

**TEST BORING LOG STA. 4+919.17, 4.87m (R)**

ACT PROJECT NO. 9411.30 BORING NO. B-1 SHEET 1 OF 1  
 CLIENT: STEPHEN HOVANCSEK & ASSOCIATES, INC. DATE DRILLED: 12-14-94  
 PROJECT: VINE STREET RECONSTRUCTION FROM SKIFF TO ERIE STREET, WILLOUGHBY, LAKE CTY., OHIO  
 DRILLING METHOD: ROTARY DRIVE, HOLLOW STEM AUGERS SURFACE ELEVATION: 194.20m

Depth (m)	SAMPLE		SYMBOL	SAMPLE IDENTIFICATION	BLOW COUNT ON SS#50 mm	PROPERTIES				
	No.	Type				W (%)	LL/PI	$\gamma_d$ (kg/cm <sup>3</sup> )	$q_u$ (kPa)	$q_p$ (kPa)
0				100 mm Asphalt over 150 mm Concrete over 50 mm Base						
0.5	1	SS		Black fine sand, some silty clay layers, trace gravel. Fill. Medium dense. Moist. (A-3) (Visual)	7-7-6	19.2				172
1.0	2	SS		Brown and gray mottled silt and clay, little sand, trace gravel. Stiff to very stiff. Moist. (A-5a)	5-6-7	16.7	34/12			431
1.5										
2.0	3	SS			7-12-15	15.0				431
2.5										
3.0	4	SS		Gray sandy silt, some clay, trace rock fragments. Hard. Moist. (A-4a) (Visual)	11-15-20	12.1				431
3.0				End of boring @ 3.0 meters.						
3.5										

GROUNDWATER ENCOUNTERED AT: NONE  
 ON COMPLETION: DRY  
 AFTER: BULK SAMPLE OBTAINED FROM 0.3 TO 1.8 METERS FOR CBR ANALYSIS  
 REMARKS: \_\_\_\_\_

AS - Auger Sample  
 ST - Shelby Tube Sample  
 SS - Split Spoon Sample  
 W - Moisture Content  
 NX - 54 mm I.D. Core Barrel

LL/PI - Liquid Limit/Plasticity Index  
 NP - Non Plastic Material  
 $\gamma_d$  - Dry Density  
 $q_u$  - Unconfined Strength  
 $q_p$  - Pocket Penetrometer Reading

APPLIED CONSTRUCTION TECHNOLOGIES, INC.

**TEST BORING LOG STA. 5+062.23, 1.01m (L)**

ACT PROJECT NO. 9411.30 BORING NO. B-2 SHEET 1 OF 1  
 CLIENT: STEPHEN HOVANCSEK & ASSOCIATES, INC. DATE DRILLED: 12-14-94  
 PROJECT: VINE STREET RECONSTRUCTION FROM SKIFF TO ERIE STREET, WILLOUGHBY, LAKE CTY., OHIO  
 DRILLING METHOD: ROTARY DRIVE, HOLLOW STEM AUGERS SURFACE ELEVATION: 195.24m

Depth (m)	SAMPLE		SYMBOL	SAMPLE IDENTIFICATION	BLOW COUNT ON SS#50 mm	PROPERTIES				
	No.	Type				W (%)	LL/PI	$\gamma_d$ (kg/cm <sup>3</sup> )	$q_u$ (kPa)	$q_p$ (kPa)
0				125 mm Asphalt over 100 mm Brick over 150 mm Base						
0.5	1	SS		Gray and brown sandy silt, trace clay, trace gravel. Stiff. Moist. (A-4a) (Visual)	7-7-7	14.5				431
1.0										
1.5	2	SS		Gray and brown mottled sandy silt, trace clay, trace gravel. Very stiff to hard. (A-4a) (Visual)	3-7-11	14.6				431
2.0										
2.5										
3.0	3	SS			11-16-22	14.5				431
3.5										
3.0	4	SS			8-10-13	13.9				431
3.0				End of boring @ 3.0 meters.						
3.5										

GROUNDWATER ENCOUNTERED AT: NONE  
 ON COMPLETION: DRY  
 AFTER: \_\_\_\_\_  
 REMARKS: \_\_\_\_\_

AS - Auger Sample  
 ST - Shelby Tube Sample  
 SS - Split Spoon Sample  
 W - Moisture Content  
 NX - 54 mm I.D. Core Barrel

LL/PI - Liquid Limit/Plasticity Index  
 NP - Non Plastic Material  
 $\gamma_d$  - Dry Density  
 $q_u$  - Unconfined Strength  
 $q_p$  - Pocket Penetrometer Reading

APPLIED CONSTRUCTION TECHNOLOGIES, INC.

**TEST BORING LOG STA. 5+189.11, 0.95m (R)**

ACT PROJECT NO. 9411.30 BORING NO. B-3 SHEET 1 OF 1  
 CLIENT: STEPHEN HOVANCSEK & ASSOCIATES, INC. DATE DRILLED: 12-14-94  
 PROJECT: VINE STREET RECONSTRUCTION FROM SKIFF TO ERIE STREET, WILLOUGHBY, LAKE CTY., OHIO  
 DRILLING METHOD: ROTARY DRIVE, HOLLOW STEM AUGERS SURFACE ELEVATION: 197.06m

Depth (m)	SAMPLE		SYMBOL	SAMPLE IDENTIFICATION	BLOW COUNT ON SS#50 mm	PROPERTIES				
	No.	Type				W (%)	LL/PI	$\gamma_d$ (kg/cm <sup>3</sup> )	$q_u$ (kPa)	$q_p$ (kPa)
0				175 mm Asphalt over 125 mm Brick over 100 mm Base						
0.5	1	SS		Brown stone fragments with sand and silt, little clay. Possible fill. Medium dense. Moist. (A-2-4) (Visual)	12-11-14	10.8				431
1.0										
1.5	2	SS		Brown and gray mottled sandy silt, little clay, trace gravel and rock fragments. Very stiff to hard. Moist. (A-4a) (Visual)	6-7-10	17.4				431
2.0										
2.5										
3.0	3	SS			7-10-12	15.0				431
3.5										
3.0	4	SS			17-22-26	11.7				431
3.0				End of boring @ 3.0 meters.						
3.5										

GROUNDWATER ENCOUNTERED AT: NONE  
 ON COMPLETION: DRY  
 AFTER: \_\_\_\_\_  
 REMARKS: \_\_\_\_\_

AS - Auger Sample  
 ST - Shelby Tube Sample  
 SS - Split Spoon Sample  
 W - Moisture Content  
 NX - 54 mm I.D. Core Barrel

LL/PI - Liquid Limit/Plasticity Index  
 NP - Non Plastic Material  
 $\gamma_d$  - Dry Density  
 $q_u$  - Unconfined Strength  
 $q_p$  - Pocket Penetrometer Reading

APPLIED CONSTRUCTION TECHNOLOGIES, INC.

**TEST BORING LOG STA. 5+320.36, 5.88m (L)**

ACT PROJECT NO. 9411.30 BORING NO. B-4 SHEET 1 OF 1  
 CLIENT: STEPHEN HOVANCSEK & ASSOCIATES, INC. DATE DRILLED: 12-14-94  
 PROJECT: VINE STREET RECONSTRUCTION FROM SKIFF TO ERIE STREET, WILLOUGHBY, LAKE CTY., OHIO  
 DRILLING METHOD: ROTARY DRIVE, HOLLOW STEM AUGERS SURFACE ELEVATION: 198.17m

Depth (m)	SAMPLE		SYMBOL	SAMPLE IDENTIFICATION	BLOW COUNT ON SS#50 mm	PROPERTIES				
	No.	Type				W (%)	LL/PI	$\gamma_d$ (kg/cm <sup>3</sup> )	$q_u$ (kPa)	$q_p$ (kPa)
0				100 to 125 mm Asphalt over 175 to 200 mm Concrete over 150 mm Base						
0.5	1	SS		Brown and gray coarse and fine sand, some clay, little silt, trace gravel. Possible fill. Loose. Moist. (A-3a) (Visual)	2-3-3	14.6				431
1.0										
1.5	2	SS			4-3-3	13.1				144
2.0										
2.5										
3.0	3	SS		Brown and gray sandy silt, little clay, trace gravel and rock fragments. Very stiff to hard. Moist. (A-4a)	6-10-14	14.7	29/8			431
3.5										
3.0	4	SS			14-17-18	11.6				431
3.0				End of boring @ 3.0 meters.						
3.5										

GROUNDWATER ENCOUNTERED AT: NONE  
 ON COMPLETION: DRY  
 AFTER: BULK SAMPLE TAKEN FROM 0.4 TO 1.5 METERS  
 REMARKS: \_\_\_\_\_

AS - Auger Sample  
 ST - Shelby Tube Sample  
 SS - Split Spoon Sample  
 W - Moisture Content  
 NX - 54 mm I.D. Core Barrel

LL/PI - Liquid Limit/Plasticity Index  
 NP - Non Plastic Material  
 $\gamma_d$  - Dry Density  
 $q_u$  - Unconfined Strength  
 $q_p$  - Pocket Penetrometer Reading

APPLIED CONSTRUCTION TECHNOLOGIES, INC.

CALCULATED  
 CHECKED

SOIL BORING LOGS

LAK-640-3.444

5  
5