

PLAN OF BORINGS AND SOIL PROFILE BRIDGE NO. LAK-608-337

LAKE COUNTY, 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.

GENERAL INFORMATION

INTRODUCTION

THIS REPORT COVERS THE SUBSURFACE INVESTIGATION FOR THE PROPOSED REPLACEMENT OF EXISTING BRIDGE NO. LAK-608-337 ON STATE ROUTE 608 OVER THE CHESSIE RAILROAD IN LAKE COUNTY, OHIO.

GEOLOGY OF PROJECT

THE SITE IS LOCATED IN A PORTION OF OHIO WHICH HAS BEEN GLACIATED AND IS UNDERLAIN BY APPROXIMATELY 10 TO 20 FEET OF GLACIAL TILL OVER SHALE BEDROCK OF THE OHIO FORMATION.












EXPLORATION

BORINGS WERE MADE BY A TRUCK-MOUNTED RIG USING A 4½-INCH-DIAMETER AUGER IN THE SOIL AND AN NXM CORE BARREL AND DIAMOND BIT IN THE ROCK. SOIL SAMPLES WERE OBTAINED USING A 2-INCH-DIAMETER SPLIT-BARREL SAMPLER AND ROCK SAMPLES WERE OBTAINED USING AN NXM CORE BARREL. THE BORINGS WERE COMPLETED BETWEEN SEPTEMBER 19 AND 21, 1977. ON SEPTEMBER 14, 1977, A BACKHOE WAS USED TO EXAMINE THE EXISTING PIER FOUNDATIONS ALONG THE RAILROAD.

FINDINGS OF INVESTIGATION

AT THE EXISTING ABUTMENTS, THE BORINGS GENERALLY ENCOUNTERED TEN TO TWELVE FEET OF STIFF TO HARD SILTY CLAY, OVER SEVEN TO NINE FEET OF VERY-HARD SILTY CLAY AND VERY-SOFT SHALE. SOFT TO MEDIUM-HARD SHALE WAS ENCOUNTERED BETWEEN ELEVATIONS 856 AND 859. AT THE EXISTING PIERS, THE BORINGS ENCOUNTERED APPROXIMATELY FOUR FEET OF OVERBURDEN CONSISTING OF MEDIUM-DENSE CINDERS AND GRAVEL FILL, AND MEDIUM-STIFF SILTY CLAY OVER APPROXIMATELY THREE FEET OF VERY-SOFT SHALE. SOFT TO MEDIUM-HARD SHALE WAS ENCOUNTERED BETWEEN ELEVATIONS 849 AND 851. BORINGS IN WHICH ROCK WAS NOT CORED WERE DRY AT COMPLETION.

LEGEND

DESCRIPTION	H.R.B. CLASS	OHIO CLASS
 GRAVEL	A-1-a	A-1-a
 GRAVEL AND/OR STONE FRAGMENTS WITH SAND	A-1-b	A-1-a
 FINE SAND	A-3	A-3
 COARSE AND FINE SAND	----	A-3a
 SANDY SILT	A-4	A-4a
 SILT	A-4	A-4b
 SILT AND CLAY	A-6	A-6a
 SILTY CLAY	A-6	A-6b
 ELASTIC CLAY	A-7-5	A-7-5
 CLAY	A-7-6	A-7-6
 SHALE	----	----

— W FREE WATER — V STATIC WATER LEVEL

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

NUMBER OF BLOWS FOR "STANDARD PENETRATION" TEST.
X = NUMBER OF BLOWS FOR FIRST 6 INCHES
Y = NUMBER OF BLOWS FOR SECOND 6 INCHES

 SOD AND/OR TOPSOIL = X' = APPROXIMATE DEPTH