





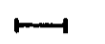



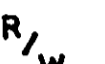


BRF-93D(17)

LEGEND

-  AUGER BORING LOCATION - PLAN VIEW
-  PRESS AND/OR DRIVE SAMPLE AND/OR CORE BORING LOCATION - PLAN VIEW
-  TOP OF ROCK
-  CAPPED PILE
-  FOOTING
-  FOOTING ON PILE
-  HORIZONTAL BAR ON BORING LOG INDICATES THE DEPTH THE SAMPLE WAS TAKEN
-  FIGURES BESIDE THE BORING LOG IN THE PROFILE INDICATE THE NUMBER OF BLOWS FOR STANDARD PENETRATION TEST
 X=NO. BLOWS FOR FIRST 6"
 Y=NO. BLOWS FOR SECOND 6"
 Z=NO. BLOWS FOR THRID 6"
-  INDICATES FREE WATER ELEVATION
-  INDICATES STATIC WATER ELEVATION
-  INDICATES RIGHT OF WAY

INTRODUCTION

THIS REPORT SUMMARIZES THE PERFORMANCE AND RESULTS OF THE SOILS INVESTIGATION FOR THE BRIDGE ON STATE ROUTE 608 OVER BIG CREEK IN CONCORD TOWNSHIP, LAKE COUNTY, OHIO.

GEOLOGY OF THE SITE

THE PROJECT SITE IS UNDERLAIN BY GROUND MORAIN (GLACIAL TILL). THE TILL IS COMPRISED OF CLAY AND SILT WITH VARYING QUANTITIES OF SAND, GRAVEL, AND COBBLES. GROUND MORAIN IS CONSOLIDATED BY THE WEIGHT OF THE ICE SHEET TO A VERY STIFF CONSISTENCY. GEOLOGICAL REFERENCES INDICATE THAT THE SITE IS UNDERLAIN BY NEAR SURFACE SHALE OF MISSISSIPPIAN AGE.

EXPLORATION

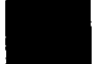



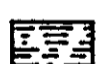
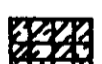
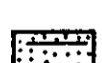



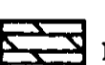
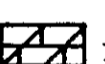


THE EXPLORATION CONSISTED OF DRIVE SAMPLE AND CORE BORINGS MADE BY MEANS OF TRUCK-MOUNTED DRILLING EQUIPMENT UTILIZING HOLLOW STEM CONTINUOUS FLIGHT AUGERS.

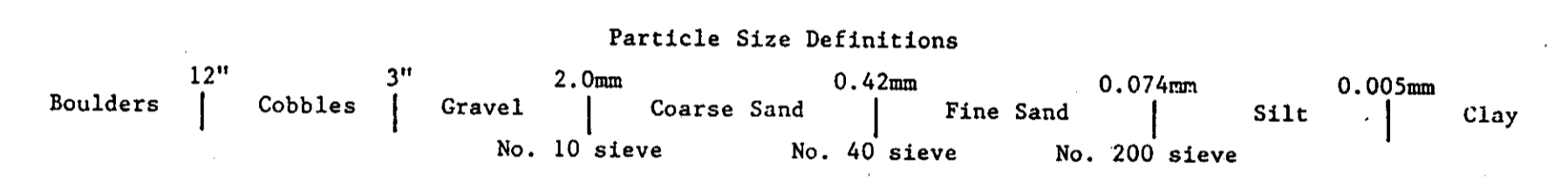
INVESTIGATION FINDINGS AND OBSERVATIONS

THE BORINGS REVEAL THAT THE AREA OF THE EASTERN ABUTMENT IS COVERED BY SOFT TO VERY STIFF SILT AND CLAY (A-6a), LOOSE SANDY SILT (A-4a), AND MEDIUM DENSE GRAVEL (A-1-b). THE WESTERN ABUTMENT AND PIERS ARE UNDERLAIN BY MEDIUM DENSE TO VERY DENSE GRAVEL (A-1-b) AND GRAVEL WITH SAND (A-2-4). VERY STIFF CLAY (A-7-6) AND MEDIUM DENSE SANDY SILT WERE ENCOUNTERED AT B-4, COMPLETED AT THE WESTERN ABUTMENT. THIN BEDDED GRAY SHALE WAS ENCOUNTERED IN ALL TEST BORINGS AT DEPTHS RANGING FROM ABOUT 2.5 TO 14 FEET, CORRESPONDING TO ELEVATIONS OF 880.0 TO 883.0 FEET. A GRADUAL TRANSITION FROM VERY WEATHERED, SOFT ROCK TO SLIGHTLY WEATHERED, MEDIUM HARD ROCK WAS OBSERVED IN THE TEST BORINGS.

GROUNDWATER WAS OBSERVED IN ALL BORINGS FROM THE SURFACE TO A DEPTH OF ABOUT 8.8 FEET.

SYMBOLS OF ROCK TYPES

-  COAL
-  WEATHERED MUDSTONE
-  MUDSTONE
-  WEATHERED SHALE
-  SHALE
-  CLAYSTONE
-  SILTSTONE
-  WEATHERED SANDSTONE
-  SANDSTONE
-  LEACHED DOLOMITE
-  DOLOMITE
-  LEACHED LIMESTONE
-  LIMESTONE
-  BOULDERS & COBBLES



NOTE: ALL AVAILABLE SOIL AND BEDROCK INFORMATION THAT CAN BE CONVENIENTLY SHOWN ON THE STRUCTURE FOUNDATION INVESTIGATION SHEETS HAS BEEN SO REPORTED. ADDITIONAL SUBSURFACE INVESTIGATIONS MAY HAVE BEEN MADE TO STUDY SOME SPECIAL ASPECT OF THE PROJECT. COPIES OF THIS DATA, IF ANY, MAY BE INSPECTED IN THE DISTRICT DEPUTY DIRECTOR'S OFFICE, THE BUREAU OF TESTS AT 1600 WEST BROAD STREET, THE PAVEMENT & SOILS SECTION OF THE BUREAU OF LOCATION & DESIGN OR IN THE BRIDGE BUREAU AT 25 SOUTH FRONT STREET.

INFORMATION SHOWN BY THIS SUBSURFACE INVESTIGATION WAS OBTAINED SOLELY FOR THE USE OF ESTABLISHING DESIGN CONTROL 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 THIS PROJECT.

CT Consultants, Inc.
 Engineers • Architects • Planners
 Columbus • Cincinnati • Cleveland • Dayton • Toledo

STRUCTURE FOUNDATION INVESTIGATION
 BRIDGE NO. LAK - 608 - 0075
 OVER BIG CREEK
 LAKE COUNTY

SCALE: 0 10 20
 STA. 21+60.80
 STA. 22+59.88

APPLIED CONSTRUCTION TECHNOLOGIES, INC. <small>210 HATES DRIVE • SUITE C • CLEVELAND, OHIO 44111 • (216) 459-7527</small>					
DATE: 11-13-92	APPROVED BY: EH	DRAWN BY: DB	PRESENT TO: PHOTOGRAPHY	PROPOSED WORK	
SURVEYED: R.J.B.	DRAWN: R.L.B.	DESIGNED: J.E.A.	DRAWN: R.L.B.	CHECKED: D.J.W.	REVIEWED: J.P.R.