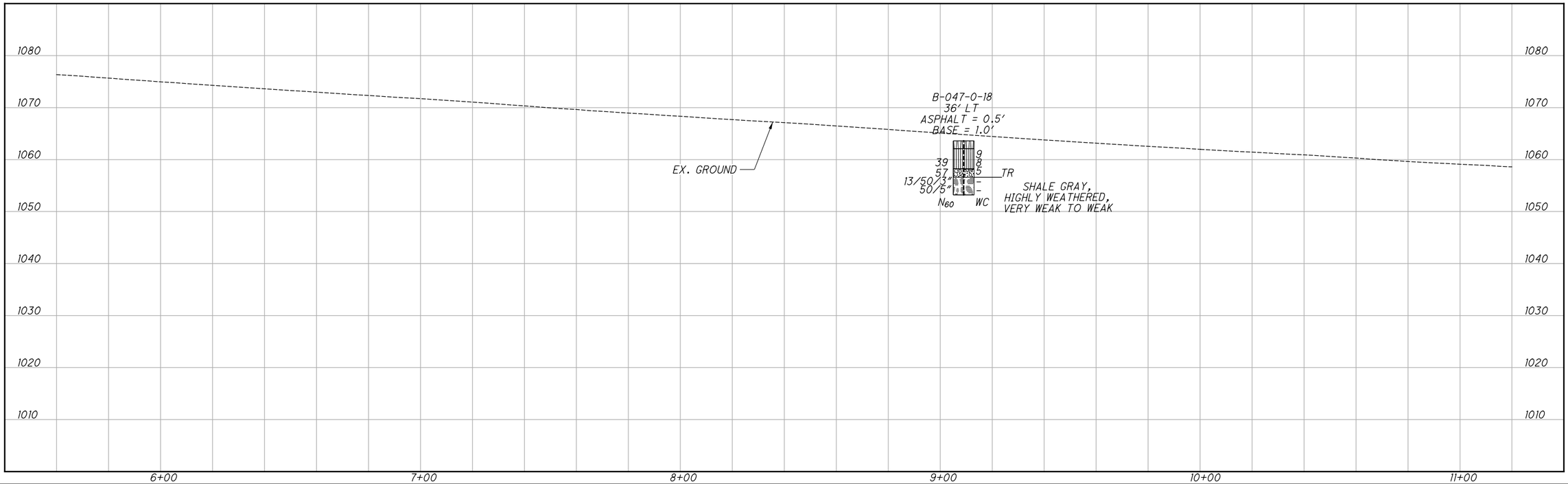
SOIL PROFILE
BEGIN STA. 0+00.00 TO STA. 5+60.00 RAMP L

SUM-76/77/8-8.24/9.74/0.00

53
202

P:\102329_SUM-76_77\Design\Geotechnical\Sheets\SoilProfile\102329_IP412.dgn Sheet 11/9/2020 8:46:26 AM kmihalcea





N

HORIZONTAL SCALE IN FEET
0 10 20 40

DRAWN SM
CHECKED PAN

SOIL PROFILE

STA. 5+60.00 TO STA. 11+20.00 RAMP L

SUM-76/77/8-
8.24/9.74/0.00

54
202

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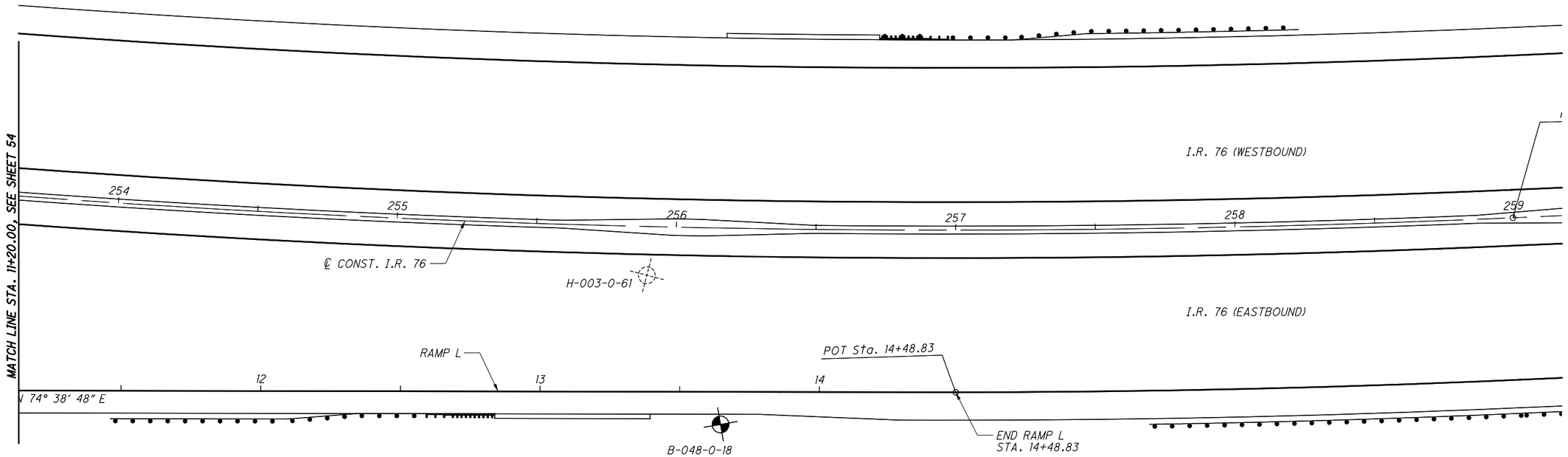
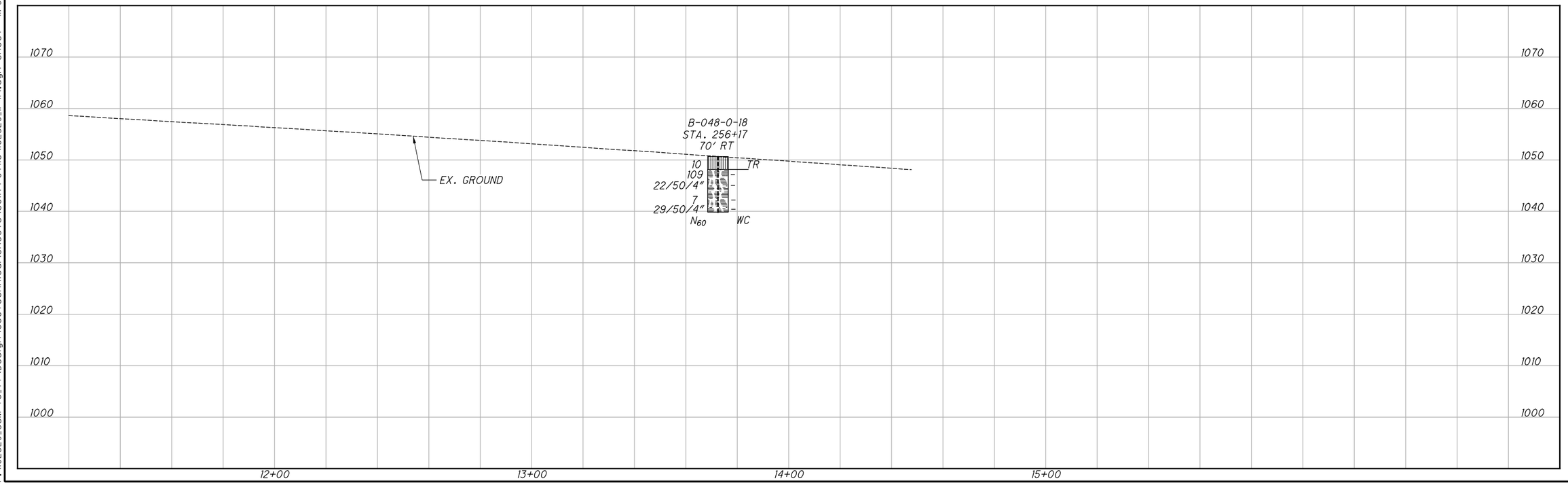




N

0 10 20 40
HORIZONTAL SCALE IN FEET

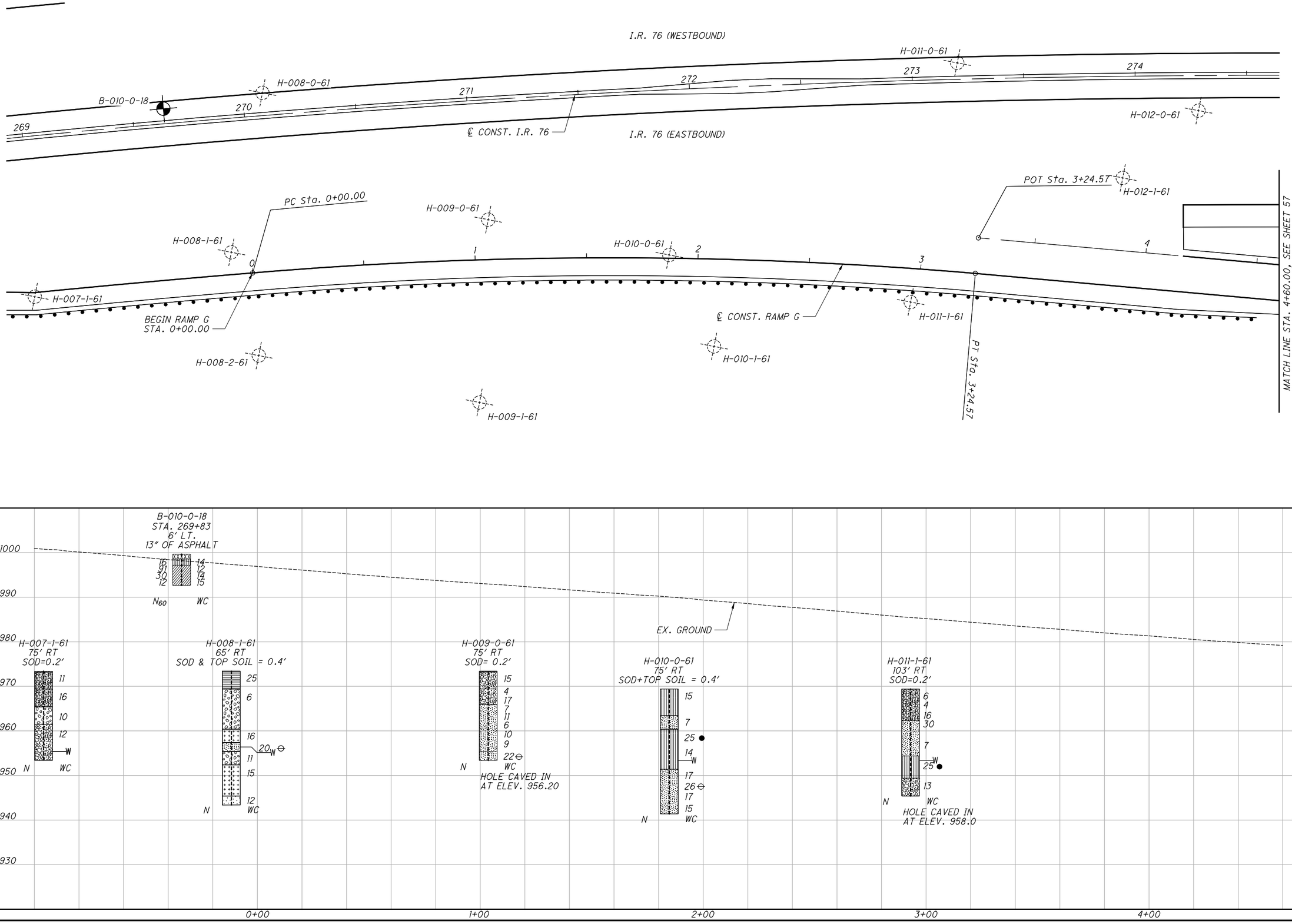
DRAWN SM
CHECKED PAN

SOIL PROFILE
STA. 11+20.00 TO END STA. 14+48.83 RAMP L

SUM-76/77/8-
8.24/9.74/0.00

55
202

P:\102329_SUM-76_77\Design\Geotechnical\Sheets\Soil Profile\102329_IP414.dgn Sheet 11/9/2020 8:47:20 AM kmihalcea



P:\102329_SUM-76_77\Design\Geotechnical\Sheets\SoilProfile\102329_IP415.dgn Sheet 11/9/2020 8:47:52 AM knithalcea

HORIZONTAL SCALE IN FEET
0 10 20 40

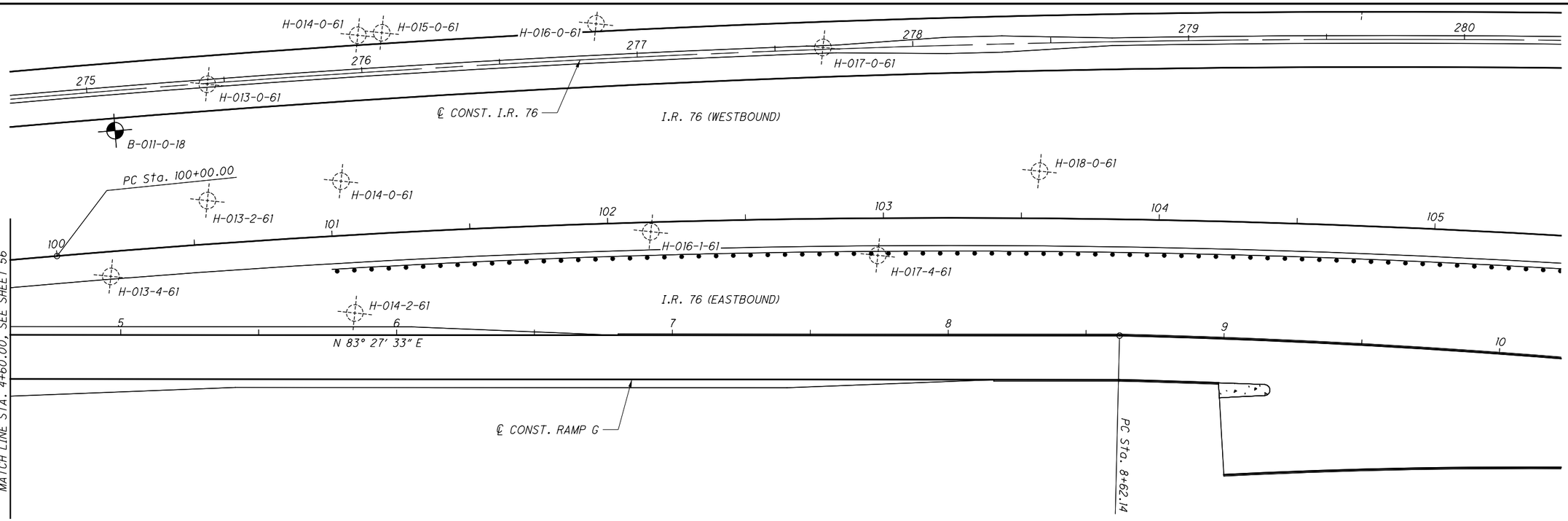
DRAWN SM CHECKED PAN

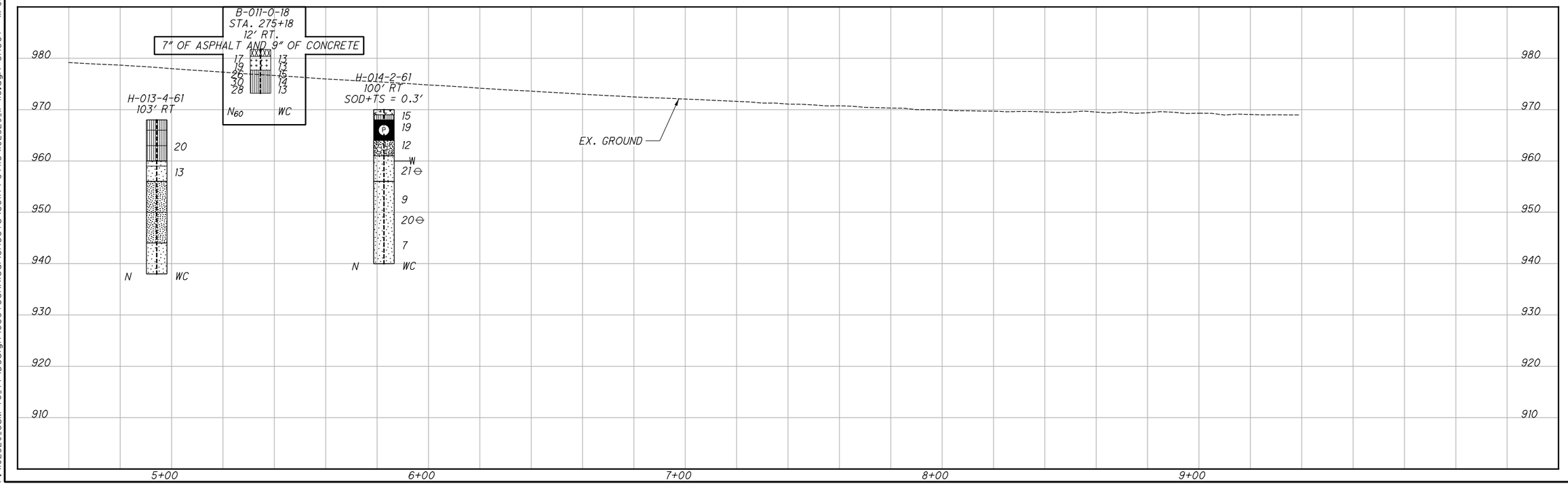
SOIL PROFILE

BEGIN STA. 0+00.00 TO STA. 4+60.00 RAMP G

SUM-76/77/8-
8.24/9.74/0.00

56
202





P:\102329_SUM-76_77\Design\Geotechnical\Sheets\SoilProfile\102329_IP416.dgn Sheet 11/9/2020 8:48:25 AM kmihalcea

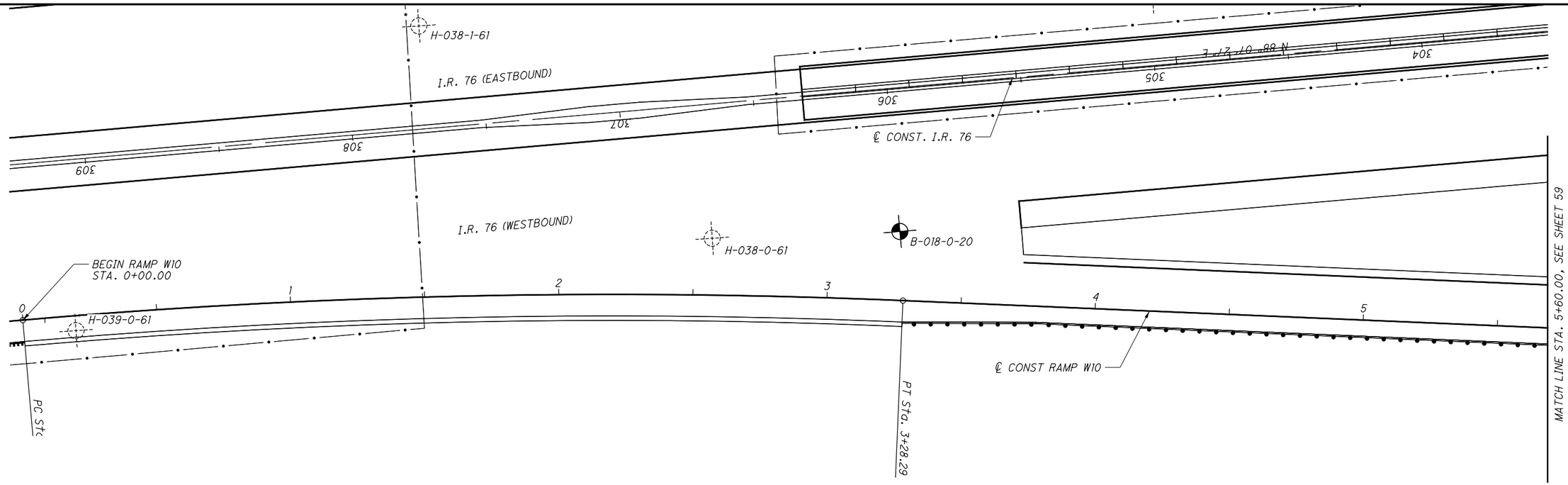
HORIZONTAL SCALE IN FEET
0 10 20 40

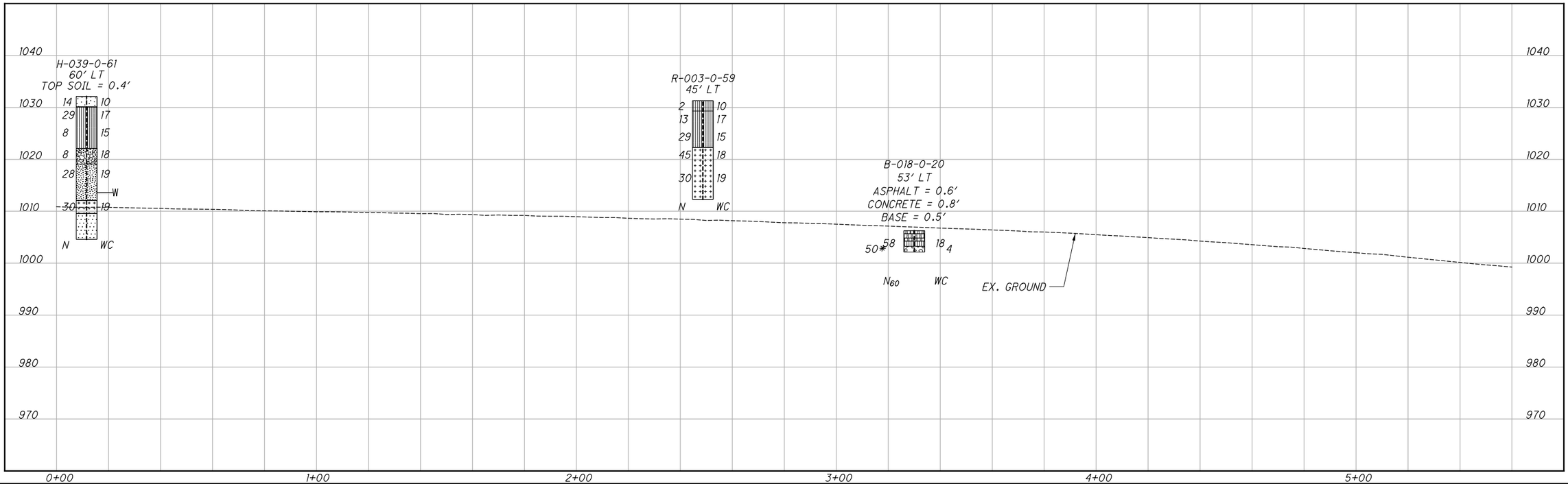
DRAWN SM CHECKED PAN

SOIL PROFILE
STA. 4+60.00 TO END RAMP G

SUM-76/77/8-
8.24/9.74/0.00

57
202





HORIZONTAL SCALE IN FEET
0 10 20 40

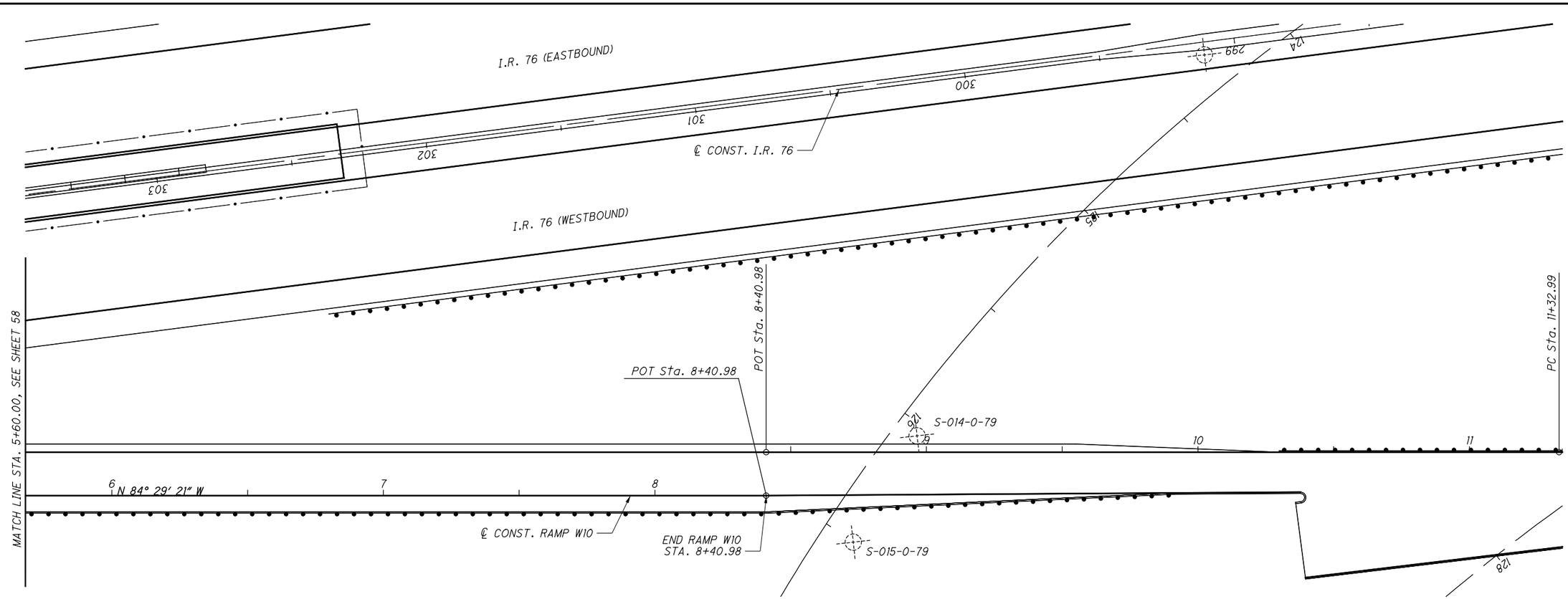
DRAWN SM
CHECKED PAN

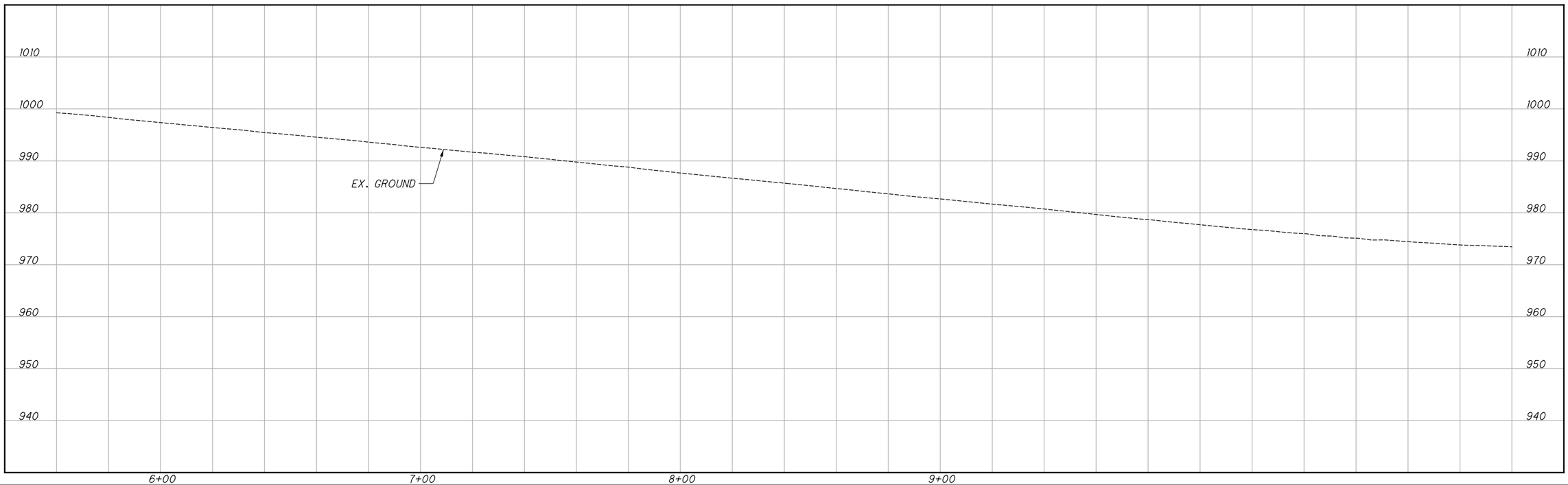
SOIL PROFILE
BEGIN STA. 0+00.00 TO STA. 5+60.00 RAMP W10

SUM-76/77/8-8.24/9.74/0.00

58
202

P:\102329_SUM-76_77\Design\Geotechnical\Sheets\SoilProfile\102329_JP417.dgn Sheet 11/9/2020 8:48:59 AM knithalcea





N

0 10 20 40 HORIZONTAL SCALE IN FEET

DRAWN SM CHECKED PAN

SOIL PROFILE

STA. 5+60.00 TO END STA. 8+40.98 RAMP W10

SUM-76/77/8-
8.24/9.74/0.00

59
202

HORIZONTAL SCALE IN FEET
0 10 20 40

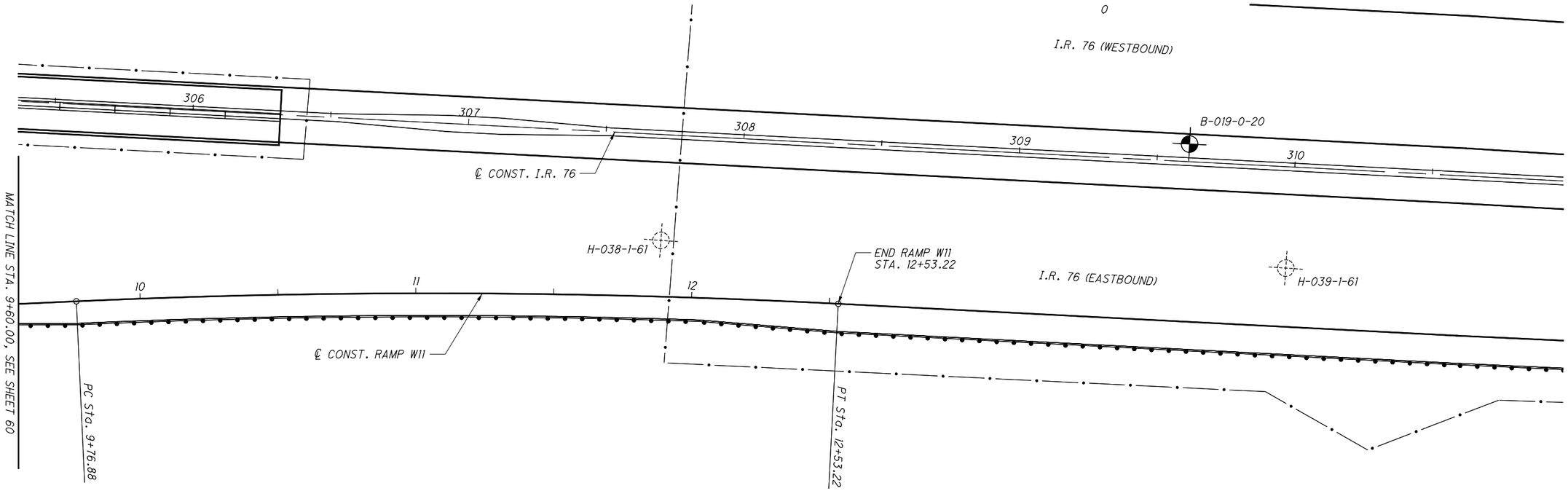
DRAWN SM CHECKED PAN

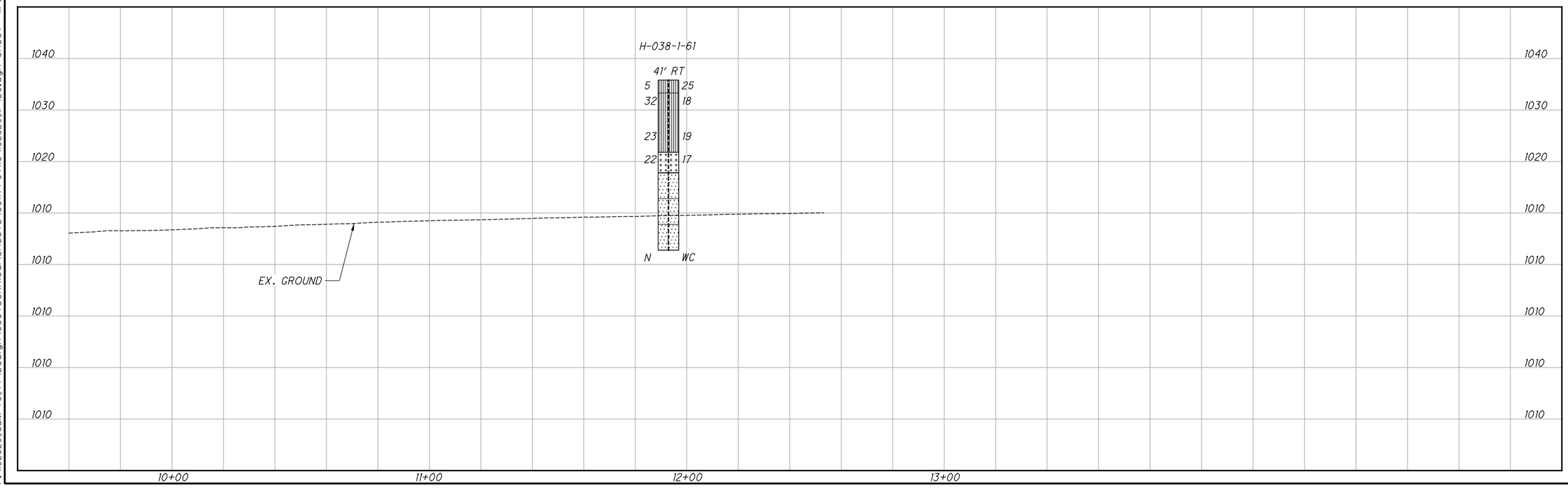
SOIL PROFILE
BEGIN STA. 4+00.00 TO STA. 9+60.00 RAMP W11

SUM-76/77/8-
8.24/9.74/0.00

60
202

P:\102329_SUM-76_77\Design\Geotechnical\Sheets\SoilProfile\102329_JP419.dgn Sheet 11/9/2020 8:50:03 AM kmihalcea





N

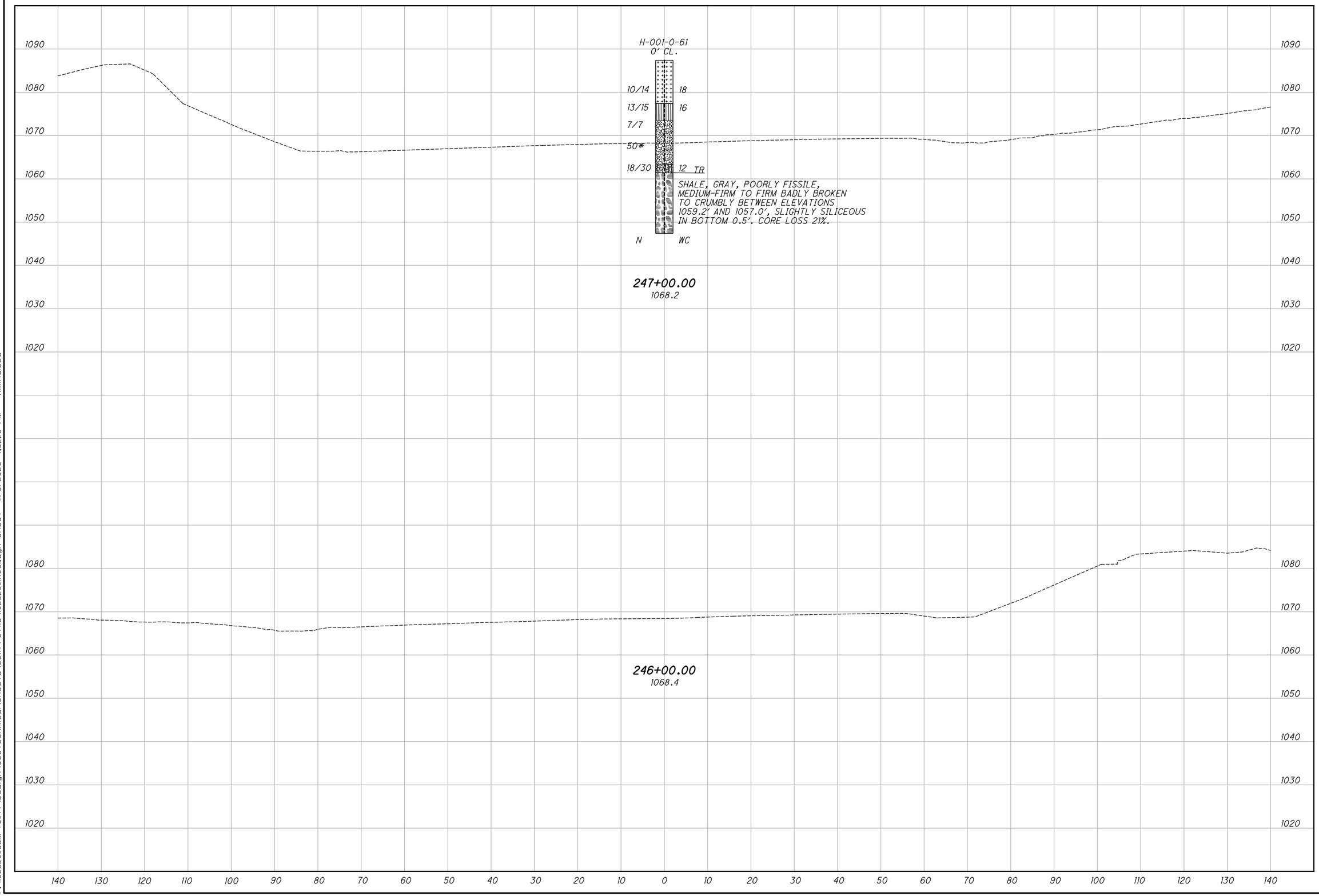
0 10 20 40 HORIZONTAL SCALE IN FEET

DRAWN SM CHECKED PAN

SOIL PROFILE
SUM-76/77/8-8.24/9.74/0.00
STA. 9+60.00 TO END STA. 12+53.21 RAMP W11

61
202

P:\102329_SUM-76_77\Design\Geotechnical\Sheets\Soil Profile\102329_IP420.dgn Sheet 11/9/2020 8:50:33 AM kmihalcea



HORIZONTAL SCALE IN FEET
0 5 10 20

DRAWN SM
CHECKED PAN

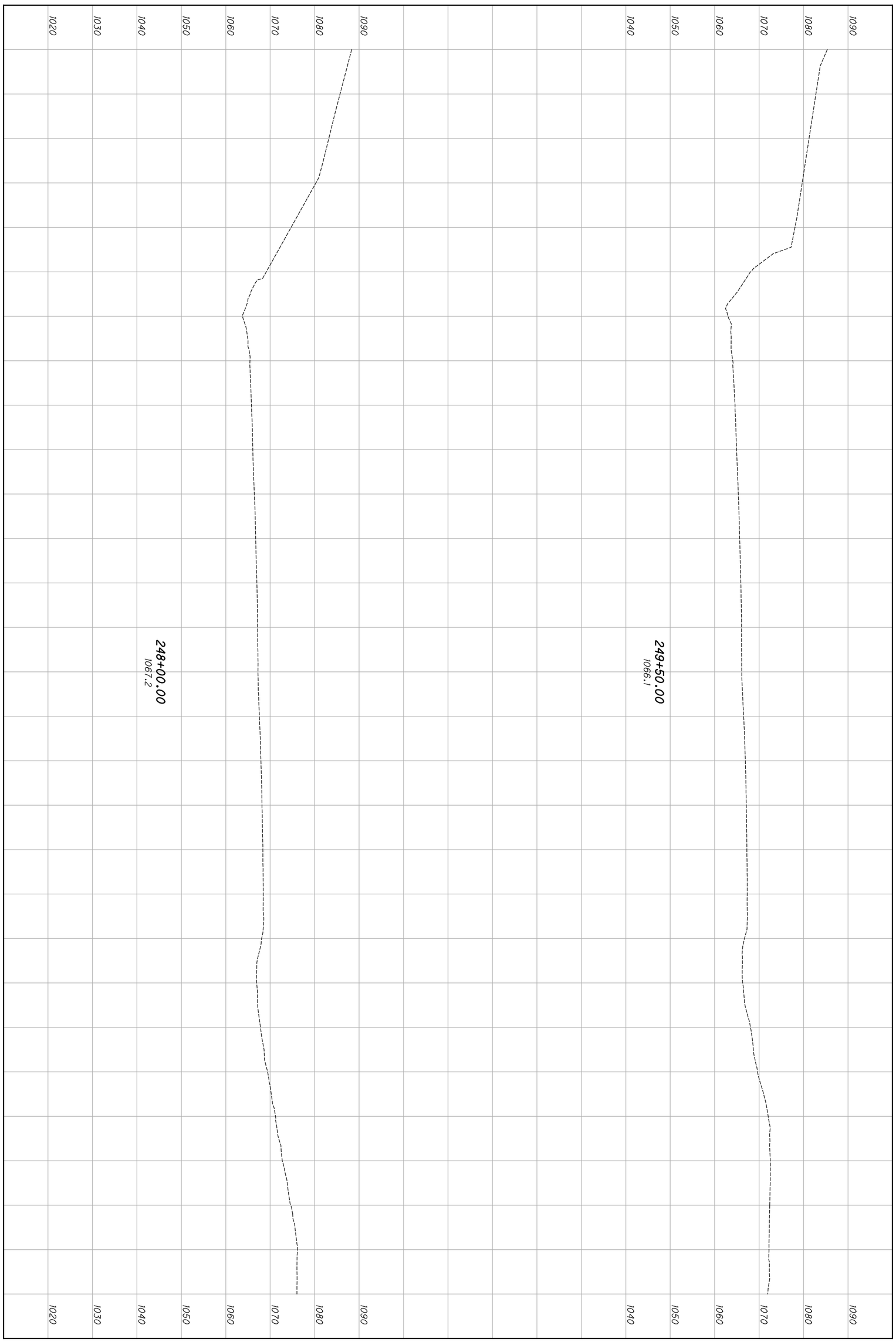
SOIL PROFILE
CROSS SECTIONS 246+00.00 & 247+00.00
I.R. 76

SUM-76/77/8-8.24/9.74/0.00

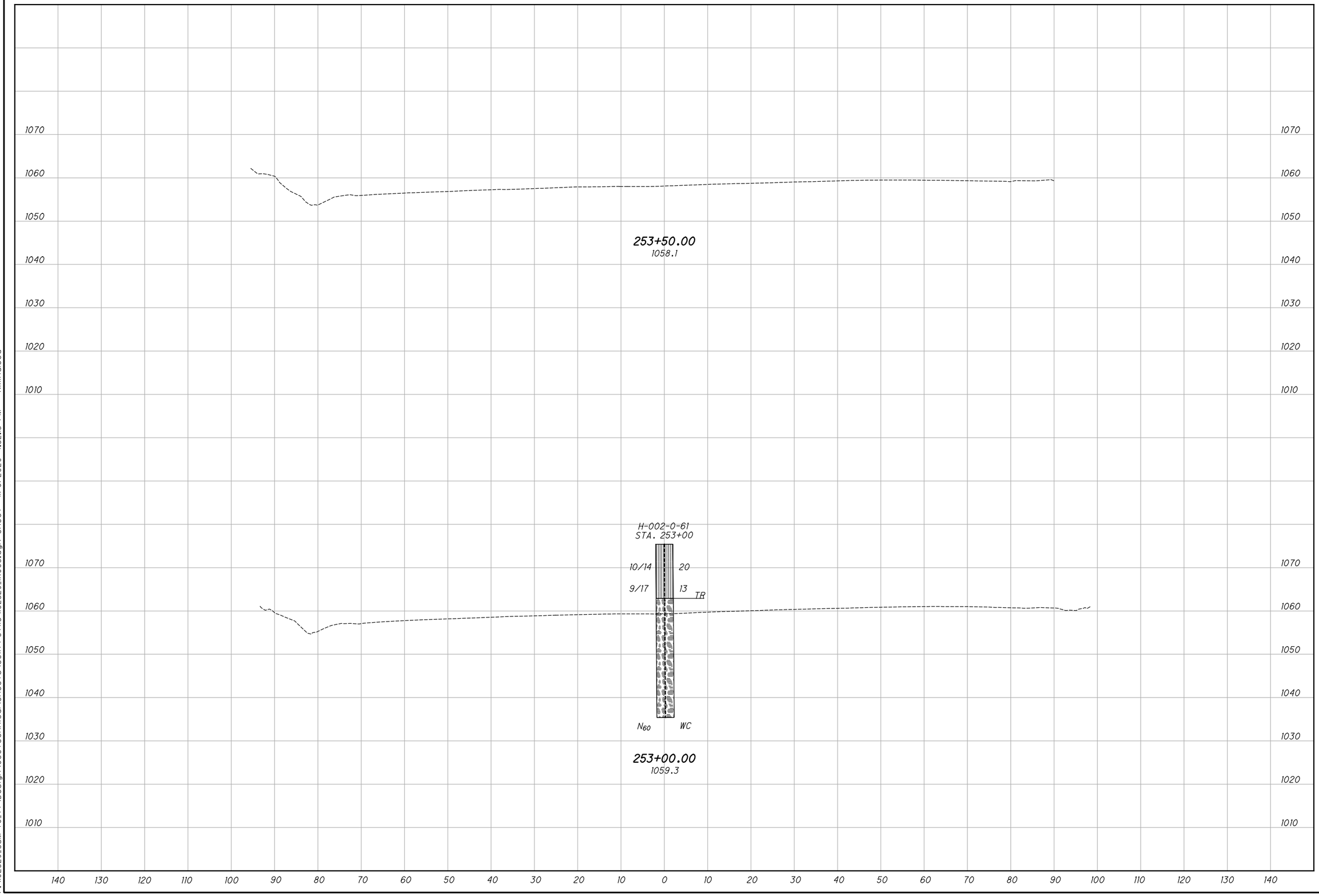
62
202

P:\02329_SUM-76_77\Design\Geotechnical\Sheets\SoilProfile\02329_IX001.dgn Sheet 11/6/2020 4:52:10 PM kmihalcea

P:\102329_SUM-76_77\Design\Geotechnical\Sheets\SoilProfile\102329_IX002.dgn Sheet 11/6/2020 4:52:14 PM kmihalcea



63 / 202	SUM-76/77/8- 8.24/9.74/0.00	SOIL PROFILE I.R. 76 CROSS SECTIONS 248+00.00 & 249+50.00	DRAWN SM CHECKED PAN	0 5 10 20 HORIZONTAL SCALE IN FEET



HORIZONTAL SCALE IN FEET
0 5 10 20

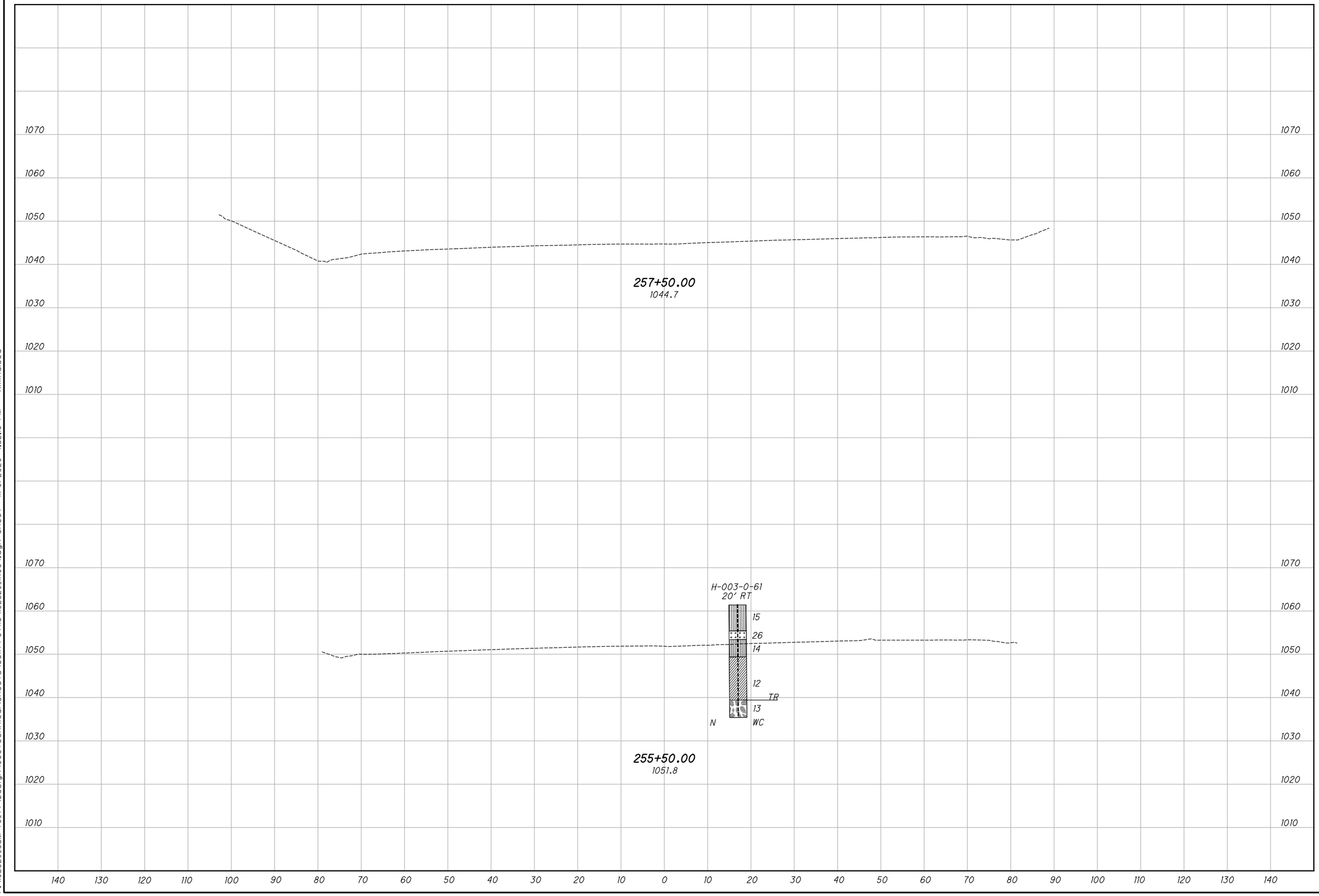
DRAWN SM
CHECKED PAN

SOIL PROFILE
CROSS SECTIONS 253+00.00 & 253+50.00
I.R. 76

SUM-76/77/8-
8.24/9.74/0.00

64
202

P:\02329_SUM-76_77\Design\Geotechnical\Sheets\Soil Profile\02329_IX003.dgn Sheet 11/6/2020 4:52:15 PM kmihalcea



HORIZONTAL SCALE IN FEET
0 5 10 20

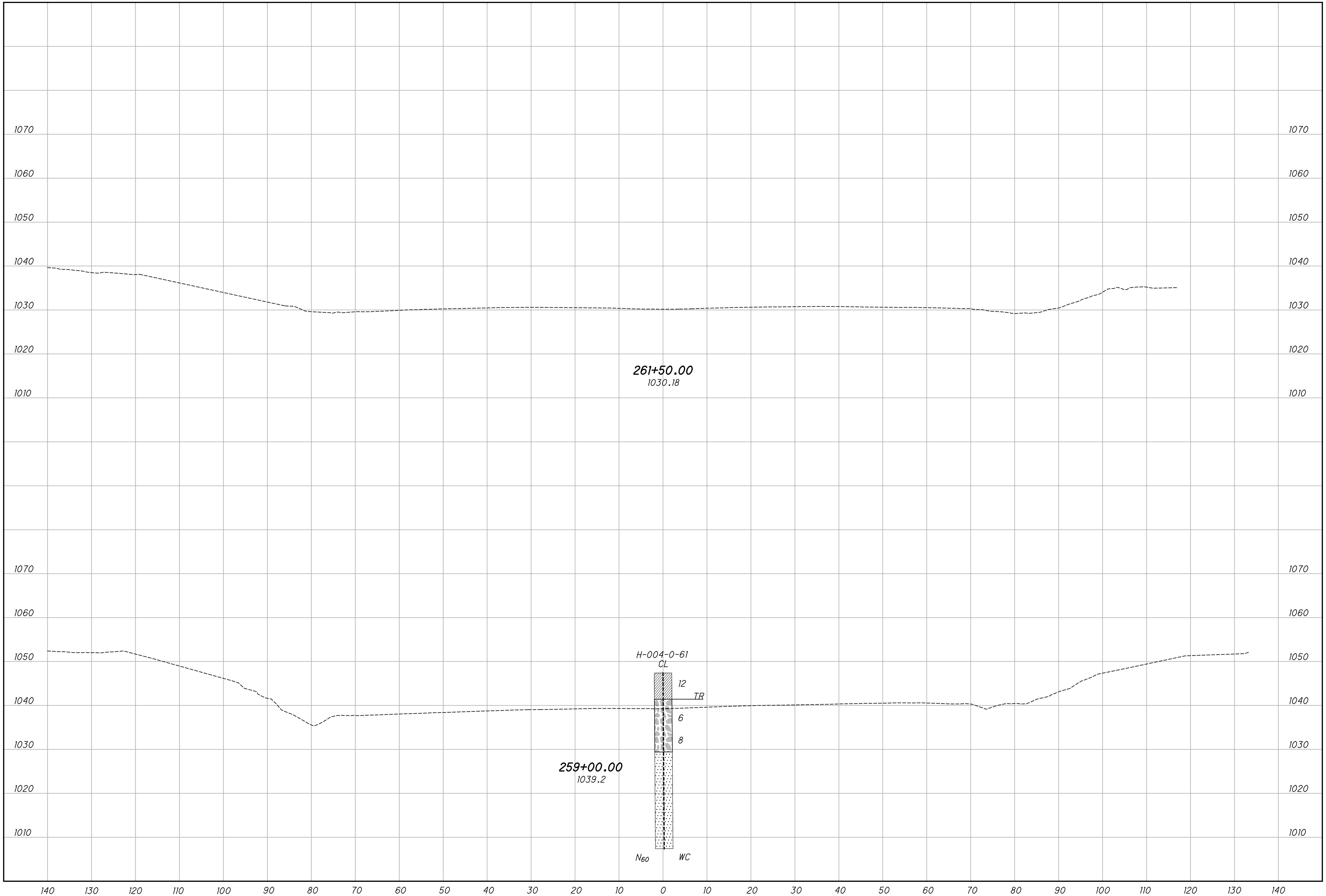
DRAWN SM
CHECKED PAN

SOIL PROFILE
CROSS SECTIONS 255+50.00 & 257+50.00
I.R. 76 CROSS SECTIONS

SUM-76/77/8-
8.24/9.74/0.00

65
202

P:\02329_SUM-76_77\Design\Geotechnical\Sheets\Soil Profile\02329_IX004.dgn Sheet 11/6/2020 4:52:16 PM kmihalcea



0 5 10 20
HORIZONTAL SCALE IN FEET

DRAWN SM
CHECKED PAN

SOIL PROFILE
I.R. 76 CROSS SECTIONS 259+00.00 & 261+50.00

SUM-76/77/8-
8.24/9.74/0.00

1020
1010
1000
990
980
970
960
950

266+50.00
1015.4

B-002-0-61
76' LT
CONCRETE = 0.5'
CINDERS = 0.5'

14	18
56	
26	18
28	16
126	10
48	13
30	14
46	13
39	14
N	WC

B-004-0-61
32' LT
CONCRETE = 0.5'

9	13
14	14
14	16
2	9
4	9
5	7
33	15
16	16
17	15
14	19
7	19
8	18
12	14
18	14
52	12
NM	NM
N	WC

1040
1030
1020
1010
1000
990
980

H-005-0-61
3' LT
SOD = 0.2'
TOP SOIL = 0.2'

17	W
16	
N	WC

REEFUSAL

264+00.00
1020.93

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

HORIZONTAL SCALE IN FEET
0 5 10 20

DRAWN SM
CHECKED PAN

SOIL PROFILE
CROSS SECTIONS 264+50.00 & 266+50.00
I.R. 76

SUM-76/77/8-
8.24/9.74/0.00

B-001-0-61
76' LT
BRICK = 0.4'

B-003-0-61
25' LT
CONCRETE = 0.5'

267+50.00
987.8

B-005-0-61
34' RT
CONCRETE = 0.5'

B-007A-0-61
69' RT
ASPHALT = 0.5'

B-007-0-61
76' RT
ASPHALT = 0.5'

B-006-0-61
26' RT
SAND = 0.2'

H-006-0-61
35' RT

B-008-0-61
76' RT
PAVEMENT = 0.4'

267+00.00
988.05

HORIZONTAL SCALE IN FEET
0 5 10 20

DRAWN SM
CHECKED PAN

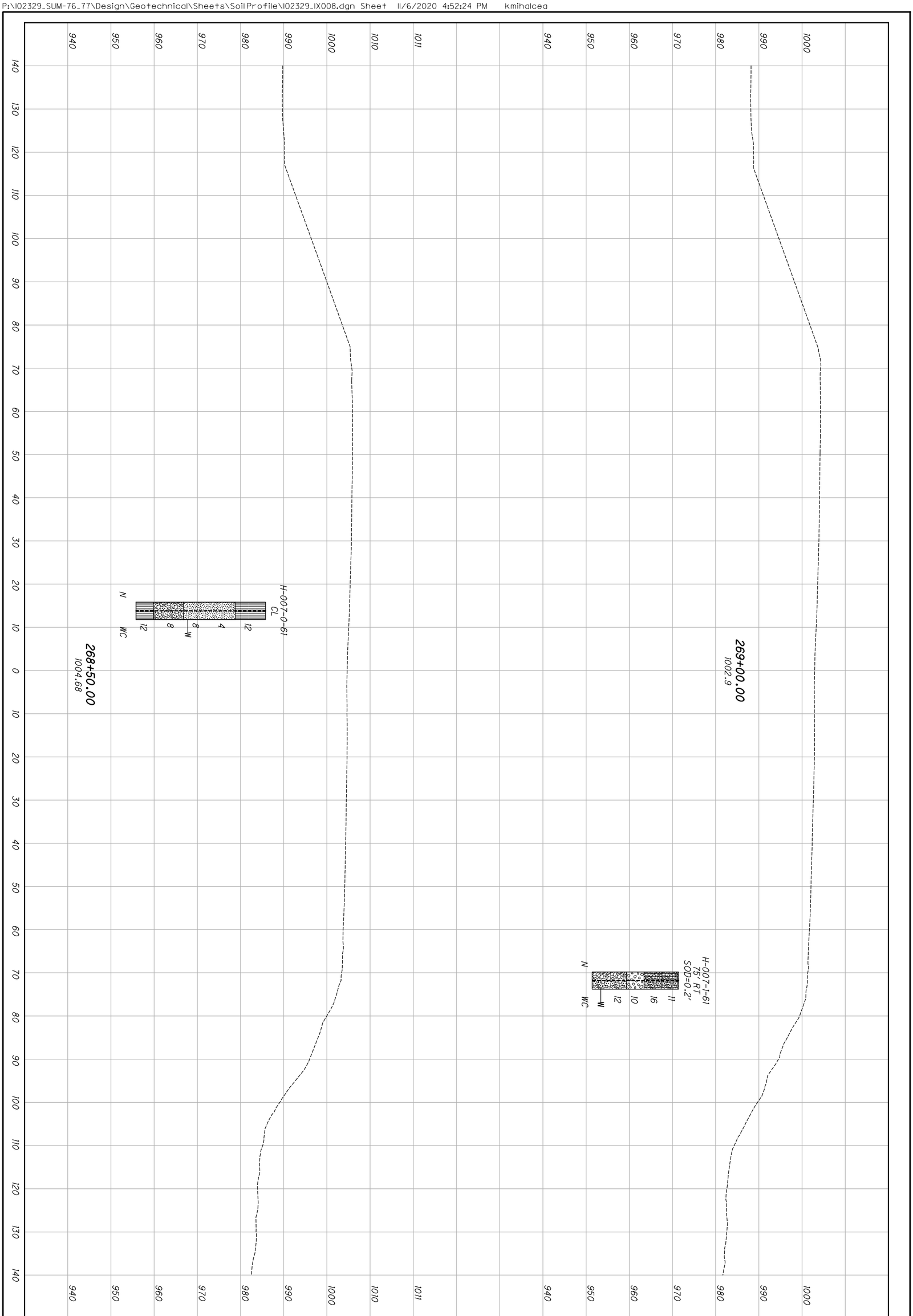
SOIL PROFILE
CROSS SECTIONS 267+00.00 & 267+50.00
I.R. 76

SUM-76/77/8-
8.24/9.74/0.00

68
202

P:\102329_SUM-76_77\Design\Geotechnical\Sheets\Soil Profile\102329_IX007.dgn Sheet 11/6/2020 4:52:22 PM kmihalcea

P:\102329_SUM-76_77\Design\Geotechnical\Sheets\SoilProfile\102329_IX008.dgn Sheet 11/6/2020 4:52:24 PM kmihalcea



69 / 202	SUM-76/77/8- 8.24/9.74/0.00	SOIL PROFILE I.R. 76 CROSS SECTIONS 268+50.00 & 269+00.00	DRAWN SM CHECKED PAN	0 10 5 20 HORIZONTAL SCALE IN FEET

1000
990
980
970
960
950
940
930
920
910

270+00.00
999.5

H-008-0-61
CL
SOD T.S. = 0.5'

7	
6	
6	
9	
9	
7	
N	WC

HOLE CAVED IN
AT ELEV. 961.0

H-008-2-61
120' RT
SOD=0.2'

4	
27	
26	
8	
27	⊖
20	
15	
N	WC

HOLE CAVED IN
AT ELEV. 955.0

B-009-2-19
65' LT.

8	10
9	15
17	12
11	15
11	20
11	17
8	11
17	12
24	15
18	15
14	14
17	7
6	5
14	7
29	20 ⊖
22	19
49	10
40	21
33	21 ⊖
20	25
8	27
4	21
11	22 ●
24	19
50/5"	9
50/5"	9
N_{60}	WC

H-008-1-61
65' RT
SOD & TOP SOIL = 0.4'

25	
6	
16	
20 W	⊖
11	
15	
12	
N	WC

269+50.00
1000.97

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

HORIZONTAL SCALE IN FEET
0 5 10 20

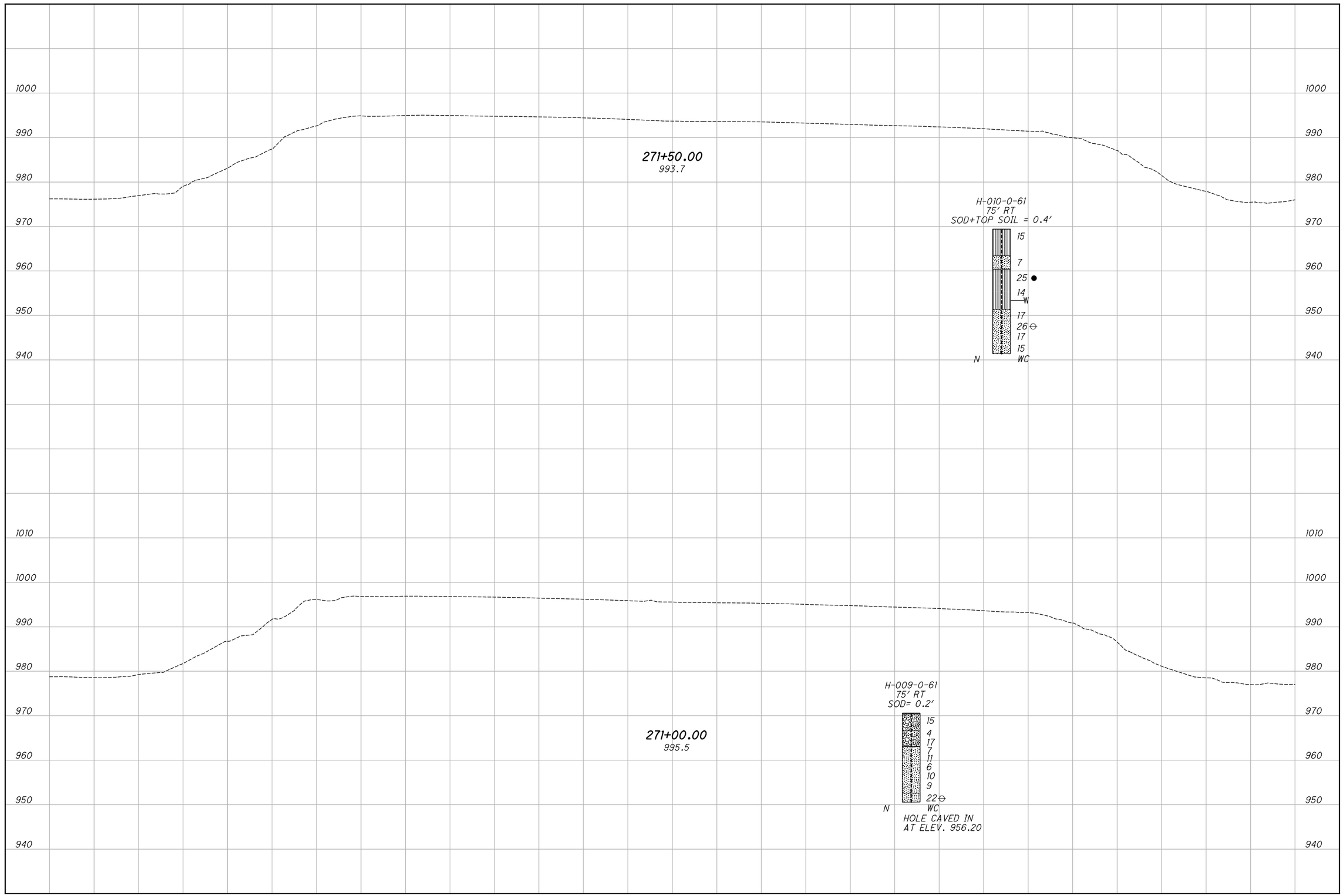
DRAWN SM
CHECKED PAN

SOIL PROFILE
STATIONS 269+50.00 & 270+00.00
I.R. 76 CROSS SECTION

SUM-76/77/8-
8.24/9.74/0.00

70
202

P:\102329_SUM-76_77\Design\Geotechnical\Sheets\Soil Profile\102329_IX009.dgn Sheet 11/6/2020 4:52:25 PM kminalcea



HORIZONTAL SCALE IN FEET
0 5 10 20

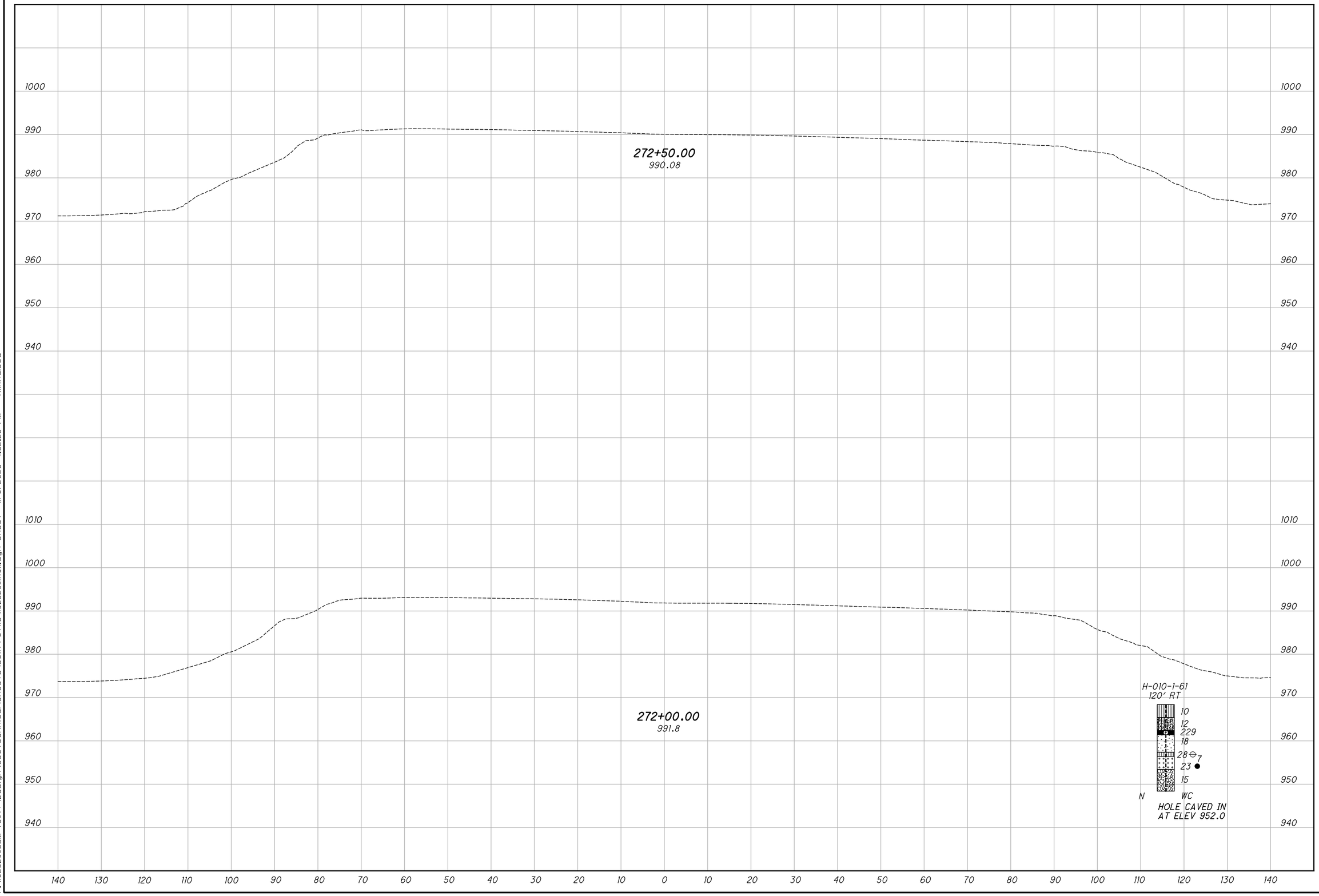
DRAWN SM
CHECKED PAN

SOIL PROFILE
CROSS SECTIONS 271+00.00 & 271+50.00
I.R. 76

SUM-76/77/8-
8.24/9.74/0.00

71
202

P:\02329_SUM-76_77\Design\Geotechnical\Sheets\SoilProfile\02329_IX010.dgn Sheet 11/6/2020 4:52:27 PM kmihalcea



HORIZONTAL SCALE IN FEET
0 5 10 20

DRAWN SM
CHECKED PAN

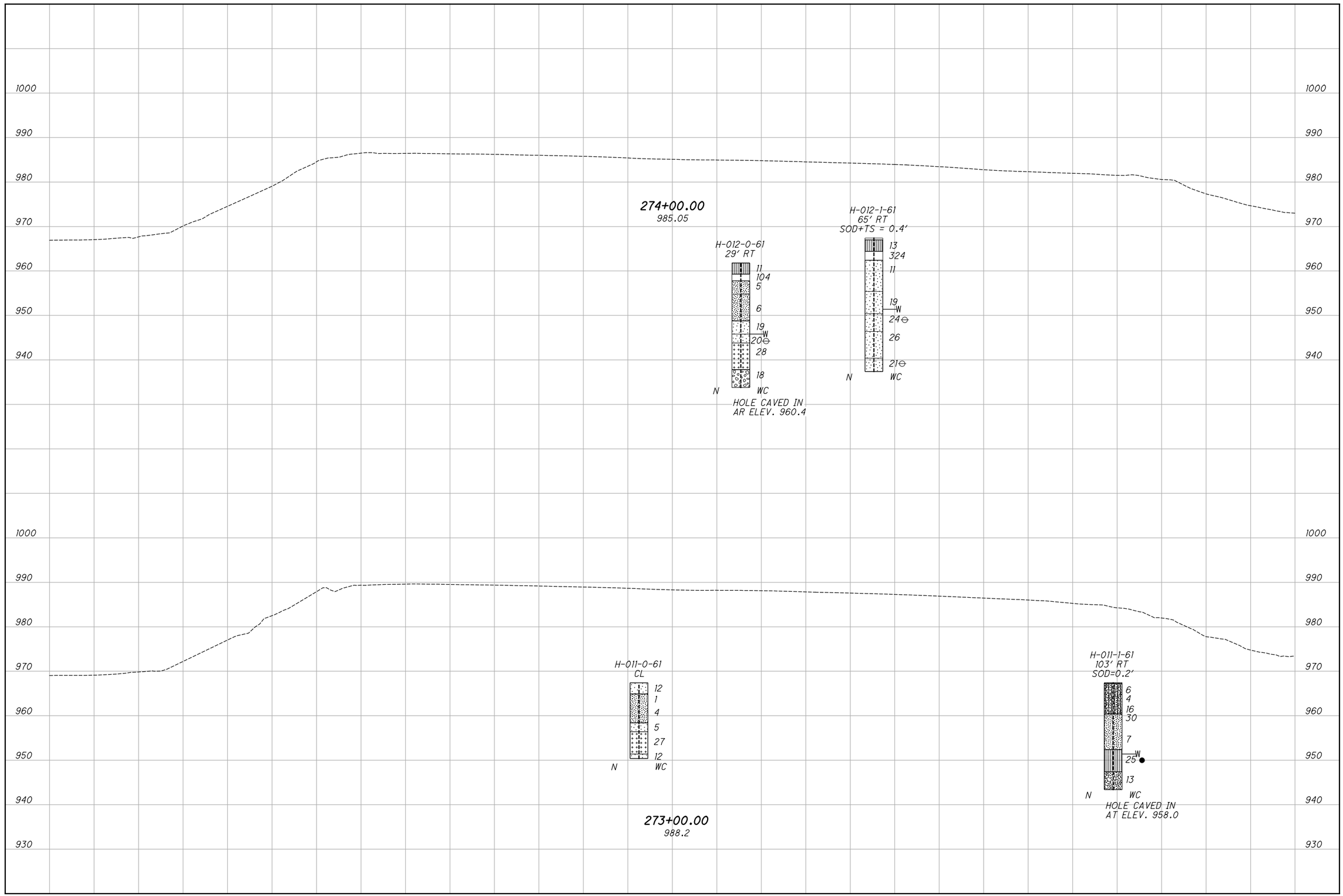
SOIL PROFILE
SECTIONS 272+00.00 & 272+50.00

SUM-76/77/8-
8.24/9.74/0.00

I.R. 76 CROSS SECTIONS

72
202

P:\102329_SUM-76_77\Design\Geotechnical\Sheets\SoilProfile\102329_IX01.dgn Sheet 11/6/2020 4:52:28 PM kmihalcea



HORIZONTAL SCALE IN FEET
0 5 10 20

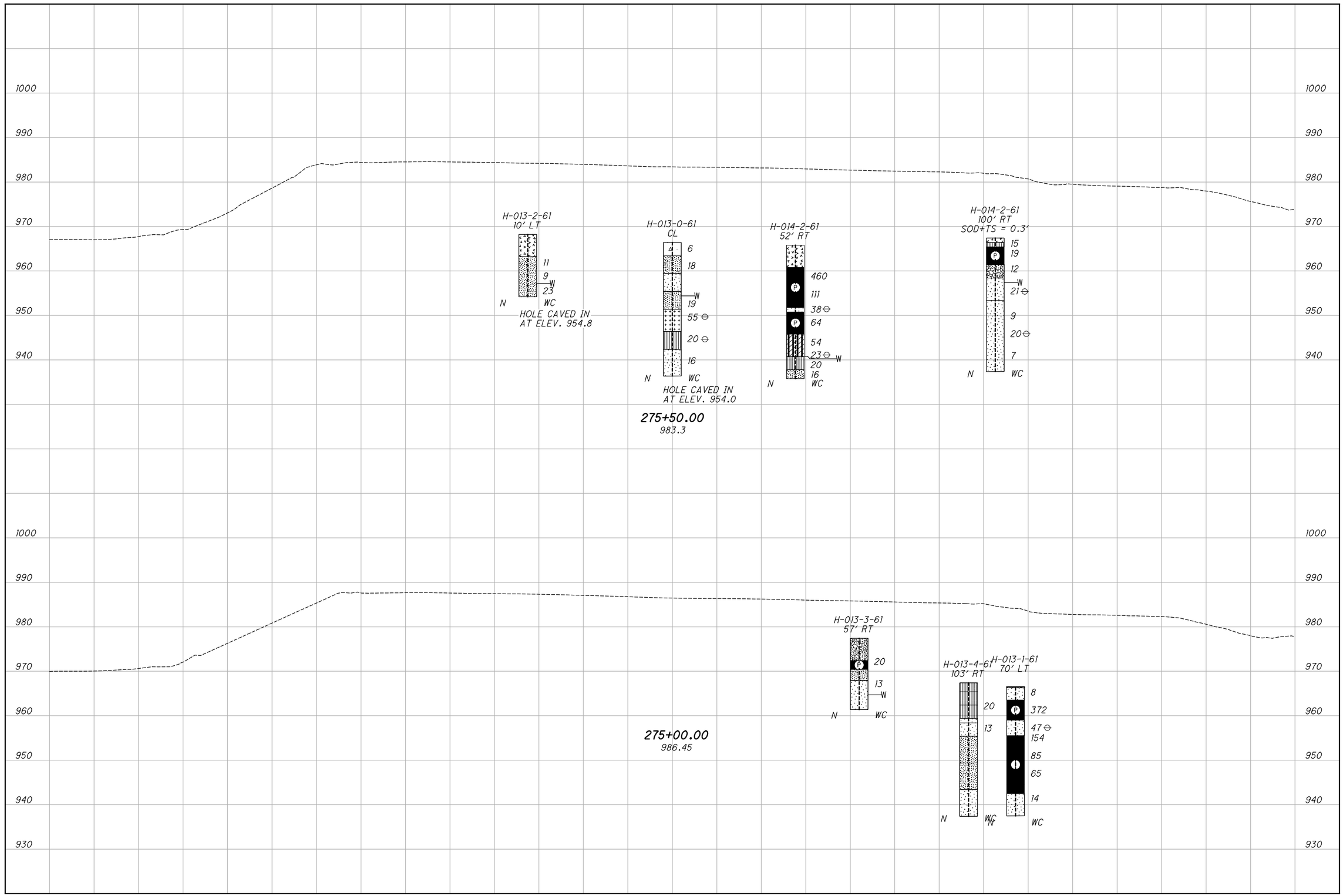
DRAWN SM
CHECKED PAN

SOIL PROFILE
I.R. 76 CROSS SECTIONS 273+00.00 & 274+00.00

SUM-76/77/8-
8.24/9.74/0.00

73
202

P:\02329_SUM-76_77\Design\Geotechnical\Sheets\SoilProfile\02329_IX012.dgn Sheet 11/6/2020 4:52:30 PM kmihalcea



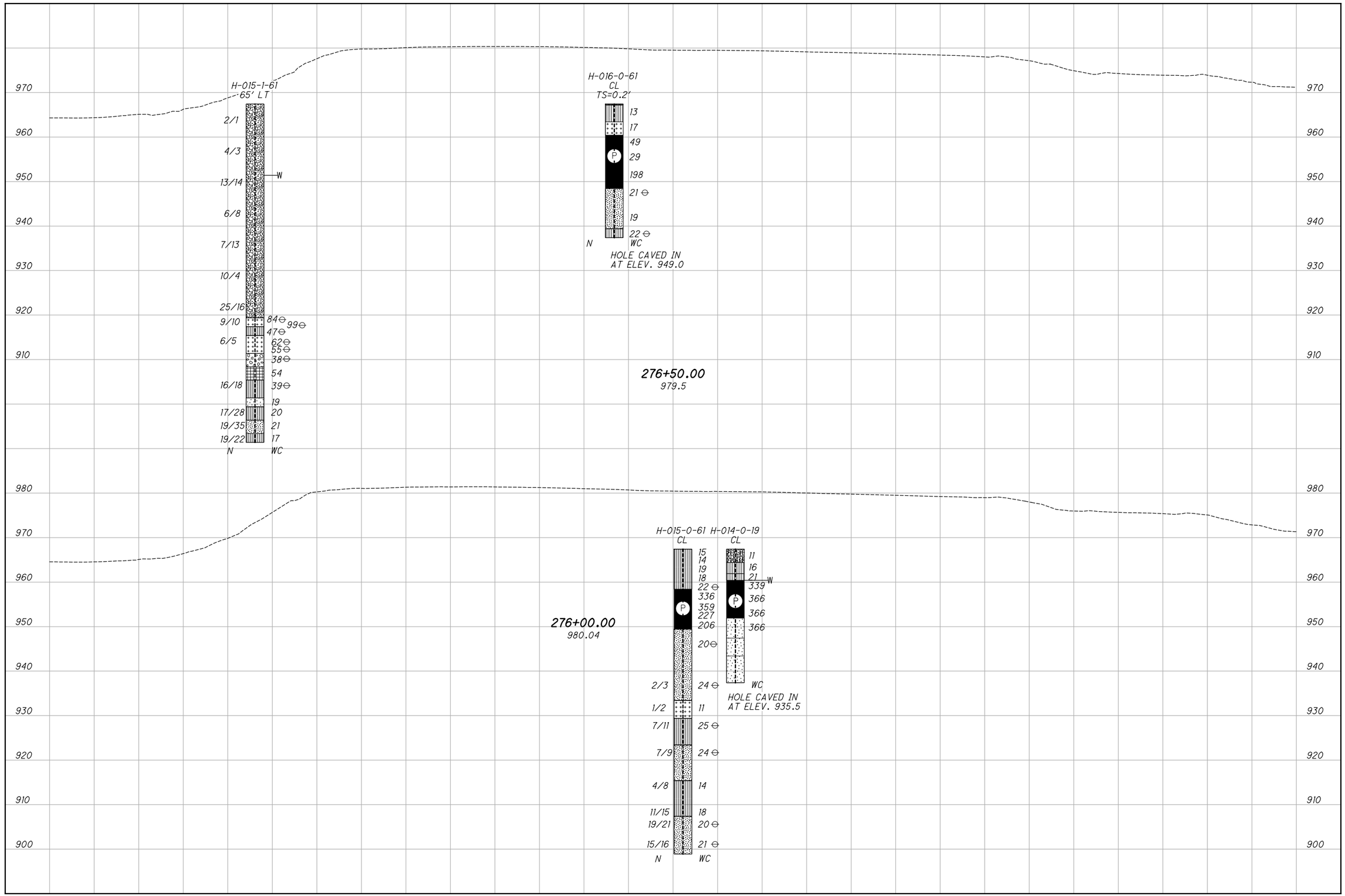
HORIZONTAL SCALE IN FEET
0 5 10 20

DRAWN SM
CHECKED PAN

SOIL PROFILE
CROSS SECTIONS 275+00.00 & 275+50.00
I.R. 76

SUM-76/77/8-8.24/9.74/0.00

P:\02329_SUM-76_77\Design\Geotechnical\Sheets\SoilProfile\02329_IX013.dgn Sheet 11/6/2020 4:52:31 PM kmihalcea



HORIZONTAL SCALE IN FEET
0 5 10 20

DRAWN SM
CHECKED PAN

SOIL PROFILE
SECTIONS 276+00.00 & 276+50.00

SUM-76/77/8-
8.24/9.74/0.00

I.R. 76 CROSS SECTIONS

75
202

P:\02329_SUM-76_77\Design\Geotechnical\Sheets\SoilProfile\02329_IX014.dgn Sheet 11/6/2020 4:52:34 PM kmihalcea

970
960
950
940
930
920
910

H-017-0-61
CL
25
13
18
233
270
206
219
31
18
11
14/16
8/11
16/17
13/12
20/23 16
16/19 18
12/13 18
16/19 19
15/20 20
N WC

277+50.00
978.7

H-017-4-61
75' RT
W
N WC

980
970
960
950
940
930
920
910
900

277+00.00
979.9

H-016-1-61
75' RT
13
13
W
13
13
37
16
41
32
34
30
N WC

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

HORIZONTAL SCALE IN FEET
0 5 10 20

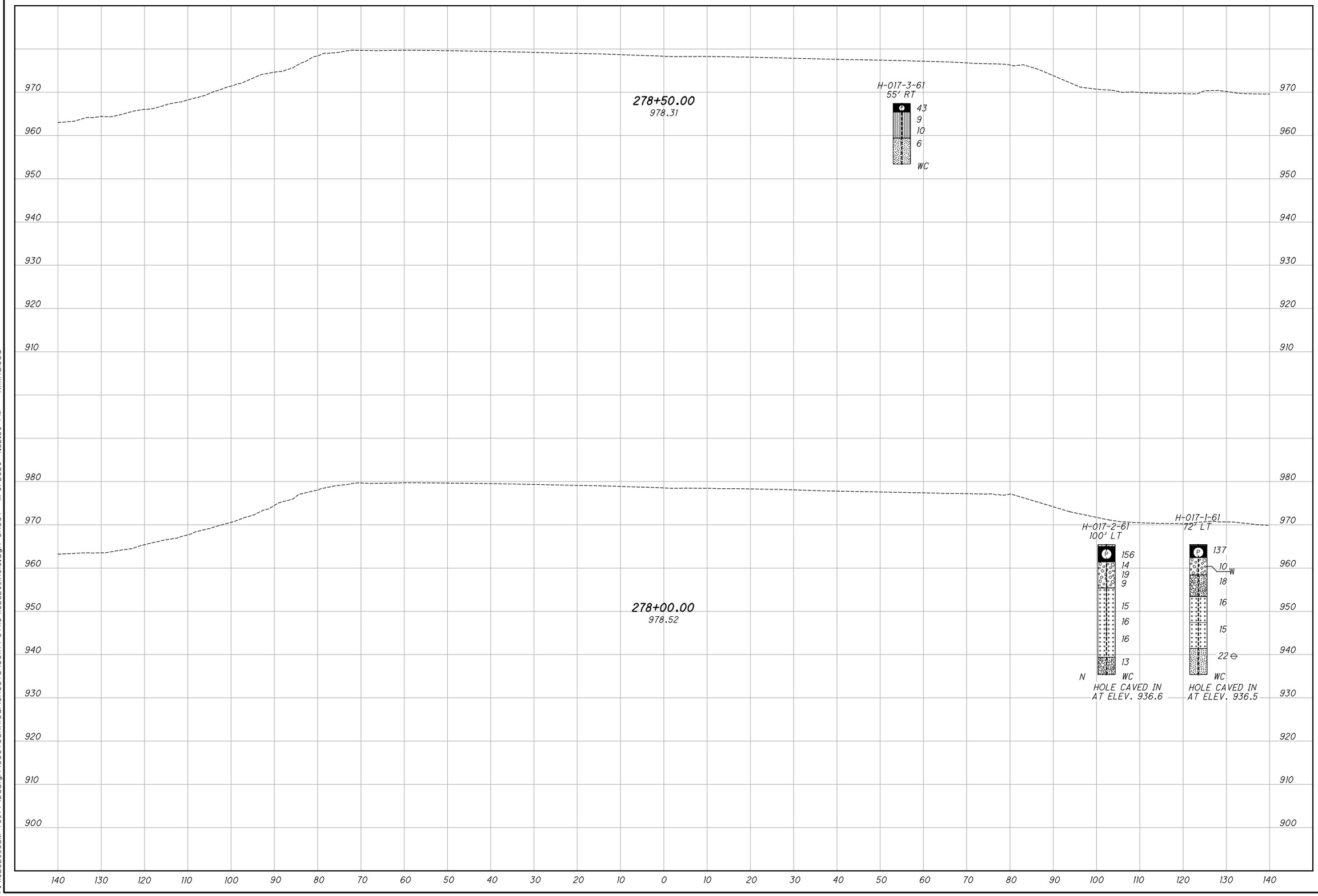
DRAWN SM
CHECKED PAN

SOIL PROFILE
CROSS SECTIONS 277+00.00 & 277+50.00
I.R. 76

SUM-76/77/8-
8.24/9.74/0.00

76
202

P:\102329_SUM-76_77\Design\Geotechnical\Sheets\SoilProfile\102329_IX015.dgn Sheet 11/6/2020 4:52:35 PM kmihalcea



HORIZONTAL SCALE IN FEET
0 5 10 20

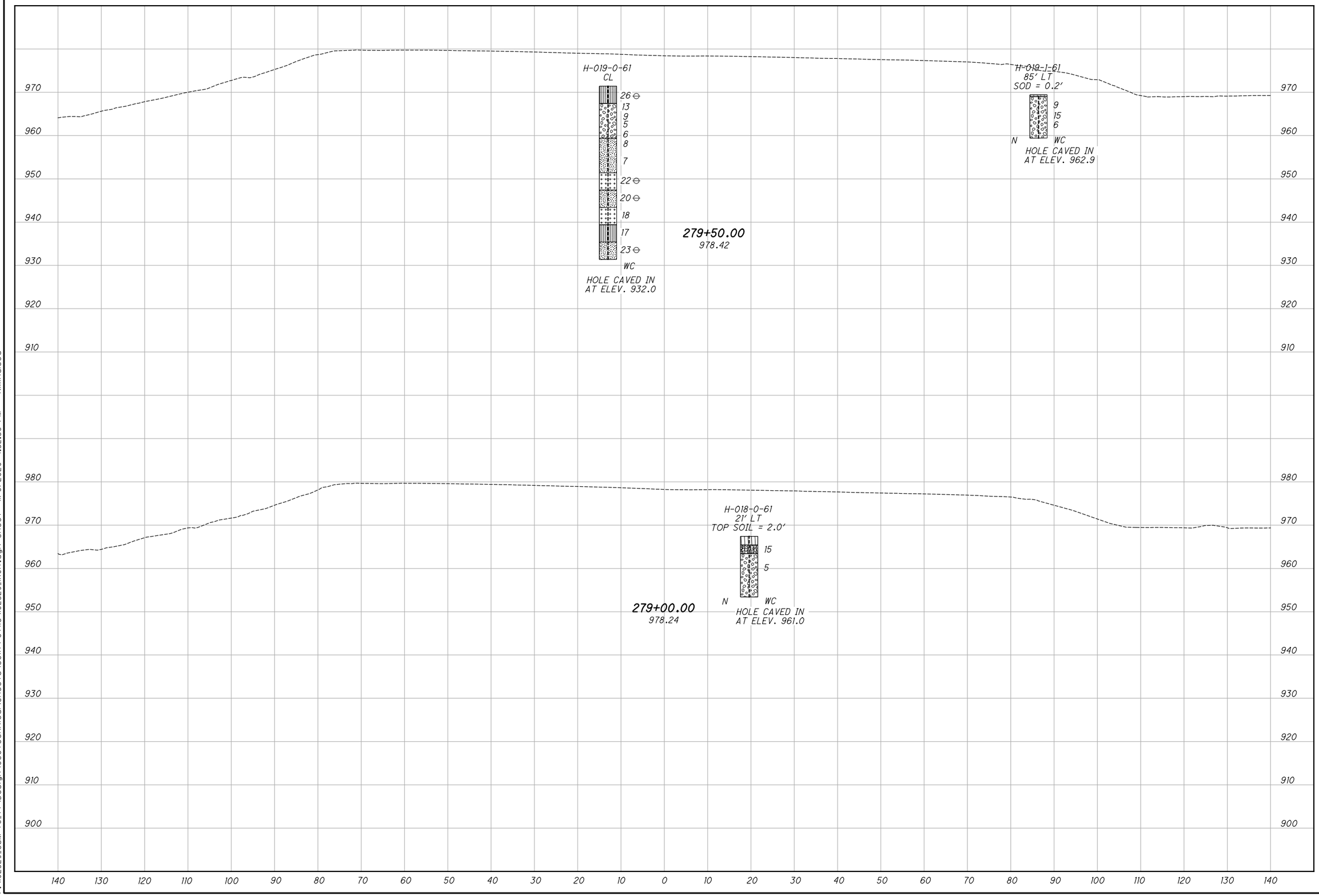
DRAWN SM
CHECKED PAN

SOIL PROFILE
CROSS SECTIONS 278+00.00 & 278+50.00
I.R. 76

SUM-76/77/8-
8.24/9.74/0.00

77
202

P:\02329_SUM-76_77\Design\Geotechnical\Sheets\SoilProfile\02329_IX016.dgn Sheet 11/6/2020 4:52:36 PM kmihalcea



HORIZONTAL SCALE IN FEET
0 5 10 20

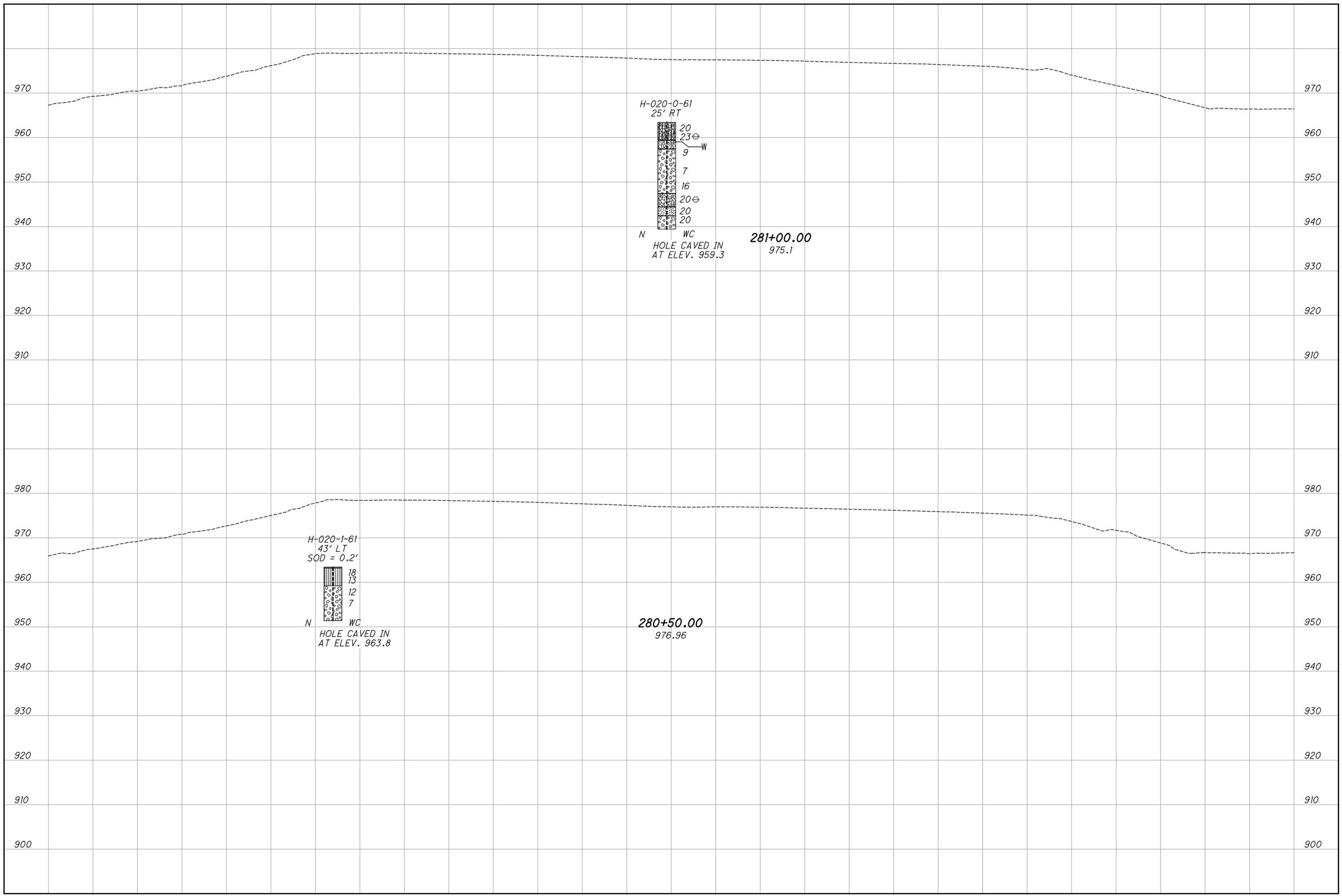
DRAWN SM
CHECKED PAN

SOIL PROFILE
CROSS SECTIONS 279+00.00 & 279+50.00
I.R. 76

SUM-76/77/8-8.24/9.74/0.00

78
202

P:\02329_SUM-76_77\Design\Geotechnical\Sheets\SoilProfile\02329_IX017.dgn Sheet 11/6/2020 4:52:38 PM kmihalcea



HORIZONTAL SCALE IN FEET
0 5 10 20

DRAWN SM
CHECKED PAN

SOIL PROFILE
I.R. 76 CROSS SECTIONS 277+00.00 & 277+50.03

SUM-76/77/8-8.24/9.74/0.00

P:\102329_SUM-76_77\Design\Geotechnical\Sheets\SoilProfile\102329_IX018.dgn Sheet 11/6/2020 4:52:40 PM kmihalcea

H-021-0-61
15' RT
SOD+T.S = 0.2'

7
13
18
97
533
290
5
12
WC

HOLE CAVED IN
AT ELEV. 953.4

282+00.00
980.47

H-020-2-61
70' LT
SOD = 0.2'

135
194
26
13
5
WC

N

281+50.00
980.0

970 960 950 940 930 920 910 980 970 960 950 940 930 920 910 900

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

HORIZONTAL SCALE IN FEET
0 5 10 20

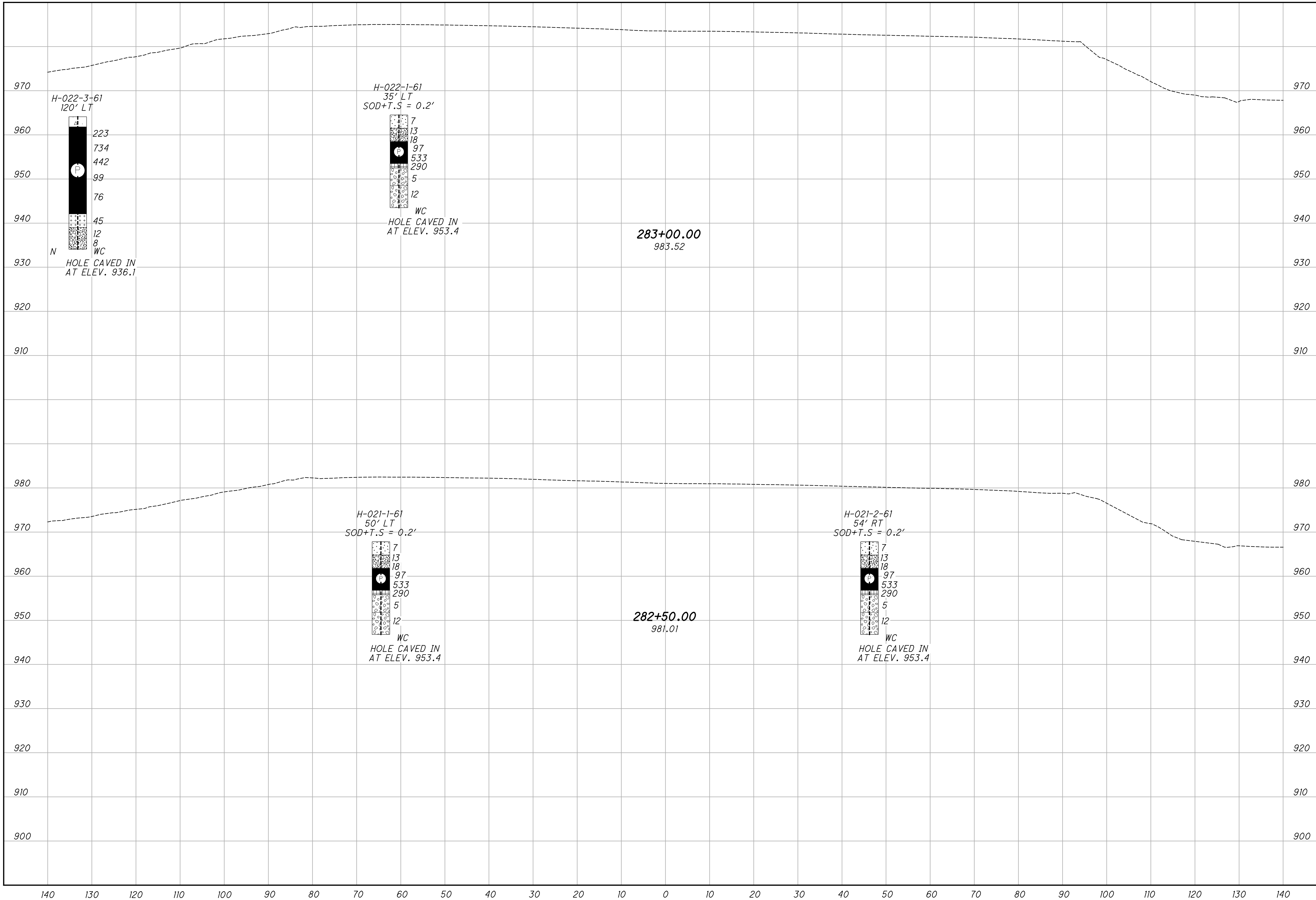
DRAWN SM
CHECKED PAN

SOIL PROFILE
CROSS SECTIONS 280+50.00 & 281+00.00
I.R. 76

SUM-76/77/8-
8.24/9.74/0.00

80
202

P:\02329_SUM-76_77\Design\Geotechnical\Sheets\SoilProfile\02329_IX019.dgn Sheet 11/6/2020 4:52:42 PM kmihalcea



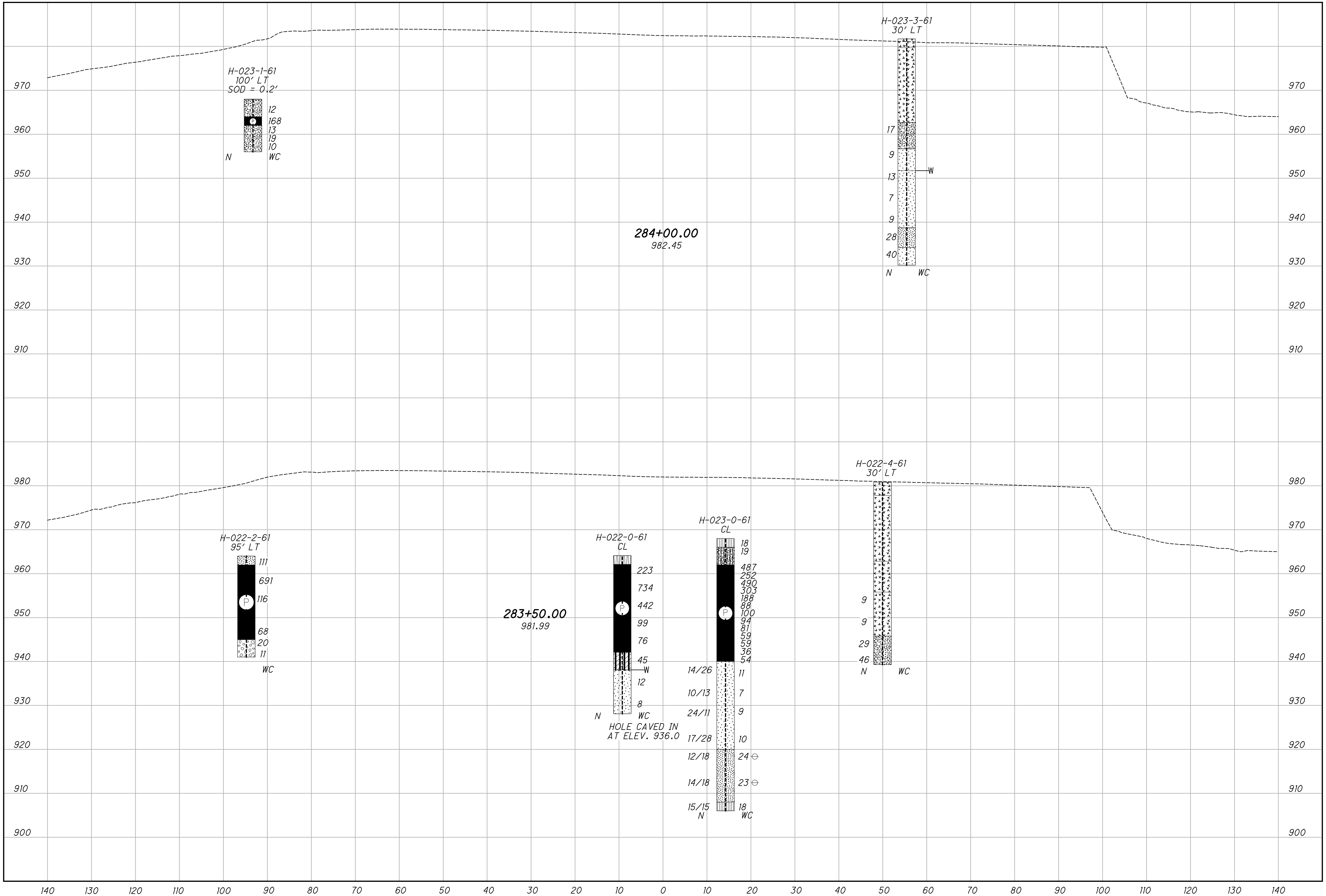
P:\102329_SUM-76_77\Design\Geotechnical\Sheets\SoilProfile\102329_IX020.dgn Sheet 11/6/2020 4:52:43 PM kmihalcea

HORIZONTAL SCALE IN FEET
0 5 10 20

DRAWN SM CHECKED PAN

SOIL PROFILE
I.R. 76 CROSS SECTIONS 281+50.00 & 282+00.00

SUM-76/77/8-8.24/9.74/0.00

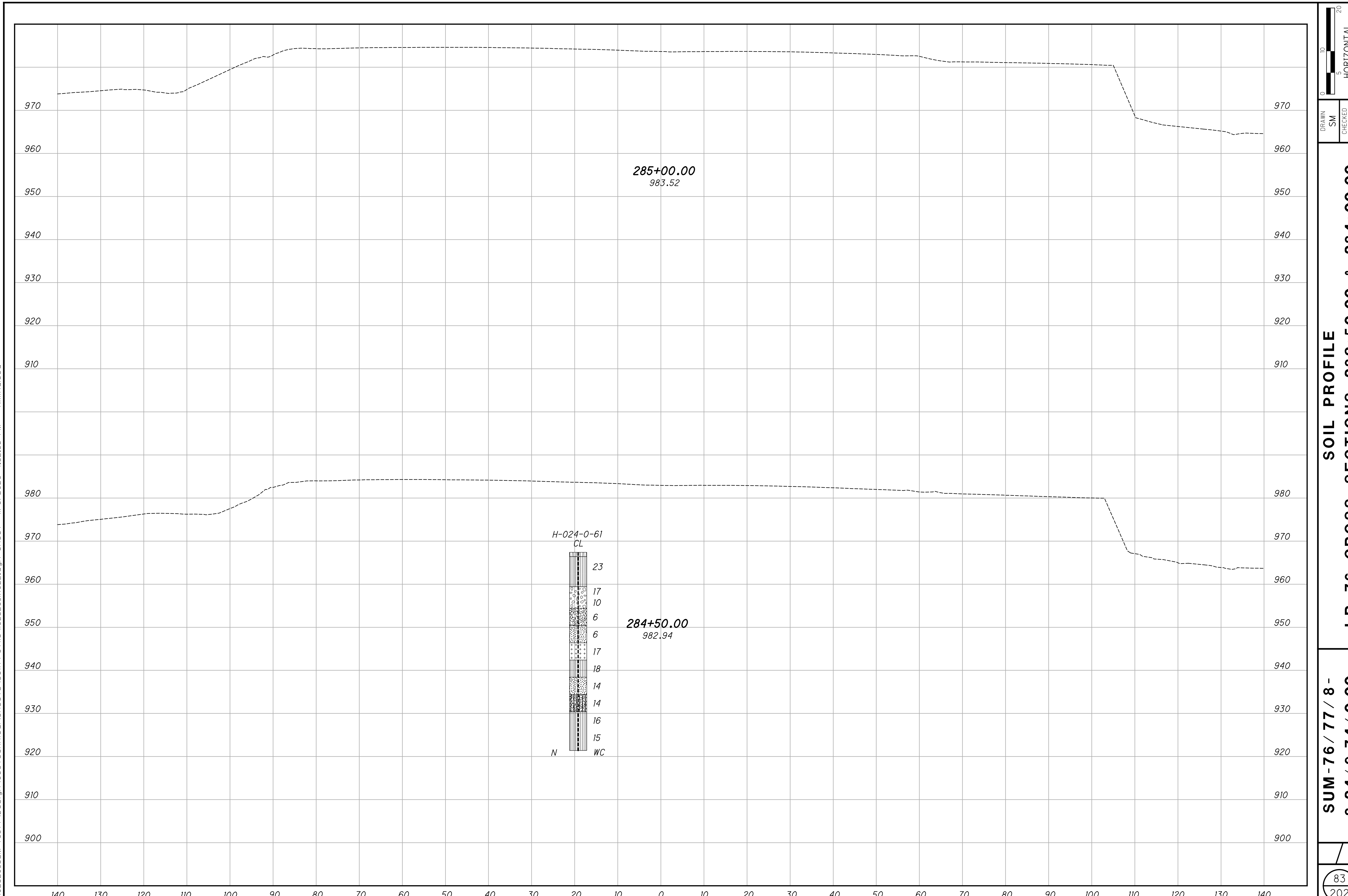


0 5 10 20
HORIZONTAL SCALE IN FEET

DRAWN SM
CHECKED PAN

SOIL PROFILE
I.R. 76 CROSS SECTIONS 282+50.00 & 283+00.00

SUM-76/77/8-
8.24/9.74/0.00

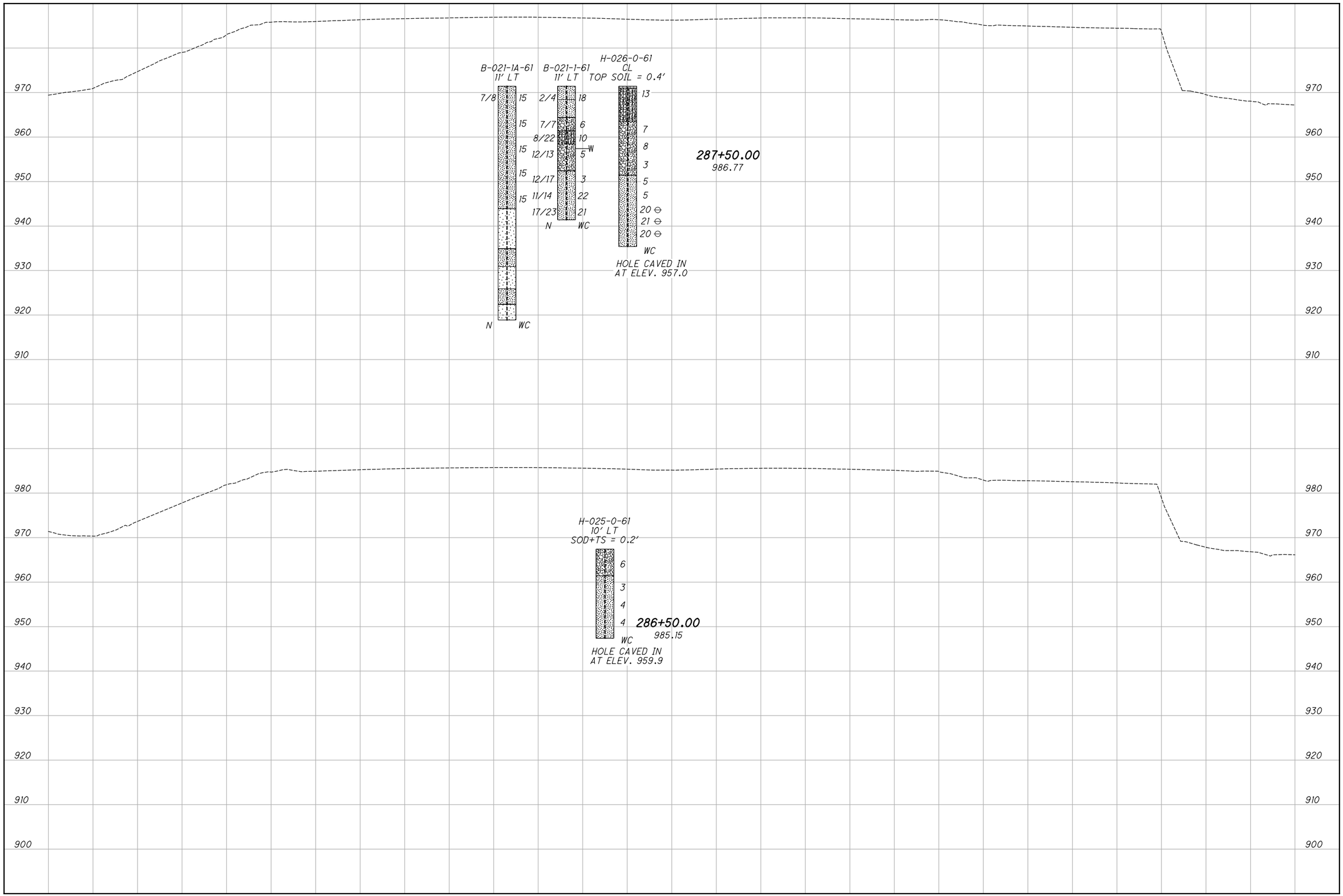


DRAWN SM | CHECKED PAN

SOIL PROFILE
I.R. 76 CROSS SECTIONS 283+50.00 & 284+00.00

SUM-76/77/8-8.24/9.74/0.00

P:\02329_SUM-76_77\Design\Geotechnical\Sheets\SoilProfile\02329_IX022.dgn Sheet 11/6/2020 4:52:55 PM kmihalcea



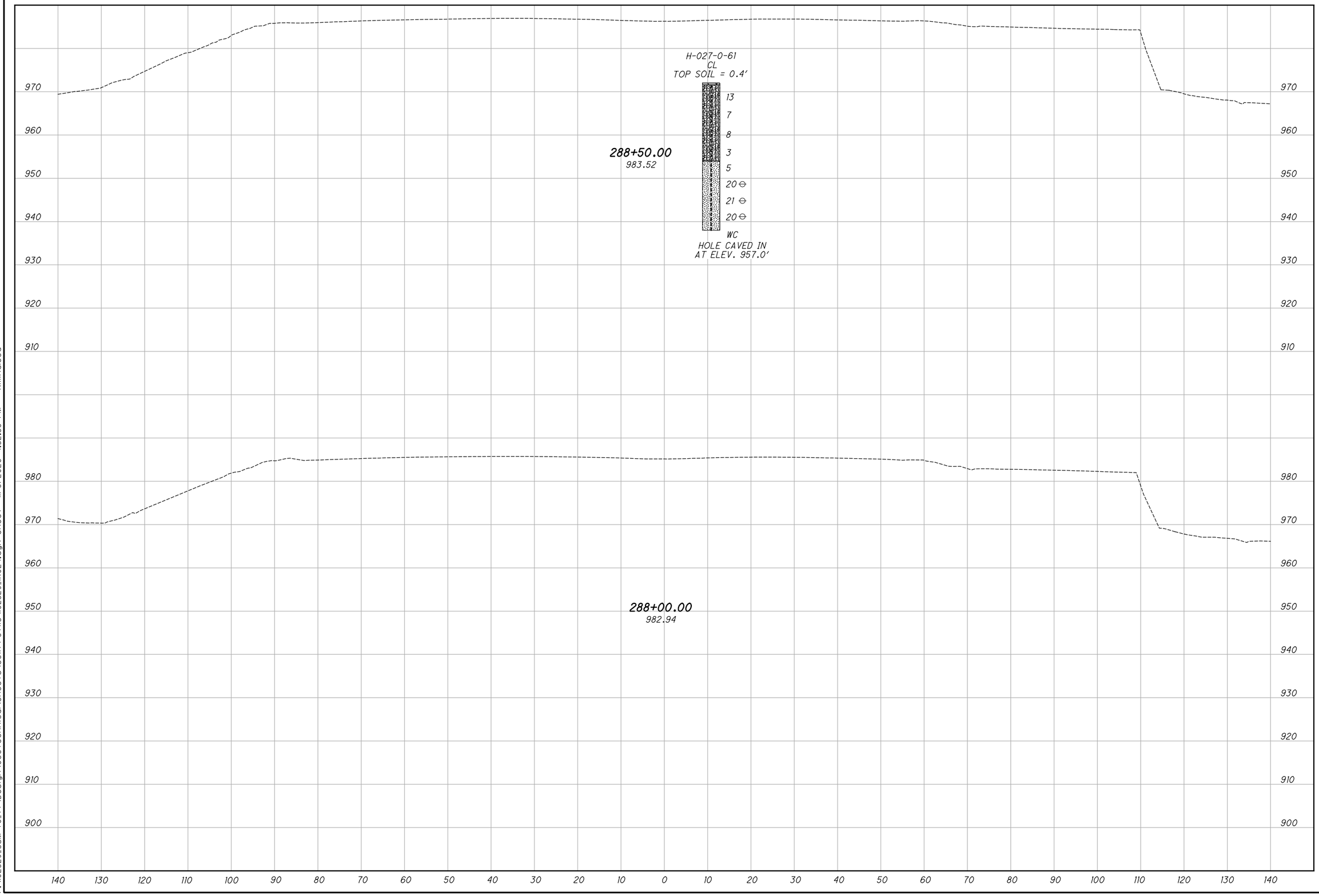
HORIZONTAL SCALE IN FEET
0 5 10 20

DRAWN SM
CHECKED PAN

SOIL PROFILE
CROSS SECTIONS 284+50.00 & 285+00.00
I.R. 76

SUM-76/77/8-8.24/9.74/0.00

P:\102329_SUM-76_77\Design\Geotechnical\Sheets\Soil Profile\102329_IX023.dgn Sheet1 11/6/2020 4:52:56 PM kmihalcea



HORIZONTAL SCALE IN FEET
0 5 10 20

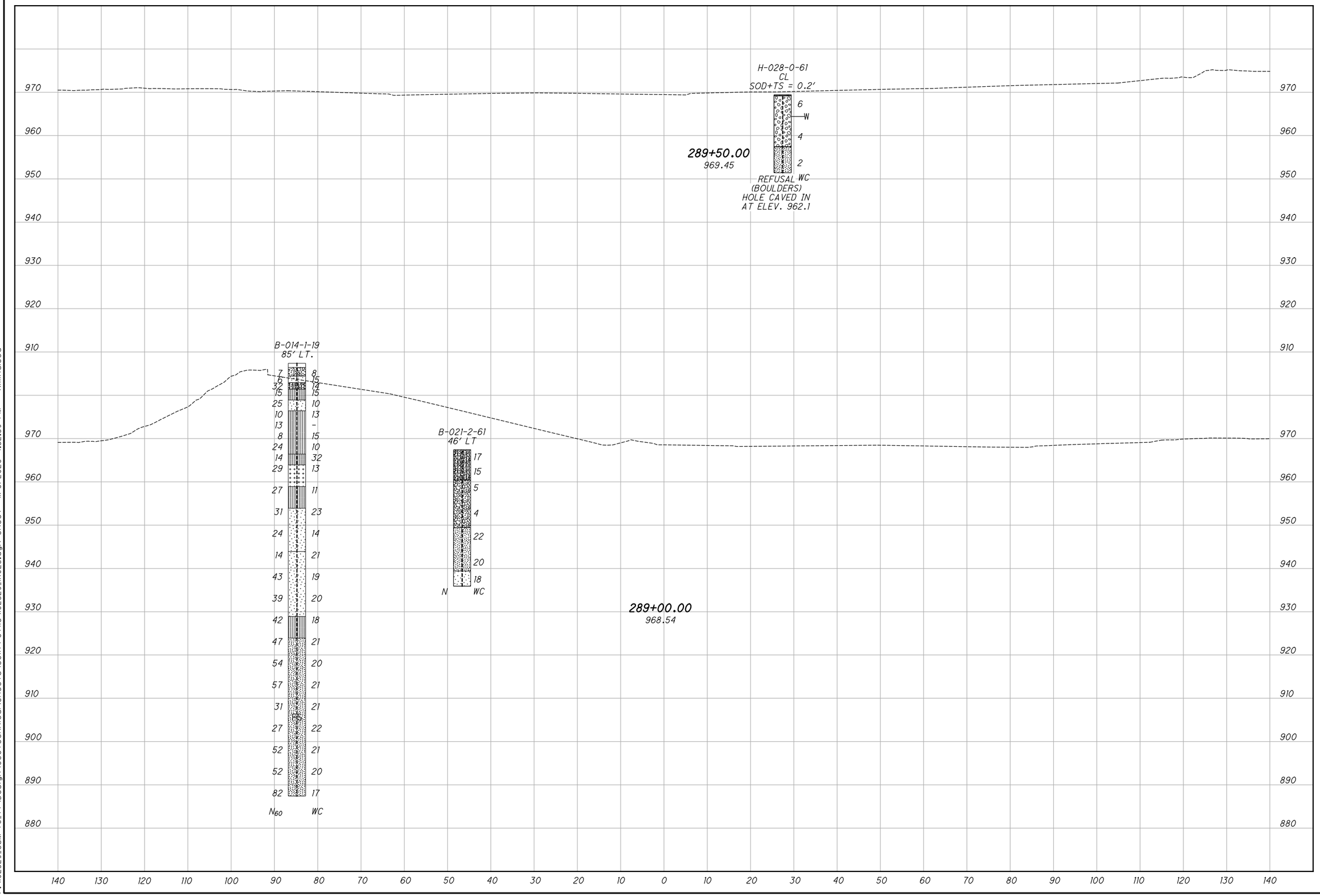
DRAWN SM
CHECKED PAN

SOIL PROFILE
CROSS SECTIONS 286+50.00 & 287+50.00
I.R. 76

SUM-76/77/8-8.24/9.74/0.00

85
202

P:\102329_SUM-76_77\Design\Geotechnical\Sheets\Soil Profile\102329_IX024.dgn Sheet1 11/6/2020 4:52:58 PM kmihalcea

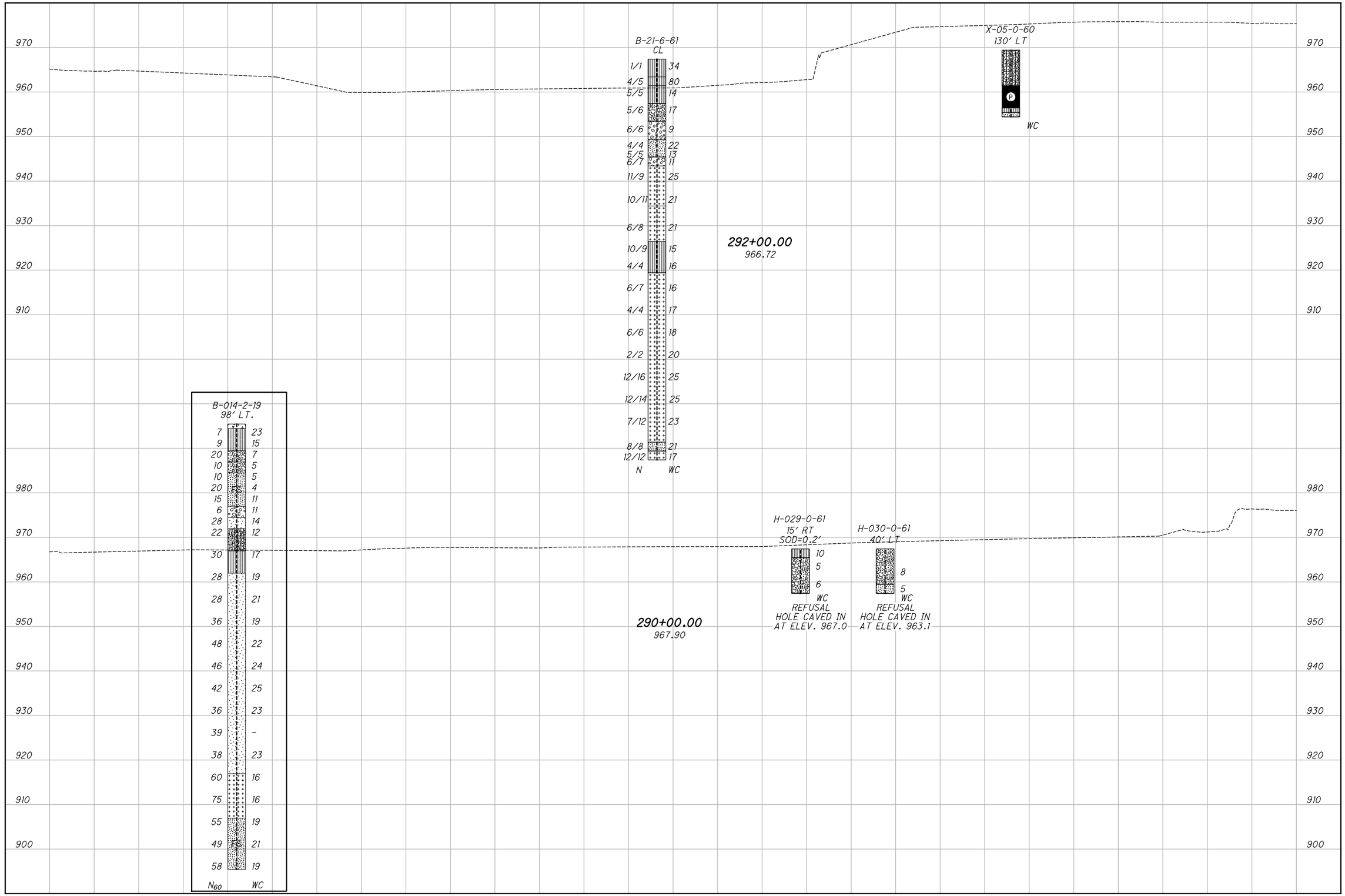


HORIZONTAL SCALE IN FEET
0 5 10 20

DRAWN SM
CHECKED PAN

SOIL PROFILE
I.R. 76 CROSS SECTIONS 288+00.00 & 288+50.00

SUM-76/77/8-8.24/9.74/0.00



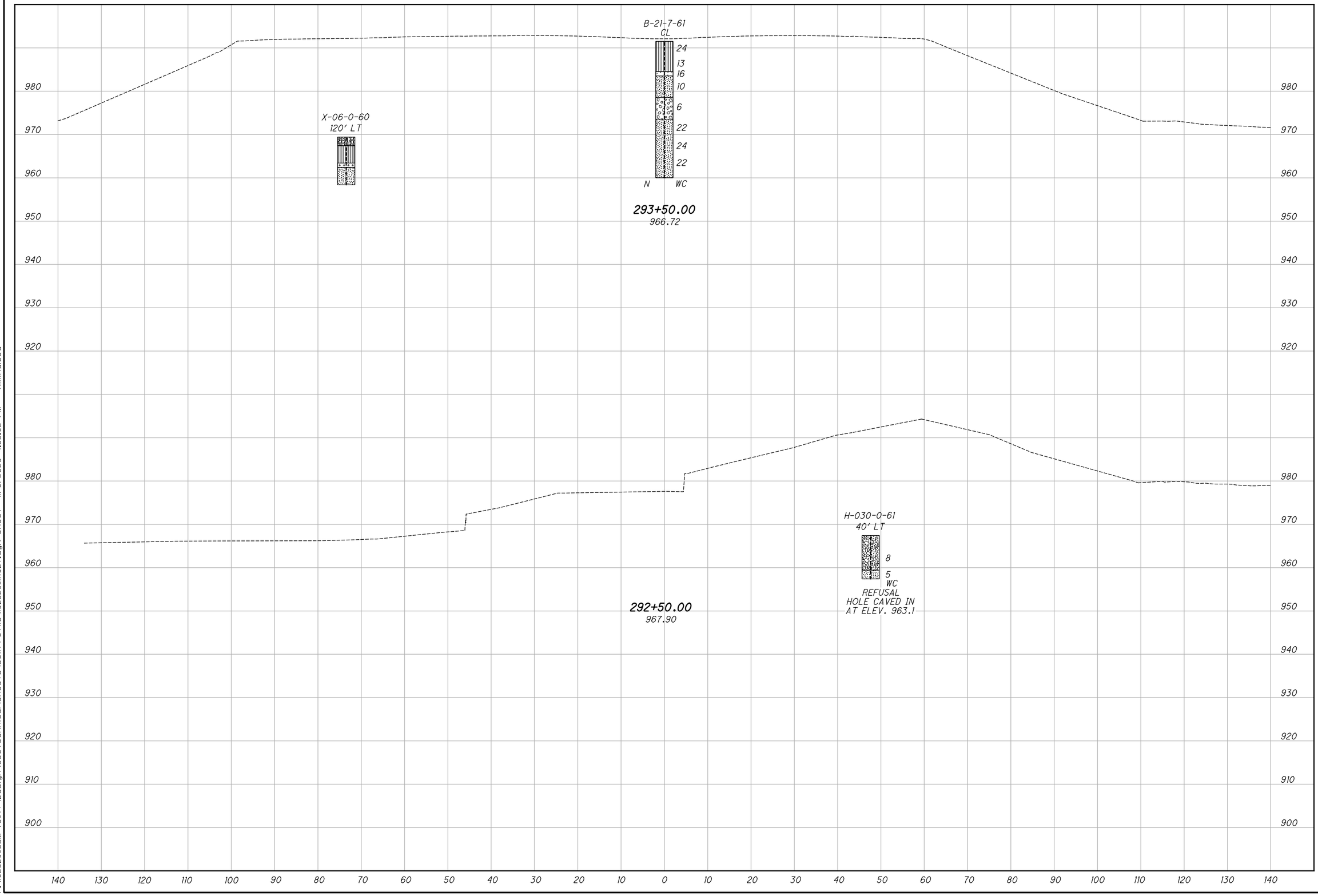
P:\102329_SUM-76_77\Design\Geotechnical\Sheets\SoilProfile\102329_IX026.dgn Sheet 11/6/2020 4:53:00 PM kmihalcea

HORIZONTAL SCALE IN FEET
0 5 10 20

DRAWN SM
CHECKED PAN

SOIL PROFILE
I.R. 76 CROSS SECTIONS 289+00.00 & 289+50.00

SUM-76/77/8-8.24/9.74/0.00



HORIZONTAL SCALE IN FEET
0 5 10 20

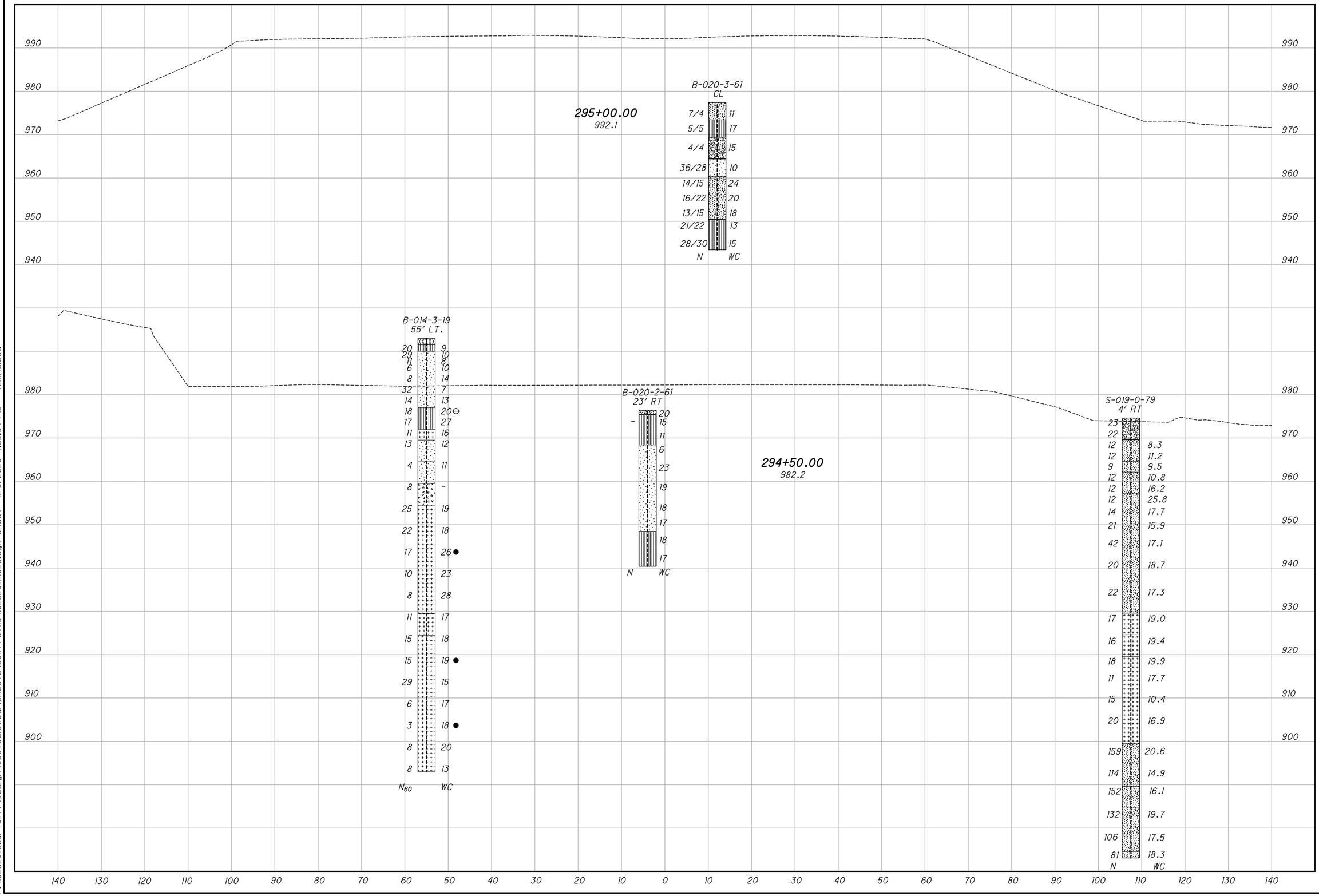
DRAWN SM
CHECKED PAN

SOIL PROFILE
I.R. 76 CROSS SECTIONS 292+50.00 & 293+50.00

SUM-76/77/8-8.24/9.74/0.00

88
202

P:\102329_SUM-76_77\Design\Geotechnical\Sheets\SoilProfile\102329_IX027.dgn Sheet 11/6/2020 4:53:02 PM kminalcea



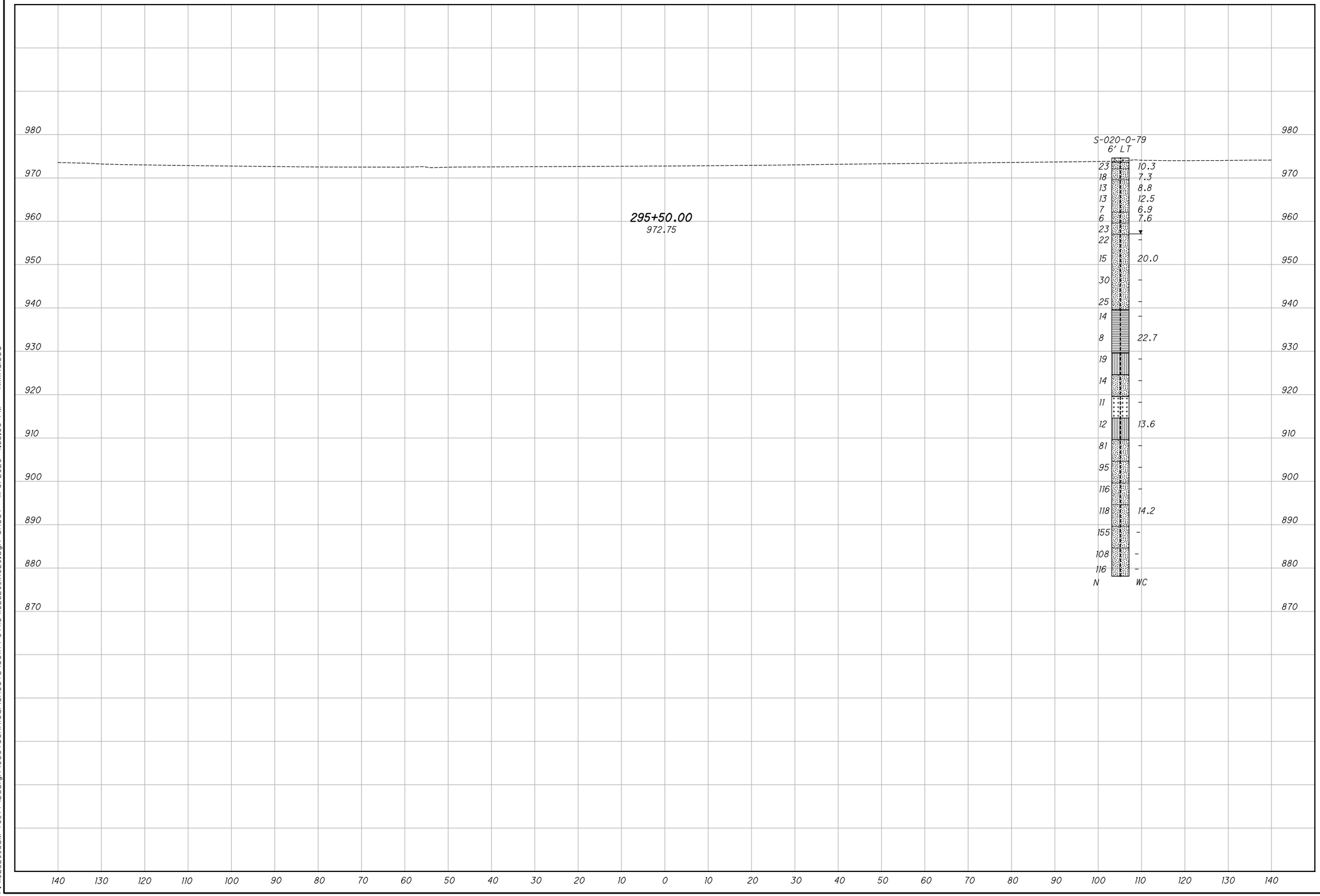
P:\102329_SUM-76_77\Design\Geotechnical\Sheets\Soil Profile\102329_IX028.dgn Sheet 11/6/2020 4:53:04 PM kmihalcea

HORIZONTAL SCALE IN FEET
0 5 10 20

DRAWN SM
CHECKED PAN

SOIL PROFILE
SECTIONS 294+50.00 & 295+00.00
I.R. 76 CROSS SECTIONS

SUM-76/77/8-
8.24/9.74/0.00



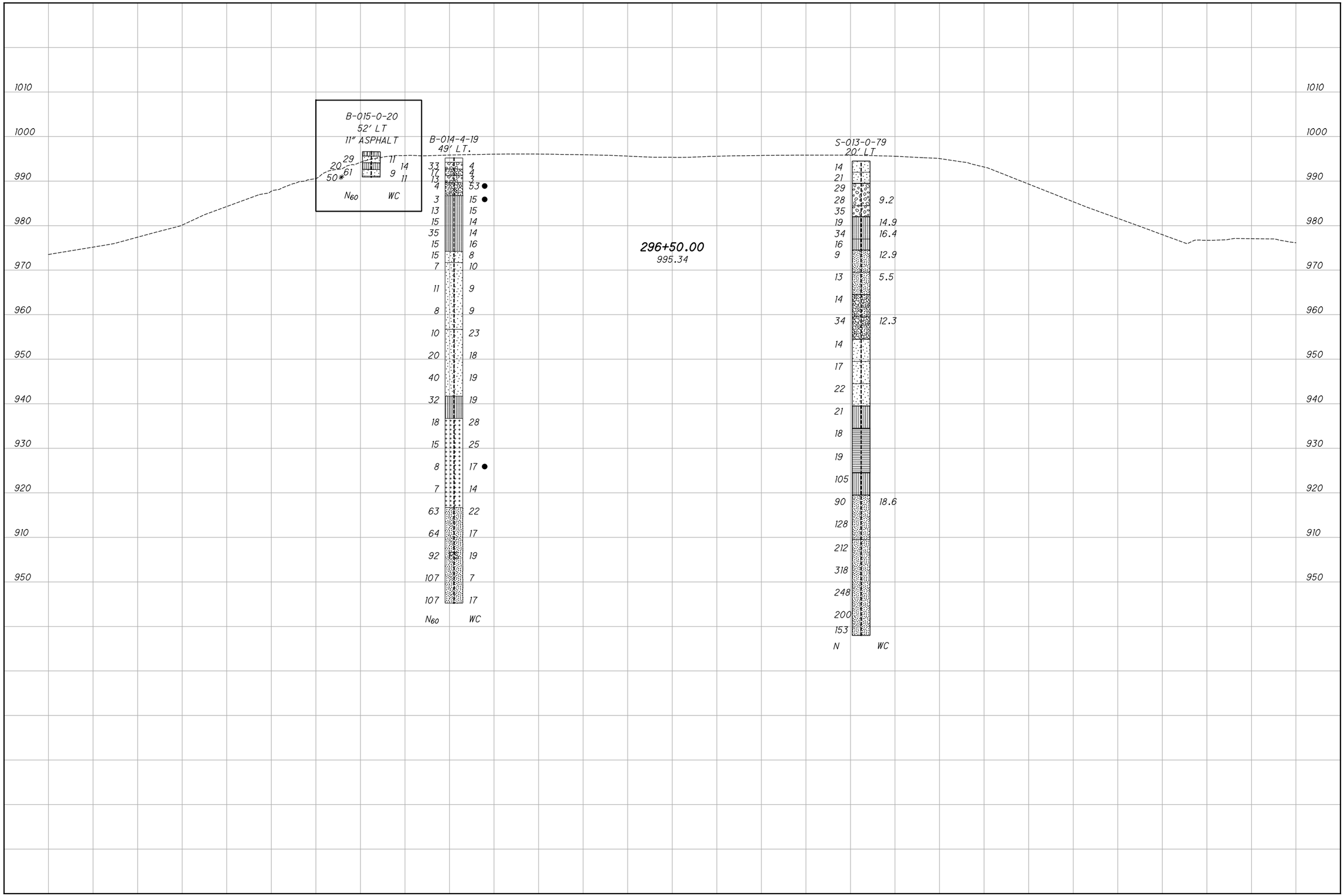
HORIZONTAL SCALE IN FEET
0 5 10 20

DRAWN SM
CHECKED PAN

SOIL PROFILE
I.R. 76 CROSS SECTION 295+50.00

SUM-76/77/8-8.24/9.74/0.00

P:\102329_SUM-76_77\Design\Geotechnical\Sheets\SoilProfile\102329_IX029.dgn Sheet 11/6/2020 4:53:06 PM kmihalcea



HORIZONTAL SCALE IN FEET
0 5 10 20

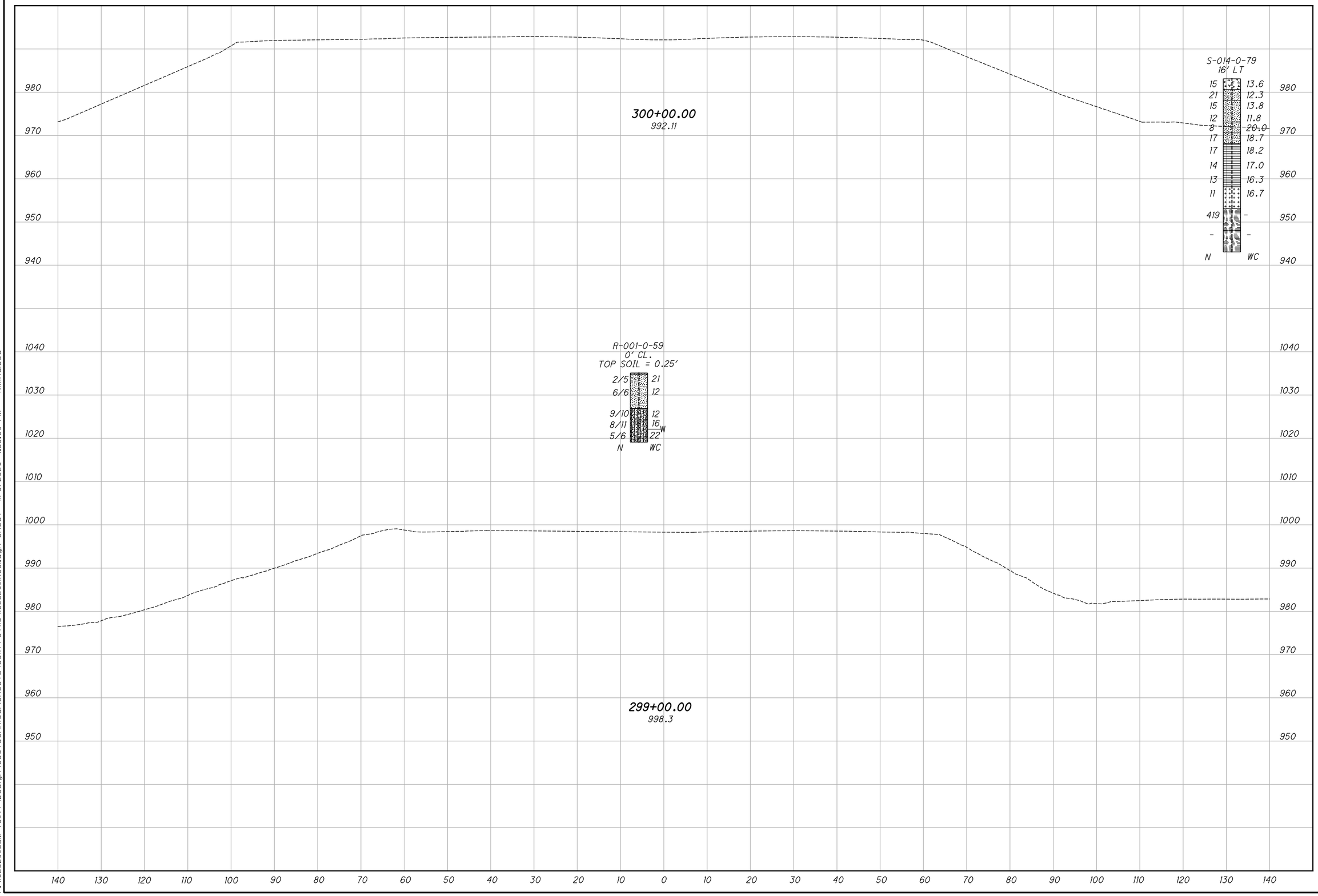
DRAWN SM
CHECKED PAN

SOIL PROFILE
CROSS SECTION 296+50.00
I.R. 76

SUM-76/77/8-
8.24/9.74/0.00

91
202

P:\102329_SUM-76_77\Design\Geotechnical\Sheets\SoilProfile\102329_IX030.dgn Sheet 11/6/2020 4:53:07 PM kmihalcea



HORIZONTAL SCALE IN FEET
0 5 10 20

DRAWN SM
CHECKED PAN

SOIL PROFILE
SECTIONS 299+00.00 & 300+00.00

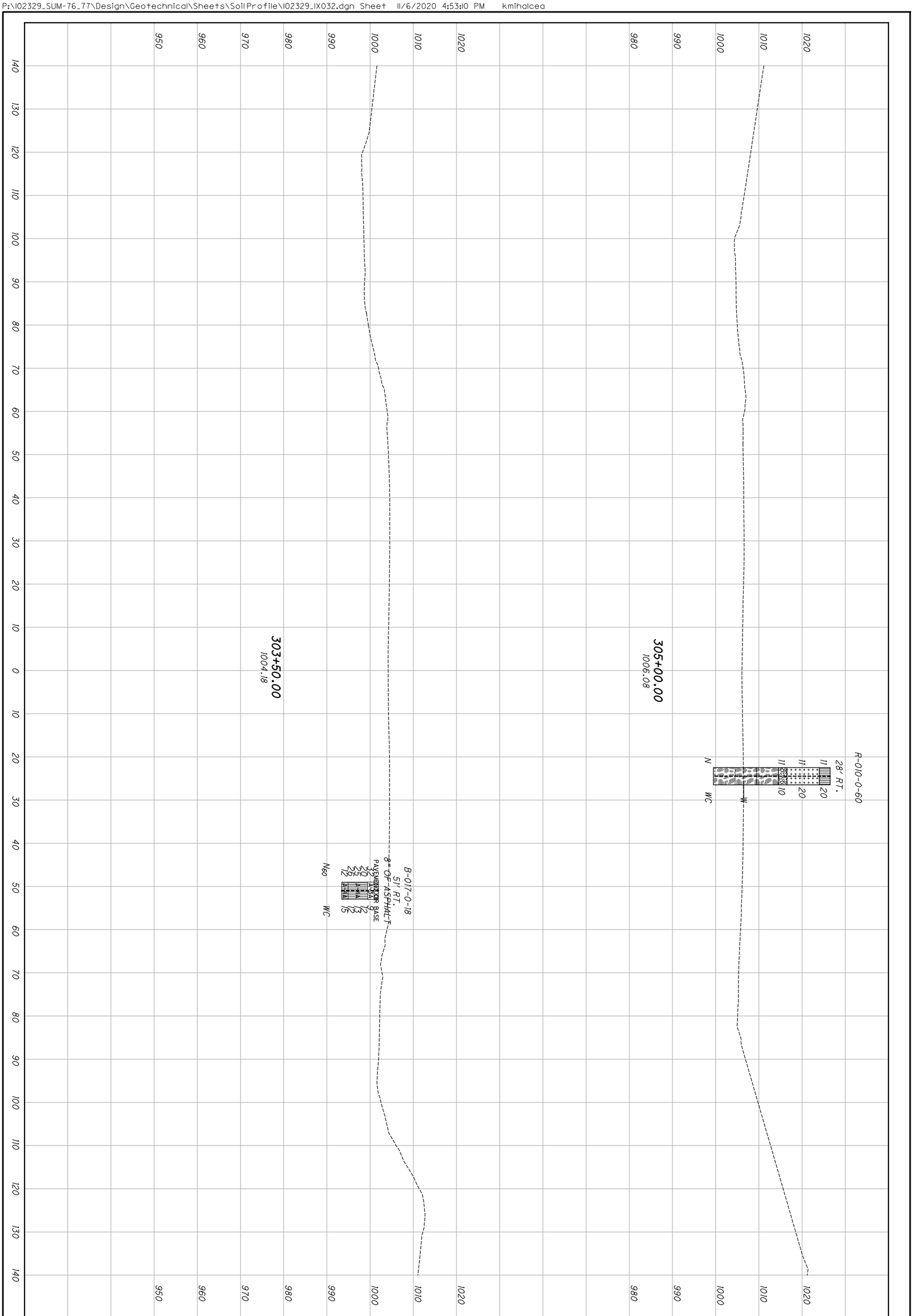
SUM-76/77/8-
8.24/9.74/0.00

I.R. 76 CROSS SECT

92
202

P:\102329_SUM-76_77\Design\Geotechnical\Sheets\SoilProfile\102329_IX03i.dgn Sheet 11/6/2020 4:53:09 PM kmihalcea

P:\102329_SUM-76_77\Design\Geotechnical\Sheets\SoilProfile\102329_IX032.dgn Sheet 11/6/2020 4:53:10 PM kmihalcea



93 / 202	SUM-76/77/8- 8.24/9.74/0.00	SOIL PROFILE I.R. 76 CROSS SECTIONS 303+50.00 & 305+00.00	DRAWN SM CHECKED PAN	0 5 10 20 HORIZONTAL SCALE IN FEET

1020
1010
1000
990
980

307+00.00
1009.7

R-003-0-59
45' LT
2 10
13 17
29 15
45 18
30 19
N WC

B-018-0-20
53' LT
7" ASPHALT
10" CONCRETE
6" BASE
50* 58 18 4
N_{60} WC

1030
1020
1010
1000
990
980
970
960
950

306+50.00
1007.9

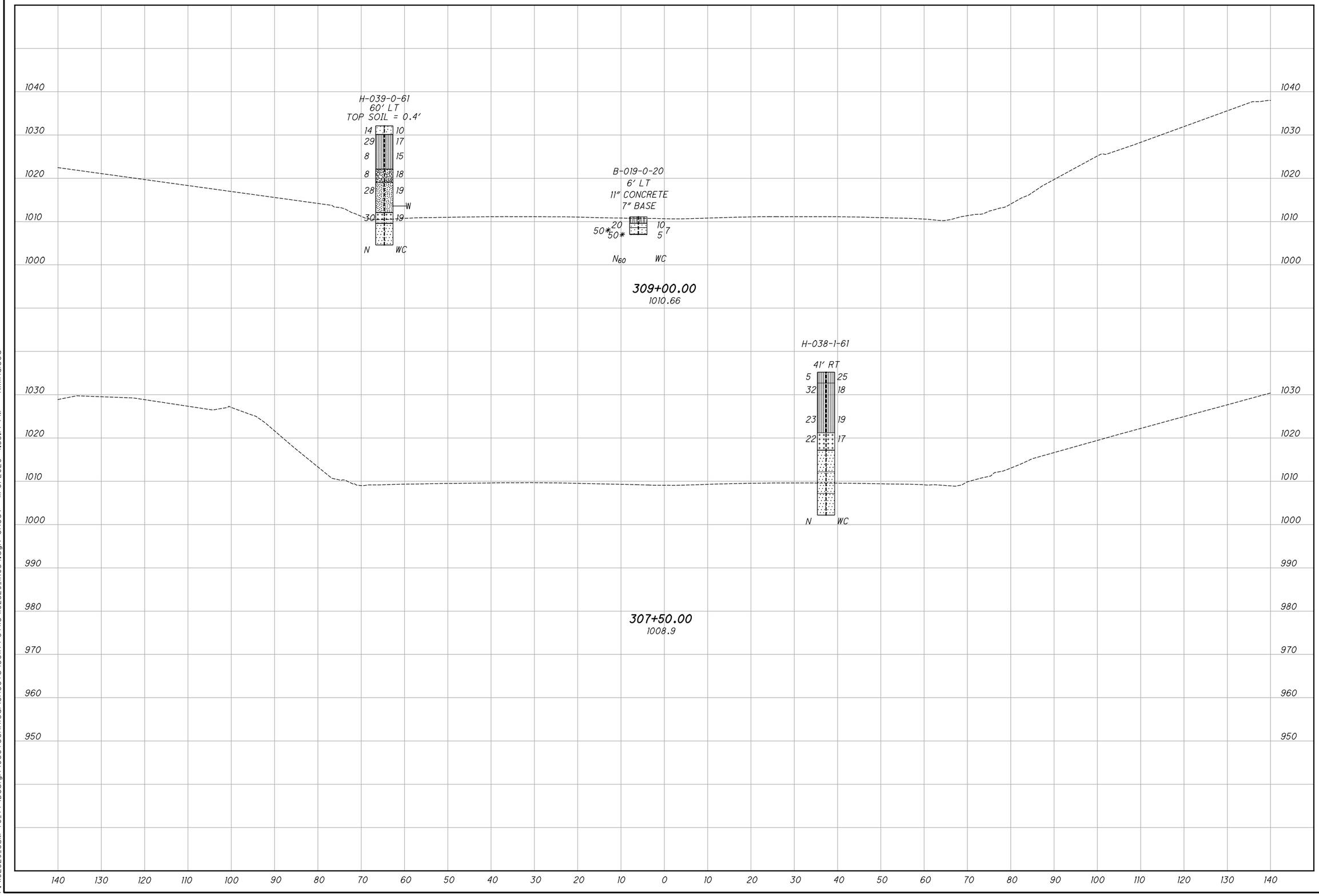
140 130 120 110 100 90 80 70 60 50 40 30 20 10 0 10 20 30 40 50 60 70 80 90 100 110 120 130 140

HORIZONTAL SCALE IN FEET
0 5 10 20

DRAWN SM
CHECKED PAN

SOIL PROFILE
I.R. 76 CROSS SECTIONS 306+50.00 & 307+00.00

SUM-76/77/8-
8.24/9.74/0.00



HORIZONTAL SCALE IN FEET
0 5 10 20

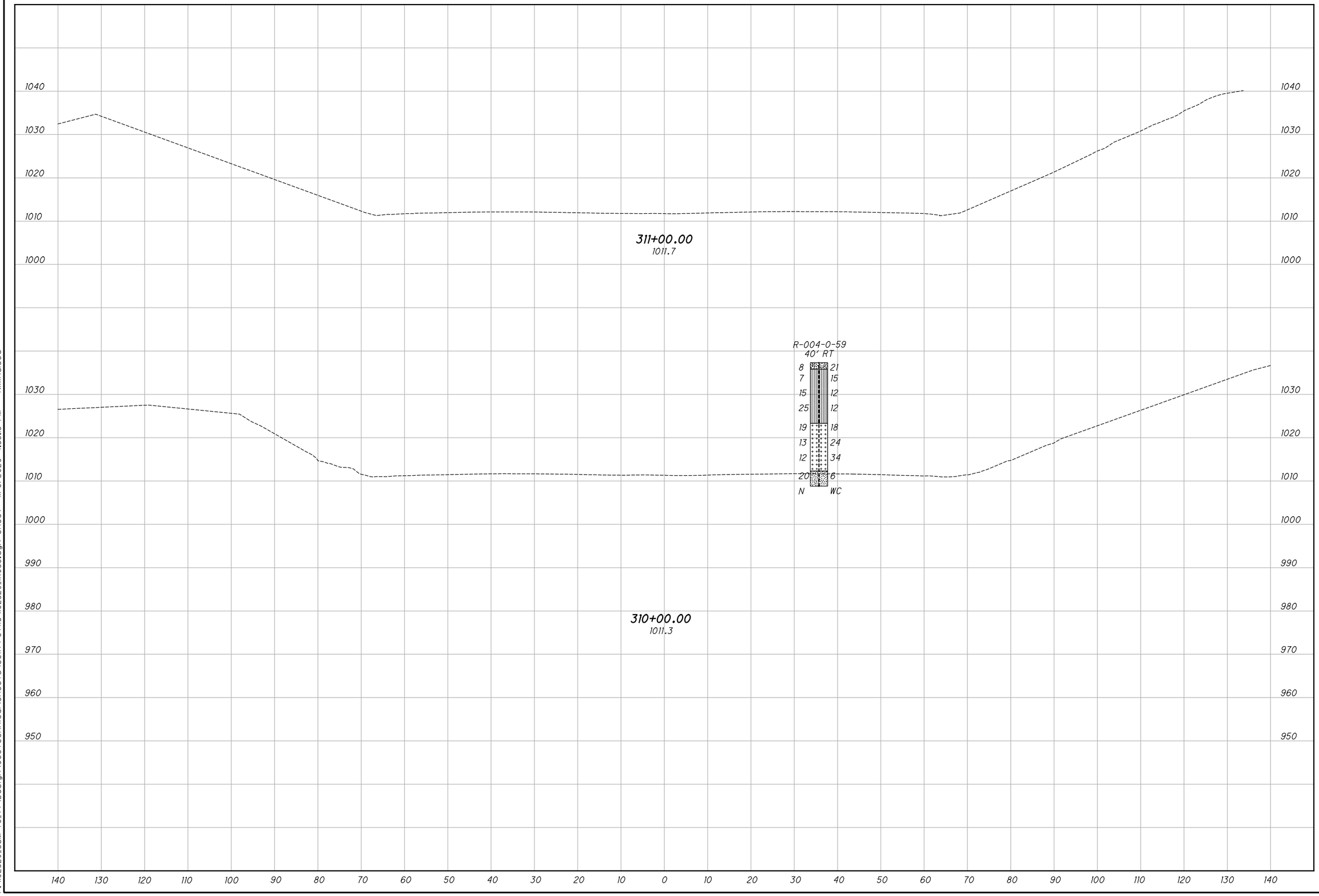
DRAWN SM
CHECKED PAN

SOIL PROFILE
CROSS SECTIONS 307+50.00 & 309+00.00
I.R. 76

SUM-76/77/8-8.24/9.74/0.00

95
202

P:\102329_SUM-76_77\Design\Geotechnical\Sheets\Soil Profile\102329_IX034.dgn Sheet1 11/6/2020 4:53:14 PM kmihalcea



HORIZONTAL SCALE IN FEET
0 5 10 20

DRAWN SM
CHECKED PAN

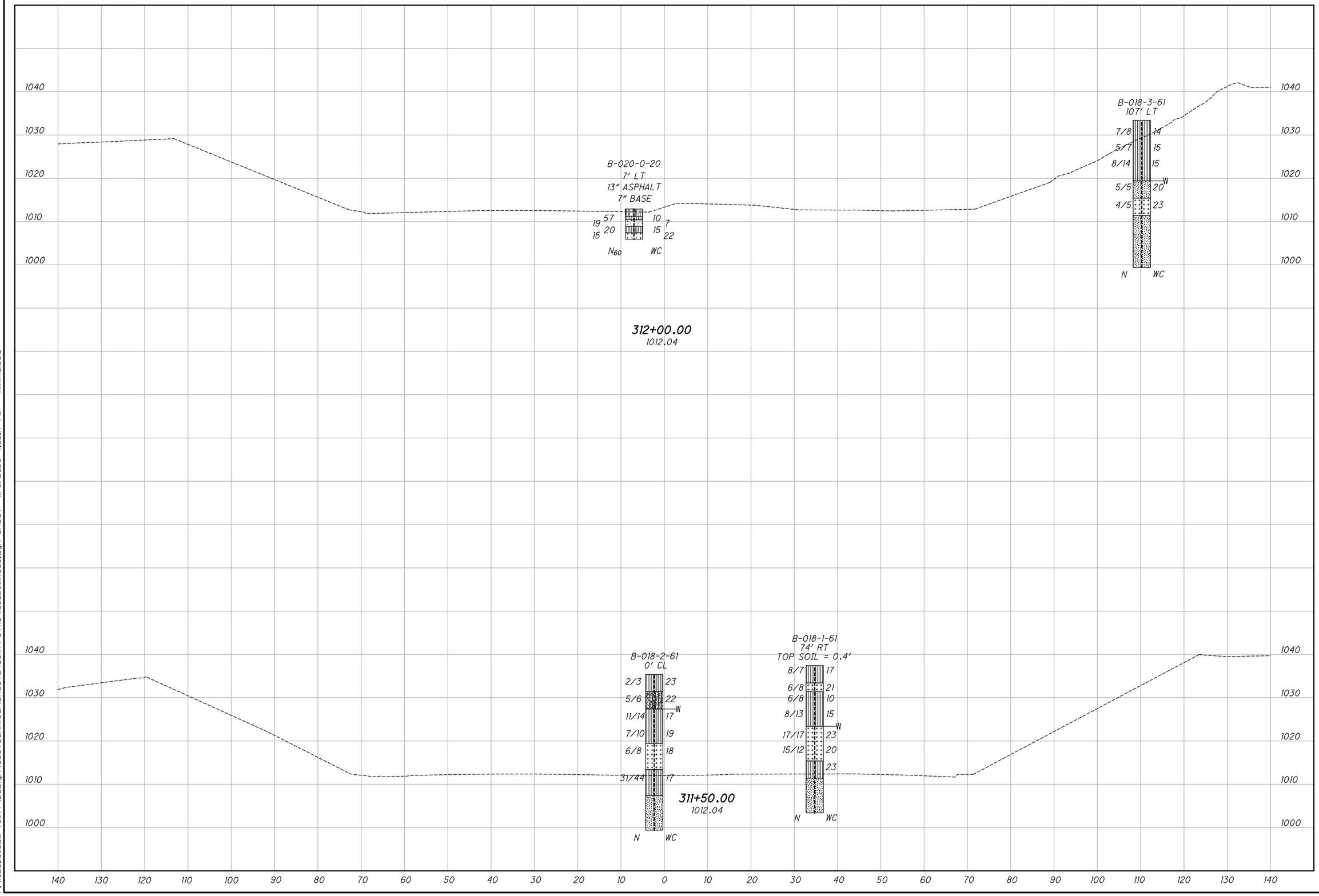
SOIL PROFILE
SECTIONS 310+00.00 & 311+00.00

SUM-76/77/8-8.24/9.74/0.00

I.R. 76 CROSS SECTIONS

96
202

P:\102329_SUM-76_77\Design\Geotechnical\Sheets\Soil Profile\102329_IX035.dgn Sheet 11/6/2020 4:53:15 PM kmihalcea



HORIZONTAL SCALE IN FEET
0 5 10 20

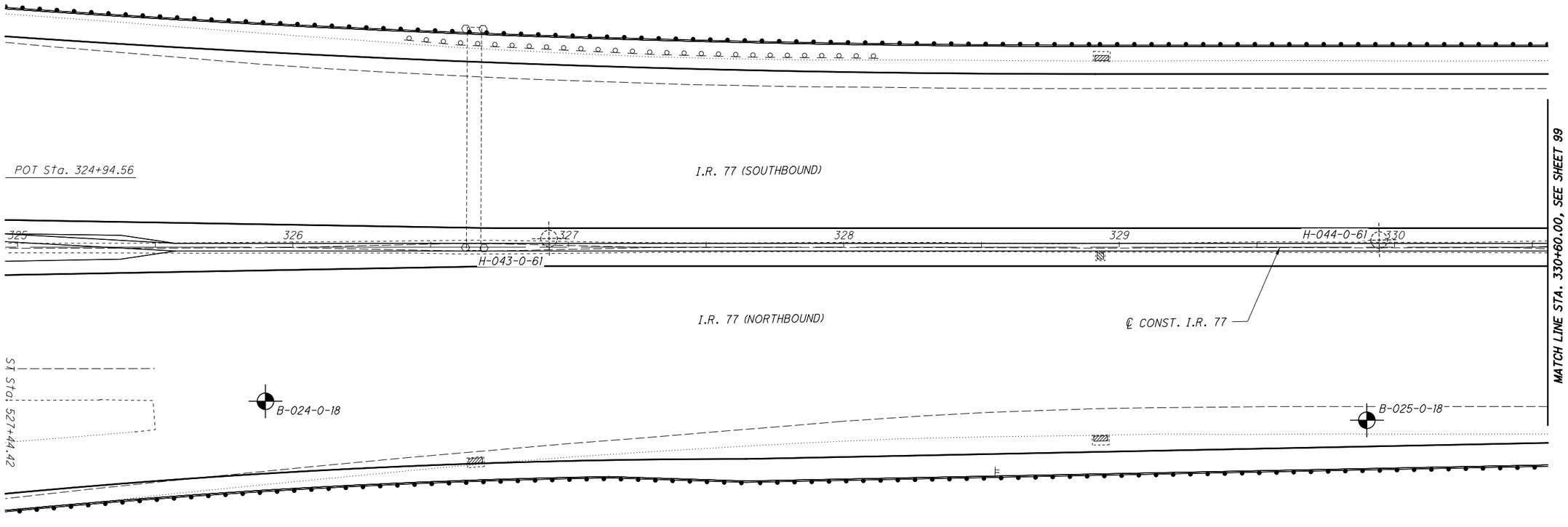
DRAWN SM
CHECKED PAN

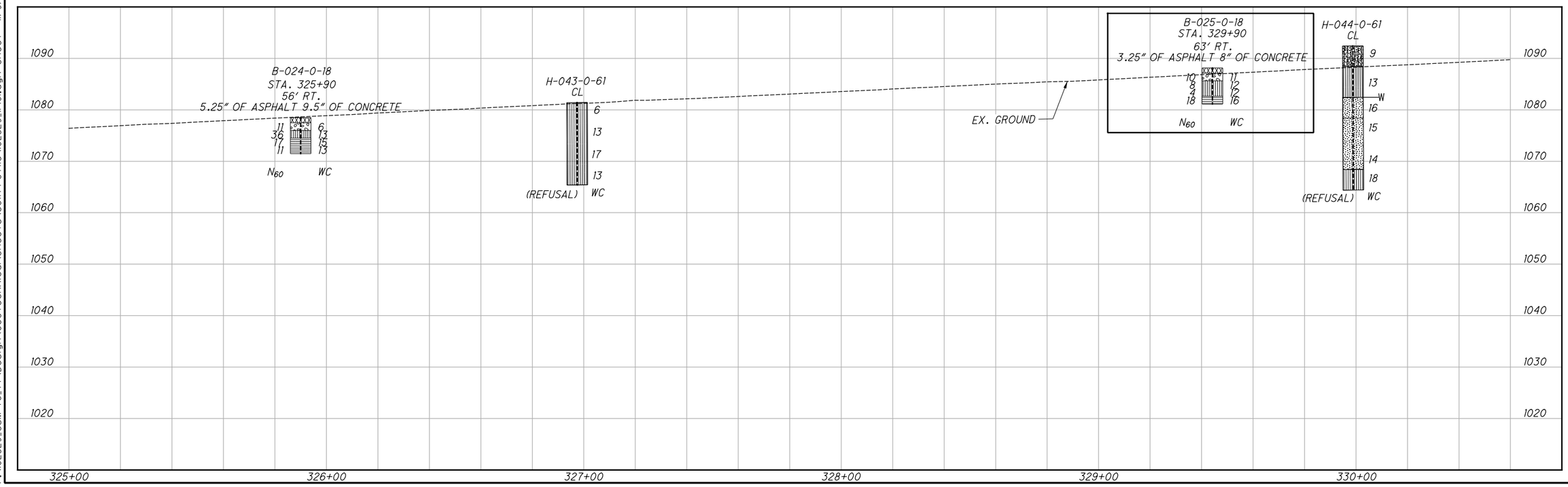
SOIL PROFILE
I.R. 76 CROSS SECTION 311+50.00

SUM-76/77/8-
8.24/9.74/0.00

97
202

P:\102329_SUM-76_77\Design\Geotechnical\Sheets\Soil Profile\102329_IX036.dgn Sheet 11/6/2020 4:53:17 PM kmihalcea





N

HORIZONTAL SCALE IN FEET
0 5 10 20

DRAWN SM
CHECKED PAN

SOIL PROFILE

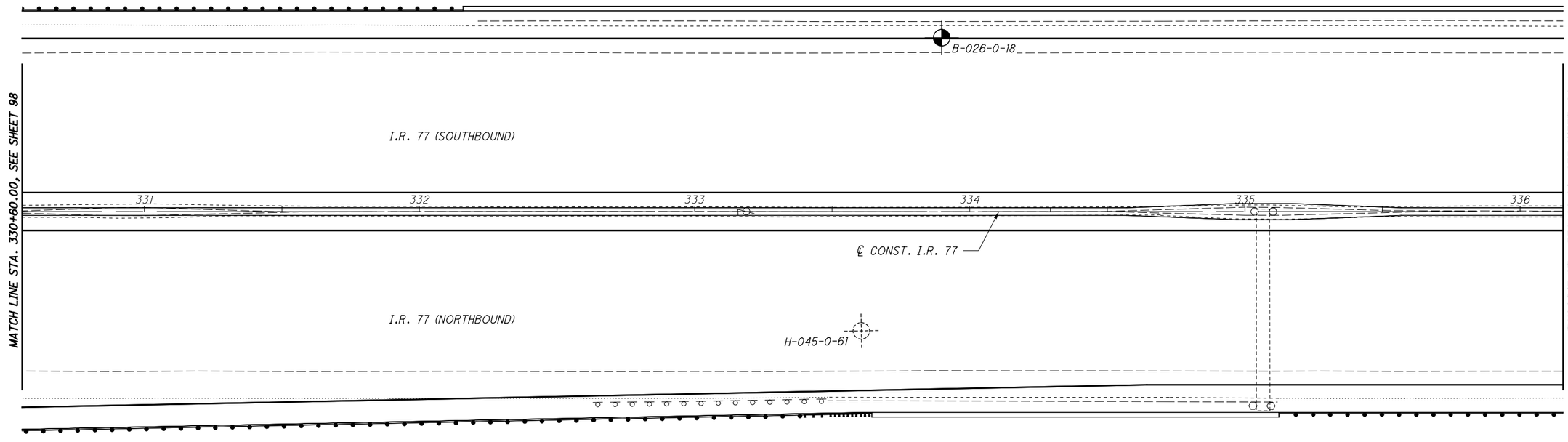
STA. 325+00.00 TO STA. 330+60.00 I.R. 77

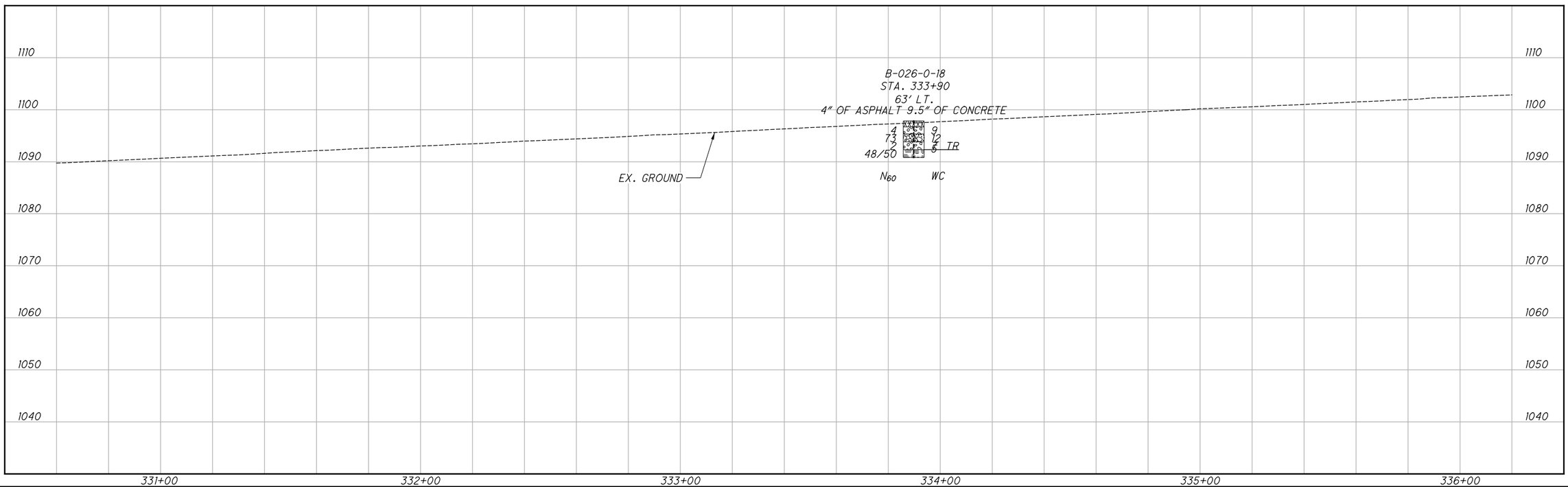
SUM-76/77/8-
8.24/9.74/0.00

BEGIN STA. 325+00.00

98
202

P:\02329_SUM-76_77\Design\Geotechnical\Sheets\Soil Profile\I02329_IP101.dgn Sheet 11/9/2020 8:50:48 AM kmihalcea





HORIZONTAL SCALE IN FEET
0 5 10 20

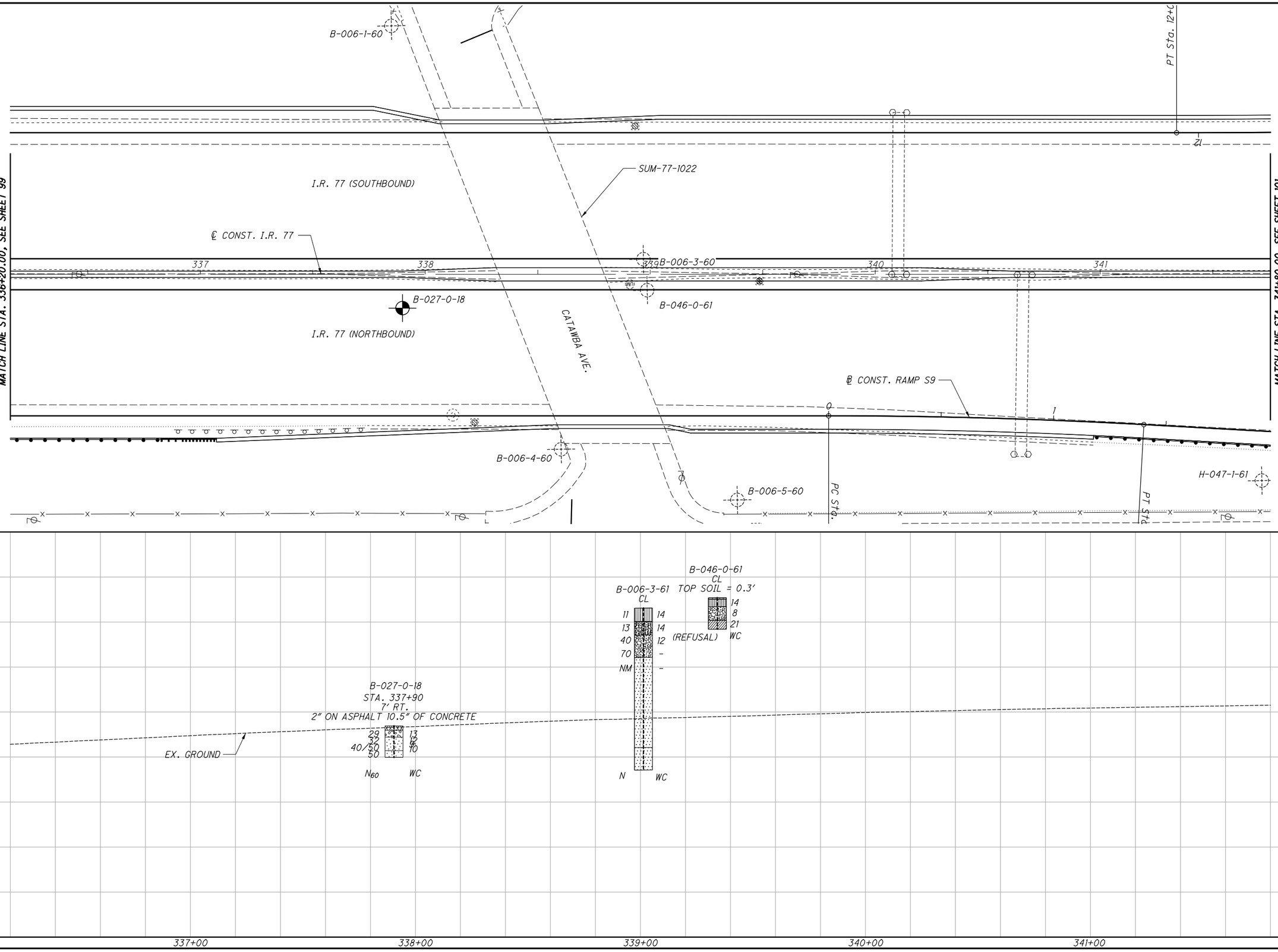
DRAWN SM
CHECKED PAN

SOIL PROFILE
STA. 330+60.00 TO STA. 336+20.00 I.R. 77

SUM-76/77/8-8.24/9.74/0.00

99
202

P:\102329_SUM-76_77\Design\Geotechnical\Sheets\Soil Profile\102329_IPI02.dgn Sheet 11/9/2020 8:50:50 AM kmihalcea



HORIZONTAL SCALE IN FEET
0 5 10 20

DRAWN SM
CHECKED PAN

SOIL PROFILE

STA. 336+20.00 TO STA. 341+80.00 I.R. 77

SUM-76/77/8-8.24/9.74/0.00

100
202

P:\102329_SUM-76_77\Design\Geotechnical\Sheets\SoilProfile\102329_IP103.dgn Sheet 11/9/2020 8:50:54 AM kmihalcea

H-047-1-61

℄ CONST. RAMP S10

I.R. 77 (SOUTHBOUND)

℄ CONST. I.R. 77

B-028-0-18

H-047-0-61

MATCH LINE STA. 341+80.00, SEE SHEET 100

PC Sta. 2+90.45

PT Sta. 4+33.86

I.R. 77 (NORTHBOUND)

B-029-0-18

MATCH LINE STA. 347+40.00, SEE SHEET 102

℄ CONST. RAMP S9

N 3° 23′ 30″ E

N 1° 57′ 27″ E

BW-019-0-60

BW-021-0-60

H-047-0-61
0 CL
TOP SOIL = 0.3′
14
13
9
7
REFUSAL WC

B-028-0-18
STA. 342+68
8′ LT.
5″ OF ASPHALT 9.5″ OF CONCRETE
71 7
34/50 11
50 12
50 14 TR
N_{60} WC

EX. GROUND

B-029-0-18
STA. 346+84
49′ RT.
4″ OF ASPHALT 8.5″ OF CONCRETE
28 17 TR
29 10
27/50 8
44/50 8
N_{60} WC

1140 1130 1120 1110 1100 1090 1080 1070

342+00 343+00 344+00 345+00 346+00 347+00

HORIZONTAL SCALE IN FEET
0 5 10 20

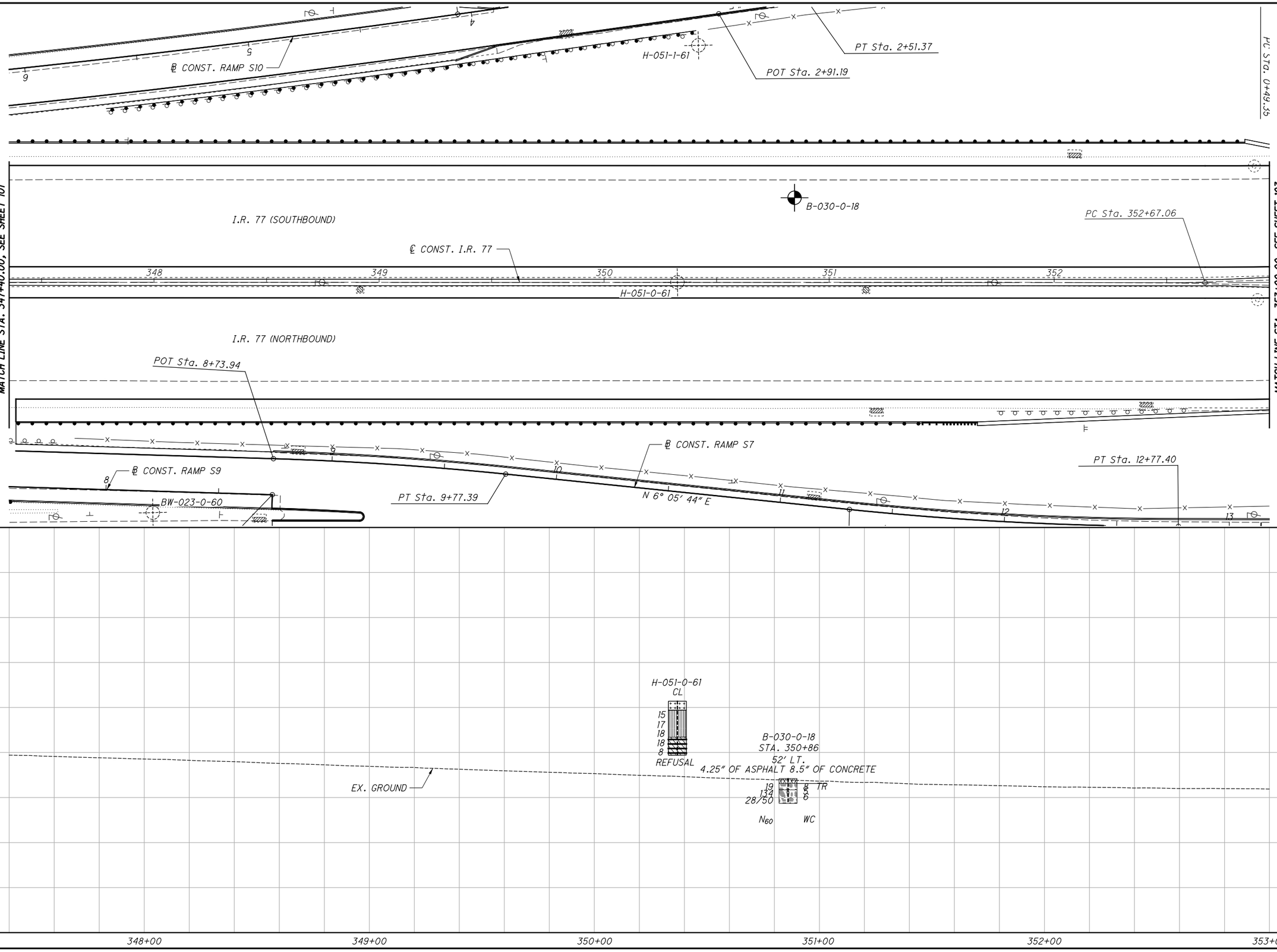
DRAWN SM
CHECKED PAN

SOIL PROFILE
STA. 341+80.00 TO STA. 347+40.00 I.R. 77

SUM-76/77/8-
8.24/9.74/0.00

101
202

P:\02329_SUM-76_77\Design\Geotechnical\Sheets\Soil Profile\02329_IP104.dgn Sheet 11/9/2020 8:51:00 AM kmihalcea



P:\102329_SUM-76_77\Design\Geotechnical\Sheets\Soil Profile\102329_IP105.dgn Sheet 11/9/2020 8:51:02 AM kmihalcea

HORIZONTAL SCALE IN FEET
0 5 10 20

DRAWN SM CHECKED PAN

SOIL PROFILE
STA. 347+40.00 TO STA. 353+00.00 I.R. 77

SUM-76/77/8-
8.24/9.74/0.00

102
202

B-005-1-60
H-052-1-61
E3-005-0-20
B-005-2-60
WILBETH RD.
I.R. 77 (SOUTHBOUND)
H-054-0-61
B-005-3-60
H-052-0-61
℄ CONST. I.R. 77
SUM-764-0214
B-031-0-18
H-053-0-61
I.R. 77 (NORTHBOUND)
℄ CONST. RAMP S7
B-005-4-60
H-052-2-61
B-005-5-60

MATCH LINE STA. 353+00.00, SEE SHEET 102

MATCH LINE STA. 358+60.00, SEE SHEET 104

B-005-3-60
CL
H-052-0-61
0 CL
TOP SOIL = 0.3'
REFUSAL
WC
B-031-0-18
STA. 354+95
7' RT.
N_{60}
WC
EX. GROUND
H-053-0-61
25' RT
REFUSAL WC
E3-005-0-20
STA. 357+67
147' LT.
N_{60}
WC
H-054-0-61
20' LT
REFUSAL

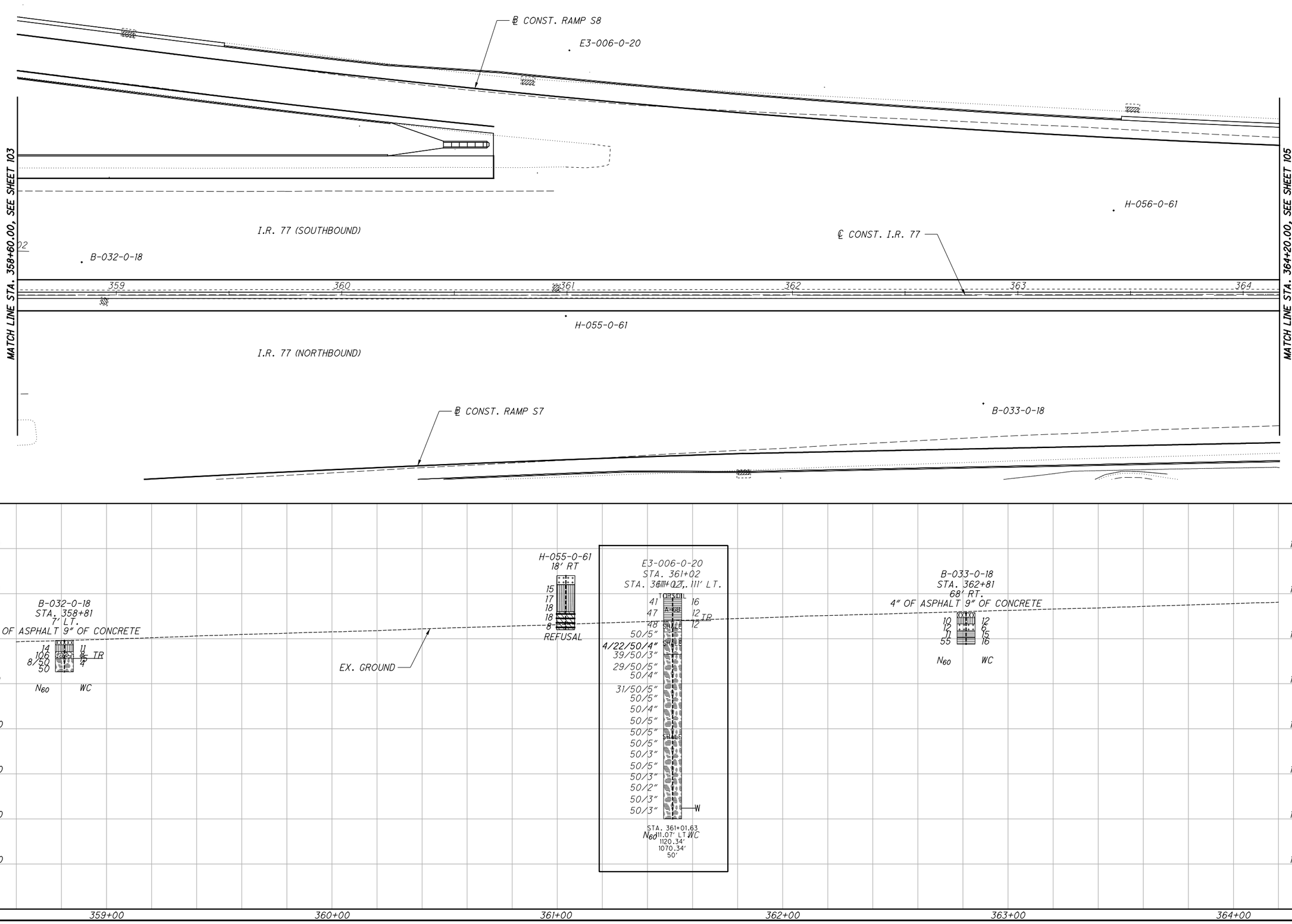
353+00 354+00 355+00 356+00 357+00 358+00

SOIL PROFILE
STA. 353+00.00 TO STA. 358+60.00 I.R. 77

DRAWN SM
CHECKED PAN

HORIZONTAL SCALE IN FEET
0 5 10 20

SUM-76/77/8-
8.24/9.74/0.00



P:\102329_SUM-76_77\Design\Geotechnical\Sheets\SoilProfile\102329_IP107.dgn Sheet 11/9/2020 8:51:06 AM kmihalcea

HORIZONTAL SCALE IN FEET
0 5 10 20

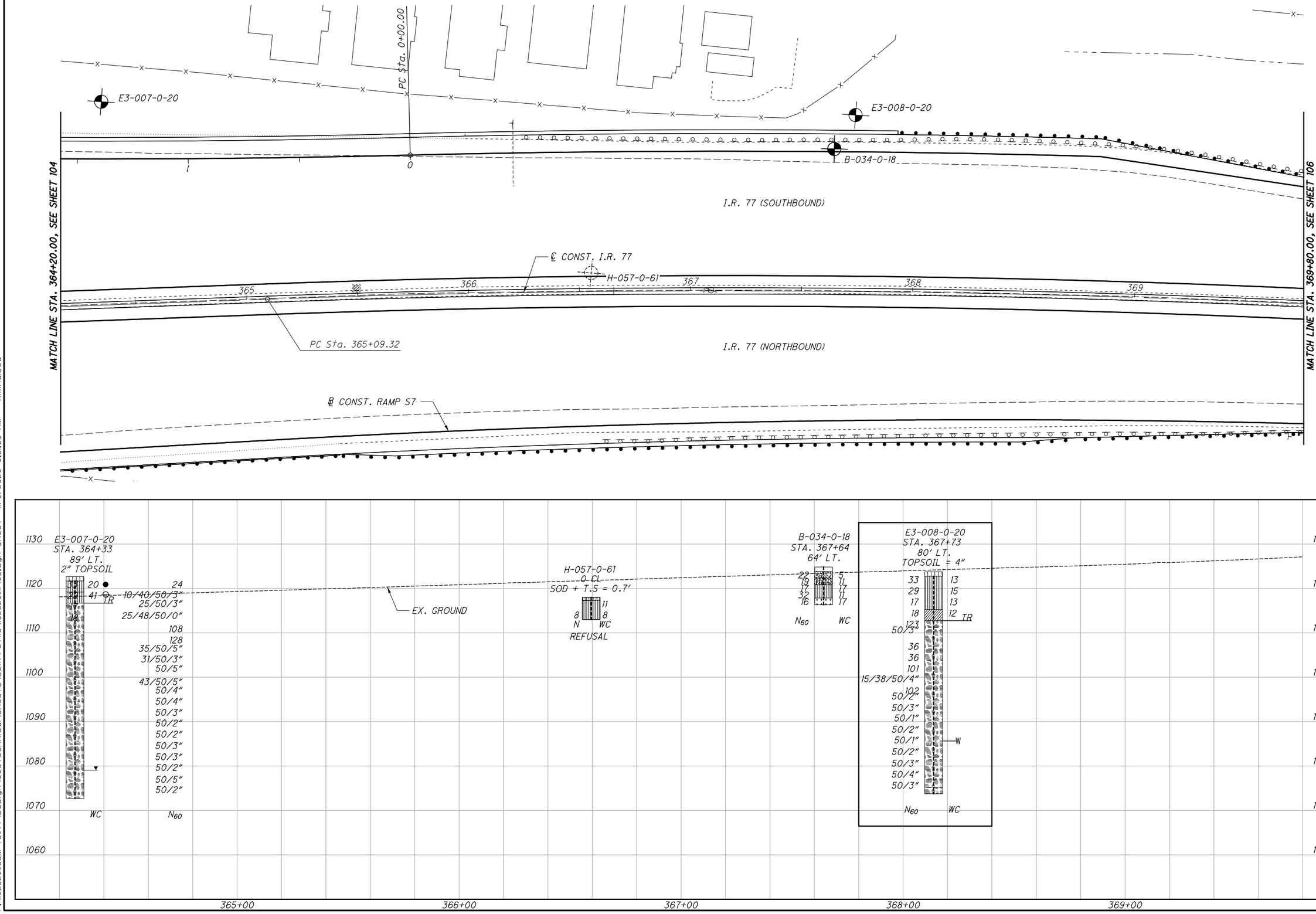
DRAWN SM CHECKED PAN

SOIL PROFILE

STA. 358+60.00 TO STA. 364+20.00 I.R. 77

SUM-76/77/8-8.24/9.74/0.00

104
202



P:\102329_SUM-76_77\Design\Geotechnical\Sheets\Soil Profile\102329_IPI08.dgn Sheet 11/9/2020 8:51:09 AM kmihalcea

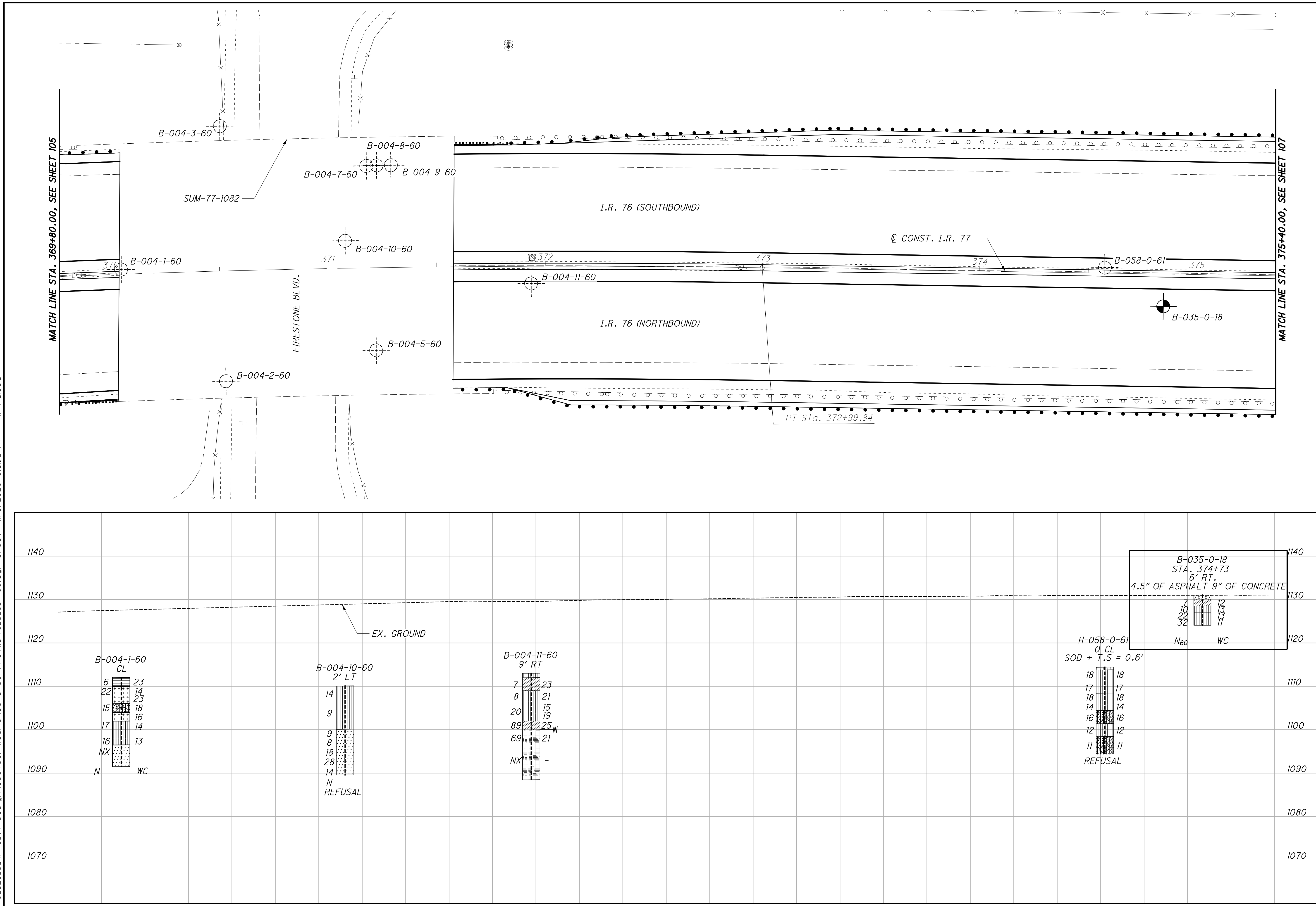
HORIZONTAL SCALE IN FEET
0 5 10 20

DRAWN SM
CHECKED PAN

SOIL PROFILE

SUM-76/77/8-8.24/9.74/0.00 STA. 364+20.00 TO STA. 369+80.00 I.R. 77

105
202



HORIZONTAL SCALE IN FEET

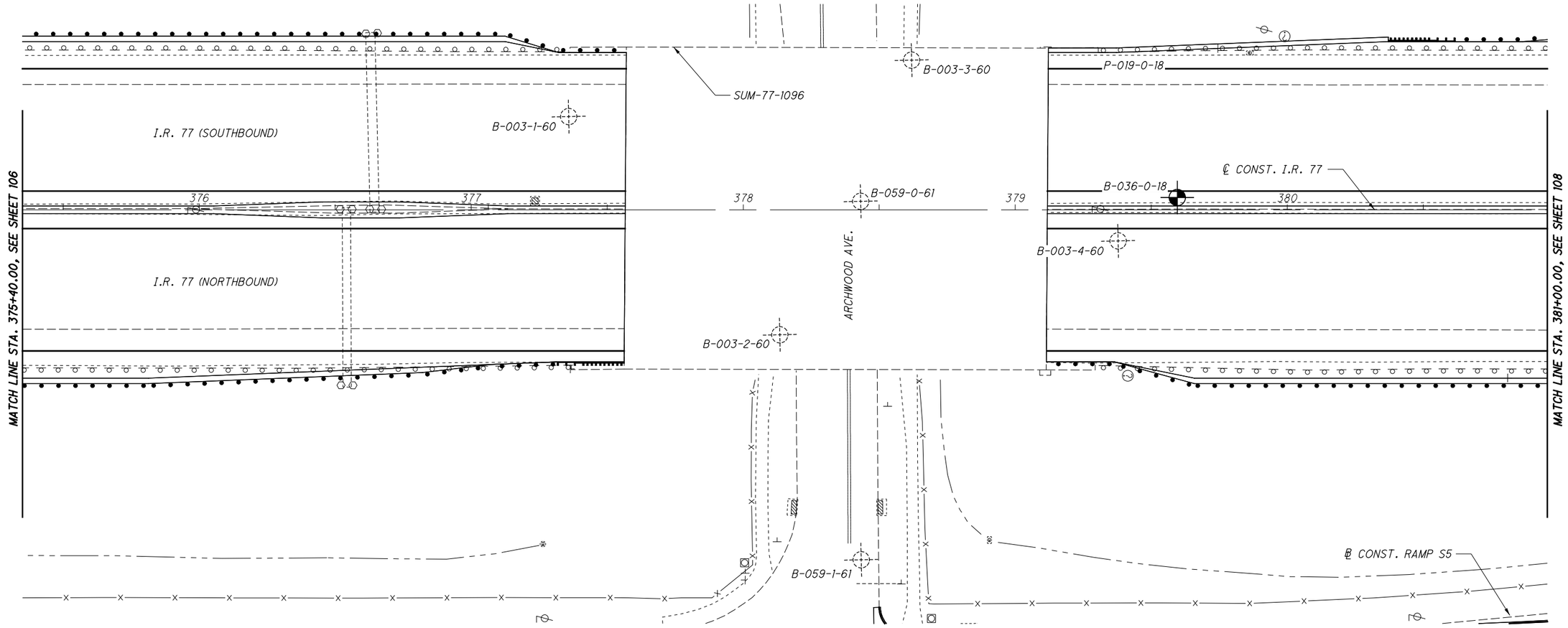
DRAWN SM

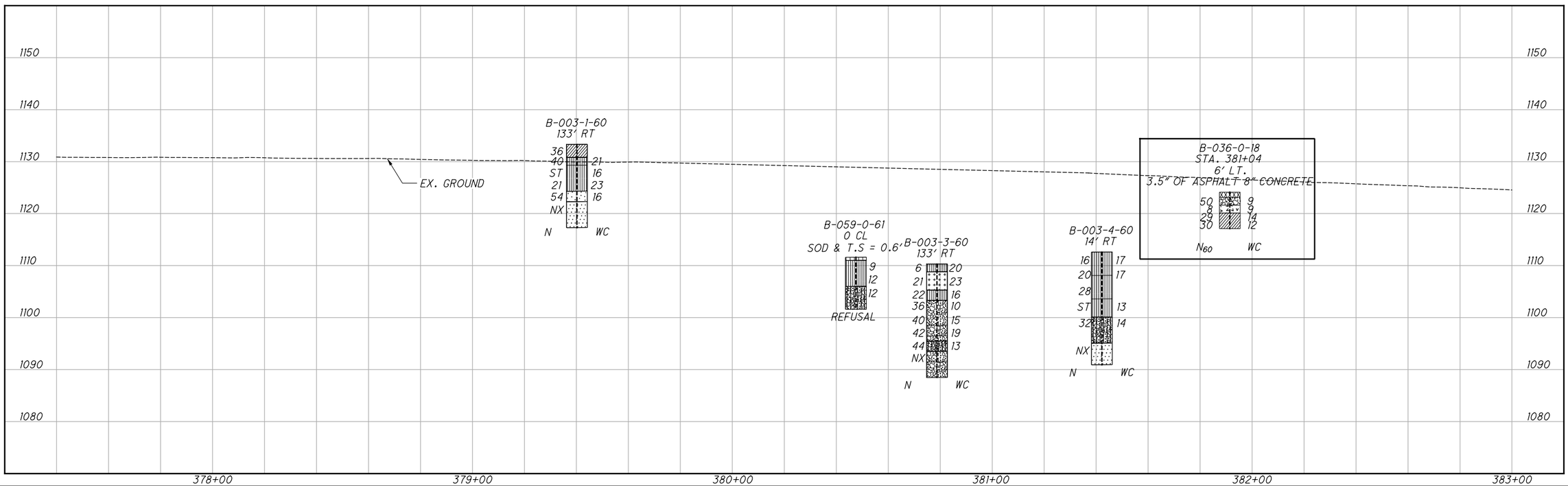
CHECKED PAN

SOIL PROFILE

STA. 369+80.00 TO STA. 375+40.00 I.R. 77

SUM-76/77/8-8.24/9.74/0.00





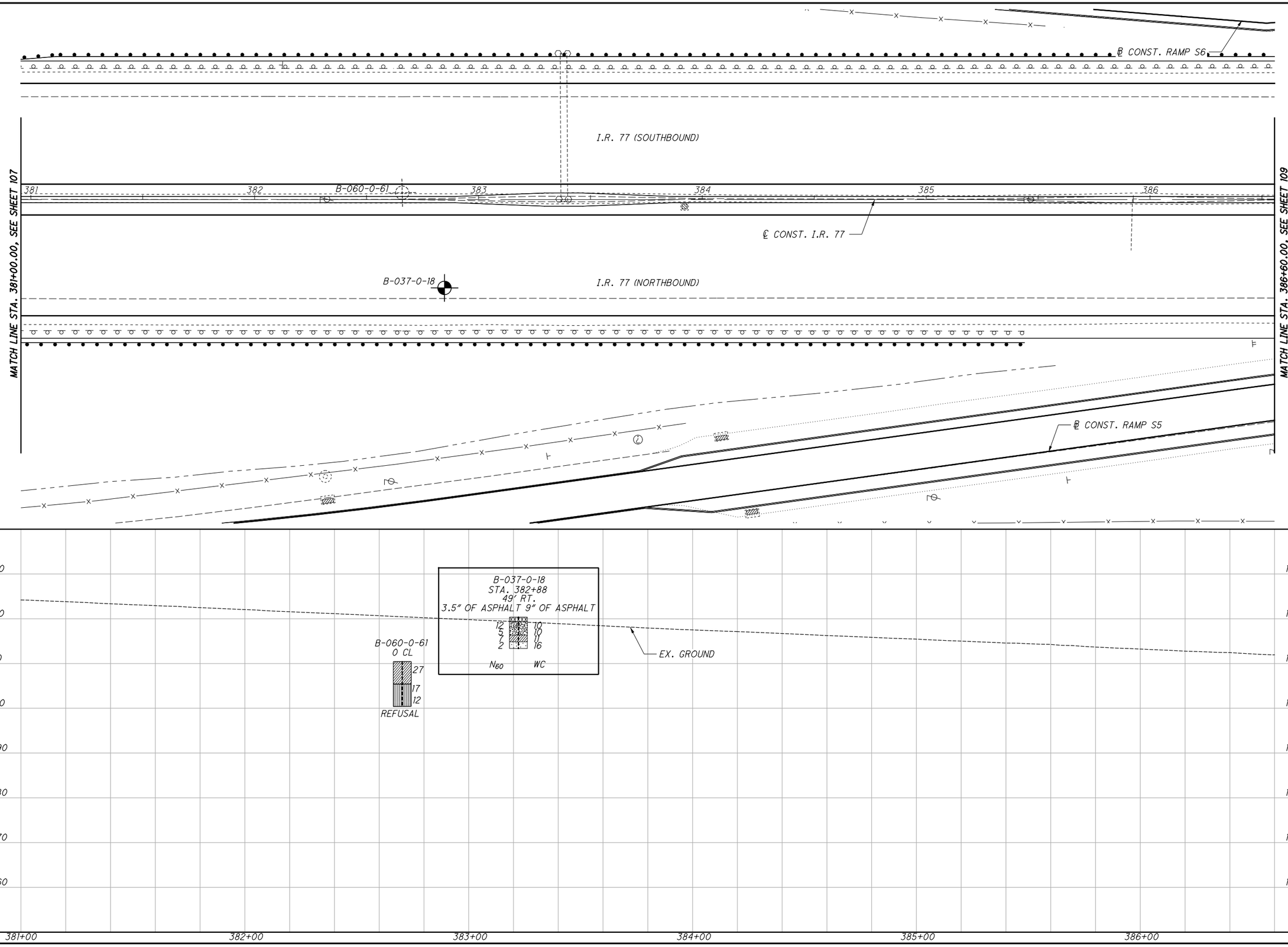
SOIL PROFILE
SUM-76/77/8-
8.24/9.74/0.00
STA. 375+40.00 TO STA. 381+00.00 I.R. 77

HORIZONTAL SCALE IN FEET
0 5 10 20

DRAWN SM
CHECKED PAN

107
202

P:\02329_SUM-76_77\Design\Geotechnical\Sheets\Soil Profile\02329_IPI10.dgn Sheet 11/9/2020 8:5:45 AM kmihalcea



HORIZONTAL SCALE IN FEET
0 5 10 20

DRAWN SM
CHECKED PAN

SOIL PROFILE
STA. 381+00.00 TO STA. 386+60.00 I.R. 77

SUM-76/77/8-
8.24/9.74/0.00

108
202

P:\102329_SUM-76_77\Design\Geotechnical\Sheets\SoilProfile\102329_IPIII.dgn Sheet 11/9/2020 8:51:17 AM kmihalcea

HORIZONTAL SCALE IN FEET
0 5 10 20

DRAWN SM
CHECKED PAN

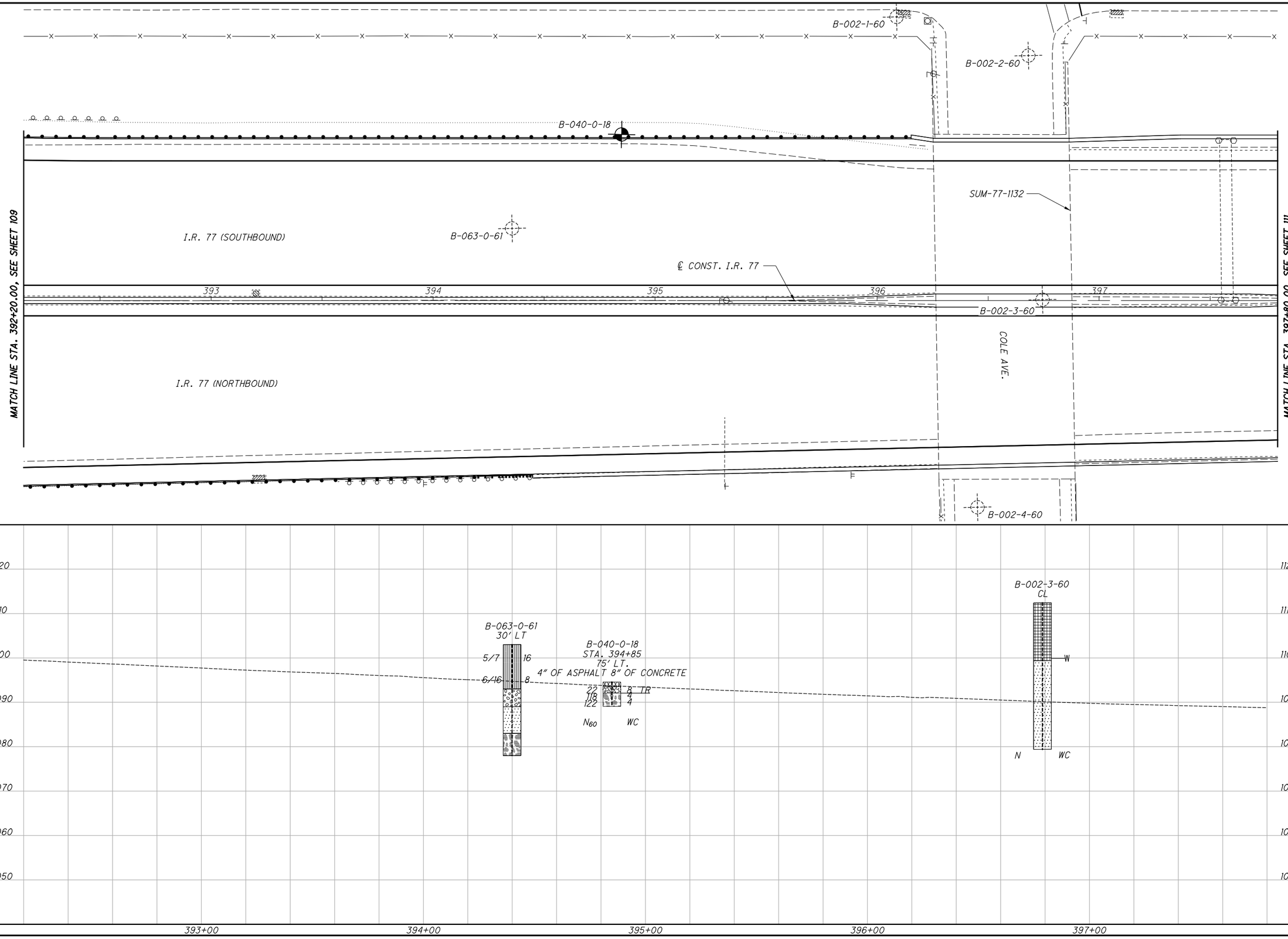
SOIL PROFILE

STA. 386+60.00 TO STA. 392+20.00 I.R. 77

SUM-76/77/8-8.24/9.74/0.00

109
202

P:\102329_SUM-76_77\Design\Geotechnical\Sheets\Soil Profile\102329_IPI12.dgn Sheet 11/9/2020 8:51:20 AM kmihalea



SOIL PROFILE

STA. 392+20.00 TO STA. 397+80.00 I.R. 77

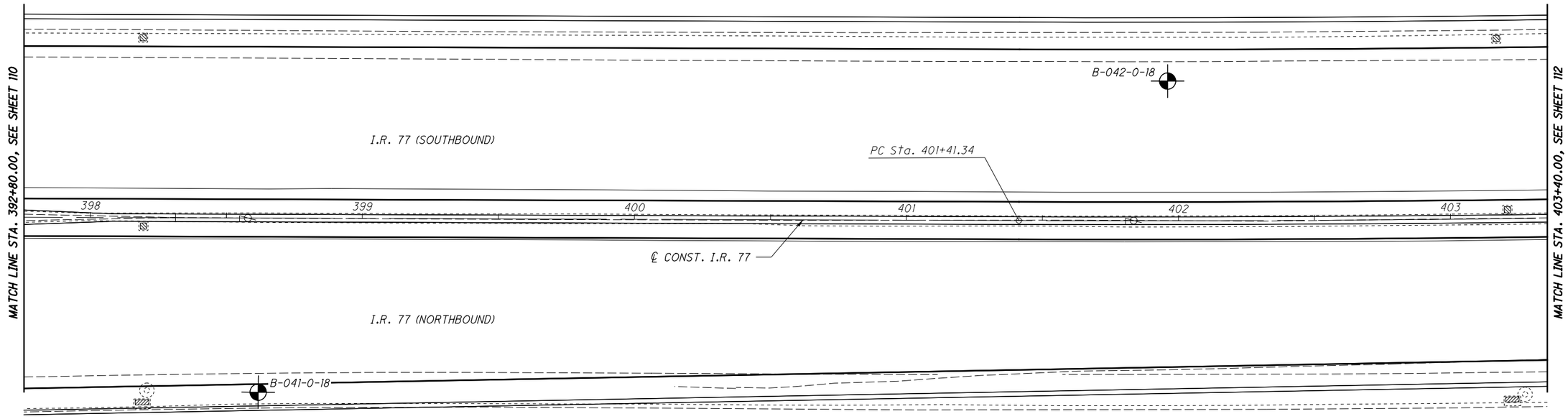
SUM-76/77/8-8.24/9.74/0.00

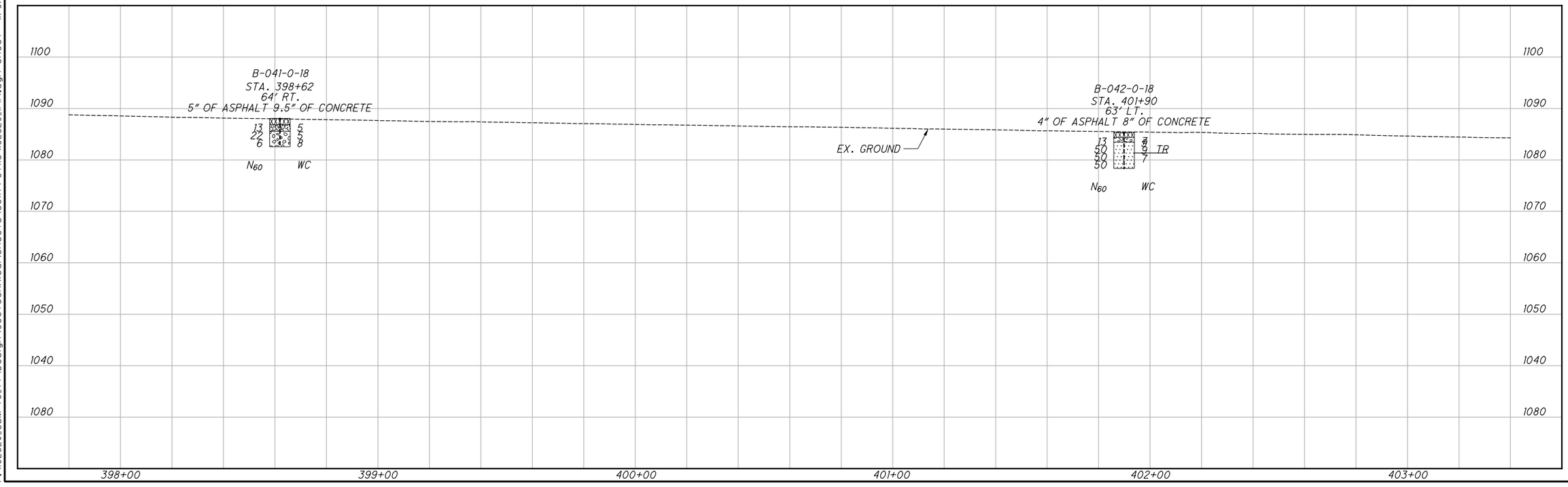
DRAWN SM CHECKED PAN

HORIZONTAL SCALE IN FEET 0 5 10 20

110
202

P:\102329_SUM-76_77\Design\Geotechnical\Sheets\SoilProfile\102329_IPI13.dgn Sheet 11/9/2020 8:51:23 AM kmihalcea





SOIL PROFILE

STA. 397+80.00 TO STA. 403+40.00 I.R. 77

SUM-76/77/8-8.24/9.74/0.00

DRAWN SM CHECKED PAN

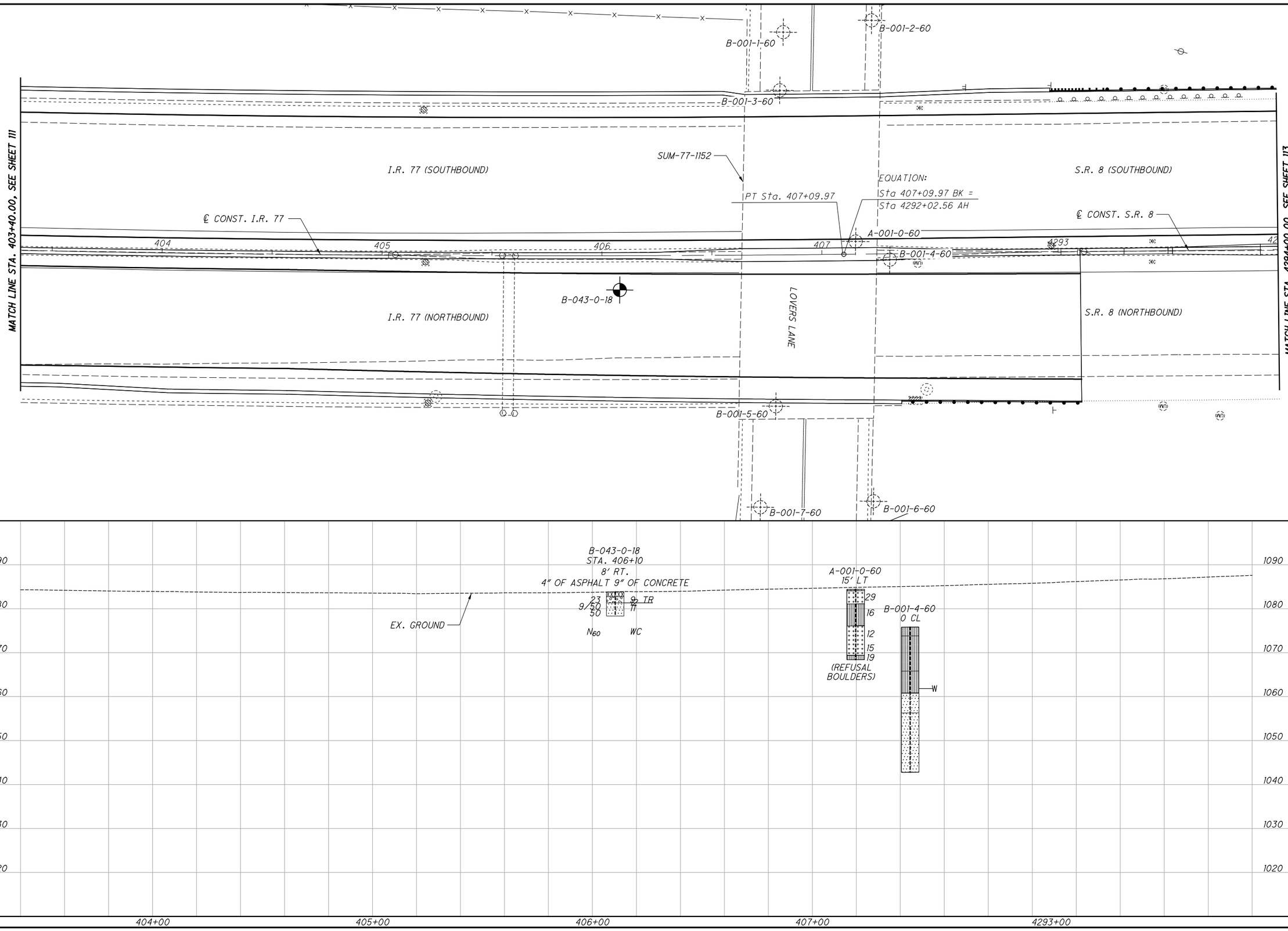
HORIZONTAL SCALE IN FEET

0 5 10 20

N

111
202

P:\102329_SUM-76_77\Design\Geotechnical\Sheets\SoilProfile\102329_IPI14.dgn Sheet 11/9/2020 8:51:27 AM kmihalcea



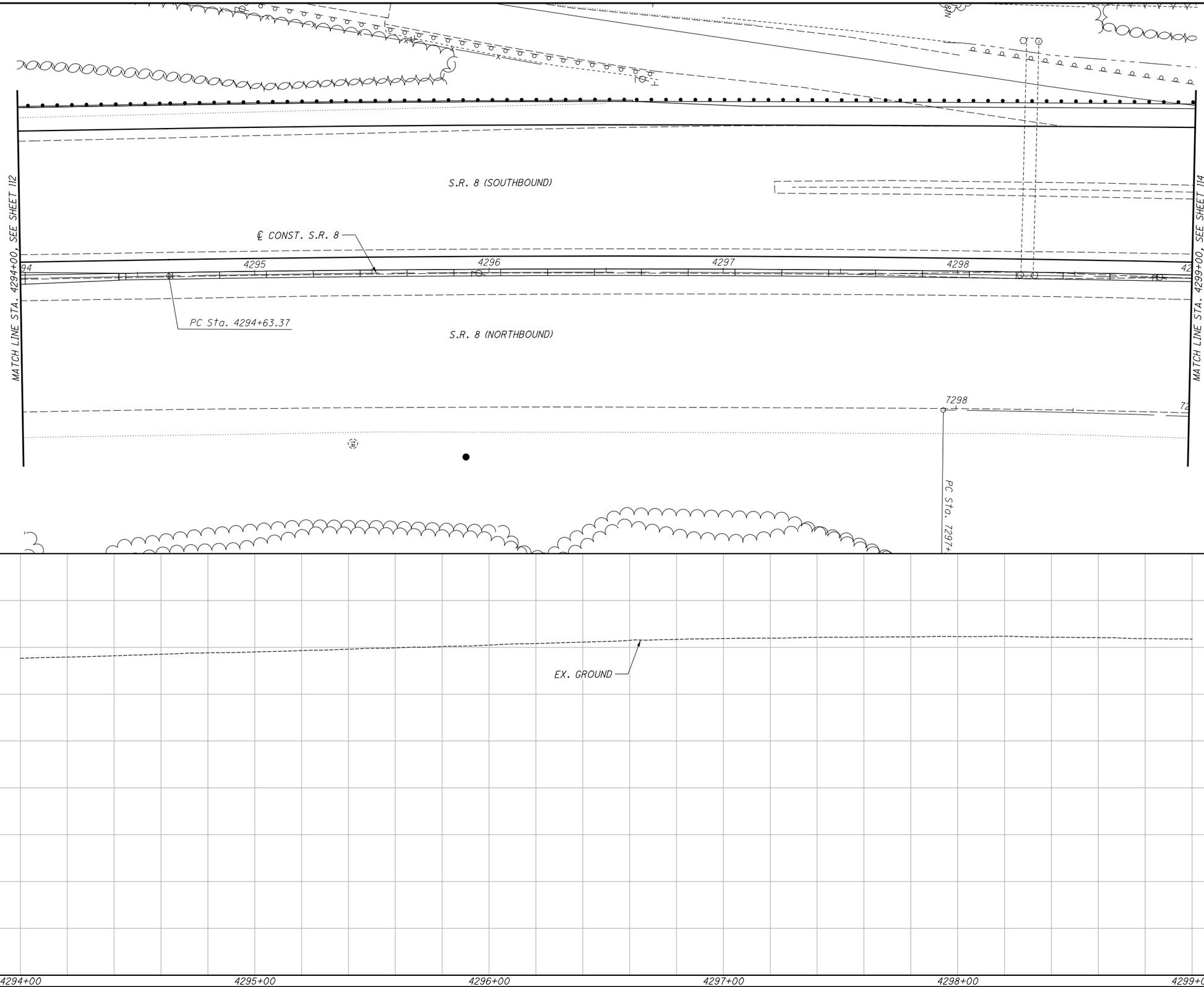
P:\102329_SUM-76_77\Design\Geotechnical\Sheets\Soil Profile\102329_IPI15.dgn Sheet 11/9/2020 8:51:51 AM kmihalcea

HORIZONTAL SCALE IN FEET
0 5 10 20

DRAWN SM
CHECKED PAN

SOIL PROFILE
STA. 403+40.00 TO STA. 4294+00.00 I.R. 77

SUM-76/77/8-
8.24/9.74/0.00



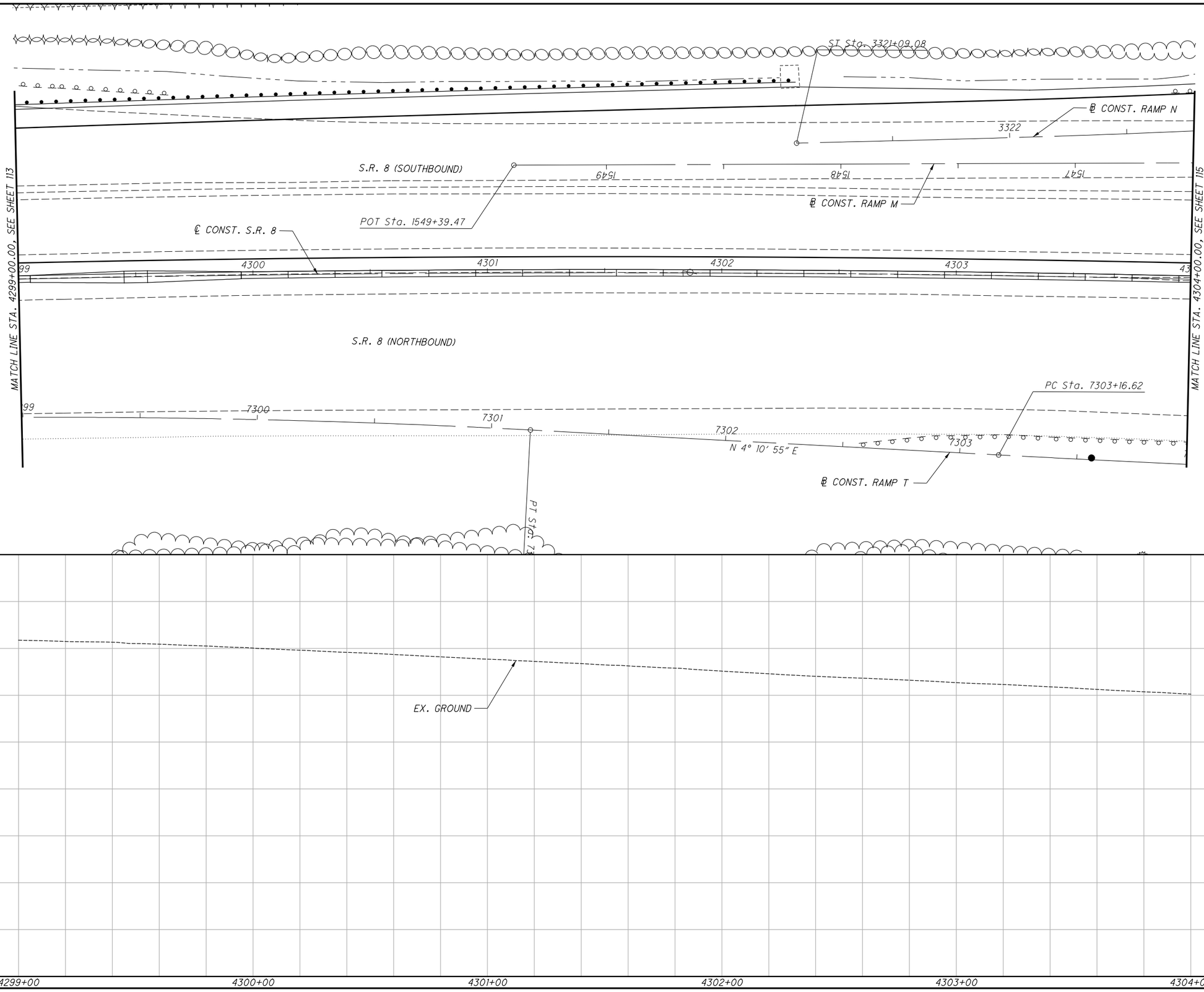
P:\02329_SUM-76_77\Design\Geotechnical\Sheets\SoilProfile\02329_IPI16.dgn Sheet 11/9/2020 8:53:05 AM kmihalcea

HORIZONTAL SCALE IN FEET
0 5 10 20

CALCULATED SM
CHECKED PAN

SOIL PROFILE
STA. 4294+00.00 TO STA. 4299+00.00 S.R. 8

SUM-76/77/8-8.24/9.74/0.00



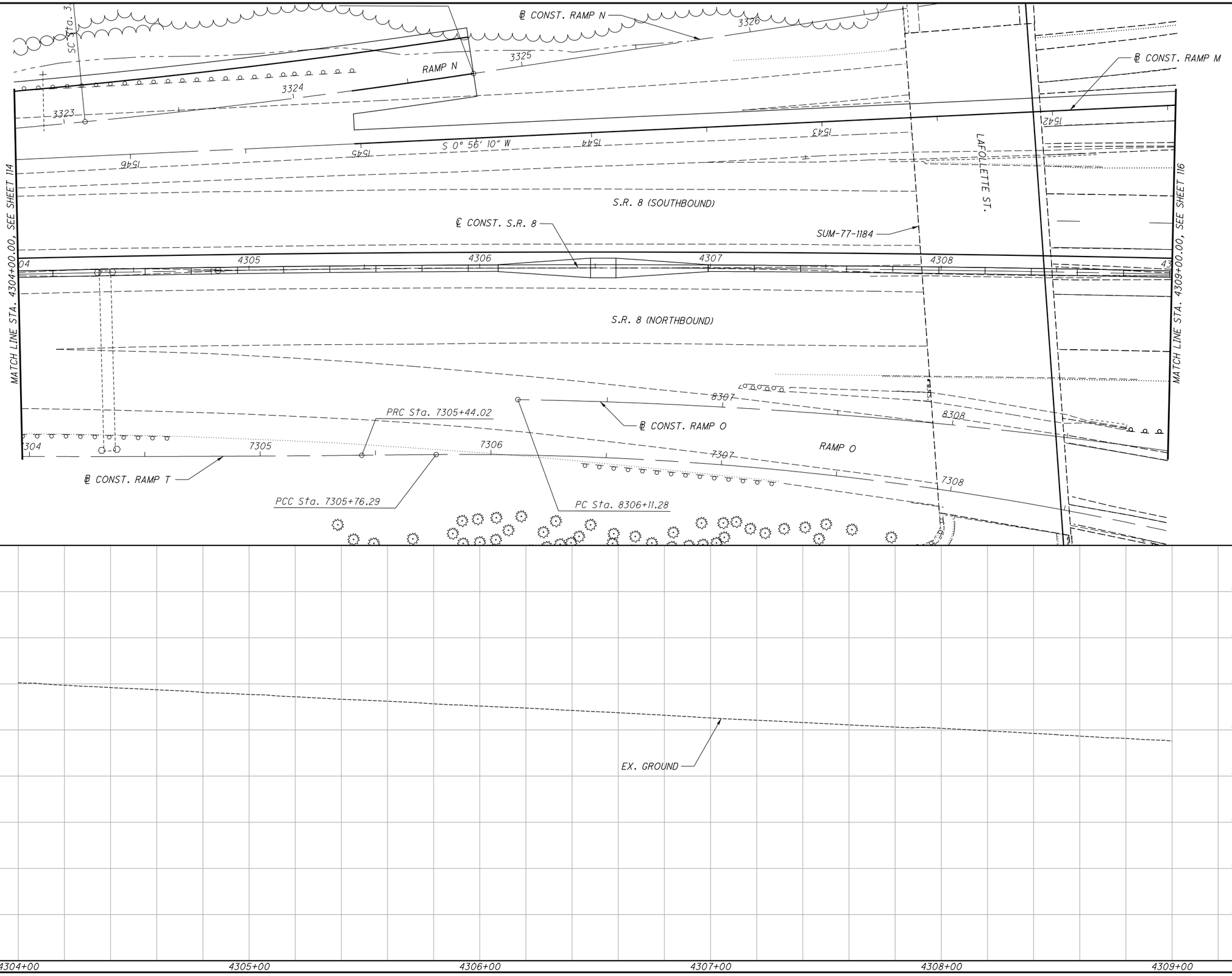
P:\102329_SUM-76_77\Design\Geotechnical\Sheets\SoilProfile\102329_IPII7.dgn Sheet 11/9/2020 8:54:9 AM kmihalcea

HORIZONTAL SCALE IN FEET
0 5 10 20

CALCULATED SM
CHECKED PAN

SOIL PROFILE
STA. 4299+00.00 TO STA. 4304+00.00 S.R. 8

SUM-76/77/8-
8.24/9.74/0.00



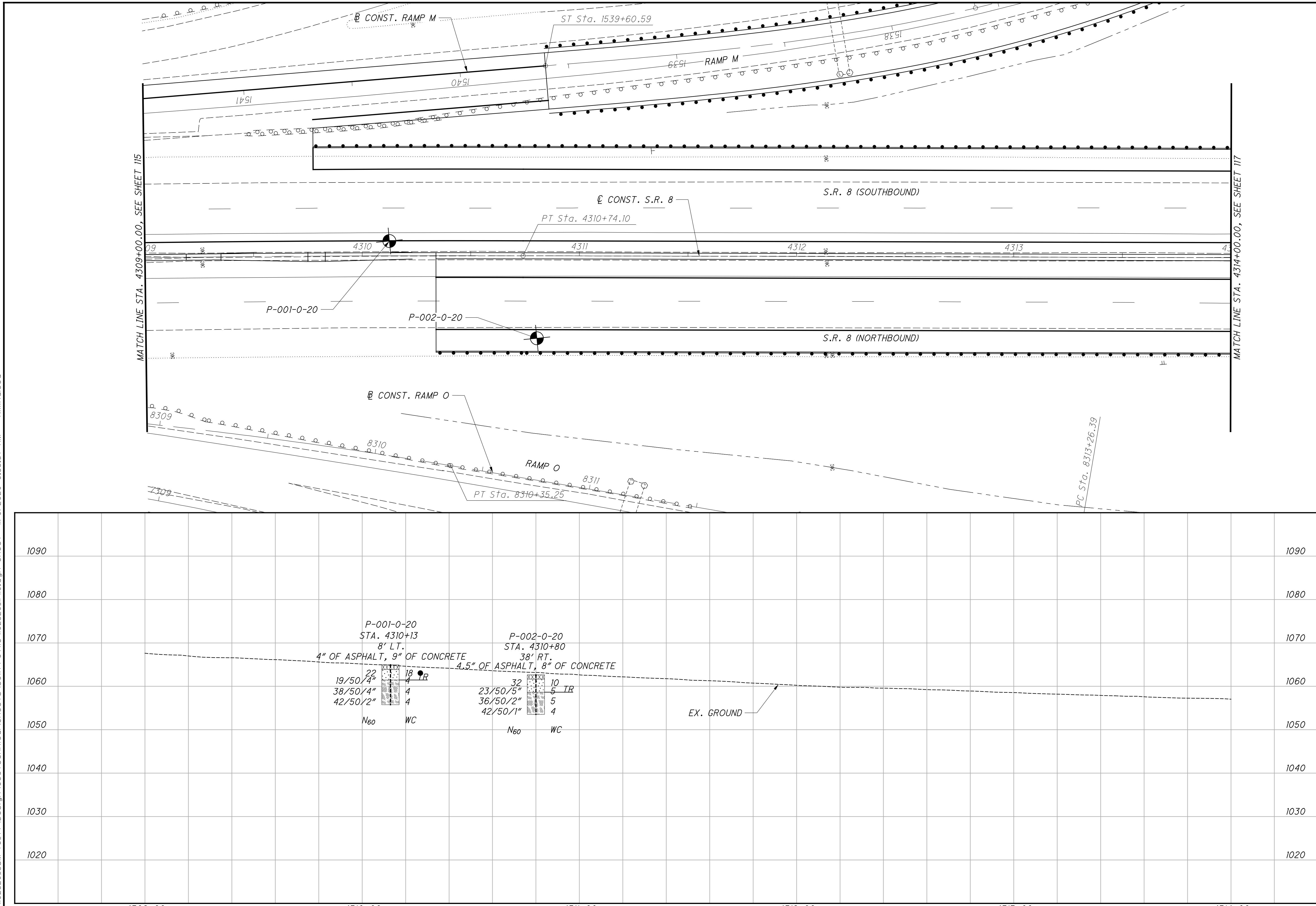
P:\102329_SUM-76_77\Design\Geotechnical\Sheets\SoilProfile\102329_IPI18.dgn Sheet 11/9/2020 8:55:29 AM kmihalcea

HORIZONTAL SCALE IN FEET
0 5 10 20

CALCULATED SM
CHECKED PAN

SOIL PROFILE
STA. 4304+00.00 TO STA. 4309+00.00 S.R. 8

SUM-76/77/8-
8.24/9.74/0.00



HORIZONTAL SCALE IN FEET 0 5 10 20

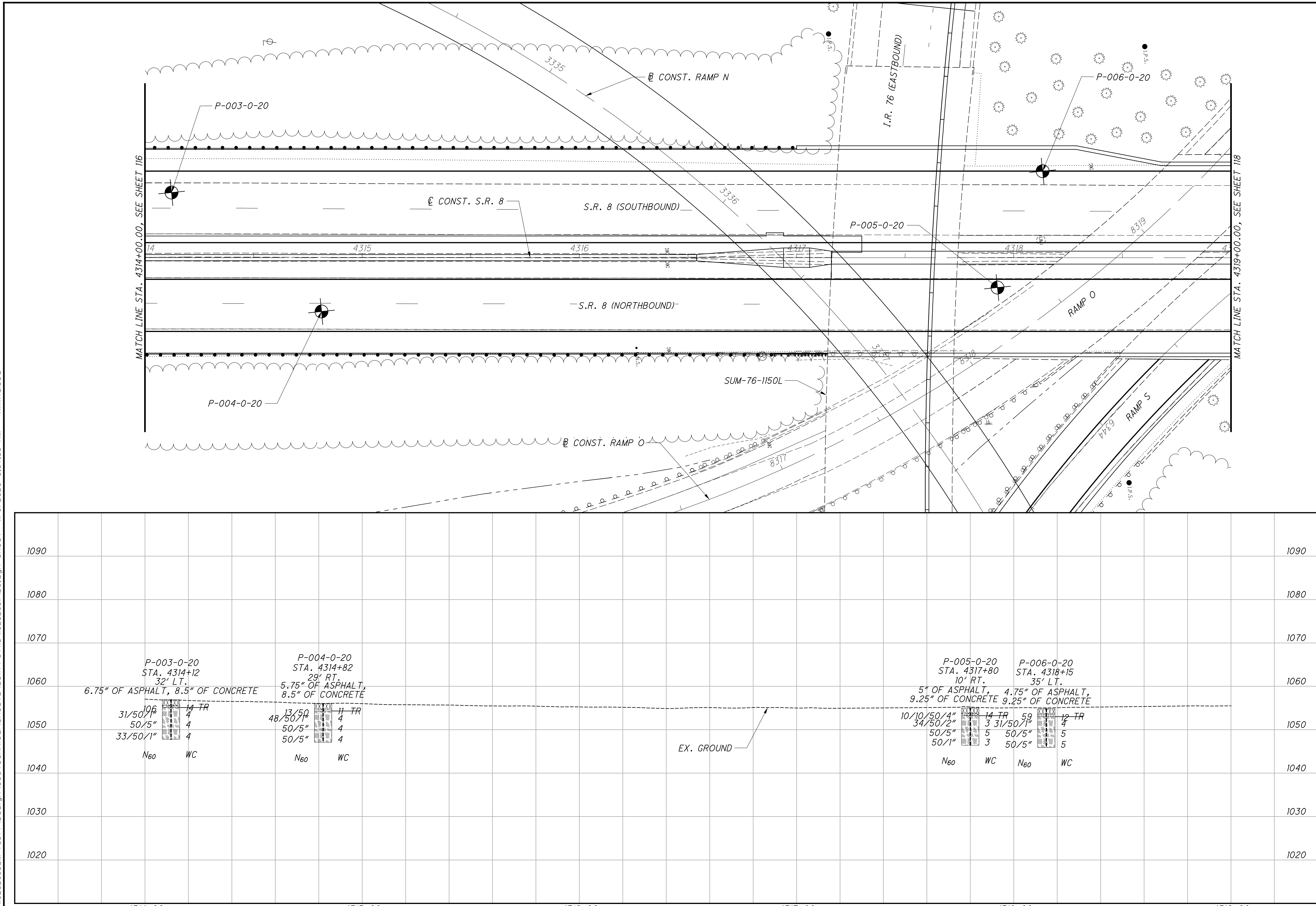
CALCULATED SM

CHECKED PAN

SOIL PROFILE
STA. 4309+00.00 TO STA. 4314+00.00 S.R. 8

SUM-76/77/8-8.24/9.74/0.00

P:\102329_SUM-76_77\Design\Geotechnical\Sheets\SoilProfile\102329_IPI19.dgn Sheet 11/9/2020 8:55:57 AM kmihalcea

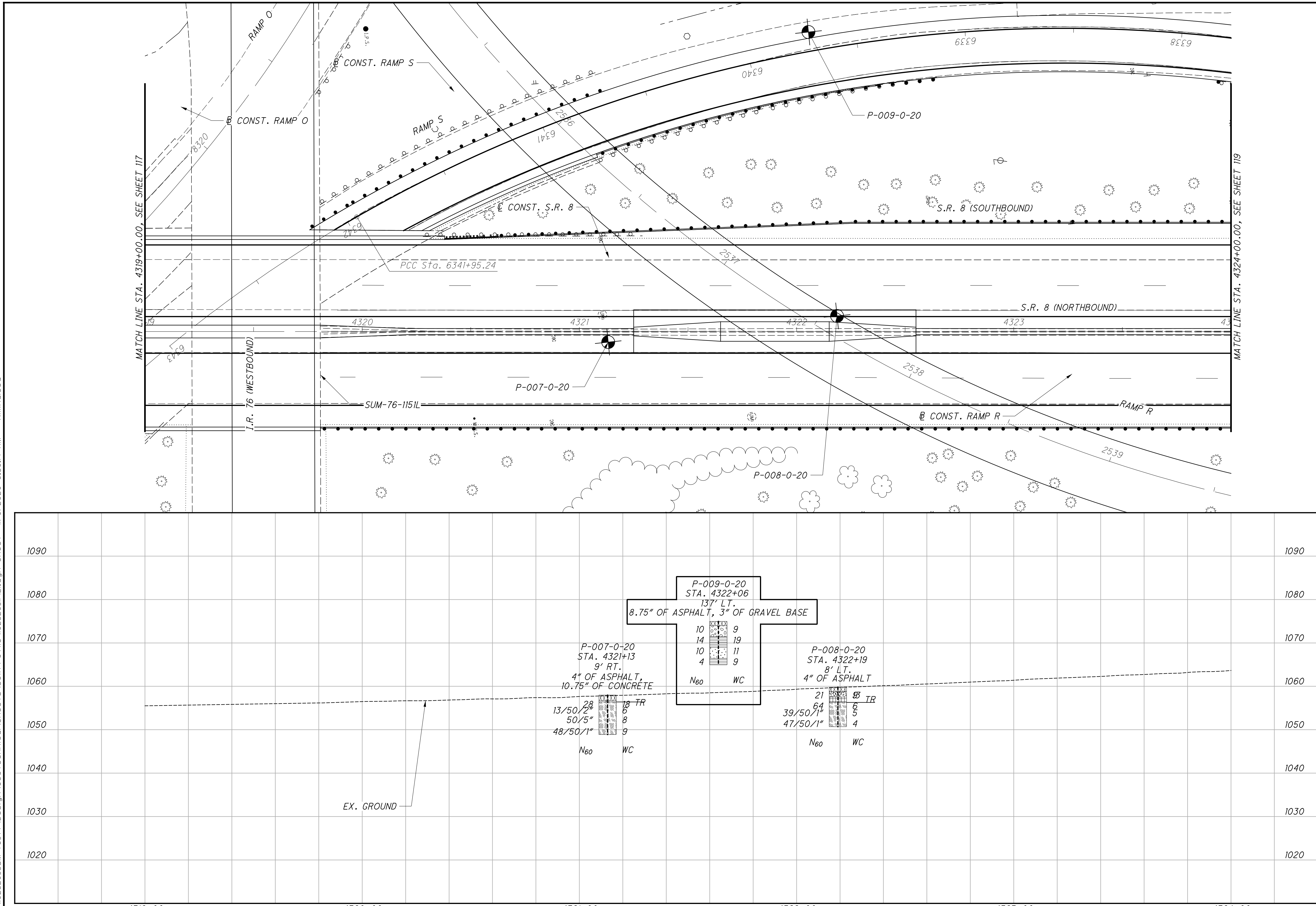


CALCULATED SM
CHECKED PAN

SOIL PROFILE
STA. 4314+00.00 TO STA. 4319+00.00 S.R. 8

SUM-76/77/8-
8.24/9.74/0.00

P:\102329_SUM-76_77\Design\Geotechnical\Sheets\SoilProfile\102329_IPI20.dgn Sheet 11/9/2020 8:57:38 AM kmihalcea



HORIZONTAL SCALE IN FEET

0 5 10 20

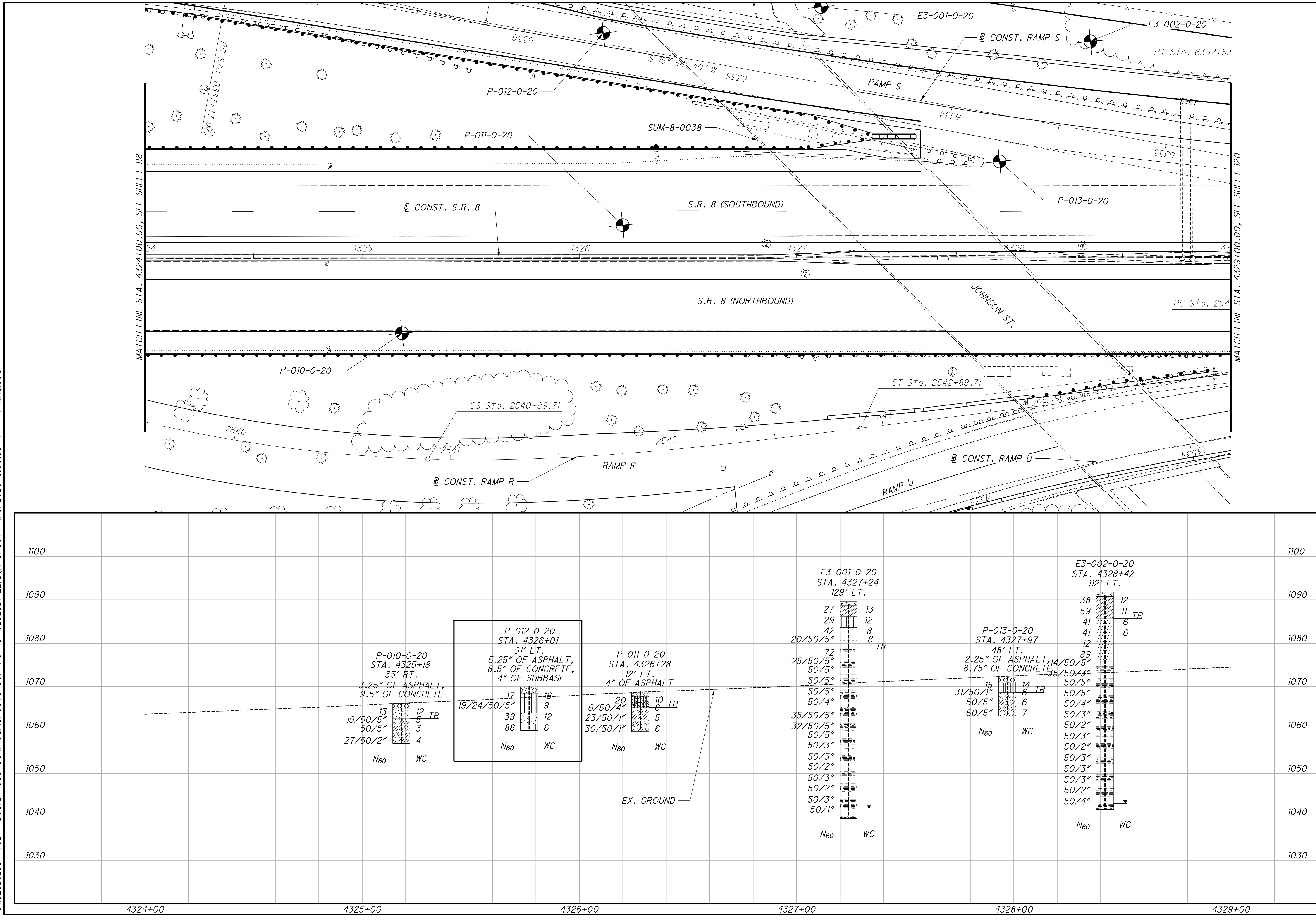
CALCULATED SM

CHECKED PAN

SOIL PROFILE

STA. 4319+00.00 TO STA. 4324+00.00 S.R. 8

SUM-76/77/8-
8.24/9.74/0.00



HORIZONTAL SCALE IN FEET

CALCULATED SM
CHECKED PAN

SOIL PROFILE
STA. 4324+00.00 TO STA. 4329+00.00 S.R. 8

SUM-76/77/8-
8.24/9.74/0.00

E3-003-0-20

E3-004-0-20

.58

PC Sta. 6331+40.67

℄ CONST. RAMP S

6332

S 5° 44' 57" W 6331

POT Sta. 6330+84.37

S.R. 8 (SOUTHBOUND)

MATCH LINE STA. 4329+00.00, SEE SHEET 119

℄ CONST. S.R. 8

PC Sta. 325+00.64

P-015-0-20

29

4330

326

327

MATCH LINE STA. 328+00.00, SEE SHEET 121

4+88.61

℄ CONST. RAMP Q

P-014-0-20

2547

2548

S.R. 8 (NORTHBOUND)

2546

2545

EQUATION:

Sta 4330+75.71 BK =

Sta 325+00.64 AH

PT Sta. 2548+00.13

P-014-0-20
STA. 4329+22
31' RT.
3.5" OF ASPHALT,
8.5" OF CONCRETE

50	12 TR	
7/50/5"	7	
50/5"	5	
27/50/2"	4	
N_{60}	WC	

E3-003-0-20
STA. 4329+57
94' LT.

8		44
14	TR	32
6		65
4		92
		50/5"
		50/5"
		66
		77
		50/5"
		50/4"
		50/5"
		50/2"
		50/2"
		50/2"
		37/50/4"
		36/50/5"
		50/3"
		50/5"
		50/1"
		50/1"
WC		N_{60}

E3-004-0-20
STA. 4330+72
89' LT.

50		10
50		9
35		14
7/39/50/4"		10
17/50/5"	TR	9
15/50/4"		7
		50/5"
		50/3"
		50/3"
		50/3"
		50/3"
		50/2"
N_{60}		WC

EX. GROUND

P-015-0-20
STA. 327+44
9' RT.
3.75" OF ASPHALT,
8.5" OF CONCRETE, 3" OF GRAVEL BASE

23/50/4"	4 TR	
50/3"	5	
50/3"	4	
50/3"	4	
N_{60}	WC	

1110
1100
1090
1080
1070
1060
1050
1040

4329+00
4330+00
326+00
327+00
328+00

HORIZONTAL SCALE IN FEET
0 5 10 20

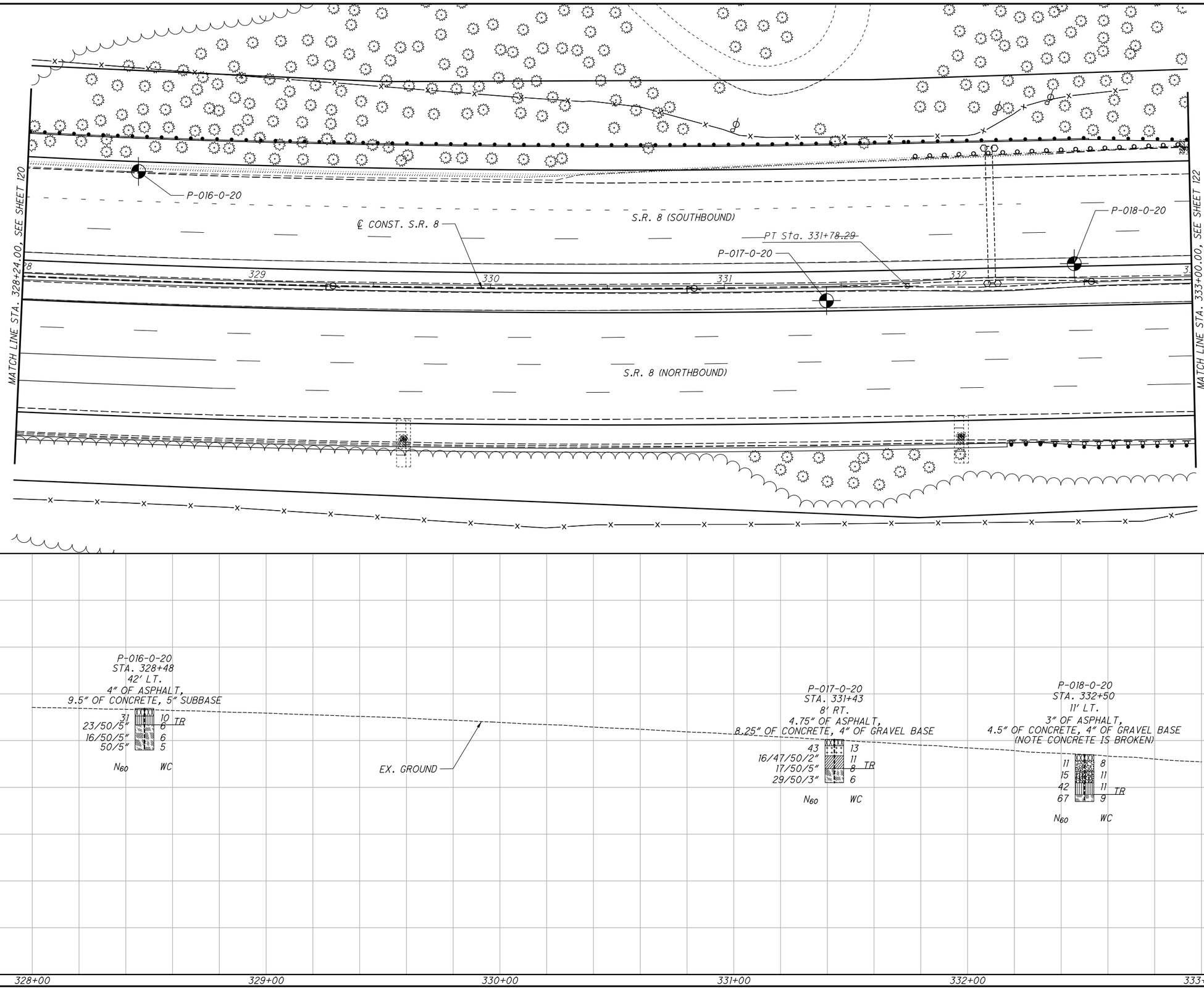
CALCULATED SM
CHECKED PAN

SOIL PROFILE
STA. 4329+00.00 TO STA. 328+00.00 S.R. 8

SUM-76/77/8-
8.24/9.74/0.00

120
202

P:\102329_SUM-76_77\Design\Geotechnical\Sheets\SoilProfile\102329_IP123.dgn Sheet 11/9/2020 9:02:27 AM knihalcea



HORIZONTAL SCALE IN FEET
0 5 10 20

CALCULATED SM
CHECKED PAN

SOIL PROFILE
STA. 328+00.00 TO STA. 333+00.00 S.R. 8

SUM-76/77/8-8.24/9.74/0.00

121
202

P:\102329_SUM-76_77\Design\Geotechnical\Sheets\Soil Profile\102329_IPI24.dgn Sheet 11/9/2020 9:04:04 AM kmihalcea

B2-001-0-20

SUM-8-0064

ITEM 606 - GUARDRAIL, TYPE MGS

P-020-0-20

S.R. 8 (SOUTHBOUND)

℄ CONST. S.R. 8

MATCH LINE STA. 333+00.00, SEE SHEET 121

MATCH LINE STA. 338+00.00, SEE SHEET 123

333 334 335 336 337 338

BEACON ST.

S.R. 8 (NORTHBOUND)

P-019-0-20

B2-001-0-20
STA. 333+51
52' LT.
8" OF ASPHALT, 4" OF GRANULAR BASE

29	11
32	5
9	13
14	12
15	10
20	14
29	18
12	14
15	17
21	11
12	16
30/50/4"	10
12	18 W
12	16
12	18
1/3/50/0"	18

N_{60} WC

P-019-0-20
STA. 334+68
61' RT.
13.5" OF ASPHALT,
5" OF GRAVEL BASE

27	8
8	12
6	11
7	13

N_{60} WC

EX. GROUND

P-020-0-20
STA. 336+52
50' LT.
11.5" OF ASPHALT,
6" OF GRAVEL BASE

29	11
14	4
14	11
13	15

N_{60} WC

1090 1080 1070 1060 1050 1040 1030 1020

333+00 334+00 335+00 336+00 337+00 338+00

HORIZONTAL SCALE IN FEET
0 5 10 20

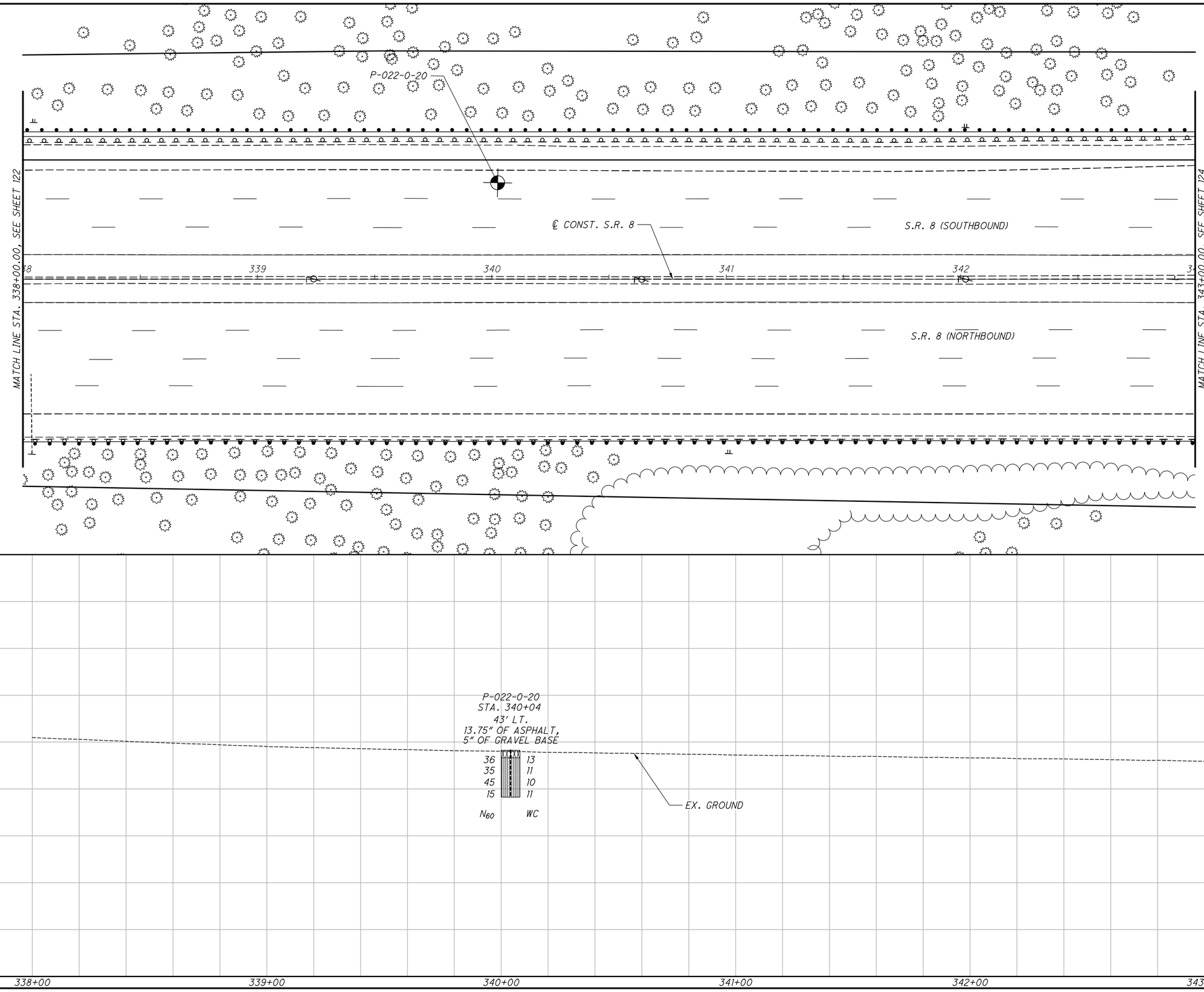
CALCULATED SM
CHECKED PAN

SOIL PROFILE
STA. 333+00.00 TO STA. 338+00.00 S.R. 8

SUM-76/77/8-
8.24/9.74/0.00

122
202

P:\102329_SUM-76.77\Design\Geotechnical\Sheets\SoilProfile\102329_IPI25.dgn Sheet 11/9/2020 9:05:38 AM kmihalcea



HORIZONTAL SCALE IN FEET
0 5 10 20

CALCULATED SM
CHECKED PAN

SOIL PROFILE

STA. 338+00.00 TO STA. 343+00.00 S.R. 8

SUM-76/77/8-8.24/9.74/0.00

123
202

P:\102329_SUM-76_77\Design\Geotechnical\Sheets\Soil Profile\102329_IPI26.dgn Sheet 11/9/2020 9:07:18 AM kmihalcea

P-024-0-20

SUM-8-0086

MATCH LINE STA. 343+24.00, SEE SHEET 123

℄ CONST. S.R. 8

S.R. 8 (SOUTHBOUND)

S.R. 8 (NORTHBOUND)

E EXCHANGE ST.

P-025-0-20

MATCH LINE STA. 348+00.00, SEE SHEET 125

PC Sta. 0+00

P-024-0-20
STA. 344+04
55' LT.
12" OF ASPHALT,
5" OF GRAVEL

N_{60}	WC
31	9
39	13
38	11
31	5

EX. GROUND

P-025-0-20
STA. 347+84
59' RT.
11.75" OF ASPHALT,
5" OF GRAVEL BASE

N_{60}	WC
36	7
14	9
7	7
6	9

1080 1070 1060 1050 1040 1030 1020 1010

343+00 344+00 345+00 346+00 347+00 348+00

HORIZONTAL SCALE IN FEET
0 5 10 20

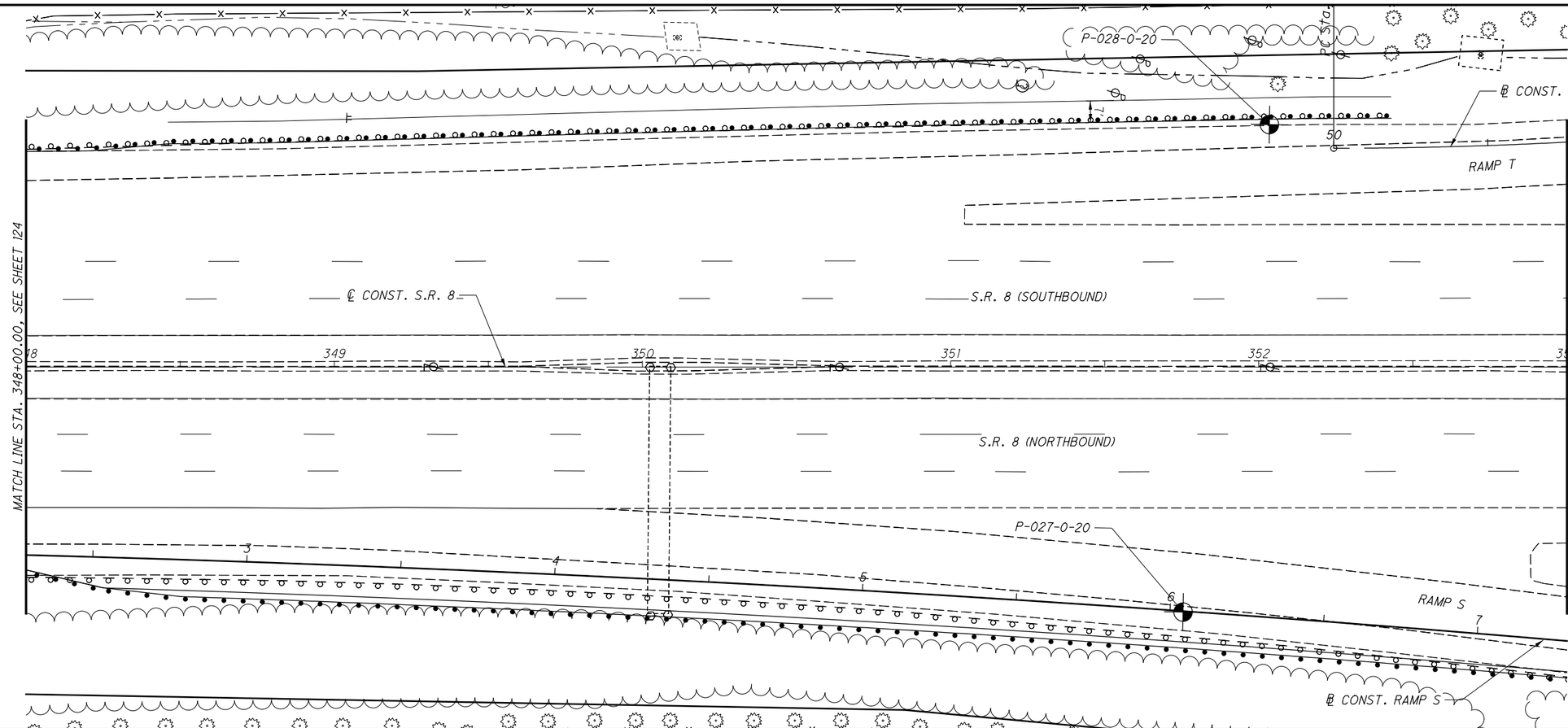
CALCULATED SM
CHECKED PAN

SOIL PROFILE
STA. 343+00.00 TO STA. 348+00.00 S.R. 8

SUM-76/77/8-
8.24/9.74/0.00

124
202

P:\102329_SUM-76_77\Design\Geotechnical\Sheets\SoilProfile\102329_IP127.dgn Sheet 11/9/2020 9:08:56 AM kmihalcea



HORIZONTAL SCALE IN FEET
0 5 10 20

CALCULATED SM
CHECKED PAN

SOIL PROFILE
STA. 348+00.00 TO STA. 353+00.00 S.R. 8

SUM-76/77/8-8.24/9.74/0.00

125
202

P:\02329_SUM-76_77\Design\Geotechnical\Sheets\Soil Profile\02329_IPI28.dgn Sheet 11/9/2020 9:10:31 AM kminalcea

P-029-0-20

℄ CONST. RAMP T

RAMP T

51 52 53 54

N 90° 01' 38" W

Sta. 59+01.90

MATCH LINE STA. 353+00.00, SEE SHEET 125

℄ CONST. S.R. 8

S.R. 8 (SOUTHBOUND)

S.R. 8 (NORTHBOUND)

353 354 355 356 357

MATCH LINE STA. 358+00.00, SEE SHEET 127

POT Sta. 9+27.91

P-030-0-20

RAMP S

8 9 10 11 12

N 5° 09' 32" E

PT Sta. 9+27.91

℄ CONST. RAMP S

P-029-0-20
STA. 354+06
85' LT.
13" OF ASPHALT,
5" OF GRAVEL BASE

33	10
33	11
20	11
71	9
N_{60}	WC

EX. GROUND

P-030-0-20
STA. 355+21
111' RT.
13.25" OF ASPHALT,
4" OF GRAVEL BASE

28	8
29	10
50/5"	6 IR
50/5"	6
N_{60}	WC

1070 1060 1050 1040 1030 1020 1010 1000

353+00 354+00 355+00 356+00 357+00 358+00

HORIZONTAL SCALE IN FEET
0 5 10 20

CALCULATED SM
CHECKED PAN

SOIL PROFILE
STA. 353+00.00 TO STA. 358+00.00 S.R. 8

SUM-76/77/8-
8.24/9.74/0.00

126
202

P:\102329_SUM-76_77\Design\Geotechnical\Sheets\Soil Profile\102329_IP129.dgn Sheet 11/9/2020 9:12:06 AM kminalcea

P-032-0-20

SUM-8-0117

MATCH LINE STA. 358+00.00, SEE SHEET 126

℄ CONST. S.R. 8

S.R. 8 (SOUTHBOUND)

S.R. 8 (NORTHBOUND)

CARROLL ST.

PC Sta. 13+09.46

PC Sta. 360+74.64

PT Sta. 15+16.07

POT Sta. 16+10.11

POT Sta. 27+44.84

P-033-0-20

N 10° 02' 22" W

358 359 360 361 362

14 15 16

24 25 26 27

P-033-0-20
STA. 360+37
139' RT.
9" OF CONCRETE,
7" OF GRAVEL BASE

P-032-0-20
STA. 360+05
53' LT.
12.75" OF ASPHALT,
4" OF GRAVEL BASE

	63	8	
	15	16	
	27	10	
	22	16	
99	9		
6/50/2"	12	N_{60}	WC
50/5"	9		
50/2"	8	TR	
N_{60}	WC		

EX. GROUND

1070 1060 1050 1040 1030 1020 1010 1000

358+00 359+00 360+00 361+00 362+00 363+00

N

HORIZONTAL SCALE IN FEET
0 5 10 20

CALCULATED SM
CHECKED PAN

SOIL PROFILE
STA. 358+00.00 TO END STA. 363+00.00 S.R. 8

SUM-76/77/8-
8.24/9.74/0.00

127
202

P:\102329_SUM-76_77\Design\Geotechnical\Sheets\Soil Profile\102329_IPI30.dgn Sheet 11/9/2020 9:13:46 AM kmihalcea

P:\102329_SUM-76_77\Design\Geotechnical\Sheets\SoilProfile\102329_IP201.dgn Sheet 11/9/2020 9:14:03 AM kmihalcea

HORIZONTAL SCALE IN FEET
0 5 10 20

DRAWN SM
CHECKED PAN

SOIL PROFILE

STA. 507+00.00 TO STA. 512+60.00 I.R. 77 NB

SUM-76/77/8-8.24/9.74/0.00

128
202

P:\102329_SUM-76.77\Design\Geotechnical\Sheets\Soil Profile\102329_IP202.dgn Sheet 11/9/2020 9:44:07 AM kmihalcea

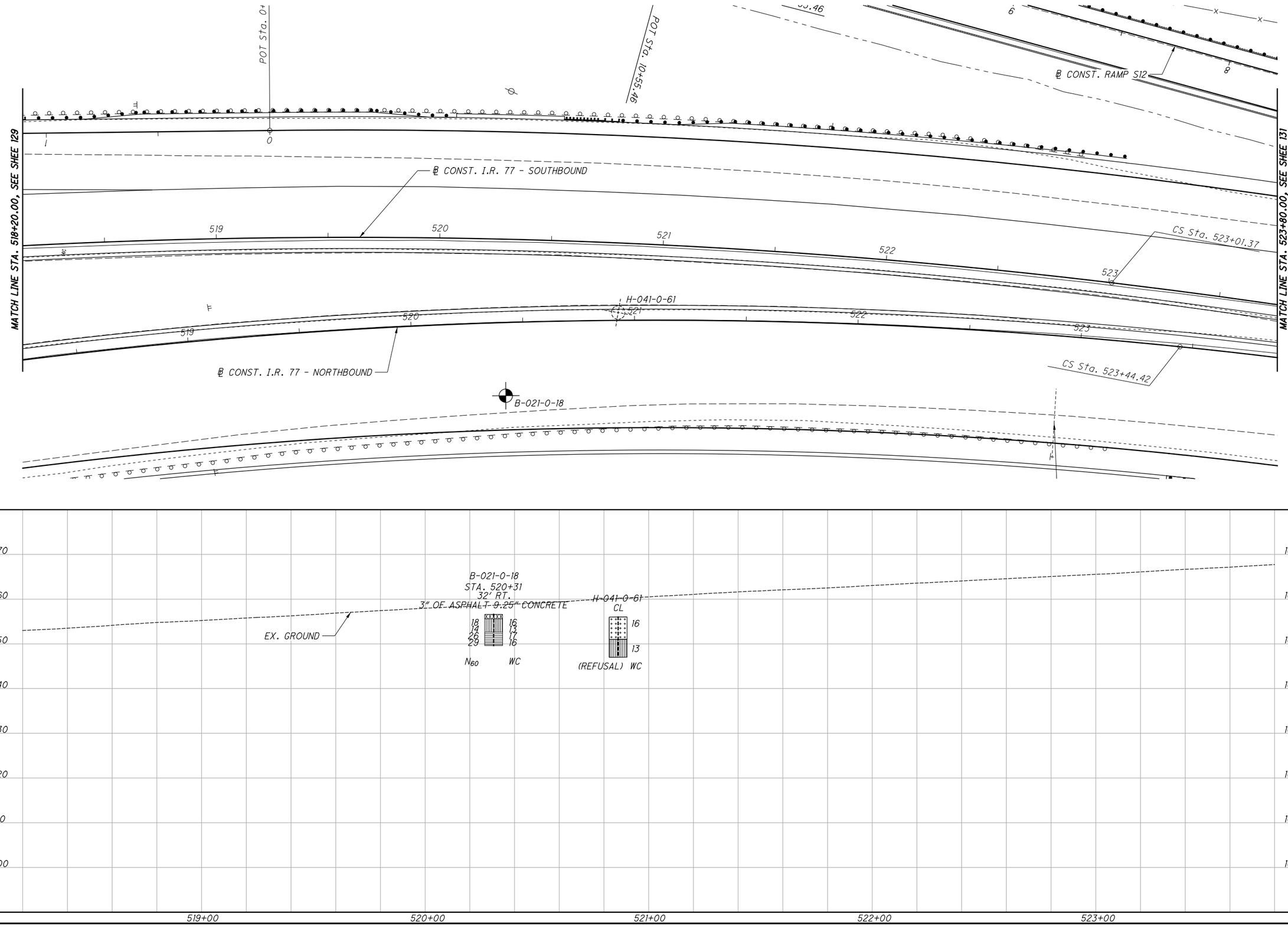
HORIZONTAL SCALE IN FEET
0 5 10 20

DRAWN SM
CHECKED PAN

SOIL PROFILE
STA. 512+60.00 TO STA. 518+20.00 I.R. 77 NB

SUM-76/77/8-8.24/9.74/0.00

129
202



P:\102329_SUM-76_77\Design\Geotechnical\Sheets\Soil Profile\102329_IP203.dgn Sheet 11/9/2020 9:44:33 AM kmihalcea

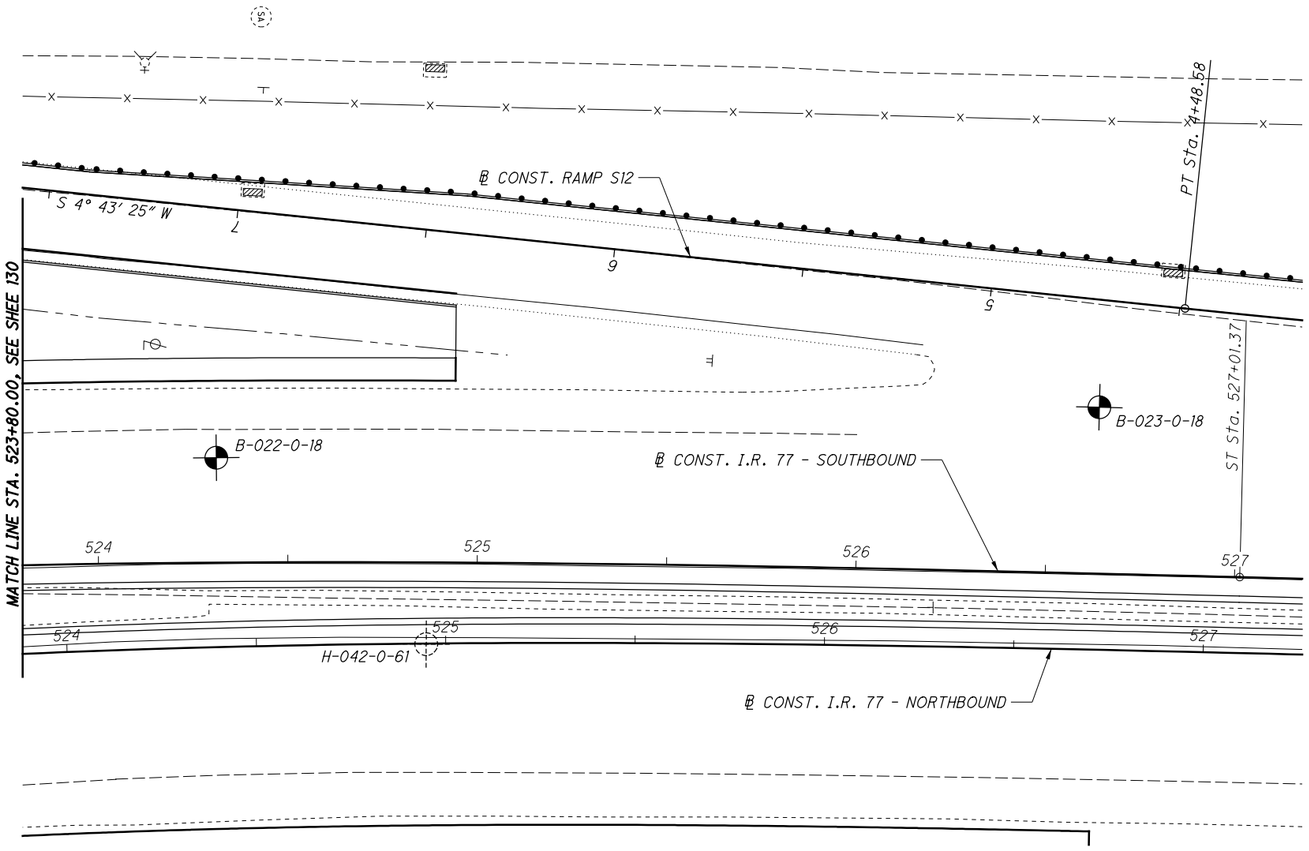
HORIZONTAL SCALE IN FEET
0 5 10 20

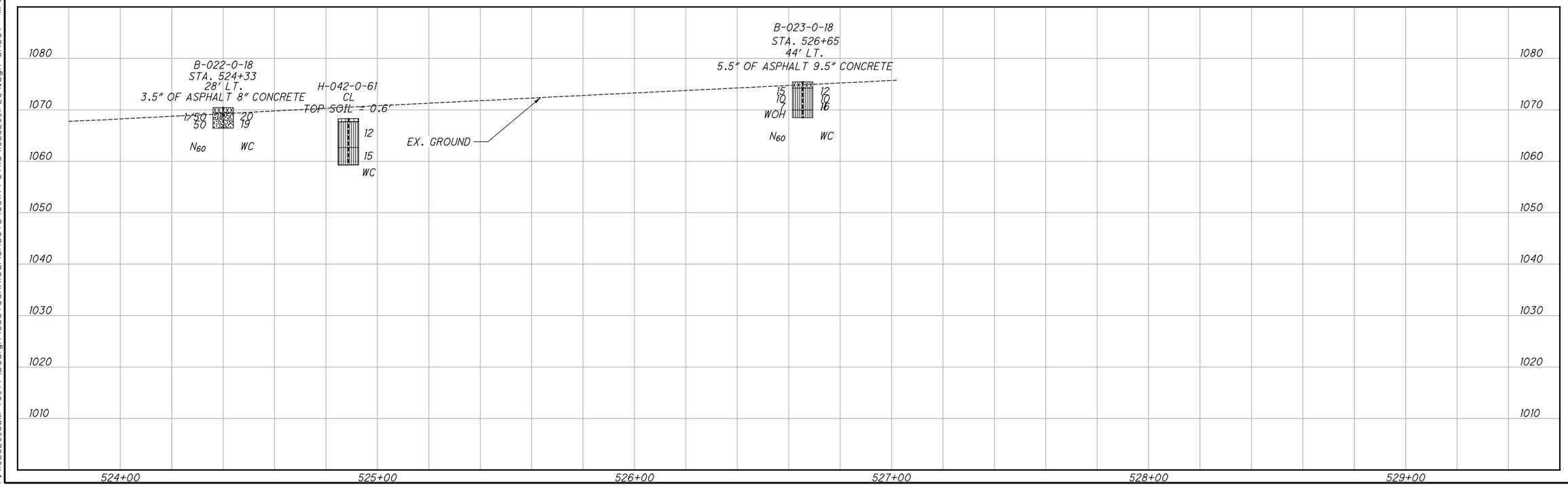
DRAWN SM CHECKED PAN

SOIL PROFILE
STA. 518+20.00 TO STA. 523+80.00 I.R. 77 NB

SUM-76/77/8-
8.24/9.74/0.00

130
202





HORIZONTAL SCALE IN FEET
0 5 10 20

DRAWN SM
CHECKED PAN

SOIL PROFILE

STA. 523+80.00 TO STA. 527+00.00 I.R. 77 NB

SUM-76/77/8-8.24/9.74/0.00

131
202

P:\102329_SUM-76_77\Design\Geotechnical\Sheets\SoilProfile\102329_IP204.dgn Sheet 11/9/2020 9:14:46 AM kmihalcea

N

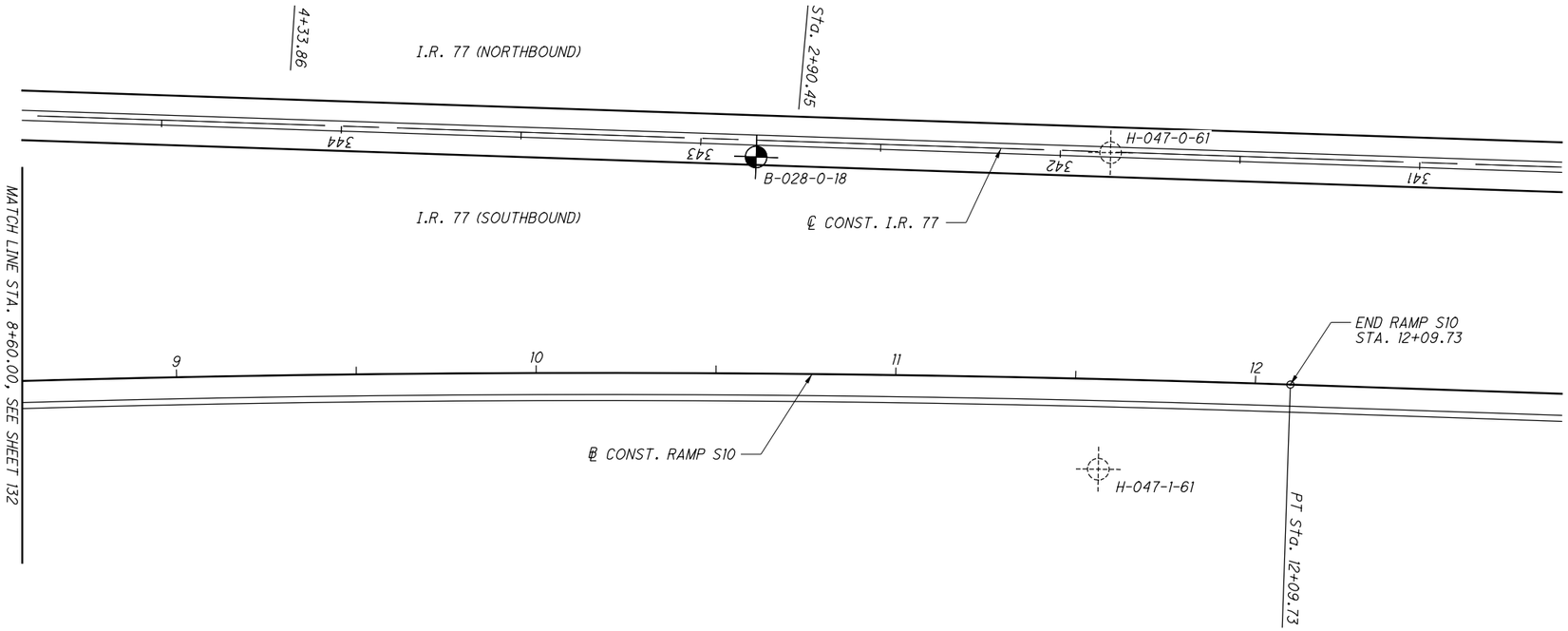
HORIZONTAL SCALE IN FEET
0 5 10 20

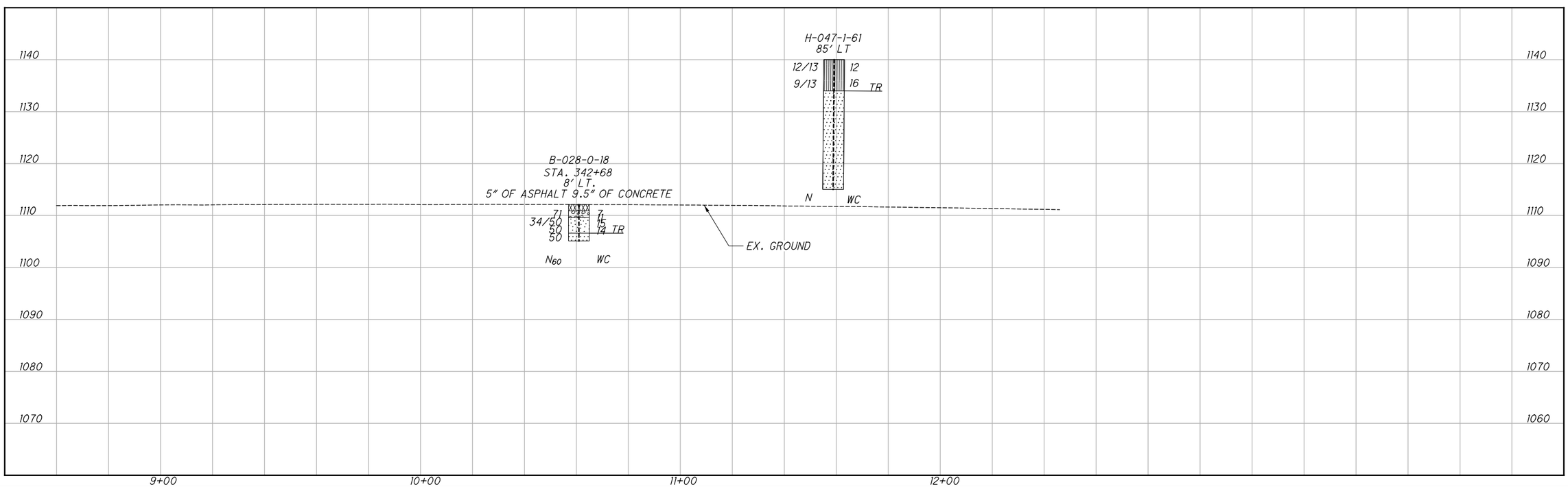
DRAWN SM
CHECKED PAN

SOIL PROFILE
BEGIN STA. 3+00.00 TO STA. 8+60.00 RAMP S10

SUM-76/77/8-
8.24/9.74/0.00

132
202





HORIZONTAL SCALE IN FEET
0 5 10 20

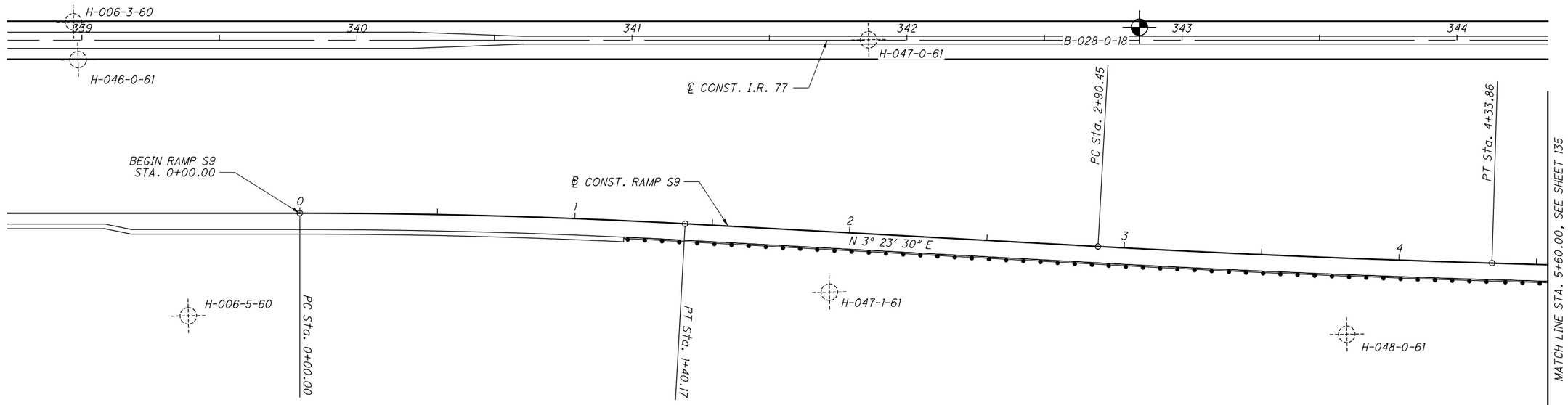
DRAWN SM
CHECKED PAN

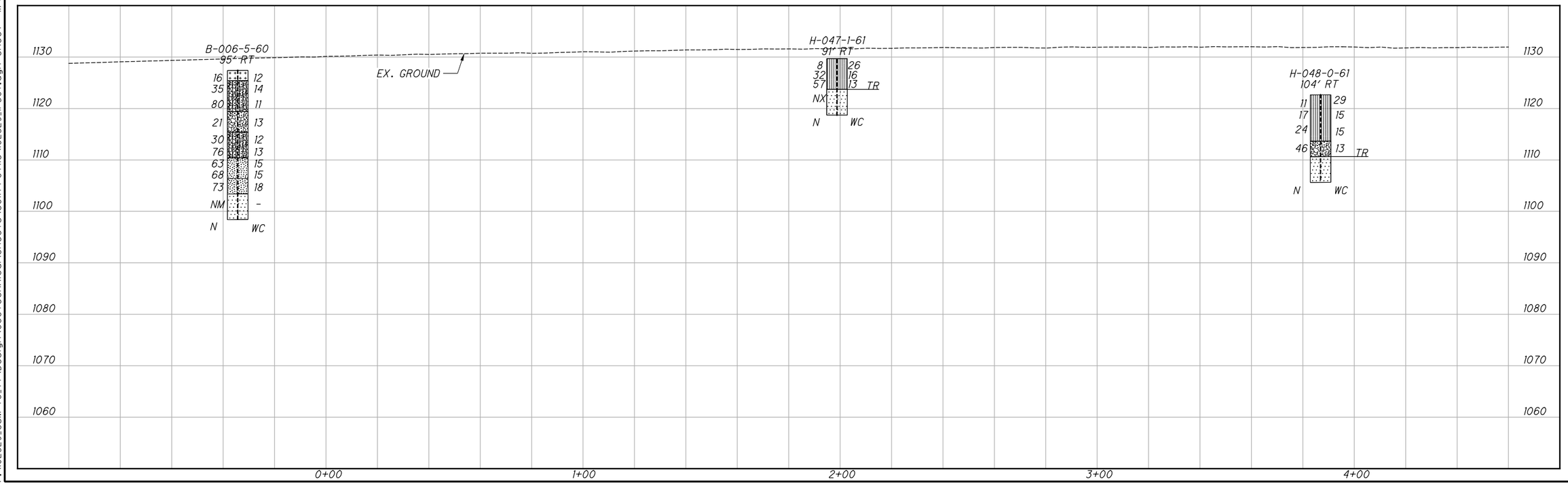
SOIL PROFILE
STA. 8+60.00 TO END STA. 12+09.73 RAMP S10

SUM-76/77/8-8.24/9.74/0.00

133
202

P:\102329_SUM-76_77\Design\Geotechnical\Sheets\Soil Profile\102329_IP506.dgn Sheet 11/9/2020 9:15:45 AM kmihalcea





P:\102329_SUM-76_77\Design\Geotechnical\Sheets\SoilProfile\102329_IP507.dgn Sheet 11/9/2020 9:16:17 AM kmihalcea

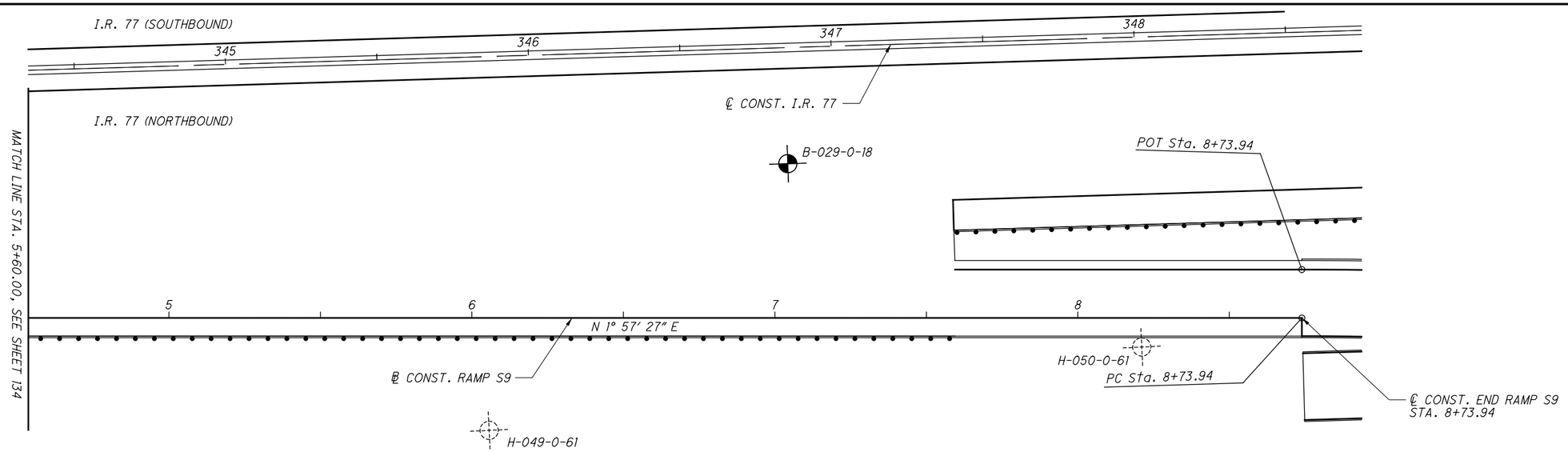
HORIZONTAL SCALE IN FEET
0 5 10 20

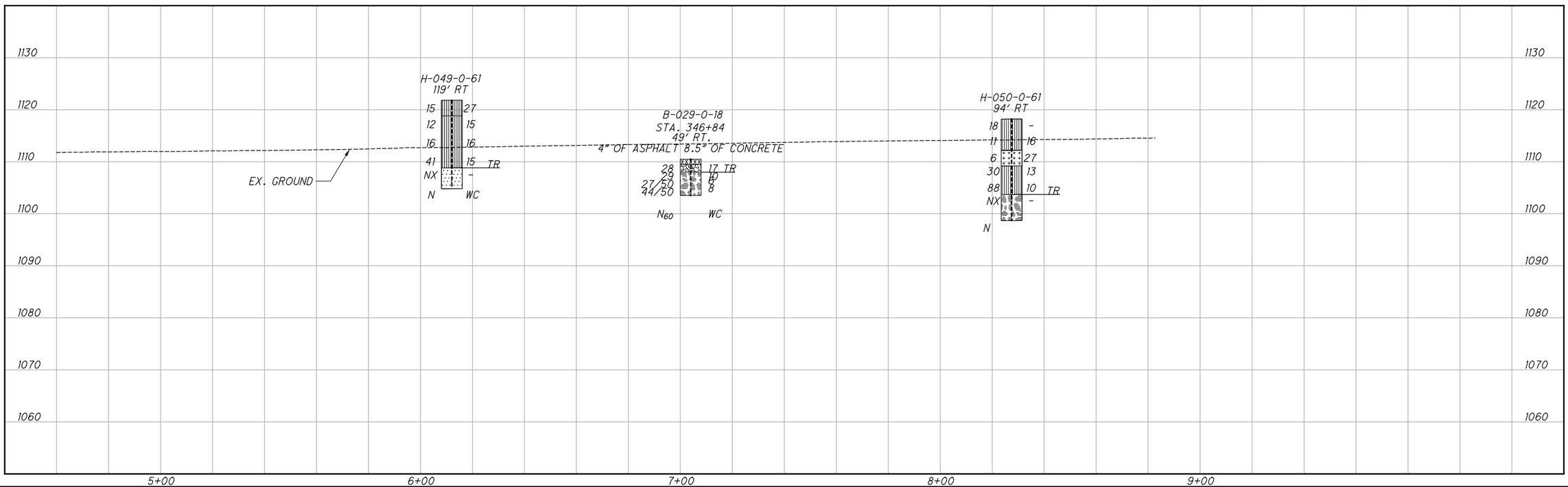
DRAWN SM
CHECKED PAN

SOIL PROFILE
BEGIN STA. 0+00.00 TO STA. 5+60.00 RAMP S9

SUM-76/77/8-8.24/9.74/0.00

134
202





HORIZONTAL SCALE IN FEET
0 5 10 20

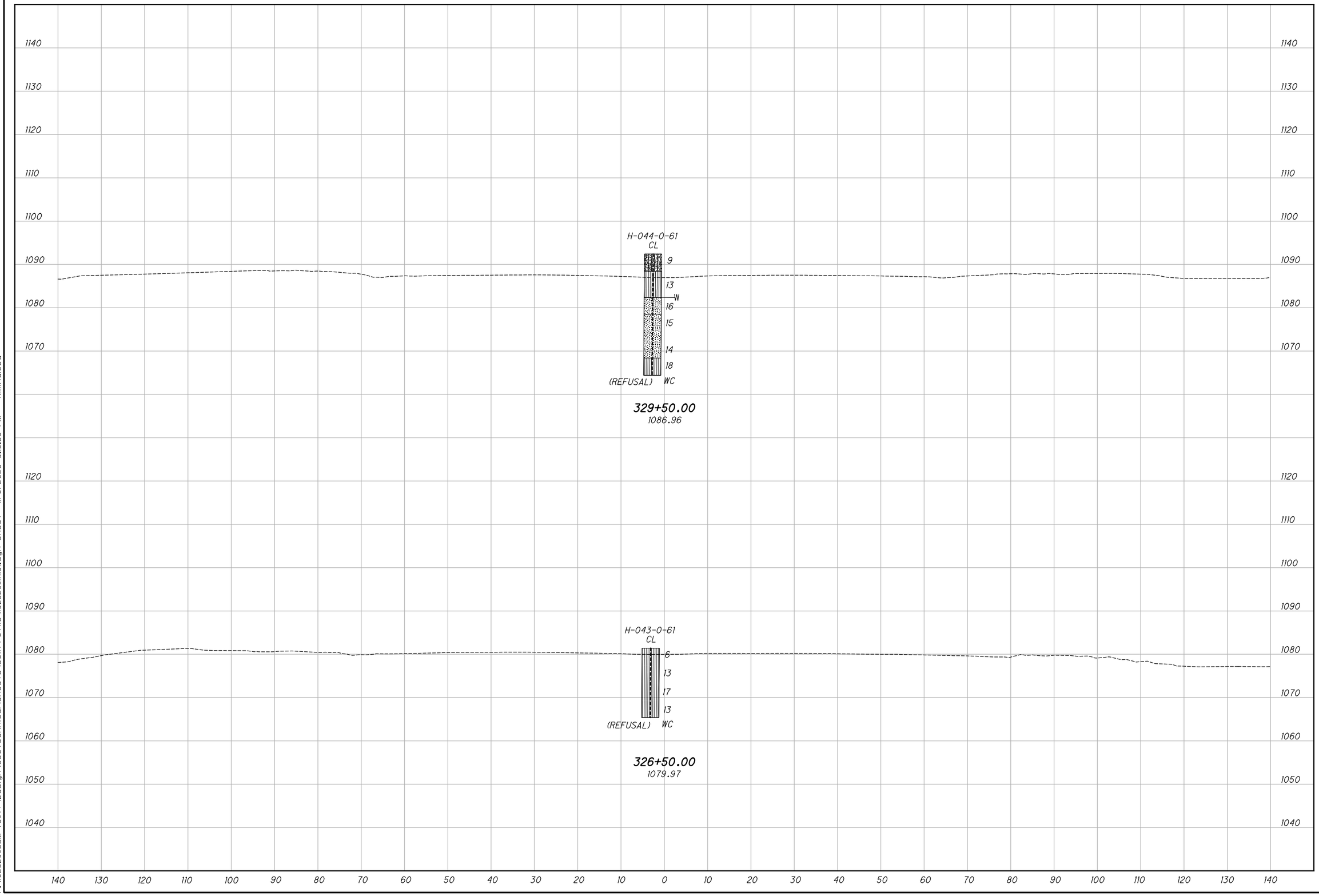
DRAWN SM
CHECKED PAN

SOIL PROFILE
STA. 5+60.00 TO END STA. 9+82.69 RAMP S9

SUM-76/77/8-8.24/9.74/0.00

0 / 0

135
202



HORIZONTAL SCALE IN FEET
0 5 10 20

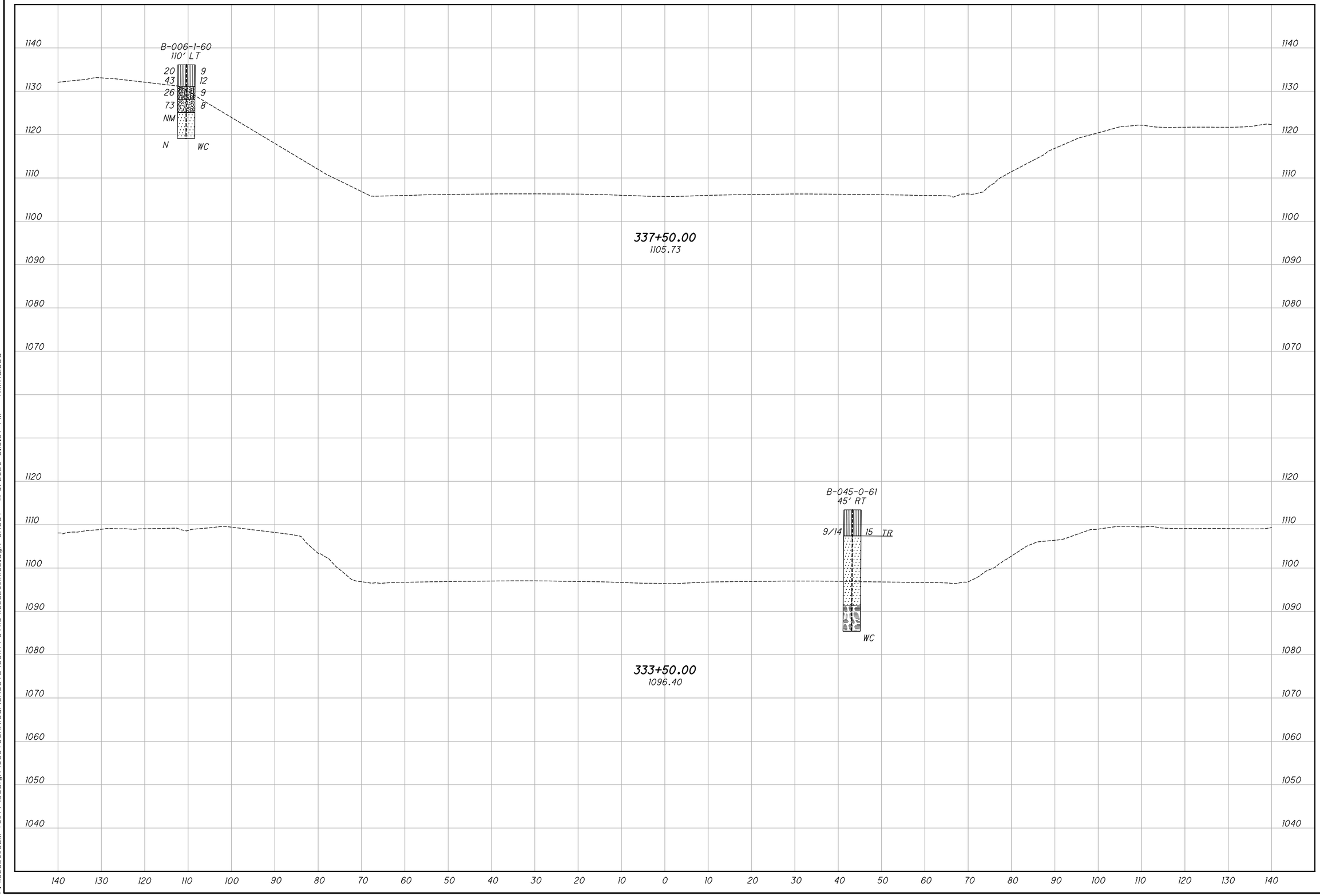
DRAWN SM
CHECKED PAN

SOIL PROFILE
SECTIONS 326+50.00 & 329+50.00
I.R. 77 CROSS SECTIONS

SUM-76/77/8-
8.24/9.74/0.00

136
202

P:\102329_SUM-76_77\Design\Geotechnical\Sheets\Soil Profile\102329_IX101.dgn Sheet 11/6/2020 5:18:36 PM kmihalcea



HORIZONTAL SCALE IN FEET
0 5 10 20

DRAWN SM
CHECKED PAN

SOIL PROFILE
SECTIONS 333+50.00 & 337+50.00

SUM-76/77/8-8.24/9.74/0.00

I.R. 77 CROSS SECTIONS

137
202

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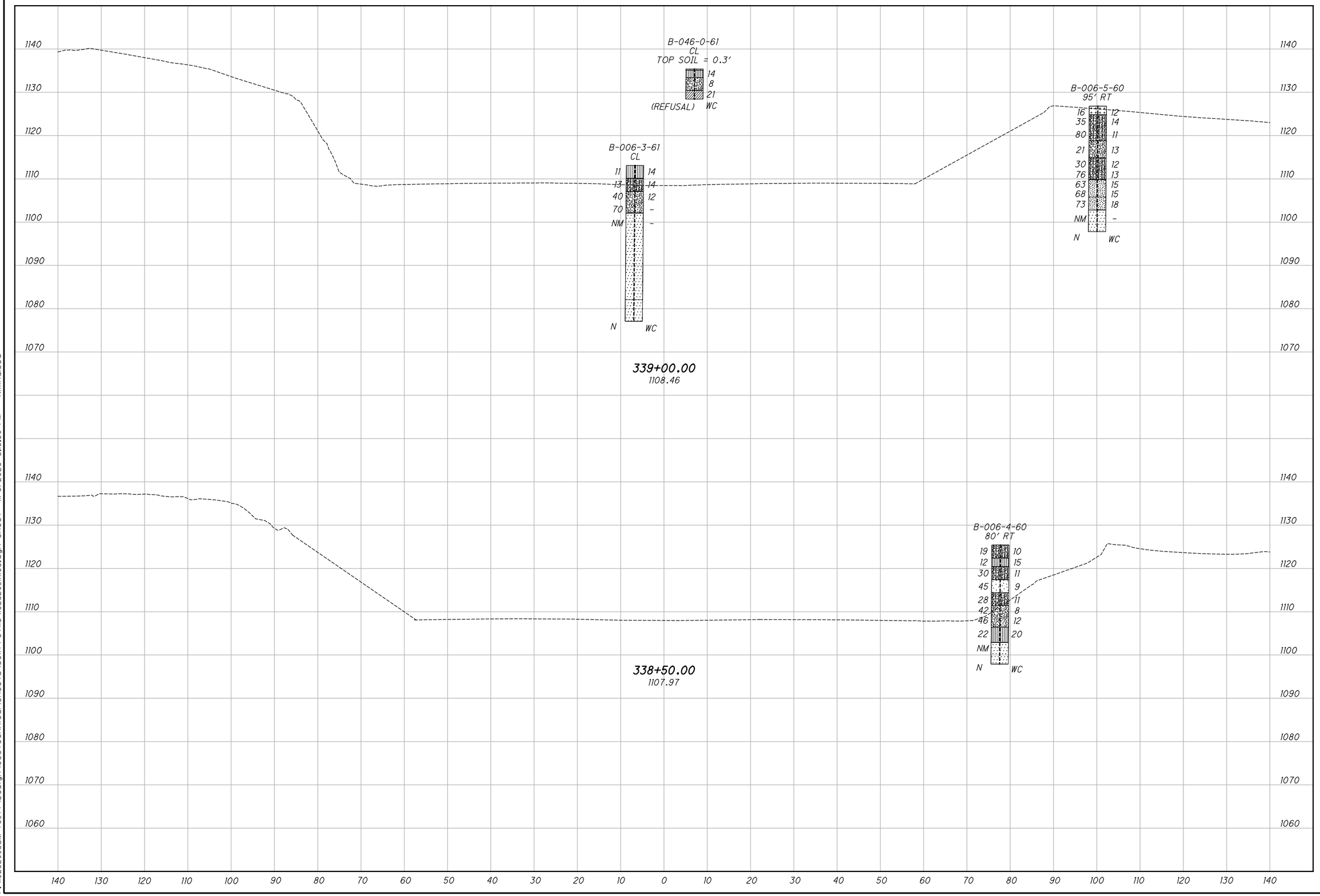


HORIZONTAL SCALE IN FEET
0 5 10 20

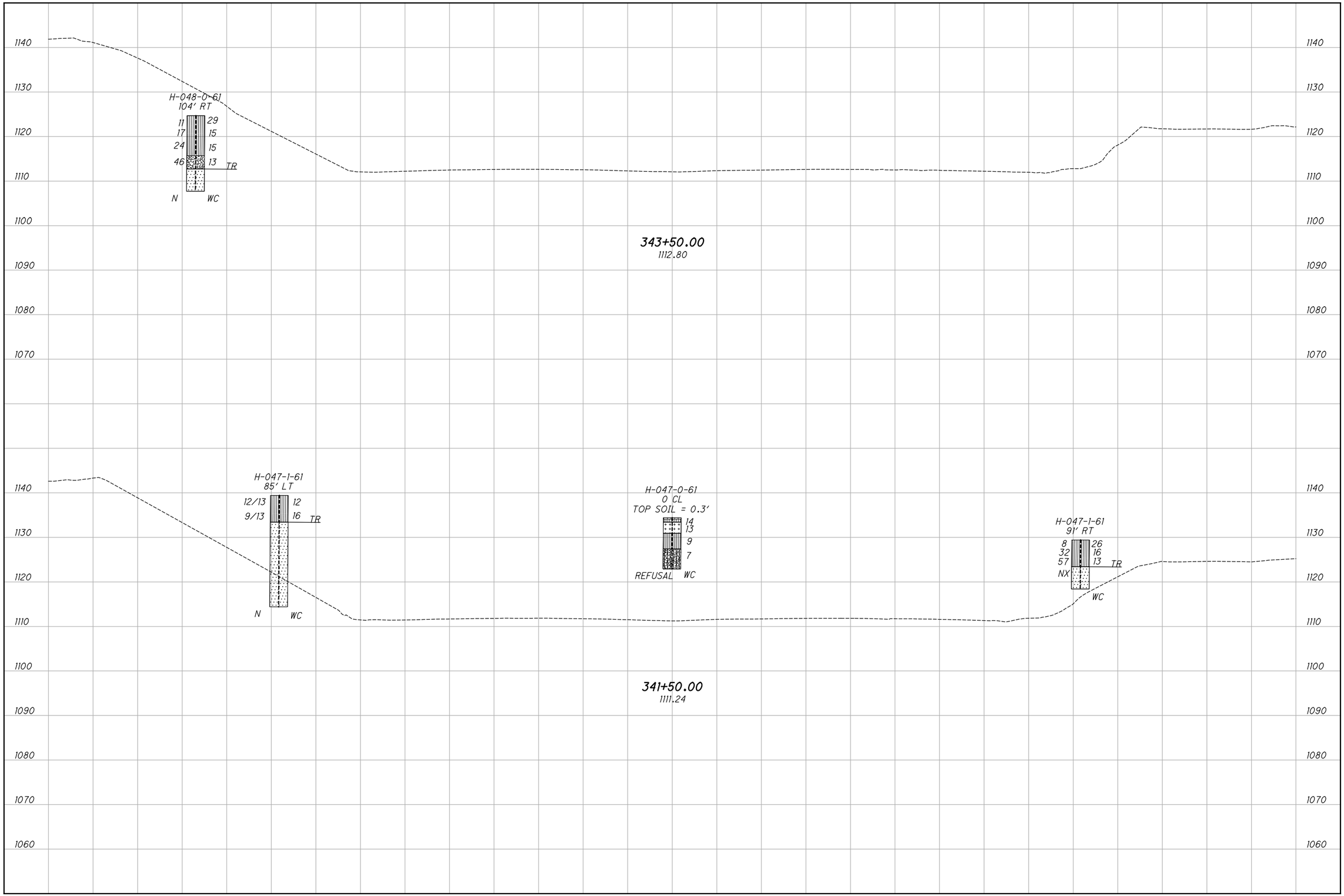
DRAWN SM
CHECKED PAN

SOIL PROFILE
SECTIONS 338+50.00 & 339+00.00

SUM-76/77/8-8.24/9.74/0.00

I.R. 77 CROSS SECTIONS

P:\02329_SUM-76_77\Design\Geotechnical\Sheets\SoilProfile\02329_IX103.dgn Sheet 11/6/2020 5:18:39 PM kmihalcea



HORIZONTAL SCALE IN FEET
0 5 10 20

DRAWN SM
CHECKED PAN

SOIL PROFILE
SECTIONS 341+50.00 & 343+50.00

SUM-76/77/8-
8.24/9.74/0.00

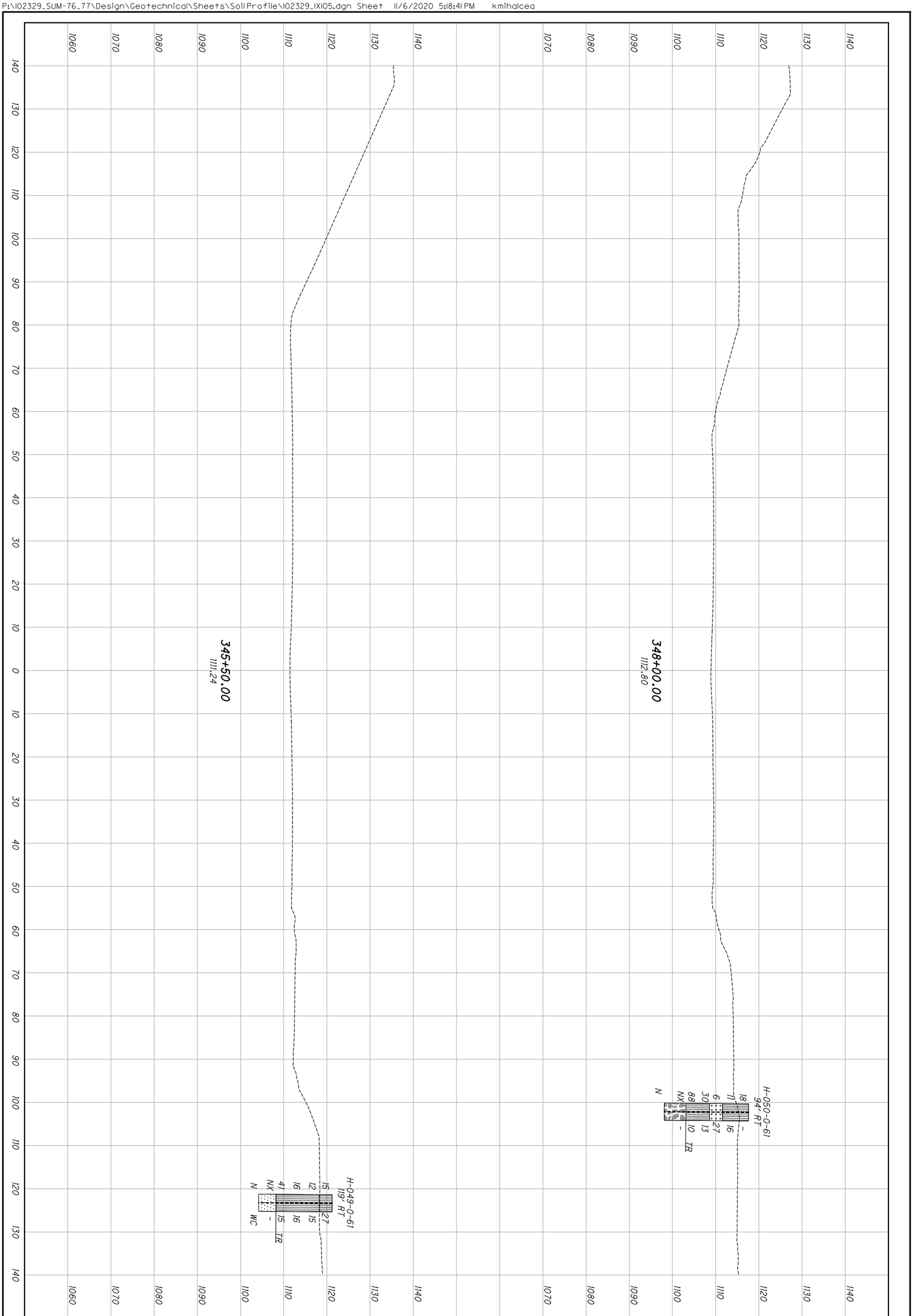
I.R. 77 CROSS SEC

7

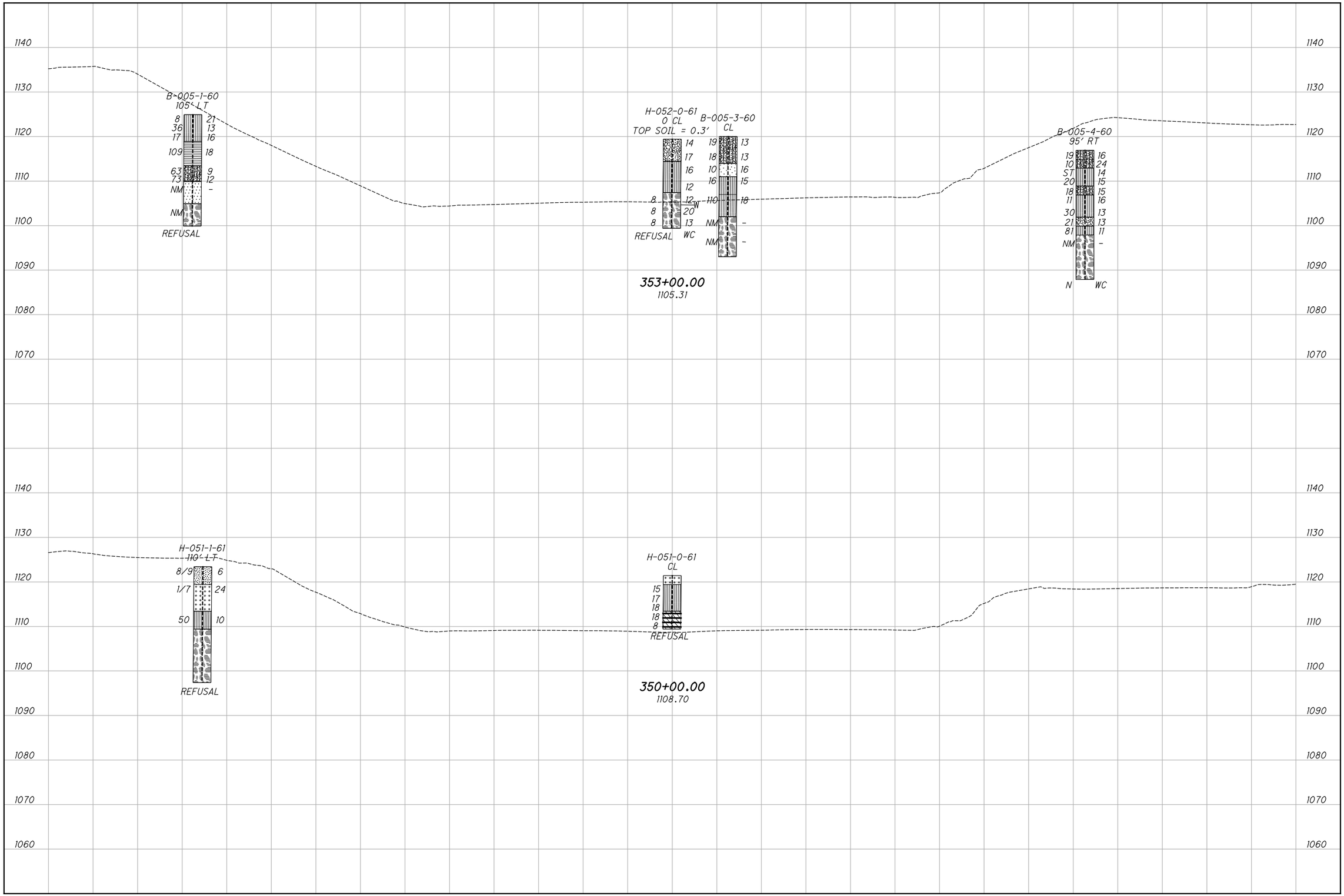
139
202

P:\02329_SUM-76_77\Design\Geotechnical\Sheets\SoilProfile\02329_IX104.dgn Sheet 11/6/2020 5:18:40 PM kmihalcea

P:\102329_SUM-76_77\Design\Geotechnical\Sheets\Soil Profile\102329_IX105.dgn Sheet 11/6/2020 5:18:41 PM kmihalcea



140 / 202	SUM-76/77/8- 8.24/9.74/0.00	SOIL PROFILE I.R. 77 CROSS SECTIONS 345+50.00 & 348+00.00	DRAWN SM CHECKED PAN	0 5 10 20 HORIZONTAL SCALE IN FEET



HORIZONTAL SCALE IN FEET
0 5 10 20

DRAWN SM
CHECKED PAN

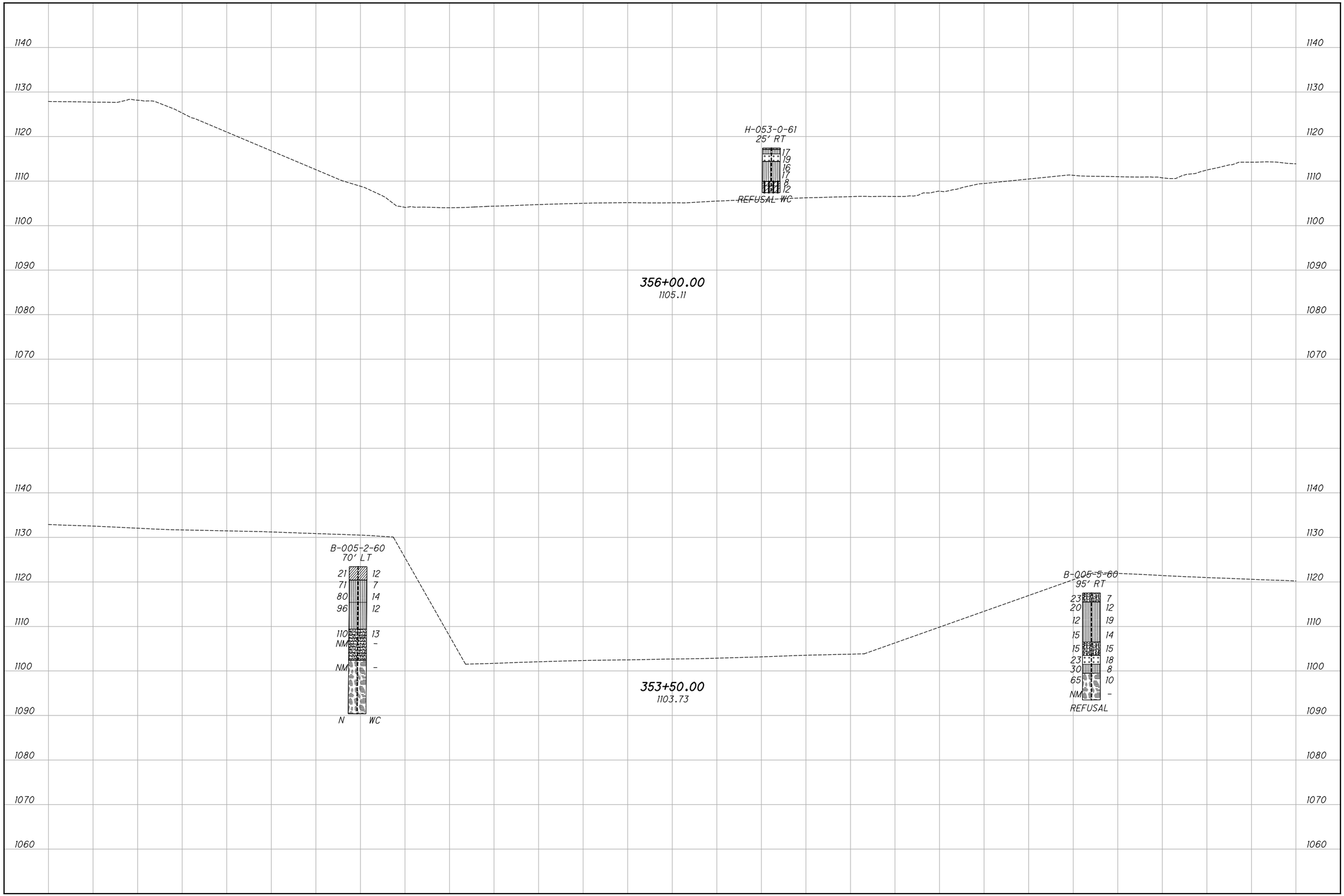
SOIL PROFILE
SECTIONS 350+00.00 & 353+00.00

SUM-76/77/8-
8.24/9.74/0.00

I.R. 77 CROSS SECTIONS

141
202

P:\102329_SUM-76_77\Design\Geotechnical\Sheets\Soil Profile\102329_IX106.dgn Sheet 11/6/2020 5:18:43 PM kmihalcea



HORIZONTAL SCALE IN FEET
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DRAWN SM
CHECKED PAN

SOIL PROFILE
SECTIONS 353+50.00 & 356+00.00

SUM-76/77/8-
8.24/9.74/0.00

I.R. 77 CROSS SECTIONS

142
202

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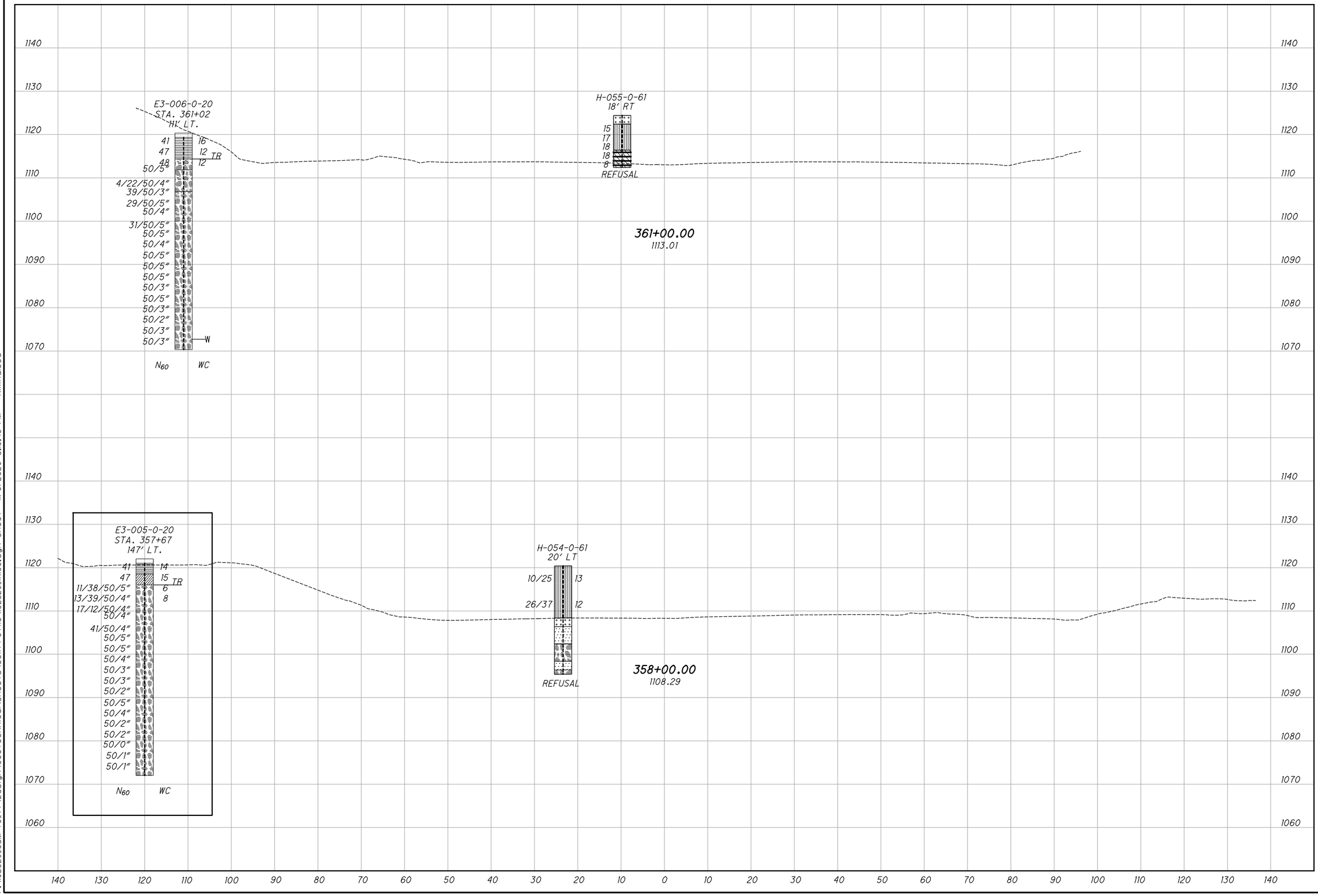

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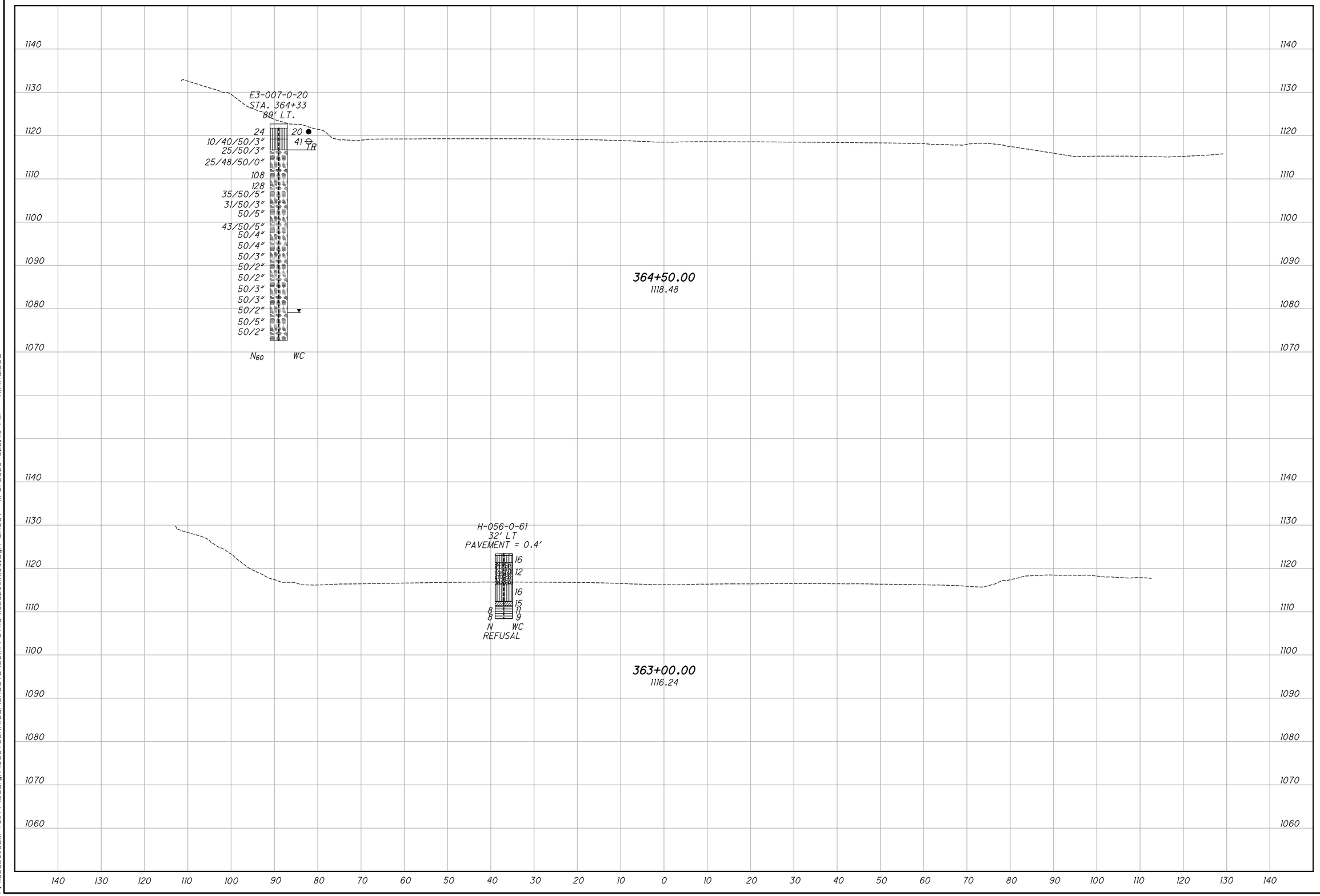
0 5 10 20
HORIZONTAL SCALE IN FEET

DRAWN SM
CHECKED PAN

SOIL PROFILE
SECTIONS 358+00.00 & 361+00.00

SUM-76/77/8-8.24/9.74/0.00

I.R. 77 CROSS SECTIONS



HORIZONTAL SCALE IN FEET
0 5 10 20

DRAWN SM
CHECKED PAN

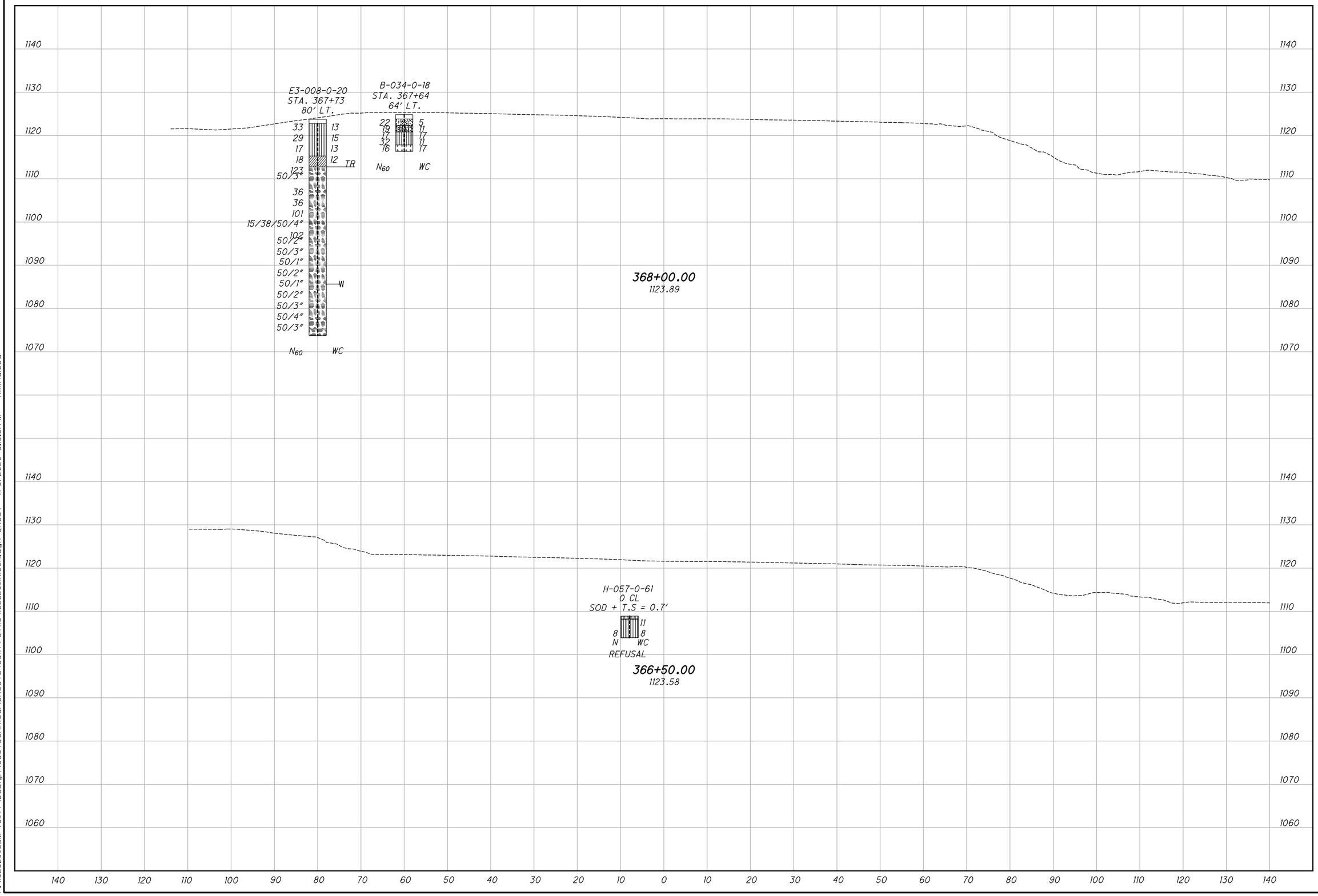
SOIL PROFILE
SECTIONS 363+00.00 & 364+50.00

SUM-76/77/8-8.24/9.74/0.00

I.R. 77 CROSS SECTIONS

144
202

P:\02329_SUM-76_77\Design\Geotechnical\Sheets\SoilProfile\02329_IX109.dgn Sheet 11/6/2020 5:18:49 PM kmihalcea

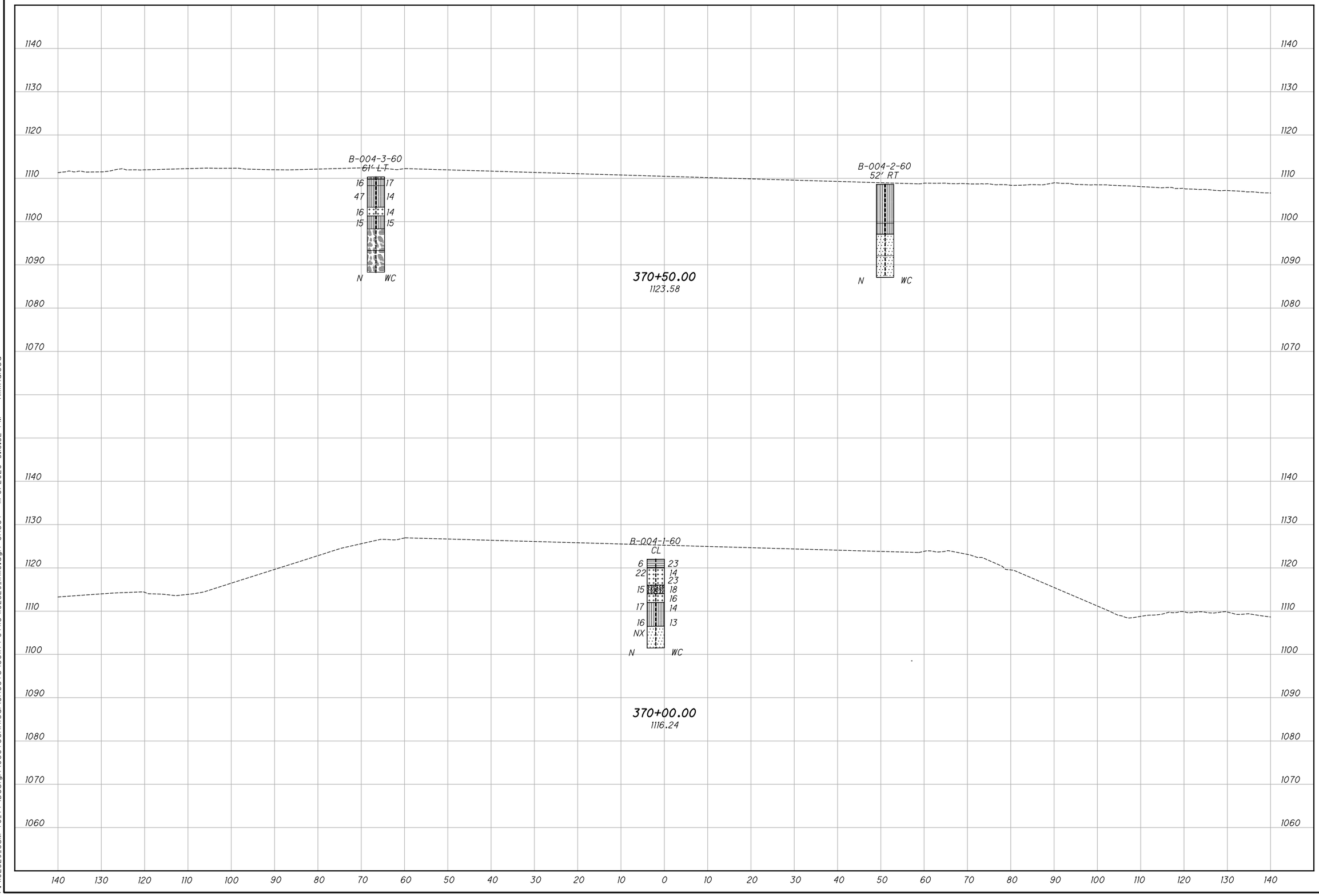


HORIZONTAL SCALE IN FEET
0 5 10 20

DRAWN SM
CHECKED PAN

SOIL PROFILE
CROSS SECTIONS 366+50.00 & 368+00.00
I.R. 77

SUM-76/77/8-8.24/9.74/0.00



HORIZONTAL SCALE IN FEET
0 5 10 20

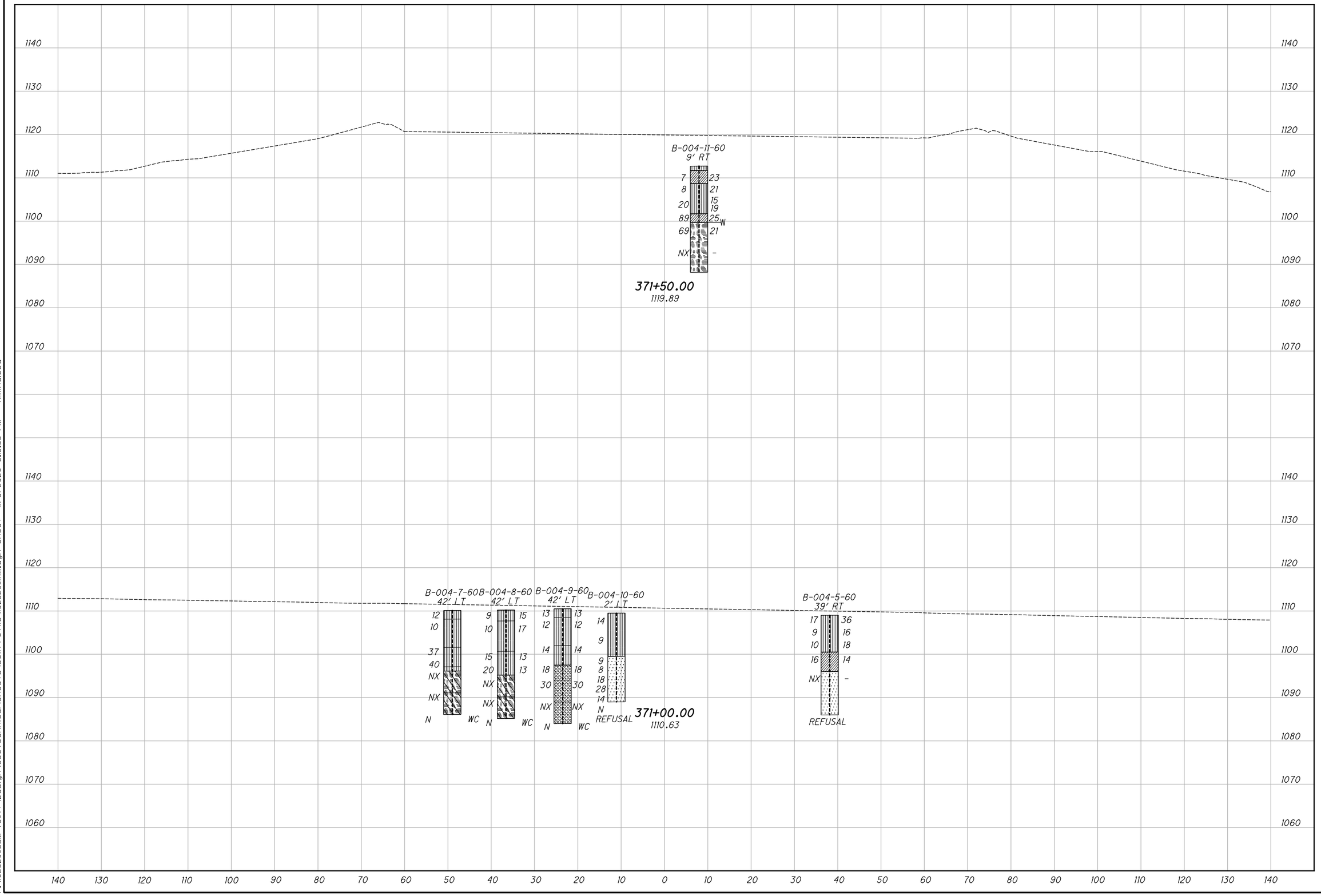
DRAWN SM
CHECKED PAN

SOIL PROFILE
CROSS SECTIONS 370+00.00 & 370+50.00
I.R. 77

SUM-76/77/8-8.24/9.74/0.00

146
202

P:\102329_SUM-76_77\Design\Geotechnical\Sheets\Soil Profile\102329_KX110.dgn Sheet 11/6/2020 5:18:52 PM kmihalcea



HORIZONTAL SCALE IN FEET
0 5 10 20

DRAWN SM
CHECKED PAN

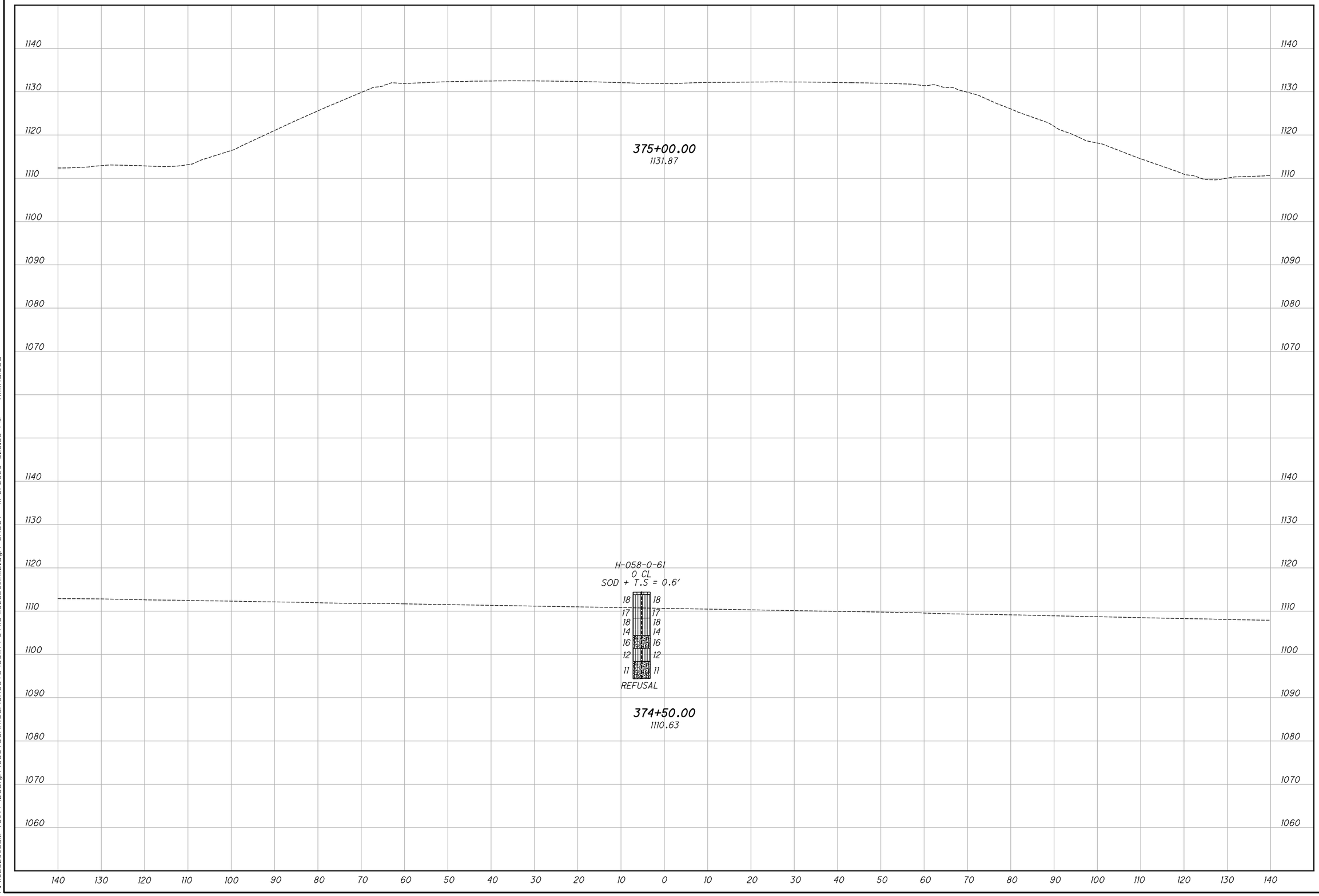
SOIL PROFILE
CROSS SECTIONS 371+00.00 & 371+50.00

SUM-76/77/8-8.24/9.74/0.00

I.R. 77

147
202

P:\102329_SUM-76_77\Design\Geotechnical\Sheets\Soil Profile\102329_IXIII.dgn Sheet II/6/2020 5:18:53 PM kminalcea



HORIZONTAL SCALE IN FEET
0 5 10 20

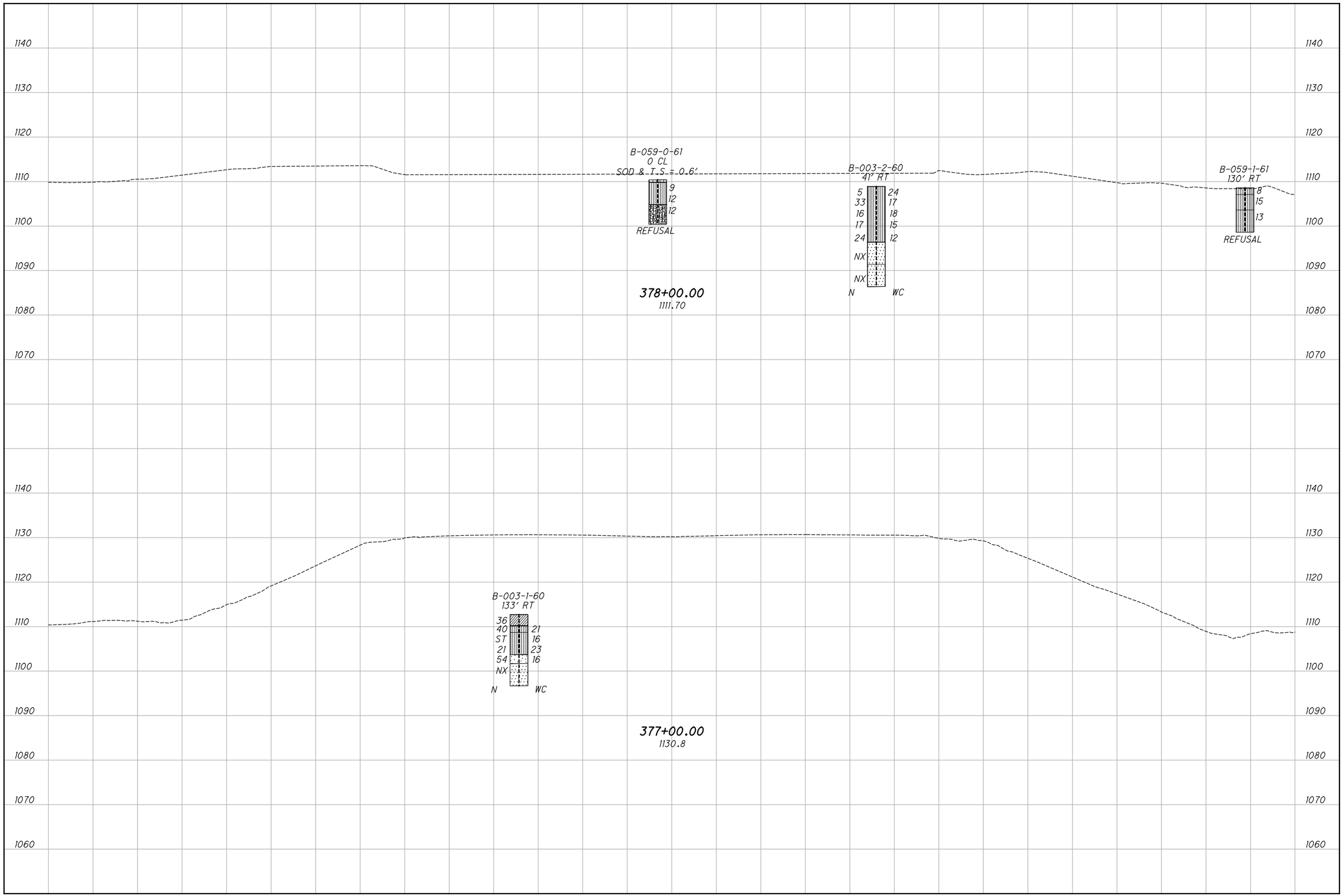
DRAWN SM
CHECKED PAN

SOIL PROFILE
CROSS SECTIONS 374+50.00 & 375+00.00
I.R. 77

SUM-76/77/8-8.24/9.74/0.00

148
202

P:\102329_SUM-76_77\Design\Geotechnical\Sheets\Soil Profile\102329_KII2.dgn Sheet 11/6/2020 5:18:55 PM kmihalcea



HORIZONTAL SCALE IN FEET
0 5 10 20

DRAWN SM
CHECKED PAN

SOIL PROFILE
CROSS SECTIONS 377+00.00 & 378+00.00
I.R. 77

SUM-76/77/8-8.24/9.74/0.00

149
202

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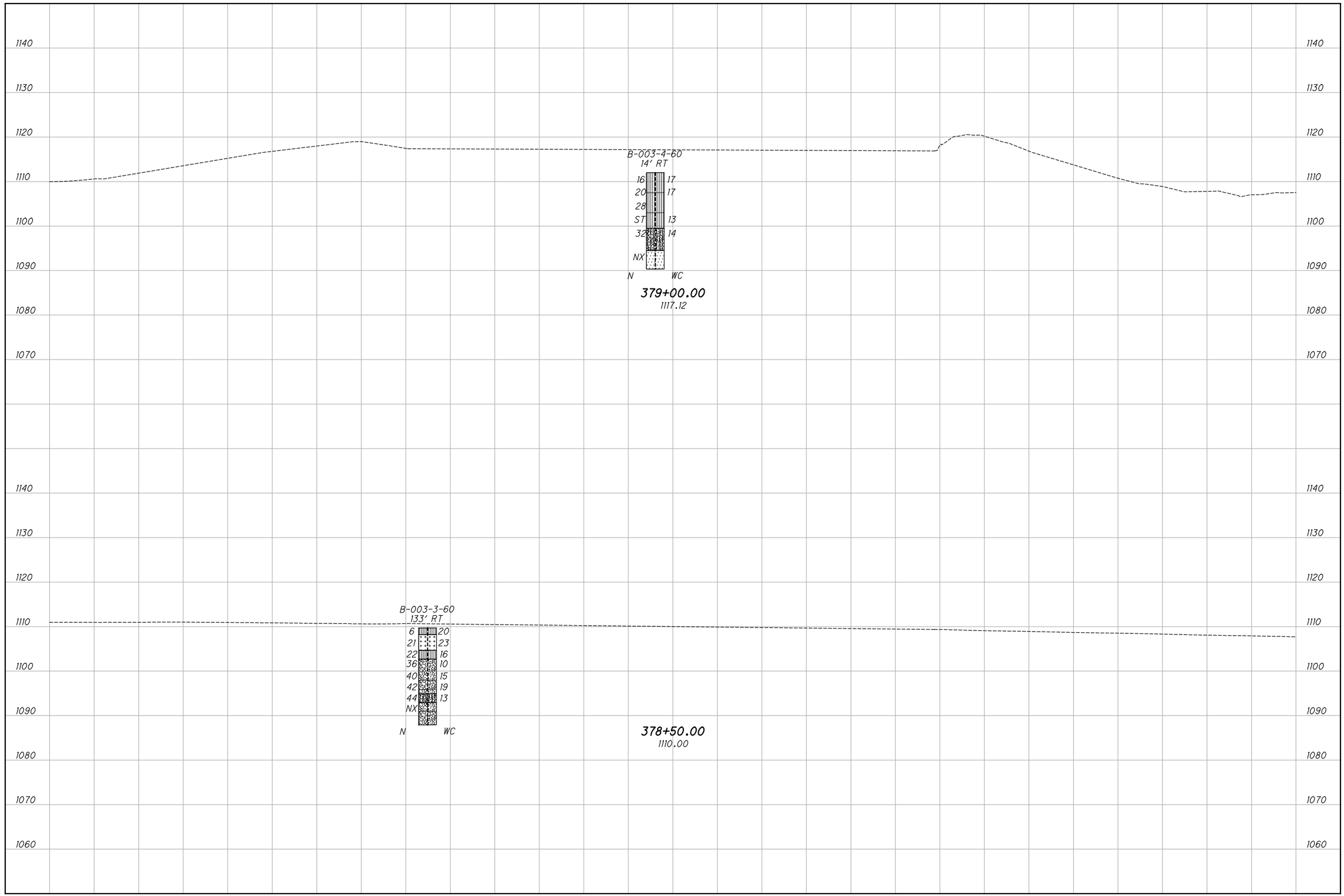

HORIZONTAL SCALE IN FEET
0 5 10 20

DRAWN SM
CHECKED PAN

SOIL PROFILE
I.R. 77 CROSS SECTIONS 378+50.00 & 379+00.00

SUM-76/77/8-
8.24/9.74/0.00

150
202

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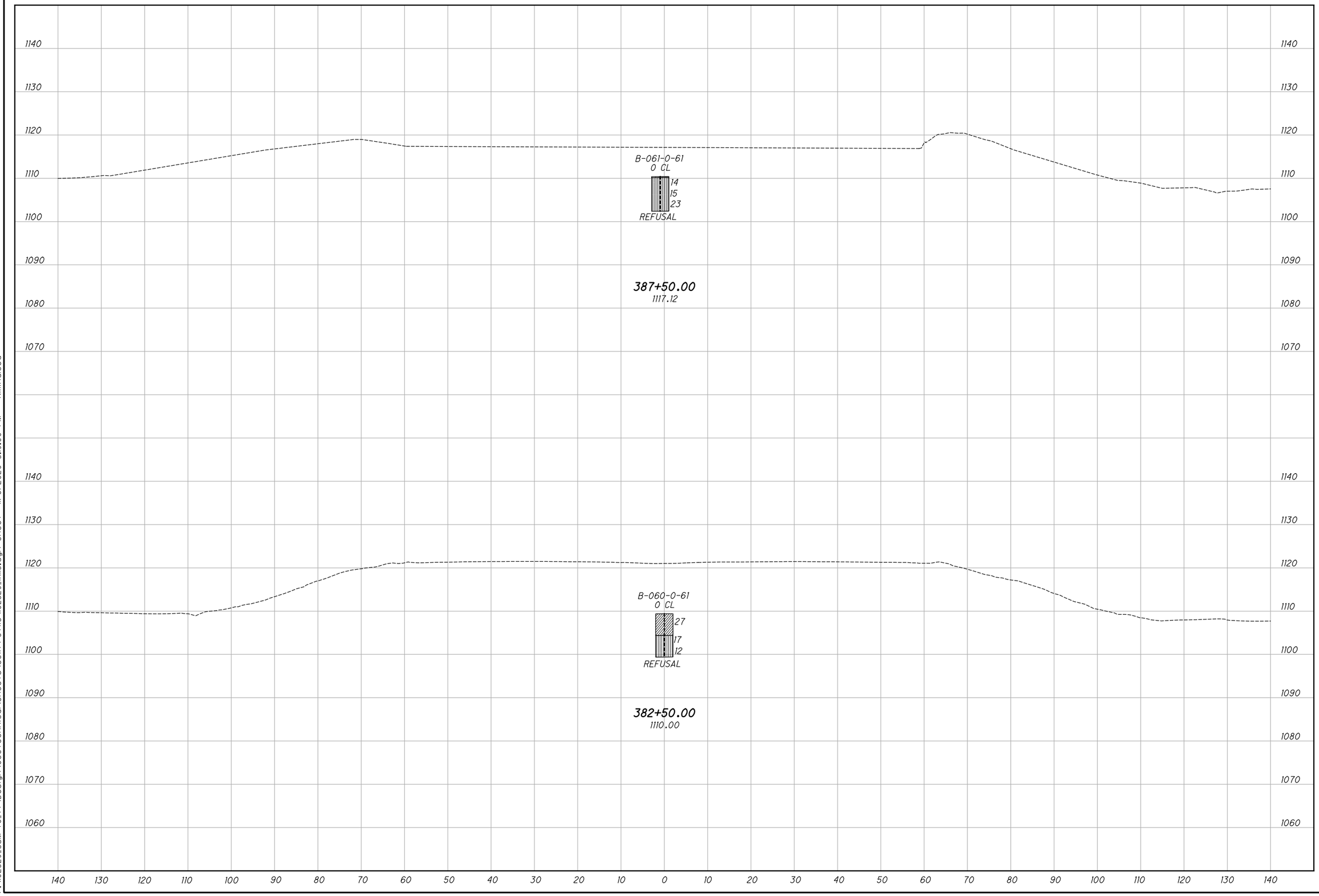


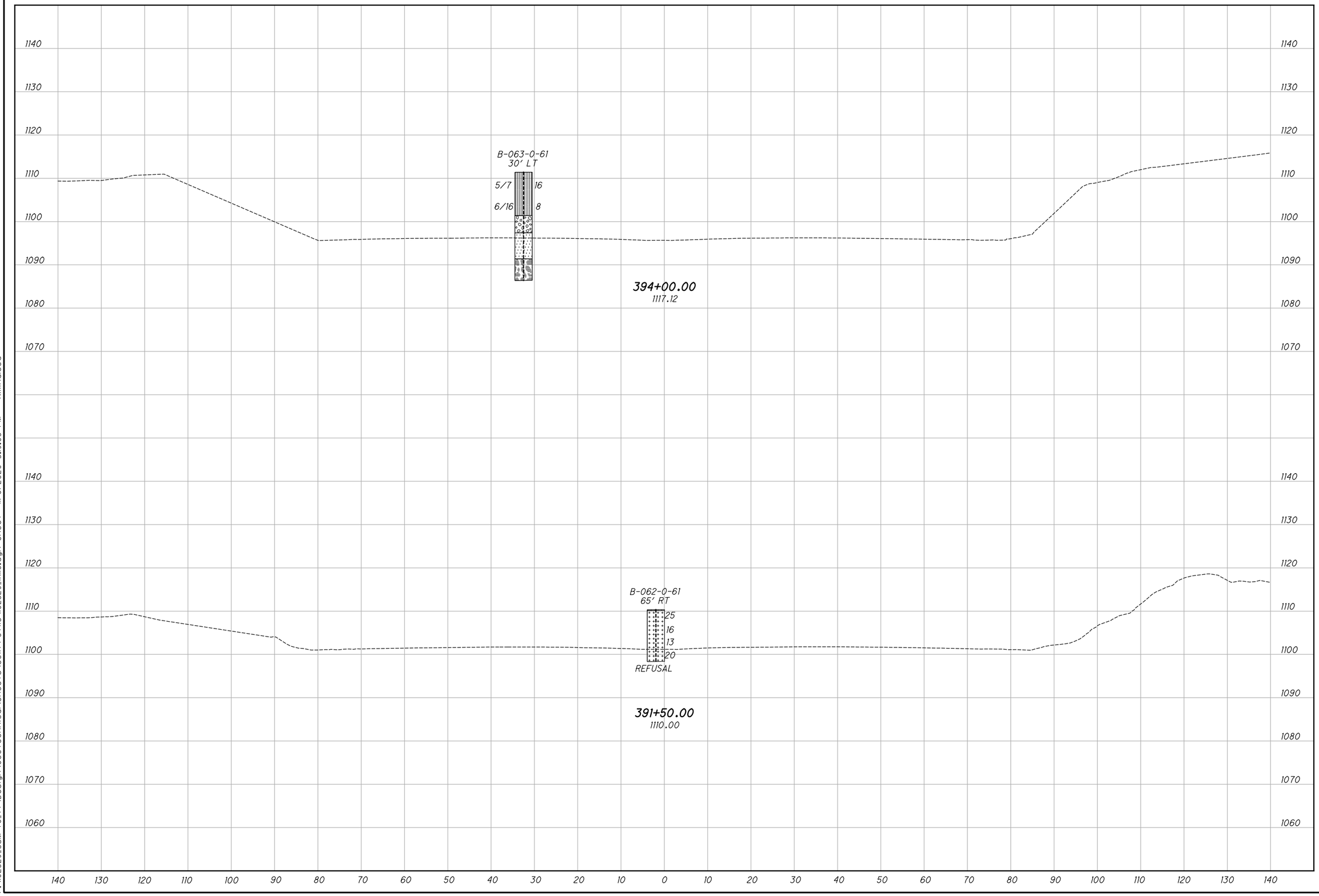
HORIZONTAL SCALE IN FEET
0 5 10 20

DRAWN SM
CHECKED PAN

SOIL PROFILE
CROSS SECTIONS 382+50.00 & 387+50.00
I.R. 77

SUM-76/77/8-8.24/9.74/0.00

P:\102329_SUM-76_77\Design\Geotechnical\Sheets\Soil Profile\102329_IXII5.dgn Sheet 11/6/2020 5:19:00 PM kmihalcea



HORIZONTAL SCALE IN FEET
0 5 10 20

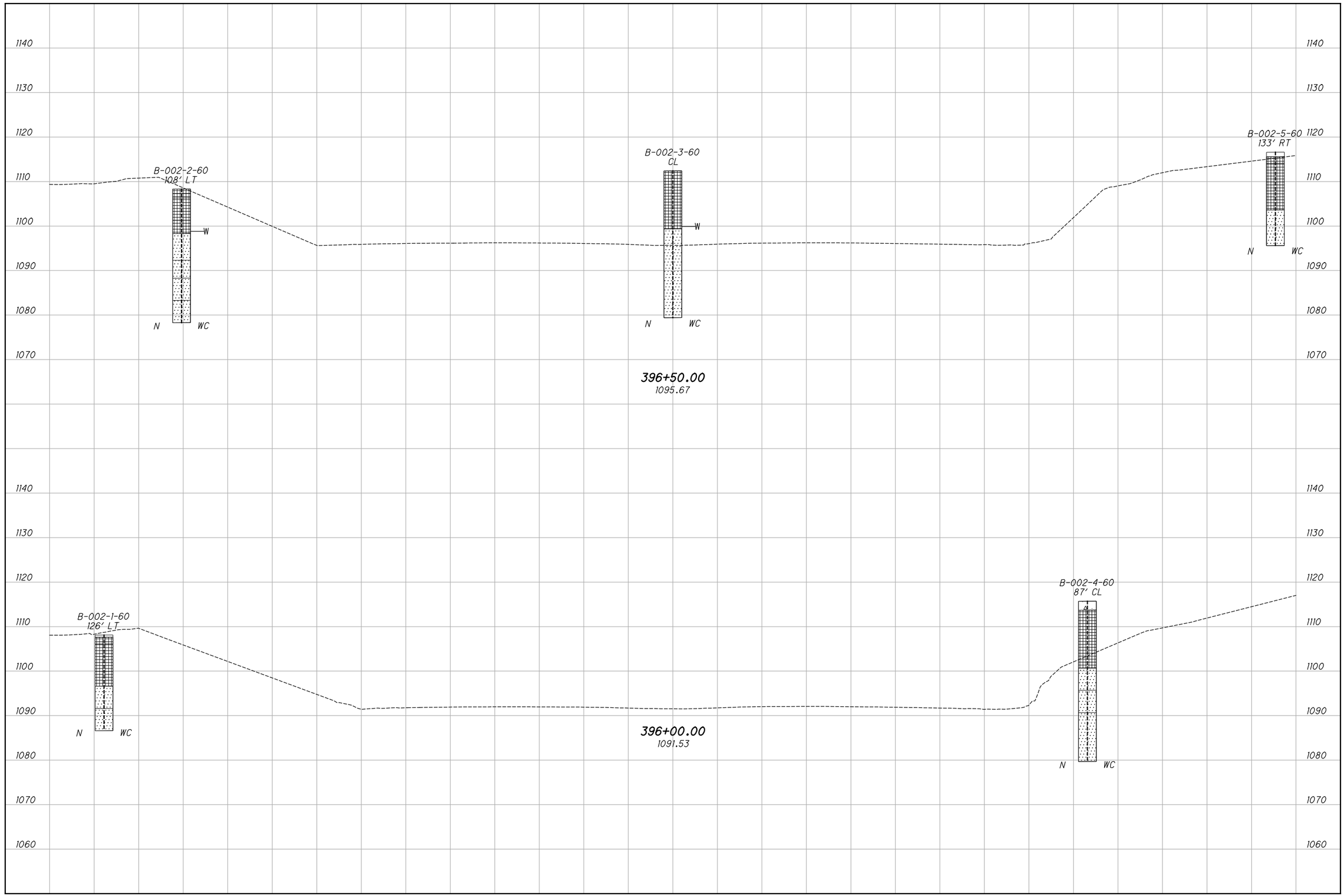
DRAWN SM
CHECKED PAN

SOIL PROFILE
CROSS SECTIONS 391+50.00 & 394+00.00
I.R. 77

SUM-76/77/8-8.24/9.74/0.00

152
202

P:\102329_SUM-76_77\Design\Geotechnical\Sheets\Soil Profile\102329_IXII6.dgn Sheet 11/6/2020 5:19:03 PM kmihalcea



HORIZONTAL SCALE IN FEET
0 5 10 20

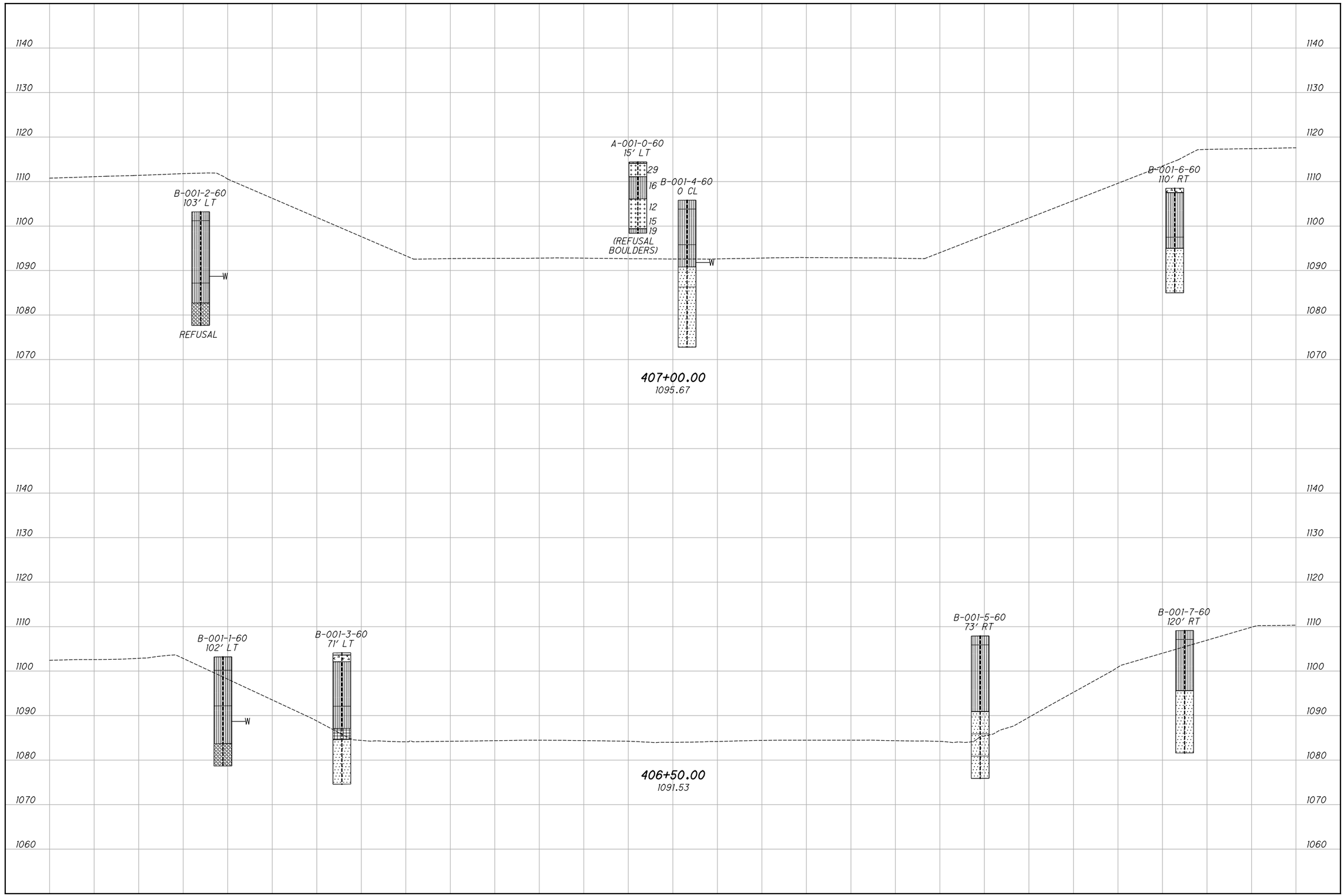
DRAWN SM
CHECKED PAN

SOIL PROFILE
CROSS SECTIONS 396+00.00 & 396+50.00
I.R. 77

SUM-76/77/8-8.24/9.74/0.00

153
202

P:\102329_SUM-76_77\Design\Geotechnical\Sheets\Soil Profile\102329_IX117.dgn Sheet 11/6/2020 5:19:05 PM kmihalcea



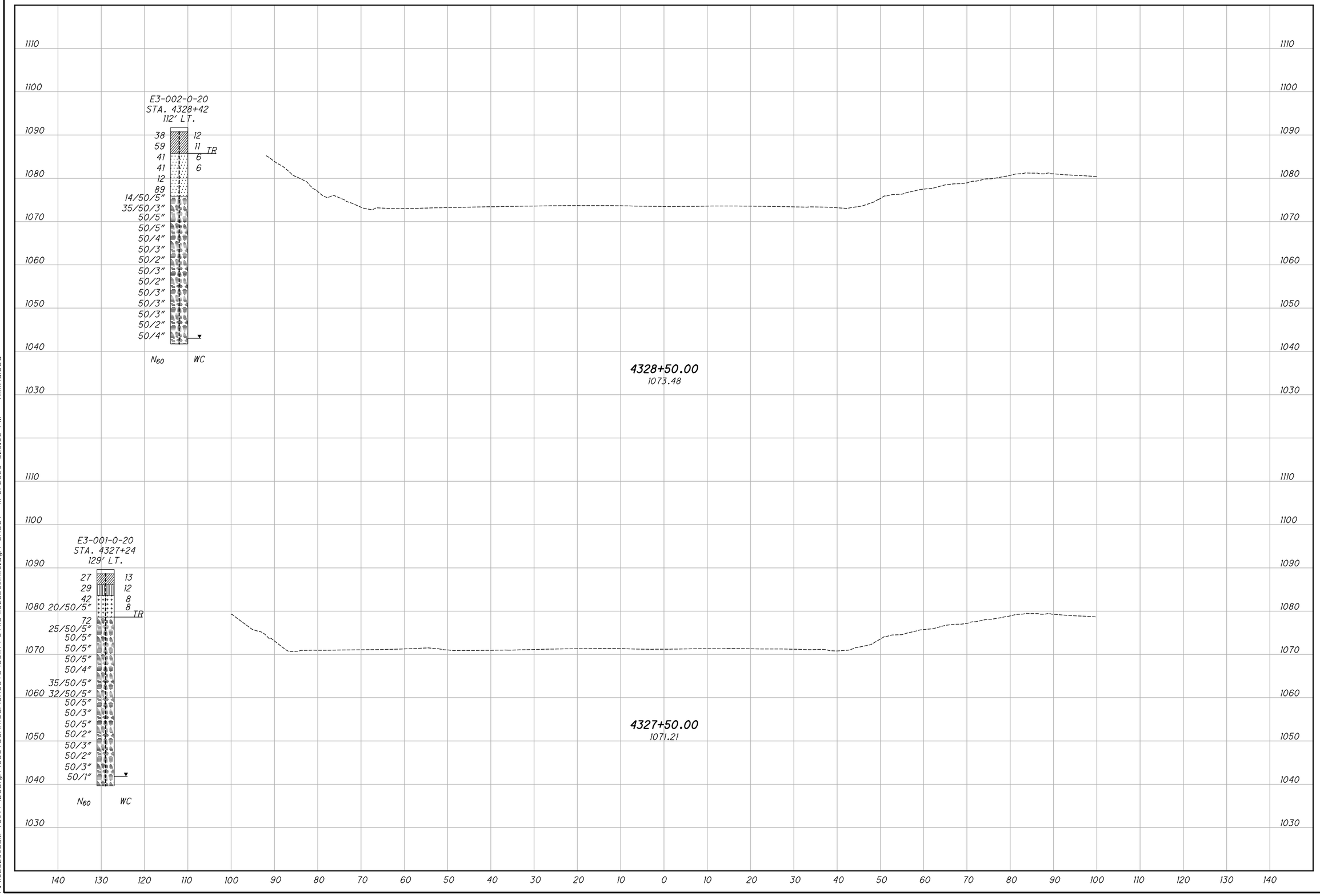
HORIZONTAL SCALE IN FEET
0 5 10 20

DRAWN SM
CHECKED PAN

SOIL PROFILE
CROSS SECTIONS 406+50.00 & 407+00.00

SUM-76/77/8-8.24/9.74/0.00

I.R. 77



HORIZONTAL SCALE IN FEET
0 5 10 20

DRAWN SM
CHECKED PAN

SOIL PROFILE
SUM-76/77/8-8.24/9.74/0.00
S.R. 8 CROSS SECTIONS 4327+50.00 & 4328+00.00

155
202

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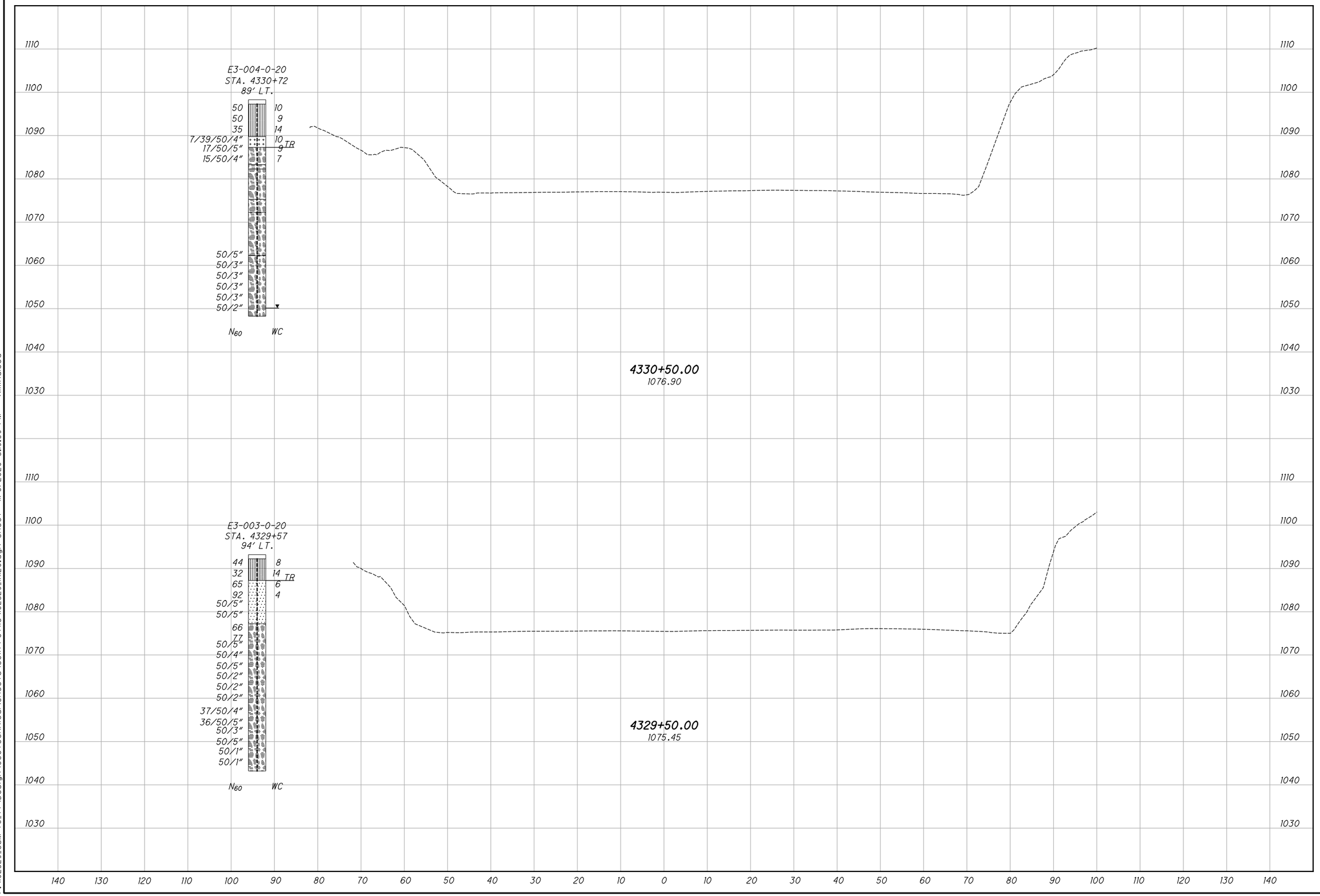

HORIZONTAL SCALE IN FEET
0 5 10 20

DRAWN SM
CHECKED PAN

SOIL PROFILE
CROSS SECTIONS 4329+50.00 & 4330+50.00
S.R. 8 CROSS SECTIONS

SUM-76/77/8-8.24/9.74/0.00

156
202

P:\102329_SUM-76_77\Design\Geotechnical\Sheets\Soil Profile\102329_IX120.dgn Sheet 11/6/2020 5:19:09 PM kminalcea

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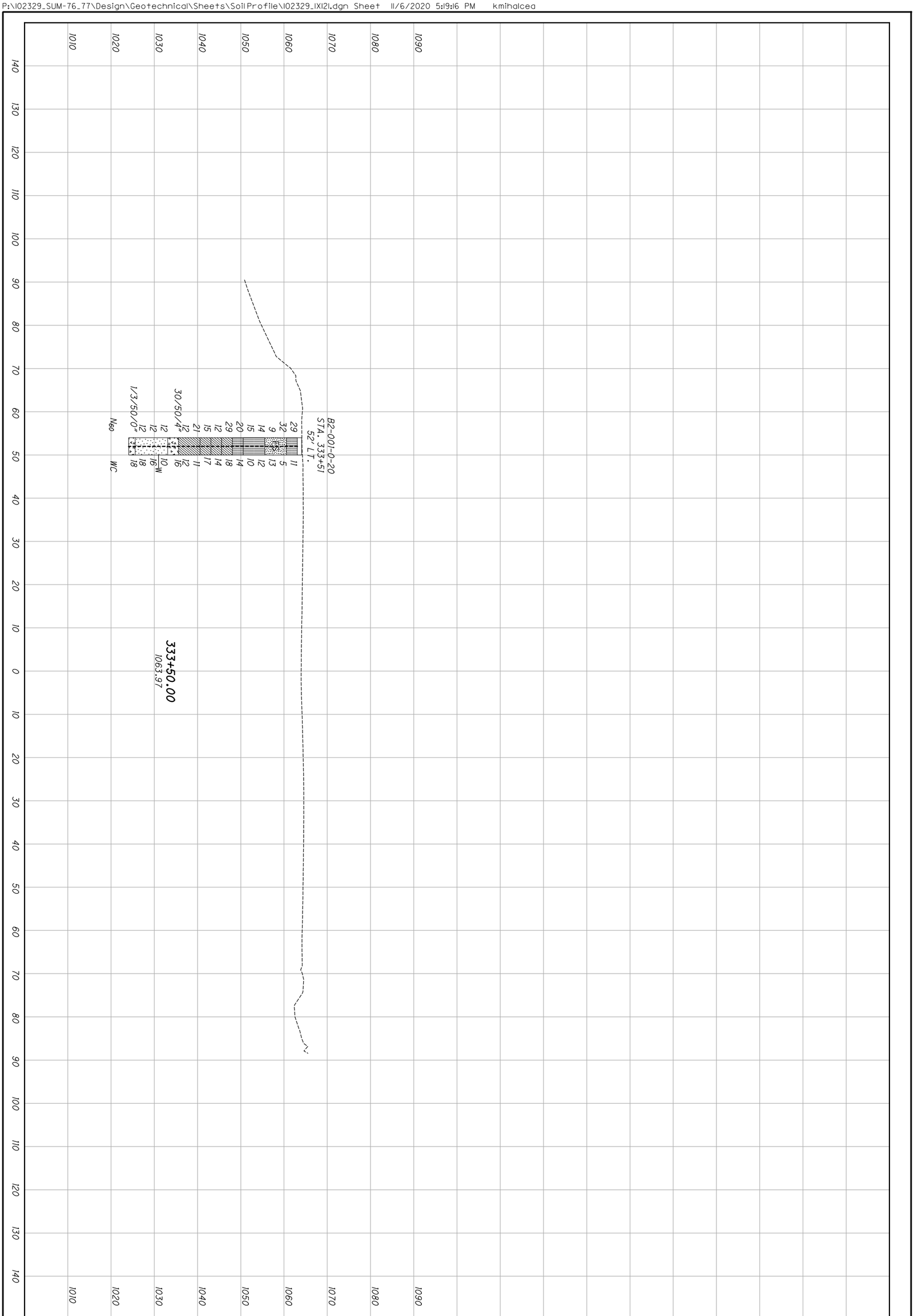

157 / 202	SUM-76/77/8- 8.24/9.74/0.00	SOIL PROFILE S.R. 8 CROSS SECTIONS 333+50.00	DRAWN SM CHECKED PAN 0 10 5 20 HORIZONTAL SCALE IN FEET

Form No. 530—16-59

THE H. C. NUTTING COMPANY

4120 AIRPORT ROAD
CINCINNATI 26, OHIO

TESTING ENGINEERS AND SOILS CONSULTANTS

LOG OF BORING Page 1 of 2

DATE STARTED 5-29-61 SAMPLER: TYPE Split Spoon DIA. 2" O.D. WATER ELEV. IMMEDIATE None CLIENT: City of Akron, Ohio

DATE COMPLETED 5-29-61 CASING: LENGTH 35' DIA. 3.5" I.D. PANH Core Barrel AFTER ____ HOURS ____ PROJECT: Akron Expressway, Sum 18-0506 over Manchester Rd. Part 13

BORING No. 1 STATION AND OFFSET 48+78, 76' Lt. of Centerline of Manchester Rd. SURFACE ELEV. 996.4 Backfilled (Driveway)

ELEV.	DEPTH	SAMPLE No.	STD. PEN. (N)	% REC.	DESCRIPTION	Physical Characteristics % AGG.	% C.S.	% F.S.	% SILT	% CLAY	L.L.	P.I.	W.C.	SHTL. CLASS
996.4	0				0.4' brick									
996.0	2	1	3-4-11	14"	Brown silty sand, some sandstone fragments, fill, moist - medium stiff.	30	7	37	17	9	-	0	10	A-2-4
	4	2	10-10-11	14"	do	29	10	33	19	9	19	6	13	A-2-4
990.4	6	3	6-6-3	10"	do	30	9	23	26	12	21	7	13	A-2-4
	8	4	3-3-4	15"	Brown silt, some fine sand, with clay seams, wet - loose.	0	0	20	65	15	23	3	28	A-4b
986.4	10	5	2-3-6	10"	Brown gravelly sand, little silt, moist - loose.	17	29	40	-14-		-	-	12	A-1-b
984.4	12	6	10-8-11	10"	Brown sandy silt, with sand seam, some gravel, moist - medium dense.	24	6	15	40	15	24	5	17	A-4a
982.4	14	7	5-7-8	8"	Brown reddish brown silt, little sand, trace of gravel, moist - medium dense.	7	6	13	54	20	26	6	23	A-4b
979.4	16	8	13-15-15	15"	Brown and gray sandy silt, some gravel, moist - medium dense.	33	7	18	32	10	22	4	17	A-4a
	18	9	5-6-7	16"	Gray sandy silt, little gravel, very moist - medium dense.	13	6	17	47	17	19	4	16	A-4a
973.4	20													
	22													
	24				Brown silt, little sand, trace of gravel, moist - medium dense.									
969.9	26	10	8-8-10	14"		6	4	8	55	27	28	8	20	A-4b
	28													
	30													
	32	11	5-8-10	10"	Gray sandy silt, some gravel and rock fragments, very moist - medium dense.	27	8	13	38	14	19	3	17	A-4a
	34									(cont'd. next page)				

Form No. 530—16-59

THE H. C. NUTTING COMPANY

4120 AIRPORT ROAD
CINCINNATI 26, OHIO

TESTING ENGINEERS AND SOILS CONSULTANTS

LOG OF BORING Page 2 of 2

DATE STARTED 5-29-61 SAMPLER: TYPE Split Spoon DIA. 2" O.D. WATER ELEV. IMMEDIATE None CLIENT: City of Akron, Ohio

DATE COMPLETED 5-29-61 CASING: LENGTH 35' DIA. 3.5" PANH Core Barrel AFTER ____ HOURS ____ PROJECT: Akron Expressway, Sum 18-0506 over Manchester Rd. Part 13

BORING No. 1 STATION AND OFFSET 48+78, 76' Lt. of Centerline of Manchester Rd. SURFACE ELEV. 996.4 Backfilled (Driveway)

ELEV.	DEPTH	SAMPLE No.	STD. PEN. (N)	% REC.	DESCRIPTION	Physical Characteristics % AGG.	% C.S.	% F.S.	% SILT	% CLAY	L.L.	P.I.	W.C.	SHTL. CLASS
	34													
961.4	36													
	38	12	NM	80%	Light gray firm to hard, siliceous shale (core consists of 3/8" to 3" pieces - avg. 3").									
956.4	40													
	42													
	44				Boring completed.									

Form No. 530—16-59

THE H. C. NUTTING COMPANY

4120 AIRPORT ROAD
CINCINNATI 26, OHIO

TESTING ENGINEERS AND SOILS CONSULTANTS

LOG OF BORING Page 1 of 2

DATE STARTED 5-29-61 SAMPLER: TYPE Split Spoon DIA. 2" O.D. WATER ELEV. IMMEDIATE None CLIENT: City of Akron, Ohio

DATE COMPLETED 5-30-61 CASING: LENGTH 31' PANM Core Barrel DIA. 3.5"I.D. AFTER ____ HOURS ____ PROJECT: Akron Expressway, Sum 18-0506

BORING No. 2 STATION AND OFFSET 47+84, 76' L. of Centerline of Manchester Rd. SURFACE ELEV. 990.2 Backfilled (Sidewalk) Over Manchester Rd. Part 13

ELEV.	DEPTH	SAMPLE No.	STD. PEN. (N)	% REC.	DESCRIPTION	Physical Characteristics: % AGG.	% C.S.	% F.S.	% SILT	% CLAY	L.L.	P.I.	W.C.	SHTL CLASS
990.2	0				0.5' Concrete-0.5' Cinders									
989.2	2	1	2-10-4	14"	Brown sandy silt, some gravel and sandstone fragments, moist - loose.	30	6	20	33	11	21	5	18	A-4a
	4	2	20-23-33	2"	do	Insufficient sample for testing.								
	6	3	10-13-13	13"	Brown and gray sandy silt, some gravel and sandstone fragments, moist - medium stiff.	20	4	13	42	21	24	6	18	A-4a
	8													
		4	10-10-18	14"	Brown sandy silt, little gravel, moist - medium stiff.	12	7	19	44	18	25	5	16	A-4a
980.2	10	5	46-80	8"	Brown gravelly sand, with rock fragments, little silt, moist - very dense.	40	19	23		18	-	-	10	A-1-b
	12													
	14													
	16	6	25-23-25	6"	Brown gravelly sand, little gravel, very moist - very dense.	25	14	45		16	-	-	13	A-1-b
972.2	18													
	20				Brown fine and coarse sand, little gravel and rock fragments, little silt, moist - dense.									
		7	22-15-15	7"		16	18	38	19	9	16	1	14	A-3a
968.2	22													
	24													
	26	8	14-18-28	8"	Gray silty sand and gravel with rock fragments, very moist - dense.	55	9	10	21	5	17	1	13	A-2-4
	28													
	30													
	32	9	15-18-21	9"	Gray silty sand and gravel with shale and rock fragments, moist - dense.	58	7	7	25	3	21	1	14	A-2-4

(cont'd. next page)

Form No. 530—16-59

THE H. C. NUTTING COMPANY

4120 AIRPORT ROAD
CINCINNATI 26, OHIO

TESTING ENGINEERS AND SOILS CONSULTANTS

LOG OF BORING Page 2 of 2

DATE STARTED 5-29-61 SAMPLER: TYPE Split Spoon DIA. 2" O.D. WATER ELEV. IMMEDIATE None CLIENT: City of Akron, Ohio

DATE COMPLETED 5-30-61 CASING: LENGTH 31' PANM Core Barrel DIA. 3.5" I.D. AFTER ____ HOURS ____ PROJECT: Akron Expressway, Sum 18-0506

BORING No. 2 STATION AND OFFSET 47+84, 76' L. of Centerline of Manchester Rd. SURFACE ELEV. 990.2 Backfilled (Sidewalk) Over Manchester Rd. Part 13

ELEV.	DEPTH	SAMPLE No.	STD. PEN. (N)	% REC.	DESCRIPTION	Physical Characteristics: % AGG.	% C.S.	% F.S.	% SILT	% CLAY	L.L.	P.I.	W.C.	SHTL CLASS
957.7	32													
	34													
	36	10	NM	65%	Layered gray, hard, siliceous, shale and limestone (core consists of broken pieces to 3½" pieces - avg. 3" in limestone and 1" in shale). Limestone composes 9" of core.									
952.7	38													
	40				Boring completed.									

Form No. 530—16-59

THE H. C. NUTTING COMPANY

4120 AIRPORT ROAD
CINCINNATI 26, OHIO

TESTING ENGINEERS AND SOILS CONSULTANTS

LOG OF BORING — Page 1 of 2

DATE STARTED 5-24-61 SAMPLER: TYPE Split Spoon DIA. 2" O.D. WATER ELEV. IMMEDIATE Wet at 13.5' CLIENT: City of Akron, Ohio
DATE COMPLETED 5-25-61 CASING: LENGTH 22.0' DIA. 3.5" I.D. AFTER ____ HOURS ____ PROJECT: Akron Expressway, Sum 18-0506
PANM Core Barrel
BORING No. 3 STATION AND OFFSET 48+87, 25' Lt. of Centerline of Manchester Rd. SURFACE ELEV. Backfilled (Sidewalk) 990.0 Over Manchester Rd. Part 13

ELEV.	DEPTH	SAMPLE No.	STD. PEN. (N)	% REC.	DESCRIPTION	Physical Characteristics: % AGG.	% C.S.	% F.S.	% SILT	% CLAY	L.L.	P.I.	W.C.	SHTL CLASS
990.0	0				0.5' Concrete									
989.5	2	1	2-3-3	14"	Brown fine and coarse sand, little gravel, little silt, fill, moist-loose.	11	14	40	25	10	-	0	18	A-3a
987.0	4	2	2-2-2	12"	Brn. fine sand, and coarse sand, trace of gravel and silt, moist-very loose.	3	35	59	-3-		-	-	12	A-3
	6	3	1-1-1	16"	Brn. fine sand, some coarse sand, trace of gravel and silt, moist-very loose.	1	29	67	-3-		-	-	7	A-3
	8	4	1-1-2	17"	Brown fine sand, trace of coarse sand gravel and silt, moist - very loose.	2	9	83	-6-		-	-	8	A-3
	10	5	1-1-2	16"	Brown fine sand, and coarse sand, trace of gravel and silt, moist - very loose.	8	39	50	-3-		-	-	8	A-3
978.0	12													
	14	6	4-9-18	13"	Brown sandy gravel, with rock fragments, little silt, moist - med. dense.	50	10	25	12	3	-	0	15	A-1-b
	16	7	9-14-17	12"	do	49	9	26	12	4	-	0	15	A-1-b
973.0	18	8	5-6	8"	Brn. sandy silt, little gravel, moist-medium stiff.	12	9	25	39	15	20	5	17	A-4a
		9	8	6"	Brn. and gray silty silt, little gravel,	18	8	19	39	16	18	4	14	A-4a
	20				moist - medium stiff.									
		10	7-5-6	9"	Gray sandy silt, little gravel, moist-medium dense.	12	5	22	45	16	17	2	13	A-4a
967.5	22													
	24	11	6-9-13	10"	Gray fine and coarse sand, little gravel, some silt, with clay seams, moist - medium dense.	18	20	37	23	2	-	0	8	A-3a
963.0	26	12	6-6-10	15"	Gray silt, and clay, moist - stiff.	0	0	1	61	38	26	9	17	A-4b
962.0	28													
	30	13	6-9-16	8"	Gray silty sand, and gravel with brown sand seams, moist - medium dense.	45	14	15	24	2	-	0	16	A-2-4
	32													
956.0	34													

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THE H. C. NUTTING COMPANY

4120 AIRPORT ROAD
CINCINNATI 26, OHIO

TESTING ENGINEERS AND SOILS CONSULTANTS

LOG OF BORING — Page 2 of 2

DATE STARTED 5-24-61 SAMPLER: TYPE Split Spoon DIA. 2" O.D. WATER ELEV. IMMEDIATE Wet at 13.5' CLIENT: City of Akron, Ohio
DATE COMPLETED 5-25-61 CASING: LENGTH 22.0' DIA. 3.5" I.D. AFTER ____ HOURS ____ PROJECT: Akron Expressway, Sum 18-0506
PANM Core Barrel
BORING No. 3 STATION AND OFFSET 48+87, 25' Lt. of Centerline Of Manchester Rd. SURFACE ELEV. Backfilled (Sidewalk) 990.0 Over Manchester Rd. Part 13

ELEV.	DEPTH	SAMPLE No.	STD. PEN. (N)	% REC.	DESCRIPTION	Physical Characteristics: % AGG.	% C.S.	% F.S.	% SILT	% CLAY	L.L.	P.I.	W.C.	SHTL CLASS
956.0	34													
	36	14	4-5-21	8"	Gray sandy gravel, little silt, moist - medium dense.	52	6	20	16	6	-	0	12	A-1-b
	38													
957.0	40													
		15	24-60	8"	Gray sandy silt, and rock fragments, moist - very dense.	38	7	6	31	18	26	9	10	A-4a
948.0	42													
	44													
	46	16	NM	85%	Gray, hard, siliceous, shale (core consists of broken pieces to 2-3/4" pieces - avg. 1" with one 2½" layer of limestone at top).									
943.0	48													
	50				Boring completed.									

Form No. 530—16-59

THE H. C. NUTTING COMPANY

4120 AIRPORT ROAD
CINCINNATI 26, OHIO

TESTING ENGINEERS AND SOILS CONSULTANTS

LOG OF BORING Page 1 of 2

DATE STARTED 5-25-61 SAMPLER: TYPE Split Spoon DIA. 2" O.D. WATER ELEV. IMMEDIATE None CLIENT: City of Akron, Ohio

DATE COMPLETED 5-26-61 CASING: LENGTH 20.0' DIA. PANM Core Barrel 3.5" I.D. AFTER ____ HOURS ____ PROJECT: Akron Expressway, Sum 18-0506

Backfilled (Sidewalk) Over Manchester Rd. Part 13

BORING No. 4 STATION AND OFFSET 48+25, 32' L. of Centerline of Manchester Rd. SURFACE ELEV. 989.8

ELEV.	DEPTH	SAMPLE No.	STD. PEN. (N)	% REC.	DESCRIPTION	Physical Characteristics % AGG.	% C.S.	% F.S.	% SILT	% CLAY	L.L.	P.I.	W.C.	SNTL CLASS
989.8	0				0.5' Concrete									
989.3					Brown silty sand, some gravel, moist -									
988.3	2	1	2-3-4	15"	medium stiff	29	13	23	25	10	19	3	13	A-2-4
					Brown sandy silt, some gravel and									
	4	2	4-6-8	14"	shale fragments, moist - stiff.	34	11	11	27	17	26	9	14	A-4a
					Brown sandy silt, little gravel, with									
883.8	6	3	9-7-7	14"	fine sand seams, moist - medium dense.	11	6	46	22	15	19	5	16	A-4a
	8				Brown fine sand, and coarse sand									
		4	2-1-1	18"	trace of gravel and silt, moist -	7	36	51	-6-		-	-	9	A-3
	10				very loose.									
		5	1-2-2	16"	do	6	32	53	-9-		-	-	9	A-3
	12													
		6	1-2-3	14"	do	2	33	60	-5-		-	-	7	A-3
	14													
	16	7	9-16-17	11"	Brown silty sand, and shale and sandstone fragments, moist - dense.	37	6	32	21	4	-	0	15	A-2-4
972.8														
	18				Brown sandy silt, and sandstone									
		8	9-7-9	11"	fragments, moist - medium stiff.	35	10	19	35	1	21	3	16	A-4a
	20				Gray sandy silt, little fine gravel,									
		9	6-6-11	7"	very moist - medium dense.	14	7	19	46	14	19	4	15	A-4a
	22													
		10	5-6-8	5"	do	Insufficient sample for testing.								
965.8	24													
					Gray silt, trace of fine sand, very									
963.8	26	11	4-7	12"	moist - medium stiff.	0	0	10	69	21	23	6	19	A-4b
		12	8	5"	Brown sandy gravel, little silt, wet -	46	13	19	16	6	19	2	19	A-1-b
	28				medium dense.									
960.8														
	30				Gray silt, some sand in seams, little									
		13	5-5-7	14"	gravel, wet - soft.	11	8	17	59	5	18	3	18	A-4b
957.8	32													
955.8	34													

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THE H. C. NUTTING COMPANY

4120 AIRPORT ROAD
CINCINNATI 26, OHIO

TESTING ENGINEERS AND SOILS CONSULTANTS

LOG OF BORING Page 2 of 2

DATE STARTED 5-25-61 SAMPLER: TYPE Split Spoon DIA. 2" O.D. WATER ELEV. IMMEDIATE None CLIENT: City of Akron, Ohio

DATE COMPLETED 5-26-61 CASING: LENGTH 20.0' DIA. PANM Core Barrel 3.5" I.D. AFTER ____ HOURS ____ PROJECT: Akron Expressway, Sum 18-0506

Backfilled (Sidewalk) Over Manchester Rd. Part 13

BORING No. 4 STATION AND OFFSET 48+25, 32' L of Centerline of Manchester Rd SURFACE ELEV. 989.8

ELEV.	DEPTH	SAMPLE No.	STD. PEN. (N)	% REC.	DESCRIPTION	Physical Characteristics % AGG.	% C.S.	% F.S.	% SILT	% CLAY	L.L.	P.I.	W.C.	SNTL CLASS
955.8	34													
	36	14	4-7-11	8"	Brown gravelly sand, little silt, wet - medium dense.	34	36	16	-14-		-	-	14	A-1-b
	38													
	40				Gray sandy gravel and rock fragments,									
	42	15	33-24-28	7"	little silt, moist - very dense.	65	7	8	15	5	19	2	12	A-1-b
946.8														
	44													
	46	16	NM	93%	Gray, hard, siliceous, shale (core consists of broken to 5½" piece - avg. 1½" - core is highly weathered at 44.5' and contains one 2" layer of limestone at top.)									
941.8	48													
	50				Boring Completed.									

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THE H. C. NUTTING COMPANY

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CINCINNATI 26, OHIO

TESTING ENGINEERS AND SOILS CONSULTANTS

LOG OF BORING Page 1 of 2

DATE STARTED 5-23-61 SAMPLER: TYPE Split Spoon DIA. 2" O.D. WATER ELEV. IMMEDIATE Wet at 20.5' CLIENT: City of Akron, Ohio
DATE COMPLETED 5-24-61 CASING: LENGTH 61.5' DIA. 3.5" I.D. PANM Core Barrel AFTER ____ HOURS ____ Backfilled (Sidewalk) PROJECT: Akron Expressway, Sum 18-0506 Over Manchester Rd. Part 13
BORING No. 5 STATION AND OFFSET 49+00, 34' R of Centerline of Manchester Rd. SURFACE ELEV. 989.2

ELEV.	DEPTH	SAMPLE No.	STD. PEN. (N)	% REC.	DESCRIPTION	Physical Characteristics % AGG.	% C.S.	% F.S.	% SILT	% CLAY	L.L.	P.I.	W.C.	SHTL CLASS
989.2	0				0.5' Concrete									
988.7					Brown sandy silt, some gravel, and									
987.2	2	1	4-3-7	14"	cinders, fill, moist - medium stiff.	24	10	26	23	17	23	7	14	A-4a
	4	2	7-6-7	15"	Brown fine and coarse sand, little silt, trace of gravel, fill, moist - medium stiff.	6	6	62	12	14	-	0	15	A-3a
983.7	6	3	2-4-5	15"	Brown sandy silt, moist - medium stiff.	0	0	58	32	10	-	0	21	A-4a
982.2	8	4	3-2-3	17"	Brown silt, some fine sand and silt seams, wet - soft.	0	0	29	57	14	22	3	25	A-4b
979.2	10	5	1-1-1	15"	Brn. gravelly sand, trace of silt, moist - very loose.	36	44	13	-7-		-	-	8	A-1-b
	12	6	1-2-2	17"	Brown sandy gravel, trace of silt, moist - loose.	49	33	10	-8-		-	-	8	A-1-b
	14	7	1-2-3	15"	Brown gravelly sand, trace of silt, moist - loose.	12	46	37	-5-		-	-	5	A-1-b
	16													
	18	8	2-2-4	16"	do	16	57	22	-5-		-	-	7	A-1-b
	20	9	2-2-5	17"	do	7	55	32	-6-		-	-	13	A-1-b
967.2	22													
	24	10	4-5-6	17"	Brown fine sand, little silt, moist - medium dense.	0	1	87	-12-		-	-	7	A-3a
964.2	26	11	10-11-11	12"	Brown gravelly sand, little silt, moist - medium dense.	33	22	28	12	5	-	0	14	A-1-b
961.2	28													
	30				Gray silt, some sand, little gravel,									
	32	12	7-6-6	10"	with shale fragments, wet - medium dense.	12	4	20	53	11	17	2	16	A-4b
935.2	34													

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THE H. C. NUTTING COMPANY

4120 AIRPORT ROAD
CINCINNATI 26, OHIO

TESTING ENGINEERS AND SOILS CONSULTANTS

LOG OF BORING Page 2 of 2

DATE STARTED 5-23-61 SAMPLER: TYPE Split Spoon DIA. 2" O.D. WATER ELEV. IMMEDIATE Wet @ 20.0' CLIENT: City of Akron, Ohio
DATE COMPLETED 5-29-61 CASING: LENGTH 61.5' DIA. 3.5" I.D. PANM Core Barrel AFTER ____ HOURS ____ Backfilled (Sidewalk) PROJECT: Akron Expressway, Sum 18-0506 Over Manchester Rd. Part 13
BORING No. 5 STATION AND OFFSET 49+00, 34' R of Centerline of Manchester Rd. SURFACE ELEV. 989.2

ELEV.	DEPTH	SAMPLE No.	STD. PEN. (N)	% REC.	DESCRIPTION	Physical Characteristics % AGG.	% C.S.	% F.S.	% SILT	% CLAY	L.L.	P.I.	W.C.	SHTL CLASS
935.2	34													
	36	13	3-4-5	7"	Gray sandy silt, with silt and sand seams, some shale and rock fragments, wet - loose.	31	7	19	32	11	17	3	15	A-4a
951.2	38													
	40	14	13-14-14	4"	Gray silty sand and shale and rock fragments, wet - medium dense.	47	13	14	21	5	17	1	11	A-2-4
	42													
946.2	44													
	46	15	9-9-11	6"	Gray sandy silt, some rock fragments, wet - medium dense.	23	4	9	45	19	19	3	19	A-4a
941.2	48													
938.7	50	16	3	3"	Gray silt, trace of sand, wet - loose.	0	1	3	70	26	23	3	25	A-4b
	52	17	4-6	8"	Brown silt, some sand, moist - medium dense.	0	2	18	64	16	26	4	24	A-4b
936.2	54													
	56	18	10-26-12	8"	Gray silty sand, and gravel, moist - dense.	47	8	11	24	10	20	5	16	A-2-4
	58													
930.2	60				Gray sandy silt, and shale fragments,									
928.7	62	19	15?	5"	moist - very stiff.	48	5	4	30	13	27	9	9	A-4a
	64	20	NR	92%	Gray, hard, siliceous, shale (core consists of broken pieces to 3½" pieces - avg. 2½" - Core is highly weathered at top and shattered at 65.5').									
922.7	66													
	68				Boring completed.									

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CINCINNATI 26, OHIO

TESTING ENGINEERS AND SOILS CONSULTANTS

LOG OF BORING Page 1 of 2

DATE STARTED 5-16-61 SAMPLER: TYPE Split Spoon DIA. 2" O.D. WATER ELEV. IMMEDIATE Wet @15.5' CLIENT: City of Akron, Ohio

DATE COMPLETED 5-17-61 CASING: LENGTH 59.5' DIA. 3.5" I.D. AFTER 24 HOURS Caved dry @ 32' PROJECT: Akron Expressway, Sum 18-0506 Over Manchester Rd. Part 13

BORING No. 6 STATION AND OFFSET 48+38, 26' Rt of Centerline of Manchester Rd. SURFACE ELEV. 988.1

PANM Core Barrel

ELEV.	DEPTH	SAMPLE No.	STD. PEN. (N)	% REC.	DESCRIPTION	Physical Characteristics: % AGG.	% C.S.	% F.S.	% SILT	% CLAY	L.L.	P.I.	W.C.	SHTL CLASS
988.1	0				0.2' Sand									
987.9	2	1	5-5-7	12"	Brown sandy clay and cinders, fill, moist - medium stiff.	No tests performed.								
	4	2	2-1-2	8"	do	No tests performed.								
983.1	6	3	1-2-3	13"	Brown sandy silt, with fine sand lenses, trace of gravel, moist - medium stiff.	4	9	32	31	24	25	7	20	A-4a
	8	4	2-4-7	14"	Brown and gray sandy silt, some sandstone fragments, moist - medium stiff.	26	7	27	25	15	19	3	14	A-4a
978.1	10	5	14-14-14	13"	Brown silty sand, and sandstone fragments, moist - medium dense.	45	6	20	17	12	19	5	11	A-24
975.1	12	6	9	3"	do	Insufficient sample for testing.								
	14	7	7-7	11"	Brown fine and coarse sand, little silt, trace of gravel, moist - medium dense.	9	16	63	-12-		-	-	7	A-3a
973.1	16	8	7-7-7	10"	Brown sandy silt with fine sand seams, moist - medium dense.	0	2	61	25	12	-	0	18	A-4a
971.1	18	9	7-8-8	7"	Brown fine to coarse sand, trace of gravel, moist - medium dense.	10	3	55	9	13	-	0	11	A-3a
969.1	20	10	5-4-4	9"	Brown gravelly sand, little silt, moist - loose.	33	40	12	-15-		-	-	14	A-1-b
	22	11	4-5-5	5"	Brown sandy gravel, trace of silt, wet - loose.	46	35	10	-9-		-	-	14	A-1-b
	24	12	4-4-4	6"	Brown gravelly sand, little silt, wet - loose.	31	40	16	-13-		-	-	14	A-1-b
	26													
	28													
	30	13	3-3-6	8"	Brown gravelly sand, little silt	9	46	32	-13-		-	-	18	A-1-b

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THE H. C. NUTTING COMPANY

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CINCINNATI 26, OHIO

TESTING ENGINEERS AND SOILS CONSULTANTS

LOG OF BORING Page 2 of 2

DATE STARTED 5-16-61 SAMPLER: TYPE Split Spoon DIA. 2" O.D. WATER ELEV. IMMEDIATE Wet @ 15.5' CLIENT: City of Akron, Ohio

DATE COMPLETED 5-17-61 CASING: LENGTH 59.5' DIA. 3.5" I.D. AFTER 24 HOURS Caved Dry @ 32' PROJECT: Akron Expressway, Sum 18-0506 Over Manchester Rd. Part 13

BORING No. 6 STATION AND OFFSET 48+38, 26' Rt. of Centerline of Manchester Rd. SURFACE ELEV. 988.1

PANM Core Barrel

ELEV.	DEPTH	SAMPLE No.	STD. PEN. (N)	% REC.	DESCRIPTION	Physical Characteristics: % AGG.	% C.S.	% F.S.	% SILT	% CLAY	L.L.	P.I.	W.C.	SHTL CLASS
	34													
	36	14	2-3-5	10"	Brown gravelly sand, trace of silt, wet - loose.	34	37	22	-7-		-	-	18	A-1-b
951.1	38													
	40	15	15-16-18	5"	Gray sandy silt with fine wet sand seams, little gravel, moist - medium stiff.	14	9	32	33	12	15	1	14	A-4a
945.1	42													
	44	16	9-10-10	8"	Gray and brown sandy gravel, little silt, wet - medium dense.	50	16	15	14	5	16	1	12	A-1-b
940.1	48													
	50	17	7-7-13	6"	Brown fine and coarse sand, some gravel, trace of silt, wet - medium dense.	27	15	37	8	13	-	0	15	A-3a
934.1	54													
	56	18	13-13-27	10"	Brown sandy silt, some sand and gravel seams, wet - dense.	30	7	10	42	11	23	2	21	A-4a
	58													
928.6	60													
	62	19	NM	76%	Gray, hard, siliceous, shale (core consists of broken pieces to 3½" pieces - avg. broken pieces except last 1½' which is hard and in tact.)									
923.6	64													
	66				Boring completed.									

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THE H. C. NUTTING COMPANY

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CINCINNATI 26, OHIO

TESTING ENGINEERS AND SOILS CONSULTANTS

LOG OF BORING Page 1 of 2

DATE STARTED 5-22-61 SAMPLER: TYPE Split Spoon DIA. 2" O.D. WATER ELEV. IMMEDIATE None CLIENT: City of Akron, Ohio

DATE COMPLETED 5-22-61 CASING: LENGTH 62.0' DIA. 3.5' I.D. AFTER ____ HOURS ____ PROJECT: Akron Expressway, Sum 18-0506

BORING No. 7 STATION AND OFFSET 49+10, 76' R. of Centerline of Manchester Rd. SURFACE ELEV. 989.4

PANM Core Barrel
Caved at 30'
Over Manchester Rd. Part 13

ELEV.	DEPTH	SAMPLE No.	STD. PEN. (N)	% REC.	DESCRIPTION	Physical Characteristics % AGG.	% C.S.	% F.S.	% SILT	% CLAY	L.L.	P.I.	W.C.	SHTL CLASS
989.4	0				0.5' Blacktop.									
988.9														
	2	1	21-15-8	16"	Brown sandy clay and cinders, fill, moist - medium stiff.	No tests performed.								
	4	2	5-4-6	17"	Brown sandy silt, fill, moist - medium stiff.	0	0	46	37	17	19	3	19	A-4a
884.4														
	6	3	1-2-2	15"	Brown gravelly sand, trace of silt, moist - very loose.	21	60	14	-5-		-	-	4	A-1-b
	8	4	1-1-2	14"	do	9	55	33	-3-		-	-	4	A-1-b
	10													
	12	5	1-2-2	17"	do	11	44	41	-4-		-	-	4	A-1-b
	14	6	2-2-3	16"	Brown gravelly sand, trace of silt, moist - loose.	16	63	17	-4-		-	-	4	A-1-b
974.4														
	16	7	1-2-3	17"	Light brown fine sand, trace of coarse sand, trace of silt, moist - loose.	0	2	94	-4-		-	-	5	A-3
	18													
	20													
	22	8	4-4-5	8"	Brown fine sand, little silt, trace of gravel, moist - loose.	4	0	71	19	6	-	0	13	A-3a
966.4														
	24				Brown silt, trace of fine sand, trace of gravel, very moist - medium stiff.	1	0	8	77	14	22	0	23	A-4b
963.9	26	9	6	4"										
		10	4-5	8"	Gray silt, some fine sand, wet - loose.	0	1	20	67	12	-	0	21	A-4b
961.4	28													
	30													
	32	11	17-23-15	2"	Gray sandy gravel, little silt, wet - dense.	Insufficient sample for testing.								
	34													

(cont'd next page)

LOG OF BORING Page 2 of 2

DATE STARTED 5-22-61 SAMPLER: TYPE Split Spoon DIA. 2" O.D. WATER ELEV. IMMEDIATE None CLIENT: City of Akron, Ohio

DATE COMPLETED 5-22-61 CASING: LENGTH 62.0' DIA. 3.5' I.D. AFTER ____ HOURS ____ PROJECT: Akron Expressway, Sum 18-0506

BORING No. 7 STATION AND OFFSET 49+10, 76' R. of Centerline of Manchester Rd. SURFACE ELEV. 989.4

PANM Core Barrel
Caved at 30'
Over Manchester Rd. Part 13

ELEV.	DEPTH	SAMPLE No.	STD. PEN. (N)	% REC.	DESCRIPTION	Physical Characteristics % AGG.	% C.S.	% F.S.	% SILT	% CLAY	L.L.	P.I.	W.C.	SHTL CLASS
	34													
	36	12	8-11-12	4"	Gray sandy gravel, little silt, wet - dense.	47	24	18	-11-		-	-	9	A-1-b
	38													
949.9	40													
	42	13	20-21-24	8"	Gray silt, trace of sand, trace of gravel, moist - dense.	2	3	7	72	16	21	2	17	A-4b
	44													
	46	14	13-13-15	8"	Gray silt, little fine sand, wet - dense.	0	0	16	74	10	-	0	22	A-4b
	48													
	50													
	52	15	14-13-17	6"	Gray silt, trace of fine sand, wet - dense.	0	0	3	87	10	-	0	28	A-4b
	54													
	56	16	12-12-14	6"	Gray silt, trace of fine sand, wet - medium dense.	0	0	3	87	10	-	0	26	A-4b
	58													
	60													
928.4		17	28-90	8"	Gray silt, with clay lenses, little fine sand, wet - very dense.	0	0	14	76	10	-	0	22	A-4b
927.4	62				Gray broken sandstone, moist - hard.									
					Light gray friable fine to medium grained sandstone (Core consists of 7", 4", 2½" pieces plus foreign gravel).									
925.4	64	18	NM	30%										
	66													
921.4	68	19	(Wash) 67-68 (Sample)		Gray gravelly sand, trace of silt, moist - very dense. Boring completed.	3	48	39	-10-		-	-	9	A-1-b

NOTE:
Unable to drive casing through sandstone layers, boring terminated by City of Akron representative.

Form No. 530—16-59

THE H. C. NUTTING COMPANY

4120 AIRPORT ROAD
CINCINNATI 26, OHIO

TESTING ENGINEERS AND SOILS CONSULTANTS

LOG OF BORING Page 1 of 3

DATE STARTED 5-30-61 SAMPLER: TYPE Split Spoon DIA. 2" O.D. WATER ELEV. IMMEDIATE None CLIENT: City of Akron, Ohio

DATE COMPLETED 6-1-61 CASING: LENGTH 72.5' DIA 3.5" I.D. PANM Core Barrel AFTER ____ HOURS ____ PROJECT: Akron Expressway, Sum. 18-0506 Over Manchester Rd. Part 13

BORING No. 7A STATION AND OFFSET 48+94, 69' R. of Centerline of Manchester Rd. SURFACE ELEV. 989.2 Backfilled (driveway)

ELEV.	DEPTH	SAMPLE No.	STD. PEN. (N)	% REC.	DESCRIPTION	Physical Characteristics % AGG.	% C.S.	% F.S.	% SILT	% CLAY	L.L.	P.I.	W.C.	SHTL CLASS
989.2	0				0.5' Blacktop									
988.7														
	2	1	13-11-12	16"	Brown sandy clay and cinders, fill, moist - medium stiff.	No tests performed.								
986.7														
	4	2	6-5-4	14"	Brown silty sand, trace of gravel, moist - loose.	4	32	43	12	9	25	10	14	A-2-4
986.2														
	6	3	2-3-3	8"	Brown silty sand, some gravel, moist - loose.	26	18	30	21	5	-	0	11	A-2-4
982.2	8													
		4	3-1-1	14"	Brown gravelly sand, trace of silt, moist - very loose.	32	49	14	-5-	-	-	-	5	A-1-b
979.2	10													
		5	2-2-2	16"	Brown fine sand, and coarse sand, trace of gravel, trace of silt, moist - loose.	10	37	49	-4-	-	-	-	5	A-3
977.2	12													
	14	6	2-2-3	14"	Brown gravelly sand, trace of silt, moist - loose.	22	32	39	-7-	-	-	-	4	A-1-b
	16	7	2-2-3	17"	do	25	46	24	-5-	-	-	-	5	A-1-b
971.2	18													
	20													
	22	8	2-3-3	16"	Brown fine and coarse sand, little silt, moist - loose	0	2	84	11	3	-	0	10	A-3a
964.2	24													
	26	9	54-52	9"	Brown sandy gravel and sandstone fragments, little silt, moist - very dense.	49	10	25	13	3	-	0	13	A-1-b
961.2	28													
	30													
	32	10	15-17-21	14"	Gray silt, trace of sand, trace of gravel, moist - stiff.	5	3	6	59	27	22	5	14	A-4b
	34													

(cont'd. next page)

TESTING ENGINEERS AND SOILS CONSULTANTS

LOG OF BORING Page 2 of 3

DATE STARTED 5-30-61 SAMPLER: TYPE Split Spoon DIA. 2" O.D. WATER ELEV. IMMEDIATE None CLIENT: City of Akron, Ohio

DATE COMPLETED 6-1-61 CASING: LENGTH 72.5' DIA 3.5" I.D. PANM Core Barrel AFTER ____ HOURS ____ PROJECT: Akron Expressway, Sum. 18-0506 Over Manchester Rd. Part 13

BORING No. 7A STATION AND OFFSET 48+94, 69' R. of Centerline of Manchester Rd. SURFACE ELEV. 989.2 Backfilled (Driveway)

ELEV.	DEPTH	SAMPLE No.	STD. PEN. (N)	% REC.	DESCRIPTION	Physical Characteristics % AGG.	% C.S.	% F.S.	% SILT	% CLAY	L.L.	P.I.	W.C.	SHTL CLASS
	34													
	36	11	16-19-22	10"	Gray silt, little sand, trace of gravel, moist - dense.	10	5	8	52	25	22	4	14	A-4b
951.7	38													
	40													
	42	12	10-12-15	8"	Gray gravelly sand, trace of silt, moist - medium dense.	27	30	34	-9-	-	-	-	13	A-1-b
945.2	44													
	46	13	21-22-30	8"	Gray sandy silt, and gravel and rock fragments, moist - very dense.	36	10	12	36	6	-	0	18	A-4a
941.2	48													
	50													
	52	14	15-15-19	11"	Gray silt, with clay lenses, trace of sand, trace of gravel, moist - dense.	4	1	7	74	14	20	0	10	A-4b
	54													
	56	15	11-13-18	15"	Gray silt, little fine sand, wet - dense.	0	0	19	75	6	-	0	21	A-4b
931.2	58													
	60													
	62	16	10-20-21	12"	Gray sandy silt, and gravel with rock fragments, wet - dense.	36	5	6	43	10	20	2	20	A-4a
925.2	64													
	66	17	28-40-60	7"	Gray sandy shale and rock fragments, little silt, moist - very dense.	56	14	9	16	5	18	2	11	A-1-b
	68													

(cont'd. next page)

Form No. 530—16-59

THE H. C. NUTTING COMPANY

4120 AIRPORT ROAD
CINCINNATI 26, OHIO

TESTING ENGINEERS AND SOILS CONSULTANTS

LOG OF BORING

DATE STARTED 5-30-61 SAMPLER: TYPE Split Spoon PANM Core Barrel DIA. 2" O.D. WATER ELEV. IMMEDIATE None CLIENT: City of Akron, Ohio

DATE COMPLETED 6-1-61 CASING: LENGTH 72.5' DIA. 3.5" I.D. AFTER ____ HOURS ____ PROJECT: Akron Expressway, Sum. 18-0506 Over Manchester Rd. Part 13

BORING No. 7A STATION AND OFFSET 48+94, 69' R. of Centerline of ~~Manchester Rd.~~ Backfilled (Driveway) SURFACE ELEV. 989.2

ELEV.	DEPTH	SAMPLE No.	STD. PEN. (N)	% REC.	DESCRIPTION	Physical Characteristics: % AGG.	% C.S.	% F.S.	% SILT	% CLAY	L.L.	P.I.	W.C.	SNTL CLASS
920.7	68													
	70	18	NM	18%	(Core consists of broken pieces of sandstone, limestone, quartz, gravel and foreign gravel.)									
916.7	72													
	74				Gray, hard, siliceous, shale with 3 thin layers of limestone (Core consists of 1/4 to 3" pieces - avg. 2" with three 1" layers of limestone).									
	76	19	NM	100%										
911.7	78													
	80				Boring completed.									

Form No. 536—16-59

THE H. C. NUTTING COMPANY

4120 AIRPORT ROAD
CINCINNATI 26, OHIO

TESTING ENGINEERS AND SOILS CONSULTANTS

LOG OF BORING

DATE STARTED 5-18-61 SAMPLER: TYPE Split Spoon DIA. 2" O.D. WATER ELEV. IMMEDIATE Wet @ 17.5' CLIENT: City of Akron, Ohio

DATE COMPLETED 5-19-61 CASING: LENGTH 74.0' PANM Core Barrel DIA. 3.5" I.D. AFTER 60 HOURS Caved Dry @ 31' PROJECT: Akron Expressway, Sum 18-0506 Over Manchester Rd. Part 13

BORING No. 8 STATION AND OFFSET 48+48, 76' Rt. of Centerline of Manchester Rd. SURFACE ELEV. 988.2

ELEV.	DEPTH	SAMPLE No.	STD. PEN. (N)	% REC.	DESCRIPTION	% AGG.	% C.S.	% F.S.	% SILT	% CLAY	L.L.	P.I.	W.C.	SHTL CLASS
988.2 / 987.8	0				0.4' Blacktop.									
	2	1	6-3-2	10"	Brown sandy clay and cinders, fill, moist - medium stiff.	No tests performed.								
	4	2	3-2-2	14"	do	No tests performed.								
982.7	6	3	2-3-4	10"	Brown sandy silt, little gravel, moist - medium stiff.	14	9	41	22	14	17	2	12	A-4a
981.2	8	4	3-3-3	16"	Brown silty sand, trace of gravel, moist - loose.	8	40	31	8	13	25	10	12	A-2-4
978.2	10													
	12	5	3-4-3	16"	Brown fine sand, little coarse sand, trace of gravel, trace of silt, moist - loose.	5	16	70	-9-		-	-	10	A-3
975.2	14	6	2-1-1	16"	Brown sandy gravel, trace of silt, moist - very loose.	56	31	7	-6-		-	-	13	A-1-a
973.7	16	7	2-2-2	14"	Brown gravelly sand, trace of silt, moist - loose.	9	42	44	-5-		-	-	8	A-1-b
	18	8	2-1-2	16"	do	9	41	39	6	5	-	0	18	A-1-b
968.2	20	9	3-4-9	8"	Brown fine sand, some coarse sand, little gravel, very moist - medium dense.	15	30	46	-9-		-	-	16	A-3
965.2	22													
	24													
	26	10	3-5-5	10"	Brown fine sand, little silt, trace of gravel, moist - medium dense.	2	0	77	17	4	-	0	18	A-3a
	28													
957.7	30	11	8	5"	Gray fine and coarse sand, some silt, trace of gravel, wet - medium dense.	4	8	54	27	7	-	0	19	A-3a
	32	12	5-6	5"	Gray silt, little fine sand, trace of gravel, wet - medium dense.	3	0	18	71	8	-	0	17	A-4b
	34													

(cont'd. next page)

LOG OF BORING

DATE STARTED 5-18-61 SAMPLER: TYPE Split Spoon DIA. 2" O.D. WATER ELEV. IMMEDIATE Wet @ 17.5' CLIENT: City of Akron, Ohio

DATE COMPLETED 5-19-61 CASING: LENGTH 74.0' PANM Core Barrel DIA. 3.5" I.D. AFTER 60 HOURS Caved Dry @ 31' PROJECT: Akron Expressway, Sum. 18-0506 Over Manchester Rd. Part 13

BORING No. 8 STATION AND OFFSET 48+48, 76' Rt. of Centerline of Manchester Rd. SURFACE ELEV. 988.2

ELEV.	DEPTH	SAMPLE No.	STD. PEN. (N)	% REC.	DESCRIPTION	% AGG.	% C.S.	% F.S.	% SILT	% CLAY	L.L.	P.I.	W.C.	SHTL CLASS
954.2	34													
	36	13	7-4-6	15"	Gray sandy silt with silt lenses, some sand, little gravel, moist - medium dense.	15	4	26	36	19	18	5	16	A-4b
	38													
	40													
946.2	42	14	9-10-13	3"	Gray sandy silt, little gravel, moist - medium stiff.	15	12	12	36	25	21	6	17	A-4a
	44													
	46	15	12-9-10	12"	Gray silt, little sand, little gravel, moist - medium dense.	11	3	7	50	29	23	6	16	A-4b
	48													
	50													
936.2	52	16	5-5-6	13"	Gray silt, trace of fine sand, trace of gravel, wet - medium dense.	1	0	10	73	16	20	1	22	A-4b
	54													
	56	17	5-8-13	13"	Gray sandy silt, trace of gravel, wet - medium dense.	1	5	42	42	10	-	0	16	A-4a
930.2	58													
	60													
926.2	62	18	16-22-28	16"	Gray silt, little fine sand, moist - dense.	0	0	14	58	28	19	2	18	A-4b
	64													
	66	19	45-50-68	12"	Gray gravelly sand, with clay seams, little silt, moist - very dense.	35	15	25	17	8	16	2	12	A-1-b
920.2	68													

(cont'd. next page)

SUM-76/77/8-
8.24/9.74/0.00

SOIL PROFILE
BRIDGE OVER MANCHESTER ROAD
BORING LOG B-008-0-61

DRAWN SM
CHECKED PAN

Form No. 530—16-59

THE H. C. NUTTING COMPANY

4120 AIRPORT ROAD
CINCINNATI 26, OHIO

TESTING ENGINEERS AND SOILS CONSULTANTS

LOG OF BORING Page 3 of 3

DATE STARTED 5-18-61 SAMPLER: TYPE Split Spoon DIA. 2" O.D. WATER ELEV. IMMEDIATE Wet @ 17.5' CLIENT: City of Akron, Ohio

DATE COMPLETED 5-19-61 CASING: LENGTH 74.0' DIA. 3.5" I.D. PANM Core Barrel AFTER 60 HOURS Caved Dry @ 31' PROJECT: Akron Expressway, Sum. 18-0506 Over Manchester Rd. Part 13

BORING No. 8 STATION AND OFFSET 48+48, 76' Rt. of Centerline of Manchester Rd. SURFACE ELEV. 988.2

ELEV.	DEPTH	SAMPLE No.	STD. PEN. (N)	% REC.	DESCRIPTION	Physical Characteristics % AGG.	% C.S.	% F.S.	% SILT	% CLAY	L.L.	P.I.	W.C.	SHTL CLASS
920.2	68													
	70													
		20	20-25-35	8"	Gray sandy silt, some shale and limestone fragments, moist - stiff.	23	7	15	37	18	19	4	15	A-4a
	72													
914.2	74													
	76													
		21	NM	67%	Gray, hard, siliceous, shale (core consists of few broken to 2½" pieces - avg. 2" - core indicates heavy weathering at 76.5' with other seams).									
	78													
909.2	80													
					Boring completed.									

DATE STARTED 11-4-79 SAMPLER; TYPE S.S. DIA. 2.0" O. D. WATER ELEVATION

DATE COMPLETED 11-4-79 CASING; LENGTH H.S.A. DIA. 3.5" I.D. IMMEDIATE 950.5

BORING NUMBER 4-S CORE BARREL; TYPE SIZE AFTER HRS. BACKFILLED

STATION & OFFSET 113+00, 14, RT. B.L. RAMP "EN" SURFACE ELEVATION 968.0

ELEV.	DEPTH	STN PEN (N)	DESCRIPTION	SA NO	PHYSICAL CHARACTERISTICS							
					% AGG	% CS	% FS	% SILT	% CLAY	LL	PI	WC
968.0	0		BROWN SANDY SILTY CLAY WITH SOME GRAVEL, SAND, AND ROCK FRAGMENTS, (FILL), MOIST-STIFF									
	2	3-4-7		1		VISUAL						17.4
963.0	4	6-7-8										
	6	5-12-12	BROWN SANDY SILTY CLAY WITH SOME GRAVEL, CINDERS AND CONCRETE FRAGMENTS (FILL), MOIST-STIFF	2		VISUAL						5.0
958.0	8	5-4-4										
	10											
	12	7-8-9	BROWN FINE TO COARSE SAND WITH A LITTLE GRAVEL, MOIST-MEDIUM DENSE	3		VISUAL						5.6
	14	9-10-12	DO DO DO	4		VISUAL						6.5
	16	12-14-16	DO DO DO	5		VISUAL						
950.5	18											
948.0	20	7-7-7	GRAY SANDY SILT, WET - MEDIUM DENSE	6	0	0	21	70	9	NP		21.9
	22	6-8-10	GRAY SILTY FINE SAND, WET - MEDIUM DENSE	7		VISUAL					70	8
943.0	24											
	26	8-13-16	GRAY FINE SAND, WET-MEDIUM DENSE	8		VISUAL						
	28											
	30											
	32	9-15-23	GRAY FINE SAND, WET-DENSE	9		VISUAL						
933.0	34											
	36	10-14-20	GRAY FINE SAND WITH A LITTLE FINE GRAVEL, WET - DENSE	10		VISUAL						17.6
	38											
	40											
	42	10-16-22	DO DO DO	11		VISUAL						
	44											
	46	14-21-28	DO DO DO	12		VISUAL						
	48											
918.0	50											
916.5		16-23-34	GRAY FINE SAND, WET- VERY DENSE	13		VISUAL						21.5

BORING COMPLETED

DATE STARTED 11-4-79 SAMPLER; TYPE S.S. DIA. 2.0" O. D. WATER ELEVATION
DATE COMPLETED 11-4-79 CASING; LENGTH H.S.A. DIA. 3.5" I.D. IMMEDIATE 950.5
BORING NUMBER 4-S CORE BARREL; TYPE SIZE AFTER HRS. BACKFILLED
STATION & OFFSET 113+00, 14, RT. B.L. RAMP "EN" SURFACE ELEVATION 968.0

ELEV.	DEPTH	STN PEN (N)	DESCRIPTION	SA NO	PHYSICAL CHARACTERISTICS % AGG	% CS	% FS	% SILT	% CLAY	LL	PI	WC
968.0	0											
	2	3-4-7	BROWN SANDY SILTY CLAY WITH SOME GRAVEL, SAND, AND ROCK FRAGMENTS, (FILL), MOIST-STIFF	1			VISUAL					17.4
963.0	4	6-7-8										
	6	5-12-12	BROWN SANDY SILTY CLAY WITH SOME GRAVEL, CINDERS AND CONCRETE FRAGMENTS (FILL), MOIST-STIFF	2			VISUAL					5.0
958.0	8	5-4-4										
	10	7-8-9	BROWN FINE TO COARSE SAND WITH A LITTLE GRAVEL, MOIST-MEDIUM DENSE	3			VISUAL					5.6
	12	9-10-12	DO DO DO	4			VISUAL					6.5
	14	12-14-16	DO DO DO	5			VISUAL					
950.5	16											
948.0	18	7-7-7	GRAY SANDY SILT, WET - MEDIUM DENSE	6	0	0	21	70	9	- NP -		21.9
	20	6-8-10	GRAY SILTY FINE SAND, WET - MEDIUM DENSE	7			VISUAL				70	8
943.0	22											
	24	8-13-16	GRAY FINE SAND, WET-MEDIUM DENSE	8			VISUAL					
	26											
	28	9-15-23	GRAY FINE SAND, WET-DENSE	9			VISUAL					
	30											
933.0	32	10-14-20	GRAY FINE SAND WITH A LITTLE FINE GRAVEL, WET - DENSE	10			VISUAL					17.6
	34											
	36	10-16-22	DO DO DO	11			VISUAL					
	38											
	40	14-21-28	DO DO DO	12			VISUAL					
	42											
918.0	44											
916.5	46	16-23-34	GRAY FINE SAND, WET- VERY DENSE	13			VISUAL					21.5
	48											
	50											

BORING COMPLETED

DATE STARTED 10-10-79 SAMPLER: TYPE S.S. DIA. 2.0"O.D. WATER ELEVATION
DATE COMPLETED 10-11-79 CASING: LENGTH H.S.A. DIA. 3.5"I.D. IMMEDIATE 949.6
BORING NUMBER S-5 CORE BARREL: TYPE SIZE AFTER 24 HOURS 19.7'
STATION & OFFSET 114+00 10' RT. BL RAMP "EN" SURFACE ELEVATION 969.6

ELEV.	DEPTH	STN. PEN. (N)	DESCRIPTION	SA NO.	PHYSICAL CHARACTERISTICS % AGG	% CS	% FS	% SILT	% CLAY	LL	PI	WC
969.6	0											
	2	4-7-10	BROWN SANDY SILTY CLAY WITH SOME SANDSTONE FRAGMENTS (FILL), MOIST - VERY STIFF	1			VISUAL					14.5
967.1	4	9-10-12	DARK BROWN SANDY SILTY CLAY WITH SOME SANDSTONE FRAGMENTS, TRACE ORGANICS (FILL), MOIST - VERY STIFF	2			VISUAL					12.2
964.8	6	6-6-7	BROWN SILTY FINE TO COARSE SAND AND GRAVEL, MOIST - MEDIUM DENSE	3			VISUAL					9.7
	8	4-5-6	DO DO DO	4	47	23	15	9	6	N.P.		10.7
	10	5-5-6	DO DO DO	5			VISUAL					
957.1	12	3-6-6	BROWN FINE TO COARSE SAND WITH LITTLE GRAVEL, MOIST - MEDIUM DENSE	6			VISUAL					3.9
954.6	14	6-6-7	BROWN FINE TO COARSE SAND WITH SOME GRAVEL, MOIST - MEDIUM DENSE	7			VISUAL					
952.1	16	5-7-6	BROWN FINE TO COARSE SAND AND GRAVEL, VERY MOIST - MEDIUM DENSE	8	43	45	8	2	2			7.1
949.6	18	3-5-7	BROWN FINE TO COARSE SAND WITH A LITTLE GRAVEL, WET - MEDIUM DENSE	9			VISUAL					
	20											
	22											
	24	4-6-8	DO DO DO	10			VISUAL					
939.6	26											
	28	4-5-8	GRAY SILTY FINE SAND, WET - MEDIUM DENSE	11	0	2	69	24	5			19.3
	30											
	32											
	34	7-7-10	DO DO DO	12			VISUAL					
929.6	36											
	38	11-17-22	GRAY FINE SAND WITH SILT SEAMS, WET - DENSE	13			VISUAL					19.0
924.6	40											
	42	8-13-23	GRAY SILTY FINE SAND, WET - DENSE	14			VISUAL					
	44											
919.6	46											
918.1	48	11-17-22	GRAY FINE SAND, WET - DENSE	15			VISUAL					19.0
	50											
	52											

BORING COMPLETED

THE H. C. NUTTING COMPANY
GEOTECHNICAL ENGINEERS
AIRPORT ROAD CINCINNATI, OHIO

STRUCTURE FOUNDATION INVESTIGATION
RETAINING WALL BETWEEN SOUTH STREET & RAMP "EN"
STATION 108+55 TO 114+26
SEC: AKRON INNERBELT SUM-59-00.00

BORING DATA

DRAWN BY,	CHECKED BY	REVIEWED BY	DATE
	JAS	CRL	4/8/80

DATE STARTED 10-10-79 SAMPLER: TYPE S.S. DIA. 2.0'' O.D. WATER ELEVATION
DATE COMPLETED 10-10-79 CASING: LENGTH H.S.A DIA 3.5'' I.D. IMMEDIATE 19.0'
BORING NUMBER 6-S CORE BARREL: TYPE SIZE AFTER 24 HOURS 18.2'
STATION & OFFSET 114+81 7' RT. BL RAMP EN SURFACE ELEVATION 970.1

ELEV.	DEPTH	STN. PEN (N)	DESCRIPTION	SA. NO.	PHYSICAL CHARACTERISTICS							
					% AGG.	% CS	% FS	% SILT	% CLAY	LL	PI	WC
970.1	0		DARK BROWN SANDY SILTY CLAY W/SOME GRAVEL, CINDERS, AND ROCK FRAGMENTS (FILL), MOIST – VERY STIFF									
	2	4-18-6		1				VISUAL				
967.6												
	4	11-12-14	BROWN SANDY SILTY CLAY W/SOME GRAVEL (FILL), MOIST – VERY STIFF	2				VISUAL				11.4
965.1												
	6	4-4-5	GRAY AND BROWN SANDY SILT W/SOME CLAY AND SANDSTONE FRAGMENTS, (FILL) MOIST – STIFF	3				VISUAL				12.0
962.6	8											
		6-7-6	BROWN SILTY FINE SAND W/A LITTLE GRAVEL, MOIST – MEDIUM DENSE	4				VISUAL				
960.1	10											
	12	3-3-4	GRAY SILTY FINE SAND, TRACE GRAVEL, MOIST – LOOSE	5				VISUAL				
957.6												
	14	7-7-7	GRAY FINE TO COARSE SAND W/SOME GRAVEL, MOIST – MEDIUM DENSE	6				VISUAL				
	16	7-7-8	DO DO DO	7				VISUAL				
952.6	18											
951.1		5-6-7	GRAY SILTY FINE SAND, MOIST – MEDIUM DENSE	8				VISUAL				
	20											
	22	6-6-6	DARK BROWN FINE TO COARSE SAND W/SOME GRAVEL, WET – MEDIUM DENSE	9	33	36	26	– 5 –				17.8
	24											
945.1												
	26	4-7-11	GRAY FINE SAND, WET – MEDIUM DENSE	10				VISUAL				17.7
	28											
	30											
	32	12-12-14	DO DO DO	11				VISUAL				
	34											
935.1												
	36	6-11-15	GRAY FINE SAND, WET – MEDIUM DENSE	12				VISUAL				
	38											
930.1	40											
	42	7-13-18	GRAY FINE SAND, WET – DENSE	13				VISUAL				17.4
	44											
925.1												
	46	20-30-36	GRAY FINE SAND, WET – VERY DENSE	14				VISUAL				
	48											
920.1	50											
	52	10-18-27	GRAY FINE SAND, WET – DENSE	15				VISUAL				20.2
	54											
	56	12-12-28	DO DO DO	16				VISUAL				
	58											
910.1	60											
	62	12-23-39	GRAY SILTY FINE SAND, WET – VERY DENSE	17				VISUAL				
	64											
	66	18-47-68	DO DO DO	18				VISUAL				
	68											
900.1	70											
	72	11-18-26	GRAY SILTY FINE SAND, WET – DENSE	19				VISUAL				20.8
	74											
895.1												
893.6	76	12-21-36	GRAY SILTY FINE SAND, WET – VERY DENSE	20				VISUAL				
	78											

BORING COMPLETED

DATE STARTED 9-15-79 SAMPLER: TYPE S.S. DIA. 2.0" O.D. WATER ELEVATION
DATE COMPLETED 9-16-79 CASING: LENGTH H.S.A. DIA. 3.5" I.D. IMMEDIATE 20.0'
BORING NUMBER 7-S CORE BARREL: TYPE SIZE AFTER 24 HOURS 18.0'
STATION & OFFSET 115+74 13' LT. BL RAMP EN SURFACE ELEVATION 969.9

ELEV.	DEPTH	STN. PEN (N)	DESCRIPTION	SA. NO.	PHYSICAL CHARACTERISTICS % AGG	% CS	% FS	% SILT	% CLAY	LL	PI	WC
969.9	0											
	2	7-8-5	BLACKTOP AND SAND W/SOME GRAVEL (FILL), MOIST - MEDIUM DENSE	1				VISUAL				
967.4												
	4	3-3-3	BROWN SANDY SILTY CLAY W/SOME GRAVEL AND SAND (FILL), MOIST - MEDIUM STIFF	2				VISUAL				13.8
964.9	6	1-1-2	BROWN SILTY FINE SAND W/SOME ORGANICS, MOIST - VERY LOOSE	3				VISUAL				13.6
982.4	8	2-3-4	BROWN SILTY FINE TO COARSE SAND AND GRAVEL, MOIST - LOOSE	4				VISUAL				13.4
959.9	10											
	12	3-3-3	BROWN FINE TO COARSE SAND AND GRAVEL, MOIST - LOOSE	5	47	32	11	6	4	N.P.		9.4
957.4	14	6-6-8	BROWN FINE TO COARSE SAND AND GRAVEL, MOIST - MEDIUM DENSE	6				VISUAL				4.5
	16	6-6-7	DO DO DO	7	51	32	12	2	3			4.4
952.4	18	5-7-7	BROWN SILTY FINE TO COARSE SAND W/SOME GRAVEL, WET - MEDIUM DENSE	8				VISUAL				4.4
949.9	20											
	22	5-6-7	BROWN FINE TO COARSE SAND AND GRAVEL WET - MEDIUM DENSE	9	52	28	17	- 3 -				11.8
944.9	24											
	26	9-10-13	GRAY SANDY SILT W/FINE SAND SEAMS, WET - MEDIUM DENSE	10				VISUAL				14.8
	28											
	30											
	32	6-10-16	DO DO DO	11				VISUAL				18.6
934.9	34											
	36	9-9-10	GRAY SANDY SILT, WET - MEDIUM DENSE	12	0	1	35	56	8	N.P.		19.8
929.9	38											
	40											
	42	11-18-25	GRAY SILTY FINE SAND, WET - DENSE	13				VISUAL				22.4
924.9	44											
	46	19-25-30	GRAY SANDY SILT, WET - VERY DENSE	14				VISUAL				18.8
919.9	48											
	50											
	52	11-19-25	GRAY SILTY FINE SAND, WET - DENSE	15				VISUAL				17.9
	54											
	56	9-13-20	DO DO DO	16	5	4	58	25	8			6.7
	58											
909.9	60											
	62	15-24-36	GRAY SILTY FINE SAND, WET - VERY DENSE	17				VISUAL				13.3
904.9	64											
	66	13-20-27	GRAY SILTY FINE SAND, WET - DENSE	18				VISUAL				15.3
	68											
899.9	70											
	72	11-25-41	GRAY SILTY FINE SAND, WET - VERY DENSE	19				VISUAL				19.5
	74											
	76	19-40-63	DO DO DO	20				VISUAL				18.3
	78											
889.9	80											
888.4	82	9-19-34	GRAY FINE SAND, WET - VERY DENSE	21	0	1	89	- 10 -				20.5

BORING COMPLETED

DATE STARTED 9-14-79 SAMPLER: TYPE S.S. DIA. 2.0'' O.D. WATER ELEVATION
DATE COMPLETED 9-15-79 CASING: LENGTH H.S.A. DIA. 3.5'' I.D. IMMEDIATE 20.0'
BORING NUMBER 8-S CORE BARREL: TYPE _____ SIZE _____ AFTER 24 HOURS 19.0'
STATION & OFFSET 116+50 10' LT BL RAMP EN SURFACE ELEVATION 970.1

ELEV.	DEPTH	STN. PEN. (N)	DESCRIPTION	SA. NO.	PHYSICAL CHARACTERISTICS							
					% AGG.	% CS	% FS	% SILT	% CLAY	LL	PI	WC
970.1	0		BROWN FINE TO COARSE SAND W/SOME GRAVEL, CINDERS, AND CLAY LENSES (FILL), MOIST – MEDIUM DENSE									
967.6	2	3-4-7		1				VISUAL				
965.1	4	3-3-3	BROWN SILTY FINE SAND, VERY MOIST – LOOSE	2				VISUAL				15.5
962.6	6	4-2-2	BROWN CLAYEY FINE TO COARSE SAND AND GRAVEL, MOIST – LOOSE	3				VISUAL				15.8
	8											
	10	6-6-6	BROWN FINE TO COARSE SAND W/SOME GRAVEL, MOIST – MEDIUM DENSE	4				VISUAL				
	12	3-5-7	DO DO DO	5				VISUAL				
955.1	14	13-13-10	DO DO DO	6				VISUAL				
	16	24-9-6	BROWN SILTY FINE TO COARSE SAND W/SOME GRAVEL, MOIST – MEDIUM DENSE	7				VISUAL				
952.6	18											
950.1	20	4-6-7	BROWN FINE SAND, MOIST – MEDIUM DENSE	8	2	24	69	0	5			3.7
	22	5-6-7	BROWN FINE SAND, WET – MEDIUM DENSE	9	2	28	68	0	4			19.4
945.1	24											
	26	7-9-12	BROWN FINE SAND, TRACE GRAVEL, WET – MEDIUM DENSE	10				VISUAL				
	28											
940.1	30											
938.6	32	9-7-11	BROWN AND GRAY FINE SAND, WET – MEDIUM DENSE	11				VISUAL				
	34											
	36	6-7-9	GRAY FINE SAND, WET – MEDIUM DENSE	12				VISUAL				16.(
	38											
930.1	40											
	42	9-15-23	GRAY FINE SAND, WET – DENSE	13				VISUAL				
	44											
	46	11-17-25	DO DO DO	14				VISUAL				
	48											
	50											
	52	10-14-22	DO DO DO	15				VISUAL				
	54											
915.1	56											
	58	11-17-25	GRAY SILTY FINE SAND, WET – DENSE	16				VISUAL				
910.1	60											
	62	14-31-39	GRAY FINE SAND, TRACE ORGANICS, WET – VERY DENSE	17				VISUAL				
905.1	64											
	66	31-74-87	GRAY FINE SAND, WET – VERY DENSE	18				VISUAL				
	68											
900.1	70											
	72	9-18-33	GRAY SANDY SILT WITH A LITTLE CLAY, VERY DENSE	19				VISUAL				
	74											
895.1	76	12-21-33	DO DO DO	20				VISUAL				
	78											

BORING COMPLETED

THE H.C. NUTTING COMPANY
GEOTECHNICAL ENGINEERS
AIRPORT ROAD
CINCINNATI, OHIO

AKRON INNERBELT
SUM-59-00.00

16
40

DATE STARTED 9-13-79 SAMPLER: TYPE S.S DIA. 2.0" O.D. WATER ELEVATION
DATE COMPLETED 9-13-79 CASING: LENGTH H.S.A. DIA. 3.5" I.D. IMMEDIATE 28.0'
BORING NUMBER S-5 CORE BARREL: TYPE SIZE AFTER 24 HOURS 19.2'
STATION & OFFSET 117+18 8'LT. BL RMP EN SURFACE ELEVATION 970.5

ELEV	DEPTH	STN. PEN (N)	DESCRIPTION	SA NO	PHYSICAL CHARACTERISTICS							
					% AGG	% CS	% FS	% SILT	% CLAY	LL	PI	WC
970.5												
	2	1-8-5	BROWN FINE TO COARSE SAND W/SOME GRAVEL (FILL), MOIST - MEDIUM DENSE	1				VISUAL				
968.0	4	4-5-5	GRAY CLAYEY FINE SAND, MOIST - LOOSE	2				VISUAL				15.1
	6	3-4-4	DO DO DO	3				VISUAL				14.7
963.0	8	4-7-8	BROWN CLAYEY FINE TO COARSE SAND W/SOME SANDSTONE FRAGMENTS AND FINE SAND LENSES MOIST - MEDIUM DENSE	4				VISUAL				15.8
960.5	10											
	12	5-6-8	GRAY FINE SAND W/SOME GRAVEL, MOIST - MEDIUM DENSE	5				VISUAL				
958.0	14	4-6-8	GRAY SILTY FINE SAND, MOIST - MEDIUM DENSE	6				VISUAL				
955.5	16	4-5-6	GRAY FINE SAND, MOIST - MEDIUM DENSE	7				VISUAL				
953.0	18	2-3-5	GRAY FINE SAND, MOIST - LOOSE	8				VISUAL				
950.5	20											
	22	2-2-3	BROWN SILTY FINE SAND, WET - LOOSE	9				VISUAL				18.2
	24											
	26	3-5-7	BROWN SILTY FINE SAND, WET - MEDIUM DENSE	10				VISUAL				
940.5	28											
	32	7-10-15	GRAY FINE TO MEDIUN SAND, WET - MEDIUM DENSE	11				VISUAL				
	34											
	36	5-8-9	DO DO DO	12				VISUAL				
	38											
	40											
	42	9-14-19	DO DO DO	13				VISUAL				
925.5	44											
	46	11-17-24	GRAY FINE SAND, WET - DENSE	14				VISUAL				
920.5	48											
	50											
	52	9-13-20	GRAY SANDY SILT, WET - DENSE	15				VISUAL				21.7
915.5	54											
	56	9-17-26	GRAY SILTY FINE SAND WET - DENSE	16				VISUAL				
	58											
910.5	60											
	62	7-12-18	GRAY CLAYEY SILT, WET - VERY STIFF	17				VISUAL				
	64											
	66	5-9-10	DO DO DO	18				VISUAL				23.5
	68											
	70											
	72	6-12-15	DO DO DO	19				VISUAL				
	74											
	76	5-11-11	DO DO DO	20				VISUAL				
	78											
	80											
889.0	82	2-8-12		21				VISUAL				18.4

BORING COMPLETED

SFN 770799

THE H. C. NUTTING COMPANY
GOETECHNICAL ENGINEERS
AIRPORT ROAD
CINCINNATI, OHIO

STRUCTURE FOUNDATION INVESTIGATION
BRIDGE NO. SUM-59-0000 AKRON INNERBELT
RAMP "EN" OVER BOWERY ST., OHIO CANAL
EXISTING WEST EXPRESSWAY & RUSSELL AVE.

SEC. AKRON INNERBELT SUM-59-00.00

BORING DATA

CHECKED BY	REVIEWED BY	DATE
JAS	CRL	7-25-80

DATE STARTED 9-21-79 SAMPLER: TYPE S.S. DIA. 2.0" O.D. WATER ELEVATION:
DATE COMPLETED 10-1-79 CASING: LENGTH H.S.A. DIA. 3.5" I.D. IMMEDIATE 25.0'
BORING NUMBER 10-S CORE BARREL: TYPE SIZE AFTER 24 HOURS 24.7'

STATION & OFFSET 118+52 14' RT. BL RAMP "EN" SURFACE ELEVATION 974.2

ELEV.	DEPTH	STN. PEN. (N)	DESCRIPTION	SA. NO.	PHYSICAL CHARACTERISTICS % AGG.	% CS	% FS	% SILT	% CLAY	LL	PI	WC
974.2	0		DARK BROWN SILTY FINE TO COARSE SAND W/SOME GRAVEL AND CLAY LENSES, TRACE SLAG (FILL), MOIST – MEDIUM DENSE									
	2	3-6-6		1				VISUAL				
	4	7-6-7	DO DO DO	2				VISUAL				
	6	6-6-6	DO DO DO	3				VISUAL				11.6
966.7	8											
		6-9-4	BROWN FINE TO COARSE SAND W/SOME GRAVEL, ORGANICS, AND ROCK FRAGMENTS, TRACE BRICK (FILL), MOIST – MEDIUM DENSE	4				VISUAL				15.6
964.2	10											
961.7	12	2-2-3	BLACK FINE TEXTURED PEAT, VERY MOIST – LOOSE	5				VISUAL				155.6
				6				VISUAL				11.8
	14	2-3-4	BROWN SILTY FINE SAND W/CLAY LENSES, MOIST – LOOSE									
959.2	16	2-3-4	BROWN AND GRAY FINE TO COARSE SAND W/SOME GRAVEL, MOIST – LOOSE	7	23	34	28	5	5			14.0
	18	9-7-18	BROWN AND GRAY FINE TO COARSE SAND W/SOME GRAVEL, MOIST – MEDIUM DENSE	8				VISUAL				
954.2	20											
	22	5-9-13	BROWN AND GRAY FINE TO COARSE SAND AND GRAVEL, MOIST – MEDIUM DENSE	9				VISUAL				
949.2	24											
	26	7-9-12	GRAY FINE SAND, TRACE GRAVEL, WET – MEDIUM DENSE	10				VISUAL				17.3
	28											
944.2	30											
	32	7-9-9	GRAY CLAYEY SILT, WET – STIFF	11				VISUAL				
	34											
	36	6-7-9	DO DO DO	12				VISUAL				18.1
	38											
934.2	40											
	42	8-10-12	GRAY CLAYEY SILT, TRACE GRAVEL WET – VERY STIFF	13				VISUAL				
	44											
929.2												
	46	5-8-8	GRAY CLAYEY SILT, WET – STIFF	14				VISUAL				
	48											
	50											
	52	4-5-7	DO DO DO	15				VISUAL				12.3
	54											
	56	4-6-8	DO DO DO	16				VISUAL				
	58											
914.2	60											
	62	5-6-7	GRAY CLAYEY SILT, TRACE GRAVEL, WET – STIFF	17				VISUAL				
	64											
	66	4-4-4	DO DO DO	18				VISUAL				13.5
	68											
904.2	70											

10-S CONTINUED

904.2	70									
	72	5-7-9	DO DO DO	19			VISUAL			
	74									
899.2										
	76	34-39-46	GRAY SILTY FINE SAND WITH SILT LENSES, WET-VERY DENSE	20			VISUAL			14.9
	78									
	80									
	82	27-49-80	DO DO DO	21			VISUAL			
	84									
889.2										
	86	12-18-24	GRAY CLAYEY SILT, WET - VERY STIFF	22			VISUAL			16.7
	88									
	90									
	92	20-37-55	DO DO DO	23			VISUAL			
	94									
879.2										
	96	23-35-51	GRAY CLAYEY SILT WITH FINE SAND SEAMS, WET-VERY STIFF	24			VISUAL			
	98									
	100									
	102	17-27-39	DO DO DO	25			VISUAL			
	104									
869.2										
867.7	106	20-37-59	GRAY CLAYEY SILT, WET- VERY STIFF	26			VISUAL			
	108									

BORING COMPLETED

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DATE STARTED 10-1-79 SAMPLER; TYPE S.S. DIA. 2.0" O.D. WATER ELEVATION
DATE COMPLETED 10-2-79 CASING; LENGTH H.S.A. DIA. 3.5" I.D. IMMEDIATE 7.5 & 17.5'
BORING NUMBER 11-S CORE BARREL; TYPE ______ SIZE ______ AFTER 24 HRS. 17 '
STATION & OFFSET 120+17, 14' RT. B.L. RAMP "EN" SURFACE ELEVATION 972.3

ELEV.	DEPTH	STN PEN (N)	DESCRIPTION	SA NO.	% AGG	% CS	% FS	% SILT	% CLAY	LL	PI	WC
972.3	0		BROWN SILTY FINE TO COARSE SAND WITH SOME GRAVEL TRACE SLAG AND CLAY LENSES (FILL), MOIST - MEDIUM DENSE									
	2	4-11-17		1			VISUAL					
	4	2-11-9	DO DO DO	2			VISUAL					10.9
967.3	6	17-17-9	SLAG AND BRICK FRAGMENTS WITH SOME SAND AND GRAVEL (FILL), MOIST - MEDIUM DENSE	3			VISUAL					
964.8	8											
962.3	10	21-11-7	BROWN AND GRAY FINE SAND WITH LITTLE CONCRETE FRAGMENTS (FILL) WET - MEDIUM DENSE	4			VISUAL					15.0
	12	4-5-5	BROWN SILTY FINE SAND WITH A LITTLE GRAVEL, MOIST - MEDIUM DENSE	5	15	18	56	6	5			11.8
959.8	14	3-4-6	BROWN FINE SAND, MOIST - MEDIUM DENSE	6			VISUAL					6.0
957.3	16	5-9-12	BROWN FINE TO COARSE SAND, TRACE GRAVEL, MOIST-MEDIUM DENSE	7			VISUAL					4.8
954.8	18											
	20	7-9-10	GRAY SANDY SILT, WET - MEDIUM DENSE	8	0	0	45	43	12	N.	P.	16.3
	22	5-9-12	DO DO DO	9			VISUAL					15.6
	24											
	26	5-8-9	DO DO DO	10			VISUAL					16.0
	28											
942.3	30											
	32											

SUM-76/77/8-8.24/9.74/0.00

SOIL PROFILE
BRIDGE OVER LAKESHORE
BORING LOG S-011-0-79

DRAWN SM CHECKED PAN

11- S CONTINUED

	32	5-7-10	GRAY SILT, WET- MEDIUM DENSE	11	0	1	28	58	13	N.	P.	19.9
937.3	34											
	36	6-8-11	GRAY SILT WITH SOME CLAY, WET - MEDIUM DENSE	12	0	0	2	78	29	N.	P.	25.1
932.3	38 40											
	42	17-18-19	GRAY FINE SAND, WET-DENSE	13	1	12	73	10	4			13.4
	44 46	17-23-26	DO DO DO	14			VISUAL					10.2
922.3	48 50											
	52	6-8-10	GRAY CLAYEY SILT, MOIST-STIFF	15			VISUAL					15.7
917.3	54											
	56	9-12-15	GRAY SILT WITH A LITTLE CLAY AND GRAVEL - WET - MEDIUM DENSE	16			VISUAL					15.4
	58	S-T		S-1	17	5	12	47	19	N.	P.	15.3
911.8	60	5-7-8		17		(CONSOLIDATION TEST)	VISUAL					15.8
	62	4-7-10	GRAY CLAYEY SILT WITH SAND LENSES, WET- VERY STIFF	18			VISUAL					12.2
	64 66	32-11-14	DO DO DO	19			VISUAL					15.4
	68 70	5-7-10	DO DO DO	20			VISUAL					15.7
	72 74	12-10-13	DO DO DO	21			VISUAL					16.4
892.3	76 78 80											
	82	12-14-21	GRAY CLAYEY SILT, VERY MOIST- VERY STIFF	22			VISUAL					18.5
	84 86	12-15-20	DO DO DO	23			VISUAL					
882.3	88 90											
880.8	92	16-28-28	GRAY SILTY FINE SAND, WET - VERY DENSE	24			VISUAL					15.2
	94		BORING COMPLETED									

DATE STARTED 10-16-79 SAMPLER: TYPE S.S. DIA. 2.0" O.D. WATER ELEVATION
DATE COMPLETED 10-17-79 CASING: LENGTH H.S.A. DIA 3.5" I.D. IMMEDIATE 10.0'
BORING NUMBER 14-S CORE BARREL: TYPE NXM SIZE ____ AFTER 24 HOURS 9.5'
STATION & OFFSET 127+45 16' LT. BL RAMP "EN" SURFACE ELEVATION 982.5

ELEV.	DEPTH	STN. PEN. (N)	DESCRIPTION	SA NO.	PHYSICAL CHARACTERISTICS % AGG.	% CS	% FS	% SILT	% CLAY	LL	PI	WC
982.5	0		DARK BROWN SANDY SILTY CLAY W/SOME CINDERS AND SANDSTONE FRAGMENTS, TRACE ORGANICS (FILL), MOIST - STIFF	1				VISUAL				13.6
980.0	2	2-7-8										
	4	6-9-12	BROWN CLAYEY FINE SAND W/LITTLE GRAVEL, MOIST - MEDIUM DENSE	2				VISUAL				12.3
977.5	6	6-6-9	BROWN SILTY FINE SAND, TRACE GRAVEL, MOIST - MEDIUM DENSE	3				VISUAL				13.8
	8	6-6-6	DO DO DO	4				VISUAL				11.8
972.5	10											
	12	4-4-4	BROWN SILTY FINE SAND, TRACE GRAVEL, VERY MOIST - LOOSE	5	10	20	49	12	9			20.0
970.0	14	7-7-10	GRAY SILTY FINE SANDY W/A LITTLE GRAVEL, VERY MOIST - MEDIUM DENSE	6				VISUAL				18.7
967.5	16	8-8-9	GRAY CLAYEY SILT WITH SOME SAND , WET - STIFF	7				VISUAL				18.2
	18											
	20	5-7-7	DO DO, DO	8				VISUAL				17.0
	22	5-6-7	DO DO DO	9				VISUAL				16.3
	24											
957.5	26	4-5-6	GRAY SILT WITH SOME CLAY, LITTLE SAND, TRACE GRAVEL, WET - MEDIUM DENSE	10	2	4	13	57	24	N.P		16.7
	28											
952.5	30											
	32	126-293	GRAY VERY SOFT SHALE	11				VISUAL				
	34											
947.5	36	CORE RECOVERY	INTERBEDDED GRAY FIRM SHALE AND GRAY HARD SILICEOUS SHALE, SHALE, 80%, SILICEOUS SHALE, 20% OCCURRING IN 1/2" TO 3" LAYERS, AVERAGE 1".	12				NXM				
	38	97%										
942.5	40											

BORING COMPLETED

DATE STARTED 11-6-79
DATE COMPLETED 11-6-79
SAMPLER: TYPE S.S. DIA. 2.0" O.D.
CASING: LENGTH H.S.A. DIA. 3.5" I.D.
BORING NUMBER 15-S CORE BARREL: TYPE NXM SIZE
WATER ELEVATION
IMMEDIATE 12.5'
AFTER 24 HOURS 9.8'
STATION & OFFSET 128+19 10' LT BL RAMP "EN"
SURFACE ELEVATION 984.7

ELEV.	DEPTH	STN. (N) PEN	DESCRIPTION	SA. NO.	PHYSICAL CHARACTERISTICS % AGG	% CS	% FS	% SILT	% CLAY	LL	PI	WC
984.7	0											
	2	4-5-8	BROWN SILTY FINE SAND W/SANDSTONE FRAGMENTS (FILL) MOIST - MEDIUM DENSE	1				VISUAL				14.8
982.2	4	5-8-9	BROWN SANDY SILTY CLAY W/TOPSOIL AND GRAVEL (FILL), MOIST - STIFF	2				VISUAL				11.5
979.7	6	6-11-11	BROWN CLAYEY FINE SAND, TRACE FINE GRAVEL, VERY MOIST - MEDIUM DENSE	3	4	22	56	5	13	N.P.		11.9
977.2	8	6-7-9	BROWN SILTY FINE SAND, VERY MOIST - MEDIUM DENSE	4	0	13	62	13	12			15.4
974.7	10	3-4-4	BROWN SANDY SILT WITH LITTLE CLAY, MOIST - LOOSE	5	0	2	38	47	13	N.P.		23.8
972.2	12	3-3-4	GRAY CLAYEY SILT, WET - MEDIUM STIFF	6				VISUAL				21.8
969.7	14	2-3-4	GRAY SANDY SILT, MOIST - LOOSE	7	0	0	22	69	9	N.P.		19.6
967.2	16	3-5-7	GRAY SANDY SILT WITH LITTLE CLAY VERY MOIST - MEDIUM DENSE	8				VISUAL				13.7
	18	4-5-7	DO DO DO	9				VISUAL				17.1
960.7	20											
	22	38-60	GRAY VERY SOFT SHALE	10				VISUAL				6.9
	24											
955.7	26											
	28											
	30	CORE RECOVERY 100%	INTERBEDDED GRAY FIRM SHALE AND GRAY HARD SILICEOUS SHALE. SHALE, 65%, SILICEOUS SHALE, 35% OCCURRING IN 1/2" TO 4" LAYERS., AVERAGE 2". HIGH ANGLE JOINTING EVIDENCED.					NXM				
	32											
950.7	34											

BORING COMPLETED

DATE STARTED 10-13-79
DATE COMPLETED 10-14-79
BORING NUMBER 19-S

SAMPLER: TYPE S.S. DIA. 2.0'' O.D.
CASING: LENGTH H.S.A. DIA. 3.5'' I.D.
CORE BARREL: TYPE SIZE

WATER ELEVATION
IMMEDIATE 17.5'
AFTER 24 HOURS 17.2'
SURFACE ELEVATION 975.2

STATION & OFFSET 123+92 4' RT. BL RAMP SW

ELEV.	DEPTH	STN. PEN. (N)	DESCRIPTION	SA. NO.	PHYSICAL CHARACTERISTICS % AGG.	% CS	% FS	% SILT	% CLAY	LL	PI	WC
975.2	0		BROWN CLAYEY FINE SAND W/SOME SANDSTONE FRAGMENTS, TRACE GRAVEL (FILL),									
	2	4-14-9	MOIST - MEDIUM DENSE	1			VISUAL					
	4	12-13-9	DO DO DO	2			VISUAL					
970.2	6											
		5-6-6	BROWN SILTY FINE SAND W/A LITTLE GRAVEL, MOIST - MEDIUM DENSE	3			VISUAL					8.3
	8	6-6-6	DO DO DO	4			VISUAL					11.2
965.2	10											
962.7	12	3-4-5	BROWN FINE SAND, TRACE GRAVEL, MOIST - LOOSE	5	4	15	74	C	7			9.5
	14	5-6-6	GRAY SILTY FINE SAND, MOIST - MEDIUM DENSE	6			VISUAL					10.8
	16	4-5-7	DO DO DO	7			VISUAL					16.2
957.7	18											
		5-5-7	GRAY SILTY FINE SAND, WET - MEDIUM DENSE	8			VISUAL					25.8
	20											
	22	5-6-8	DO DO DO	9			VISUAL					17.7
	24											
	26	7-9-12	DO DO DO	10			VISUAL					15.9
	28											
	30											
		11-18-24	GRAY SILTY FINE SAND, WET - DENSE	11			VISUAL					17.1
	32											
	34											
	36	5-8-12	GRAY SILTY FINE SAND, WET - MEDIUM DENSE	12			VISUAL					18.7
	38											
	40											
	42	8-10-12	DO DO DO	13			VISUAL					17.3
	44											
930.2												
	46	5-7-10	GRAY CLAYEY SILT, VERY MOIST - STIFF	14			VISUAL					19.0
	48											
925.2	50											
	52	6-7-9	GRAY SILT WITH SOME CLAY AND LITTLE SAND, VERY MOIST - MEDIUM DENSE	15	C	0	14	57	29	N.P.		19.4
	54											
920.2												
	56	7-8-10	GRAY CLAYEY SILT WITH SOME SAND, TRACE GRAVEL, VERY MOIST - STIFF	16			VISUAL					19.9
	58											
	60											
	62	4-5-6	GRAY SILT SOME CLAY AND SAND, TRACE GRAVEL VERY MOIST - MEDIUM DENSE	17	4	6	16	50	24	N.P.		17.7
	64											
	66	3-6-9	GRAY CLAYEY SILT WITH SOME SAND, TRACE GRAVEL VERY MOIST - STIFF	18			VISUAL					10.4
	68											
	70											
	72	7-9-11	DO DO DO	19			VISUAL					16.9
	74											
900.2												
	76	31-69-90	GRAY FINE SAND W/SILT SEAMS, TRACE GRAVEL, WET - VERY DENSE	20	1	4	81	9	5			20.8
	78											
	80											
	82	24-43-71	DO DO DO	21			VISUAL					14.5
	84											
890.2												

19-S CONTINUED

890.2	86	28-93-59	GRAY FINE SAND, WET – VERY DENSE	22				VISUAL			16.1
	88										
885.2	90										
	92	37-57-75	GRAY FINE SAND, WET – VERY DENSE	23				VISUAL			19.7
	94										
	96	18-41-65	DO DO DO	24				VISUAL			17.5
	98										
875.2	100										
873.7	102	21-40-41	GRAY SILTY FINE SAND, WET – VERY DENSE	25				VISUAL			18.3

BORING COMPLETED

PROJECT: INTERSTATE 76/77	DRILLING FIRM / OPERATOR: DLZ-AD / DEARING	DRILL RIG: '19 CME 75-079-797	STATION / OFFSET: 266+15, 64' RT.	EXPLORATION ID B-009-1-19
TYPE: ROADWAY	SAMPLING FIRM / LOGGER: DLZ / MIDDLETON	HAMMER: CME AUTOMATIC	ALIGNMENT:	
PID: 102329 SFN:	DRILLING METHOD: 3.25" HSA	CALIBRATION DATE: 8/15/19	ELEVATION: 1012.8 (MSL) EOB: 60.0 ft.	PAGE 1 OF 1
START: 10/30/19 END: 10/30/19	SAMPLING METHOD: SPT	ENERGY RATIO (%): 83.7	COORD: 509425.6900 N, 2230486.8800 E	

MATERIAL DESCRIPTION AND NOTES	ELEV.	DEPTHS	SPT/ RQD	N_{60}	REC (%)	SAMPLE ID	HP (tsf)	GRADATION (%) GR	CS	FS	SI	CL	ATTERBERG LL	PL	PI	WC	ODOT CLASS (GI)	HOLE SEALED
	1012.8																	
	1011.8																	
LOOSE, BROWN, **COARSE AND FINE SAND**, AND GRAVEL, TRACE SILT, TRACE CLAY, CONTAINS ASPHALT FRAGMENTS, MOIST	1010.3		6 2 2	6	89	SS-1	-	42	23	27	- 8 -		-	-	-	13		
LOOSE, GRAY, **SANDY SILT**, LITTLE GRAVEL, LITTLE CLAY, DAMP	1008.8		3 2 2	6	67	SS-2	-	12	12	15	43	18	24	18	6	13	A-4a (5)	
LOOSE, GRAY AND BROWN, **SANDY SILT**, SOME GRAVEL, LITTLE CLAY, DAMP	1004.3		2 2 2	6	83	SS-3	-	22	9	14	36	19	22	15	7	12	A-4a (4)	
			3 2 3	7	11	SS-4	-	23	8	9	41	19	25	16	9	11	A-4a (5)	
VERY LOOSE, GRAY, **SANDY SILT**, SOME GRAVEL, SOME CLAY, CONTAINS SHALE FRAGMENTS, DAMP	1001.8		2 1 2	4	89	SS-5	-	21	9	17	33	20	22	15	7	12	A-4a (4)	
MEDIUM DENSE, BROWN, **SANDY SILT**, SOME GRAVEL, LITTLE CLAY, DAMP	999.3		1 5 5	14	72	SS-6	-	21	7	10	43	19	26	18	8	12	A-4a (5)	
MEDIUM STIFF, GRAY, **SILT AND CLAY**, LITTLE GRAVEL, SOME SAND, DAMP	996.8		3 3 3	8	56	SS-7	-	13	9	13	51	14	29	18	11	13	A-6a (6)	
LOOSE, BROWN TO GRAY, **SANDY SILT**, SOME GRAVEL, LITTLE CLAY, DAMP	989.3		1 3 3	8	106	SS-8	-	-	-	-	-	-	-	-	-	11	A-4a (V)	
			2 2 2	6	89	SS-9	-	26	12	13	31	18	25	18	7	13	A-4a (3)	
			4 4 3	10	100	SS-10	-	-	-	-	-	-	-	-	-	15	A-4a (V)	
DENSE, BROWN, **SANDY SILT**, LITTLE GRAVEL, SOME CLAY, CONTAINS SANDSTONE FRAGMENTS, DAMP	984.3		8 17 10	38	94	SS-11	-	19	18	18	25	20	NP	NP	NP	10	A-4a (2)	
MEDIUM DENSE, BROWN, **FINE SAND**, TRACE GRAVEL, TRACE SILT, TRACE CLAY, DAMP	979.3		4 7 7	20	94	SS-12	-	1	6	83	- 10 -		-	-	-	4	A-3 (V)	
MEDIUM DENSE, BROWN, **SANDY SILT**, TRACE GRAVEL, LITTLE CLAY, DAMP	974.3		6 10 10	28	100	SS-13	-	8	5	43	30	14	NP	NP	NP	14	A-4a (2)	
LOOSE TO MEDIUM DENSE, BROWN, **SANDY SILT**, SOME GRAVEL, TRACE CLAY, DAMP	964.3		4 11 11	31	94	SS-14	-	26	16	22	24	12	19	16	3	10	A-4a (0)	
			4 2 5	10	89	SS-15	-	-	-	-	-	-	-	-	-	19	A-4a (V)	
VERY DENSE, GREY, **STONE FRAGMENTS SHALE**.	962.8	TR	50/2"	-	100	SS-16	-	-	-	-	-	-	-	-	-	14	Rock (V)	
SANDSTONE, GREY, SLIGHTLY TO MODERATELY WEATHERED, SLIGHTLY TO MODERATELY STRONG, FINE GRAINED, LAMINATED TO THIN BEDDED, HIGHLY FRACTURED; RQD 25%.	959.8		25		92	NQ2-1 NQ2-R-1											CORE	
SANDSTONE, GREY, SLIGHTLY TO MODERATELY WEATHERED, SLIGHTLY TO MODERATELY STRONG, FINE GRAINED, LAMINATED TO THIN BEDDED, HIGHLY FRACTURED; RQD 53%.	954.8	▼ 956.6	53		95	NQ2-2 NQ2-R-2											CORE	
SANDSTONE, GREY, SLIGHTLY TO MODERATELY WEATHERED, SLIGHTLY TO MODERATELY STRONG, FINE GRAINED, LAMINATED TO THIN BEDDED, HIGHLY FRACTURED; RQD 62%.	952.8	EOB	63		100	NQ2-3 NQ2-R-3											CORE	

NOTES: NONE

ABANDONMENT METHODS, MATERIALS, QUANTITIES: PLACED ASPHALT PATCH; TREMIED BENTONITE GROUT

STANDARD ODOT SOIL BORING LOG (11 X 17) - OH DOT GDT - 8/26/20 17:25 - P:\102329_SUM-76_77\DESIGN\GEOTECHNICAL\LABDATA\1822-1016-00 I-76_77 EL ROBINSON.GPJ

PROJECT: INTERSTATE 76/77	DRILLING FIRM / OPERATOR: DLZ-AD / DEARING	DRILL RIG: '19 CME 75-079-797	STATION / OFFSET: 268+29, 65' LT.	EXPLORATION ID B-009-2-19
TYPE: ROADWAY	SAMPLING FIRM / LOGGER: DLZ / MIDDLETON	HAMMER: CME AUTOMATIC	ALIGNMENT:	
PID: 102329 SFN:	DRILLING METHOD: 3.25" HSA	CALIBRATION DATE: 8/15/19	ELEVATION: 1006.3 (MSL) EOB: 98.9 ft.	PAGE 1 OF 2
START: 10/28/19 END: 10/29/19	SAMPLING METHOD: SPT	ENERGY RATIO (%): 83.7	COORD: 509615.1100 N, 2230650.7300 E	

MATERIAL DESCRIPTION AND NOTES	ELEV.	DEPTHS	SPT/ RQD	N_{60}	REC (%)	SAMPLE ID	HP (tsf)	GRADATION (%) GR	CS	FS	SI	CL	ATTERBERG LL	PL	PI	WC	ODOT CLASS (GI)	HOLE SEALED
CONCRETE	1006.3 / 1005.3																	
LOOSE, BROWN, **COARSE AND FINE SAND**, TRACE GRAVEL, LITTLE SILT, LITTLE CLAY, DAMP	1003.8		10 3 3	8	89	SS-1	-	7	59	12	- 22 -		-	-	-	10	A-3a (V)	
DENSE TO VERY DENSE, BROWN, **SANDY SILT**, LITTLE GRAVEL, SOME CLAY, DAMP	1000.8		2 18 50	95	28	SS-2	-	-	-	-	-	-	-	-	-	15	A-4a (V)	
			10 6 6	17	83	SS-3	-	15	8	15	37	25	24	16	8	12	A-4a (5)	
STIFF, BROWN AND GRAY, **SILT AND CLAY**, TRACE GRAVEL, LITTLE SAND, DAMP	995.3		3 3 5	11	83	SS-4	-	6	4	12	46	32	28	16	12	15	A-6a (9)	
			2 4 4	11	100	SS-5	-	-	-	-	-	-	-	-	-	20	A-6a (V)	
MEDIUM DENSE, GRAY, **SANDY SILT**, LITTLE GRAVEL, SOME CLAY, DAMP	992.8		3 3 5	11	89	SS-6	-	15	5	15	37	28	28	18	10	17	A-4a (6)	
LOOSE TO MEDIUM DENSE, GRAY, **SILT**, LITTLE GRAVEL, TRACE SAND, TRACE CLAY, DAMP	987.8		2 3 3	8	94	SS-7	-	-	-	-	-	-	-	-	-	11	A-4b (V)	
			3 6 6	17	83	SS-8	-	-	-	-	-	-	-	-	-	12	A-4b (V)	
STIFF TO VERY STIFF, GRAY, **SILT AND CLAY**, TRACE GRAVEL, LITTLE SAND, DAMP	977.8		3 9 8	24	89	SS-9	-	5	4	13	50	28	28	16	12	15	A-6a (9)	
			3 6 7	18	100	SS-10	-	-	-	-	-	-	-	-	-	15	A-6a (V)	
			3 4 6	14	89	SS-11	-	-	-	-	-	-	-	-	-	14	A-6a (V)	
LOOSE TO MEDIUM DENSE, DARK BROWN, **COARSE AND FINE SAND**, SOME GRAVEL, TRACE SILT, TRACE CLAY, DAMP	962.8		5 7 5	17	100	SS-12	-	21	34	30	- 15 -		-	-	-	7	A-3a (V)	
			1 2 2	6	100	SS-13	-	-	-	-	-	-	-	-	-	5	A-3a (V)	
			2 4 6	14	89	SS-14	-	-	-	-	-	-	-	-	-	7	A-3a (V)	
MEDIUM DENSE, BROWN, **SILT**, AND SAND, TRACE CLAY, WET	957.8		11 11 10	29	83	SS-15	-	0	0	35	56	9	NP	NP	NP	20	A-4b (6)	
MEDIUM DENSE, BROWN, **FINE SAND**, TRACE GRAVEL, TRACE SILT, TRACE CLAY, MOIST	952.8	W 953.6	12 8 8	22	100	SS-16	-	6	15	73	- 6 -		-	-	-	19	A-3 (V)	
DENSE, BROWN, **COARSE AND FINE SAND**, AND GRAVEL, TRACE SILT, TRACE CLAY, MOIST	947.8		19 23 12	49	100	SS-17	-	43	34	10	- 13 -		-	-	-	10	A-1-b (V)	
DENSE, GRAY, **SILT**, LITTLE SAND, LITTLE CLAY, DAMP			11 14 15	40	78	SS-18	-	-	-	-	-	-	-	-	-	21	A-4b (V)	

STANDARD ODOT SOIL BORING LOG (11 X 17) - OH DOT GDT - 8/26/20 17:25 - P:\102329_SUM-76_77\DESIGN\GEOTECHNICAL\LABDATA\1822-1016-00 I-76_77 EL ROBINSON.GPJ

PID: 102329 | SFN: | PROJECT: INTERSTATE 76/77 | STATION / OFFSET: 268+29, 65' LT. | START: 10/28/19 | END: 10/29/19 | PG 2 OF 2 | B-009-2-19

MATERIAL DESCRIPTION AND NOTES	ELEV.	DEPTHS	SPT/ RQD	N_{60}	REC (%)	SAMPLE ID	HP (tsf)	GRADATION (%) GR	CS	FS	SI	CL	ATTERBERG LL	PL	PI	WC	ODOT CLASS (GI)	HOLE SEALED
DENSE, GRAY, **SILT**, LITTLE SAND, LITTLE CLAY, DAMP *(continued)*	946.3																	
	937.8	64	8 12 12	33	89	SS-19	-	0	0	12	77	11	NP	NP	NP	21	A-4b (8)	
LOOSE TO MEDIUM DENSE, GRAY, **SILT**, LITTLE TO SOME SAND, TRACE GRAVEL, LITTLE CLAY, WET		▼ 936.8 69	8 7 7	20	100	SS-20	-	-	-	-	-	-	-	-	-	25	A-4b (V)	
		74	4 3 3	8	78	SS-21	-	-	-	-	-	-	-	-	-	27	A-4b (V)	
		79	1 1 2	4	67	SS-22	-	-	-	-	-	-	-	-	-	21	A-4b (V)	
		84	4 4 4	11	94	SS-23	-	8	18	5	50	19	23	19	4	22	A-4b (7)	
		89	1 6 11	24	89	SS-24	-	-	-	-	-	-	-	-	-	19	A-4b (V)	
		94	50/5"	-	100	SS-25	-	-	-	-	-	-	-	-	-	9	A-4b (V)	
	907.4	EOB	50/5"	-	100	SS-26	-	-	-	-	-	-	-	-	-	9	A-4b (V)	

NOTES: NONE

ABANDONMENT METHODS, MATERIALS, QUANTITIES: PLACED ASPHALT PATCH; TREMIED BENTONITE GROUT

STANDARD ODOT SOIL BORING LOG (11 X 17) - OH DOT GDT - 8/26/20 17:25 - P:\102329_SUM-76_77\DESIGN\GEOTECHNICAL\LABDATA\1822-1016-00 I-76_77 EL ROBINSON.GPJ

PROJECT: INTERSTATE 76/77
TYPE: ROADWAY
PID: 102329 SFN:
START: 10/22/19 END: 10/25/19

DRILLING FIRM / OPERATOR: DLZ-AD / CONRAD
SAMPLING FIRM / LOGGER: DLZ / MIDDLETON
DRILLING METHOD: 3.25" HSA
SAMPLING METHOD: SPT

DRILL RIG: '19 CME 75-079-797
HAMMER: CME AUTOMATIC
CALIBRATION DATE: 8/15/19
ENERGY RATIO (%): 83.7

STATION / OFFSET: 288+89, 85' LT.
ALIGNMENT:
ELEVATION: 987.4 (MSL) EOB: 100.0 ft.
COORD: 509929.7600 N, 2232698.8100 E

EXPLORATION ID B-014-1-19

MATERIAL DESCRIPTION AND NOTES	ELEV.	DEPTHS	SPT/ RQD	N_{60}	REC (%)	SAMPLE ID	HP (tsf)	GRADATION (%) GR	CS	FS	SI	CL	ATTERBERG LL	PL	PI	WC	ODOT CLASS (GI)	HOLE SEALED
CONCRETE	986.4																	
LOOSE, BROWN, **GRAVEL AND STONE FRAGMENTS WITH SAND**, LITTLE SILT, LITTLE CLAY, DAMP	984.4		2 2 3	7	33	SS-1	-	35	29	14	- 22 -		-	-	-	8	A-1-b (V)	
LOOSE, DARK BROWN, **COARSE AND FINE SAND**, TRACE GRAVEL, SOME SILT, LITTLE CLAY, CONTAINS ORGANICS, MOIST	982.9		1 1 3	6	22	SS-2	-	8	41	18	21	12	19	13	6	15	A-3a (0)	
DENSE, BROWN, **GRAVEL AND/OR STONE FRAGMENTS WITH SAND AND SILT**, LITTLE CLAY, CONTAINS ROOT HAIRS, ORGANIC ODOR, DAMP	981.4		2 2 21	32	89	SS-3	-	17	19	30	20	14	19	14	5	14	A-2-4 (0)	
MEDIUM DENSE, BROWN, **SANDY SILT**, TRACE GRAVEL, LITTLE CLAY, MOIST	978.9		3 4 7	15	100	SS-4	-	6	18	39	20	17	22	13	9	15	A-4a (0)	
MEDIUM DENSE, BROWN, **COARSE AND FINE SAND**, TRACE GRAVEL, LITTLE SILT, LITTLE CLAY, MOIST	976.4		8 8 10	25	89	SS-5	-	8	23	46	12	11	NP	NP	NP	10	A-3a (0)	
LOOSE TO MEDIUM DENSE, GRAYISH BROWN, **SANDY SILT**, LITTLE GRAVEL, LITTLE CLAY, CONTAINS SHALE FRAGMENTS, ORGANIC ODOR, MOIST	966.4		3 4 3	10	100	SS-6	-	-	-	-	-	-	-	-	-	13	A-4a (V)	
			4 4 5	13	0	SS-7	-	-	-	-	-	-	-	-	-	-	A-4a (V)	
			4 3 3	8	100	SS-8	-	18	15	30	- 37 -		-	-	-	15	A-4a (V)	
			7 8 9	24	100	SS-9	-	-	-	-	-	-	-	-	-	10	A-4a (V)	
MEDIUM DENSE, DARK GRAY, **SANDY SILT**, TRACE GRAVEL, SOME CLAY, HIGHLY ORGANIC, MOIST	963.9		4 5 5	14	83	SS-10	-	2	8	24	46	20	36	31	5	32	A-4a (6)	
MEDIUM DENSE, LIGHT GRAY, **SILT**, SOME GRAVEL, LITTLE CLAY, TRACE SAND, CONTAINS SILTSTONE FRAGMENTS, DAMP	958.9		10 12 9	29	100	SS-11	-	-	-	-	-	-	-	-	-	13	A-4b (V)	
MEDIUM DENSE, LIGHT GRAY, **SANDY SILT**, LITTLE GRAVEL, SOME CLAY, SLIGHT ORGANIC ODOR, DAMP	953.9	▼ 954.5	14 9 10	27	100	SS-12	-	11	16	21	31	21	19	13	6	11	A-4a (3)	
DENSE, LIGHT BROWN, **COARSE AND FINE SAND**, TRACE TO SOME GRAVEL, TRACE SILT, TRACE CLAY, MOIST	943.9	W 943.9	9 10 12	31	100	SS-13	-	5	80	8	- 7 -		-	-	-	23	A-3a (V)	
			7 7 10	24	94	SS-14	-	34	40	19	- 7 -		-	-	-	14	A-3a (V)	
MEDIUM DENSE TO DENSE, GRAY, **COARSE AND FINE SAND**, TRACE SILT, TRACE CLAY, WET			4 5 5	14	100	SS-15	-	-	-	-	-	-	-	-	-	21	A-3a (V)	
			14 15 16	43	100	SS-16	-	0	6	81	- 13 -		-	-	-	19	A-3a (V)	
			9 13 15	39	56	SS-17	-	-	-	-	-	-	-	-	-	20	A-3a (V)	
	928.9																	
DENSE, GRAY, **SANDY SILT**, TRACE GRAVEL, TRACE CLAY, WET			12 12 18	42	100	SS-18	-	1	0	53	38	8	NP	NP	NP	18	A-4a (2)	

STANDARD ODOT SOIL BORING LOG (11 X 17) - OH DOT GDT - 8/26/20 17:25 - P:\102329_SUM-76_77\DESIGN\GEOTECHNICAL\LABDATA\1822-1016-00 I-76_77 EL ROBINSON.GPJ

PID: 102329 | SFN: | PROJECT: INTERSTATE 76/77 | STATION / OFFSET: 288+89, 85' LT. | START: 10/22/19 | END: 10/25/19 | PG 2 OF 2 | B-014-1-19

MATERIAL DESCRIPTION AND NOTES	ELEV.	DEPTHS	SPT/ RQD	N_{60}	REC (%)	SAMPLE ID	HP (tsf)	GRADATION (%) GR	CS	FS	SI	CL	ATTERBERG LL	PL	PI	WC	ODOT CLASS (GI)	HOLE SEALED
DENSE, GRAY, **SANDY SILT**, TRACE GRAVEL, TRACE CLAY, WET *(continued)*	927.4	61																
	923.9	62																
		63																
DENSE TO VERY DENSE, GRAY, **FINE SAND**, TRACE GRAVEL, TRACE SILT, TRACE CLAY, WET		64	10 16 18	47	100	SS-19	-	-	-	-	-	-	-	-	-	21	A-3 (V)	
		65																
		66																
		67																
		68																
		69	14 15 24	54	100	SS-20	-	-	-	-	-	-	-	-	-	20	A-3 (V)	
		70																
		71																
		72																
		73																
		74	12 21 20	57	100	SS-21	-	0	0	90	-	10 -	-	-	-	21	A-3 (V)	
		75																
		76																
		77																
		78																
		79	6 8 14	31	100	SS-22	-	-	-	-	-	-	-	-	-	21	A-3 (V)	
		80																
		81																
F.S.		82																
		83																
		84	7 9 10	27	89	SS-23	-	-	-	-	-	-	-	-	-	22	A-3 (V)	
		85																
		86																
		87																
		88																
		89	15 19 18	52	100	SS-24	-	2	5	87	-	6 -	-	-	-	21	A-3 (V)	
		90																
		91																
		92																
		93																
		94	20 20 17	52	100	SS-25	-	-	-	-	-	-	-	-	-	20	A-3 (V)	
		95																
		96																
		97																
		98																
		99	22 25 34	82	100	SS-26	-	-	-	-	-	-	-	-	-	17	A-3 (V)	
	887.4	EOB 100																

NOTES: NONE

ABANDONMENT METHODS, MATERIALS, QUANTITIES: PLACED ASPHALT PATCH; TREMIED BENTONITE GROUT

STANDARD ODOT SOIL BORING LOG (11 X 17) - OH DOT GDT - 8/26/20 17:25 - P:\102329_SUM-76_77\DESIGN\GEOTECHNICAL\LABDATA\1822-1016-00 I-76_77 EL ROBINSON.GPJ

PROJECT: INTERSTATE 76/77	DRILLING FIRM / OPERATOR: DLZ-AD / DEARING	DRILL RIG: '18 CME 55 404185	STATION / OFFSET: 290+23, 98' LT.	EXPLORATION ID B-014-2-19
TYPE: ROADWAY	SAMPLING FIRM / LOGGER: DLZ / SCHMITZ	HAMMER: CME AUTOMATIC	ALIGNMENT:	
PID: 102329 SFN:	DRILLING METHOD: 3.25" HSA	CALIBRATION DATE: 4/25/18	ELEVATION: 967.5 (MSL) EOB: 100.0 ft.	PAGE 1 OF 2
START: 10/21/19 END: 10/22/19	SAMPLING METHOD: SPT	ENERGY RATIO (%): 87.1	COORD: 509947.5400 N, 2232831.7300 E	

MATERIAL DESCRIPTION AND NOTES	ELEV. 967.5	DEPTHS	SPT/ RQD	N_{60}	REC (%)	SAMPLE ID	HP (tsf)	GRADATION (%) GR	CS	FS	SI	CL	ATTERBERG LL	PL	PI	WC	ODOT CLASS (GI)	HOLE SEALED
UNCONTROLLED FILL	966.5																	
LOOSE, DARK BROWN AND LIGHT GRAY, **SANDY SILT**, LITTLE GRAVEL, SOME CLAY, CONTAINS ORGANICS, DAMP	961.5		3 2 3	7	56	SS-1	-	0	10	39	30	21	31	24	7	23	A-4a (3)	
			2 3 3	9	56	SS-2	-	26	12	20	24	18	23	17	6	15	A-4a (1)	
MEDIUM DENSE, GRAYISH BROWN TO REDDISH BROWN, **GRAVEL AND STONE FRAGMENTS WITH SAND**, LITTLE SILT, TRACE CLAY, CONTAINS SANDSTONE FRAGMENTS, DAMP	959.0		5 8 6	20	67	SS-3	-	35	33	14	11	7	NP	NP	NP	7	A-1-b (0)	
LOOSE, ORANGISH BROWN, **GRAVEL AND STONE FRAGMENTS WITH SAND**, TRACE SILT, TRACE CLAY, CONTAINS SILTSTONE AND LIMESTONE FRAGMENTS, DAMP	956.5		4 3 4	10	83	SS-4	-	32	32	29	- 7 -		-	-	-	5	A-1-b (V)	
LOOSE TO MEDIUM DENSE, ORANGISH BROWN, **FINE SAND**, TRACE GRAVEL, TRACE SILT, TRACE CLAY, DAMP		▼ 954.5	2 3 4	10	100	SS-5	-	5	38	51	- 6 -		-	-	-	5	A-3 (V)	
			3 8 6	20	83	SS-6	-	-	-	-	-	-	-	-	-	4	A-3 (V)	
		W 951.5	2 4 6	15	89	SS-7	-	-	-	-	-	-	-	-	-	11	A-3 (V)	
LOOSE, BROWN, **GRAVEL AND STONE FRAGMENTS**, SOME SAND, TRACE SILT, TRACE CLAY, WET	949.0		2 1 3	6	61	SS-8	-	66	17	12	- 5 -		-	-	-	11	A-1-a (V)	
MEDIUM DENSE, BROWNISH GRAY, **COARSE AND FINE SAND**, SOME GRAVEL, LITTLE SILT, TRACE CLAY, WET	946.5		21 12 7	28	100	SS-9	-	23	10	47	14	6	NP	NP	NP	14	A-3a (0)	
MEDIUM DENSE, BROWNISH GRAY, **GRAVEL AND STONE FRAGMENTS WITH SAND**, TRACE SILT, TRACE CLAY, WET	944.0		10 6 9	22	100	SS-10	-	42	16	28	- 14 -		-	-	-	12	A-1-b (V)	
MEDIUM DENSE, GRAY, **SANDY SILT**, TRACE CLAY, MOIST	939.0		6 10 11	30	100	SS-11	-	0	3	54	34	9	NP	NP	NP	17	A-4a (2)	
MEDIUM DENSE TO DENSE, GRAY, **COARSE AND FINE SAND**, TRACE SILT, TRACE CLAY, WET	934.0		3 8 11	28	56	SS-12	-	-	-	-	-	-	-	-	-	19	A-3a (V)	
			5 5 14	28	56	SS-13	-	0	0	89	- 11 -		-	-	-	21	A-3a (V)	
			7 7 18	36	100	SS-14	-	-	-	-	-	-	-	-	-	19	A-3a (V)	
			6 10 23	48	100	SS-15	-	-	-	-	-	-	-	-	-	22	A-3a (V)	
			17 12 20	46	100	SS-16	-	0	0	86	- 14 -		-	-	-	24	A-3a (V)	
			3 13 16	42	44	SS-17	-	-	-	-	-	-	-	-	-	25	A-3a (V)	

STANDARD ODOT SOIL BORING LOG (11 X 17) - OH DOT GDT - 8/26/20 17:26 - P:\102329_SUM-76_77\DESIGN\GEOTECHNICAL\LABDATA\1822-1016-00 I-76_77 EL ROBINSON.GPJ

PID: 102329 | SFN: | PROJECT: INTERSTATE 76/77 | STATION / OFFSET: 290+23, 98' LT. | START: 10/21/19 | END: 10/22/19 | PG 2 OF 2 | B-014-2-19

MATERIAL DESCRIPTION AND NOTES	ELEV. 907.5	DEPTHS	SPT/ RQD	N_{60}	REC (%)	SAMPLE ID	HP (tsf)	GRADATION (%) GR	CS	FS	SI	CL	ATTERBERG LL	PL	PI	WC	ODOT CLASS (GI)	HOLE SEALED
MEDIUM DENSE TO DENSE, GRAY, **COARSE AND FINE SAND**, TRACE SILT, TRACE CLAY, WET *(continued)*		61–63																
		64	4 9 16	36	33	SS-18	-	-	-	-	-	-	-	-	-	23	A-3a (V)	
		65–68																
		69	4 10 17	39	0	SS-19	-	-	-	-	-	-	-	-	-	-	A-3a (V)	
		70–73																
		74	5 13 13	38	50	SS-20	-	-	-	-	-	-	-	-	-	23	A-3a (V)	
		75–78																
	889.0																	
VERY DENSE, GRAY, **SILT**, SOME SAND, LITTLE CLAY, MOIST		79	5 16 25	60	56	SS-21	-	0	2	27	57	14	NP	NP	NP	16	A-4b (7)	
		80–83																
		84	10 24 28	75	39	SS-22	-	-	-	-	-	-	-	-	-	16	A-4b (V)	
		85–88																
	879.0																	
DENSE TO VERY DENSE, GRAY, **FINE SAND**, TRACE SILT, TRACE CLAY, WET		89	9 18 20	55	78	SS-23	-	-	-	-	-	-	-	-	-	19	A-3 (V)	
		90–93																
		94	4 15 19	49	56	SS-24	-	-	-	-	-	-	-	-	-	21	A-3 (V)	
		95–98																
	867.5	99	8 17 23	58	83	SS-25	-	0	4	89	-	7 -	-	-	-	19	A-3 (V)	
		EOB 100																

NOTES: NONE

ABANDONMENT METHODS, MATERIALS, QUANTITIES: SHOVELED AUGER CUTTINGS; TREMIED BENTONITE GROUT

STANDARD ODOT SOIL BORING LOG (11 X 17) - OH DOT GDT - 8/26/20 17:26 - P:\102329_SUM-76_77\DESIGN\GEOTECHNICAL\LABDATA\1822-1016-00 I-76_77 EL ROBINSON.GPJ

PROJECT: INTERSTATE 76/77	DRILLING FIRM / OPERATOR: DLZ-AD / CONRAD	DRILL RIG: '19 CME 75-079-797	STATION / OFFSET: 293+97, 55' LT.	EXPLORATION ID B-014-3-19
TYPE: ROADWAY	SAMPLING FIRM / LOGGER: DLZ / MIDDLETON	HAMMER: CME AUTOMATIC	ALIGNMENT:	
PID: 102329 SFN:	DRILLING METHOD: 3.25" HSA	CALIBRATION DATE: 8/15/19	ELEVATION: 993.0 (MSL) EOB: 100.0 ft.	PAGE 1 OF 2
START: 10/21/19 END: 10/22/19	SAMPLING METHOD: SPT	ENERGY RATIO (%): 83.7	COORD: 509916.6200 N, 2233206.8100 E	

MATERIAL DESCRIPTION AND NOTES	ELEV.	DEPTHS	SPT/ RQD	N_{60}	REC (%)	SAMPLE ID	HP (tsf)	GRADATION (%) GR	CS	FS	SI	CL	ATTERBERG LL	PL	PI	WC	ODOT CLASS (GI)	HOLE SEALED
CONCRETE	993.0																	
	991.5																	
MEDIUM DENSE, GREY AND BROWN, **SANDY SILT**, SOME GRAVEL, LITTLE CLAY, DAMP	990.0		10 7 7	20	100	SS-1	-	24	10	18	32	16	20	14	6	9	A-4a (3)	
MEDIUM DENSE TO DENSE, BROWN, **COARSE AND FINE SAND**, TRACE TO SOME GRAVEL, LITTLE SILT, LITTLE CLAY, DAMP			10 10 11	29	100	SS-2	-	9	4	53	21	13	NP	NP	NP	10	A-3a (0)	
			11 5 3	11	78	SS-3	-	27	22	33	11	7	NP	NP	NP	8	A-3a (0)	
			2 2 2	6	22	SS-4	-	15	10	45	19	11	NP	NP	NP	10	A-3a (0)	
			3 2 4	8	100	SS-5	-	-	-	-	-	-	-	-	-	14	A-3a (V)	
			8 12 11	32	89	SS-6	-	-	-	-	-	-	-	-	-	7	A-3a (V)	
		W 979.5																
			6 5 5	14	72	SS-7	-	-	-	-	-	-	-	-	-	13	A-3a (V)	
	977.0																	
MEDIUM DENSE, DARK BROWN, **SANDY SILT**, TRACE GRAVEL, LITTLE CLAY, CONTAINS ROOT HAIRS, WOOD FIBERS, SLIGHT ORGANIC ODOR, WET			16 6 7	18	100	SS-8	-	7	21	31	26	15	NP	NP	NP	20	A-4a (1)	
			5 5 7	17	100	SS-9	-	-	-	-	-	-	-	-	-	27	A-4a (V)	
	972.0																	
MEDIUM DENSE, GREENISH GREY, **SILT**, LITTLE CLAY, TRACE SAND, TRACE GRAVEL, DAMP		▼ 971.3	3 3 5	11	100	SS-10	-	-	-	-	-	-	-	-	-	16	A-4b (V)	
	969.5																	
MEDIUM DENSE, GREYISH BROWN, **COARSE AND FINE SAND**, TRACE GRAVEL, LITTLE SILT ,LITTLE CLAY, DAMP			4 4 5	13	83	SS-11	-	8	31	32	15	14	18	12	6	12	A-3a (0)	
	964.5																	
VERY LOOSE, BROWN, **COARSE AND FINE SAND**, LITTLE GRAVEL, TRACE SILT, TRACE CLAY, DAMP			2 1 2	4	61	SS-12	-	17	24	40	- 19 -		-	-	-	11	A-3a (V)	
	959.5																	
LOOSE, BROWN, **UNCONTROLLED FILL**, WOOD, STRONG PINE SMELL, DAMP			16 3 3	8	28	SS-13	-	-	-	-	-	-	-	-	-	-	UCF (V)	
	954.5																	
LOOSE TO MEDIUM DENSE, GREY, **SILT**, SOME SAND, LITTLE CLAY, WET			9 9 9	25	100	SS-14	-	-	-	-	-	-	-	-	-	19	A-4b (V)	
			9 10 6	22	11	SS-15	-	-	-	-	-	-	-	-	-	18	A-4b (V)	
			5 6 6	17	72	SS-16	-	0	4	16	62	18	20	18	2	26	A-4b (8)	
			3 4 3	10	61	SS-17	-	-	-	-	-	-	-	-	-	23	A-4b (V)	
			5 3 3	8	100	SS-18	-	-	-	-	-	-	-	-	-	28	A-4b (V)	

PID: 102329	SFN:	PROJECT: INTERSTATE 76/77	STATION / OFFSET: 293+97, 55' LT.	START: 10/21/19	END: 10/22/19	PG 2 OF 2	B-014-3-19

MATERIAL DESCRIPTION AND NOTES	ELEV.	DEPTHS	SPT/ RQD	N_{60}	REC (%)	SAMPLE ID	HP (tsf)	GRADATION (%) GR	CS	FS	SI	CL	ATTERBERG LL	PL	PI	WC	ODOT CLASS (GI)	HOLE SEALED
LOOSE TO MEDIUM DENSE, GREY, **SILT**, SOME SAND, LITTLE CLAY, WET *(continued)*	933.0																	
	929.5																	
MEDIUM DENSE, GRAY, **SILT**, TRACE GRAVEL, TRACE SAND, AND CLAY, MOIST			4 4 4	11	100	SS-19	-	2	0	7	56	35	23	15	8	17	A-4b (8)	
	924.5																	
LOOSE TO MEDIUM DENSE, GRAY, **SILT**, TRACE GRAVEL, LITTLE SAND, LITTLE CLAY, MOIST			4 5 6	15	100	SS-20	-	-	-	-	-	-	-	-	-	18	A-4b (V)	
			4 5 6	15	100	SS-21	-	4	2	8	70	16	19	15	4	19	A-4b (8)	
			10 10 11	29	100	SS-22	-	-	-	-	-	-	-	-	-	15	A-4b (V)	
			3 2 2	6	100	SS-23	-	-	-	-	-	-	-	-	-	17	A-4b (V)	
			WOR WOR 2	3	100	SS-24	-	3	4	17	59	17	21	16	5	18	A-4b (8)	
			3 3 3	8	100	SS-25	-	-	-	-	-	-	-	-	-	20	A-4b (V)	
	893.0	EOB	3 3 3	8	100	SS-26	-	-	-	-	-	-	-	-	-	13	A-4b (V)	

NOTES: NONE

ABANDONMENT METHODS, MATERIALS, QUANTITIES: PLACED ASPHALT PATCH; TREMIED BENTONITE GROUT

STANDARD ODOT SOIL BORING LOG (11 X 17) - OH DOT GDT - 8/26/20 17:26 - P:\102329_SUM-76_77\DESIGN\GEOTECHNICAL\LABDATA\1822-1016-00 I-76_77 EL ROBINSON.GPJ

PROJECT: INTERSTATE 76/77
TYPE: ROADWAY
PID: 102329 SFN:
START: 10/15/19 END: 10/15/19

DRILLING FIRM / OPERATOR: DLZ-AD / CONRAD
SAMPLING FIRM / LOGGER: DLZ / MIDDLETON
DRILLING METHOD: 3.25" HSA
SAMPLING METHOD: SPT

DRILL RIG: '19 CME 75-079-797
HAMMER: CME AUTOMATIC
CALIBRATION DATE: 8/15/19
ENERGY RATIO (%): 83.7

STATION / OFFSET: 296+07, 49' LT.
ALIGNMENT:
ELEVATION: 995.2 (MSL) EOB: 100.0 ft.
COORD: 509917.7800 N, 2233417.2700 E

EXPLORATION ID B-014-4-19

MATERIAL DESCRIPTION AND NOTES	ELEV.	DEPTHS	SPT/ RQD	N_{60}	REC (%)	SAMPLE ID	HP (tsf)	GRADATION (%) GR	CS	FS	SI	CL	ATTERBERG LL	PL	PI	WC	ODOT CLASS (GI)	HOLE SEALED
CONCRETE	995.2 994.2																	
DENSE, DARK BROWN, **GRAVEL AND STONE FRAGMENTS**, LITTLE SAND, CONTAINS ASPHALT FRAGMENTS, DAMP	992.7	1	22 10 14	33	50	SS-1	-	83	12	4	- 1 -		-	-	-	4	A-1-a (V)	
MEDIUM DENSE, BROWN, **GRAVEL AND STONE FRAGMENTS WITH SAND**, TRACE SILT, TRACE CLAY, DAMP	991.2	2	12 8 4	17	44	SS-2	-	67	11	6	- 16 -		-	-	-	4	A-1-b (V)	
MEDIUM DENSE, BROWN, **GRAVEL AND STONE FRAGMENTS**, LITTLE SAND, TRACE SILT, TRACE CLAY, DAMP	989.7	3	5 5 4	13	17	SS-3	-	79	10	7	- 4 -		-	-	-	3	A-1-a (V)	
VERY LOOSE, LIGHT BROWN, **GRAVEL AND STONE FRAGMENTS WITH SAND**, LITTLE SILT, TRACE CLAY, WET	986.7	4	3 1 2	4	17	SS-4	-	47	14	20	12	7	20	16	4	53	A-1-b (0)	
VERY LOOSE TO LOOSE, LIGHT BROWN, **SANDY SILT**, TRACE TO LITTLE GRAVEL, LITTLE TO SOME CLAY, DAMP TO MOIST		5	2 1 1	3	33	SS-5	-	9	13	34	28	16	18	14	4	15	A-4a (2)	
		6	1 3 6	13	33	SS-6	-	-	-	-	-	-	-	-	-	15	A-4a (V)	
		7																
		8																
		9	5 5 6	15	100	SS-7	-	3	6	22	47	22	22	15	7	14	A-4a (7)	
		10																
		11																
		12	9 14 11	35	100	SS-8	-	-	-	-	-	-	-	-	-	14	A-4a (V)	
		13																
		14	4 5 6	15	89	SS-9	-	10	10	21	39	20	25	18	7	16	A-4a (5)	
	974.2	15																
MEDIUM DENSE, LIGHT BROWN, **COARSE AND FINE SAND**, LITTLE SILT, LITTLE GRAVEL, TRACE CLAY, DAMP	971.7	16	5 6 5	15	100	SS-10	-	-	-	-	-	-	-	-	-	8	A-3a (V)	
LOOSE TO MEDIUM DENSE, BROWN, **COARSE AND FINE SAND**, LITTLE GRAVEL, TRACE SILT, TRACE CLAY, DAMP TO MOIST		17	2 3 2	7	100	SS-11	-	10	28	43	- 19 -		-	-	-	10	A-3a (V)	
		18																
		19																
		20																
		21	5 4 4	11	100	SS-12	-	-	-	-	-	-	-	-	-	9	A-3a (V)	
		22																
		23																
		24																
		25	1 3 3	8	83	SS-13	-	-	-	-	-	-	-	-	-	9	A-3a (V)	
	956.7	26																
MEDIUM DENSE TO DENSE, GRAY, **COARSE AND FINE SAND**, TRACE GRAVEL, LITTLE SILT, LITTLE CLAY, WET		27	3 3 4	10	100	SS-14	-	-	-	-	-	-	-	-	-	23	A-3a (V)	
		28																
		29																
		30																
		31	5 6 8	20	100	SS-15	-	1	0	79	- 20 -		-	-	-	18	A-3a (V)	
		32																
		33																
		34																
		35	12 15 14	40	100	SS-16	-	-	-	-	-	-	-	-	-	19	A-3a (V)	
	941.7	36																
DENSE, GRAY, **SANDY SILT**, TRACE GRAVEL, LITTLE CLAY, WET		37	10 12 11	32	100	SS-17	-	2	0	46	42	10	NP	NP	NP	19	A-4a (3)	
		38																
		39																
	936.7	40																
LOOSE TO MEDIUM DENSE, GRAY, **SILT**, TRACE GRAVEL, SOME SAND, SOME CLAY, MOIST TO WET		41	6 8 5	18	100	SS-18	-	-	-	-	-	-	-	-	-	28	A-4b (V)	

PID: 102329 | SFN: | PROJECT: INTERSTATE 76/77 | STATION / OFFSET: 296+07, 49' LT. | START: 10/15/19 | END: 10/15/19 | PG 2 OF 2 | B-014-4-19

MATERIAL DESCRIPTION AND NOTES	ELEV.	DEPTHS	SPT/ RQD	N_{60}	REC (%)	SAMPLE ID	HP (tsf)	GRADATION (%) GR	CS	FS	SI	CL	ATTERBERG LL	PL	PI	WC	ODOT CLASS (GI)	HOLE SEALED
LOOSE TO MEDIUM DENSE, GRAY, **SILT**, TRACE GRAVEL, SOME SAND, SOME CLAY, MOIST TO WET *(continued)*	935.2	61																
		62																
		63																
		64	4 5 6	15	100	SS-19	-	-	-	-	-	-	-	-	-	25	A-4b (V)	
		65																
		66																
		67																
		68																
		69	2 2 4	8	100	SS-20	-	3	3	18	53	23	18	14	4	17	A-4b (8)	
		70																
		71																
		72																
		73																
		74	2 2 3	7	100	SS-21	-	-	-	-	-	-	-	-	-	14	A-4b (V)	
		75																
		76																
		77																
		78																
	916.7																	
VERY DENSE, BROWN TO GRAY, **FINE SAND**, TRACE GRAVEL, TRACE SILT, TRACE CLAY, WET		79	7 19 26	63	100	SS-22	-	-	-	-	-	-	-	-	-	22	A-3 (V)	
		80																
		81																
		82																
		83																
		84	17 21 25	64	100	SS-23	-	-	-	-	-	-	-	-	-	17	A-3 (V)	
		85																
		86																
		87																
		88																
F.S.		89	12 30 36	92	100	SS-24	-	2	8	82	-	8 -	-	-	-	19	A-3 (V)	
		90																
		91																
		92																
		93																
		94	20 36 41	107	83	SS-25	-	-	-	-	-	-	-	-	-	7	A-3 (V)	
		95																
		96																
		97																
		98																
		99	19 35 42	107	100	SS-26	-	-	-	-	-	-	-	-	-	17	A-3 (V)	
	895.2	EOB 100																

NOTES: NONE

ABANDONMENT METHODS, MATERIALS, QUANTITIES: PLACED ASPHALT PATCH; TREMIED BENTONITE GROUT

STANDARD ODOT SOIL BORING LOG (11 X 17) - OH DOT GDT - 8/26/20 17:26 - P:\102329_SUM-76_77\DESIGN\GEOTECHNICAL\LABDATA\1822-1016-00 I-76_77 EL ROBINSON.GPJ

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PROJECT: INTERSTATE 76/77	DRILLING FIRM / OPERATOR: DLZ-AD / BEAHR	DRILL RIG: '18 CME 55-TATV-265	STATION / OFFSET: 333+51, 52' LT.
TYPE: ROADWAY	SAMPLING FIRM / LOGGER: DLZ / MORGAL	HAMMER: CME AUTOMATIC	ALIGNMENT:
PID: 102329 SFN:	DRILLING METHOD: 3.25" HSA	CALIBRATION DATE: 4/26/18	ELEVATION: 1064.1 (MSL) EOB: 40.0 ft.
START: 7/15/20 END: 7/15/20	SAMPLING METHOD: SPT	ENERGY RATIO (%): 90*	COORD: 511889.9690 N, 2242981.6090 E

EXPLORATION ID B2-001-0-20

PAGE 1 OF 1

MATERIAL DESCRIPTION AND NOTES	ELEV.	DEPTHS	SPT/ RQD	N_{60}	REC (%)	SAMPLE ID	HP (tsf)	GRADATION (%) GR	CS	FS	SI	CL	ATTERBERG LL	PL	PI	WC	ODOT CLASS (GI)	HOLE SEALED
PAVEMENT AND BASE, 8" ASPHALT 4" GRANULAR BASE	1064.1																	
	1063.1																	
STIFF, BROWN, **SANDY SILT**, LITTLE FINE SAND, TRACE GRAVEL, DAMP		1	5 9 10	29	89	SS-1	-	8	8	23	37	24	25	17	8	11	A-4a (5)	
	1060.6	2																
MEDIUM DENSE, LIGHT TAN BROWN, **FINE SAND**, SOME GRAVEL, LITTLE SILT, DAMP		3																
		4	2 8 13	32	78	SS-2	-	-	-	-	-	-	-	-	-	5	A-3 (V)	
		5																
		6																
		7	2 2 4	9	33	SS-3	-	-	-	-	-	-	-	-	-	13	A-3 (V)	
	1055.6	8																
MEDIUM STIFF, BROWN, **SANDY SILT**, LITTLE FINE SAND, TRACE GRAVEL, SAND LENSES, DAMP		9	3 4 5	14	83	SS-4	-	4	13	31	27	25	24	14	10	12	A-4a (3)	
		10																
		11																
		12	2 3 7	15	72	SS-5	-	-	-	-	-	-	-	-	-	10	A-4a (V)	
	1050.6	13																
MEDIUM STIFF, BROWN, **SANDY SILT**, LITTLE TO SOME FINE SAND, DAMP		14	4 6 7	20	56	SS-6	-	5	8	30	42	15	22	16	6	14	A-4a (4)	
	1048.1	15																
STIFF, BROWN, **SILT AND CLAY**, TRACE SAND, TRACE GRAVEL, QUARTZITE FRAGMENTS, DAMP		16																
		17	4 10 9	29	94	SS-7	-	6	3	12	51	28	30	18	12	18	A-6a (9)	
	1045.6	18																
VERY STIFF, BROWN, **SILT AND CLAY**, LITTLE GRAVEL, TRACE SAND, DAMP		19	3 4 4	12	83	SS-8	-	6	7	20	40	27	29	18	11	14	A-6a (7)	
	1043.1	20																
STIFF, BROWN, **SILT AND CLAY**, TRACE SAND, CONTAINS ROOT HAIRS, DAMP		21																
		22	3 4 6	15	83	SS-9	-	-	-	-	-	-	-	-	-	17	A-6a (V)	
	1040.6	23																
STIFF, GREENISH GREY, **SILT AND CLAY**, CONTAINS SHALE FRAGMENTS AND GRAVEL, DAMP		24	6 7 7	21	72	SS-10	-	-	-	-	-	-	-	-	-	11	A-6a (V)	
		25																
		26																
		27	3 3 5	12	72	SS-11	-	-	-	-	-	-	-	-	-	16	A-6a (V)	
	1035.6	28																
VERY DENSE, BLACK, **UNCONTROLLED FILL**, CONTAINS COAL, SLAG, BRICK, DARK GREY CLAY, DAMP		29	30 50/4"	-	100	SS-12	-	-	-	-	-	-	-	-	-	10	UCF (V)	
	1033.1	30																
MEDIUM DENSE, BLACK, **COARSE AND FINE SAND**, LITTLE SILT, TRACE GRAVEL, DAMP TO MOIST		31																
		32	3 4 4	12	83	SS-13	-	11	23	56	4	6	-	-	-	18	A-3a (V)	
W 1031.0		33																
		34	3 4 4	12	61	SS-14	-	-	-	-	-	-	-	-	-	16	A-3a (V)	
		35																
		36																
		37	2 3 5	12	56	SS-15	-	-	-	-	-	-	-	-	-	18	A-3a (V)	
	1025.6	38																
VERY DENSE, BLACK, **UNCONTROLLED FILL**, CONTAINS SLAG, DAMP		39	1 3 50/0"	-	25	SS-16	-	-	-	-	-	-	-	-	-	18	UCF (V)	
	1024.1	EOB 40																

NOTES: NONE

ABANDONMENT METHODS, MATERIALS, QUANTITIES: PLACED ASPHALT PATCH; TREMIED BENTONITE GROUT

STANDARD ODOT SOIL BORING LOG (11 X 17) - OH DOT GDT - 11/6/20 11:14 - \\COLFS011\PROJECTS\102329_SUM-76_77\DESIGN\GEOTECHNICAL\LABDATA\1822-1016-00 I-76_77 EL ROBINSON (8-27-2020).GPJ

PROJECT: INTERSTATE 76/77	DRILLING FIRM / OPERATOR: DLZ-AD / BEAHR	DRILL RIG: '18 CME 55-TATV-265	STATION / OFFSET: 4327+24, 129' LT.	EXPLORATION ID E3-001-0-20
TYPE: ROADWAY	SAMPLING FIRM / LOGGER: DLZ / MORGAL	HAMMER: CME AUTOMATIC	ALIGNMENT:	
PID: 102329 SFN:	DRILLING METHOD: 3.25" HSA	CALIBRATION DATE: 4/26/18	ELEVATION: 1089.6 (MSL) EOB: 50.0 ft.	PAGE 1 OF 1
START: 7/13/20 END: 7/13/20	SAMPLING METHOD: SPT	ENERGY RATIO (%): 90*	COORD: 510696.6100 N, 2242897.1280 E	

MATERIAL DESCRIPTION AND NOTES	ELEV.	DEPTHS	SPT/ RQD	N_{60}	REC (%)	SAMPLE ID	HP (tsf)	GRADATION (%) GR	CS	FS	SI	CL	ATTERBERG LL	PL	PI	WC	ODOT CLASS (GI)	HOLE SEALED
UNCONTROLLED FILL, 1" TO 3" TOPSOIL, SURFACE MATERIALS CONSISTED OF ORGANIC MATERIAL AND TRASH. SITE CLEARED BY TRACKHOE PRIOR TO RIG ARRIVAL.	1089.6 / 1088.6																	
VERY STIFF, BROWN, **SILT AND CLAY**, TRACE GRAVEL, TRACE SAND, DAMP	1086.1		5 7 11	27	72	SS-1	-	5	5	19	38	33	27	16	11	13	A-6a (8)	
VERY STIFF, LIGHT BROWN, **SANDY SILT**, LITTLE SAND, DAMP	1083.6		4 8 11	29	83	SS-2	-	13	6	21	41	19	26	20	6	12	A-4a (5)	
VERY STIFF, LIGHT BROWN, **SILT**, LITTLE CLAY, DAMP	1078.6		4 10 18	42	78	SS-3	-	14	2	13	54	17	28	22	6	8	A-4b (7)	
			20 50/5"	-	45	SS-4	-	-	-	-	-	-	-	-	-	8	A-4b (V)	
SHALE, GREY TO DARK GREY, DECOMPOSED TO HIGHLY WEATHERED, WEAK TO SLIGHTLY STRONG, FINE GRAINED, LAMINATED TO VERY THIN BEDDED.		TR	8 15 33	72	89	SS-5	-	-	-	-	-	-	-	-	-	-	Rock (V)	
			25 50/5"	-	64	SS-6	-	-	-	-	-	-	-	-	-	-	Rock (V)	
			50/5"	-	100	SS-7	-	-	-	-	-	-	-	-	-	-	Rock (V)	
			50/5"	-	100	SS-8	-	-	-	-	-	-	-	-	-	-	Rock (V)	
			50/5"	-	80	SS-9	-	-	-	-	-	-	-	-	-	-	Rock (V)	
			50/4"	-	100	SS-10	-	-	-	-	-	-	-	-	-	-	Rock (V)	
			35 50/5"	-	64	SS-11	-	-	-	-	-	-	-	-	-	-	Rock (V)	
			32 50/5"	-	64	SS-12	-	-	-	-	-	-	-	-	-	-	Rock (V)	
			50/5"	-	100	SS-13	-	-	-	-	-	-	-	-	-	-	Rock (V)	
			50/3"	-	100	SS-14	-	-	-	-	-	-	-	-	-	-	Rock (V)	
			50/5"	-	100	SS-15	-	-	-	-	-	-	-	-	-	-	Rock (V)	
			50/2"	-	100	SS-16	-	-	-	-	-	-	-	-	-	-	Rock (V)	
			50/3"	-	100	SS-17	-	-	-	-	-	-	-	-	-	-	Rock (V)	
			50/2"	-	100	SS-18	-	-	-	-	-	-	-	-	-	-	Rock (V)	
			50/3"	-	100	SS-19	-	-	-	-	-	-	-	-	-	-	Rock (V)	
		▼ 1041.8																
	1039.6	EOB	60/1"	-	100	SS-20	-	-	-	-	-	-	-	-	-	-	Rock (V)	

NOTES: NONE

ABANDONMENT METHODS, MATERIALS, QUANTITIES: TREMIED BENTONITE GROUT

STANDARD ODOT SOIL BORING LOG (11 X 17) - OH DOT GDT - 11/6/20 11:14 - \\COLFS01\PROJECTS\102329_SUM-76_77\DESIGN\GEOTECHNICAL\LABDATA\1822-1016-00 I-76_77 EL ROBINSON (8-27-2020).GPJ

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PROJECT: INTERSTATE 76/77	DRILLING FIRM / OPERATOR: DLZ-AD / BEAHR	DRILL RIG: '18 CME 55-TATV-265	STATION / OFFSET: 4328+42, 112' LT.	EXPLORATION ID E3-002-0-20
TYPE: ROADWAY	SAMPLING FIRM / LOGGER: DLZ / MORGAL	HAMMER: CME AUTOMATIC	ALIGNMENT:	
PID: 102329 SFN:	DRILLING METHOD: 3.25" HSA	CALIBRATION DATE: 4/26/18	ELEVATION: 1091.7 (MSL) EOB: 50.0 ft.	PAGE 1 OF 1
START: 7/13/20 END: 7/13/20	SAMPLING METHOD: SPT	ENERGY RATIO (%): 90*	COORD: 510818.3630 N, 2242925.2870 E	

MATERIAL DESCRIPTION AND NOTES	ELEV.	DEPTHS	SPT/ RQD	N_{60}	REC (%)	SAMPLE ID	HP (tsf)	GRADATION (%) GR	CS	FS	SI	CL	ATTERBERG LL	PL	PI	WC	ODOT CLASS (GI)	HOLE SEALED
UNCONTROLLED FILL, 1" TO 3" TOPSOIL, SURFACE MATERIALS CONSISTED OF ORGANIC MATERIAL AND TRASH. SITE CLEARED BY TRACKHOE PRIOR TO RIG ARRIVAL.	1091.7																	
VERY STIFF, LIGHT BROWN, **SILT AND CLAY**, TRACE SAND, CONTAINS ROOT HAIRS, DAMP	1090.7		6 10 15	38	94	SS-1	-	7	18	9	34	32	30	17	13	12	A-6a (7)	
			6 14 25	59	83	SS-2	-	12	7	17	33	31	29	17	12	11	A-6a (7)	
	1085.7	TR																
SANDSTONE, LIGHT BROWN, HIGHLY WEATHERED, WEAK TO MODERATELY STRONG, FINE GRAINED, THIN BEDDED, FRIABLE.			6 11 16	41	67	SS-3	-	-	-	-	-	-	-	-	-	6	Rock (V)	
			14 12 15	41	100	SS-4	-	71	4	19	- 6 -		-	-	-	6	Rock (V)	
			5 5 3	12	61	SS-5	-	-	-	-	-	-	-	-	-	-	Rock (V)	
			9 11 48	89	72	SS-6	-	-	-	-	-	-	-	-	-	-	Rock (V)	
	1075.7																	
SHALE, GREY, HIGHLY WEATHERED, WEAK, FINE GRAINED, LAMINATED TO THIN BEDDED.			14 50/5"	-	100	SS-7	-	-	-	-	-	-	-	-	-	-	Rock (V)	
			35 50/3"	-	100	SS-8	-	-	-	-	-	-	-	-	-	-	Rock (V)	
			50/5"	-	100	SS-9	-	-	-	-	-	-	-	-	-	-	Rock (V)	
			50/5"	-	100	SS-10	-	-	-	-	-	-	-	-	-	-	Rock (V)	
			50/4"	-	75	SS-11	-	-	-	-	-	-	-	-	-	-	Rock (V)	
			50/3"	-	100	SS-12	-	-	-	-	-	-	-	-	-	-	Rock (V)	
			60/2"	-	100	SS-13	-	-	-	-	-	-	-	-	-	-	Rock (V)	
			50/3"	-	100	SS-14	-	-	-	-	-	-	-	-	-	-	Rock (V)	
			60/2"	-	100	SS-15	-	-	-	-	-	-	-	-	-	-	Rock (V)	
			50/3"	-	100	SS-16	-	-	-	-	-	-	-	-	-	-	Rock (V)	
			50/3"	-	100	SS-17	-	-	-	-	-	-	-	-	-	-	Rock (V)	
			50/3"	-	33	SS-18	-	-	-	-	-	-	-	-	-	-	Rock (V)	
			60/2"	-	50	SS-19	-	-	-	-	-	-	-	-	-	-	Rock (V)	
		▼ 1043.0																
			50/4"	-	100	SS-20	-	-	-	-	-	-	-	-	-	-	Rock (V)	
	1041.7	EOB																

NOTES: NONE

ABANDONMENT METHODS, MATERIALS, QUANTITIES: TREMIED BENTONITE GROUT

STANDARD ODOT SOIL BORING LOG (11 X 17) - OH DOT GDT - 11/6/20 11:14 - \\COLFS01\PROJECTS\102329_SUM-76_77\DESIGN\GEOTECHNICAL\LABDATA\1822-1016-00 I-76_77 EL ROBINSON (8-27-2020).GPJ

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PROJECT: INTERSTATE 76/77	DRILLING FIRM / OPERATOR: DLZ-AD / BEAHR	DRILL RIG: '18 CME 55-TATV-265	STATION / OFFSET: 4329+57, 94' LT.	EXPLORATION ID E3-003-0-20
TYPE: ROADWAY	SAMPLING FIRM / LOGGER: DLZ / MORGAL	HAMMER: CME AUTOMATIC	ALIGNMENT:	
PID: 102329 SFN:	DRILLING METHOD: 3.25" HSA	CALIBRATION DATE: 4/26/18	ELEVATION: 1093.2 (MSL) EOB: 50.0 ft.	PAGE 1 OF 1
START: 7/10/20 END: 7/10/20	SAMPLING METHOD: SPT	ENERGY RATIO (%): 90*	COORD: 510939.9690 N, 2242937.5330 E	

MATERIAL DESCRIPTION AND NOTES	ELEV.	DEPTHS	SPT/ RQD	N_{60}	REC (%)	SAMPLE ID	HP (tsf)	GRADATION (%) GR	CS	FS	SI	CL	ATTERBERG LL	PL	PI	WC	ODOT CLASS (GI)	HOLE SEALED
UNCONTROLLED FILL, 1" TO 3" TOPSOIL, SURFACE MATERIALS CONSISTED OF ORGANIC MATERIAL AND TRASH. SITE CLEARED BY TRACKHOE PRIOR TO RIG ARRIVAL.	1093.2																	
STIFF TO VERY STIFF, BROWN, **SANDY SILT**, TRACE SAND, CONTAINS ROOTHAIRS, DAMP	1092.2		6 12 17	44	89	SS-1	-	5	7	18	49	21	24	15	9	8	A-4a (7)	
			4 5 16	32	83	SS-2	-	-	-	-	-	-	-	-	-	14	A-4a (V)	
SANDSTONE, LIGHT BROWN, MODERATELY TO HIGHLY WEATHERED, WEAK TO MODERATELY STRONG, FINE TO MEDIUM GRAINED, VERY THIN TO THIN BEDDED, FRIABLE.	1087.2	TR	8 21 22	65	78	SS-3	-	54	4	26	- 16 -		-	-	-	6	Rock (V)	
			30 35 26	92	94	SS-4	-	-	-	-	-	-	-	-	-	4	Rock (V)	
			50/5"	-	100	SS-5	-	-	-	-	-	-	-	-	-	-	Rock (V)	
			50/5"	-	60	SS-6	-	-	-	-	-	-	-	-	-	-	Rock (V)	
SHALE, GREY, MODERATELY TO HIGHLY WEATHERED, WEAK, FINE GRAINED, LAMINATED TO THIN BEDDED.	1077.2		17 20 24	66	78	SS-7	-	-	-	-	-	-	-	-	-	-	Rock (V)	
			21 21 30	77	94	SS-8	-	-	-	-	-	-	-	-	-	-	Rock (V)	
			50/5"	-	40	SS-9	-	-	-	-	-	-	-	-	-	-	Rock (V)	
			50/4"	-	100	SS-10	-	-	-	-	-	-	-	-	-	-	Rock (V)	
			50/5"	-	60	SS-11	-	-	-	-	-	-	-	-	-	-	Rock (V)	
			50/2"	-	100	SS-12	-	-	-	-	-	-	-	-	-	-	Rock (V)	
			50/2"	-	100	SS-13	-	-	-	-	-	-	-	-	-	-	Rock (V)	
			50/2"	-	100	SS-14	-	-	-	-	-	-	-	-	-	-	Rock (V)	
			37 50/4"	-	80	SS-15	-	-	-	-	-	-	-	-	-	-	Rock (V)	
			36 50/5"	-	100	SS-16	-	-	-	-	-	-	-	-	-	-	Rock (V)	
			50/3"	-	67	SS-17	-	-	-	-	-	-	-	-	-	-	Rock (V)	
			50/5"	-	80	SS-18	-	-	-	-	-	-	-	-	-	-	Rock (V)	
			50/1"	-	100	SS-19	-	-	-	-	-	-	-	-	-	-	Rock (V)	
	1043.2	EOB	50/1"	-	100	SS-20	-	-	-	-	-	-	-	-	-	-	Rock (V)	

NOTES: NONE

ABANDONMENT METHODS, MATERIALS, QUANTITIES: TREMIED BENTONITE GROUT

STANDARD ODOT SOIL BORING LOG (11 X 17) - OH DOT GDT - 11/6/20 11:14 - \\COLFS01\PROJECTS\102329_SUM-76_77\DESIGN\GEOTECHNICAL\LABDATA\1822-1016-00 I-76_77 EL ROBINSON (8-27-2020).GPJ

2021	SUM-76/77/8-8.24/9.74/0.00	SOIL PROFILE BORING LOG E3-003-0-20	DRAWN KRM CHECKED PAN

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PROJECT: INTERSTATE 76/77	DRILLING FIRM / OPERATOR: DLZ-AD / BEAHR	DRILL RIG: '18 CME 55-TATV-265	STATION / OFFSET: 4330+72, 89' LT.	EXPLORATION ID E3-004-0-20
TYPE: ROADWAY	SAMPLING FIRM / LOGGER: DLZ / MORGAL	HAMMER: CME AUTOMATIC	ALIGNMENT:	
PID: 102329 SFN:	DRILLING METHOD: 3.25" HSA / NQ2	CALIBRATION DATE: 4/26/18	ELEVATION: 1098.3 (MSL) EOB: 50.0 ft.	PAGE 1 OF 1
START: 7/9/20 END: 7/9/20	SAMPLING METHOD: SPT	ENERGY RATIO (%): 90*	COORD: 511089.9690 N, 2242957.9500 E	

MATERIAL DESCRIPTION AND NOTES	ELEV.	DEPTHS	SPT/ RQD	N_{60}	REC (%)	SAMPLE ID	HP (tsf)	GRADATION (%) GR	CS	FS	SI	CL	ATTERBERG LL	PL	PI	WC	ODOT CLASS (GI)	HOLE SEALED
UNCONTROLLED FILL, 1" TO 3" TOPSOIL, SURFACE MATERIALS CONSISTED OF ORGANIC MATERIAL AND TRASH. SITE CLEARED BY TRACKHOE PRIOR TO RIG ARRIVAL.	1098.3																	
STIFF TO VERY STIFF, BROWN, **SANDY SILT**, TRACE GRAVEL, TRACE SAND, CONTAINS ROOTHAIRS, DAMP	1097.3		6 17 16	50	61	SS-1	-	10	11	16	37	26	26	16	10	10	A-4a (6)	
			5 16 17	50	67	SS-2	-	-	-	-	-	-	-	-	-	9	A-4a (V)	
			5 11 12	35	83	SS-3	-	11	9	18	45	17	29	21	8	14	A-4a (5)	
VERY STIFF, GREYISH BROWN, **SILT**, DAMP	1089.8		7 39 50/4"	-	100	SS-4	-	4	6	12	58	20	29	21	8	10	A-4b (8)	
SHALE, GREY, DECOMPOSED TO HIGHLY WEATHERED, WEAK, FINE GRAINED, LAMINATED TO VERY THIN BEDDED.	1087.3	TR	17 50/5"	-	82	SS-5	-	-	-	-	-	-	-	-	-	9	Rock (V)	
			15 50/4"	-	100	SS-6	-	-	-	-	-	-	-	-	-	7	Rock (V)	
SHALE, BROWN, DECOMPOSED WEATHERED, VERY WEAK, FINE GRAINED, LAMINATED TO VERY THIN BEDDED; RQD 0%, REC 41%.	1083.3			-		RC-1 NQ2-RC-1	-	-	-	-	-	-	-	-	-	-	Rock (V)	
SHALE, GREYISH BROWN, DECOMPOSED WEATHERED, VERY WEAK, FINE GRAINED, LAMINATED TO THIN BEDDED, ARGILLACEOUS; RQD 1%, REC 88%.	1082.3			-		RC-2 NQ2-RC-2	-	-	-	-	-	-	-	-	-	-	Rock (V)	
SHALE, GREYISH BROWN, DECOMPOSED TO HIGHLY WEATHERED, WEAK TO SLIGHTLY STRONG, FINE GRAINED, THIN BEDDED; RQD 0%, REC 100%.	1075.3			-		RC-3 NQ2-RC-3	-	-	-	-	-	-	-	-	-	-	Rock (V)	
SHALE, GREYISH BROWN, DECOMPOSED TO HIGHLY WEATHERED, WEAK TO SLIGHTLY STRONG, FINE GRAINED, THIN BEDDED; RQD 0%, REC 39%.	1072.3			-		RC-4 NQ2-RC-4	-	-	-	-	-	-	-	-	-	-	Rock (V)	
SHALE, GREY, MODERATELY TO HIGHLY WEATHERED, WEAK, FINE GRAINED, LAMINATED TO VERY THIN BEDDED.	1062.3		50/5"	-	100	SS-15	-	-	-	-	-	-	-	-	-	-	Rock (V)	
			50/3"	-	100	SS-16	-	-	-	-	-	-	-	-	-	-	Rock (V)	
			50/3"	-	67	SS-17	-	-	-	-	-	-	-	-	-	-	Rock (V)	
			50/3"	-	67	SS-18	-	-	-	-	-	-	-	-	-	-	Rock (V)	
			50/3"	-	67	SS-19	-	-	-	-	-	-	-	-	-	-	Rock (V)	
		▼ 1050.2																
	1048.3	EOB	50/2"	-	100	SS-20	-	-	-	-	-	-	-	-	-	-	Rock (V)	

NOTES: NONE

ABANDONMENT METHODS, MATERIALS, QUANTITIES: TREMIED BENTONITE GROUT

STANDARD ODOT SOIL BORING LOG (11 X 17) - OH DOT GDT - 11/6/20 11:14 - \\COLFS01\PROJECTS\102329_SUM-76_77\DESIGN\GEOTECHNICAL\LABDATA\1822-1016-00 I-76_77 EL ROBINSON (8-27-2020).GPJ

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PROJECT: INTERSTATE 76/77	DRILLING FIRM / OPERATOR: DLZ-AD / BEAHR	DRILL RIG: '18 CME 55-TATV-265	STATION / OFFSET: 357+67, 147' LT.	EXPLORATION ID E3-005-0-20
TYPE: ROADWAY	SAMPLING FIRM / LOGGER: DLZ / MORGAL	HAMMER: CME AUTOMATIC	ALIGNMENT:	
PID: 102329 SFN:	DRILLING METHOD: 3.25" HSA	CALIBRATION DATE: 4/26/18	ELEVATION: 1123.0 (MSL) EOB: 50.0 ft.	PAGE 1 OF 1
START: 7/15/20 END: 7/15/20	SAMPLING METHOD: SPT	ENERGY RATIO (%): 90*	COORD: 502235.3890 N, 2242798.3070 E	

MATERIAL DESCRIPTION AND NOTES	ELEV.	DEPTHS	SPT/ RQD	N_{60}	REC (%)	SAMPLE ID	HP (tsf)	GRADATION (%) GR	CS	FS	SI	CL	ATTERBERG LL	PL	PI	WC	ODOT CLASS (GI)	HOLE SEALED
UNCONTROLLED FILL, 0" TO 2" TOPSOIL, SITE CLEARED WITH TRACKHOE BEFORE DRILL RIG ARRIVAL.	1123.0 / 1122.0																	
VERY STIFF, DARK GREYISH BROWN, **SILTY CLAY**, DAMP	1119.5		5 9 18	41	78	SS-1	-	0	0	5	49	46	38	22	16	14	A-6b (10)	
VERY STIFF, DARK GREY, **SILT AND CLAY**, DAMP	1117.0		8 13 18	47	94	SS-2	-	0	5	7	51	37	38	25	13	15	A-6a (9)	
SHALE, GREY, HIGHLY WEATHERED, WEAK, FINE GRAINED, LAMINATED TO VERY THIN BEDDED.		TR	11 38 50/5"	-	82	SS-3	-	-	-	-	-	-	-	-	-	6	Rock (V)	
			13 39 50/4"	-	81	SS-4	-	-	-	-	-	-	-	-	-	8	Rock (V)	
			17 12 50/4"	-	88	SS-5	-	-	-	-	-	-	-	-	-	-	Rock (V)	
			50/4"	-	100	SS-6	-	-	-	-	-	-	-	-	-	-	Rock (V)	
			41 50/4"	-	70	SS-7	-	-	-	-	-	-	-	-	-	-	Rock (V)	
			50/5"	-	60	SS-8	-	-	-	-	-	-	-	-	-	-	Rock (V)	
			50/5"	-	40	SS-9	-	-	-	-	-	-	-	-	-	-	Rock (V)	
			50/4"	-	50	SS-10	-	-	-	-	-	-	-	-	-	8	Rock (V)	
			50/3"	-	33	SS-11	-	-	-	-	-	-	-	-	-	9	Rock (V)	
			50/3"	-	33	SS-12	-	-	-	-	-	-	-	-	-	4	Rock (V)	
			60/2"	-	100	SS-13	-	-	-	-	-	-	-	-	-	-	Rock (V)	
			50/5"	-	60	SS-14	-	-	-	-	-	-	-	-	-	-	Rock (V)	
			50/4"	-	75	SS-15	-	-	-	-	-	-	-	-	-	-	Rock (V)	
			60/2"	-	50	SS-16	-	-	-	-	-	-	-	-	-	-	Rock (V)	
			60/2"	-	50	SS-17	-	-	-	-	-	-	-	-	-	-	Rock (V)	
			50/0"	-		SS-18	-	-	-	-	-	-	-	-	-	-	Rock (V)	
			60/1"	-	100	SS-19	-	-	-	-	-	-	-	-	-	-	Rock (V)	
	1073.0	EOB	60/1"	-	100	SS-20	-	-	-	-	-	-	-	-	-	-	Rock (V)	

NOTES: NONE

ABANDONMENT METHODS, MATERIALS, QUANTITIES: TREMIED BENTONITE GROUT

STANDARD ODOT SOIL BORING LOG (11 X 17) - OH DOT GDT - 11/6/20 11:14 - \\COLFS01\PROJECTS\102329_SUM-76_77\DESIGN\GEOTECHNICAL\LABDATA\1822-1016-00 I-76_77 EL ROBINSON (8-27-2020).GPJ

202 199	SUM-76/77/8-8.24/9.74/0.00	SOIL PROFILE BORING LOG E3-005-0-20	DRAWN KRM CHECKED PAN

PROJECT: INTERSTATE 76/77	DRILLING FIRM / OPERATOR: DLZ-AD / BEAHR	DRILL RIG: '18 CME 55-TATV-265	STATION / OFFSET: 361+02, 111' LT.	EXPLORATION ID E3-006-0-20
TYPE: ROADWAY	SAMPLING FIRM / LOGGER: DLZ / MORGAL	HAMMER: CME AUTOMATIC	ALIGNMENT:	
PID: 102329 SFN:	DRILLING METHOD: 3.25" HSA	CALIBRATION DATE: 4/26/18	ELEVATION: 1120.3 (MSL) EOB: 50.0 ft.	PAGE 1 OF 1
START: 7/16/20 END: 7/16/20	SAMPLING METHOD: SPT	ENERGY RATIO (%): 90*	COORD: 502570.2400 N, 2242794.9520 E	

MATERIAL DESCRIPTION AND NOTES	ELEV.	DEPTHS	SPT/ RQD	N_{60}	REC (%)	SAMPLE ID	HP (tsf)	GRADATION (%) GR	CS	FS	SI	CL	ATTERBERG LL	PL	PI	WC	ODOT CLASS (GI)	HOLE SEALED
SOD AND TOPSOIL, 0" TO 2" TOPSOIL, SITE CLEARED WITH TRACKHOE BEFORE DRILL RIG ARRIVAL.	1119.3																	
VERY STIFF, DARK GREYISH BROWN, **SILTY CLAY**, DAMP			10 11 16	41	72	SS-1	-	1	6	8	40	45	38	21	17	16	A-6b (11)	
			13 14 17	47	94	SS-2	-	1	3	6	50	40	38	21	17	12	A-6b (11)	
	1114.3	TR																
SHALE, DARK GREY, DECOMPOSED WEATHERED, WEAK, FINE GRAINED, LAMINATED TO VERY THIN BEDDED.			13 16 16	48	78	SS-3	-	-	-	-	-	-	-	-	-	12	Rock (V)	
	1111.8																	
SHALE, GREY, DECOMPOSED TO HIGHLY WEATHERED, VERY WEAK TO WEAK, FINE GRAINED, LAMINATED TO VERY THIN BEDDED.			50/5"	-	20	SS-4	-	-	-	-	-	-	-	-	-	-	Rock (V)	
			4 22 50/4"	-	88	SS-5	-	-	-	-	-	-	-	-	-	-	Rock (V)	
	1106.8																	
SHALE, GREY, DECOMPOSED TO HIGHLY WEATHERED, WEAK, FINE GRAINED, LAMINATED TO VERY THIN BEDDED.			39 50/3"	-	100	SS-6	-	-	-	-	-	-	-	-	-	-	Rock (V)	
			29 50/5"	-	82	SS-7	-	-	-	-	-	-	-	-	-	-	Rock (V)	
			50/4"	-	100	SS-8	-	-	-	-	-	-	-	-	-	11	Rock (V)	
			31 50/5"	-	91	SS-9	-	-	-	-	-	-	-	-	-	-	Rock (V)	
			50/5"	-	80	SS-10	-	-	-	-	-	-	-	-	-	-	Rock (V)	
			50/4"	-	50	SS-11	-	-	-	-	-	-	-	-	-	-	Rock (V)	
			50/5"	-	60	SS-12	-	-	-	-	-	-	-	-	-	-	Rock (V)	
			50/5"	-	100	SS-13	-	-	-	-	-	-	-	-	-	-	Rock (V)	
			50/5"	-	80	SS-14	-	-	-	-	-	-	-	-	-	-	Rock (V)	
			50/3"	-	67	SS-15	-	-	-	-	-	-	-	-	-	-	Rock (V)	
			50/5"	-	80	SS-16	-	-	-	-	-	-	-	-	-	-	Rock (V)	
			50/3"	-	100	SS-17	-	-	-	-	-	-	-	-	-	-	Rock (V)	
			50/2"	-	50	SS-18	-	-	-	-	-	-	-	-	-	-	Rock (V)	
			50/3"	-	100	SS-19	-	-	-	-	-	-	-	-	-	-	Rock (V)	
		W 1072.7																
			50/3"	-	100	SS-20	-	-	-	-	-	-	-	-	-	-	Rock (V)	
	1070.3	EOB																

NOTES: NONE

ABANDONMENT METHODS, MATERIALS, QUANTITIES: TREMIED BENTONITE GROUT

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PROJECT: INTERSTATE 76/77	DRILLING FIRM / OPERATOR: DLZ-AD / BEAHR	DRILL RIG: '18 CME 55-TATV-265	STATION / OFFSET: 364+33, 89' LT.	EXPLORATION ID E3-007-0-20
TYPE: ROADWAY	SAMPLING FIRM / LOGGER: DLZ / MORGAL	HAMMER: CME AUTOMATIC	ALIGNMENT:	
PID: 102329 SFN:	DRILLING METHOD: 3.25" HSA	CALIBRATION DATE: 4/26/18	ELEVATION: 1122.7 (MSL) EOB: 50.0 ft.	PAGE 1 OF 1
START: 7/16/20 END: 7/16/20	SAMPLING METHOD: SPT	ENERGY RATIO (%): 90*	COORD: 502906.2850 N, 2242768.0620 E	

MATERIAL DESCRIPTION AND NOTES	ELEV.	DEPTHS	SPT/ RQD	N_{60}	REC (%)	SAMPLE ID	HP (tsf)	GRADATION (%) GR	CS	FS	SI	CL	ATTERBERG LL	PL	PI	WC	ODOT CLASS (GI)	HOLE SEALED
TOPSOIL, 0" TO 2" TOPSOIL, SITE CLEARED WITH TRACKHOE BEFORE DRILL RIG ARRIVAL.	1121.7																	
MEDIUM DENSE, BROWN, **SANDY SILT**, MOIST	1119.2		1 9 7	24	67	SS-1	-	11	4	44	12	29	23	16	7	20	A-4a (1)	
VERY DENSE, BROWN AND GREY, **SANDY SILT**, CONTAINS SHALE FRAGMENTS, WET	1116.7		10 40 50/3"	-	100	SS-2	-	6	15	37	19	23	NP	NP	NP	41	A-4a (1)	
SHALE, GREY TO DARK GREY, MODERATELY TO HIGHLY WEATHERED, WEAK, FINE GRAINED, LAMINATED TO VERY THIN BEDDED.		TR	25 50/3"	-	78	SS-3	-	-	-	-	-	-	-	-	-	-	Rock (V)	
			25 48 50/0"	-	83	SS-4	-	-	-	-	-	-	-	-	-	-	Rock (V)	
			20 25 47	108	78	SS-5	-	-	-	-	-	-	-	-	-	-	Rock (V)	
			30 36 49	128	72	SS-6	-	-	-	-	-	-	-	-	-	-	Rock (V)	
			35 50/5"	-	100	SS-7	-	-	-	-	-	-	-	-	-	-	Rock (V)	
			31 50/3"	-	67	SS-8	-	-	-	-	-	-	-	-	-	-	Rock (V)	
			50/5"	-	80	SS-9	-	-	-	-	-	-	-	-	-	-	Rock (V)	
			43 50/5"	-	45	SS-10	-	-	-	-	-	-	-	-	-	-	Rock (V)	
			50/4"	-	75	SS-11	-	-	-	-	-	-	-	-	-	-	Rock (V)	
			50/4"	-	100	SS-12	-	-	-	-	-	-	-	-	-	-	Rock (V)	
			50/3"	-	67	SS-13	-	-	-	-	-	-	-	-	-	-	Rock (V)	
			50/2"	-	100	SS-14	-	-	-	-	-	-	-	-	-	-	Rock (V)	
			50/2"	-	100	SS-15	-	-	-	-	-	-	-	-	-	-	Rock (V)	
			50/3"	-	100	SS-16	-	-	-	-	-	-	-	-	-	-	Rock (V)	
			50/3"	-	100	SS-17	-	-	-	-	-	-	-	-	-	-	Rock (V)	
		▼ 1079.1	50/2"	-	100	SS-18	-	-	-	-	-	-	-	-	-	-	Rock (V)	
			50/5"	-	100	SS-19	-	-	-	-	-	-	-	-	-	-	Rock (V)	
	1072.7	EOB	50/2"	-	100	SS-20	-	-	-	-	-	-	-	-	-	-	Rock (V)	

NOTES: NONE

ABANDONMENT METHODS, MATERIALS, QUANTITIES: TREMIED BENTONITE GROUT

STANDARD ODOT SOIL BORING LOG (11 X 17) - OH DOT GDT - 11/6/20 11:15 - \\COLFS01\PROJECTS\102329_SUM-76_77\DESIGN\GEOTECHNICAL\LABDATA\1822-1016-00 I-76_77 EL ROBINSON (8-27-2020).GPJ

201 202	SUM-76/77/8-8.24/9.74/0.00	SOIL PROFILE BORING LOG E3-007-0-20	DRAWN KRM CHECKED PAN

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PROJECT: INTERSTATE 76/77
TYPE: ROADWAY
PID: 102329 SFN:
START: 7/15/20 END: 7/15/20

DRILLING FIRM / OPERATOR: DLZ-AD / BEAHR
SAMPLING FIRM / LOGGER: DLZ / MORGAL
DRILLING METHOD: 3.25" HSA
SAMPLING METHOD: SPT

DRILL RIG: '18 CME 55-TATV-265
HAMMER: CME AUTOMATIC
CALIBRATION DATE: 4/26/18
ENERGY RATIO (%): 90*

STATION / OFFSET: 367+73, 80' LT.
ALIGNMENT:
ELEVATION: 1123.8 (MSL) EOB: 50.0 ft.
COORD: 503245.1290 N, 2242741.9430 E

EXPLORATION ID E3-008-0-20
PAGE 1 OF 1

MATERIAL DESCRIPTION AND NOTES	ELEV.	DEPTHS	SPT/ RQD	N_{60}	REC (%)	SAMPLE ID	HP (tsf)	GRADATION (%) GR	CS	FS	SI	CL	ATTERBERG LL	PL	PI	WC	ODOT CLASS (GI)	HOLE SEALED
TOPSOIL, 4" TOPSOIL	1123.8																	
	1122.8																	
MEDIUM DENSE, DARK BROWNISH GREY, **SANDY SILT**, TRACE GRAVEL, CONTAINS SLAG, ROOT HAIRS, DAMP			6 10 12	33	100	SS-1	-	18	10	20	33	19	27	17	10	13	A-4a (3)	
			7 9 10	29	100	SS-2	-	-	-	-	-	-	-	-	-	15	A-4a (V)	
			5 6 5	17	100	SS-3	-	3	7	37	30	23	21	14	7	13	A-4a (4)	
	1115.3																	
MEDIUM DENSE, GREENISH BROWN AND GREY, **SILT AND CLAY**, SOME GRAVEL, TRACE SAND, DAMP			4 5 7	18	100	SS-4	-	-	-	-	-	-	-	-	-	12	A-6a (V)	
	1112.8	TR																
SHALE, GREY TO DARK GREY, DECOMPOSED TO HIGHLY WEATHERED, WEAK, FINE GRAINED, LAMINATED TO VERY THIN BEDDED.			1 38 44	123	100	SS-5	-	-	-	-	-	-	-	-	-	-	Rock (V)	
			50/3"	-	67	SS-6	-	-	-	-	-	-	-	-	-	-	Rock (V)	
			7 11 13	36	50	SS-7	-	-	-	-	-	-	-	-	-	-	Rock (V)	
			9 12 12	36	72	SS-8	-	-	-	-	-	-	-	-	-	-	Rock (V)	
			10 27 40	101	61	SS-9	-	-	-	-	-	-	-	-	-	-	Rock (V)	
			15 38 50/4"	-	88	SS-10	-	-	-	-	-	-	-	-	-	-	Rock (V)	
			16 24 44	102	56	SS-11	-	-	-	-	-	-	-	-	-	-	Rock (V)	
			50/2"	-	100	SS-12	-	-	-	-	-	-	-	-	-	-	Rock (V)	
			50/3"	-	100	SS-13	-	-	-	-	-	-	-	-	-	-	Rock (V)	
			50/1"	-	100	SS-14	-	-	-	-	-	-	-	-	-	-	Rock (V)	
			50/2"	-	100	SS-15	-	-	-	-	-	-	-	-	-	-	Rock (V)	
		W 1085.7																
			50/1"	-	100	SS-16	-	-	-	-	-	-	-	-	-	10	Rock (V)	
			50/2"	-	100	SS-17	-	-	-	-	-	-	-	-	-	-	Rock (V)	
			50/3"	-	100	SS-18	-	-	-	-	-	-	-	-	-	-	Rock (V)	
			50/4"	-	100	SS-19	-	-	-	-	-	-	-	-	-	-	Rock (V)	
	1075.3																	
SHALE, GREY, DECOMPOSED WEATHERED, VERY WEAK TO WEAK, FINE GRAINED, LAMINATED TO VERY THIN BEDDED, ARGILLACEOUS.	1073.8	EOB	50/3"	-	100	SS-20	-	-	-	-	-	-	-	-	-	15	Rock (V)	

NOTES: NONE

ABANDONMENT METHODS, MATERIALS, QUANTITIES: TREMIED BENTONITE GROUT

STANDARD ODOT SOIL BORING LOG (11 X 17) - OH DOT GDT - 11/6/20 11:15 - \\COLFS011\PROJECTS\102329_SUM-76_77\DESIGN\GEOTECHNICAL\LABDATA\1822-1016-00 I-76_77 EL ROBINSON (8-27-2020).GPJ