TE-95
500-7-69

GENERAL INFORMATION

INTRODUCTION

THIS REPORT CONSISTS OF THE SOILS INVESTIGATION OF 2.5 MILES OF PROPOSED SR 306, BEGINNING AT THE SR 2 - SR 306 INTERCHANGE, EXTENDING NORTHWARD AND TERMINATING IMMEDIATELY NORTH OF THE SR 306 - SR 283 INTERSECTION. INCLUDED IN THIS REPORT ARE SOIL PROFILES OF RAMPS A AND O.

PROPOSED GRADES INDICATE THE FOLLOWING MAXIMUM PROPOSED CUTS AND FILL EMBANKMENTS.

	CUTS (MAX.)	FILL EMBANKMENTS (MAX.)
SR 306	4'	3'
RAMP A	-	7'
RAMP O	2'	6'

GEOLOGY AND OBSERVATIONS OF THE PROJECT

THE PROJECT IS LOCATED ON THE FLAT, GLACIATED LAKE PLAIN, IN AN AREA WHERE THIN GLACIAL DRIFT OVERLIES SHALE BEDROCK, OF DEVONIAN AGE. A LOW WET AREA WAS OBSERVED BETWEEN STATIONS 126+00 AND 127+00.

EXPLORATION

EXPLORATORY BORINGS WERE MADE BY MEANS OF TRUCK-MOUNTED MECHANICAL SOIL AUGER AND HAND AUGER (IN DIFFICULT ACCESS AREAS), BETWEEN AUGUST 8 AND 16, 1972.

INVESTIGATIONAL FINDINGS

MATERIALS ENCOUNTERED ON THE PROJECT WERE PREDOMINANTLY COMPRISED OF SILT CLAYS (A-6a AND A-6b), WITH SOME CLAYS (A-7-6), GENERALLY HAVING MOISTURE CONTENTS IN THE LOWER PORTIONS OF THE PLASTIC RANGE, AS WELL AS SOME WET SANDS (A-3a).

WET MATERIALS WERE ENCOUNTERED AT SR 306 STATIONS 129+50, 135+00 AND 140+00.

LEGEND FOR PROJECT AVERAGE RESULTS OF TESTS— 83 SAMPLES TESTED

DESCRIPTION	H.R.B. CLASS	OHIO CLASS	% AGG.	% C. SAND	% F. SAND	% SILT	% CLAY	LIQUID LIMIT	PLASTICITY INDEX	WATER CONTENT	SAMPLES TESTED
FS FINE SAND	A-3(0)	A-3	1	19	70	8	2	NP	NP	21	2
COARSE AND FINE SAND	- - - -	A-3a	3	16	63	13	5	NP	NP	17	12
GRAVEL WITH SAND AND SILT	A-2-4(0)	A-2-4	35	19	18	17	11	20	7	13	1
SANDY SILT	A-4(7)	A-4a	4	9	18	41	28	26	9	14	3
SILT AND CLAY	A-6(9)	A-6a	8	6	11	40	35	30	13	16	29
SILTY CLAY	A-6(11)	A-6b	5	5	9	40	41	37	18	18	21
CLAY	A-7-6(16)	A-7-6	2	2	9	37	50	48	26	24	15

TOPSOIL=X'=APPROXIMATE DEPTH.

BERM MATERIAL

AUGER BORING-PLAN VIEW

AUGER BORING PLOTTED TO VERTICAL SCALE ONLY.

INDICATES A NON-PLASTIC MATERIAL WITH A HIGH WATER CONTENT.

NOTE: FIGURES BESIDE BORINGS INDICATE WATER CONTENT IN PERCENT E.G. 15

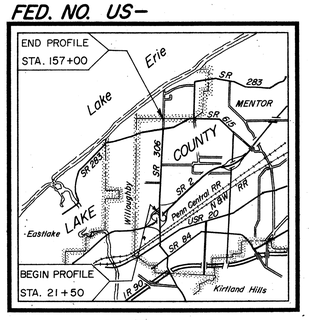
SOIL PROFILE
LAKE COUNTY
LAK-306-6.91

OHIO STATE HIGHWAY TESTING LABORATORY
1620 W. BROAD ST. COLUMBUS, OHIO 43223

1/6

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—



LOCATION MAP

Recon - J.S.M. - 7/21/72

Drilling - J.W.P. - 8/8 to 11/72 and 8/16/72

Drafting - R.A.W. - 9/8/72

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	DEPTH TO	% AGG.	% C.S.	% F.S.	% SILT	% CLAY	L.L.	P.I.	% W.C.	SHTL CLASS
SR 306											
25+00 30' RT	0.0	5.0	13	9	13	37	28	30	14	12	A-6a*
	5.0	8.5	10	7	13	39	31	32	15	14	A-6a
28+50 12' LT	0.0	2.0	35	19	18	17	11	20	7	13	A-2-4*
	2.0	6.5	8	3	5	30	54	41	22	22	A-7-6*
32+40 40' LT	0.0	5.0	3	3	6	33	55	39	19	20	A-6b*
	5.0	10.0	3	4	7	55	31	34	16	15	A-6b*
	10.0	13.0	5	4	6	36	49	38	17	17	A-6b
37+00 20' RT	0.4	5.0	2	2	6	38	52	42	22	26	A-7-6*
	5.0	10.5	3	5	8	39	45	33	15	15	A-6a*
	10.5	13.0	9	9	11	38	33	26	11	13	A-6a
42+70 20' RT	0.0	5.0	14	7	10	34	35	30	12	17	A-6a*
	5.0	10.0	11	8	10	33	38	35	17	20	A-6b
	10.0	12.0	9	9	11	32	39	37	19	20	A-6b
47+50 20' LT	0.0	5.0	3	2	9	34	52	44	24	18	A-7-6*
	5.0	8.5	7	4	8	38	43	38	19	15	A-6b
53+00 30' LT	0.0	5.0	0	1	7	39	53	47	26	21	A-7-6*
	5.0	10.0	4	5	8	40	43	36	18	16	A-6b*
	10.0	12.0	5	5	8	39	43	34	18	15	A-6b
57+25 30' LT	0.0	5.0	0	4	9	38	49	39	16	18	A-6b*
	5.0	9.5	2	5	10	41	42	30	12	15	A-6a
61+90 40' RT	0.0	3.0	3	4	12	44	37	47	22	23	A-7-6*
	3.0	8.5	1	7	8	41	43	33	14	20	A-6a
	8.5	13.0	5	5	8	42	40	29	13	13	A-6a
68+30 40' LT	0.6	5.0	5	2	7	53	33	40	19	23	A-6b*
	5.0	10.0	3	5	9	44	39	31	13	17	A-6a
	10.0	12.0	3	5	8	43	41	28	12	14	A-6a
72+70 12' LT	0.0	2.0	9	6	9	39	37	38	15	25	A-6a*
	2.0	7.0	7	5	8	45	35	32	14	17	A-6a*
	7.0	10.0	3	7	10	44	36	27	10	14	A-4a
80+00 12' LT	0.0	2.5	11	9	22	31	27	30	12	19	A-6a*
	2.5	5.0	1	3	8	48	40	33	16	11	A-6b
	5.0	10.0	5	7	11	42	35	36	18	16	A-6b
84+00 12' LT	0.0	2.5	5	5	10	36	44	48	25	24	A-7-6*
	2.5	8.0	3	3	7	41	46	42	23	20	A-7-6*
	8.0	11.0	4	8	10	43	35	36	18	16	A-6b
89+00 30' LT	0.0	5.0	4	3	8	34	51	38	20	19	A-6b*
	5.0	11.0	2	6	10	47	35	34	16	16	A-6b
94+00 12' LT	0.0	5.0	11	8	13	34	34	34	16	23	A-6b*
	5.0	9.5	4	7	10	42	37	35	18	19	A-6b
	9.5	12.0	6	7	10	45	32	29	14	15	A-6a
97+75 30' LT	0.0	5.5	0	2	9	44	45	45	24	21	A-7-6*
	5.5	9.0	6	6	9	43	36	31	13	15	A-6a
	9.0	11.0	7	6	10	40	37	27	11	14	A-6a
103+00 30' LT	0.6	5.5	9	4	8	36	43	38	17	19	A-6b*
	5.5	10.0	10	6	9	40	35	33	15	18	A-6a
	10.0	12.0	5	11	10	44	30	26	9	14	A-4a
108+00 30' LT	0.6	5.0	2	2	7	40	49	42	21	25	A-7-6*
	5.0	10.5	18	4	7	36	35	34	15	19	A-6a*
	10.5	13.0	3	5	9	44	39	26	11	15	A-6a
112+85 30' LT	0.0	5.0	7	4	18	37	34	31	12	22	A-6a*
	5.0	10.0	6	6	10	44	34	29	12	14	A-6a
	10.0	12.0	4	6	11	45	34	31	15	13	A-6a
118+00 30' LT	0.0	5.0	3	5	75	10	7	NP	NP	-	A-3a*
	5.0	6.5	7	8	66	10	9	NP	NP	9	A-3a
	6.5	9.5	4	7	15	39	35	28	12	20	A-6a
123+75 30' LT	0.8	1.5	4	10	34	34	18	25	8	13	A-4a*
	1.5	4.5	5	10	60	18	7	NP	NP	19	A-3a*
	4.5	10.0	15	6	13	37	29	27	11	21	A-6a
	10.0	12.0	4	8	13	40	35	28	12	13	A-6a
125+50 40' RT	0.4	5.5	3	5	20	39	33	40	21	23	A-6b*
	5.5	10.0	15	8	8	39	30	30	15	13	A-6a
	10.0	12.0	10	6	10	40	34	25	11	16	A-6a
129+50 30' LT	0.0	2.0	4	7	14	40	35	36	17	16	A-6b*
	2.0	8.0	1	11	63	20	5	NP	NP	21	A-3a*
	8.0	10.0	10	7	16	37	30	27	11	14	A-6a
135+00 30' LT	0.0	5.0	0	15	72	11	2	NP	NP	20	A-3a*
	5.0	10.0	0	12	78	9	1	NP	NP	23	A-3
	10.0	12.0	0	10	78	10	2	NP	NP	25	A-3a
140+00 30' LT	0.0	5.0	2	28	45	16	9	NP	NP	18	A-3a*
	5.0	10.0	1	21	59	14	5	NP	NP	21	A-3a
	10.0	12.0	0	21	63	12	4	NP	NP	23	A-3a
143+90 30' LT	0.0	5.0	4	28	54	11	3	NP	NP	5	A-3a*
	5.0	11.0	7	22	56	13	2	NP	NP	18	A-3a
152+40 45' RT	0.0	5.0	3	18	63	11	5	NP	NP	14	A-3a*
	5.0	10.0	1	26	63	7	3	NP	NP	19	A-3
RAMP A											
276+00 CL	0.0	2.0	0	2	9	42	47	58	29	33	A-7-6
	2.0	6.0	0	1	5	36	58	56	31	26	A-7-6
278+50 50' RT	0.6	4.0	0	1	11	34	54	55	31	27	A-7-6
	4.0	6.0	0	3	19	35	43	41	22	24	A-7-6
283+50 CL	0.0	5.0	0	2	5	31	62	49	28	21	A-7-6
	5.0	10.0	7	7	11	41	34	33	15	13	A-6a
	5.0	11.0	7	22	56	13	2	NP	NP	18	A-3a
RAMP O											
280+00 CL	0.0	2.0	0	1	8	37	54	39	16	28	A-6b
	2.0	5.6	0	2	8	33	57	56	33	27	A-7-6