

GENERAL INFORMATION

INTRODUCTION

THE PROJECT CONSISTS OF THE WIDENING, RAILROAD GRADE SEPARATION, AND MINOR GRADE IMPROVEMENT OF 1.3 MILES OF SR 615 IN MENTOR, BEGINNING AT USR 20 (MENTOR AVENUE) AND EXTENDING NORTHWARD TO SR 2. INCLUDED IN THIS REPORT IS THE PROFILE OF USR 20 (MENTOR AVENUE).

PROPOSED GRADES INDICATE MAXIMUM 2-FOOT CUTS AND 30-FOOT FILLS (FOR RAILROAD GRADE SEPARATION) ON SR 615, AND 2-FOOT FILL ALONG USR 20 (MENTOR AVENUE).

GEOLOGY AND OBSERVATIONS OF THE PROJECT

THE PROJECT IS LOCATED ON A PORTION OF THE GLACIATED LAKE PLAIN, TRAVERSING MODERATELY DEEP BEACH DEPOSITS FROM THE BEGINNING OF THE PROJECT TO APPROXIMATE STATION 50+00, AND MODERATELY DEEP LACUSTRINE DEPOSITS TO THE PROJECT'S TERMINUS. UNDERLYING BEDROCK IS THE CHAGRIN SHALE, DEVONIAN AGE.

A WET, POORLY DRAINED AREA WAS OBSERVED RIGHT OF STATIONS 77+00 TO 80+00.

EXPLORATION

BORINGS WERE MADE BY MEANS OF TRUCK-MOUNTED MECHANICAL SOIL AUGER, ON APRIL 27, 1967.

INVESTIGATIONAL FINDINGS

MATERIALS OCCURRING IMMEDIATELY BELOW PROPOSED GRADE CONSIST OF THE FOLLOWING:

STATIONS 8+00 TO 40+00 - SANDY GRAVELS (A-1-b) AND SANDS (A-3 AND A-3a) HAVING LOW MOISTURE CONTENTS.

STATIONS 63+00 TO 80+00 - SILT CLAYS (A-6) AND CLAYS (A-7-5 AND A-7-6) HAVING MOISTURE CONTENTS IN THE LOWER PORTIONS OF, OR BELOW THE PLASTIC RANGE, THE ELASTIC CLAY (A-7-5) WAS ENCOUNTERED AT STATION 75+00.

EMBANKMENT FOUNDATION MATERIALS COMPRISE OF SANDY SILTS (A-4a) AND SILT CLAYS (A-6a), HAVING MOISTURE CONTENTS IN THE LOWER PORTIONS OF, OR BELOW THE PLASTIC RANGE, WITH FEW SANDS.

WET MATERIALS WERE ENCOUNTERED AT STATIONS 42+00 AND 45+75.

LEGEND FOR PROJECT AVERAGE RESULTS OF TESTS— 60 SAMPLES TESTED

DESCRIPTION	H. R. B. CLASS	OHIO CLASS	% AGG.	% C. SAND	% F. SAND	% SILT	% CLAY	LIQUID LIMIT	PLASTICITY INDEX	WATER CONTENT	SAMPLES TESTED
GRAVEL	A-1-a(0)	A-1-a	59	22	11	-	8	NP	NP	8	3
GRAVEL WITH SAND	A-1-b(0)	A-1-b	35	33	23	-	9	NP	NP	8	11
FINE SAND	A-3(0)	A-3	11	20	62	-	7	NP	NP	11	4
COARSE AND FINE SAND	-----	A-3a	12	20	40	15	13	NP	NP	14	3
GRAVEL WITH SAND AND SILT	A-2-4(0)	A-2-4	36	11	25	16	12	21	2	19	1
SANDY SILT	A-4(4)	A-4a	16	7	20	30	27	24	5	15	14
SILT AND CLAY	A-6(8)	A-6a	9	5	11	35	40	31	11	14	21
SILTY CLAY	A-6(13)	A-6b	0	2	8	39	51	39	22	20	1
ELASTIC CLAY	A-7-5(15)	A-7-5	0	1	11	42	46	55	21	39	1
CLAY	A-7-6(11)	A-7-6	0	1	13	39	47	41	17	21	1

TOPSOIL=X' = APPROXIMATE DEPTH.
 AUGER BORING-PLAN VIEW.
 AUGER BORING PLOTTED TO VERTICAL SCALE ONLY.
 WATER CONTENT NEARLY EQUAL TO OR GREATER THAN LIQUID LIMIT.
 INDICATES A NON-PLASTIC MATERIAL WITH A HIGH WATER CONTENT.
 FREE WATER.
 NOTE: FIGURES BESIDE BORINGS INDICATE WATER CONTENT IN PERCENT. E.G., 15

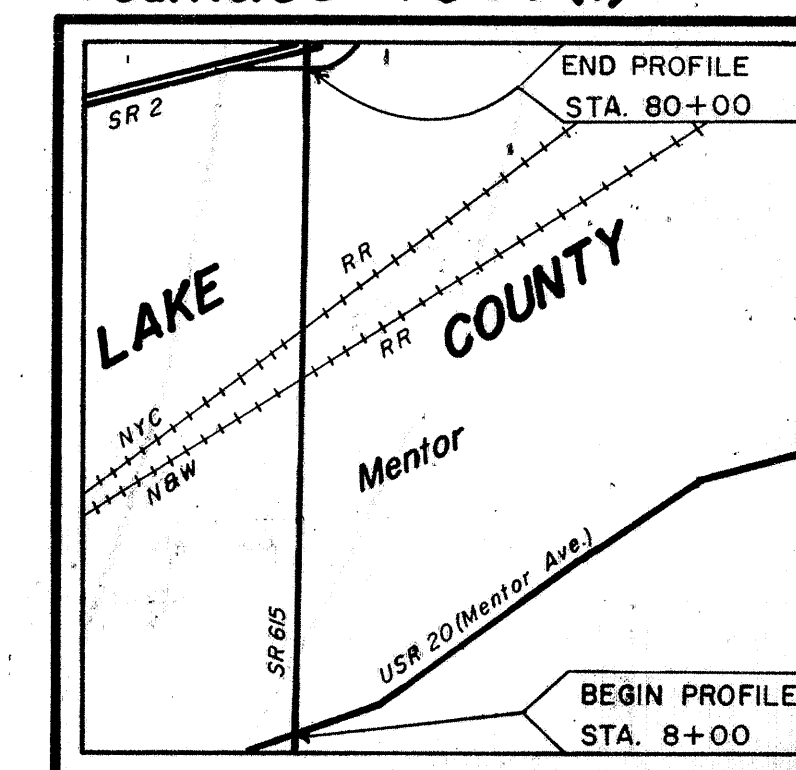
SOIL PROFILE

**LAKE COUNTY
LAK-615-3.26**

OHIO STATE HIGHWAY TESTING LABORATORY
1620 W. BROAD ST. COLUMBUS 23, OHIO

NOTE: INFORMATION SHOWN BY THIS SUBGRADE PROFILE WAS OBTAINED SOLELY FOR USE IN ESTABLISHING DESIGN CONTROLS FOR THE PROJECT. THE STATE OF OHIO DOES NOT GUARANTEE THE ACCURACY OF THIS DATA AND IT IS NOT TO BE CONSTRUED AS A PART OF THE PLANS GOVERNING CONSTRUCTION OF THE PROJECT.

Fed. No. US - 1530(1)



LOCATION MAP

Recon - J.S.M. - 4/20/67
 Drilling - T.R.S., W.R.S. - 4/27/67
 Drafting - G.P.W. - 5/25/67

SUMMARY OF SOIL TEST DATA

NOTE: NP SHOWN IN LIQUID LIMIT AND PLASTICITY INDEX COLUMNS INDICATES THAT THE MATERIAL IS NON-PLASTIC.
 *DENOTES SAMPLE TAKEN AT OR NEAR GRADE.

STATION & OFFSET	DEPTH FROM TO	% AGG.	% C.S.	% F.S.	% SILT	% CLAY	L.L.	P.I.	% W.C.	SHTL CLASS.
SR 615										
11+00 5'Lt	0.0-5.0 5.0-10.0	38 0	33 5	16 5	13 39	51 51	NP NP	NP NP	8 17	A-1-b* A-6a
15+00 2'Lt	0.0-5.0 5.0-11.0	36 51	37 30	12 12	15 7	NP NP	NP NP	7 7	7 7	A-1-b* A-1-a
19+00 2'Lt	0.0-5.0 5.0-11.0	9 43	30 43	30 10	16 4	15 NP	NP NP	9 7	9 7	A-6a* A-1-b
23+00 2'Lt	0.0-6.0 6.0-11.0	15 74	18 5	36 13	17 8	14 NP	NP NP	10 9	10 9	A-3a* A-1-a
27+00 2'Lt	0.0-5.0 5.0-11.0	30 46	30 30	31 30	9 8	NP NP	NP NP	6 6	6 6	A-1-b* A-1-b
31+30 2'Lt	0.0-6.0 6.0-11.0	10 7	44 8	41 78	5 7	NP NP	NP NP	4 9	4 9	A-1-b* A-3
35+00 2'Lt	0.0-6.0 6.0-11.0	18 6	17 39	60 49	5 6	NP NP	NP NP	6 6	6 6	A-3* A-3
39+00 35'Rt	0.0-6.5 6.5-12.0	11 49	49 29	33 15	7 7	NP NP	NP NP	7 14	7 14	A-1-b* A-1-b
42+00 35'Rt	0.0-3.0 3.0-9.0 9.0-12.0	7 37 14	19 21 5	37 32 15	23 10 30	14 NP 36	NP NP NP	NP NP NP	31 15 6	A-4a A-1-b A-4a
45+75 45'Rt	0.0-5.0 5.0-10.0 10.0-16.0 16.0-22.0	12 14 8 21	12 15 10 9	54 62 31 16	12 9 19 16	10 9 28 26	NP NP NP NP	NP NP NP NP	22 22 3 4	A-3a A-3 A-4a A-4a
50+50 18'Lt	0.0-4.0 4.0-5.0 5.0-10.0 10.0-15.0	10 36 25 32	7 11 7 6	45 25 13 11	19 16 28 25	19 12 24 23	2 2 8 5	2 19 11 12	2 19 8 12	A-4a A-2-4 A-4a A-4a
54+15 18'Lt	0.5-4.0 4.0-7.0 7.0-12.0 12.0-17.0	10 9 10 17	4 5 7 7	37 29 13 12	25 26 34 32	30 12 26 26	10 11 11 10	21 24 10 10	21 24 10 10	A-4a A-6a A-6a A-6a
58+00 140'Lt	0.5-4.0 4.0-7.0 7.0-10.0	12 16 12	4 7 7	19 11 12	14 34 36	51 28 33	31 11 24	11 13 5	19 13 9	A-6a A-6a A-4a
58+00 24'Lt	0.5-4.0 4.0-9.0 9.0-15.0	9 8 13	2 5 8	32 11 13	29 38 44	28 38 22	25 11 4	8 13 11	18 13 11	A-4a A-6a A-4a
63+50 140'Lt	0.0-5.0 5.0-9.0 9.0-15.0	0 0 25	4 7 3	8 13 11	40 38 33	48 28 24	12 11 9	15 12 9	15 12 9	A-6a A-6a A-4a
63+50 18'Lt	0.0-7.0 7.0-12.0	29 14	5 9	8 12	30 35	28 30	27 23	7 6	14 9	A-4a* A-4a
67+00 10'Lt	0.5-5.0 5.0-9.0 9.0-12.0	0 12 7	1 6 7	10 34 35	48 38 34	39 33 27	14 11 11	19 14 11	19 14 11	A-6a* A-6a A-6a
70+25 50'Rt	0.0-5.0 5.0-9.0 9.0-15.0	0 13 25	2 8 3	8 34 7	39 38 30	51 32 27	39 11 10	22 13 11	20 13 10	A-6b* A-6a A-6a
75+00 50'Rt	0.0-2.0 2.0-4.0 4.0-9.0 9.0-15.0	7 0 6 19	2 1 3 4	12 42 37 34	47 46 45 34	36 55 34 25	13 21 13 11	19 39 17 11	19 39 17 11	A-6a* A-7-5* A-6a A-6a
78+00 65'Rt	0.0-4.0 4.0-7.0 7.0-10.0 10.0-15.0	0 4 5 10	1 3 4 5	13 39 38 9	47 45 44 40	41 34 30 27	17 11 11 11	21 17 13 11	21 17 13 11	A-7-6* A-6a A-6a A-6a
MENTOR AVENUE										
7+00 30'Lt	0.0-6.0 6.0-10.0	40 5	23 5	18 9	12 46	7 35	NP NP	NP NP	7 16	A-1-b* A-6a
15+00 35'Lt	0.0-5.0 5.0-10.0	44 52	34 30	11 8	11 10	NP NP	NP NP	8 7	8 7	A-1-b* A-1-a