

DOCUMENT MICROFILMING IDENTIFICATION.

G.I.-30 SEPT. 1976

GEOCRES No. 30 M15-40

DIST. 6 REGION CENTRAL

W.P. No. \_\_\_\_\_

CONT. No. \_\_\_\_\_

W. O. No. \_\_\_\_\_

STR. SITE No. 22-110

HWY. No. \_\_\_\_\_

LOCATION LOT 16 & 17

CONCESSION 6 EAST WHITBY  
TWP.

=====

OVERSIZE DRAWINGS TO BE INCLUDED WITH THIS REPORT. \_\_\_\_\_

REMARKS: DOCUMENT TO BE UNFOLDED BEFORE  
MICROFILMED

B.A. 2295



SOIL TEST BORINGS  
for  
COUNTY OF ONTARIO,  
re  
Bridge No. 22-110.  
Twp. of East Whitby.

Represented in all principal cities throughout Canada, the United States and Europe

OUR FILE NO.	TX-1988
OUR ORDER NO.	
CLIENT'S ORDER NO.	

# DONALD INSPECTION

DIVISION OF J. T. DONALD & CO. LIMITED  
INSPECTING AND TESTING ENGINEERS  
340 RICHMOND ST. W. TORONTO, ONTARIO

HALIFAX, N.S. • MONTREAL, QUE. • HAMILTON, ONT.

REPORT NO.	
T66-1304	
SHEET	OF

January 31st, 1966.

## REPORT OF

## SOIL TEST BORINGS

For County of Ontario,  
Address County Building, 605 Rossland East, Whitby, Ontario.  
LOCATION: Bridge No. 22-110, Twp. of East Whitby.  
REPORTED TO: County of Ontario, Attn: Mr. W. A. Evans, P. Eng.  
Assistant County Engineer.

We report herein results of two soil test borings made at the above site on January 19th and 25th, 1966.

Locations and elevations of bore holes, and details of sub-surface stratification are shown on the accompanying drawing which is part of this report.

### DESCRIPTION OF FIELD WORK

The bore holes were made to depths of 36'0" (Hole No. 1) and 40'6" below the surface by dry augering and the driving of BX casing. At shallow intervals through the soil profile, standard penetration tests were made and soil samples were taken.

The standard penetration test consisted in determining the number of blows required to drive a 2" O.D. split-spoon soil sampler for a depth of 1'0" into the undisturbed soil by the impact of a 140 lb. hammer dropping freely through a height of 30 inches.

In our laboratory, the unconfined compression strength of the cohesive sub-soil was established by penetrometer tests on samples from the split-spoon sampler. Results of strength (tons/sq.ft.) and penetration tests are plotted under columns "Q" and "N" respectively in the boring logs.

Continued.....

DESCRIPTION OF SUB-SOIL

Hole No.1 showed 7'0" of mixed fill (sand, clay, top-soil, fragments of timber), and Hole No.2 showed 13'0". In each case, the fill lies on loose to very loose (at depth) grey fine to medium sand with some gravel. This silty sand is below water level in both holes: water levels in the holes were about the same elevation (76.1 in Hole No.1, 76.4 in Hole No.2), and about 1'6" higher than river level (74.7). The fine to medium sand extends to a depth of 13'0" in Hole No.1 and to 15'6" in Hole No.2 (i.e. to about elevation 61 in each), and is underlain by medium dense to dense grey fine silty sand: the upper 4'0" of this sand in Hole No.1 is loose, but the sand is dense below.

Grading curves for samples of the sand are enclosed. The moisture contents of the samples are shown below:

<u>Depth</u>	<u>Hole No.1</u>	<u>Hole No.2</u>
5'0"-6'0"	13.7%	
7'0"-8'0"	12.5	4.5%
10'0"-11'0"	17.1	
15'0"-16'0"	17.4	28.8
20'0"-21'0"	21.4	14.5
25'0"-26'0"	20.5	19.5
30'0"-30'8"	19.3	21.0
35'0"-36'0"	20.5	30'0"-31' 20.5
		35'0"-35'9" 18.8

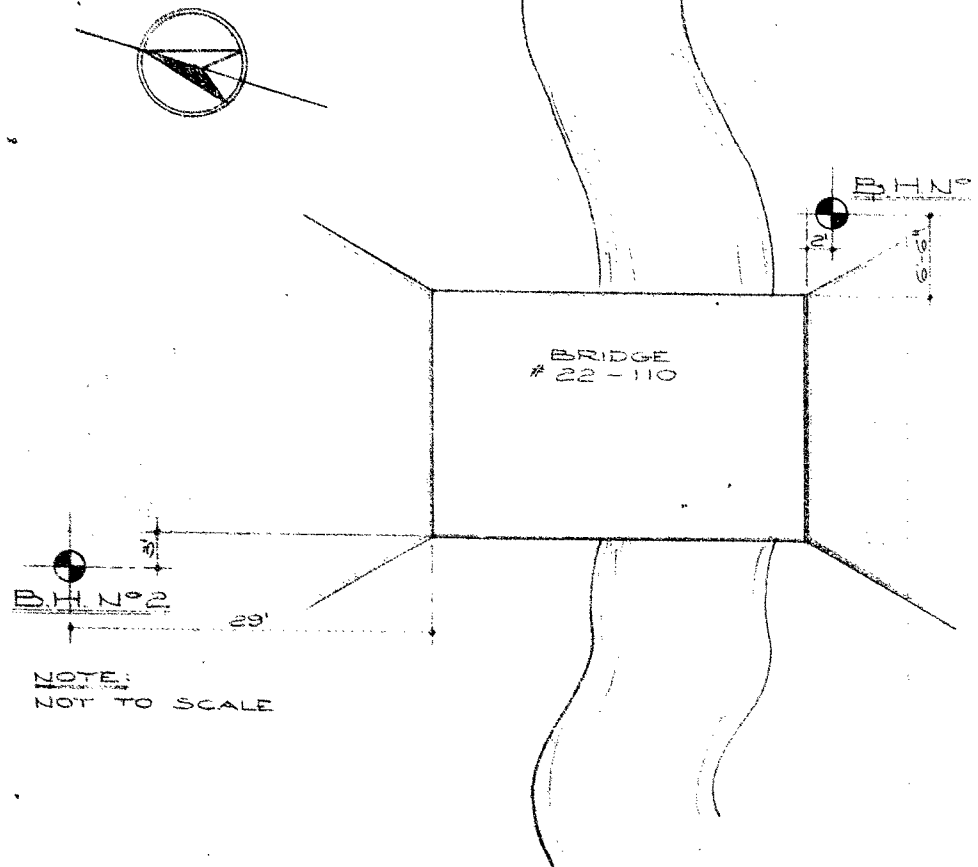
The material is almost wholly granular, and it was not possible to test for plastic and liquid limits.

CONCLUSIONS

The fill and the sand immediately below are loose, and foundation loads should be carried by the medium dense or dense sand below water level. This may be done by use of wing walls carried on spread footings about 7'0" below creek bed elevation. A design loading of  $1\frac{1}{2}$  tons/sq.ft. is recommended. Excavations in the fill and loose sand will require sheeting, and the stream may be diverted to alternate sides of the bed, or carried across the site in a flume.

DONALD INSPECTION,

*R. Butler*  
R. Butler, P.Eng.



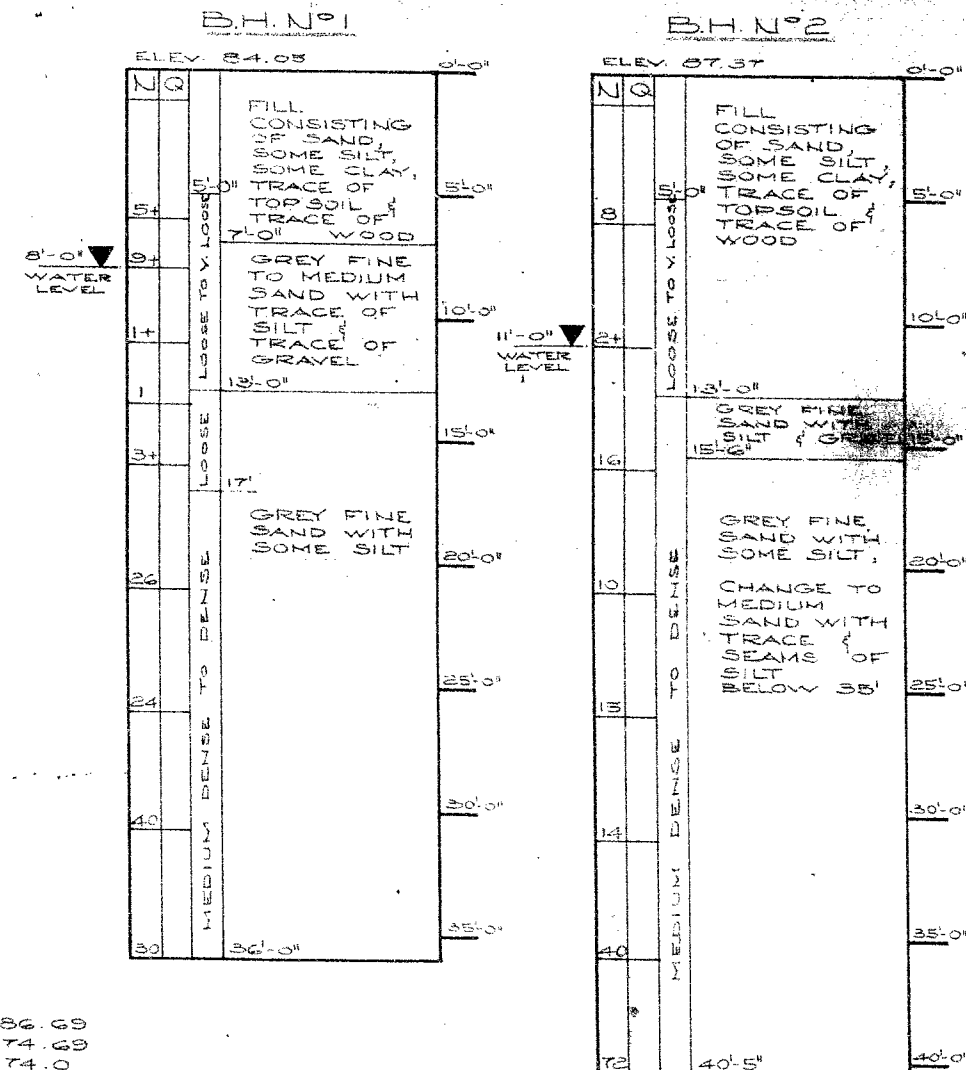
NOTE:  
NOT TO SCALE

SECTION & BORE HOLE LOCATIONS ON SITE  
FOR NEW BRIDGE FOR COUNTY OF ONTARIO  
WHITBY - ONTARIO

VERTICAL SCALE: 1"=5'-0"

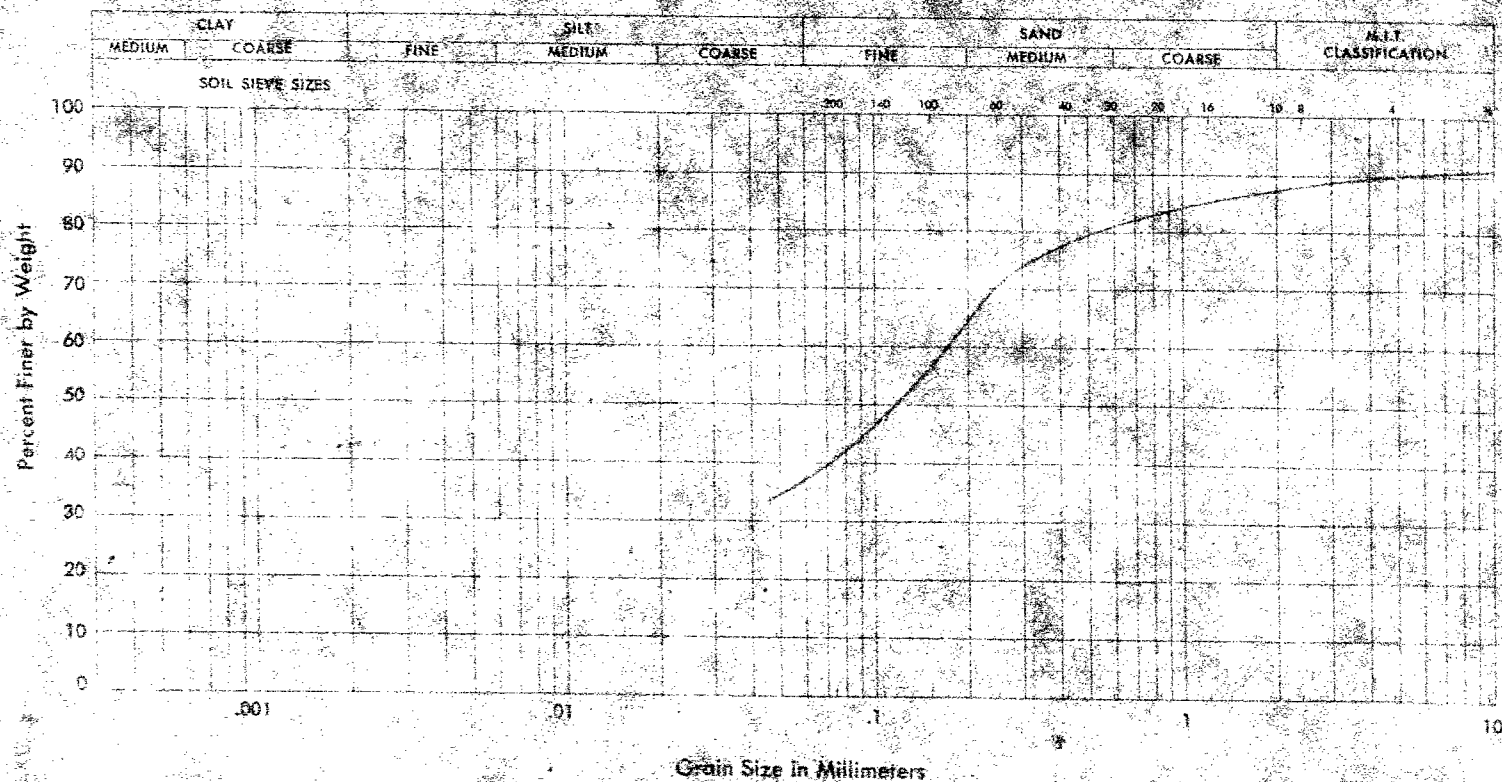
NOTE:  
ELEVATIONS ARE REFERRED TO THE STATED  
ELEVATION OF BENCH-MARK #3 (86.73) ON SITE  
PLAN PROVIDED

ELEVATIONS:  
BRIDGE DECK == 86.69  
WATER == 74.69  
CREEK BOTTOM == 74.0



30M15-40  
CROSSING

DONALD INSPECTION LIMITED  
GRAIN-SIZE DISTRIBUTION

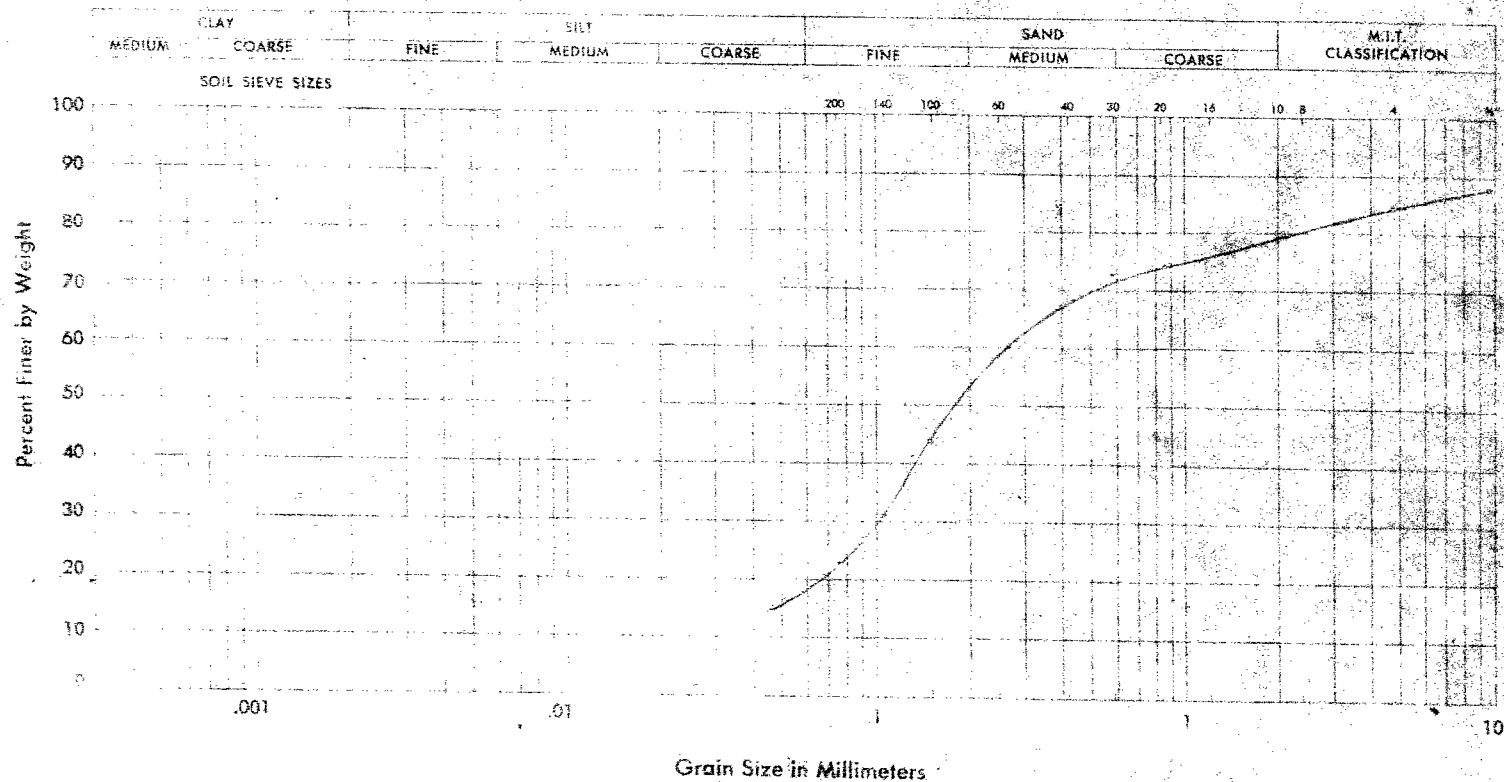


Project BRIDGE N° 22 - 110  
TOWARD OF EAST WHITBY  
HOLE N° 1 DEPTH 5.0 - 6.0

Order No.

Enclosure No.

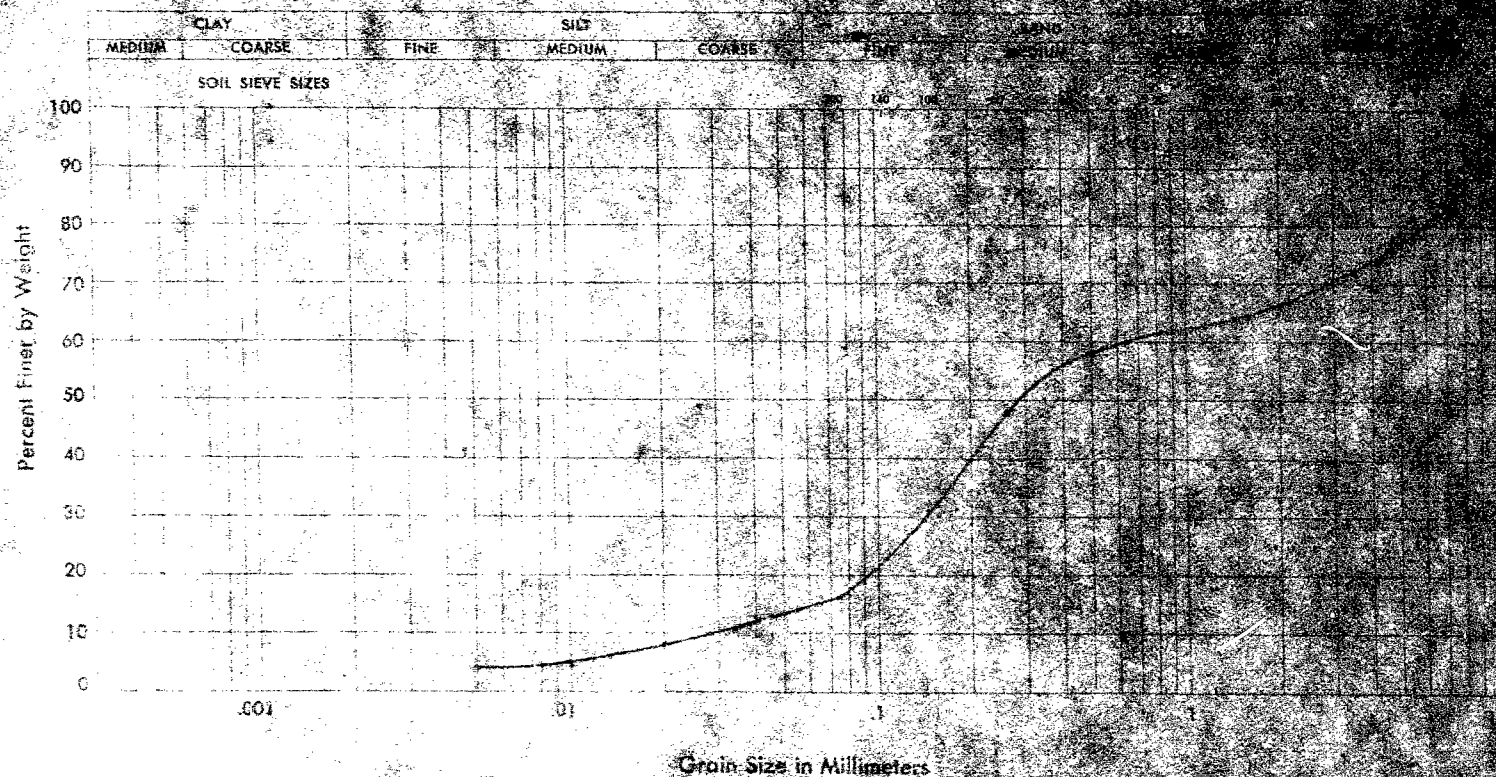
# DONALD INSPECTION LIMITED GRAIN SIZE DISTRIBUTION



Project: *BOULEVARD*

Order No.

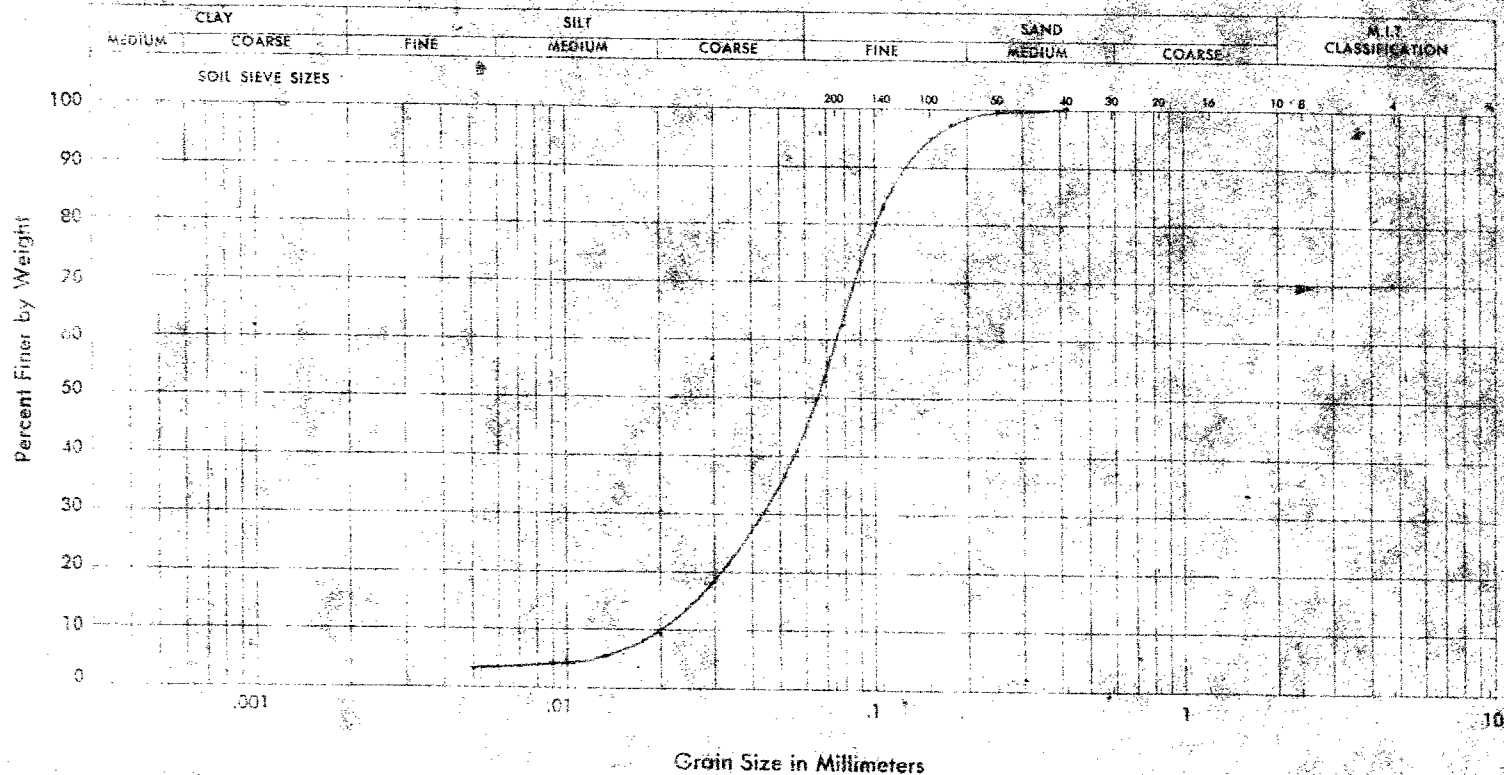
DONALD INSPECTION LIMITED  
GRAIN SIZE DISTRIBUTION



Project BRIDGE No 22-110  
TOWNSHIP OF EAST WHITBY  
LOCALITY DEPTH 15.0-16.0

Order No.

DONALD INSPECTION LIMITED  
GRAIN SIZE DISTRIBUTION

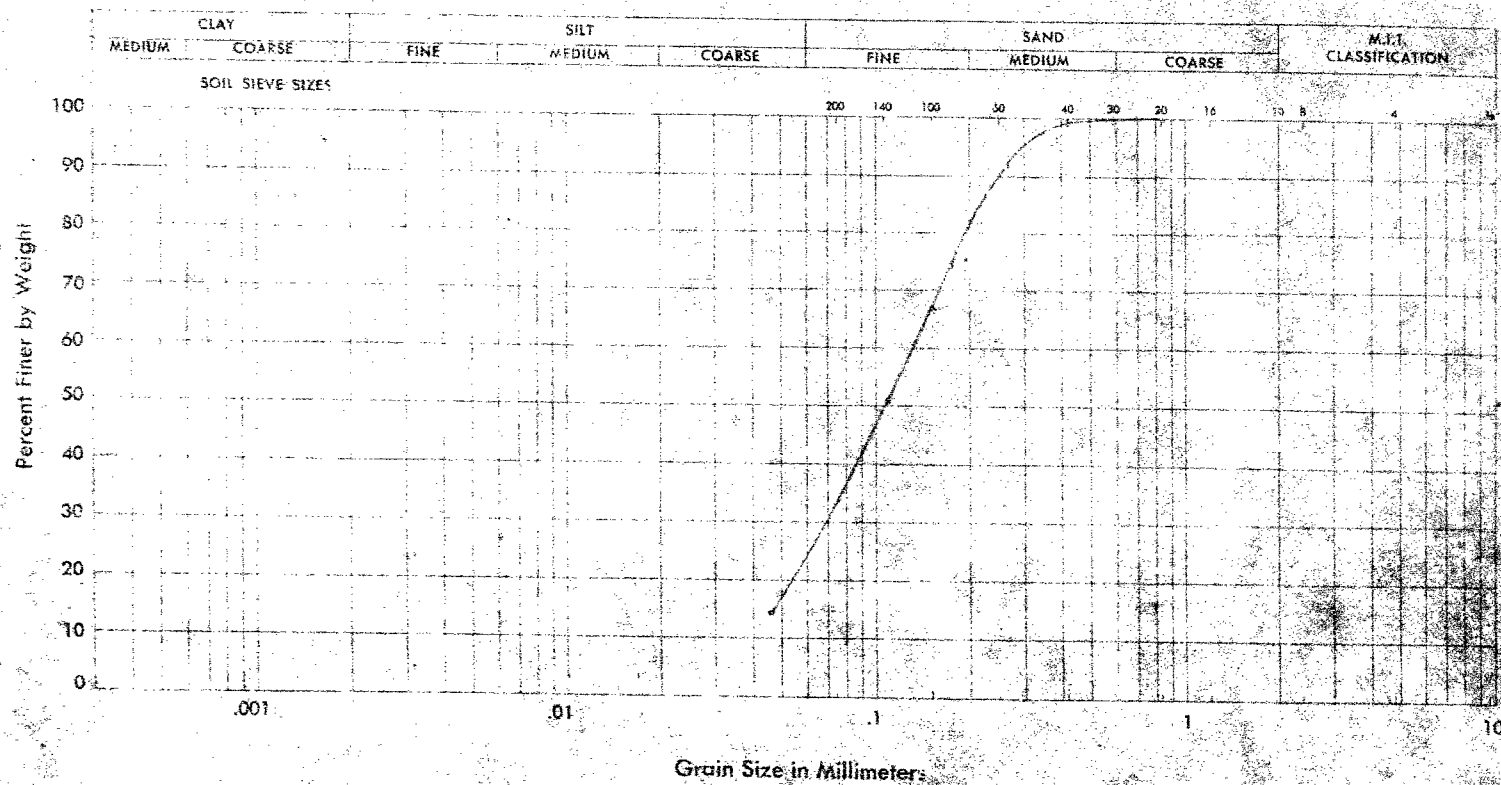


Project BRIDGE NR 22-110  
TOWNSHIP OF EAST WHITBY  
HOLE NO 1 DEPTH 25'-0" - 26'-0"

Order No.

Envelope No.

DONALD INSPECTION LIMITED  
GRAIN SIZE DISTRIBUTION

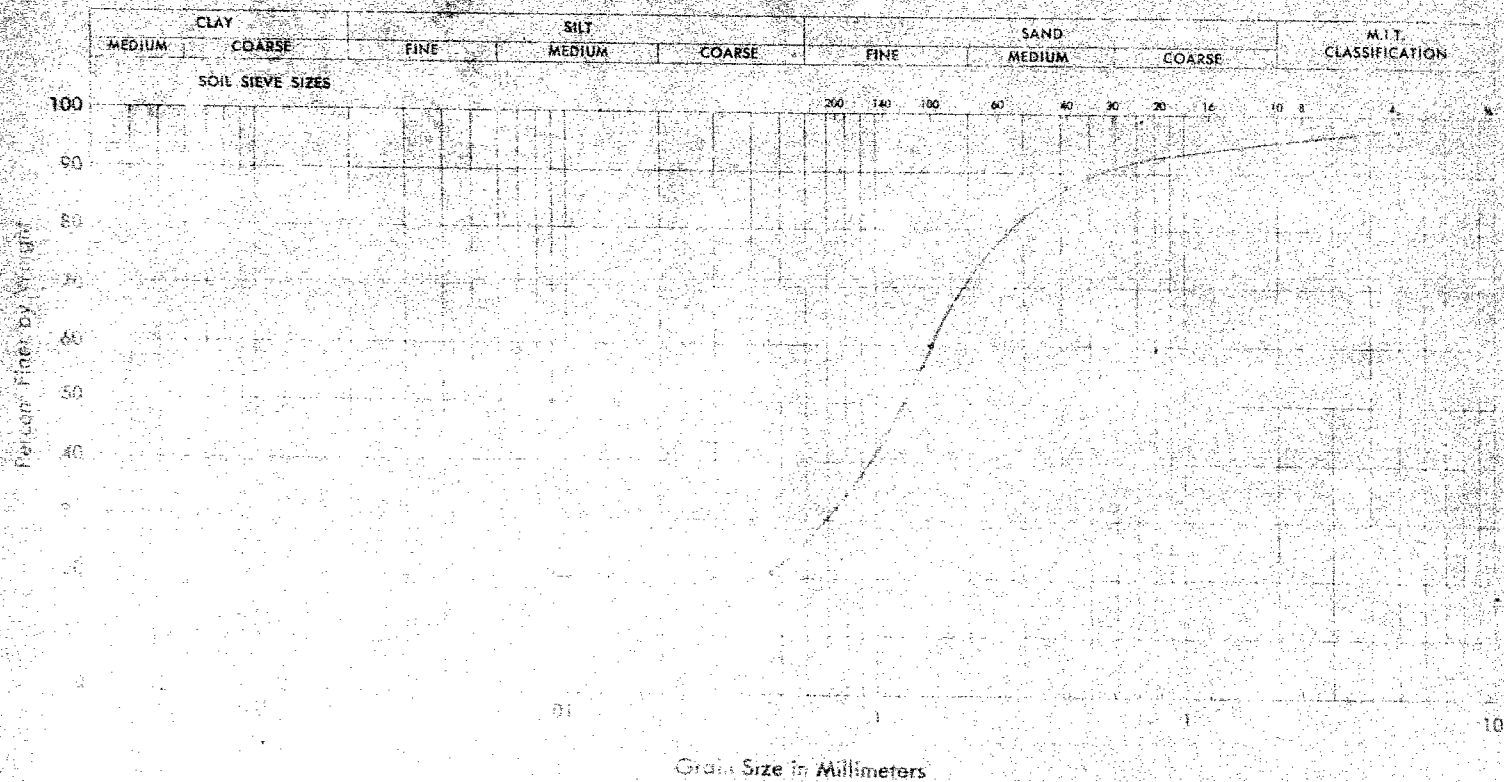


Project BRIDGE NO 22-110  
TOWNSHIP OF EAST WHITBY  
HOLE NO 1 DEPTH 10-0 - 20-0

Order No.

Enclosure No.

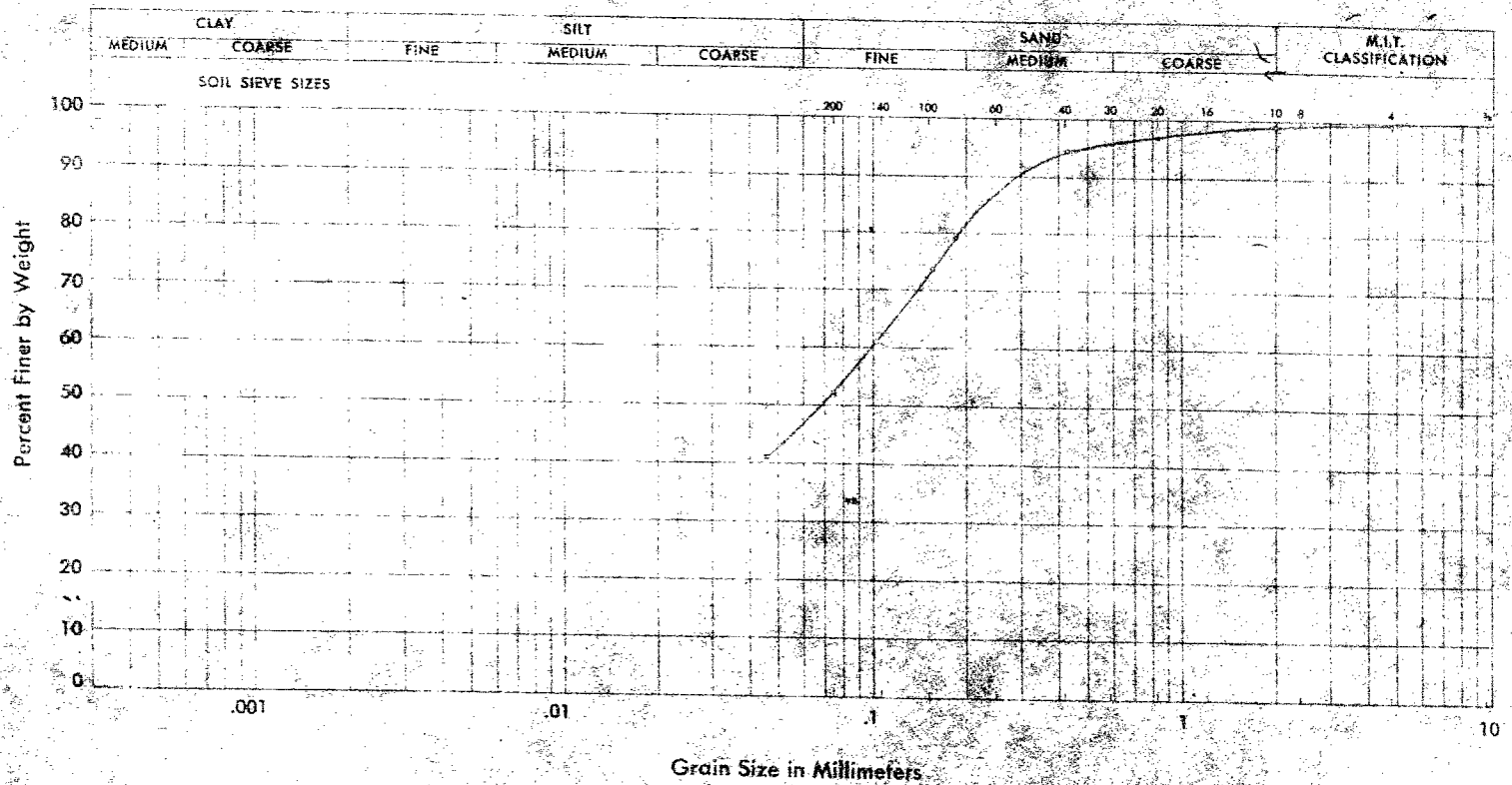
# DONALD INSPECTION LIMITED GRAIN SIZE DISTRIBUTION



Order No.

Enclosure No.

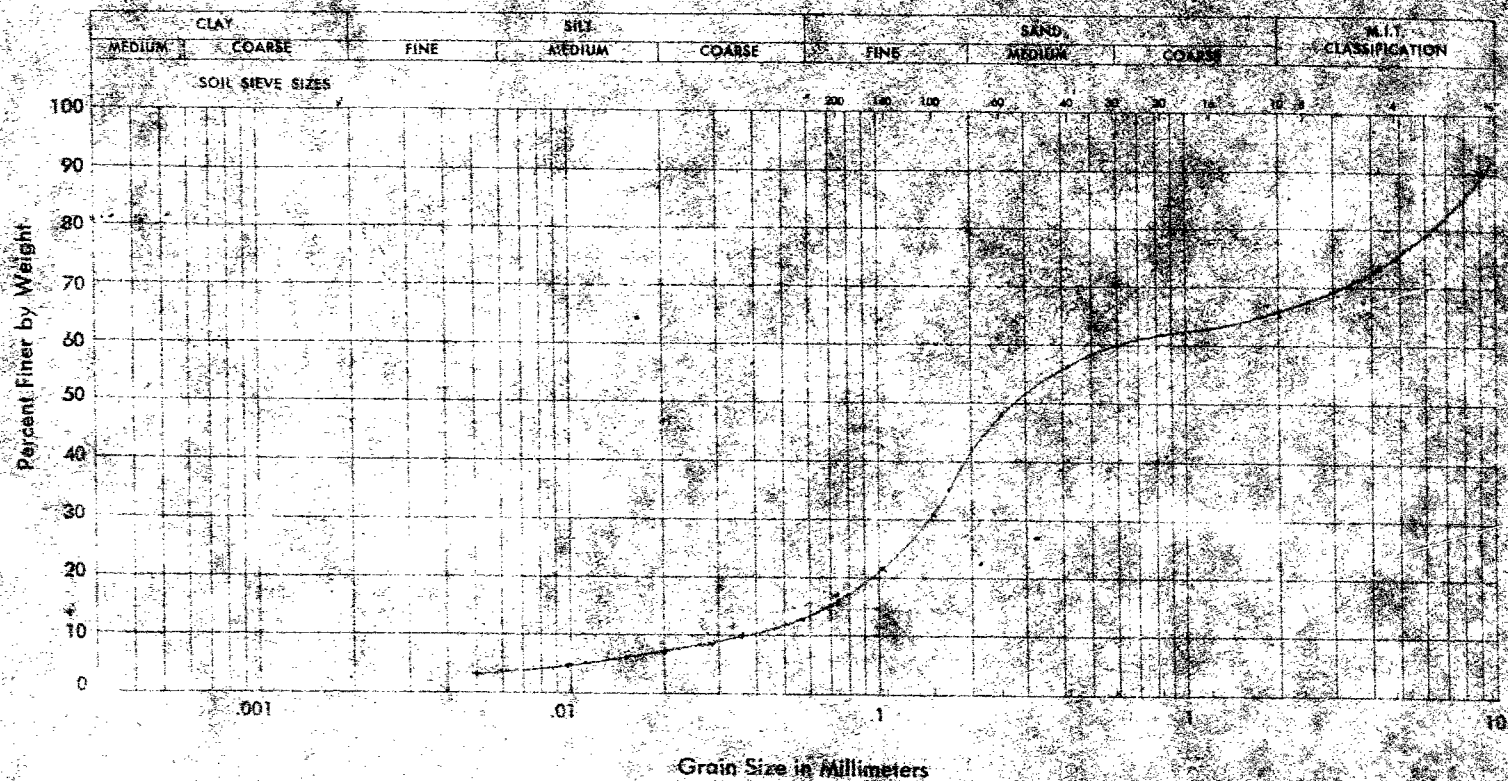
DONALD INSPECTION LIMITED  
GRAIN SIZE DISTRIBUTION



Project BRIDGE N° 22-110  
TOWNSHIP OF EAST WHITEY  
HOLE N° 1. DEPTH 15.0 - 11.0 (FILLING)

Order No.

DONALD INSPECTION LIMITED  
GRAIN SIZE DISTRIBUTION

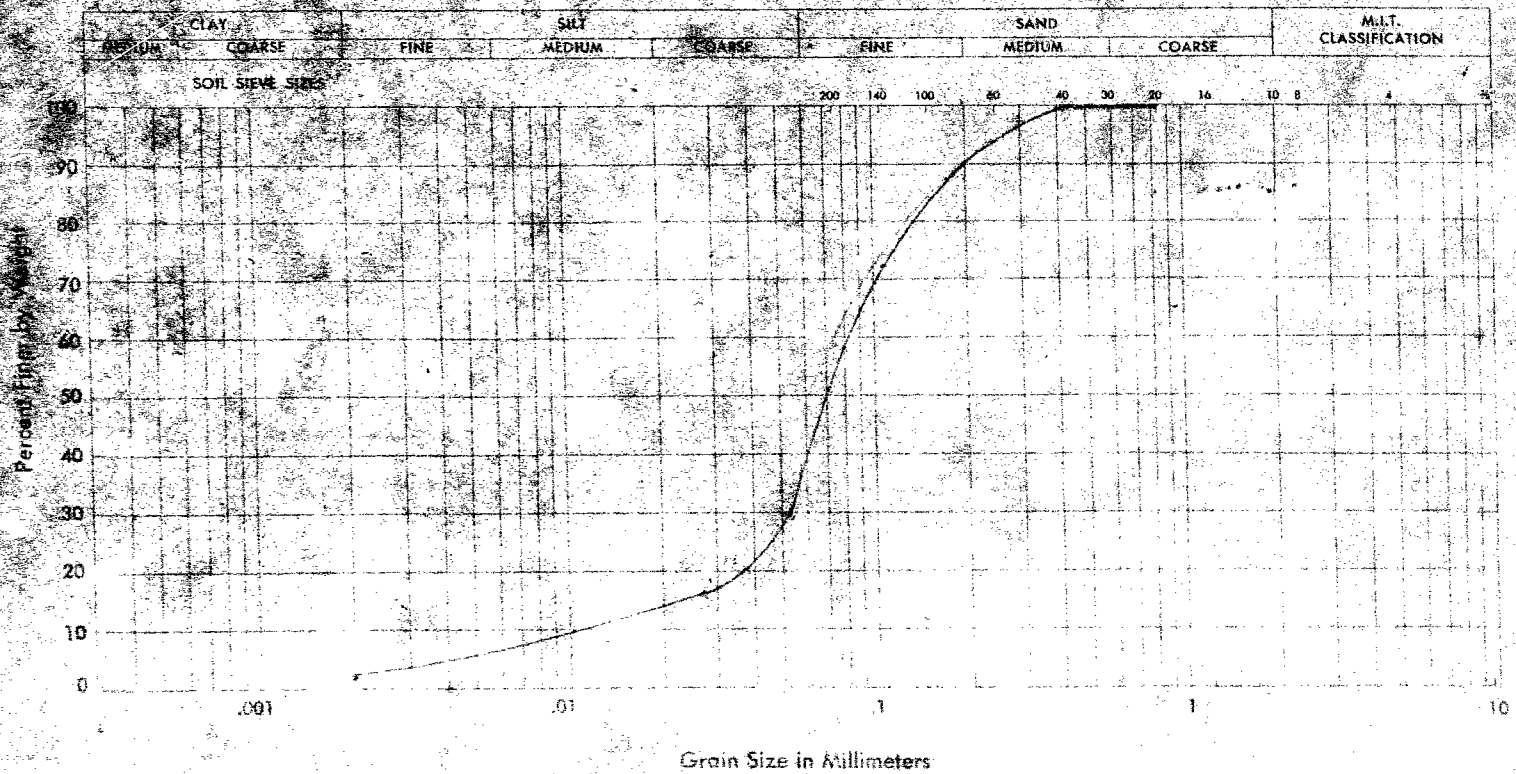


Project BRIDGE NO 22-110  
TOWNSHIP OF EAST WHITBY  
HOLE 2 DEPTH 15.0" - 16.0"

Order No.

Enclosure No.

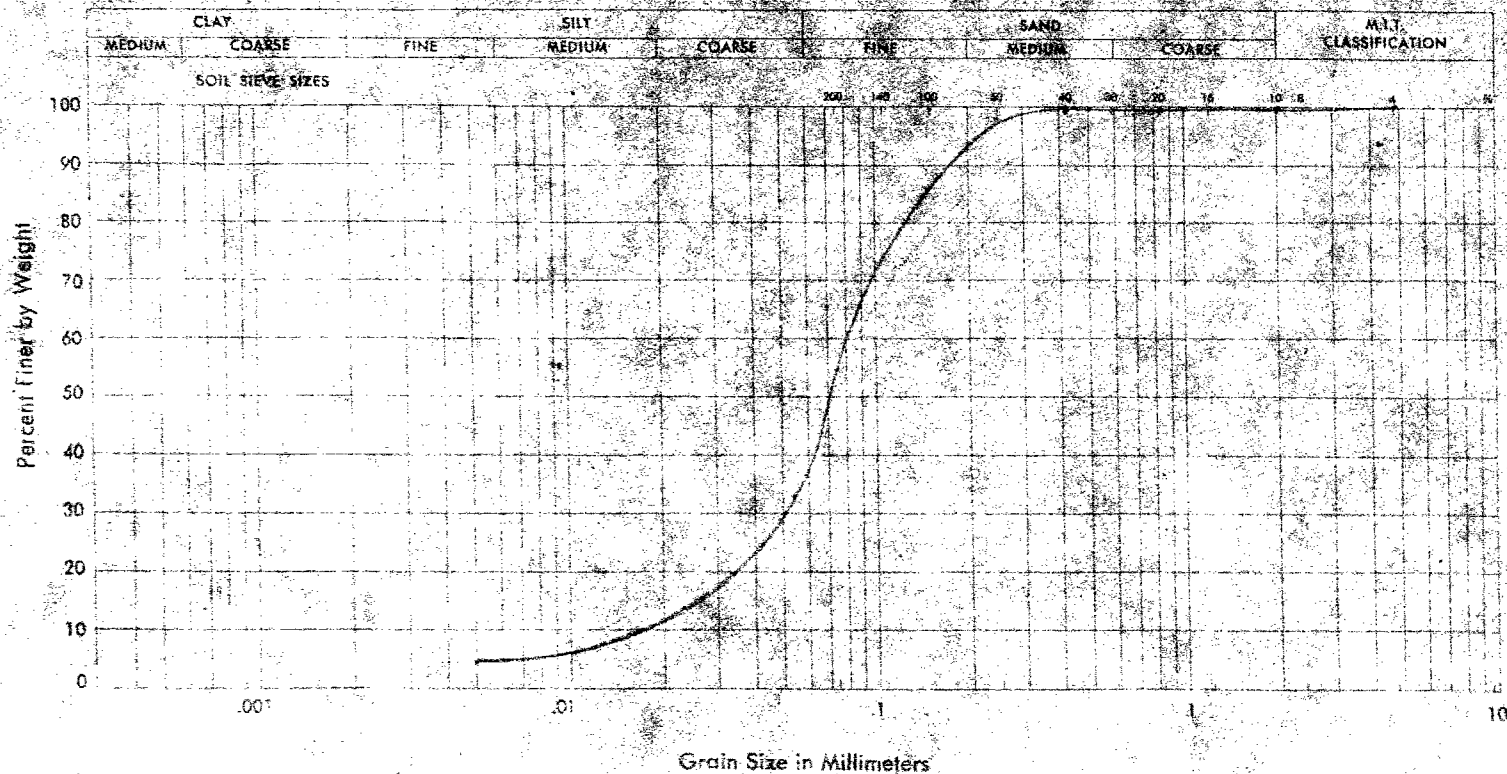
DONALD INSPECTION LIMITED  
GRAIN SIZE DISTRIBUTION



Project **BRIDGE No. 32-110**  
**1015110** **32-110** **WHITE**  
**1015110** **32-110** **DEPTH 10-0 - 200**

Order No.

**DONALD INSPECTION LIMITED**  
**GRAIN SIZE DISTRIBUTION**



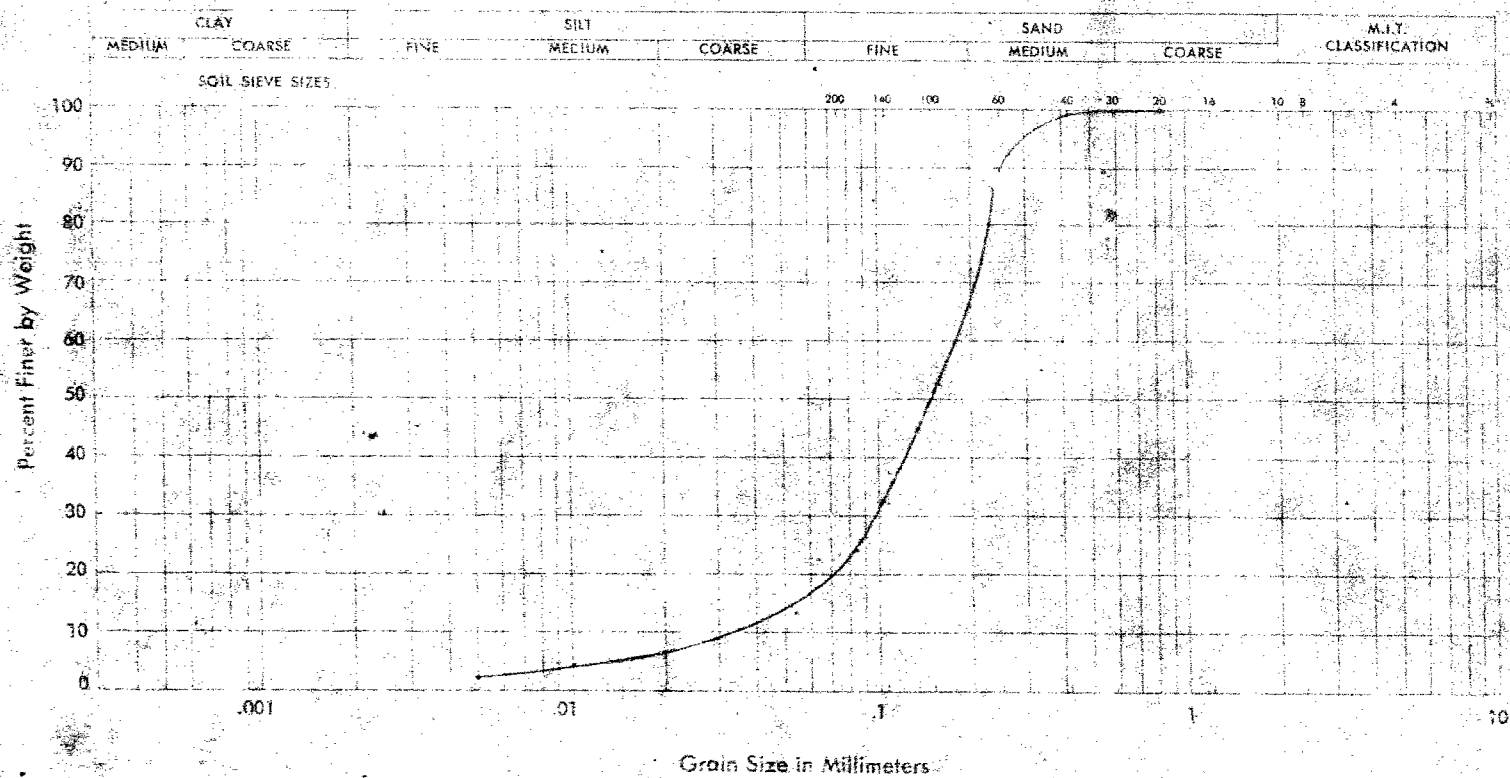
Project **BRIDGE NO 22-110**  
**TOWNSHIP OF EAST WHITEY**  
**HOLE NO 1 DEPTH 15'-0" - 20'-0"**

Order No.

Enclosure No.

# DONALD INSPECTION LIMITED

## GRAIN SIZE DISTRIBUTION



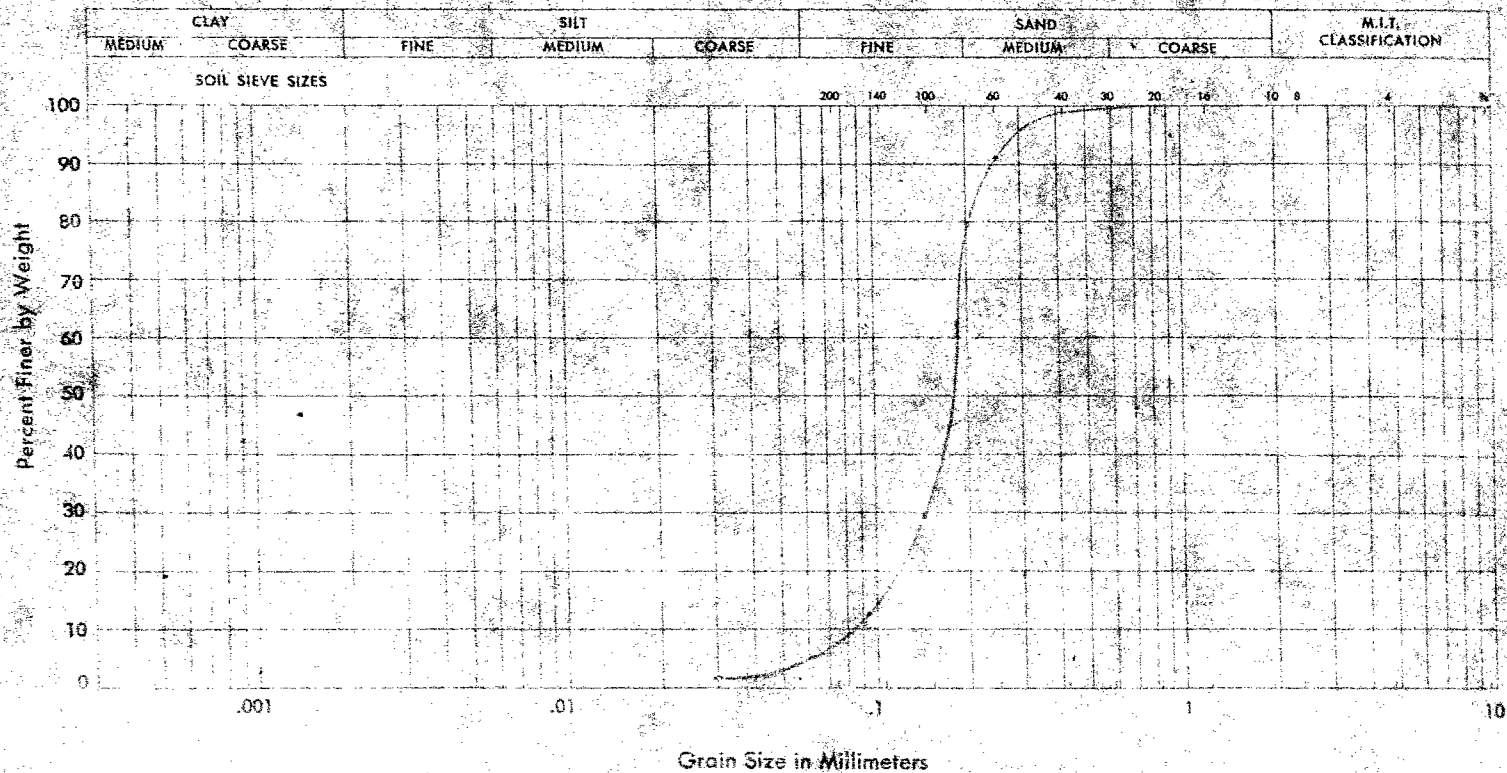
Project

BRIDGE No. 20-40  
TOWN OF EAST HARTBY  
HIGHWAY 20-2-3-7

Order No.

Enclosure No.

DONALD INSPECTION LIMITED  
GRAIN SIZE DISTRIBUTION

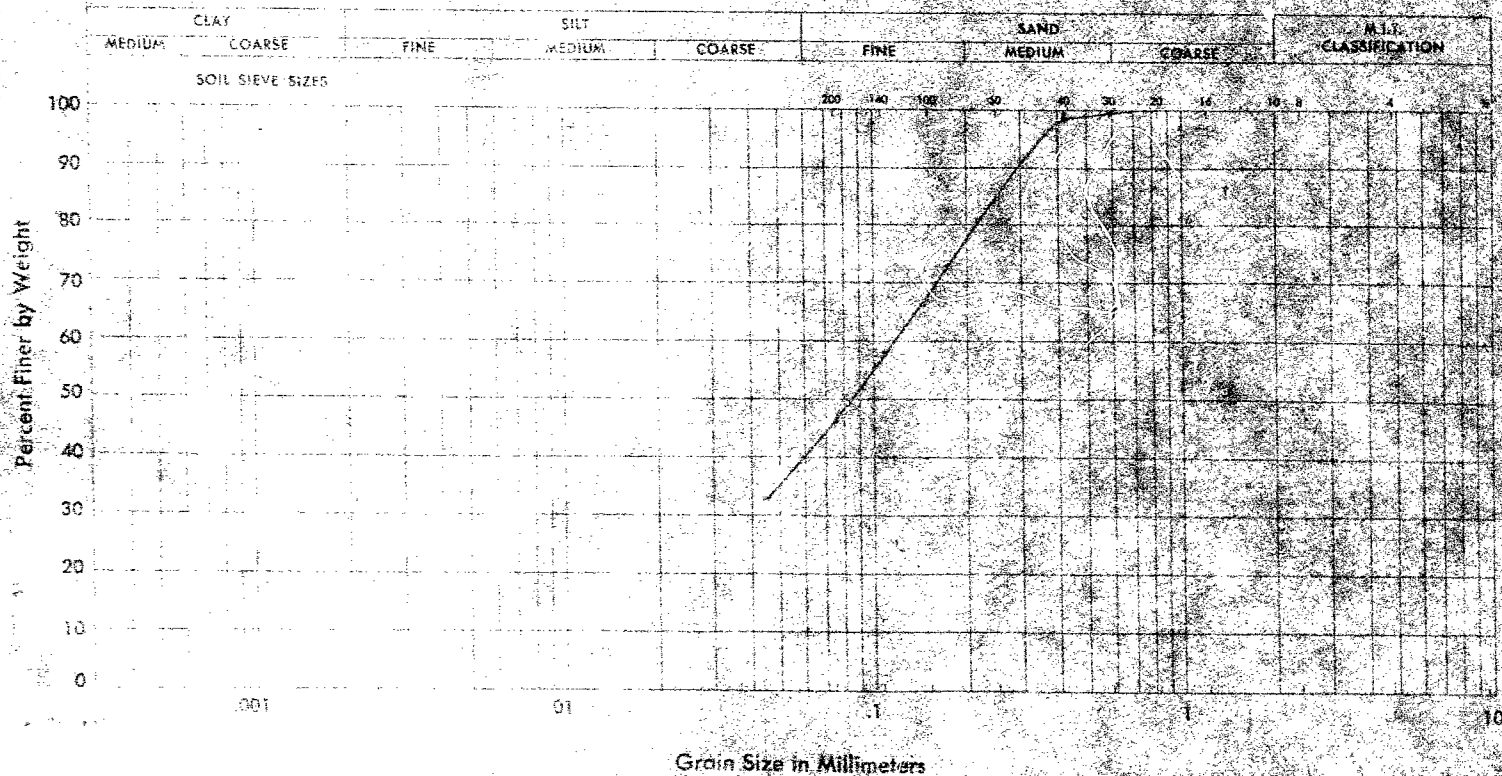


Project BRIDGE NO 22-110

Order No.

Enclosure No.

# DONALD INSPECTION LIMITED GRAIN SIZE DISTRIBUTION



Project BRIDGE NO. 100

Location of Bridge

Date of Test

Order No.

Enclosure No.