TE-54-A
200-4-60

Rec'd 6-2-61

D-5

DRW B-6

GENERAL INFORMATION

INTRODUCTION

The project consists of a major realignment of SR 44, and associated intersecting roads - Mentor Rd. (West), Hosford Rd., Clark Rd., Colburn Rd., and Circled Rd. - approximately 5.2 miles in length, beginning approximately 1.5 miles northwest of Sharon on Mentor Road, Geauga County, extends in a northerly direction, and terminates 300 feet north of Auburn Road, approximately 2.5 miles south of SR 84, Lake County.

The proposed grade indicates the following:

Mainline - cuts, ranging between 0 and 27 feet in depth at ditchline, and fill embankment ranging between 0 and 30 feet in height.

Mentor Road (West) - fill embankment, ranging between 0 and 20 feet in height.

Hosford Road - fill embankment, ranging between 0 and 14 feet in height.

Clark Road - fill embankment, ranging between 0 and 3 feet in height.

Colburn Road - cuts, ranging between 0 and 5 feet in depth.

Circled Road - fill embankment, ranging between 0 and 14 feet in height.

GEOLOGY AND OBSERVATIONS OF THE PROJECT

The alignment originates on an upland plateau region, crosses a bedrock outlier and descends to a lower, relatively flat, glaciated portion of an upland plain region, where the project terminates. Several exposures of bedrock were observed and measured. It is noted that the area is extensively dissected by relatively shallow drainage courses. Glacial drift, ranging in depth from 0 to at least 20 feet, overlies bedrock, comprised of shales and the Sharon Conglomerate, Pennsylvanian age, in the initial one-third of the project, and shales and sandstones of the Cuyahoga formation, Mississippian age, in the remaining two-thirds.

EXPLORATION

Exploratory borings were made by means of truck-mounted mechanical earth auger and hand auger (in areas of difficult access), between April 6 and May 2, 1961.

INVESTIGATIONAL FINDINGS

Materials occurring immediately below proposed grade and in the embankment foundation areas are predominantly comprised of sandy silts and silt clays, in the A-4a and A-6a classifications, generally having moisture contents within the plastic range. Between stations 427+00 and 433+00, proposed grade and left backslope will be in sandstone conglomerate. Frost susceptible silts were found to occur within three feet of proposed grade at stations 414+10, 422+50, 429+45, 435+35, 520+50, 522+00, 650+00, 653+90 in Geauga County, and station 11+00 in Lake County.

Wet, soft compressible sediments as much as 4 feet in thickness, were found to occur at-surface between approximately stations 224+25 and 478+50, 600+00 to 616+00, 620+00 to 623+00, and in the majority of the drainage channels throughout the project.

Intersecting Roads - Mentor Road (West), Hosford Road, Clark Road, Colburn Road, and Circled Road. Materials occurring immediately below proposed grade and in the embankment foundation areas are predominantly comprised of sandy silt and silt clays, in the A-4a and A-6a classifications. Frost susceptible silts were found to occur within three feet of proposed grade at stations 52+00 - Mentor Road (West); 7+00 - Colburn Road; and 0+50 - Circled Road.

LEGEND FOR PROJECT-AVERAGE RESULTS OF TESTS- 395 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 and/or stone fragments	A-1-a (0)	A-1-a	66	9	13	7	5	NP	NP	18	3
Gravel and/or stone fragments with sand	A-1-b (0)	A-1-b	49	13	19	9	10	NP	NP	13	6
FS Fine sand	A-3(0)	A-3	0	1	89	- 10 -		NP	NP	22	1
Coarse and fine sand	----	A-3a	0	10	56	13	13	NP	NP	17	5
Gravel and/or stone fragments with sand and silt	A-2-4 (0)	A-2-4	45	6	18	16	15	27	4	21	13
Stone fragments with sand, silt, and clay	A-2-6 (0)	A-2-6	43	12	15	13	17	31	11	15	2
Sandy silt	A-4 (8)	A-4a	18	8	17	31	26	24	5	10	109
Silt	A-4(8)	A-4b	1	1	8	53	31	29	5	21	8
Elastic silt and clay with organic material	A-5 (9)	A-5	0	3	28	44	25	46	NP	43	1
Silt and clay	A-6 (8)	A-6a	13	5	11	33	38	30	12	19	215
Silty clay	A-6 (11)	A-6b	0	3	7	38	44	36	17	25	10
Clay	A-7-6 (12)	A-7-6	6	1	4	37	52	43	18	29	7
Pouldery zone			VISUAL CLASSIFICATION								
PT Fine-Textured peat			VISUAL CLASSIFICATION								1
Shale			VISUAL CLASSIFICATION								8
Sandstone			VISUAL CLASSIFICATION								6
Various other materials			VISUAL CLASSIFICATION								

Sod and/or Topsoil=3'=Approximate depth.

Perm material.

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 high water content.

——W Free water.

B Indicates broken rock interval.

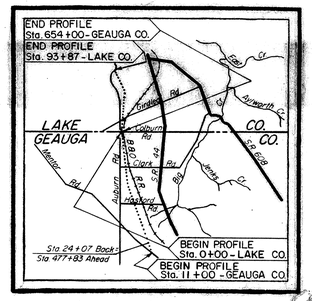
NOTE: Figures beside borings indicate water content in percent, e.g. 15

SOIL PROFILE
GEAUGA-LAKE COUNTIES
GEA-44-18.30
LAK-44-0.00

1/23

OHIO STATE HIGHWAY TESTING LABORATORY
O. S. U. CAMPUS, COLUMBUS, 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.



LOCATION MAP

Recon - C.J.K., J.S.M. - 4/7/61
Drilling - Auger - J.M., A.J.P., L.M.D., J.R.G. - 4/6/61 - 5/2/61
Drafting - R.C.B., R.A.W., C.L.I. - 5/29/61