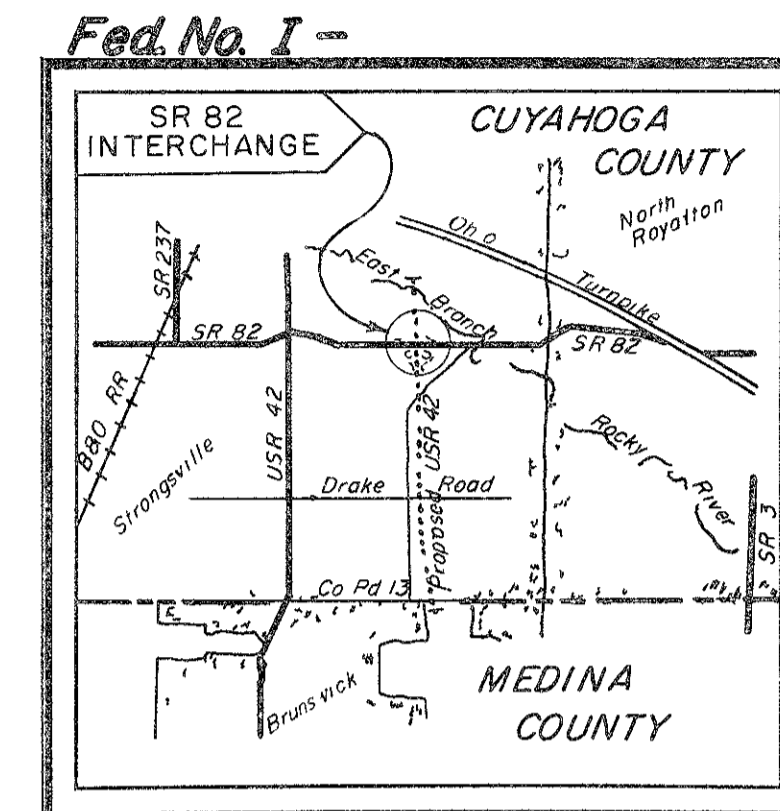


SR82 (Royalton Road)
INTERCHANGE

SOIL PROFILE
MEDINA-CUYAHOGA COS.
MED - 42 - 26.17
CUY - 42 - 0.00
OHIO STATE HIGHWAY
TESTING LABORATORY
1820 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.



LOCATION MAP

Recon - P.L.H. - 8/13/62
Drilling - Auger - F.D.C., J.M.M. - 8/16/62 to 8/21/62
Core - D.W.B., E.L.M. - 9/6/62 to 9/26/62
Drafting - R.D.S., C.L.I. - 10/17/62

LEGEND FOR PROJECT-AVERAGE RESULTS OF TESTS- % SAMPLES TESTED

DESCRIPTION	H. R. B. CLASS	OHIO CLASS	% AGG	% C SAND	% F SAND	% SILT	% CLAY	LIQUID LIMIT	PLASTICITY INDEX	WATER CONTENT	SAMPLES TESTED
Sandy silt	A-4(1)	A-4a	15	3	27	31	24	HP	HP	33	-
Silt	A-4(3)	A-4b	0	2	2	56	40	28	7	13	1
Silt and clay	A-6(8)	A-6a	23	4	11	33	36	35	12	13	22
Silty clay	A-6(11)	A-6b	11	5	7	34	43	38	17	21	8
Plastic clay	A-7-5(13)	A-7-5	5	0	1	33	61	57	15	29	1
Clay	A-7-6(11)	A-7-6	17	2	3	29	49	43	17	19	10
Shale											4
Weathered shale											
Various other materials											
Topsoil	X	X									
Berm material	X	X									
Auger boring - plan view											
Drive sample and/or core boring - plan view											
Auger boring plotted to vertical scale only											
Drive sample and/or core boring plotted to vertical scale only											
Number of blows for "Standard Penetration" test											
X=number of blows for the first 6 inches											
Y=number of blows for the second 6 inches											
Indicates a non-plastic material with high water content											
Free water											
Indicates broken rock interval											
Auger boring plotted to vertical scale only											

NOTE: Figures beside borings indicate water content in percent e.g. /5

INTRODUCTION

INTRODUCTION

The project consists of the construction of the SR 82 and SR 92 Interchange located on SR 82 in Strongsville, 1.5 miles east of the existing SR 12 and SR 92 Interchanges.

The proposed grade is shown as follows:

SR 92 (to station 120+00) - maximum 2 feet in depth, full embankment maximum 27 feet in height.

Bank A - Cut maximum 10 feet in depth, full embankment maximum 10 feet in height.

Bank B - Cut maximum 10 feet in depth, full embankment maximum 10 feet in height.

Bank C - Cut maximum 20 feet in depth, full embankment maximum 25 feet in height.

Bank D - Cut maximum 11 feet in depth, full embankment maximum 20 feet in height.

Bank E - Cut maximum 17 feet in depth, full embankment maximum 22 feet in height.

Bank F - Cut maximum 5 feet in depth, full embankment maximum 20 feet in height.

SUBGRADE MATERIALS

The project is located on a section of the glacial till and silt clay plain west of Rocky River in an area where moderately thick glacial drift covers an eroded shale bedrock. This region is

SOIL BORINGS

Soil borings were made by means of truck-mounted equipment. A core of borings was drilled from station 120+00 to station 122+00.

SOIL TESTS

Borings disclosed that materials occurring immediately below proposed subgrade consist of silt clays and silts in the A-6 and A-7 classification ranges, generally having moisture contents in the lower portion of the plastic range as well as shale bedrock.

The following are approximate locations where shale bedrock is anticipated to occur:

Bank C - Stations 115+00 to 122+00 - at grade in the ditches and backslopes.

Bank D - Stations 117+00 to 122+00 - at grade and in the ditches.

Bank E - Stations 120+00 to 122+00 - at grade in the ditches and the backslopes.

Bank F - Stations 121+00 to 122+00 - at grade in the ditch and backslopes.

Embankment foundation materials are comprised of silt clays and silts in the A-6 and A-7 classification ranges having moisture contents in the lower portion of the plastic range. Embankment foundation comprises shallow to moderate depth soil cover overlying sloping bedrock between approximately stations 125+00 and 127+00. Bank F and stations 127+00 and 130+00. Bank E.

SUMMARY OF SOIL TEST DATA
NOTE: NP shown in Liquid Limit and Plasticity Index columns indicate that the material is non-plastic
* Denotes sample taken at or near grade

STATION & OFFSET	DEPTH FROM TO	% AGG	% C SAND	% F SAND	% SILT	% CLAY	LL	PI	W.C.	CLASS	STATION & OFFSET	DEPTH FROM TO	% AGG	% C SAND	% F SAND	% SILT	% CLAY	LL	PI	W.C.	CLASS	
																						SR 82 (Royalton Road) INTERCHANGE
SR 82 (Royalton Road)																						
RAIP A												RAIP D (Cont'd)										
											125+00	BL	0 4-2 0	19	10	5	27	39	34	11	18	A-6a
													2 0-3 0	24	15	7	22	32	32	11	20	A-6a
RAIP B												RAIP C										
											116+00	BL	0 4-5 0	19	3	7	27	45	37	16	13	A-6b *
													5 0-7 0	0	2	2	56	40	28	7	13	A-4b
											115+70	BL	0 5-3 0	0	3	40	34	23	HP	HP	25	A-4a
													3 0-6 0	0	1	27	40	32	HP	HP	36	A-4a
													6 0-8 0	46	5	12	20	17	HP	HP	37	A-4a
											112+00	BL	0 4-2 0	0	3	7	34	56	39	17	25	A-6b
													2 0-5 0	19	4	11	38	35	31	11	14	A-6a
RAIP E												RAIP F										
											125+00	BL	0 5-11 0	5	0	1	33	61	57	15	29	A-7-5
													11 0-10 0	25	3	3	29	40	42	17	16	A-7-6 *
													10 0-12 0	37	1	1	27	34	38	14	10	A-6a
											129+00	BL	0 5-3 0	30	5	5	22	38	42	15	16	A-7-6
													3 0-7 0	19	4	4	24	50	41	15	14	A-7-6
RAIP G												RAIP H										
											127+00	BL	0 5-2 0	20	4	6	28	42	40	14	16	A-6a
													3 0-10 0	33	0	0	26	41	41	17	11	A-7-6
													10 0-14 0	30	0	0	32	38	38	13	10	A-6a
											131+00	BL	0 5-4 0	12	1	1	37	49	42	14	17	A-7-6 *
													5 0-8 0	0	3	3	31	63	38	16	17	A-6b *
													8 0-13 0	35	5	2	19	39	39	13	12	A-6a *
													13 0-15 0	44	5	3	38	40	36	11	11	A-6a
											134+00	PL	0 5-4 0	20	1	1	26	52	46	17	25	A-7-6
													11 0-11 0	19	3	3	27	48	39	15	15	A-6a *
													11 0-12 0	28	1	1	34	36	36	11	9	A-6a
RAIP I												DRIVE SAMPLE SOIL TEST DATA										
											113+20	103' Rt	0 0-11 0	0	1	1	31	57	49	21	21	A-7-6
													4 0-7 0	0	1	1	31	57	49	21	21	Visual
													0 5-3 0	21	2	6	35	35	32	11	16	A-6a
													3 0-5 5	20	3	2	47	28	30	11	11	A-6a
											22+00	PL	0 5-4 0	13	3	4	40	35	28	11	10	A-6a
											22+20	PL	0 5-7 0	28	2	3	41	26	27	11	8	A-6a

* Borings taken from MED-CUY-42-(26 62) 00