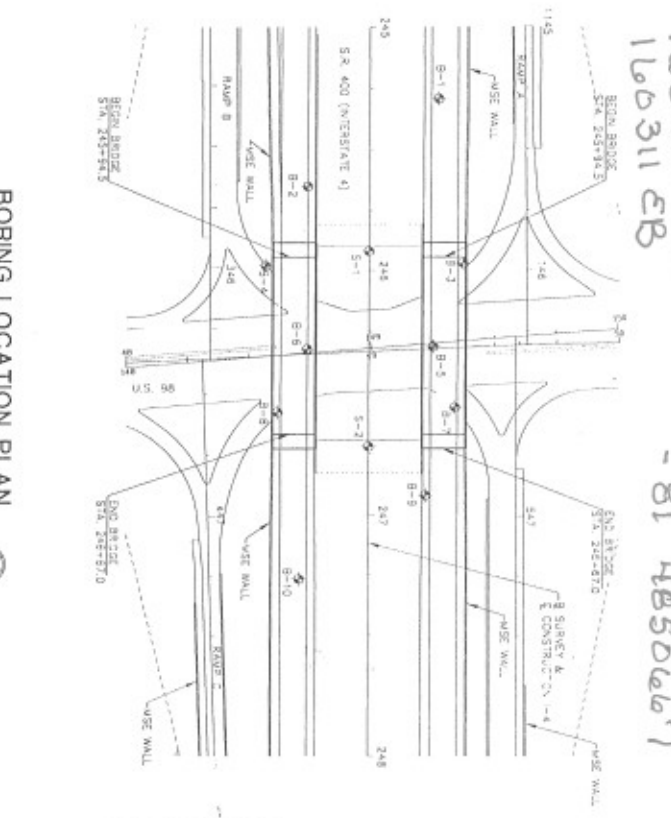


166310 WB
166311 EB

28 42425
- 81 4850667

LEGEND

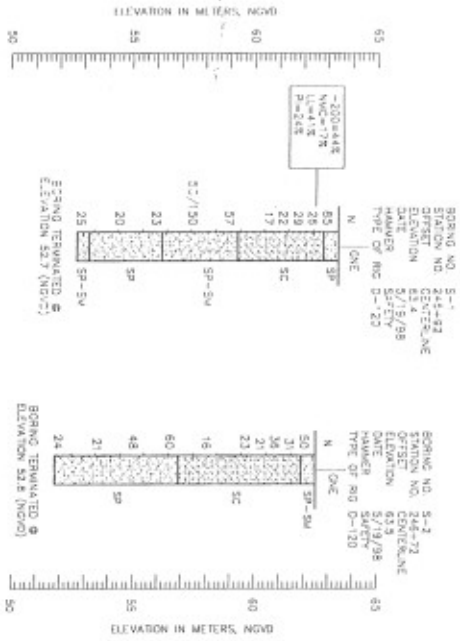


BORING LOCATION PLAN

0.0 20.0
PLAN SCALE

LOCATION	
TOWNSHIP	23 S
RANGE	23 E
SECTION	35 & 36

0.0 2.0
VERTICAL SCALE
- HORIZONTAL IN FT.



- (SP) GRAY/BROWN TO LIGHT BROWN FINE SAND
- (SP-SM) GRAY/BROWN TO LIGHT BROWN SLIGHTLY SILTY FINE SAND
- (SM) LIGHT BROWN/BROWN/DARK BROWN SILTY FINE SAND
- (SC) DARK BROWN/GRAY CLAYEY FINE SAND
- (CL) BROWN/GRAY CLAYEY CLAY
- (MH) MOLT WEATHERED LESTONE WITH CLAYEY FINE SAND REVS
- (SM) ORANGE-RICH SILTY FINE SAND
- (WH) BROWN/GRANULAR SILT
- (A) WITH LESTONE
- (B) WITH CLAYS AND SILTS
- (C) WITH ORGANICS
- (W) WATER TABLE
- ONE GROUNDWATER LEVEL NOT ENCOUNTERED
- NUMBERS TO THE LEFT OF BORINGS INDICATE SPT VALUE FOR 300MM PENETRATION (UNLESS OTHERWISE NOTED)
- APPROXIMATE SPT BORING LOCATION
- CORING USED
- SHELBY LAB SAMPLE LOG-70N
- BR FILL UNDER MOUNT OF R22
- 200 PMS PASSING NO. 200 SIEVE (N)
- WVC NATURAL WETLINE CONTENT (%)
- CC ORGANIC CONTENT (%)
- LL LIQUID LIMIT (%)
- PI PLASTICITY INDEX (%)
- NP NON PLASTIC

SOIL
RESISTIVITY 13,000-24,000 OHM-CM
CHLORIDES < 3.4 PPM
SULFATES 5.5-16.5 PPM
SH 5.5-8.5

GRANULAR MATERIALS - RELATIVE DENSITY	SPT (BLOW/300mm)
VERY LOOSE	LESS THAN 4
LOOSE	4-10
MEDIUM DENSE	10-30
VERY DENSE	GREATER THAN 30

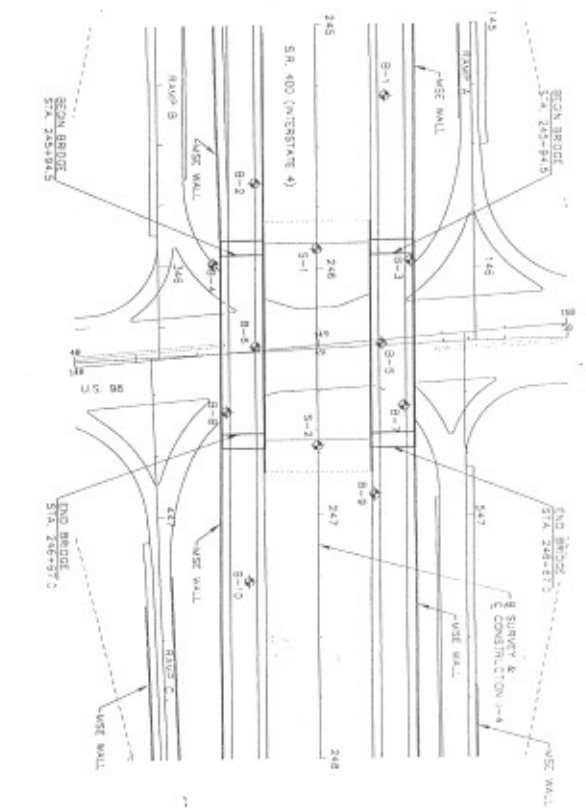
SILTS AND CLAYS CONSISTENCY	SPT (BLOW/300mm)
VERY SOFT	LESS THAN 2
SOFT	2-4
FIW	4-8
STIFF	8-15
VERY STIFF	15-30
HARD	GREATER THAN 30

REPORT OF CORE BORINGS

PROJECT NO. 166310 WB		SECTION 35 & 36	
DATE 10/12/13		BY 52019	
ENGINEER OF RECORD		DESIGNER	
PROFESSIONAL SERVICE		DESIGN OFFICE	
INDUSTRIAL, INC.		16120-1409/2013-1-24-01	
PROJECT NO. 166310 WB		SECTION 35 & 36	
DATE 10/12/13		BY 52019	
ENGINEER OF RECORD		DESIGNER	
PROFESSIONAL SERVICE		DESIGN OFFICE	
INDUSTRIAL, INC.		16120-1409/2013-1-24-01	

LEGEND

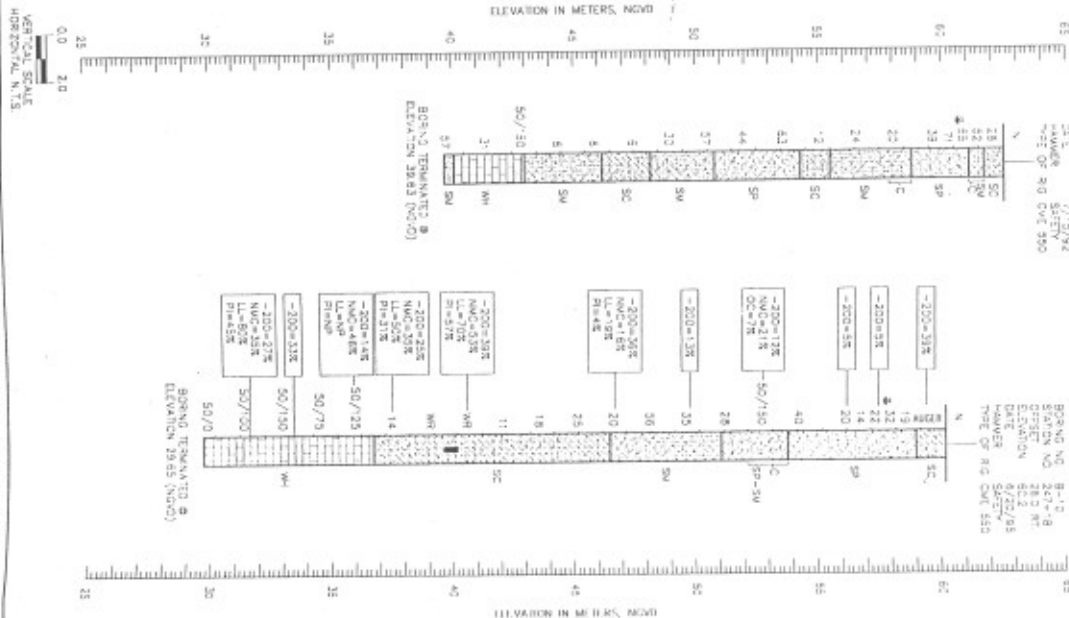
- | | |
|---|-------------------------|
| (SPT) GRAY/BROWN TO LIGHT BROWN FINE SAND | |
| (SP-SN) GRAY/BROWN TO LIGHT BROWN SLIGHTLY SILTY FINE SAND | |
| (SN) LIGHT BROWN/BROWN/DARK BROWN SILTY FINE SAND | |
| (SCS) DARK BROWN/OAKY CLAYEY FINE SAND | |
| (CS) BROWN/CRAKE SANDY CLAY | |
| (CM) HIGHLY WEATHERED LIGNITE WITH CLAYEY FINE SAND SEAMS | |
| (SM) ORGANIC-RICH SILTY FINE SAND | |
| (MH) BROWN/CRAKE SILT | |
| A WITH LIGNITE | |
| B WITH CLAYS AND SILTS | |
| C WITH ORGANICS | |
| D WATER TABLE | |
| ONE GROUNDWATER LEVEL, NOT ENCOUNTERED | |
| NUMBERS TO THE LEFT OF BORINGS INDICATE SPT VALUE FOR 30cm PENETRATION, (UNLESS OTHERWISE NOTED.) | |
| ➔ APPROXIMATE SPT BORING LOCATION | |
| EASING USED | |
| SHEATH TUBE SAMPLE LOCATION | |
| NR FEEL UNDER WEIGHT OF ROD | |
| -200 FINES PASSING NO. 200 SIEVE (%) | |
| NWC NATURAL MOISTURE CONTENT (%) | |
| OC ORGANIC CONTENT (%) | |
| LL LIQUID LIMIT (%) | |
| P PLASTICITY INDEX (%) | |
| NP NON PLASTIC | |
| EXTRACORRELATION CLASSIFICATION: | |
| STRUCTURE CODE: SIGNIFY AGGRESSIVE (H=5.0) | |
| SLURRY PENETRATION: SIGNIFY AGGRESSIVE (PH=5.0) | |
| SLURRY PENETRATION: SIGNIFY AGGRESSIVE (PH=5.0) | |
| SOIL | |
| RESISTIVITY: 12,000-24,000 OHM-CM | |
| CHLORIDES: < 3% - PM | |
| SULFATES: < 15% PM | |
| PI: 5-8-A | |
| GRANULAR MATERIALS- | |
| RELATIVE DENSITY | (BLD=100mm)
SPT |
| VERY LOOSE | LESS THAN 4 |
| LOOSE | 4-10 |
| MEDIUM DENSE | 10-30 |
| DENSE | 30-50 |
| VERY DENSE | GREATER THAN 50 |
| SILT AND CLAY CONSISTENCY | |
| | SPT
(B.L.O.M./100mm) |
| VERY SOFT | LESS THAN 2 |
| SOFT | 2-4 |
| FIRM | 4-6 |
| STIFF | 6-8 |
| VERY STIFF | 8-15 |
| HARD | 15-30 |
| | GREATER THAN 30 |



BORING LOCATION PLAN



LOCATION	
TOWNSHIP:	27 S
RANGE:	23 E
SECTION:	35 & 36



GAIDOE BORINGS

REPORT OF CORE BORINGS

1-8/0-5. 88 INTERCHANGE

P5: PROJECT No. 375-11

DATE		REVISED		BY		REASON		DATE		BY		REASON	
1/1/78		1/1/78		1/1/78		1/1/78		1/1/78		1/1/78		1/1/78	
PROFESSIONAL SERVICE INDUSTRIES, INC. PSI PROFESSIONAL SERVICE INDUSTRIES, INC. 1000 PSI PROFESSIONAL SERVICE INDUSTRIES, INC.													
REPORT NO. 77-11 1-4/U.S. 88 INTERCHANGE SECTION 8 REPORT NO. 77-11 1-4/U.S. 88 INTERCHANGE SECTION 8													

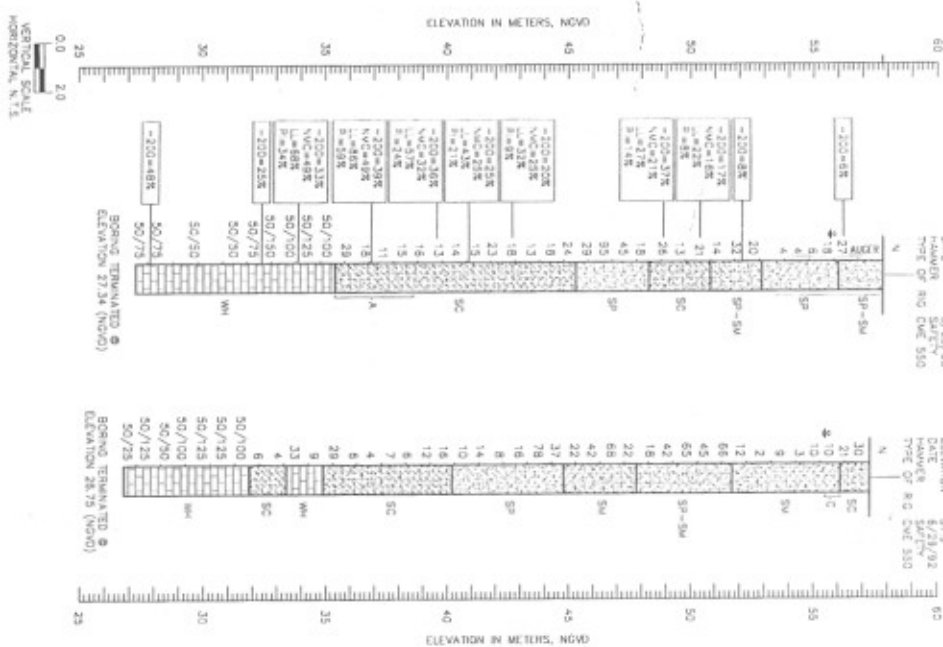
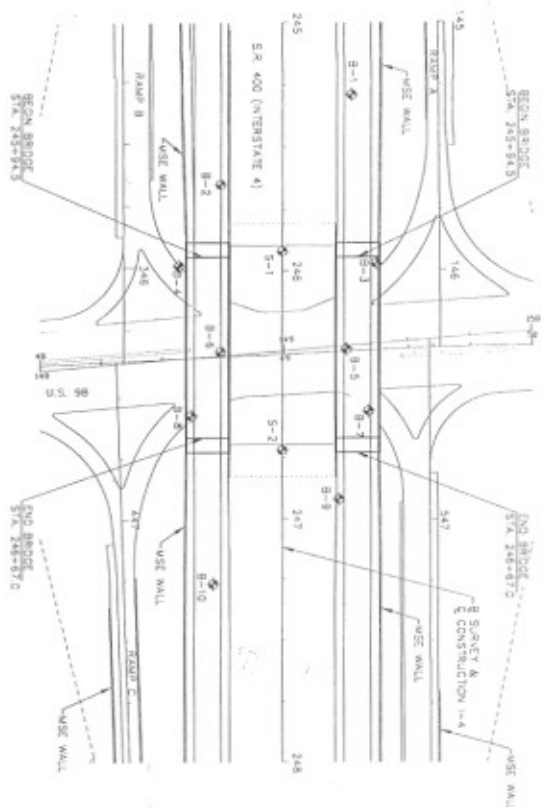
LEGEND

- (SP) GRAY/BROWN TO LIGHT BROWN FINE SAND
- (SP-SW) GRAY/BROWN TO LIGHT BROWN SANDY SILTY FINE SAND
- (SW) LIGHT BROWN/BROWN/DARK BROWN SILTY FINE SAND
- (SC) DARK BROWN/GRAY CLAYEY FINE SAND
- (CL) BROWN/GRANDE SANDY CLAY
- (MH) HIGHLY WEATHERED LIGNITE WITH CLAYEY FINE SAND BEDS
- (SW) ORGANIC-RICH SILTY FINE SAND
- (MH) BROWN/GRANDE SILT
- (A) WITH LIGNITE
- (B) WITH CLAYS AND SILTS
- (C) WITH ORGANICS
- (W) WATER TABLE
- (DNE) GROUNDWATER LEVEL, NOT ENCOUNTERED
- (N) NUISERS TO THE LEFT OF BORING INDICATE (UNLESS OTHERWISE NOTED)
- (APPROXIMATE SPT BORING LOCATION)
- (CASING USED)
- (SHELF) TUBE SAMPLE LOCATION
- (W) FELT UNDER WEIGHT OF ROD
- (-200) FINES PASSING NO. 200 SIEVE (%)
- (NMC) NATURAL MOISTURE CONTENT (%)
- (OC) ORGANIC CONTENT (%)
- (LL) LIQUID LIMIT (%)
- (PI) PLASTICITY INDEX (%)
- (NP) NON PLASTIC
- (EXPANSION) CLASSIFICATION
- (SUBSTRUCTURE) STEEL
- (EXTRINSIC) AGGRESSIVE (pH=8.8)
- (SPT) SPT VALUE FOR 300mm PENETRATION (UNLESS OTHERWISE NOTED)
- (SOIL)
- (RESISTANCE) 1,200-28,000 OUNCE-CM
- (CHANGES) < 2-3 PPM
- (SILTS/CLAYS) 5.5-8.2
- (RELATIVE DENSITY)
- (SPT)
- (RELATIVE DENSITY) (SPT/100mm)
- (VERY LOOSE)
- (LOOSE)
- (DENSE)
- (VERY DENSE)
- (SILTS AND CLAYS)
- (CONSISTENCY)
- (LESS THAN 2)
- (VERY SOFT)
- (SOFT)
- (STIFF)
- (VERY STIFF)
- (HARD)

BORING LOCATION PLAN

LOCATION	27.5	28.5
TOWNSHIP	27.5	28.5
RANGE	23.5	23.5
SECTION	35	35

PLAN SCALE
0.0 20.0

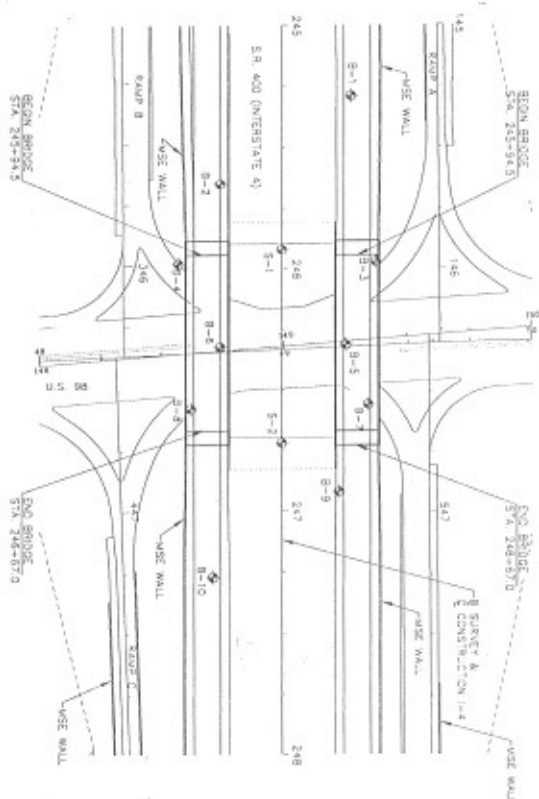


DATE: 10/1/01		BY: J. L. BROWN		CHECKED BY: J. L. BROWN		APPROVED BY: J. L. BROWN	
PROJECT NO. 1630-1-02-01		SHEET NO. 1		TOTAL SHEETS: 1		PROJECT NAME: BRIDGE REPAIRS AT INTERCHANGE	
DESIGNED BY: J. L. BROWN		CHECKED BY: J. L. BROWN		APPROVED BY: J. L. BROWN		DATE: 10/1/01	
PROJECT NO. 1630-1-02-01		SHEET NO. 1		TOTAL SHEETS: 1		PROJECT NAME: BRIDGE REPAIRS AT INTERCHANGE	
DESIGNED BY: J. L. BROWN		CHECKED BY: J. L. BROWN		APPROVED BY: J. L. BROWN		DATE: 10/1/01	
PROJECT NO. 1630-1-02-01		SHEET NO. 1		TOTAL SHEETS: 1		PROJECT NAME: BRIDGE REPAIRS AT INTERCHANGE	
DESIGNED BY: J. L. BROWN		CHECKED BY: J. L. BROWN		APPROVED BY: J. L. BROWN		DATE: 10/1/01	

REPORT OF CORE BORINGS

LEGEND

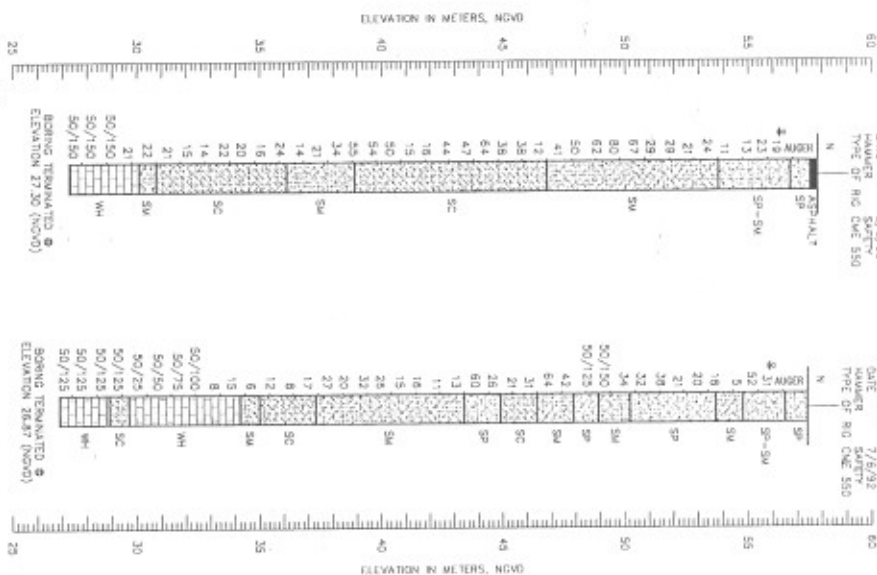
- | | |
|---------------------------------------|---|
| | (SP), GRAY/BLACK TO LIGHT BROWN FINE SAND |
| | (SP-SM), GRAY/BLACK TO LIGHT BROWN SILTY CLAY FINE SAND |
| | (SM), LIGHT BROWN/BROWN/DARK BROWN SILTY FINE SAND |
| | (SO), DARK BROWN/GRAY CLAYEY FINE SAND |
| | (CO), BROWN/GRAY SANDY CLAY |
| | (W), HIGHLY ACIDIFIED LUNSTONE WITH CLAYEY FINE SAND GRAINS |
| | (SW), DECAHEDR- SILTY FINE SAND |
| | (WH), BROWN/GRAY SILT |
| A | WITH LUNSTONE |
| B | WITH CLAYS AND SILTS |
| C | WITH ORGANICS |
| D | WATER TABLE |
| ONE GROUNDWATER LEVEL NOT ENCOUNTERED | |
| N | NUMBERS TO THE LEFT OF BORDERS INDICATE TEST VALUE FOR SLOPE PRESENTATION. (UNLESS OTHERWISE NOTED) |
| → | APPROXIMATE SPOT BORING LOCATION |
| | CASING USED |
| SHEDDY TUBE SHOWN | |
| MB | FELL UNDER WEIGHT OF LOAD |
| -200 | FEET PASSING NO. 200 SIEVE (%) |
| NMC | NATURAL MOISTURE CONTENT (%) |
| OC | ORGANIC CONTENT (%) |
| LL | LIQUID LIMIT (%) |
| PI | PLASTICITY INDEX (%) |
| NE | NON-PLASTIC |



BORING LOCATION PLAN



LOCATION	
TOWNSHIP:	27 S
RANGE:	23 E
SECTION:	35 & 36 1 & 2



CHARACTERISTICS	RELATIVE DENSITY	SP ¹ (BL/CM ² /100mm)
VERY LIGHT	1.05	LESS THAN 4
LIGHT	1.06	4-10
MEDIUM	1.07	10-30
HEAVY	1.08	30-50
VERY HEAVY	1.09	GREATER THAN 50

BRIDGE BORINGS

REPORT OF CORE BORINGS

[illegible]

☐

LOCATION	
TOWNSHIP:	27 S
RANGE:	23 E
SECTION:	35 & 36

[illegible]