PROJECT DESCRIPTION

THIS PROJECT, DESIGNATED WYA-23-0.04, PID 109362, INCLUDES INTERSECTION IMPROVEMENTS ALONG US ROUTE 23, AT INTERSECTIONS FROM TOWNSHIP ROAD 68 (TR 68) TO COUNTY ROAD 62/TOWNSHIP ROAD 62 (CR 62/TR 62), IN ANTRIM AND PITT TOWNSHIPS, WYANDOT COUNTY, OHIO. THE SITE STARTS APPROXIMATELY 4 MILES SOUTHEAST OF UPPER SANDUSKY, OHIO, AND ENDS AT THE BOARDER OF MARION COUNTY. AT THE TIME OF THIS SOIL PROFILE SUBMITTAL, PART OF THIS PROJECT AT THE CR113/TR124 INTERSECTION WAS INDICATED TO BE REMOVED FROM THE SCOPE. HOWEVER, INFORMATION FROM THE EXPLORATING AT THAT INTERESETION IS STILL PROVIDED HEREIN.

HISTORIC RECORDS

NUMEROUS HISTORIC AUGER BORINGS HAD BEEN PERFORMED ALONG US ROUTE 23 (US 23) IN 1964 FOR WYA-23-0.00. TEN BORINGS FROM THAT EXPLORATION WERE PERFORMED WITHIN THE CURRENT PROJECT AREA. THE PLAN AND PROFILE DRAWINGS, AS WELL AS A COMBINED COVER SHEET/BORING LOG SHEET, WERE INCLUDED IN THE SUBGRADE EXPLORATION REPORT PREPARED FOR THIS PROJECT. ADDITIONALLY, THOSE TEN BORINGS ARE INCLUDED IN THIS SOIL PROFILE ROADWAY.

THE BORINGS WERE EXTENDED TO DEPTHS VARYING FROM 4 TO 30 FEET BELOW EXISTING GRADES. SURFACE MATERIALS GENERALLY CONSISTED OF APPROXIMATELY 3½ TO 7 INCHES OF TOPSOIL/SOD. UNDERLYING SOILS ENCOUNTERED IN THE HISTORIC BORINGS AT THE CURRENTLY PLANNED SUBGRADE ELEVATIONS CONSISTED OF PREDOMINANTLY COHESIVE SOILS, INCLUDING SILT AND CLAY (ODOT A-6A), SILTY CLAY (ODOT A-6B), AND CLAY (ODOT A-7-6). LAYERS OF SANDY SILT (ODOT A-4A) AND SILT (ODOT A-4B) SOILS WERE ALSO ENCOUNTERED IN MULTIPLE BORINGS, ALBEIT APPROXIMATELY 10 FEET BELOW CURRENTLY PLANNED TOP OF PAVEMENT OR DEEPER. THEREFORE, THESE MATERIALS ARE NOT ANTICIPATED TO BE WITHIN THE UPPER 3 FEET OF THE SUBGRADE.

GEOLOGY

PUBLISHED GEOLOGIC MAPS FROM THE OHIO DEPARTMENT OF NATURAL RESOURCES (ODNR) INDICATE THAT THE PROJECT SITE IS LOCATED IN THE CENTRAL OHIO CLAYEY TILL PLAINS REGION OF THE TILL PLAINS SECTION. THE PROJECT SITE IS ALSO LOCATED IN PART THROUGH LAKE BASIN DEPOSITS OUTSIDE THE HURON-ERIE LAKE PLAINS SECTION. WITHIN THIS SECTION OF LAKE BASIN DEPOSITS, THE UPPER PROFILE GEOLOGY INCLUDES PREDOMINANTLY SILTY AND SANDY LACUSTRINE DEPOSITS, FORMED IN HISTORIC GLACIAL LAKES FOLLOWING RETREAT AND MELTING OF GLACIAL ICE. THE LACUSTRINE SOILS ARE UNDERLAIN BY GLACIAL TILL DEPOSITS. WITHIN CENTRAL OHIO CLAYEY TILL PLAINS, THE UPPER PROFILE GEOLOGY INCLUDES PREDOMINANTLY CLAYEY WISCONSINAN-AGE TILL OVER SILURIAN-AGE ROCK.

THE USDA NATURAL RESOURCE CONSERVATION SERVICE (NRCS) WEB SOIL SURVEY INDICATES THAT SOILS IN THE PROJECT AREA ARE PREDOMINANTLY MAPPED AS A VARIETY OF LOAMS AT EACH OF THE INTERSECTIONS. DETAILS OF MAPPED NEAR SURFACE SOILS ARE SUMMARIZED IN THE TABLE ON THE FOLLOWING SHEET.

LEGEND

DESCRIPTION	ODOT CLASS	CLASSIFIED MECH.	CLASSIFIED VISUAL
GRAVEL AND/OR STONE FRAGMENTS	A-1-a	1	1
GRAVEL AND/OR STONE FRAGMENTS WITH SAND	A-1-b	0	2
GR. AND/OR ST. FRAGS. WITH SAND, SILT & CLAY	A-2-6	0	1
COARSE AND FINE SAND	A-3a	1	7
SANDY SILT	A-4a	1	0
SILT AND CLAY	A-6a	5	2
SILTY CLAY	A-6b	13	23
CLAY	A-7-6	7	5
	TOTAL	28	41

UNDERGROUND VOID — VISUAL

PAVEMENT OR BASE = X = APPROXIMATE THICKNESS — VISUAL

TOPSOIL = X = APPROXIMATE THICKNESS — VISUAL

BORING LOCATION - PLAN VIEW.

HISTORIC BORING LOCATION - PLAN VIEW - WYA-23-0.00, 1964.

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

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

WC INDICATES WATER CONTENT IN PERCENT.

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

X/Y/D" NUMBER OF BLOWS FOR STANDARD PENETRATION TEST (*SPT*):
X= NUMBER OF BLOWS FOR 6 INCHES (UNCORRECTED).
Y/D"= NUMBER OF BLOWS (UNCORRECTED) FOR D" OF PENETRATION AT REFUSAL.

INDICATES STATIC WATER ELEVATION.

W INDICATES FREE WATER ELEVATION.

INDICATES A NON-PLASTIC MATERIAL WITH A MOISTURE CONTENT GREATER THAN 25 % OR GREATER THAN 19 % WITH A WET APPEARANCE.

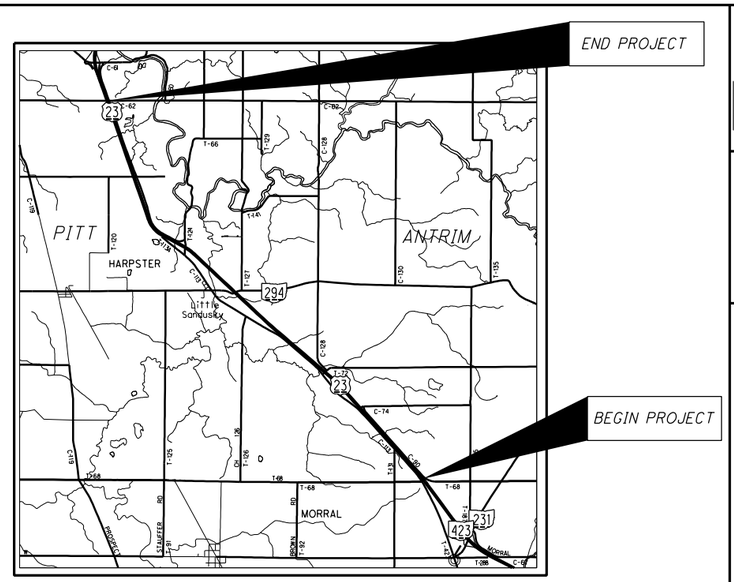
INDICATES A PLASTIC MATERIAL WITH A MOISTURE CONTENT EQUAL TO OR GREATER GREATER THAN THE LIQUID LIMIT MINUS 3.

SS INDICATES A SPLIT SPOON SAMPLE.

NI INDICATES NOT INTACT.

NP INDICATES A NON-PLASTIC SAMPLE.

HISTORIC BORING DESCRIPTION	ODOT CLASS	CLASSIFIED MECH.	CLASSIFIED VISUAL
GRAVEL AND/OR STONE FRAGMENTS WITH SAND	A-1-b	1	-
COARSE AND FINE SAND	A-3a	2	-
SANDY SILT	A-4a	7	1
SILT	A-4b	3	-
SILT AND CLAY	A-6b	6	-
SILTY CLAY	A-6b	6	-
CLAY	A-7-6	4	-
	TOTAL	29	1



LOCATION MAP

SCALE IN MILES

0 1 2 3 4

N

PARTICLE SIZE DEFINITIONS

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

INDEX OF SHEETS

SUMMARY OF SOIL TEST DATA, SHEET NO. 3 AND 4

LOCATION FROM STA.	TO STA.	PLAN VIEW SHEET	PROFILE SHEET	CUT MAX.	FILL EMB. MAX.
US 23					
173+00	183+00	5	5	-	-
183+00	188+00	6	6	-	-
188+00	193+00	7	7	-	-
226+00	231+00	8	8	-	-
231+00	236+00	9	9	-	-
236+00	241+00	10	10	-	-
293+00	301+50	11	11	-	-
290+00	299+00	12	12	-	-
SR 294					
18+50	22+00	6	-	-	-
CR 113/TR 124					
18+00	22+50	9	-	-	-
TR 65					
17+00	23+00	11	-	-	-
CR 62/TR 62					
16+50	22+50	12	-	-	-

PID NO. 109362

SOIL PROFILE - ROADWAY

WYA-23-0.04

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GEOLOGY (CONT.)

NRCS WEB SOIL SURVEY SUMMARY BY INTERSECTION					
INTERSECTION/ CONNECTOR	IDENTIFICATION	COMPRISED OF	FORMATION	DRAINAGE	PERMIABILITY
CR 62/ TR 62	MILFORD SILTY CLAY LOAM (MH)	LACUSTRINE DEPOSITS	LAKE PLAINS	POORLY DRAINED	MODERATELY HIGH
TR 65	TIRO SILT LOAM (TRA)	LACUSTRINE DEPOSITS OVERLYING WISCONSIN TILL	GROUND MORAINES	SOMEWHAT POORLY DRAINED	MODERATELY LOW TO MODERATELY HIGH
CR 113/ TR 124	GLYNWOOD SILT LOAM (GWG1B2) NORTHWEST OF INTERSECTION	WISCONSIN TILL	GROUND MORAINES	MODERATELY WELL DRAINED	LOW TO MODERATELY HIGH
	GLYNWOOD SILT LOAM (GWG5C2) SOUTHEAST OF INTERSECTION	CLAYEY TILL			
SR 294	BLOUNT SILT LOAM (BLG1A1)) NORTH OF INTERSECTION	WISCONSIN TILL	GROUND MORAINES	SOMEWHAT POORLY DRAINED	LOW TO MODERATELY HIGH
	GLYNWOOD SILT LOAM (GWG1B2) SOUTH OF INTERSECTION			MODERATELY WELL DRAINED	
TR 72	BLOUNT SILT LOAM (BLG1A1)	WISCONSIN TILL	GROUND MORAINES	SOMEWHAT POORLY DRAINED	LOW TO MODERATELY HIGH
CR 74	LURAY SILTY CLAY LOAM (LU)	LACUSTRINE DEPOSITS	FLATS	VERY POORLY DRAINED	MODERATELY HIGH
TR 68	GLYNWOOD CLAY LOAM (GWD5C2)	CLAYEY TILL	END MORAINES	MODERATELY WELL DRAINED	LOW TO MODERATELY HIGH

THE LACUSTRINE DEPOSITS, WHICH WERE DEPOSITED IN GLACIAL LAKES, GENERALLY DO NOT EXHIBIT SIGNIFICANT OVERCONSOLIDATION, ALTHOUGH DESICCATION EFFECTS MAY INDUCE SOME APPARENT OVERCONSOLIDATION WITHIN THE NEAR-SURFACE SOILS. THE GLACIAL TILL, ALSO REFERRED TO AS MORAINE, WAS DEPOSITED BY THE ADVANCE AND RETREAT OF GLACIAL ICE. DUE TO THE WEIGHT OF THE ICE MASS, THE TILL DEPOSITS ARE MODERATELY TO HIGHLY OVER-CONSOLIDATED, THAT IS, THE EXISTING SOIL DEPOSITS HAVE EXPERIENCED A PREVIOUS VERTICAL STRESS SIGNIFICANTLY HIGHER THAN THE PRESENT EFFECTIVE VERTICAL STRESS DUE TO THE REMAINING OVERLYING SOIL STRATA IN THE PROFILE. THE TILL MAY CONTAIN COBBLES AND/OR BOULDERS IN THE TILL SOIL MATRIX. ADDITIONALLY, SEAMS OF GRANULAR SOILS MAY BE ENCOUNTERED WITHIN GLACIAL TILLS. THESE GRANULAR SEAMS MAY OR MAY NOT BE WATER BEARING.

ON THE "GEOLOGIC MAP OF OHIO," THE PROJECT SITE IS MAPPED AS BEDROCK CONSISTING OF DEVONIAN-AGE COLUMBUS AND DELAWARE LIMESTONE AND SHALE, TRANSITIONING TO MONROE LIMESTONE IN THE NORTHWESTERN PORTION OF THE PROJECT AREA. BEDROCK ACROSS THE SITE IS MAPPED AT ELEVS. 850± TO 820±, CORRESPONDING TO DEPTHS VARYING FROM APPROXIMATELY 90 FEET BELOW EXISTING GRADES IN THE SOUTHEAST TO 30 FEET IN THE MIDDLE PORTION, THEN DEEPER TO APPROXIMATELY 65 FEET IN THE NORTHWESTERN PORTION.

RECONNAISSANCE

TTL PERFORMED SITE RECONNAISSANCE ON MAY 8, 2020. THE SITE IS LOCATED IN A PREDOMINANTLY RURAL/AGRICULTURAL AREA.

IN THE AREAS OF THE INTERSECTIONS/CONNECTORS, THE EXISTING ROADWAY PAVEMENTS CONSISTED OF ASPHALT WITH LONGITUDINAL AND TRANSVERSE CRACKS. THE CRACKS ALONG US ROUTE 23 (US 23) WERE GENERALLY SEALED, HOWEVER, CRACKS IN THE CONNECTORS WERE GENERALLY NOT SEALED.

GRADES ALONG THE PAVEMENT AT INDIVIDUAL INTERSECTIONS WERE GENERALLY FLAT BUT VARIED BETWEEN INTERSECTIONS.

REVIEW OF THE OHIO DEPARTMENT OF NATURAL RESOURCES (ODNR) MAP OF MINES INDICATES MULTIPLE ACTIVE SURFACE MINES IN THE VICINITY OF THE PROJECT AREA. WITH THE CLOSEST MINE APPROXIMATELY 1,000 FEET NORTH OF THE INTERSECTION OF US 23 AND COUNTY ROAD 124 (CR 124).

SUBSURFACE EXPLORATION

THIS EXPLORATION INCLUDED 14 TEST BORINGS, 10 OF WHICH WERE EXTENDED THROUGH EXISTING PAVEMENTS AND INCLUDED PAVEMENT CORES, AS WELL AS 8 STAND-ALONE PAVEMENT CORES. THE STAND-ALONE PAVEMENT CORES WERE DESIGNATED AS CORES X-001-0-19 THROUGH X-006-0-19, X-019-0-19, AND X-021-0-19, AND THE TEST BORINGS WERE DESIGNATED AS BORINGS B-007-0-19 THROUGH B-018-0-19, B-020-0-19, AND B-022-0-19. THE CORES AND BORINGS WERE PERFORMED BY TTL DURING THE PERIOD FROM MAY 19 TO JUNE 11, 2020. THESE CORES AND BORINGS ARE FULLY DESIGNATED AS IN ACCORDANCE WITH ODOT PROTOCOL, HOWEVER THE "-0-19" PORTION OF THE NOMENCLATURE IS GENERALLY OMITTED IN THE DISCUSSION HEREIN. THE RESULTS OF THE CORES ARE PROVIDED IN THE SUBGRADE EXPLORATION REPORT. IN ACCORDANCE WITH ODOT PROTOCOL, THE CONDITIONS ENCOUNTERED IN THE STAND-ALONE PAVEMENT CORES ARE NOT INCLUDED GRAPHICALLY IN THIS SOIL PROFILE ROADWAY SUBMITTAL.

EACH OF THE BORINGS WERE DRILLED WITH A GEOPROBE(R) 7822DT WITH DRILLING CAPABILITIES UTILIZING SOLID-STEM AUGERS. DISTURBED (SPLIT-SPOON) DRIVE SAMPLES WERE OBTAINED IN ACCORDANCE WITH THE STANDARD PENETRATION TEST (ASTM D 1586). BORINGS WERE PERFORMED AS ODOT TYPE A BORINGS, SAMPLES WERE GENERALLY OBTAINED CONTINUOUSLY USING 18-INCH SPLIT-SPOON (SS) SAMPLE DRIVES. THE CALIBRATED HAMMER/ROD ENERGY RATIO FOR THE GEOPROBE(R)7822DT WAS 97.0 PERCENT BASED ON CALIBRATION ON NOVEMBER 11, 2019. THIS ENERGY RATIO IS LIMITED TO AN UPPER BOUND OF 90 PERCENT FOR THE PURPOSES OF ANALYSES AND REPORTING IN ACCORDANCE WITH THE ODOT SPECIFICATION FOR GEOTECHNICAL EXPLORATIONS (SGE).

EXPLORATION FINDINGS

GRADES AT INDIVIDUAL INTERSECTIONS WERE RELATIVELY FLAT WITH ELEVATION CHANGES GENERALLY ON THE ORDER OF ONE FOOT OR LESS. OVER THE ENTIRE PROJECT AREA, GROUND SURFACE ELEVATIONS VARIED FROM ELEVS. 871± TO 941±.

THE BORINGS WERE PERFORMED IN GRASS MEDIANS, EXISTING PAVEMENT SHOULDERS, AND CONNECTORS. THE BORINGS IN GRASS MEDIANS ENCOUNTERED TOPSOIL ON THE ORDER OF 3 TO 4 INCHES IN THICKNESS. THE BORINGS PERFORMED IN PAVEMENTS ENCOUNTERED SURFACE MATERIALS CONSISTING OF ASPHALT WITH THICKNESSES GENERALLY RANGING FROM OF 4 TO 12½ INCHES, UNDERLAIN BY CRUSHED STONE WITH THICKNESSES GENERALLY VARYING FROM 4 TO 24½ INCHES. HOWEVER, TWO CORES PERFORMED AT THE INTERSECTION OF US 23 WITH CR 62/TR 62 ENCOUNTERED A LAYER OF CONCRETE BETWEEN THE ASPHALT AND THE CRUSHED STONE, WITH THICKNESS CONCRETE ON THE ORDER OF 6½ INCHES AND 9½ INCHES. ADDITIONALLY, BORING B-011 AND CORE X-019 ENCOUNTERED A SECONDARY PAVEMENT CROSS SECTION UNDERLING THE FIRST.

EXISTING SURFACE CONDITIONS ENCOUNTERED IN THE BORINGS ARE PRESENTED HEREIN. EXISTING PAVEMENT CONDITIONS ENCOUNTERED IN THE CORES ARE SUMMARIZED IN THE FOLLOWING TABLE.

SUMMARY OF ENCOUNTERED PAVEMENT SECTION			
BORING NUMBER	ASPHALT THICKNESS (INCHES)	CONCRETE THICKNESS (INCHES)	CRUSHED STONE THICKNESS (INCHES)
X-001	9½	-	5¾
X-002	7	-	8
X-003	11¼	-	6¾
X-004	9½	-	6
X-005	13½	-	6
X-006	12½	-	6½
X-019	2¾ (NOTE)	-	¾ (NOTE)
X-021	7	6½	4

"-" = NOT ENCOUNTERED.
NOTE: UNDERLYING THE UPPER INDICATED PAVEMENT CROSS-SECTION IN CORE X-019, A SECOND PAVEMENT CROSS-SECTION WAS ENCOUNTERED CONSISTING OF 4½ INCHES OF ASPHALT UNDERLAIN BY 5 INCHES OF CRUSHED STONE.

GRANULAR EXISTING FILL MATERIALS WERE ENCOUNTERED IN BORING B-016 UNDERLYING THE PAVEMENT CROSS SECTION TO DEPTH OF 5 FEET BELOW EXISTING GRADE (ELEV. 877±). THE GRANULAR FILL MATERIALS CONSISTED OF PREDOMINANTLY GRAVEL (ODOT A-1-A).

COHESIVE EXISTING FILL MATERIALS WERE ENCOUNTERED UNDERLYING THE SURFACE AND GRANULAR FILL MATERIALS IN BORINGS B-008 TO A DEPTH OF 2.5 FEET (ELEV. 881±), B-016 TO A DEPTH OF APPROXIMATELY 6¼ FEET (ELEV. 875±), B-017 TO A DEPTH OF APPROXIMATELY 2¾ FEET (ELEV. 879±), B-020 TO A DEPTH OF APPROXIMATELY 3¼ FEET (ELEV. 901±), B-022 TO A DEPTH OF 2½ FEET (ELEV. 890±). THESE COHESIVE FILL MATERIALS CONSISTED OF PREDOMINANTLY SILTY CLAY (ODOT A-6B) AND CLAY (ODOT A-7-6), AND CONTAINED VARYING AMOUNTS OF CRUSHED STONE.

BASED ON THE RESULTS OF OUR FIELD AND LABORATORY TESTS, THE SUBSOILS ENCOUNTERED UNDERLYING THE SURFACE AND FILL MATERIALS CAN GENERALLY BE CHARACTERIZED AS PREDOMINANTLY NATIVE COHESIVE SOILS INTERBEDDED WITH ISOLATED ZONES OF GRANULAR SOILS.

NATIVE SOILS CONSISTED OF PREDOMINANTLY MEDIUM STIFF TO VERY STIFF COHESIVE SOILS ENCOUNTERED UNDERLYING THE SURFACE AND FILL MATERIALS IN ALL BORINGS EXCEPT BORING B-016. THE COHESIVE SOILS CONSISTED OF SILT AND CLAY (ODOT A-6A), SILTY CLAY (ODOT A-6B), AS WELL AS CLAY (ODOT A-7-6).

GRANULAR SOILS WERE ENCOUNTERED UNDERLYING THE SURFACE AND FILL MATERIALS, AS WELL AS INTERBEDDED WITHIN THE NATIVE COHESIVE SOILS, IN HALF OF THE BORINGS. THE GRANULAR SOILS CONSISTED OF COARSE AND FINE SAND (ODOT A-3A).

GROUNDWATER WAS INITIALLY ENCOUNTERED DURING DRILLING OPERATIONS IN BORINGS B-007, B-009 THROUGH B-012, B-015, AND B-016 AT DEPTHS RANGING FROM LESS THAN 1 FOOT BELOW EXISTING GRADE TO APPROXIMATELY 7 FEET. GROUNDWATER WAS ONLY OBSERVED UPON COMPLETION OF DRILLING IN BORINGS B-007 AND B-012. IN THESE TWO BORINGS, WHICH WERE PERFORMED IN THE MEDIAN, PONDED WATER WAS PRESENT AT THE GROUND SURFACE. IT SHOULD BE NOTED THAT THE BOREHOLES WERE DRILLED AND BACKFILLED WITHIN THE SAME DAY, AND STABILIZED WATER LEVELS MAY NOT HAVE OCCURRED OVER THIS LIMITED TIME PERIOD. INSTRUMENTATION WAS NOT INSTALLED TO OBSERVE LONG TERM GROUND LEVELS.

SPECIFICATIONS

THIS GEOTECHNICAL EXPLORATION WAS PERFORMED IN ACCORDANCE WITH THE STATE OF OHIO, DEPARTMENT OF TRANSPORTATION, OFFICE OF GEOTECHNICAL ENGINEERING, SPECIFICATIONS FOR GEOTECHNICAL EXPLORATIONS (SGE), DATED JANUARY 2020.

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.

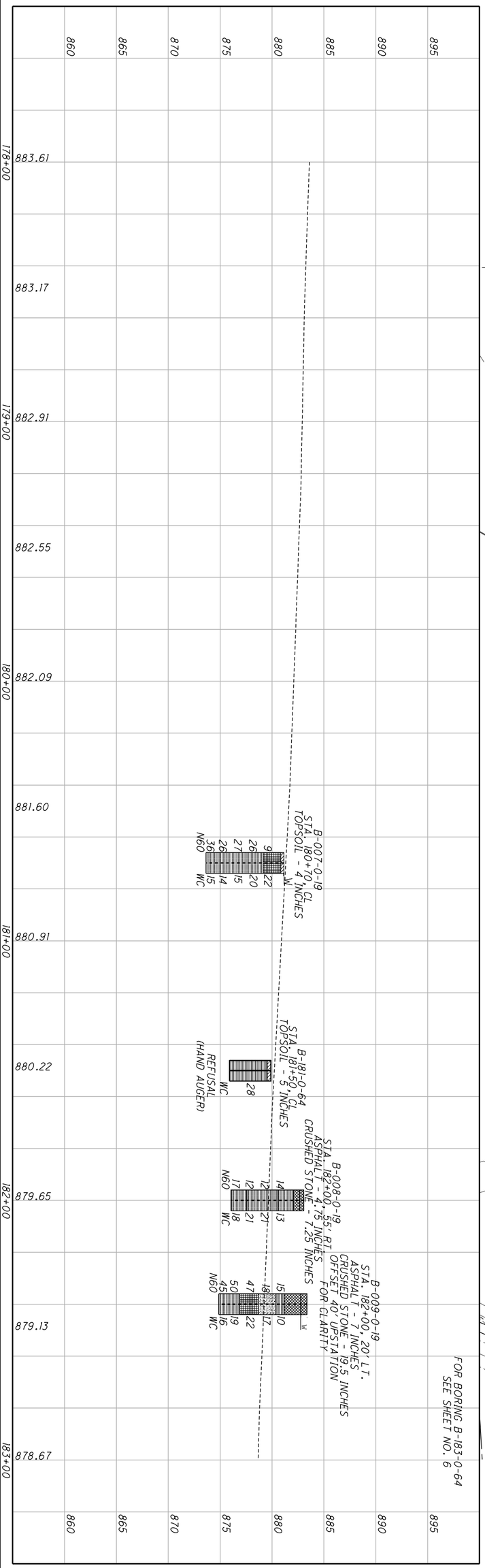
RECON - LGH 05/08/20
DRILLING - CW 05/19/20 & 06/11/20
DRAWN - TRR 04/21
REVIEWED - CPI 04/21

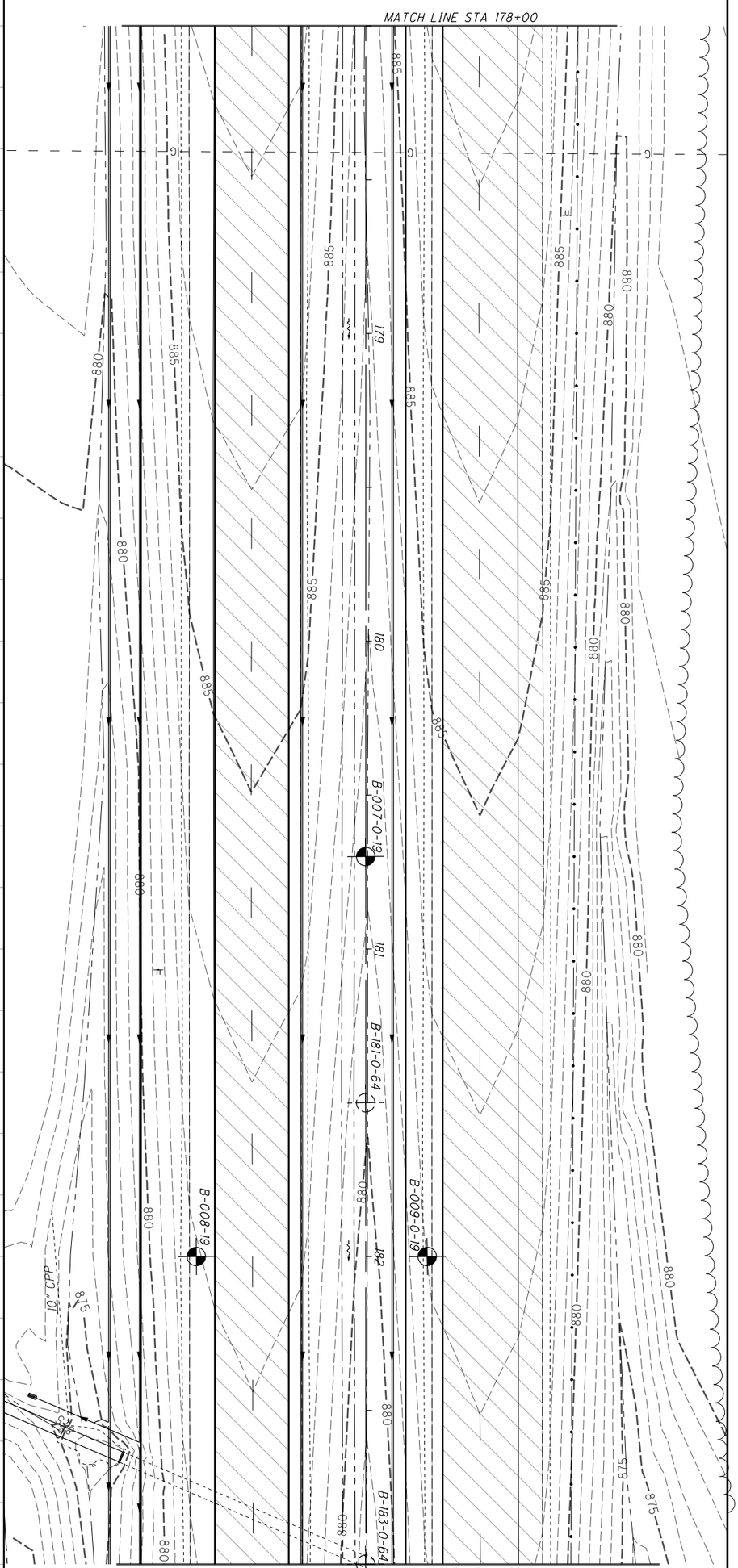
SUMMARY OF SOIL TEST DATA
WYA-23-00.04, PID 109362

EXPLORATION ID., STATION & OFFSET	FROM - TO	SAMPLE ID	N60	% REC	tsf HP	% GR	% CS	% FS	% SILT	% CLAY	LL	PL	PI	% WC	ODOT CLASS (GI)	ppm SO4
B-007-0-19	0.0 - 1.5	SS-1	9	100	3.00	0	3	12	27	58	43	19	24	22	A-7-6 (14)	<100
STA. 180+70 , CL	1.5 - 3.0	SS-2	26	100	4.25	-	-	-	-	-	-	-	-	20	A-6b (VISUAL)	-
LATITUDE = 40.737114	3.0 - 4.5	SS-3	27	100	4.25	4	13	20	27	36	29	12	17	15	A-6b (8)	-
LONGITUDE = -83.207481	4.5 - 6.0	SS-4	26	100	4.50	-	-	-	-	-	-	-	-	14	A-6b (VISUAL)	-
	6.0 - 7.5	SS-5	36	100	4.50	-	-	-	-	-	-	-	-	15	A-6b (VISUAL)	-
B-008-0-19	1.0 - 2.5	SS-1	14	78	2.00	-	-	-	-	-	-	-	-	13	A-6b (VISUAL)	-
STA. 182+00 , 55' RT.	2.5 - 4.0	SS-2	12	89	4.00	0	10	15	25	50	39	16	23	21	A-6b (13)	290
LATITUDE = 40.737477	4.0 - 5.5	SS-3	12	100	2.00	0	7	15	25	53	39	17	22	21	A-6b (13)	-
LONGITUDE = -83.207712	5.5 - 7.0	SS-4	17	100	3.00	-	-	-	-	-	-	-	-	18	A-6b (VISUAL)	-
B-009-0-19	1.0 - 2.5	SS-1	15	100	NP	-	-	-	-	-	-	-	-	10	A-2-6 (VISUAL)	-
STA. 182+00 , 20' LT.	2.5 - 4.0	SS-2	18	100	2.25	1	10	15	24	50	32	9	23	17	A-6b (13)	-
LATITUDE = 40.737330	4.0 - 5.5	SS-3	47	100	3.75	0	6	13	25	56	43	16	27	22	A-7-6 (15)	1500
LONGITUDE = -83.207904	5.5 - 7.0	SS-4	50	100	3.75	-	-	-	-	-	-	-	-	19	A-7-6 (VISUAL)	-
	7.0 - 8.5	SS-5	45	100	4.50	-	-	-	-	-	-	-	-	16	A-6b (VISUAL)	-
B-010-0-19	1.0 - 2.5	SS-1	21	100	NP	-	-	-	-	-	-	-	-	10	A-1-b (VISUAL)	-
STA. 191+00 , 25' RT.	2.5 - 4.0	SS-2	24	100	3.25	0	2	6	24	68	35	12	23	20	A-6b (13)	450
LATITUDE = 40.739085	4.0 - 5.5	SS-3	27	100	1.00	-	-	-	-	-	-	-	-	25	A-6b (VISUAL)	-
LONGITUDE = -83.210158	5.5 - 7.0	SS-4	24	100	1.75	-	-	-	-	-	-	-	-	18	A-6b (VISUAL)	-
	7.0 - 8.5	SS-5	30	100	NI	0	5	49	42	4	NP	NP	NP	21	A-4a (2)	-
B-011-0-19	1.0 - 2.5	SS-1	9	100	4.50	-	-	-	-	-	-	-	-	15	A-6b (VISUAL)	>8000
STA. 191+00 , 55' LT.	2.5 - 4.0	SS-2	11	100	4.25	1	2	3	27	67	35	15	20	18	A-6b (12)	>8000
LATITUDE = 40.738931	4.0 - 5.5	SS-3	12	100	1.00	0	2	7	23	68	39	12	27	28	A-6b (15)	>8000
LONGITUDE = -83.210348	5.5 - 7.0	SS-4	9	100	NP	-	-	-	-	-	-	-	-	19	A-3a (VISUAL)	-
	7.0 - 8.5	SS-5	15	100	NP	-	-	-	-	-	-	-	-	24	A-3a (VISUAL)	-
B-012-0-19	0.0 - 1.5	SS-1	11	100	NP	0	10	55	31	4	NP	NP	NP	21	A-3a (0)	<100
STA. 192+50 , CL	1.5 - 3.0	SS-2	12	100	1.25	-	-	-	-	-	-	-	-	23	A-6b (VISUAL)	-
LATITUDE = 40.739335	3.0 - 4.5	SS-3	11	100	0.75	0	2	11	23	64	25	14	11	24	A-6a (8)	-
LONGITUDE = -83.210640	4.5 - 6.0	SS-4	6	100	0.50	-	-	-	-	-	-	-	-	21	A-6b (VISUAL)	-
	6.0 - 7.5	SS-5	14	100	2.00	-	-	-	-	-	-	-	-	16	A-6b (VISUAL)	-
B-013-0-19	0.0 - 1.5	SS-1	6	100	>4.5	5	15	12	23	45	40	19	21	18	A-6b (11)	270
STA. 227+05 , CL	1.5 - 3.0	SS-2	12	100	>4.5	3	7	9	22	59	35	19	16	15	A-6b (10)	-
LATITUDE = 40.745739	3.0 - 4.5	SS-3	18	100	>4.5	-	-	-	-	-	-	-	-	18	A-6b (VISUAL)	-
LONGITUDE = -83.219786	4.5 - 6.0	SS-4	21	100	2.75	-	-	-	-	-	-	-	-	16	A-6b (VISUAL)	-
	6.0 - 7.5	SS-5	23	100	3.00	-	-	-	-	-	-	-	-	15	A-6b (VISUAL)	-
B-014-0-19	1.0 - 2.5	SS-1	9	100	2.25	0	18	27	26	29	24	11	13	15	A-6a (5)	150
STA. 228+60 , 20' RT.	2.5 - 4.0	SS-2	17	100	3.75	0	16	27	25	32	27	14	13	15	A-6a (6)	-
LATITUDE = 40.746118	4.0 - 5.5	SS-3	27	100	4.00	-	-	-	-	-	-	-	-	19	A-6a (VISUAL)	-
LONGITUDE = -83.220100	5.5 - 7.0	SS-4	30	100	NP	-	-	-	-	-	-	-	-	12	A-3a (VISUAL)	-
B-015-0-19	1.0 - 2.5	SS-1	30	89	NP	-	-	-	-	-	-	-	-	8	A-1-b (VISUAL)	-
STA. 228+60 , 55' LT.	2.5 - 4.0	SS-2	24	100	3.50	1	21	29	30	19	24	11	13	13	A-6a (4)	-
LATITUDE = 40.745948	4.0 - 5.5	SS-3	26	100	3.25	-	-	-	-	-	-	-	-	20	A-6a (VISUAL)	-
LONGITUDE = -83.220265	5.5 - 7.0	SS-4	33	100	1.50	1	13	9	25	52	35	9	26	22	A-6b (14)	1500
	7.0 - 8.5	SS-5	33	100	2.00	-	-	-	-	-	-	-	-	18	A-6b (VISUAL)	-
B-016-0-19	1.0 - 2.5	SS-1	33	89	NP	65	17	7	10	1	NP	NP	NP	4	A-1-a (0)	-
STA. 237+60 , 25' RT.	2.5 - 4.0	SS-2	18	89	NP	-	-	-	-	-	-	-	-	9	A-1-a (VISUAL)	-
LATITUDE = 40.747338	4.0 - 5.5	SS-3	9	100	2.50	12	11	16	26	35	31	11	20	18	A-6b (9)	1500
LONGITUDE = -83.222932	5.5 - 7.0	SS-4	12	100	NP	-	-	-	-	-	-	-	-	18	A-3a (VISUAL)	-
	7.0 - 8.5	SS-5	12	100	NP	-	-	-	-	-	-	-	-	18	A-3a (VISUAL)	-
	8.5 - 10.0	SS-6	9	100	NP	-	-	-	-	-	-	-	-	16	A-3a (VISUAL)	-
	10.0 - 11.5	SS-7	8	100	NP	-	-	-	-	-	-	-	-	16	A-3a (VISUAL)	-
B-017-0-19	1.0 - 2.5	SS-1	6	100	2.75	-	-	-	-	-	-	-	-	23	A-6b (VISUAL)	-
STA. 237+60 , 55' LT.	2.5 - 4.0	SS-2	14	100	4.50	4	4	2	25	65	42	17	25	21	A-7-6 (14)	-
LATITUDE = 40.747153	4.0 - 5.5	SS-3	20	100	2.75	-	-	-	-	-	-	-	-	16	A-7-6 (VISUAL)	-
LONGITUDE = -83.223062	5.5 - 7.0	SS-4	20	100	4.00	3	13	19	22	43	27	13	14	15	A-6a (8)	380
B-018-0-19	0.0 - 1.5	SS-1	9	100	3.25	-	-	-	-	-	-	-	-	20	A-6b (VISUAL)	-
STA. 239+00 , CL	1.5 - 3.0	SS-2	12	100	3.25	13	9	12	20	46	36	18	18	21	A-6b (9)	1500
LATITUDE = 40.747474	3.0 - 4.5	SS-3	14	100	1.50	4	7	12	23	54	34	17	17	26	A-6b (11)	-
LONGITUDE = -83.223451	4.5 - 6.0	SS-4	15	100	4.25	-	-	-	-	-	-	-	-	17	A-6b (VISUAL)	-
	6.0 - 7.5	SS-5	23	100	4.00	-	-	-	-	-	-	-	-	16	A-6b (VISUAL)	-
B-020-0-19	1.0 - 2.5	SS-1	11	89	1.75	-	-	-	-	-	-	-	-	20	A-7-6 (VISUAL)	-
STA. 297+95 , 60' LT.	2.5 - 4.0	SS-2	12	100	2.00	1	3	8	20	68	44	18	26	24	A-7-6 (15)	190
LATITUDE = 40.760168	4.0 - 5.5	SS-3	21	100	2.50	2	5	8	25	60	44	14	30	22	A-7-6 (17)	-
LONGITUDE = -83.234905	5.5 - 7.0	SS-4	24	100	1.50	-	-	-	-	-	-	-	-	24	A-7-6 (VISUAL)	-
	7.0 - 8.5	SS-5	18	100	2.50	-	-	-	-	-	-	-	-	24	A-7-6 (VISUAL)	-
B-022-0-19	1.0 - 2.5	SS-1	9	67	1.50	-	-	-	-	-	-	-	-	22	A-6b (VISUAL)	-
STA. 295+75 , 65' LT.	2.5 - 4.0	SS-2	11	100	2.75	0	1	2	24	73	48	20	28	27	A-7-6 (17)	-
LATITUDE = 40.774595	4.0 - 5.5	SS-3	8	100	1.50	0	2	2	23	73	46	14	32	30	A-7-6 (17)	600
LONGITUDE = -83.241701	5.5 - 7.0	SS-4	15	100	1.75	-	-	-	-	-	-	-	-	27	A-6b (VISUAL)	-
	7.0 - 8.5	SS-5	8	100	0.75	-	-	-	-	-	-	-	-	30	A-6b (VISUAL)	-

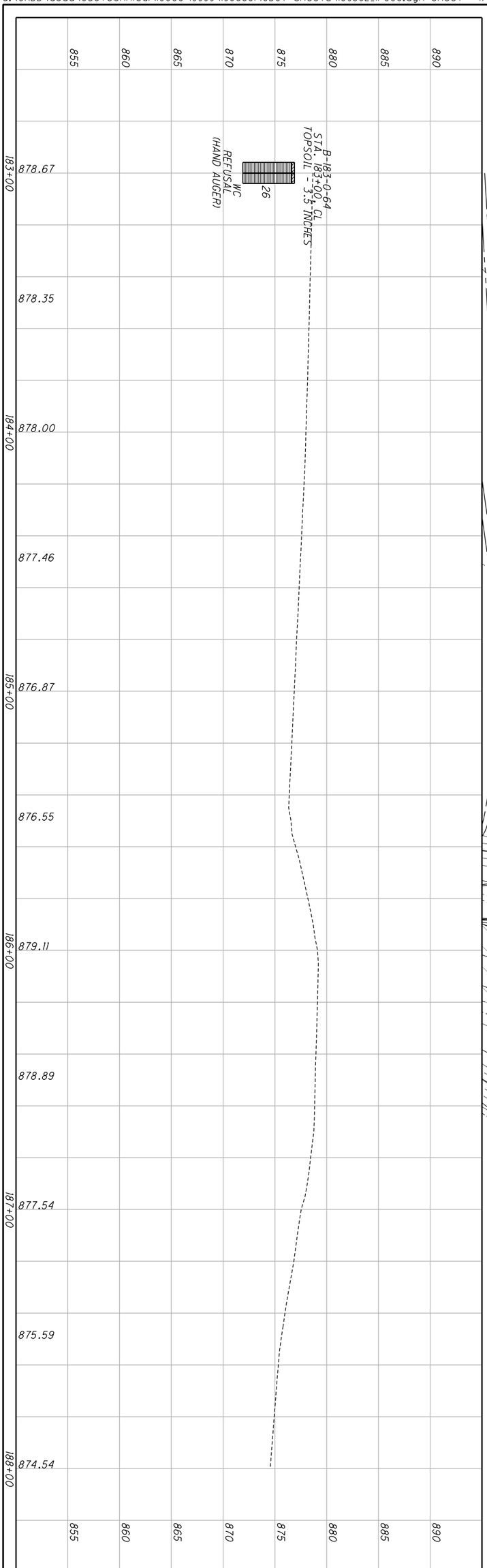
SUMMARY OF SOIL TEST DATA
WYA-23-00.00, HISTORIC BORINGS 1964

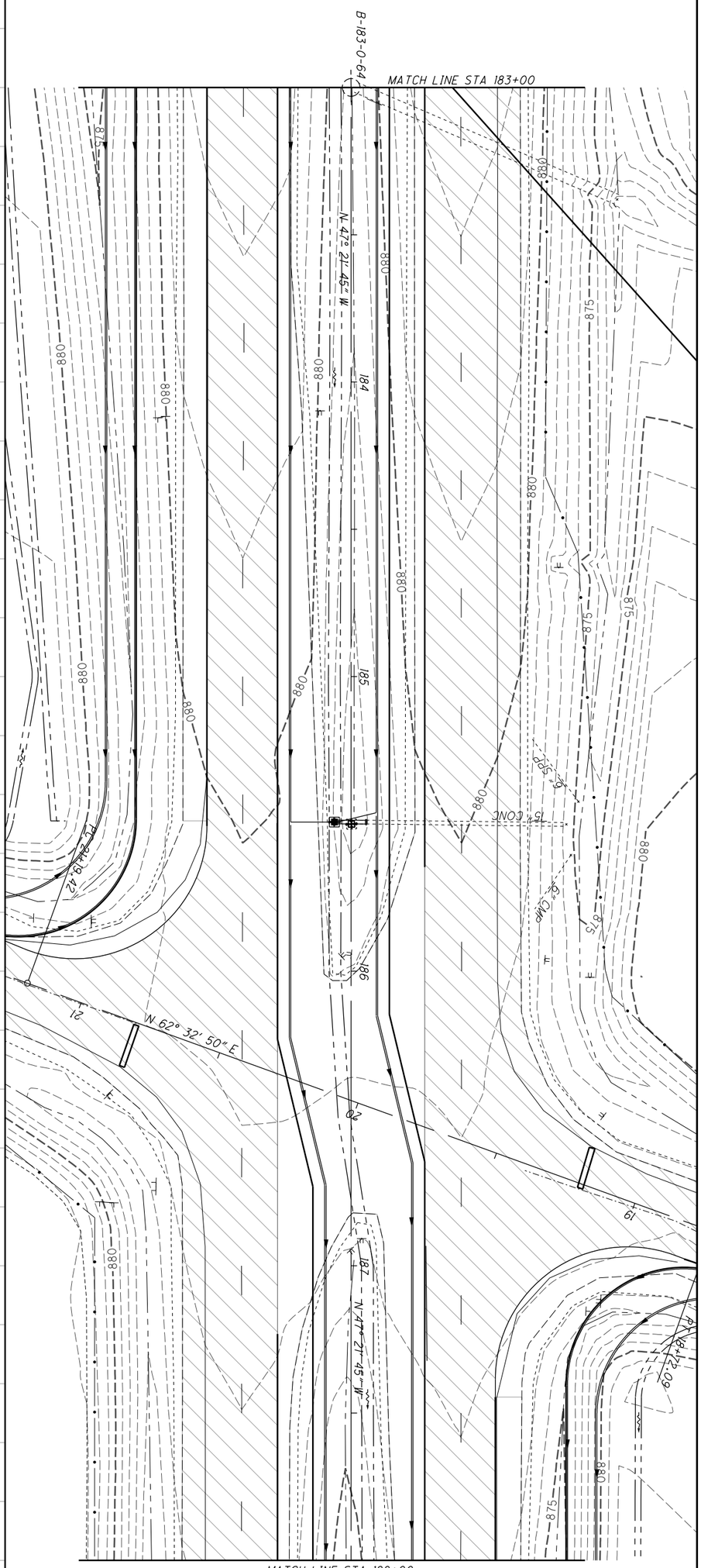
EXPLORATION ID., STATION & OFFSET	FROM - TO	% GR	% CS	% FS	% SILT	% CLAY	LL	PL	% WC	ODOT CLASS
B-181-0-64	0.4 - 4.0	0	3	11	35	51	40	22	28	A-6b
STA. 181+50, CL										
B-183-0-64	0.3 - 5.0	13	2	6	35	44	39	16	26	A-6b
STA. 183+00, CL										
B-188-0-64	0.3 - 5.0	0	5	8	39	48	39	19	26	A-6b
STA. 188+65, CL	5.0 - 11.0	0	1	13	41	45	28	11	15	A-6a
	11.0 - 14.0	0	0	1	42	57	35	14	23	A-6a
	14.0 - 16.0	0	3	7	79	11	NP	NP	21	A-4b
	16.0 - 23.0	14	8	20	29	29	20	5	15	A-4a
	23.0 - 30.0	12	8	12	32	36	23	6	14	A-4a
B-193-0-64	0.5 - 3.0	0	1	3	30	66	49	26	25	A-7-6
STA. 193+00, CL	3.0 - 10.0	12	5	9	31	43	32	14	16	A-6a
	10.0 - 13.5	0	0	0	33	67	40	18	22	A-6b
	13.5 - 16.0	0	10	36	33	21	NP	NP	21	A-4a
	16.0 - 22.0	0	7	17	38	38	21	5	14	A-4a
B-227-0-64	0.6 - 5.0	0	3	36	26	35	24	7	18	A-4a
STA. 227+00, CL										
B-230-0-64	0.6 - 5.0	4	6	16	31	43	32	13	19	A-6a
STA. 230+00, CL										
B-233-0-64	0.3 - 3.0	0	5	17	29	49	36	17	20	A-6b
STA. 233+80, CL	3.0 - 5.0	0	9	56	1	34	25	8	18	A-3a
	5.0 - 8.0	0	1	16	71	12	NP	NP	22	A-4b
	8.0 - 15.0	1	69	22	8	-	NP	NP	6	A-1-b
B-238-0-64	0.4 - 4.0	14	6	13	27	40	37	16	21	A-6b
STA. 238+40, CL	4.0 - 8.5	15	7	5	40	33	26	11	15	A-6a
	8.5 - 10.0	0	34	32	23	11	NP	NP	5	A-3a
B-240-0-64	0.4 - 4.0	0	1	5	37	57	46	17	27	A-7-6
STA. 240+75, CL	4.0 - 7.0	0	3	11	31	55	45	21	25	A-7-6
	7.0 - 10.0	13	5	21	30	31	24	7	14	A-4a
	10.0 - 16.0	0	4	57	28	11	NP	NP	21	A-4a
	16.0 - 20.0	GRAY SM					20	4	21	A-4a
	20.0 - 20.3	8	6	4	56	26	19	3	10	A-4b
B-297-0-64	0.4 - 5.5	0	1	4	24	71	56	32	30	A-7-6
STA. 297+58, CL	5.5 - 10.0	0	3	9	38	50	31	12	19	A-6a



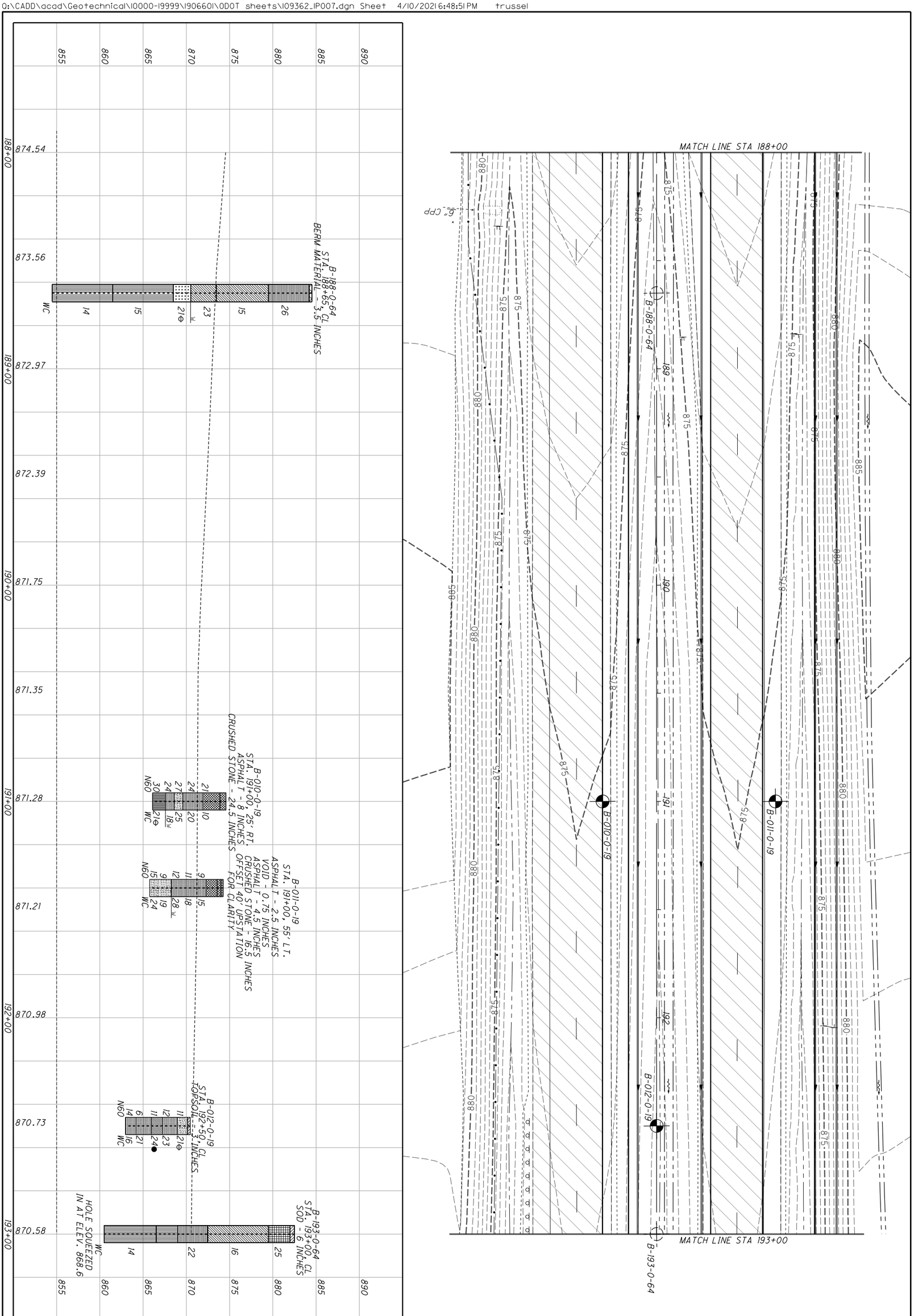


5/12	WYA-23-0.04	PLAN AND PROFILE - US 23 & SR 294 R-CUT STA. 178+00 TO STA. 183+00	DRAWN TRR CHECKED CPI	0 20 40 HORIZONTAL SCALE IN FEET	

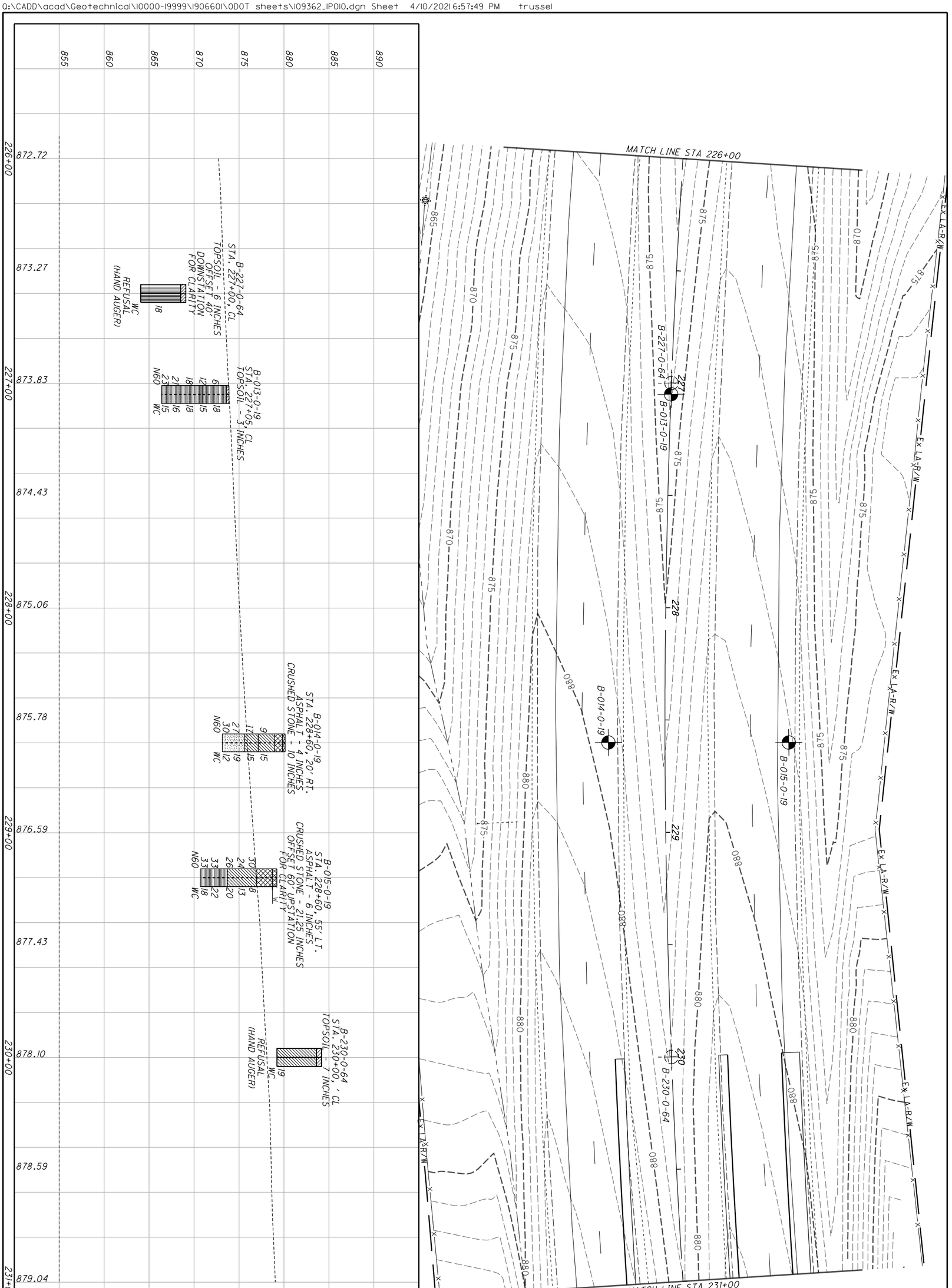




6/12	WYA-23-0.04	PLAN AND PROFILE - US 23 & SR 294 R-CUT STA. 183+00 TO STA. 188+00	DRAWN TRR CHECKED CPI	0 20 10 40 HORIZONTAL SCALE IN FEET	



7/12	WYA-23-0.04	PLAN AND PROFILE - US 23 & SR 294 R-CUT STA. 188+00 TO STA. 193+00	DRAWN TRR CHECKED CPI	0 20 10 40 HORIZONTAL SCALE IN FEET	



8/12	WYA-23-0.04	PLAN AND PROFILE-US 23 & CH 113\TH 124 R- CUT STA. 226+00 TO STA. 231+00	DRAWN TRR CHECKED CPI	0 20 10 40 HORIZONTAL SCALE IN FEET	N

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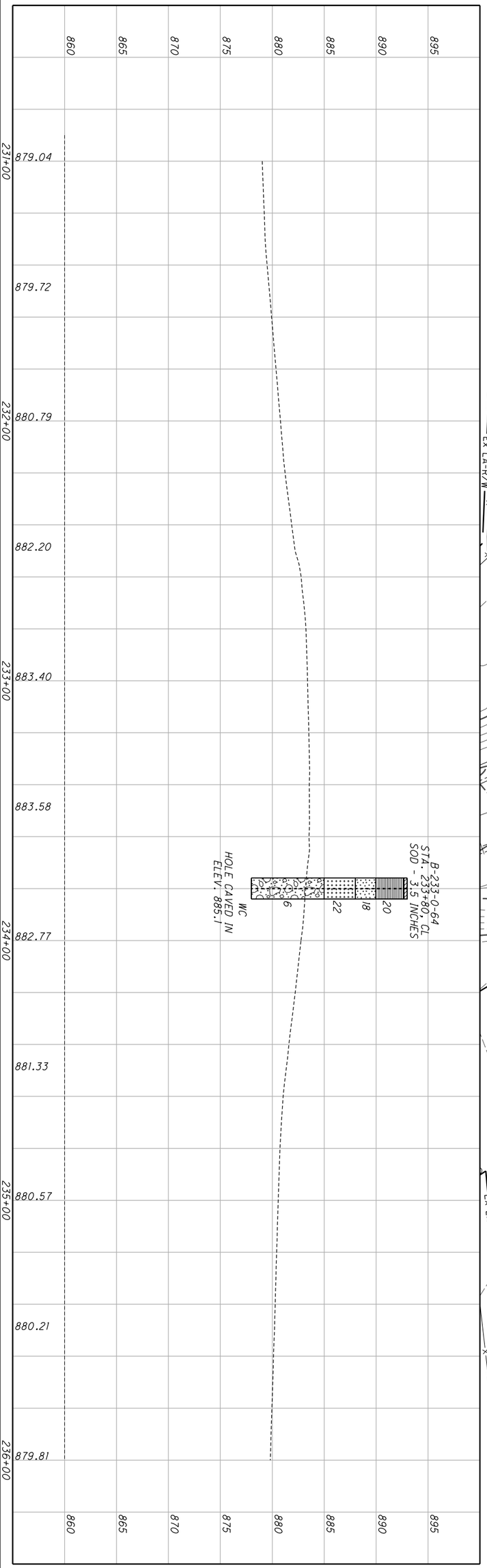
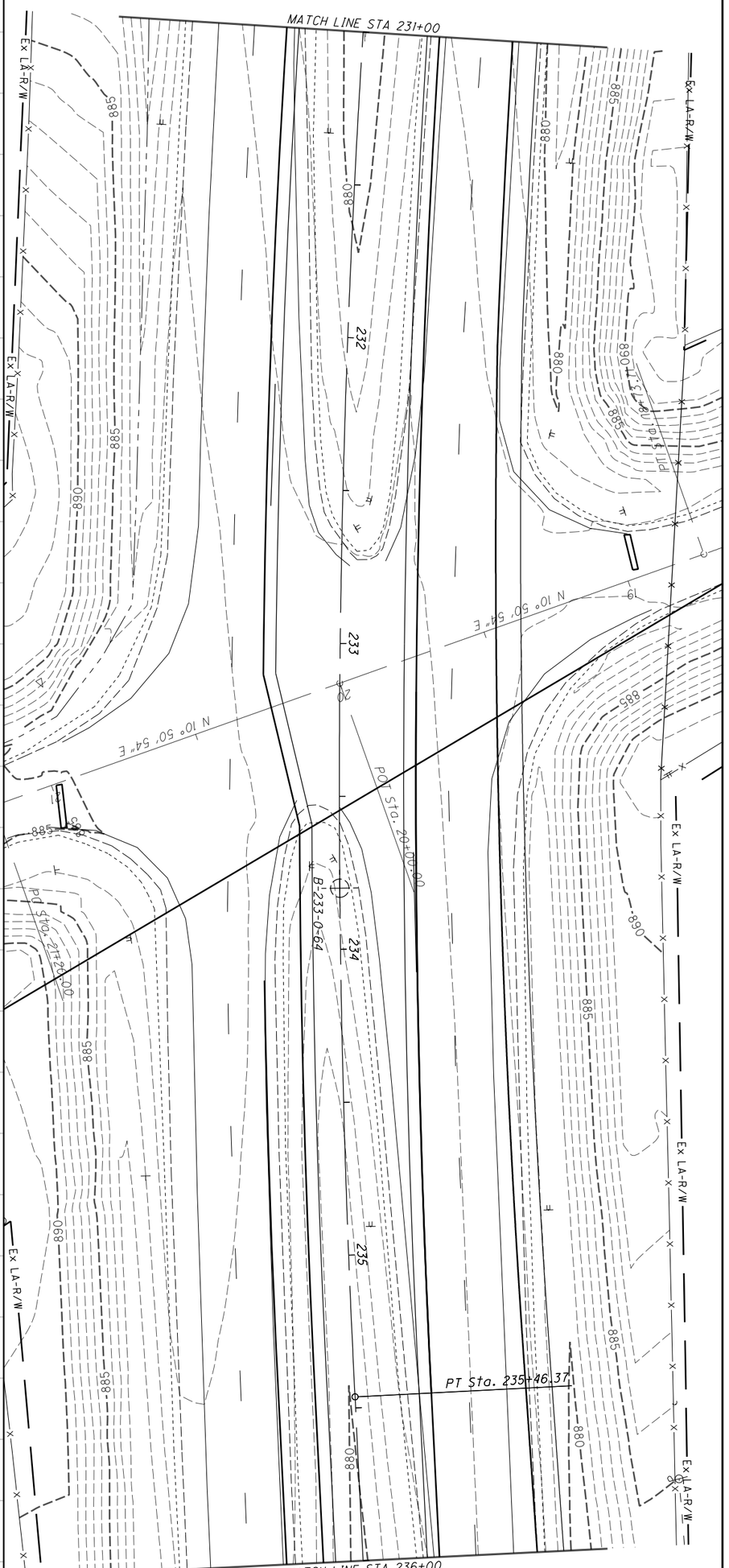
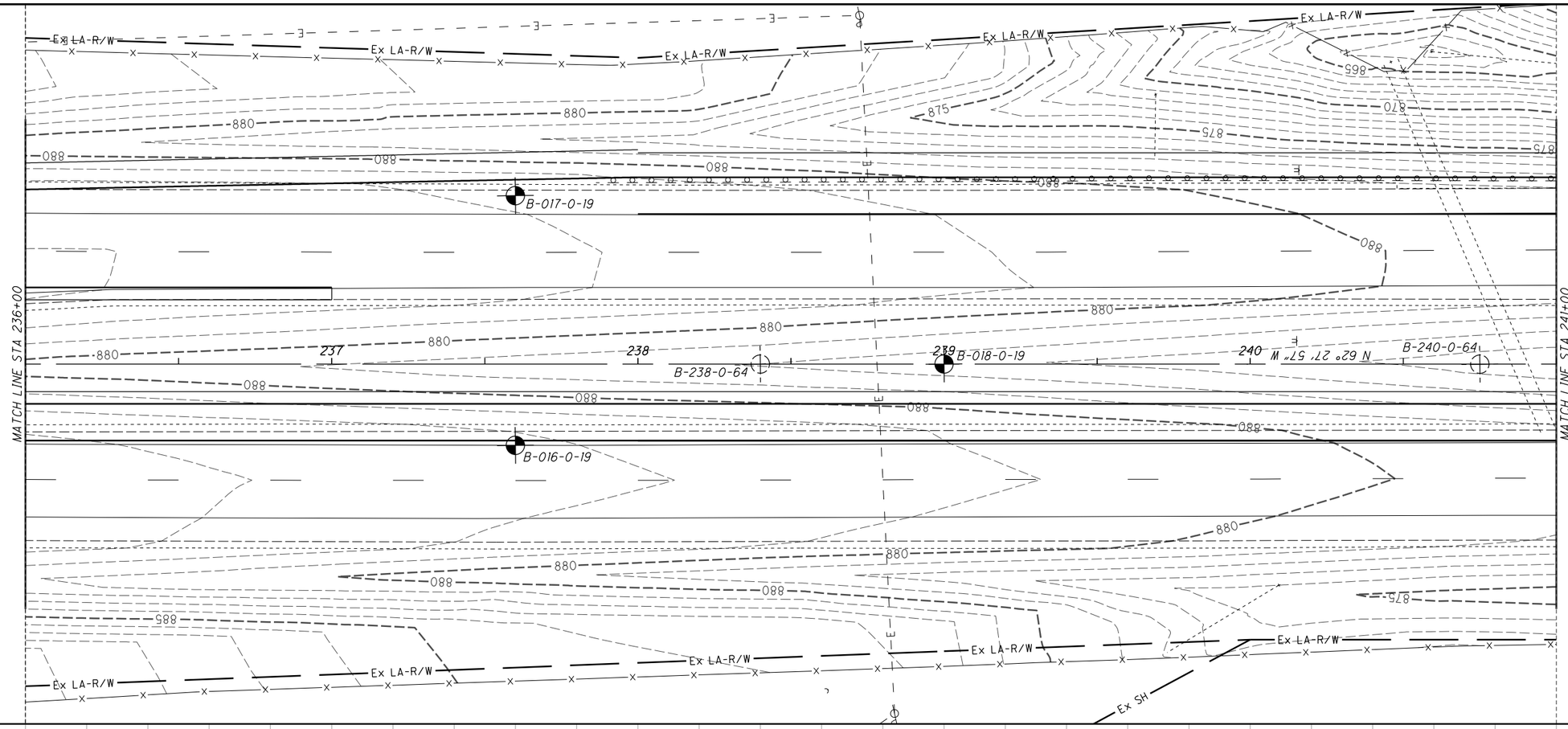
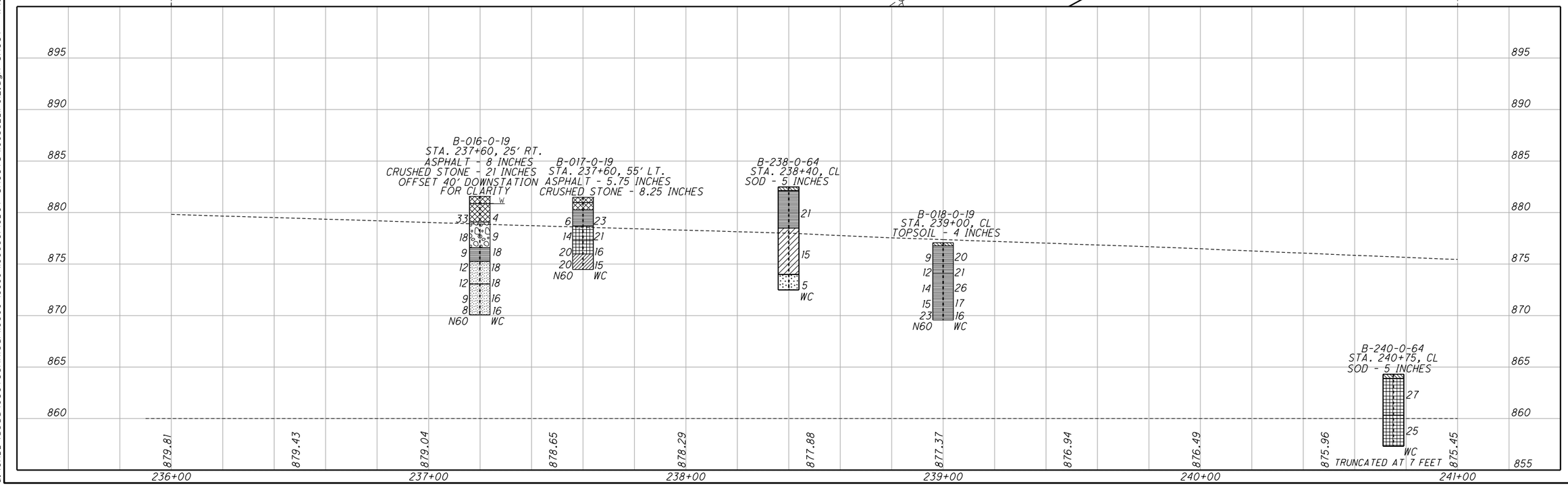




9/12	WYA-23-0.04	PLAN AND PROFILE-US 23 & CR 113\TR 124 R-CUT STA. 231+00 TO STA. 236+00	DRAWN TRR CHECKED CPI	0 20 40 HORIZONTAL SCALE IN FEET	





PLAN AND PROFILE-US 23 & CH 113\TH 124 R-CUT
STA. 236+00 TO STA. 241+00

WYA-23-0.04

10 / 12

HORIZONTAL SCALE IN FEET
0 10 20 40

DRAWN TRR
CHECKED CPI

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A STA 296+00.27, 2.5' LT
EX STM CB, GRATE 904.10
15" CONC NE 902.35

B STA 295+99.65, 75.5' RT
EX ℄ 15" CONC SW 902.04

C STA 296+68.45, 94.9' RT
EX ℄ 24" CONC NW 899.32

D STA 297+57.75, 94.5' RT
EX ℄ 24" CONC SE 898.55

E STA 297+34.82, 82.9' LT
EX ℄ 24" CONC NW 899.60

F STA 298+24.57, 82.5' LT
EX ℄ 24" CONC SE 899.40

NOTES-

ITEM 202 - PAVEMENT REMOVED

I ℄ R/W 297+44.36 US 23 = ℄ R/W 20+00.00 TH 65

HORIZONTAL SCALE IN FEET
0 15 30 60

DRAWN TRR CHECKED CPI

PLAN AND PROFILE-US 23 AND TH 65 INTERSECTION
STA. 293+00 TO STA. 301+50

WYA-23-0.04

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A STA 294+24.83, 1.9' LT
EX STM CB, GRATE 890.64
12" RCP NW 888.64

B STA 294+25.76, 81.7' LT
EX ℄ 12" RCP SE 887.49

C STA 295+13.81, 88.1' LT
EX ℄ 8" SPP W 886.89

D STA 295+21.37, 85.7' LT
EX ℄ 3.75' x 2.42 " CONC NE 886.58

E STA 295+95.00, 83.7' LT
EX ℄ 3.75' x 2.42 " CONC SW 886.41

F STA 294+25.76, 81.7' LT
EX ℄ 6" CMP SE 888.49

G STA 294+39.20, 79.4' RT
EX ℄ 15" RCP NW 890.43

H STA 295+41.38, 79.5' RT
EX ℄ 15" RCP SE 890.10

I ℄ R/W 295+22.51 US 23 =
℄ R/W 20+00.00 TH 62/CH 62

RESUME PROJECT
STA 291+94.87

PT 291+94.87

FENCE, TYPE 47

+77.32
124.7' LT

℄ R/W CH 62

Ex LA-R/W

+49.98
115.0' LT

NOTES-

ITEM 202 - PAVEMENT REMOVED

+99.35, 85.6' LT
886.80

+50.00
57' LT

3.75' x 2.42' RCP
(TBR)

+95.0, 83.7' LT
886.58

+50.00
57' LT

B-022-0-19

+50.00
49' LT

+50.00
25' LT

+50.00
21' LT

+50.00
49' LT

+50.00
25' LT

+50.00
21' LT

US 23 SB

US 23 NB

℄ R/W US 23

N 20° 25' 21" W

+94.87
21' RT

+94.87
25' RT

+50.00
21' RT

+50.00
25' RT

+00.00
57' RT

+00.00
49' RT

+00.00
49' RT

+37.20, 79.6' RT
890.7

FENCE, TYPE 47

(TBR)

+43.48, 79.1' RT
890.6

+00.00
57' RT

15" RCP

+17.33
88.0' RT

+36.97'
97.3' RT

+36.97
96.9' RT

+02.27
88.1' RT

SAWCUT

15" CMP

END WORK
STA 298+50.00

END PROJECT
STA 298+50.00

E190 (435)

291 292 293 294 295 296 297 298 299

B-022-0-19
STA. 295+75, 65' LT.
ASPHALT - 6.5 INCHES
CONCRETE - 9.5 INCHES
CRUSHED STONE - 5 INCHES

9 22
11 27
8 30
15 27
8 30
N60 WC

892.59 892.09 891.85 891.74 891.05 891.61 893.30 892.75 891.69 891.09 890.81 890.01 889.78 889.21

900 895 890 885 880 875 870

292 293 294 295 296 297 298

HORIZONTAL SCALE IN FEET
0 30 60

DRAWN TRR
CHECKED CPI

PLAN AND PROFILE-US 23 AND CH 62 INTERSECTION
STA. 290+00 TO STA. 299+00

WYA-23-0.04

12 / 12

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